

▶ MANUAL WELDING TORCHES	gas cooled	MIG/MAG
▶ MANUAL WELDING TORCHES	liquid cooled	MIG/MAG
▶ FUME EXTRACTION SYSTEMS	gas- and liquid cooled	MIG/MAG
▶ ECO.torch ROBOTIC TORCHES	gas cooled	MIG/MAG
▶ ECO.torch ROBOTIC TORCHES	liquid cooled	MIG/MAG
▶ REVO.torch ROBOTIC TORCHES	gas cooled	MIG/MAG
▶ REVO.torch ROBOTIC TORCHES	liquid cooled	MIG/MAG
▶ ROBOTIC and AUTOMATIC TORCHES	gas cooled	MIG/MAG
▶ ROBOTIC and AUTOMATIC TORCHES	liquid cooled	MIG/MAG
▶ ROBOTIC and AUTOMATIC TORCHES	liquid cooled	TIG
▶ ROBOTIC and AUTOMATIC COMPONENTS		MIG/MAG, TIG, PLASMA, LASER
▶ WIRE FEED UNITS		MIG/MAG, TIG, PLASMA, LASER
▶ ACCESSORIES		MIG/MAG, TIG, PLASMA, LASER
▶ COMPLETE SYSTEMS and APPLICATIONS		MIG/MAG, TIG, PLASMA, LASER

BLACKline



Design with handle type MS



Design with handle type MG



Options:

- ▶ Diameter reduced gas nozzle

Torch sets 230

Torch set type:	DIX MS 230
	DIX MG 230

Technical data (DIN EN 60 974-7):

CO ₂ :	250A / 60%
Mixed gas:	200A / 60%
Wire diameter:	0.8 - 1.0 mm

Technical benefits:

- ▶ Flexible supply hose
- ▶ Bend protection at the torch and plug view
- ▶ Gas nozzle with rugged trapezoidal thread
- ▶ Optimum gas coverage by recessed contact tip
- ▶ Gas reduction by laminar gas flow and design of the tip adapter
- ▶ No gas loss due to separate shield gas feed
- ▶ Exact wire feeding by powerful Dinse wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Small to medium material thicknesses

Standard fittings

MANUAL WELDING TORCHES

gas cooled MIG/MAG



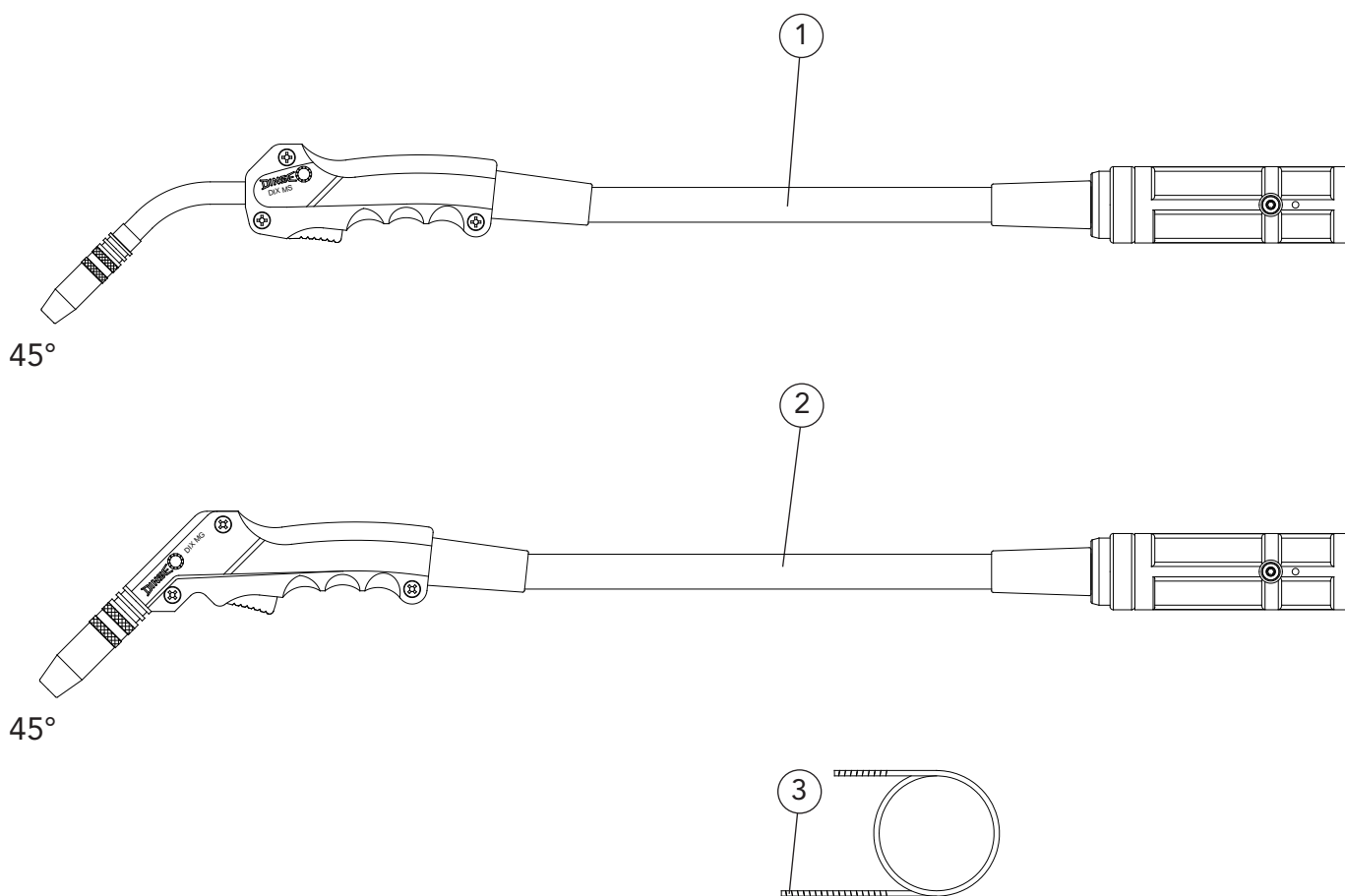
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Torch sets 230

Torch type

DIX MS 230

DIX MG 230



Pos.	Description	Dimension	Part number	Article number
1	Torch set	3.00 m	DIX MS 230-3	6102123130
	Torch set	4.00 m	DIX MS 230-4	6102123140
2	Torch set	3.00 m	DIX MG 230-3	6102023130
	Torch set	4.00 m	DIX MG 230-4	6102023140
3	Liner	ø 1,8mm/3,5 m	DIX DS 4/1,8-3,5	613000235
	Liner	ø 1,8mm/4,5 m	DIX DS 4/1,8-4,5	613000245

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle DIX 1-1-312 TR, contact tip DIX 3-1-1.0, tip adapter DIX 4-1-L and liner DIX DS 4/1.8.
Variants deviating of the standard fittings on request.

01-004

subject to change!

01-Manual welding torches-gasU11



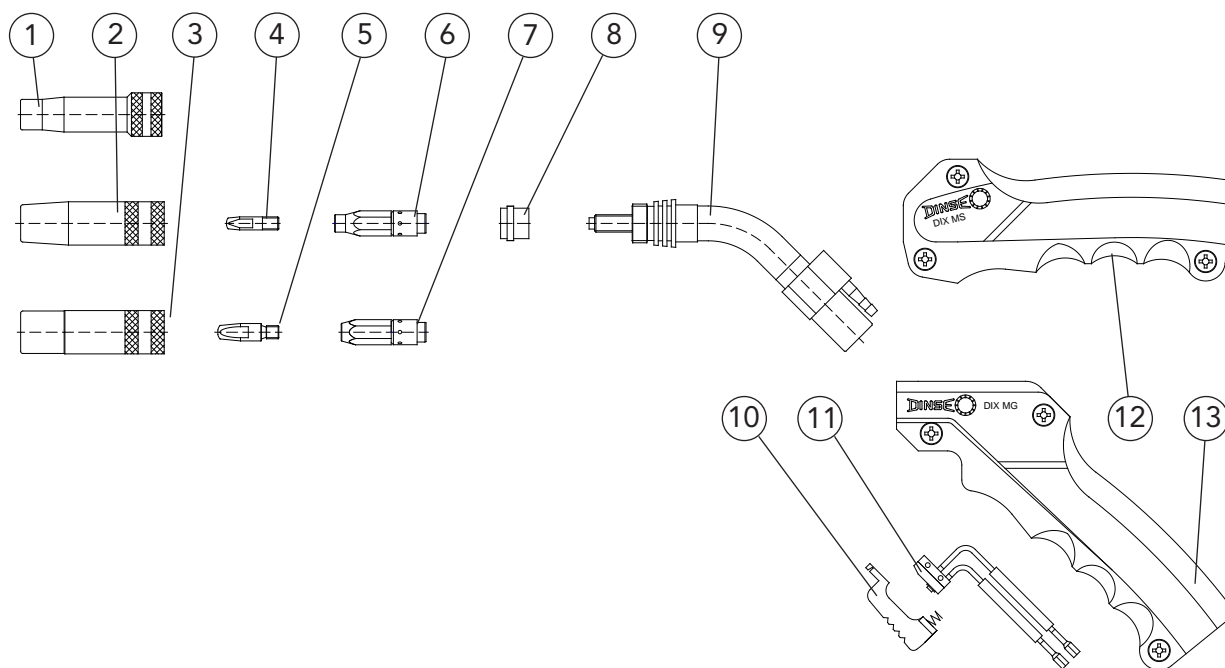
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Torch sets 230

Torch type

DIX MS 230

DIX MG 230



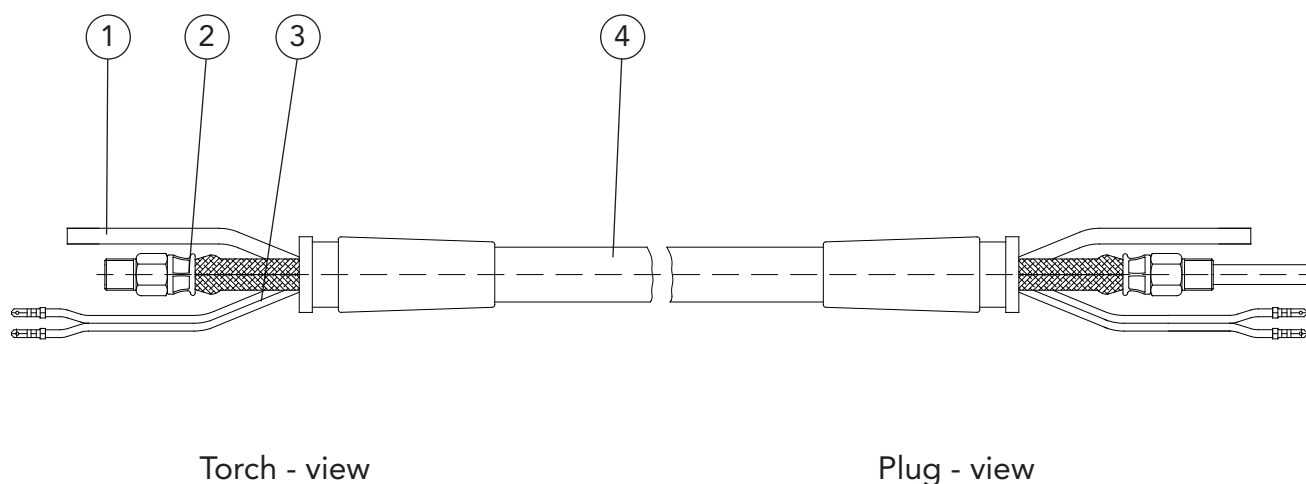
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅11 mm	DIX 1-1-311 TRR	6190106110
2	Gas nozzle	∅13 mm	DIX 1-1-312 TR	6190103120
3	Gas nozzle	∅16 mm	DIX 1-1-316 TR	6190103160
4	Contact tip	M6 x 24 mm	DIX 3-1-xx	6190300xx
5	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR - ZR	6290330xx
6	Tip adapter	M6	DIX 4-1-L	619040020
7	Tip adapter	M6	DIX 4-1-K	619040010
8	Insulating sleeve		DIX 10-1-222	619100202
9	Torch neck		DIX 6-1-230	6190602310
10	Trigger		DIX 9-1	619090000
11	Micro switch		DIX 8-2	629080000
12	Handle		DIX 7-1-202 S	619070210
13	Handle		DIX 7-1-202 G	619070200

xx - Standard diameter: 0.8 mm and 1.0 mm. Other diameters on request.



BLACKline
Supply hose

Torch sets 230



01-006

subject to change!

01-Manual welding torches-gas\U11

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLM 200-xx	6122002xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Binary cable	DIX VLM 223-xx	6192062xx
3	Control wire	DIX VLM 211-xx	6292110xx
4	Cover hose	DIX VLM 230-xx	6192312xx

xx - Standard length: 3.0 m and 4.0 m

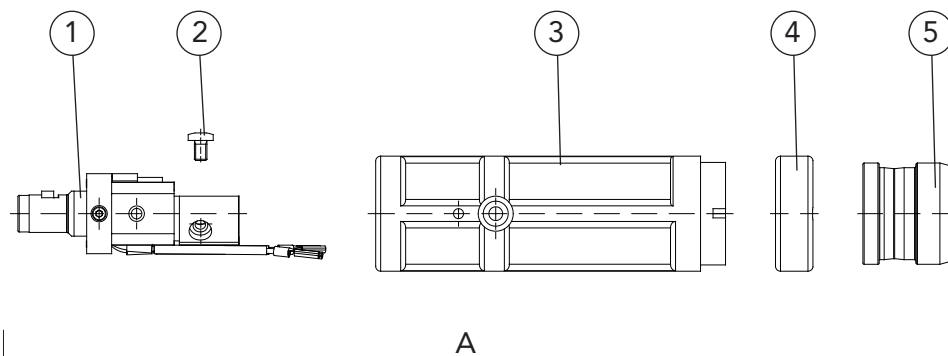


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Torch sets

230

Plug



01-007

01-Manual welding torches-gas\U11 subject to change!

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 230	614000230
1	Plug insert	DIX ME 300 SE	639113004
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Reduction sleeve	DIX ME 300 RH	639116065

► Other fittings on request.

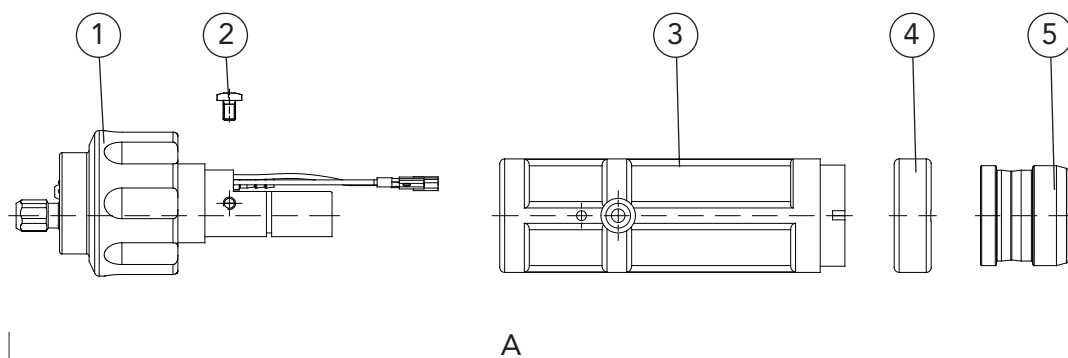


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Torch sets

230 SA

Plug



01-008

subject to change!

01-Manual welding torches-gasU11

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 230 SA	614000231
1	Plug insert	DIX ME 300 SA	639113005
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Reduction sleeve	DIX ME 300 RH	639116065

► Other fittings on request.



Singly separable version

DIX MDW 300



Torch heads:

long	DIX MWS 230	45°
short	DIX MWL 230	45°

Technical data (DIN EN 60 974-7):

CO ₂ :	250A / 60%
Mixed gas:	200A / 60%
Wire diameter:	0.8 - 1.0 mm

Technical benefits:

- Torch heads can be changed quickly
- 360° revolving torch heads
- Flexible supply hose
- Bend protection at the plug view
- Gas nozzle with rugged trapezoidal thread
- Optimum gas coverage by recessed contact tip
- Gas reduction by laminar gas flow and design of the tip adapter
- No gas loss due to separate shield gas feed
- Exact wire feeding by powerful Dinse wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Small to medium material thicknesses



01-009

subject to change!

01-Manual welding torches-gas\U11



Standard fittings

MANUAL WELDING TORCHES

gas cooled MIG/MAG



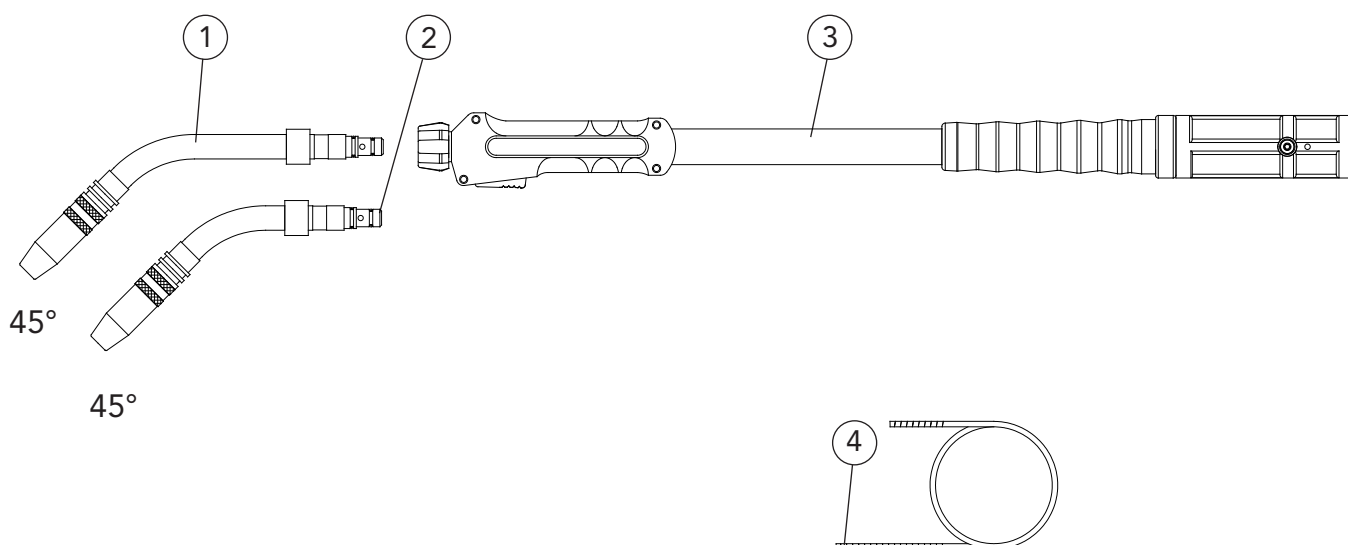
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Torch sets DIX MDW 300

Torch heads

long
short

DIX MWS 230 45°
DIX MWL 230 45°



01-0010

subject to change!

01-Manual welding torches-gasU11

Pos.	Description	Dimension	Part number	Article number
1	Torch head	long	DIX MWS 230 45°	6110772354
2	Torch head	short	DIX MWL 230 45°	6110772344
3	Torch set, without torch head	3.00 m	DIX MDW 300-3	620247330
	Torch set, without torch head	4.00 m	DIX MDW 300-4	620247340
4	Liner	ø 1.8mm/3.5 m	DIX DS 4/1.8-3.5	613000235
	Liner	ø 1.8mm/4.5 m	DIX DS 4/1.8-4.5	613000245

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle DIX 1-1-312 TR, contact tip DIX 3-1-1.0 and tip adapter DIX 4-1-L.
Variants deviating of the standard fittings on request.



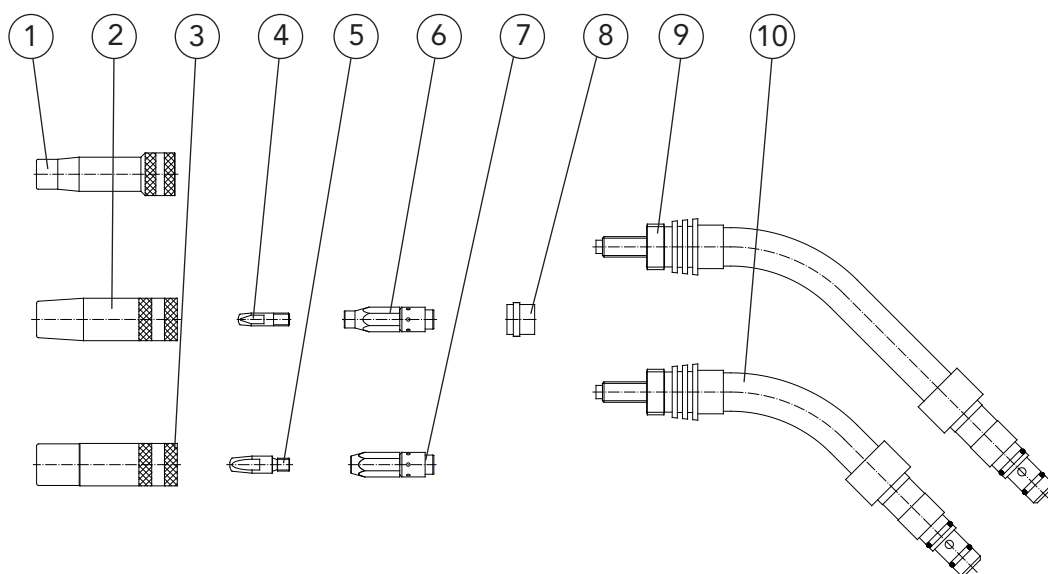
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Torch sets DIX MDW 300

Torch heads

long
short

DIX MWS 230 45°
DIX MWL 230 45°



01-0011

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	ø 11 mm	DIX 1-1-311 TRR	6190106110
2	Gas nozzle	ø 13 mm	DIX 1-1-312 TR	6190103120
3	Gas nozzle	ø 16 mm	DIX 1-1-316 TR	6190103160
4	Contact tip	M6 x 24 mm	DIX 3-1-xx	6190300xx
5	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
6	Tip adapter	M6	DIX 4-1-L	619040020
7	Tip adapter	M6	DIX 4-1-K	619040010
8	Insulating sleeve		DIX 10-1-222	619100202
9	Torch neck	45° long	DIX 6-1-230 WS 45°	61906072354
10	Torch neck	45°short	DIX 6-1-230 WL 45°	61906072344

subject to change.

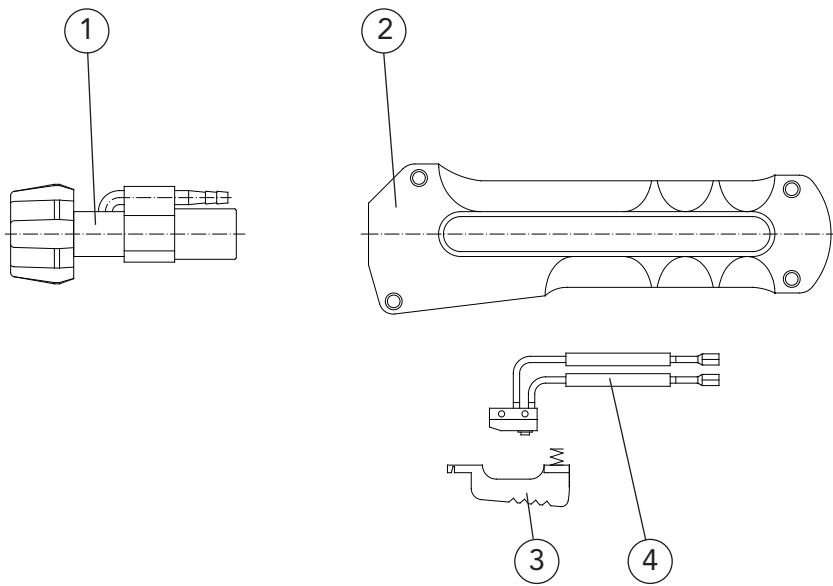
01-Manual welding torches-gasU11

xx - Standard diameter: 0.8 mm and 1.0 mm. Other diameters on request.



BLACKline
Singly separable version

Torch sets DIX MDW 300



Pos.	Description	Part number	Article number
1	Torch connection	DIX 15-2 DW	629150470
2	Handle	DIX 7-2-303 D	629070340
3	Trigger	DIX 9-2	629090000
4	Micro switch	DIX 8-2	629080000

01-0012

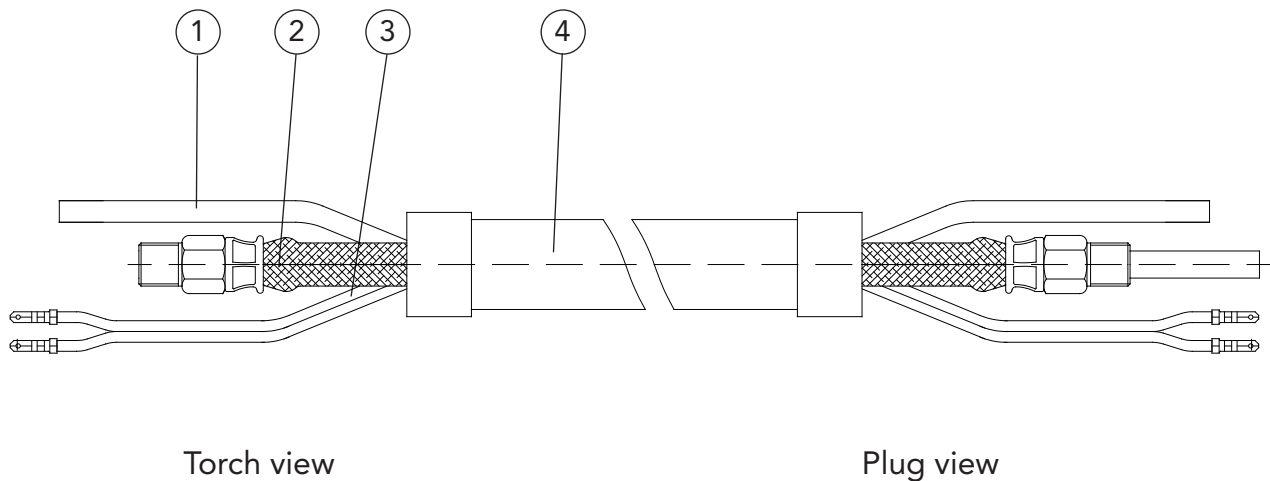
subject to change!

01-Manual welding torches-gasU11

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Singly separable version

Torch sets 330
DIX MDW 300

Supply hose



01-0013

subject to change!

01-Manual welding torches-gasU11

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLM 300-xx	6222003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Binary cable	DIX VLM 233-xx	6292063xx
3	Control wire	DIX VLM 211-xx	6292110xx
4	Cover hose	DIX VLM 330-xx	6292313xx

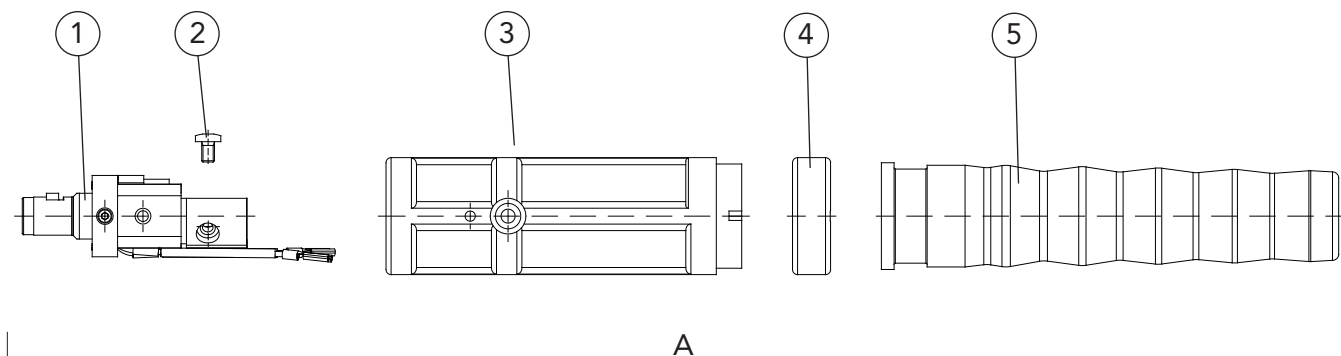
xx - Standard length: 3.0 m and 4.0 m



BLACKline
Singly separable version

Torch sets 330
DIX MDW 300

Plug



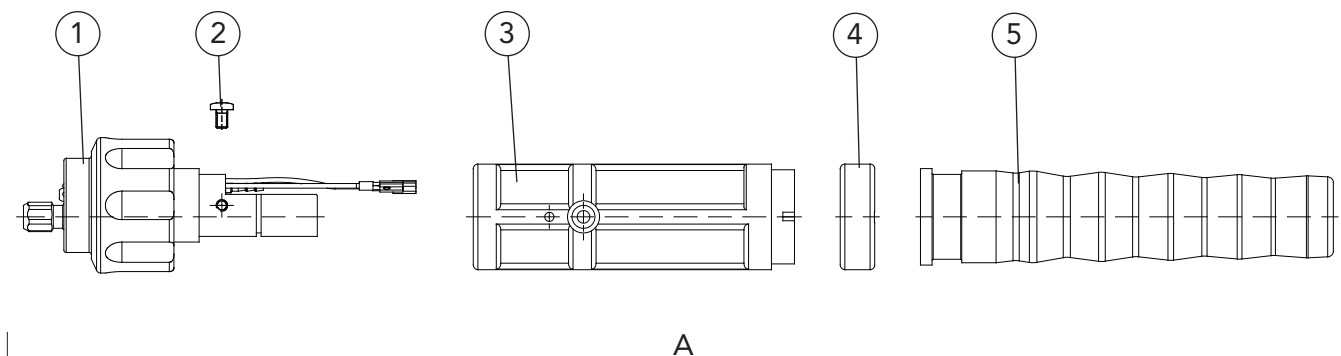
Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 330	624000330
1	Plug insert	DIX ME 300 SE	639113004
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000

► Other fittings on request.

BLACKline
Singly separable version

Torch sets **330 SA**
DIX MDW 300 SA

Plug



01-0015

subject to change!

01-Manual welding torches-gas\U11

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 330 SA	624000331
1	Plug insert	DIX ME 300 SA	639113005
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000

► Other fittings on request.



BLACKline



Design with handle type MS



Design with handle type MG



Design with handle type MC

Torch sets 330

Torch set type:	DIX MS	330
	DIX MG	330
	DIX MC	330

Technical data: (DIN EN 60 974-7):

CO ₂ :	300A / 60%
Mixed gas:	270A / 60%
Wire diameter:	1.0 - 1.2 mm

Technical benefits:

- ▶ Flexible supply hose
- ▶ Bend protection at the torch and plug view
- ▶ Gas nozzle with rugged trapezoidal thread
- ▶ Optimum gas coverage by recessed contact tip
- ▶ Gas reduction by laminar gas flow and design of the tip adapter
- ▶ No gas loss due to separate shield gas feed
- ▶ Exact wire feeding by powerful Dinse wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper alloys for the MSG brazing
- ▶ Small to medium material thicknesses

01-0016

subject to change!

01-Manual welding torches-gas\U11



Standard fittings

MANUAL WELDING TORCHES

gas cooled MIG/MAG

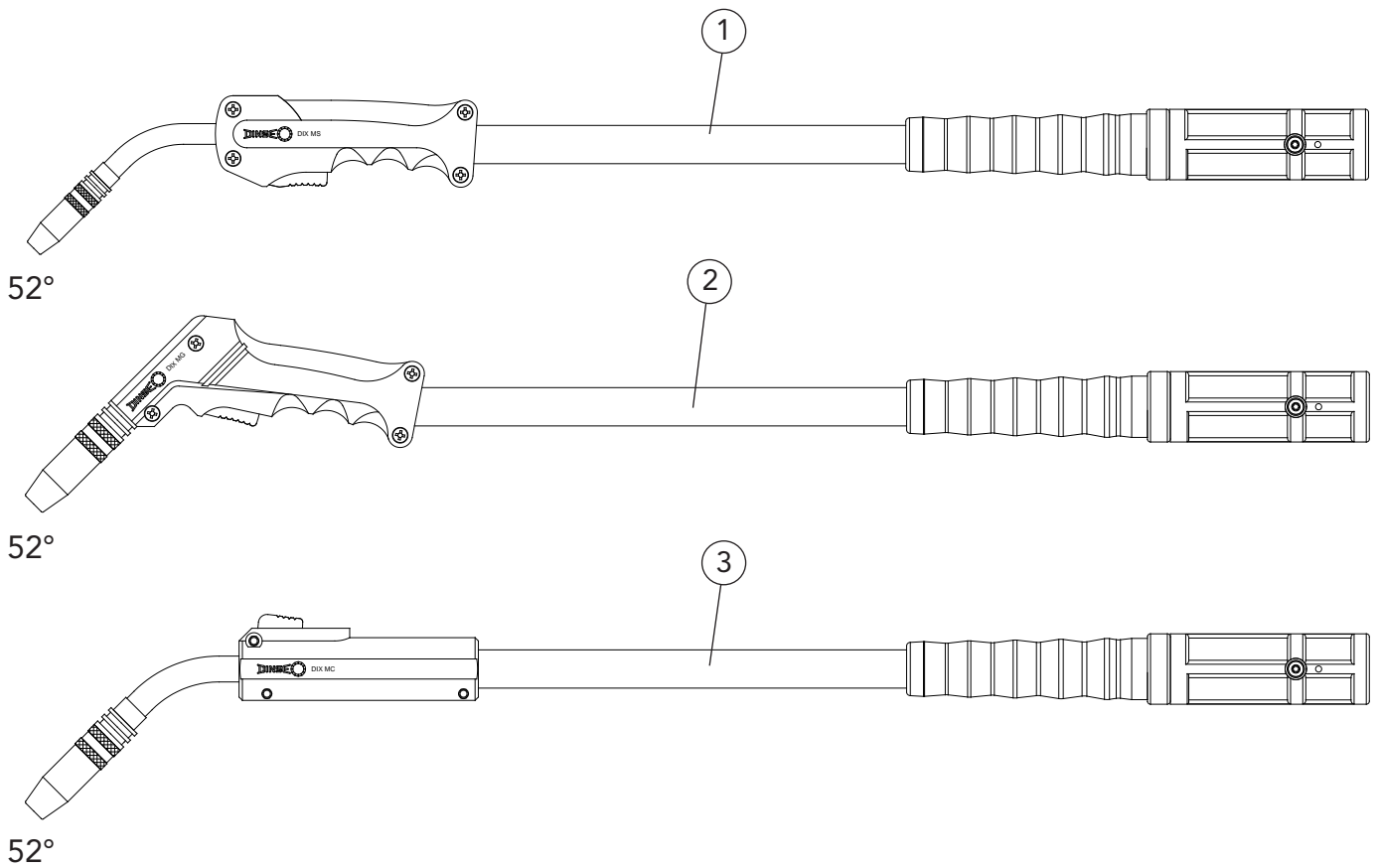


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Torch sets 330

Torch type

DIX MS 330
DIX MG 330
DIX MC 330



Pos.	Description	Dimension	Part number	Article number
1	Torch set	3.00 m	DIX MS 330-3	6202133130
	Torch set	4.00 m	DIX MS 330-4	6202133140
2	Torch set	3.00 m	DIX MG 330-3	6202033130
	Torch set	4.00 m	DIX MG 330-4	6202033140
3	Torch set	3.00 m	DIX MC 330-3	6202333130
	Torch set	4.00 m	DIX MC 330-4	6202333140

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle DIX 1-2-315 TR, contact tip DIX 3-2-1.0 M8, tip adapter DIX 4-2-K M8 and Liner DIX DS 4/1.8. Variants deviating of the standard fittings on request.

01-0017

subject to change!

01-Manual welding torches-gasU11



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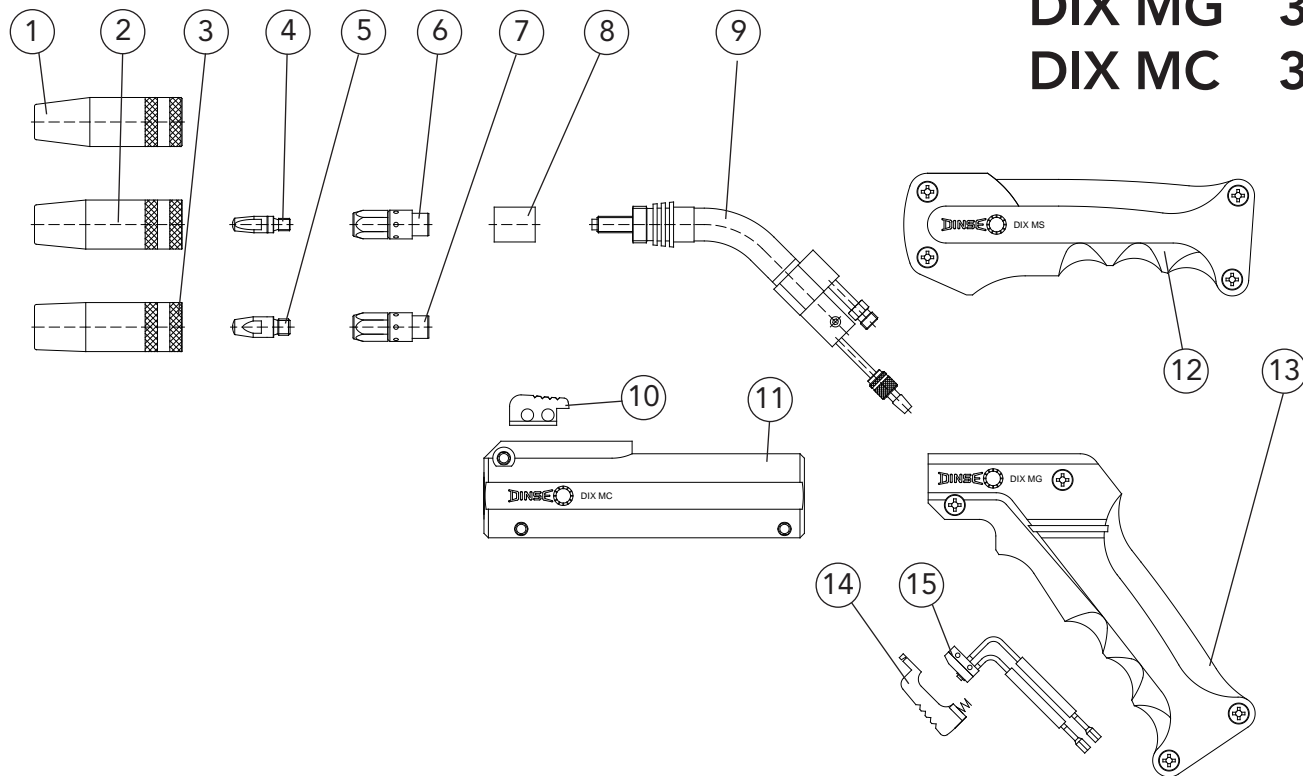
Torch sets 330

Torch type

DIX MS 330

DIX MG 330

DIX MC 330



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 13 mm	DIX 1-2-313 TR	6290103130
2	Gas nozzle	∅ 15 mm	DIX 1-2-315 TR	6290103150
3	Gas nozzle	∅ 18 mm	DIX 1-2-318 TR	6290103180
4	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
5	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Tip adapter	M6	DIX 4-2-K M6	629040010
7	Tip adapter	M8	DIX 4-2-K M8	629040110
8	Insulating sleeve		DIX 10-2	629100000
9	Torch neck	52°	DIX 6-2-330	6290603310
10	Trigger		DIX 9-2 C	629090030
11	Handle		DIX 7-2-303 C	629070330
12	Handle		DIX 7-2-303 S	629070310
13	Handle		DIX 7-2-303 G	629070300
14	Trigger		DIX 9-2	629090000
15	Micro switch		DIX 8-2	629080000

xx - Standard diameter: 1.0 mm and 1.2 mm. Other diameter on request.

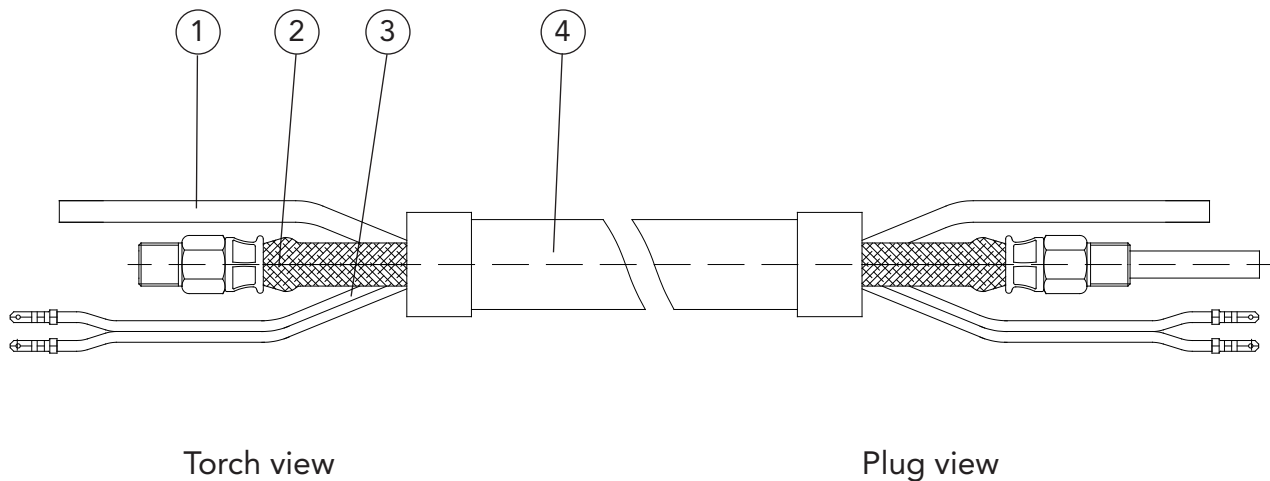


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Torch sets

330

Supply hose



01-0019

subject to change!

01-Manual welding torches-gasU11

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLM 300-xx	6222003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Binary cable	DIX VLM 233-xx	6292063xx
3	Control wire	DIX VLM 211-xx	6292110xx
4	Cover hose	DIX VLM 330-xx	6292313xx

xx - Standard lenght: 3.0 m and 4.0 m

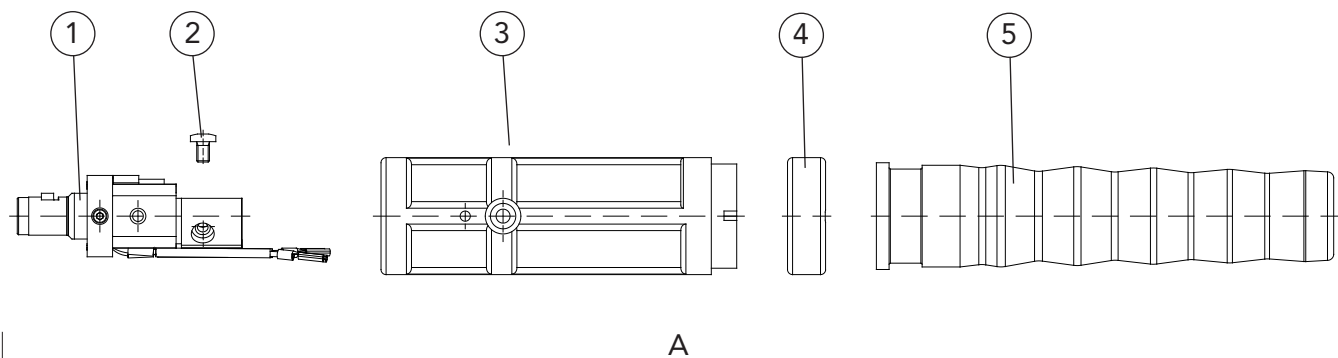


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Torch sets

330

Plug



01-0020

01-Manual welding torches-gas\U11 subject to change!

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 330	624000330
1	Plug insert	DIX ME 300 SE	639113004
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000

► Other fittings on request.

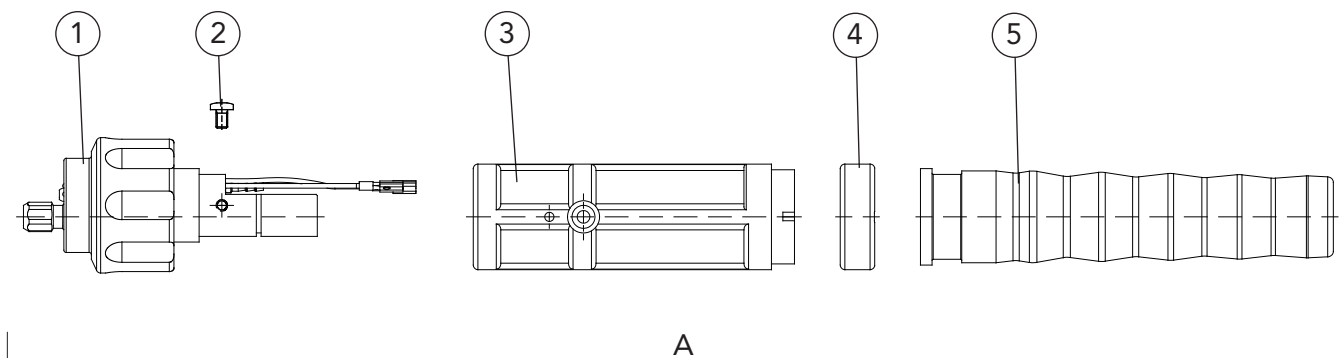


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Torch sets

330

Plug



01-0021

01-Manual welding torches-gas\U11 subject to change!

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 330 SA	624000331
1	Plug insert	DIX ME 300 SA	639113005
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000

► Other fittings on request.



Singly separable version

DIX MDW 300



Torch heads:

long	DIX MWS 330	45°
short	DIX MWL 330	45°

Technical data (DIN EN 60 974-7):

CO ₂ :	300A / 60%
Mixed gas:	270A / 40%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

- ▶ Torch heads can be changed quickly
- ▶ 360° revolving torch heads
- ▶ Flexible supply hose
- ▶ Bend protection at the plug view
- ▶ Gas nozzle with rugged trapezoidal thread
- ▶ Optimum gas coverage by recessed contact tip
- ▶ Gas reduction by laminar gas flow and design of the tip adapter
- ▶ No gas loss due to separate shield gas feed
- ▶ Exact wire feeding by powerful Dinse wire feeder modules

Application:

- ▶ Non- and low alloyed steel
- ▶ High alloyed steels
- ▶ Copper alloys for the MSG brazing
- ▶ Small to medium material thicknesses



01-0022

subject to change!

01-Manual welding torches-gas\U11



Standard fittings

MANUAL WELDING TORCHES

gas cooled MIG/MAG



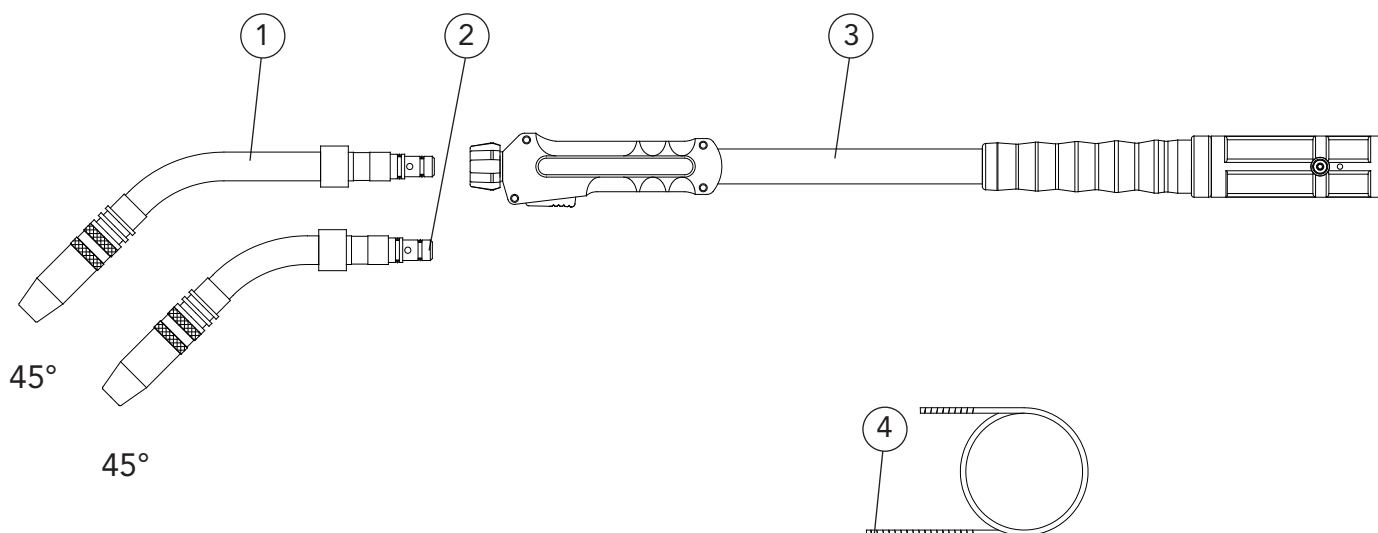
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Torch sets DIX MDW 300

Torch heads

long
short

DIX MWS 330 45°
DIX MWL 330 45°



01-0023

subject to change!

01-Manual welding torches-gasU11

Pos.	Description	Dimension	Part number	Article number
1	Torch head	long	DIX MWS 330 45°	6210773354
2	Torch head	short	DIX MWL 330 45°	6210773344
3	Torch set, without torch head	3,00 m	DIX MDW 300-3	620247330
	Torch set, without torch head	4,00 m	DIX MDW 300-4	620247340
4	Liner	ø1.8 mm/3.5 m	DIX DS 4/1.8-3.5	613000235
	Liner	ø1.8 mm/4.5 m	DIX DS 4/1.8-4.5	613000245

► Standard equipment for wire diameter 1.0 mm with gas nozzle DIX 1-2-315 TR, contact tip DIX 3-2-1.0 M8 and tip adapter DIX 4-2-K M8. Variants deviating of the standard fittings on request.



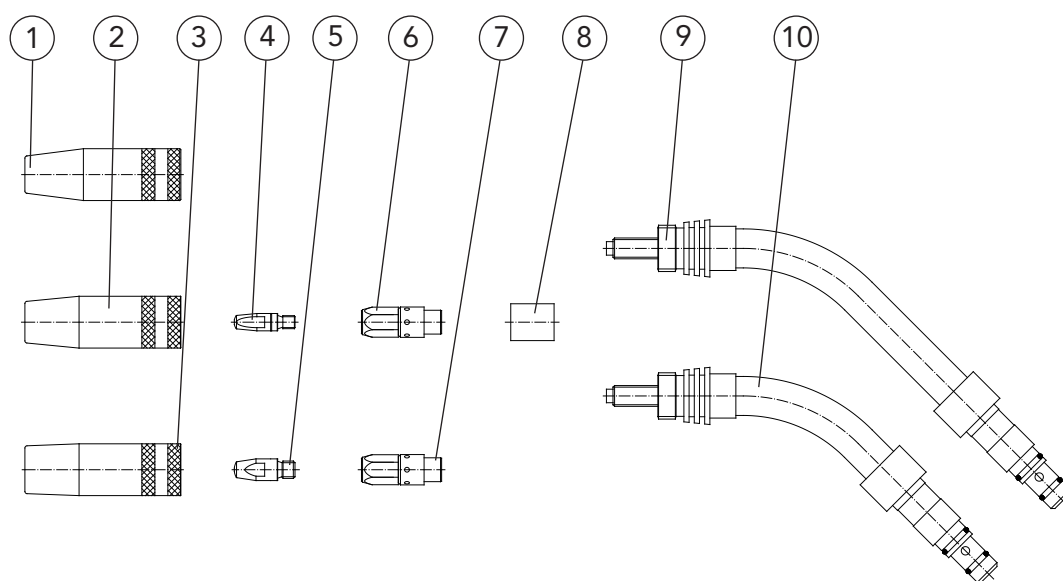
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Torch sets DIX MDW 300

Torch heads

long
short

DIX MWS 330 45°
DIX MWL 330 45°



01-0024

subject to change.

01-Manual welding torches-gasU11

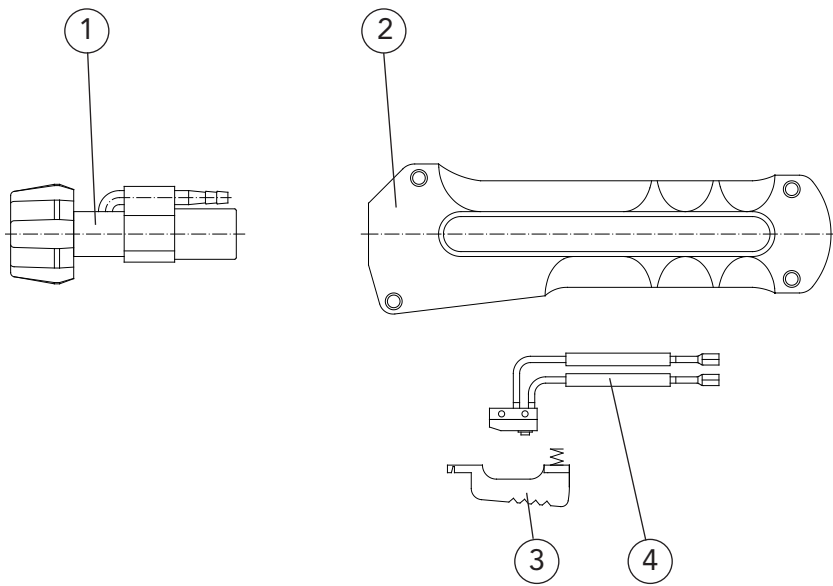
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 13 mm	DIX 1-2-313 TR	6290103130
2	Gas nozzle	∅ 15 mm	DIX 1-2-315 TR	6290103150
3	Gas nozzle	∅ 18 mm	DIX 1-2-318 TR	6290103180
4	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
5	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Tip adapter	M6	DIX 4-2-K M6	629040010
7	Tip adapter	M8	DIX 4-2-K M8	629040110
8	Insulating sleeve		DIX 10-2	629100000
9	Torch neck	45° long	DIX 6-2-330 WS 45°	62906073354
10	Torch neck	45° short	DIX 6-2-330 WL 45°	62906073344

xx - Standard diameter: 1.0 mm and 1.2 mm. Other diameter on request.



BLACKline
Singly separable version

Torch sets DIX MDW 300



Pos.	Description	Part number	Article number
1	Torch connection	DIX 15-2 DW	629150470
2	Handle	DIX 7-2-303 D	629070340
3	Trigger	DIX 9-2	629090000
4	Micro switch	DIX 8-2	629080000

01-0025

subject to change!

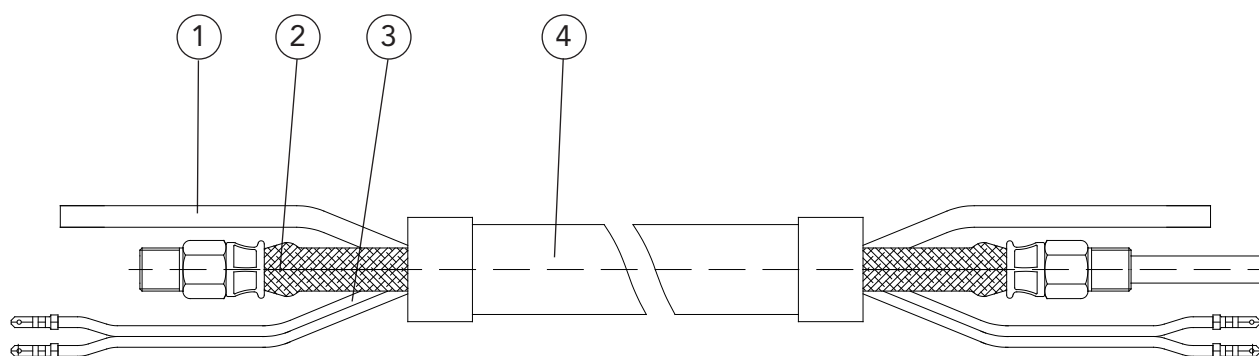
01-Manual welding torches-gasU11



BLACKline
Singly separable version

Torch sets **330**
DIX MDW **300**

Supply hose



Torch view

Plug view

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLM 300-xx	6222003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Binary cable	DIX VLM 233-xx	6292063xx
3	Control wire	DIX VLM 211-xx	6292110xx
4	Cover hose	DIX VLM 330-xx	6292313xx

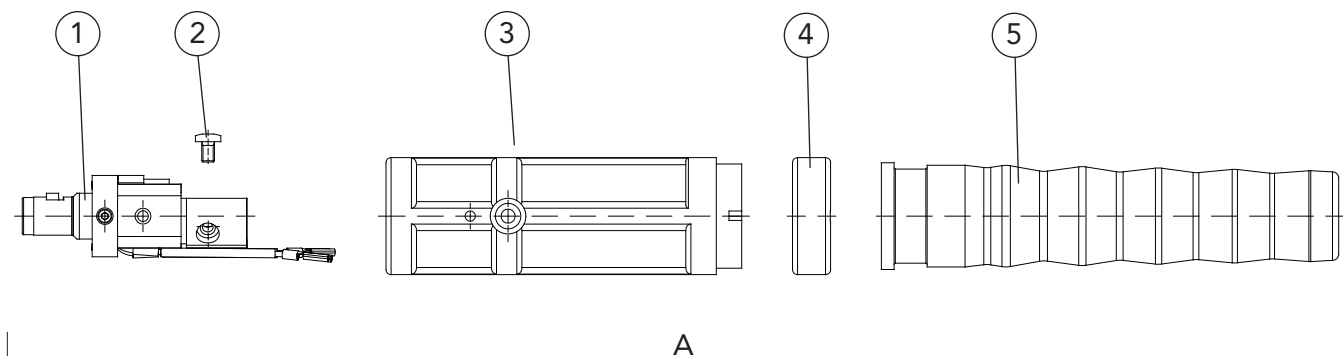
xx - Standard length: 3.0 m and 4.0 m



BLACKline
Singly separable version

Torch sets 330
DIX MDW 300

Plug



01-0027

01-Manual welding torches-gas\U11 subject to change!

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 330	624000330
1	Plug insert	DIX ME 300 SE	639113004
2	Holdin screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000

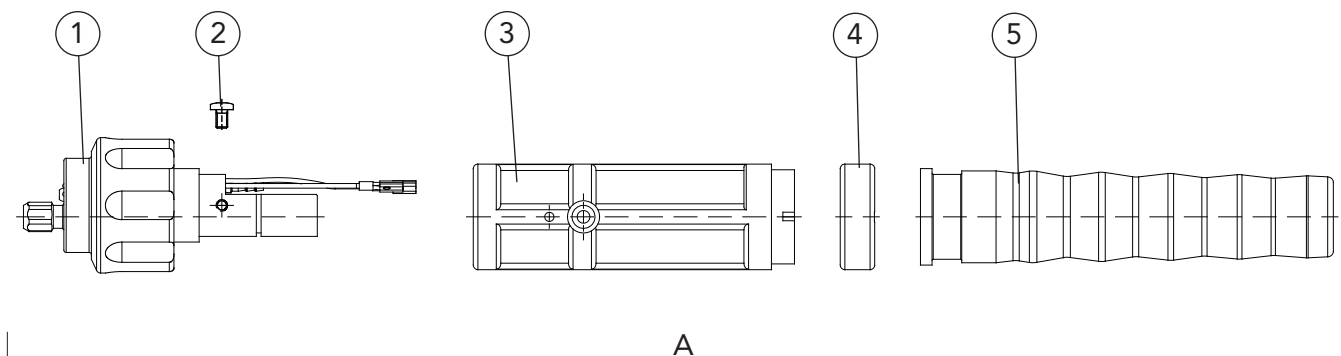
► Other fittings on request.



BLACKline
Singly separable version

Torch sets **330 SA**
DIX MDW 300 SA

Plug



01-0028

01-Manual welding torches-gas\U11 subject to change!

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 330 SA	624000331
1	Plug insert	DIX ME 300 SA	639113005
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SG	629123300
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000

► Other fittings on request.



Singly separable version for
PUSH-PULL

DIX MPW 300



Torch heads:

long	DIX MWS 330	45°
short	DIX MWL 330	45°

Technical data (DIN EN 60 974-7):

CO ₂ :	300A / 60%
Mixed gas:	270A / 40%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

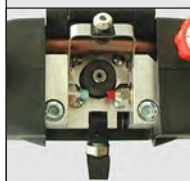
- ▶ Torch heads can be changed quickly
- ▶ 360° revolving torch heads
- ▶ Flexible supply hose
- ▶ Bend protection at the plug view
- ▶ Gas nozzle with rugged trapezoidal thread
- ▶ Optimum gas coverage by recessed contact tip
- ▶ Gas reduction by laminar gas flow and design of the tip adapter
- ▶ No gas loss due to separate shield gas feed
- ▶ Exact wire feeding by powerful Dinse wire feeder modules

Options:

- ▶ Integrated remote control

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper alloys for the MSG brazing
- ▶ Small to medium material thicknesses



01-0029

subject to change!

01-Manual welding torches-gasU11



Standard fittings

MANUAL WELDING TORCHES

gas cooled MIG/MAG



Singly separable version
PUSH - PULL

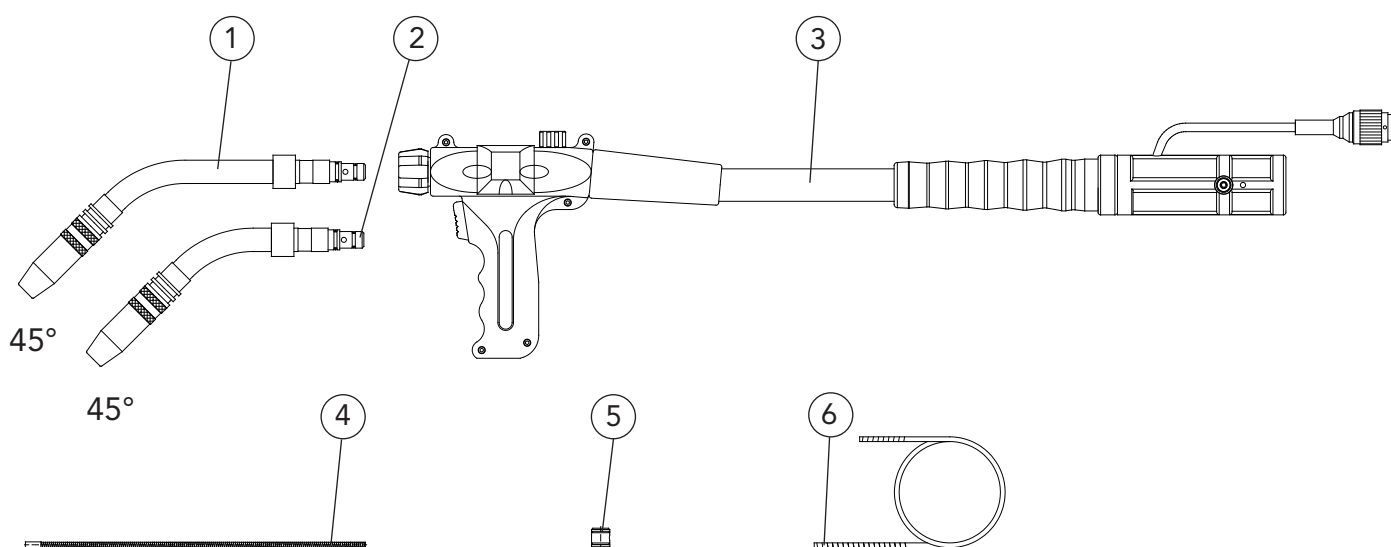
Torch sets DIX MPW 300

Torch heads

long
short

DIX MWS 330 45°

DIX MWL 330 45°



01-0030

subject to change!

01-Manual welding torches-gas-U11

Pos.	Description	Dimension	Part number	Article number
1	Torch heads	long	DIX MWS 330 45°	6210773354
2	Torch heads	short	DIX MWL 330 45°	6210773344
3	Torch set, without torch head	4.00 m	DIX MPW 300-4	620277340
	Torch set, without torch head	8.00 m	DIX MPW 300-8	620277380
	With integrated wire feeder and remote control, without drive roll.			
4	Liner	ø 2.2 mm/0.3 m	DIX DSH 4-0,3	629300001
5	Drive roll	ø 1.0 mm	DIX 32-2- 1,0/1,0	629323100
6	Liner	ø 2.4 mm/4.5 m	DIX DS 4/2.4-4.5	623000445
	Liner	ø 2.4 mm/8.5 m	DIX DS 4/2.4-8.5	623000485

► Standard equipment for wire diameter 1,0 mm steel with gas nozzle DIX 1-2-315 TR, contact tip DIX 3-2-1,0 M8 and Tip adapter DIX 4-2-K M8.
Variants deviating of the standard fittings on request.



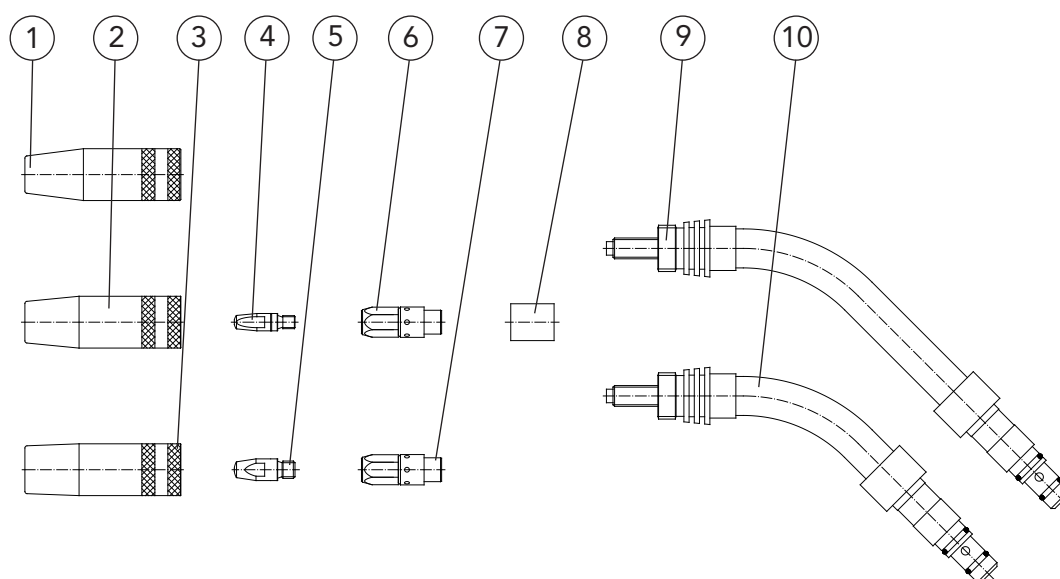
BLACKline

Torch sets DIX MPW 300

Torch sets

long
short

DIX MWS 330 45°
DIX MWL 330 45°



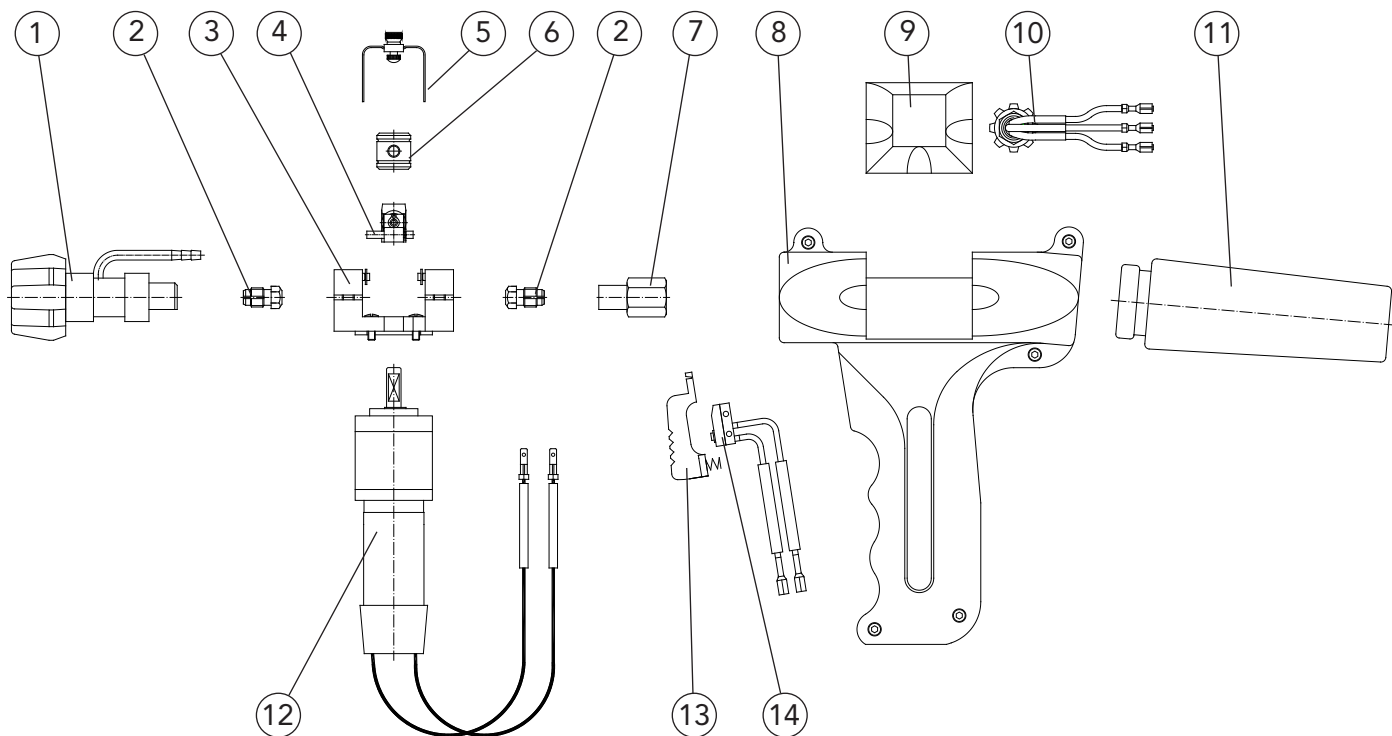
Pos.	Description	Dimension	Part number	Artikle number
1	Gas nozzle	∅ 13 mm	DIX 1-2-313 TR	6290103130
2	Gas nozzle	∅ 15 mm	DIX 1-2-315 TR	6290103150
3	Gas nozzle	∅ 18 mm	DIX 1-2-318 TR	6290103180
4	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
5	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Tip adapter	M6	DIX 4-2-K M6	629040010
7	Tip adapter	M8	DIX 4-2-K M8	629040110
8	Insulating sleeve		DIX 10-2	629100000
9	Torch neck	45° long	DIX 6-2-330 WS 45°	62906073354
10	Torch neck	45° short	DIX 6-2-330 WL 45°	62906073344

xx - Standard diameter: 1.0 mm and 1.2 mm. Other diameters on request.



Singly separable version
PUSH - PULL

Torch sets DIX MPW 300



Pos.	Description	Dimension	Part number	Article number
1	Torch connection		DIX 15-2 PW	629150770
2	Clamp sleeve		DIX SH 270	629270270
3	Connection block		DIX 35-1	619350000
4	Pressure system		DIX 31-1	619310000
5	Stirrup lock		DIX 34-1	619340000
6	Drive roll, for steel		DIX 32-2-xx/xx	629323xx0
	Drive roll, for aluminium alloy		DIX 32-2-xx/xx A	629324xx0
7	Supply hose connection		DIX 36-2 P	6293657000
8	Handle		DIX 7-2-300 P	629070370
9	Cover		DIX 33-2-300	629330300
10	Poti		DIX 39-1 10 KΩ ROT	619390010
11	Rubber cover		DIX 37-2	629370000
12	Motor		DIX 38-2 P	629380001
13	Trigger		DIX 9-1-200 P	619090270
14	Micro switch		DIX 8-2	629080000

xx - Standard diameter: 1.0 mm and 1.2 mm. Other diameters on request.

01-0032

subject to change!

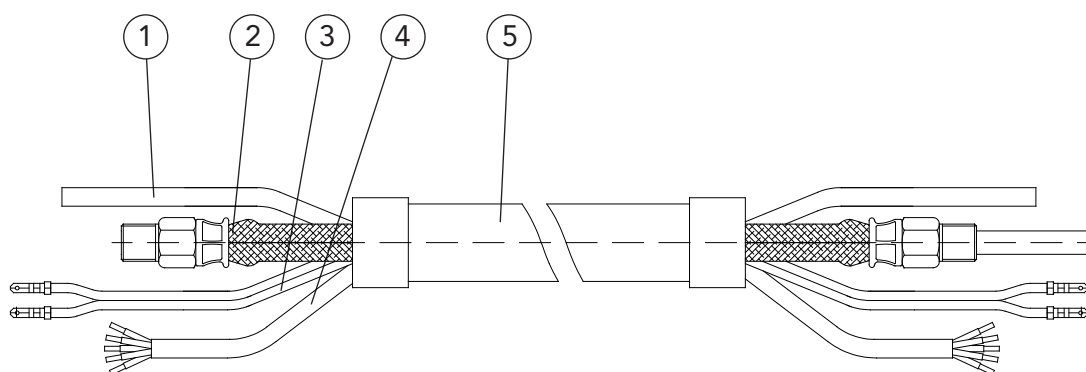
01-Manual welding torches-gasU11



Singly separable version
PUSH - PULL

Torch sets DIX MPW 300

Supply hose



Torch view

Plug view

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLMP 300-xx	6222703xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Binary cable	DIX VLM 233-xx	6292063xx
3	Control wire	DIX VLM 211-xx	6292110xx
4	Control wire, 5 pins	DIX 42-2-xx	6294200xx
5	Cover hose	DIX VLM 330-xx	6292313xx

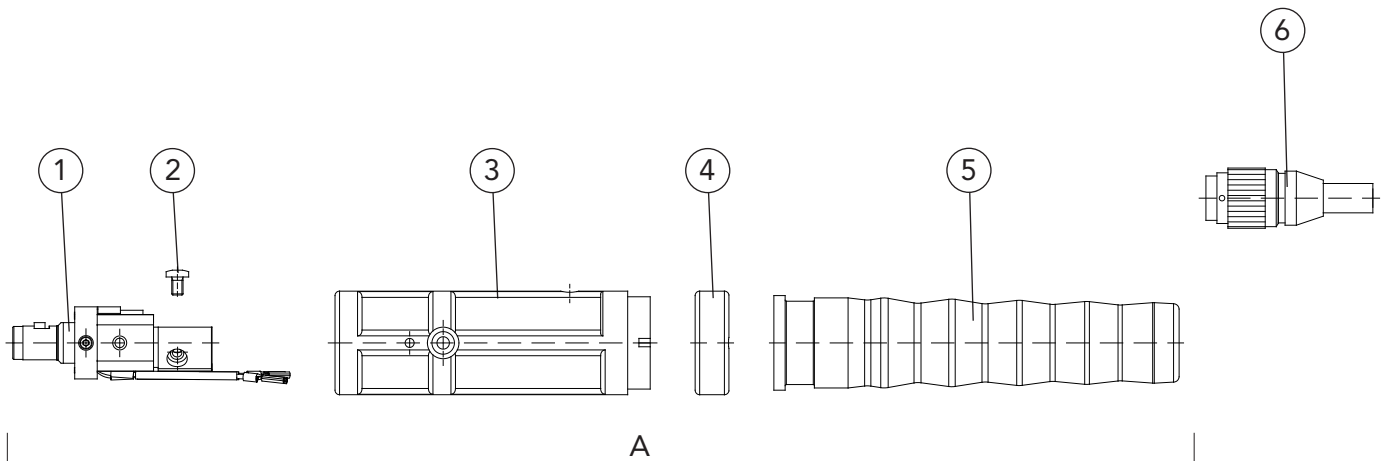
xx - Standard length: 4.0 m and 8.0 m



Singly separable version
PUSH - PULL

Torch sets DIX MPW 300

Plug



01-0034

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCMEP 330	624070330
1	Plug insert	DIX ME 300 SE	639113004
2	Holding screw (10 pcs.)	DIX ME 300 HS	629070005
3	Plug housing	DIX ME 300 SGP	629123370
4	Fixing ring	DIX 12-3-510 HR	6391250013
5	Plug sleeve	DIX ME 300 SM	629120000
6	Cable plug	DIX 41-2-TUCHEL 5P	629410000

► Other fittings on request.

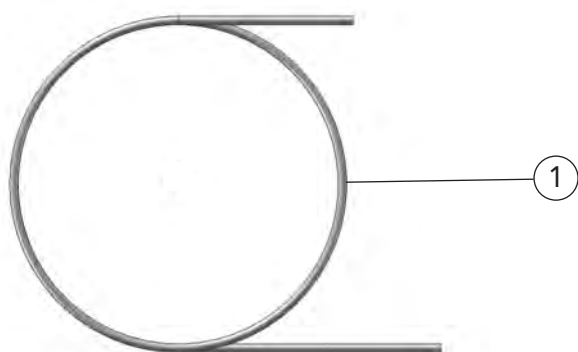
subject to change!

01-Manual welding torches-gasU11



Liner

for wire electrodes of non- and low alloyed steels



01-0035

subject to change!

01-Manual welding torches-gas\J11

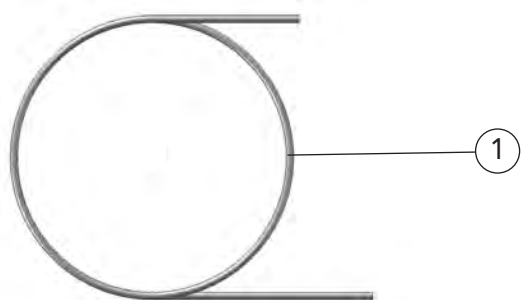
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner For wire diameter 0.8 mm	ø 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner For wire diameter 1.0 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner For wire diameter 1.2 mm, in PUSH-PUSH/PULL wire diameter 1.0 mm	ø 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner For wire diameter 1.4 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.



Capillary liner

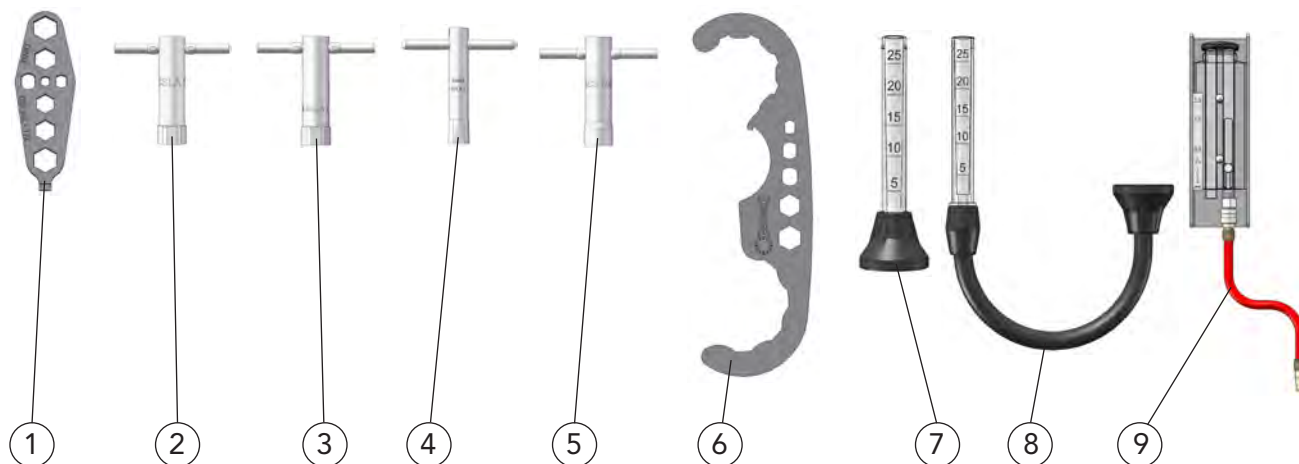
for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys



Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner For wire diameter 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner For wire diameter 1.0 and 1.2mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner For wire diameter 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.

Service tools



Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

01-0037

subject to change!

01-Manual welding torches-gasU11

BLACKline



Design with handle type MSZ



Design with handle type MGZ



Design with handle type MCZ

Options:

- ▶ Handle with switch on top

Torch sets Z - 330

Torch set type: DIX MSZ 330
DIX MGZ 330
DIX MCZ 330

Technical data (DIN EN 60 974-7):

CO₂: 400A / 60%
Mixedgas: 320A / 60%
Wire diameter: 1.0 - 1.2 mm

Technical benefits:

- ▶ Flexible supply hose
- ▶ Bend protection at the torch and plug view
- ▶ Gas nozzle with rugged trapezoidal thread
- ▶ Optimum gas coverage by recessed contact tip
- ▶ Gas reduction by laminar gas flow and design of the tip adapter
- ▶ No gas loss due to separate shield gas feed
- ▶ Exact wire feeding by powerful Dinse wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper alloys for the MSG-brazing
- ▶ Aluminium-, magnesium- and nickel alloys
- ▶ Small to medium material thicknesses

BLACKline

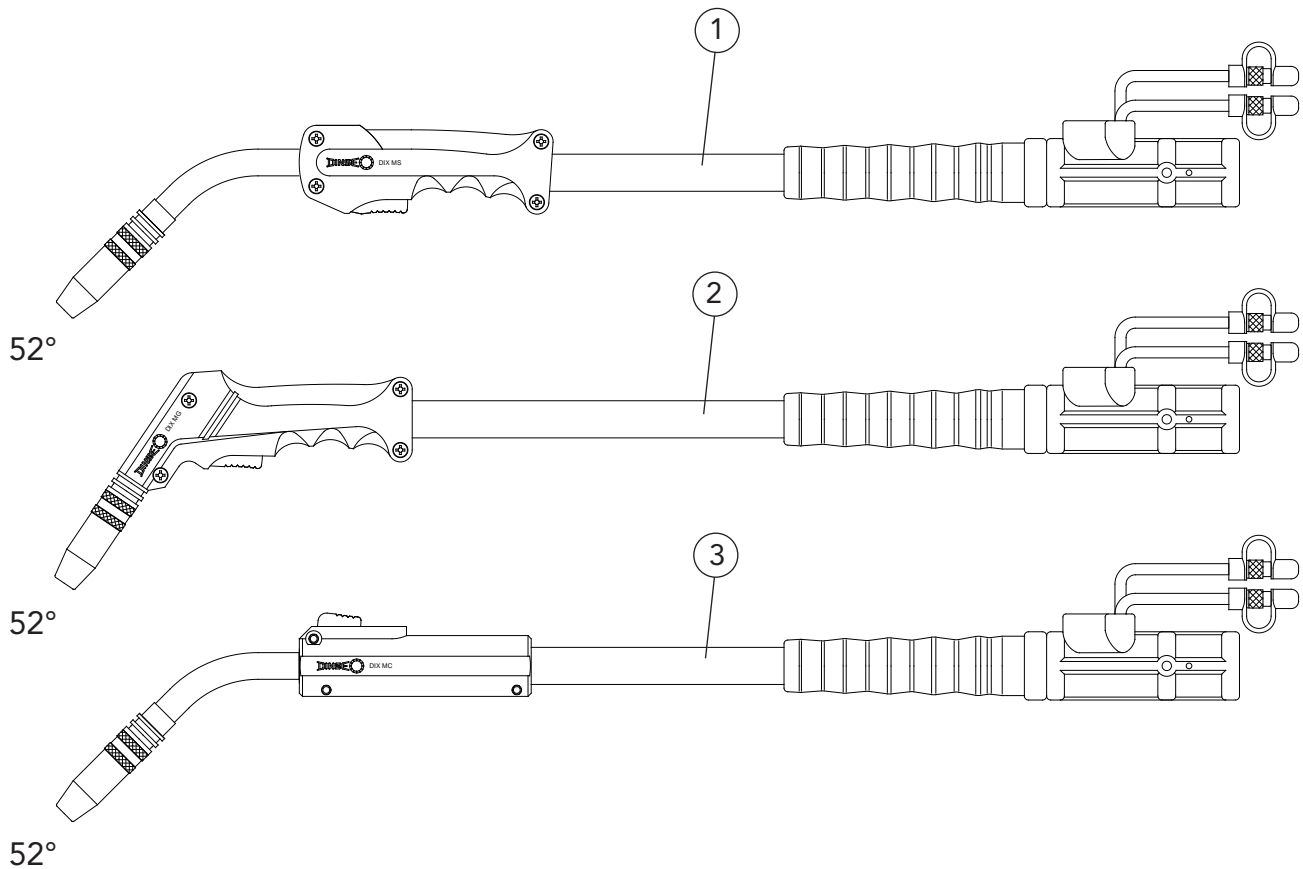
Torch sets Z - 330

Torch type

DIX MSZ 330

DIX MGZ 330

DIX MCZ 330



Pos.	Description	Dimension	Part number	Article number
1	Torch set	3.00 m	DIX MSZ 330-3	6203133130
	Torch set	4.00 m	DIX MSZ 330-4	6203133140
2	Torch set	3.00 m	DIX MGZ 330-3	6203033130
	Torch set	4.00 m	DIX MGZ 330-4	6203033140
3	Torch set	3.00 m	DIX MCZ 330-3	6203333130
	Torch set	4.00 m	DIX MCZ 330-4	6203333140

► Standard equipment for wire diameter 1.2 mm steel with gas nozzle DIX 1-2-315 TR, contact tip DIX 3-2-1.2 M8, tip adapter DIX 4-2-K M8 and liner DIX DS 4/2.2. Variants deviating of the standard fittings on request.

02-0039

subject to change!

02-Manual welding torches-liquidV11



BLACKline

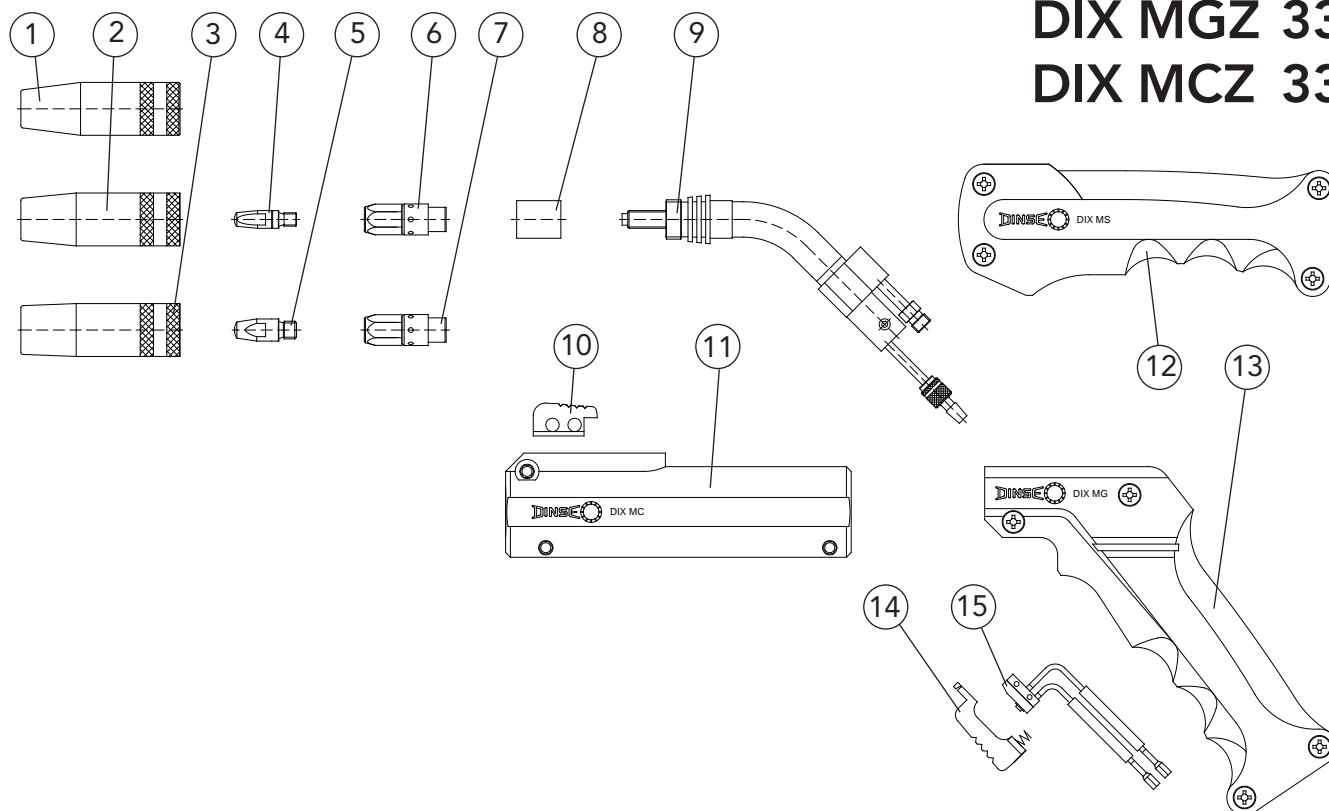
Torch sets Z - 330

Torch type

DIX MSZ 330

DIX MGZ 330

DIX MCZ 330



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 13 mm	DIX 1-2-313 TR	6290103130
2	Gas nozzle	∅ 15 mm	DIX 1-2-315 TR	6290103150
3	Gas nozzle	∅ 18 mm	DIX 1-2-318 TR	6290103180
4	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
5	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Tip adapter	M6	DIX 4-2-K M6	629040010
7	Tip adapter	M8	DIX 4-2-K M8	629040110
8	Insulating sleeve		DIX 10-2	629100000
9	Torch neck	52°	DIX 6-2-330 Z	6290613310
10	Trigger		DIX 9-2 C	629090030
11	Handle		DIX 7-2-303 C	629070330
12	Handle		DIX 7-2-303 S	629070310
13	Handle		DIX 7-2-303 G	629070300
14	Trigger		DIX 9-2	629090000
15	Microswitch		DIX 8-2	629080000

xx - Standard diameter: 1.0 mm and 1.2 mm. Other diameters on request.

DINSE G.m.b.H. · Tarpen 36 · 22419 Hamburg · Phone: +49-(0)40-658 75-0 · Fax: -200 · E-Mail: info@dinse-gmbh.com · www.dinse-gmbh.com

02-0040

subject to change!

02-Manual welding torches-liquidV11

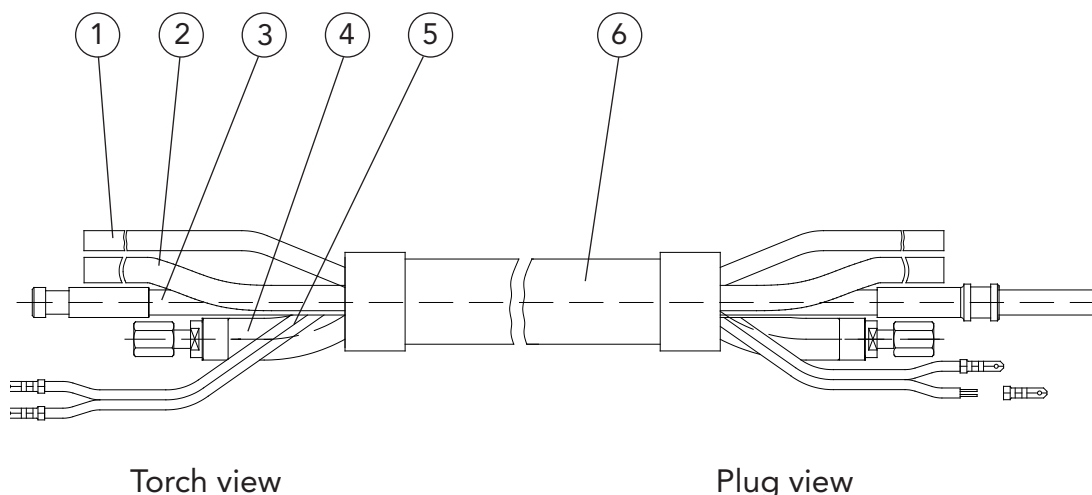


BLACKline

Torch sets

Z - 330

Supply hose



02-0041

02-Manual welding torches-liquidV11 subject to change!

Pos.	Description	Part number	Article number
	Supply hose, complete	DIX VLMZ 300-xx	6223003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Water hose	DIX VL 190-xx BLAU	639196001xx
3	Conduit hose	DIX VLM 201-xx PUSD	6292013xx
4	Combi cable	DIX 22-2-303-xx	6292213xx
5	Control wire	DIX VLM 211-xx	6292110xx
6	Cover hose	DIX VLM 330-xx	6292313xx

xx - Standard length: 3.0 m and 4.0 m

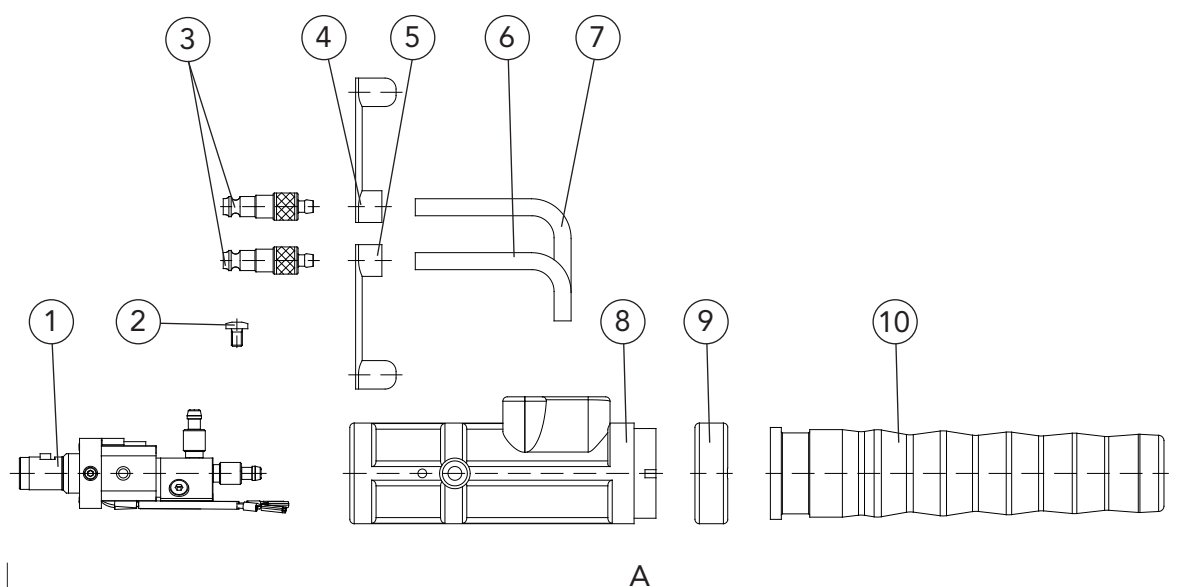


BLACKline

Torch sets

Z - 330

Plug



02-0042

02-Manual welding torches-liquidV11 subject to change!

Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 Z	624100330
1	Plug insert		DIX ME 300 SEZ	639116064
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	ø 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 ROT	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLAU	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

► Other fittings on request.

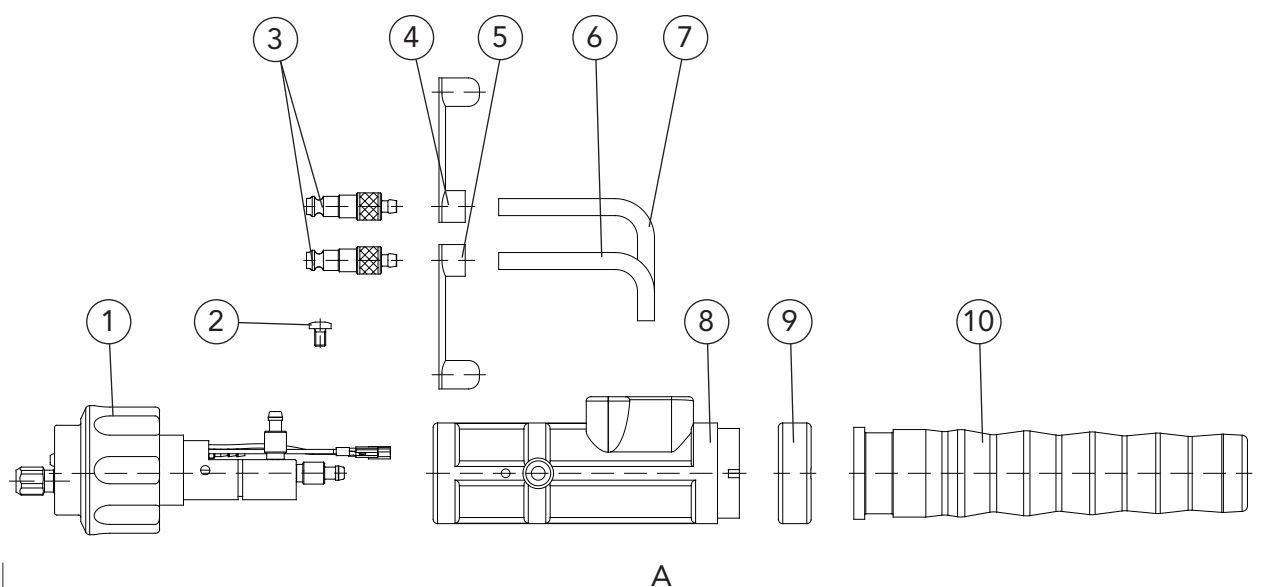


BLACKline

Torch sets

Z - 330 SAZ

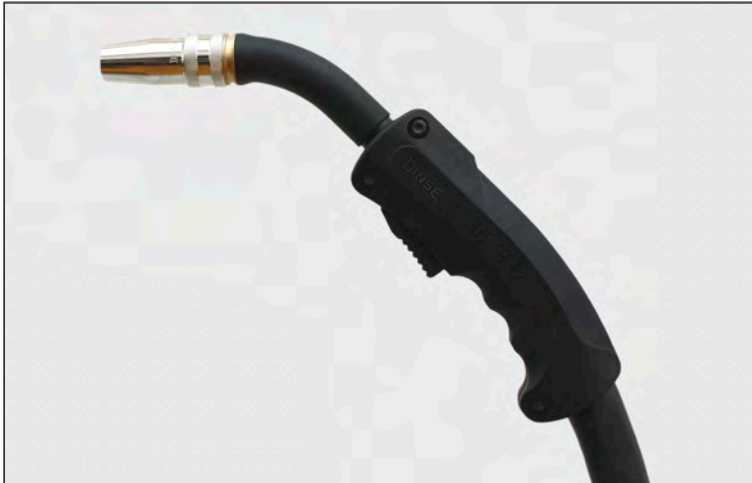
Plug



Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 SAZ	624100331
1	Plug insert		DIX ME 300 SAZ	639116061
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	∅ 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 ROT	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLAU	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

► Other fittings on request.

BLACKline



Design with handle type MSZ



Design with handle type MCZ



Integrated wire feeder to feed soft and kink sensitive wires over long distances

Torch sets Z - 304

Torch set type: DIX MSZ 304
DIX MCZ 304
DIX MPZ 304

Double-circuit liquid cooled

Technical data (DIN EN 60 974-7):

CO₂: 500A / 60%
Mixed gas: 450A / 60%
Wire diameter: 1.0 - 1.6 mm

Technical benefits:

- Flexible supply hose
- Bend protection at the plug view
- Gas nozzle with rugged trapezoidal thread
- Optimum gas coverage by recessed contact tip
- Gas reduction by laminare gas flow and design of the gas diffuser
- No gas loss due to separate shield gas feed

Options:

- UP/DOWN-switch for infinitely variable adjustment of welding performance, LCD-display
- Memory switch for working points or welding programs, LCD-display

Applications:

- Non- and low alloyed steels
- High alloyed steels
- Aluminum-, magnesium-, copper and nickel alloys
- Medium to large material thicknesses

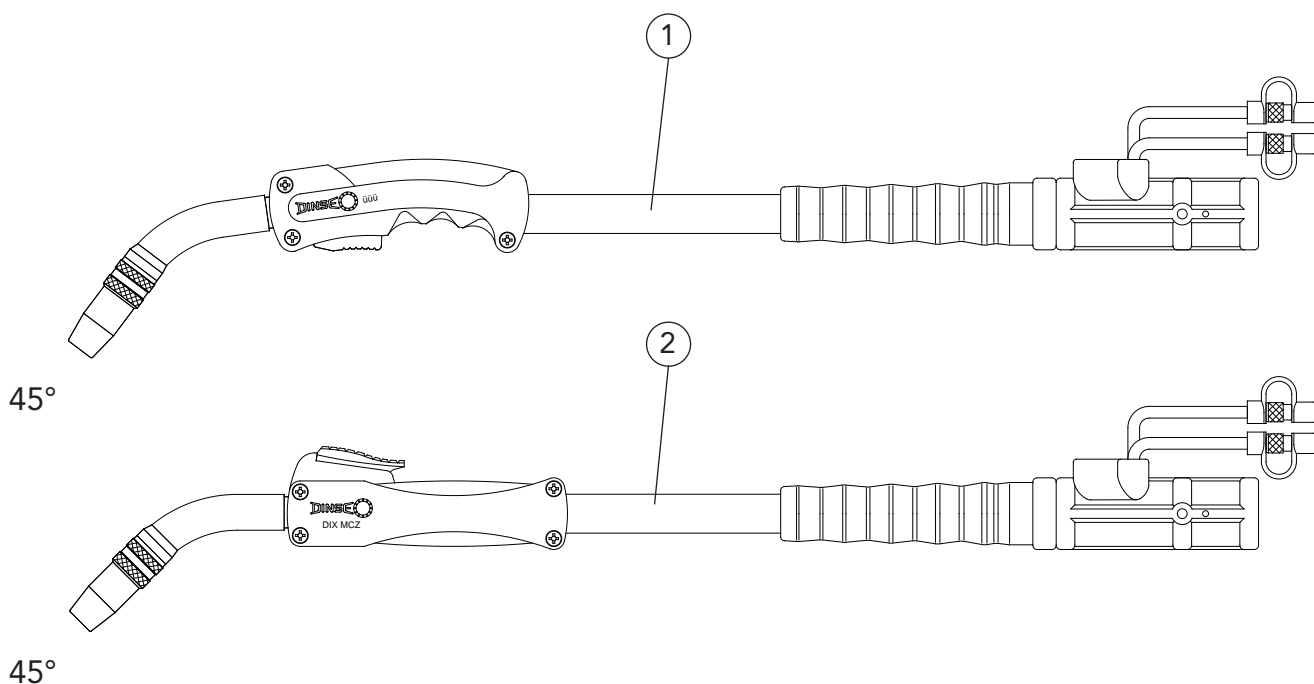
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Torch sets Z - 304

Torch type

DIX MSZ 304

DIX MCZ 304



02-0045

subject to change!

02-Manual welding torches-liquidV11

Pos.	Description	Dimension	Part number	Article number
1	Torch set	3.00 m	DIX MSZ 304-3	620314330
	Torch set	4.00 m	DIX MSZ 304-4	620314340
2	Torch set	3.00 m	DIX MCZ 304-3	620334330
	Torch set	4.00 m	DIX MCZ 304-4	620334340

- Standard equipment for wire diameter 1.2 mm steel with gas nozzle DIX 1-2-415, contact tip DIX 3-2-1.2 M8 and Liner DIX DS 4/2.2.
Variants deviating of the standard fittings on request.



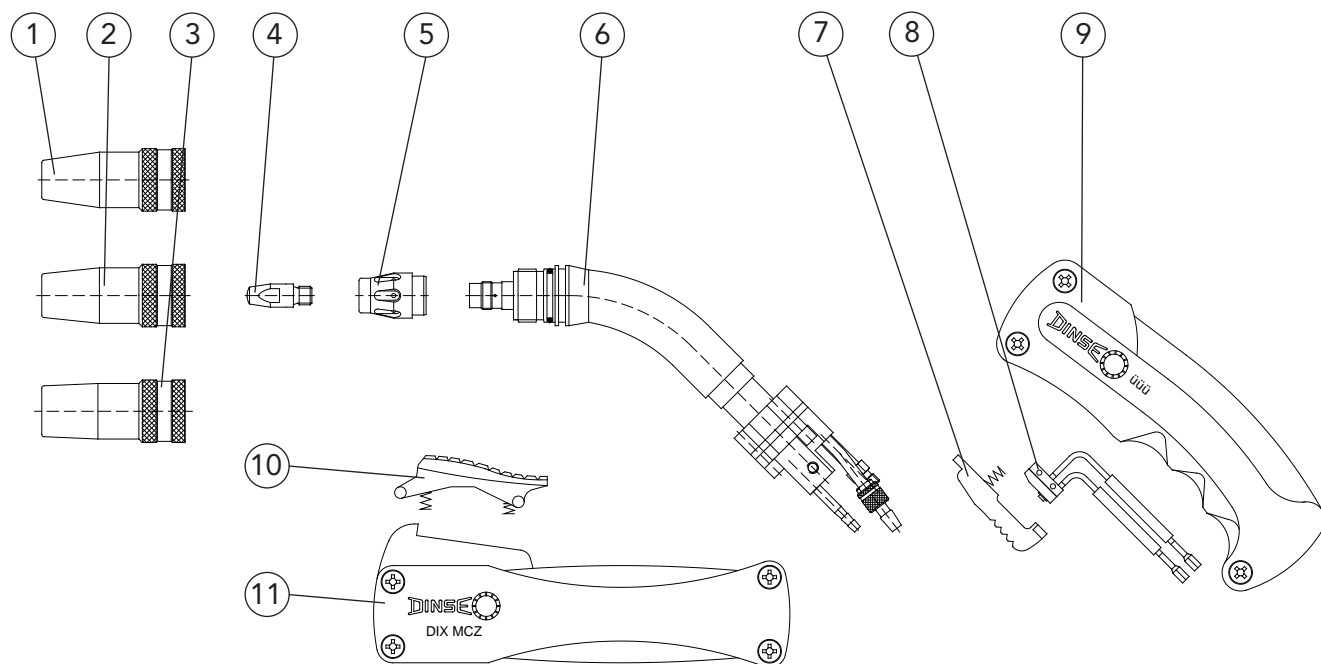
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Torch sets Z - 304

Torch type

DIX MSZ 304

DIX MCZ 304



02-0046

subject to change!

02-Manual welding torches-liquidV11

Pos.	Description	Dimension	Part number	Part number
1	Gas nozzle	ø 13 mm	DIX 1-2-413	629010413
2	Gas nozzle	ø 15 mm	DIX 1-2-415	629010415
3	Gas nozzle	ø 18 mm	DIX 1-2-418	629010418
4	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
5	Gas diffuser		DIX 10-2-304	629100324
6	Torch neck	45°	DIX 6-2-304 Z 45GR°	629061340
7	Trigger		DIX 9-2-304 S	629090304
8	Microswitch		DIX 8-2	629080000
9	Handle		DIX 7-2-304 S	629070314
10	Trigger		DIX 9-2-304 C	629090305
11	Handle		DIX 7-2-304 C	629070334

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.

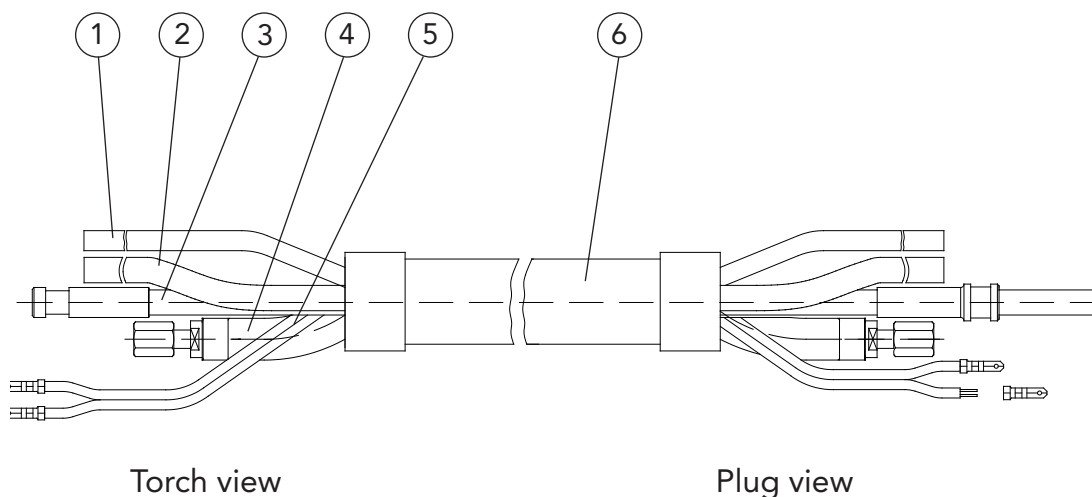


BLACKline

Torch sets

Z - 304

Supply hose



02-0047

02-Manual welding torches-liquidV11 subject to change!

Pos.	Description	Part number	Article number
	Supply hose, complete	DIX VLMZ 300-xx	6223003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Water hose	DIX VL 190-xx BLUE	639196001xx
3	Conduit hose	DIX VLM 201-xx PUSD	6292013xx
4	Combi cable	DIX 22-2-303-xx	6292213xx
5	Control wire	DIX VLM 211-xx	6292110xx
6	Cover hose	DIX VLM 330-xx	6292313xx

xx - Standard length: 3.0 m and 4.0 m

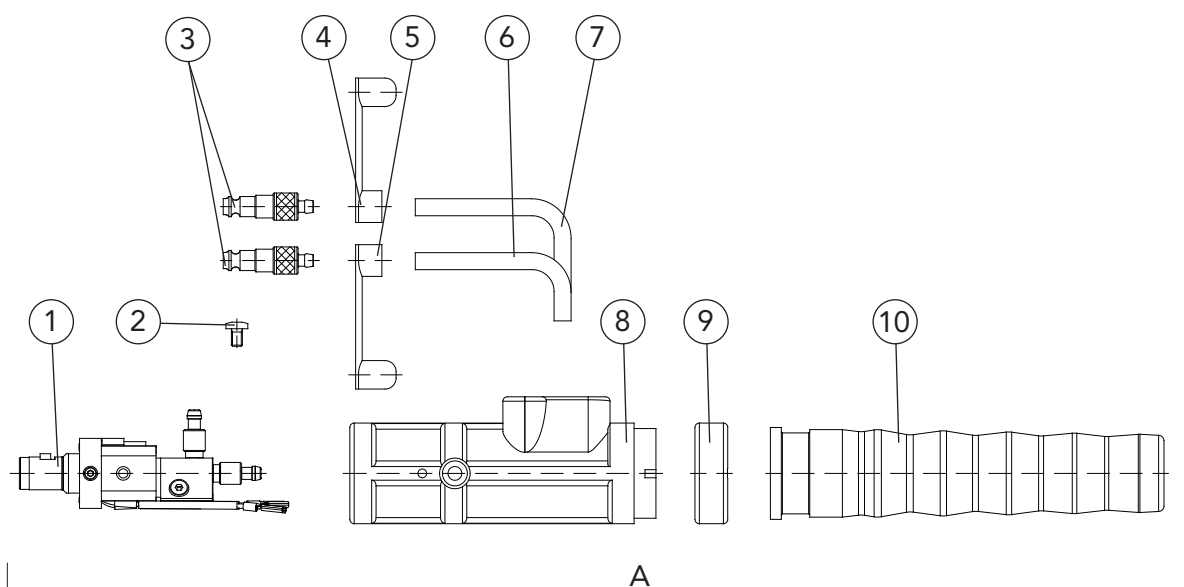


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Torch sets

Z - 304

Plug



Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 Z	624100330
1	Plug insert		DIX ME 300 SEZ	639116064
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	∅ 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

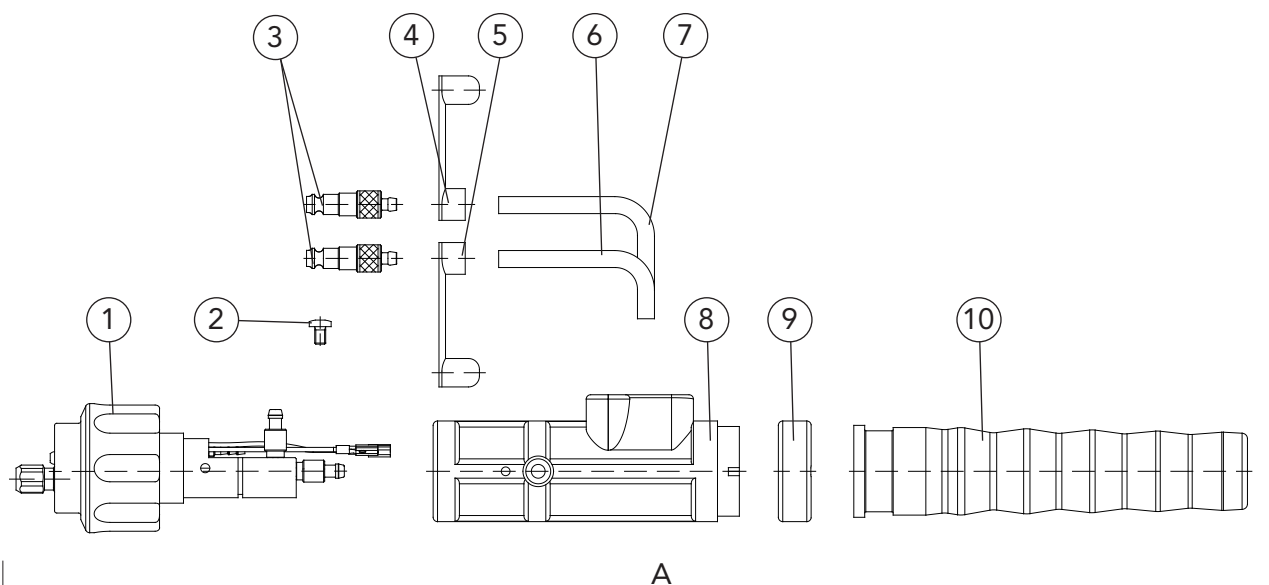
► Other fittings on request.

BLACKline

Torch sets

Z - 304 SAZ

Plug



Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 SAZ	624100331
1	Plug insert		DIX ME 300 SAZ	639116061
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	ø 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, rot	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

► Other fittings on request.

02-0049

subject to change!

02-Manual welding torches-liquidV11



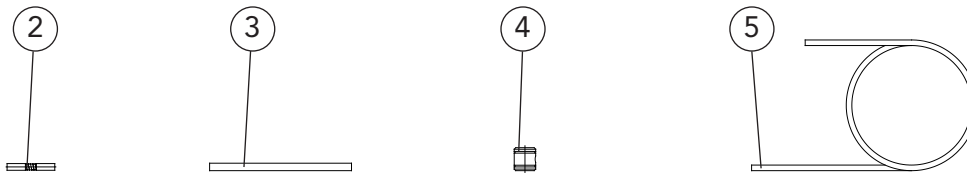
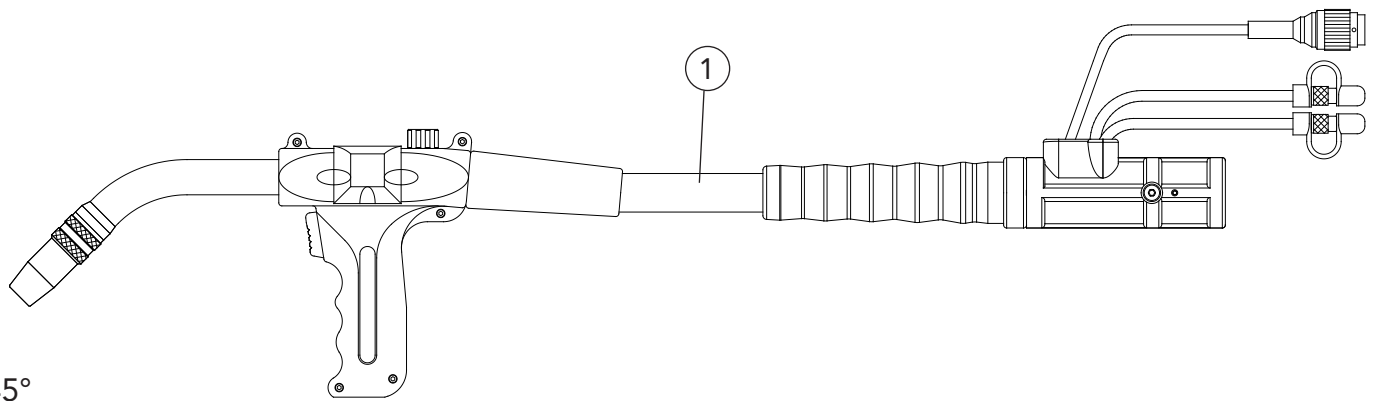
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Torch sets Z - 304

**Fixed version for
PUSH - PULL**

Torch type

DIX MPZ 304



Pos.	Description	Dimension	Part number	Article number
1	Torch set	4.00 m	DIX MPZ 304-4	6203714440
	Torch set With integrated wire feeder and remote control, without drive roll	8.00 m	DIX MPZ 304-8	6203714480
2	Distance sleeve		DIX DSH 300	628100001
3	Capillary liner	ø 2.2mm/0.3m	DIX DSK 2-0.3	623002003
4	Drive roll	ø 1.2mm A	DIX 32-2 -1.2/1.2 A	629324120
5	Capillary liner	ø 2.9m/4.5m	DIX DSK 3-4.5	623002545
	Capillary liner	ø 2.9m/8.5m	DIX DSK 3-8.5	623002585

► Standard equipment for wire diameter 1.2 mm aluminum alloy with gas nozzle DIX 1-2-415, contact tip DIX 3-2-1.2 M8.
Variants deviating of the standard fittings on request.

02-0050

subject to change!

02-Manual welding torches-liquidV11



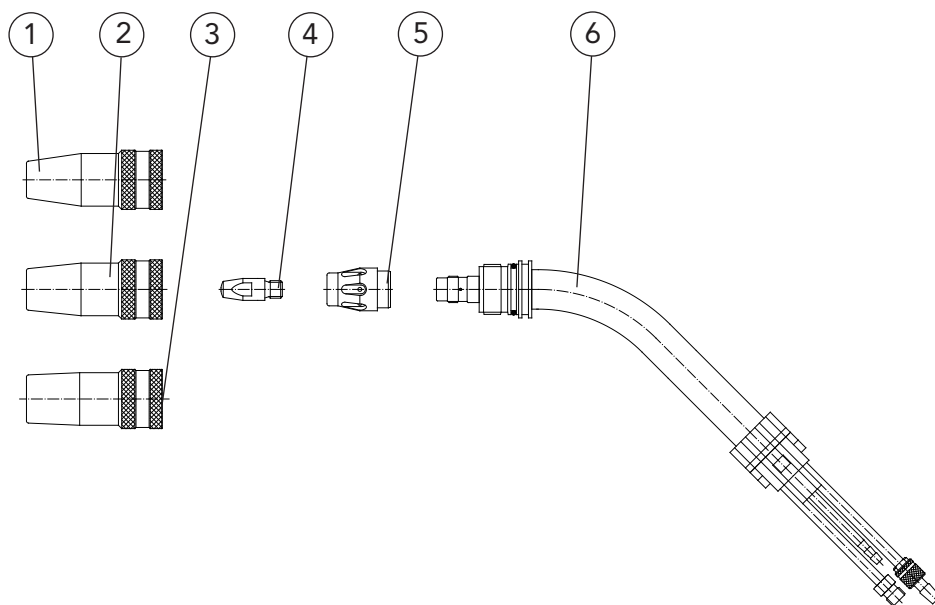
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Torch sets **Z - 304**

**Fixed version for
PUSH - PULL**

Torch type

DIX MPZ 304



02-0051

02-Manual welding torches-liquidV11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 13 mm	DIX 1-2-413	629010413
2	Gas nozzle	∅ 15 mm	DIX 1-2-415	629010415
3	Gas nozzle	∅ 18 mm	DIX 1-2-418	629010418
4	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
5	Gas diffuser		DIX 10-2-304	629100324
6	Torch neck	45°	DIX 6-2-304 PLZ 45°	6290614714

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.

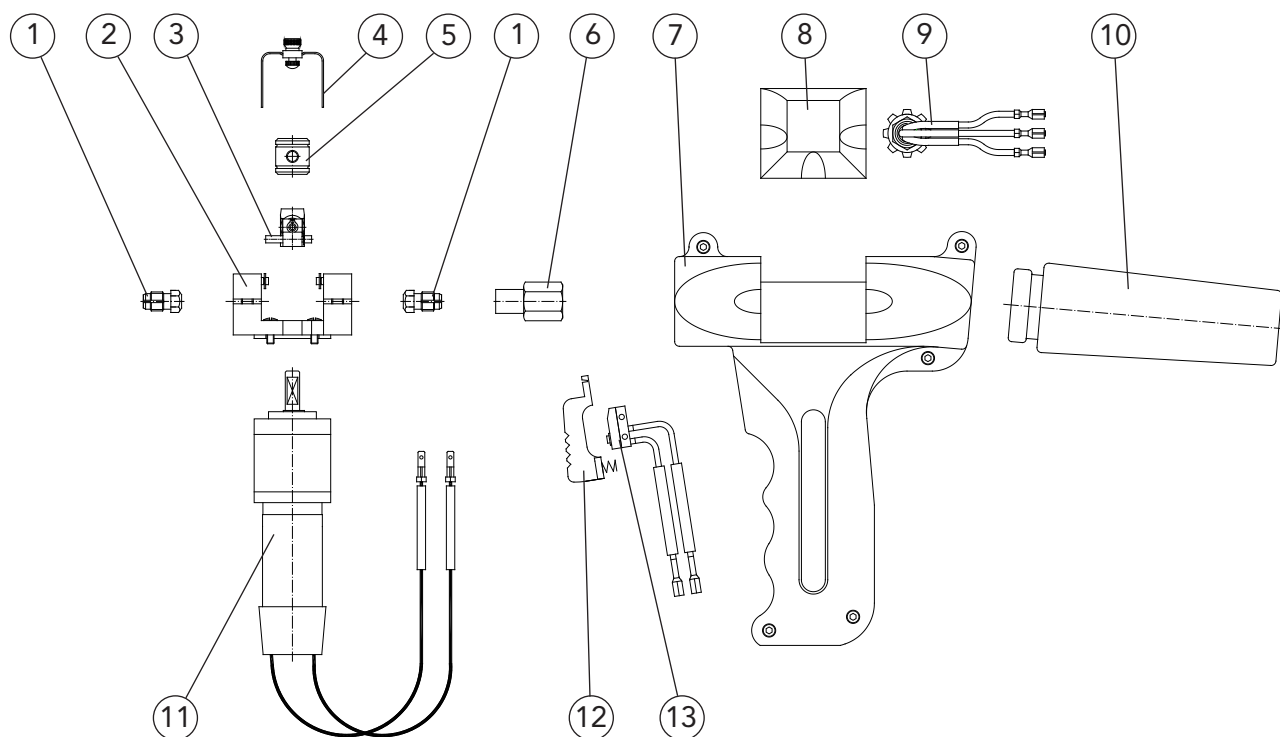


BLACKline

Torch sets Z - 304

**Fixed version for
PUSH - PULL**

DIX MPZ 304



Pos.	Description	Part number	Article number
1	Clamp sleeve	DIX SH 270	629270270
2	Connection block	DIX 35-1	619350000
3	Pressure system	DIX 31-1	619310000
4	Stirrup lock	DIX 34-1	619340000
5	Drive roll for steel	DIX 32-2-xx/xx	629323xx0
	Drive roll for alumium alloy	DIX 32-2-xx/xx A	629324xx0
6	Supply hose connection	DIX 36-2 P	6293657000
7	Handle	DIX 7-2-300 P	629070370
8	Cover	DIX 33-2-300	629330300
9	Potentiometer	DIX 39-1 10KΩ ROT	619390010
10	Rubber cover	DIX 37-2	629370000
11	Motor	DIX 38-2 P	629380001
12	Trigger	DIX 9-1-200 P	619090270
13	Microswitch	DIX 8-2	629080000

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.

02-0052

subject to change!

02-Manual welding torches-liquidV11



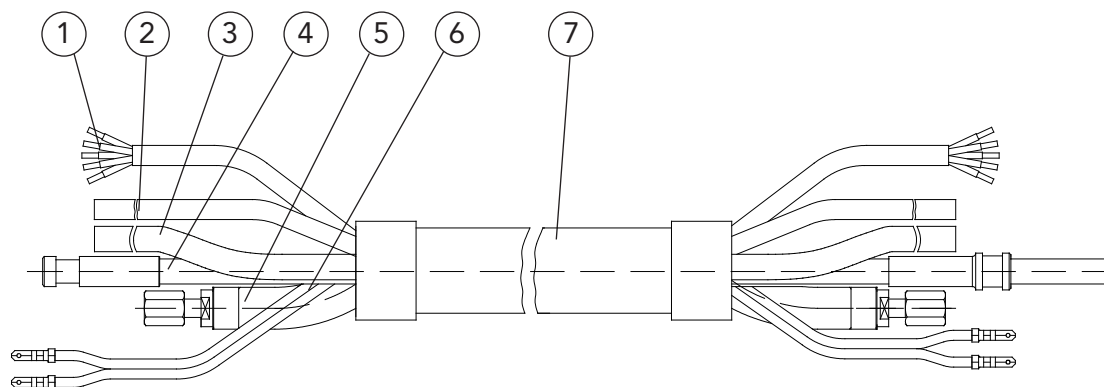
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Torch sets Z - 304

Fixed version for PUSH - PULL

DIX MPZ 304

Supply hose



Torch view

Plug view

Pos.	Description	Part number	Article number
	Supply hose, complete	DIX VLMPZ 300-xx	6223703xx
1	Control wire, 5 pins	DIX 42-2-xx	6294200xx
2	Gas hose	DIX VL 180-xx	639186001xx
3	Water hose	DIX VL 190-xx BLUE	639196001xx
4	Conduit hose	DIX VLM 201-xx/PUSD	6292013xx
5	Combi cable	DIX 22-2-303-xx	6292213xx
6	Control wire	DIX VLM 211-xx	6292110xx
7	Cover hose	DIX 23-2-404-xx	6292304xx

xx - Standard length: 4.0 m and 8.0 m

02-0053

subject to change!

02-Manual welding torches-liquidV11



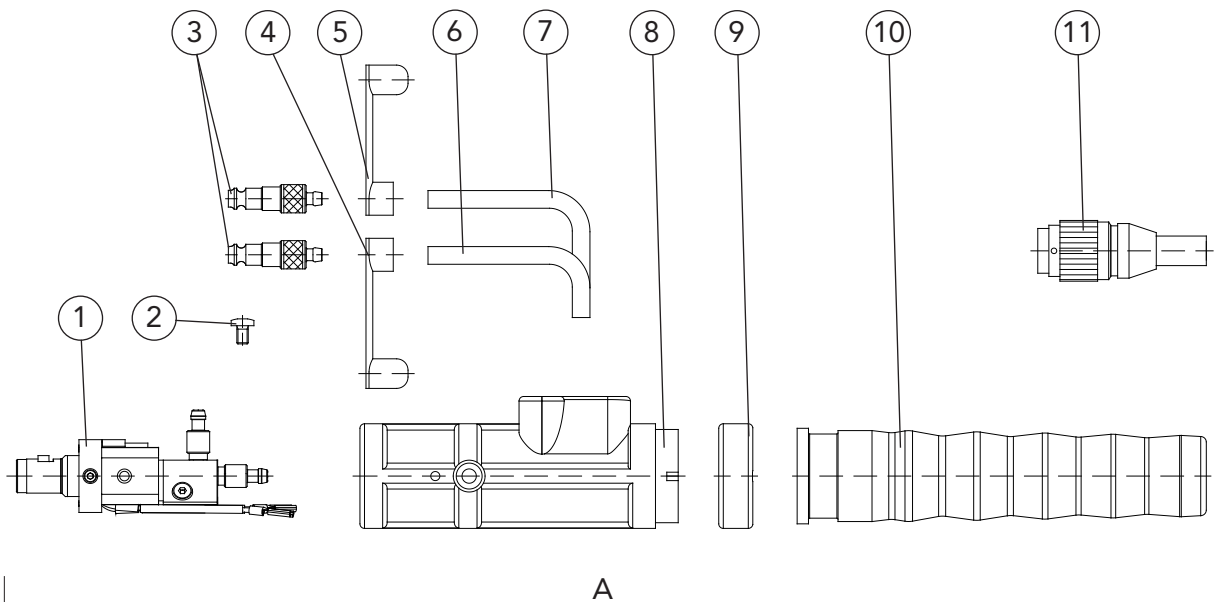
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Torch sets Z - 304

Fixed version for
PUSH - PULL

DIX MPZ 304

Plug



Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZMEP 330	624170330
1	Plug insert		DIX ME 300 SEZ	639116064
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	ø 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug sleeve		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000
11	Cable plug		DIX 41-2-TUCHEL 5P	629410000

► Other fittings on request.

BLACKline

Z - 305



Design with handle type MSZ



Design with handle type MCZ



▶ Reduced gas nozzle

Torch type: DIX MSZ 305
DIX MCZ 305

Double - circuit liquid cooled

Technical data (DIN EN 60 974-7):

CO₂: 550A / 60%
Mixed gas: 500A / 60%
Wire diameter: 1.2 - 2.0 mm

Technical benefits:

- ▶ High duty cycle due to improved cooling of the gas nozzle
- ▶ Flexible supply hose
- ▶ Bend protection at the plug view
- ▶ Optimum gas coverage by recessed contact tip
- ▶ Gasreduction by laminar gas flow and design of the gas diffusor
- ▶ No gas loss due to separate shield gas feed
- ▶ Exact wire feeding by powerful Dinse wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminum-, magnesium-, copper- and nickel alloys
- ▶ Large material thicknesses

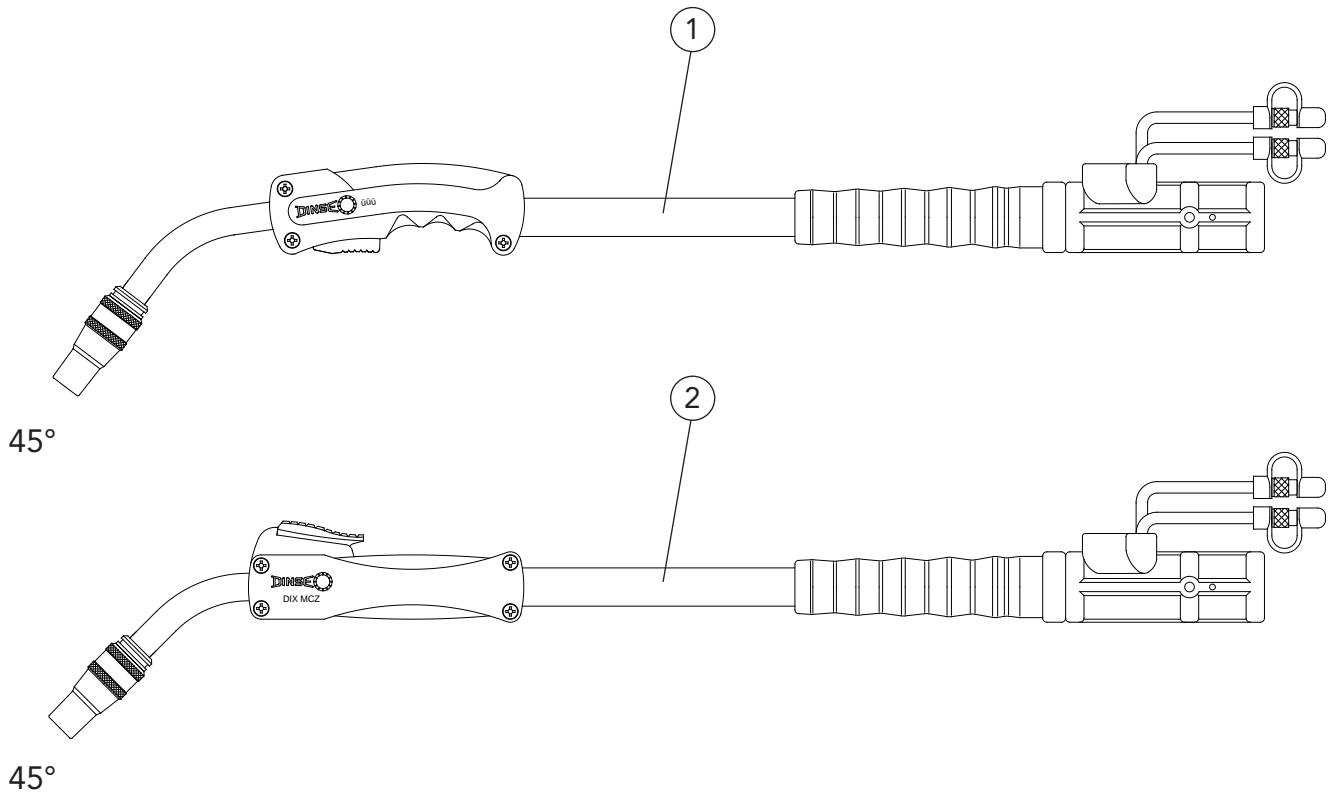
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Torch sets Z - 305

Torch type

DIX MSZ 305

DIX MCZ 305



Pos.	Description	Dimension	Part number	Article number
1	Torch set	3.00 m	DIX MSZ 305-3	620315330
	Torch set	4.00 m	DIX MSZ 305-4	620315340
2	Torch set	3.00 m	DIX MCZ 305-3	620335330
	Torch set	4.00 m	DIX MCZ 305-4	620335340

► Standard equipment for wire diameter 1.2 mm steel with gas nozzle diameter 17 mm, gas nozzle DIX 1-2-517, contact tip DIX 3-2-1.2 M8, gas diffusor DIX 10-2-305 K, liner DIX DS 4/2.2.

Variants deviating of the standard fittings on request.

02-0056

subject to change!

02-Manual welding torches-liquidV11



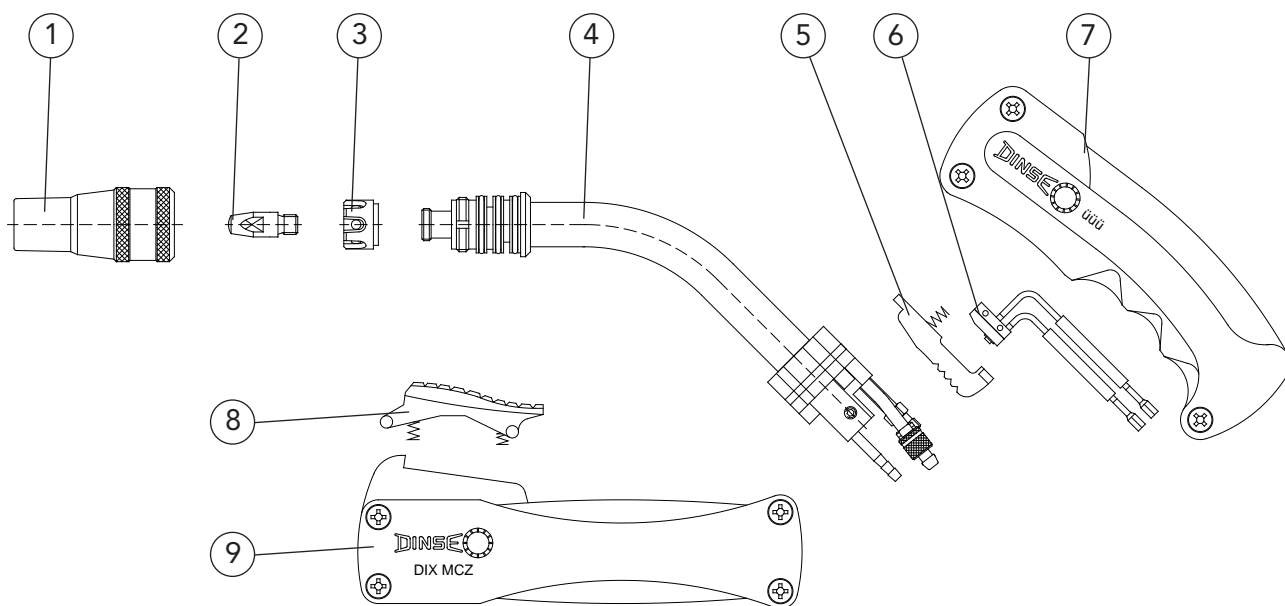
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Torch sets Z - 305

Torch type

DIX MSZ 305

DIX MCZ 305



02-0057

subject to change!

02-Manual welding torches-liquidV11

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	ø 17 mm	DIX 1-2-517	629010517
	Gas nozzle (plug-in device)	ø 17 mm	DIX 1-2-517 OG	6290105171
2	Contact tip	M8 x28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
3	Gas diffuser		DIX 10-2-305 K	6291003051
4	Torch neck	45°	DIX 6-2-305 Z	629061350
5	Trigger		DIX 9-2-304 S	629090304
6	Microswitch		DIX 8-2	629080000
7	Handle		DIX 7-2-304 S	629070314
8	Trigger		DIX 9-2-304 C	629090305
9	Handle		DIX 7-2-304 C	629070334



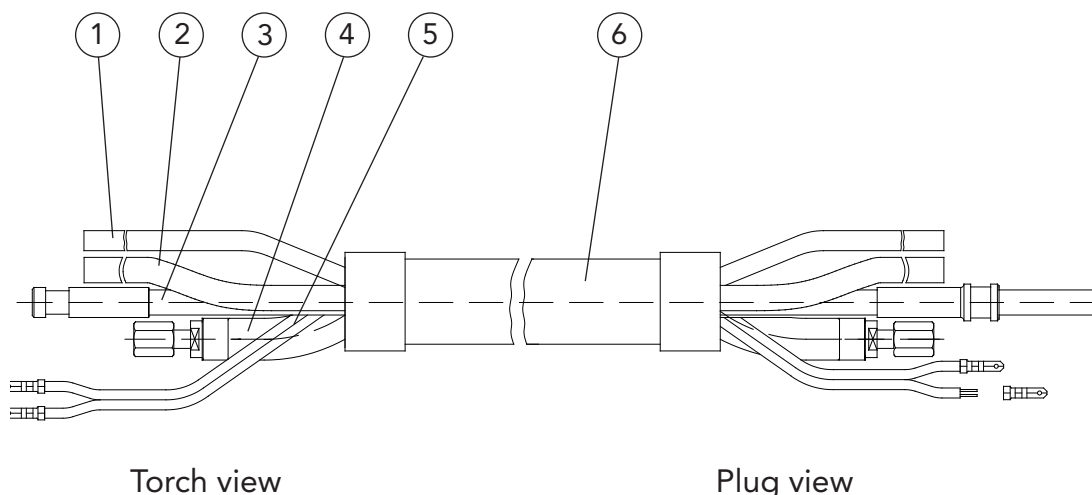
xx - Standard diameter: 1.2 mm, 1.6 mm and 2.0 mm. Other diameter on request.

BLACKline

Torch set

Z - 305

Supply hose



Torch view

Plug view

Pos.	Description	Part number	Article number
	Supply hose, complete	DIX VLMZ 300-xx	6223003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Water hose	DIX VL 190-xx BLUE	639196001xx
3	Conduit hose	DIX VLM 201-xx PUSD	6292013xx
4	Combi cable	DIX 22-2-303-xx	6292213xx
5	Control wire	DIX VLM 211-xx	6292110xx
6	Cover hose	DIX VLM 330-xx	6292313xx

xx - Standard length: 3.0 m and 4.0 m

02-0058

subject to change!

02-Manual welding torches-liquidV11

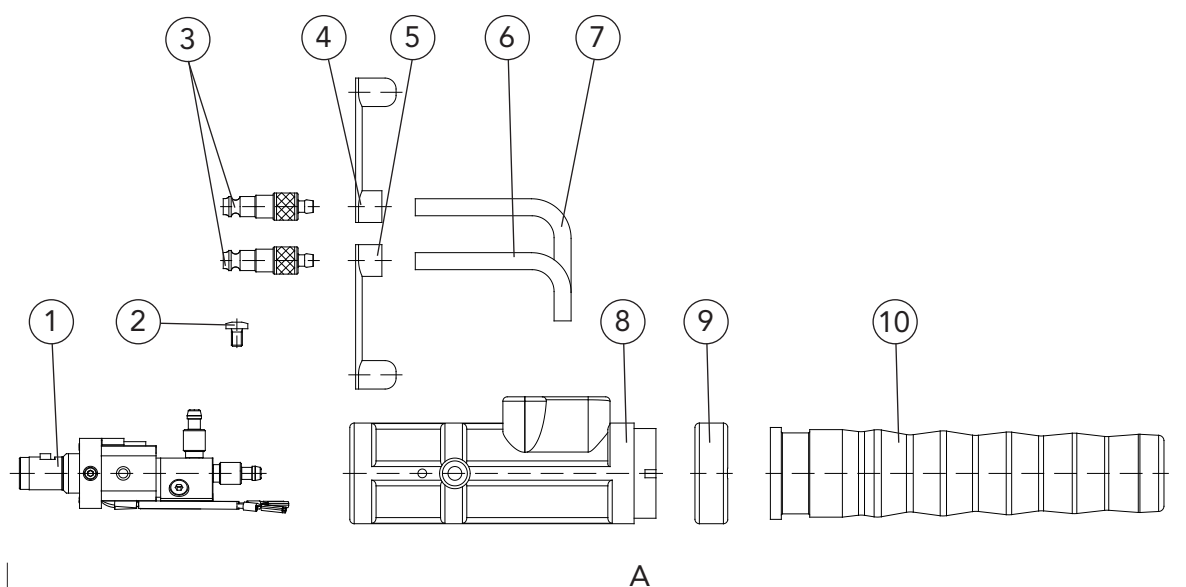


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Torch sets

Z - 305

Plug



02-0059

02-Manual welding torches-liquidV11 subject to change!

Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 Z	624100330
1	Plug insert		DIX ME 300 SEZ	639116064
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	ø 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

► Other fittings on request.

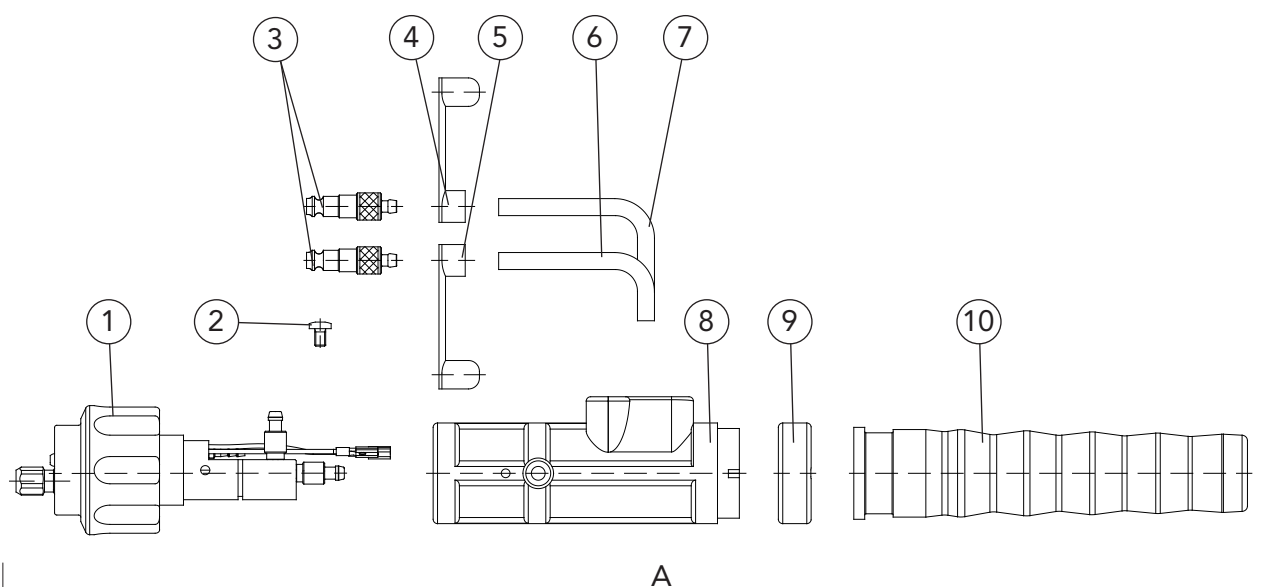


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Torch sets

Z - 305 SAZ

Plug



02-0060

02-Manual welding torches-liquidV11 subject to change!

Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 SAZ	624100331
1	Plug insert		DIX ME 300 SAZ	639116061
2	Holdin screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	ø 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

► Other fittings on request.



BLACKline



Design with handle type MSZ



Design with handle type MCZ



Design with handle type MSZ push-button on top and cooling jacket with gas nozzle

Torch sets Z - 306

Torch set type: DIX MSZ 306
DIX MCZ 306

Double-circuit liquid cooled

Technical data (DIN EN 60 974-7):

CO₂: 550A / 60%
Mixed gas: 500A / 60%
Wire diameter: 1.2 - 2.0 mm

Technical benefits:

- Flexible supply hose
- Bend protection at the plug view
- Screw adapter with rugged trapezoidal thread
- Optimum gas coverage by recessed contact tip
- Gas reduction by laminare gas flow and design of the tip adapter
- No gas loss due to separate shield gas feed
- Exact wire feeding by powerful Dinse wire feeder modules

Options:

- UP/DOWN-switch for infinitely variable control of welding performance, LCD-display
- Memory switch for working points or welding programs, LCD-display

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Large material thicknesses

Standard fittings

MANUAL - WELDING TORCHES

liquid cooled

MIG/MAG



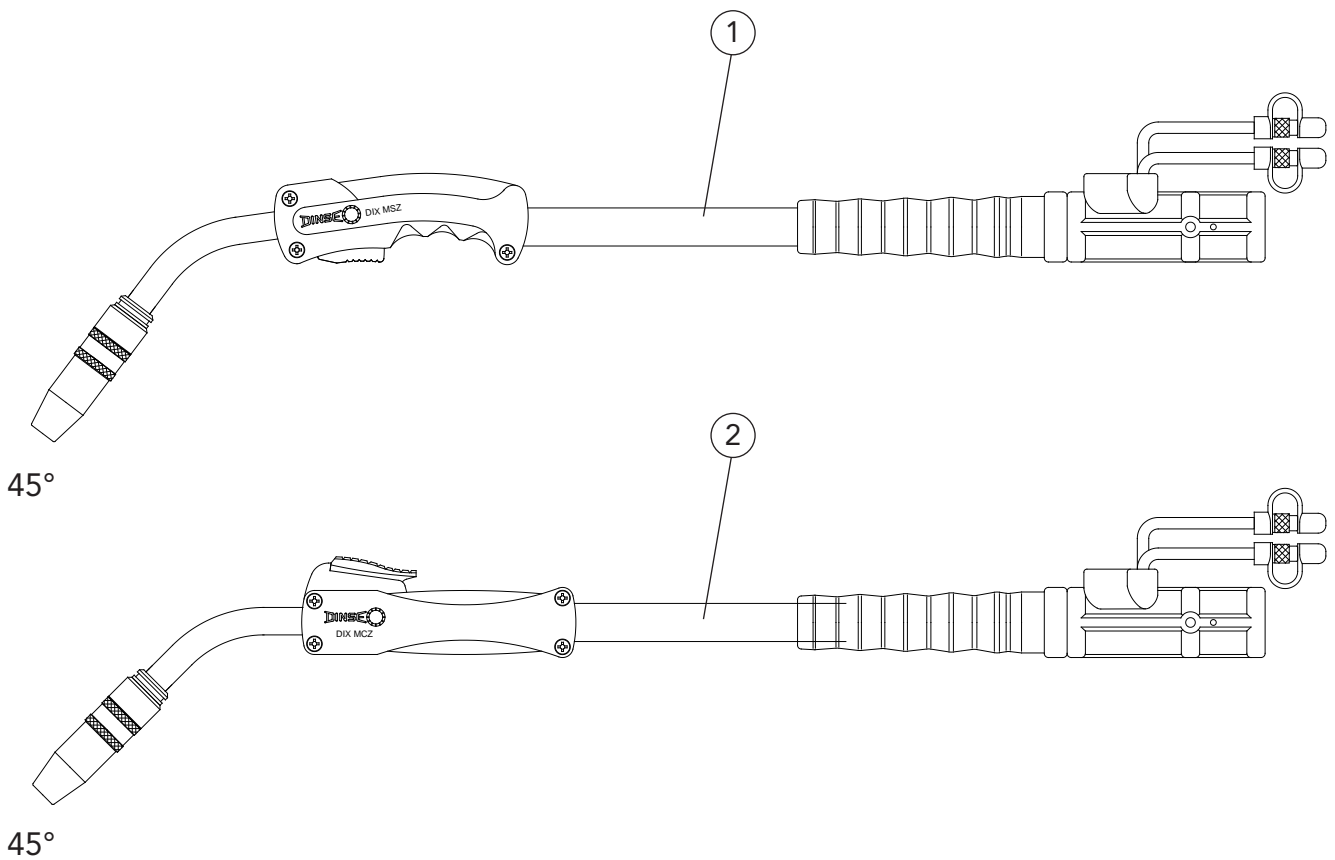
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Torch sets Z - 306

Torch type

DIX MSZ 306

DIX MCZ 306



Pos.	Description	Dimension	Part number	Article number
1	Torch set	3.00 m	DIX MSZ 306-3	620316330
	Torch set	4.00 m	DIX MSZ 306-4	620316340
2	Torch set	3.00 m	DIX MCZ 306-3	620336330
	Torch set	4.00 m	DIX MCZ 306-4	620336340

► Standard equipment for wire diameter 1.2 mm steel, gas nozzle DIX 1-3-5418 A with screw adapter DIX SAD 2-404/540, contact tip DIX 3-2-1.2 M8, tip adapter DIX GS 2-M8, liner DIX DS 4/2.2. Variants deviating of the standard fittings on request.

02-0062

subject to change!

02-Manual welding torches-liquidV11



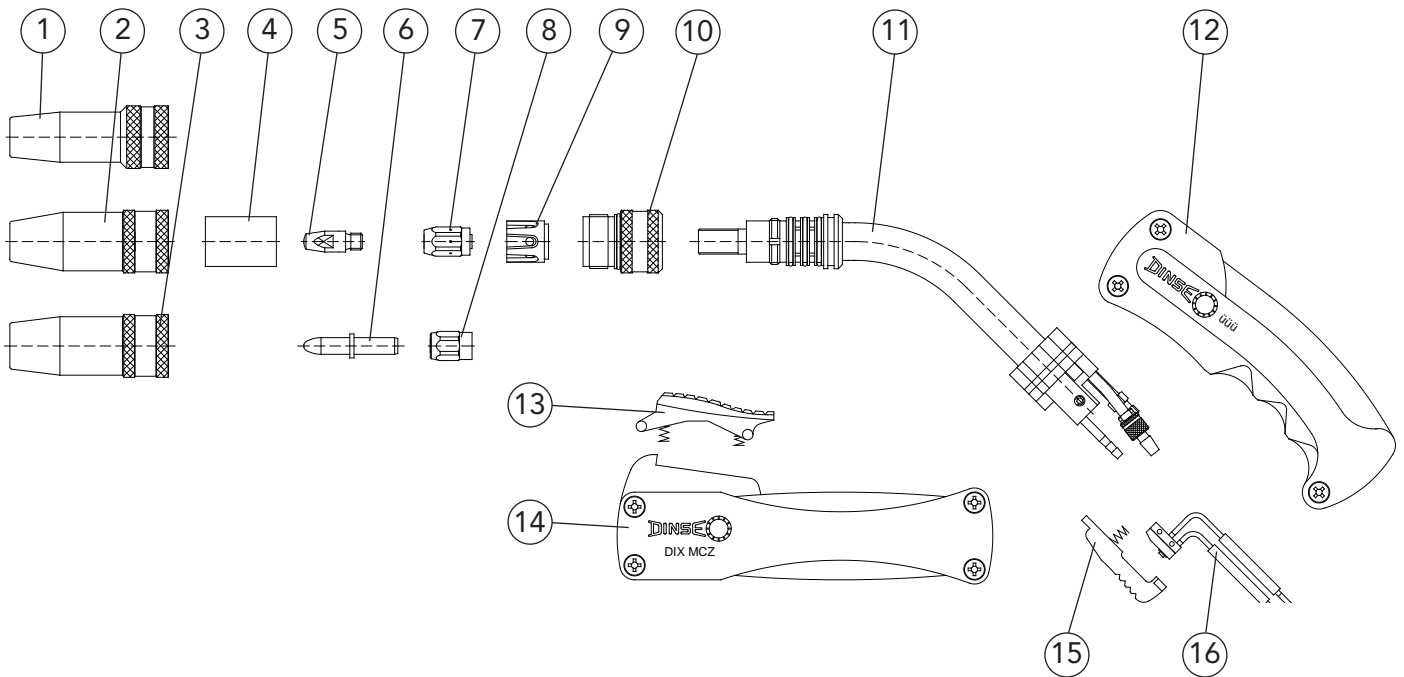
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Torch sets Z - 306

Torch type

DIX MSZ 306

DIX MCZ 306



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle Outside diameter reduced	ø 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	ø 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	ø 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator For gas nozzle type A		DIX 2-3-500	6390250000
5	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Contact tip	ø 8 x 45 mm	DIX 3-2-xx SR	6290354xx
7	Tip adapter	M8	DIX GS 2-M8	628150008
8	Clamp nut		DIX 4-2-MAS	6390454000
9	Gas diffuser		DIX 10-3-540	6391054000
10	Screw adapter		DIX SAD 2-404/540	628140000
11	Torch neck	45°	DIX 6-2-306 Z	629061360
12	Handle		DIX 7-2-304 S	629070314
13	Trigger		DIX 9-2-304 C	629090305
14	Handle		DIX 7-2-304 C	629070334
15	Trigger		DIX 9-2-304 S	629090304
16	Microswitch		DIX 8-2	629080000

xx - Standard diameter: 1.2 mm and 1.6 mm. Other diameter on request.

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Torch sets Z - 306

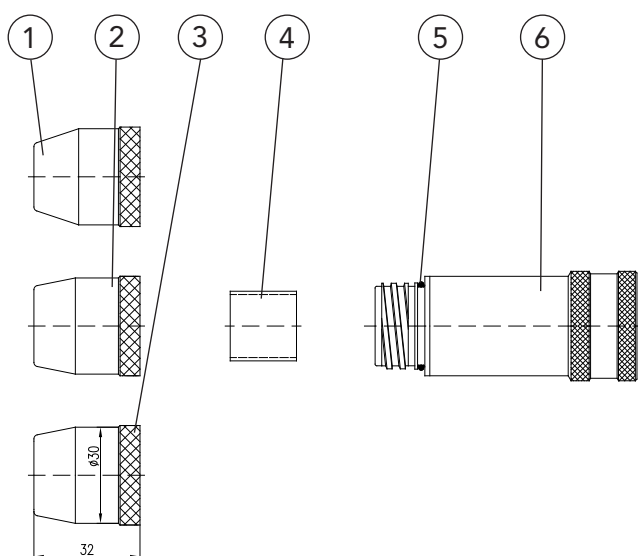
Torch type

DIX MSZ 306

Torch type

DIX MCZ 306

DIX MMLZ 306



02-0064

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	ø 15 mm	DIX KMG 115 TR	628040315
2	Gas nozzle	ø 18 mm	DIX KMG 118 TR	628040318
3	Gas nozzle	ø 21 mm	DIX KMG 121 TR	628040321
4	Cooling jacket insulator		DIX KME 110	628040303
5	O-ring, 23x1.5 VITON	(10 pcs.)		629110904
6	Cooling jacket, complete With o-ring		DIX KM 100	628040301

► Cooling jacket with direct liquid cooling for extreme cases of application.

subject to change!

02-Manual welding torches-liquidV11

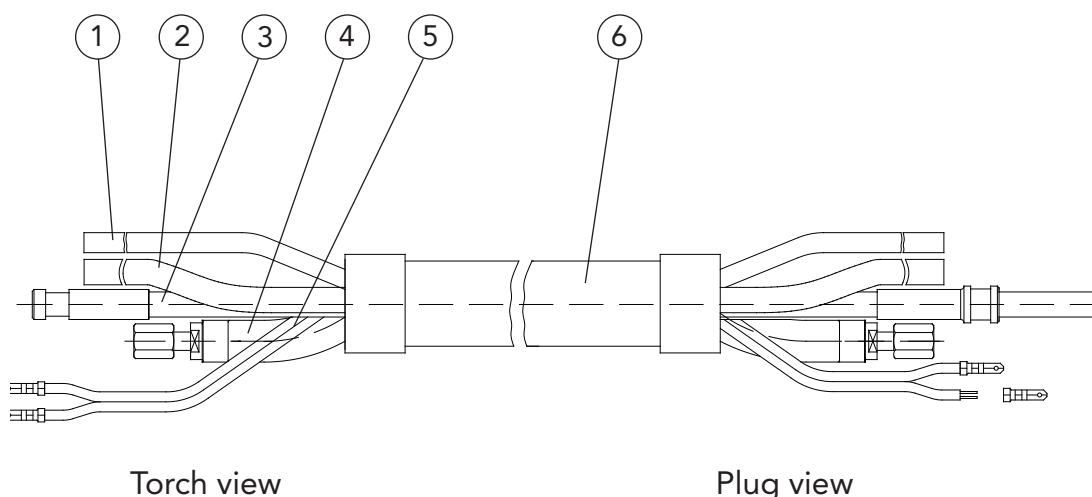


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Torch sets

Z - 306

Supply hose



Torch view

Plug view

Pos.	Description	Part number	Article number
	Supply hose, complete	DIX VLMZ 300-xx	6223003xx
1	Gas hose	DIX VL 180-xx	639186001xx
2	Water hose	DIX VL 190-xx BLUE	639196001xx
3	Conduit hose	DIX VLM 201-xx PUSD	6292013xx
4	Combi cable	DIX 22-2-303-xx	6292213xx
5	Control wire	DIX VLM 211-xx	6292110xx
6	Cover hose	DIX VLM 330-xx	6292313xx

xx - Standard length: 3.0 m and 4.0 m

02-0065

subject to change!

02-Manual welding torches-liquidV11

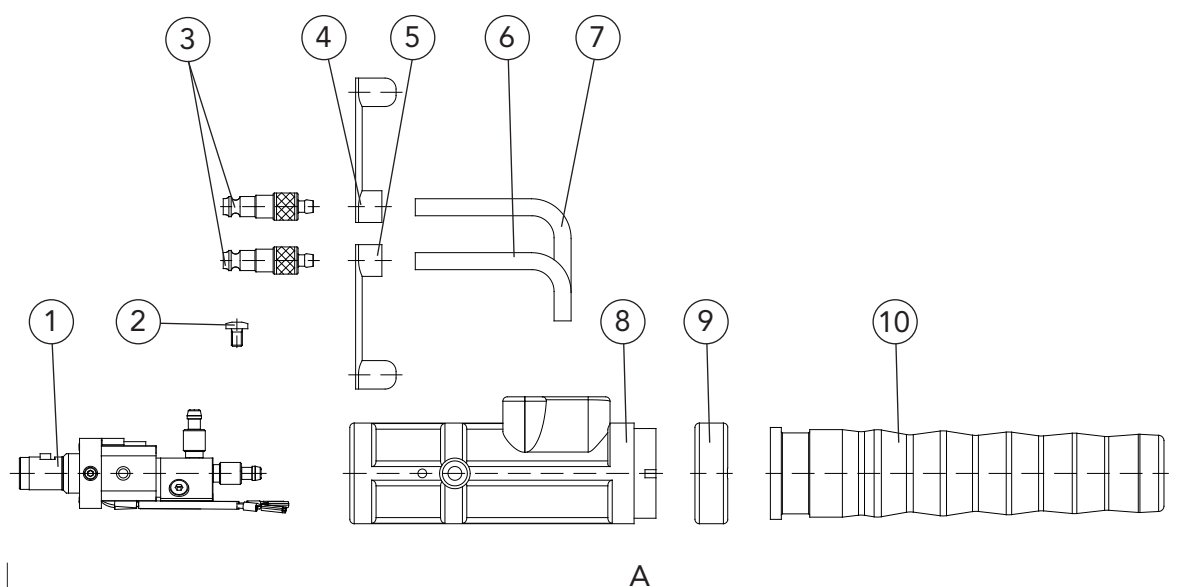


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Torch sets

Z - 306

Plug



Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 Z	624100330
1	Plug insert		DIX ME 300 SEZ	639116064
2	Holding screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	∅ 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

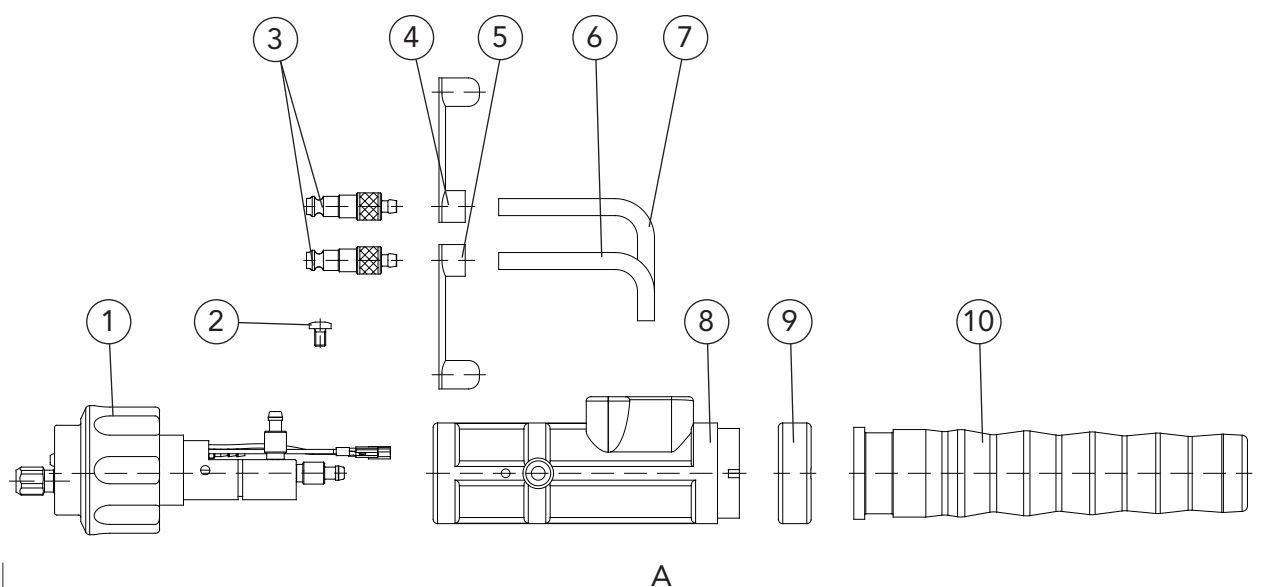
► Other fittings on request.

BLACKline

Torch sets

Z - 306 SAZ

Plug



02-0067

02-Manual welding torches-liquidV11 subject to change!

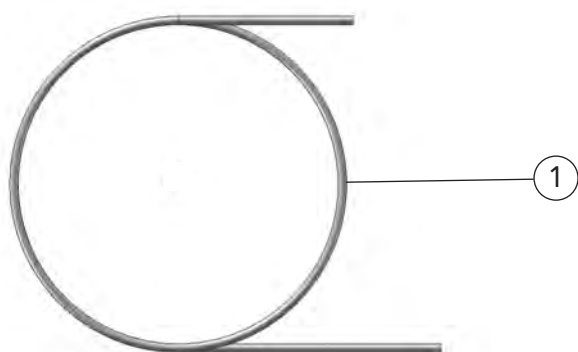
Pos.	Description	Dimension	Part number	Article number
A	Plug, complete		DIX KCZME 330 SAZ	624100331
1	Plug insert		DIX ME 300 SAZ	639116061
2	Holdin screw (10 pcs.)		DIX ME 300 HS	629070005
3	Water plug	ø 5.0 mm	DIX 16-2	629160000
4	Cap, blue		DIX VL 172	629172001
5	Cap, red		DIX VL 173	629172002
6	Connection hose, red	0.60 m	DIX VL 171 RED	629171004
7	Connection hose, blue	0.60 m	DIX VL 170 BLUE	629171003
8	Plug housing		DIX 12-3-510 SG	6391250011
9	Fixing ring		DIX 12-3-510 HR	6391250013
10	Plug sleeve		DIX ME 300 SM	629120000

► Other fittings on request.



Liner

for wire electrodes of non- and low alloyed steels

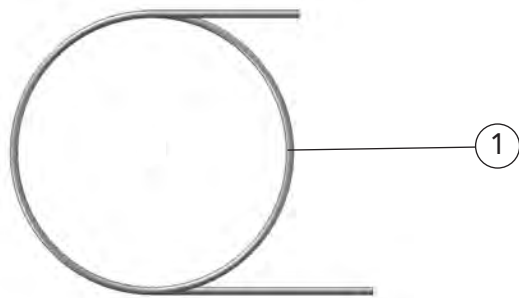


Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner For wire diameter 0.8 mm	ø 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner For wire diameter 1.0 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner For wire diameter 1.2 mm, in PUSH-PUSH/PULL wire diameter 1.0 mm	ø 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner For wire diameter 1.4 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.

Capillary liner

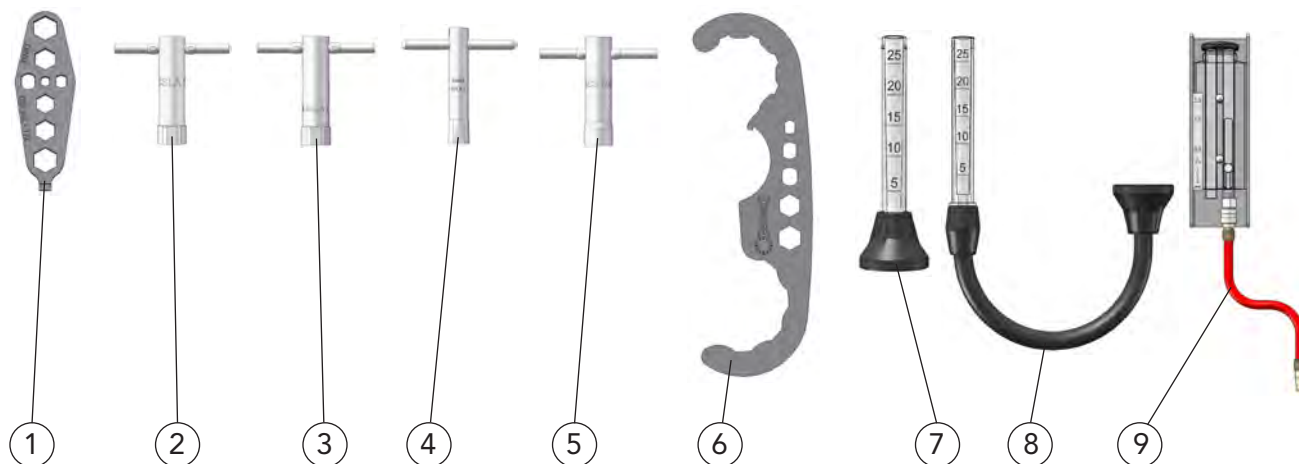
for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys



Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner For wire diameter 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner For wire diameter 1.0 and 1.2mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner For wire diameter 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.

Service tools



Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

02-0070

subject to change!

02-Manual welding torches-liquidV11



External retrofitting-set

DIX ZA 300 EX



DIX MS/MG 230 with DIX ZA 300 EX



DIX MPW 300, DIX MSZ 330 with DIX ZA 300 EX



DIX MPZ 304, DIX MSZ 304 with DIX ZA 300 EX

Technical data :

Retrofitting-set for:

DIX MS/MG 230	gas cooled
DIX MS/MG 330	gas cooled
DIX MWL/MWS 230	gas cooled
DIX MWL/MWS 330	gas cooled
DIX MSZ/MGZ 330	liquid cooled
DIX MSZ 304	liquid cooled
DIX MPZ 304	liquid cooled

Technical benefits:

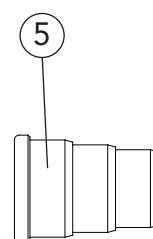
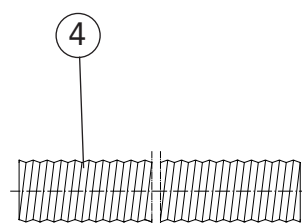
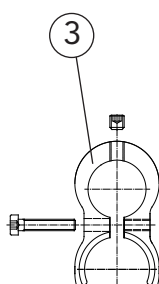
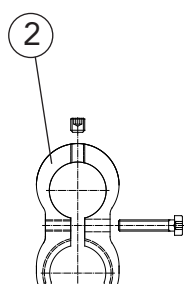
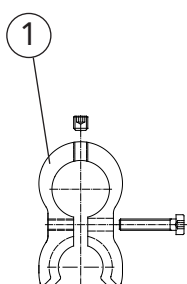
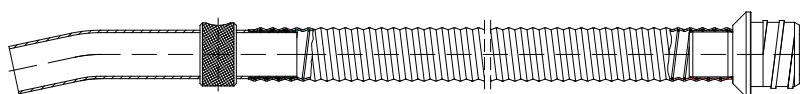
- Optimal grasping of fumes with the revolving extraction hose
- Extraction nozzle adjustable
- Extraction power with bypass controllable
- Easy assembly at the torch head
- High effectiveness by easy and mobile handling
- Easy service by separation from torch set and extraction hose

Application:

- Reliable health-, work- and environment protection at welding and brazing

External retrofitting-set

DIX ZA 300 EX



03-0072

subject to change!

03-Fume Extraction Systems\J11

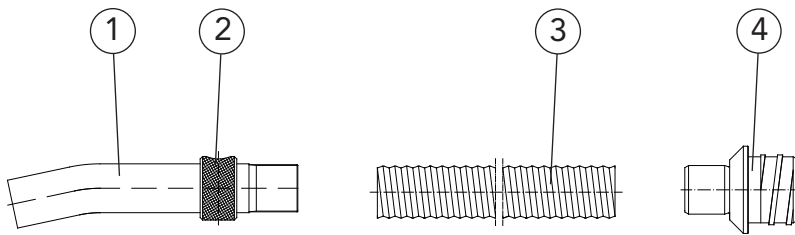
Pos.	Description	Part number	Article number
	External fume extractor, compl.	DIX ZA 300 EX	6287102302
1	Retaining bracket (for torch typ 230)	DIX ZAH 230 EX	6187122230
2	Retaining bracket (for torch typ 330)	DIX ZAH 330 EX	6287122330
3	Retaining bracket (for torch typ 304)	DIX ZAH 304 EX	6287122340
4	Hose	DIX ZAS 25-xx	61871425x
5	Reducer (for diameter: 40/45/50 mm)	DIX ZAR 25/50	618715025

xx - Standard length: 3.0 m and 4.0 m. Other lengths on request.



External retrofitting-set

DIX ZA 300 EX



Pos.	Description	Part number	Article number
1	Extractor nozzle	DIX ZAD 300 EX	6287112300
2	By-pass ring	DIX ZAN 100 EX	618712210011
3	Hose	DIX ZAS 230 EX-0.5	6187142230
4	Reducer	DIX ZAR 230 EX	6187152230
	Cable clip (without picture)		62944900611

03-0073

subject to change!

03-Fume Extraction Systems\J11

Integrated version

250/350/304



DIX MR 250



DIX MR 350 / DIX MRZ 350



DIX ZA MRSZ 304

Technical data (DIN EN 60 974-7):

DIX MR 250:	gas cooled
Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	250A / 60%
Mixed gas:	200A / 60%
Wire diameter:	0.8 - 1.0 mm
DIX MR 350	gas cooled
Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	300A/60%
Mixed gas:	250A/60%
Wire diameter:	0.9 - 1.2 mm
DIX MRZ 350	liquid cooled
Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	350A/60%
Mixed gas:	300A/60%
Wire diameter:	0.9 - 1.2 mm

Technical benefits:

- Pollutants are sucked off right at the origin place
- High effectiveness by easy and mobile handling
- Extraction power with bypass controllable
- Exact wire feeding by powerful wire feeder modules

Application:

- Reliable health-, work- and environment protection at welding and brazing

DIX ZA MRSZ 304

Conversion kit for simple replacement of the handle

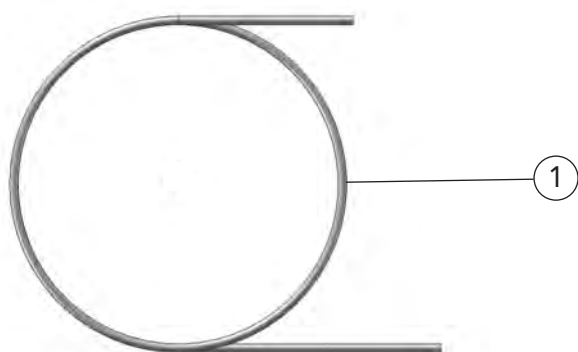
Technical

data same as DIX MSZ 304

- Easy service by separation from torch set and extraction hose

Liner

for wire electrodes of non- and low alloyed steels



03-0075

subject to change!

03-Fume Extraction Systems\J11

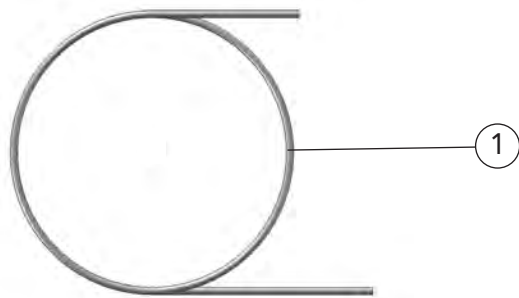
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner For wire diameter 0.8 mm	ø 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner For wire diameter 1.0 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner For wire diameter 1.2 mm, in PUSH-PUSH/PULL wire diameter 1.0 mm	ø 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner For wire diameter 1.4 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.



Capillary liner

for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys

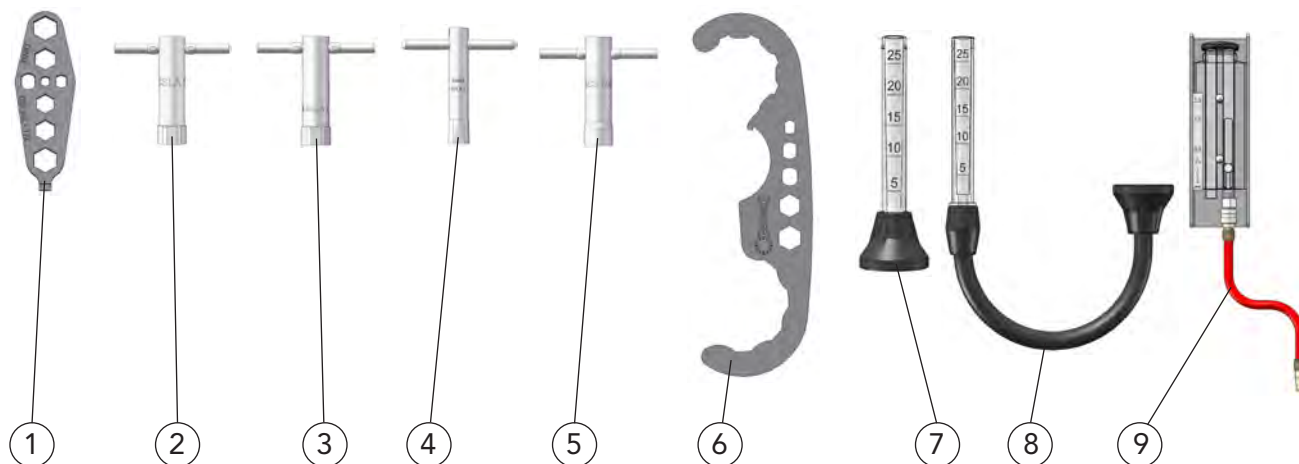


Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner For wire diameter 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner For wire diameter 1.0 and 1.2mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner For wire diameter 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.



Service tools



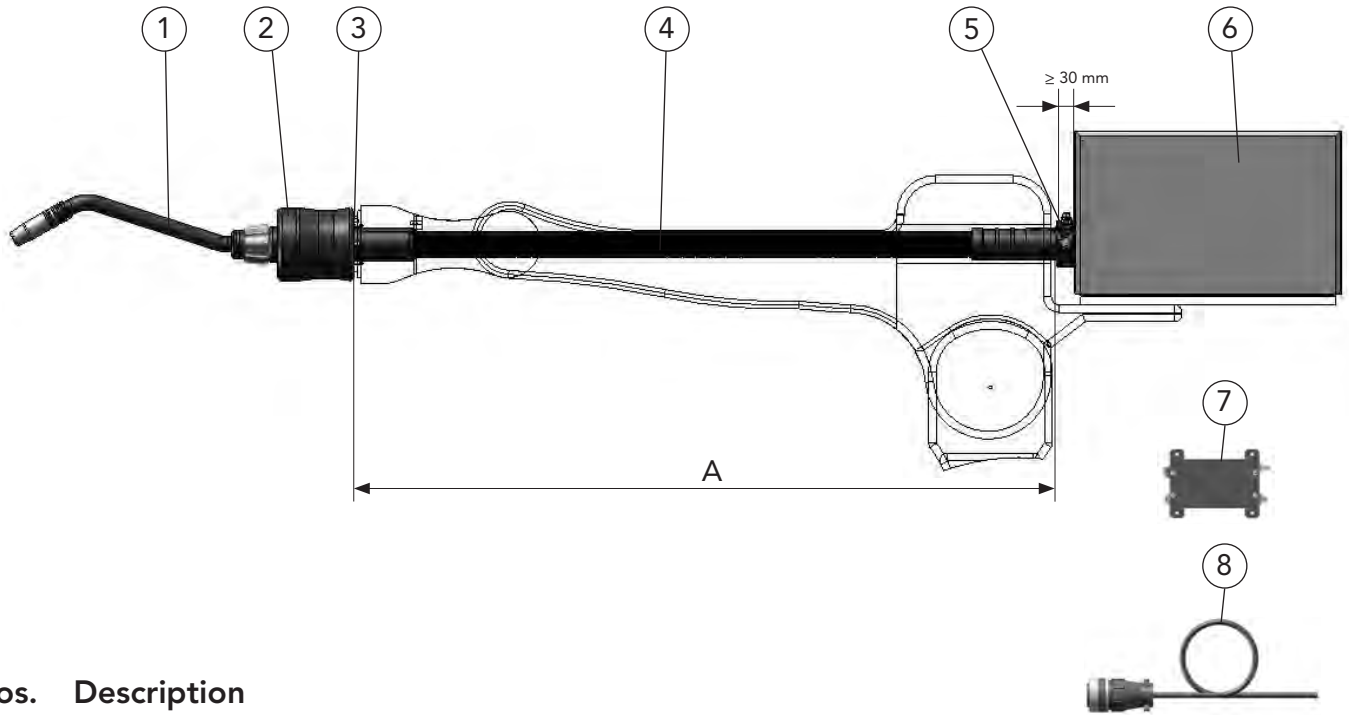
Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

03-0077

subject to change!

03-Fume Extraction Systems\11



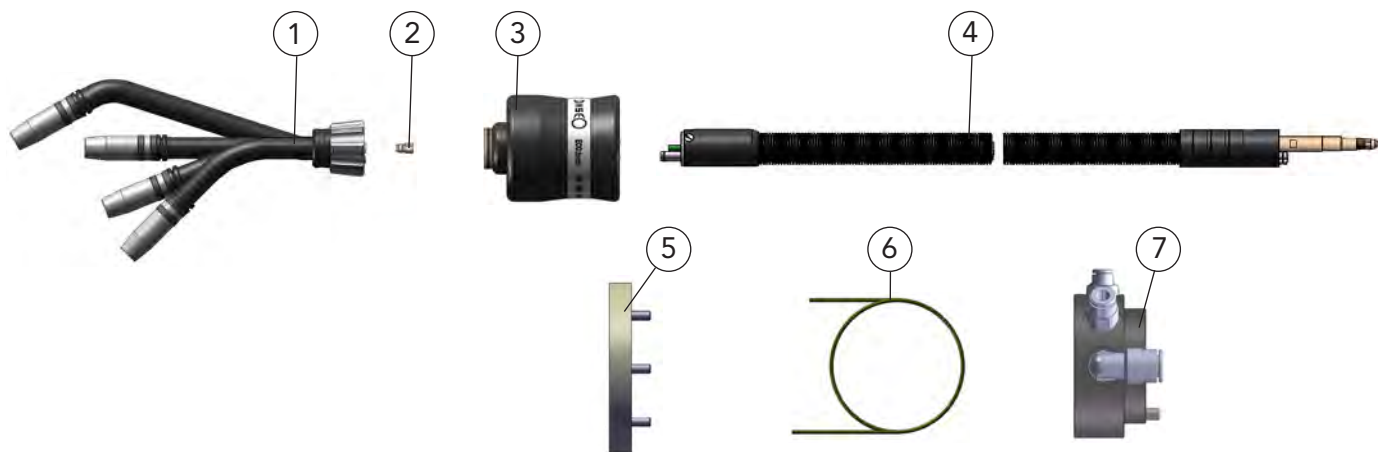


Pos. Description

- A Length depends on the position of the wire feeder
- 1 Torch head, complete
- 2 Rotary interface
F with deflection / S without deflection
- 3 Adapter flange, ADFR
Depends on the robot type
- 4 Torch set
- 5 Connection set, REMA
Depends on the wire feeder type,
Minimum distance for REMA 100 SAZ 100 mm
- 6 Wire feeder
- 7 Protection modul, REMO
- 8 Connection cable, REAK

► For all common hollow shaft robots.
Variants deviating of the standard fittings on request.





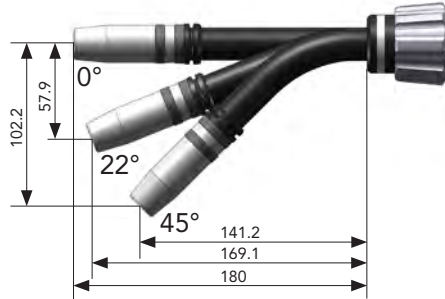
Pos.	Discription	Dimension	Part number	Article number
1	Torch head, complete		DIX METR 35x	6311330xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RET 320 F	687211001
	Rotary interface Rigid version, without deflection		DIX RET 320 S	687201001
4	Torch set The torch set length [x] depends on the robot type		DIX RETECO 320-x	630135001xxx
5	Adapter flange The adapter flange type [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For Shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fitting on request.
For all common wire feeder systems.



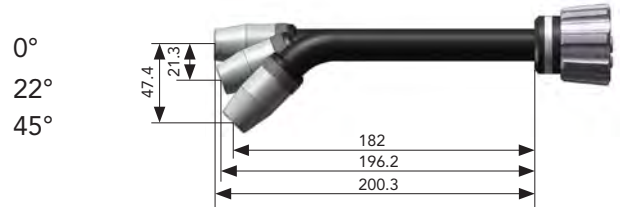
A

MET 35x

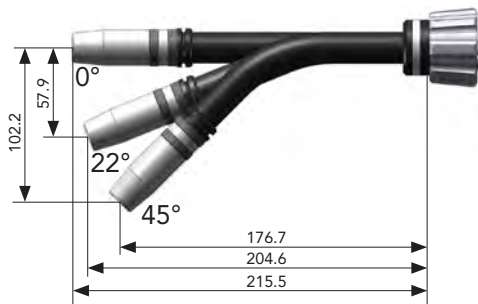


B

MET 39x



METR 35x



METR 39x



04-0080

subject to change!

04-ECOtorch Robotic Torches-gasU11

Pos.	Description	Dimension	Part number	Article number
A	Torch head, complete	0°	DIX MET 350	631133008
	Torch head, complete	22°	DIX MET 352	631133009
	Torch head, complete	45°	DIX MET 354	631133010
	Torch head, complete	0°	DIX METR 350	631133016
	Torch head, complete	22°	DIX METR 352	631133017
	Torch head, complete	45°	DIX METR 354	631133015
B	Torch head, complete	0°	DIX MET 390	631133004
	Torch head, complete	22°	DIX MET 392	631133005
	Torch head, complete	45°	DIX MET 394	631133006
	Torch head, complete	0°	DIX METR 390	631133019
	Torch head, complete	22°	DIX METR 392	631133020
	Torch head, complete	45°	DIX METR 394	631133021
	Connecting piece		DIX MES 300/500	639061500041
	Without picture			



MET(R) 3xx Torch heads

Dimension sheet

gas cooled

MIG/MAG



A

METR 358



B

METR 398



04-0081

Pos.	Discription	Dimension	Part number	Article number
A	Torch head, complete	30°	DIX METR 358	631133018
B	Torch head, complete	30°	DIX METR 398	631133022
	Connecting piece Without picture		DIX MES 300/500	639061500041

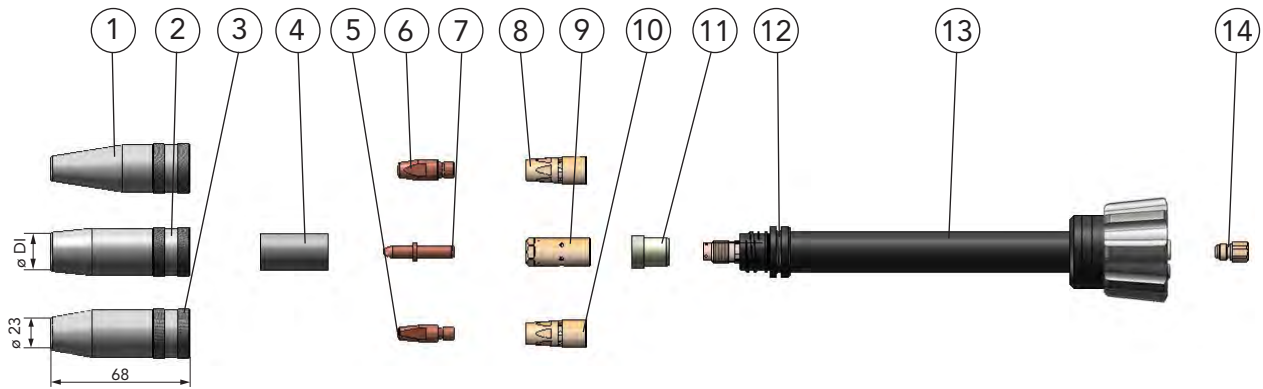
subject to change!

04-ECOtorch Robotic Torches-gasU11



MET(R) 35x Torch heads
Spare parts and wear parts
gas cooled

MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5215 A	6390152150
4	Insulator For pos. 2 and 3		DIX 2-3-520	6390252000
5	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
6	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
7	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
8	Tip adapter	M6	DIX GS 300 M6	629040301
9	Clamp nut		DIX CS 300	6390433000
10	Tip adapter	M8	DIX GS 300 M8	629040302
11	Insulating sleeve		DIX IH 300	6391053000
12	O - ring	(10 pcs.)		639060004
13	Torch neck	0°	DIX 6-3-350 MET	639063350
	Torch neck	22°	DIX 6-3-352 MET	639063352
	Torch neck	45°	DIX 6-3-354 MET	639063354
	Torch neck	0°	DIX 6-3-350 METR	639067350
	Torch neck	22°	DIX 6-3-352 METR	639067352
	Torch neck	45°	DIX 6-3-354 METR	639067354
	Torch neck	Swan neck, 30°	DIX 6-3-358 METR	639067358
14	Connecting piece		DIX MES 300/500	639061500041

04-0082

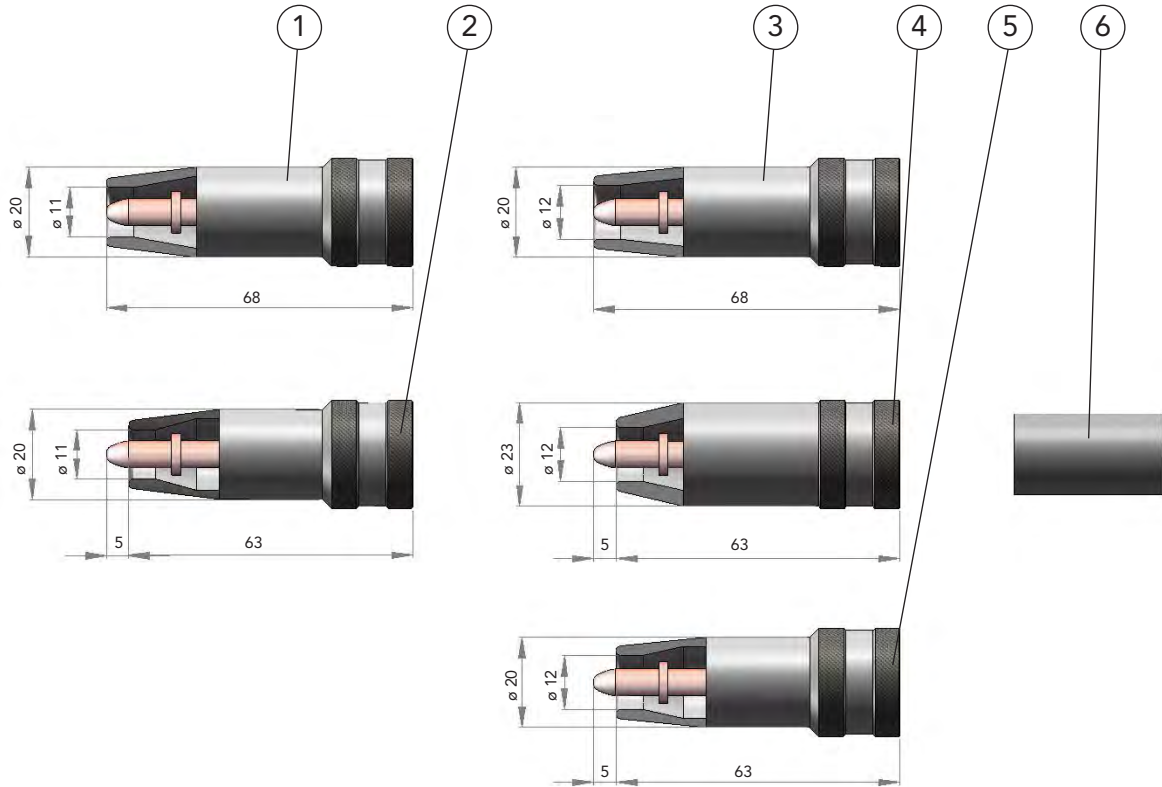
subject to change!

04-ECOtorch Robotic Torches-gasU11



xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

DINSE G.m.b.H. · Tarpen 36 · 22419 Hamburg · Tel: +49-(0)40-658 75-0 · Fax: -200 · E-Mail: info@dinse-gmbh.com · www.dinse-gmbh.com



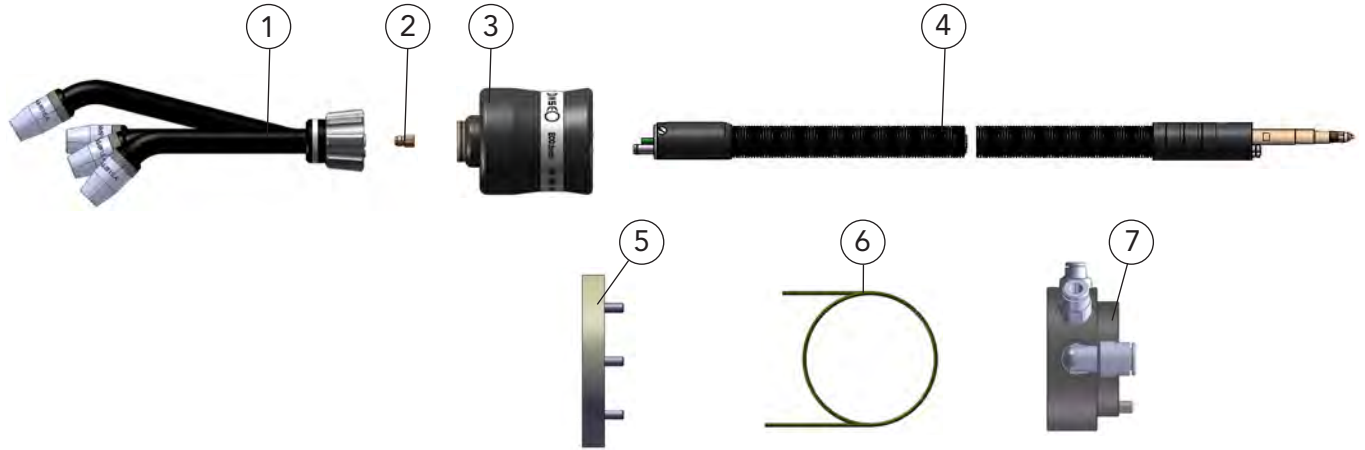
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AR	6390152115
2	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AKR	6390152116
3	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AR	6390152125
4	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AK	6390152121
5	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AKR	6390152126
6	Insulator For pos. 4		DIX 2-3-520	6390252000

► K - short, R - reduced
Other versions on request.

04-0083

04-ECOtorch Robotic Torches-gasU11 subject to change!





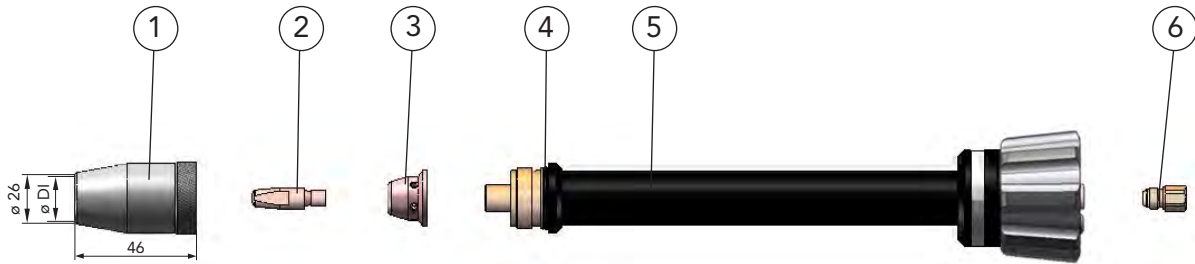
Pos.	Discription	Dimension	Part number	Article number
1	Torch head, complete		DIX METR 39x	6311330xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RET 320 F	687211001
	Rotary interface Rigid version, without deflection		DIX RET 320 S	687201001
4	Torch set The torch set length [x] depends on the robot type		DIX RETECO 320-x	630135001xxx
5	Adater flange The adapter flange type [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For Shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fitting on request.
For all common wire feeder systems.



MET(R) 39x Torch heads
Spare parts and wear parts
gas cooled

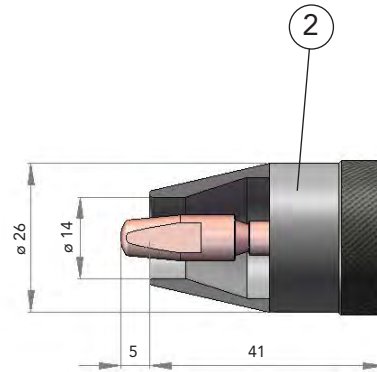
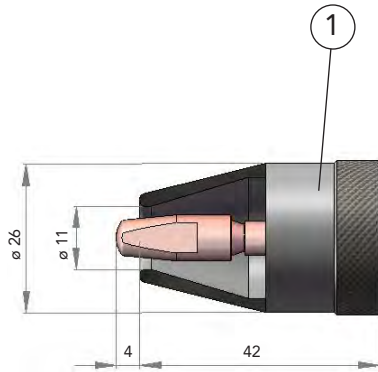
MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Gas diffuser		DIX GVT 590	6391059001
	Gas diffuser	(10 pcs.)	DIX GVT 590 K	6391059003
4	O - ring	(10 pcs.)		639060004
5	Torch neck	0°	DIX 6-3-390 MET	639061022
	Torch neck	22°	DIX 6-3-392 MET	639061023
	Torch neck	45°	DIX 6-3-394 MET	639061024
	Torch neck	0°	DIX 6-3-390 METR	639067390
	Torch neck	22°	DIX 6-3-392 METR	639067392
	Torch neck	45°	DIX 6-3-394 METR	639067394
	Torch neck	Swan neck, 30°	DIX 6-3-398 METR	639067398
6	Connection piece		DIX MES 300/500	639061500041

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameter on request.





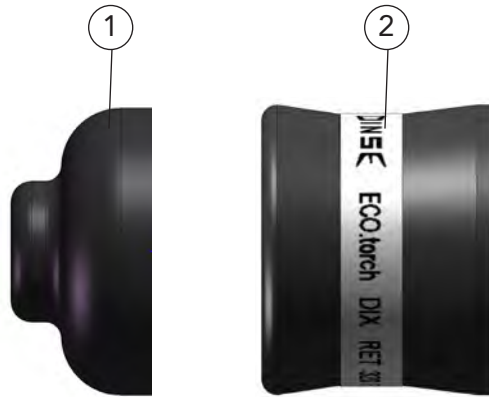
Pos.	Discription	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 11 mm	DIX 1-3-5911 A	6390159110
2	Gas nozzle	DI \varnothing 14 mm	DIX 1-3-5914	6390159149

04-0086

subject to change!

04-ECOtorch Robotic Torches-gas\11





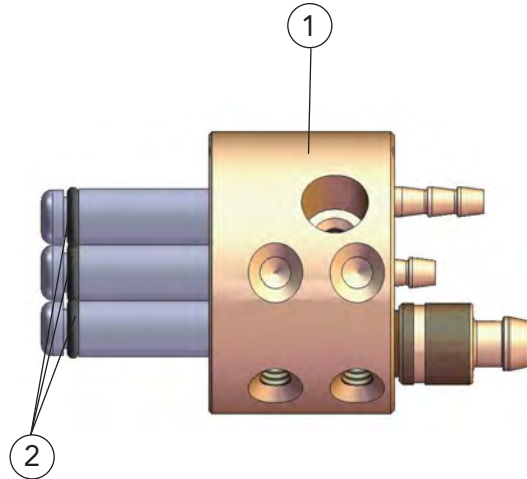
Pos.	Description	Part number	Artikle number
1	Dust boot	DIX RET 072	687001002
2	Handle, complete	DIX RET 074 F	687211003
	Handle, complete	DIX RET 074 S	687201003

04-0087

subject to change!

04-ECOTorch Robotic Torches-gasU11





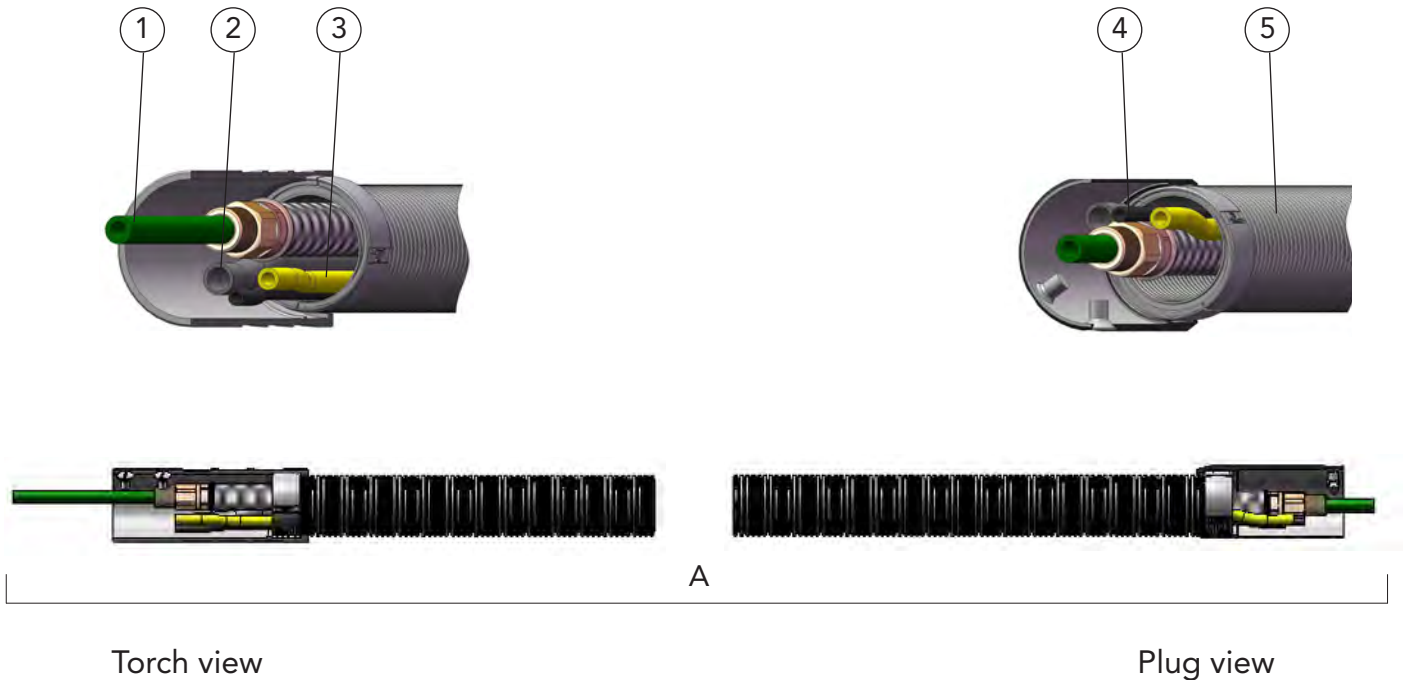
04-0088

subject to change!

04-ECOtorch Robotic Torches-gas\11

Pos.	Description	Dimension	Part number	Article number
1	ECO - connection		DIX RETECO 150	639151013
2	O - ring	(10 pcs.)		629061014





Torch view

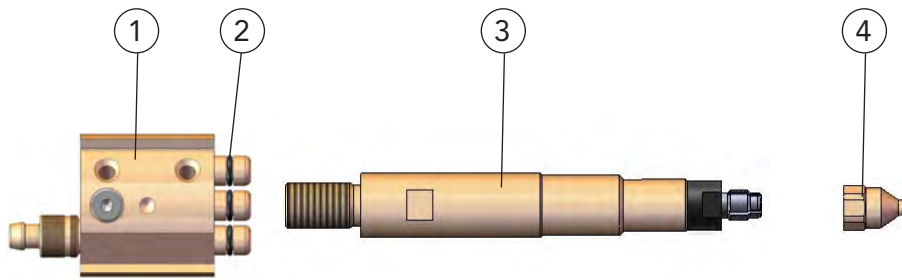
Plug view

Pos.	Description	Part number	Article number
A	Supply hose, complete	DIX VLECO 320- x	632131011x
1	Binary cable	DIX VLECO 200-x	639206038x
2	Air blast hose	DIX VLRET 240-x	639246101x
3	Gas hose	DIX VL 180-x	639186001x
4	Checking gas hose	DIX VLRET 242-x	639247101x
5	Cover hose set	DIX VLECO 230-x	639231006x

x - Length depends on the torch set description.



Connection wire feeder



Pos.	Description	Dimension	Part number	Article number
1	Plug inset		DIX RET 110	639112001
2	O - ring	(10 pcs.)		629061014
3	Connecting mandrel For Dinse torch set connection		DIX READ 100	639151007
4	Inlet nozzle		DIX RET 301	639151003

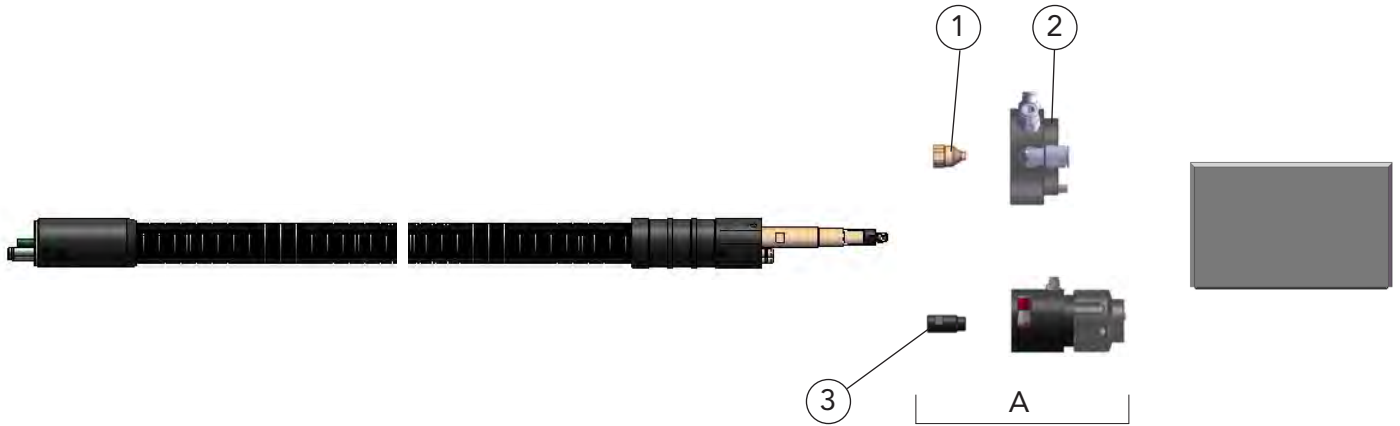
► Other connecting mandrel depends on the wire feed type on request.

04-0090

subject to change!

04-ECOtorch Robotic Torches-gasU11





04-0091

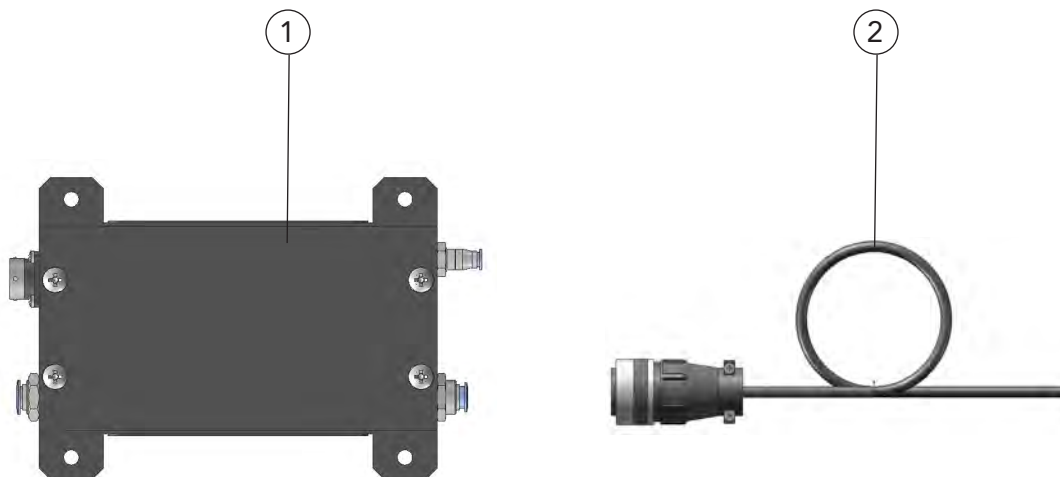
subject to change!

04-ECOtorch Robotic Torches-gasU11

Pos.	Description	Dimension	Part number	Article number
1	Intake nozzle		DIX RET 301	639151003
2	Connection set Depends on the wire feeder type		DIX REMA 300/0xx	7182330xx
3	Guide sleeve Substitute for Intake nozzle DIX RET 301		DIX RET 303	718200309
A	Connection set		DIX REMA 100 SAZ	718231001

► Variants deviating of the special fittings on request.





04-0092

subject to change!

04-ECOtorch Robotic Torches-gasU11

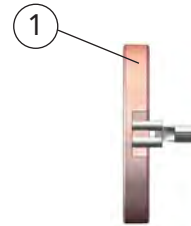
Pos.	Description	Dimension	Part number	Article number
1	Protection modul		DIX REMO 101	719283103
2	Connection cable	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the special fittings on request.





Sample application



Pos.	Description	Part number	Article number
1	Contact clamp For fitting robotic and automatic torch sets with sensor function through gas nozzle.	DIX K 180 ME	687311011

04-0093

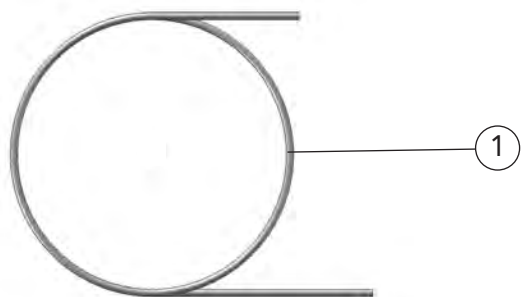
subject to change!

04-ECOtorch Robotic Torches-gasU11



Capillary liner

for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys



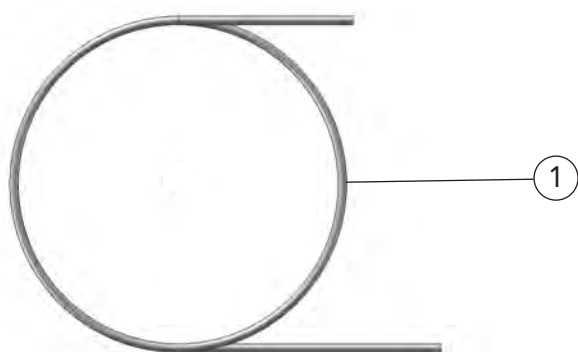
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner for wire-ø 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner for wire-ø 1.0 und 1.2mm, at PUSH-PUSH/PULL wire-ø 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner wire-ø 1.6 mm, at PUSH-PUSH/PULL wire-ø 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner for wire-ø 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner for wire-ø 1.0 and 1.2mm, at PUSH-PUSH/PULL wire-ø 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner for wire-ø 1.0 and 1.2mm, at PUSH-PUSH/PULL wire-ø 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.



Liner

for wire electrodes of non- and low alloyed steels



04-0095

subject to change!

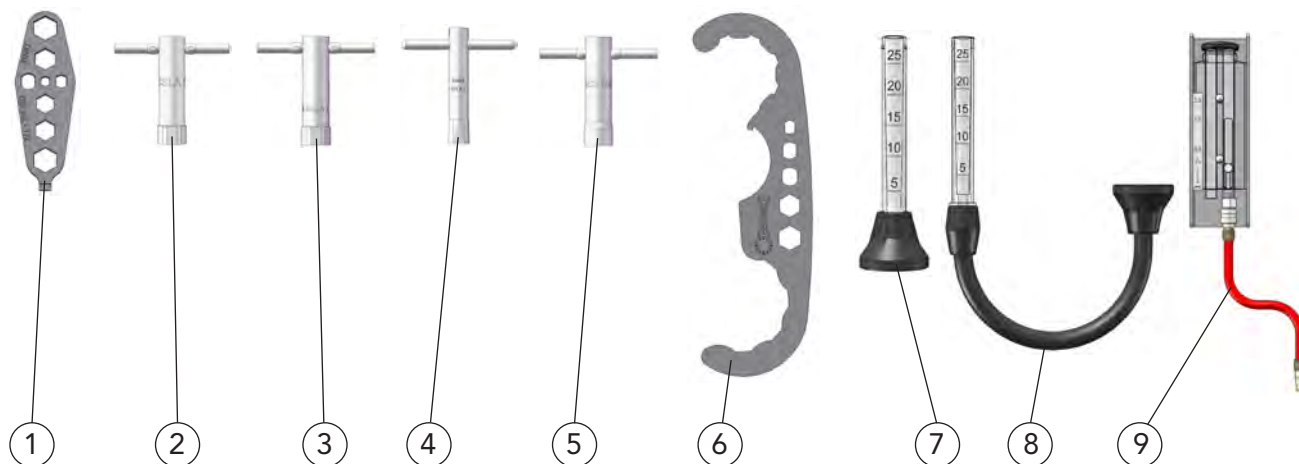
04-ECOtorch Robotic Torches-gasU11

Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner for wire- \varnothing 0.8 mm	\varnothing 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner for wire- \varnothing 1.0 mm, at PUSH-PUSH/PULL wire- \varnothing 0.8 mm	\varnothing 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner for wire- \varnothing 1.2 mm, at PUSH-PUSH/PULL wire- \varnothing 1.0 mm	\varnothing 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner for wire- \varnothing 1.4 mm, at PUSH-PUSH/PULL wire- \varnothing 1.2 mm	\varnothing 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner for wire- \varnothing 1.6 mm, at PUSH-PUSH/PULL wire- \varnothing 1.2 mm	\varnothing 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.



Service tools



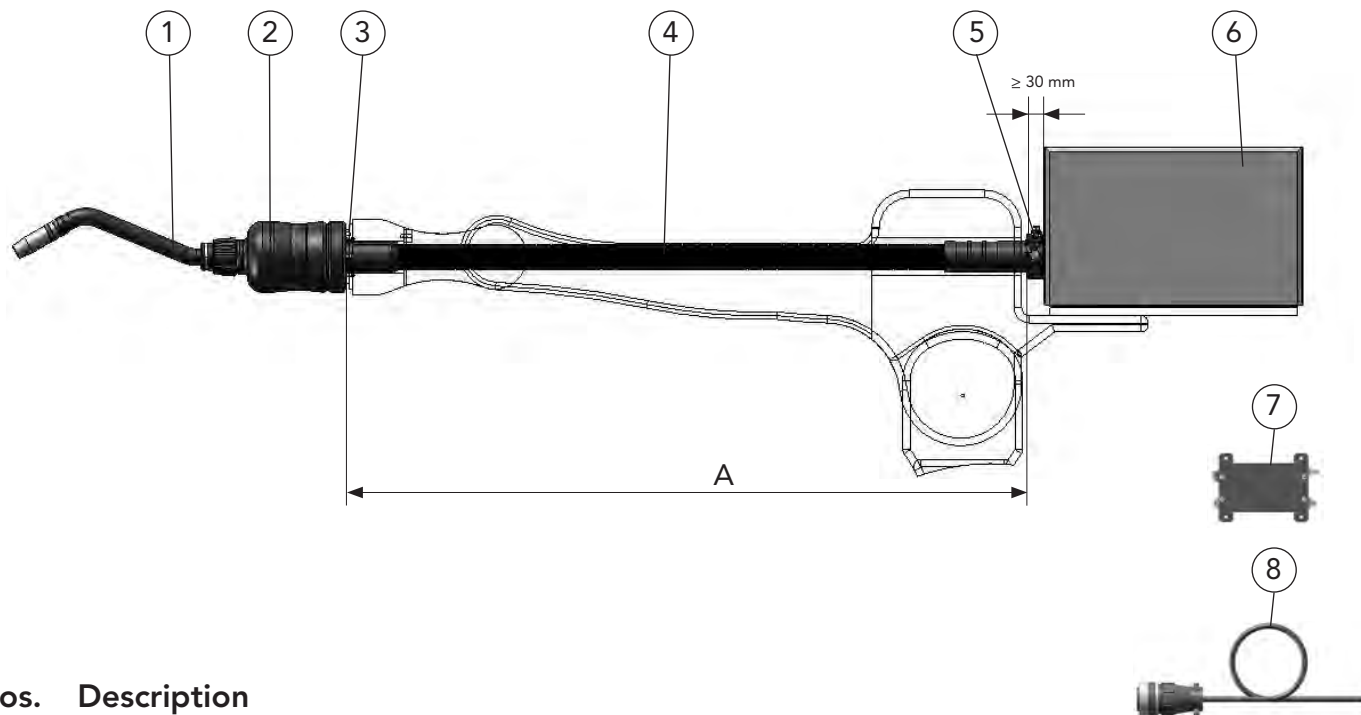
Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

04-0096

subject to change!

04-ECOtorch Robotic Torches-gasU11



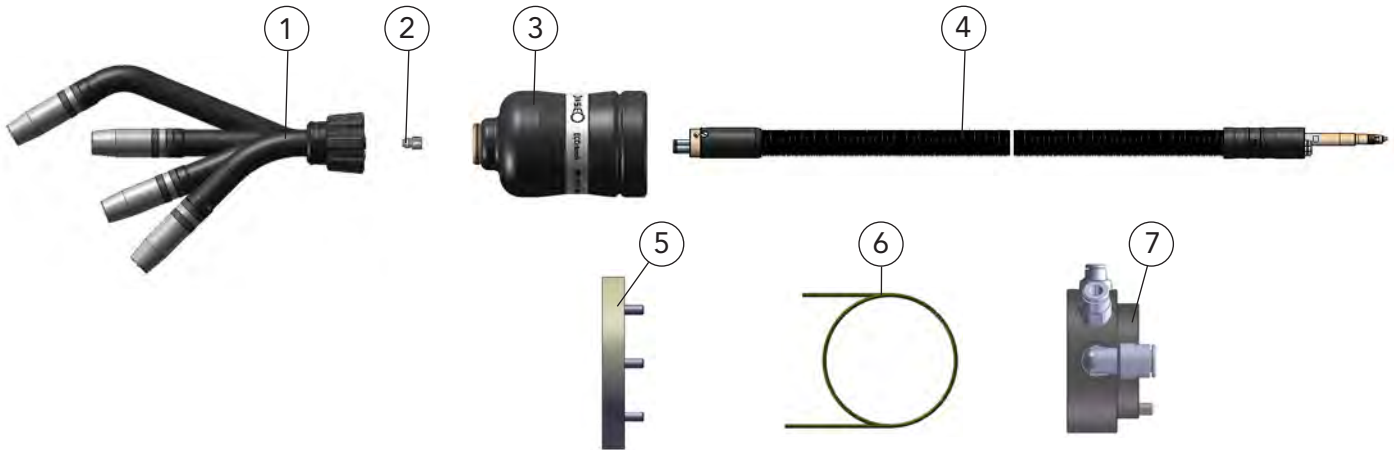


Pos. Description

- A Length depends on the position of the wire feeder
- 1 Torch head, complete
- 2 Rotary interface
F with deflection / S without deflection
- 3 Adapter flange, ADFR
Depends on the robot type
- 4 Torch set
- 5 Connection set, REMA
Depends on the wire feeder type,
Minimum distance for REMA 100 SAZ 100 mm
- 6 Wire feeder
- 7 Protection modul, REMO
- 8 Connection cable, REAK

► For all common hollow shaft robots.
Variants deviating of the standard fittings on request.



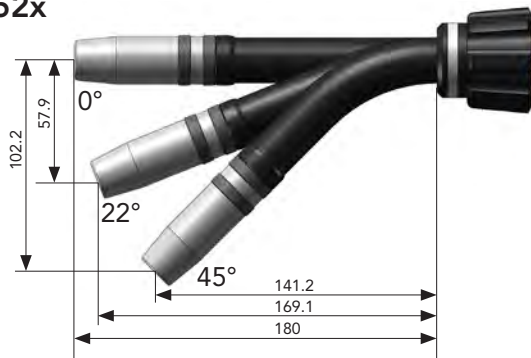


Pos.	Description	Dimension	Part number	Article number
1	Torch head, complete		DIX METZ 52x	6313520xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RETZ 620 F	687311001
	Rotary inter face Rigid version, without deflection		DIX RETZ 620 S	687301001
4	Torch set The torch set length [x] depends on the robot type		DIX RETZ 620-x	630136001xxx
5	Adapter flange The adapter flange [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

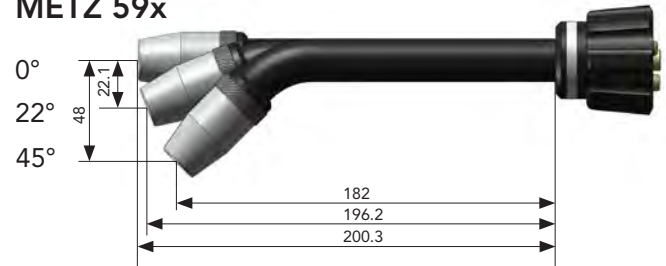
► Variants deviating of the standard fittings on request.
For all common wire feeder systems.



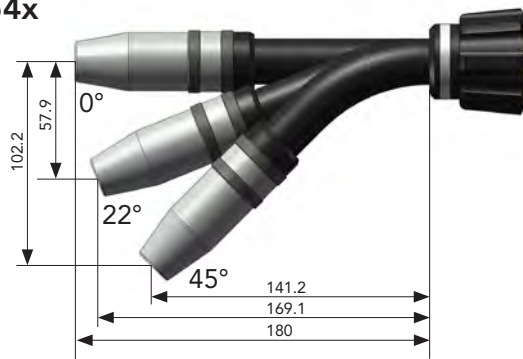
A
METZ 52x



B
METZ 59x



C
METZ 54x



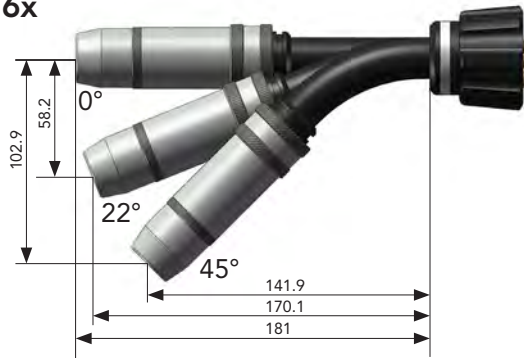
Pos.	Description	Dimension	Part number	Article number
A	Torch head, complete	0°	DIX METZ 520	631352001
	Torch head, complete	22°	DIX METZ 522	631352002
	Torch head, complete	45°	DIX METZ 524	631352003
B	Torch head, complete	0°	DIX METZ 590	631359001
	Torch head, complete	20°	DIX METZ 592	631359002
	Torch head, complete	45°	DIX METZ 594	631359003
C	Torch head, complete	0°	DIX METZ 540	631354001
	Torch head, complete	22°	DIX METZ 542	631354002
	Torch head, complete	45°	DIX METZ 544	631154001
	Connecting piece Without picture		DIX MES 300/500	639061500041

05-0099

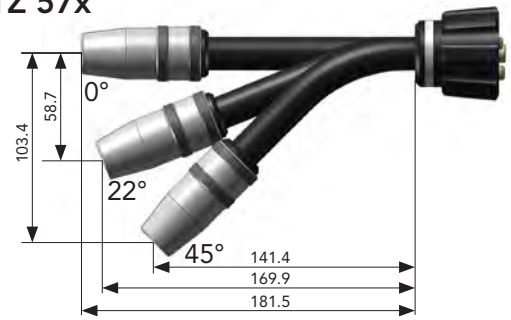
05-ECOtorch Robotic Torches-liquidU11 subject to change!



D
METZ 56x



E
METZ 57x



Pos.	Description	Dimension	Part number	Article number
D	Torch head, complete	0°	DIX METZ 560	631356001
	Torch head, complete	22°	DIX METZ 562	631356002
	Torch head, complete	45°	DIX METZ 564	631356003
E	Torch head, complete	0°	DIX METZ 570	631357001
	Torch head, complete	22°	DIX METZ 572	631357002
	Torch head, complete	45°	DIX METZ 574	631357003
	Connecting piece Without picture		DIX MES 300/500	639061500041

05-00100

05-ECOtorch Robotic Torches-liquidU11 subject to change!



A

METZ 528



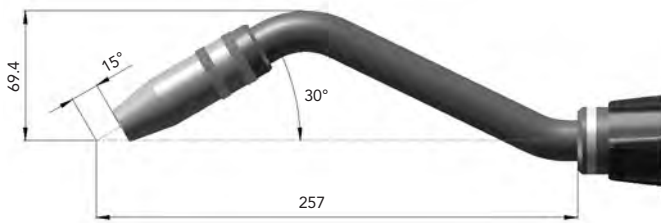
B

METZ 598



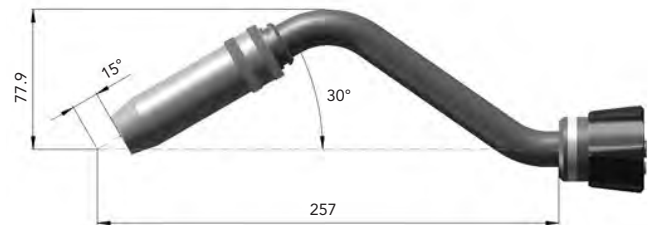
C

METZ 548



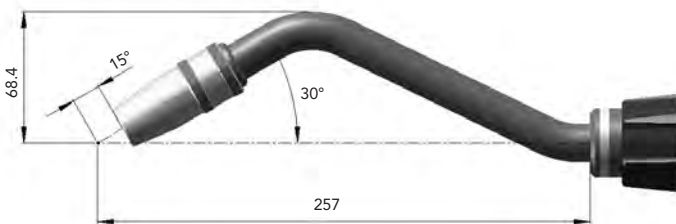
D

METZ 568



E

METZ 578



Pos.	Description	Dimension	Part number	Article number
A	Torch head, complete	30°	DIX METZ 528	631352008
B	Torch head, complete	30°	DIX METZ 598	631359009
C	Torch head, complete	30°	DIX METZ 548	631154019
D	Torch head, complete	30°	DIX METZ 568	631356011
E	Torch head, complete	30°	DIX METZ 578	631357005
	Connection piece		DIX MES 300/500	639061500041
	Without picture			

05-00101

subject to change!

05-ECOtorch Robotic Torches-liquidU11

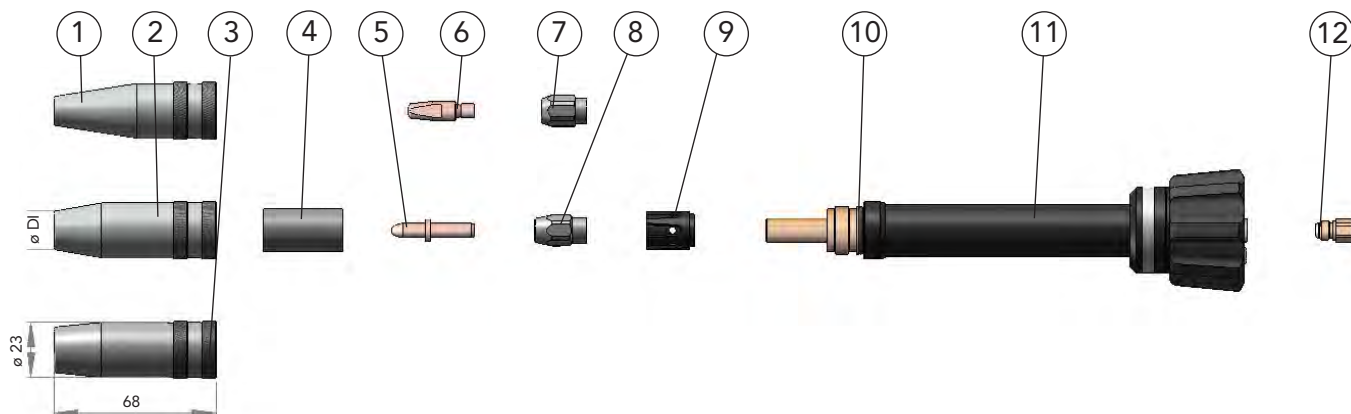


METZ 52x Torch heads

Spare parts and wear parts

liquid cooled

MIG/MAG



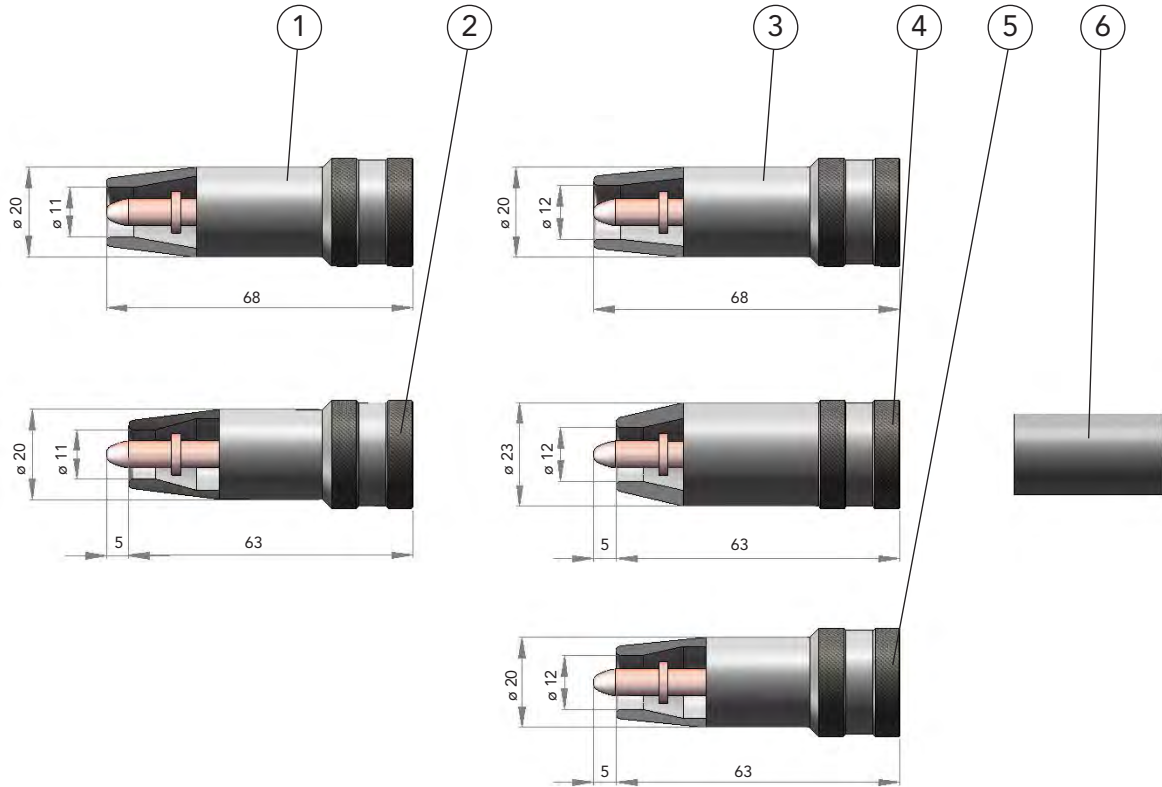
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø15 mm	DIX 1-3-5215 A	6390152150
4	Insulator For pos. 2 and 3		DIX 2-3-520	6390252000
5	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
6	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Tip adapter		DIX GS 1-K	618150001
8	Clamp nut		DIX 4-1-MAS	6390452000
9	Gas diffuser		DIX 10-1-MAS	6391052000
10	O - ring	(10 pcs.)		639060002
11	Torch neck	0°	DIX 6-3-520 METZ	6390635200
	Torch neck	22°	DIX 6-3-522 METZ	6390635220
	Torch neck	45°	DIX 6-3-524 METZ	6390635240
	Torch neck	Swan neck, 30°	DIX 6-3-528 METZ	6390635280
12	Connection piece		DIX MES 300/500	639061500041

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameter on request.

05-00102

05-ECOtorch Robotic Torches-liquidU11 subject to change!





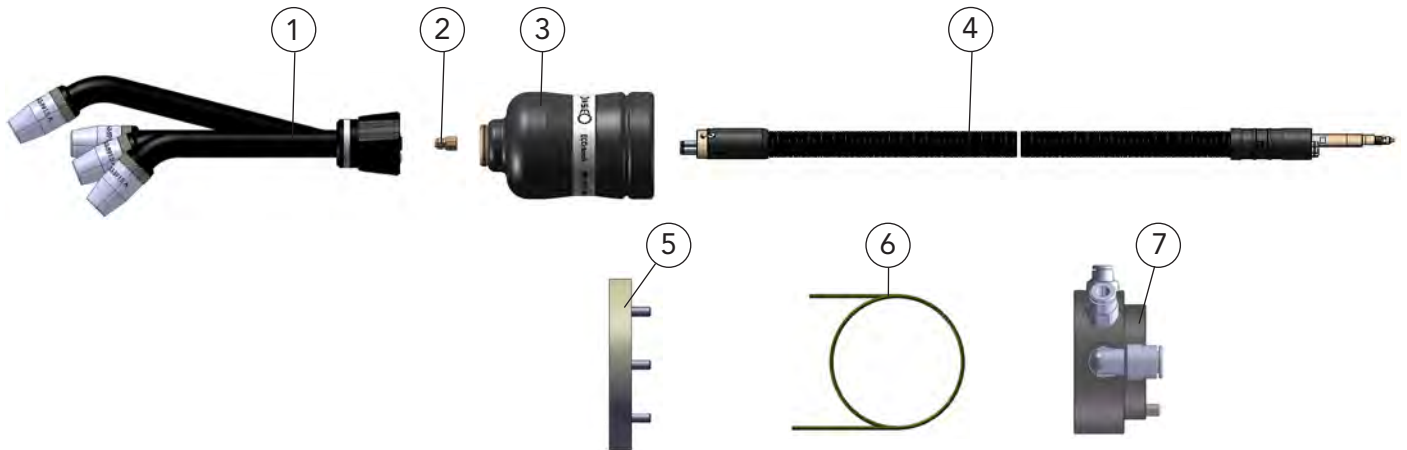
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AR	6390152115
2	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AKR	6390152116
3	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AR	6390152125
4	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AK	6390152121
5	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AKR	6390152126
6	Insulator For pos. 4		DIX 2-3-520	6390252000

► K - short, R - reduced
Other versions on request.

05-00103

05-ECOtorch Robotic Torches-liquid\U11 subject to change!





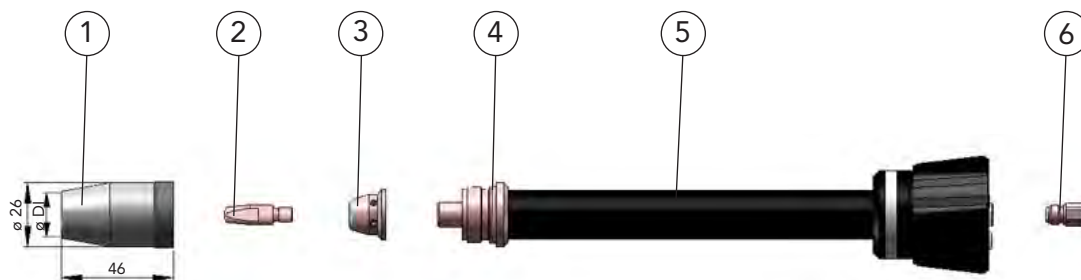
Pos.	Description	Dimension	Part number	Article number
1	Torch head, complete		DIX METZ 59x	6313590xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RETZ 620 F	687311001
	Rotary interface Rigid version, without deflection		DIX RETZ 620 S	687301001
4	Torch set The torch set length [x] depends on the robot type		DIX RETZ 620-x	630136001xxx
5	Adapter flange The adapter flange type [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fitting on request.
For all common wire feeder systems.



METZ 59x Torch heads
Spare parts and wear parts
liquid cooled

MIG/MAG



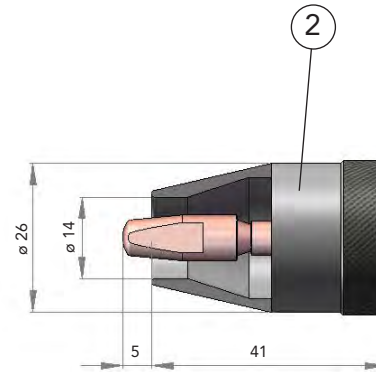
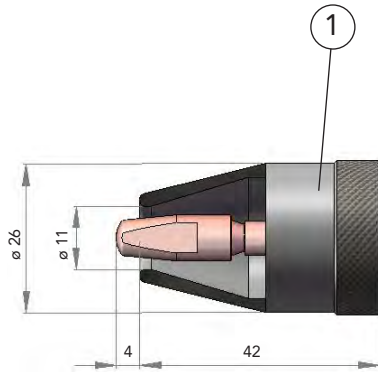
05-00105

05-ECOtorch Robotic Torches-liquidU11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Gas diffusor		DIX GVT 590	6391059001
	Gas diffusor	(10 pcs.)	DIX GVT 590 K	6391059003
4	O - ring	(10 pcs.)		639060001
5	Torch neck	0°	DIX 6-3-590 METZ	6390635900
	Torch neck	22°	DIX 6-3-592 METZ	6390635920
	Torch neck	45°	DIX 6-3-594 METZ	6390635940
	Torch neck	Swan neck, 30°	DIX 6-3-598 METZ	6390635980
6	Connection piece		DIX MES 300/500	639061500041

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameter on request.



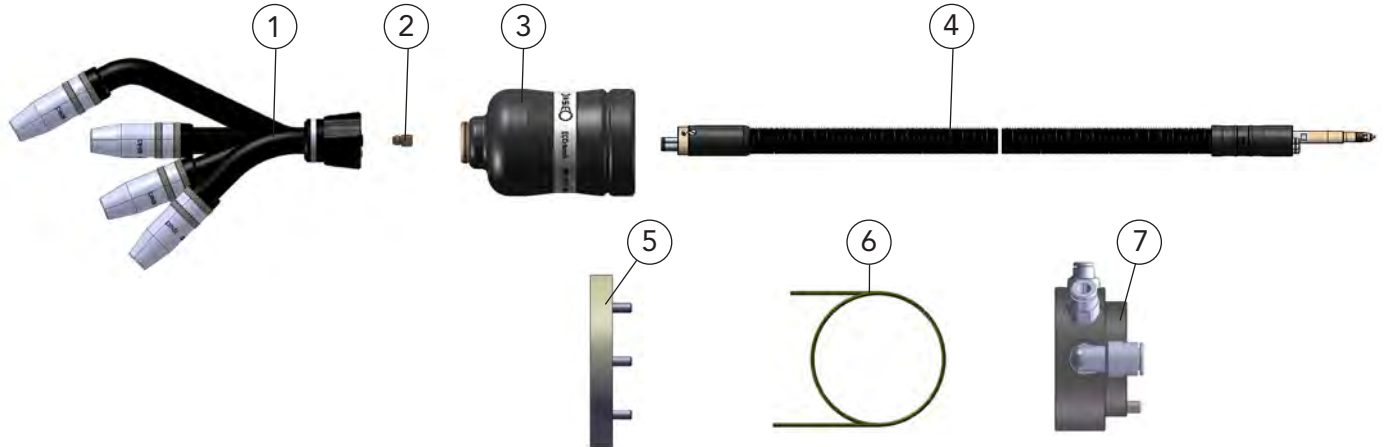


05-00106

05-ECOtorch Robotic Torches-liquid\U11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 11 mm	DIX 1-3-5911 A	6390159110
2	Gas nozzle	DI \varnothing 14 mm	DIX 1-3-5914	6390159149





Pos.	Description	Dimension	Part number	Article number
1	Torch head, complete		DIX METZ 54x	6313540xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RETZ 620 F	687311001
	Rotary interface Rigid version, without deflection		DIX RETZ 620 S	687301001
4	Torch set The torch set length [x] depends on the robot type		DIX RETZ 620-x	630136001xxx
5	Adapter flange The adapter flange type [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fitting on request.
For all common wire feeder systems.

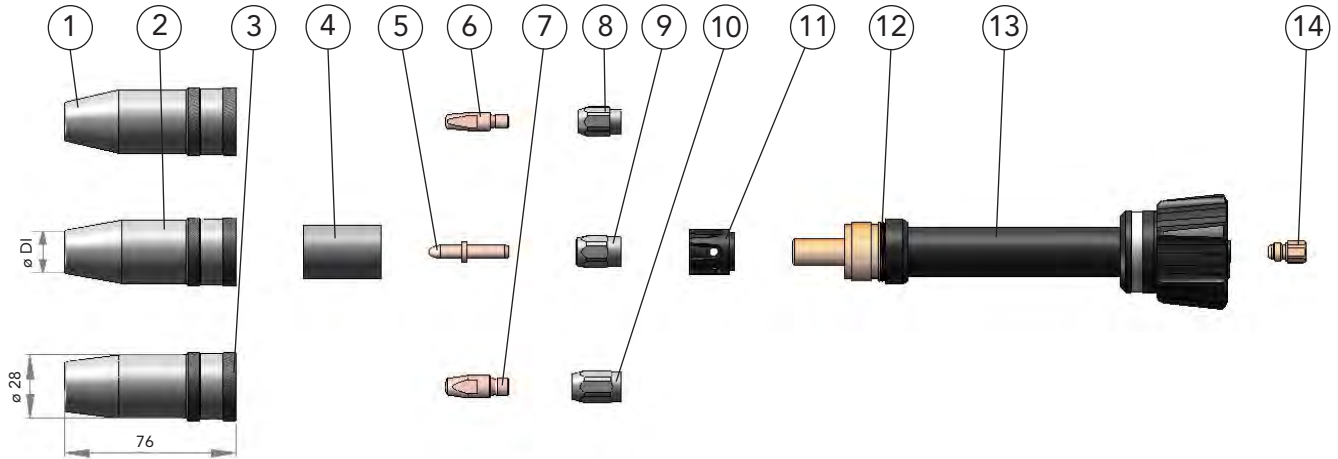


METZ 54x Torch heads

Spare parts and wear parts

liquid cooled

MIG/MAG



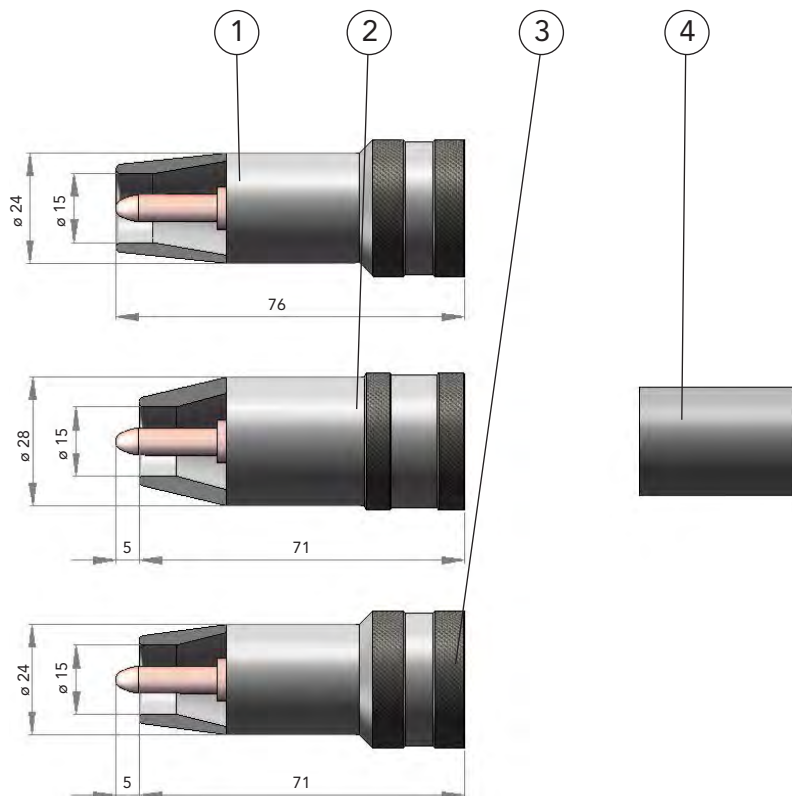
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø13 mm	DIX 1-3-5413 A	6390154130
2	Gas nozzle	DI ø15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	DI ø18 mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Contact tip	ø 8 x 45 mm	DIX 3-2-xx SR	6290354xx
6	Contact tip	M6 x 24 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Tip adapter	M6	DIX GS 2 M6	628150006
9	Clamp nut		DIX 4-2-MAS	6390454000
10	Tip adapter	M8	DIX GS 2 M8	628150008
11	Gas diffusor		DIX 10-3-540	6391054000
12	O - ring	(10 pcs.)		639060003
13	Torch neck	0°	DIX 6-3-540 METZ	6390635400
	Torch neck	22°	DIX 6-3-542 METZ	6390635420
	Torch neck	45°	DIX 6-3-544 METZ	6390635440
	Torch neck	Swan neck, 30°	DIX 6-3-548 METZ	6390635480
14	Connection piece		DIX MES 300/500	639061500041

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameter on request.

05-00108

05-ECOtorch Robotic Torches-liquidUJ11 subject to change!





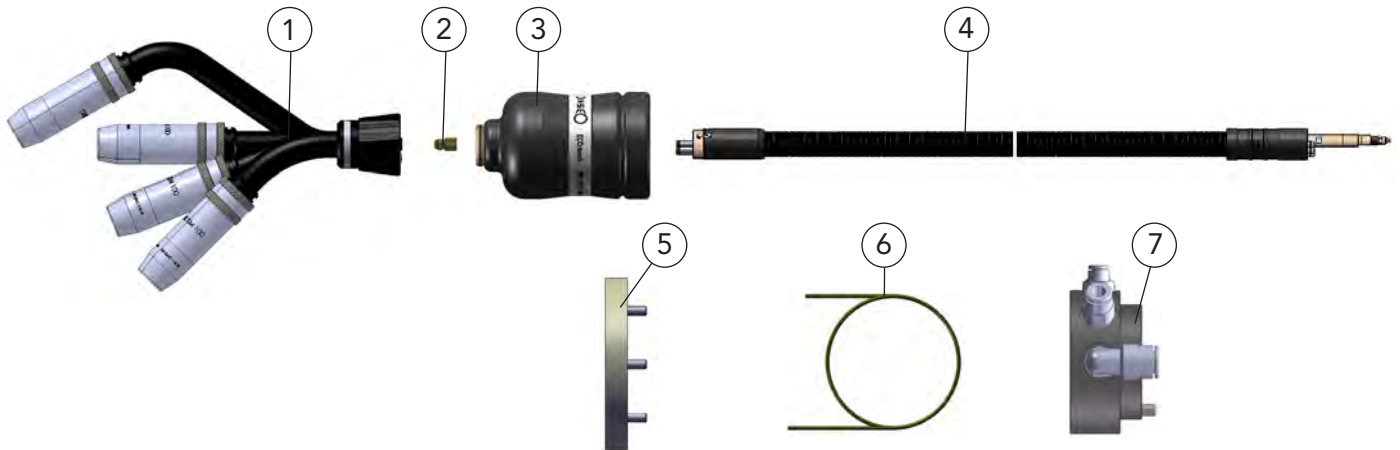
05-00109

05-ECOrtorch Robotic Torches-liquidU11 subject to change!

Pos.	Discription	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AK	6390154151
3	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AKR	6390154156
4	Insulator For pos. 2		DIX 2-3-500	6390250000

► K - short, R - reduced
Other versions on request.





Pos.	Description	Dimension	Part number	Article number
1	Torch head, complete		DIX METZ 56x	6313560xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RETZ 620 F	687311001
	Rotary interface Rigid version, without deflection		DIX RETZ 620 S	687301001
4	Torch set The torch set length [x] depends on the robot type		DIX RETZ 620-x	630136001xxx
5	Adapter flange The adapter flange type [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For shock sensor in the wire feeder DIX WD 650 X, only assembled in external available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fitting on request.
For all common wire feeder systems.

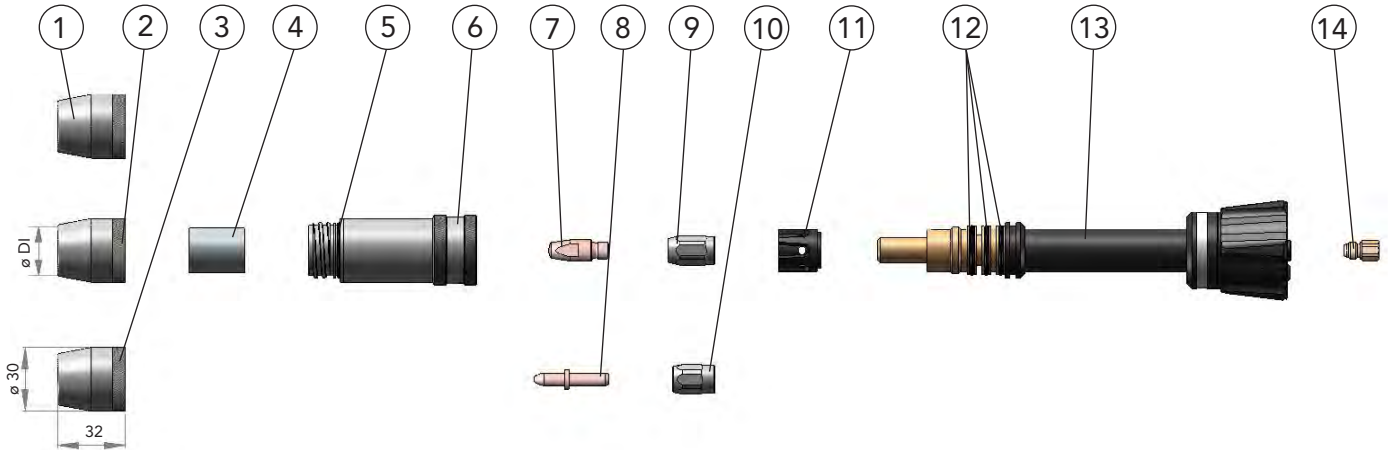


METZ 56x Torch heads

Spare parts and wear parts

liquid cooled

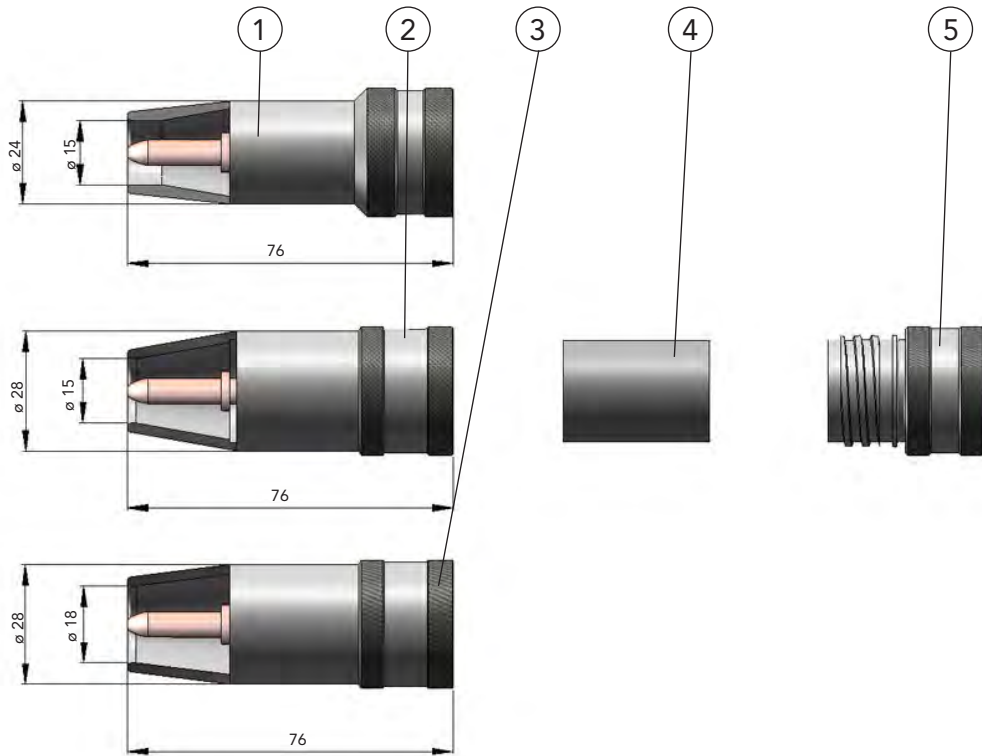
MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 15 mm	DIX KMG 115 TR	628040315
2	Gas nozzle	DI ø 18 mm	DIX KMG 118 TR	628040318
3	Gas nozzle	DI ø 21 mm	DIX KMG 121 TR	628040321
4	Cooling jacket insulator		DIX KME 110	628040303
5	O-ring, 23x1.5 mm Viton	(10 pcs.)	DIX KMR 100	629110904
6	Cooling jacket, complete, With o-ring		DIX KM 100	628040301
7	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Contact tip	ø 8 x 45 mm	DIX 3-2-xx SR	6290354xx
9	Tip adapter	M8	DIX GS 2-M8	628150008
10	Clamp nut		DIX 4-2-MAS	6390454000
11	Gas diffuser		DIX 10-3-540	6391054000
12	O - ring	(10 pcs.)		639060005
13	Torch neck	0°	DIX 6-3-560 METZ	6390635600
	Torch neck	22°	DIX 6-3-562 METZ	6390635620
	Torch neck	45°	DIX 6-3-564 METZ	6390635640
	Torch neck	Swan neck, 30°	DIX 6-3-568 METZ	6390635680
14	Connection piece		DIX MES 300/500	639061500041

xx - Standard diameter: 1.2 mm and 1.6 mm. Other diameter on request.





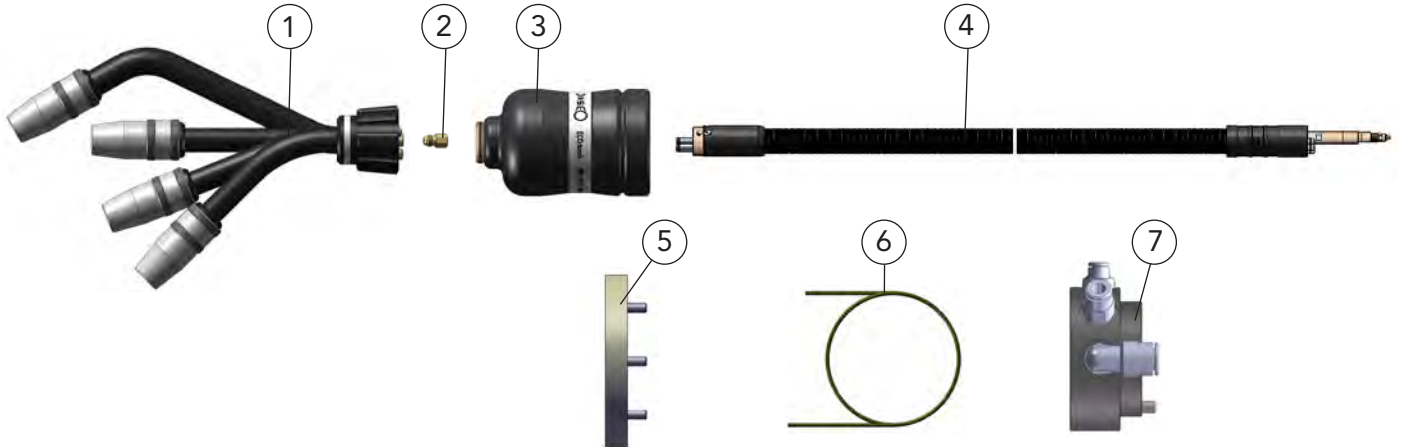
05-00112

05-ECOTorch Robotic Torches-liquidU11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Screw adapter		DIX SAD 2-404/540	628140000

► K - short, R - reduced
Other versions on request.





Pos.	Description	Dimension	Part number	Article number
1	Torch head, complete		DIX METZ 57x	6313570xx
2	Connecting piece		DIX MES 300/500	639061500041
3	Rotary interface Flexible version, maximum 15° deflection		DIX RETZ 620 F	687311001
	Rotary interface Rigid version, without deflection		DIX RETZ 620 S	687301001
4	Torch set The torch set length [x] depends on the robot type		DIX RETZ 620-x	630136001xxx
5	Adapter flange The adapter flange type [x] depends on the robot type		DIX ADFR 63xx	6870033xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Connection set		DIX REMA 100	718231000
	Options:			
	Protection modul For shock sensor in the wire feeder DIX WD 650 X, only assembled in external available, without picture		DIX REMO 100	719283100
	Protection modul For shock sensor in external handle, without picture		DIX REMO 101	719283103
	Connection cable Without picture	10.0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fitting on request.
For all common wire feeder systems.

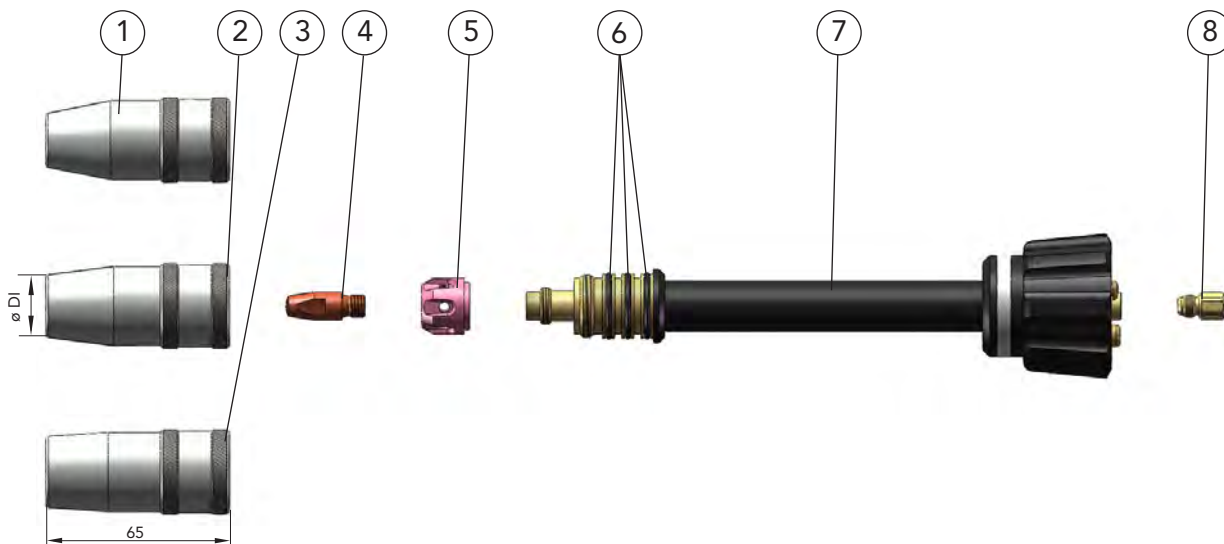


METZ 56x Torch heads

Spare parts and wear parts

liquid cooled

MIG/MAG



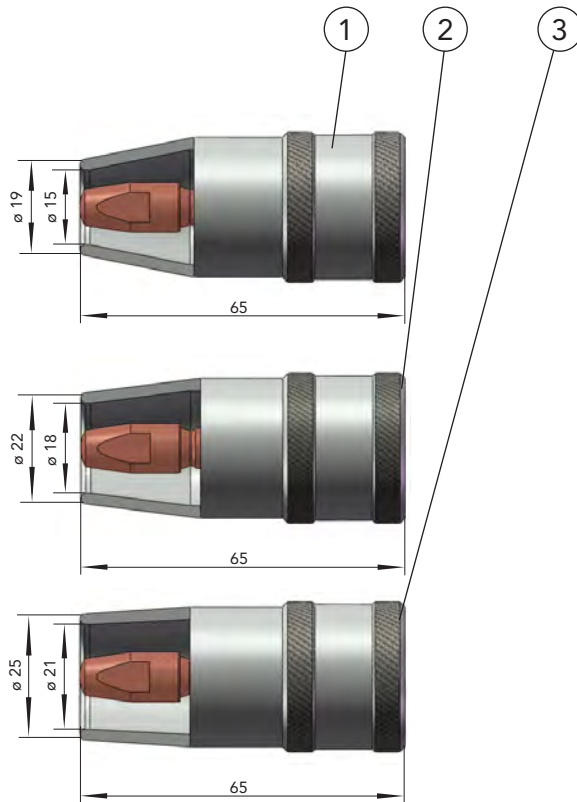
05-00114

05-ECOtorch Robotic Torches-liquidU11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5715 A	6390157150
2	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5718 A	6390157180
3	Gas nozzle	DI \varnothing 21 mm	DIX 1-3-5721 A	6390157210
4	Contact tip	M8 x28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
5	Gas diffusor		DIX 10-2-305 K	6291003051
6	O - ring, 20x1.7 mm	(10 pcs.)		629110911
7	Torch neck	0°	DIX 6-3-570 METZ	6390635700
	Torch neck	22°	DIX 6-3-572 METZ	6390635720
	Torch neck	45°	DIX 6-3-574 METZ	6390635740
	Torch neck	Swan neck, 30°	DIX 6-3-578 METZ	6390635780
8	Connection piece		DIX MES 300/500	639061500041

xx - Standard diameter: 1.2 mm, 1.6 mm and 2.0 mm. Other diameter on request.





Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5715 A	6390157150
2	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5718 A	6390157180
3	Gas nozzle	DI \varnothing 21 mm	DIX 1-3-5721 A	6390157210

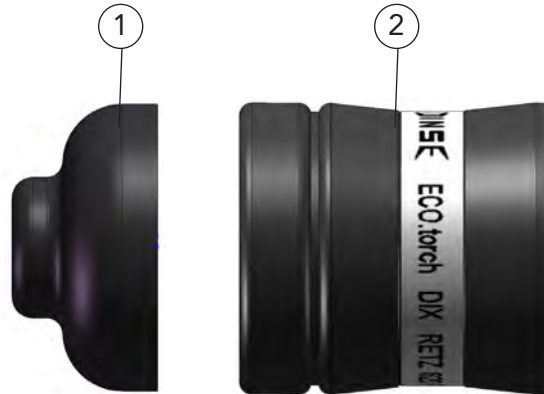
► Other versions on request.

05-00115

subject to change!

05-ECOtorch Robotic Torches-liquidU11





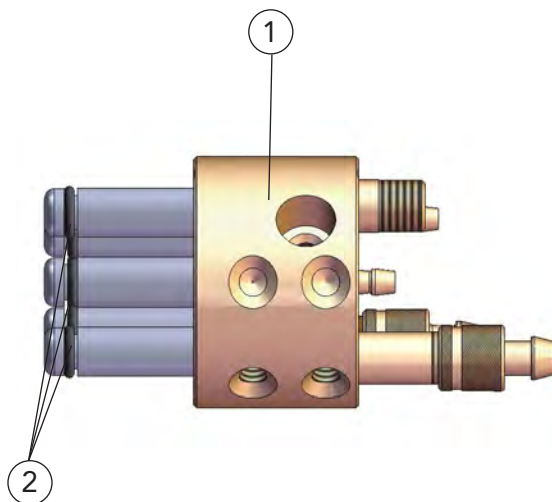
Pos.	Description	Dimension	Part number	Article number
1	Dust boot		DIX RET 072	687001002
2	Handle, complete		DIX RETZ 075 F	687311003
	Handle, complete		DIX RETZ 075 S	687301003

05-00116

subject to change!

05-ECOTorch Robotic Torches-liquidU11





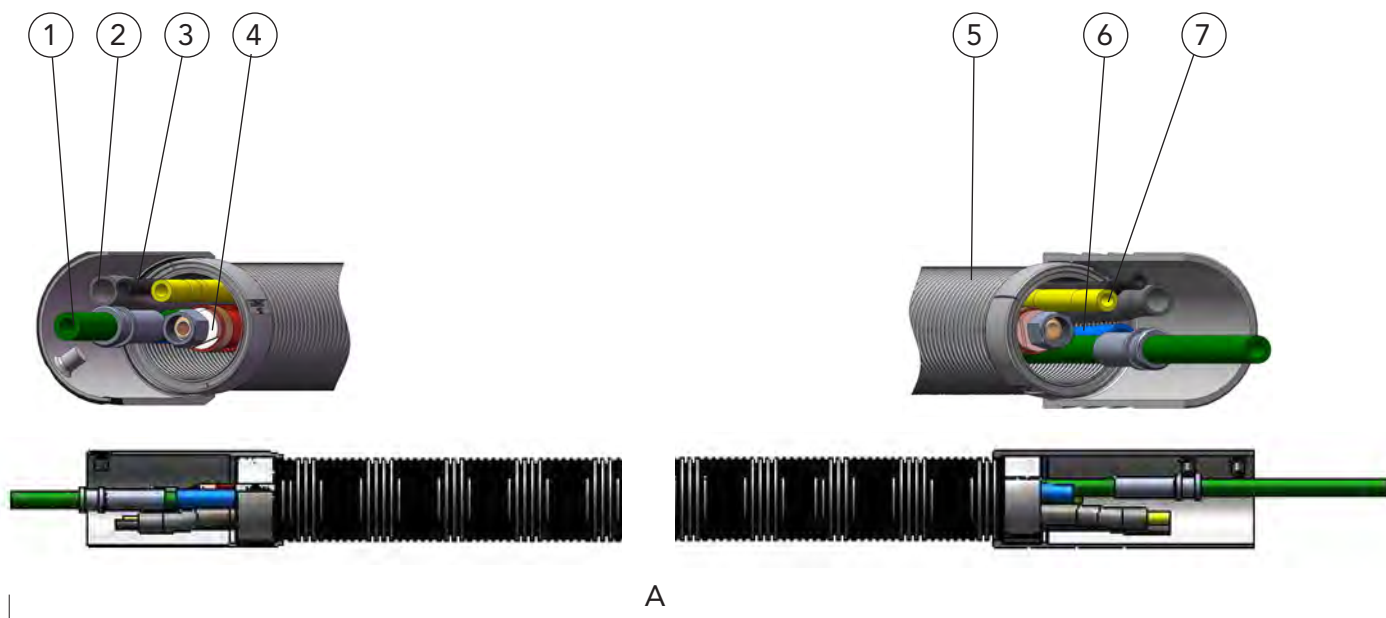
05-00117

subject to change!

05-ECOTorch Robotic Torches-liquidUJ11

Pos.	Description	Dimension	Part number	Article number
1	ECO - connection		DIX RETZECO 150	639151012
2	O - ring	(10 pcs.)		629061014





Torch view

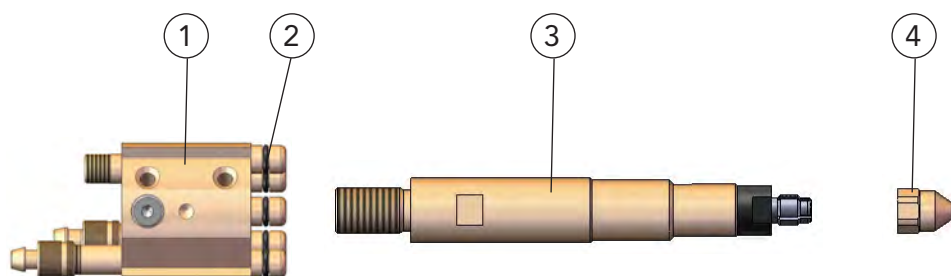
Plug view

Pos.	Description	Part number	Article number
A	Supply hose, complete	DIX VLECO 620-x	632162011x
1	Conduit hose	DIX VLECO 201-x	639206039x
2	Air blast hose	DIX VLRET 240-x	639246101x
3	Checking gas hose	DIX VLRET 242-x	639247101x
4	Combi cable	DIX VLECO 220-x	639226008x
5	Cover hose set	DIX VLECO 230-x	639231006x
6	Water hose	DIX VL 191-x	6391960021x
7	Gas hose	DIX VL 180-x	639186001x

x - Length depends on the torch set description.



Connection wire feeder



Pos.	Description	Dimension	Part number	Article number
1	Plug insert		DIX RETZ 110	639112002
2	O - ring	(10 pcs.)		629061014
3	Connection mandrel For Dinse torch set connection		DIX READ 100	639151007
4	Inlet nozzle		DIX RET 301	639151003

► Other connecting mandrel depends on the wire feed type on request.

05-00119

05-ECOtorch Robotic Torches-liquidU11 subject to change!

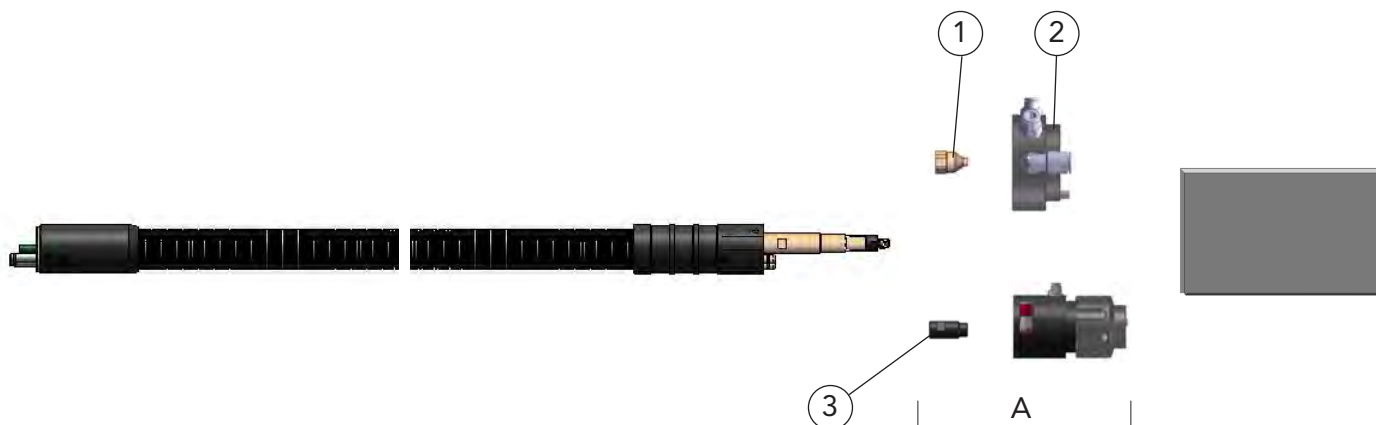


RETZ 620 - xx Torch sets

Special equipment for various wire feeder

liquid cooled

MIG/MAG



05-00120

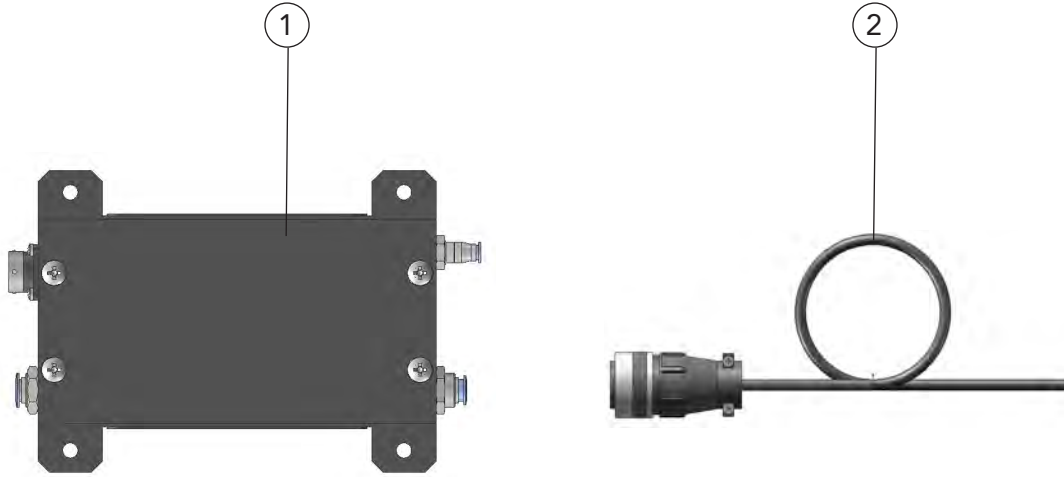
subject to change!

05-ECOtorch Robotic Torches-liquidUJ11

Pos.	Description	Dimension	Part number	Article number
1	Intake nozzle		DIX RET 301	639151003
2	Connection set Depends on the wire feeder type		DIX REMA 300/00x	71823300x
3	Guide sleeve Substitute for intake nozzle DIX RET 301		DIX RET 303	718200309
A	Connection set		DIX REMA 100 SAZ	718231001

► Variants deviating of the special fittings on request.





05-00121

Pos.	Description	Dimension	Part number	Article number
1	Protection modul		DIX REMO 101	719283103
2	Connection cable	10.0 m	DIX REAK 100-10	738090110

subject to change!

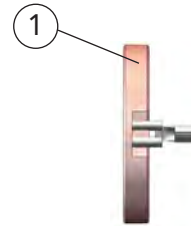
05-ECOtorch Robotic Torches-liquidUJ11

► Variants deviating of the special fittings on request.





Sample application



Pos.	Description	Part number	Article number
1	Contact clamp For fitting robotic and automatic torch sets with sensor function through gas nozzle.	DIX K 180 ME	687311011

05-00122

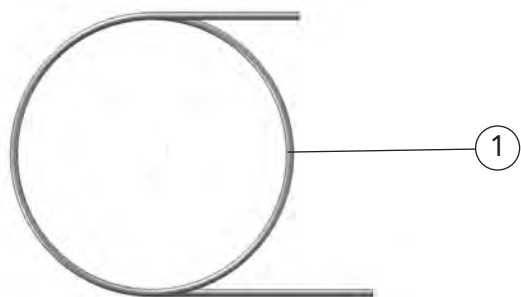
subject to change!

05-ECOtorch Robotic_Torches-liquidU11



Capillary liner

for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys



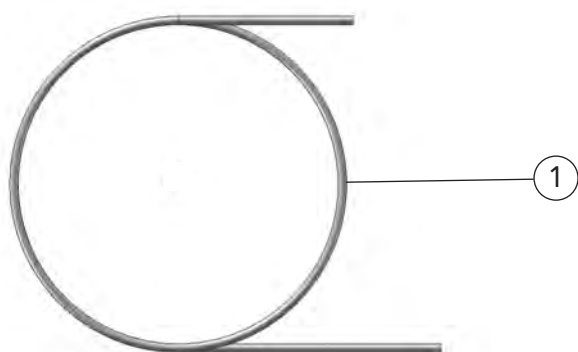
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner for wire-ø 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner for wire-ø 1.0 and 1.2mm, at PUSH-PUSH/PULL wire-ø 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner wire-ø 1.6 mm, at PUSH-PUSH/PULL wire-ø 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner for wire-ø 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner for wire-ø 1.0 and 1.2mm, at PUSH-PUSH/PULL wire-ø 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner for wire-ø 1.0 and 1.2mm, at PUSH-PUSH/PULL wire-ø 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.



Liner

for wire electrodes of non- and low alloyed steels



05-00124

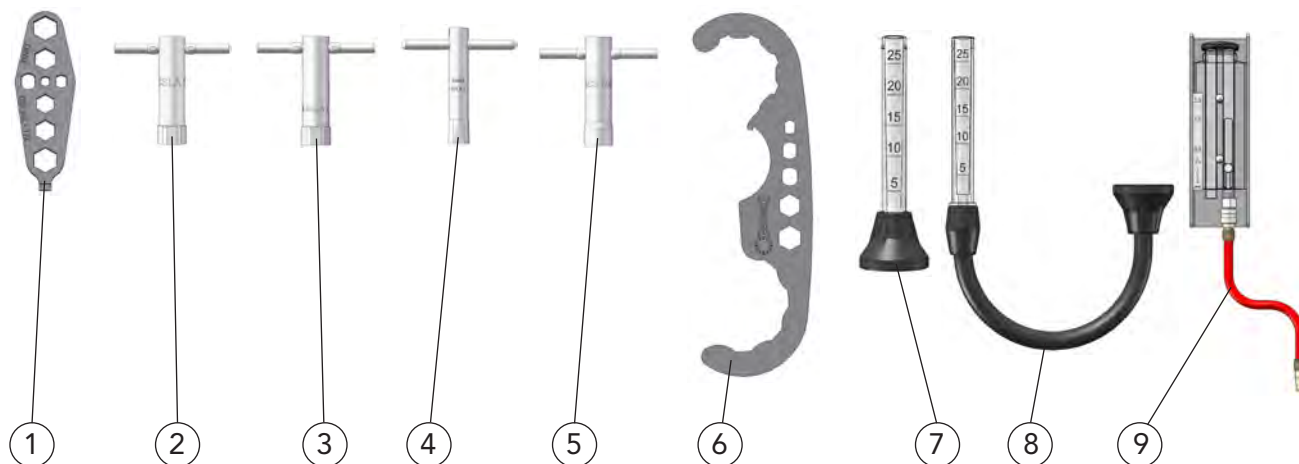
05-ECOtorch Robotic Torches-liquidU11 subject to change!

Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner for wire- \varnothing 0.8 mm	\varnothing 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner for wire- \varnothing 1.0 mm, at PUSH-PUSH/PULL wire- \varnothing 0.8 mm	\varnothing 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner for wire- \varnothing 1.2 mm, at PUSH-PUSH/PULL wire- \varnothing 1.0 mm	\varnothing 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner for wire- \varnothing 1.4 mm, at PUSH-PUSH/PULL wire- \varnothing 1.2 mm	\varnothing 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner for wire- \varnothing 1.6 mm, at PUSH-PUSH/PULL wire- \varnothing 1.2 mm	\varnothing 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameter on request.



Service tools



Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

05-00125

subject to change!

05-ECOTorch Robotic Torches-liquidUJ11



REVO.torch



Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30°	DIX	METR	358
	0°	DIX	METR	350
	22°	DIX	METR	352
	45°	DIX	METR	354

Gas nozzle: trapezoid thread
duty cycle

CO₂: 350A/100%

Mixed gas: 300A/100%

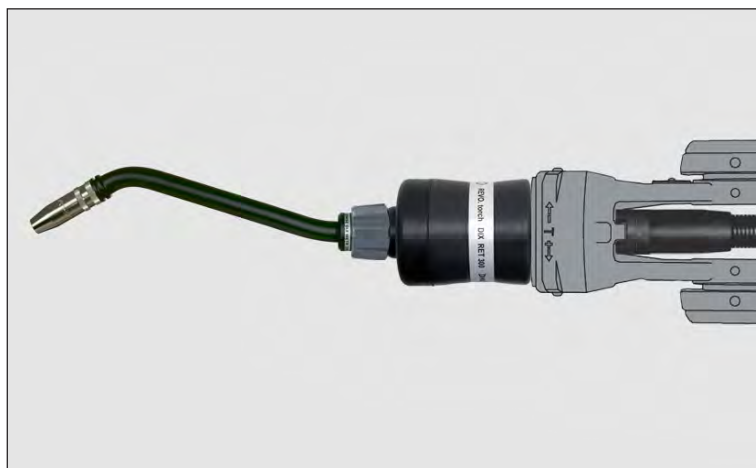
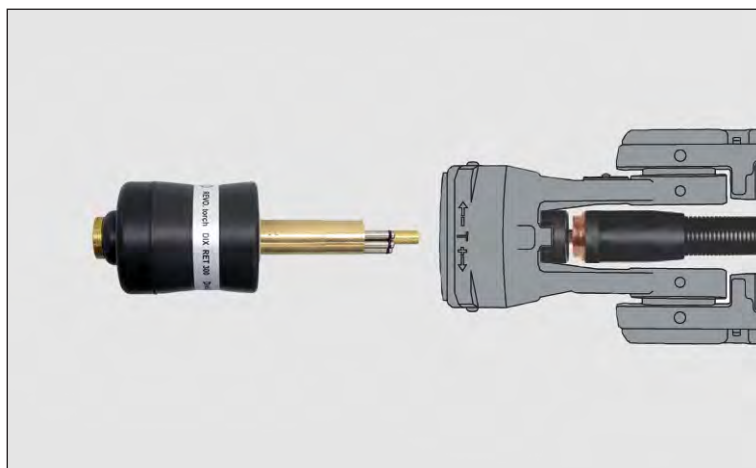
Wire diameter: 0.8 - 1.2 mm

Technical benefits:

- For hollow shaft robots
- Unlimited rotation of the torch head
- Torsion free welding torch set
- Service friendly double separability at the rotary interface and the wire feeder
- Separate shield gas hose prevents gas losses
- No time loss for purging after air blast, immediate start of welding
- Precise crash protection system with a maximum deflection of 15° in case of a collision
- Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

Application:

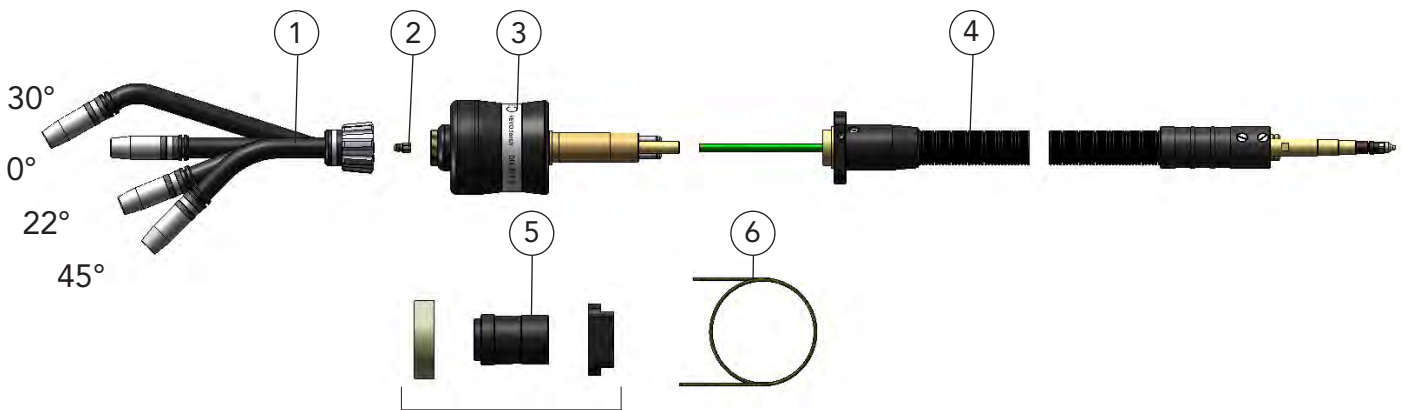
- Non- and low alloyed steels
- High alloyed steels
- Small to medium material thicknesses



REVO.torch

Torch heads

- DIX METR 358
- DIX METR 350
- DIX METR 352
- DIX METR 354



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METR 358	631133018
	Torch head, compl.	0°	DIX METR 350	631133016
	Torch head, compl.	22°	DIX METR 352	631133017
	Torch head, compl.	45°	DIX METR 354	631133015
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface <small>(the rotary interface [x] is depending on the robot type, sheet 2/4)</small>		DIX RET 300 (L)	6870010xx
4	Torch set		DIX RET 310-x	630131004x
	Torch set, A <small>(the torch set length [x] is depending on the robot type, sheet 3/4)</small>		DIX RET 310-x A	630131014x
5	Docking set <small>(the docking set [xx] is depending on the robot type, sheet 4/4)</small>		DIX REX 3xx	6870023xx
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul <small>(for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)</small>		DIX REMO 100	719283100

► Standard equipment for wire feeder DIX WD 650 X and wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5215 A, (contact tip, DIX 3-1-1.0 S, flush, clamp nut DIX CS 300, insulating sleeve DIX IH 300). Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

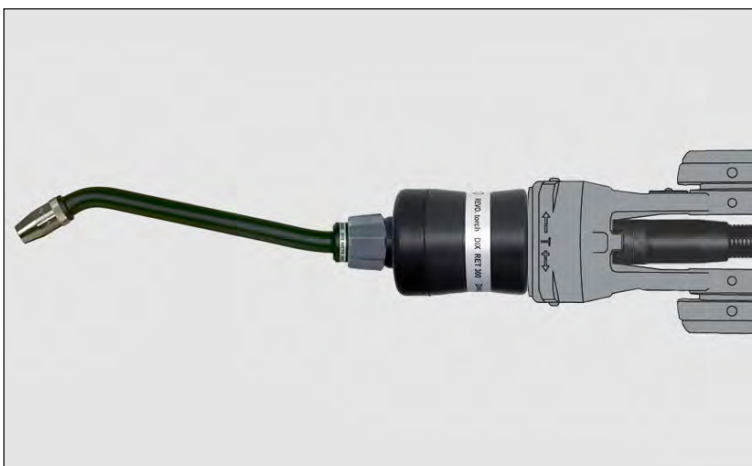
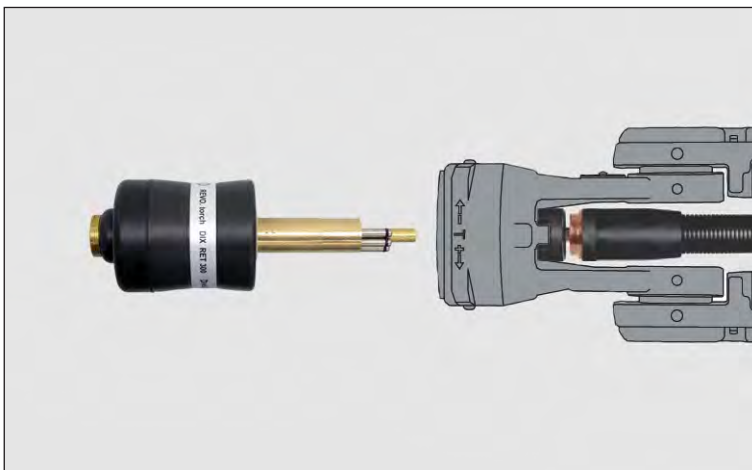
06-00127

subject to change!

06-REVOtorch Robotic Torches-gas\11



REVO.torch



Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30°	DIX	METR	398
	0°	DIX	METR	390
	22°	DIX	METR	392
	45°	DIX	METR	394

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

- For hollow shaft robots
- Unlimited rotation of the torch head
- Torsion free welding torch set
- Service friendly double separability at the rotary interface and the wire feeder
- Separate shield gas hose prevents gas losses
- No time loss for purging after air blast, immediate start of welding
- Precise crash protection system with a maximum deflection of 15° in case of a collision
- Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

Application:

- Non- and low alloyed steels
- High alloyed steels
- Small to medium material thicknesses

REVO.torch

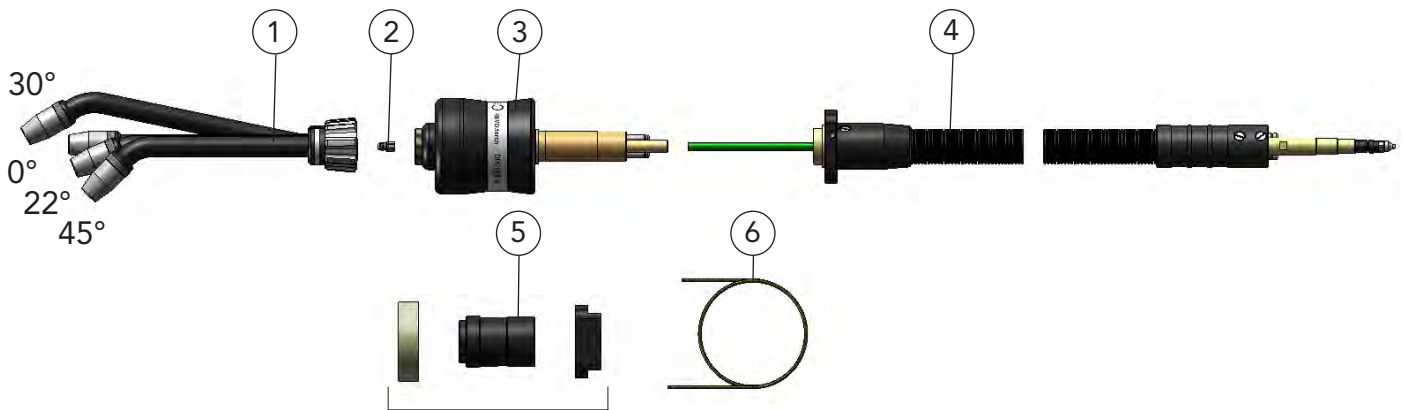
Torch heads

DIX METR 398

DIX METR 390

DIX METR 392

DIX METR 394



06-00129

Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METR 398	631133022
	Torch head, compl.	0°	DIX METR 390	631133019
	Torch head, compl.	22°	DIX METR 392	631133020
	Torch head, compl.	45°	DIX METR 394	631133021
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface <small>(the rotary interface [xx] is depending on the robot type, sheet 2/4)</small>		DIX RET 300 (L)	6870010xx
4	Torch set		DIX RET 310-x	630131004x
	Torch set, A <small>(the torch set length [x] is depending on the robot type, sheet 3/4)</small>		DIX RET 310-x A	630131014x
5	Docking set <small>(the docking set [x] is depending on the robot type, sheet 4/4)</small>		DIX REX 3xx	6870023xx
6	Liner	ø 2.2mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul <small>(for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)</small>		DIX REMO 100	719283100

- Standard equipment for wire feeder 1.0 mm Stahl and wire diameter 15 mm, DIX 1-3-5915 A, (contact tip, DIX 3-2-1.0 set back, gas diffusor DIX GVT 590). Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

subject to change.

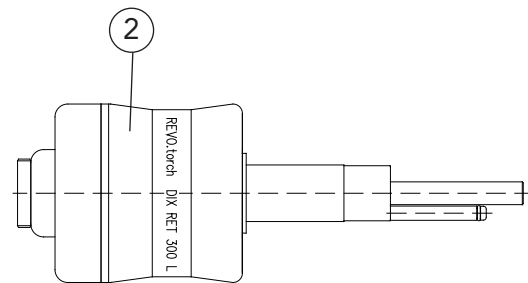
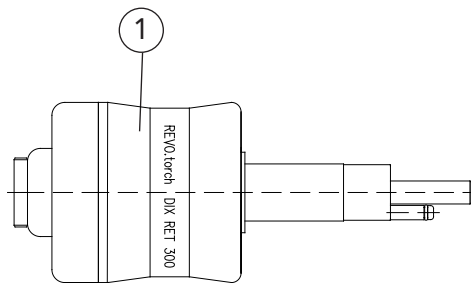
06-REVOtorch Robotic Torches-gas_V11



REVO.torch

Rotary interface

DIX RET 300 (L)



06-00130

06-REVOtorch Robotic Torches-gas\111 subject to change!

Pos.	Description	Part number	Article number
1	Rotary interface robot type ABB: IRB 1600 ID Fanuc: ARC MATE 100iC ARC MATE 100iC/6L ARC MATE 120iC ARC MATE 120iC/10L Motoman: EA 1400N, MA 1400 SSA 2000 EA 1900N, MA 1900	DIX RET 300 Kuka: KR 5 arc HW Reis: RV 20-6 HW	687001001
2	Rotary interface robot type Motoman: EA 1800N MA 1800	DIX RET 300 L	687001030

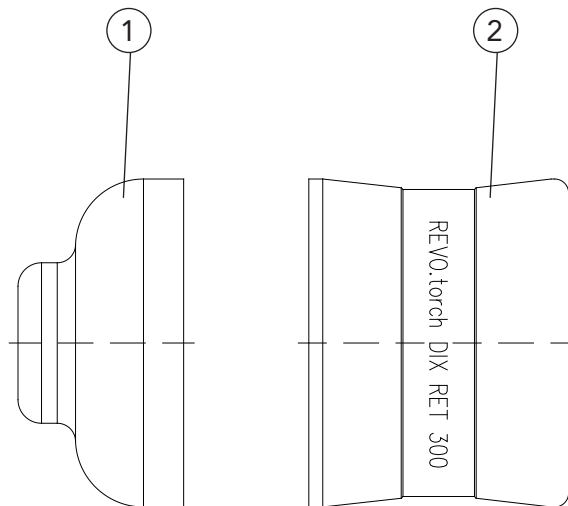
► Variants deviating of the standard fittings on request.



REVO.torch

Rotary interface

DIX RET 300 (L)



Pos.	Description	Dimension	Part number	Article number
1	Dust boot		DIX RET 072	687001002
2	Handle		DIX RET 073	687001003
	Handle		DIX RET 073 L	687001049
	O-ring (for connection nipple, without picture)	(10 pcs.)		629061018

06-00131

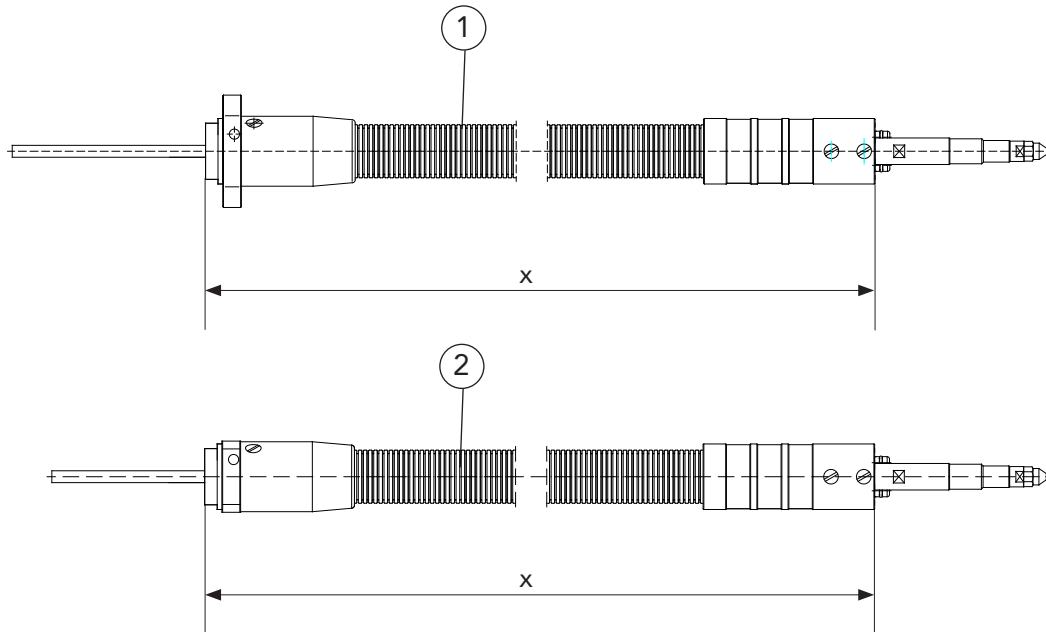
subject to change!

06-REVOtorch Robotic Torches-gas\L11

REVO.torch

Torch sets

DIX RET 310



Pos.	Description	Dimension	Part number	Article number
1	Torch set	x m	DIX RET 310-x	630131004x
x	- robot type (Length of the torch set)			
	ABB: IRB 1600 ID	0.89 m		
	Fanuc: ARC MATE 100iC	1.20 m		
	ARC MATE 100iC/6L	1.40 m		
	ARC MATE 120iC	1.40 m		
	ARC MATE 120iC/10L	1,60 m		
	Motoman: EA 1400N, MA 1400	0.78 m		
	SSA 2000	0.78 m		
	EA 1800N, MA 1800	1.08 m		
	EA 1900N, MA 1900	1.08 m		
2	Torch set, A (Connection handle 90° twisted)	x m	DIX RET 310-x A	630131014x
x	- robot type (Length of the torch set)			
	Kuka: KR 5 arc HW	0.78 m A		
	Reis: RV 20-6 HW	1.20 m A		

► Variants deviating of the standard fittings on request.

06-00132

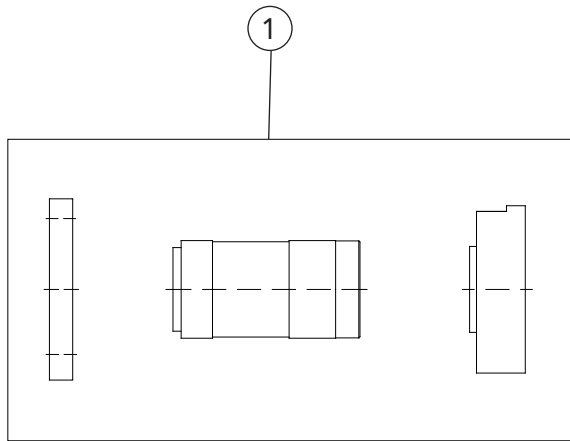
06-REVOtorch Robotic Torches-gas\111 subject to change!



REVO.torch

Docking sets

DIX REX 3xx



01-00133

Pos.	Description	serial number	Part number	Article number
1	Docking set	3xx	DIX REX 3xx	6870023xx
x	robot type			
	ABB: IRB 1600 ID	302		
	Fanuc: ARC MATE 100iC	303		
	ARC MATE 120iC	307		
	ARC MATE 120iC/10L	303		
	Kuka: KR 5 arc HW	304		
	Motoman: EA 1400 N	300		
	SSA 2000	300		
	EA 1800 N	305		
	EA 1900 N	300		
	Reis: RV 20-6 HW	308		

06-REVOtorch Robotic Torches-gas\111 subject to change!

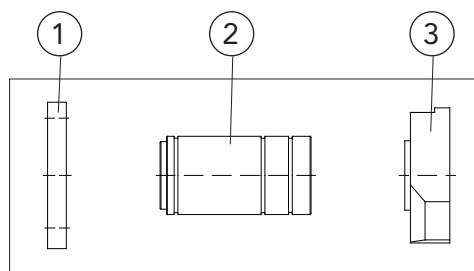
► Variants deviating of the standard fittings on request.



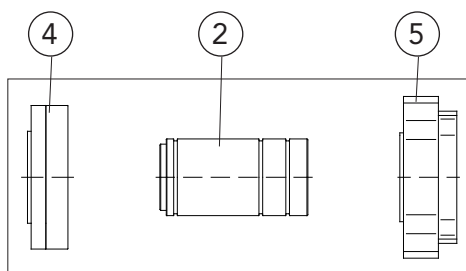
REVO.torch

Docking sets

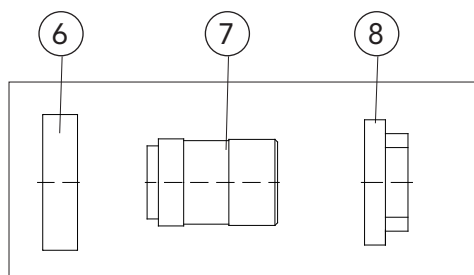
DIX REX 3xx



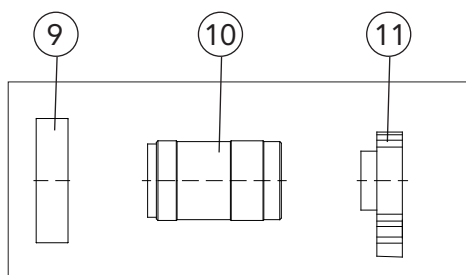
DIX REX 300



DIX REX 302



DIX REX 303



DIX REX 304

01-00134

06-REVOtorch Robotic Torches-gas\111 subject to change!

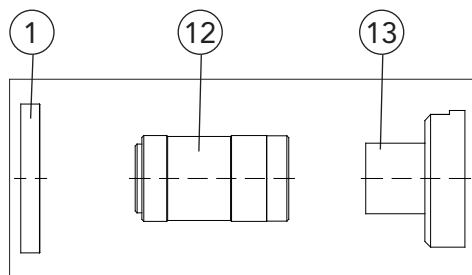
Pos.	Description	Part number	Article number
1	REVO adapter flange	DIX ADFR 6300	687003300
2	Bearing sleeve	DIX REL 300	687004300
3	Anti twist safeguard	DIX REV 300	687005300
4	REVO adapter flange	DIX ADFR 6302	687003302
5	Anti twist safeguard	DIX REV 302	687005302
6	REVO adapter flange	DIX ADFR 6303	687003303
7	Bearing sleeve	DIX REL 303	687004303
8	Anti twist safeguard	DIX REV 303	687005303
9	REVO adapter flange	DIX ADFR 6304	687003304
10	Bearing sleeve	DIX REL 304	687004304
11	Anti twist safeguard	DIX REV 304	687005304



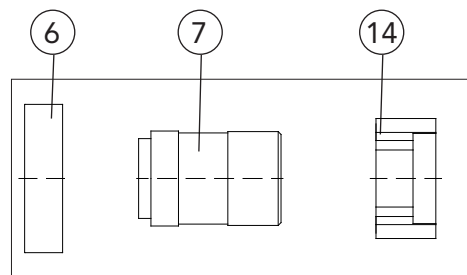
REVO.torch

Docking sets

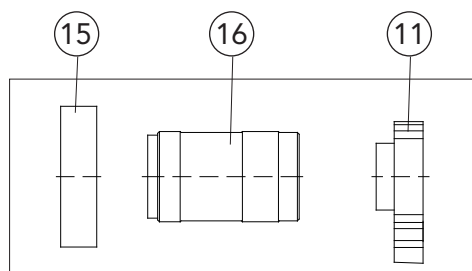
DIX REX 3xx



DIX REX 305



DIX REX 307



DIX REX 308

01-00135

06-REVOtorch Robotic Torches-gas_V11 subject to change.

Pos.	Description	Part number	Article number
11	Anti twist safeguard	DIX REV 304	687005304
12	Bearing sleeve	DIX REL 305	687004305
13	Anti twist safeguard	DIX REV 305	687005305
14	Anti twist safeguard	DIX REV 307	687005307
15	REVO adapter flange	DIX ADFR 6308	687003308
16	Bearing sleeve	DIX REL 308	687004308

REVO.torch

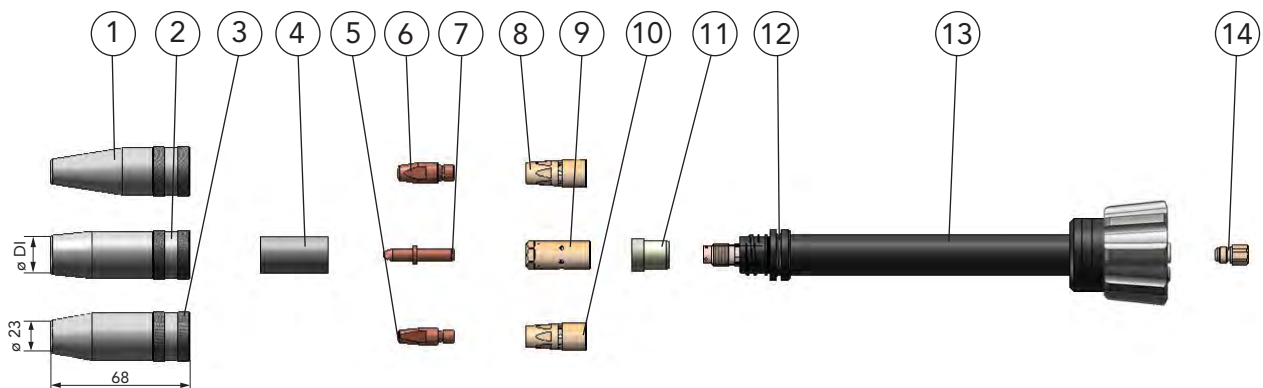
Torch heads

DIX METR 358

DIX METR 350

DIX METR 352

DIX METR 354



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5215 A	6390152150
4	Insulator (for pos. 2 and 3)		DIX 2-3-520	6390252000
5	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
6	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
7	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
8	Tip adapter	M6	DIX GS 300 M6	629040301
9	Clamp nut		DIX CS 300	6390433000
10	Tip adapter	M8	DIX GS 300 M8	629040302
11	Insulating sleeve		DIX IH 300	6391053000
12	O - ring	(10 pcs)		639060004
13	Torch neck	Swan neck, 30°	DIX 6-3-358 METR	639067358
	Torch neck	0°	DIX 6-3-350 METR	639067350
	Torch neck	22°	DIX 6-3-352 METR	639067352
	Torch neck	45°	DIX 6-3-354 METR	639067354
14	Connecting piece, MATZ		DIX MES 300/500	639061500041

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.



REVO.torch

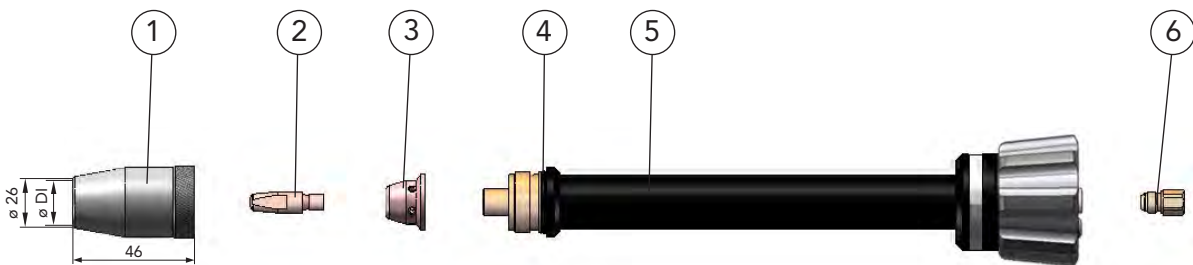
Torch heads

DIX METR 398

DIX METR 390

DIX METR 392

DIX METR 394



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
3	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Gas diffuser		DIX GVT 590	6391059001
	Gas diffuser	(10 pcs.)	DIX GVT 590 K	6391059003
4	O - ring	(10 pcs.)		639060004
5	Torch neck	Swan neck, 30°	DIX 6-3-398 METR	639067398
	Torch neck	0°	DIX 6-3-390 METR	639067390
	Torch neck	22°	DIX 6-3-392 METR	639067392
	Torch neck	45°	DIX 6-3-394 METR	639067394
6	Connection piece, MATZ		DIX MES 300/500	639061500041

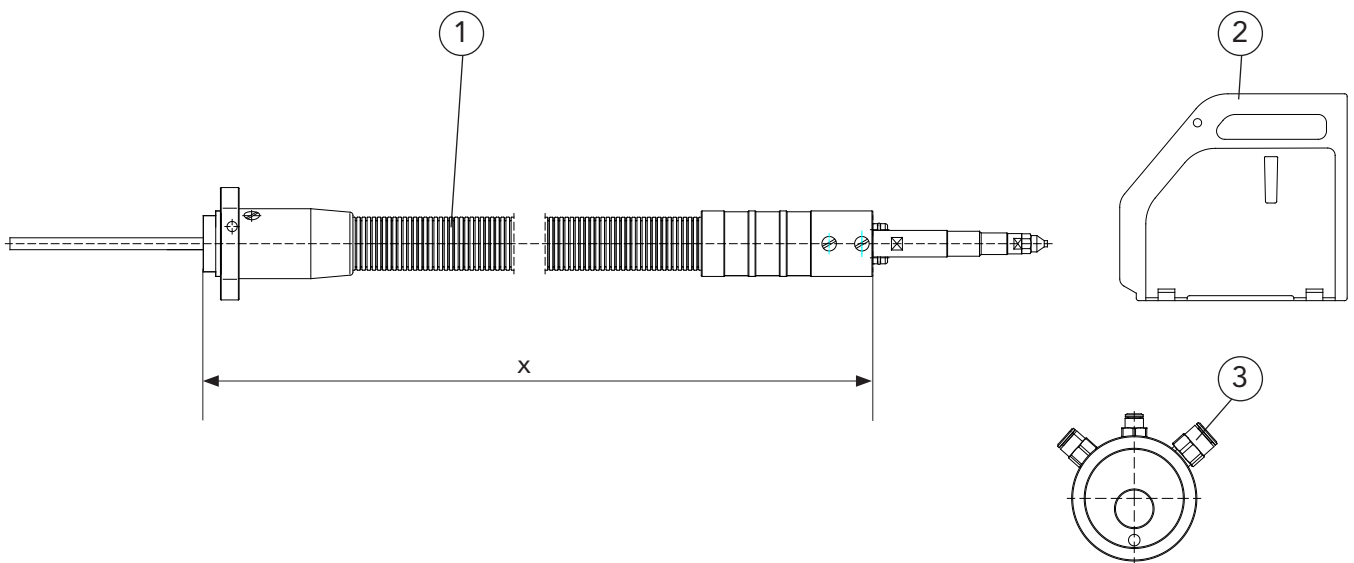
xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

REVO.torch

Torch sets

DIX RET 310

Special equipment for various wire feeders



06-00138

06-REVOtorch Robotic Torches-gas\111 subject to change.

Pos.	Description	Dimension	Part number	Article number
1	Torch set	x m	DIX RET 310-x/00y	63013100yx
x	- robot type (Length of the torch set)			
	ABB: IRB 1600 ID	0.89 m	Motoman: EA 1400N	0.78 m
			MA 1400	0.78 m
	Fanuc: ARC MATE 100iC	1.20 m	SSA 2000	0.78 m
	ARC MATE 100iC/6L	1.40 m	EA 1800N	1.08 m
	ARC MATE 120iC	1.40 m	MA 1800	1.08 m
	ARC MATE 120iC/10L	1.60 m	EA 1900N	1.08 m
			MA 1900	1.08 m
2	- Wire feeder typ:	Fronius: 1, Lincoln, Miller, Motoman: 6,		SKS: 2
3	Connection set		DIX REMA 300/00y	71823300y
2	- Wire feeder typ:	Fronius: 1, Lincoln: 6, Miller: 5, Motoman: 7,		SKS: 2

► Variants deviating of the standard fittings on request.

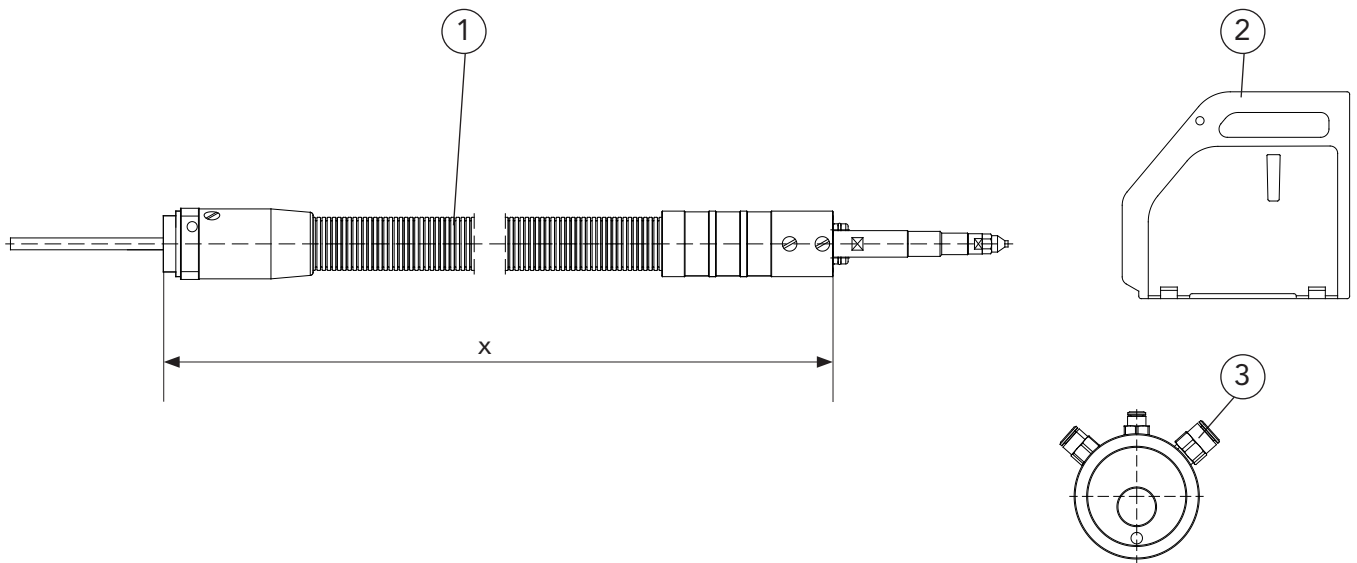


REVO.torch

Torch sets

DIX RET 310

Special equipment for various wire feeders



06-00139

subject to change!

06-REVOtorch Robotic Torches-gas\J11

Pos.	Description	Dimension	Part number	Article number
1	Torch set, A (Connection handle at 90° twisted)	x m	DIX RET 310-x/00y A	63013101yx
x	- robot type (Length of the torch set)			
	Kuka: KR 5 arc HW	0.78 m A		
	Reis: RV 20-6 HW	1.20 m A		
2	- Wire feeder typ:	Fronius: 1, Lincoln, Miller, Motoman: 6, SKS: 2		
3	Connection set		DIX REMA 300/00y	71823300y
2	- Wire feeder typ:	Fronius: 1, Lincoln: 6, Miller: 5, Motoman: 7, SKS: 2		

► Variants deviating of the special fittings on request.



Special fittings

ROBOTIC TORCHES

gas- and liquid cooled MIG/MAG

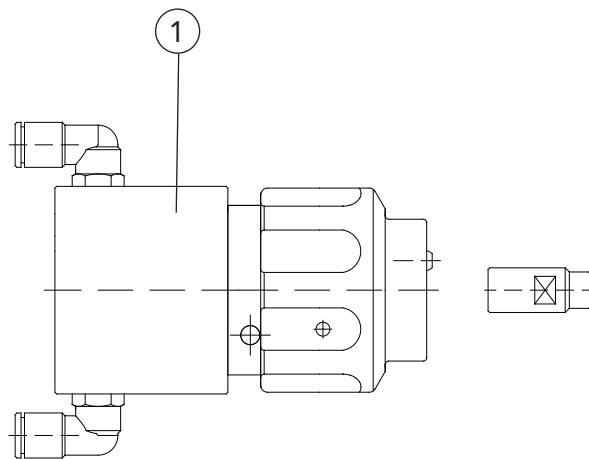


REVO.torch

Connection set

DIX REMA 100 SAZ

Special equipment for various wire feeder with SAZ connection



Pos.	Description	Dimension	Part number	Article number
1	Connection set		DIX REMA 100 SAZ	718231001

► Variants deviating of the standard fittings on request.

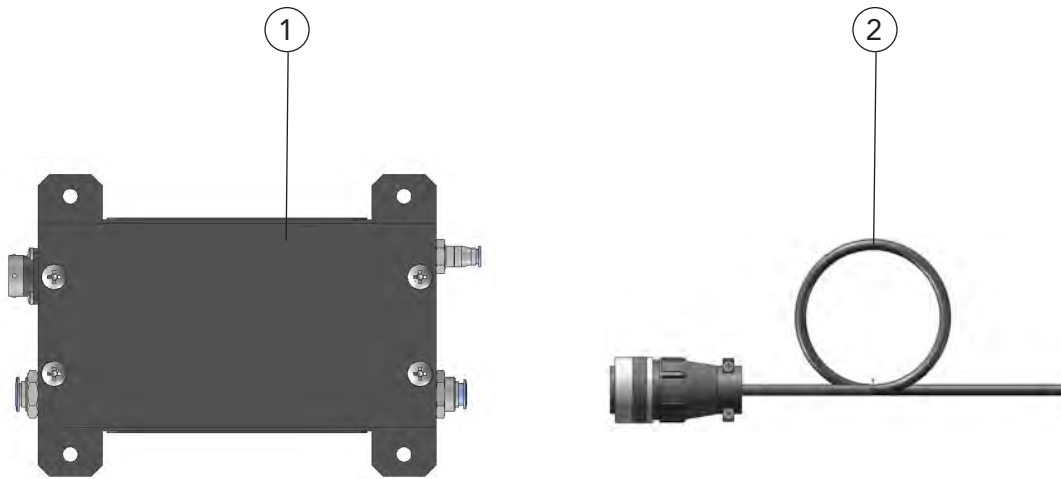


REVO.torch

Protection modul

DIX REMO 101

Special equipment for various wire feeder



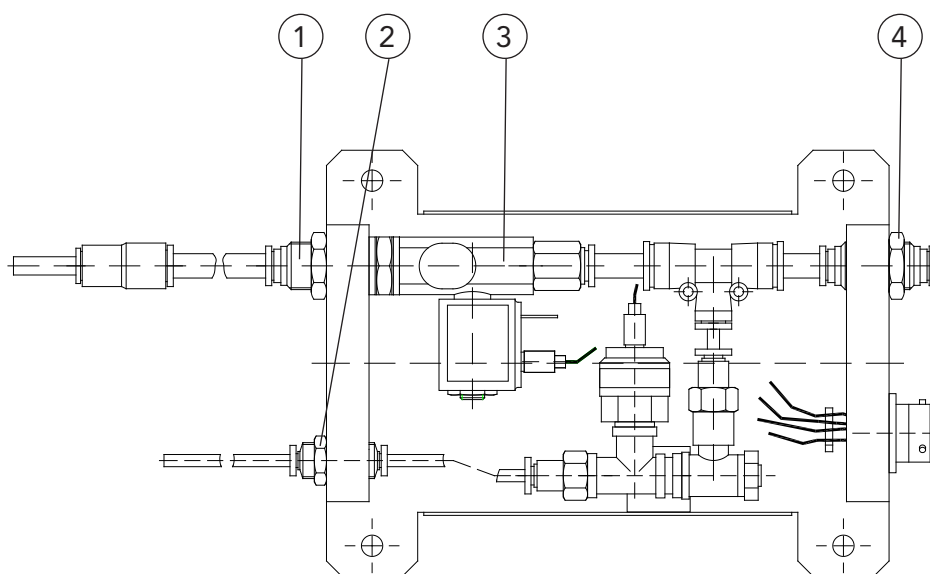
Pos.	Description	Dimension	Part number	Article number
1	Protection modul		DIX REMO 101	719283103
2	Connection cable	10,0 m	DIX REAK 100-10	738090110

► Variants deviating of the standard fittings on request.

REVO.torch

Protection modul

DIX REMO 101



01-00142

06-REVOtorch Robotic Torches-gas\111 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Threaded joint	(5 pcs.)	DIX SSV-G1/4-8	719283105
2	Threaded joint	(5 pcs.)	DIX SSV-4-4	719283106
3	Solenoid valve		DIX GMV-24-1/DC	719283104
4	Threaded joint	(5 pcs.)	DIX SSV-8-8	719283107



Spare parts and wear parts

ROBOTIC TORCHES

gas cooled

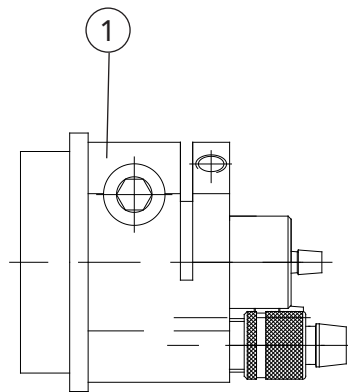
MIG/MAG



REVO.torch

Torch sets (connecting set)

DIX RET 310



Pos.	Description	Part number	Article number
1	REVO - connection	DIX RET 150	639151004

06-00143

subject to change!

06-REVOtorch Robotich Torches-gas\111



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SCHWEISSEN

WELDING

SCHWEISSEN

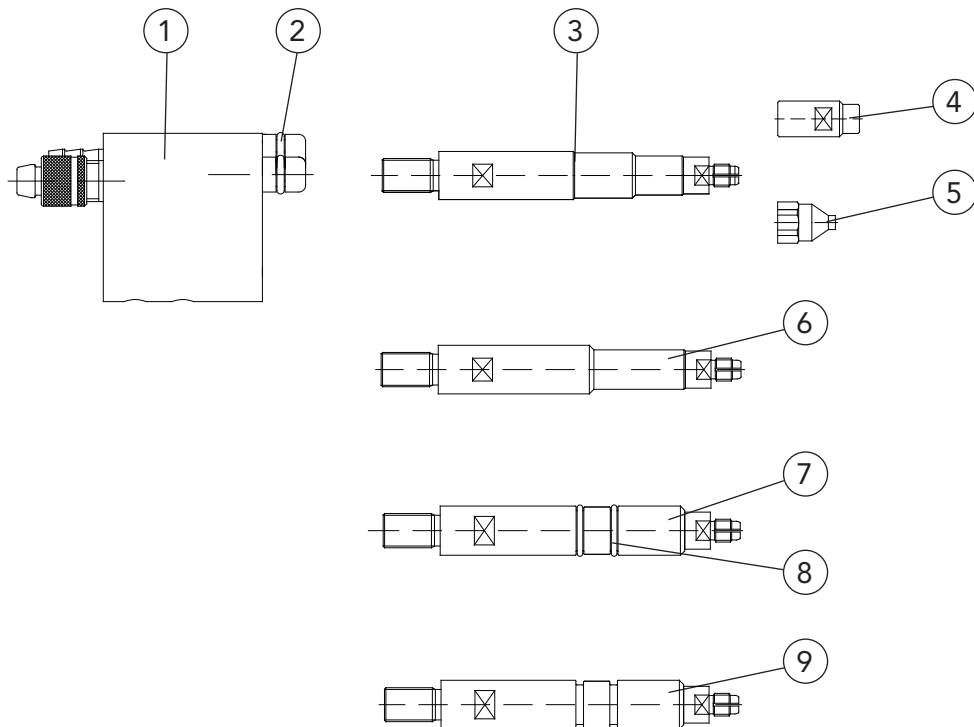
WELDING

SCHWEISSEN

REVO.torch

Torch sets (plug)

DIX RET 310



Pos.	Description	Dimension	Part number	Article number
1	Plug insert		DIX RET 110	639112001
2	O-ring	(10 pcs.)		629061014
3	Connecting mandrel (for Dinse fitting)		DIX READ 100	639151007
4	Guide sleeve (for connection set DIX REMA 100 SAZ, substitute for intake nozzle DIX RET 301)		DIX RET 303	718200309
5	Intake nozzle		DIX RET 301	639151003
6	Connecting mandrel (for Fronius fitting)		DIX READ 100/001	639151008
7	Connecting mandrel (for SKS fitting)		DIX READ 100/002	639151009
8	O-ring	(10 pcs.)		634013005
9	Connecting mandrel (for Lincoln, Miller, Motoman fittings)		DIX READ 100/006	639151010

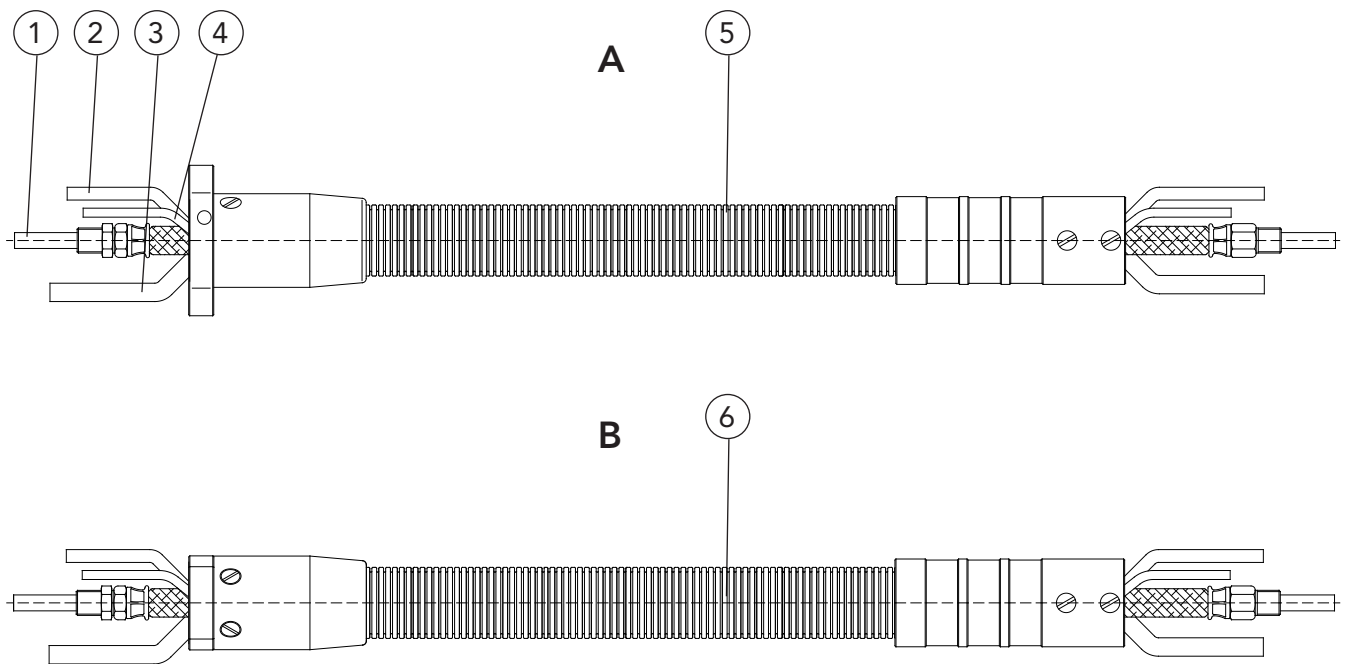
► Other fittings on request.



REVO.torch

Torch sets (supply hose)

DIX RET 310



Pos.	Description	Part number	Article number
A	Supply hose	DIX VLRET 310-x	632131003x
B	Supply hose	DIX VLRET 310-x A	632131013x
1	Binary cable	DIX VLRET 200-x	639206008x
2	Gas hose	DIX VL 180-x	639186001x
3	Air blast hose	DIX VLRET 240-x	639246101x
4	Checking gas hose	DIX VLRET 242-x	639247101x
5	Cover hose set	DIX VLRET 230-x	639231003x
6	Cover hose set	DIX VLRET 230-x A	639231013x

x - Standard length: 0.78 m, 0.89 m, 1.08 m, 1.20 m, 1.40 m and 1.60 m



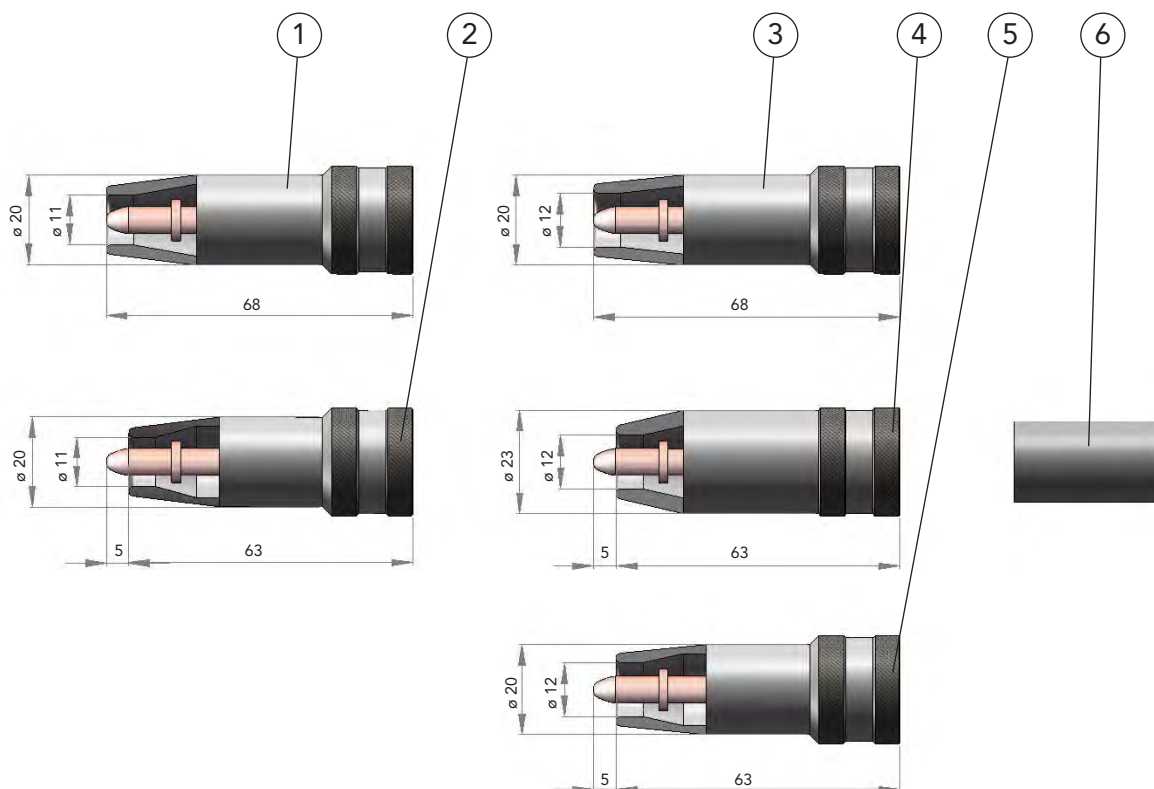
06-00145

06-REVOtorch Robotic Torches-gas\J11 subject to change!

REVO.torch

Torch heads

DIX METR 358/350/352/354
DIX METZ 528/520/522/524



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AR	6390152115
2	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AKR	6390152116
3	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AR	6390152125
4	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AK	6390152121
5	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AKR	6390152126
6	Insulator (for Pos. 4)		DIX 2-3-520	6390252000

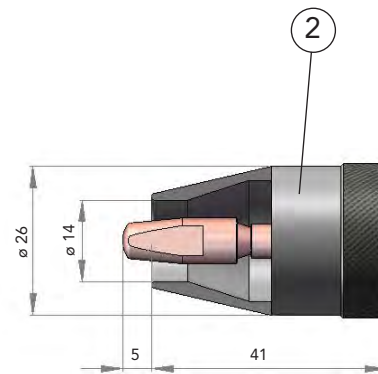
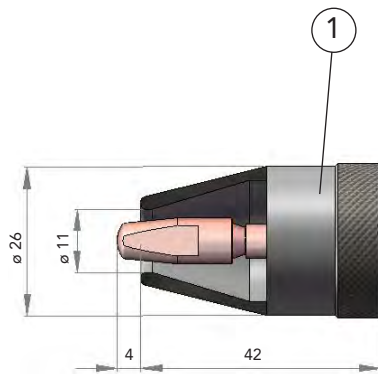
► K - short, R - reduced
Other versions on request.



REVO.torch

Torch heads

DIX METR 398/390/392/394
DIX METZ 598/590/592/594



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5911 A	6390159110
2	Gas nozzle	DI ø 14 mm	DIX 1-3-5914	6390159149

01-00147

subject to change!

06-REVOtorch Robotic Torch-gas_V11



REVO.torch

Torch sets

DIX RET(Z) 310(610)

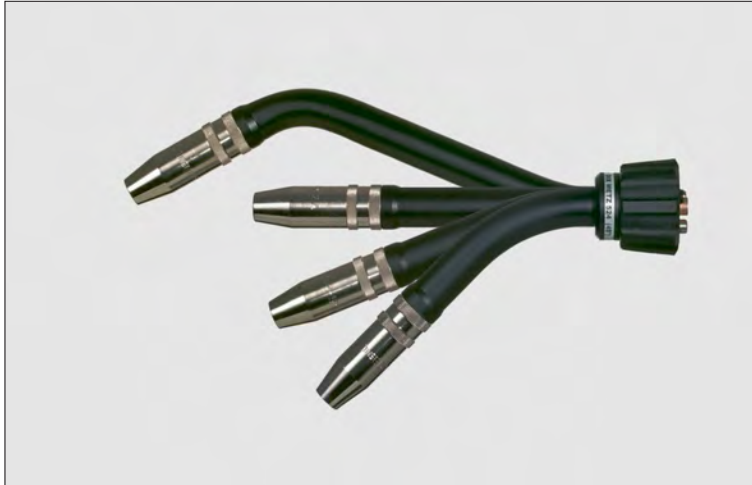
Measuring sensor set

Pos.	Discription	Part number	Article number
1	Measuring sensor set (to equip robotic torch sets for the welding voltage detection)	DIX M150 ME	639153041

► Set only ready-installed available.



REVO.torch



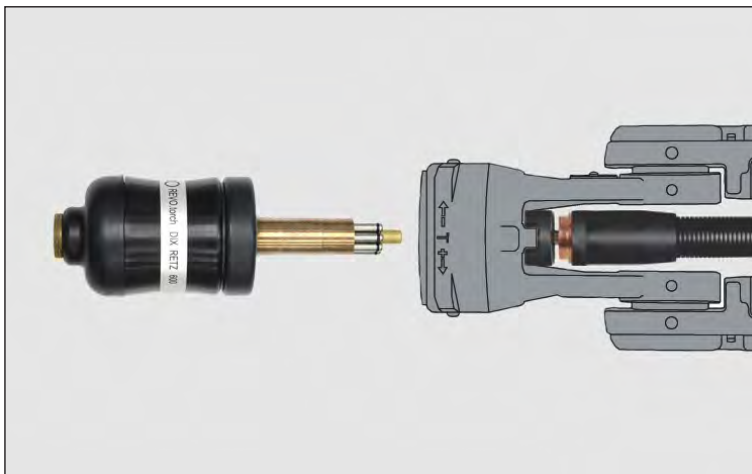
Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30°	DIX	METZ	528
	0°	DIX	METZ	520
	22°	DIX	METZ	522
	45°	DIX	METZ	524

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- For hollow shaft robots
- Unlimited rotation of the torch head
- Torsion free welding torch set
- Service friendly double separability at the rotary interface and the wire feeder
- Separate shield gas hose prevents gas losses
- No time loss for purging after air blast, immediate start of welding
- Precise crash protection system with a maximum deflection of 15° in case of a collision
- Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

Application:

- Non- and low alloyed steels
- High alloyed steels
- Copper- and nickel alloys
- Small to medium material thicknesses



07-00149

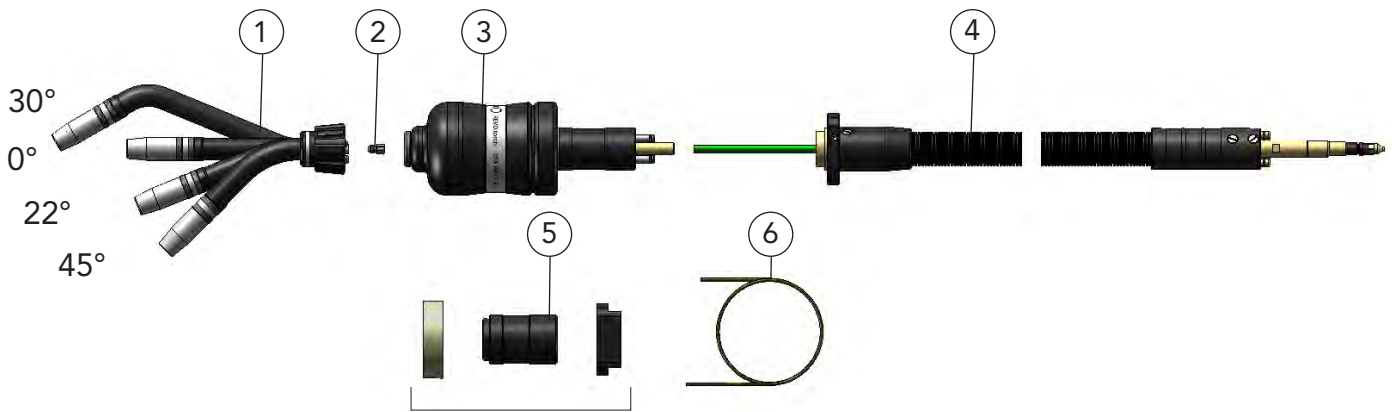
07-REVOtorch Robotic Torches-liquid\U11 subject to change!



REVO.torch

Torch heads

DIX METZ 528
DIX METZ 520
DIX METZ 522
DIX METZ 524



07-00150

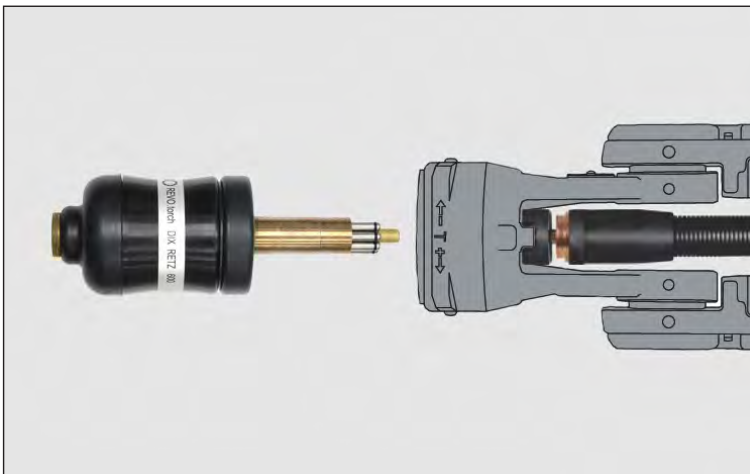
Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METZ 528	631352008
	Torch head, compl.	0°	DIX METZ 520	631352001
	Torch head, compl.	22°	DIX METZ 522	631352002
	Torch head, compl.	45°	DIX METZ 524	631352003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface <small>(the rotary interface [x] is depending on the robot type, sheet 2/4)</small>		DIX RETZ 600 (L)	68710100x
4	Torch set		DIX RETZ 610-x	630132004x
	Torch set, A <small>(the torch set length [x] is depending on the robot type, sheet 3/4)</small>		DIX RETZ 610-x A	630132014x
5	Docking set <small>(the docking set [x] is depending on the robot type, sheet 4/4)</small>		DIX REX 3x	6870023x
6	Liner	ø 2.2mm/2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul <small>(for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)</small>		DIX REMO 100	719283100

► Standard equipment for wire feeder DIX WD 650 X and wire diameter 1.0 mm steel with gas nozzle diameter 12 mm, DIX 1-3-5212 A, (contact tip, DIX 3-1-1.0 S, flush, clamp nut DIX 4-1-MAS, gas diffuser DIX 10-1 MAS). Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

07-REVOtorch Robotic Torches-liquid\U11 subject to change!



REVO.torch



Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30°	DIX	METZ	598
	0°	DIX	METZ	590
	22°	DIX	METZ	592
	45°	DIX	METZ	594

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	400A/100%
Mixed gas:	350A/100%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

- ▶ For hollow shaft robots
- ▶ Unlimited rotation of the torch head
- ▶ Torsion free welding torch set
- ▶ Service friendly double separability at the rotary interface and the wire feeder
- ▶ Separate shield gas hose prevents gas losses
- ▶ No time loss for purging after air blast, immediate start of welding
- ▶ Precise crash protection system with a maximum deflection of 15° in case of a collision
- ▶ Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

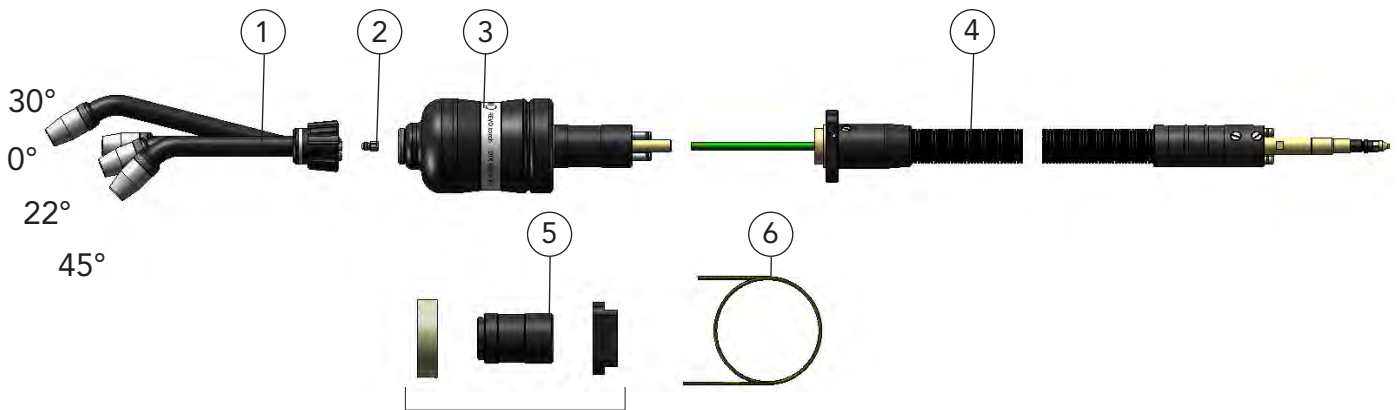
Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper- and nickel alloys
- ▶ Small to medium material thicknesses

REVO.torch

Torch heads

- DIX METZ 598
- DIX METZ 590
- DIX METZ 592
- DIX METZ 594



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METZ 598	631359009
	Torch head, compl.	0°	DIX METZ 590	631359001
	Torch head, compl.	22°	DIX METZ 592	631359002
	Torch head, compl.	45°	DIX METZ 594	631359003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface (the rotary interface [x] is depending on the robot type, sheet 2/4)		DIX RETZ 600 (L)	68710100x
4	Torch set		DIX RETZ 610-x	630132004x
	Torch set, A (the torch set length [x] is depending on the robot type, sheet 3/4)		DIX RETZ 610-x A	630132014x
5	Docking set (the docking set [x] is depending on the robot type, sheet 4/4)		DIX REX 3x	6870023x
6	Liner	∅ 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul (for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)		DIX REMO 100	719283100

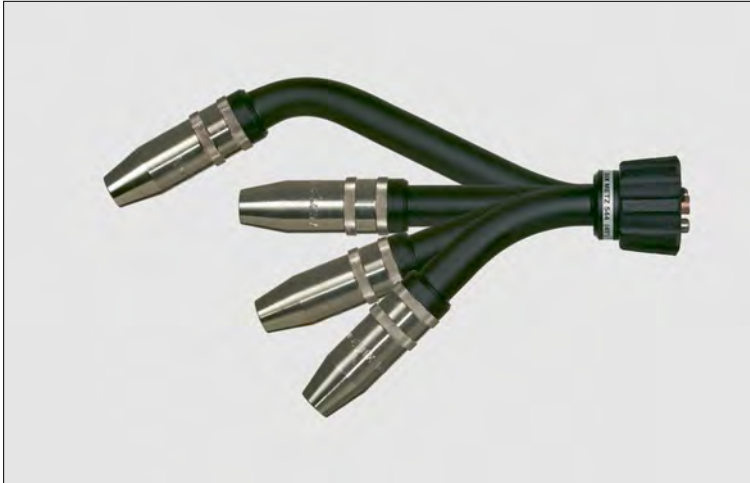
► Standard equipment for wire feeder DIX WD 650 X and wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip, DIX 3-2-1.0, set back, gas diffuser DIX GVT 590).
Use the box spanner DIX SLAT 3 to fix the torch head.
Variants deviating of the standard fittings on request.

07-00152

07-REVOtorch Robotic Torches-liquid\U11 subject to change.



REVO.torch



Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30°	DIX METZ	548
	0°	DIX METZ	540
	22°	DIX METZ	542
	45°	DIX METZ	544

Double - circuit liquid cooled

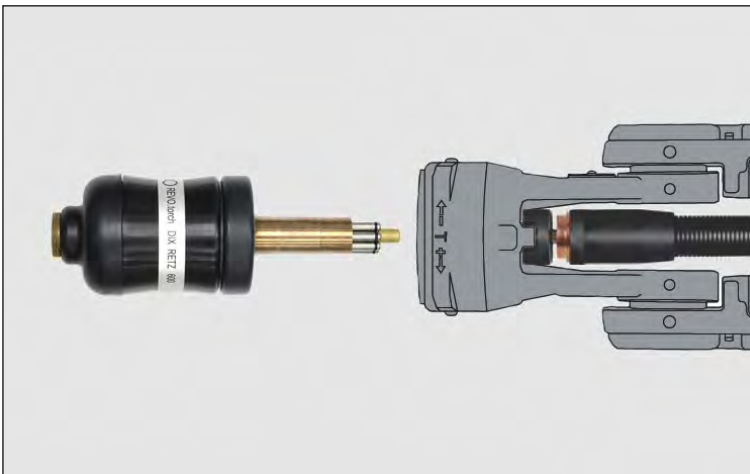
Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	450A/100%
Mixed gas:	400A/100%
Wire diameter:	1.0 - 1.6 mm

Technical benefits:

- ▶ For hollow shaft robots
- ▶ Unlimited rotation of the torch head
- ▶ Torsion free welding torch set
- ▶ Service friendly double separability at the rotary interface and the wire feeder
- ▶ Separate shield gas hose prevents gas losses
- ▶ No time loss for purging after air blast, immediate start of welding
- ▶ Precise crash protection system with a maximum deflection of 15° in case of a collision
- ▶ Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

Application:

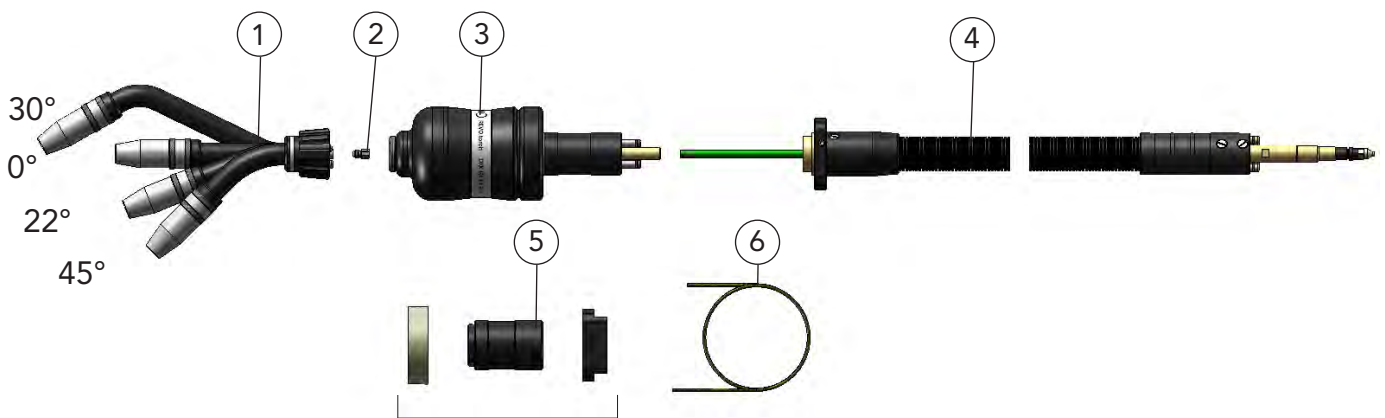
- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper- and nickel alloys
- ▶ Medium to large material thicknesses



REVO.torch

Torch heads

- DIX METZ 548**
- DIX METZ 540**
- DIX METZ 542**
- DIX METZ 544**



07-00154

Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METZ 548	631154019
	Torch head, compl.	0°	DIX METZ 540	631354001
	Torch head, compl.	22°	DIX METZ 542	631354002
	Torch head, compl.	45°	DIX METZ 544	631154001
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface <small>(the rotary interface [x] is depending on the robot type, sheet 2/4)</small>		DIX RETZ 600 (L)	68710100x
4	Torch set Torch set, A <small>(the torch set length [x] is depending on the robot type, sheet 3/4)</small>		DIX RETZ 610-x DIX RETZ 610-x A	630132004x 630132014x
5	Docking set <small>(the docking set [x] is depending on the robot type, sheet 4/4)</small>		DIX REX 3x	6870023x
6	Liner	∅ 2.2mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul <small>(for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)</small>		DIX REMO 100	719283100

► Standard equipment for wire feeder DIX WD 650 X and wire diameter 1.2 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5415 A, (contact tip, DIX 3-2-1.2 S, flush, clamp nut DIX 4-2-MAS, gas diffuser DIX 10-3-540). Use the box spanner DIX SLAT to fix the torch heads. Variants deviating of the standard fittings on request.

07-REVOtorch Robotic Torches-liquidU11 subject to change.



REVO.torch



Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30° DIX METZ	568
	0° DIX METZ	560
	22° DIX METZ	562
	45° DIX METZ	564

Double - circuit liquid cooled

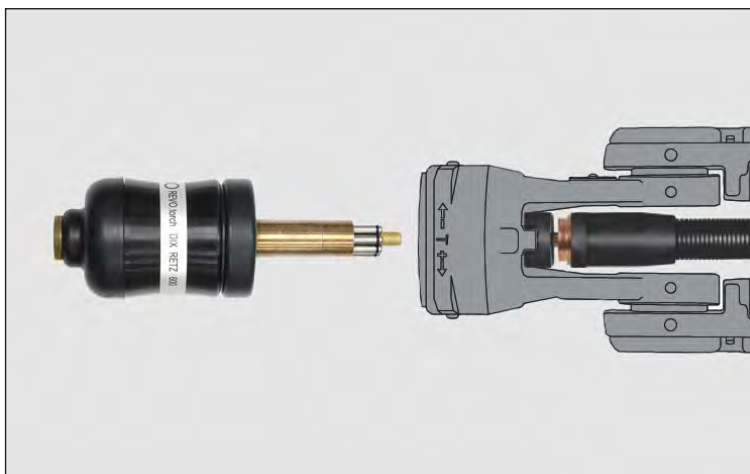
Gas nozzle:	with cooling jacket
	duty cycle
CO ₂ :	550A/100%
Mixed gas:	500A/100%
Wire diameter:	1.2 - 1.6 mm

Technical benefits:

- ▶ For hollow shaft robots
- ▶ Unlimited rotation of the torch head
- ▶ Torsion free welding torch set
- ▶ Service friendly double separability at the rotary interface and the wire feeder
- ▶ Separate shield gas hose prevents gas losses
- ▶ No time loss for purging after air blast, immediate start of welding
- ▶ Precise crash protection system with a maximum deflection of 15° in case of a collision
- ▶ Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper- and nickel alloys
- ▶ Large material thicknesses



07-00155

07-REVOtorch Robotic Torches-liquidU11 subject to change!



REVO.torch

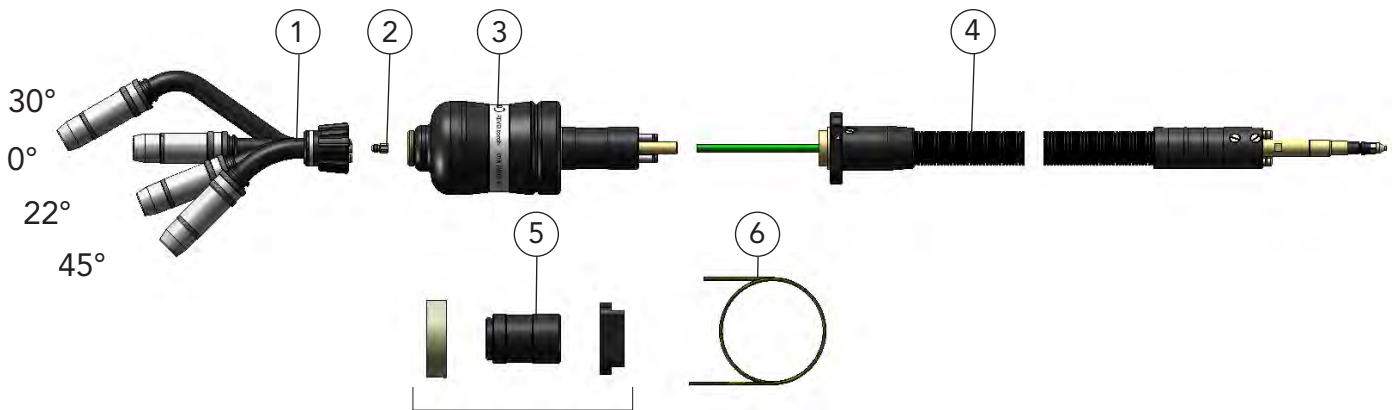
Torch heads

DIX METZ 568

DIX METZ 560

DIX METZ 562

DIX METZ 564



07-00156

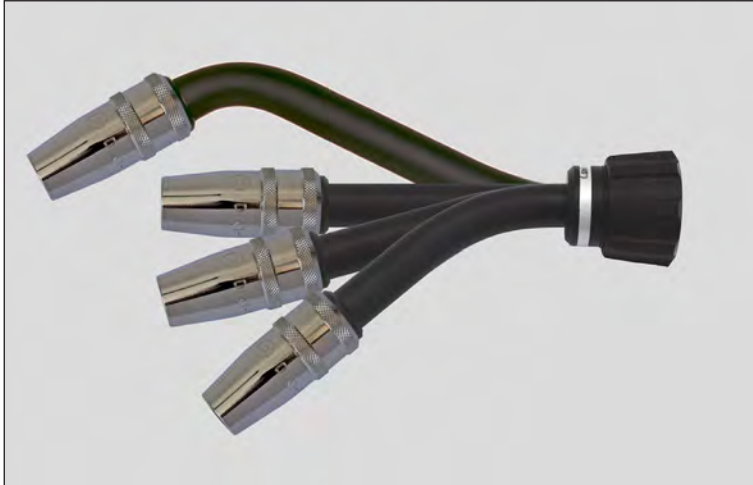
07-REVOtorch Robotic Torches-liquid\U11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METZ 568	631356011
	Torch head, compl.	0°	DIX METZ 560	631356001
	Torch head, compl.	22°	DIX METZ 562	631356002
	Torch head, compl.	45°	DIX METZ 564	631356003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface (the rotary interface [x] is depending on the robot type, sheet 2/4)		DIX RETZ 600 (L)	68710100x
4	Torch set		DIX RETZ 610-x	630132004x
	Torch set, A (the torch set length [x] is depending on the robot type, sheet 3/4)		DIX RETZ 610-x A	630132014x
5	Docking set (the docking set [x] is depending on the robot type, sheet 4/4)		DIX REX 3x	6870023x
6	Liner	ø 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul (for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)		DIX REMO 100	719283100

► Standard equipment for wire feeder DIX WD 650 X and wire diameter 1.2 mm steel with cooling jacket DIX KM 100, gas nozzle diameter 18 mm, DIX KMG 118 TR, (contact tip, DIX 3-2-1.2 M8, flush, tip adapter DIX GS 2-M8, gas diffuser DIX 10-3-540). Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.



REVO.torch



Technical data (DIN EN 60 974-7):

Torch heads:

Swan neck	30°	DIX	METZ	578
	0°	DIX	METZ	570
	22°	DIX	METZ	572
	45°	DIX	METZ	574

Double - circuit liquid cooled

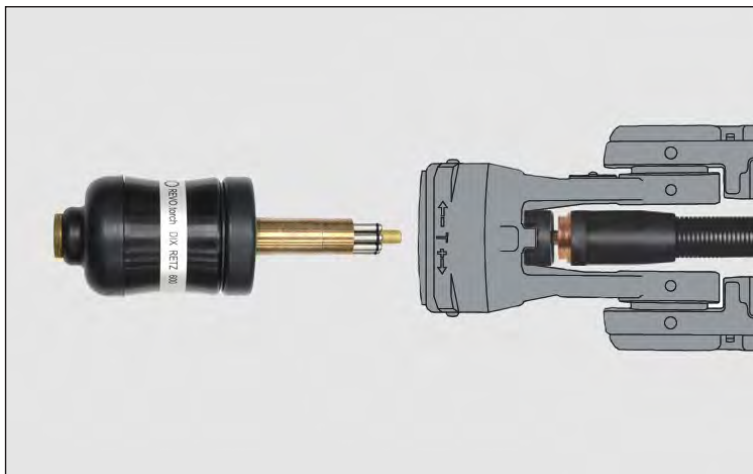
Gas nozzle:	with cooling jacket
	duty cycle
CO ₂ :	550A/100%
Mixed gas:	500A/100%
Wire diameter:	1.2 - 2.0 mm

Technical benefits:

- ▶ For hollow shaft robots
- ▶ Unlimited rotation of the torch head
- ▶ Torsion free welding torch set
- ▶ Service friendly double separability at the rotary interface and the wire feeder
- ▶ Separate shield gas hose prevents gas losses
- ▶ No time loss for purging after air blast, immediate start of welding
- ▶ Precise crash protection system with a maximum deflection of 15° in case of a collision
- ▶ Automatic high resetting accuracy of ± 0.03 mm at a distance of 450 mm from the robot flange

Application:

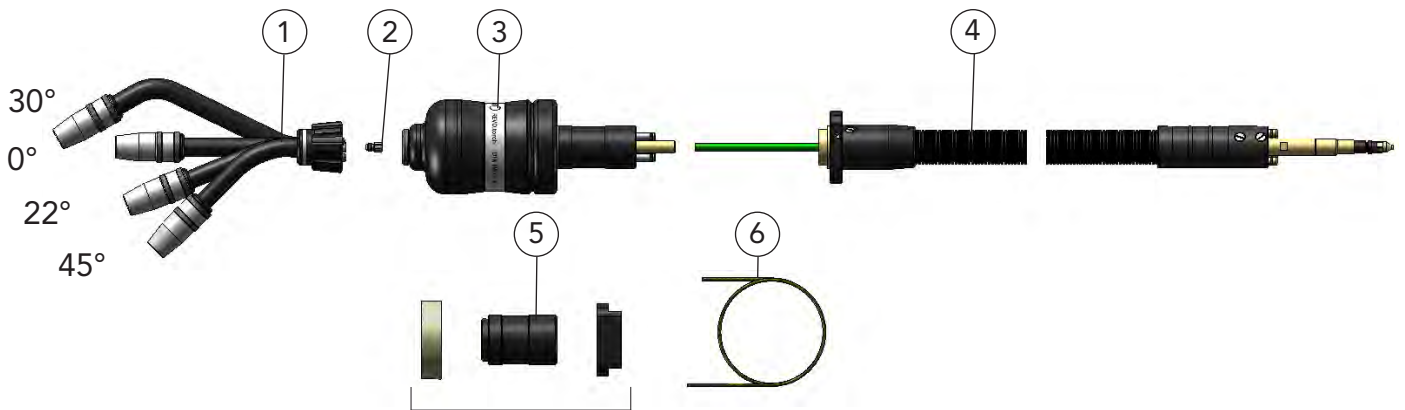
- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Copper- and nickel alloys
- ▶ Large material thicknesses



REVO.torch

Torch heads

- DIX METZ 578
- DIX METZ 570
- DIX METZ 572
- DIX METZ 574



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	Swan neck, 30°	DIX METZ 578	631357005
	Torch head, compl.	0°	DIX METZ 570	631357001
	Torch head, compl.	22°	DIX METZ 572	631357002
	Torch head, compl.	45°	DIX METZ 574	631357003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Rotary interface <small>(the rotary interface [x] is depending on the robot type, sheet 2/4)</small>		DIX RETZ 600 (L)	68710100x
4	Torch set		DIX RETZ 610-x	630132004x
	Torch set, A <small>(the torch set length [x] is depending on the robot type, sheet 3/4)</small>		DIX RETZ 610-x A	630132014x
5	Docking set <small>(the docking set [x] is depending on the robot type, sheet 4/4)</small>		DIX REX 3x	6870023x
6	Liner	∅ 2.2 mm /2.0m	DIX DS 4/2.2-2.0	623000320
7	Protection modul <small>(for shock sensor in the wire feeder DIX WD 650 X, only assembled available, without picture)</small>		DIX REMO 100	719283100

► Standard equipment for wire feeder DIX WD 650 X and wire diameter 1.2 mm steel with gas nozzle diameter 18 mm, DIX 1-3-5718 A, (contact tip, DIX 3-2-1.2 M8, flush, gas diffuser DIX 10-2-305 K). Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

07-00158

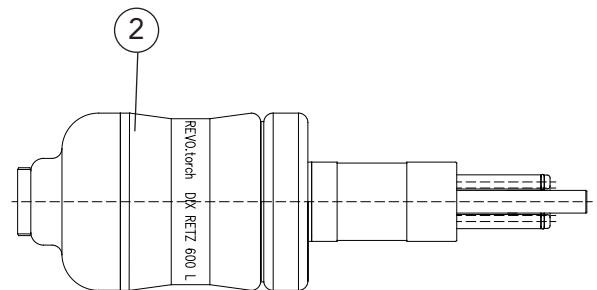
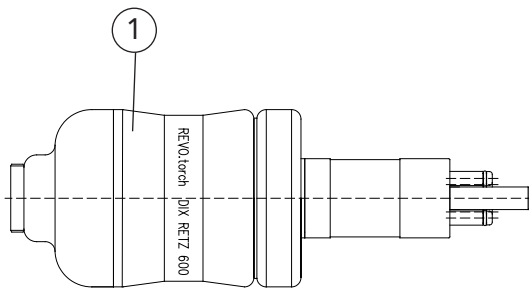
07-REVOtorch Robotic Torches-liquid\U11 subject to change!



REVO.torch

Rotary interface

DIX RETZ 600 (L)



07-00159

07-REVOtorch Robotic Torches-liquid\U11 subject to change!

Pos.	Description	Part number	Article number
1	Rotary interface robot type ABB: IRB 1600 ID Fanuc: ARC MATE 100iC ARC MATE 120iC ARC MATE 120iC/10L Motoman: EA 1400N SSA 2000 EA 1900N Kuka: KR 5 arc HW	DIX RETZ 600	687101001
2	Rotary interface robot type Motoman: EA 1800N	DIX RETZ 600 L	687101008

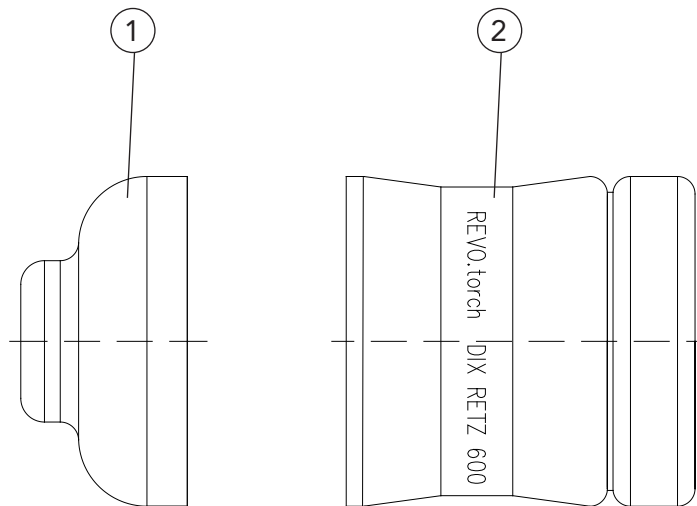
► Variants deviating of the standard fittings on request.



REVO.torch

Rotary interface

DIX RETZ 600 (L)

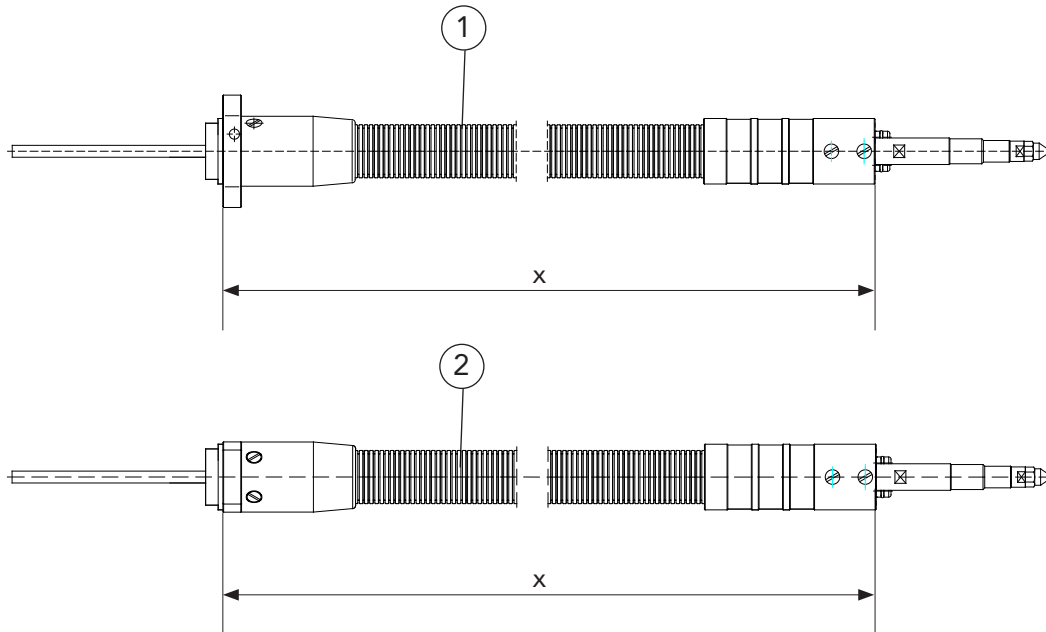


Pos.	Description	Dimension	Part number	Article number
1	Dust boot		DIX RET 072	687001002
2	Handle		DIX RETZ 073	687101006
	Handle		DIX RETZ 073 L	687101023
	O-ring (for connection nipple, without picture)	(10 pcs.)		629061018

REVO.torch

Torch sets

DIX RETZ 610



Pos.	Description	Dimension	Part number	Article number
1	Torch set	x m	DIX RETZ 610-x	630132004x
x	- robot type (Length of the torch set)			
	ABB: IRB 1600 ID	0.89 m		
	Fanuc: ARC MATE 100iC	1.20 m		
	ARC MATE 120iC	1.40 m		
	ARC MATE 120iC/10L	1.60 m		
	Motoman: EA 1400N	0.78 m		
	SSA 2000	0.78 m		
	EA 1800N	1.08 m		
	EA 1900N	1.08 m		
2	Torch set, A	x m	DIX RETZ 610-x A	630132014x
	(Connection handle at 90° twisted)			
x	- robot type (Length of the torch set)			
	Kuka: KR 5 arc HW	0.78 m A		

► Variants deviating of the standard fittings on request.

07-00161

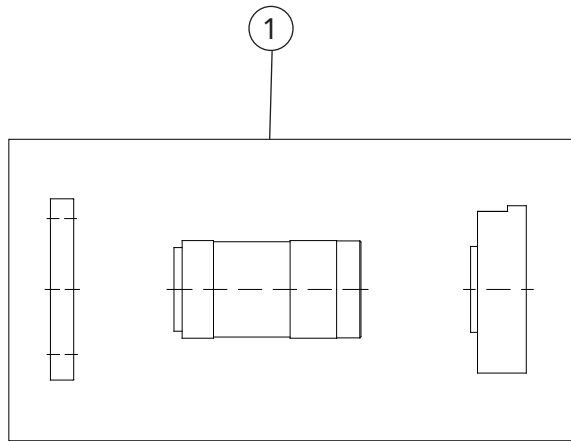
07-REVOtorch Robotic Torches-liquid\U11 subject to change!



REVO.torch

Docking sets

DIX REX 3xx



07-00162

Pos.	Description	serial number	Part number	Article number
1	Docking set	3xx	DIX REX 3xx	6870023xx
x	robot type			
	ABB: IRB 1600 ID	302		
	Fanuc: ARC MATE 100iC	303		
	ARC MATE 120iC	307		
	ARC MATE 120iC/10L	303		
	Kuka: KR 5 arc HW	304		
	Motoman: EA 1400 N	300		
	SSA 2000	300		
	EA 1800 N	305		
	EA 1900 N	300		
	Reis: RV 20-6 HW	308		

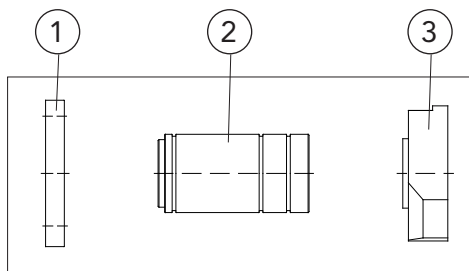
07-REVOtorch Robotic Torches-liquid\U11 subject to change!

► Variants deviating of the standard fittings on request.

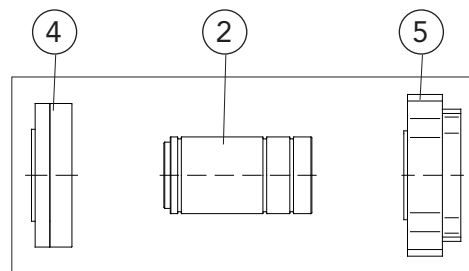
REVO.torch

Docking sets

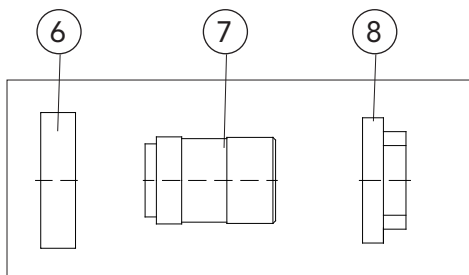
DIX REX 3xx



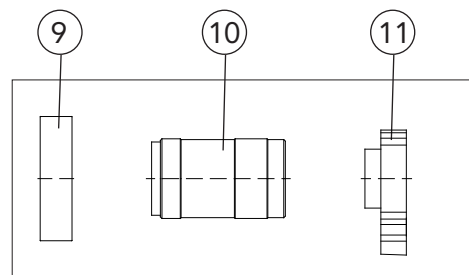
DIX REX 300



DIX REX 302



DIX REX 303



DIX REX 304

07-00163

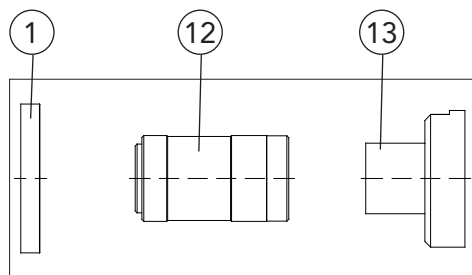
07-REVOtorch Robotic Torches-liquidU11 subject to change!

Pos.	Description	Part number	Article number
1	REVO adapter flange	DIX ADFR 6300	687003300
2	Bearing sleeve	DIX REL 300	687004300
3	Anti twist safeguard	DIX REV 300	687005300
4	REVO adapter flange	DIX ADFR 6302	687003302
5	Anti twist safeguard	DIX REV 302	687005302
6	REVO adapter flange	DIX ADFR 6303	687003303
7	Bearing sleeve	DIX REL 303	687004303
8	Anti twist safeguard	DIX REV 303	687005303
9	REVO adapter flange	DIX ADFR 6304	687003304
10	Bearing sleeve	DIX REL 304	687004304
11	Anti twist safeguard	DIX REV 304	687005304

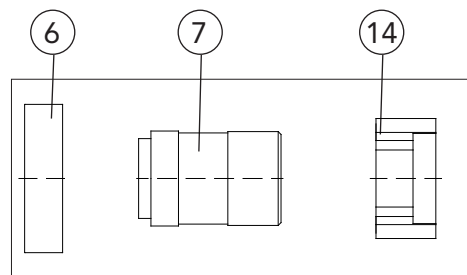
REVO.torch

Docking sets

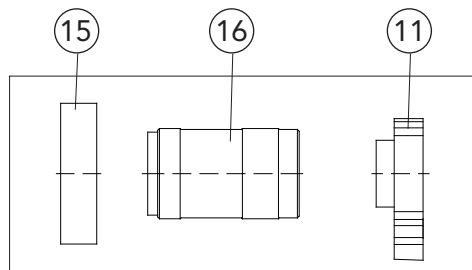
DIX REX 3xx



DIX REX 305



DIX REX 307



DIX REX 308

Pos.	Description	Part number	Article number
11	Anti twist safeguard	DIX REV 304	687005304
12	Bearing sleeve	DIX REL 305	687004305
13	Anti twist safeguard	DIX REV 305	687005305
14	Anti twist safeguard	DIX REV 307	687005307
15	REVO adapter flange	DIX ADFR 6308	687003308
16	Bearing sleeve	DIX REL 308	687004308

07-00164

07-REVOtorch Robotic Torches-liquid\U11 subject to change.

REVO.torch

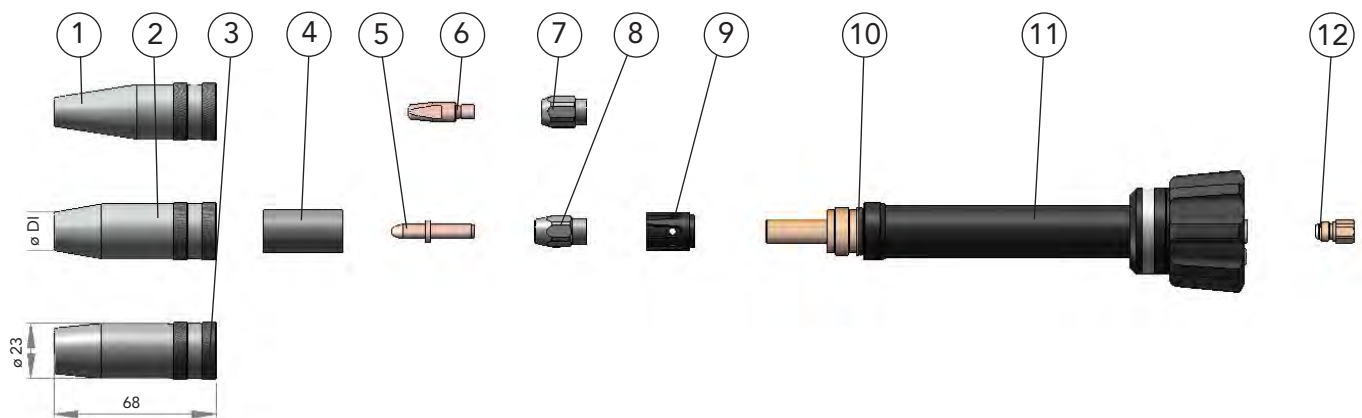
Torch heads

DIX METZ 528

DIX METZ 520

DIX METZ 522

DIX METZ 524



Pos.	Discription	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5215 A	6390152150
4	Insulator (for Pos. 2 and 3)		DIX 2-3-520	6390252000
5	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
6	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Tip adapter		DIX GS 1-K	618150001
8	Clamp nut		DIX 4-1-MAS	6390452000
9	Gas diffuser		DIX 10-1-MAS	6391052000
10	O - ring	(10 pcs.)		639060002
11	Torch neck	swan neck, 30°	DIX 6-3-528 METZ	6390635280
	Torch neck	0°	DIX 6-3-520 METZ	6390635200
	Torch neck	22°	DIX 6-3-522 METZ	6390635220
	Torch neck	45°	DIX 6-3-524 METZ	6390635240
12	Connecting piece, MATZ		DIX MES 300/500	639061500041

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

REVO.torch

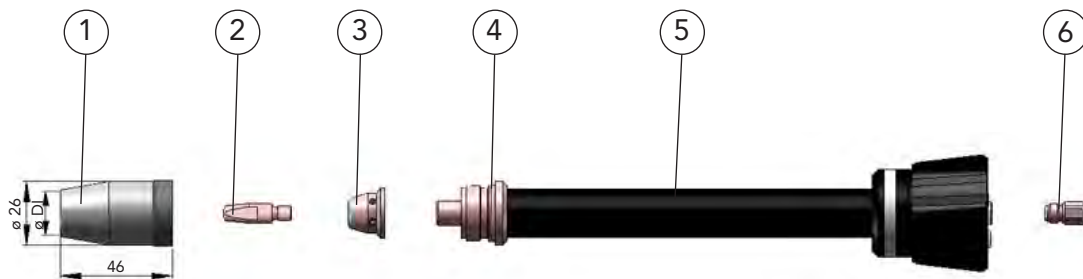
Torch heads

DIX METZ 598

DIX METZ 590

DIX METZ 592

DIX METZ 594



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Gas diffuser		DIX GVT 590	6391059001
	Gas diffuser		DIX GVT 590 K	6391059003
4	O - ring	(10 pcs.)		639060001
5	Torch neck	swan neck, 30°	DIX 6-3-598 METZ	6390635980
	Torch neck	0°	DIX 6-3-590 METZ	6390635900
	Torch neck	22°	DIX 6-3-592 METZ	6390635920
	Torch neck	45°	DIX 6-3-594 METZ	6390635940
6	Connecting piece, MATZ		DIX MES 300/500	639061500041

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

REVO.torch

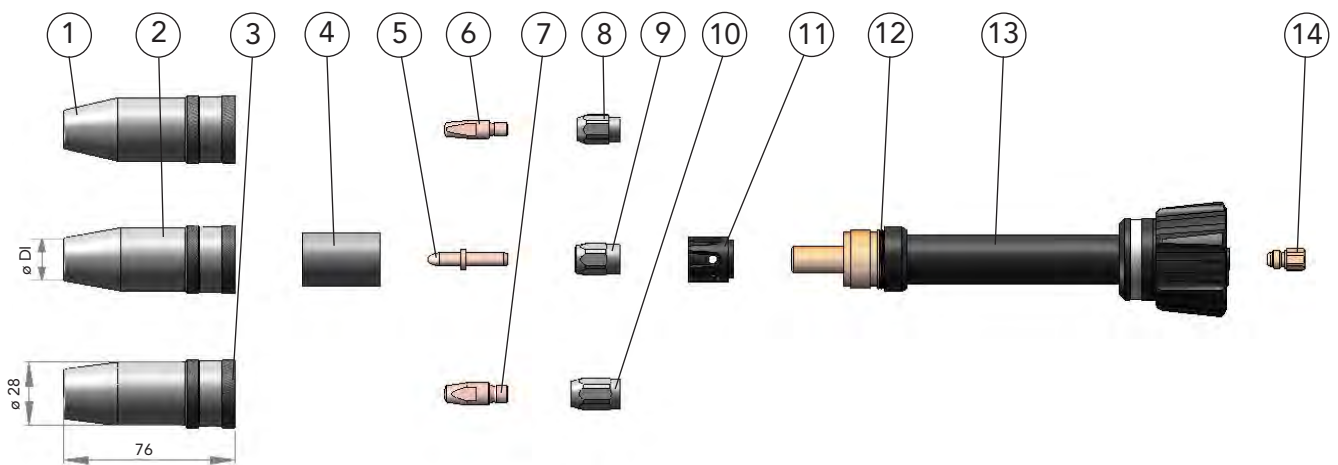
Torch heads

DIX METZ 548

DIX METZ 540

DIX METZ 542

DIX METZ 544



Pos.	Discription	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 13 mm	DIX 1-3-5413 A	6390154130
2	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Contact tip	\varnothing 8 x 45 mm	DIX 3-2-xx SR	6290354xx
6	Contact tip	M6 x 24 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Tip adapter	M6	DIX GS 2 M6	628150006
9	Clamp nut		DIX 4-2-MAS	6390454000
10	Tip adapter	M8	DIX GS 2 M8	628150008
11	Gas diffuser		DIX 10-3-540	6391054000
12	O - ring	(10 pcs.)		639060003
13	Torch neck	swan neck, 30°	DIX 6-3-548 METZ	6390635480
	Torch neck	0°	DIX 6-3-540 METZ	6390635400
	Torch neck	22°	DIX 6-3-542 METZ	6390635420
	Torch neck	45°	DIX 6-3-544 METZ	6390635440
14	Connecting piece, MATZ		DIX MES 300/500	639061500041

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.

REVO.torch

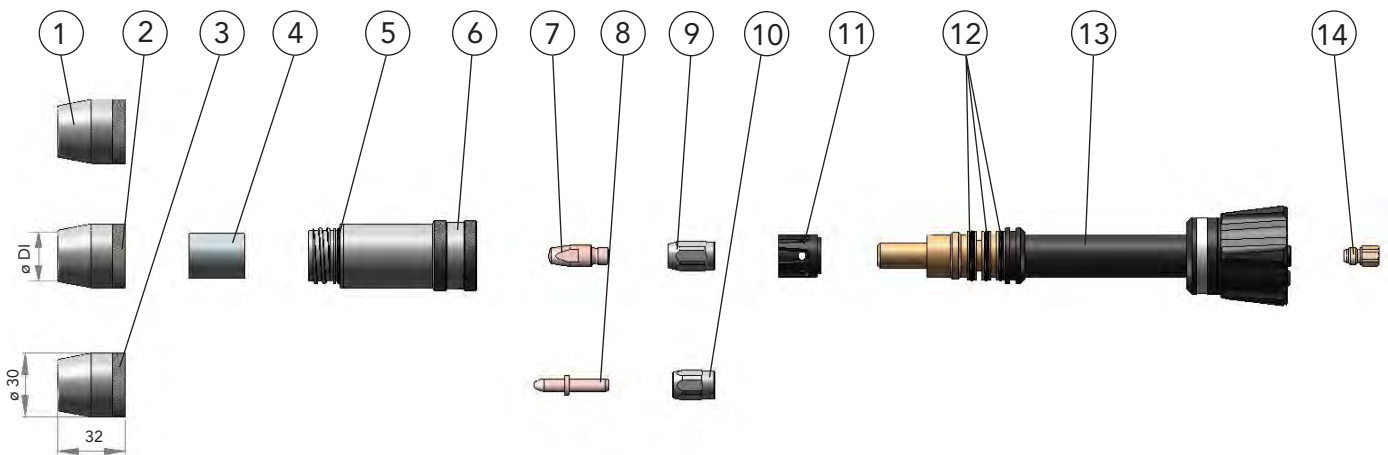
Torch heads

DIX METZ 568

DIX METZ 560

DIX METZ 562

DIX METZ 564



Pos.	Discription	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX KMG 115 TR	628040315
2	Gas nozzle	DI \varnothing 18 mm	DIX KMG 118 TR	628040318
3	Gas nozzle	DI \varnothing 21 mm	DIX KMG 121 TR	628040321
4	Cooling jacket - insulator		DIX KME 100	628040302
5	O - ring, 23x1.5 Viton	(10 pcs.)		629110904
6	Cooling jacket (with sealing ring)		DIX KM 100	628040301
7	Contact tip	M8 x 28mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Contact tip	\varnothing 8 x 45mm	DIX 3-2-xx SR	6290354xx
9	Tip adapter	M8	DIX GS 2-M8	628150008
10	Clamp nut		DIX 4-2-MAS	6390454000
11	Gas diffuser		DIX 10-3-540	6391054000
12	O - ring	(10 pcs.)		639060005
13	Torch neck	swan neck, 30°	DIX 6-3-568 METZ	6390635680
	Torch neck	0°	DIX 6-3-560 METZ	6390635600
	Torch neck	22°	DIX 6-3-562 METZ	6390635620
	Torch neck	45°	DIX 6-3-564 METZ	6390635640
14	Connecting piece, MATZ		DIX MES 300/500	639061500041

xx - Standard diameter: 1.2 mm and 1.6 mm. Other diameters on request.

REVO.torch

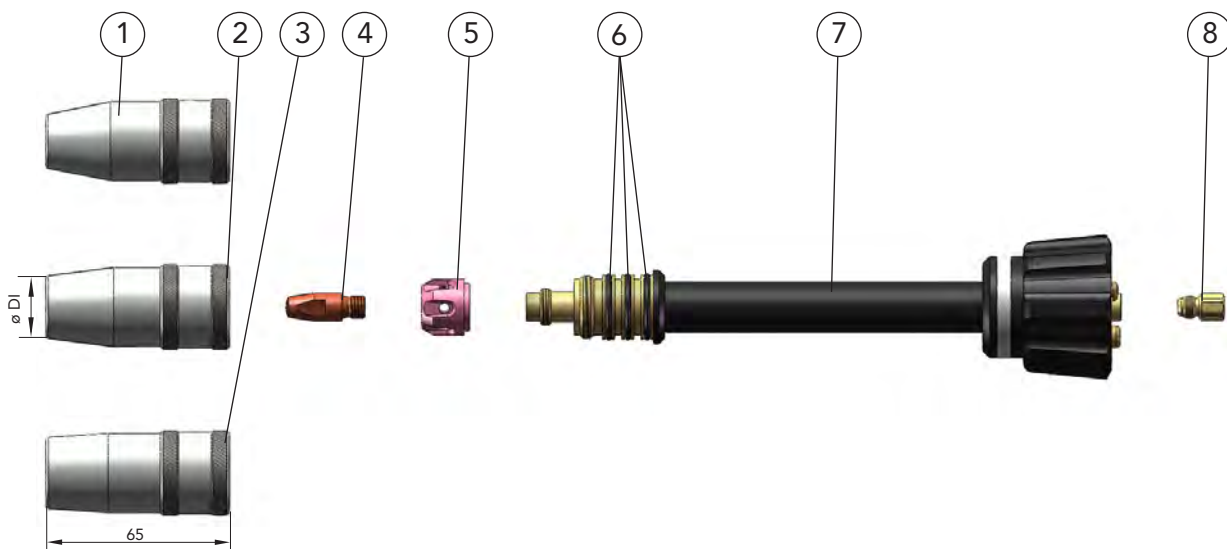
Torch heads

DIX METZ 578

DIX METZ 570

DIX METZ 572

DIX METZ 574



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø15 mm	DIX 1-3-5715 A	6390157150
2	Gas nozzle	DI ø18 mm	DIX 1-3-5718 A	6390157180
3	Gas nozzle	DI ø21 mm	DIX 1-3-5721 A	6390157210
4	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
5	Gas diffusor		DIX 10-2-305 K	6291003051
6	O - ring, 20x1.7 mm	(10 pcs.)		629110911
7	Torch neck	0°	DIX 6-3-570 METZ	6390635700
	Torch neck	22°	DIX 6-3-572 METZ	6390635720
	Torch neck	45°	DIX 6-3-574 METZ	6390635740
	Torch neck	Swan neck, 30°	DIX 6-3-578 METZ	6390635780
8	Connection piece		DIX MES 300/500	639061500041

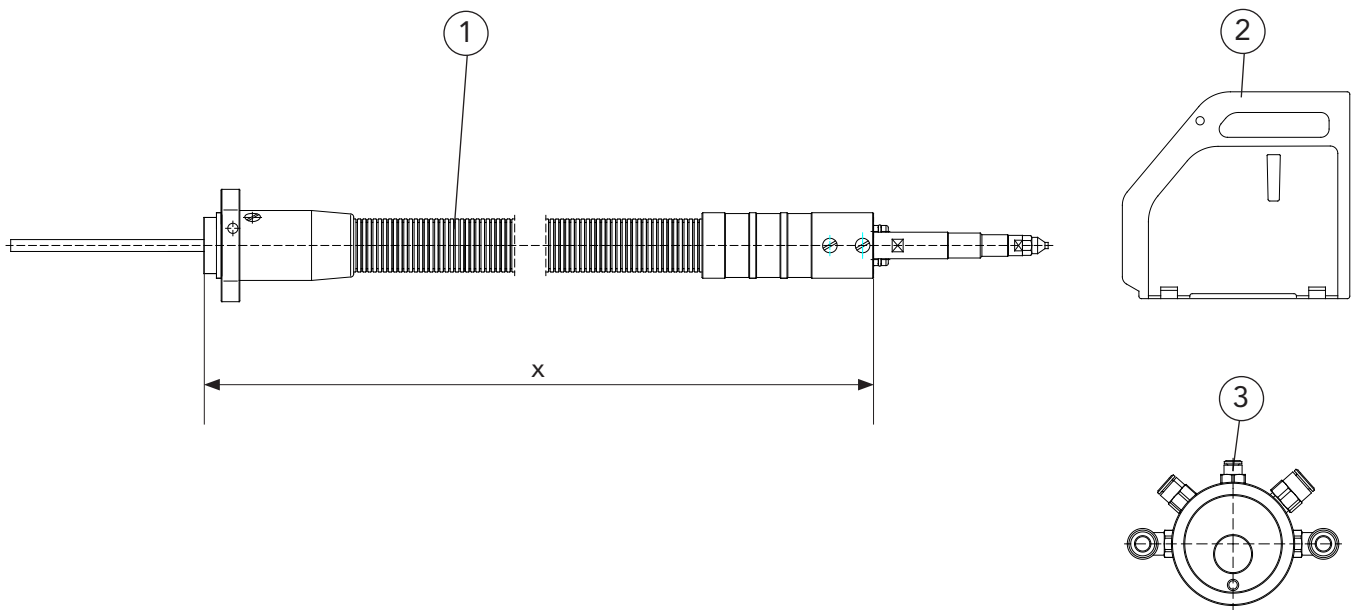
xx - Standard diameter: 1.2 mm, 1.6 mm and 2.0 mm. Other diameter on request.

REVO.torch

Torch sets

DIX RETZ 610

Special equipment for various wire feeders



Pos.	Description	Dimension	Part number	Article number
1	Torch set	x m	DIX RETZ 610-x/00y	63013200yx
x	- robot type (Length of the torch set)			
	ABB: IRB 1600 ID	0.89 m	Motoman: EA 1400N	0.78 m
	Fanuc: ARC MATE 100iC	1.20 m	MA 1400	0.78 m
	ARC MATE 100iC/6L	1.40 m	SSA 2000	0.78 m
	ARC MATE 120iC	1.40 m	EA 1800N	1.08 m
	ARC MATE 120iC/10L	1.60 m	MA 1800	1.08 m
			EA 1900N	1.08 m
			MA 1900	1.08 m
2	- Wire feeder type (y):	Fronius: 1, Lincoln, Miller, Motoman: 6, SKS: 2		
3	Connection set		DIX REMA 600/00y	71823600y
2	- Wire feeder type (y):	Fronius: 1, Lincoln: 6, Miller: 5, Motoman: 7, SKS: 2		

► Variants deviating of the special fittings on request.

07-00170

07-REVOtorch Robotic Torches-liquid\U11 subject to change!

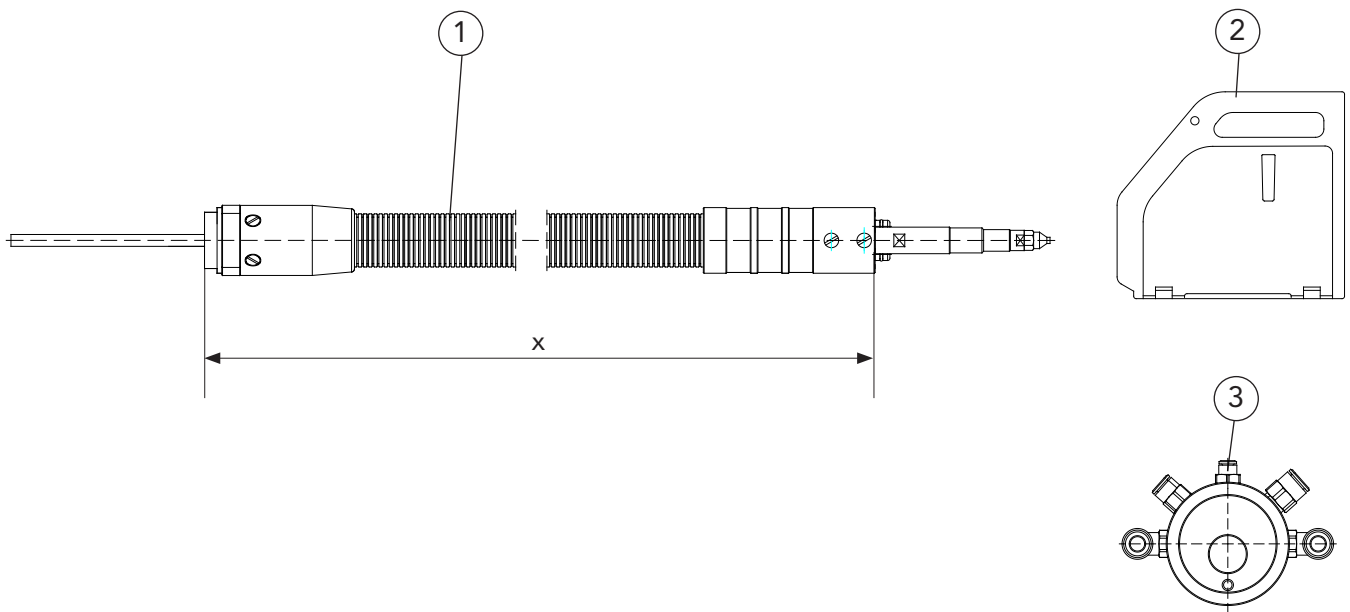


REVO.torch

Torch sets

DIX RETZ 610

Special equipment for various wire feeders



Pos.	Description	Dimension	Part number	Article number
1	Torch set, A (Connection handle at 90° twisted)	x m	DIX RETZ 610-x/00y A	63013201yx
x	- Robot type (Length of the torch set)			
	Kuka: KR 5 arc HW	0.78 m A		
	Reis: RV 20-6 HW	1.20 m A		
2	- Wire feeder type: Fronius: 1, Lincoln, Miller, Motoman: 6, SKS: 2			
3	Connection set		DIX REMA 600/00y	71823600y
2	- Wire feeder type: Fronius: 1, Lincoln: 6, Miller: 5, Motoman: 7, SKS: 2			

► Variants deviating of the special fittings on request.



Special fittings

ROBOTIC TORCHES

gas- and liquid cooled MIG/MAG

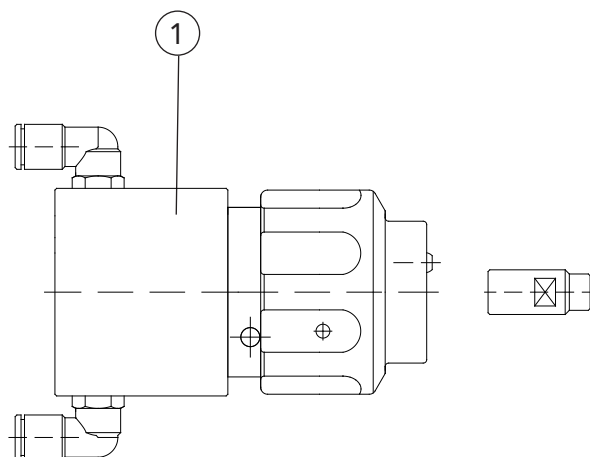


REVO.torch

Connection set

DIX REMA 100 SAZ

Special equipment for various wire feeder with SAZ connection



Pos.	Description	Dimension	Part number	Article number
1	Connection set		DIX REMA 100 SAZ	718231001

► Variants deviating of the standard fittings on request.



Special fittings

ROBOTIC TORCHES

gas- and liquid cooled MIG/MAG

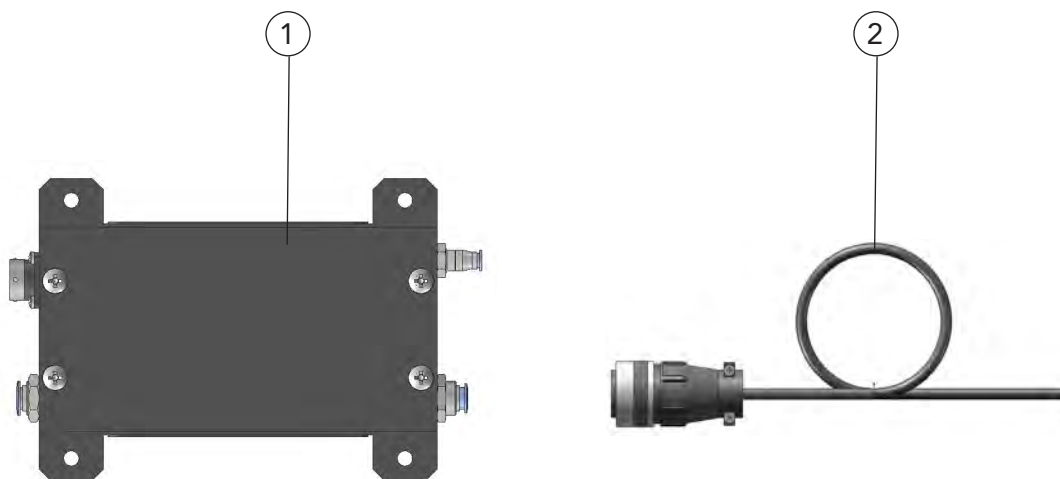


REVO.torch

Protection modul

DIX REMO 101

Special equipment for various wire feeder



Pos.	Description	Dimension	Part number	Article number
1	Protection modul		DIX REMO 101	719283103
2	Connection cable	10,0 m	DIX REAK 100-10	738090110

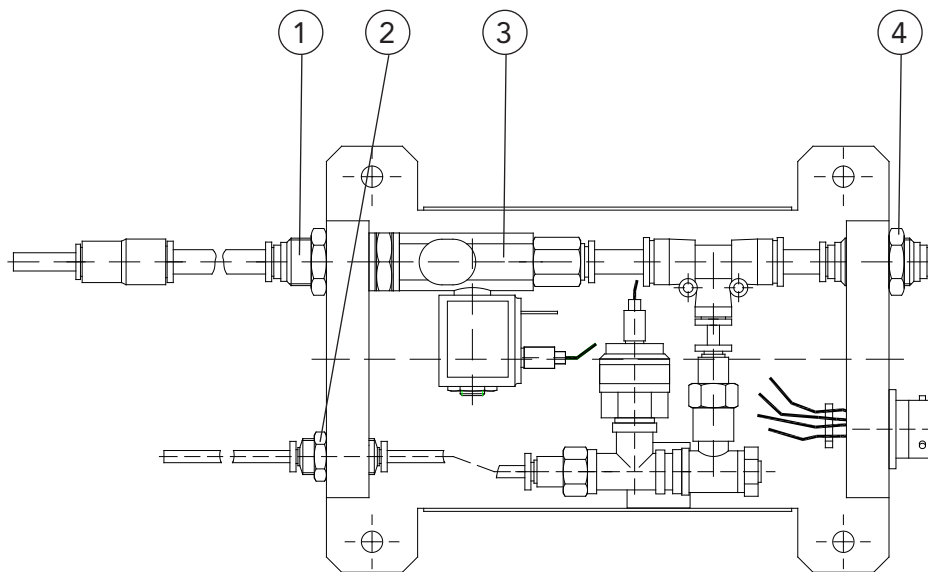
► Variants deviating of the standard fittings on request.



REVO.torch

Protection modul

DIX REMO 101



Pos.	Description	Dimension	Part number	Article number
1	Threaded joint	(5 pcs.)	DIX SSV-G1/4-8	719283105
2	Threaded joint	(5 pcs.)	DIX SSV-4-4	719283106
3	Solenoid valve		DIX GMV-24-1/DC	719283104
4	Threaded joint	(5 pcs.)	DIX SSV-8-8	719283107

Spare parts and wear parts

ROBOTIC TORCHES

liquid cooled

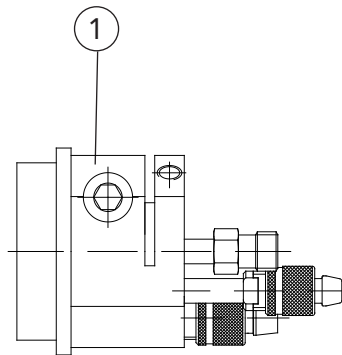
MIG/MAG



REVO.torch

Torch sets (Connecting set)

DIX RETZ 610



Pos.	Description	Part number	Article number
1	REVO - connection	DIX RETZ 150	639151006

07-00175

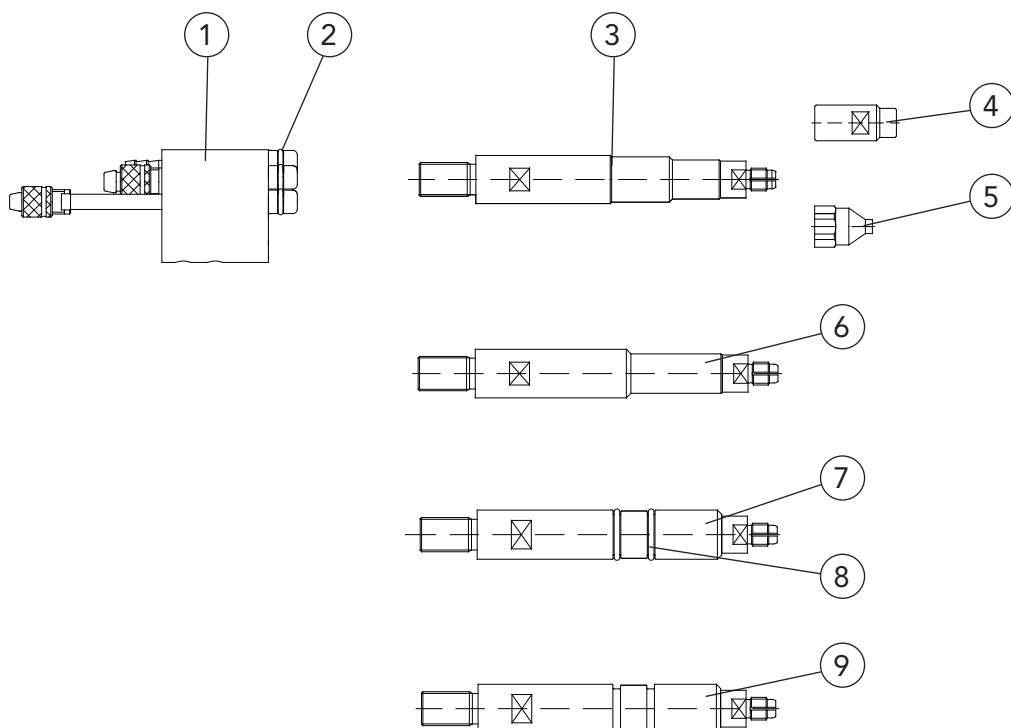
07-REVOtorch Robotic Torches-liquid\U11 subject to change!



REVO.torch

Torch sets (plug)

DIX RETZ 610



Pos.	Description	Dimension	Part number	Article number
1	Plug insert		DIX RETZ 110	639112002
2	O-ring	(10 pcs.)		629061014
3	Connecting mandrel (for Dinse fitting)		DIX READ 100	639151007
4	Guide sleeve (for connection set DIX REMA 100 SAZ, substitute for Intake nozzle DIX RET 301)		DIX RET 303	718200309
5	Intake nozzle		DIX RET 301	639151003
6	Connecting mandrel (for Fronius fitting)		DIX READ 100/001	639151008
7	Connecting mandrel (for SKS fitting)		DIX READ 100/002	639151009
8	O-ring	(10 pcs.)		634013005
9	Connecting mandrel (for Lincoln, Miller, Motoman fittings)		DIX READ 100/006	639151010

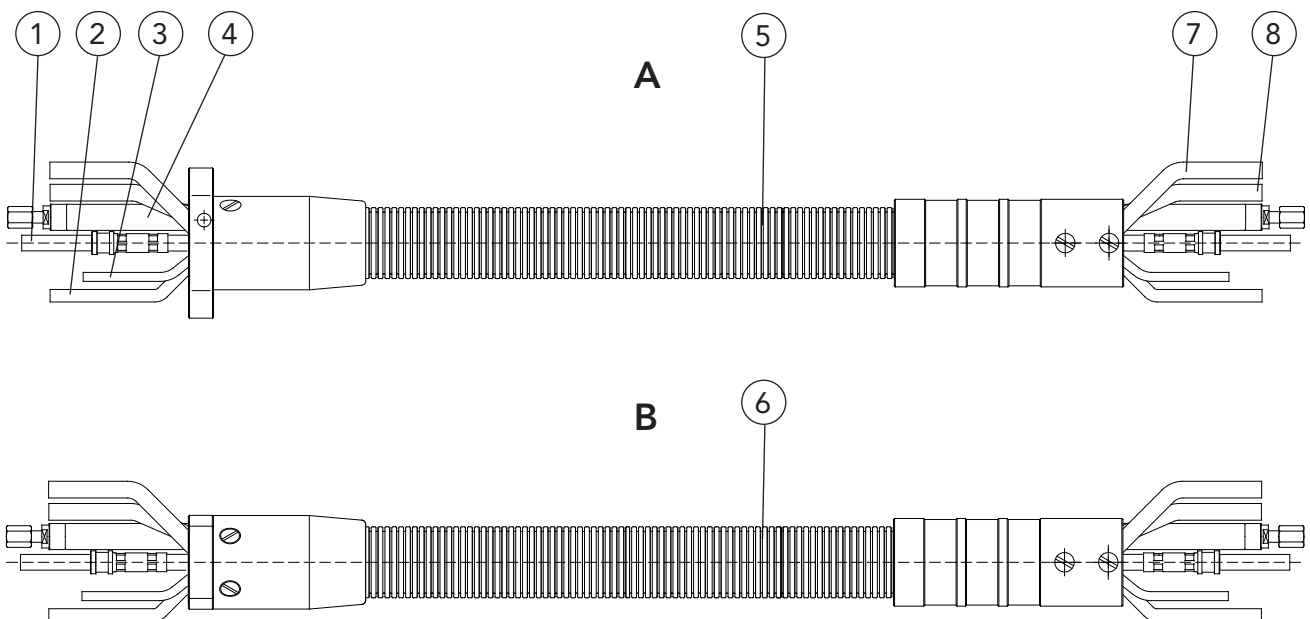
► Other fittings on request.



REVO.torch

Torch sets (supply hose)

DIX RETZ 610



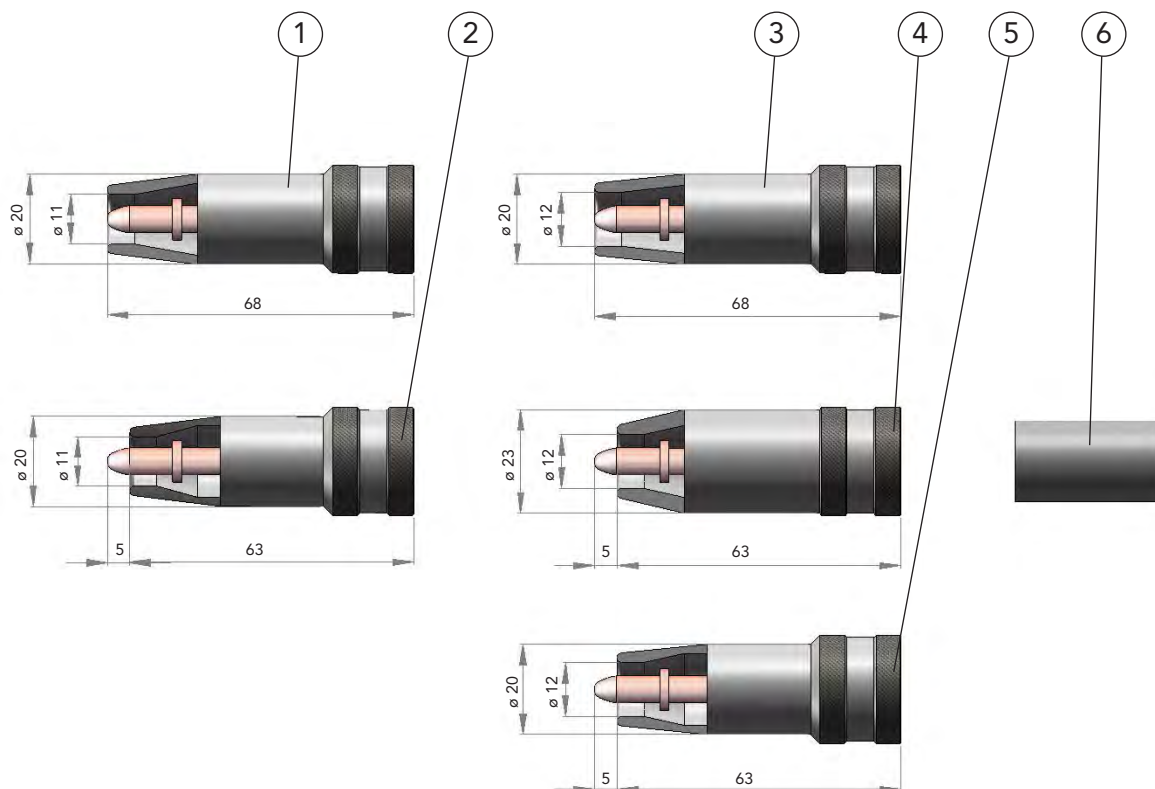
Pos.	Description	part number	Article number
A	Supply hose	DIX VLRETZ 610-x	632132004x
B	Supply hose	DIX VLRETZ 610-x A	632132014x
1	Wire conduit hose	DIX VLRETZ 201-x	639206009x
2	Gas hose	DIX VI 180-x	639186001x
3	Checking gas hose	DIX VLRET 242-x	639247101x
4	Combi cable	DIX VLRETZ 220-x	639226006x
5	Cover hose set	DIX VLRET 230-x	639231003x
6	Cover hose set	DIX VLRET 230-x A	639231013x
7	Air blast hose	DIX VLRET 240-x	639246101x
8	Water hose	DIX VL 190-x	639196001x

x - Standard: 0.78 m, 0.89 m, 1.08 m, 1.20 m, 1.40 m und 1.60 m

REVO.torch

Torch heads

DIX METR 358/350/352/354
DIX METZ 528/520/522/524



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AR	6390152115
2	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AKR	6390152116
3	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AR	6390152125
4	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AK	6390152121
5	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AKR	6390152126
6	Insulator (for Pos. 4)		DIX 2-3-520	6390252000

► K - short, R - reduced
Other versions on request.

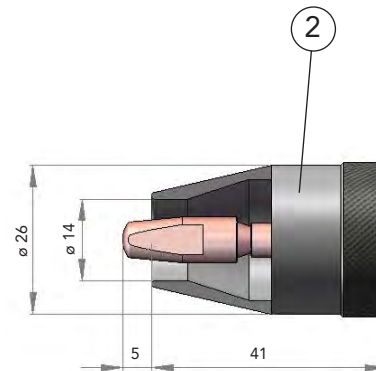
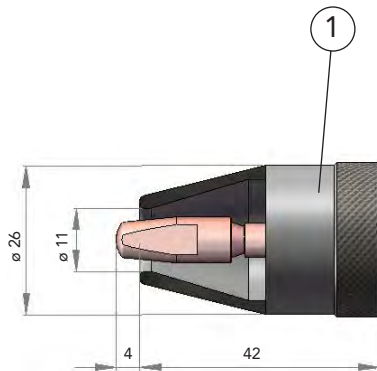


REVO.torch

Torch heads

DIX METR 398/390/392/394

DIX METZ 598/590/592/594



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 11 mm	DIX 1-3-5911 A	6390159110
2	Gas nozzle	DI \varnothing 14 mm	DIX 1-3-5914	6390159149

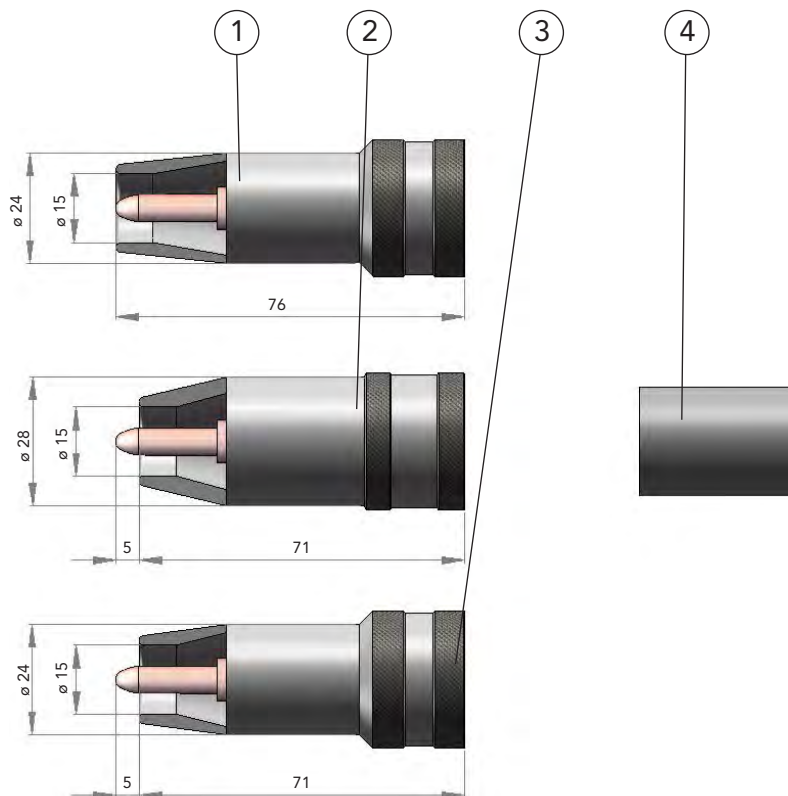
07-00179

07-REVOtorch Robotic Torches-liquid\U11 subject to change!

REVO.torch

Torch heads

DIX METZ 548/540/542/544



07-00180

07-REVOtorch Robotic Torches-liquid\U11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	DI ø 15 mm	DIX 1-3-5415 AK	6390154151
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5415 AKR	6390154156
4	Insulator (for Pos. 2)		DIX 2-3-500	6390250000

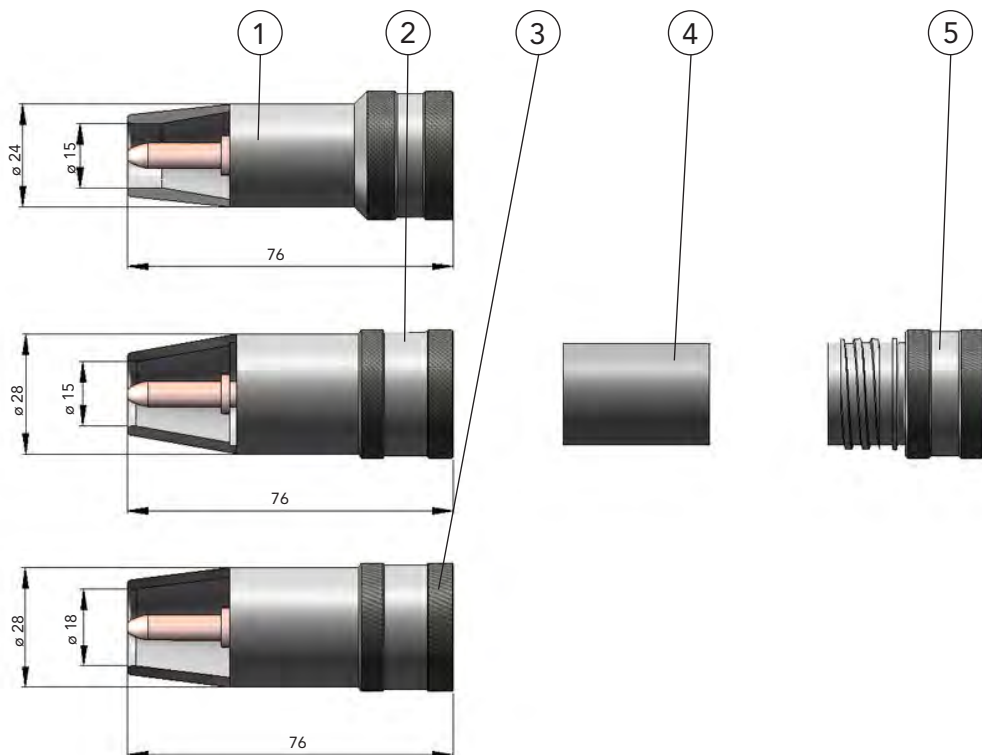
► K - short, R - reduced
Other versions on request.



REVO.torch

Torch heads

DIX METZ 568/560/562/564



07-00181

07-REVOtorch Robotic Torches-liquid\U11 subject to change!

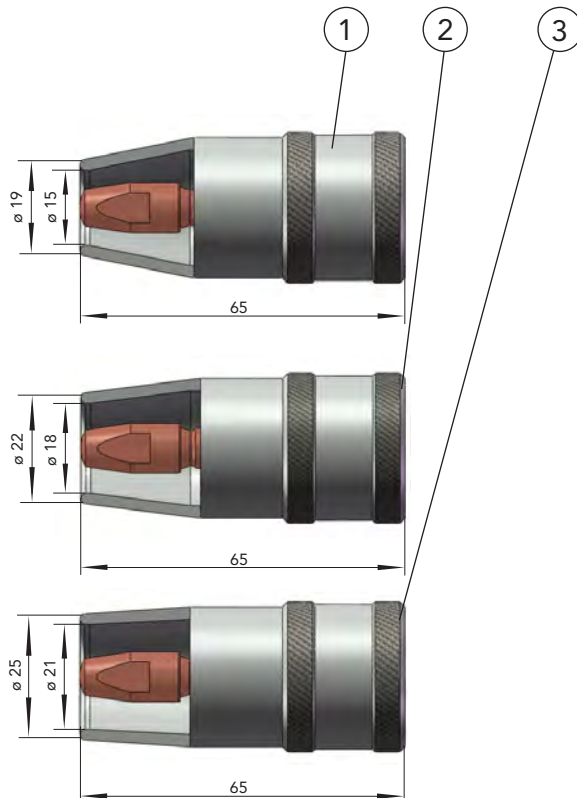
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle (outside diameter reduced)	DI \varnothing 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Screw adapter		DIX SAD 2-404/540	628140000



REVO.torch

Torch heads

DIX METZ 578/570/572/574



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5715 A	6390157150
2	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5718 A	6390157180
3	Gas nozzle	DI \varnothing 21 mm	DIX 1-3-5721 A	6390157210

► Other versions on request.





REVO.torch

Torch sets

DIX RET(Z) 310(610)

Measuring sensor set

Pos.	Discription	Part number	Article number
1	Measuring sensor set (to equip robotic torch sets for the welding voltage detection)	DIX M150 ME	639153041

► Set only ready-installed available.



Separable version

DIX MET 310



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX	MET	350
	22°	DIX	MET	352
	45°	DIX	MET	354

Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed and adjustable bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Small to medium material thicknesses



08-00184

subject to change!

08-Robotic Automatic Torches-gas\J11

Separable version

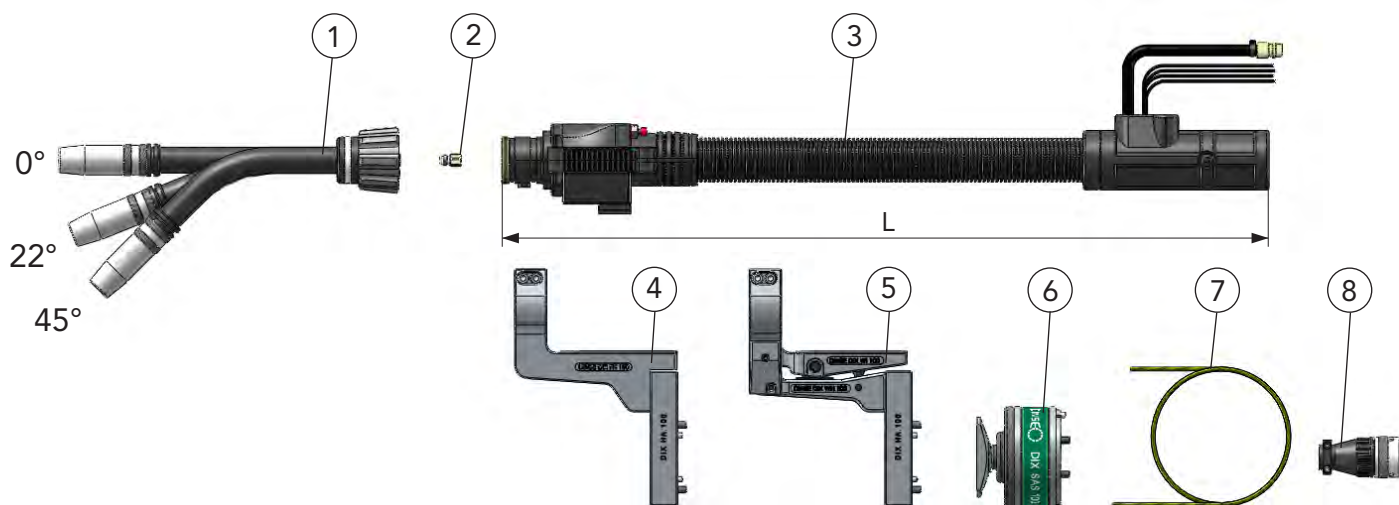
DIX MET 310

Torch heads

DIX MET 350

DIX MET 352

DIX MET 354



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 350	631133008
	Torch head, compl.	22°	DIX MET 352	631133009
	Torch head, compl.	45°	DIX MET 354	631133010
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX MET 310-1.2	630132005
	Torch set, without torch head	1.4 m	DIX MET 310-1.4	630132006
	Torch set, without torch head	2.0 m	DIX MET 310-2.0	630132007
4	Torch bracket, fixed		DIX PHF 100	683500100
5	Torch bracket, adjustable		DIX PHW 100	683501100
6	Shock sensor	ø 78.5 / 65 mm	DIX SAS 100	683100001
7	Liner	ø 1.8mm / 1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	ø 1.8mm / 1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	ø 1.8mm / 2.5m	DIX DS 4/1.8-2.5	613000225
8	Plug set (for GREEN.line wire feeders, only assembled available)		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5215 A, (contact tip DIX 3-1-1.0 S, flush, clamp nut DIX CS 300, insulating sleeve DIX IH 300).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

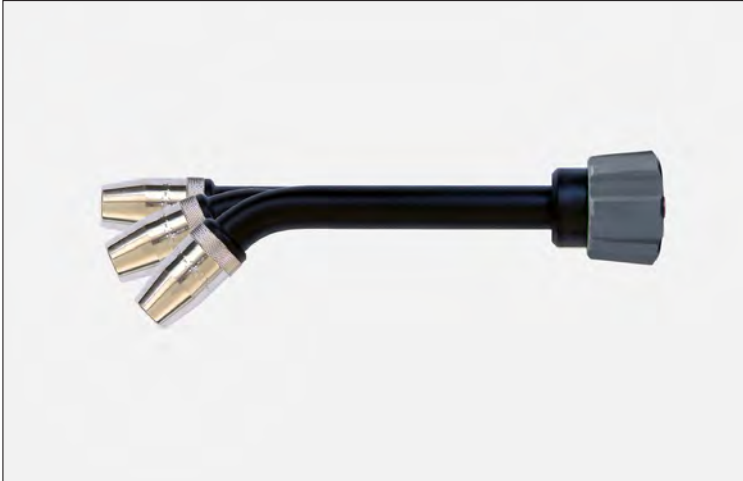
08-00185

subject to change. 08-Robotic Automatic Torches-gas\J1



Separable version

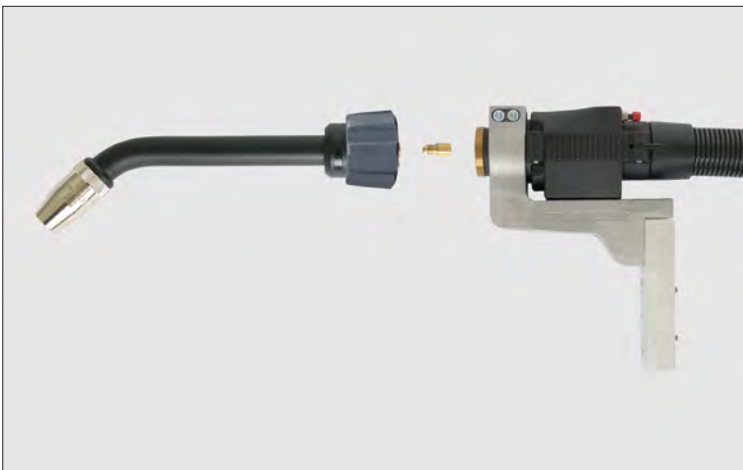
DIX MET 310



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX	MET	390
	22°	DIX	MET	392
	45°	DIX	MET	394

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	350A / 100%
Mixed gas:	300A / 100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules



Application:

- Non- and low alloyed steels
- High alloyed steels
- Small to medium material thicknesses

Separable version

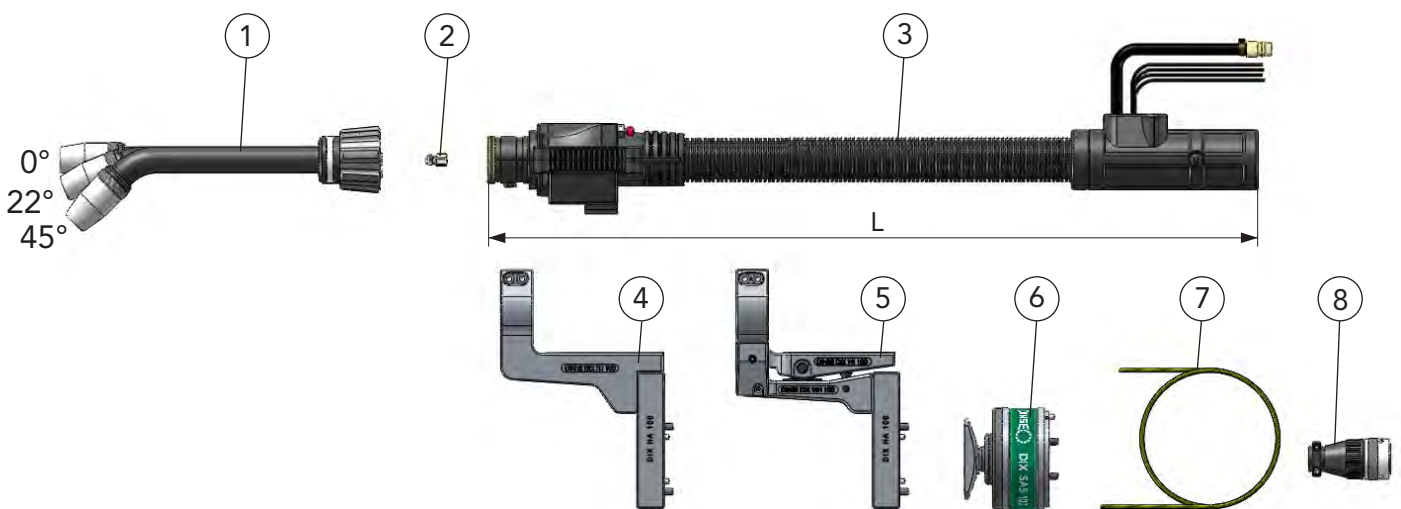
DIX MET 310

Torch heads

DIX MET 390

DIX MET 392

DIX MET 394



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 390	631133004
	Torch head, compl.	22°	DIX MET 392	631133005
	Torch head, compl.	45°	DIX MET 394	631133006
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX MET 310-1.2	630132005
	Torch set, without torch head	1.4 m	DIX MET 310-1.4	630132006
	Torch set, without torch head	2.0 m	DIX MET 310-2.0	630132007
4	Torch bracket, fixed (for DIX SAS 100)		DIX PHF 100	683500100
5	Torch bracket, adjustable (for DIX SAS 100)		DIX PHW 100	683501100
6	Shock sensor	∅ 78.5 /65 mm	DIX SAS 100	683100001
7	Liner	∅ 1.8mm /1.7m	DIX DS 4 /1.8-1.7	613000217
	Liner	∅ 1.8mm /1.9m	DIX DS 4 /1.8-1.9	613000219
	Liner	∅ 1.8mm /2.5m	DIX DS 4 /1.8-2.5	613000225
8	Plug set (for GREEN.line wire feeders, only assembled available)		DIX MEX 100	639077001

- ▶ Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip DIX 3-2-1.0, set back, gas diffusor DIX GVT 590).
TCP (for torch head, 45°) : 441 mm to robotic flange (Offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

08-00187

subject to change!

08-Robotic Automatic Torches-gas\J1



Double separable version

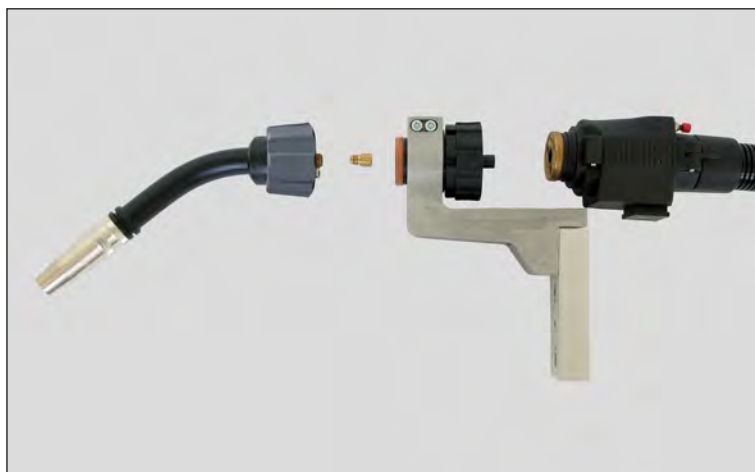
DIX METT 310



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX	MET	350
	22°	DIX	MET	352
	45°	DIX	MET	354

Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed and adjustable bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Small to medium material thicknesses



08-00188

subject to change!

08-Robotic Automatic Torches-gas\J11



Double separable version

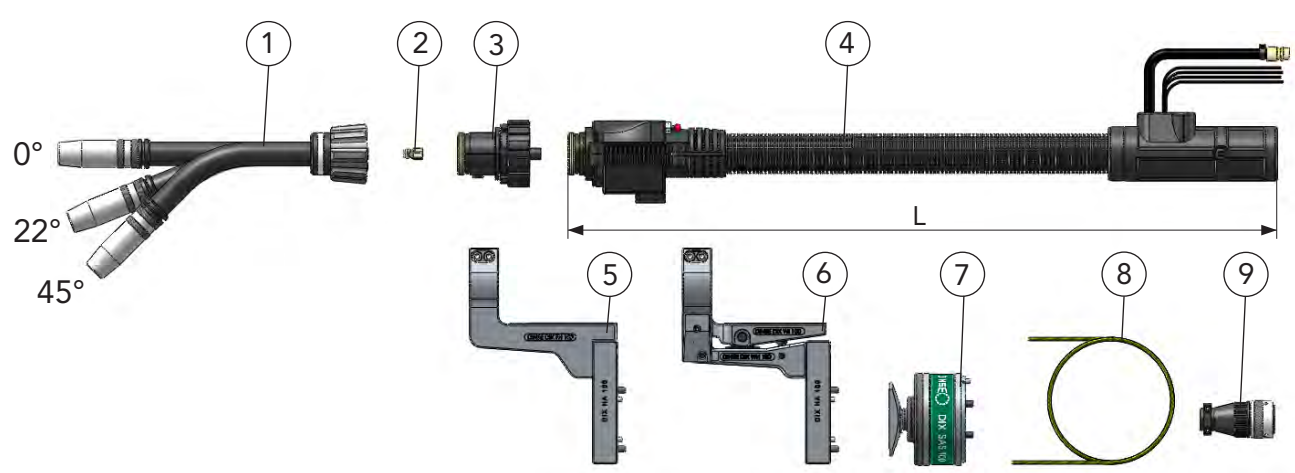
DIX METT 310

Torch heads

DIX MET 350

DIX MET 352

DIX MET 354



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 350	631133008
	Torch head, compl.	22°	DIX MET 352	631133009
	Torch head, compl.	45°	DIX MET 354	631133010
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METT 310-1.2	630133004
	Torch set, without torch head	1.4 m	DIX METT 310-1.4	630133005
	Torch set, without torch head	2.0 m	DIX METT 310-2.0	630133006
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, adjustable		DIX PHW 100	683501100
7	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
8	Liner	∅ 1.8mm/1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	∅ 1.8mm/1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	∅ 1.8mm/2.5m	DIX DS 4/1.8-2.5	613000225
9	Plug set		DIX MEX 100	639077001

(for GREEN.line wire feeders, only assembled available)

- ▶ Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5215 A, (contact tip DIX 3-1-1.0 S, flush, clamp nut DIX CS 300, insulating sleeve DIX IH 300).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

08-00189

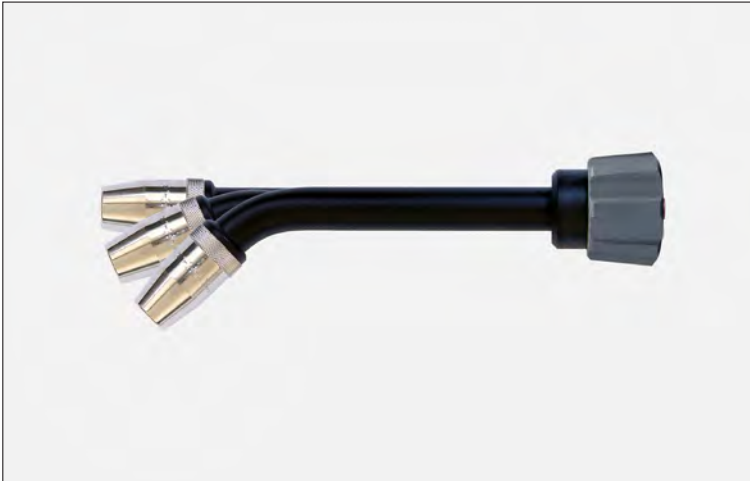
subject to change!

08-Robotic Automatic Torches-gas\J1



Double separable version

DIX METT 310



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX	MET	390
	22°	DIX	MET	392
	45°	DIX	MET	394

Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	350A / 100%
Mixed gas:	300A / 100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Small to medium material thicknesses



Double separable version

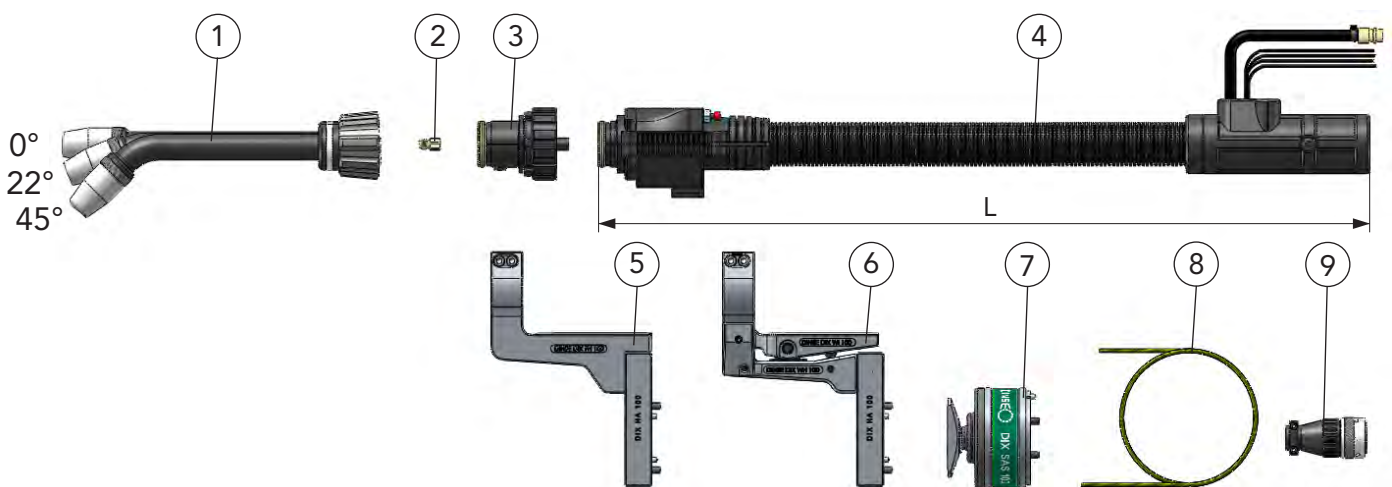
Torch heads

DIX METT 310

DIX MET 390

DIX MET 392

DIX MET 394



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 390	631133004
	Torch head, compl.	22°	DIX MET 392	631133005
	Torch head, compl.	45°	DIX MET 394	631133006
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METT 310-1.2	630133004
	Torch set, without torch head	1.4 m	DIX METT 310-1.4	630133005
	Torch set, without torch head	2.0 m	DIX METT 310-2.0	630133006
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, adjustable		DIX PHW 100	683501100
7	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
8	Liner	∅ 1.8mm / 1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	∅ 1.8mm / 1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	∅ 1.8mm / 2.5m	DIX DS 4/1.8-2.5	613000225
9	Plug set (for GREEN.line wire feeders, only assembled available)		DIX MEX 100	639077001

- Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip DIX 3-2-1.0, set back, gas diffusor DIX GVT 590).
TCP (for torch head, 45°) : 441 mm to robotic flange (Offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

08-00191

subject to change!

08-Robotic Automatic Torches-gas\J11



Double separable version
for PUSH-PUSH and PUSH-PULL



DIX MEPTT 310

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX	MET	350
	22°	DIX	MET	352
	45°	DIX	MET	354

Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules
- ▶ **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder

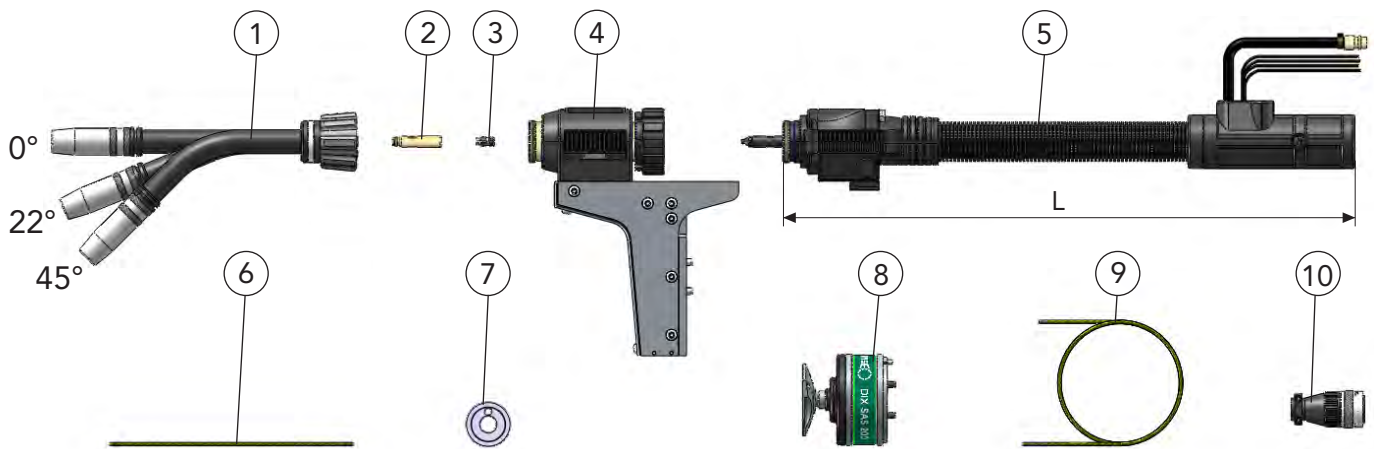
Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Small to medium material thicknesses

Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTT 310

- DIX MET 350
- DIX MET 352
- DIX MET 354



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 350	631133008
	Torch head, compl.	22°	DIX MET 352	631133009
	Torch head, compl.	45°	DIX MET 354	631133010
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket, tacho (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTT 310-5.0	630631004
	Torch set, without torch head	7.0 m	DIX MEPTT 310-7.0	630631005
6	Liner	∅ 1.8 mm/0.3m	DIX DS 4/1,8-0,3	639300001
7	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
10	Plug set (for GREEN.line wire feeders, only assembled available)		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5215 A, (contact tip DIX 3-1-1.0 S, flush, clamp nut DIX CS 300, insulating sleeve DIX IH 300).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

08-00193

subject to change!

08-Robotic Automatic Torches-gas\J11



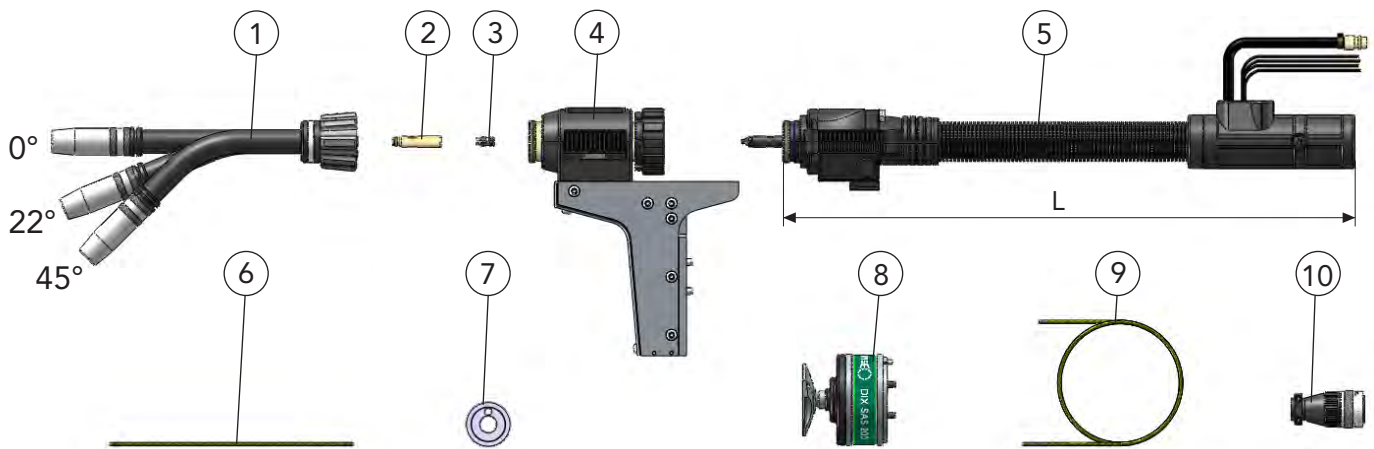
Double separable version
for PUSH-PULL
Torch heads

DIX MEPTT 310

DIX MET 350

DIX MET 352

DIX MET 354



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 350	631133008
	Torch head, compl.	22°	DIX MET 352	631133009
	Torch head, compl.	45°	DIX MET 354	631133010
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTT 310-1.2	630631001
	Torch set, without torch head	1.4 m	DIX MEPTT 310-1.4	630631002
	Torch set, without torch head	2.0 m	DIX MEPTT 310-2.0	630631003
6	Liner	∅ 1.8 mm/0.3m	DIX DS 4/1.8-0,3	639300001
7	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/1.7m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9 mm/1.9m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9 mm/2.5m	DIX DS 4/2.9-2.5	623000525
10	Plug set (for GREEN.line wire feeders, only assembled available)		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5215 A, (contact tip DIX 3-1-1.0 S, flush, clamp nut DIX CS 300, insulating sleeve DIX IH 300).

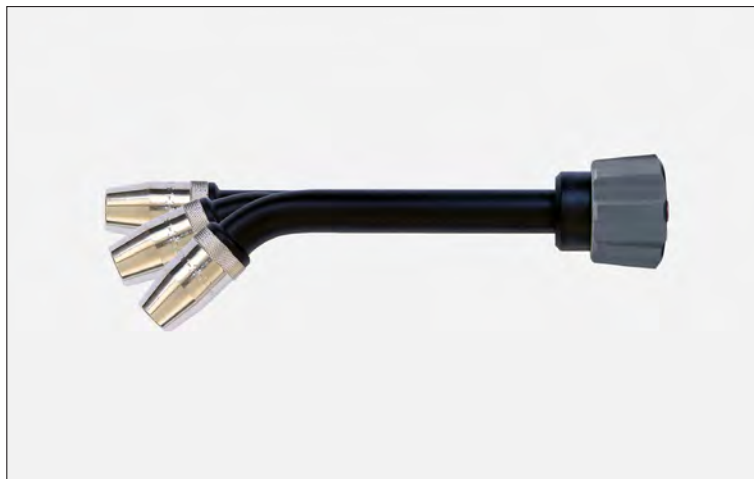
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.

Variants deviating of the standard fittings on request.



Double separable version
for PUSH-PUSH and PUSH-PULL

DIX MEPTT 310



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX	MET	390
	22°	DIX	MET	392
	45°	DIX	MET	394

Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	350A / 100%
Mixed gas:	300A / 100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules
- **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder



Application:

- Non- and low alloyed steels
- High alloyed steels
- Small to medium material thicknesses

08-00195

subject to change!

08-Robotic Automatic Torches-gas\J11



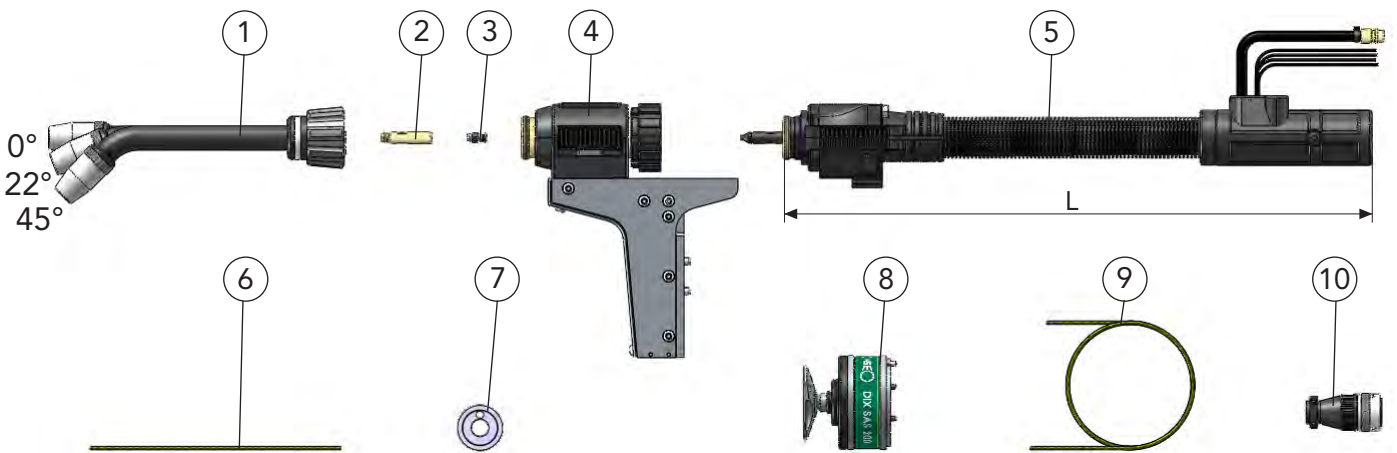
Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTT 310

DIX MET 390

DIX MET 392

DIX MET 394



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 390	631133004
	Torch head, compl.	22°	DIX MET 392	631133005
	Torch head, compl.	45°	DIX MET 394	631133006
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket, tacho (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTT 310-5.0	630631004
	Torch set, without torch head	7.0 m	DIX MEPTT 310-7.0	630631005
6	Liner	∅ 1.8 mm/0.3m	DIX DS 4/1.8-0.3	639300001
7	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
10	Plug set		DIX MEX 100	639077001

(for GREEN.line wire feeders, only assembled available)

- ▶ Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip DIX 3-2-1.0, set back, gas diffusor DIX GVT 590).
TCP (for torch head, 45°) : 441 mm to robotic flange (Offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

08-00196

subject to change!

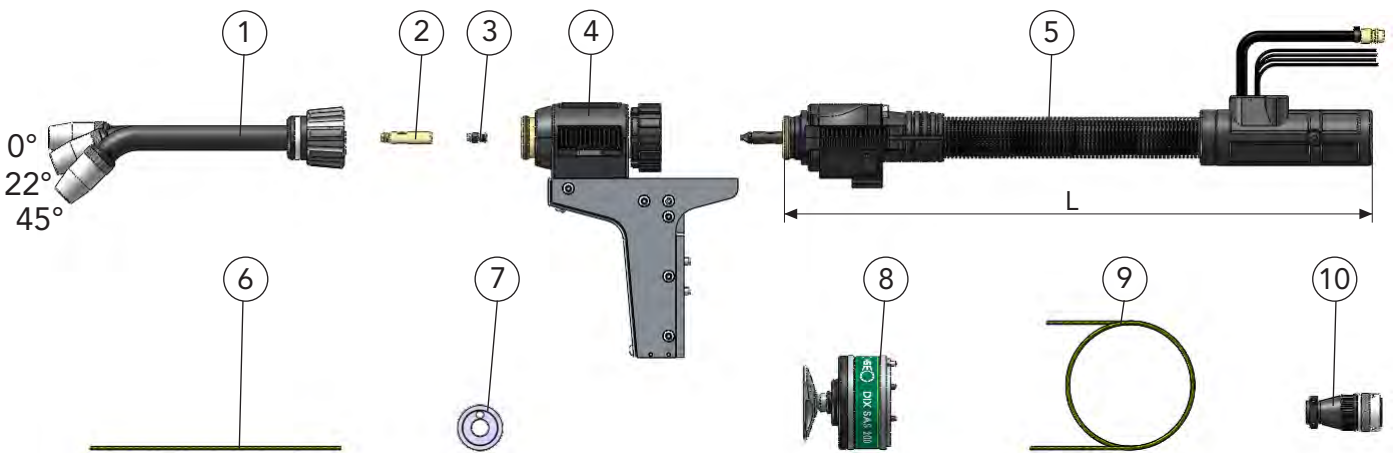
08-Robotic Automatic Torches-gas\J11



Double separable version
for PUSH-PULL
Torch heads

DIX MEPTT 310

- DIX MET 390
- DIX MET 392
- DIX MET 394



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX MET 390	631133004
	Torch head, compl.	22°	DIX MET 392	631133005
	Torch head, compl.	45°	DIX MET 394	631133006
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTT 310-1.2	630631001
	Torch set, without torch head	1.4 m	DIX MEPTT 310-1.4	630631002
	Torch set, without torch head	2.0 m	DIX MEPTT 310-2.0	630631003
6	Liner	∅ 1.8 mm/0.3m	DIX DS 4/1.8-0.3	639300001
7	Drive roll (for steel)	∅ 1,0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/1.7m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9 mm/1.9m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9 mm/2.5m	DIX DS 4/2.9-2.5	623000525
10	Plug set (for GREEN.line wire feeders, only assembled available)		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip DIX 3-2-1.0, set back, gas diffusor DIX GVT 590).
TCP (for torch head, 45°) : 441 mm to robotic flange (Offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

08-00197

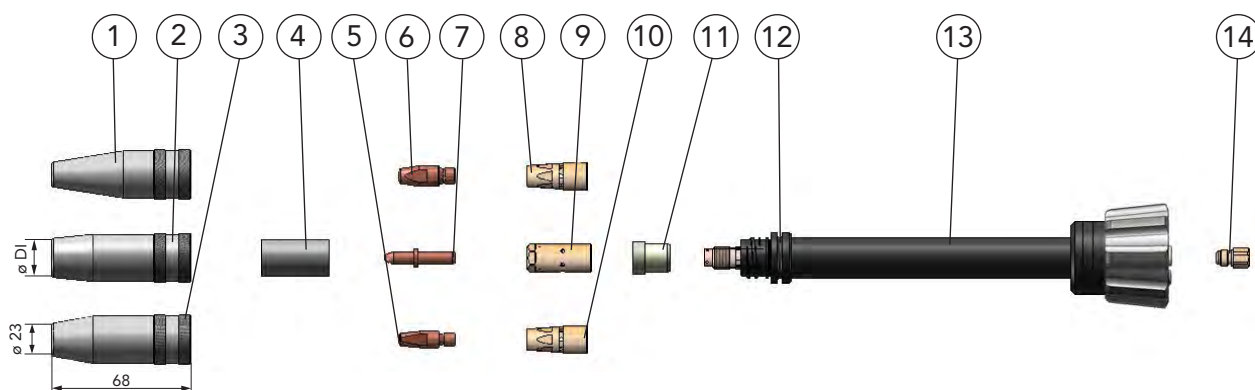
subject to change!

08-Robotic Automatic Torches-gas\J11



Torch heads

DIX MET 350
DIX MET 352
DIX MET 354

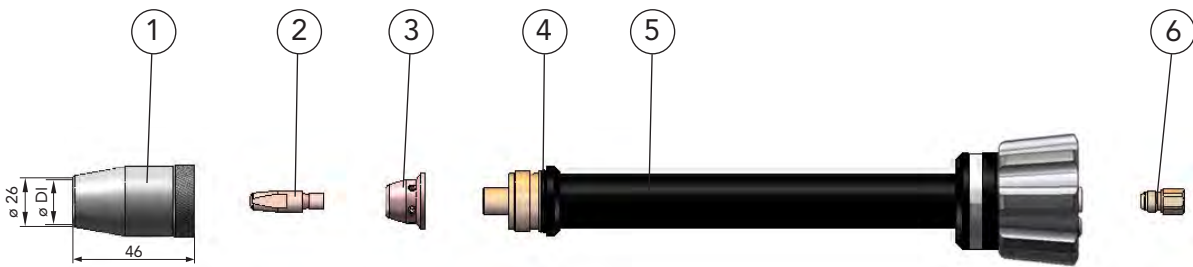


Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5215 A	6390152150
4	Insulator (for Pos. 2 and 3)		DIX 2-3-520	6390252000
5	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
6	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
7	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
8	Tip adapter	M6	DIX GS 300 M6	629040301
9	Clamp nut		DIX CS 300	6390433000
10	Tip adapter	M8	DIX GS 300 M8	629040302
11	Insulating sleeve		DIX IH 300	6391053000
12	O - ring	(10 pcs.)		639060004
13	Torch neck	0°	DIX 6-3-350 MET	639063350
	Torch neck	22°	DIX 6-3-352 MET	639063352
	Torch neck	45°	DIX 6-3-354 MET	639063354
14	Connecting piece (version MET(Z), METT(Z))		DIX MES 300/500	639061500041
	Connecting piece, MEPTZ (version MEPTT(Z)) without picture		DIX MEPS 300/500	6390665000
	Clamping sleeve without picture		DIX SH 270	629270270

xx - Standard diameter: 0,8 mm, 1,0 mm and 1,2 mm. Other diameters on request.

Torch heads

DIX MET 390
DIX MET 392
DIX MET 394



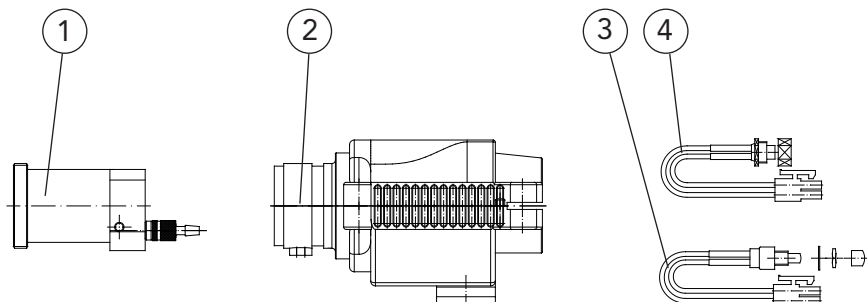
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Gas diffusor		DIX GVT 590	6391059001
	Gas diffusor	(10 pcs.)	DIX GVT 590 K	6391059003
4	O - Ring	(10 pcs.)		639060004
5	Torch neck	0°	DIX 6-3-390 MET	639061022
	Torch neck	22°	DIX 6-3-392 MET	639061023
	Torch neck	45°	DIX 6-3-394 MET	639061024
6	Connecting piece		DIX MES 300/500	639061500041
	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
	Clamping sleeve		DIX SH 270	629270270
	Without picture			
	Without picture			

xx - Standard diameter: 0,8 mm, 1,0 mm and 1,2 mm. Other diameters on request.

Separable version

DIX MET 310

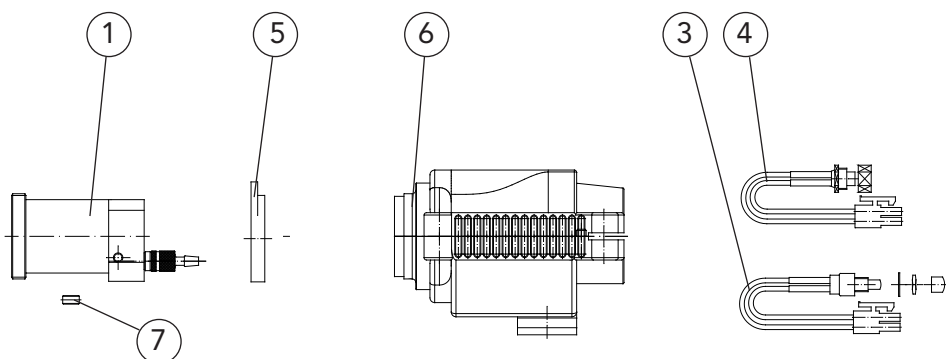
Torch sets (connecting set)



Double separable version

DIX METT 310

Torch sets (connecting set)



Pos.	Description	Part number	Article number
1	Torch connection, ME	DIX ME 150	639150003
2	Housing, MET 1	DIX MET 070	639073019
3	Push-button set, ME 1 (for set-up mode)	DIX ME 080	639085001
4	Socket set, ME 1 (for shock sensor)	DIX ME 090	639076001
5	Housing - supporting ring, METT	DIX METT 071	639073100012
6	Housing, METT 1	DIX METT 070	639073020
7	Fitting part, METT	DIX METT 072	6391530001

08-00200

subject to change!

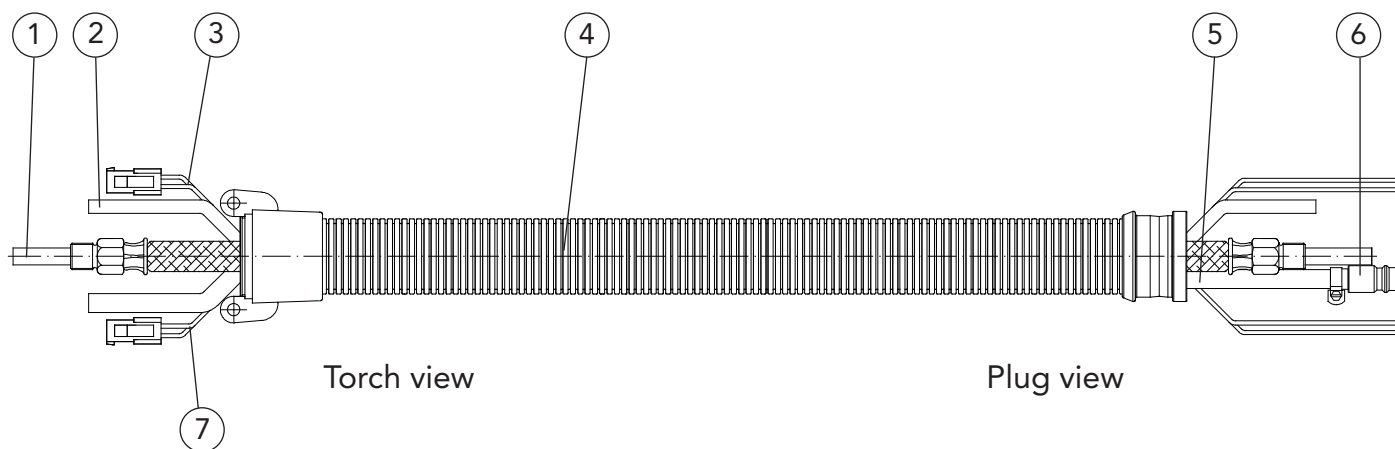
08-Robotic Automatic Torches-gas\J11



Separable version
Double separable version
Torch sets (supply hose)

DIX MET 310

DIX METT 310



08-00201

subject to change!

08-Robotic Automatic Torches-gas\J11

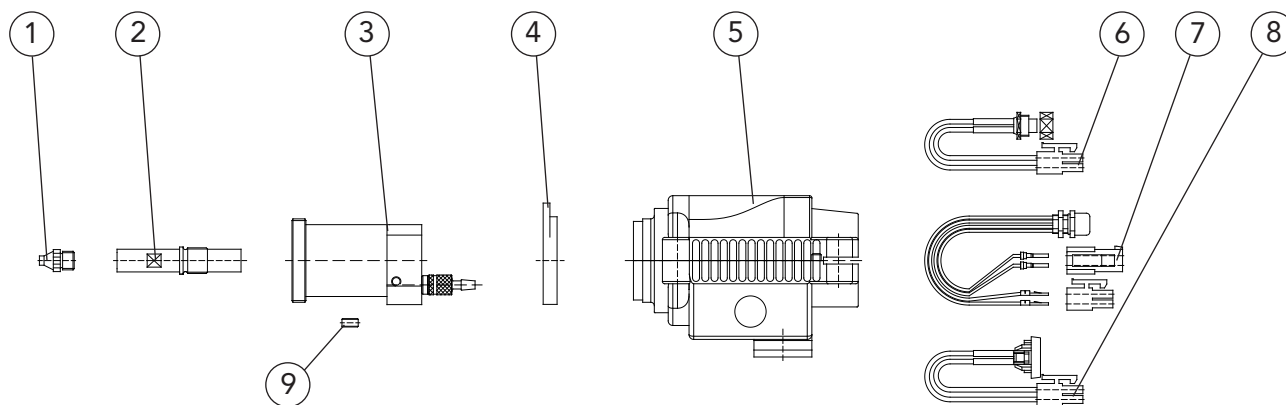
Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLE 310-xx	632233001xx
1	Binary cable	DIX VL 200-xx	639206002xx
2	Gas hose	DIX VL 180-xx	639186001xx
3	Control wire set, blue (for shock sensor)	DIX VL 210-xx	639216001xx
4	Cover hose set	DIX VL 230-xx	639236001xx
5	Air blast hose	DIX VL 240-xx	639246001xx
6	Air blast plug	DIX 16-3-506	6391650600
7	Control wire set, black (for set-up mode)	DIX VL 211-xx	639216002xx

xx - Standard length: 1.2 m, 1.4 m and 2.0 m

Doubly separable version
for PUSH-PUSH and PUSH-PULL

DIX MEPTT 310

Torch sets (connecting set)



Pos.	Description	Part number	Article number
1	Intake nozzle	DIX MEP 152	6391536005
2	Connecting piece, MEP	DIX MEP 151	6391536003
3	Drive connection, MEP	DIX MEP 150	639150004
4	Housing - supporting ring, METT	DIX METT 071	639073100012
5	Housing, METT 2	DIX METT 073	639073021
6	Socket set, ME 1 (for shock sensor)	DIX ME 090	639076001
7	Socket set, ME 2 (for motor and tacho)	DIX ME 091	639076002
8	Push-button set, ME 2 (for set-up mode)	DIX ME 081	639085002
9	Fitting part, METT	DIX METT 072	6391530001

08-00202

subject to change!

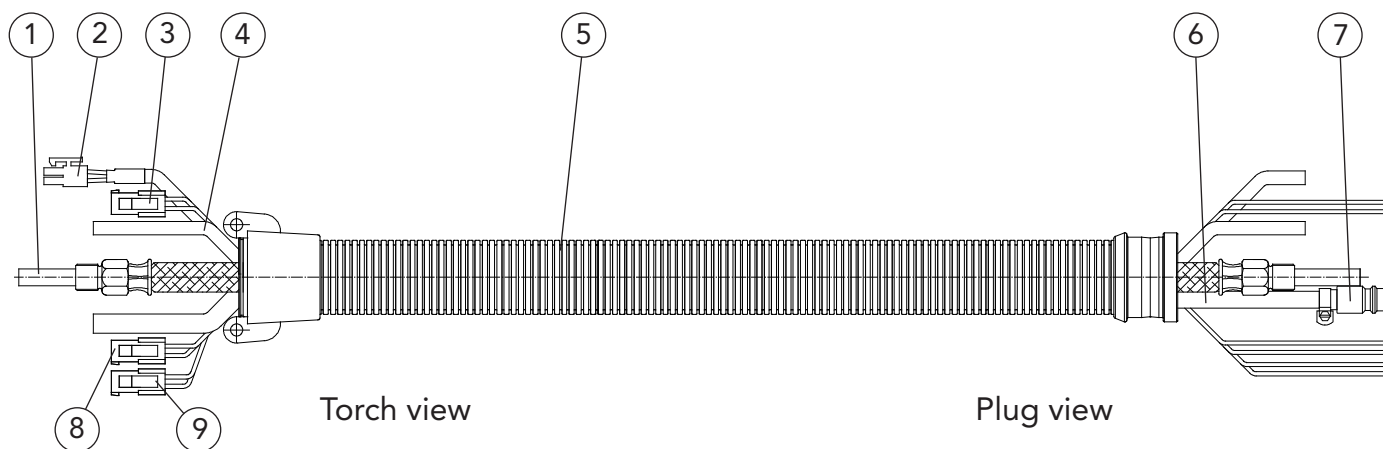
08-Robotic Automatic Torches-gas\J11



Doubly separable version
for PUSH-PUSH and PUSH-PULL

DIX MEPTT 310

Torch sets (supply hose)



08-00203

08-Robotic Automatic Torches-gas\J11 subject to change!

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLEP 310-xx	632631001xx
1	Binary cable	DIX VL 200-xx	639206002xx
2	Control wire set, white / brown (for tacho)	DIX VL 213-xx	639216004xx
3	Control wire set, blue (for shock sensor)	DIX VL 210-xx	639216001xx
4	Gas hose	DIX VL 180-xx	639186001xx
5	Cover hose set	DIX VL 230-xx	639236001xx
6	Air blast hose	DIX VL 240-xx	639246001xx
7	Air blast plug	DIX 16-3-506	6391650600
8	Control wire set, black (for set-up mode)	DIX VL 211-xx	639216002xx
9	Control wire set, brown / red (for motor)	DIX VL 212-xx	639216003xx

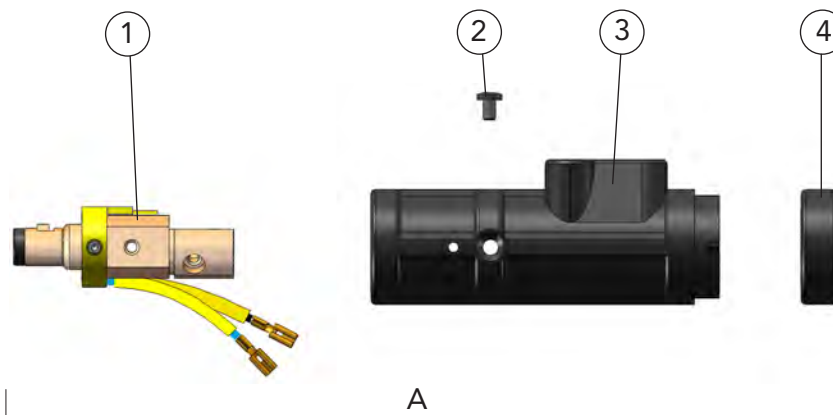
xx - Standard length: 1.2 m, 1.4 m, 2.0 m, 5.0 m and 7.0 m



Separable version
Double separable version
Double separable version
for PUSH-PUSH and PUSH-PULL

DIX MET 310
DIX METT 310
DIX MEPTT 310

Torch sets (plug)



08-00204

Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 300	638900026
1	Plug insert	DIX ME 300 SE	639113004
2	Holding screw	DIX 13-2-Z	629131000
3	Plug housing	DIX 12-3-510 SG	6391250011
4	Fixing ring	DIX 12-3-510 HR	6391250013

08-Robotic Automatic Torches-gas\J11 subject to change!

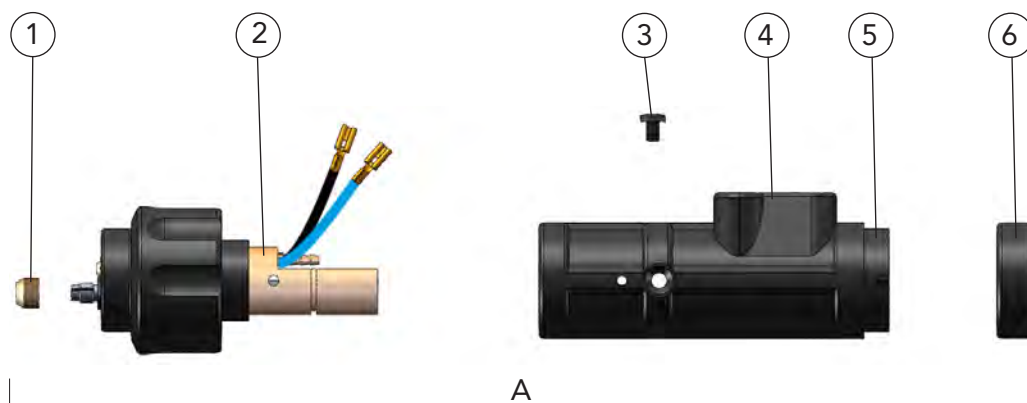
► Other fittings on request.



Separable version
Double separable version
Double separable version
for PUSH-PUSH and PUSH-PULL

DIX MET 310 SA
DIX METT 310 SA
DIX MEPTT 310 SA

Torch sets (plug)



Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCME 300 SA	638900027
1	Clamp nut	DIX MEZ 113	639116007
2	Plug insert	DIX ME 600 SA	639116070
3	Holding screw	DIX 13-2-Z	629131000
4	Sealing cap	DIX 12-3-510 DK	901515135
5	Plug housing	DIX 12-3-510 SG	6391250011
6	Fixing ring	DIX 12-3-510 HR	6391250013

► Other fittings on request.

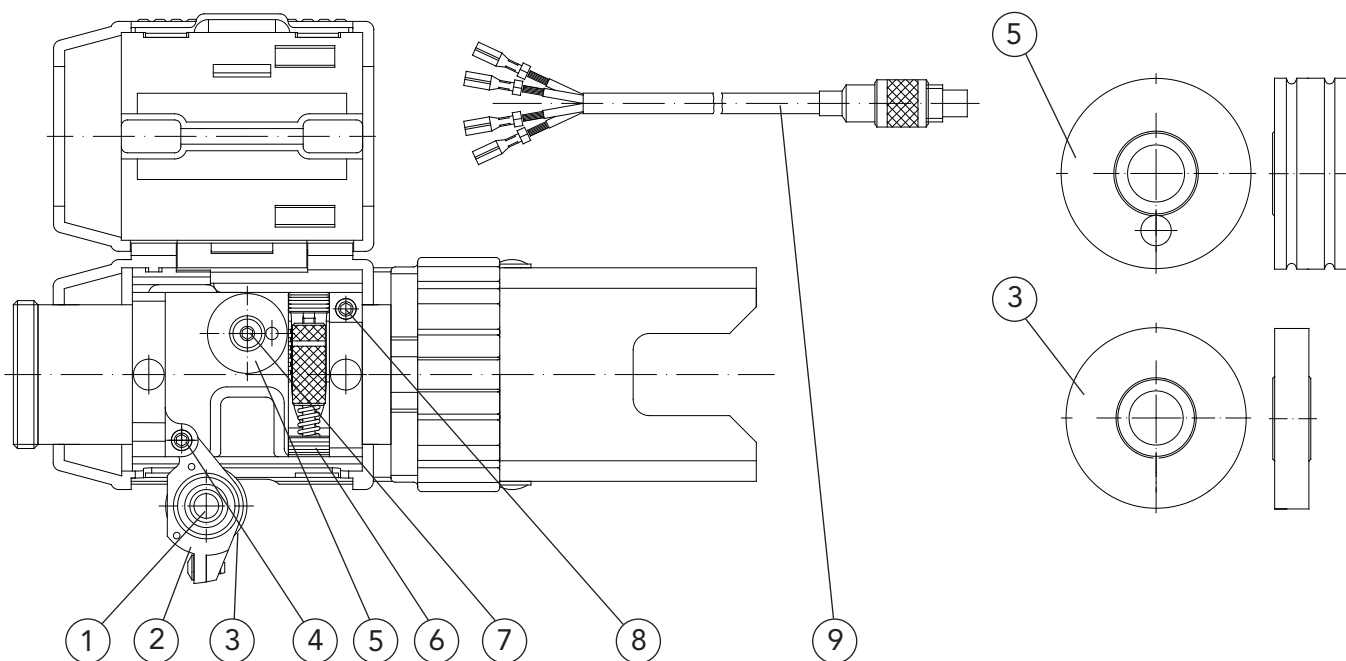
Doubly separable version
for PUSH-PUSH and PUSH-PULL

DIX MEPTT 310

Torch bracket (top view)

DIX MEP 200

DIX MEP 200 T



Pos.	Description	Part number	Article number
1	Pressure system (with Pos. 2 and 3)	DIX MEP 310	6393116000
2	Pressure housing (without pressure roll)	DIX MEP 311	639311001
3	Pressure roll	DIX MEP 312	639311600011
4	Screw axle	DIX MEP 351	639350600037
5	Drive roll (for aluminium alloy)	DIX MEP 321-xx A	639321xx00
	Drive roll (for steel)	DIX MEP 322-xx S	639322xx00
6	Stirrup lock	DIX MEP 340	639340001
	Pivot bearing (for stirrup lock, without picture)	DIX MEP 341	639340002
7	Flange screw		683216020
8	Screw pin		6390601400022
9	Control wire	DIX MEP 442	639446004

xx - Standard diameter: 0.8 mm, 1.0 mm, 1.2 mm and 1.6 mm. Other wire diameters on request.

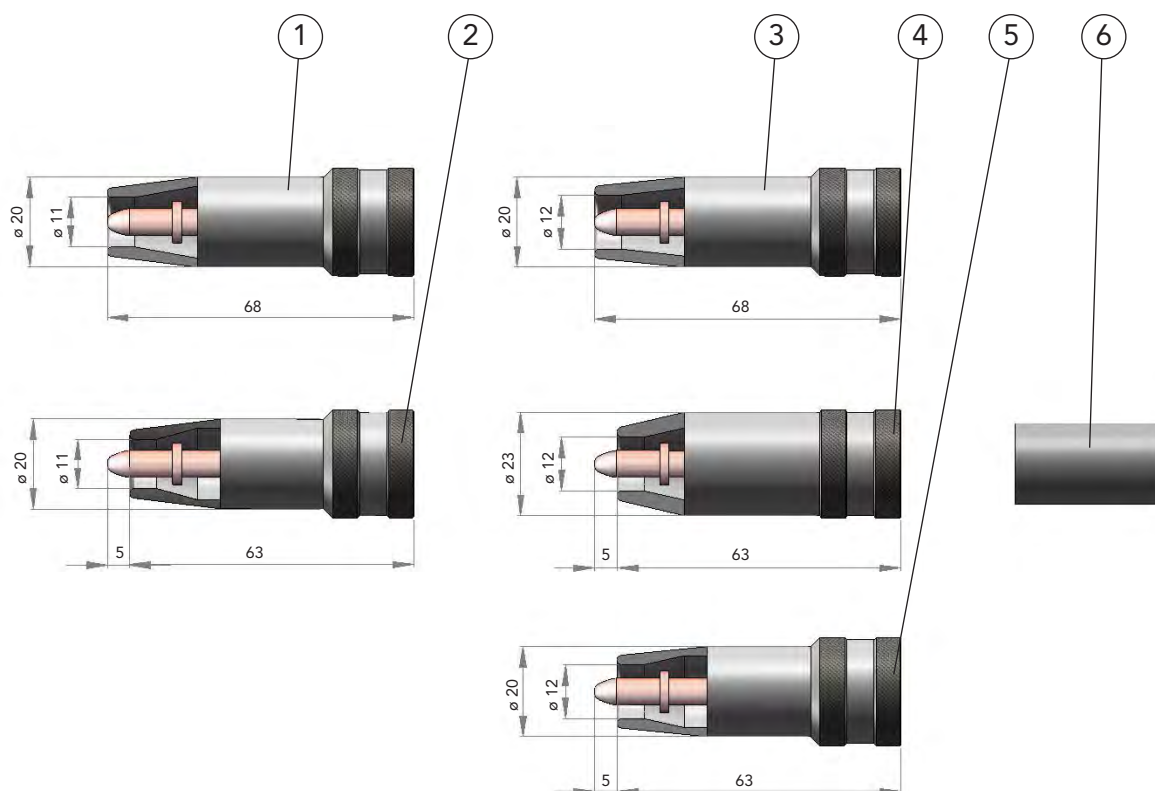
08-00206

08-Robotic Automatic Torches-gas\J11 subject to change!



Torch heads
Torch heads
Torch heads

DIX MET 350/352/354
DIX METR 358/350/352/354
DIX METZ 528/520/522/524



08-00207

08-Robotic Automatic Torches-gas\J11 subject to change!

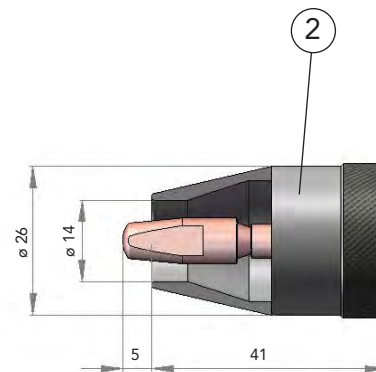
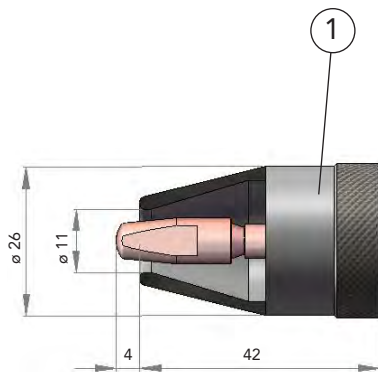
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AR	6390152115
2	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AKR	6390152116
3	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AR	6390152125
4	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AK	6390152121
5	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AKR	6390152126
6	Insulator (for Pos. 4)		DIX 2-3-520	6390252000

► K - short, R - reduced
Other versions on request.



Torch heads
Torch heads

DIX MET 390/392/394
DIX METZ 590/592/594



08-00208

subject to change!

08-Robotic Automatic Torches-gas\J11

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 11 mm	DIX 1-3-5911 A	6390159110
2	Gas nozzle	DI \varnothing 14 mm	DIX 1-3-5914	6390159149

► K - short, R - reduced
Other versions on request.



Separable version	DIX MET(Z)	310(600)
Double separable version	DIX METT(Z)	310(600)
Double separable version for PUSH-PUSH and PUSH-PULL	DIX MEPTT(Z)	310(600)

Contact set
Sensor set

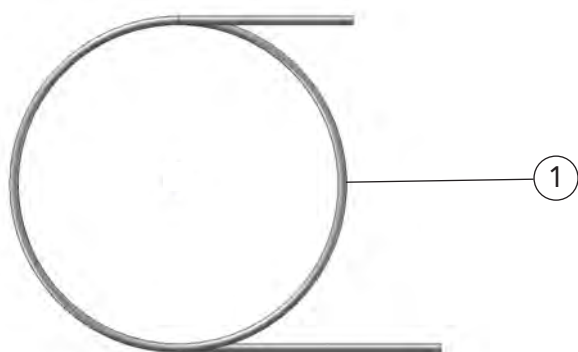
Pos.	Description	Part number	Article number
1	Contact set For fitting robotic and automatic torch sets with sensor function through gas nozzle.	DIX K 150 ME	639153040
2	Contact set For fitting torch body DIX MEK 300/600 with sensor function through gas nozzle.	DIX K 300/600 MEK	639350008
3	Contact set For fitting torch bracket DIX MEP 200 with sensor function through gas nozzle.	DIX K 300/600 MEP	639350001
4	Sensor set For fitting robotic and automatic torch sets with sensor function for welding voltage measurement.	DIX M 150 ME	639153041

► All sets only ready - installed.



Liner

for wire electrodes of non- and low alloyed steels



08-00210

subject to change!

08-Robotic Automatic Torches-gas\J11

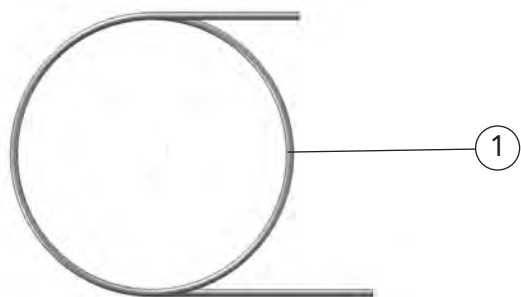
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner For wire diameter 0.8 mm	ø 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner For wire diameter 1.0 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner For wire diameter 1.2 mm, in PUSH-PUSH/PULL wire diameter 1.0 mm	ø 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner For wire diameter 1.4 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.



Capillary liner

for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys

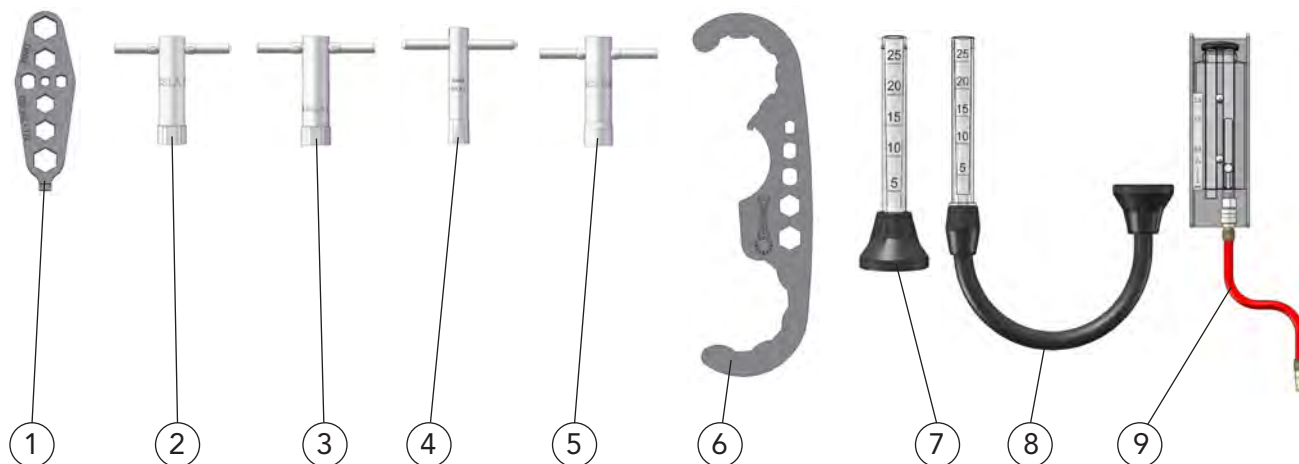


Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner For wire diameter 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner For wire diameter 1.0 and 1.2mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner For wire diameter 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.



Service tools



Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

08-00212

subject to change!

08-Robotic Automatic Torches-gas\J11



Torch sets



2 Z - 330 / 304 / 306

Technical data (DIN EN 60 974-7):

Torch type:	DIX MMLZ 2-330
Gas nozzle:	trapezoid thread duty cycle
CO₂:	400A / 60%
Mixed gas:	320A / 60%
Wire diameter:	0.9 - 1.2 mm

Technical benefits:

- No gas loss due to separate shield gas feed
- Exact wire feeding by powerful wire feeder modules



Torch type:	DIX MMLZ 2-304
Gas nozzle:	trapezoid thread duty cycle
CO₂:	500A / 60%
Mixed gas:	450A / 60%
Wire diameter:	1.0 - 1.6 mm

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to medium material thicknesses



Torch type:	DIX MMLZ 2-306
Gas nozzle:	trapezoid thread with screw adapter duty cycle
CO₂:	550A / 60%
Mixed gas:	500A / 60%
Wire diameter:	1.2 - 2.0 mm

Standard fittings

ROBOTIC and AUTOMATIC TORCHES

liquid cooled

MIG/MAG

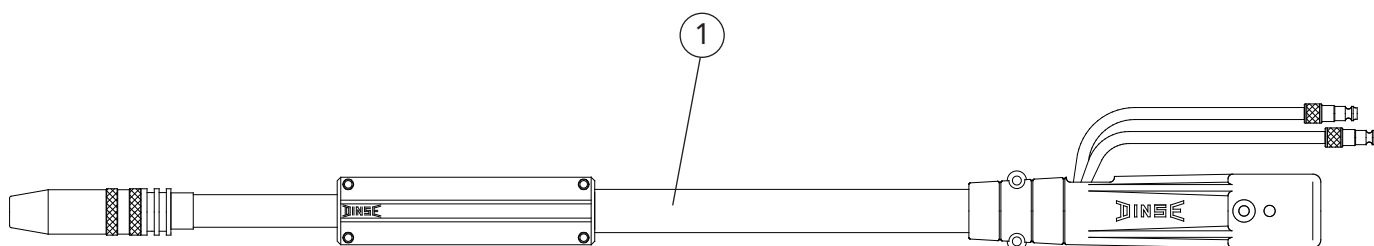


Torch sets

2 Z - 330

Torch type

DIX MMLZ 2 - 330



09-00214

09-Robotic Automatic Torches-liquid\J11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Torch set	0° 3.00 m	DIX MMLZ 2-330-3	620123330
	Torch set	0° 4.00 m	DIX MMLZ 2-330-4	620123340

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle diameter 15 mm, DIX 1-2-315 TR, (contact tip DIX 3-2-1.2 M8, set back, tip adapter DIX 4-2-K M8, liner DIX DS 4/2.2). Variants deviating of the standard fittings on request.



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SCHWEISSEN

WELDING

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WELDING

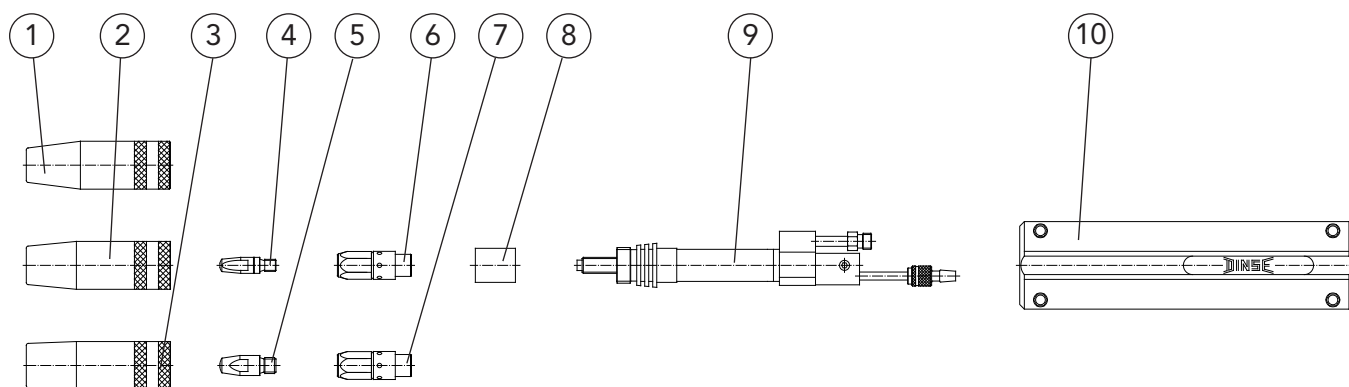
SCHWEISSEN

Torch sets

2 Z - 330

Torch type

DIX MMLZ 2 - 330



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 13 mm	DIX 1-2-313 TR	6290103130
2	Gas nozzle	∅ 15 mm	DIX 1-2-315 TR	6290103150
3	Gas nozzle	∅ 18 mm	DIX 1-2-318 TR	6290103180
4	Contact tip	M6	DIX 3-2-xx	6290300xx
	Contact tip	CR - ZR M6	DIX 3-2-xx CR-ZR	6290330xx
5	Contact tip	M8	DIX 3-2-xx M8	6290301xx
	Contact tip	CR - ZR M8	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Tip adapter	M6	DIX 4-2-K M6	629040010
7	Tip adapter	M8	DIX 4-2-K M8	629040110
8	Insulating sleeve		DIX 10-2	629100000
9	Torch neck	0°	DIX 6-2-330 MLZ	62906133011
10	Housing		DIX 7-2-303 M	629070320

xx - Standard diameter: 0.9 mm, 1.0 mm and 1.2 mm. Other diameters on request.

09-00215

09-Robotic Automatic Torches-liquid\J11 subject to change!



Standard fittings

ROBOTIC and AUTOMATIC TORCHES

liquid cooled

MIG/MAG

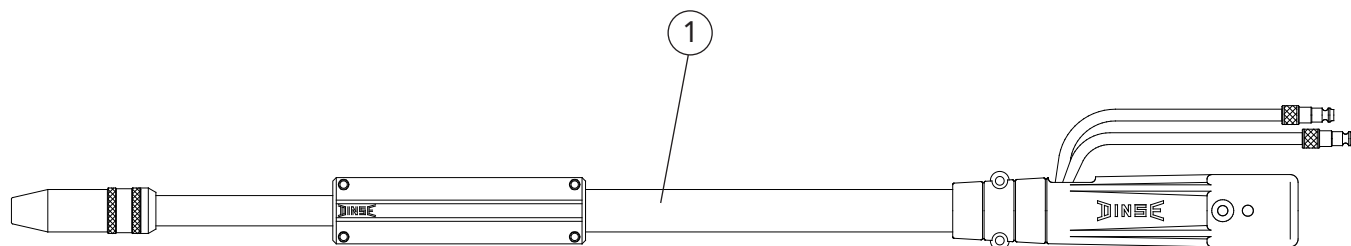


Torch sets

2 Z - 304

Torch type

DIX MMLZ 2 - 304



09-00216

Pos.	Description	Dimension	Part number	Article number
1	Torch set	0° 3.00 m	DIX MMLZ 2-304-3	620124330
	Torch set	0° 4.00 m	DIX MMLZ 2-304-4	620124340

09-Robotic Automatic Torches-liquid\J11 subject to change!

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle diameter 15 mm, DIX 1-2-415, (contact tip DIX 3-2-1.2 M8, set back, liner DIX DS 4/2.2). Variants deviating of the standard fittings on request.



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SCHWEISSEN

WELDING

SCHWEISSEN

WELDING

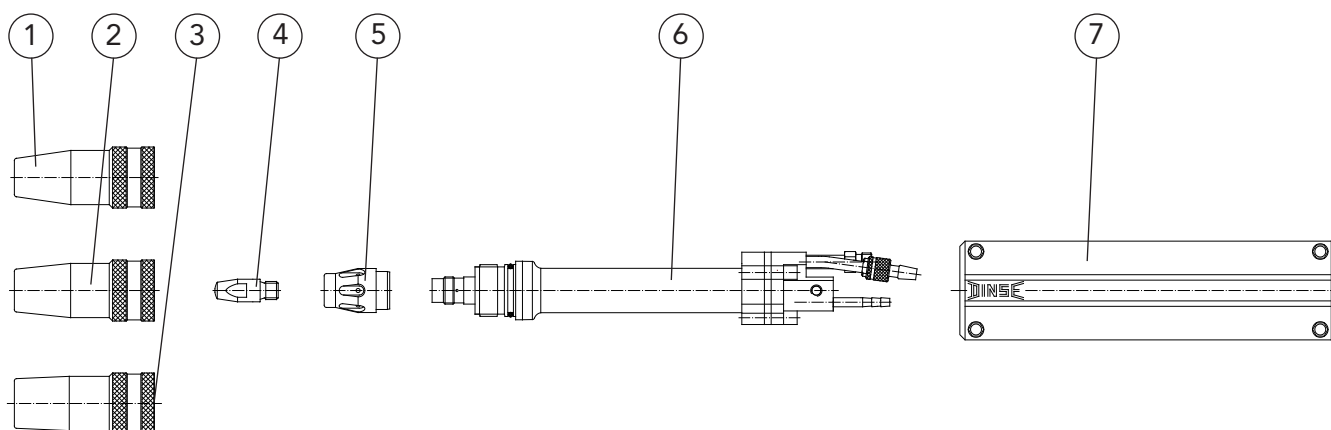
SCHWEISSEN

Torch sets

2 Z - 304

Torch type

DIX MMLZ 2 - 304



09-00217

09-Robotic Automatic Torches-liquid\J11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 13 mm	DIX 1-2-413	629010413
2	Gas nozzle	∅ 15 mm	DIX 1-2-415	629010415
3	Gas nozzle	∅ 18 mm	DIX 1-2-418	629010418
4	Contact tip	M8	DIX 3-2-xx M8	6290301xx
	Contact tip	CR - ZR M8	DIX 3-2-xx M8 CR-ZR	6290331xx
5	Gas diffuser		DIX 10-2-304	629100324
6	Torch neck	0°	DIX 6-2-304 Z 0GR	6290613400
7	Housing		DIX 7-2-304 M	629070324

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.



Standard fittings

ROBOTIC and AUTOMATIC TORCHES

liquid cooled

MIG/MAG

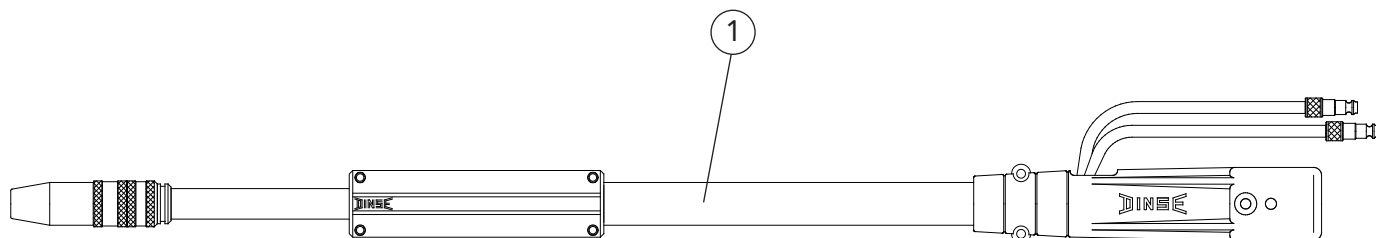


Torch sets

2 Z - 306

Torch type

DIX MMLZ 2 - 306



09-00218

09-Robotic Automatic Torches-liquid\J11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Torch set	0° 3.00 m	DIX MMLZ 2-306-3	620126330
	Torch set	0° 4.00 m	DIX MMLZ 2-306-4	620126340

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle diameter 18 mm, DIX 1-3-5418 A, with screw adapter DIX SAD 2-404/540 (contact tip DIX 3-2-1.2 M8, set back, tip adapter DIX GS 2-M8, liner DIX DS 4/2.2). Variants deviating of the standard fittings on request.



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SCHWEISSEN

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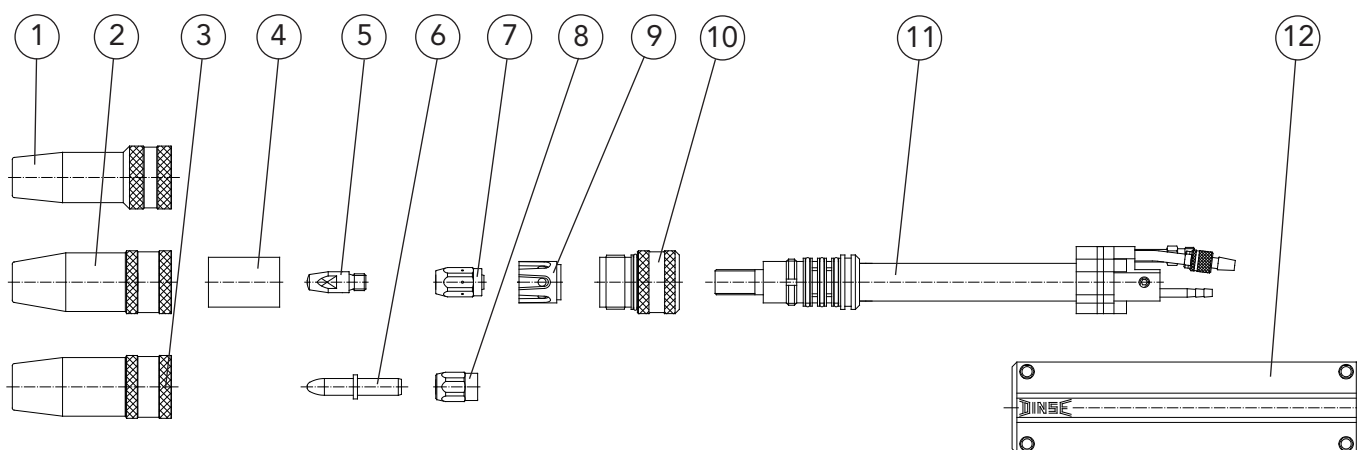
SCHWEISSEN

Torch sets

2 Z - 306

Torch type

DIX MMLZ 2 - 306



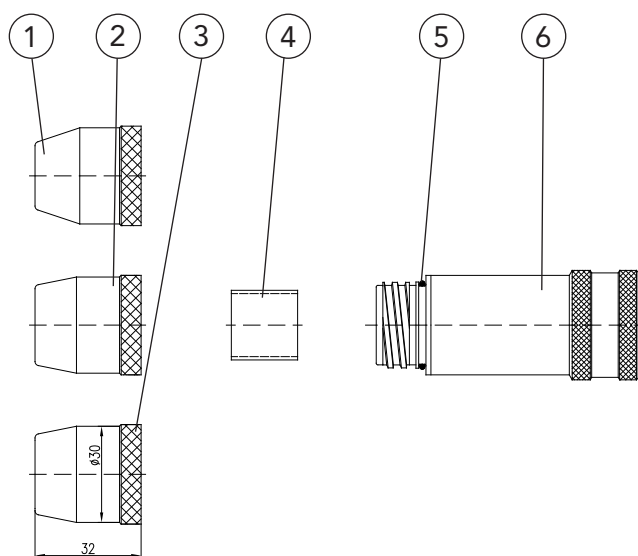
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle (outside diameter reduced)	ø 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	ø 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	ø 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator (for gas nozzle typ A)		DIX 2-3-500	6390250000
5	Contact tip	M8	DIX 3-2-xx M8	6290301xx
	Contact tip	CR - ZR M8	DIX 3-2-xx M8 CR-ZR	6290331xx
6	Contact tip	CR - ZR	DIX 3-2-xx SR	6290354xx
7	Tip adapter	M8	DIX GS 2-M8	628150008
8	Clamp nut		DIX 4-2- MAS	6390454000
9	Gas diffusor		DIX 10-3-540	6391054000
10	Screw adapter		DIX SAD 2-404/540	628140000
11	Torch neck	0°	DIX 6-2-306 Z	6290613600
12	Housing		DIX 7-2-304 M	629070324

xx - Standard diameter: 1.2 mm and 1.6 mm. Other diameters on request.

BLACKline

Torch type

Torch sets	Z - 306
DIX MSZ	306
DIX MCZ	306
DIX MMLZ	306



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	ø 15 mm	DIX KMG 115 TR	628040315
2	Gas nozzle	ø 18 mm	DIX KMG 118 TR	628040318
3	Gas nozzle	ø 21 mm	DIX KMG 121 TR	628040321
4	Cooling jacket insulator		DIX KME 110	628040303
5	O-ring, 23x1.5 VITON	(10 pcs.)		629110904
6	Cooling jacket, complete With o-ring		DIX KM 100	628040301

► Cooling jacket with direct liquid cooling for extreme cases of application.

09-00220

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version

DIX METZ 600



Technical data (DIN EN 60 974-7):

Torch heads: 0° DIX METZ 520
22° DIX METZ 522
45° DIX METZ 524

Double - circuit liquid cooled

Gas nozzle: trapezoid thread
duty cycle

CO₂: 350A/100%

Mixed gas: 300A/100%

Wire diameter: 0.8 - 1.2 mm



Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed and adjustable bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules



Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Small to medium material thicknesses

09-00221

09-Robotic Automatic Torches-liquid\J11 subject to change!

Separable version

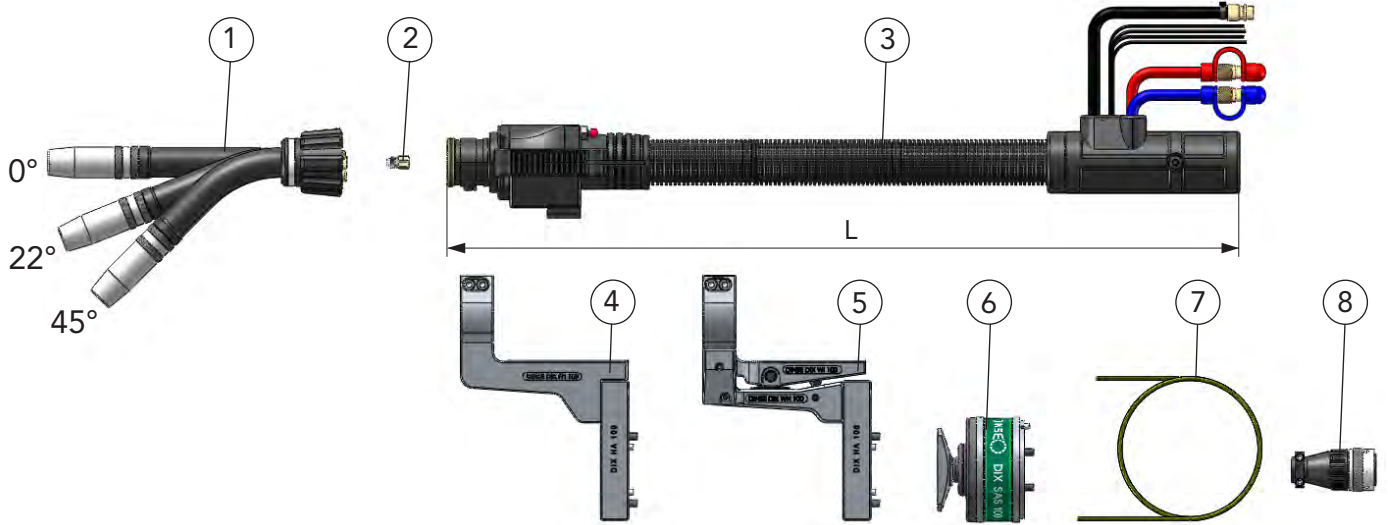
Torch heads

DIX METZ 600

DIX METZ 520

DIX METZ 522

DIX METZ 524



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 520	631352001
	Torch head, compl.	22°	DIX METZ 522	631352002
	Torch head, compl.	45°	DIX METZ 524	631352003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX METZ 600-1.2	630163022
	Torch set, without torch head	1.4 m	DIX METZ 600-1.4	630163023
	Torch set, without torch head	2.0 m	DIX METZ 600-2.0	630163024
4	Torch bracket, fixed		DIX PHF 100	683500100
5	Torch bracket, adjustable		DIX PHW 100	683501100
6	Shock sensor	∅ 78.5 / 65mm	DIX SAS 100	683100001
7	Liner	∅ 1.8mm / 1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	∅ 1.8mm / 1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	∅ 1.8mm / 2.5m	DIX DS 4/1.8-2.5	613000225
8	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

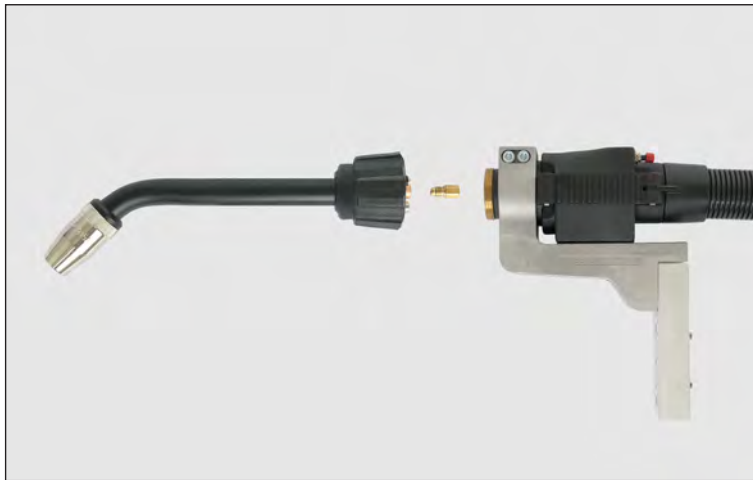
► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 12 mm, DIX 1-3-5212 A, (contact tip, DIX 3-1-1.0 S, flush, clamp nut DIX 4-1-MAS, gas diffusor DIX 10-1 MAS).
 TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
 Variants deviating of the standard fittings on request.

09-00222

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version



DIX METZ 600

Technical data (DIN EN 60 974-7):

Torch heads: 0° DIX METZ 590
22° DIX METZ 592
45° DIX METZ 594

Double - circuit liquid cooled

Gas nozzle: trapezoid thread
duty cycle
CO₂: 400A/100%
Mixed gas: 350A/100%
Wire diameter: 0.8 - 1.2 mm

Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed and adjustable bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Small to medium material thicknesses

Separable version

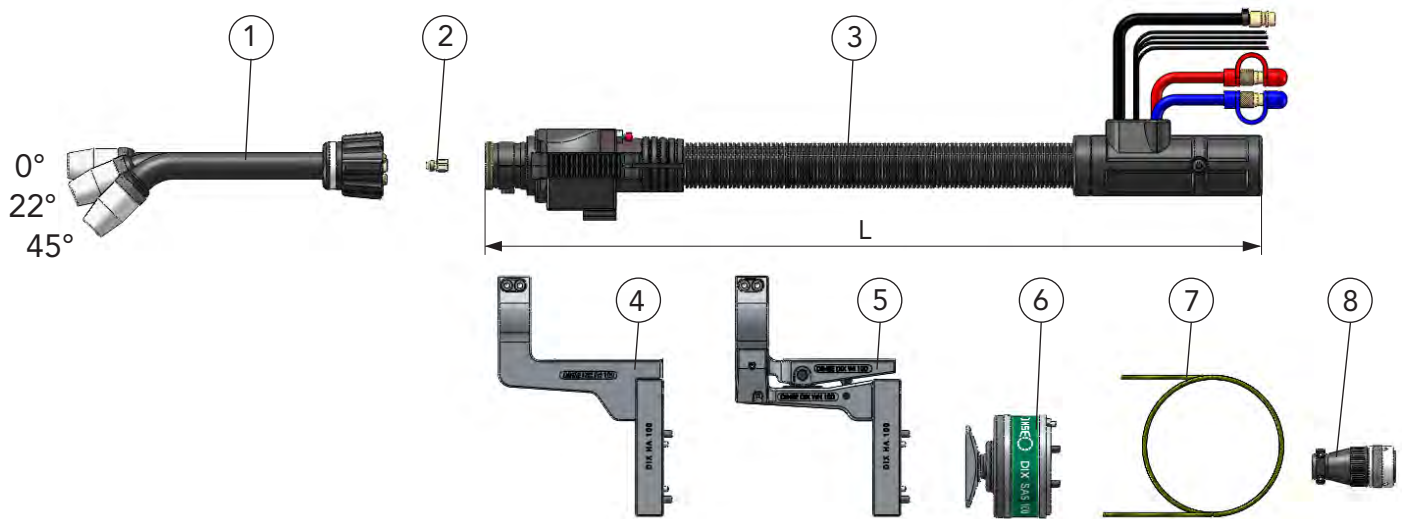
Torch heads

DIX METZ 600

DIX METZ 590

DIX METZ 592

DIX METZ 594



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 590	631359001
	Torch head, compl.	22°	DIX METZ 592	631359002
	Torch head, compl.	45°	DIX METZ 594	631359003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX METZ 600-1.2	630163022
	Torch set, without torch head	1.4 m	DIX METZ 600-1.4	630163023
	Torch set, without torch head	2.0 m	DIX METZ 600-2.0	630163024
4	Torch bracket, fixed		DIX PHF 100	683500100
5	Torch bracket, adjustable		DIX PHW 100	683501100
6	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
7	Liner	∅ 1.8mm / 1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	∅ 1.8mm / 1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	∅ 1.8mm / 2.5m	DIX DS 4/1.8-2.5	613000225
8	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip, DIX 3-2-1.0, set back, gas diffuser DIX GVT 590).
 TCP (for torch head, 45°) : 441 mm to robotic flange (offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

09-00224

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version

DIX METZ 600



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 540
	22°	DIX METZ 542
	45°	DIX METZ 544

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	450A/100%
Mixed gas:	400A/100%
Wire diameter:	1.0 - 1.6 mm



Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed and adjustable bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Medium to large material thicknesses



09-00225

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version

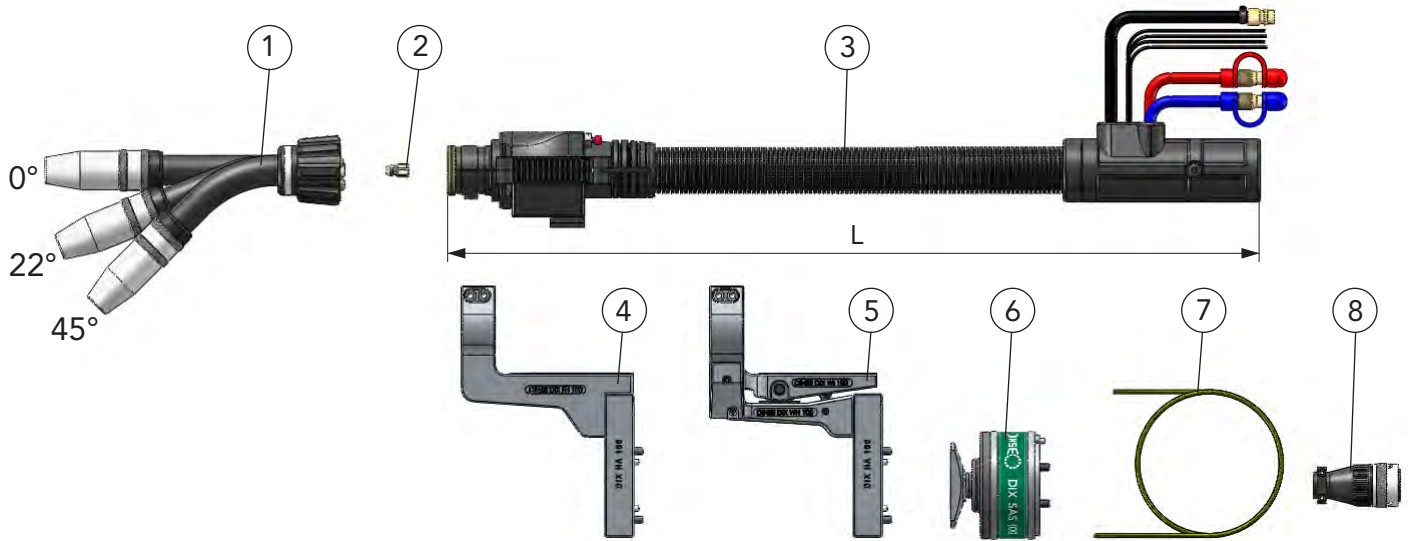
Torch heads

DIX METZ 600

DIX METZ 540

DIX METZ 542

DIX METZ 544



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 540	631354001
	Torch head, compl.	22°	DIX METZ 542	631354002
	Torch head, compl.	45°	DIX METZ 544	631154001
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX METZ 600-1.2	630163022
	Torch set, without torch head	1.4 m	DIX METZ 600-1.4	630163023
	Torch set, without torch head	2.0 m	DIX METZ 600-2.0	630163024
4	Torch bracket, fixed		DIX PHF 100	683500100
5	Torch bracket, adjustable		DIX PHW 100	683501100
6	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
7	Liner	∅ 2.2mm / 1.7m	DIX DS 4/2.2-1.7	623000317
	Liner	∅ 2.2mm / 1.9m	DIX DS 4/2.2-1.9	623000319
	Liner	∅ 2.2mm / 2.5m	DIX DS 4/2.2-2.5	623000325
8	Plug set		DIX MEX 100	639077001

For DINSE wire feeders, only assembled available.

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5415 A, (contact tip, DIX 3-2-1.2 S, flush, clamp nut DIX 4-2-MAS, gas diffuser DIX 10-3-540).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

09-00226

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version



DIX METZ 600

Technical data (DIN EN 60 974-7):

Torch heads: 0° DIX METZ 560
22° DIX METZ 562
45° DIX METZ 564

Double - circuit liquid cooled

Gas nozzle: with cooling jacket
duty cycle

CO₂: 550A/100%

Mixed gas: 500A/100%

Wire diameter: 1.2 - 2.0 mm

Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Large material thicknesses

Standard fittings

ROBOTIC and AUTOMATIC TORCHES

liquid cooled

MIG/MAG



Separable version

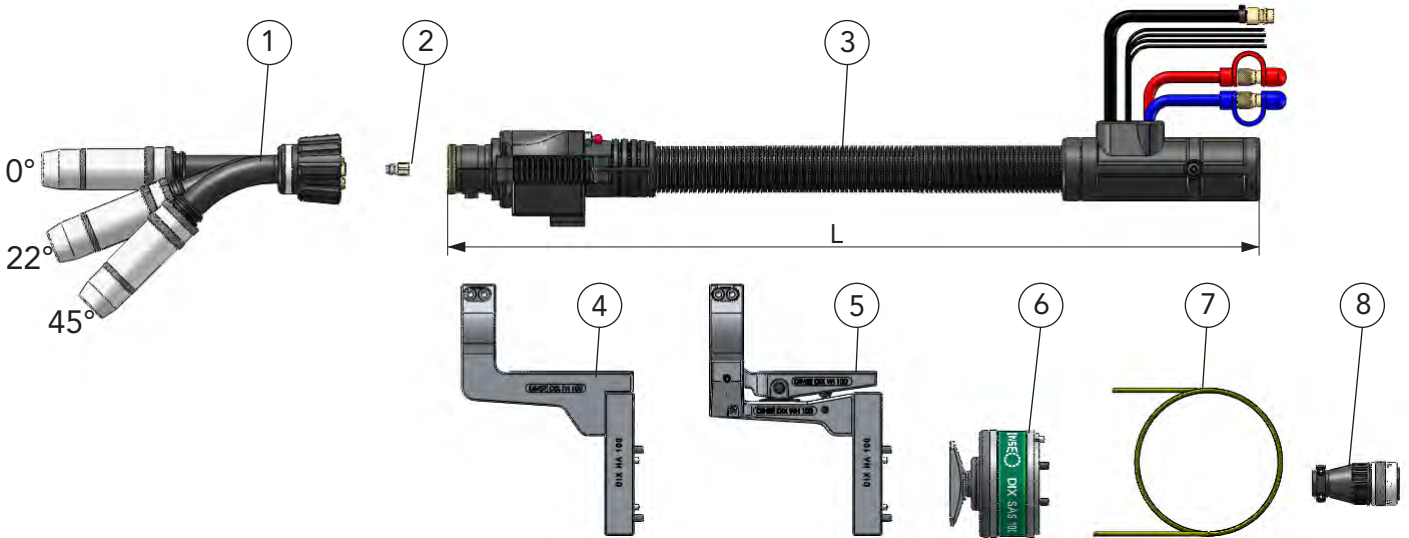
Torch heads

DIX METZ 600

DIX METZ 560

DIX METZ 562

DIX METZ 564



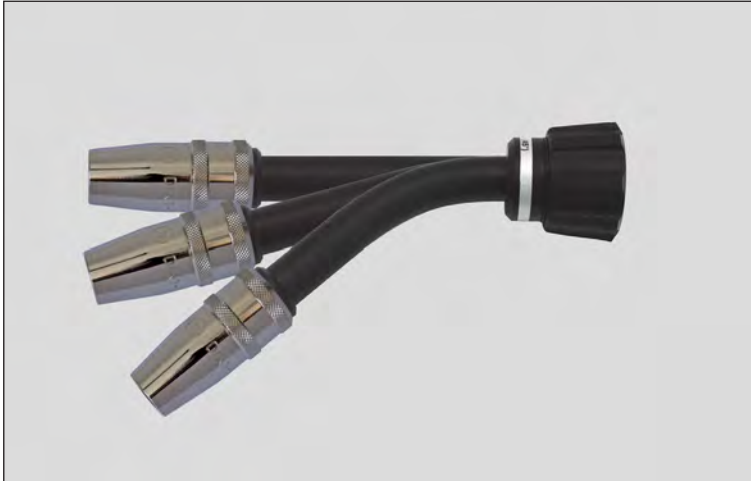
Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 560	631356001
	Torch head, compl.	22°	DIX METZ 562	631356002
	Torch head, compl.	45°	DIX METZ 564	631356003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX METZ 600-1.2	630163022
	Torch set, without torch head	1.4 m	DIX METZ 600-1.4	630163023
	Torch set, without torch head	2.0 m	DIX METZ 600-2.0	630163024
4	Torch bracket, fixed		DIX PHF 100	683500100
5	Torch bracket, adjustable		DIX PHW 100	683501100
6	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
7	Liner	∅ 2.2mm / 1.7m	DIX DS 4/2.2-1.7	623000317
	Liner	∅ 2.2mm / 1.9m	DIX DS 4/2.2-1.9	623000319
	Liner	∅ 2.2mm / 2.5m	DIX DS 4/2.2-2.5	623000325
8	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

- ▶ Standard equipment for wire diameter 1.2 mm steel with cooling jacket DIX KM 100, gas nozzle diameter 18 mm, DIX KMG 118 TR, (contact tip, DIX 3-2-1.2 M8, flush, tip adapter DIX GS 2-M8, gas diffuser DIX 10-3-540). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.



Separable version

DIX METZ 600

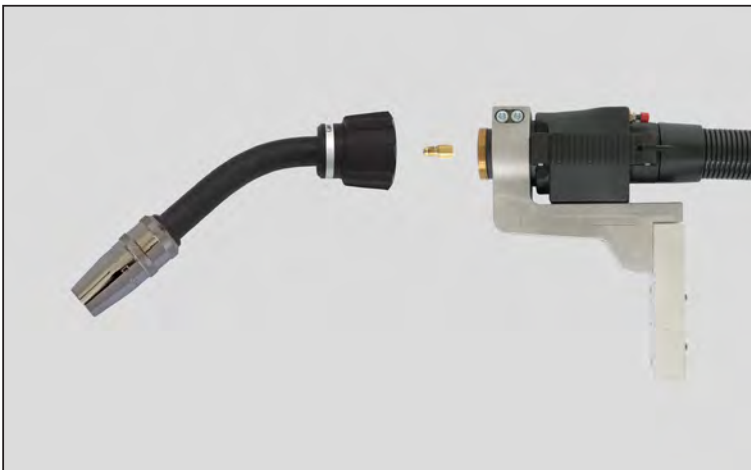


Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 570
	22°	DIX METZ 572
	45°	DIX METZ 574

Double - circuit liquid cooled

CO ₂ :	550A/100%
Mixed gas:	500A/100%
Wire diameter:	1.2 - 2.0 mm



Technical benefits:

- High duty cycle due to improved cooling of the gas nozzle
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules



Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminum-, magnesium-, copper- and nickel alloys
- Large material thicknesses

09-00229

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version

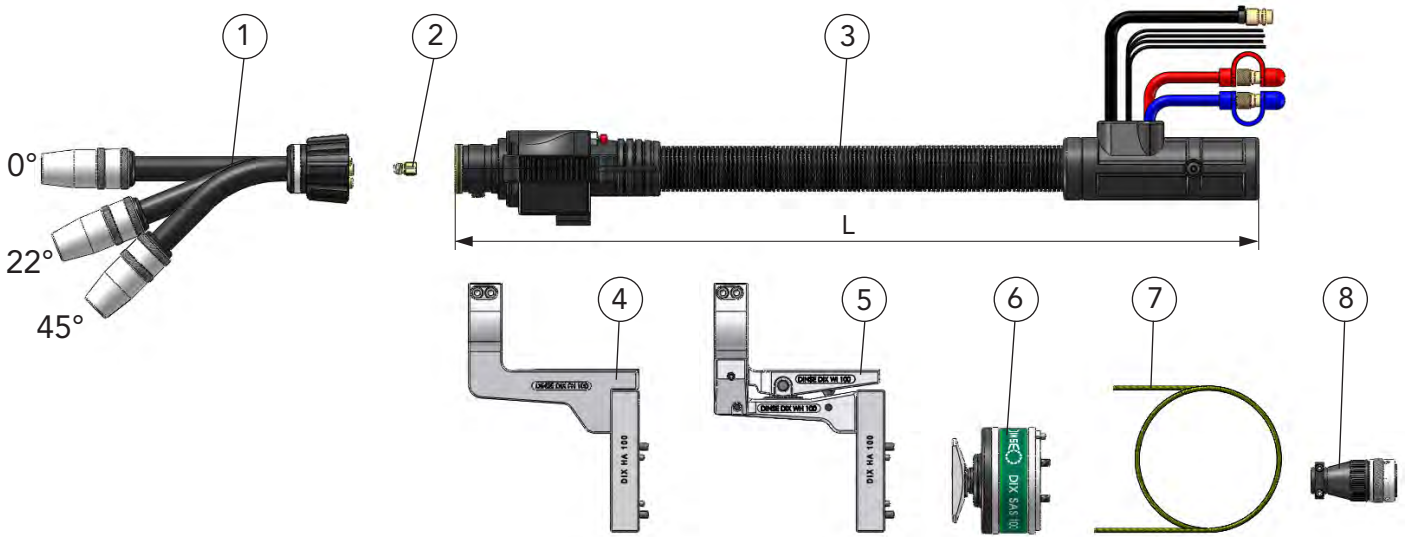
Torch heads

DIX METZ 600

DIX METZ 570

DIX METZ 572

DIX METZ 574



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 570	631357001
	Torch head, compl.	22°	DIX METZ 572	631357002
	Torch head, compl. .	45°	DIX METZ 574	631357003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch set, without torch head	1.2 m	DIX METZ600-1.2	630163022
	Torch set, without torch head	1.4 m	DIX METZ600-1.4	630163023
	Torch set, without torch head	2.0 m	DIX METZ600-2.0	630163024
4	Torch bracket, fixed		DIX PHF 100	683500100
5	Torch bracket, adjustable		DIX PHW 100	683501100
6	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
7	Liner	∅ 2.2mm / 1.7m	DIX DS 4/2.2-1.7	623000317
	Liner	∅ 2.2mm / 1.9m	DIX DS 4/2.2-1.9	623000319
	Liner	∅ 2.2mm / 2.5m	DIX DS 4/2.2-2.5	623000325
8	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

► Standard equipment for wire diameter 1.2 mm steel, gas nozzle diameter 18 mm, DIX 1-3-5718 A, (contact tip, DIX 3-2-1.2 M8, flush, gas diffuser DIX 10-2-305 K). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

Double separable version



DIX METTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 520
	22°	DIX METZ 522
	45°	DIX METZ 524

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blst
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to medium material thicknesses

Double separable version

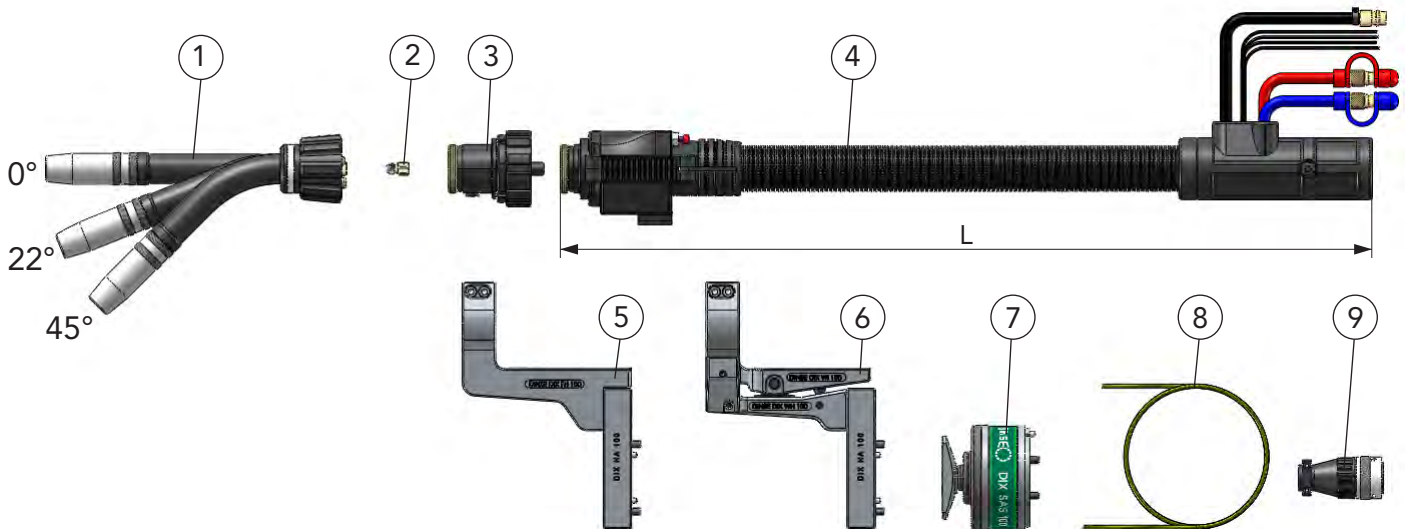
Torch heads

DIX METTZ 600

DIX METZ 520

DIX METZ 522

DIX METZ 524



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 520	631352001
	Torch head, compl.	22°	DIX METZ 522	631352002
	Torch head, compl.	45°	DIX METZ 524	631352003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METTZ 600-1.2	630166001
	Torch set, without torch head	1.4 m	DIX METTZ 600-1.4	630166002
	Torch set, without torch head	2.0 m	DIX METTZ 600-2.0	630166003
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, Wippe		DIX PHW 100	683501100
7	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
8	Liner	∅ 1.8mm / 1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	∅ 1.8mm / 1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	∅ 1.8mm / 2.5m	DIX DS 4/1.8-2.5	613000225
9	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

- ▶ Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 12 mm, DIX 1-3-5212 A, (contact tip, DIX 3-1-1.0 S, flush, clamp nut DIX 4-1-MAS, gas diffusor DIX 10-1 MAS).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

Double separable version



DIX METTZ 600

Technical data (DIN EN 60 974-7):

Torch heads: 0° DIX METZ 590
22° DIX METZ 592
45° DIX METZ 594

Double - circuit liquid cooled

Gas nozzle: trapezoid thread
duty cycle

CO₂: 400A/100%

Mixed gas: 350A/100%

Wire diameter: 0.8 - 1.2 mm

Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to medium material thicknesses

Double separable version

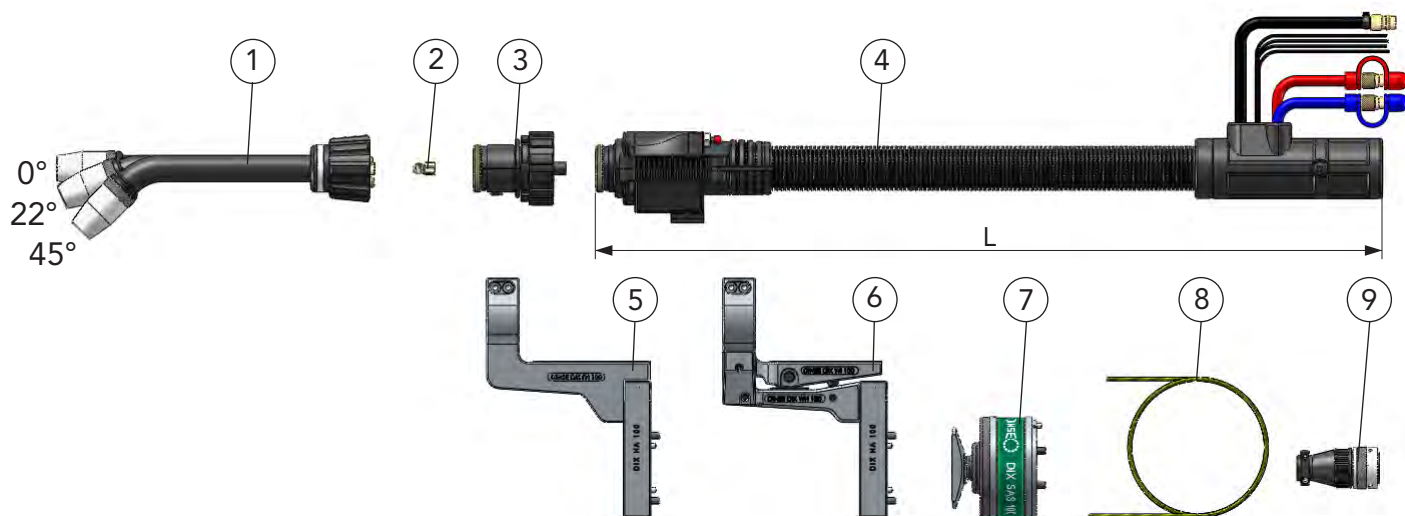
DIX METTZ 600

Torch heads

DIX METZ 590

DIX METZ 592

DIX METZ 594



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 590	631359001
	Torch head, compl.	22°	DIX METZ 592	631359002
	Torch head, compl.	45°	DIX METZ 594	631359003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METTZ 600-1.2	630166001
	Torch set, without torch head	1.4 m	DIX METTZ 600-1.4	630166002
	Torch set, without torch head	2.0 m	DIX METTZ 600-2.0	630166003
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, adjustable		DIX PHW 100	683501100
7	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
8	Liner	∅ 1.8mm / 1.7m	DIX DS 4/1.8-1.7	613000217
	Liner	∅ 1.8mm / 1.9m	DIX DS 4/1.8-1.9	613000219
	Liner	∅ 1.8mm / 2.5m	DIX DS 4/1.8-2.5	613000225
9	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

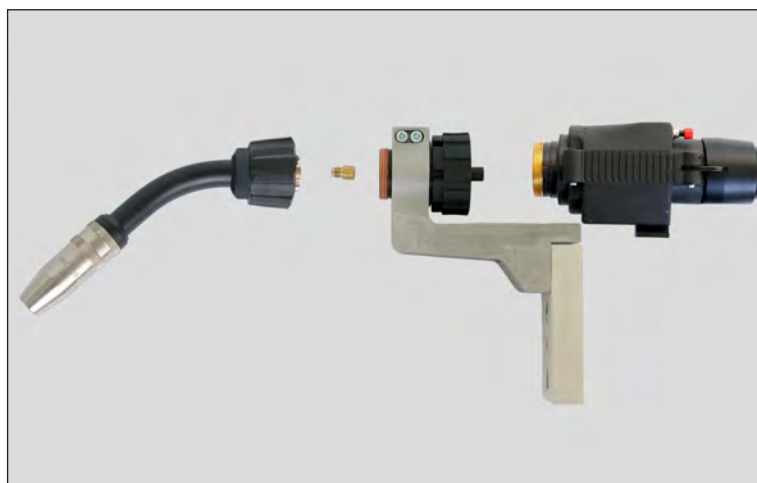
► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip, DIX 3-2-1.0, set back, gas diffusor DIX GVT 590).
 TCP (for torch head, 45°) : 441 mm to robotic flange (offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
 Variants deviating of the standard fittings on request.

09-00234

09-Robotic Automatic Torches-liquid\J11 subject to change.



Double separable version



DIX METTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 540
	22°	DIX METZ 542
	45°	DIX METZ 544

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	450A/100%
Mixed gas:	400A/100%
Wire diameter:	1.0 - 1.6 mm

Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed and adjustable bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Medium to large material thicknesses

Standard fittings

ROBOTIC and AUTOMATIC TORCHES

liquid cooled

MIG/MAG



Double separable version

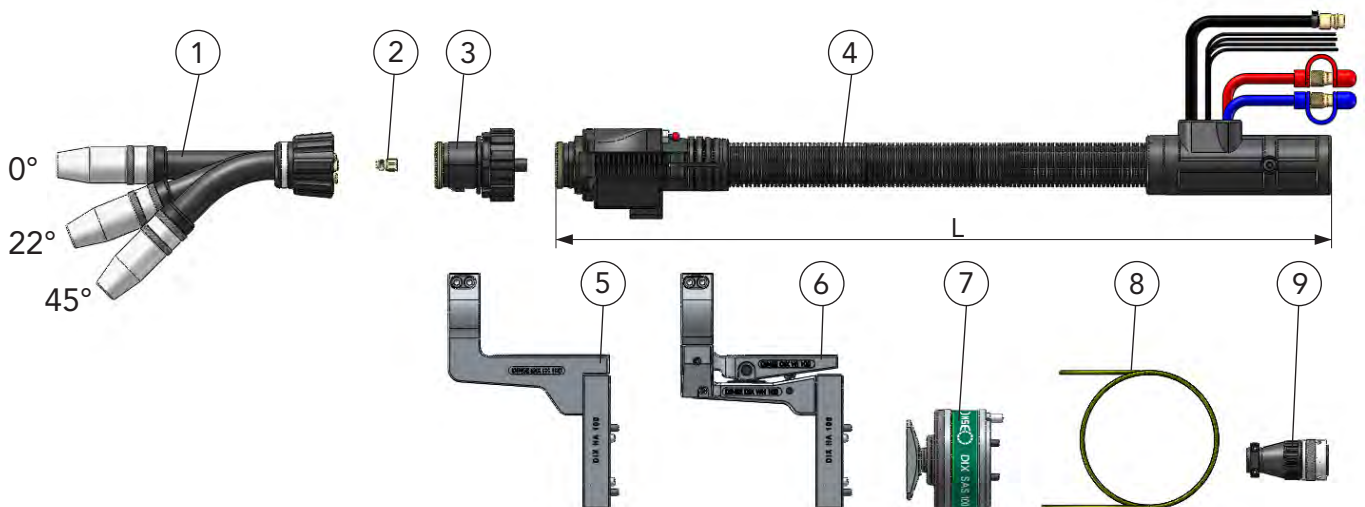
DIX METTZ 600

Torch heads

DIX METZ 540

DIX METZ 542

DIX METZ 544



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 540	631354001
	Torch head, compl.	22°	DIX METZ 542	631354002
	Torch head, compl.	45°	DIX METZ 544	631154001
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METTZ 600-1.2	630166001
	Torch set, without torch head	1.4 m	DIX METTZ 600-1.4	630166002
	Torch set, without torch head	2.0 m	DIX METTZ 600-2.0	630166003
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, adjustable		DIX PHW 100	683501100
7	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
8	Liner	∅ 2.2mm / 1.7m	DIX DS 4/2.2-1.7	623000317
	Liner	∅ 2.2mm / 1.9m	DIX DS 4/2.2-1.9	623000319
	Liner	∅ 2.2mm / 2.5m	DIX DS 4/2.2-2.5	623000325
9	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5415 A, (contact tip, DIX 3-2-1.2 S, flush, clamp nut DIX 4-2-MAS, gas diffusor DIX 10-3-540).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

09-00236

09-Robotic Automatic Torches-liquid\J11 subject to change!



Double separable version

DIX METTZ 600



Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 560
	22°	DIX METZ 562
	45°	DIX METZ 564

Double - circuit liquid cooled

Gas nozzle:	with cooling jacket
	duty cycle
CO ₂ :	550A/100%
Mixed gas:	500A/100%
Wire diameter:	1.2 - 2.0 mm



Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Large material thicknesses



Double separable version

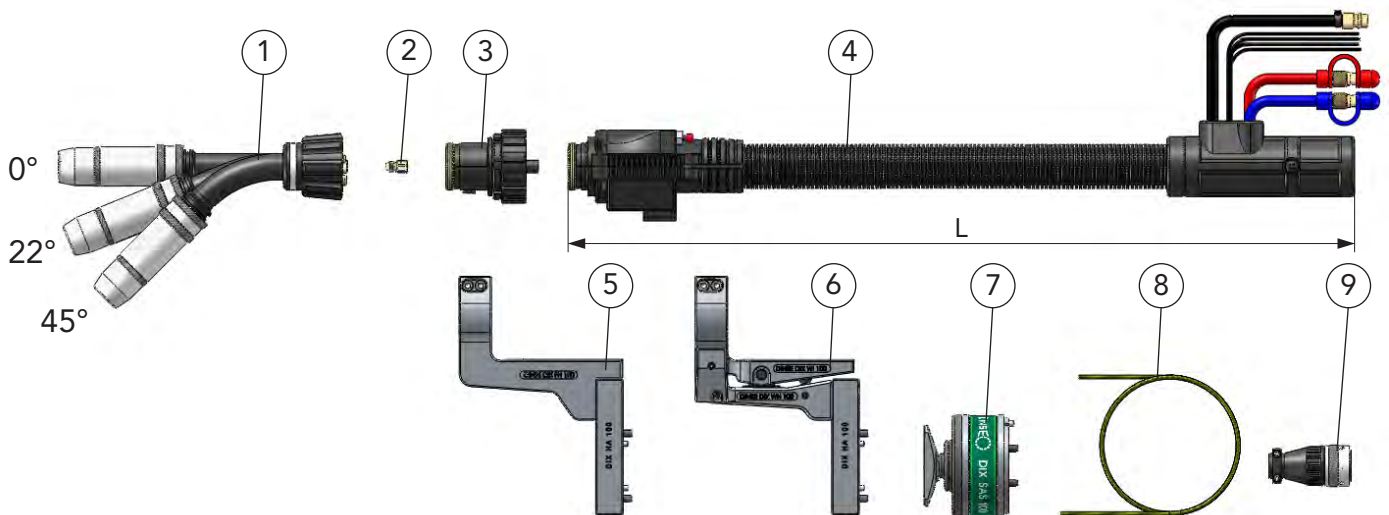
DIX METTZ 600

Torch heads

DIX METZ 560

DIX METZ 562

DIX METZ 564

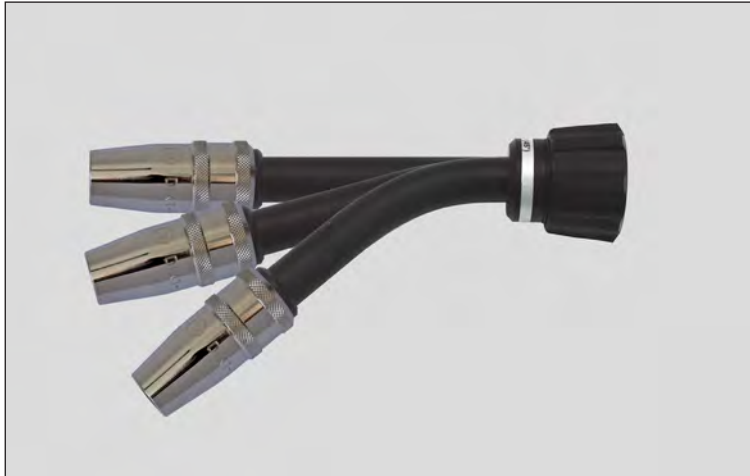


Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 560	631356001
	Torch head, compl.	22°	DIX METZ 562	631356002
	Torch head, compl.	45°	DIX METZ 564	631356003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METTZ 600-1.2	630166001
	Torch set, without torch head	1.4 m	DIX METTZ 600-1.4	630166002
	Torch set, without torch head	2.0 m	DIX METTZ 600-2.0	630166003
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, adjustable		DIX PHW 100	683501100
7	Shock sensor	ø 78.5 /65 mm	DIX SAS 100	683100001
8	Liner	ø 2.2mm /1.7m	DIX DS 4/2.2-1.7	623000317
	Liner	ø 2.2mm /1.9m	DIX DS 4/2.2-1.9	623000319
	Liner	ø 2.2mm /2.5m	DIX DS 4/2.2-2.5	623000325
9	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

- Standard equipment for wire diameter 1.2 mm steel with cooling jacket DIX KM 100, gas nozzle diameter 18 mm, DIX KMG 118 TR, (contact tip, DIX 3-2-1.2 M8, flush, tip adapter DIX GS 2-M8, gas diffuser DIX 10-3-540). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
- Variants deviating of the standard fittings on request.



Double separable version



DIX METTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 570
	22°	DIX METZ 572
	45°	DIX METZ 574

Double - circuit liquid cooled

CO ₂ :	550A/100%
Mixed gas:	500A/100%
Wire diameter:	1.2 - 2.0 mm

Technical benefits:

- High duty cycle due to improved cooling of the gas nozzle
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminum-, magnesium-, copper- and nickel alloys
- Large material thicknesses

Double separable version

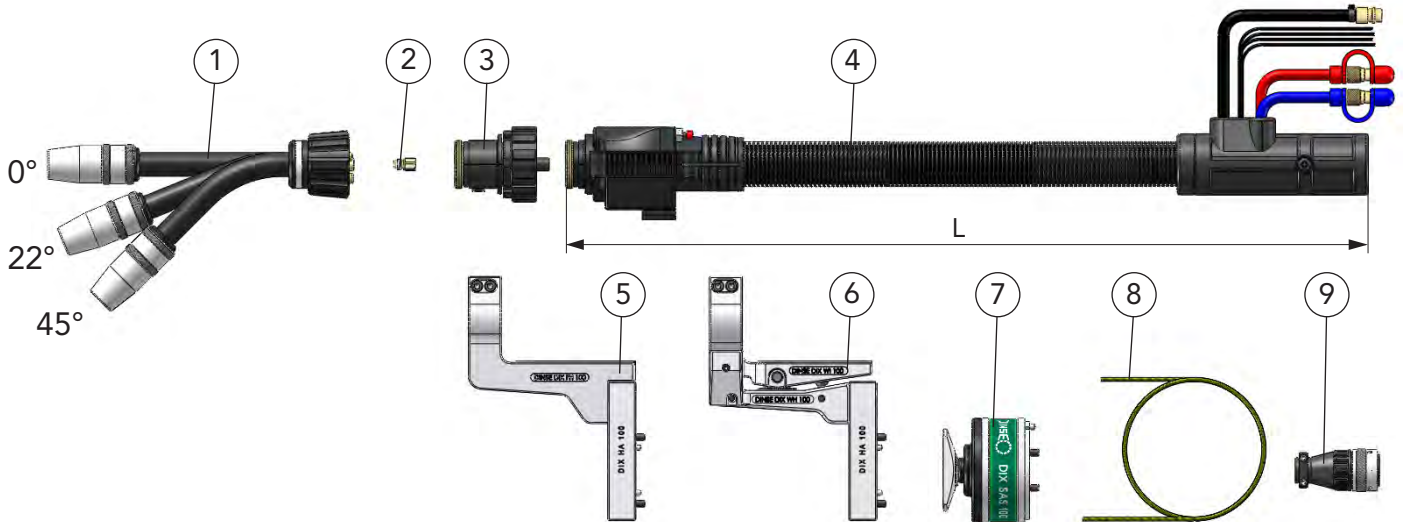
DIX METTZ 600

Torch heads

DIX METZ 570

DIX METZ 572

DIX METZ 574



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 570	631357001
	Torch head, compl.	22°	DIX METZ 572	631357002
	Torch head, compl.	45°	DIX METZ 574	631357003
2	Connecting piece, MATZ		DIX MES 300/500	639061500041
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	1.2 m	DIX METTZ 600-1.2	630166001
	Torch set, without torch head	1.4 m	DIX METTZ 600-1.4	630166002
	Torch set, without torch head	2.0 m	DIX METTZ 600-2.0	630166003
5	Torch bracket, fixed		DIX PHF 100	683500100
6	Torch bracket, adjustable		DIX PHW 100	683501100
7	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
8	Liner	∅ 2.2mm / 1.7m	DIX DS 4/2.2-1.7	623000317
	Liner	∅ 2.2mm / 1.9m	DIX DS 4/2.2-1.9	623000319
	Liner	∅ 2.2mm / 2.5m	DIX DS 4/2.2-2.5	623000325
9	Plug set		DIX MEX 100	639077001
	For DINSE wire feeders, only assembled available.			

► Standard equipment for wire diameter 1.2 mm steel, gas nozzle diameter 18 mm, DIX 1-3-5718 A, (contact tip, DIX 3-2-1.2 M8, flush, gas diffuser DIX 10-2-305 K). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

09-00240

09-Robotic Automatic Torches-liquid\J11 subject to change!



Double separable version
for PUSH-PUSH and PUSH-PULL



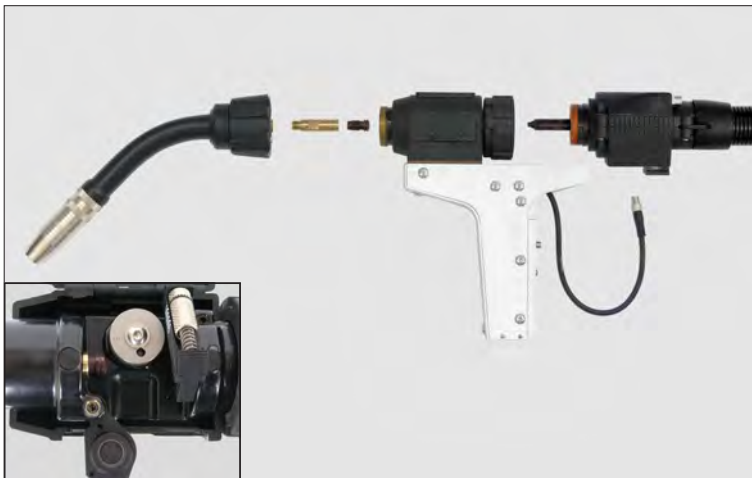
DIX MEPTTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 520
	22°	DIX METZ 522
	45°	DIX METZ 524

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	350A/100%
Mixed gas:	300A/100%
Wire diameter:	0.8 - 1.2 mm



Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules
- **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to medium material thicknesses

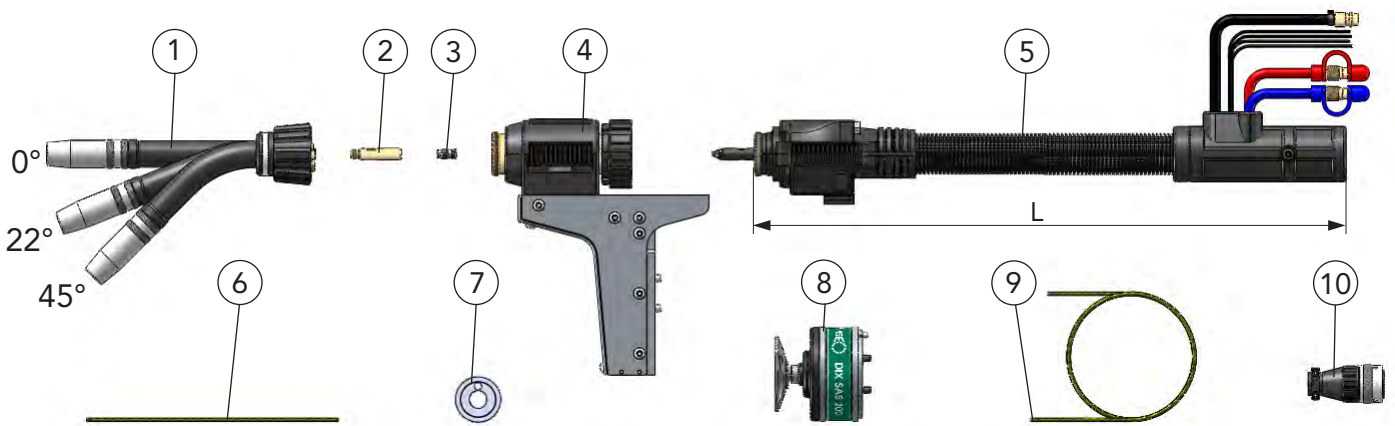
Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTTZ 600

DIX METZ 520

DIX METZ 522

DIX METZ 524



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 520	631352001
	Torch head, compl.	22°	DIX METZ 522	631352002
	Torch head, compl.	45°	DIX METZ 524	631352003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTTZ 600-5.0	630664010
	Torch set, without torch head	7.0 m	DIX MEPTTZ 600-7.0	630664011
6	Liner	∅ 1.8 mm/0.3 m	DIX DS 4/1.8-0.3	639300001
7	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

- ▶ Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 12 mm, DIX 1-3-5212 A, (contact tip, DIX 3-1-1.0 S, flush, clamp nut DIX 4-1-MAS, gas diffusor DIX 10-1 MAS). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

09-00242

09-Robotic Automatic Torches-liquid\J11 subject to change!



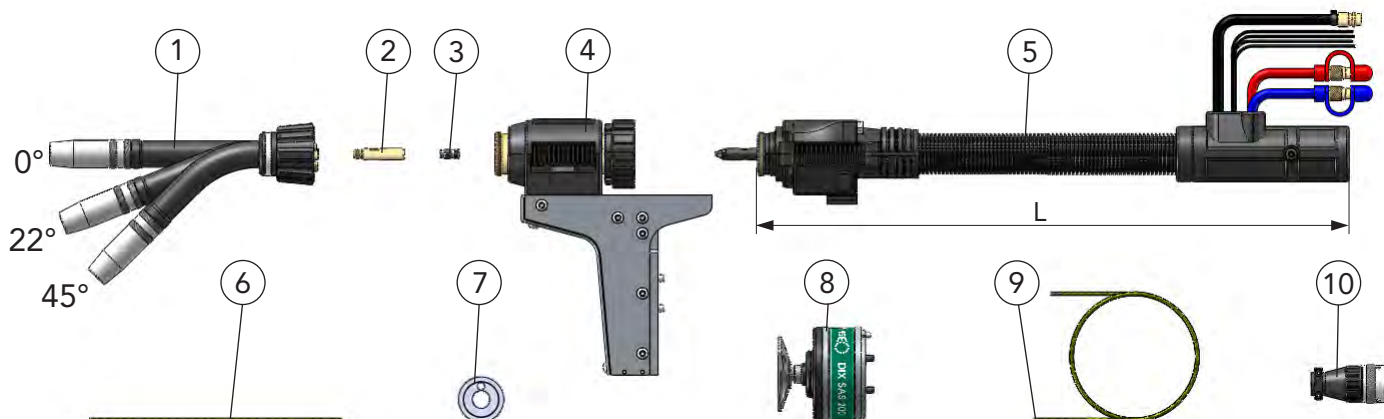
Double separable version
for PUSH-PULL
Torch heads

DIX MEPTTZ 600

DIX METZ 520

DIX METZ 522

DIX METZ 524



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 520	631352001
	Torch head, compl.	22°	DIX METZ 522	631352002
	Torch head, compl.	45°	DIX METZ 524	631352003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTTZ 600-1.2	630664001
	Torch set, without torch head	1.4 m	DIX MEPTTZ 600-1.4	630664002
	Torch set, without torch head	2.0 m	DIX MEPTTZ 600-2.0	630664003
6	Liner	∅ 1.8 mm/0.3 m	DIX DS 4/1.8-0.3	639300001
7	Drive roll (for steel)	∅ 1,0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/1.7m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9 mm/1.9m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9 mm/2.5m	DIX DS 4/2.9-2.5	623000525
10	Plug set		DIX MEX 100	639077001

- For DINSE wire feeders, only assembled available.
- Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 12 mm, DIX 1-3-5212 A, (contact tip, DIX 3-1-1.0 S, flush, clamp nut DIX 4-1-MAS, gas diffuser DIX 10-1 MAS). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
- Variants deviating of the standard fittings on request.



Double separable version
for PUSH-PUSH and PUSH-PULL



DIX MEPTTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 590
	22°	DIX METZ 592
	45°	DIX METZ 594

Double - circuit liquid cooled

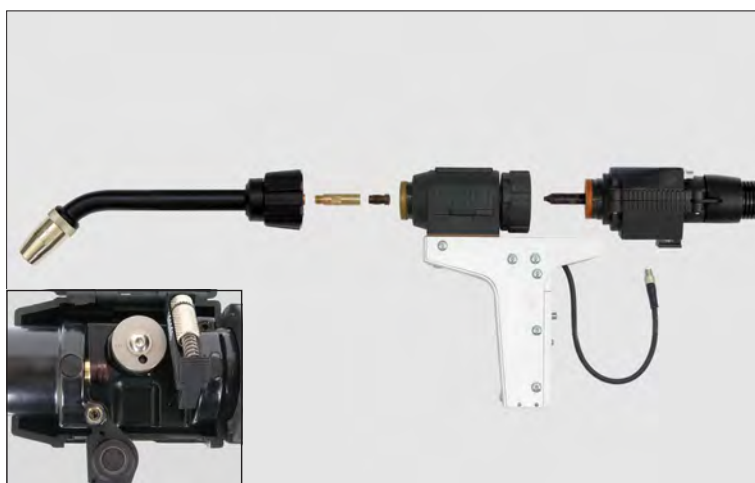
Gas nozzle:	trapezoid thread
	duty cycle
CO ₂ :	400A/100%
Mixed gas:	350A/100%
Wire diameter:	0.8 - 1.2 mm

Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules
- **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to medium material thicknesses



09-00244

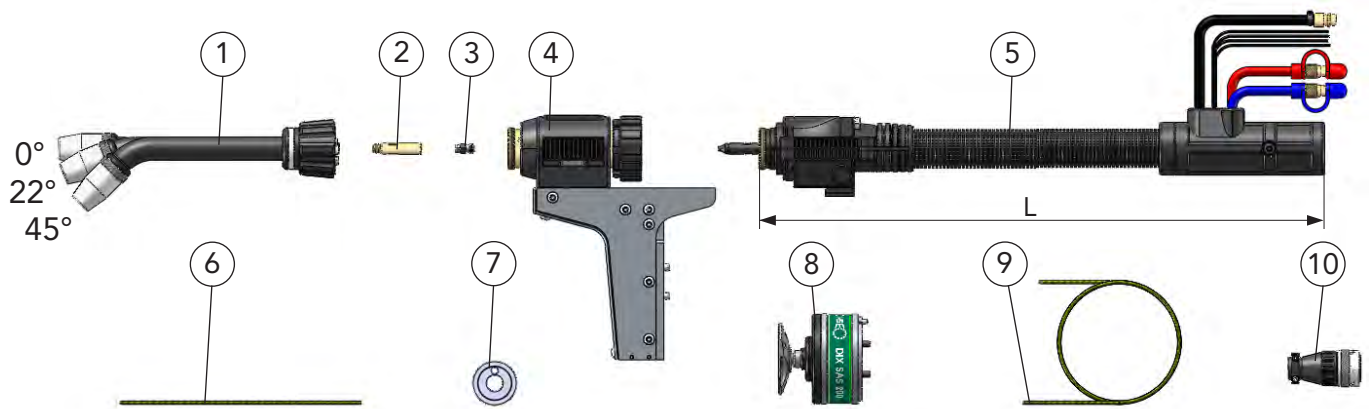
09-Robotic Automatic Torches-liquid\J11 subject to change!



Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTTZ 600

DIX METZ	590
DIX METZ	592
DIX METZ	594



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 590	631359001
	Torch head, compl.	22°	DIX METZ 592	631359002
	Torch head, compl.	45°	DIX METZ 594	631359003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTTZ 600-5.0	630664010
	Torch set, without torch head	7.0 m	DIX MEPTTZ 600-7.0	630664011
6	Liner	∅ 1.8 mm/0.3 m	DIX DS 4/1.8-0.3	639300001
7	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9mm/5.5 m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9mm/7.5 m	DIX DS 4/2.9-7.5	623000575
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

- ▶ Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip, DIX 3-2-1.0, set back, gas diffuser DIX GVT 590).
TCP (for torch head, 45°) : 441 mm to robotic flange (offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.

09-00245

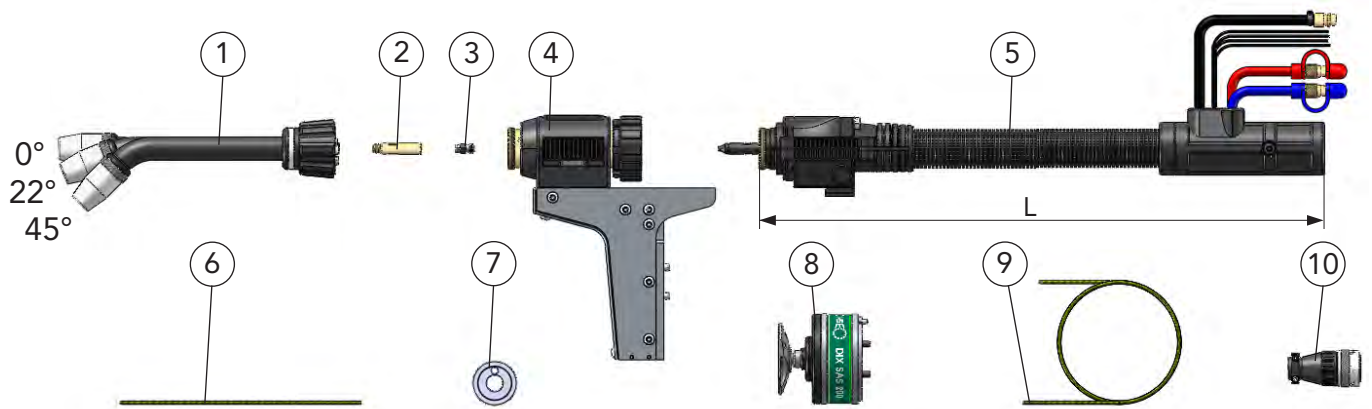
09-Robotic Automatic Torches-liquid\J11 subject to change!



Double separable version
for PUSH-PULL
Torch heads

DIX MEPTTZ 600

DIX METZ	590
DIX METZ	592
DIX METZ	594



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 590	631359001
	Torch head, compl.	22°	DIX METZ 592	631359002
	Torch head, compl.	45°	DIX METZ 594	631359003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTTZ 600-1.2	630664001
	Torch set, without torch head	1.4 m	DIX MEPTTZ 600-1.4	630664002
	Torch set, without torch head	2.0 m	DIX MEPTTZ 600-2.0	630664003
6	Liner	∅ 1.8 mm/0.3 m	DIX DS 4/1.8-0.3	639300001
7	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9mm/1.7 m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9mm/1.9 m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9mm/2.5 m	DIX DS 4/2.9-2.5	623000525
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.0 mm steel with gas nozzle diameter 15 mm, DIX 1-3-5915 A, (contact tip, DIX 3-2-1.0, set back, gas diffusor DIX GVT 590).

TCP (for torch head, 45°) : 441 mm to robotic flange (offset, vertical: 54mm). The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.

Variants deviating of the standard fittings on request.



Double separable version
for PUSH-PUSH and PUSH-PULL



DIX MEPTTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 540
	22°	DIX METZ 542
	45°	DIX METZ 544

Double - circuit liquid cooled

Gas nozzle:	trapezoid thread duty cycle
CO ₂ :	450A/100%
Mixed gas:	400A/100%
Wire diameter:	1.0 - 1.6 mm

Technical benefits:

- ▶ No gas loss due to separate shield gas feed
- ▶ Integrated air blast
- ▶ TCP reachable by fixed bracket
- ▶ Reproducible position by using checking jig with aligning module
- ▶ Precise shock sensor
- ▶ Tool changer with storage station
- ▶ Exact wire feeding by powerful wire feeder modules
- ▶ **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder

Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Medium to large material thicknesses



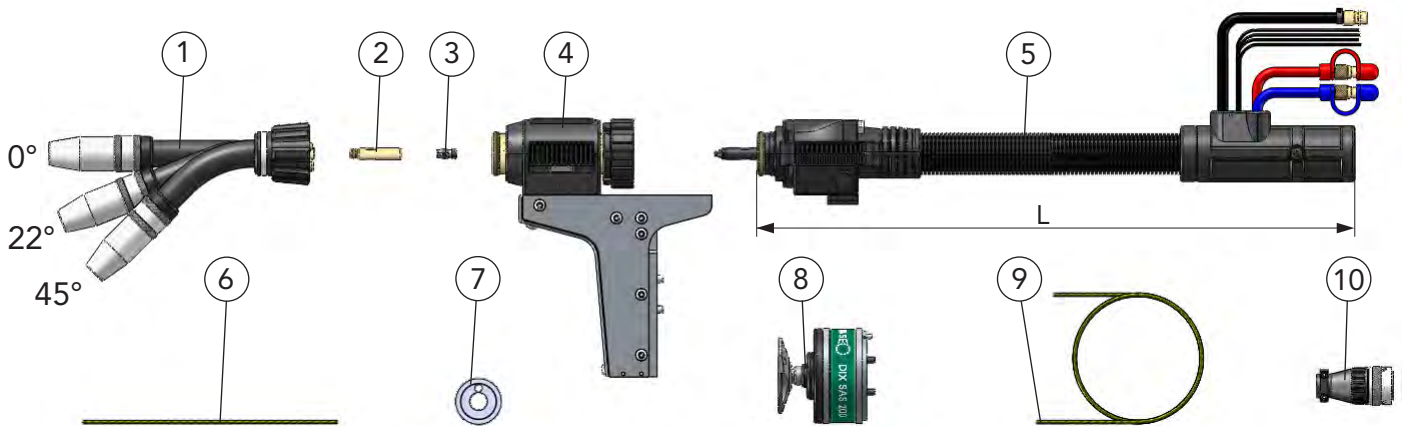
Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTTZ 600

DIX METZ 540

DIX METZ 542

DIX METZ 544



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 540	631354001
	Torch head, compl.	22°	DIX METZ 542	631354002
	Torch head, compl.	45°	DIX METZ 544	631154001
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTTZ 600-5.0	630664010
	Torch set, without torch head	7.0 m	DIX MEPTTZ 600-7.0	630664011
6	Liner	∅ 2.2 mm/0.3 m	DIX DS 4/2.2-0.3	639300002
7	Drive roll (for steel)	∅ 1.2 mm S	DIX MEP 322-1.2 S	6393221200
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle 15 mm, DIX 1-3-5415 A, (contact tip, DIX 3-2-1.2 S, flush, clamp nut DIX 4-2-MAS, gas diffuser DIX 10-3-540). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

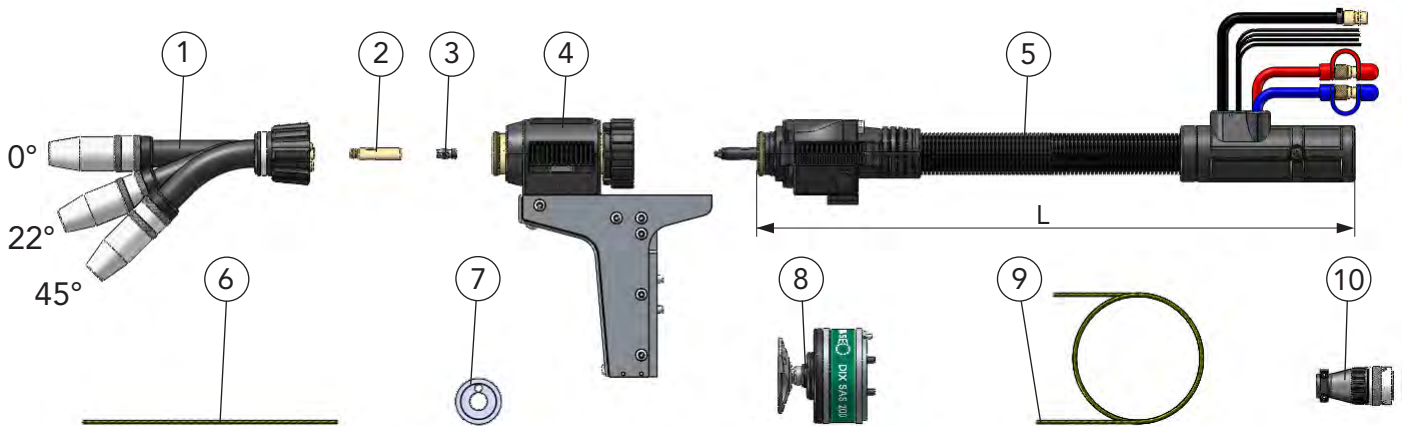
Double separable version
for PUSH-PULL
Torch heads

DIX MEPTTZ 600

DIX METZ 540

DIX METZ 542

DIX METZ 544



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 540	631354001
	Torch head, compl.	22°	DIX METZ 542	631354002
	Torch head, compl.	45°	DIX METZ 544	631154001
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTTZ 600-1.2	630664001
	Torch set, without torch head	1.4 m	DIX MEPTTZ 600-1.4	630664002
	Torch set, without torch head	2.0 m	DIX MEPTTZ 600-2.0	630664003
6	Liner	∅ 2.2 mm/0.3 m	DIX DS 4/2.2-0.3	639300002
7	Drive roll (for steel)	∅ 1.2 mm S	DIX MEP 322-1.2S	6393221200
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
		∅ 2.9 mm/1.7m	DIX DS 4/2.9-1.7	623000517
		∅ 2.9 mm/1.9m	DIX DS 4/2.9-1.9	623000519
9	Liner	∅ 2.9 mm/2.5m	DIX DS 4/2.9-2.5	623000525
			DIX MEX 100	639077001
10	Plug set For DINSE wire feeders, only assembled available.			

- ▶ Standard equipment for wire diameter 1.2 mm steel with gas nozzle 15 mm, DIX 1-3-5415 A, (contact tip, DIX 3-2-1.2 S, flush, clamp nut DIX 4-2-MAS, gas diffusor DIX 10-3-540).
TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads.
Variants deviating of the standard fittings on request.



Double separable version
for PUSH-PUSH and PUSH-PULL



DIX MEPTTZ 600

Technical data (DIN EN 60 974-7):

Torch heads: 0° DIX METZ 560
22° DIX METZ 562
45° DIX METZ 564

Double - circuit liquid cooled

Gas nozzle: with cooling jacket
duty cycle
CO₂: 550A/100%
Mixed gas: 500A/100%
Wire diameter: 1.2 - 2.0 mm



Technical benefits:

- No gas loss due to separate shield gas feed
- Integrated air blast
- TCP reachable by fixed bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules
- **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Large material thicknesses

Standard fittings

ROBOTIC and AUTOMATIC TORCHES

liquid cooled

MIG/MAG



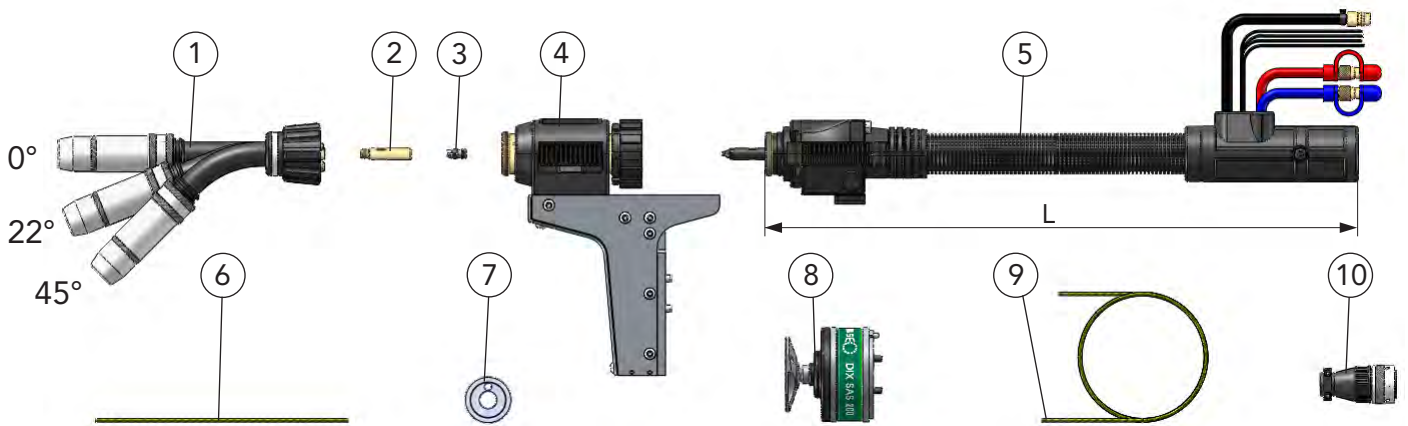
Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTTZ 600

DIX METZ 560

DIX METZ 562

DIX METZ 564



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 560	631356001
	Torch head, compl.	22°	DIX METZ 562	631356002
	Torch head, compl.	45°	DIX METZ 564	631356003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTTZ 600-5.0	630664010
	Torch set, without torch head	7.0 m	DIX MEPTTZ 600-7.0	630664011
6	Liner	∅ 2.2 mm/0.3m	DIX DS 4/2.2-0.3	639300002
7	Drive roll (for steel)	∅ 1.2 mm S	DIX MEP 322-1.2 S	6393221200
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.2 mm steel with cooling jacket DIX KM 100, gas nozzle diameter 18 mm, DIX KMG 118 TR, (contact tip, DIX 3-2-1.2 M8, flush, tip adapter DIX GS 2-M8, gas diffuser DIX 10-3-540). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

09-00251

09-Robotic Automatic Torches-liquid\J11 subject to change!



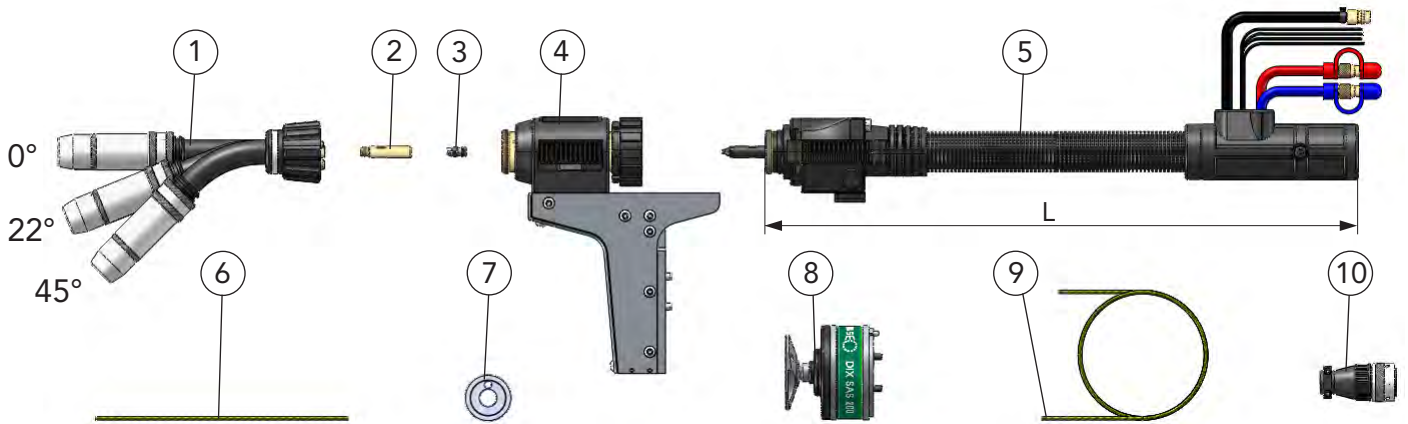
Double separable version
for PUSH-PULL
Torch heads

DIX MEPTTZ 600

DIX METZ 560

DIX METZ 562

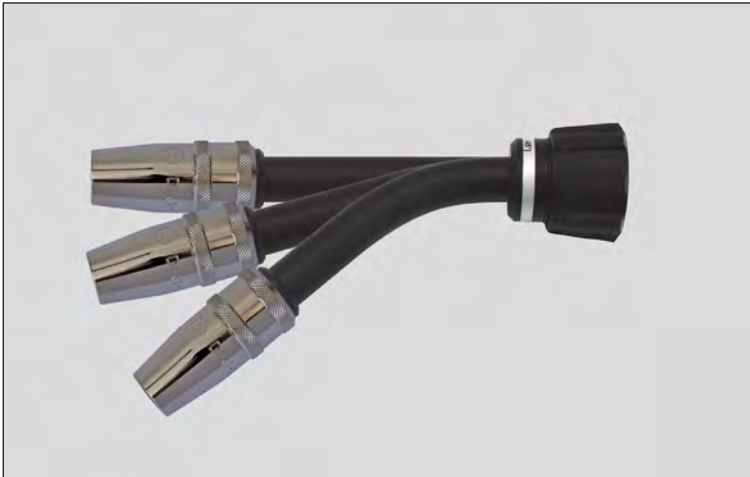
DIX METZ 564



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 560	631356001
	Torch head, compl.	22°	DIX METZ 562	631356002
	Torch head, compl.	45°	DIX METZ 564	631356003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTTZ 600-1.2	630664001
	Torch set, without torch head	1.4 m	DIX MEPTTZ 600-1.4	630664002
	Torch set, without torch head	2.0 m	DIX MEPTTZ 600-2.0	630664003
6	Liner	∅ 2.2 mm/0.3m	DIX DS 4/2.2-0.3	639300002
7	Drive roll (for steel)	∅ 1.2 mm S	DIX MEP 322-1.2 S	6393221200
8	Shock sensor	∅ 78.5 / 65mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/1.7m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9 mm/1.9m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9 mm/2.5m	DIX DS 4/2.9-2.5	623000525
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.2 mm steel with cooling jacket DIX KM 100, gas nozzle diameter 18 mm, DIX KMG 118 TR, (contact tip, DIX 3-2-1.2 M8, flush, tip adapter DIX GS 2-M8, gas diffuser DIX 10-3-540). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

Double separable version
for PUSH-PUSH and PUSH-PULL



DIX MEPTTZ 600

Technical data (DIN EN 60 974-7):

Torch heads:	0°	DIX METZ 570
	22°	DIX METZ 572
	45°	DIX METZ 574

Double - circuit liquid cooled

CO ₂ :	550A/100%
Mixed gas:	500A/100%
Wire diameter:	1.2 - 2.0 mm

Technical benefits:

- High duty cycle due to improved cooling of the gas nozzle
- Integrated air blast
- TCP reachable by fixed and adjustable bracket
- Reproducible position by using checking jig with aligning module
- Precise shock sensor
- Tool changer with storage station
- Exact wire feeding by powerful wire feeder modules
- **Option:** Encoder for monitoring of the wire feeding in the integrated wire feeder

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminum-, magnesium-, copper- and nickel alloys
- Large material thicknesses



09-00253

09-Robotic Automatic Torches-liquid\J11 subject to change!



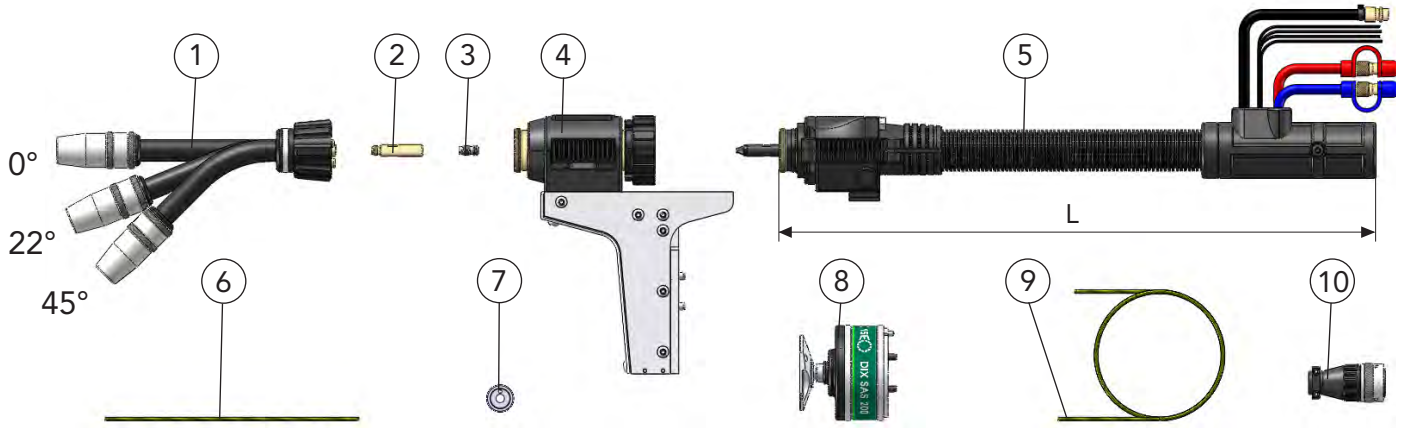
Double separable version
for PUSH-PUSH
Torch heads

DIX MEPTTZ 600

DIX METZ 570

DIX METZ 572

DIX METZ 574



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 570	631357001
	Torch head, compl.	22°	DIX METZ 572	631357002
	Torch head, compl.	45°	DIX METZ 574	631357003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
5	Torch set, without torch head	5.0 m	DIX MEPTTZ 600-5.0	630664010
	Torch set, without torch head	7.0 m	DIX MEPTTZ 600-7.0	630664011
6	Liner	∅ 2.2 mm/0.3m	DIX DS 4/2.2-0.3	639300002
7	Drive roll (for steel)	∅ 1.2 mm S	DIX MEP 322-1.2 S	6393221200
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.2 mm steel, gas nozzle diameter 18 mm, DIX 1-3-5718 A, (contact tip, DIX 3-2-1.2 M8, flush, gas diffuser DIX 10-2-305 K). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

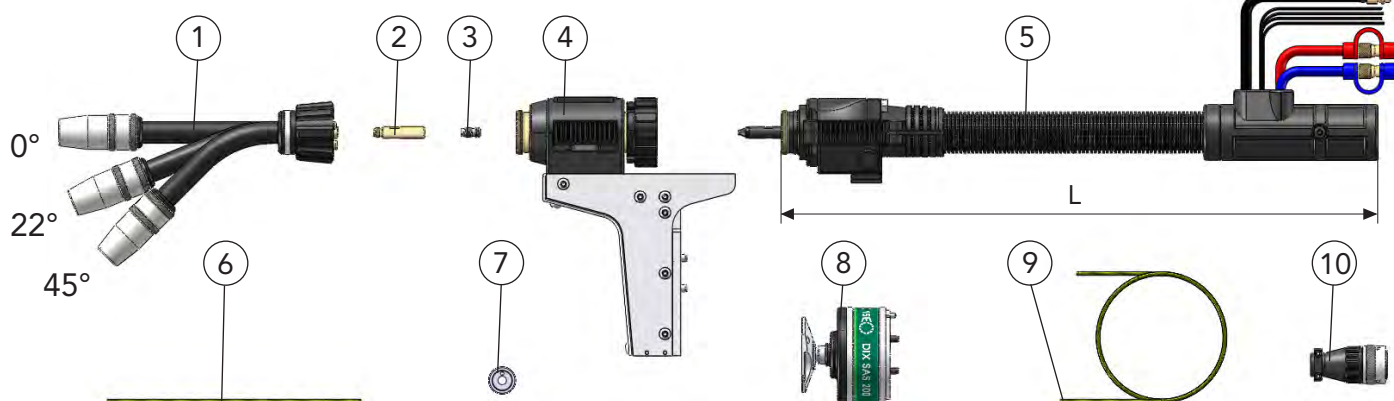
Double separable version
for PUSH-PULL
Torch heads

DIX MEPTTZ 600

DIX METZ 570

DIX METZ 572

DIX METZ 574



Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX METZ 570	631357001
	Torch head, compl.	22°	DIX METZ 572	631357002
	Torch head, compl.	45°	DIX METZ 574	631357003
2	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
3	Clamping sleeve		DIX SH 270	629270270
4	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
5	Torch set, without torch head	1.2 m	DIX MEPTTZ 600-1.2	630664001
	Torch set, without torch head	1.4 m	DIX MEPTTZ 600-1.4	630664002
	Torch set, without torch head	2.0 m	DIX MEPTTZ 600-2.0	630664003
6	Liner	∅ 2.2 mm/0.3m	DIX DS 4/2.2-0.3	639300002
7	Drive roll (for steel)	∅ 1.2 mm S	DIX MEP 322-1.2 S	6393221200
8	Shock sensor	∅ 78.5 /65 mm	DIX SAS 200	683100200
9	Liner	∅ 2.9 mm/1.7m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9 mm/1.9m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9 mm/2.5m	DIX DS 4/2.9-2.5	623000525
10	Plug set For DINSE wire feeders, only assembled available.		DIX MEX 100	639077001

► Standard equipment for wire diameter 1.2 mm steel, gas nozzle diameter 18 mm, DIX 1-3-5718 A, (contact tip, DIX 3-2-1.2 M8, flush, gas diffuser DIX 10-2-305 K). TCP (for torch head, 45°) : 400 mm to robotic flange. The corresponding adapter flange you find in the accessories list! Use the box spanner DIX SLAT 3 to fix the torch heads. Variants deviating of the standard fittings on request.

09-00255

09-Robotic Automatic Torches-liquid\J11 subject to change!

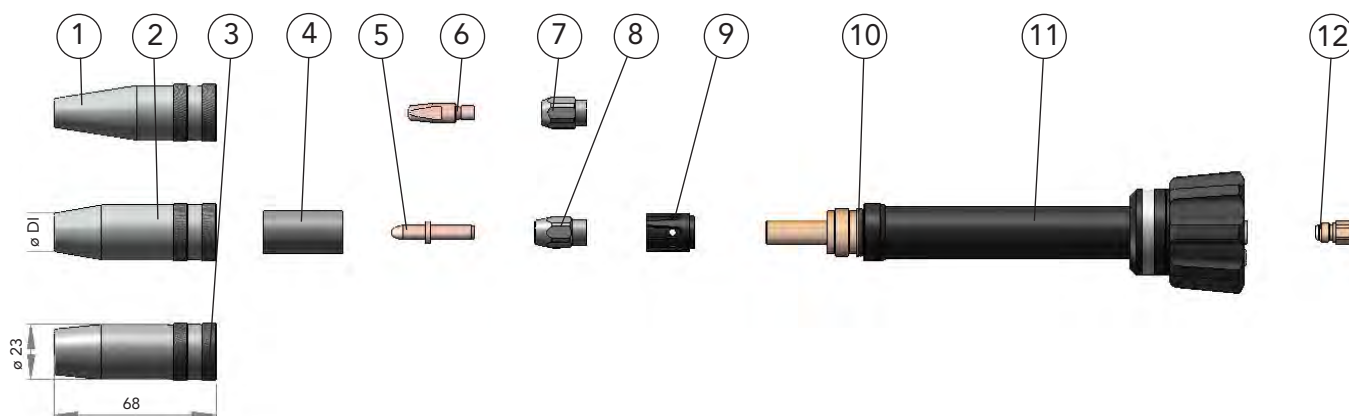


Torch heads

DIX METZ 520

DIX METZ 522

DIX METZ 524



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5215 A	6390152150
4	Insulator (for Pos. 2 and 3)		DIX 2-3-520	6390252000
5	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
6	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Tip adapter		DIX GS 1-K	618150001
8	Clamp nut		DIX 4-1-MAS	6390452000
9	Gas diffuser		DIX 10-1-MAS	6391052000
10	O - Ring	(10 pcs.)		639060002
11	Torch neck	0°	DIX 6-3-520 METZ	6390635200
	Torch neck	22°	DIX 6-3-522 METZ	6390635220
	Torch neck	45°	DIX 6-3-524 METZ	6390635240
12	Connecting piece		DIX MES 300/500	639061500041
	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
	Clamping sleeve Without picture		DIX SH 270	629270270

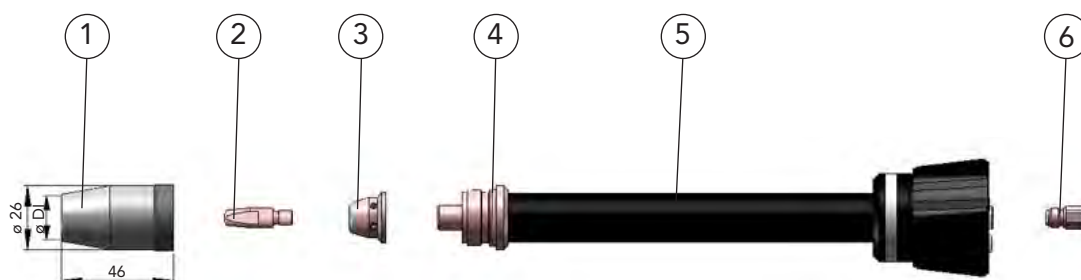
xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

Torch heads

DIX METZ 590

DIX METZ 592

DIX METZ 594



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Gas diffuser		DIX GVT 590	6391059001
4	O - ring	(10 pcs.)		639060001
5	Torch neck	0°	DIX 6-3-590 METZ	6390635900
	Torch neck	22°	DIX 6-3-592 METZ	6390635920
	Torch neck	45°	DIX 6-3-594 METZ	6390635940
6	Connecting piece		DIX MES 300/500	639061500041
	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
	Clamping sleeve		DIX SH 270	629270270
	Without picture			
	Without picture			

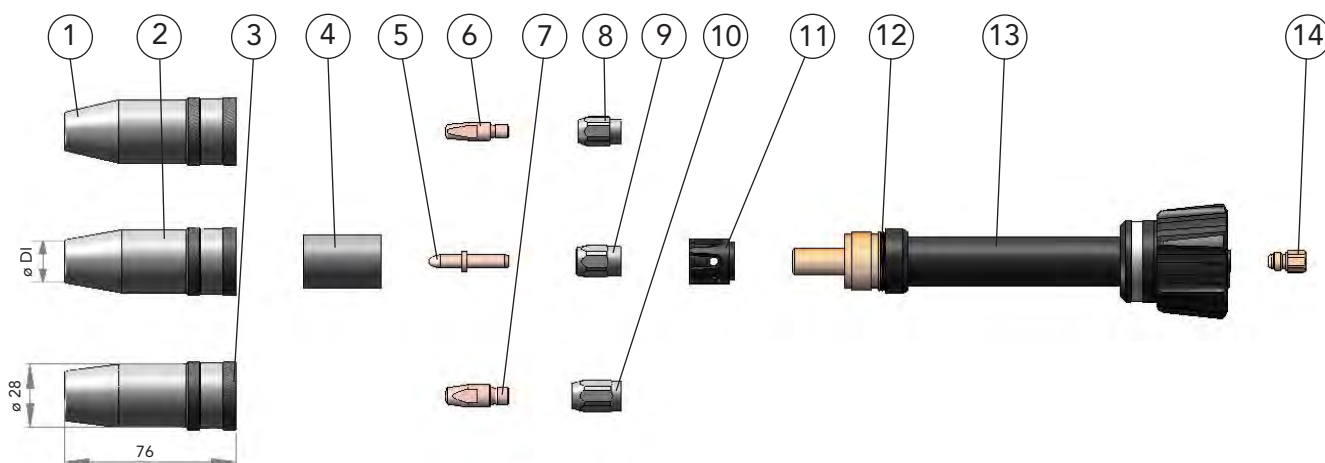
xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

Torch heads

DIX METZ 540

DIX METZ 542

DIX METZ 544



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 13 mm	DIX 1-3-5413 A	6390154130
2	Gas nozzle	DI ø 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	DI ø 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Contact tip	ø 8 x 45 mm	DIX 3-2-xx SA	6290304xx
6	Contact tip	M6 x 24 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Tip adapter	M6	DIX GS 2 M6	628150006
9	Clamp nut		DIX 4-2-MAS	6390454000
10	Tip adapter	M8	DIX GS 2 M8	628150008
11	Gas diffuser		DIX 10-3-540	6391054000
12	O - ring	(10 pcs.)		639060003
13	Torch neck	0°	DIX 6-3-540 METZ	6390635400
	Torch neck	22°	DIX 6-3-542 METZ	6390635420
	Torch neck	45°	DIX 6-3-544 METZ	6390635440
14	Connecting piece		DIX MES 300/500	639061500041
	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
	Clamping sleeve		DIX SH 270	629270270
	Without picture			
xx	Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.			

09-00258

09-Robotic Automatic Torches-liquid\J11 subject to change!

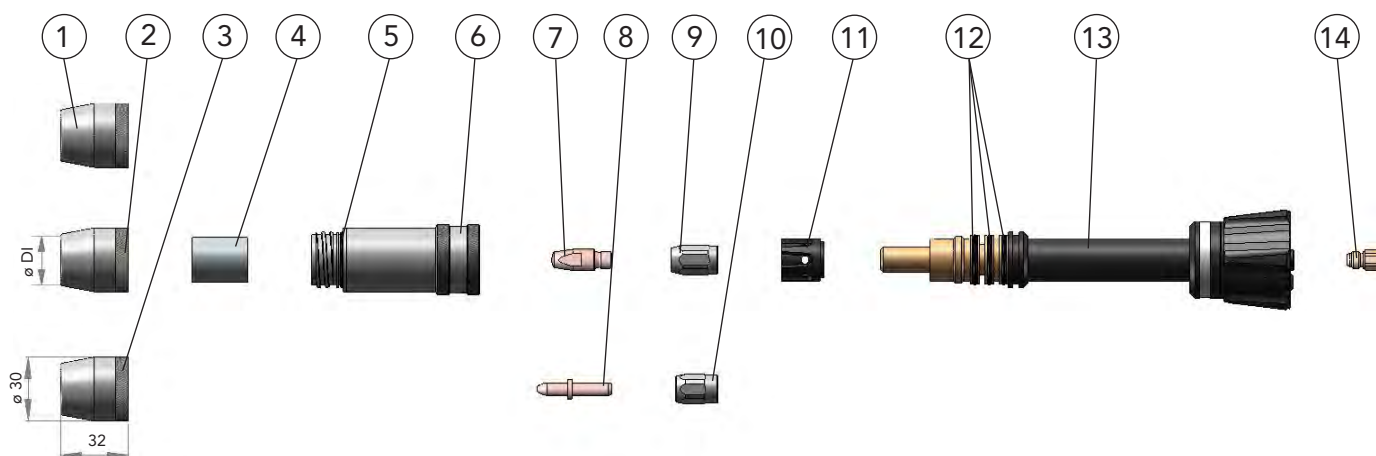


Torch heads

DIX METZ 560

DIX METZ 562

DIX METZ 564



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 15 mm	DIX KMG 115 TR	628040315
2	Gas nozzle	DI ø 18 mm	DIX KMG 118 TR	628040318
3	Gas nozzle	DI ø 21 mm	DIX KMG 121 TR	628040321
4	Cooling jacket - insulator		DIX KME 100	628040302
5	O - ring	(10 pcs.)	DIX KMR 100	629110904
6	Cooling jacket, compl. (with sealing ring)		DIX KM 100	628040301
7	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Contact tip	ø 8 x 45 mm	DIX 3-2-xx SR	6290354xx
9	Tip adapter	M8	DIX GS 2-M8	628150008
10	Clamp nut		DIX 4-2-MAS	6390454000
11	Gas diffuser		DIX 10-3-540	6391054000
12	O - ring	(10 pcs.)		639060005
13	Torch neck	0°	DIX 6-3-560 METZ	6390635600
	Torch neck	22°	DIX 6-3-562 METZ	6390635620
	Torch neck	45°	DIX 6-3-564 METZ	6390635640
14	Connecting piece		DIX MES 300/500	639061500041
	Connecting piece, MEPTZ		DIX MEPS 300/500	6390665000
	Clamping sleeve		DIX SH 270	629270270
	Without picture			
	Without picture			

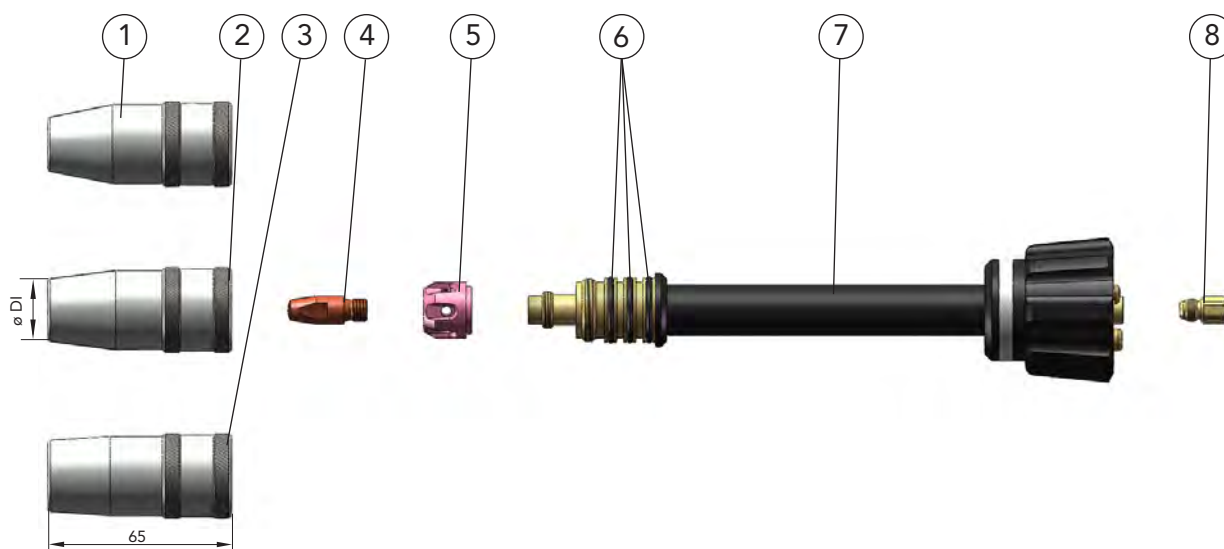
xx - Standard diameter: 1.2 mm and 1.6 mm. Other diameters on request.

Torch heads

DIX METZ 570

DIX METZ 572

DIX METZ 574



09-00260

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5715 A	6390157150
2	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5718 A	6390157180
3	Gas nozzle	DI \varnothing 21 mm	DIX 1-3-5721 A	6390157210
4	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
5	Gas diffuser		DIX 10-2-305 K	6291003051
6	O - ring, 20x1,7 mm	(10 pcs.)		629110911
7	Torch neck	0°	DIX 6-3-570 METZ	6390635700
	Torch neck	22°	DIX 6-3-572 METZ	6390635720
	Torch neck	45°	DIX 6-3-574 METZ	6390635740
8	Connecting piece		DIX MES 300/500	639061500041
	Clamping sleeve		DIX SH 270	629270270
	Connecting piece		DIX MEPS 300/500	6390665000
	Without picture			
	Without picture			

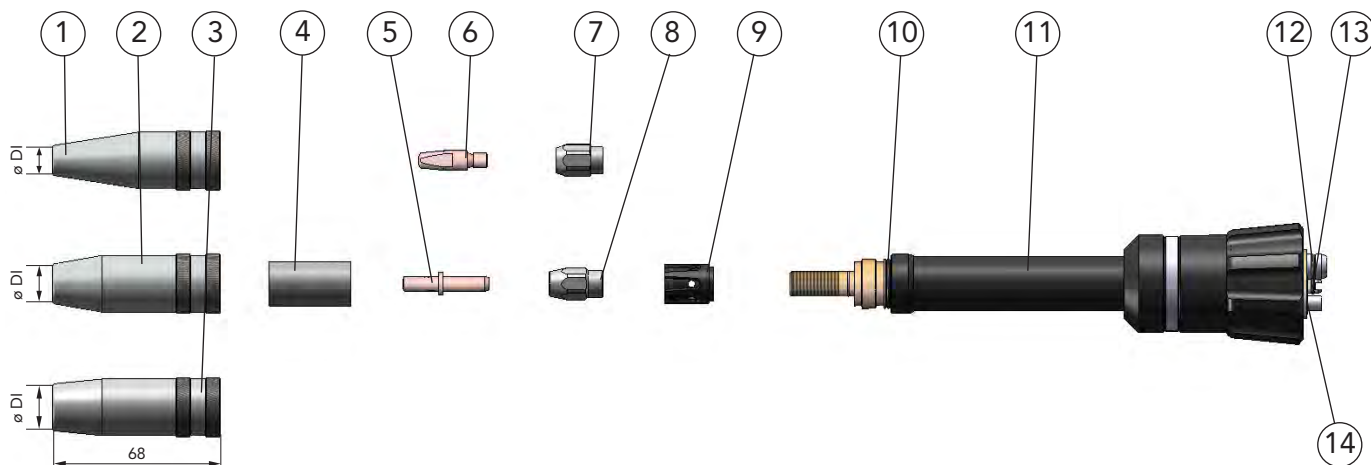
xx - Standard diameter: 1.2 mm, 1.6 mm and 2.0 mm. Other diameters on request.

09-Robotic Automatic Torches-liquid\J11 subject to change!



MFTZ 52xx Torch heads
Spare parts and wear parts
liquid cooled

MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 9 mm	DIX 1-3-5209 A	6390152090
2	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 A	6390152120
3	Gas nozzle	DI ø 15 mm	DIX 1-3-5215 A	6390152150
4	Insulator For Pos. 2 and 3		DIX 2-3-520	6390252000
5	Contact tip	ø 6 x 35 mm	DIX 3-1-xx SR	6190354xx
6	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Tip adapter		DIX GS 1-K	618150001
8	Clamp nut		DIX 4-1-MAS	6390452000
9	Gas diffuser		DIX 10-1-MAS	6391052000
10	O - ring, 17x1.5 mm	(10 pcs.)		639060002
11	Torch neck	0°	DIX 6-3-5200 MFTZ	6390685200
	Torch neck	22°	DIX 6-3-5222 MFTZ	6390685222
	Torch neck	36°	DIX 6-3-5236 MFTZ	6390685236
	Torch neck	45°	DIX 6-3-5245 MFTZ	6390685245
12	O - ring, 7x1.5 mm	(10 pcs.)		639159009
13	O - ring, 4x1.0 mm	(10 pcs.)		629110901
14	O - ring, 6x1.5 mm	(10 pcs.)		639060008

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

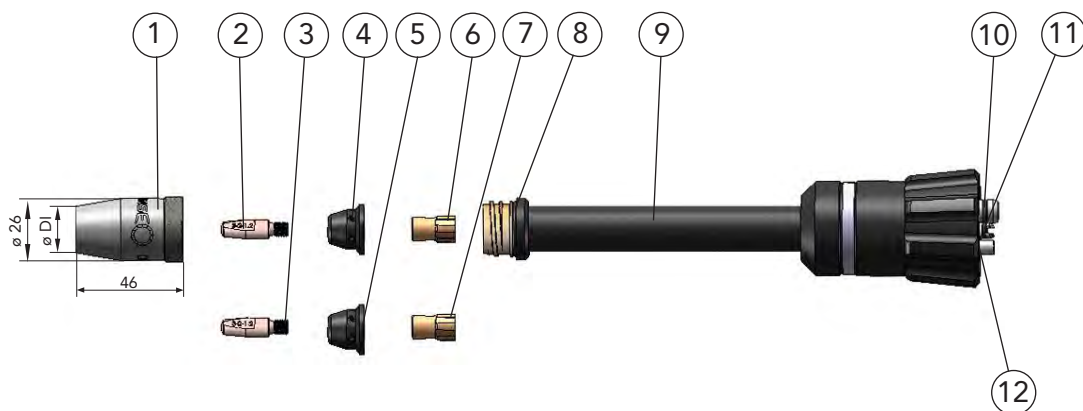
09-00261

09-Robotic Automatic Torches-liquid\J11 subject to change!



MFTZ 59xx Torch heads
Spare parts and wear parts
liquid cooled

MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5915 A	6390159150
2	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
3	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
4	Gas diffuser		DIX GVT 590	6391059001
	Gas diffuser	(10 pcs.)	DIX GVT 590 K	6391059003
5	Gas diffuser		DIX GVT 590/001	6391059002
6	Tip adapter	M6	DIX GS 590 M6	639069257313
7	Tip adapter	M8	DIX GS 590 M8	639069257314
8	O - ring, 20x1.5 mm	(10 pcs.)		639060001
9	Torch neck	0°	DIX 6-3-5900 MFTZ	6390685900
	Torch neck	22°	DIX 6-3-5922 MFTZ	6390685922
	Torch neck	36°	DIX 6-3-5936 MFTZ	6390685936
	Torch neck	45°	DIX 6-3-5945 MFTZ	6390685945
10	O - ring, 7x1.5 mm	(10 pcs.)		639159009
11	O - ring, 4x1.0 mm	(10 pcs.)		629110901
12	O - ring, 6x1.5 mm	(10 pcs.)		639060008

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

09-00262

09-Robotic Automatic Torches-liquid\J11 subject to change!

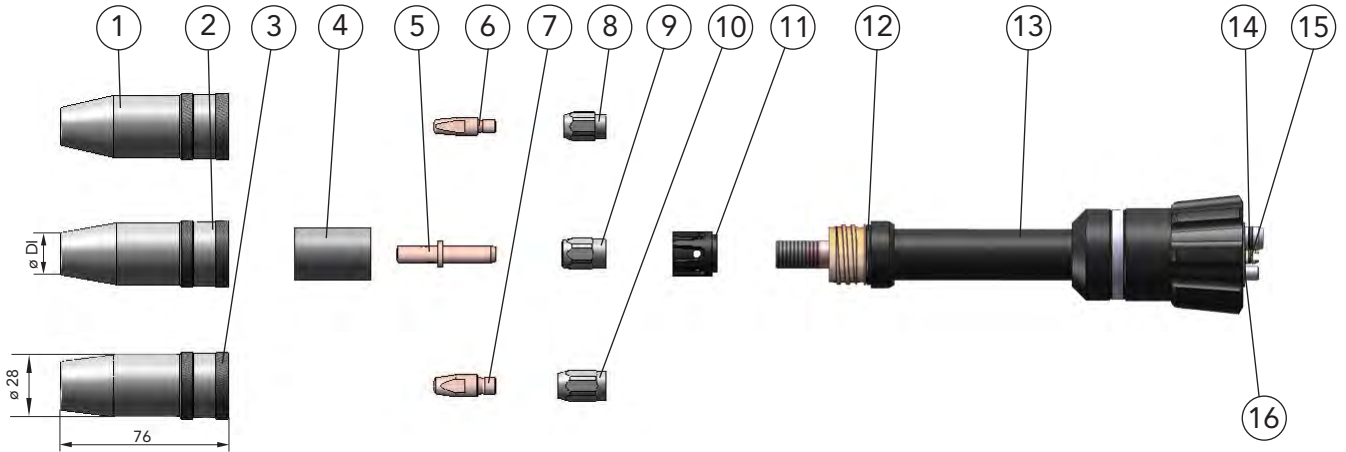


MFTZ 54xx Torch heads

Spare parts and wear parts

liquid cooled

MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 13 mm	DIX 1-3-5413 A	6390154130
2	Gas nozzle	DI ø 15 mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	DI ø 18 mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Contact tip	ø 8 x 45 mm	DIX 3-2-xx SR	6290354xx
6	Contact tip	M6 x 28 mm	DIX 3-2-xx	6290300xx
	Contact tip	M6 x 28 mm	DIX 3-2-xx CR-ZR	6290330xx
7	Contact tip	M8 x 28 mm	DIX 3-2-xx M8	6290301xx
	Contact tip	M8 x 28 mm	DIX 3-2-xx M8 CR-ZR	6290331xx
8	Tip adapter	M6	DIX GS 2 M6	628150006
9	Clamp nut		DIX 4-2-MAS	6390454000
10	Tip adapter	M8	DIX GS 2 M8	628150008
11	Gas diffuser		DIX 10-3-540	6391054000
12	O - ring, 22x2 mm	(10 pcs.)		639060003
13	Torch neck	0°	DIX 6-3-5400 MFTZ	6390685400
	Torch neck	22°	DIX 6-3-5422 MFTZ	6390685422
	Torch neck	36°	DIX 6-3-5436 MFTZ	6390685436
	Torch neck	45°	DIX 6-3-5445 MFTZ	6390685445
14	O - ring, 7x1.5 mm	(10 pcs.)		639159009
15	O - ring, 4x1.0 mm	(10 pcs.)		629110901
16	O - ring, 6x1.5 mm	(10 pcs.)		639060008

xx - Standard diameter: 1.0 mm, 1.2 mm and 1.6 mm. Other diameters on request.

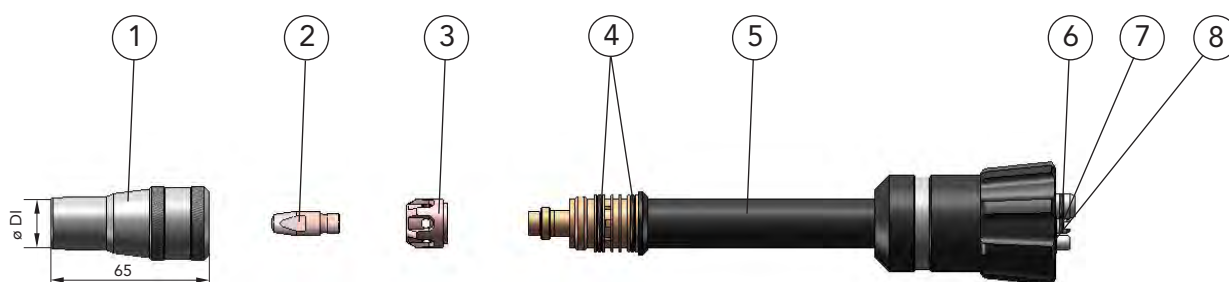
09-00263

09-Robotic Automatic Torches-liquid\J11 subject to change!



MFTZ 57xx Torch heads
Spare parts and wear parts
liquid cooled

MIG/MAG



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 17 mm	DIX 1-2-517	629010517
2	Contact tip		DIX 3-2-xx M8	6290301xx
	Contact tip		DIX 3-2-xx M8 CR-ZR	6290331xx
3	Gas diffuser		DIX 10-2-305 K	6291003051
4	O - ring, 20x1.7 mm	(10 pcs.)		629110911
5	Torch neck	0°	DIX 6-3-5700 MFTZ	6390685700
	Torch neck	22°	DIX 6-3-5722 MFTZ	6390685722
	Torch neck	36°	DIX 6-3-5736 MFTZ	6390685736
	Torch neck	45°	DIX 6-3-5745 MFTZ	6390685745
6	O - ring, 7x1.5 mm	(10 pcs.)		639159009
7	O - ring, 4x1.0 mm	(10 pcs.)		629110901
8	O - ring, 6x1.5 mm	(10 pcs.)		639060008

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

09-00264

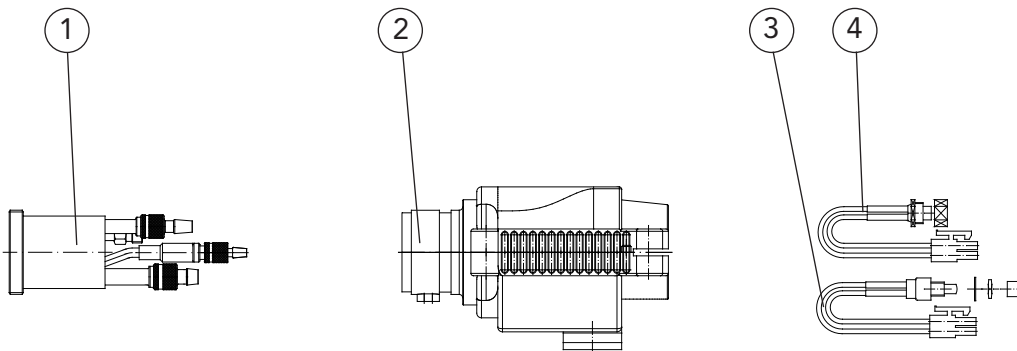
09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version

DIX METZ 600

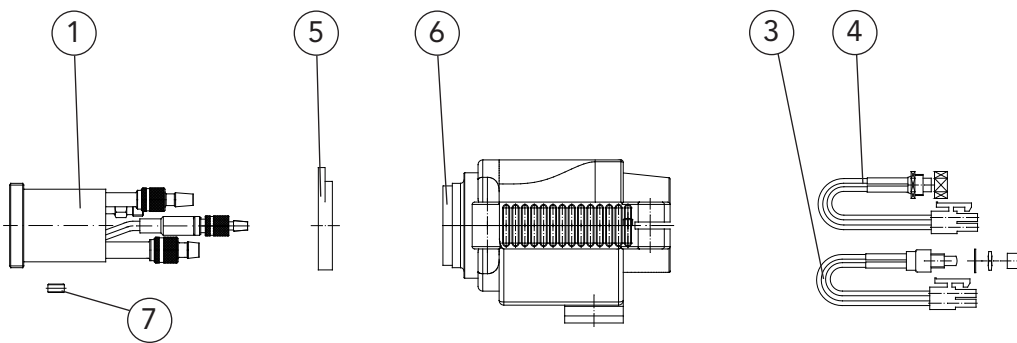
Torch sets (connecting set)



Double separable version

DIX METTZ 600

Torch sets (connecting set)



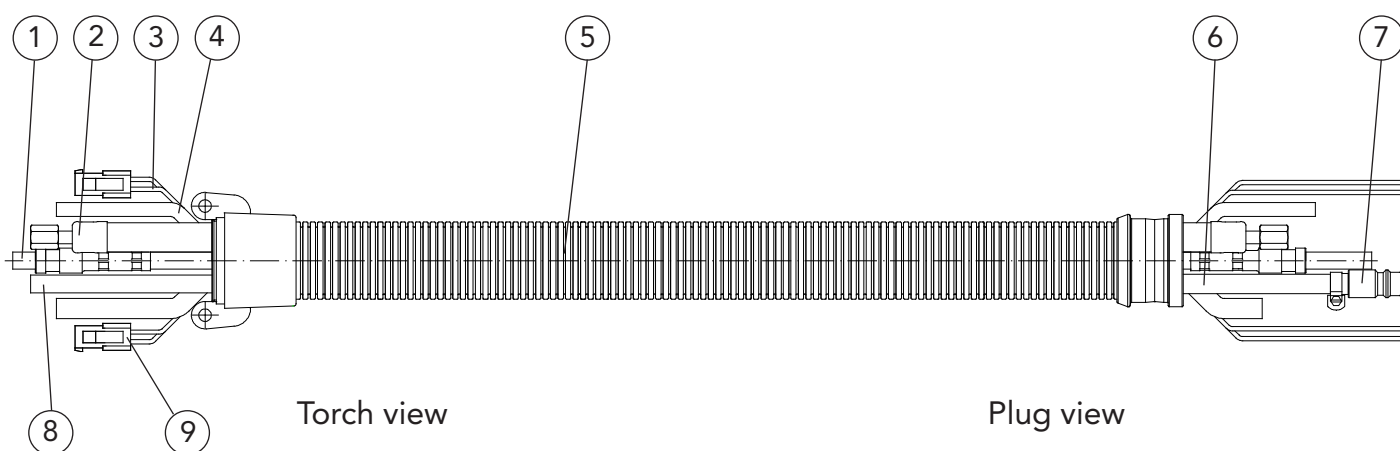
Pos.	Description	Part number	Article number
1	Torch connection, MEZ	DIX MEZ 150	6391530003
2	Housing, MET 1	DIX MET 070	639073019
3	Push-button set, ME 1 (for set-up mode, according to equipment)	DIX ME 080	639085001
4	Socket set, ME 1 (for shock sensor)	DIX ME 090	639076001
5	Housing - supporting ring, METT	DIX METT 071	639073100012
6	Housing, METT 1	DIX METT 070	639073020
7	Fitting part, METT	DIX METT 072	6391530001

Separable version
Double separable version

DIX METZ 600

DIX METTZ 600

Torch sets (supply hose)



09-00266

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLEZ 600-xx	632006001xx
1	Wire conduit hose	DIX VL 201-xx	639206003xx
2	Combi cable	DIX VL 220-xx	639226001xx
3	Control wire set, blue (for shock sensor)	DIX VL 210-xx	639216001xx
4	Gas hose	DIX VL 180-xx	639186001xx
5	Cover hose set	DIX VL 230-xx	639236001xx
6	Air blast hose	DIX VL 240-xx	639246001xx
7	Air blast plug	DIX 16-3-506	6391650600
8	Water hose	DIX VL 190-xx	639196001xx
9	Control wire set, black (for set-up mode)	DIX VL 211-xx	639216002xx

xx - Standard length: 1.2 m, 1.4 m and 2.0 m

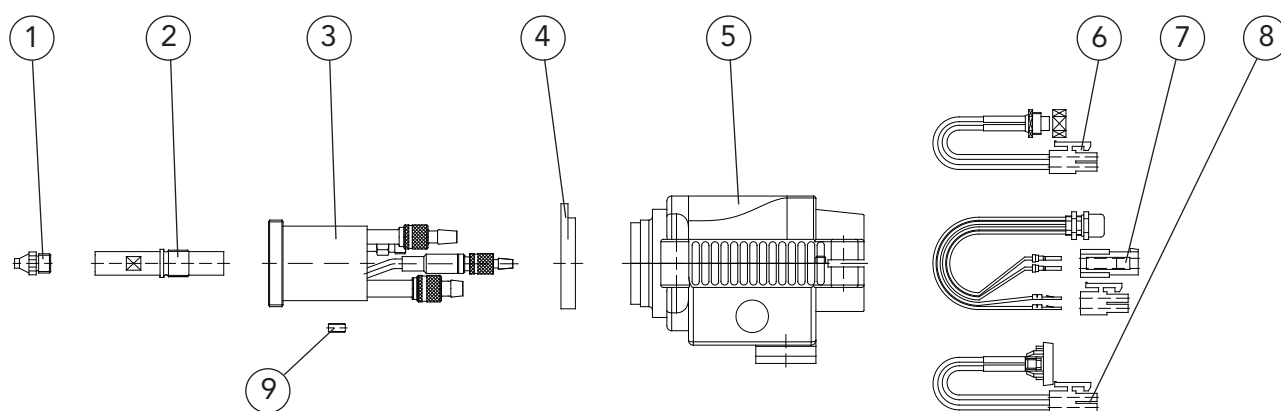
09-Robotic Automatic Torches-liquid\J11 subject to change!



Double separable version for PUSH-PUSH and PUSH-PULL

DIX MEPTTZ 600

Torch sets (connecting set)



Pos.	Description	Part number	Article number
1	Intake nozzle	DIX MEP 152	6391536005
2	Connecting piece, MEP	DIX MEP 151	6391536003
3	Drive connection, MEPZ	DIX MEPZ 150	6391536001
4	Housing - supporting ring, METT	DIX METT 071	639073100012
5	Housing, METT 2	DIX METT 073	639073021
6	Socket set , ME 1 (for shock sensor)	DIX ME 090	639076001
7	Socket set, ME 2 (for motor and tacho)	DIX ME 091	639076002
8	Push-button set, ME 2 (for set-up mode)	DIX ME 081	639085002
9	Fitting part, METT	DIX METT 072	6391530001

09-00267

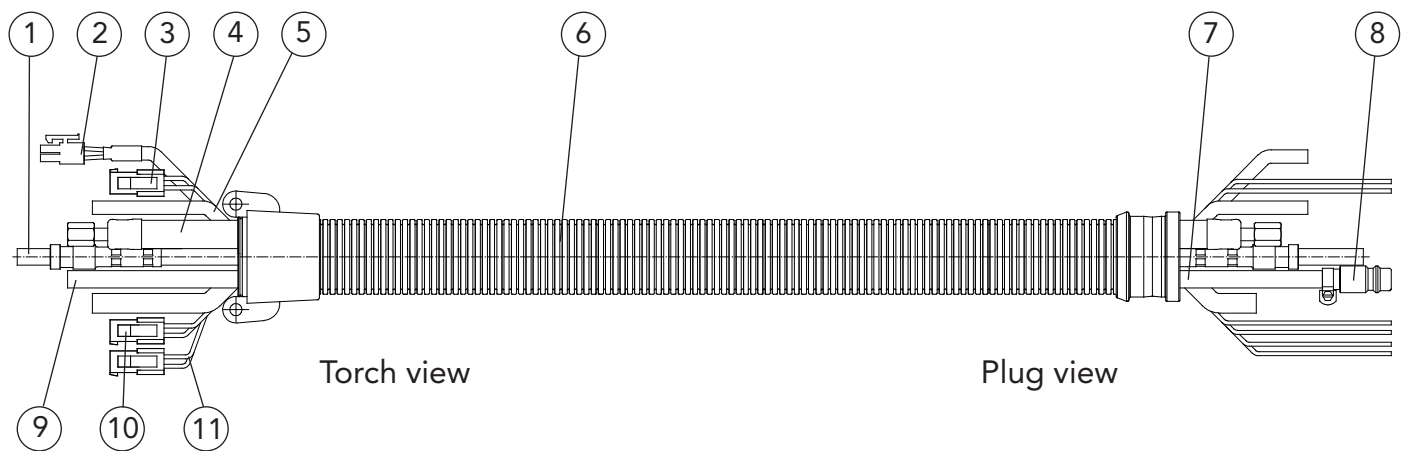
09-Robotic Automatic Torches-liquid\J11 subject to change.



Double separable version for PUSH-PUSH and PUSH-PULL

DIX MEPTTZ 600

Torch sets (supply hose)



09-00268

09-Robotic Automatic Torches-liquid\J11 subject to change!

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLEPZ 600-xx	632663001xx
1	Wire conduit hose	DIX VL 201-xx	639206003xx
2	Control wire set, white / brown (for tacho)	DIX VL 213-xx	639216004xx
3	Control wire set, blue (for shock sensor)	DIX VL 210-xx	639216001xx
4	Combi cable	DIX VL 220-xx	639226001xx
5	Gas hose	DIX VL 180-xx	639186001xx
6	Cover hose set	DIX VL 230-xx	639236001xx
7	Air blast hose	DIX VL 240-xx	639246001xx
8	Air blast plug	DIX 16-3-506	6391650600
9	Water hose	DIX VL 190-xx	639196001xx
10	Control wire set, black (for set-up mode)	DIX VL 211-xx	639216002xx
11	Control wire set, brown / red (for motor)	DIX VL 212-xx	639216003xx

xx - Standard length: 1.2 m, 1.4 m, 2.0 m, 5.0 m and 7.0 m

Separable version

DIX METZ 600

Double separable version

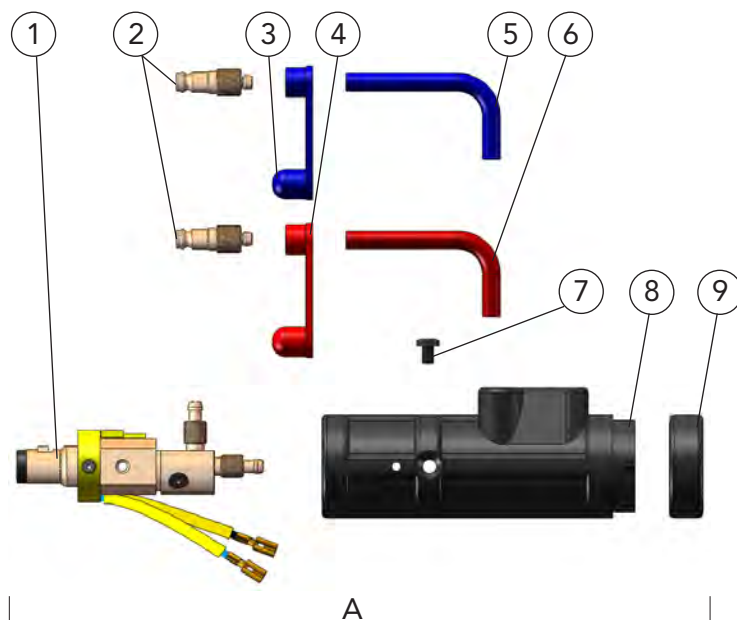
DIX METTZ 600

Double separable version

DIX MEPTTZ 600

for PUSH-PUSH and PUSH-PULL

Torch sets (plug)



Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCZME 600	638900024
1	Plug insert	DIX ME 300 SEZ	639116064
2	Water plug	DIX 16-2	629160000
3	Cap, blue	DIX VL 172	629172001
4	Cap, red	DIX VL 173	629172002
5	Connection hose, blue	DIX 170 BLUE	629171003
6	Connection hose, red	DIX 171 RED	629171004
7	Holding screw	DIX 13-2-Z	629131000
8	Plug housing	DIX 12-3-510 SG	6391250011
9	Fixing ring	DIX 12-3-510 HR	6391250013

► Other fittings on request.

09-00269

09-Robotic Automatic Torches-liquid\J11 subject to change!



Separable version

DIX METZ 600 SAZ

Double separable version

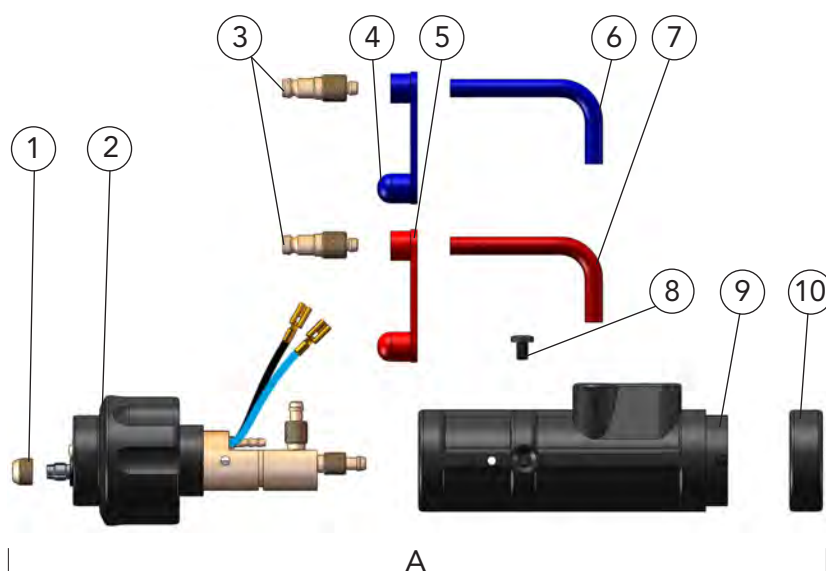
DIX METTZ 600 SAZ

Double separable version

DIX MEPTTZ 600 SAZ

for PUSH-PUSH and PUSH-PULL

Torch sets (plug)



Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCZME 600 SAZ	638900025
1	Clamp nut	DIX MEZ113	639116007
2	Plug insert	DIX ME 600 SAZ	639116068
3	Water plug	DIX 16-2	629160000
4	Cap, blue	DIX VL 172	629172001
5	Cap, red	DIX VL 173	629172002
6	Connection hose, blue	DIX 170 BLUE	629171003
7	Connection hose, red	DIX 171 RED	629171004
8	Holding screw	DIX 13-2 Z	629131000
9	Plug housing	DIX 12-3-510 SG	6391250011
10	Fixing ring	DIX 12-3-510 HR	6391250013

► Other fittings on request.

09-00270

09-Robotic Automatic Torches-liquid\U11 subject to change!



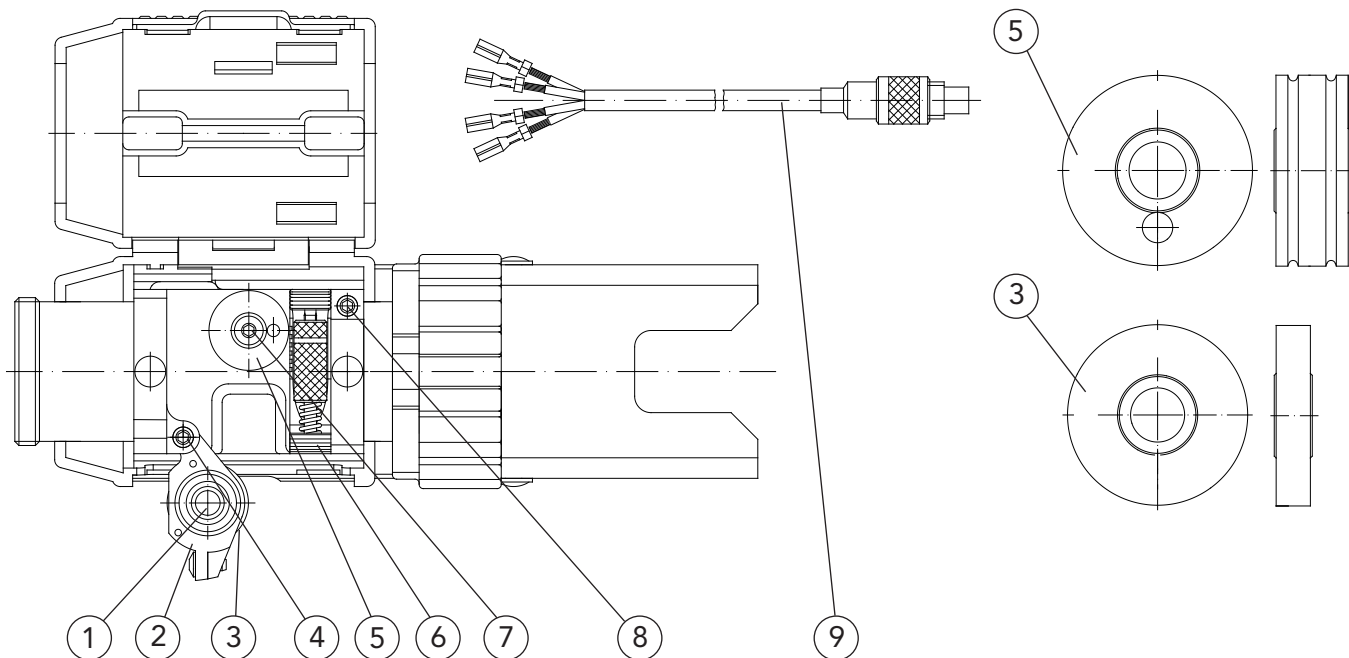
Double separable version
for PUSH-PUSH and PUSH-PULL

DIX MEPTTZ 600

Torch bracket (top view)

DIX MEP 200

DIX MEP 200 T



Pos.	Description	Part number	Article number
1	Pressure system (with Pos. 2 and 3)	DIX MEP 310	6393116000
2	Pressure housing (without pressure roll)	DIX MEP 311	639311001
3	Pressure roll	DIX MEP 312	639311600011
4	Screw axle	DIX MEP 351	639350600037
5	Drive roll (for aluminium alloy)	DIX MEP 321-xx A	639321xx00
	Drive roll (for steel)	DIX MEP 322-xx S	639322xx00
6	Stirrup lock	DIX MEP 340	639340001
	Pivot bearing (for stirrup lock, without picture)	DIX MEP 341	639340002
7	Flange screw		683216020
8	Screw pin		6390601400022
9	Control wire	DIX MEP 442	639446004

xx - Standard diameter: 0.8 mm, 1.0 mm, 1.2 mm and 1.6 mm. Other wire diameters on request.

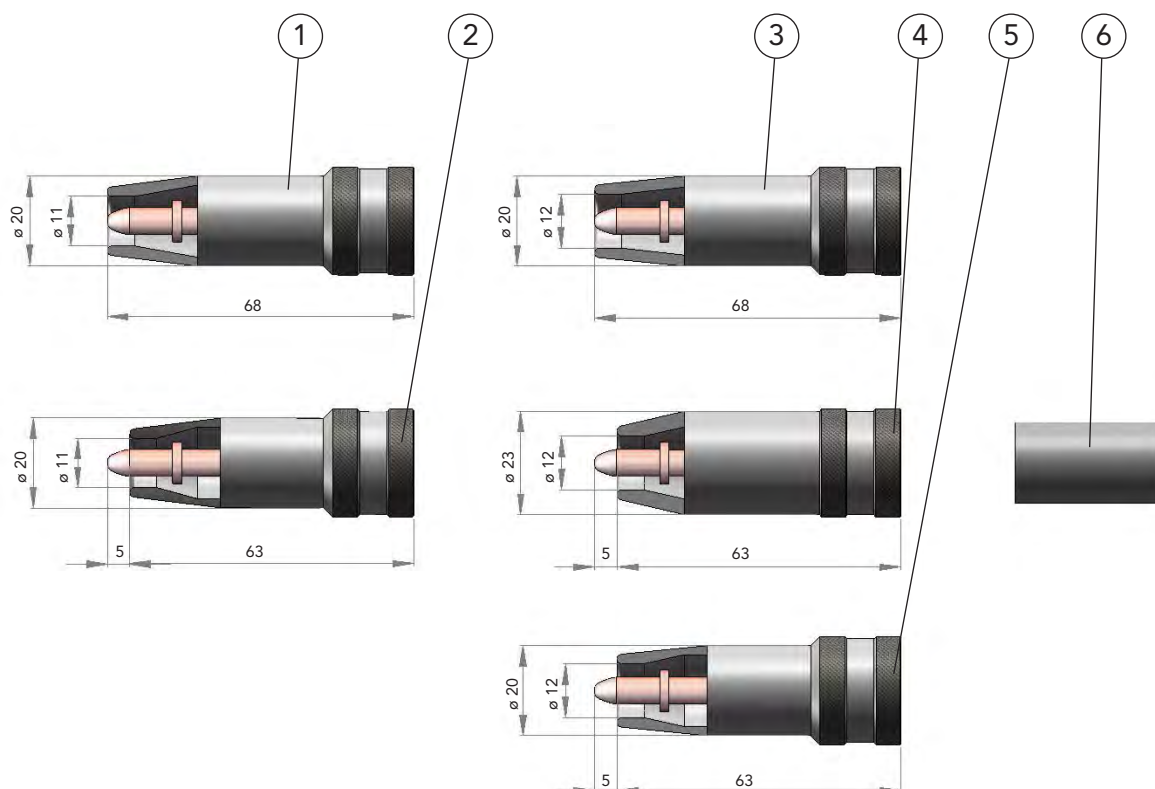
09-00271

09-Robotic Automatic Torches-liquid\J11 subject to change!



Torch heads
Torch heads
Torch heads

DIX MET 350/352/354
DIX METR 358/350/352/354
DIX METZ 528/520/522/524



09-00272

09-Robotic Automatic Torches-liquid\J11 subject to change!

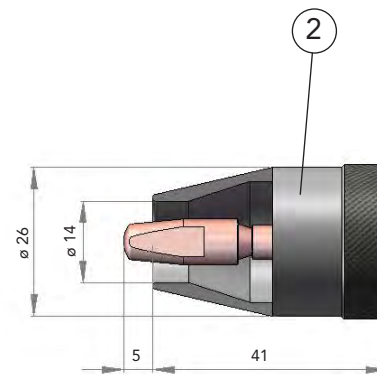
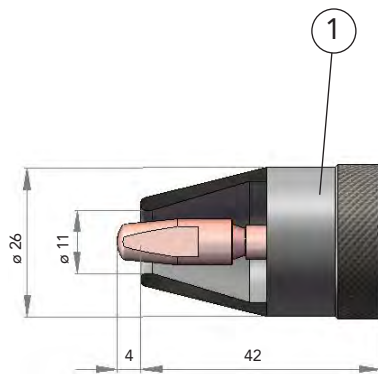
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AR	6390152115
2	Gas nozzle	DI ø 11 mm	DIX 1-3-5211 AKR	6390152116
3	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AR	6390152125
4	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AK	6390152121
5	Gas nozzle	DI ø 12 mm	DIX 1-3-5212 AKR	6390152126
6	Insulator (for Pos. 4)		DIX 2-3-520	6390252000

► K - short, R - reduced
Other versions on request.



Torch heads
Torch heads
Torch heads

DIX MET 390/392/394
DIX METR 398/390/392/394
DIX METZ 598/590/592/594



09-00273

09-Robotic Automatic Torches-liquid\J11 subject to change!

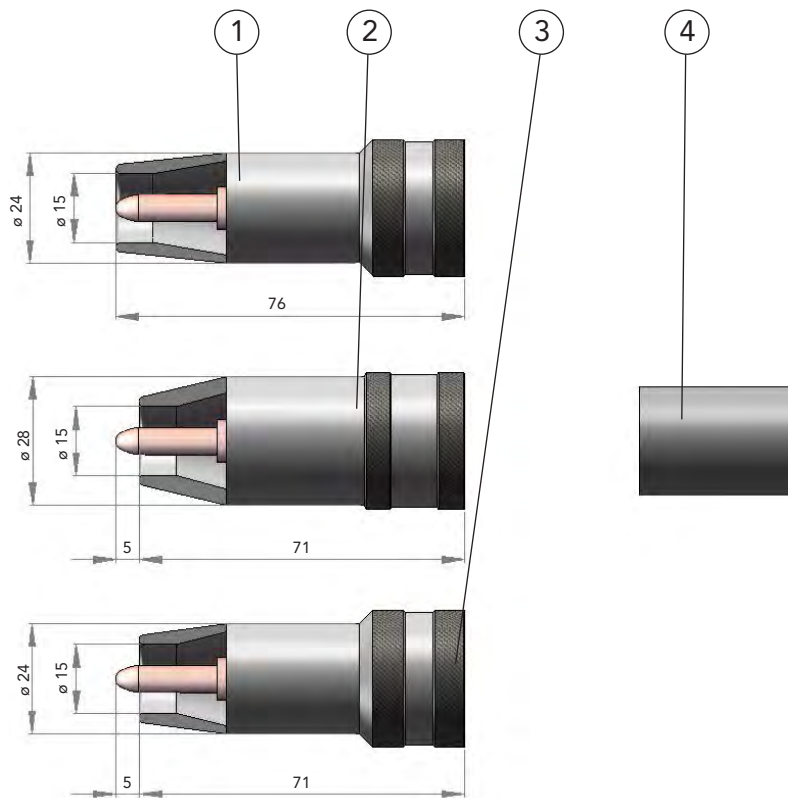
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI ø 11 mm	DIX 1-3-5911 A	6390159110
2	Gas nozzle	DI ø 14 mm	DIX 1-3-5914	6390159149

► K - short, R - reduced
Other versions on request.



Torch heads

DIX METZ 548/540/542/544



09-00274

09-Robotic Automatic Torches-liquid\J11 subject to change!

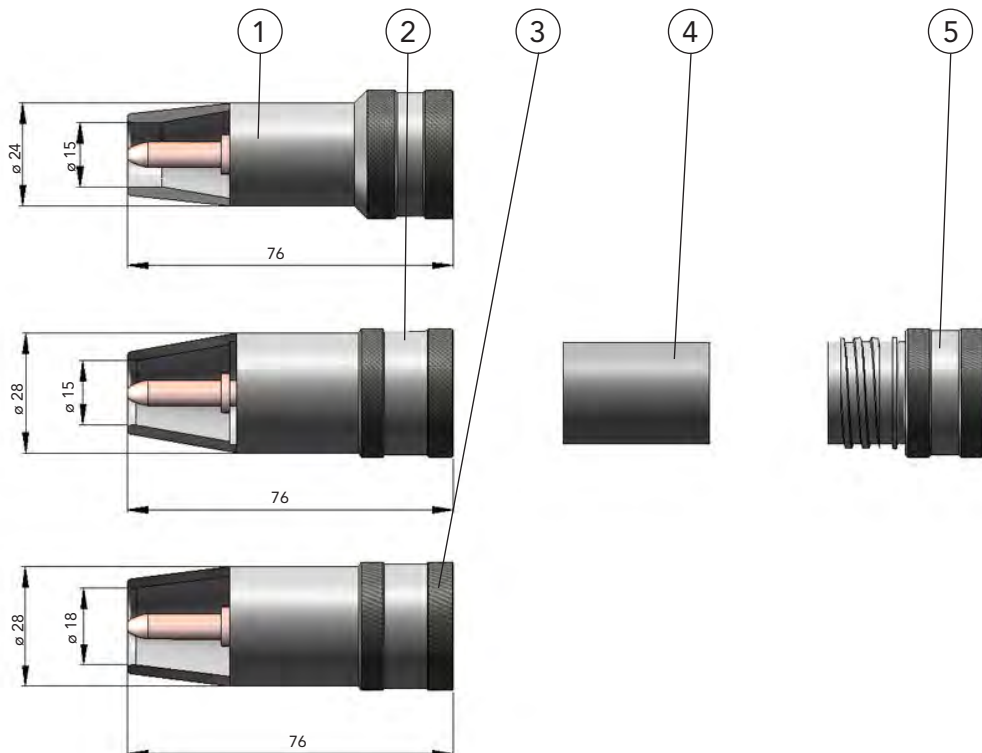
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AK	6390154151
3	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5415 AKR	6390154156
4	Insulator (for Pos. 2)		DIX 2-3-500	6390250000

► K - short, R - reduced
Other versions on request.



Torch heads

DIX METZ 568/560/562/564



09-00275

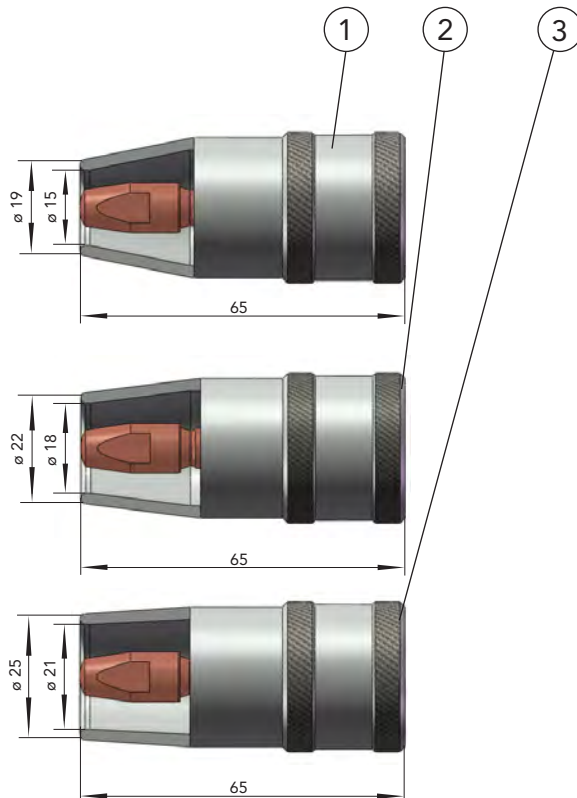
09-Robotic Automatic Torches-liquid\U11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle (outside diameter reduced)	ø15mm	DIX 1-3-5415 AR	6390154155
2	Gas nozzle	ø15mm	DIX 1-3-5415 A	6390154150
3	Gas nozzle	ø18mm	DIX 1-3-5418 A	6390154180
4	Insulator		DIX 2-3-500	6390250000
5	Screw adapter		DIX SAD 2-404/540	628140000



Torch heads

DIX METZ 578/570/572/574



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	DI \varnothing 15 mm	DIX 1-3-5715 A	6390157150
2	Gas nozzle	DI \varnothing 18 mm	DIX 1-3-5718 A	6390157180
3	Gas nozzle	DI \varnothing 21 mm	DIX 1-3-5721 A	6390157210

► Other versions on request.

09-00276

09-Robotic Automatic Torches-liquid\U11 subject to change!



Separable version	DIX MET(Z)	310(600)
Double separable version	DIX METT(Z)	310(600)
Double separable version for PUSH-PUSH and PUSH-PULL	DIX MEPTT(Z)	310(600)

Contact set
Sensor set

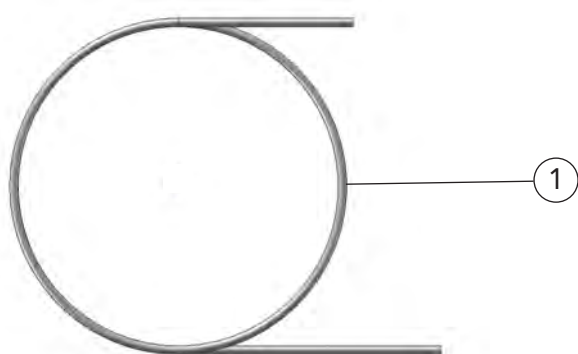
Pos.	Description	Part number	Article number
1	Contact set For fitting robotic and automatic torch sets with sensor function through gas nozzle.	DIX K 150 ME	639153040
2	Contact set For fitting torch body DIX MEK 300/600 with sensor function through gas nozzle.	DIX K 300/600 MEK	639350008
3	Contact set For fitting torch bracket DIX MEP 200 with sensor function through gas nozzle.	DIX K 300/600 MEP	639350001
4	Sensor set For fitting robotic and automatic torch sets with sensor function for welding voltage measurement.	DIX M 150 ME	639153041

► All sets only ready - installed.



Liner

for wire electrodes of non- and low alloyed steels



09-00278

09-Robotic Automatic Torches-liquid\J11 subject to change!

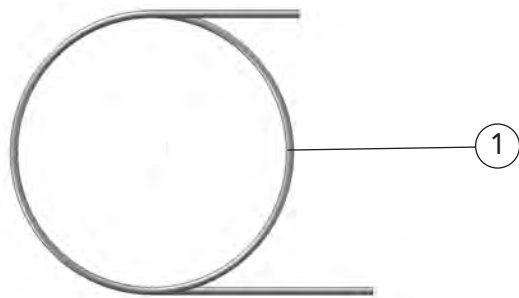
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner For wire diameter 0.8 mm	ø 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner For wire diameter 1.0 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner For wire diameter 1.2 mm, in PUSH-PUSH/PULL wire diameter 1.0 mm	ø 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner For wire diameter 1.4 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.



Capillary liner

for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys

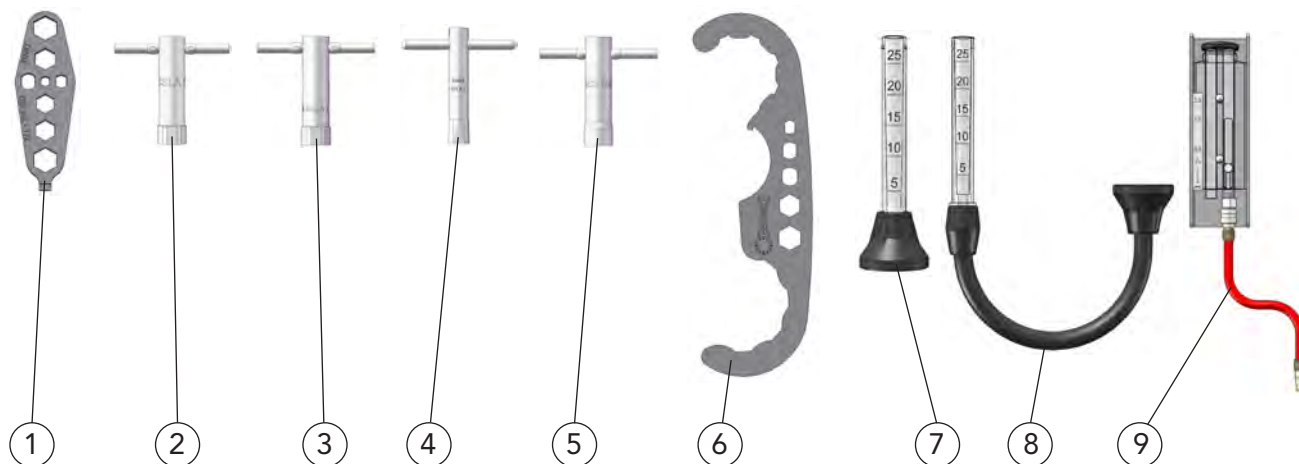


Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner For wire diameter 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner For wire diameter 1.0 and 1.2mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner For wire diameter 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.



Service tools



Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

09-00280

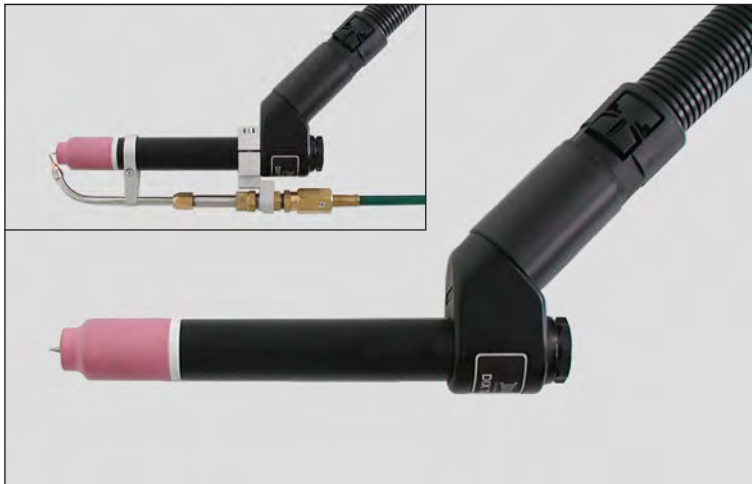
subject to change!

09-Robotic Automatic Torches-liquid\J11



Fixed version

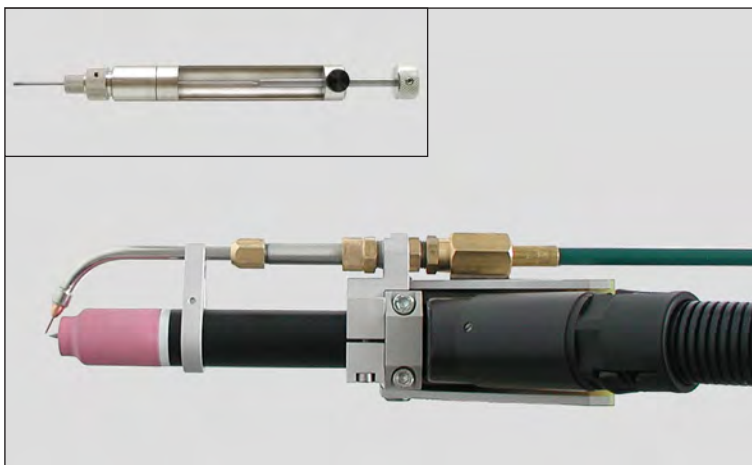
DIX TAZ 400



TIG - torch and cold wire set DIX KD 400



TIG - torch in the bracket (swivelling)



TIG - torch system with adjusting gauge

Technical data (DIN EN 60 974-7):

Torch type	DIX TAZ	400
Cold wire sets	DIX KD	400
	DIX KDZ	400
		(liquid cooled)
Duty cycle:	400A/100% AC/DC	
Electrode diameter:	1.6 - 4.8 mm	
Wire diameter:	0.8 - 1.2 mm	
Adjusting gauge	DIX EL	400

Technical benefits:

- TCP reachable by fixed bracket (swivelling)
- Presetting of the electrode with adjusting gauge
- Exact wire feeding by powerful wire feeder modules

Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to large material thicknesses

Standard fittings

ROBOTIC and AUTOMATIC TORCHES

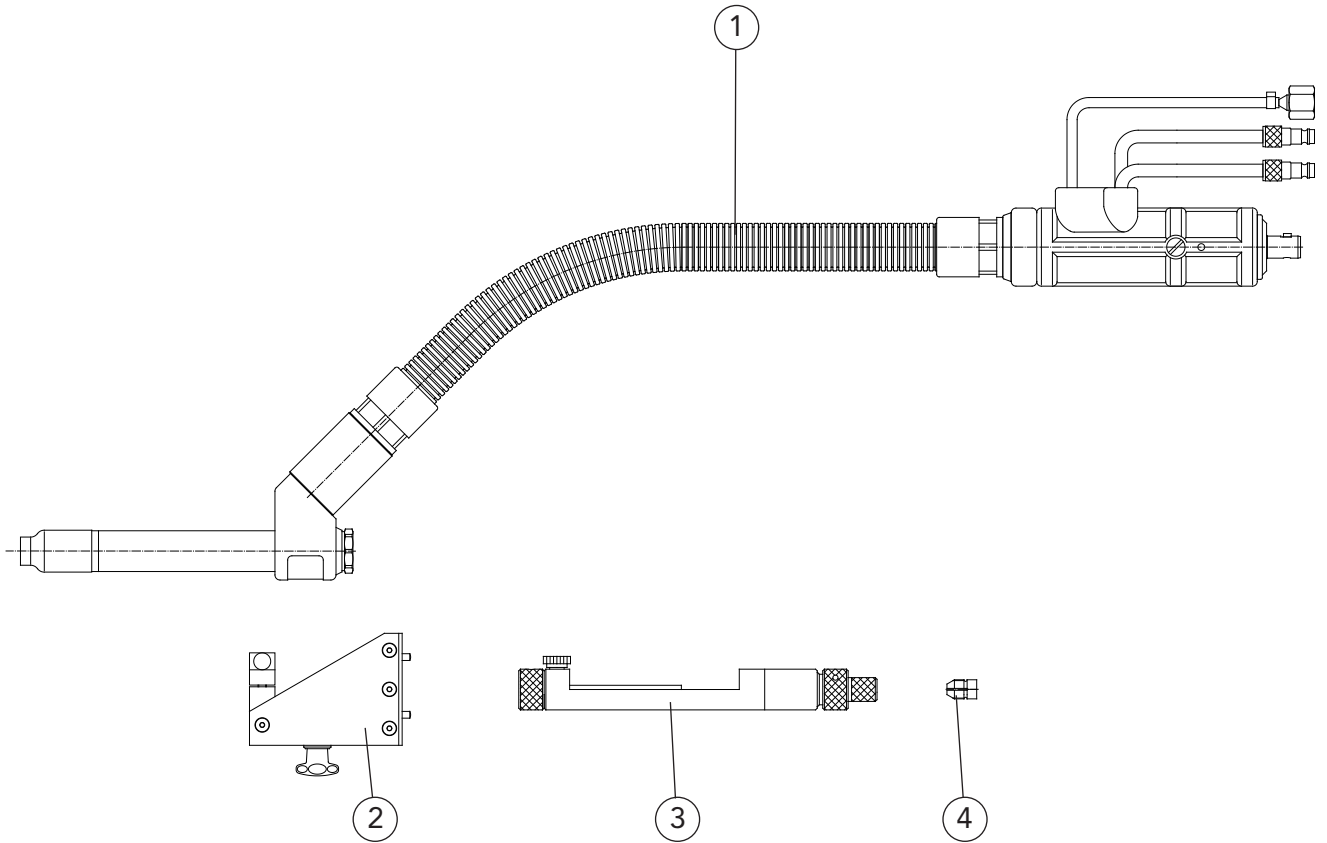
liquid cooled

TIG



Fixed version

DIX TAZ 400 ZAW



10-00282

10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Torch set	0° 5.0 m	DIX TAZ 400-5.0 ZAW	6405004150
	Torch set	0° 7.0 m	DIX TAZ 400-7.0 ZAW	6405004170
2	Bracket		DIX PHAT 4-0400	6481950400
3	Adjusting gauge		DIX EL 400	6480200000
4	Clamping sleeve (for presetting of the electrode with adjusting gauge)		DIX SH 400-3.2	6480500320

- Standard equipment for electrode diameter 3.2 mm with gas nozzle diameter 12.5 mm, DIX GD 408. Variants deviating of the standard fittings on request.



DINSE G.m.b.H. · Tarpen 36 · 22419 Hamburg · Phone: +49-(0)40-658 75-0 · Fax: -200 · E-Mail: info@dinse-gmbh.com · www.dinse-gmbh.com

SCHWEISSEN

WELDING

SCHWEISSEN

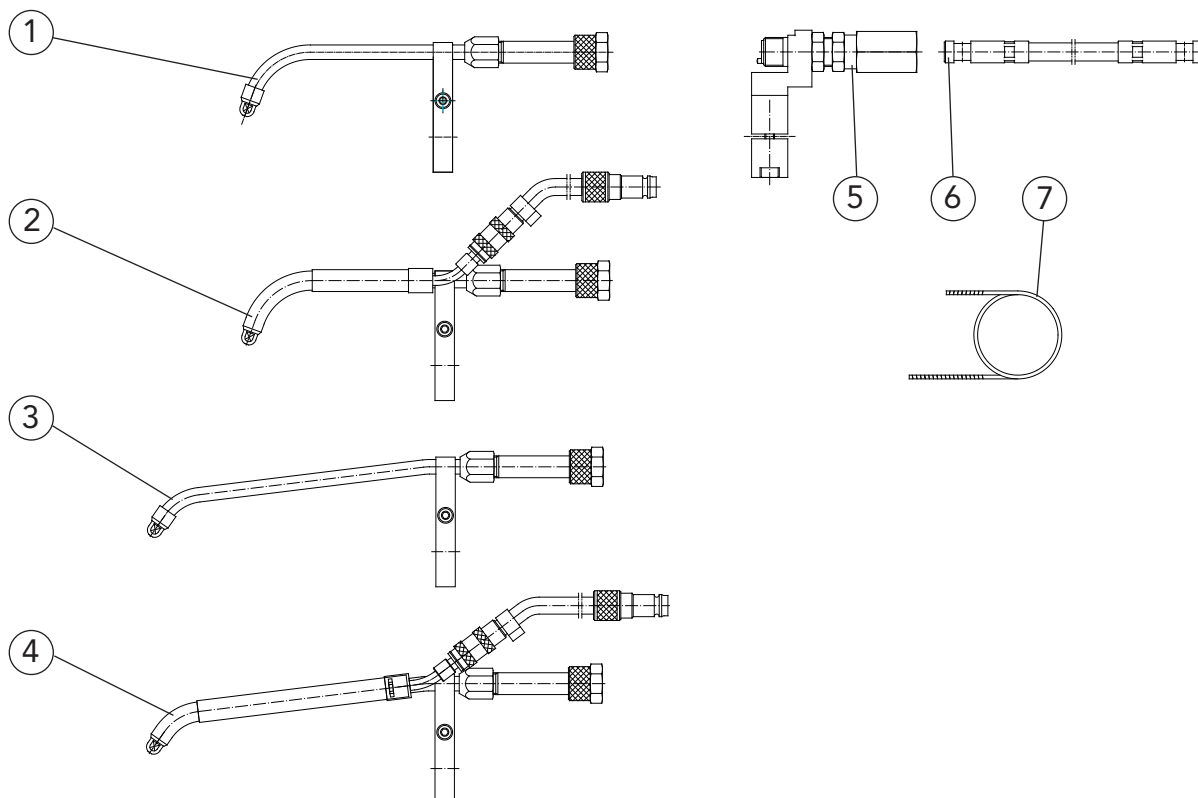
WELDING

SCHWEISSEN

Fixed version

DIX TAZ 400

Cold wire sets



Pos.	Description	Dimension	Part number	Article number
1	Cold wire set, compl. (standard equipment for wire diameter 1.0 mm and gas nozzles DIX GD 406/408/412)		DIX KD 400	648540001
2	Cold wire set, liquid cooled, compl. (standard equipment for wire diameter 1.0 mm and gas nozzles DIX GD 406/408/412, water hoses 5.0 m)		DIX KDZ 400	648540003
3	Cold wire set, compl. (standard equipment for wire diameter 1.0 mm and gas nozzle DIX GD 405 L)		DIX KK 400/002	648540020
4	Cold wire set, liquid cooled, compl. (standard equipment for wire diameter 1.0 mm and gas nozzle DIX GD 405 L, water hoses 5.0 m)		DIX KDZ 400/001	648540002
5	Cold wire connecting adapter		DIX KA 400	648594011
6	Wire conduit hose		DIX VLM 201-3,0	629201230
7	Liner	ø 2.2mm/3.5m	DIX DS 4/2.2-3.5	623000335

- For wire feeding use wire feeder DIX WD 500 (article number: 730050000).
- For liquid cooling use cooling unit DIX UK 500 (article number: 720000002).

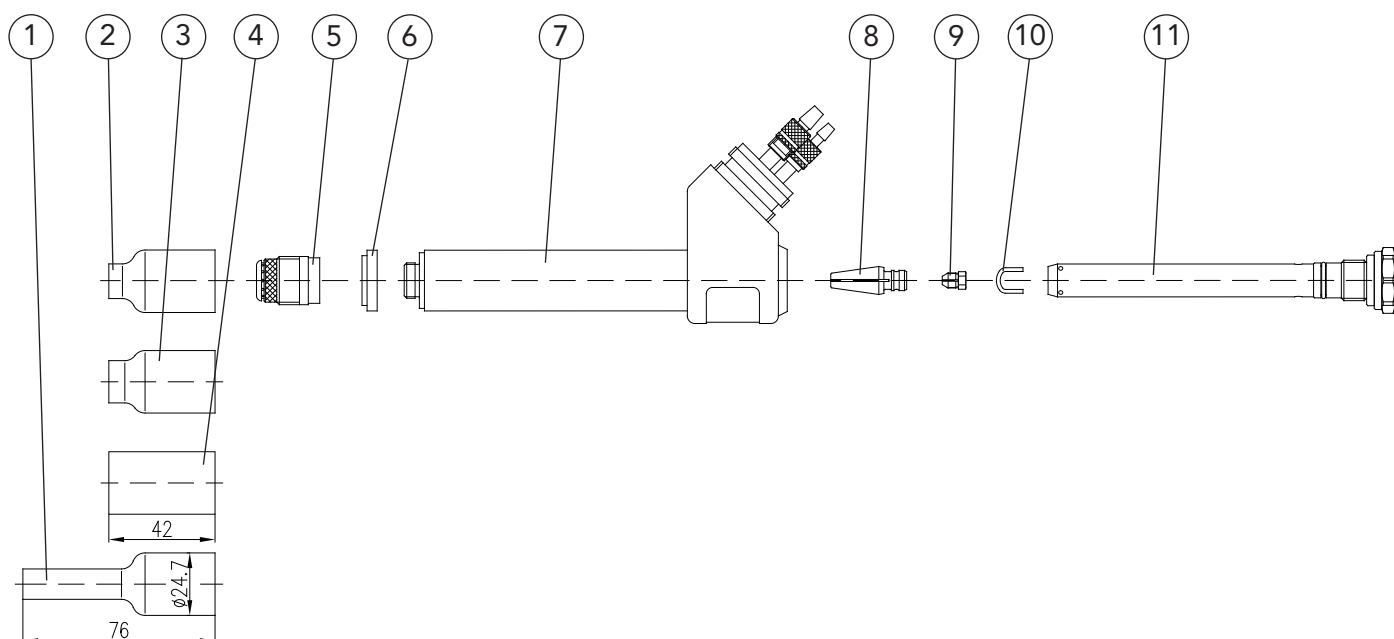
For more informations to wire feeder and cooling unit see the standard fittings.
Variants deviating of the accessories on request.



Fixed version

DIX TAZ 400

Torch sets (torch)



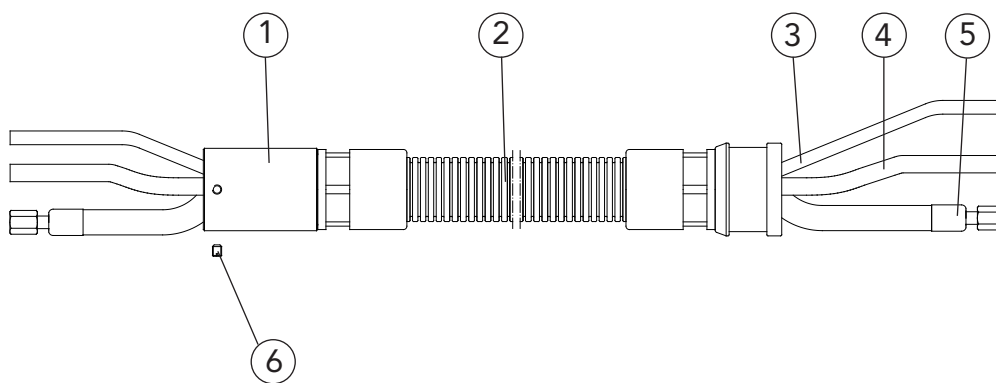
Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	∅ 8.5 mm	DIX GD 405 L	649015004
2	Gas nozzle	∅ 9.5 mm	DIX GD 406	649015001
3	Gas nozzle	∅12.5 mm	DIX GD 408	649015002
4	Gas nozzle	∅19.5 mm	DIX GD 412	649015003
5	Gas lens		DIX GL 4xx	6491050xx
6	Sealing washer		DIX DIS 400	6490254000
7	Torch neck		DIX 6-4-400 AZ	6490650040
8	Electrode collet		DIX SZ 4xx	6490554xx0
9	Clamping sleeve		DIX SH 400-xx	6480500xx0
10	Retaining bracket		DIX HK 400	649275040016
11	Electrode collet housing		DIX SZA 400	6492750400

xx - Standard diameter: 2.4 mm and 3.2 mm. Other electrode diameters on request.

Fixed version

DIX TAZ 400

Torch sets (supply hose)



Torch view

Plug view

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLTAZ 410-xx	64250041xx
1	Housing sleeve	DIX GH 410	6490754100
2	Cover hose set	DIX VL 231-xx	649236001xx
3	Gas hose	DIX VL 180-xx	639186001xx
4	Water hose	DIX VL 190-xx	639196001xx
5	Combi cable	DIX VL 220-xx	639226001xx
6	Screw pin		6490756001

xx - Standard length: 5.0 m and 7.0 m

10-00285

10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!



Separable version

DIX METZ 600



Technical data (DIN EN 60 974-7):

Torch head	DIX TETZ 400
Duty cycle:	400A/100% AC/DC
Electrode diameter:	1.6 - 4.8 mm
Adjusting gauge	DIX EL 400



Technical benefits:

- ▶ TCP reachable by fixed bracket
- ▶ Presetting of the electrode with adjusting gauge
- ▶ Precise shock sensor
- ▶ Tool changer with storage station



Application:

- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Small to large material thicknesses

TIG - torch system with adjusting gauge

10-00286

10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!

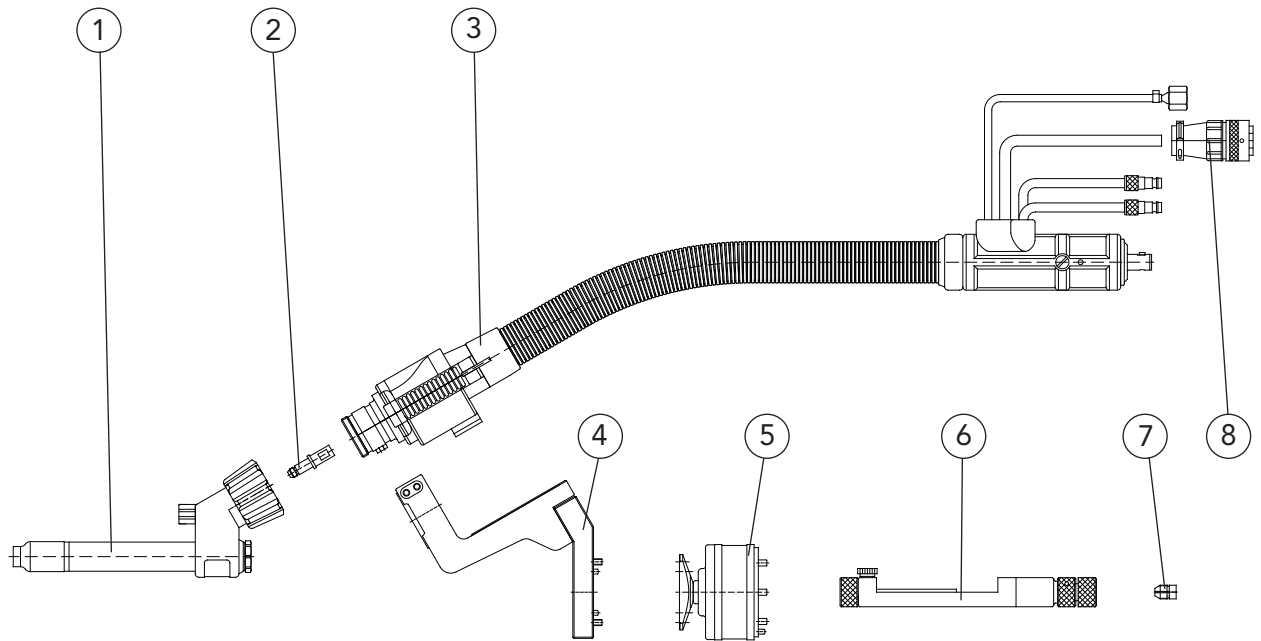


Separable version

DIX METZ 600 ZAW

Torch head

DIX TETZ 400



10-00287

10-RoboticAutomaticTorchesTIG-liquidU11 subject to change.

Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX TETZ 400	641140001
2	Connecting piece, TETZ		DIX TES 400	649066002
3	Torch set, without torch head	5.0 m	DIX METZ 600-5.0 ZAW	630163071
	Torch set, without torch head	7.0 m	DIX METZ 600-7.0 ZAW	630163072
4	Torch bracket, fixed		DIX PHF 110	683500104
5	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
6	Adjusting gauge		DIX EL400	6480200000
7	Clamping sleeve (for presetting of the electrode with adjusting gauge)		DIX SH 400-3.2	6480500320
8	Plug set (for shock sensor, only assembled available)		DIX MEX 100	639077001

► Standard equipment for electrode diameter 3.2 mm with gas nozzle diameter 12.5 mm, DIX GD 408. TCP (for DIX SAS 100): 437 mm to robotic flange (electrode stand out: 5 mm). The corresponding adapter flange you find in the accessories list! Use the special spanner DIX SLAT 2 to fix the torch heads. Variants deviating of the standard fittings on request.



Double separable version



TIG - torch system with adjusting gauge

DIX METTZ 600

Technical data (DIN EN 60 974-7):

Torch head	DIX TETZ 400
Duty cycle:	400A/100% AC/DC
Electrode diameter:	1.6 - 4.8 mm
Adjusting gauge	DIX EL 400

Technical benefits:

- ▶ TCP reachable by fixed bracket
- ▶ Presetting of the electrode with adjusting gauge
- ▶ Precise shock sensor
- ▶ Tool changer with storage station

Application:

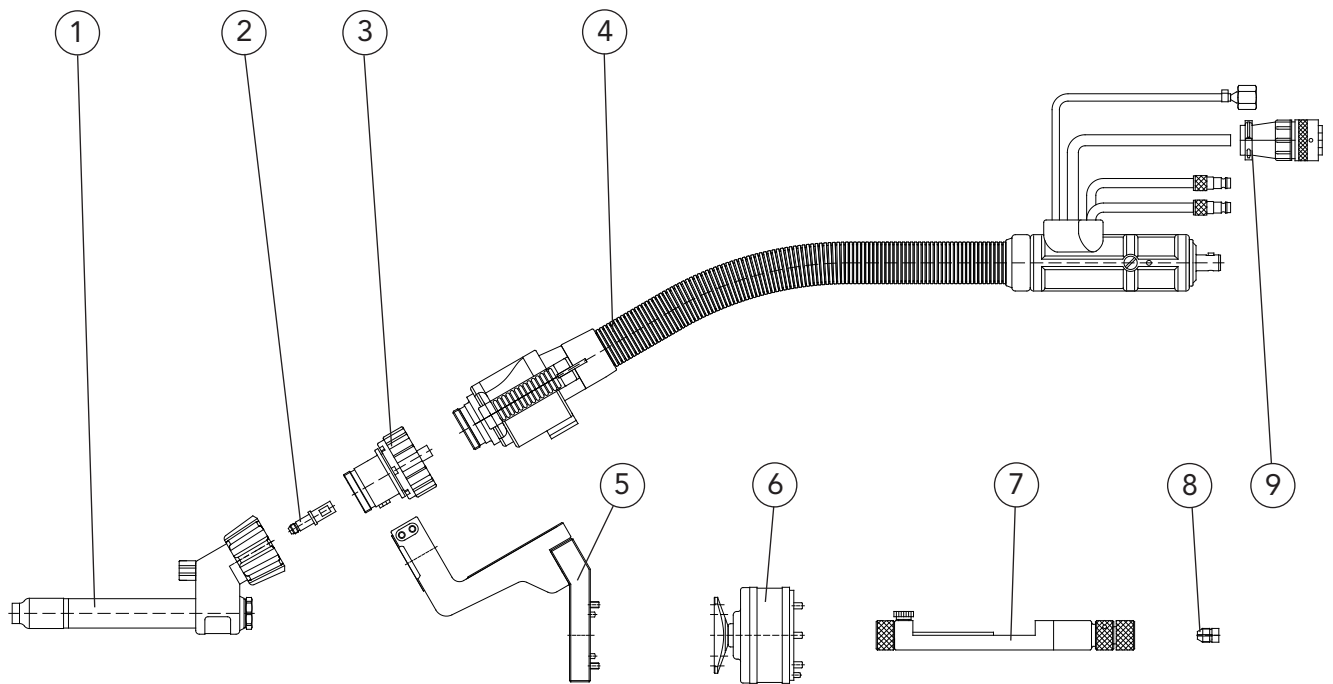
- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Small to large material thicknesses

Double separable version

DIX METTZ 600 ZAW

Torch head

DIX TETZ 400



10-00289

10-RoboticAutomaticTorchesTIG-liquid\J11 - subject to change!

Pos.	Description	Dimension	Part number	Article number
1	Torch head, compl.	0°	DIX TETZ 400	641140001
2	Connecting piece, TETZ		DIX TES 400	649066002
3	Torch body		DIX MEK 300/600	631015005
4	Torch set, without torch head	5.0 m	DIX METTZ 600-5.0 ZAW	630166043
	Torch set, without torch head	7.0 m	DIX METTZ 600-7.0 ZAW	630166044
5	Torch bracket, fixed		DIX PHF 110	683500104
6	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 100	683100001
7	Adjusting gauge		DIX EL 400	6480200000
8	Clamping sleeve (for presetting of the electrode with adjusting gauge)		DIX SH 400-3.2	6480500320
9	Plug set (for shock sensor, only assembled available)		DIX MEX 100	639077001

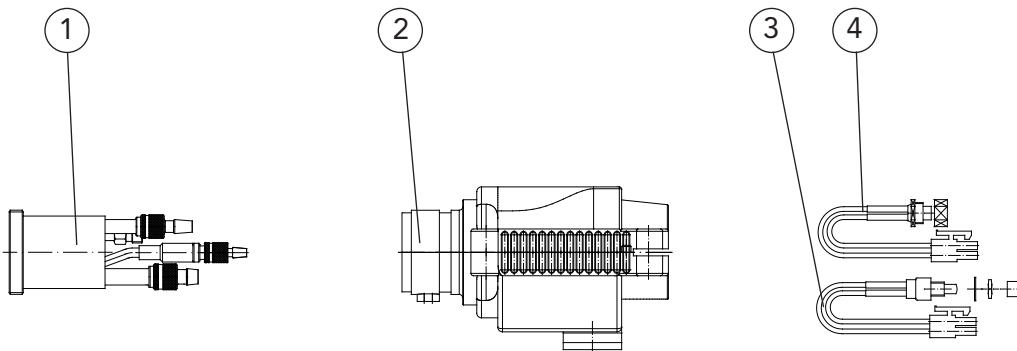
► Standard equipment for electrode diameter 3.2 mm with gas nozzle diameter 12.5 mm, DIX GD 408. TCP (for DIX SAS 100): 437 mm to robotic flange (electrode stand out: 5 mm). The corresponding adapter flange you find in the accessories list! Use the special spanner DIX SLAT 2 to fix the torch heads. Variants deviating of the standard fittings on request.



Separable version

DIX METZ 600

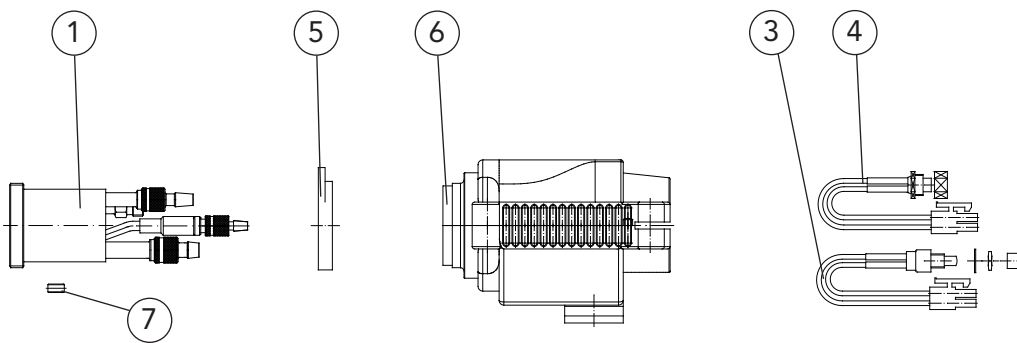
Torch sets (connecting set)



Double separable version

DIX METTZ 600

Torch sets (connecting set)



Pos.	Description	Part number	Article number
1	Torch connection, MEZ	DIX MEZ 150	6391530003
2	Housing, MET 1	DIX MET 070	639073019
3	Push-button set, ME 1 (for set-up mode, according to equipment)	DIX ME 080	639085001
4	Socket set, ME 1 (for shock sensor)	DIX ME 090	639076001
5	Housing - supporting ring, METT	DIX METT 071	639073100012
6	Housing, METT 1	DIX METT 070	639073020
7	Fitting part, METT	DIX METT 072	6391530001

10-00290

10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!



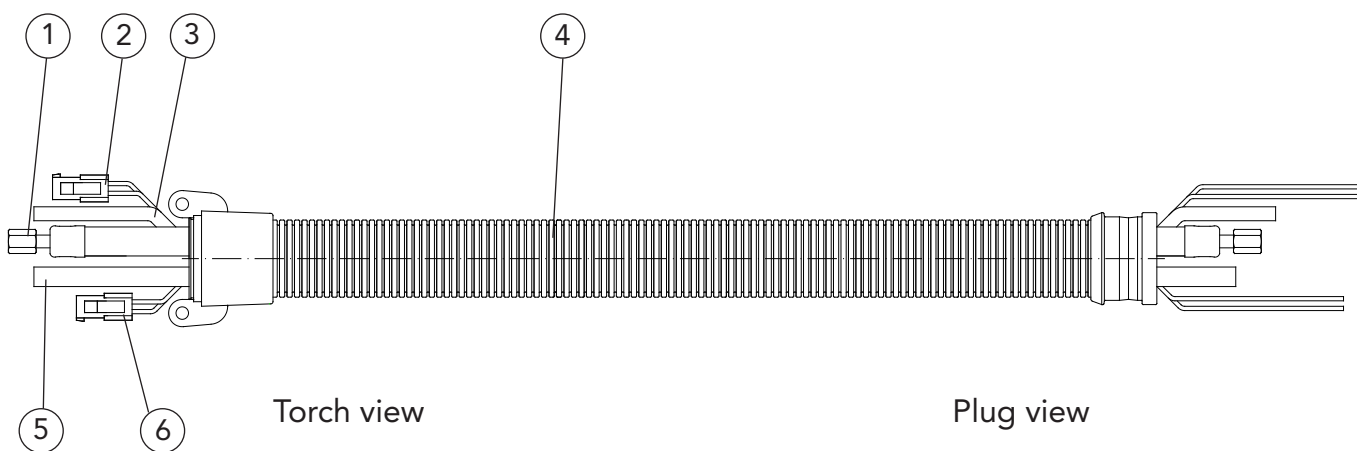
Separable version

DIX METZ 600 ZAW

Double separable version

DIX METTZ 600 ZAW

Torch sets (supply hose)



10-00291

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLEZ 600-xx ZAW	632006002xx
1	Combi cable	DIX VL 220-xx	639226001xx
2	Control wire set, blue (for shock sensor)	DIX VL 210-xx	639216001xx
3	Gas hose	DIX VL 180-xx	639186001xx
4	Cover hose set	DIX VL 230-xx	639236001xx
5	Water hose	DIX VL 190-xx	639196001xx
6	Control wire set, black	DIX VL 211-xx	639216002xx

xx - Standard length: 5.0 m and 7.0 m

10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!



Fixed version

DIX TAZ 400 ZAW

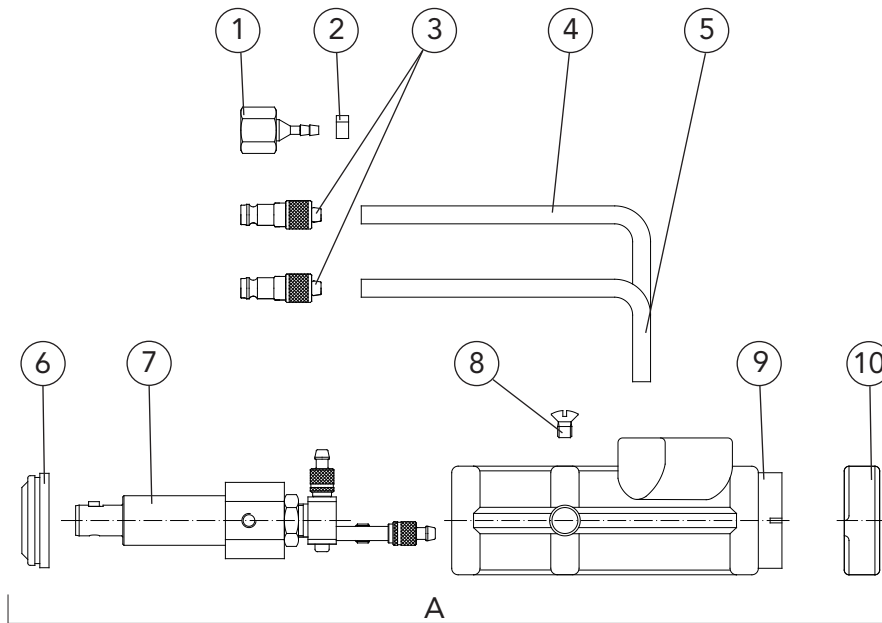
Separable version

DIX METZ 600 ZAW

Double separable version

DIX METTZ 600 ZAW

Torch sets (plug)



Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCZ 400 ZAW	644100400
1	Hose socket		680000114
2	Hose clamp		649160001
3	Water plug	DIX 16-2	629160000
4	Connection hose, red	DIX 171 RED	629171004
5	Connection hose, blue	DIX 170 BLUE	629171003
6	Center bushing	DIX ZAW120	649121400
7	Plug insert	DIX ZAW110	649111400
8	Holding screw	DIX 13-2-Z	629131000
9	Plug housing	DIX 12-3-510 SG	6391250011
10	Fixing ring	DIX 12-3-510 HR	6391250013

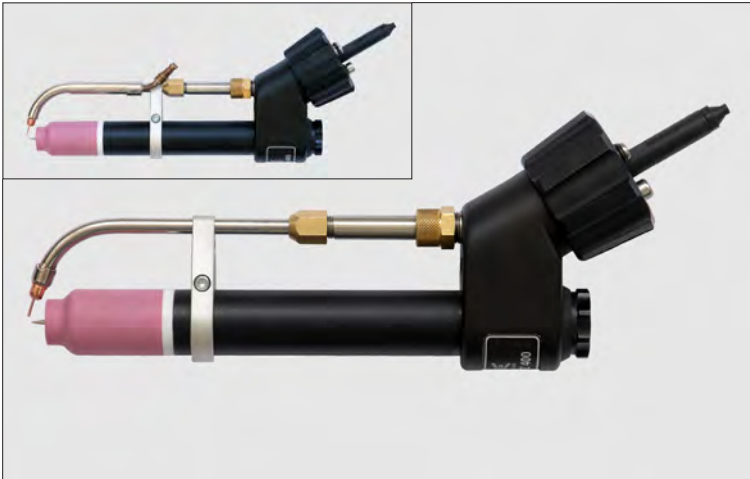
► Other fittings on request.

10-00292

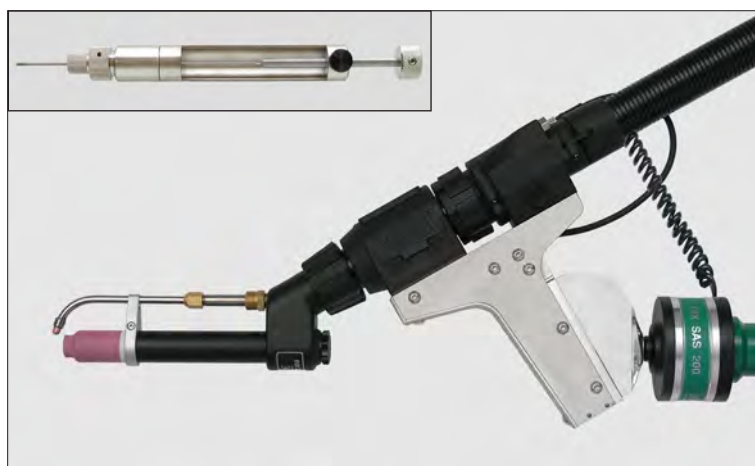
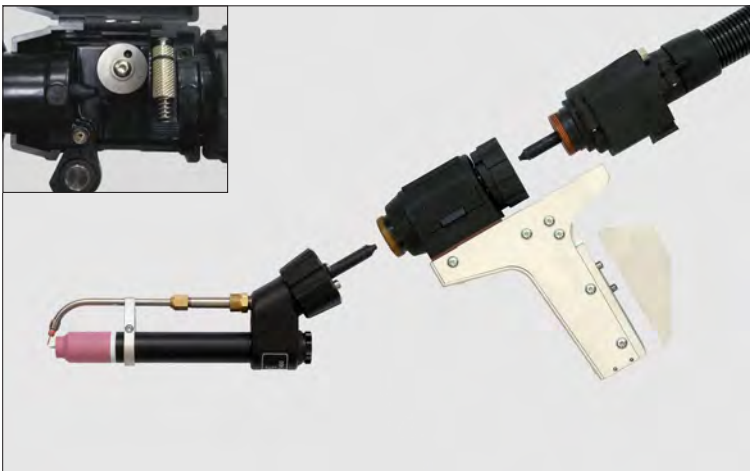
10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!



Double separable version
for PUSH-PUSH and PUSH-PULL



TIG - torch head with DIX KD 400 and DIX KDZ 400



TIG - torch system with adjusting gauge

DIX MEPTTZ 600

Technical data (DIN EN 60 974-7):

Torch head	DIX TETZ 400
Cold wire sets	DIX KD 400
	DIX KDZ 400
	(liquid cooled)
Duty cycle:	400A/100% AC/DC
Electrode diameter:	1.6 - 4.8 mm
Wire diameter:	0.8 - 1.2 mm
Adjusting gauge	DIX EL 400

Technical benefits:

- TCP reachable by fixed bracket
- Presetting of the electrode with adjusting gauge
- Precise shock sensor
- Tool changer with storage station

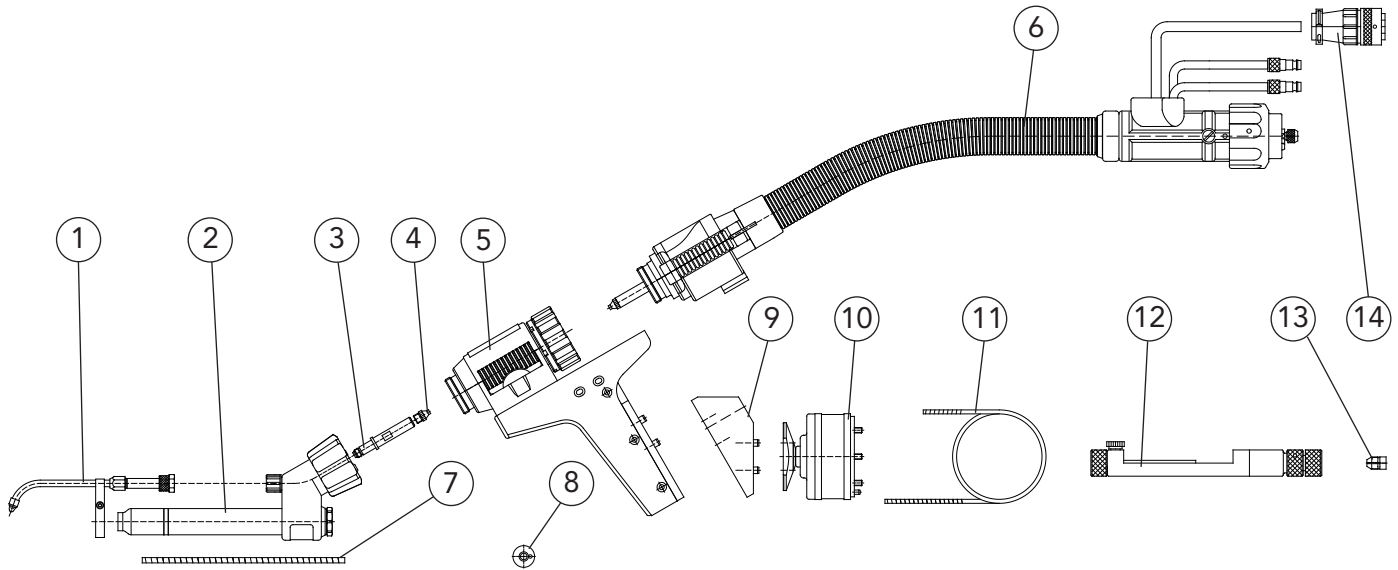
Application:

- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to large material thicknesses

Double separable version
for PUSH-PUSH
Torch head

DIX MEPTTZ 600 SAZ

DIX TETZ 400



Pos.	Description	Dimension	Part number	Article number
1	Cold wire set		DIX KD 400	648540001
2	Torch head, compl.	0°	DIX TETZ 400	641140001
3	Connecting piece, TEPTZ		DIX TEPS 400	649066001
4	Intake nozzle		DIX MEP 152	6391536005
5	Torch bracket, tacho (with integrated wire feeder without drive roll)		DIX MEP 200 T	631620012
6	Torch set, without torch head	5.0 m	DIX MEPTTZ 600-5.0 SAZ	630664025
	Torch set, without torch head	7.0 m	DIX MEPTTZ 600-7.0 SAZ	630664026
7	Liner	∅ 2.2 mm/0.3m	DIX DS 4/2.2-0.3	639300002
8	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
9	Retainer		DIX HA 201	683510204
10	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 200	683100200
11	Liner	∅ 2.9 mm/5.5m	DIX DS 4/2.9-5.5	623000555
	Liner	∅ 2.9 mm/7.5m	DIX DS 4/2.9-7.5	623000575
12	Adjusting gauge		DIX EL 400	6480200000
13	Clamping sleeve (for presetting of the electrode with adjusting gauge)		DIX SH 400-3.2	6480500320
14	Plug set (for GREEN-line wire feeders, only assembled available)		DIX MEX 100	639077001

► Standard equipment for electrode diameter 3.2 mm with gas nozzle diameter 12.5 mm, DIX GD 408, and wire diameter 1.0 mm steel. TCP: 495 mm to robotic flange (Electrode stand out: 5 mm). The corresponding adapter flange you find in the accessories list! Use the special spanner DIX SLAT 2 to fix the torch heads. Variants deviating of the standard fittings on request.

10-00294

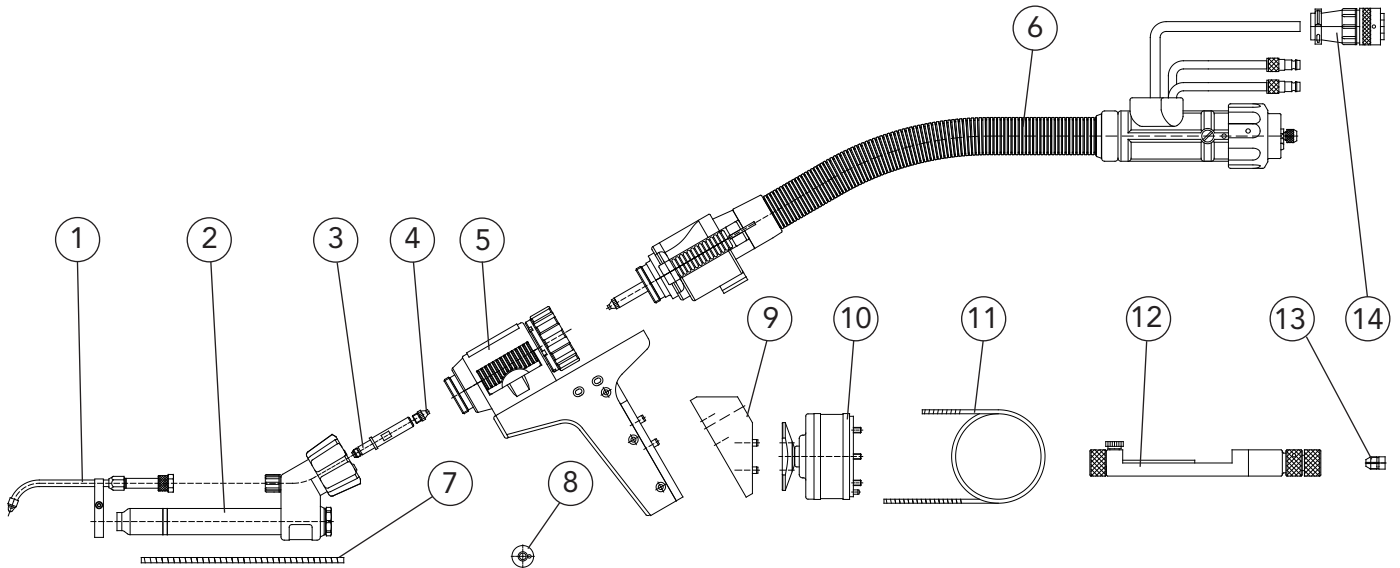
10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!



Doubly separable version
for PUSH-PULL
Torch head

DIX MEPTTZ 600 SAZ

DIX TETZ 400

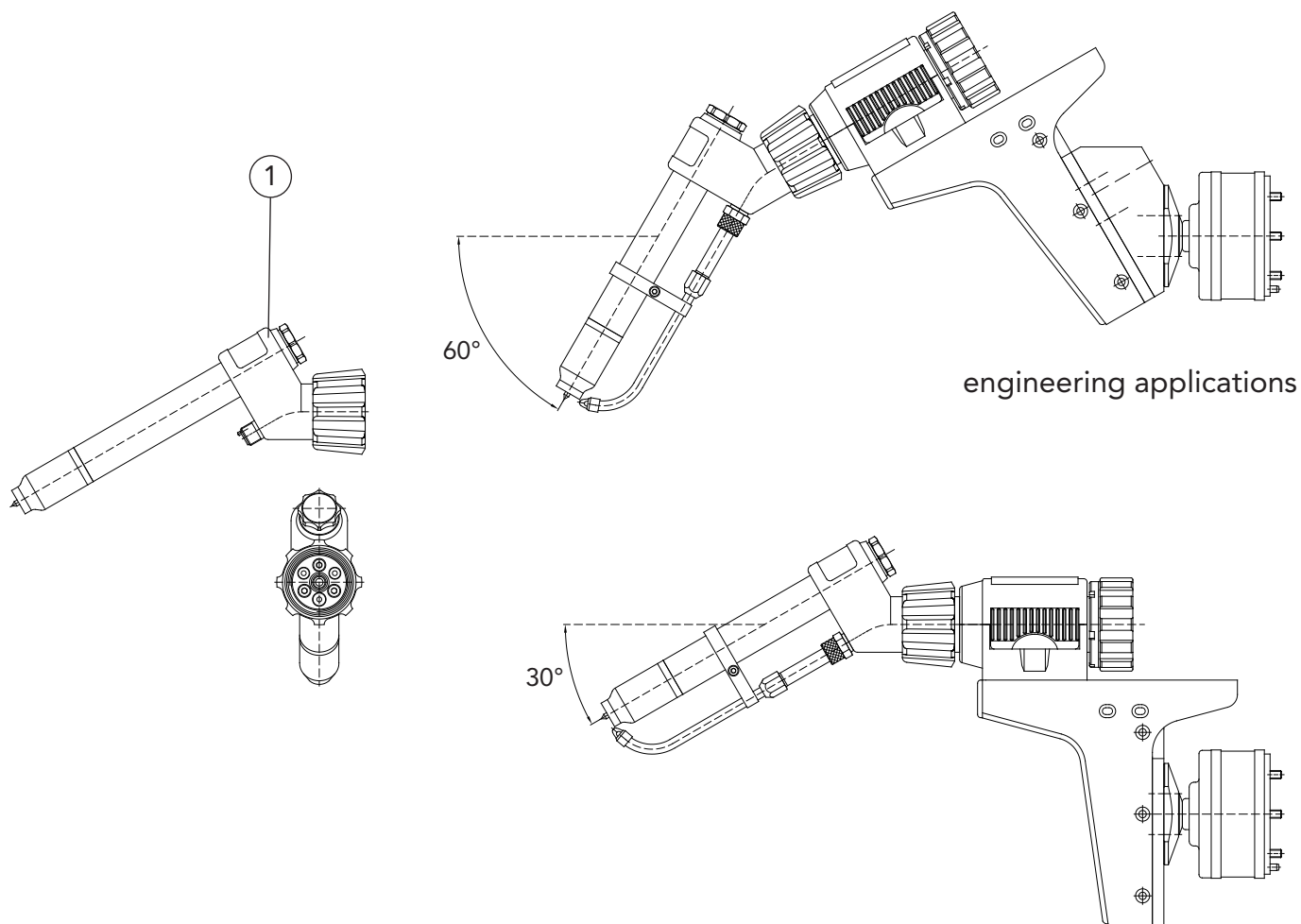


Pos.	Description	Dimension	Part number	Article number
1	Cold wire set		DIX KD 400	648540001
2	Torch head, compl.	0°	DIX TETZ 400	641140001
3	Connecting piece, TEPTZ		DIX TEPS 400	649066001
4	Intake nozzle		DIX MEP 152	6391536005
5	Torch bracket (with integrated wire feeder without drive roll)		DIX MEP 200	631620010
6	Torch set, without torch head	1.2 m	DIX MEPTTZ 600-1.2 SAZ	630664014
	Torch set, without torch head	1.4 m	DIX MEPTTZ 600-1.4 SAZ	630664005
	Torch set, without torch head	2.0 m	DIX MEPTTZ 600-2.0 SAZ	630664004
7	Liner	∅ 2.2 mm / 0.3m	DIX DS 4/2.2-0.3	639300002
8	Drive roll (for steel)	∅ 1.0 mm S	DIX MEP 322-1.0 S	6393221000
9	Retainer		DIX HA 201	683510204
10	Shock sensor	∅ 78.5 / 65 mm	DIX SAS 200	683100200
11	Liner	∅ 2.9 mm / 1.7m	DIX DS 4/2.9-1.7	623000517
	Liner	∅ 2.9 mm / 1.9m	DIX DS 4/2.9-1.9	623000519
	Liner	∅ 2.9 mm / 2.5m	DIX DS 4/2.9-2.5	623000525
12	Adjusting gauge		DIX EL 400	6480200000
13	Clamping sleeve (for presetting of the electrode with adjusting gauge)		DIX SH 400-3.2	6480500320
14	Plug set (for GREEN-line wire feeders, only assembled available)		DIX MEX 100	639077001

► Standard equipment for electrode diameter 3.2 mm with gas nozzle diameter 12.5 mm, DIX GD 408, and wire diameter 1.0 mm steel. TCP: 495 mm to robotic flange (Electrode stand out: 5 mm). The corresponding adapter flange you find in the accessories list! Use the special spanner DIX SLAT 2 to fix the torch heads. Variants deviating of the standard fittings on request.

Torch head

DIX TETZ 400 L



10-00296

10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!

Pos.	Description	Part number	Article number
1	Torch head, compl., left (Version turned by 180°) Version 30°, TCP: 410 mm to robotic flange (offset, vertical: 58 mm) Version 60°, TCP: 432 mm to robotic flange (offset, vertical: -100 mm) (Electrode stand out: 5 mm).	DIX TETZ 400 L	641140002

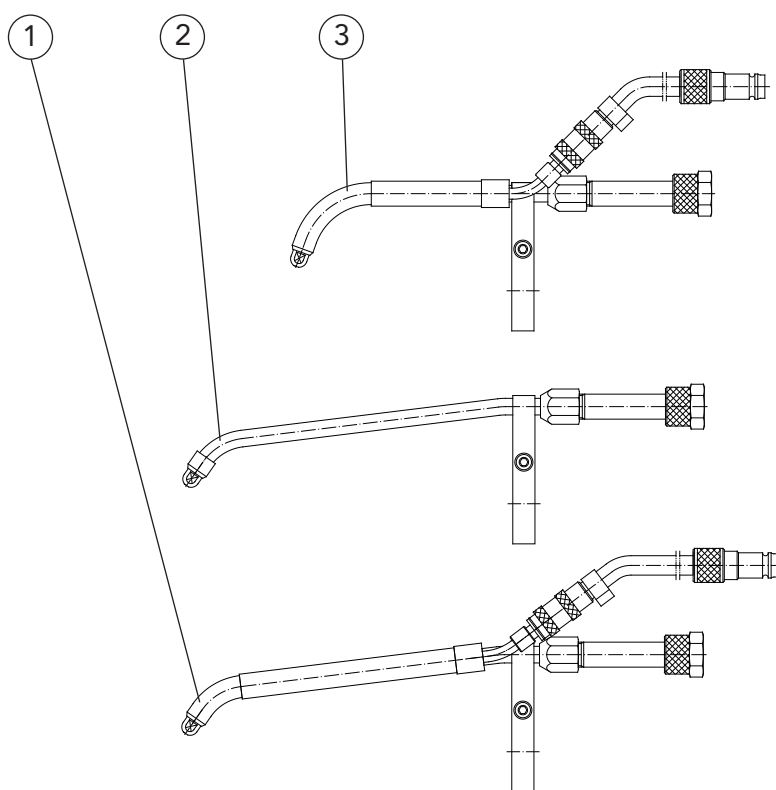
- ▶ Standard equipment for electrode diameter 3.2 mm with gas nozzle diameter 12.5 mm, DIX GD 408. Use the special spanner DIX SLAT 2 to fix the torch heads. Variants deviating of the accessories on request.



Torch head

DIX TETZ 400 (L)

Cold wire sets



10-00297

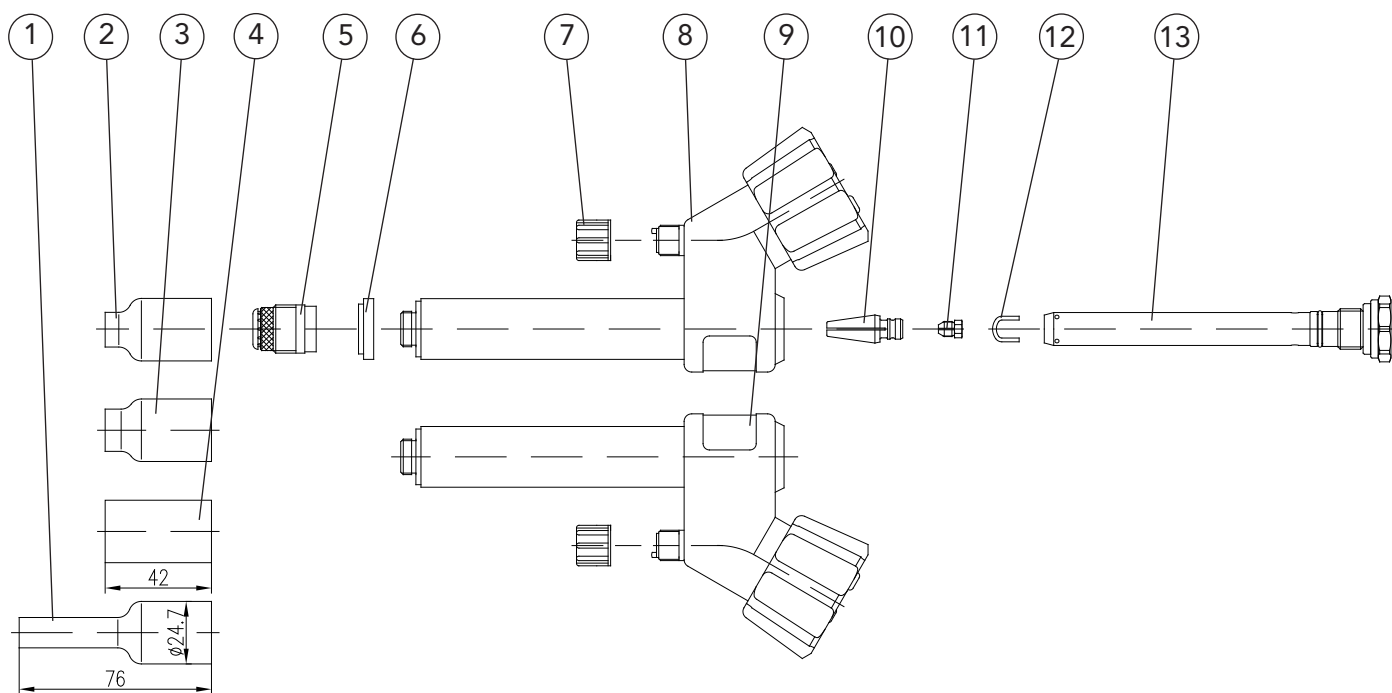
10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!

Pos.	Description	Part number	Article number
1	Cold wire set, liquid cooled, compl. (standard equipment for wire diameter 1.0 mm and gas nozzle DIX GD 405 L, water hoses 5.0 m)	DIX KDZ 400/001	648540002
2	Cold wire set, compl. (standard equipment for wire diameter 1.0 mm and gas nozzle DIX GD 405 L)	DIX KD 400/002	648540020
3	Cold wire set, liquid cooled, compl. (standard equipment for wire diameter 1.0 mm and gas nozzles DIX GD 406/408/412, water hoses 5.0 m)	DIX KDZ 400	648540003

- For liquid cooling use cooling unit DIX UK 500 (article number: 720000002).
For more informations to the cooling unit see the standard fittings.
Variants deviating of the accessories on request.

Torch head

DIX TETZ 400 (L)



Pos.	Description	Dimension	Part number	Article number
1	Gas nozzle	ø 8.5 mm	DIX GD 405 L	649015004
2	Gas nozzle	ø 9.5 mm	DIX GD 406	649015001
3	Gas nozzle	ø12.5 mm	DIX GD 408	649015002
4	Gas nozzle	ø19.5 mm	DIX GD 412	649015003
5	Gas lens		DIX GL 4xx	6491050xx
6	Sealing washer		DIX DIS 400	6490254000
7	Protective cap		DIX SK 400	649410001
8	Torch neck		DIX 6-4-400 TETZ	649061001
9	Torch neck		DIX 6-4-400 TETZ L	649061022
10	Electrode collet		DIX SZ 4xx	6490554xx0
11	Clamping sleeve		DIX SH 400-xx	6480500xx0
12	Retaining bracket		DIX HK 400	649275040016
13	Electrode collet housing		DIX SZA 400	6492750400

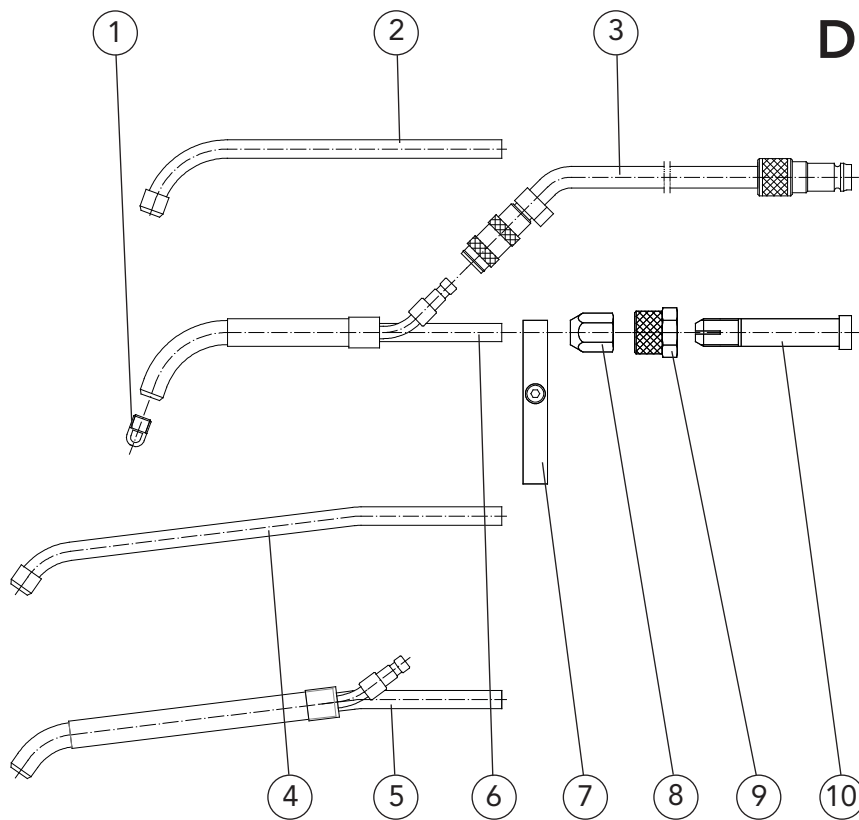
xx - Standard diameter: 2.4 mm and 3.2 mm. Other electrode diameters on request.

**Torch head
Fixed version**

DIX TETZ 400 (L)
DIX TAZ 400

Cold wire sets

DIX KD 400
DIX KDZ 400
DIX KDZ 400/001
DIX KD 400/002



Pos.	Description	Part number	Article number
1	Guide tip	DIX FS 400-xx	649030001xx
2	Guide pipe	DIX KD 404	648594004
3	Water set (water hoses: 5.0 m)	DIX KDZ 402	648594022
4	Guide pipe	DIX KD 404/002	648594023
5	Guide pipe, liquid cooled	DIX KDZ 401/001	648594010
6	Guide pipe, liquid cooled	DIX KDZ 401	648540004
7	Bracket	DIX KD 405	648594005
8	Clamp nut	DIX KD 403	648594003
9	Retaining nut	DIX KD 402	648594002
10	Clamping sleeve	DIX KD 401	648594001

xx - Standard diameter: 0.8 mm, 1.0 mm and 1.2 mm. Other diameters on request.

10-00299

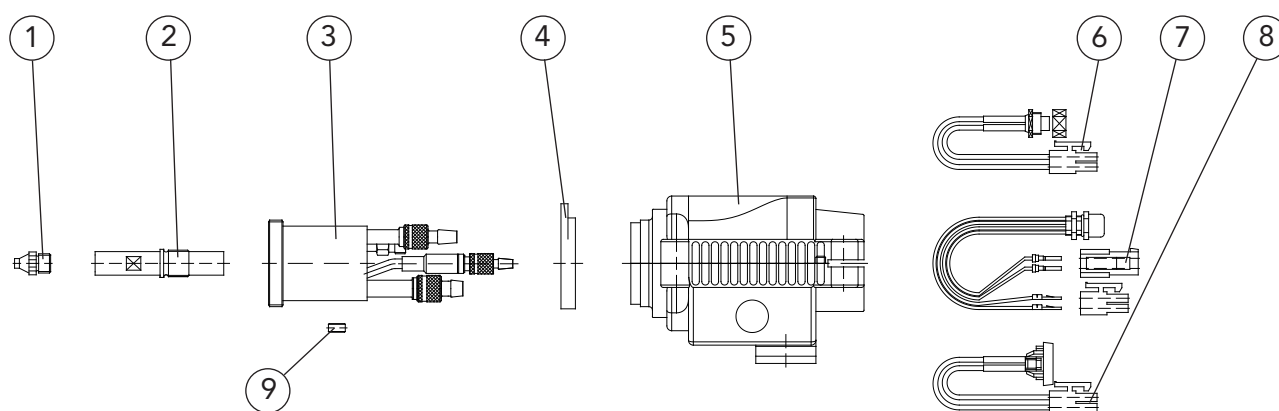
10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!



Double separable version for PUSH-PUSH and PUSH-PULL

DIX MEPTTZ 600

Torch sets (connecting set)



Pos.	Description	Part number	Article number
1	Intake nozzle	DIX MEP 152	6391536005
2	Connecting piece, MEP	DIX MEP 151	6391536003
3	Drive connection, MEPZ	DIX MEPZ 150	6391536001
4	Housing - supporting ring, METT	DIX METT 071	639073100012
5	Housing, METT 2	DIX METT 073	639073021
6	Socket set , ME 1 (for shock sensor)	DIX ME 090	639076001
7	Socket set, ME 2 (for motor and tachometer)	DIX ME 091	639076002
8	Push-button set, ME 2 (for set-up mode)	DIX ME 081	639085002
9	Fitting part, METT	DIX METT 072	6391530001

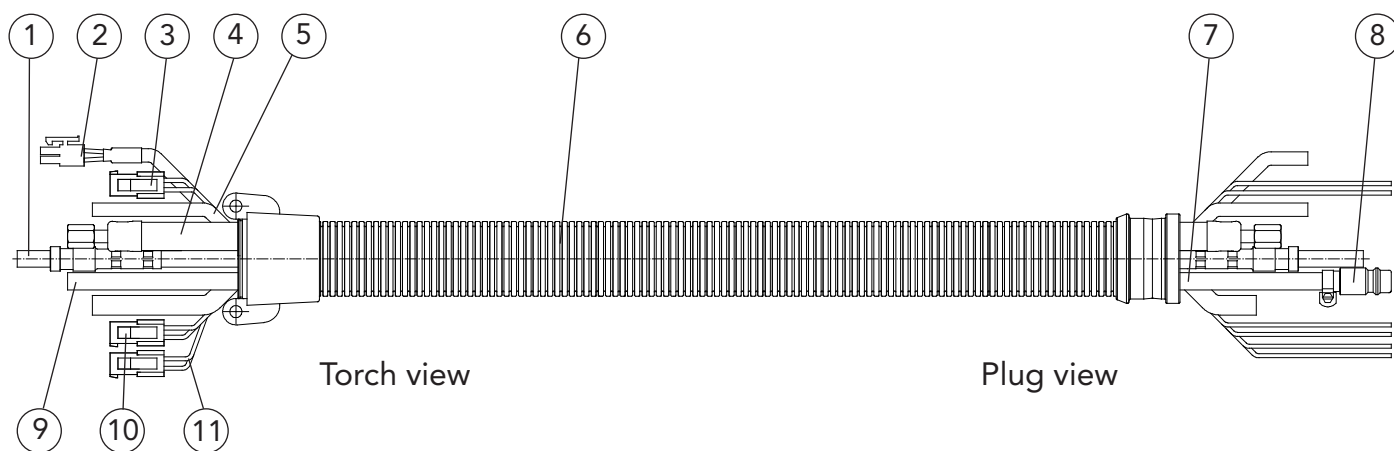
10-00300

10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change.

Double separable version for PUSH-PUSH and PUSH-PULL

DIX MEPTTZ 600

Torch sets (supply hose)



10-00301

10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!

Pos.	Description	Part number	Article number
	Supply hose, compl.	DIX VLEPZ 600-xx	632663001xx
1	Wire conduit hose	DIX VL 201-xx	639206003xx
2	Control wire set, white / brown (for tacho)	DIX VL 213-xx	639216004xx
3	Control wire set, blue (for shock sensor)	DIX VL 210-xx	639216001xx
4	Combi cable	DIX VL 220-xx	639226001xx
5	Gas hose	DIX VL 180-xx	639186001xx
6	Cover hose set	DIX VL 230-xx	639236001xx
7	Air blast hose	DIX VL 240-xx	639246001xx
8	Air blast plug	DIX 16-3-506	6391650600
9	Water hose	DIX VL 190-xx	639196001xx
10	Control wire set, black (for set-up mode)	DIX VL 211-xx	639216002xx
11	Control wire set, brown / red (for motor)	DIX VL 212-xx	639216003xx

xx - Standard length: 1.2 m, 1.4 m, 2.0 m, 5.0 m and 7.0 m

Separable version

DIX METZ 600 SAZ

Double separable version

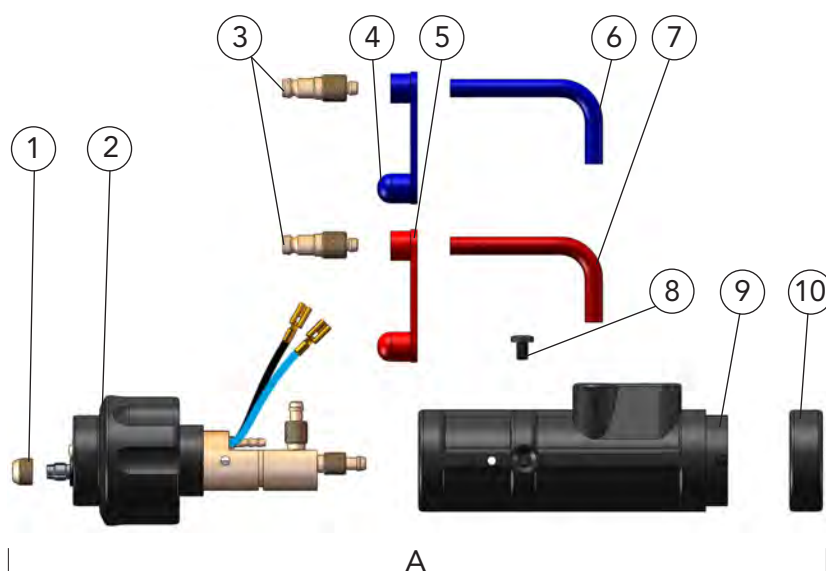
DIX METTZ 600 SAZ

Double separable version

DIX MEPTTZ 600 SAZ

for PUSH-PUSH and PUSH-PULL

Torch sets (plug)



Pos.	Description	Part number	Article number
A	Plug, compl.	DIX KCZME 600 SAZ	638900025
1	Clamp nut	DIX MEZ113	639116007
2	Plug insert	DIX ME 600 SAZ	639116068
3	Water plug	DIX 16-2	629160000
4	Cap, blue	DIX VL 172	629172001
5	Cap, red	DIX VL 173	629172002
6	Connection hose, blue	DIX VL 170 BLUE	629171003
7	Connection hose, red	DIX VL 171 RED	629171004
8	Holding screw	DIX 13-2 Z	629131000
9	Plug housing	DIX 12-3-510 SG	6391250011
10	Fixing ring	DIX 12-3-510 HR	6391250013

► Other fittings on request.

10-00302

10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!



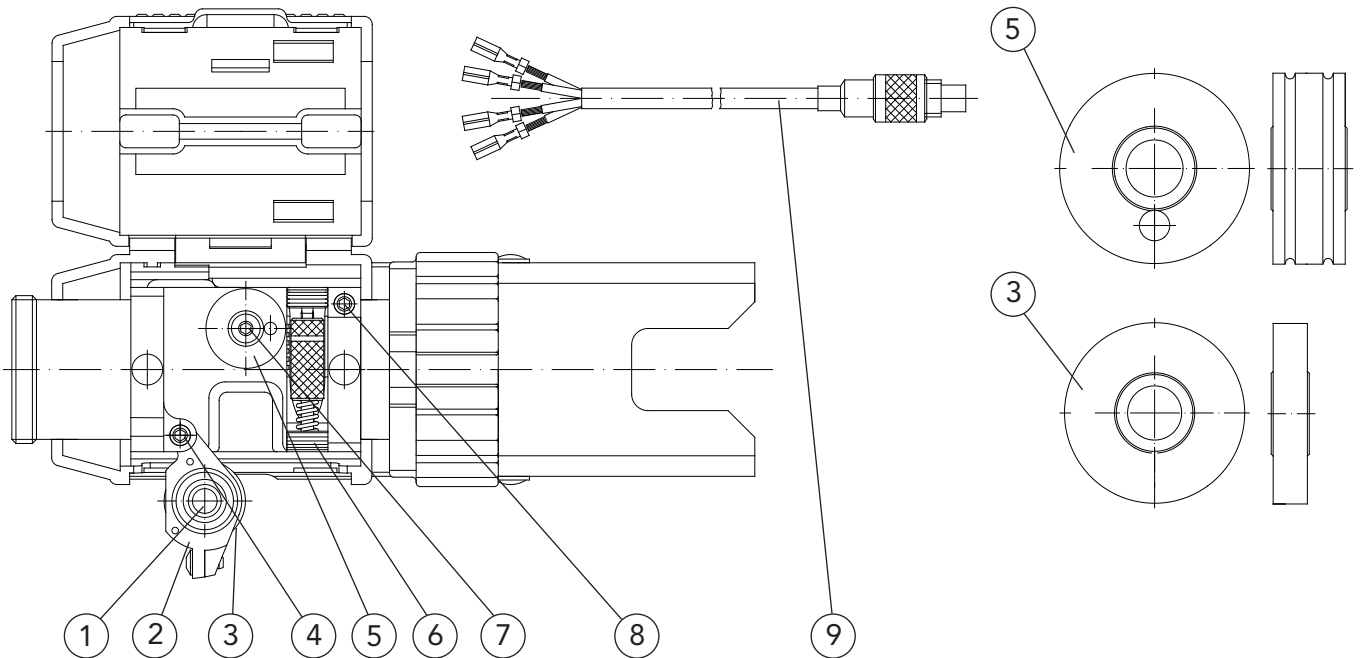
Double separable version
for PUSH-PUSH and PUSH-PULL

DIX MEPTTZ 600

Torch bracket (top view)

DIX MEP 200

DIX MEP 200 T



Pos.	Description	Part number	Article number
1	Pressure system (with Pos. 2 and 3)	DIX MEP 310	6393116000
2	Pressure housing (without pressure roll)	DIX MEP 311	639311001
3	Pressure roll	DIX MEP 312	639311600011
4	Screw axle	DIX MEP 351	639350600037
5	Drive roll (for aluminium alloy)	DIX MEP 321-xx A	639321xx00
	Drive roll (for steel)	DIX MEP 322-xx S	639322xx00
6	Stirrup lock	DIX MEP 340	639340001
	Pivot bearing (for stirrup lock, without picture)	DIX MEP 341	639340002
7	Flange screw		683216020
8	Screw pin		6390601400022
9	Control wire	DIX MEP 442	639446004

xx - Standard diameter: 0.8 mm, 1.0 mm, 1.2 mm and 1.6 mm. Other wire diameters on request.

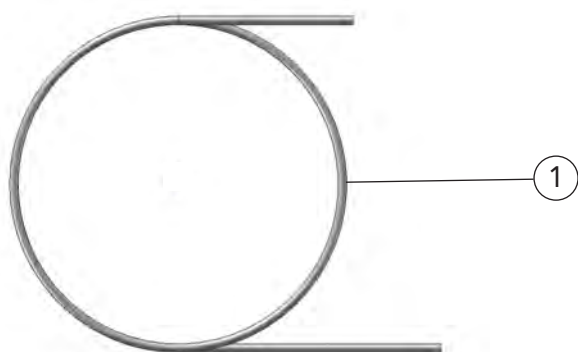
10-00303

10-RoboticAutomaticTorchesTIG-liquidU11 - subject to change!



Liner

for wire electrodes of non- and low alloyed steels



10-00304

10-RoboticAutomaticTorchesTIG-liquid\J11 - subject to change!

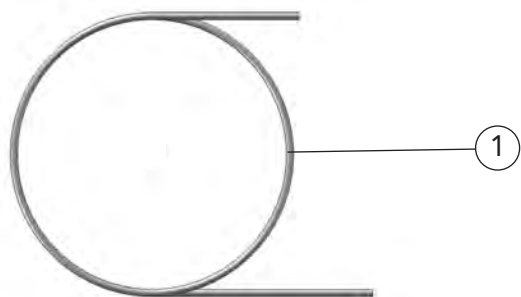
Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Liner For wire diameter 0.8 mm	ø 1.5 mm / 50 m brass	DIX DS 4/1.5-50	613000100
	Liner For wire diameter 1.0 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 1.8 mm / 50 m brass	DIX DS 4/1.8-50	613000200
	Liner For wire diameter 1.2 mm, in PUSH-PUSH/PULL wire diameter 1.0 mm	ø 2.2 mm / 50 m brass	DIX DS 4/2.2-50	623000300
	Liner For wire diameter 1.4 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.4 mm / 50 m brass	DIX DS 4/2.4-50	623000400
	Liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.9 mm / 50 m brass	DIX DS 4/2.9-50	623001500

► Liner for other wire diameters on request.



Capillary liner

for wire electrodes of high alloyed steels, copper-, aluminium-, magnesium- and nickel alloys

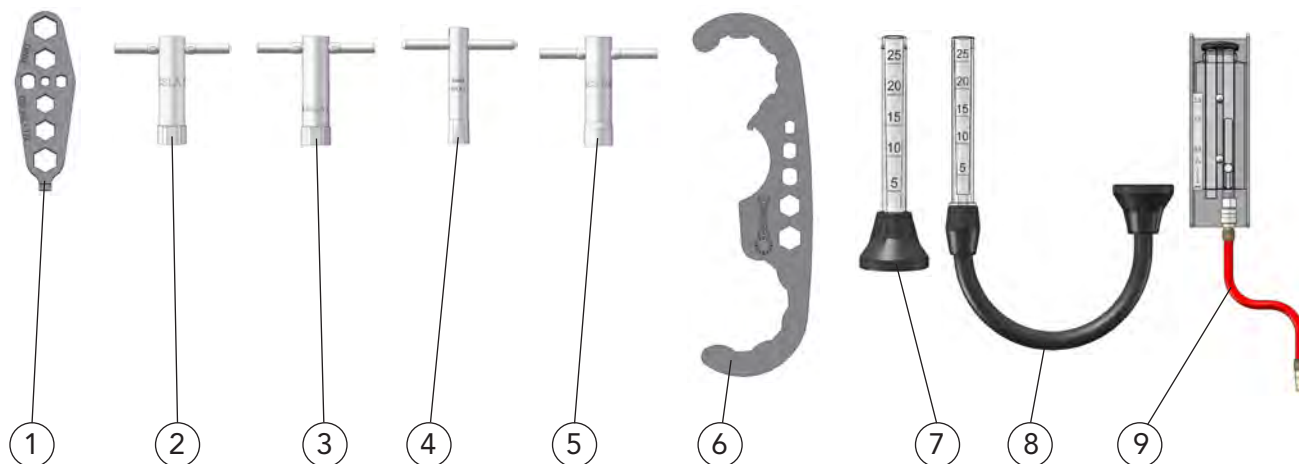


Pos.	Description	Dimension I _D /length/color	Part number	Article number
1	Capillary liner For wire diameter 0.8 mm	ø 1.65 mm / 100 m orange	DIX DSK 1-100	613002000
	Capillary liner For wire diameter 1.0 and 1.2mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.25 mm / 100 m turquoise	DIX DSK 2-100	623002000
	Capillary liner For wire diameter 1.6 mm, in PUSH-PUSH/PULL wire diameter 1.2 mm	ø 2.95 mm / 100 m red	DIX DSK 3-100	623002500
Capillary liner for special use with high - temperature applications				
	Capillary liner For wire diameter 0.8 mm	ø 1.5 mm / 100 m black / orange	DIX DST 1-100	613001000
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.2 mm / 100 m black / green	DIX DST 2-100	623001000
Capillary liner for special use with high - abrasive applications				
	Capillary liner For wire diameter 1.0 and 1.2 mm, in PUSH-PUSH/PULL wire diameter 0.8 mm	ø 2.3 mm / 100 m grey	DIX DSS 2-100	623003000

► Capillary liner for other wire diameters on request.



Service tools



Pos.	Description	Part number	Article number
1	Special spanner For tighten M6 / M8 contact tips and tip adapters	DIX SSL 1/2	628010012
2	Socket spanner For tighten contact tips DIX 3-1-xx SA and clamp nut DIX 4-1-MAS	DIX SSLA 1	618010005
3	Socket spanner For tighten contact tips DIX 3-2-xx SA and clamp nut DIX 4-2-MAS	DIX SSLA 2	628010005
4	Socket spanner For tighten contact tips DIX 3-2-xx M8	DIX STLA 3 M8	6380101080
5	Socket spanner For tighten contact tips DIX 3-1-xx SA and center clamp nut DIX CS 300	DIX SCS 300	638010003
6	Hook spanner For tighten the MIG/MAG, TIG robotic, torch heads and automatic torch sets DIX METT(Z) 310(600) and DIX MEPTT(Z) 310(600)	DIX SLAT 4	6380160001
7	Gas flow meter For manual welding torches	DIX GMM 2	628080000
8	Gas flow meter For robotic and automatic torches	DIX GMA 2	628080005
9	Flow meter For coolant flow measuring with liquid cooling	DIX DFZ 2	628091000

10-00306

10-RoboticAutomaticTorchesTIG-liquidU11 subject to change!



Shock sensor

DIX SAS 100



Shock sensor with adapter flange

Technical data:

Shock sensor

Reset accuracy:	± 0.03 mm
(400 mm to robotic flange)	
Deflection range:	20°
Switch class:	Opener
Switching capacity:	30V DC/0.5A
Dimension (D/H):	ø 78.5 / 65 mm
Weight:	640 g
Cable length:	100-850 mm
Adapter flange	DIX ADF 6xxx
(Bore pattern dependent of robot type)	

Technical benefits:

- Crash-protection of robot, welding torch and welding fixture at collision in set up and automatic mode
- Quick switch off the robot through program stop or emergency stop
- Precise reset after deflection
- Low weight

Application:

- For DINSE torch systems
gas cooled
DIX MET / METT 310
liquid cooled
DIX METZ / METTZ 600



MIG/MAG - torch system, separable and torch bracket, wippe (application sample)



TIG - torch system, separable and torch bracket, fixed (application sample)



Shock sensor

DIX SAS 200



Shock sensor with adapter flange

Technical data:

Shock sensor

Reset accuracy:	± 0.03 mm
(400 mm to robotic flange)	
Deflection range:	20°
Switch class:	Opener
Switching capacity:	30V DC/0.5A
Dimension (D/H):	ø 78.5 / 65 mm
Weight:	640 g
Cable length:	100-850 mm
Adapter flange	DIX ADF 6xxx
(Bore pattern dependent of robot type)	

Technical benefits:

- Crash-protection of robot, welding torch and welding fixture at collision in set up and automatic mode
- Quick switch off the robot through program stop or emergency stop
- Precise reset after deflection
- Low weight

Application:

- For DINSE torch systems
 - gas cooled**
 - DIX MEPTT 310
 - liquid cooled**
 - DIX MEPTTZ 600
 - DIX DTS 500 (P)



MIG/MAG - torch system, double separable and torch bracket, PUSH-PUSH/PUSH-PULL (application sample)



WIG - torch system, double separable and torch bracket, PUSH-PUSH/PUSH-PULL (application sample)

Shock sensor

DIX SAS 100
DIX SAS 200



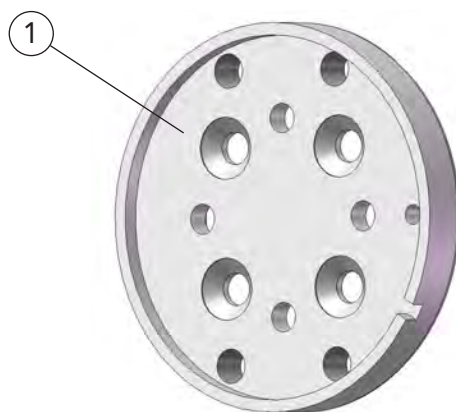
Pos.	Description	Dimension	Part number	Article number
1	Shock sensor	ø 78.5 / 65 mm	DIX SAS100	683100001
2	Shock sensor	ø 78.5 / 65 mm	DIX SAS200	683100200

Spare parts and wear parts

3	Dust boot		DIX SAS 640	683100015
4	Switch set		DIX SAS 650	683100018

Adapter flange

SAS 100 / 200



Robot

Pos.	Description	Manufacturer	Robot typ	Part number	Article number
1	Flange	ABB	IRB 6	DIX ADF 6012	683116012
	Flange	ABB	IRB 1000	DIX ADF 6012	683116012
	Flange	ABB	IRB 1400	DIX ADF 6012	683116012
	Flange	ABB	IRB 1500	DIX ADF 6012	683116012
	Flange	ABB	IRB 1600	DIX ADF 6012	683116012
	Flange	ABB	IRB 2000	DIX ADF 6012	683116012
	Flange	ABB	IRB 2400/2400L	DIX ADF 6012	683116012
	Flange	ABB	IRB 2500	DIX ADF 6012	683116012
	Flange	ABB	IRB 6400	DIX ADF 6017	683116017
	Flange	ABB	IRB 640 M98	DIX ADF 6017	683116017
	Flange	ABB	IRB 2400/10	DIX ADF 6018	683116018
	Flange	ABB	IRB 2400/16	DIX ADF 6018	683116018
	Flange	ABB	IRB 2600	DIX ADF 6018	683116018
	Flange	ABB	IRB 4400 L	DIX ADF 6018	683116018
	Flange	ABB	IRB 4600-20	DIX ADF 6018	683116018

Adapter flange

Pos.	Description	Manu- facturer	Robot typ	Part number	Article number
1	Flange	ABB	IRB 140	DIX ADF 6042	683116042
	Flange	ABB	IRB 4400	DIX ADF 6086	683116086
	Flange	ABB	IRB 4600-40	DIX ADF 6086	683116086
	Flange	ABB	IRB 4600-45	DIX ADF 6086	683116086
	Flange	ABB	IRB 4600-60	DIX ADF 6086	683116086
	Flange	Cloos	Romat 56	DIX ADF 6031	683116031
	Flange	Cloos	Romat 75/76	DIX ADF 6032	683116032
	Flange	Cloos	Romat 310	DIX ADF 6033	683116033
	Flange	Cloos	Romat 320	DIX ADF 6033	683116033
	Flange	Cloos	Romat 350	DIX ADF 6033	683116033
	Flange	Cloos	Romat 410	DIX ADF 6033	683116033
	Flange	Comau	Smart SIX	DIX ADF 6042	683116042
	Flange	Comau	Smart S4	DIX ADF 6221	683116221
	Flange	Comau	Smart NS 12-1.85 ARC	DIX ADF 6221	683116221
	Flange	Comau	Smart NS 16-1.65 ARC	DIX ADF 6221	683116221
	Flange	Comau	Smart NM 16-3.1	DIX ADF 6221	683116221
	Flange	Fanuc	50il	DIX ADF 6002	683116002
	Flange	Fanuc	LR Mate 200 IC	DIX ADF 6002	683116002
	Flange	Fanuc	LR Mate 200 iB	DIX ADF 6002	683116002
	Flange	Fanuc	LR Mate 200 iB/3L	DIX ADF 6002	683116002
	Flange	Fanuc	ARC Mate 100i	DIX ADF 6012	683116012
	Flange	Fanuc	120il	DIX ADF 6012	683116012
	Flange	Fanuc	100	DIX ADF 6012	683116012
	Flange	Fanuc	RJ2S12	DIX ADF 6012	683116012

11-00311

subject to change!

11-RoboticAutomaticComponents\J11

Adapter flange

Pos.	Description	Manufacturer	Robot typ	Part number	Artikle number
1	Flange	Fanuc	M-710iC/20L*	DIX ADF 6012	683116012
	Flange	Fanuc	R 2000iA 165 F/R/L	DIX ADF 6017	683116017
	Flange	Fanuc	R 2000iA 125L	DIX ADF 6017	683116017
	Flange	Fanuc	ARC Mate 100 iC	DIX ADF 6024	683116024
	Flange	Fanuc	ARC Mate 100 iC/6L	DIX ADF 6024	683116024
	Flange	Fanuc	ARC Mate 120 iC	DIX ADF 6024	683116024
	Flange	Fanuc	ARC Mate 120 iC/10L	DIX ADF 6024	683116024
	Flange	Fanuc	100 RJ 3 iC	DIX ADF 6024	683116024
	Flange	Fanuc	ARC Mate 100 iB	DIX ADF 6042	683116042
	Flange	Fanuc	ARC Mate 120 iB	DIX ADF 6042	683116042
	Flange	Fanuc	M-6iB/2 HS	DIX ADF 6042	683116042
	Flange	Fanuc	M 16 iB	DIX ADF 6042	683116042
	Flange	Fanuc	M-710 iC/20L**	DIX ADF 6042	683116042
	Flange	Hitachi	M6100	DIX ADF 6025	683116025
	Flange	Hitachi	MR 6060	DIX ADF 6042	683116042
	Flange	Hyundai	HR006/015	DIX ADF 6028	683116028
	Flange	Hyundai	010L/030L/050	DIX ADF 6028	683116028
	Flange	Kawasaki	JS 6	DIX ADF 6042	683116042
	Flange	Kawasaki	JS 10	DIX ADF 6042	683116042
	Flange	Kawasaki	FA 06 E	DIX ADF 6042	683116042
	Flange	Kawasaki	FA 10 L	DIX ADF 6221	683116221
	Flange	Kuka	KR 16 arc HW	DIX ADF 6026	683116026
	Flange	Kuka	KR 5	DIX ADF 6029	683116029
	Flange	Kuka	KR 5 ARC HW	DIX ADF 6029	683116029
	Flange	Kuka	KR 5 ARC	DIX ADF 6042	683116042
	Flange	Kuka	KR 6 ARC	DIX ADF 6042	683116042

* ø 50 mm
** ø 25 mm

11-000312

subject to change!

11-RoboticAutomaticComponents\J11



Adapter flange

Pos.	Description	Manu- facturer	Robot typ	Part number	Article number
1	Flange	Kuka	KR 16-L6 ARC	DIX ADF 6042	683116042
	Flange	Kuka	KR 6	DIX ADF 6042	683116042
	Flange	Kuka	KR 6/2	DIX ADF 6084	683116084
	Flange	Kuka	KR 15/2	DIX ADF 6084	683116084
	Flange	Kuka	KR 16	DIX ADF 6084	683116084
	Flange	Kuka	KR 16 L	DIX ADF 6084	683116084
	Flange	Kuka	KR 30L16	DIX ADF 6084	683116084
	Flange	Kuka	KR IR 364/8	DIX ADF 6084	683116084
	Flange	Kuka	KR 125/2	DIX ADF 6085	683116085
	Flange	Kuka	KR 125 L90/2	DIX ADF 6085	683116085
	Flange	Kuka	KR 125 L 100/2	DIX ADF 6085	683116085
	Flange	Kuka	KR 150/2	DIX ADF 6085	683116085
	Flange	Kuka	KR 150 L 110/2	DIX ADF 6085	683116085
	Flange	Kuka	KR 150 L 130/2	DIX ADF 6085	683116085
	Flange	Kuka	KR 30/2	DIX ADF 6086	683116086
	Flange	Manutec	R3	DIX ADF 6070	683116070
	Flange	Manutec	R15	DIX ADF 6070	683116070
	Flange	Manutec	R15 D	DIX ADF 6070	683116070
	Flange	Mitsubishi	RV 12 S	DIX ADF 6042	683116042
	Flange	Mitsubishi	RV 12 SL	DIX ADF 6042	683116042
	Flange	OTC	V 01	DIX ADF 6012	683116012
	Flange	OTC	V 6	DIX ADF 6012	683116012
	Flange	OTC	V 10	DIX ADF 6012	683116012
	Flange	OTC	AX M H3	DIX ADF 6012	683116012
	Flange	OTC	V 6L	DIX ADF 6012	683116012
	Flange	OTC	IRB 471	DIX ADF 6089	683116089

11-00313

subject to change!

11-Robotic-Automatic-Components\J11

Adapter flange

Pos.	Description	Manu- facturer	Robot typ	Part number	Article number
1	Flange	Panasonic	AW 550	DIX ADF 6160	683116160
	Flange	Panasonic	AW 0660	DIX ADF 6160	683116160
	Flange	Panasonic	AW 8010	DIX ADF 6160	683116160
	Flange	Panasonic	VR 006AL 1; 2	DIX ADF 6161	683116161
	Flange	Panasonic	VR 008	DIX ADF 6161	683116161
	Flange	Panasonic	Tawers 1600	DIX ADF 6161	683116161
	Flange	Panasonic	Tawers 1800	DIX ADF 6161	683116161
	Flange	Panasonic	Tawers 1400	DIX ADF 6161	683116161
	Flange	Panasonic	Tawers 1800 TB	DIX ADF 6161	683116161
	Flange	Reis	RV 6	DIX ADF 6103	683116103
	Flange	Reis	RV 6L	DIX ADF 6103	683116103
	Flange	Reis	RV 20-6	DIX ADF 6103	683116103
	Flange	Reis	RV20-6HW	DIX ADF 6106	683116106
	Flange	Reis	RV20-10HW	DIX ADF 6106	683116106
	Flange	Reis	RV30-10HW	DIX ADF 6106	683116106
	Flange	Reis	RV 12	DIX ADF 6221	683116221
	Flange	Reis	RV 12L	DIX ADF 6221	683116221
	Flange	Reis	RV 15	DIX ADF 6221	683116221
	Flange	Reis	RV 16	DIX ADF 6221	683116221
	Flange	Reis	RV 20-16	DIX ADF 6221	683116221
	Flange	Reis	RV 30-16	DIX ADF 6221	683116221
	Flange	SEF	SR25/A2	DIX ADF 6221	683116221
	Flange	Stäubli	TX 60	DIX ADF 6002	683116002
	Flange	Stäubli	TX 60L	DIX ADF 6002	683116002
	Flange	Stäubli	TX 90	DIX ADF 6103	683116103

11-00314

subject to change!

11-Robotic-AutomaticComponents\J11

Adapter flange

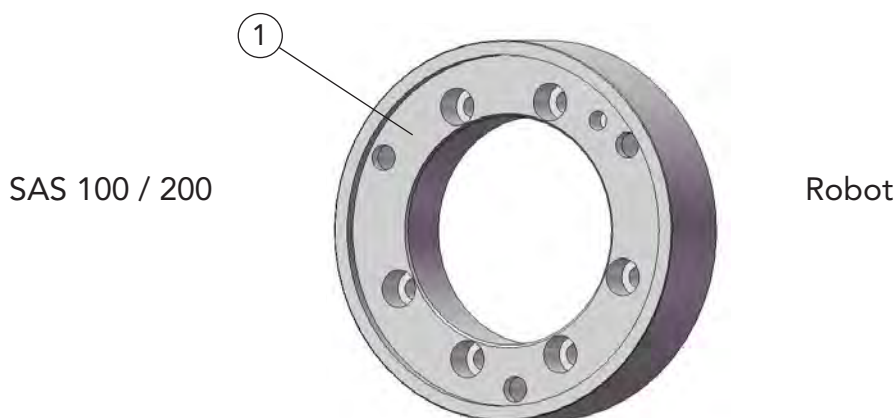
Pos.	Description	Manu- facturer	Robot typ	Part number	Article number
1	Flange	Stäubli	TX 90L	DIX ADF 6103	683116103
	Flange	Stäubli	TX 90XL	DIX ADF 6103	683116103
	Flange	Yaskawa	Motoman HP 3 C	DIX ADF 6002	683116002
	Flange	Yaskawa	Motoman HP 3 J	DIX ADF 6002	683116002
	Flange	Yaskawa	Motoman L 106	DIX ADF 6040	683116040
	Flange	Yaskawa	Motoman K 6S	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman K 10S	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman K 205S	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman SRC 6	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman JS 6	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman 3S 10	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman SK 6	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman SK 10	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman SK 16	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman HP20/UP 20	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman HP 6 UP 6	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman YRUP 20-A00	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman YRUP 50N-A00	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman MH6	DIX ADF 6042	683116042
	Flange	Yaskawa	Motoman Bohrbild 35° verdreht	DIX ADF 6042/1	6831160421
	Flange	Yaskawa	Motoman EA 1400N	DIX ADF 6047	683116047
	Flange	Yaskawa	Motoman EA 1900N	DIX ADF 6047	683116047
	Flange	Yaskawa	Motoman MA 1400	DIX ADF 6047	683116047
	Flange	Yaskawa	Motoman MA 1900	DIX ADF 6047	683116047
	Flange	Yaskawa	Motoman MA 3100	DIX ADF 6047	683116047
	Flange	Yaskawa	Motoman DX 100	DIX ADF 6047	683116047

11-00315

subject to change!

11-RoboticAutomaticComponents\J11

Adapter flange ADFR



Pos.	Description	Manu- facturer	Robot typ	Part number	Article number
1	Flange	ABB	IRB 1600 ID	DIX ADFR 6302	687003302
	Flange	Fanuc	ARC Mate 100iC	DIX ADFR 6303	687003303
	Flange	Fanuc	ARC Mate 100iC/6L	DIX ADFR 6303	687003303
	Flange	Fanuc	ARC Mate 120iC	DIX ADFR 6303	687003303
	Flange	Fanuc	ARC Mate 120iC/10L	DIX ADFR 6303	687003303
	Flange	Kuka	KR5 arc HW	DIX ADFR 6304	687003304
	Flange	Yaskawa	Motoman EA 1400 N	DIX ADFR 6300	687003300
	Flange	Yaskawa	Motoman EA 1800 N	DIX ADFR 6300	687003300
	Flansch	Yaskawa	Motoman EA 1900 N	DIX ADFR 6300	687003300
	Flange	Yaskawa	Motoman MA 1400	DIX ADFR 6300	687003300
	Flange	Yaskawa	Motoman VA 1400	DIX ADFR 6300	687003300
	Flange	Yaskawa	Motoman SSA 2000	DIX ADFR 6300	687003300

11-00316

subject to change!

11-Robotic-Automatic-Components\J11

Adapter flange ADFR

Pos.	Description	Manu- facturer	Robot typ	Part number	Article number
1	Flange	OTC Daihen	AX-V4 AP	DIX ADFR 6301	687003301
	Flange	OTC Daihen	AX-V4 LAP	DIX ADFR 6301	687003301
	Flange	OTC Daihen	All-B4	DIX ADFR 6306	687003306
	Flange	OTC Daihen	All-B4L	DIX ADFR 6306	687003306
	Flange	Panasonic	TB 1800	DIX ADFR 6309	687003309
	Flange	Reis	RV20-6HW	DIX ADFR 6308	687003308
	Flange	Reis	RV20-10HW	DIX ADFR 6308	687003308
	Flange	Reis	RV30-10HW	DIX ADFR 6308	687003308

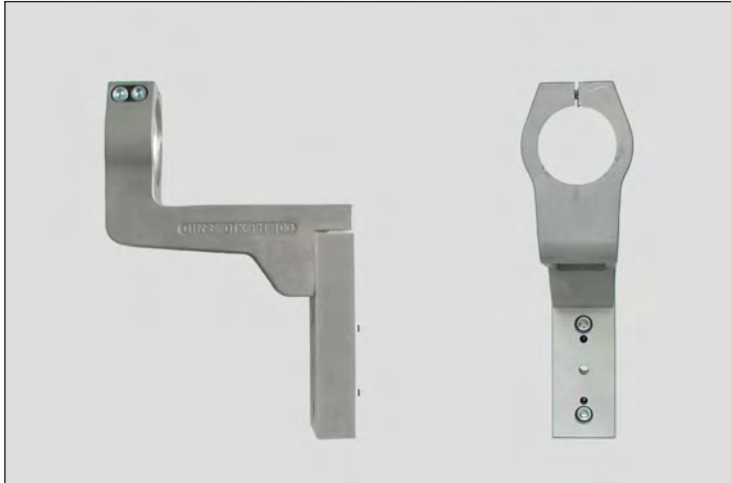
11-00317

subject to change!

11-Robotic-Automatic-Components\J11

Torch bracket, fixed

DIX PHF 100



Torch bracket, fixed (side view and front view)



Torch bracket, fixed (complete torch system, separable, with shock sensor DIX SAS 100, application sample)



Torch bracket, fixed (complete torch system, double separable, with shock sensor DIX SAS 100, application sample)

Technical data:

Torch bracket, fixed

TCP for torch heads, 45° without offset,
with shock sensor
DIX SAS 100:
400 mm to robotic flange

Technical benefits:

- All common TCP's (different lengths and angles) with adapter flanges and further retainers attainable
- Torch brackets made of aluminium cast alloy
- High mechanical strength
- High precision
- Low weight
- Very good corrosion resistance

Application:

- For DINSE torch systems
gas cooled
DIX MET / METT 310
liquid cooled
DIX METZ / METTZ 600

Torch bracket, fixed

DIX PHF 110



Torch bracket, fixed (side view and front view)



Torch bracket, fixed (complete torch system, separable, with shock sensor DIX SAS 100, application sample)



Torch bracket, fixed (complete torch system, double separable, with shock sensor DIX SAS 100, application sample)

Technical data:

Torch bracket, fixed

Angle, horizontal: 30°

TCP for torch heads,
with shock sensor

DIX SAS 100:

437 mm to robotic flange

(electrode stand out: 5 mm)

Technical benefits:

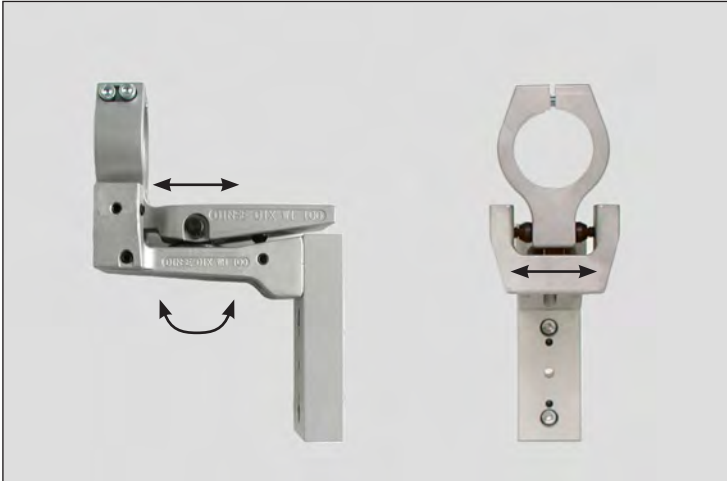
- ▶ All common TCP's (different lengths and angles) with adapter flanges and further retainers attainable
- ▶ Torch brackets made of aluminium cast alloy
- ▶ High mechanical strength
- ▶ High precision
- ▶ Low weight
- ▶ Very good corrosion resistance

Application:

- ▶ For DINSE torch systems
liquid cooled
DIX METZ / METTZ 600

Torch bracket, adjustable

DIX PHW 100



Torch bracket, adjustable (side view and front view)



Torch bracket, adjustable (complete torch system, separable, with shock sensor DIX SAS 100, application sample)



Torch bracket, adjustable (complete torch system, double separable, with shock sensor DIX SAS 100, application sample)

Technical data:

Torch bracket, adjustable

TCP for torch heads, 45° without offset, with shock sensor

DIX SAS 100:

400 mm to robotic flange

Technical benefits:

- ▶ Flexible TCP adjustment
- ▶ All common TCP's (different lengths and angles) with adapter flanges and further retainers attainable
- ▶ Torch brackets made of aluminium cast alloy
- ▶ High mechanical strength
- ▶ High precision
- ▶ Low weight
- ▶ Very good corrosion resistance

Application:

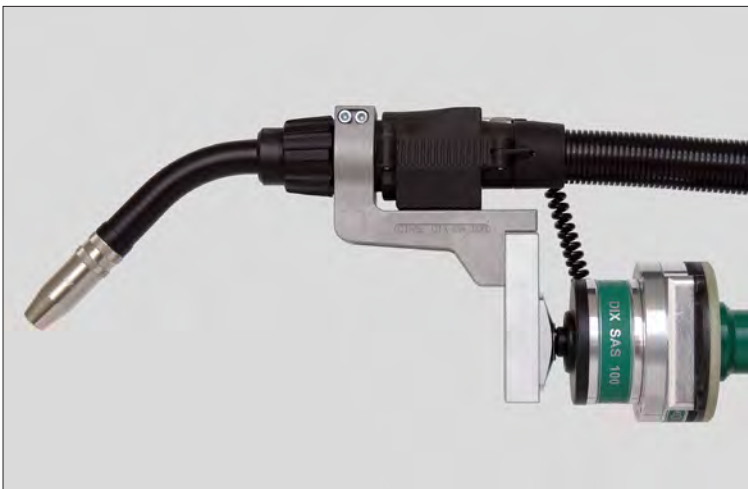
- ▶ For DINSE torch systems
gas cooled
DIX MET / METT 310
liquid cooled
DIX METZ / METTZ 600

Tool storage system

DIX WAS 100



Storage station with fixture mandrel, tool holder and SAS - flange



Torch system with fixture mandrel, tool holder and SAS - flange mounted on robot



Torch system in the storage station uncoupled from robot

Technical data:

Fixture mandrel DIX WAS KD 3100

Tool holder DIX WAS WT 3200

Storage station DIX WAS WS 3300

SAS - flange DIX WAS FL 100

Adapter flange DIX 61 - 3 - 2xxx
(bore pattern dependent of robot type)

Dimension (D/H): \varnothing 100 / 4.5 mm

Technical benefits:

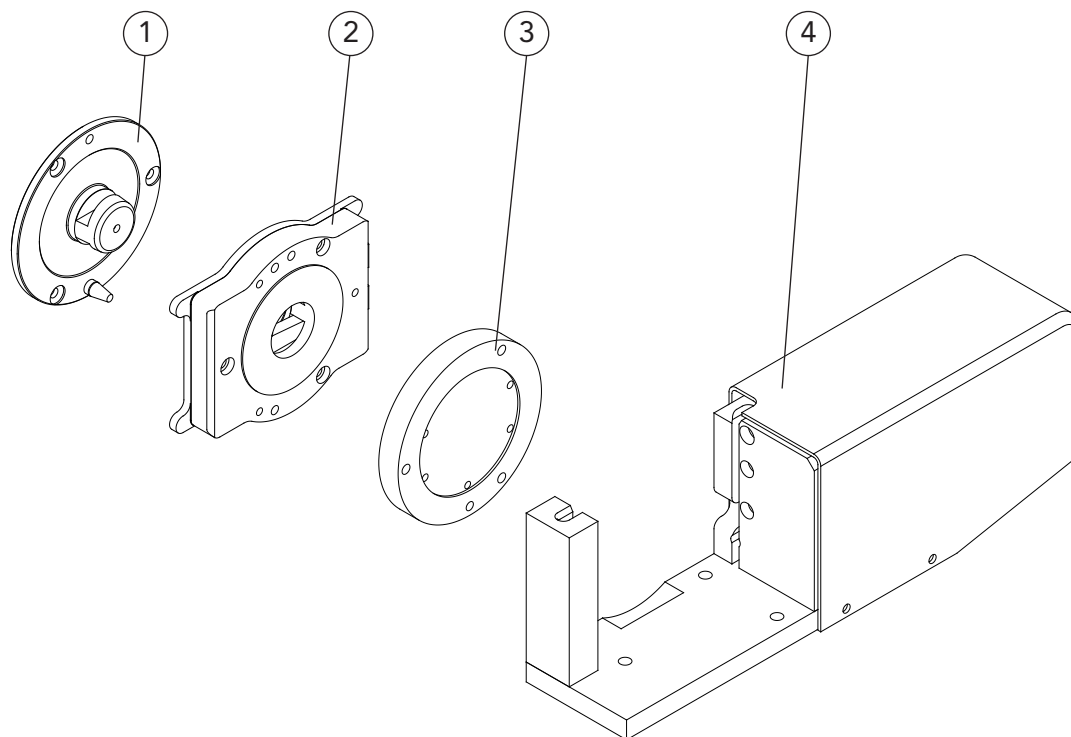
- High flexibility and guaranteed system availability through quick tool change with storage station
- Tool position can be reproduced on the robot through positive interlocking
- Pneumatic clamping system independent of robot
- Monitoring the tool storage through reed contact
- Auto-clamping through springs during power failure
- **Option:** Tool identification in the storage station

Application:

- For all common tools
- Replacement of wearing parts without stopping production
- For change production processes

Tool storage system

DIX WAS 100



11-00322

11-RoboticAutomaticComponents\J11 subject to change!

Pos.	Description	Part number	Article number
1	Fixture mandrel	DIX WAS KD 3100	683403100
2	Tool holder	DIX WAS WT 3200	683403200
3	SAS - flange	DIX WAS FL 100	683403310
4	Storage station	DIX WAS WS 3300	683403300

- Variants deviating of the standard fittings on request.
The corresponding adapter flange you find in the accessories list!

Tool storage system

DIX WAS 100



1



2

Pos.	Description	Part number	Article number
1	Switch (f. storage station)	DIX WAS WS 3307	683403307
2	Manual tool changer	DIX WAS HW 3400	683403400

11-00323

subject to change!

11-RoboticAutomaticComponents\J11

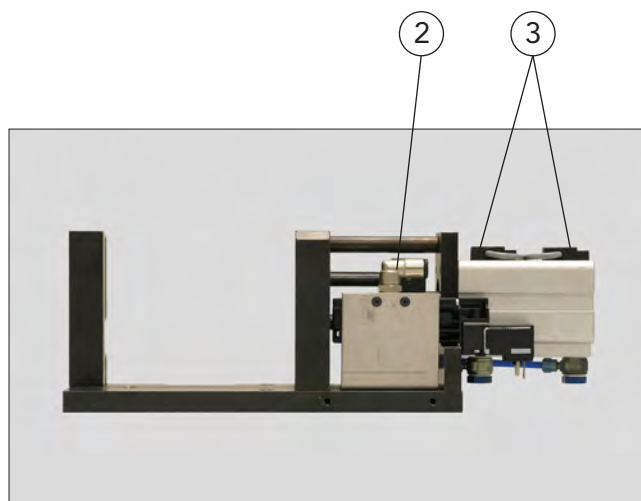
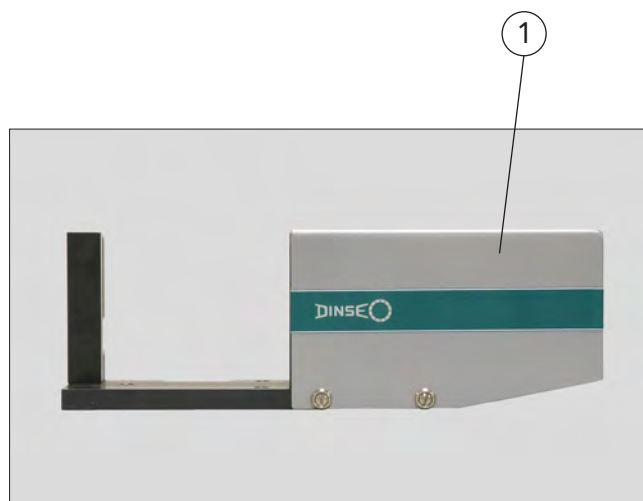


Tool storage system

DIX WAS 100

Storage station

DIX WAS WS 3300



Pos.	Description	Part number	Article number
1	Cap	DIX WAS WS 3306	683403306
2	Valve	DIX WAS WS 3305	683403305
3	Reed contact (2 pcs. available)	DIX WAS WS 3304	683403304

11-00324

subject to change!

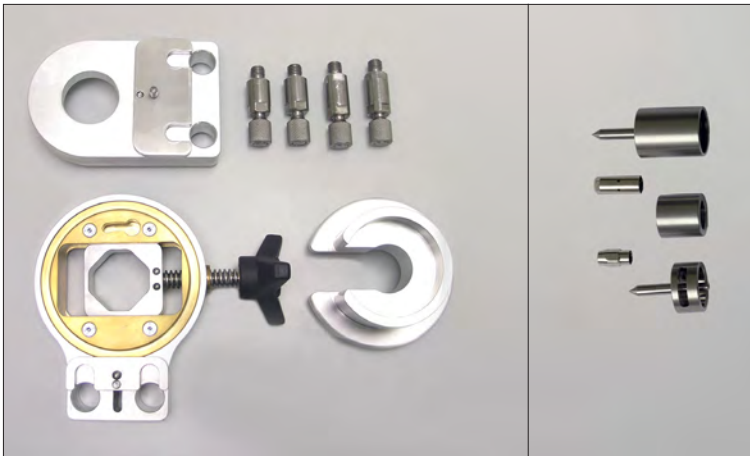
11-RoboticAutomaticComponents\J11



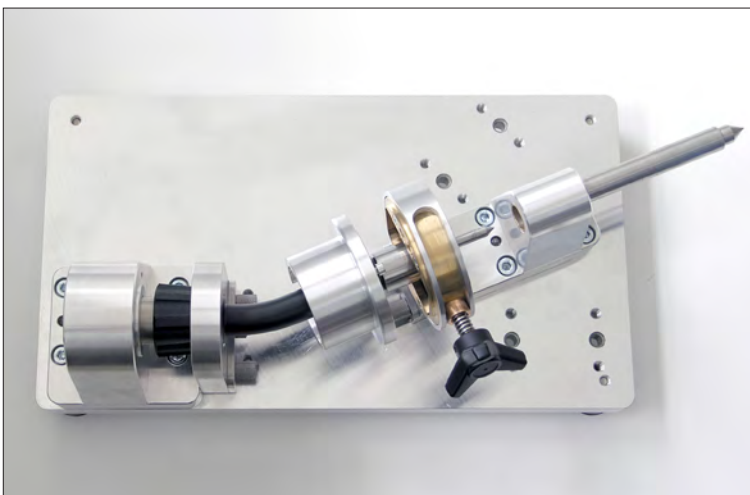
Checking and aligning system for standard torch heads



Checking jig DIX PV 100



Aligning module DIX JM 100 (left) and aligning set DIX JS 350/520 (right)



Checking jig with torch head and aligning module (application sample)

Technical data:

Checking jig DIX PV 100

Aligning module DIX JM 100

Aligning sets DIX JS 350/520
(for standard torch heads) DIX JS 540
DIX JS 560

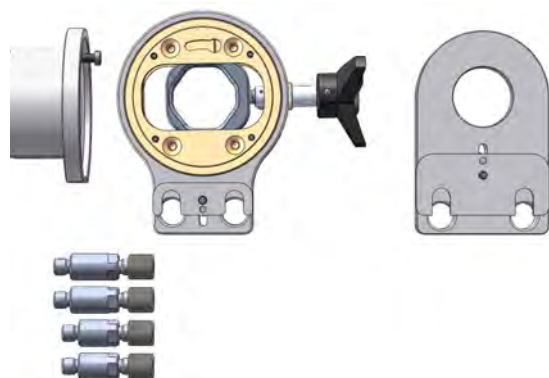
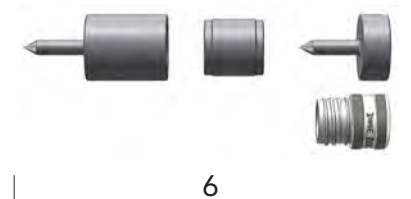
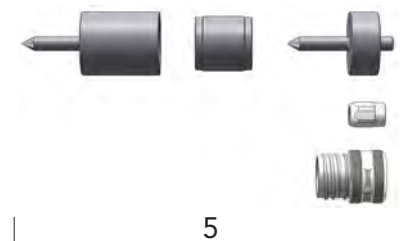
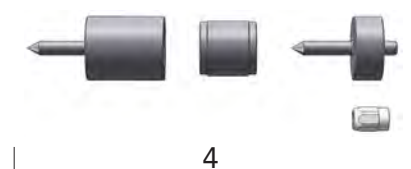
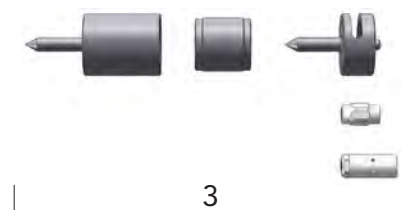
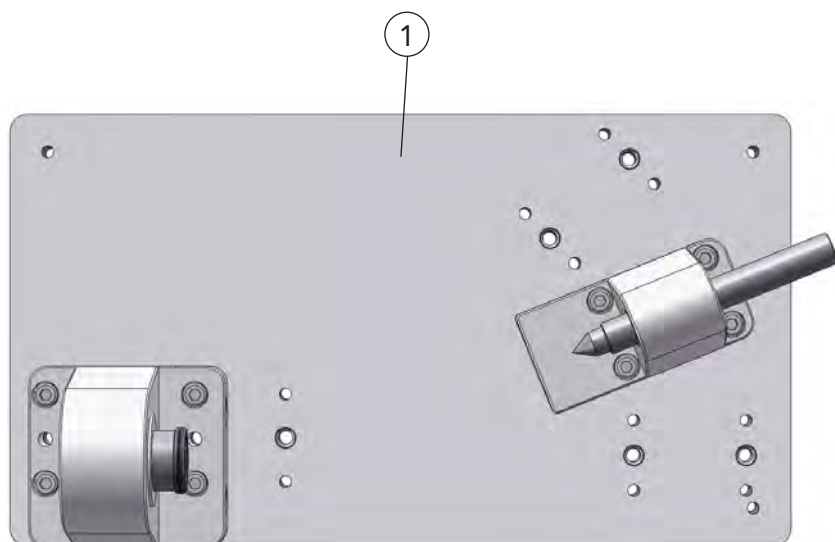
Technical benefits:

- Precise checking jig for position control of the TCP, made of a high grade aluminium alloy for a long lifetime
- Aligning and checking of the standard torch heads concerning parallelism and center of contact tip
- Bore pattern in the checking jig with standard positions for torch heads, (0°, 22°, 45°)
- Aligning module to re-aligning the inner and outer parts of the torch head separately.

Application:

- For DINSE standard torch heads
gas cooled
DIX MET 350/352/354
liquid cooled
DIX METZ 520/522/544
DIX METZ 540/542/544
DIX METZ 560/562/564
DIX METZ 570/572/574
- Quality assurance in welding production

Checking and aligning system for standard torch heads



11-00326

subject to change!

11-Robotic-AutomaticComponentsU11

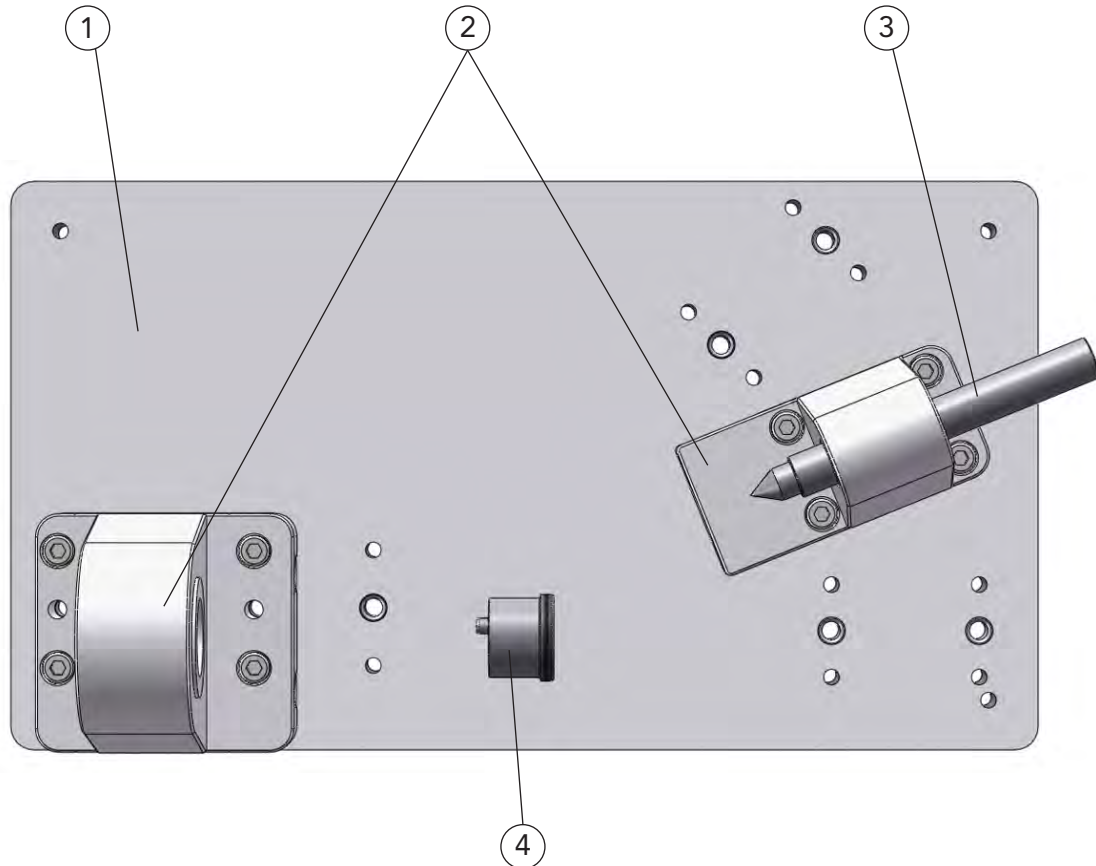
Pos.	Description	Part number	Article number
1	Checking jig, compl. (with torch adapter DIX PVP 100, support set DIX PVS 100 and set up pins DIX PVL 106, DIX PVL 108)	DIX PV 100	685300101
2	Aligning module, compl.	DIX JM 100	685305100
3	Aligning set, 350/520	DIX JS 350/520	685305200
4	Aligning set, 540	DIX JS 540	685305210
5	Aligning set, 560	DIX JS 560	685305220
5	Aligning set, 570	DIX JS 570	685305250

► Variants deviating of the standard fittings on request.



Checking jig

DIX PV 100



Pos.	Description	Part number	Article number
1	Base plate	DIX PVB 100	685301101
2	Support set (fixing and gauge support)	DIX PVS 100	685302105
3	Set up pin (for contact tips with outside diameter: 6 mm)	DIX PVL 106	685302115
	Set up pin (for contact tips with outside diameter: 8 mm)	DIX PVL 108	685302114
4	Torch adapter	DIX PVP 100	685303112

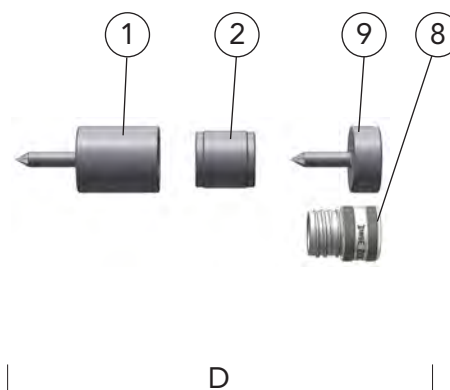
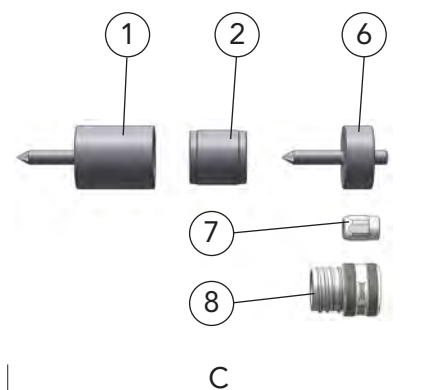
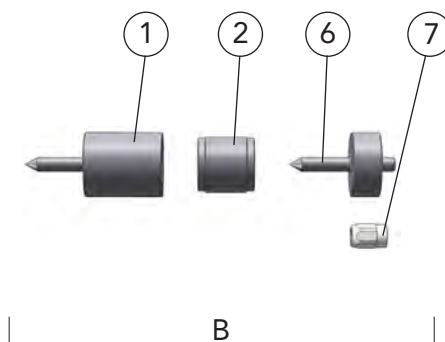
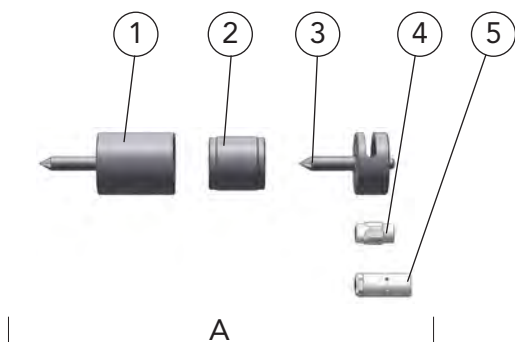
11-00327

subject to change!

11-Robotic-AutomaticComponents\J11

Aligning sets

DIX JS	350/520
DIX JS	540
DIX JS	560
DIX JS	570



Pos.	Description	Part number	Article number
A	Aligning set	DIX JS 350/520	685305200
B	Aligning set	DIX JS 540	685305210
C	Aligning set	DIX JS 560	685305220
D	Aligning set	DIX JS 570	685305250
1	Aligning cylinder	DIX JSZ 104	685305201
2	Aligning adapter	DIX JSA 100	685305211
3	Aligning gauge	DIX JSL 106	685305221
4	Clamp nut	DIX 4-1-MAS	6390452000
5	Clamp nut	DIX CS 300	6390433000
6	Aligning gauge	DIX JSL 108	685305222
7	Clamp nut	DIX 4-2-MAS	6390454000
8	Screw adapter	DIX SAD 2-404/540	628140000
9	Aligning gauge	DIX JSL 109 M8	685305224

11-00328

subject to change!

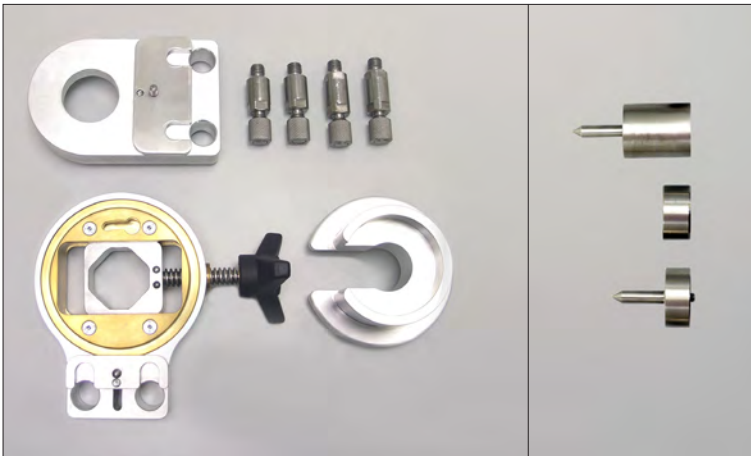
11-RoboticAutomaticComponents\J11



Checking and aligning system for standard torch heads



Checking jig DIX PV 150



Aligning module DIX JM 100 (left) and aligning set DIX JS 390/590 (right)



Checking jig with torch head and aligning module (application sample)

Technical data:

Checking jig DIX PV 150

Aligning module DIX JM 100

Aligning set DIX JS 390/590
(for standard torch heads)

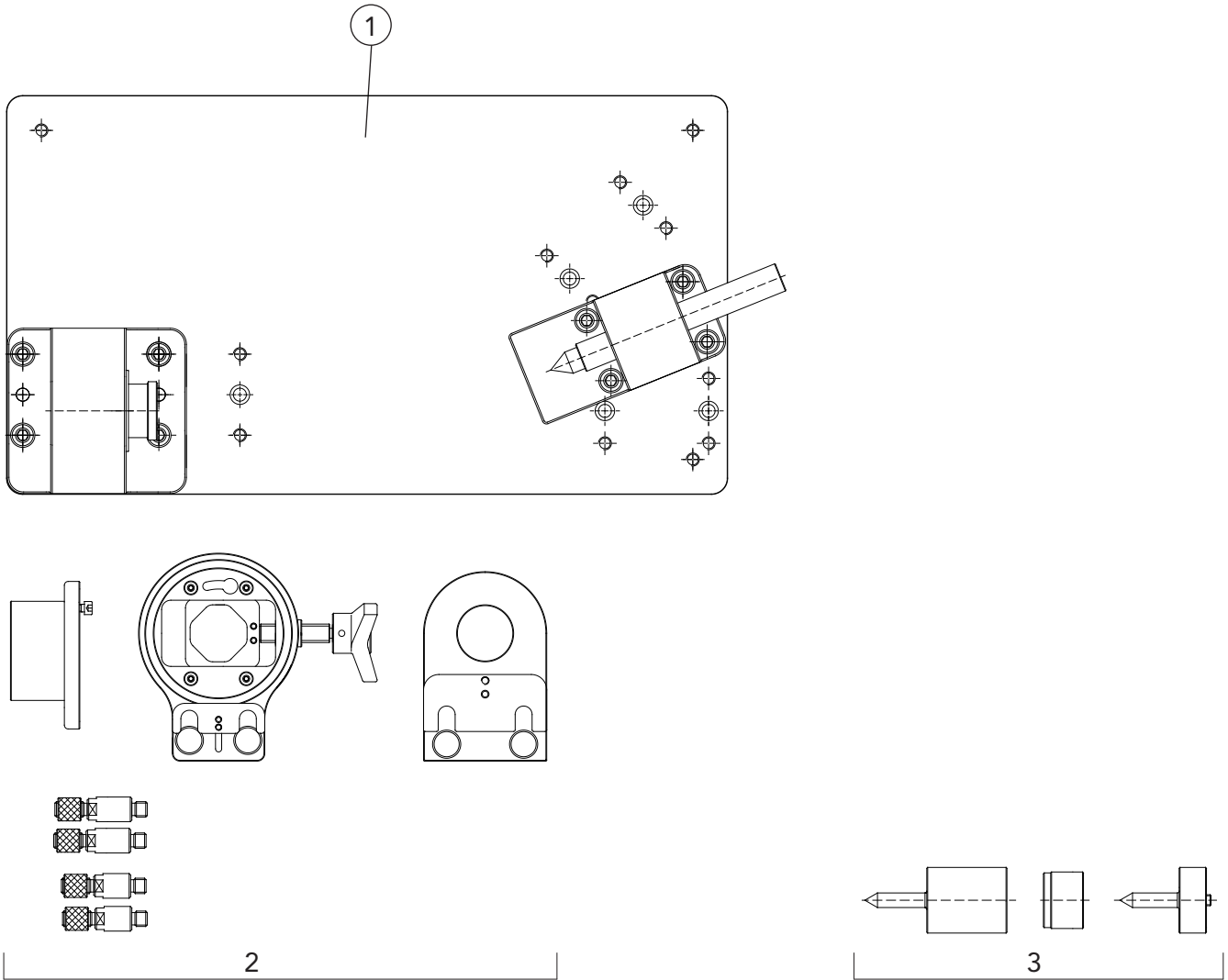
Technical benefits:

- Precise checking jig for position control of the TCP, made of a high grade aluminium alloy for a long lifetime
- Aligning and checking of the standard torch heads concerning parallelism and center of contact tip
- Bore pattern in the checking jig with standard positions for torch heads, (0°, 22°, 45°)
- Aligning module to re-aligning the inner and outer parts of the torch head separately.

Application:

- For DINSE standard torch heads
gas cooled
DIX MET 390/392/394
liquid cooled
DIX METZ 590/592/594
- Quality assurance in welding production

Checking and aligning system for standard torch heads

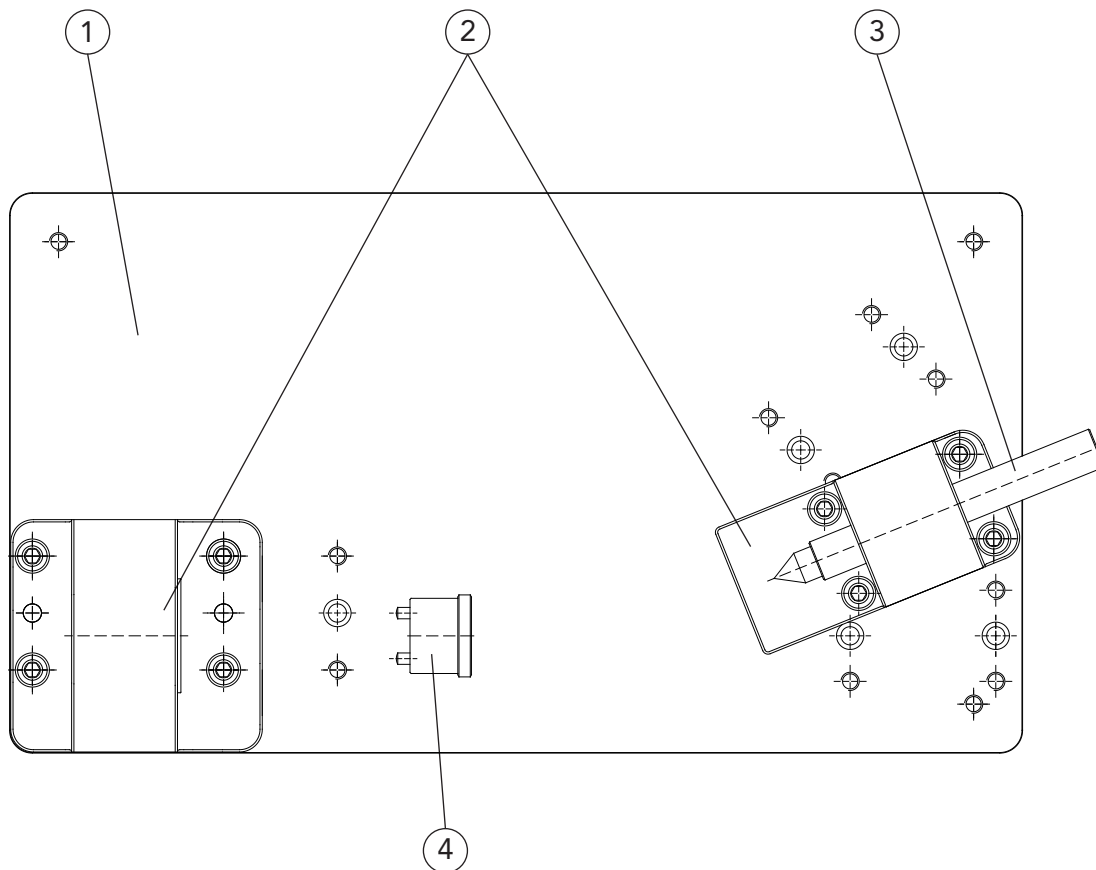


Pos.	Description	Part number	Article number
1	Checking jig, compl. (with torch adapter DIX PVP 100, support set DIX PVS 100 and set up pin DIX PVL 106, DIX PVL 108)	DIX PV 150	685300151
2	Aligning module, compl.	DIX JM 100	685305100
3	Aligning set, 390/590	DIX JS 390/590	685305230

► Variants deviating of the standard fittings on request.

Checking jig

DIX PV 150



11-00331

subject to change!

11-Robotic-Automatic-Components\J11

Pos. Description

Part number

Article number

1 Base plate

DIX PVB 150

685301151

2 Support set
(fixing and gauge support)

DIX PVS 100

685302105

3 Set up pin
(for contact tips with outside diameter: 6 mm)
Set up pin
(for contact tips with outside diameter: 8 mm)

DIX PVL 106

685302115

DIX PVL 108

685302114

4 Torch adapter

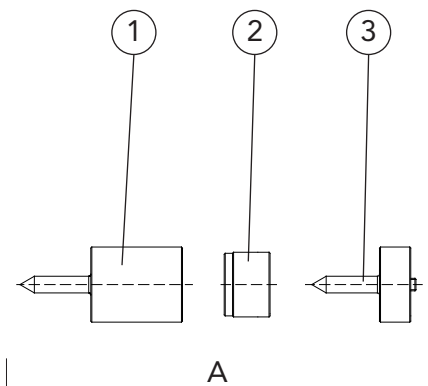
DIX PVP 100

685303112



Aligning set

DIX JS 390/590



Pos.	Description	Part number	Article number
A	Aligning set	DIX JS 390/590	685305230
1	Aligning cylinder	DIX JSZ 104	685305201
2	Aligning adapter	DIX JSA 101	685305212
3	Aligning gauge	DIX JSL 107	685305223

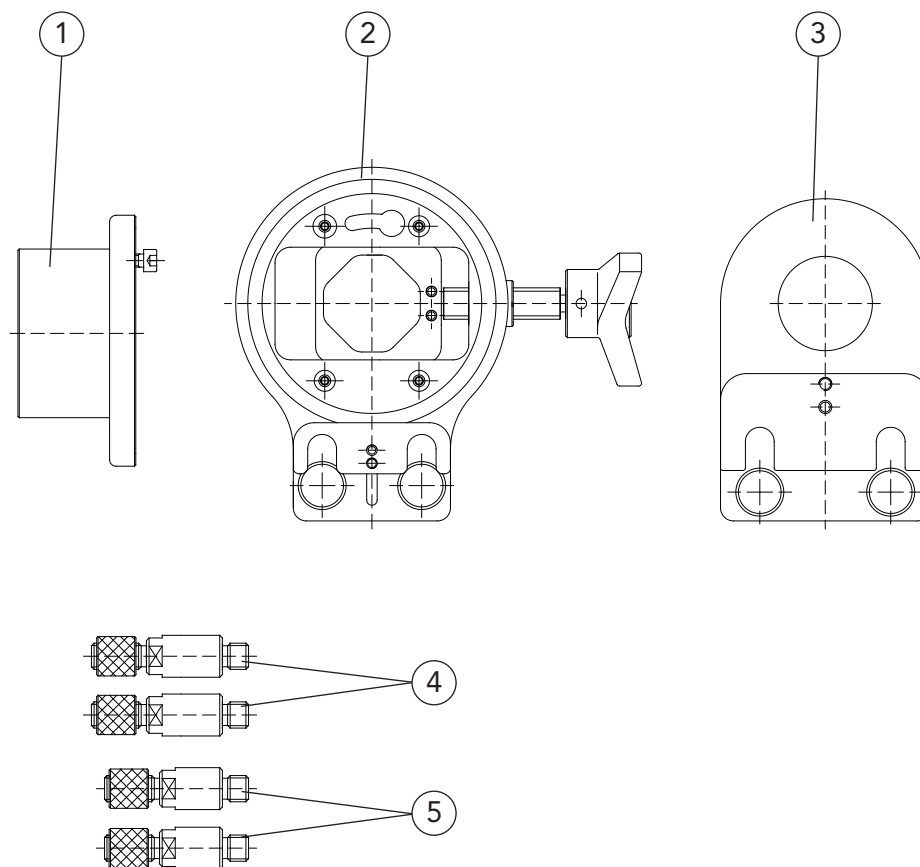
11-00332

subject to change!

11-RoboticAutomaticComponents\J11

Aligning module

DIX JM 100



Pos.	Description	Part number	Article number
1	Aligning socket	DIX JB 100	685305130
2	Aligning tool	DIX JW 100	685305110
3	Aligning bracket	DIX JH 100	685305120
4	Aligning pin - W	DIX JBW 100	685305140
5	Aligning pin - H	DIX JBH 100	685305150

11-00333

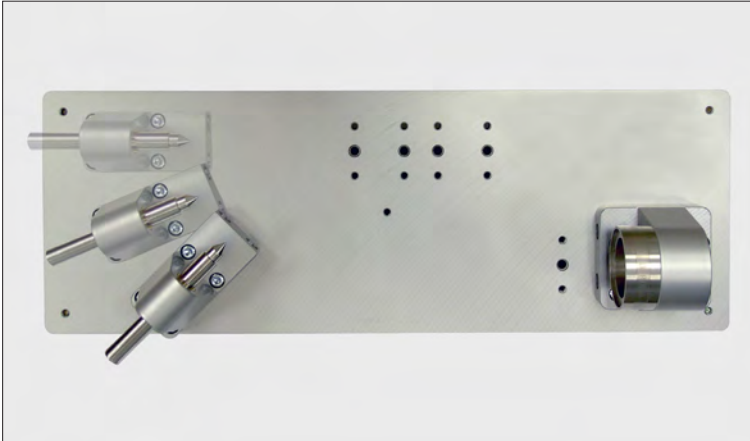
subject to change!

11-RoboticAutomaticComponents\J11

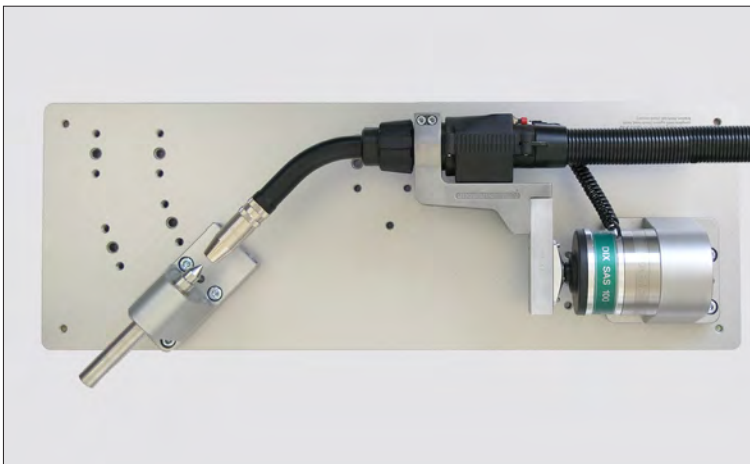


Checking jig for torch systems

DIX PV 200



Checking jig DIX PV 200



Checking jig with complete torch system, separable, torch bracket, fixed and shock sensor DIX SAS 100 (application sample)



Checking jig with complete torch system, double separable, torch bracket, PUSH-PUSH/PUSH-PULL and shock sensor DIX SAS 200 (application sample)

Technical data:

Checking jig

TCP for torch heads, 45° without offset,
with shock sensor
DIX SAS 100/200:
400 mm to robotic flange

Technical benefits:

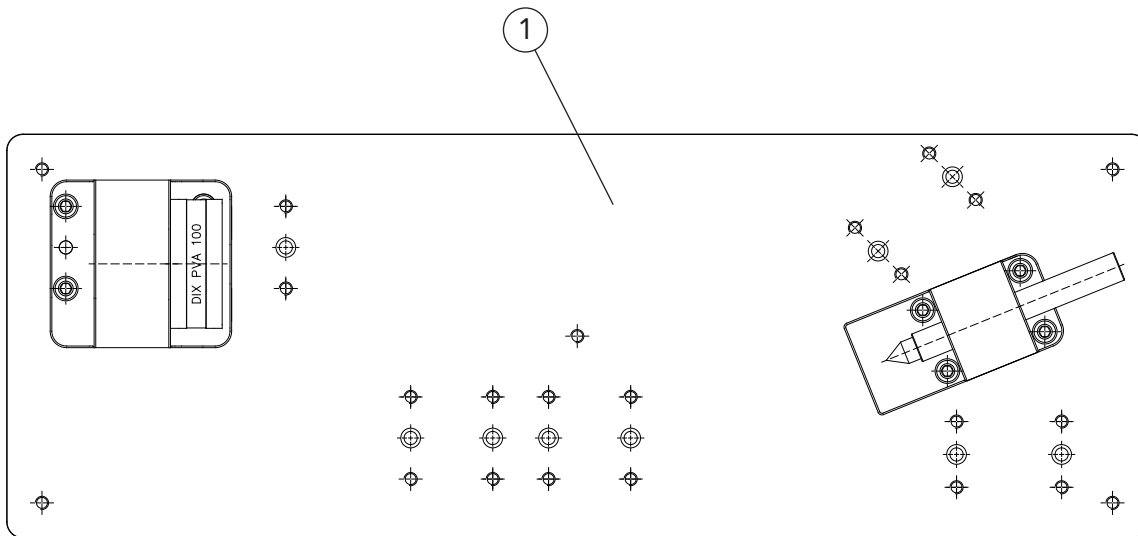
- Precise checking jig for position control of the TCP, made of a high grade aluminium alloy for a long lifetime
- Checking of the standard torch heads concerning parallelism and center of contact tip with complete system of torch set, torch bracket and shock sensor
- Bore pattern in the checking jig with standard positions for torch heads, (0°, 22°, 45°)

Application:

- For DINSE standard torch heads
gas cooled
DIX MET 350/352/354
liquid cooled
DIX METZ 520/522/524
DIX METZ 540/542/544
DIX METZ 560/562/564
DIX METZ 570/572/574
- Quality assurance in welding production

Checking jig

DIX PV 200



11-00335

subject to change!

11-Robotic-AutomaticComponents\J11

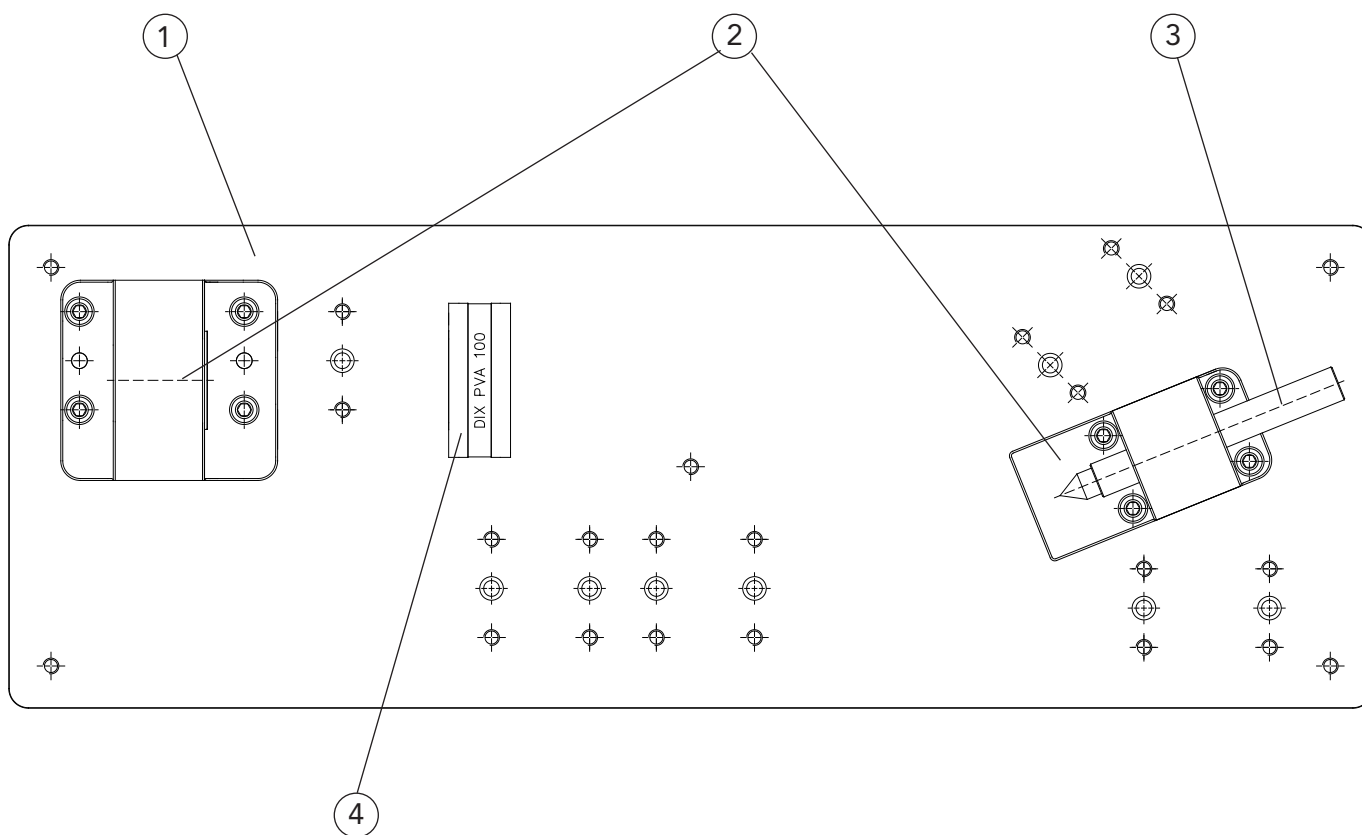
Pos.	Description	Part number	Article number
1	Checking jig, compl. (with SAS adapter DIX PVA 100, support set DIX PVS 100 and set up pins DIX PVL 106, DIX PVL 108)	DIX PV 200	685300201



► Variants deviating of the standard fittings on request.

Checking jig

DIX PV 200



Pos.	Description	Part number	Article number
1	Base plate	DIX PVB 200	685301201
2	Support set (fixing and gauge support)	DIX PVS 100	685302105
3	Set up pin (for contact tips with outside diameter: 6 mm)	DIX PVL 106	685302115
	Set up pin (for contact tips with outside diameter: 8 mm)	DIX PVL 108	685302114
4	SAS adapter	DIX PVA 100	685303160

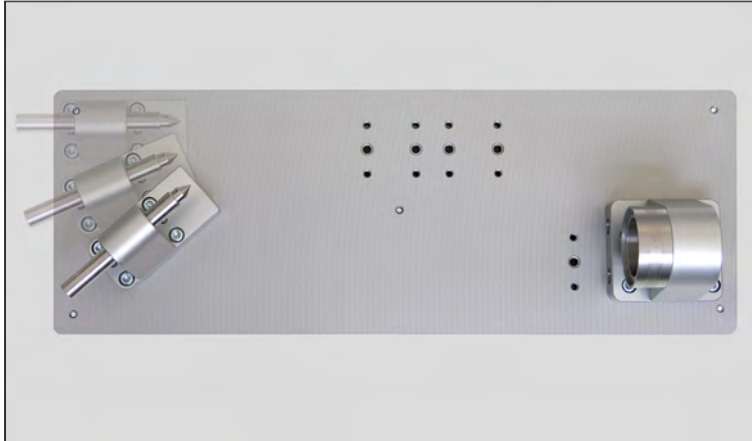
11-00336

11-Robotic-AutomaticComponents\J11 subject to change!



Checking jig for torch systems

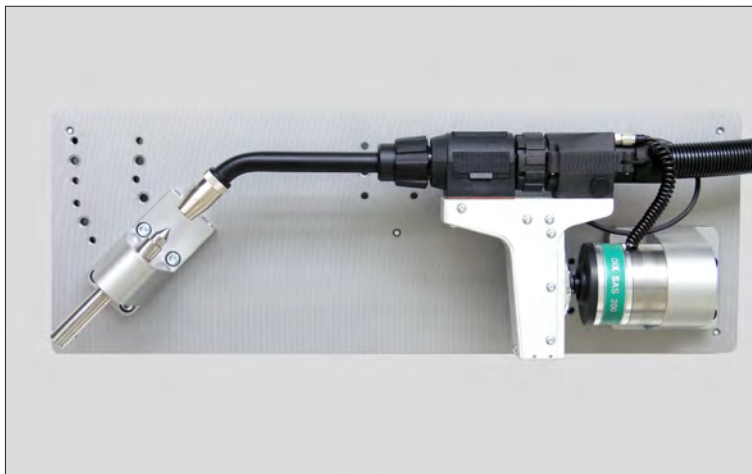
DIX PV 250



Checking jig DIX PV 250



Checking jig with complete torch system, separable, torch bracket, fixed and shock sensor DIX SAS 100 (application sample)



Checking jig with complete torch system, double separable, torch bracket, PUSH-PUSH/PUSH-PULL and shock sensor DIX SAS 200 (application sample)

Technical data:

Checking jig

TCP for torch heads, 45° with offset,
vertical: 54 mm,
with shock sensor
DIX SAS 100/200:
441 mm to robotic flange

Technical benefits:

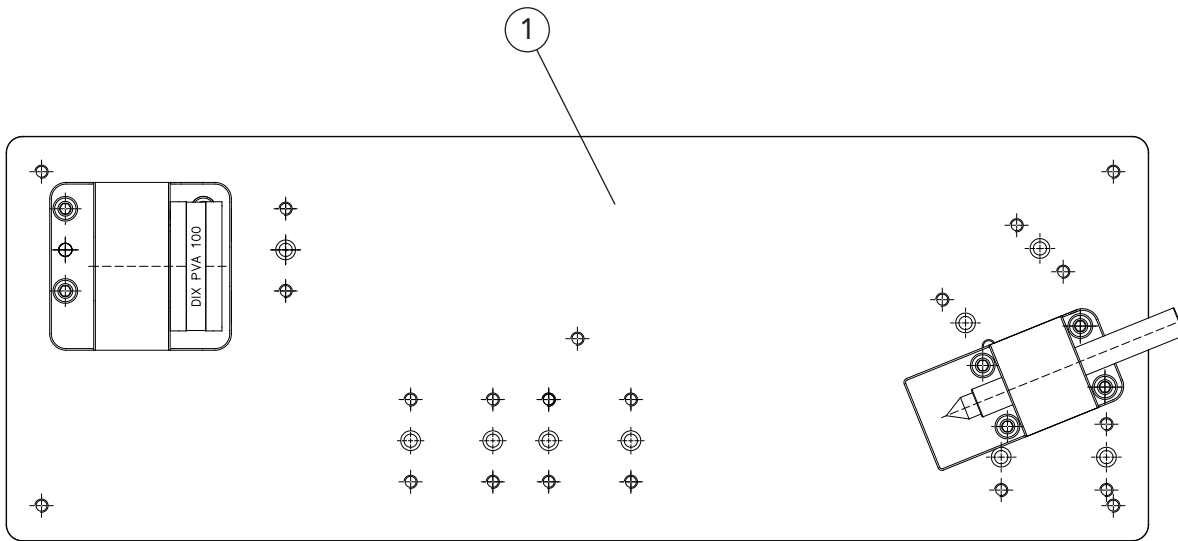
- Precise checking jig for position control of the TCP, made of a high grade aluminium alloy for a long lifetime
- Checking of the standard torch heads concerning parallelism and center of contact tip with complete system of torch set, torch bracket and shock sensor
- Bore pattern in the checking jig with standard positions for torch heads, (0°, 22°, 45°)

Application:

- For DINSE standard torch heads
gas cooled
DIX MET 390/392/394
liquid cooled
DIX METZ 590/592/594
- Quality assurance in welding production

Checking jig

DIX PV 250



11-00338

subject to change!

11-Robotic-AutomaticComponents\J11

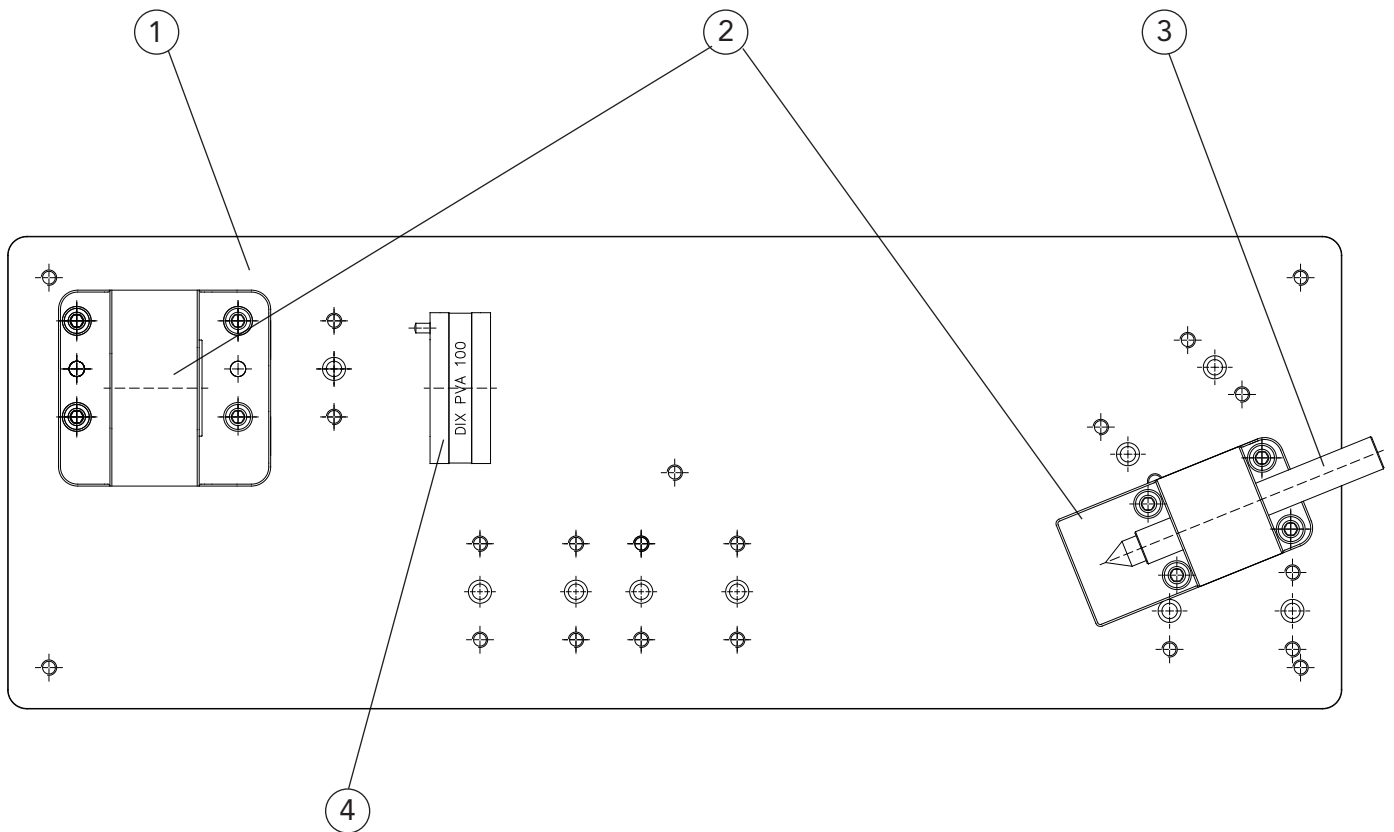
Pos.	Description	Part number	Article number
1	Checking jig, compl. (with SAS adapter DIX PVA 100, support set DIX PVS 100 and set up pins DIX PVL 106, DIX PVL 108)	DIX PV 250	685300251



► Variants deviating of the standard fittings on request.

Checking jig

DIX PV 250



Pos.	Description	Part number	Article number
1	Base plate	DIX PVB 250	685301251
2	Support set (fixing and gauge support)	DIX PVS 100	685302105
3	Set up pin (for contact tips with outside diameter: 6 mm)	DIX PVL 106	685302115
	Set up pin (for contact tips with outside diameter: 8 mm)	DIX PVL 108	685302114
4	SAS adapter	DIX PVA 100	685303160

11-00339

subject to change!

11-Robotic-Automatic-Components\J11



Torch cleaning station

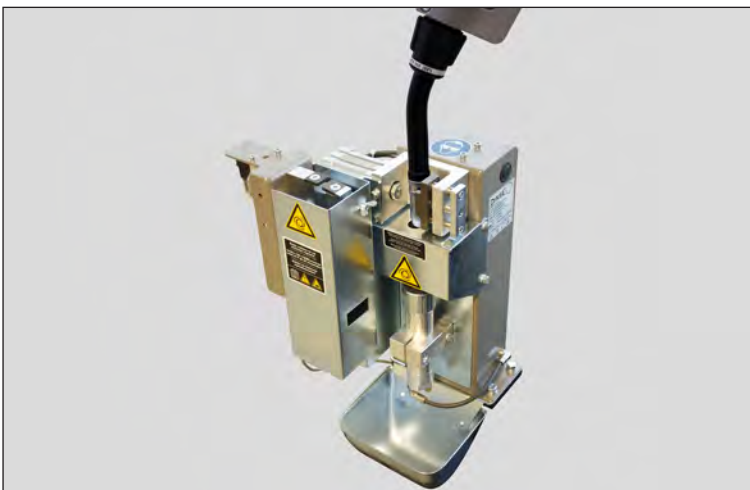
DIX PRS 600



Torch cleaning station DIX PRS 600



Optional with wire cutter DIX PRA 600 and assembly fixture DIX PRF 600



Robot with mounted DINSE torch head during the cleaning in the torch cleaning station

Technical data:

Working pressure	6 bar
Air consumption	7 l/s
Cleaning time, max	4 s
Operating voltage	24 V _{DC}
Protection class	IP 23
Dimension(L/B/H)	180/260/350 mm
Weight	9,5 kg
Power consumption	2,5 VA

Technical benefits:

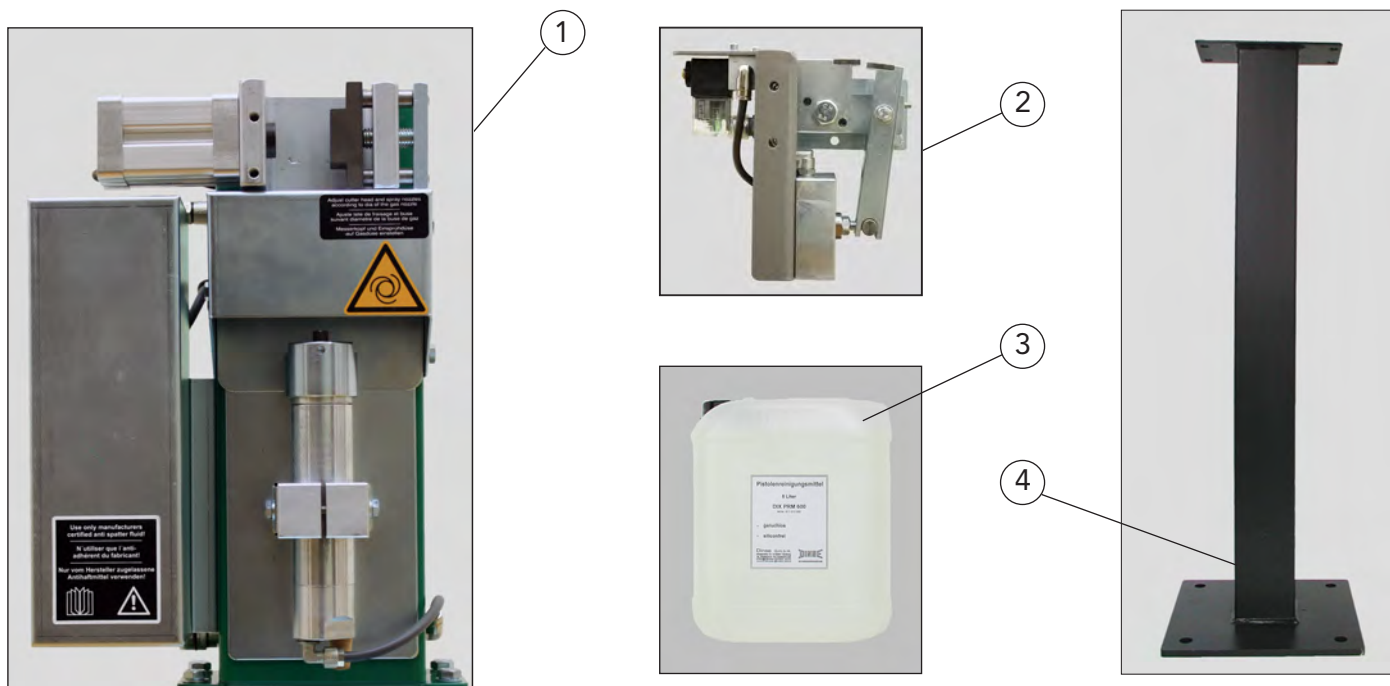
- Robust and compact design
- Precise fixing of the gas nozzle through the clamping prism
- Fast and thorough cleaning of the gas nozzle interior of welding spatters
- Constant distribution of anti-stick agent in the gas nozzle through two spraying nozzles.
- Suitable reamers for all current gas nozzles
- **Option:** wire cutter

Application:

- Perfected for DINSE robotic torch heads
- Fixing variants independent of location
- High availability of the robot through long service life of wearing parts

Torch cleaning station

DIX PRS 600



11-00341

subject to change!

11-Robotic-Automatic-Components\J11

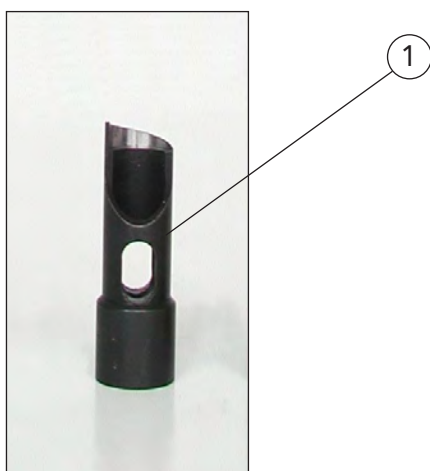
Pos.	Description	Part number	Article number
1	Torch cleaning station (with reamer)	DIX PRS 600	811012001
	Options:		
2	Wire cutter (only ready-installed available)	DIX PRA 600	811012006
3	Torch cleaning agent (5 l)	DIX PRM 600	811012002
4	Assembly fixture	DIX PRF 600	811012005

► The corresponding reamer you find in the accessories list!
Variants deviating of the standard fittings on request.



Torch cleaning station

DIX PRS 600



11-00342

subject to change!

11-RoboticAutomaticComponentsU11

Pos.	Description	Dimension A_D / I_D	Part number	Article number
1	Reamer (for DIX 1-3-5209A)	ø 8,5 / 6,2 mm	DIX PRX 650	811012050
	Reamer (for DIX 1-3-5911AK)	ø 10,5 / 8,5 mm	DIX PRX 651	811012051
	Reamer (for DIX 1-3-5212A)	ø 11,0 / 7,0 mm	DIX PRX 652	811012052
	Reamer (for DIX 1-3-5413A)	ø 12,0 / 9,0 mm	DIX PRX 653	811012053
	Reamer (for DIX 1-3-5215A, DIX 1-3-5415A, DIX 1-3-5914, DIX 1-3-5915A)	ø 14,0 / 9,0 mm	DIX PRX 654	811012054
	Reamer (for DIX 1-3-5415A, DIX KMG 115 TR)	ø 14,0 / 11,0 mm	DIX PRX 657	811012057
	Reamer (for DIX KMG 118 TR)	ø 17,0 / 11,0 mm	DIX PRX 662	811012062

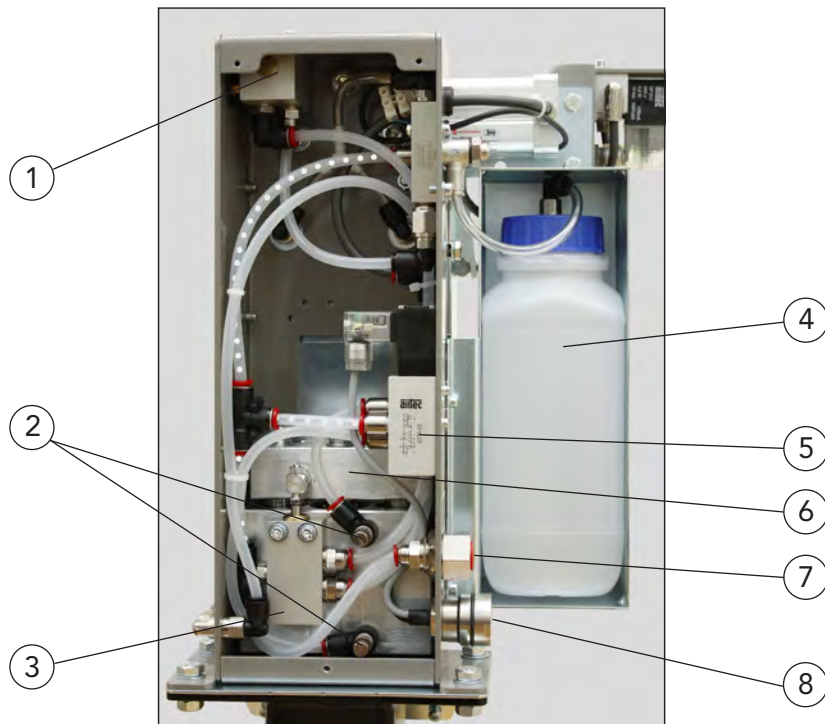
A_D - outside diameter
 I_D - inside diameter

► Other reamers on request.



Torch cleaning station

DIX PRS 600



11-00343

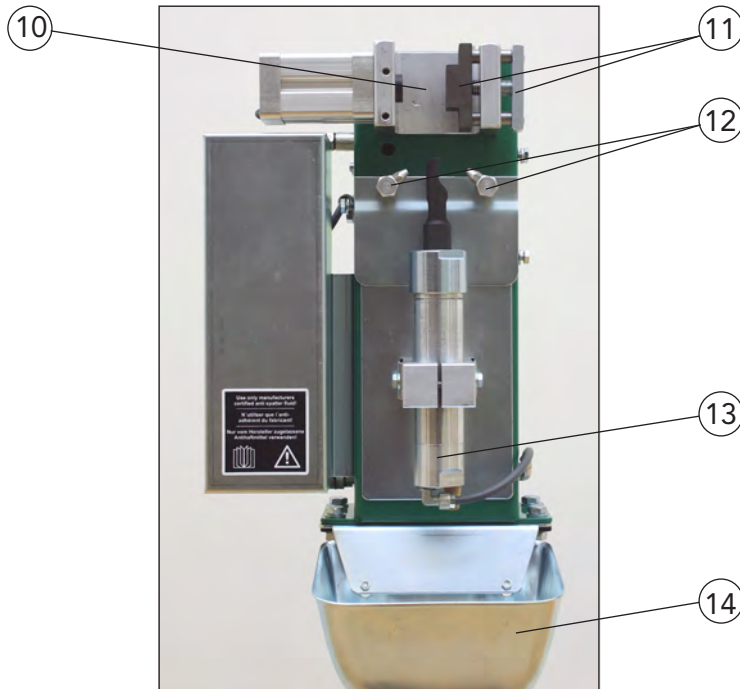
11-Robotic-Automatic-Components\J11 subject to change

Pos.	Description	Part number	Article number
1	Signal contact breaker	DIX PRX 605	811012030
2	Throttle relief valve B	DIX PRX 611	811012017
3	Distributing valve (5/2 way)	DIX PRX 608	811012014
4	Tank	DIX PRX 622	811012028
5	Solenoid valve (with hand operation)	DIX PRX 609	811012015
6	Sliding unit	DIX PRX 610	811012016
7	Air connection (1/4" complete)	DIX PRX 612	811012018
8	Socket (5 pins)	DIX PRX 613	811012019
	Plug (5 pins, without picture)	DIX PRX 614	811012020



Torch cleaning station

DIX PRS 600



Pos.	Description	Part number	Article number
10	Clamping cylinder,complete	DIX PRX 601	811012007
11	Lock, complete	DIX PRX 604	811012029
12	Spraying nozzle (without picture)	DIX PRX 621	811012027
13	Pneumatic motor	DIX PRX 615	811012021
14	Cup (with bracket)	DIX PRX 603	811012009
	Limit switch (for clamping cylinder back)	DIX PRX 602	811012008

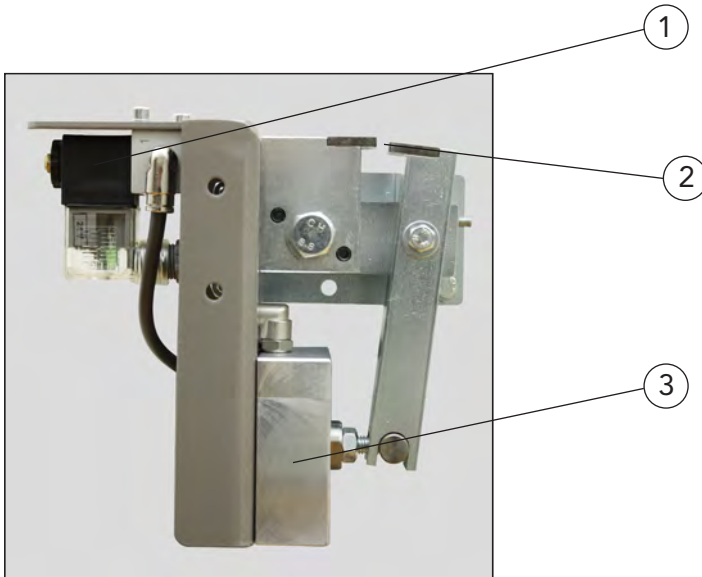
11-00344

subject to change!

11-Robotic-AutomaticComponents\J11

Wire cutter

DIX PRA 600



11-00345

subject to change!

11-Robotic-Automatic-Components\J11

Pos.	Description	Part number	Article number
1	Solenoid valve	DIX PRX 623	811012029
2	Knife	DIX PRX 620	811012026
3	Cylinder	DIX PRX 619	811012025

Air cooling unit

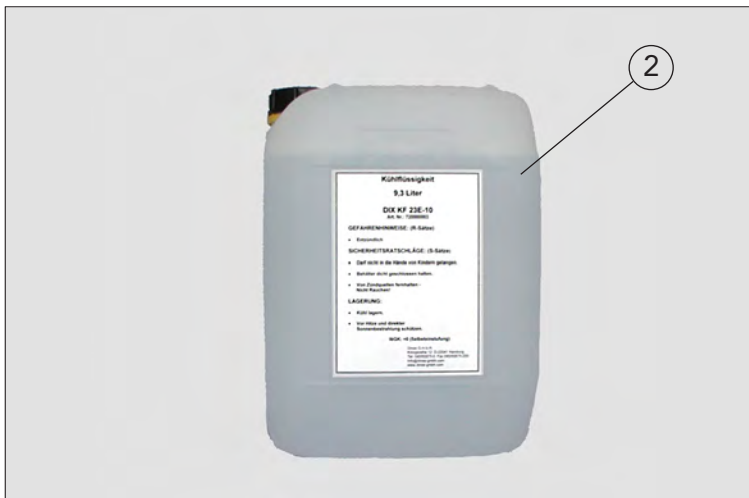
DIX UK 500



Technical data (IEC 60974-2):

Air cooling unit

Cooling process	Air Forced cooling
Supply voltage	230V / 50 Hz
Mains fuse	16 A
Protection class	IP 23
Cooling capacity	2000 W
max. coolant outlet pressure	3,5 bar
Cooling type	AF
Tank capacity	7 l
Dimensions (L/B/H)	485/390/385 mm
Weight	21 kg



Application:

- For DINSE manual, robotic and automatic torches

Pos. Description

- 1 Air cooling unit
- 2 Coolant, 9,3 l

Part number

- DIX UK 500
- DIX KF 23 E/9,3 l

Article number

- 720000002
- 720000003

Air cooling unit

DIX UK 500



11-00347

Pos. Description

Part number

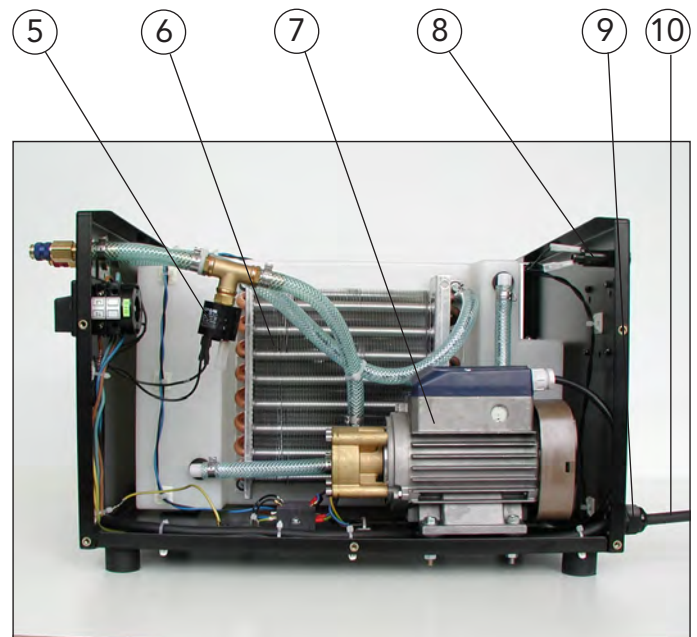
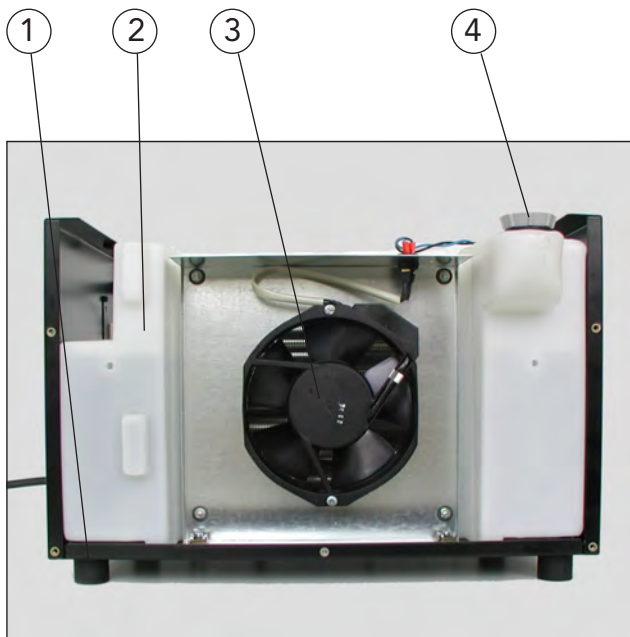
Article number

1	Cap	DIX UKX 521	720000021
2	Hand grip mount	DIX UKX 502	720000007
3	Hand grip	DIX UKX 503	720000008
4	Signal light	DIX UKX 504	720000009
5	Quick release coupling, red	DIX DV-30 RED	719300002
6	Main switch	DIX UKX 505	720000010
7	Quick release coupling, blue	DIX DV-30 BLUE	719300001

11-Robotic-AutomaticComponents\J11 subject to change!

Air cooling unit

DIX UK 500



Pos.	Description	Part number	Article number
1	Rubber foot	DIX UKX 506	720000011
2	Tank	DIX UKX 507	720000012
3	Fan	DIX UKX 508	720000013
4	Sealing cover	DIX UKX 509	720000014
5	Pressure monitor	DIX UKX 510	720000015
6	Heat exchanger	DIX UKX 511	720000016
7	Centrifugal pump	DIX UKX 512	720000017
8	Fuse (1.6A slow - blow)	DIX UKX 513	720000018
9	Cable gland	DIX UKX 514	720000019
10	Main cable	DIX UKX 515	720000020

11-00348

11-Robotic-AutomaticComponents\J11 subject to change!

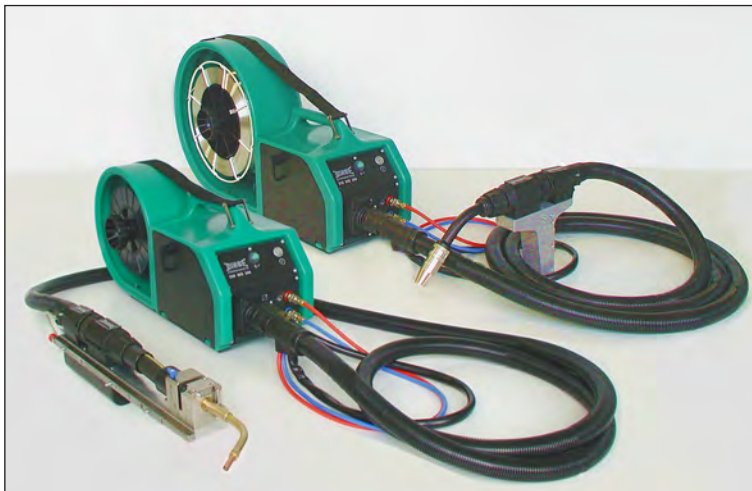
GREEN-line
for MIG/MAG, TIG, PLASMA, LASER

DIX WD 300



Options according to range of application

Model for supportive PUSH operation



Models - Laser, MIG/MAG – with DIX WDS 200/300 (PUSH-PUSH operation)



Model with wire barrel and large spool holder DIX WDS 400, power supply, control and media monitoring for the PUSH-PUSH operation

Technical data (IEC 60974-5):

Wire feeder	DIX WD 300
Speed	0 - 20 m/min
Welding current, max.	500A at 60%
Wire diameter	0.8 -1.6 mm
Operating voltage	42V/50Hz
Protection class	IP 23
Dimension (L/B/H)	275/220/250 mm
Weight	7.2 kg

Spool holder	DIX WDS 200
	DIX WDS 300
	DIX WDS 400

Technical benefits:

- Supportive PUSH operation for wire feeding through long distances
- PUSH-PUSH principle in combination with speed regulated motor in DINSE – welding torches
- Torque controlled motor with adjustable maximum torque (feed power) prevents the filler wire from snapping
- Exact wire feeding independent of twisting, bending and torch length
- For all power sources
- Light, robust and fully insulated through plastic housing

Application:

- Solid and flux-cored wires
- Non- and low alloyed steels
- High alloyed steels
- Aluminium-, magnesium-, copper- and nickel alloys
- Small to large material thicknesses

12-00349

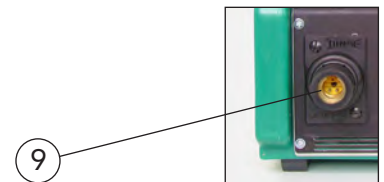
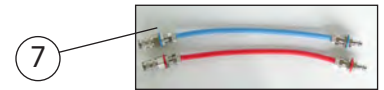
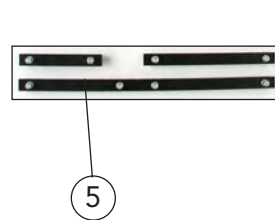
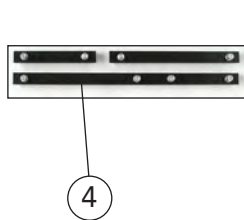
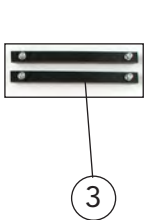
subject to change!

12-Wire feed units\J11



GREEN-line
for MIG/MAG, TIG, PLASMA, LASER

DIX WD 300



Pos.	Description	Part number	Article number
1	Wire feeder (without drive roll*)	DIX WD 300	730030000
2	Spool holder	DIX WDS 200	730520000
	Spool holder	DIX WDS 300	730530000
	Spool holder (large spool, without picture)	DIX WDS 400	730540000
Options:			
3	Slide bar set (for wire feeder DIX WD 300)	DIX WDG 100	738030000
4	Slide bar set (for wire feeder DIX WD 300 with spool holder DIX WDS 200)	DIX WDG 200	738035200
5	Slide bar set (for wire feeder DIX WD 300 with spool holder DIX WDS 300)	DIX WDG 300	738035300
6	Connection set (for connecting DIX WD 300 with DIX WDS 200/300)	DIX WDV 100	738010000
7	Water set (for liquid cooled model)	DIX WDW 100	738040000
8	Carry strap set (for manual transport of DIX WD 300 with DIX WDS 200/300)	DIX WDT 100	738020000
9	Torch connecting set (only ready-installed available)		
	Cold wire set	DIX WDA 300	738050009
	Hot wire set	DIX WDA 301	738050011
	MAG set	DIX WDA 302	738050012
	TIG set (without picture)	DIX WDA 303	738050013
	Gas solenoid valve set (without picture) (for cold wire-, hot wire- and TIG set)	DIX WDX 100	719280001

* One drive roll is required per wire diameter. Part numbers and article numbers on the drive rolls are given in the spare parts and wear parts lists, sheet 2/3.

► All sets available ready-installed on request (specify when placing an order).
Other fittings on request.

12-00350

subject to change!

12-Wire feed units U11



WIRE FEED UNITS

gas- and liquid cooled



GREEN-line for MIG/MAG, TIG, PLASMA, LASER Spool holder (large spool)

DIX WD 300

DIX WDS 400



- 1
- 2
- 3
- 4
- 5



Pos.	Description	Part number	Article number
1	Power supply unit (42V/50Hz, for DIX WDX 400 and DIX WD 300, only ready-installed with DIX WDS 400 available)	DIX NT 300	719590008
	Power supply cable (between power supply unit DIX NT 300 and wire feeder DIX WD 300, without picture)	DIX NTVK 300-0.5	719590017
	Connection set (for connecting power supply unit DIX NT 300 with DIX WDS 400, only ready-installed available, without picture)	DIX WDV 401	738010003
	Connection set (for connecting wire feeder DIX WD 300 with DIX WDS 400, only ready-installed available, without picture)	DIX WDV 400	738010002
2	Heating set (for aluminium application, only ready-installed with spool holder DIX WDS 400 available)	DIX WDX 400	730540001
	Power supply cable (between power supply unit DIX NT 300 and heating set DIX WDX 400, without picture)	DIX NTVK 300-0.5	719590017
3	Wire end set (for wire end identification, only ready-installed with spool holder DIX WDS 400 available)	DIX WDX 401	730544000
4	Transport rolls set (for spool holder DIX WDS 400, only ready-installed available)	DIX WDX 403	730544007
5	Spool adapter	DIX KSA 400	718500160
	Wire conduit hose (without picture)	DIX 20-2-303-xx	6292003xx
	Power transformer (only for wire feeder DIX WD 300, 42V/50Hz, without picture)	DIX NT 342	719590010
	Power supply cable (between power transformer DIX NT 342 and wire feeder DIX WD 300, without picture)	DIX NT 342-5.0	719590013
	Power connection set (for connecting power transformer DIX NT 342, only ready-installed with DIX WD 300 available, without picture)	DIX WDX 500	730545001
	Standard length: 4.0 m and 8.0 m. Other length on request.		

12-00351

subject to change!

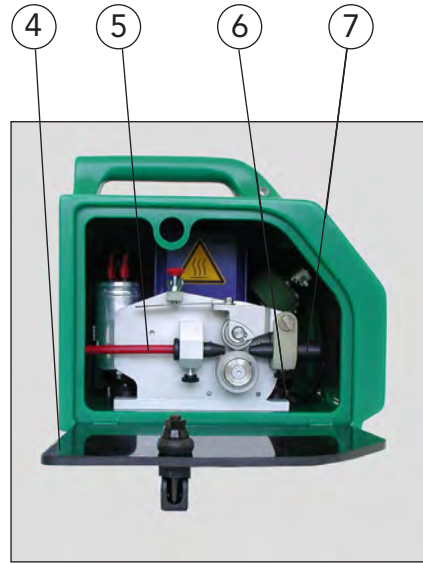
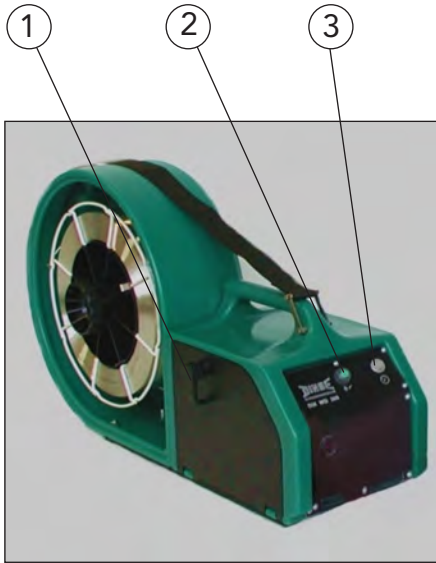
12-Wire feed units_U11



GREEN-line

DIX WD 300

for MIG/MAG, TIG, PLASMA, LASER



Drive view

Electronic view

Pos.	Description	Part number	Article number
1	Cover plate catch	DIX WD-13-400	739130000
2	Sealing cap	DIX DV-32 DK	719329000
3	Poti fixing	DIX DV-WS-005/2	71814000510
4	Cover (drive)	DIX WD-11-A	739110000
5	Intake spout	DIX 36-2 WDET	629363005
6	Screw	DIX DV-17-4000	719174000
7	Connecting adapter	DIX 36-2 DV	629363000
	Clamping sleeve (without picture)	DIX 27-2 MAP	629270041
	Clamping nut (without picture)	DIX 28-2 SA	629280040
8	Cover (electronic)	DIX WD-11 E	739110100

12-00352

subject to change!

12-Wire feed units_U11



GREEN-line

DIX WD 300

for MIG/MAG, TIG, PLASMA, LASER

Drive rolls



Description	Dimensions	Part number	Article number
-------------	------------	-------------	----------------

Type of application for steel wire electrodes:

Drive roll	∅ 0.8 mm	DIX DV-04-08/08 T	719042080
Drive roll	∅ 1.0 mm	DIX DV-04-10/10 T	719042100
Drive roll	∅ 1.2 mm	DIX DV-04-12/12 T	719042120
Drive roll	∅ 1.6 mm	DIX DV-04-16/16 T	719042160

Type of application for aluminium alloy wire electrodes:

Drive roll	∅ 0.8 mm	DIX DV-04-08/08 A	719041080
Drive roll	∅ 1.0 mm	DIX DV-04-10/10 A	719041100
Drive roll	∅ 1.2 mm	DIX DV-04-12/12 A	719041120
Drive roll	∅ 1.6 mm	DIX DV-04-16/16 A	719041160

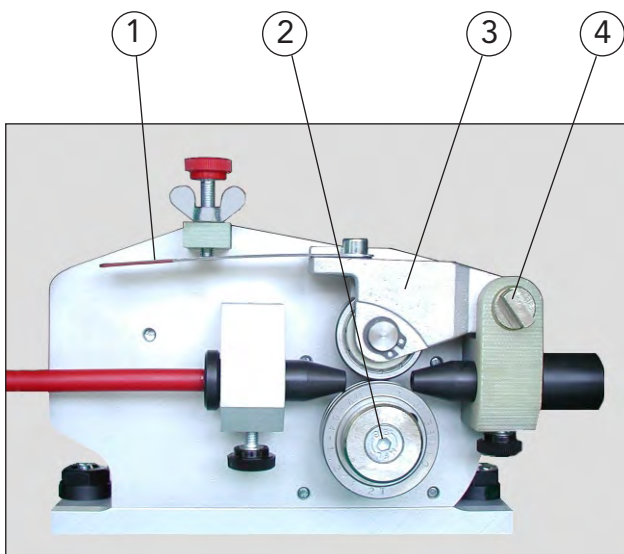
▶ One drive roll is required per wire diameter. Other diameters on request.

GREEN-line

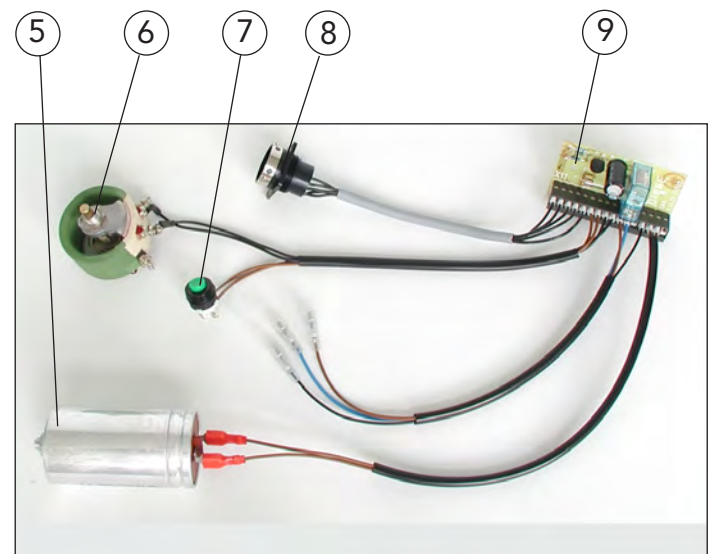
DIX WD 300

for MIG/MAG, TIG, PLASMA, LASER

Drive and wiring set



Drive



Wiring set

Pos.	Description	Part number	Article number
1	Spring plate	DIX DV-06F	71906030013
2	Holding screw (for drive roll)	DIX DV-05S	719050400
3	Pressure shackle, compl.	DIX DV-06P	719060300
4	Steering pivot pin	DIX DV-07S	719070400
5	Capacitor	DIX DV-KS 02	718130002
6	Resistor	DIX DV-WS-002/1	71814000211
7	Tipping switch	DIX DV-32	719320000
8	Mounting plug	DIX DV-37-23/burndy	719377023
9	Logic board	DIX ESLO 0202	719430202

12-00354

subject to change!

12-Wire feed units\J11



Information on the drive rolls are given in the spare parts and wear parts lists, sheet 2/3.

GREEN-line

DIX WD 300

for MIG/MAG, TIG, PLASMA, LASER

Cold wire set

DIX WDA 300

Hot wire set

DIX WDA 301

MAG set

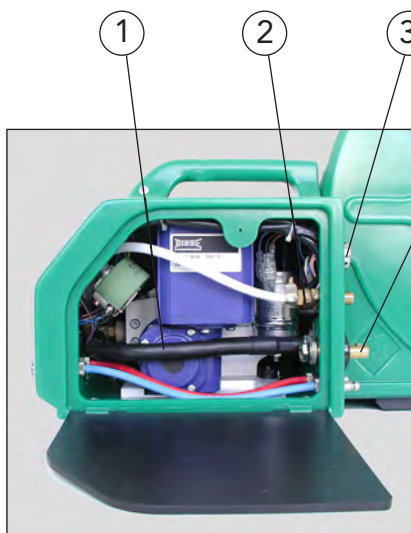
DIX WDA 302

TIG set

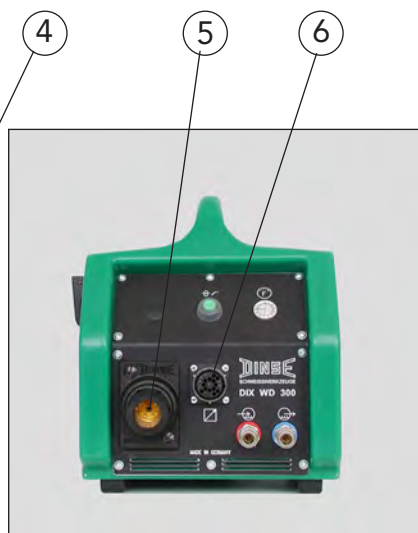
DIX WDA 303

Gas solenoid valve set

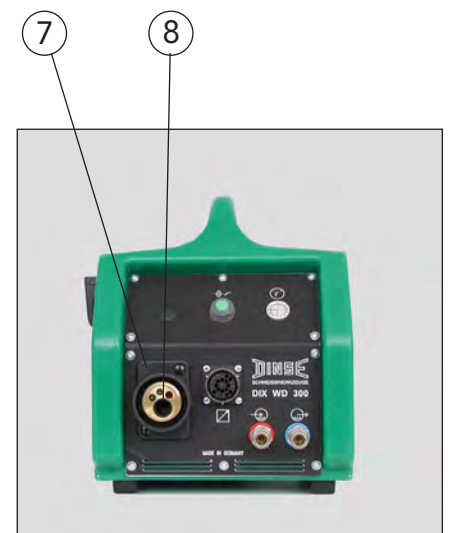
DIX WDX 100



DIX WDA 301/302/303, DIX WDX 100



DIX WDA 300/301/302



DIX WDA 303

Pos.	Description	Part number	Article number
1	Power cable	DIX DV-25-1410/095	719254141095
2	Solenoid valve	DIX GMV-42	719280042
3	Mounting plug	DIX DV-37-23/BURNDY	719377023
4	Plug	DIX SE 50/70	122300050
5	Compact socket	DIX EC 2-976 DV	650002976
6	Mounting socket	DIX DV-38-23/BURNDY	719387023
7	Front plate	DIX FP 977	659060977
8	SA - socket	DIX SAB 3-002 TIG	650103002

12-00355

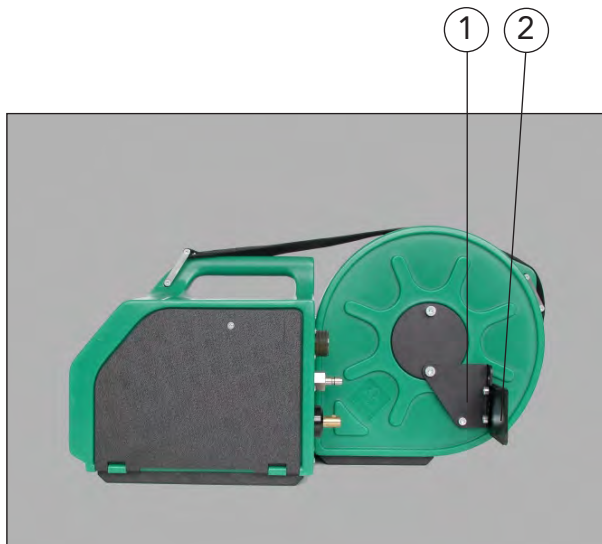
subject to change!

12-Wire feed units_U11

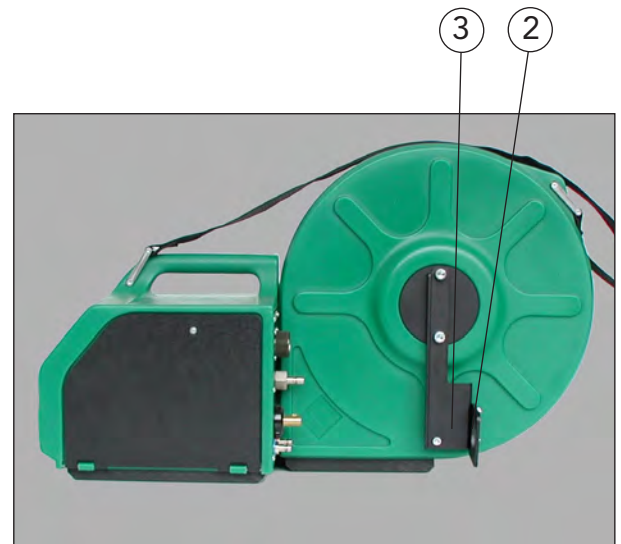


Spool holder

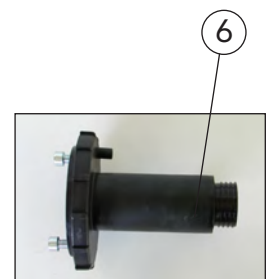
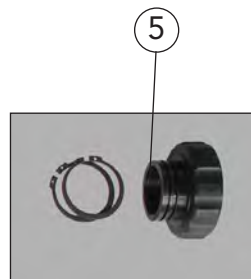
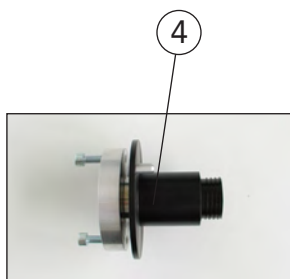
DIX WDS 200
DIX WDS 300



Wire feeder with DIX WDS 200



Wire feeder with DIX WDS 300



Pos.	Description	Part number	Article number
1	ZS - support	DIX WDS-23-120	739230120
2	ZS - supporting plate	DIX WDS-23-200	739230200
3	ZS - support	DIX WDS-23-130	739230130
4	Spool mandrel	DIX WDS-19-200	739190020
5	Spool nut (for DIX WDS 200/300)	DIX DV-24-2400	719242400
6	Spool mandrel	DIX WDS-19-300	739190030
	Spool holder cover (transparent, DIX WDS 200)	DIX WDS-11-200	739115200
	Spool holder cover (transparent, DIX WDS 300)	DIX WDS-11-300	739115300

12-00356

subject to change!

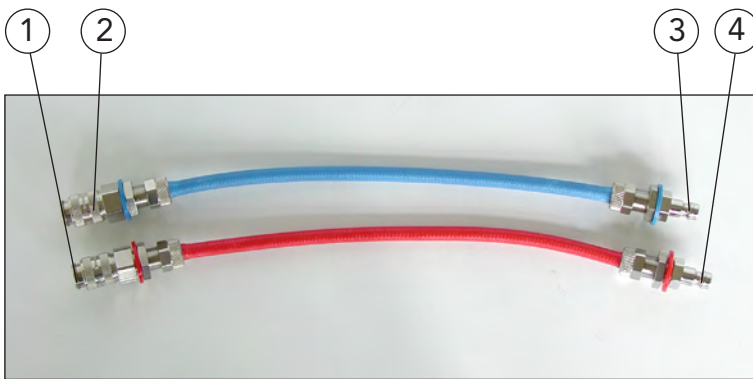
12-Wire feed units_U11

Spare parts and wear parts
WIRE FEED UNITS
 gas- and liquid cooled

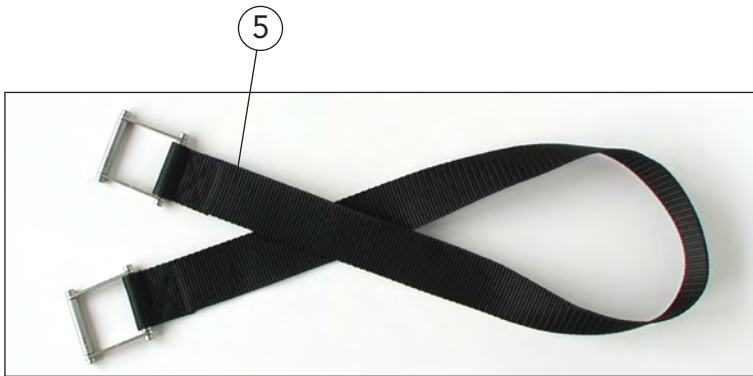


Water set
Carry strap set

DIX WDW 100
DIX WDT 100



Water set



Carry strap set

Pos.	Description	Part number	Article number
1	Plug coupling	DIX WD-30 RED	739300002
2	Plug coupling	DIX WD-30 BLUE	739300001
3	Water plug	DIX WD-26 BLUE	739260001
4	Water plug	DIX WD-26 RED	739260002
5	Carrying belt	DIX WDT 100/01	73802000011

12-00357

subject to change!

12-Wire feed units_U11



GREEN-line

DIX WD 400

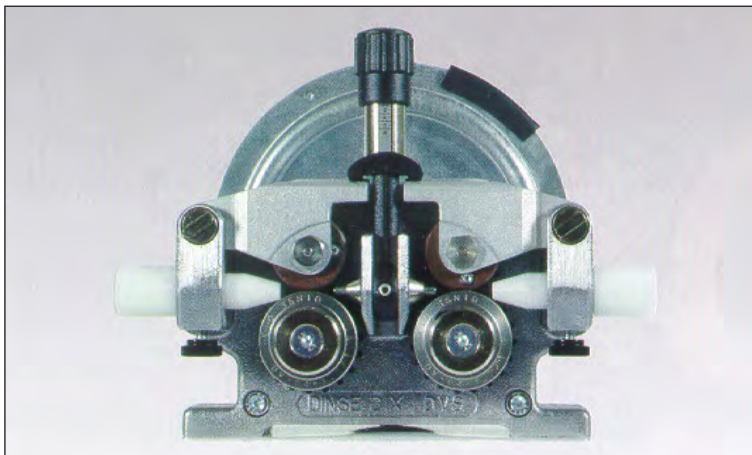


Options according to range of application

Alternate housing for spool diameter 200 / 300 mm



Front view with control elements



DINSE disk motor

Technical data (IEC 60974-5):

Wire feeder	DIX WD 400
Speed	0 - 20 m/min
Welding current, max.	500A / 60% duty cycle
Wire diameter	0.8 -1.6 mm
Switching mode	2 cycle / 4 cycle
Open circuit voltage, max.	$U_0=113$ V
Protection class	IP 23
Dimension (L/B/H)	275/220/250 mm
Weight	7.2 kg
Spool holder	DIX WDS 200 DIX WDS 300

Technical benefits:

- Light, robust and fully insulated through plastic housing
- Long lasting without maintenance intervals through disk motor
- Uniform and powerful torque across the entire speed range
- Compatible with all common power sources
- Perfected through DINSE MIG/MAG welding torches

Application:

- Solid and flux-cored wires
- Non- and low alloyed steels
- High alloyed steels
- Aluminium, magnesium, copper- and nickel alloys
- Small to large material thicknesses

12-00358

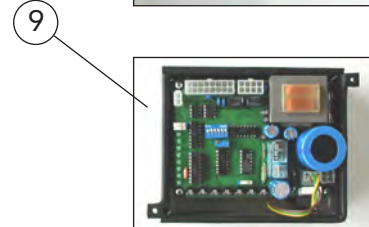
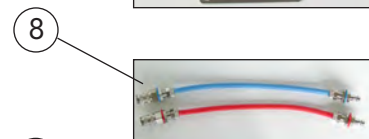
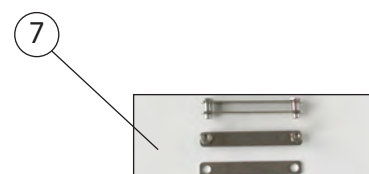
subject to change!

12-Wire feed units U11



GREEN-line

DIX WD 400



Pos.	Description	Part number	Article number
1	Wire feeder (without drive rolls*)	DIX WD 400	730040000
2	Spool holder	DIX WDS 200	730520000
3	Spool holder	DIX WDS 300	730530000

Options:

4	Slide bar set (for wire feeder DIX WD 400)	DIX WDG 100	738030000
5	Slide bar set (for wire feeder DIX WD 400 with spool holder DIX WDS 200)	DIX WDG 200	738035200
6	Slide bar set (for wire feeder DIX WD 400 with spool holder DIX WDS 300)	DIX WDG 300	738035300
7	Connection set (for connecting DIX WD 400 with DIX WDS 200/300)	DIX WDV 100	738010000
8	Water set (for liquid cooled model)	DIX WDW 100	738040000
9	Control set (independent of welding machine electronic module, available ready-installed only in the wire feeder)	DIX WDE 400	737040000
10	Carry strap set (for manual transport of DIX WD 400 with DIX WDS 200/300)	DIX WDT 100	738020000

* Two drive rolls are required per wire diameter. Part numbers and article numbers on the drive rolls are given in the spare parts and wear parts lists, sheet 2/3.

► All sets available ready-installed on request (specify when placing an order).
Other fittings on request.

12-00359

subject to change!

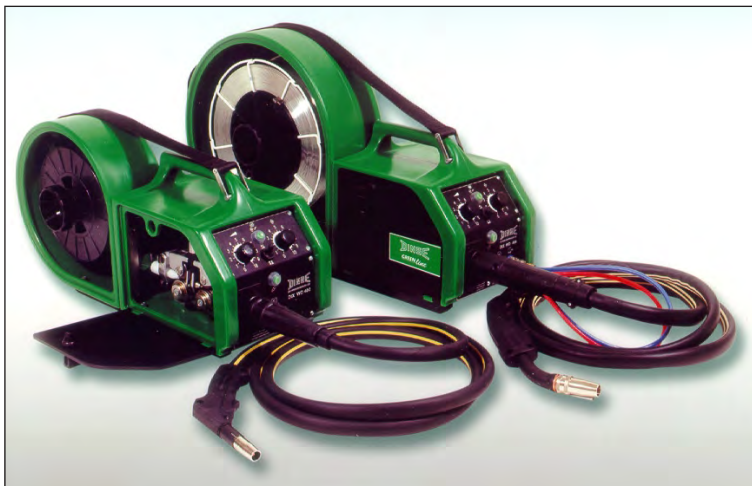
12-Wire feed units U11



GREEN-line

DIX WD 400

Torch sets and intermediate hose packages



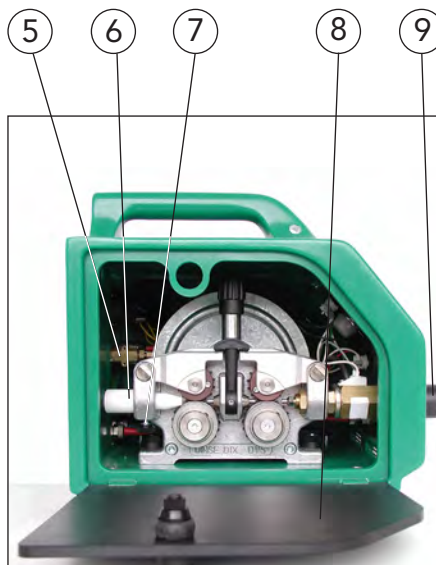
Description	Part number	Article number
Gas cooled:		
Torch set	DIX MG 230-x	61020231x0
Torch set	DIX MS 230-x	61021231x0
Torch set	DIX MG 330-x	62020331x0
Torch set	DIX MS 330-x	62021331x0
Torch set, (for change heads)	DIX MDW 300-x	6202473x0
Torch set, (for PUSH - PULL with change heads)	DIX MPW 300-x	6202773x0
Intermediate hose package	DIX ZS 70-x	7184074xx
Liquid cooled:		
Torch set	DIX MSZ 300-x	62011311x0
Torch set	DIX MGZ 300-x	62011321x0
Torch set	DIX MGZ 330-x	62030331x0
Torch set	DIX MSZ 330-x	62031331x0
Torch set	DIX MSZ 302-x	6203142x0
Torch set	DIX MSZ 304-x	6203143x0
Torch set	DIX MSZ 306-x	6203163x0
Torch set, (PUSH - PULL)	DIX MPZ 304-x	6201714x40
Intermediate hose package	DIX ZSZ 70-x	7184174xx

x - Standard lengths: 3.0 and 4.0 m, PUSH-PULL: 4.0 and 8.0 m, intermediate hose package: 5.0 and 10.0 m (specify when placing an order). Other lengths on request.

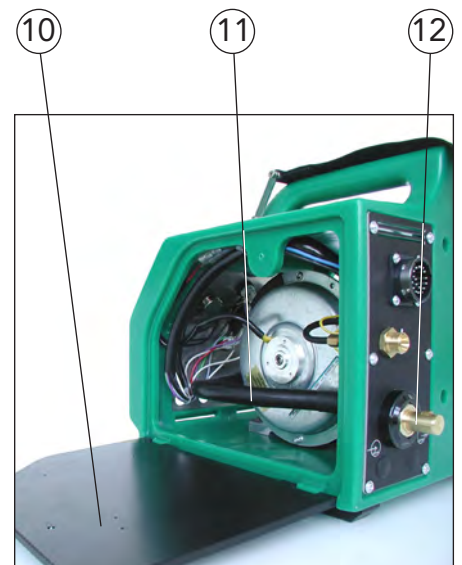
► For more information on these welding torch sets, see the spare parts and wear parts lists.

Wire feeder

DIX WD 400



Drive view



Electronic view

Pos.	Description	Part number	Article number
1	Cover plate catch	DIX WD-13-400	739130000
2	Adjustment knob	DIX DV-34-9001	719349001
3	Sealing cap	DIX DV-32 DK	719329000
4	Sealing cap	DIX DV-33 DK	719339001
5	Solenoid valve (without picture)	DIX GMV-42	719280042
6	Intake spout	DIX 36-2-DVET/L	629363250
7	Screw	DIX DV-17-4000	719174000
8	Cover (drive)	DIX WD-11-A	739110000
9	Compact socket, compl.	DIX EC 2-976 DV	650002976
10	Cover (electronic)	DIX WD-11-E	739110100
11	Power cable	DIX DV-25-1410/095	719254141095
12	Plug	DIX SE 50/70	122300050

12-00361

subject to change!

12-Wire feed units\J11



Wire feeder

DIX WD 400

Drive rolls



Description	Dimensions	Part number	Article number
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Type of application for steel wire electrodes:

Drive roll	∅ 0.8 mm	DIX DV-04-08/08 T	719042080
Drive roll	∅ 1.0 mm	DIX DV-04-10/10 T	719042100
Drive roll	∅ 1.2 mm	DIX DV-04-12/12 T	719042120
Drive roll	∅ 1.6 mm	DIX DV-04-16/16 T	719042160

Type of application for aluminium alloy wire electrodes:

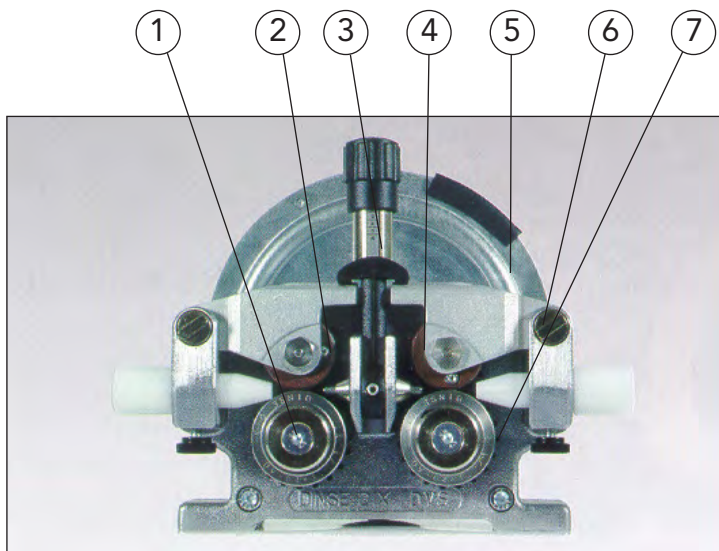
Drive roll	∅ 0.8 mm	DIX DV-04-08/08 A	719041080
Drive roll	∅ 1.0 mm	DIX DV-04-10/10 A	719041100
Drive roll	∅ 1.2 mm	DIX DV-04-12/12 A	719041120
Drive roll	∅ 1.6 mm	DIX DV-04-16/16 A	719041160

▶ Two drive rolls are required per wire diameter. Other diameters on request.

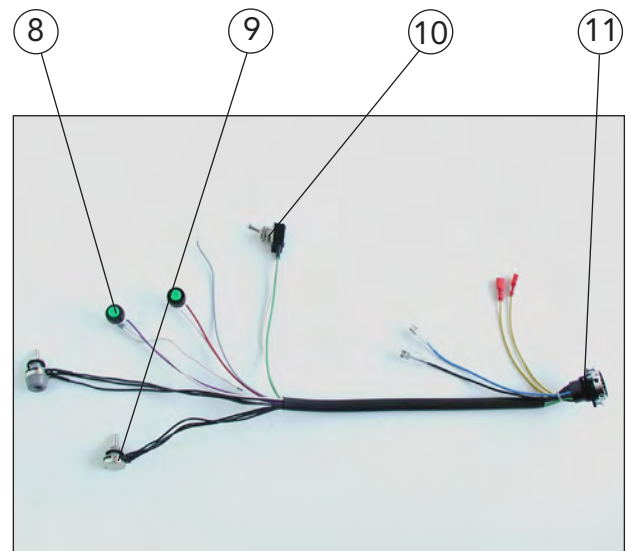
Wire feeder

DIX WD 400

Drive and wiring set



Drive



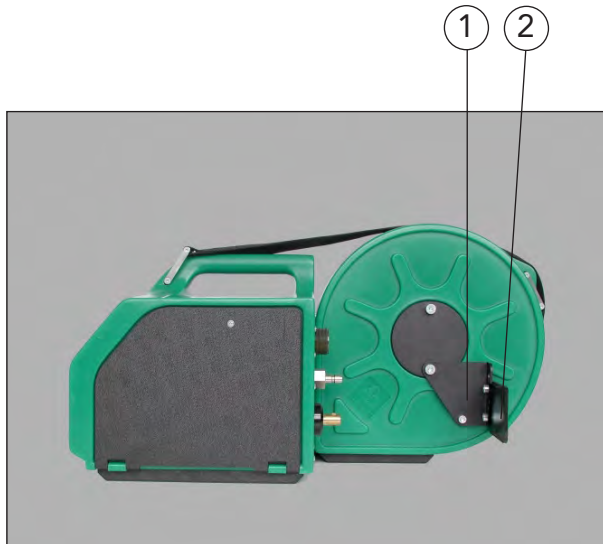
Wiring set

Pos.	Description	Part number	Article number
1	Holding screw (for drive rolls*)	DIX DV-05S	719050400
2	Pressure shackle, left	DIX DV-06 ST left	719063401
3	Stirrup lock	DIX DV-08 S	719080400
4	Pressure shackle, right	DIX DV-06 ST right	719063402
5	Gear motor	DIX DV-02 S	719020400
6	Steering pivot pin	DIX DV-07 S	719070400
7	Gearwheel shim (2x available, from drive roll covered)	DIX DV-09 S	719090400
8	Tipping switch (2x available)	DIX DV-32	719320000
9	Potentiometer (2x available)	DIX DV-35-10	719350010
10	Toggle switch	DIX DV-33-cycle	719330001
11	Mounting plug	DIX DV-37-23/burndy	719377023
	Base	DIX WD-35/1	739351001

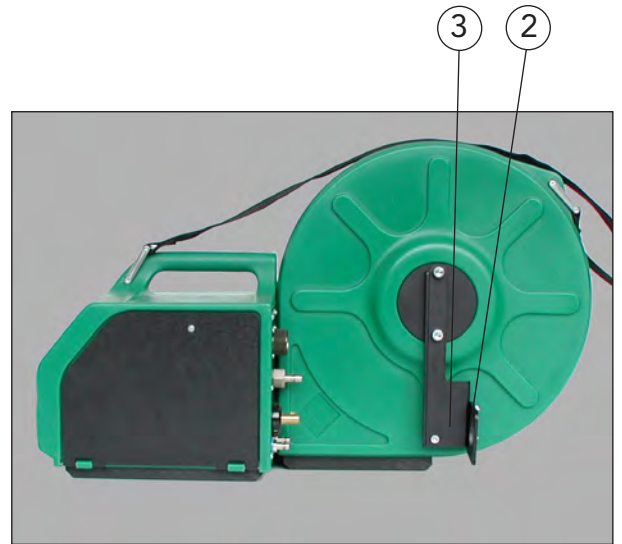
Information on the drive rolls are given in the spare parts and wear parts lists, sheet 2/3.

Spool holder

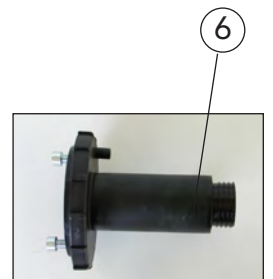
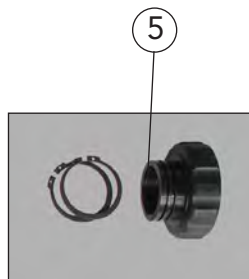
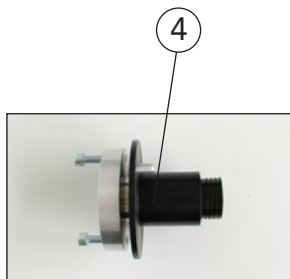
DIX WDS 200
DIX WDS 300



Wire feeder with DIX WDS 200



Wire feeder with DIX WDS 300



Pos.	Description	Part number	Article number
1	ZS - support	DIX WDS-23-120	739230120
2	ZS - supporting plate	DIX WDS-23-200	739230200
3	ZS - support	DIX WDS-23-130	739230130
4	Spool mandrel	DIX WDS-19-200	739190020
5	Spool nut (for DIX WDS 200/300)	DIX DV-24-2400	719242400
6	Spool mandrel	DIX WDS-19-300	739190030
	Spool holder cover (transparent, DIX WDS 200/300)	DIX WDS-11-200	739115200
	Spool holder cover (transparent, DIX WDS 300/300)	DIX WDS-11-300	739115300

12-00364

subject to change!

12-Wire feed units\J11



Spare parts and wear parts

WIRE FEED UNITS

gas- and liquid cooled MIG/MAG



Water set

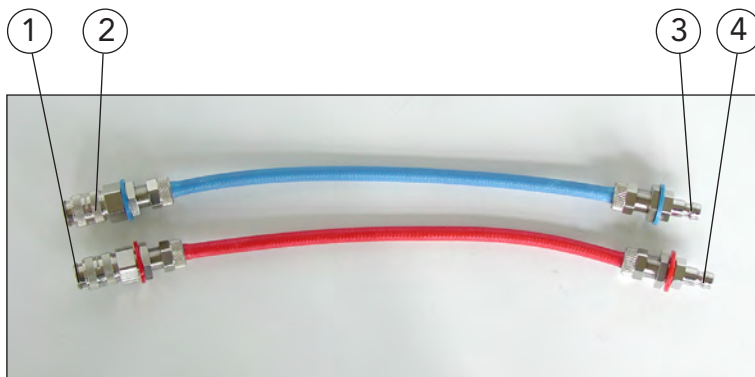
Control set

Carry strap set

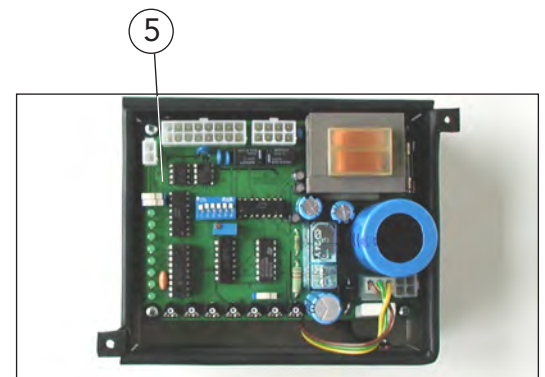
DIX WDW 100

DIX WDE 400

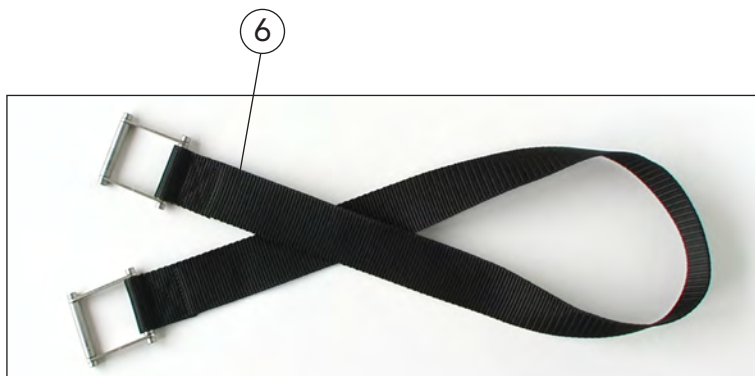
DIX WDT 100



Water set



Control set



Carry strap set

Pos.	Description	Part number	Article number
1	Plug coupling	DIX WD-30 RED	739300002
2	Plug coupling	DIX WD-30 BLUE	739300001
3	Water plug	DIX WD-26 BLUE	739260001
4	Water plug	DIX WD-26 RED	739260002
5	PC-board (with transistor)	DIX ESMO 0110	719420110
	Transistor (without picture, control set)	DIX ESMO 0110/01	71942011011
	Power cable (without picture, control set)	DIX WDE-25	739251000
6	Carrying belt	DIX WDT 100/01	73802000011

12-00365

subject to change!

12-Wire feed units_U11

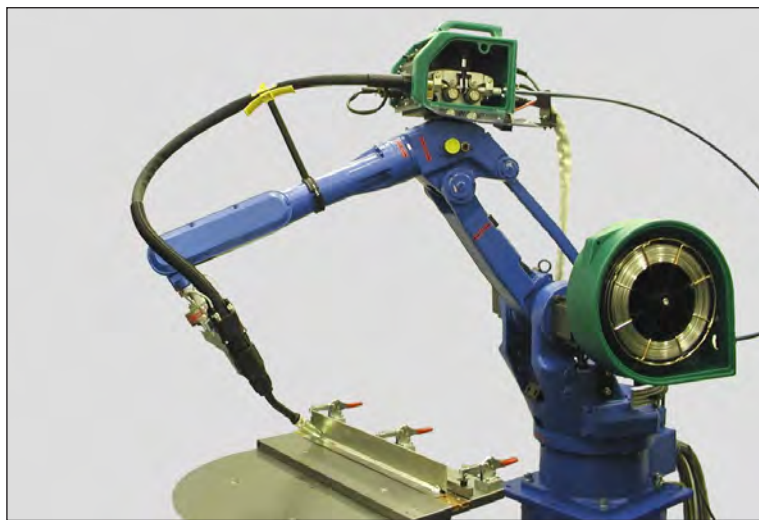


GREEN-line

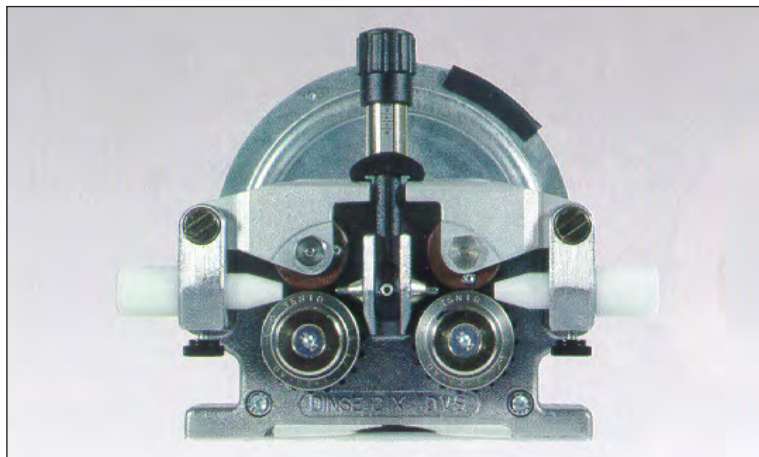
DIX WD 450



Drive view



Complete wire feed system



DINSE disk motor

Technical data (IEC 60974-5):

Wire feeder

Speed	0 - 20 m/min
Welding current, max.	500A / 60% duty cycle
Wire diameter	0.8 - 1.6 mm
Flat wire width:	3,5 - 4,5 mm
Dimensions thickness:	0.5 - 0.7 mm
Open circuit voltage, max. U_0	=113 V
Protection class	IP 23
Dimension (L/B/H)	275/220/250 mm
Weight	7.2 kg

Spool holder DIX WDS 300

Technical benefits:

- Light, robust and fully insulated through plastic housing
- Long lasting without maintenance intervals through disk motor
- Uniform and powerful torque across the entire speed range
- Compatible with all common power sources
- Perfected through DINSE MIG/MAG welding torches

Application:

- Round- and flat wires
- Solid and flux-cored wires
- Non- and low alloyed steels
- High alloyed steels
- Aluminium, magnesium, copper- and nickel alloys
- Small to large material thicknesses

12-00366

subject to change!

12-Wire feed units U11



GREEN-line
for TIG, PLASMA

DIX WD 500



Options according to range of application
Alternate housing for spool diameter 200 / 300mm



Front view with control elements



Complete system with DINSE TIG - welding torch

Technical data (IEC 60974-5):

Wire feeder

Speed	0 - 20 m/min
Wire diameter	0.8 - 1.2 mm
Welding current, max.	500A/60% ED
Welding voltage	see welding unit
Operating voltage, max.	42V/50 Hz
Power consumption	120VA
Switching mode	2 cycle/4 cycle
Protection class	IP 23
Dimension (L/B/H)	275/220/250 mm
Weight	7.2 kg

Spool holder

DIX WDS 200
DIX WDS 300

Technical benefits:

- ▶ Continuous wire feeding with adjustable reverse at stop
- ▶ For manual and mechanized applications (able to external set values)
- ▶ Light, robust and fully insulated through plastic housing
- ▶ For all energy sources
- ▶ Perfected through Dinse TIG-welding torches with integrated wire feeding

Option:

- ▶ Pulsed wire feeding with adjustable frequency of 1-10 Hz

Application:

- ▶ Solid and flux-cored wires
- ▶ Non- and low alloyed steels
- ▶ High alloyed steels
- ▶ Aluminium-, magnesium-, copper- and nickel alloys
- ▶ Small to large material thicknesses

12-00367

subject to change!

12-Wire feed units_U11



Standard fittings
WIRE FEED UNITS
 gas- and liquid cooled



GREEN-line
 for TIG, PLASMA

DIX WD 500



4

5

6

Pos.	Description	Part number	Article number
1	Wire feeder (without drive rolls*)	DIX WD 500	730050000
2	Spool holder	DIX WDS 200	730520000
3	Spool holder	DIX WDS 300	730530000
Options:			
4	Slide bar set	DIX WDG 100	738030000
5	Slide bar set (for wire feeder DIX WD 500 with spool holder DIX WDS 200)	DIX WDG 200	738035200
6	Slide bar set (for wire feeder DIX WD 500 with spool holder DIX WDS 300)	DIX WDG 300	738035300
7	Connection set (for connecting wire feeder with spool holder)	DIX WDV 100	738010000
8	Water set (for liquid cooled model)	DIX WDW 100	738040000
9	Carry strap set (for manual transport of wire feeder with spool holder)	DIX WDT 100	738020000

* Two drive rolls are required per wire diameter. Part numbers and article numbers on the drive rolls are given in the spare parts and wear parts lists, sheet 2/3.

► All sets available ready-installed on request (specify when placing an order).
 Other fittings on request.

12-00368

subject to change!

12-Wire feed units U11



WIRE FEED UNITS

gas- and liquid cooled



GREEN-line

for TIG, PLASMA

DIX WD 500



Pos.	Description	Part number	Article number
1	Wire conduit hose (without picture)	DIX VLM 201-3,0	629201230
2	Liner (Ø 2,2mm/3,5m, without picture)	DIX DS 4/2.2-3.5	623000335
3	Power transformer (42V/50Hz, without picture)	DIX NT 342	719590010
4	Power cable (between power transformer and wire feeder, without picture)	DIX NT 342-5.0	719590013
5	Power connection set (for power transformer DIX NT 342, without picture)	DIX WDX 500	730545001
6	Wire pulse set (for continuous and pulsed wire feeding, without picture)	DIX WDP 511	738050017
7	Wire - pulse - TIG set (for continuous and pulsed wire feeding, with integrated torch connecting set, without picture)	DIX WDP 510	738050020
8	Connecting cable (for supply voltage, start/stop and set values, without picture)	DIX WDAK 500-5.0	738090013
9	TIG - Torch set	DIX TCZ 400-3.0 SAZ	6401004031
10	Intermediate hose package (between wire feeder and power source, without picture)	DIX ZSZ 70-x WIG	7184173xx

x Standard length: 5.0 m. Other lengths on request.

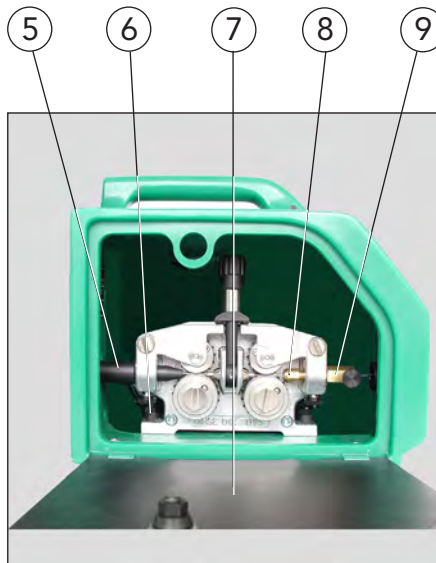
► All sets available only ready - installed.

For wire feeding use cold wire sets DIX KD 400 (Article number: 648540001) or DIX KDZ 400 (Article number: 648540003).

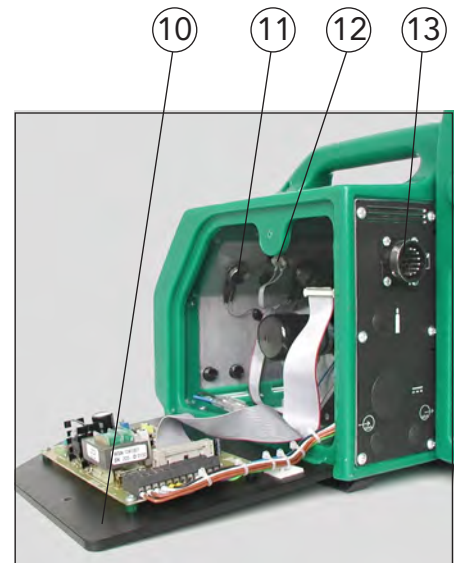


**GREEN-line
for TIG, PLASMA**

DIX WD 500



Drive view



Electronic view

12-00370

subject to change!

12-Wire feed units_U11

Pos.	Description	Part number	Article number
1	Cover plate catch	DIX WD-13-400	739130000
2	Adjustment knob	DIX DV-34-9001	719349001
3	Sealing cap	DIX DV-32 DK	719329000
4	Clamp adapter	DIX DV-29/9	719290009
5	Intake spout	DIX 36-2-DVET/L	629363250
6	Screw	DIX DV-17-4000	719174000
7	Cover (drive)	DIX WD-11-A	739110000
8	Clamping nut	DIX 28-2 SA	629280040
	Clamping sleeve (without picture)	DIX 27-2 MAP	629270041
9	Connecting adapter	DIX 36-2-DV	629363000
10	Cover (electronic)	DIX WD-11-E	739110100
11	Potentiometer (2x available)	DIX DV-35-10	719350010
12	Tipping switch	DIX DV-32	719320000
13	Mounting plug	DIX DV-37-23/Burndy	719377023

GREEN-line
for TIG, PLASMA

DIX WD 500

Drive rolls



12-00371

Description	Dimensions	Part number	Article number
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Typ of application for steel wire electrodes:

Drive roll	∅ 0.8 mm	DIX DV-04-08/08 T	719042080
Drive roll	∅ 1.0 mm	DIX DV-04-10/10 T	719042100
Drive roll	∅ 1.2 mm	DIX DV-04-12/12 T	719042120

Type of application for aluminium alloy wire electrodes:

Drive roll	∅ 0.8 mm	DIX DV-04-08/08 A	719041080
Drive roll	∅ 1.0 mm	DIX DV-04-10/10 A	719041100
Drive roll	∅ 1.2 mm	DIX DV-04-12/12 A	719041120

subject to change!

12-Wire feed units U11

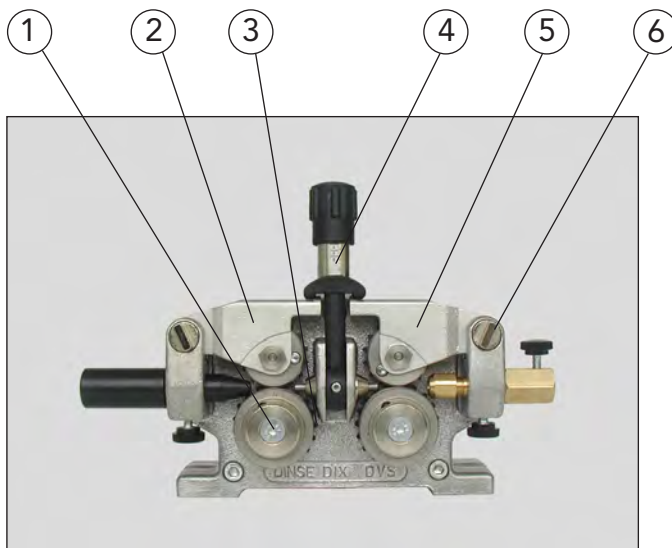


▶ Two drive rolls are required per wire diameter. Other diameters on request.

GREEN-line
 for TIG, PLASMA

DIX WD 500

Drive



Drive

12-00372

subject to change!

12-Wire feed units\J11

Pos.	Description	Part number	Article number
1	Holding screw (for drive rolls)	DIX DV-05 S	719050400
2	Pressure shackle, left	DIX DV-06 ST left	719063401
3	Gearwheel shim (2x available, from drive roll covered)	DIX DV-09 S	719090400
4	Stirrup lock	DIX DV-08 S	719080400
5	Pressure shackle, right	DIX DV-06 ST right	719063402
6	Steering pivot pin	DIX DV-07 S	719070400

► Information on the drive rolls are given in the spare parts and wear parts lists, sheet 2/3.



GREEN-line
for TIG, PLASMA

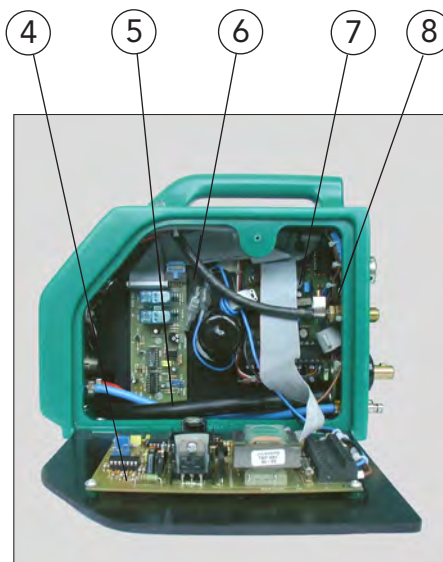
DIX WD 500

Power connection set
Wire - pulse - TIG set
Wire - pulse set

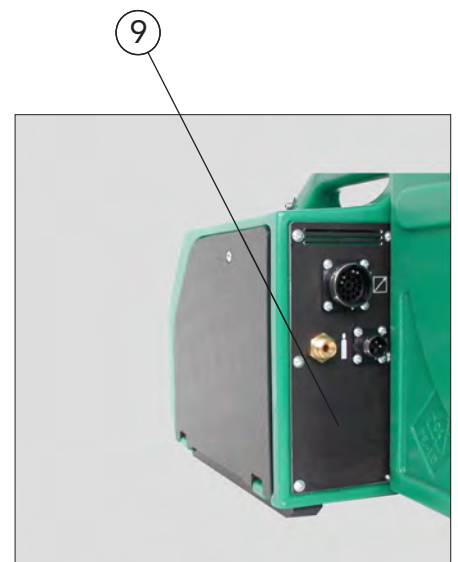
DIX WDX 500
DIX WDP 510
DIX WDP 511



DIX WDP 510



DIX WDP 510/511



DIX WDP 510, DIX WDX 500

Pos.	Description	Part number	Article number
1	SA - socket	DIX SAB 3-002 TIG	650103002
2	Front plate	DIX FP 977	659060977
3	Mounting socket	DIX Tuch. 5pol	719382005
4	PC - board (control)	DIX KDMO 0160 A	719660161
5	Power cable	DIX DV-25-1410/095	719254141095
6	PC - board (logic)	DIX KDMO 0160 L	719660162
7	Control cable	DIX DV-56-026	719561026
8	PC - board (pulse)	DIX KDLO 0260	719430260
9	Plug	DIX SE 50/70	122300050

12-00373

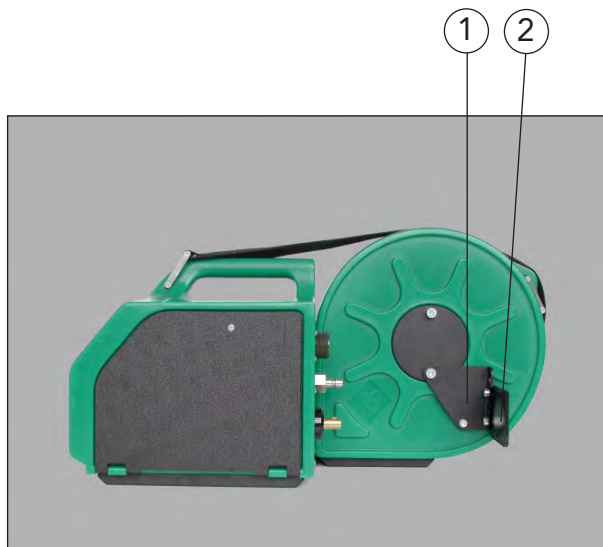
subject to change!

12-Wire feed units_U11

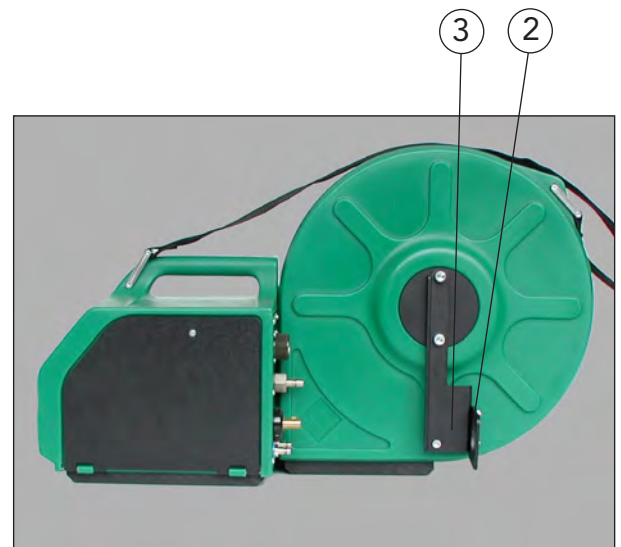


Spool holder

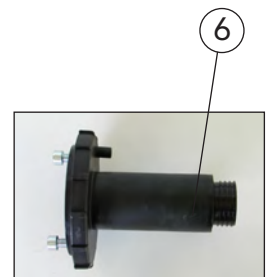
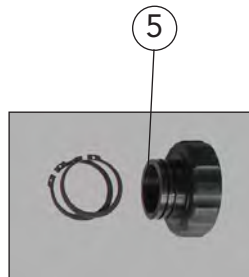
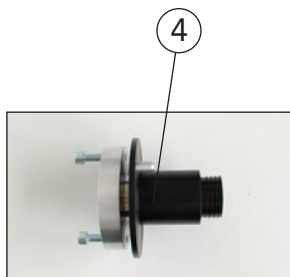
DIX WDS 200
DIX WDS 300



Wire feeder with DIX WDS 200



Wire feeder with DIX WDS 300



Pos.	Description	Part number	Article number
1	ZS - support	DIX WDS-23-120	739230120
2	ZS - supporting plate	DIX WDS-23-200	739230200
3	ZS - support	DIX WDS-23-130	739230130
4	Spool mandrel	DIX WDS-19-200	739190020
5	Spool nut (for DIX WDS 200/300)	DIX DV-24-2400	719242400
6	Spool mandrel	DIX WDS-19-300	739190030
	Spool holder cover (transparent, DIX WDS 200)	DIX WDS-11-200	739115200
	Spool holder cover (transparent, DIX WDS 300)	DIX WDS-11-300	739115300

12-00374

subject to change!

12-Wire feed units U11

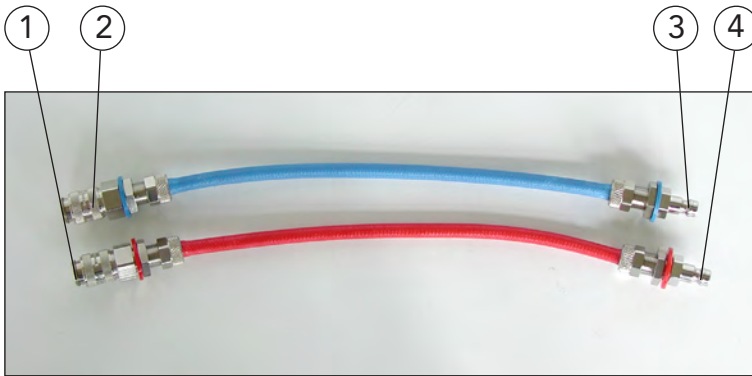


Spare parts and wear parts
WIRE FEED UNITS
 gas- and liquid cooled

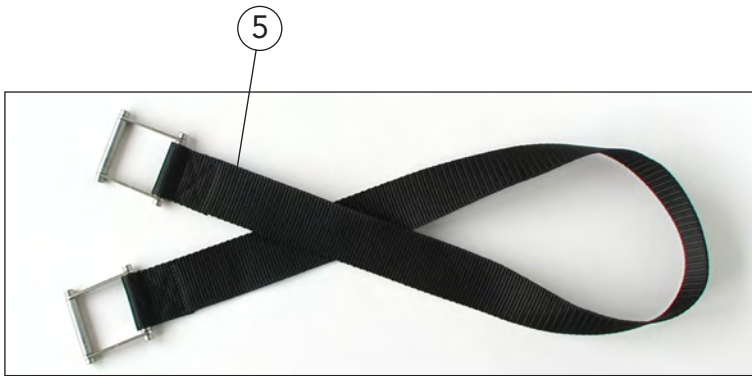


Water set
Carry strap set

DIX WDW 100
DIX WDT 100



Water set



Carry strap set

Pos.	Description	Part number	Article number
1	Plug coupling	DIX WD-30 RED	739300002
2	Plug coupling	DIX WD-30 BLUE	739300001
3	Water plug	DIX WD-26 BLUE	739260001
4	Water plug	DIX WD-26 RED	739260002
5	Carrying belt	DIX WDT 100/01	73802000011

12-00375

subject to change!

12-Wire feed units_U11



Integrated remote control



Application:

- ▶ UP/DOWN-switch for infinitely variable control of welding performance
 - ▶ Memory switch for working points or welding programs
 - ▶ Conversion kits for standard torch sets to remote control function
 - ▶ All module components can be paired off as required
- | | |
|------------------|----------------------------------|
| ▶ Torch sets MS | gas cooled
330 |
| ▶ Torch sets MSZ | liquid cooled
330/304/305/306 |

Technical benefits:

- ▶ With rocker switch or rocker switch and LCD display (7 segments)
- ▶ With step switch and diodes or tip switch and diodes
- ▶ With one or two potentiometers
- ▶ With tip switches black or black/red



Combibox



Combibox



Potibox

Switchbox

13-00376

subject to change!

13-Accessories\11



Summary

Increasing cost pressures have meant that ever greater productivity is being demanded in the manufacture of products involving a high level of welding. This means that new welding processes are being tried out while existing ones are being optimised. It is against this background that conventional MIG/MAG welding has been developed into a promising high-performance process using state-of-the-art equipment, improved filler materials and the many available shield gases. MIG/MAG flat-wire welding now offers a completely new take on this subject: a technology which does not use standard round-wire but flat-wire of varying sizes. It is possible to achieve excellent deposition rates, both with large filling volumes and at high welding speeds. Particularly notable features of this type of wire include its good gap bridging characteristics and excellent penetration. MIG/MAG flat-wire welding is illustrated in detail in a process analysis and put into practice in real life, giving the user a comprehensive insight into the current stage of technical development, productivity and current trends in this innovative welding process.

1 Introduction

In order to remain competitive in the international arena, the manufacturers of products requiring intensive welding are being forced to continuously optimise their production processes and produce more efficient designs. The key to remaining competitive is to use new futuristic technologies and to increase the economic viability of existing production methods.

MIG/MAG welding with flat-wire electrodes combines both objectives in an ideal way. The technique has been developed on the basis of conventional MIG/MAG welding which, over the last few decades, has extended its share of the market to now cover more than two thirds of all welding tasks. This trend can be explained by the flexibility, simple handling and suitability for mechanical and automatic applications which this welding process offers.

Unlike the typical round-wires, this process uses wires with a rectangular cross-section, Figure 1. The advantage of flat-wire is that it incorporates the positive properties of MIG/MAG welding with one as well as two round-wire electrodes. Depending on the application in question, the performance characteristics of flat-wire in terms of welding rate and filling volume are comparable to those of two-wire technology. Furthermore, the process of ascertaining ideal welding parameters and deploying welding equipment is now much more streamlined. The electric arc characteristics of flat-wire ensures that production safety is improved since they have better tolerance for fluctuations in gap width than round-wire.

Favourable conditions thus exist for the establishment of MIG/MAG flat-wire welding as a true high-performance technique.



Photo: Dinse G.m.b.H.

Figure 1. Comparison of round ($d=1.6$ mm) and flat wires (4.0×0.5 mm)

2 Performance characteristics of MIG/MAG welding with flat-wire

2.1 Operating principle

Basically, MIG/MAG flat-wire welding takes place under the same process conditions as those applicable to round-wire. Spray and pulse electric arcs are available with flat wire too.

When comparing a typical flat-wire (dimensions of 4.0 mm x 0.5 mm) and a round-wire with a roughly similar cross-section (diameter: 1.6 mm), see Figure 1, the different wire geometries should be stressed as the significant difference. While the round-wire only has a circumference of around 5.0 mm, the flat-wire has 9.0 mm which gives it an approx. 45% larger circumference length or surrounding surface. When the welding current flows through the wire a magnetic field is established not only in its direct vicinity but also in the wire itself. This magnetic field will change over time as a result of the continuous changes in current strength. Current strength varies greatly due to droplet short circuits, droplet extensions, material transitions, inherent movements of the cathode and anode insertion points on the drop and weld pool as well as changes to the conversion of energy during pulse operations [1]. It therefore causes induction voltage in the wire. The magnetic field of the conductor section near the axis produces induction voltage in the center of the conductor with reverse polarity to the rest of the electrical circuit in the center, but sharing the same polarity as that circuit in the peripheral areas.

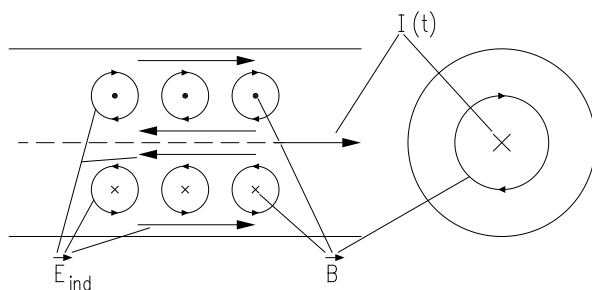


Figure 2. Diagram showing principle behind the skin effect [2]

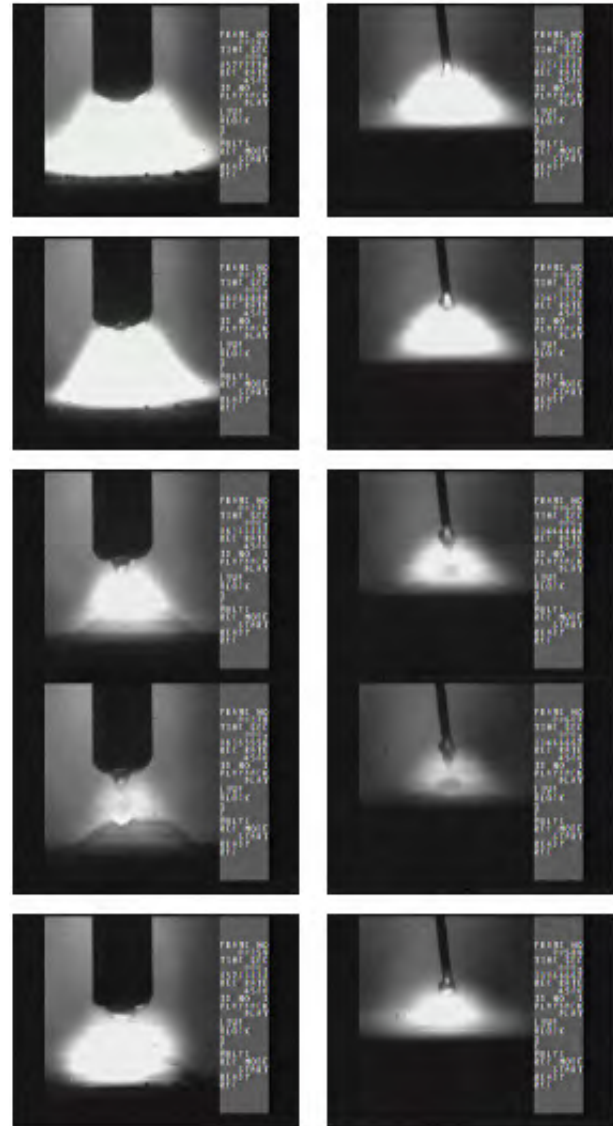


Figure 3. High-speed photographs of the material transition during pulse electric arc welding with flat-wire electrodes (filler material: G3Si1) [4]

This induction voltage overlaps with that induced by the changing magnetic field of the outer areas. The overlap of both influences produces a countervoltage which falls from the axis to the periphery. Current is best conducted in the outer layers in this respect.

This effect of displacing current is known as the skin effect, Figure 2, [2,3].

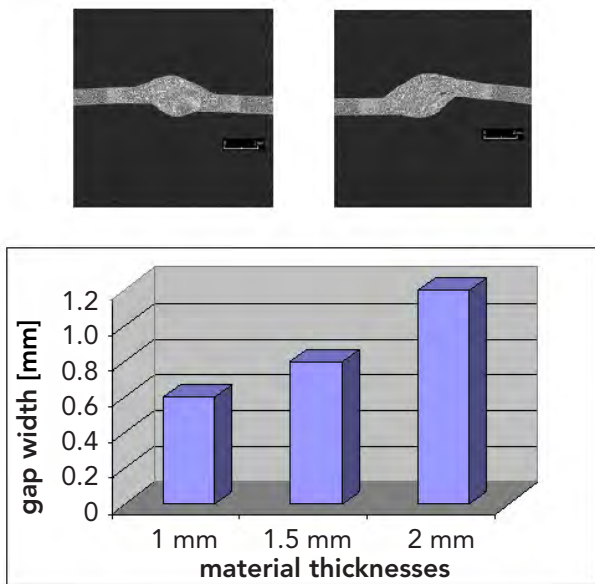


Figure 4. Cross sections and results for gap bridging of flat-wire electrodes (filler material: G3Si1) [4]

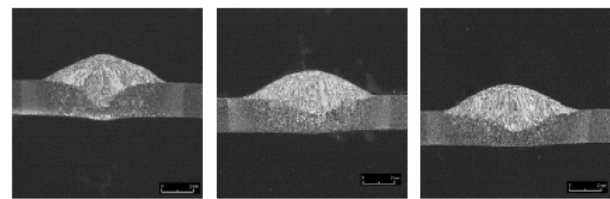
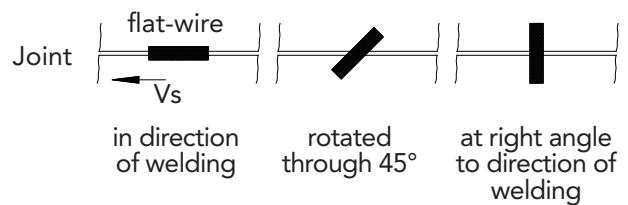
When compared with a round-wire of the same cross-section and using the same level of welding voltage, a higher welding current flows in the flat-wire as a result of the greater circumferential length which results in an increase in performance with flat-wire welding. Even at high speeds of welding, deeper and wider penetration is achieved.

The characteristic material transition on the 4.0 – 4.5 mm wide and 0.5 – 0.7 mm thick flat-wires is shaped by an electric arc which covers the entire width of the flat-wire and fuses fully. As a result of its rectangular cross-section, an asymmetric electric arc is produced on the flat-wire [4]. The drop transition is produced where the distance between the wire and weld pool is at its minimum. At this point, the fusing of the electrode material intensifies and drop formation is commenced (Figure 3).

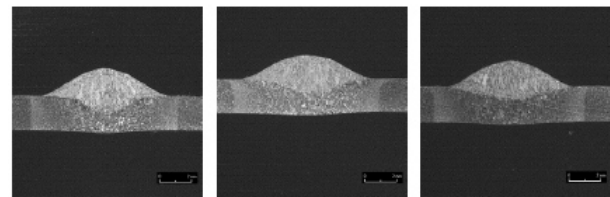
The asymmetry of the electric arc can also be seen near the base material. Depending on how the flat-wire is positioned in relation to the direction of welding, it may produce a wider and flatter weld pool. The perfect conditions for gap bridging. Production

tolerances are welded by displacing the edges and / or thermal distortion, Figure 4, [4]. Using the option of changing the weld pool geometry with a variable flat-wire position, we can actively influence the process which also produces a control function for the penetration characteristics. By increasing the transverse attitude of the flat-wire (by introducing heat across a broader cross section), penetration can occur over a wider area, by extending the length of the flat-wire, a deep and pointed area is created, Figure 5 [4].

Flat-wire position:



Welding speed: 1.25 m/min



Welding speed: 1.55 m/min



Welding speed: 1.35 m/min.

Figure 5. Cross sections with different flat-wire positions and welding speeds (filler material: G3Si1) [4]

The specific requirements for joining or surfacing can therefore be satisfied using a specific flat-wire orientation.

Flat-wire MIG/MAG welding therefore offers an enormous potential for efficiency.

2.2 Technical welding equipment

Power sources with a welding current of at least 500A are recommended for MAG flat-wire welding of steel materials. Contrary to this, aluminium applications for MIG welding can be implemented using welding currents of only up to around 400A. Wire feeding and the welding torch especially important here.

Automatic welding requires a complete wire feed system which conveys the flat wire powerfully and consistently over long distances, Figure 6. A high starting torque and extremely high drawing capacity guarantee reproducible wire feed rates during continuous operation.

The system is very compact, i.e. the wire feed motor is directly coupled with the welding torch. This design makes the system as easily accessible as MIG/MAG welding systems using round wires. The same shield gas nozzles ensure that the application has the flexibility to which operators have become accustomed, Figure 7.

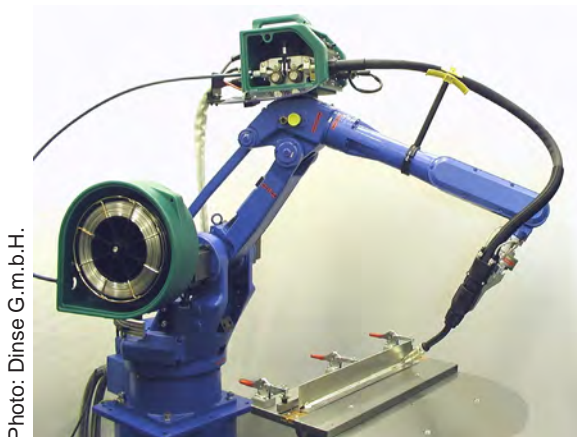


Photo: Dinse G.m.b.H.

Figure 6. Complete Dinse push-pull wire feed system for automatic MIG/MAG flat-wire welding

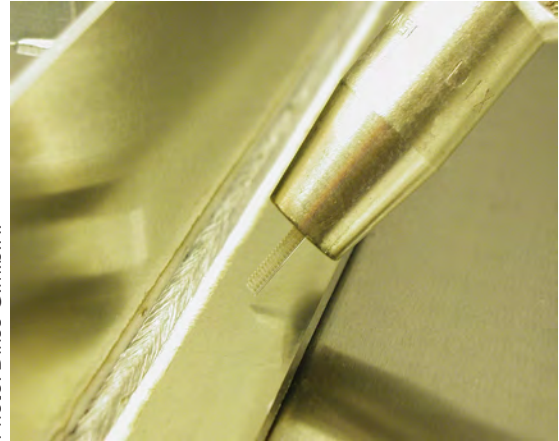


Photo: Dinse G.m.b.H.

Figure 7. Standard Dinse shield gas nozzle for flat-wire applications

The high thermal stresses arising during MIG/MAG welding with flat wire require a welding torch equipped with a twin-circuit cooling system permitting separate liquid cooling of the shaped contact tip and shield gas nozzle. Secure power contacting is achieved through a special design of the shaped contact tip.

2.3 Filler materials and shield gases

Nowadays flat-wire is available in all common qualities. They are usually produced from round-wires by means of an additional rolling process. This technique is used to round off sharp edges and therefore beneficially increases the service life of shaped contact tips and wire guide hoses. The same shield gases are used for MIG/MAG welding round-wires ensure a wide range of applications.

3 Practical experiences and perspectives

Typical areas of application of MIG/MAG flat-wire welding include construction machines, structural steel works, containers and vehicles. The technique is used for continuous, automatic welding of semi-fi

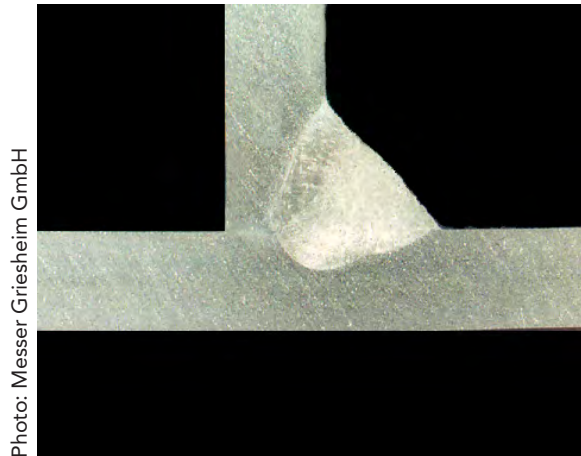


Photo: Messer Griesheim GmbH

Figure 8. Penetration profile for MIG flat-wire welding (filler material: AlSi5, 4.0x0.5 mm)
 $t = 3 \text{ mm}$, $a = 2.5 \text{ mm}$, $v_s = 2 \text{ m/min}$
shield gas: Argon

nished products such as pipes, profiles and strips, as well as the manufacture of parts similar to axle and body components, rims and various other elements. The penetration profile of a fillet seam shows the high quality and productive efficiency of MIG welding with flat-wires, Figure 8. The automotive industry uses this technique to join difficult aluminium components.



Photo: Kjellberg GmbH

Figure 9. MAG flat-wire welding process for the production of profile welding

MAG welding with flat-wire electrodes is currently used in shipbuilding for plate-stringer joints, Figure 9. In such applications, panels are welded for sections of ships. Fillet seam welding of the HP profile usually used here is undertaken on both sides at the same time to keep shrinkage and the natural stress characteristics of the component as low as possible [4].

Both the high welding rates and favourable gap bridging along with the low investment requirements associated with this technique allow it to be applied in a field which was previously the exclusive domain of tried and trusted two-wire systems.

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Abstract

Lower energy consumption accompanied by higher performance is a difficult challenge posed to modern aerospace engineering. Structural solutions require innovations not only during design and construction but also during the manufacture of such complex means of transportation. These requirements have caused laser-beam welding to grow into a viable alternative for component joining. To ensure reliable process control, however, a precise means of feeding of cold wire is necessary. The performance features of newly developed wire feed systems are used as a basis for explaining the PUSH-PUSH operating principle and demonstrating it using practical examples and real welding applications. Detailed descriptions of all system components such as the wire-feed head and drive as well as an in-depth presentation of an interesting variant of the laser hot-wire welding process complete the picture. Needless to say, other important topics in this treatment include system integration and implementation of a quality assurance concept as part of serial production. Users thus obtain a comprehensive overview of the state-of-the-art and current trends pertaining to this technology.

1 Introduction

Increasing importance is being attached to the energy consumption of transportation vehicles during the process of designing them. Light metals play a special role in weight reduction.

The civil aviation engineering industry, in particular, is coming under increasing pressure to advance its products in order to meet the growing requirements of airlines for better performance on the one hand and lower costs on the other [1]. In addition to new design principles, the task here is to develop production processes incorporating appropriate joining techniques [2].

Predestined as a welding tool for this purpose, the laser beam is characterized by high energy density

at high processing rates. Energy is applied at a high concentration and spatial precision, thus permitting a tight joining of seam side walls with very little warping and without any cold-starting problems [2,3].

Integral structures welded in this manner are also more resistant to corrosion than riveted structures, due to an absence of gaps, Figure 1, [1].

However, welding of aluminium alloys poses specific problems which need to be countered appropriately. Worthy of mention are primarily physical properties such as high thermal conductivity, high coefficient of thermal expansion and low viscosity of the fused metal.

The resulting process is highly unstable and leads to imperfect seams. Additional aspects of a technological nature include the high-temperature tearing sensitivity of certain alloys, a tendency to form pores and - naturally - surface oxidation [2,3].

These factors render an obvious requirement for modifications and parameter variations which can improve the laser-beam welding process.

A method involving the use of filler wire is discussed individually in the following.

2 Performance features of wire-feed systems for laser-beam welding

2.1 Operating principle

Laser-beam welding with external wire feed requires an exact positioning of the laser beam and filler wire.

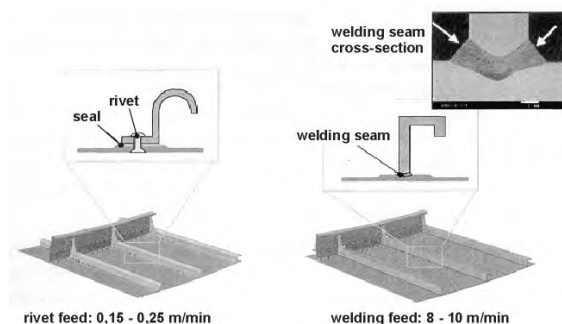


Figure 1. Comparison between rivet design and laser-beam welding of a skin-stringer joint [1]

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Demands placed by laser welding on wire-feed systems

D. Dzelnitzki, Hamburg



In either case, the reference point is where the center axis intersects with the surface of the base material. The wire feed angle also notably influences the welding result [4].

Needless to say, extremely high precision needs to be ensured at high welding rates and high wire feed rates, thus placing special demands on the wire-feed system. The laser processing head needs to have a low dead weight and be furnished with a compact, slim wire feed unit in order to permit easy integration into the overall concept.

Basically, the wire-feed system has a modular design, allowing the filler wire to be fed by means of one

Accordingly, most welding applications make use of a design incorporating two drive units, Figure 2. This wire-feed system operates on a principle whereby the front drive assigned to the laser optic unit (Figure 2, front) maintains the wire feed rate at the set value while the rear drive (Figure 2, rear) on the store of filler metal supplies the front drive with an adequate amount of filler wire. This fully decoupled type of control is termed PUSH-PUSH mode.

The main advantage of this technology is that the front drive has neutral-force access to the filler wire, so that it can concentrate entirely on controlling the



Photo: Dinse G.m.b.H.

Figure 2. Dinse wire-feed system, complete with two drive units (PUSH-PUSH operation)

or more drive units depending on the application involved. Suppliers usually offer filler wire of a diameter between 0.8 – 1.6 mm on a reel with a diameter of 300 mm, although larger diameters and barrel-type packaging are also quite common. Factors related to size and weight therefore rarely allow the store of filler metal to be installed in the immediate vicinity of laser optic system. This raises the need for a system which feeds the filler wire over long distances to the joining location.



Photo: Dinse G.m.b.H.

Figure 3. Speed-controlled Dinse drive

wire feed rate for the welding process. The rear, torque-controlled drive is responsible for feeding the filler wire forward at an adequate rate. To prevent the filler wire from buckling, a maximum torque is set in accordance with the employed wire material, wire diameter and feed distance.

Limitation of the torque output by the motor consequently also limits the feed force via the drive rolls.

The front, speed-controlled drive takes out the filler wire from the wire conduit hose in the precise quantities required for the process.

This results in a constant wire feed rate reproducible at all times between the two drive modules, irrespective of torch sets' torsion and bending.

Very low frictional forces result in very low wire feed forces.

Furthermore, the contact pressure exerted by the drive units on the filler wire is minimized so as to prevent it from deforming.

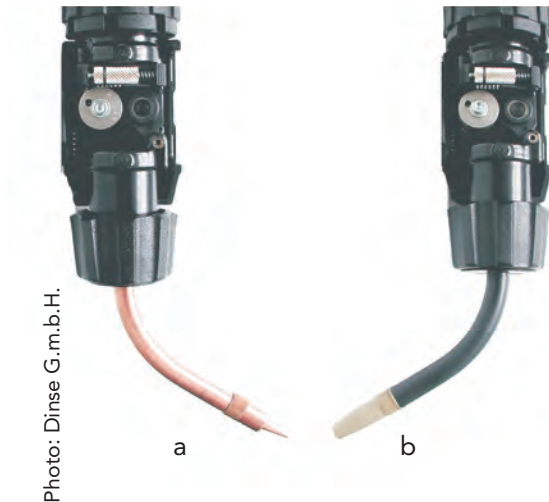


Photo: Dinse G.m.b.H.

Figure 4. Dinse drive for laser-beam welding with wire-feed head for cold-wire (a) and hot-wire (b)

This makes it possible to optimize the dimensions of the front drive (compact, lightweight) without impairing component accessibility, Figure 3. In the case of thin, soft wire used in the aerospace industry, the size of the front drive plays a significant role in light of the requirement to minimize the distance between the drive and the joining location to ensure stable wire feed. The wire-feed system is completed by a programmable control module permitting optimal matching within the requirements of the laser welding application in terms of operation and process monitoring.

2.2 Process variants

2.2.1 Laser / cold-wire technology

There are several techniques of feeding filler wire to the weld pool. The one most commonly used today involves cold-wire.

Aluminium alloys requiring welding are a source of motivation to employ a laser-beam fed with a metal filler wire.

This type of material can lead to a formation of hot cracks during the cooling phase, caused by shrinkage of the fused metal as the temperature drops.

This effect is compensated by the filler metal, which is used to specifically modify alloy composition along the welded joint [5,6,7].

The standardized interface of the wire-feed head for cold-wire laser welding allows it to be coupled easily and quickly to the front drive, Figure 4 a. The compact design nevertheless permits an integration of liquid cooling. Shield gas is fed co-axially and emerges concentrically around the wire feed tip, Figure 5. This is the only supply required.

This design not only ensures perfect shield gas coverage, but also offers enough space for installing the various seam tracking systems.

An adjustment gauge makes it possible to check, at all times, the wire-feed head for accuracy of the filler wire feed to the laser-beam's focus.

The unit comprising the wire-feed head and drive can be adapted easily to all common laser processing heads and also permits alignment with the laser-beam.

2.2.2 Laser / hot-wire technology

Experience gathered with laser/cold-wire technology formed the basis for developing a process variant in which case the filler wire is used as a medium for supplying current to a point in front of the vapour capillary of the base material [2].

The aim of this variant is to further increase process stability and improve seam formation by means of electromagnetic body forces. The magnetic fields are generated by self-induction arising from the current flowing through the weld pool [2].

The advantage of this method is an absence of thermal stresses from additional energy sources, Figure 6.

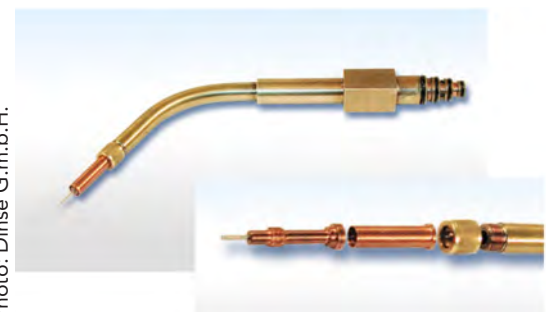


Photo: Dinse G.m.b.H.

Figure 5. Dinse wire-feed head for filler wire with liquid cooling and co-axial gas supply (view of the individual wire-feed components)

As shown in the sketch, this leads to a current density distribution which, together with the self-induced magnetic field, generates a resultant force vector from top left to bottom right. The weld pool is steered downward to produce a much deeper and finer seam, Figure 7.

This process can also be controlled by varying the spacing of the current introduction point. The smaller the spacing, the higher the current density and the stronger the action of the magnetic field, result in lower amperage needed for through-welding.

Self-magnetic forces thus constitute an efficient means of seam formation [2].

This mechanical effect was eluded to in [2]. It was possible to document the direct influence of electromagnetic forces on weld-pool dynamics as well as the resulting changes in pore formation and seam quality, Figure 8.

The external current flow and magnetic-field orientation were set to generate body forces acting in and against the direction of welding respectively. Although the forward-acting forces (Figure 8a) attenuated the backward-moving waves in the weld-pools to produce very smooth seam surfaces, they also encouraged a clogging of the capillaries through spillage which in turn increased the quantity of process pores.

By contrast, the opposing resultant force vector (Figure 8b) prevented a clogging of the vapour channel, thus minimizing pore generation.

However, this also excited wave motion which manifested itself in the form of a rougher seam surface [2].

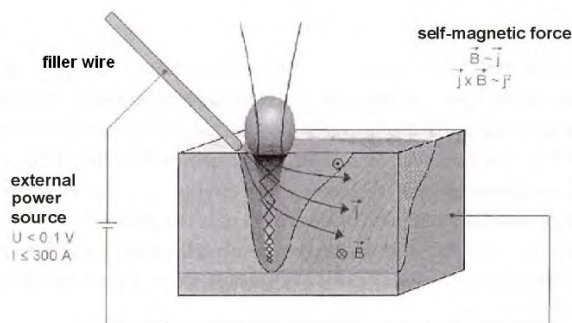


Figure 6. Schematic representation of self-magnetic body forces arising during hot-wire laser welding [2]

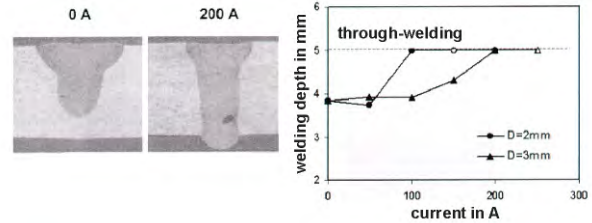


Figure 7. Change in seam cross-section brought about by self-magnetic body forces (left) and control of this effect through adjustment of the distance D between the laser-beam's axis and current contact point (right) [2]

These findings make it advisable to continue developing existent hot-wire laser techniques in the future in order to make the laser-beam welding process more flexible.

Communication between the filler wire and special power sources takes place exclusively via the wire-feed system. This mechanism is designed to control wire feed as well as current flow.

The required hot-wire feed head can be coupled to the same drive and - needless to say - possesses the same properties as the cold-wire laser technology, Figure 4b.

3 Integration of wire-feed systems into laser welding applications

3.1 Process requirements

A highly precise and rapid joining process such as laser-beam welding calls for an equal degree of precision from all its system partners.

A wire-feed system's performance is determined by its mechanical configuration and - in particular - the type of control technology available.

Process control is performed by internal programmable logic controllers (PLC).

Constancy of the set wire feed rate is ensured by a special speed controller on the front drive. The quantity of fed wire is registered by a sensor mounted in close touch with the process behind the front drive, Figure 9.

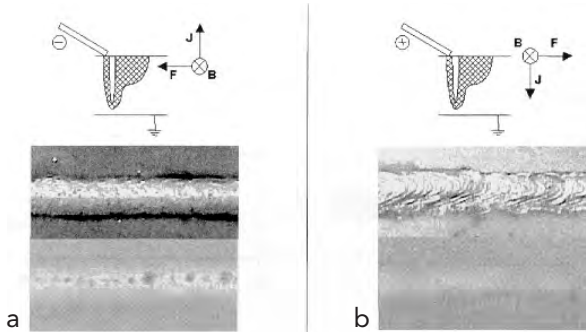


Figure 8. Effect of electromagnetic body forces (F) on seam surface and process pore formation during welding. AA6xxx; Nd: YAG laser, 4 kW; $v = 3.6\text{m/min}$, current supply via filler wire Al Si 12; $I = 30\text{A}$, $B = 400\text{mT}$; shield gas: He [2]

The task of this sensor is distance-based control of wire withdrawal at the end of the welding seam in order to prevent a fusing of the wire end with the weld pool after the welding phase.

Only the development of this distance measurement technique made it possible to realize automatic positioning of the wire through forward feed after the end of the withdrawal phase.

This type of function is indispensable between consecutive tack welding operations, as it permits reproducible positioning of the wire before every new start command.



Figure 9. Dinse sensor for high-precision wire feed with distance measurement and wire course monitoring

Needless to say, the withdrawal path and wire advance are programmable. Before starting, it is important to set the distance to the workpiece such that the wire feed rate reliably attains its set value prior to initial contact with the wire tip. Only this guarantees an availability of the quantity of filler metal needed for the process.

The front drive's dynamic characteristics and wire-feed system's fast reaction is the key to success.

Control and monitoring functions can be performed either via a structured display integrated into the wire-feed module (Figure 10) or externally.

Integration into higher-level control systems is possible in analog and digital form. Industry bus systems constitute the state-of-the-art. Wire feed can be adjusted continuously and - as an option - in pulses, the latter variant intended specifically for special applications.



Figure 10. Integrated display in Dinse's wire-feed module for controlling and viewing process variables during laser-beam welding.

3.2 Process monitoring and quality assurance concept

Naturally, quality assurance measures constitute essential decision-making criteria during the introduction of serial laser welding equipment, especially in aerospace engineering. This necessitates a concept providing a highly detailed overview of actual process-related events.

Wire feed rate is the process parameter of relevance to the quality of filler metal supply. The incremental sensor shown in Figure 9 permits the feed rate to be registered at high resolution and transmitted as digital signals to the PLC which uses the signal to calculate the related instantaneous value. This value is indicated



Figure 11. Laser-beam welding of a skin-stringer joint (cross section) [8]

by the wire-feed system's display (Figure 10) and also routed in the form of an analog signal (proportional to the wire feed rate) to an output for further external processing. Accompanying measurement software can be used to log the registered data.

For automatic online monitoring, the user specifies a maximum permissible deviation from the setpoint value. Every overshoot or undershoot immediately triggers an optical and electronic message to which the system responds in a preset manner.

The advantage of this embedded monitoring system is its highly dynamic behaviour which permits the entire wire feed course to be observed in quasi-real time. The quality assurance concept includes programmable setpoint value polling and a variety of status messages for monitoring the correctness of the filler wire feed routine.

4 Practical experiences and perspectives

At present, laser-beam welding with filler metal is being used in the aircraft construction industry, for skin-stringer joints on the Airbus, Figure 11. As part of serial production, one skin panel for the A 318 and eight skin panels for the A 380 are being welded, Figure 12, [6].

By contrast, other areas of application require equipment modifications which match the wire feeding process optimally to the task involved.

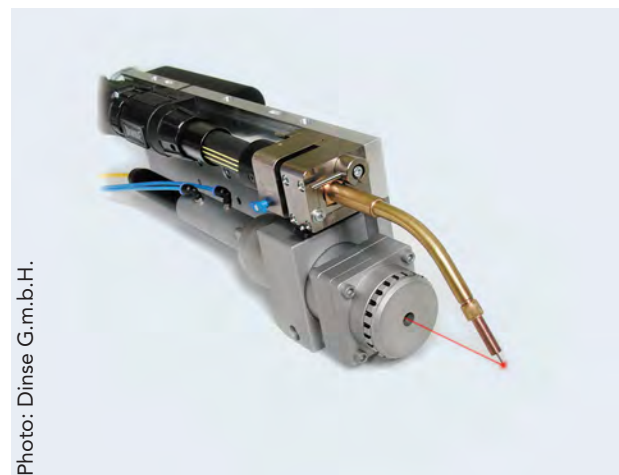


Photo: Dinse G.m.b.H.

Figure 13. Laser processing head with an adapted Dinse drive unit for cold-wire laser applications (wire-feed head with a quick-change mechanism)

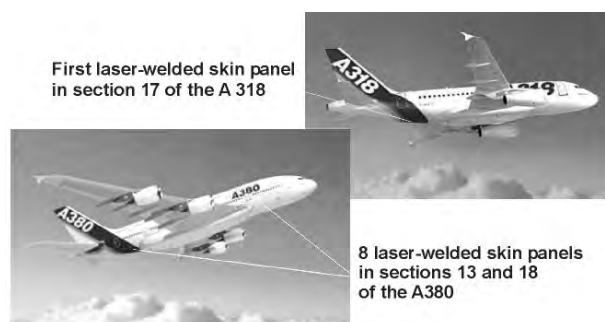


Figure 12. First serial applications of laser-beam welded skin panels on an Airbus [6]

Examples are wire-feed heads with a quick-change mechanism (Figure 13) and small reels for special alloys which are simply docked to the front drive (Figure 14).

An additional drive is not necessary in this case. Further advancement of laser-beam welding with filler metal will foreseeably generate additional potential especially in the field of aerospace engineering. Other investigations are concentrating on an extension of current applications to the lateral and top shells



Foto: Dinse G.m.b.H.

Bild 14. Dinse drive for laser-beam welding with a wire-feed head and small reel

of the aircraft fuselage to realize economic benefits compared with conventional rivet joints [5]. Skin-to-skin and composite joints should also pose interesting challenges [5,9].

Characteristic profiles such as those represented by real CNC axes will be needed for future wire-feed systems to stay abreast of these developments and remain adequate as modules.

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