



FLEXOWELL®



BI STATE RUBBER

DELIVERING MAJOR USER BENEFITS...



FLEXOWELL®

The **true world leader** in flexible sidewall conveying technology, FLEXOWELL is a full-service supplier of conveyor belts and systems for higher productivity in bulk materials handling. FLEXOWELL belts are designed for horizontal, inclined and vertical transport of all types of bulk materials from coal, ore, sand or rock, to fertilizer and grain.

WHY CHOOSE FLEXOWELL® BELTS?

- Lower power consumption
- Lower maintenance costs
- Faster installation
- No Transfer Points
- Minimal downtime

GLOBAL RANGE OF APPLICATIONS

Highly reliable, FLEXOWELL belts ensure environment - friendly operations in all types of industrial facilities. There is a **virtually unlimited range** of applications, some of which include:

- Coal and wood chip - fired power plants
- Recycling sand in foundries
- Underground ore and coal mines
- Silo feed systems
- Shaft belts for tunneling and mining
- Hi - wall transport in open pit mines
- Iron and steel production
- High volume horizontal transport
- Ship loading/unloading and ship-to-ship transfer
- Waste recovery, soil recycling and water treatment

FLEXOWELL belting permits you to design a bulk handling system with greater carrying capacity, and offers the widest range of applications in the industry.

Compared with conventional bulk handling approaches, FLEXOWELL belting carries abrasive or corrosive material with substantially less wear than bucket elevator, drag or screw conveyors. It also carries a greater volume than is possible with these traditional approaches or flat belting.

With an unmatched capability for inclined transport of virtually all types of materials at any angle, up to and including 90°, FLEXOWELL enables design of high - capacity, high - performance transport systems at reduced capital cost. Reliable, environment - friendly, FLEXOWELL technology has delivered major user benefits at over 60,000 installations world - wide.

FLEXOWELL - YOUR SINGLE SOURCE

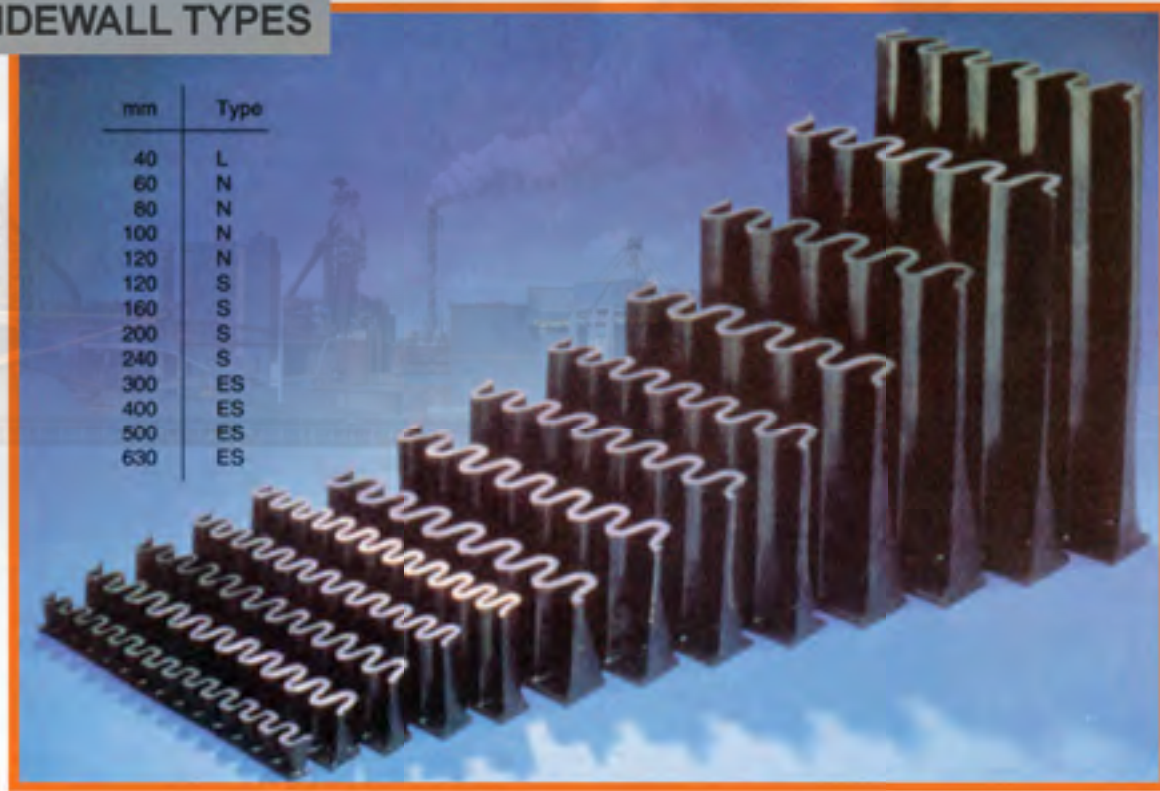
FLEXOWELL Conveyor Belting's operations cover all aspects of conveyor belt technology; from research and design, to manufacturing, installation and lifetime service. The payoff for our customers takes the form of higher performance, higher productivity and long - term investment safeguards.

FLEXOWELL has a comprehensive inventory and belt fabrication facility for the North American market located at Bi - State Rubber in Fenton, Missouri - a joint partner with FLEXOWELL..

WITH OVER 60,000 INSTALLATIONS WORLD-WIDE



SIDEWALL TYPES



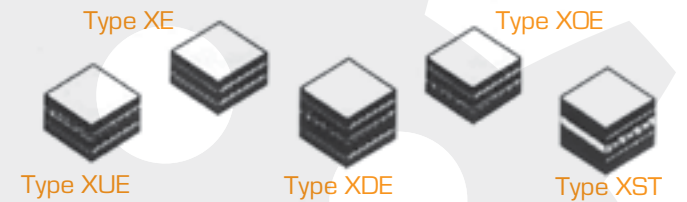
mm	Type
40	L
60	N
80	N
100	N
120	N
120	S
160	S
200	S
240	S
300	ES
400	ES
500	ES
630	ES

BELT STRUCTURE

A FLEXOWELL belt is comprised of three basic components, a cross rigid base belt with horizontal fabric or steel-cord reinforcement, corrugated sidewalls of reinforced rubber, and cross cleats available in one or two piece designs.

CROSS RIGID BASE BELT...

This patented, cross-rigid base belt can be deflected from horizontal to an incline and back again without bowing or sagging under even the heaviest loads. It is available in a full spectrum of widths and tension ratings, with fabric or steel cord construction.



CROSS-RIGID BASE BELTING					
Type	PIW	N/mm	Belt Thickness	Cover Thickness	
Working Strength			Cover Thickness		
Type	PIW	N/mm	Belt Thickness	Top	Bottom
XE200/2	115	200	¹¹ / ₃₂ (9mm)	⁵ / ₆₄ (2mm)	⁵ / ₆₄ (2mm)
XOE315/2+1	180	315	¹³ / ₃₂ (10.2 mm)	⁵ / ₃₂ (4 mm)	⁵ / ₆₄ (4 mm)
XOE500/3+1	285	500	¹⁵ / ₃₂ (11.6 mm)	⁵ / ₃₂ (4 mm)	⁵ / ₆₄ (4 mm)
XOE630/4+1	360	630	¹⁷ / ₃₂ (13.1 mm)	⁵ / ₃₂ (4 mm)	⁵ / ₆₄ (4 mm)
XOE800/5+1	455	800	⁹ / ₁₆ (14.6 mm)	⁵ / ₃₂ (4 mm)	⁵ / ₆₄ (4 mm)
XOE1000/6+1	570	1000	⁵ / ₈ (15.9 mm)	⁵ / ₃₂ (4 mm)	⁵ / ₆₄ (4 mm)

Rubber Qualities...

- a) Black, standard
- b) Black, oil resistant
- c) Black, heat resistant
- d) Black, flame resistant
- e) Black, MSHA approved flame retardant

CLEAT STYLES



CORRUGATED SIDEWALLS...

Available in heights from 40mm (1⁹/₁₆"") to 630mm (24³/₄""), the flexible design and construction of rounded sidewalls yield longer life by reducing belt stress at the head and tail pulleys. It also lets you design out of troublesome transfer points for longer wear and less material degradation.

SIDEWALLS			
Type	Height (H)	Width (W)	Pitch (P)
40L	1 ⁹ / ₁₆ (40mm)	1 ³ / ₁₆ (30mm)	1 ³ / ₈ (35mm)
60N	2 ³ / ₈ (60mm)	2 (50mm)	1 ⁵ / ₈ (42mm)
80N	3 ¹ / ₈ (80mm)	2 (50mm)	1 ⁵ / ₈ (42mm)
100N	3 ¹⁵ / ₁₆ (100mm)	2 (50mm)	1 ⁵ / ₈ (42mm)
120N	4 ³ / ₄ (120mm)	2 (50mm)	1 ⁵ / ₈ (42mm)
120S	4 ³ / ₄ (120mm)	2 ¹⁵ / ₁₆ (75mm)	2 ¹ / ₂ (63mm)
160S	6 ⁵ / ₁₆ (160mm)	2 ¹⁵ / ₁₆ (75mm)	2 ¹ / ₂ (63mm)
200S	7 ⁷ / ₈ (200mm)	2 ¹⁵ / ₁₆ (75mm)	2 ¹ / ₂ (63mm)
240S	9 ⁷ / ₁₆ (240mm)	2 ¹⁵ / ₁₆ (75mm)	2 ¹ / ₂ (63mm)
280S	11 (280mm)	2 ¹⁵ / ₁₆ (75mm)	2 ¹ / ₂ (63mm)
300ES	11 ¹³ / ₁₆ (300mm)	3 ¹⁵ / ₁₆ (100mm)	3 ¹⁵ / ₁₆ (84mm)
400ES	15 ³ / ₄ (400mm)	3 ¹⁵ / ₁₆ (100mm)	3 ¹⁵ / ₁₆ (84mm)
500ES	19 ¹¹ / ₁₆ (500mm)	3 ¹⁵ / ₁₆ (100mm)	3 ¹⁵ / ₁₆ (84mm)
630ES	24 ³ / ₄ (630mm)	3 ¹⁵ / ₁₆ (100mm)	3 ¹⁵ / ₁₆ (84mm)

CLEATS			
Type	Height (H)	Type	Height (H)
T20	²⁵ / ₃₂ (20mm)	C35	1 ³ / ₈ (35mm)
T35	1 ³ / ₈ (35mm)	C55	2 ³ / ₁₆ (55mm)
T55	2 ³ / ₁₆ (55mm)	C75	2 ¹⁵ / ₁₆ (75mm)
T75	2 ¹⁵ / ₁₆ (75mm)	C90	3 ¹⁷ / ₃₂ (90mm)
T90	3 ¹⁷ / ₃₂ (90mm)	C110	4 ⁵ / ₁₆ (110mm)
T100	3 ¹⁵ / ₁₆ (100mm)	C140	5 ¹ / ₂ (140mm)
T-GS 110	4 ⁵ / ₁₆ (110mm)	C180	7 ¹ / ₁₆ (180mm)
T-GS 120	4 ³ / ₄ (120mm)	C220	8 ¹¹ / ₁₆ (220mm)
T-GS 140	5 ¹ / ₂ (140mm)	TC-G 110	4 ⁵ / ₁₆ (110mm)
T-GS 160	6 ⁵ / ₁₆ (160mm)	TC-G 140	5 ¹ / ₂ (140mm)
T-GS 180	7 ¹ / ₁₆ (180mm)	TC-G 180	7 ¹ / ₁₆ (180mm)
T-GS 200	7 ⁷ / ₈ (200mm)	TC-G 220	8 ¹¹ / ₁₆ (220mm)
T-GS 220	8 ¹¹ / ₁₆ (220mm)	TC-G 260	10 ⁷ / ₃₂ (260mm)
T-GS 240	9 ⁷ / ₁₆ (240mm)	TC-G 280	11 (280mm)
T-GS 300	11 ¹³ / ₁₆ (300mm)	TC-G 360	14 ³ / ₁₆ (360mm)
T-GS 400	15 ³ / ₄ (400mm)	TC-G 470	18 ¹ / ₂ (470mm)
T-GS 500	19 ¹¹ / ₁₆ (500mm)	TB-GS 500	19 ¹¹ / ₁₆ (500mm)
T-GS 630	24 ³ / ₄ (630mm)	TB-GS 600	23 ⁵ / ₈ (600mm)

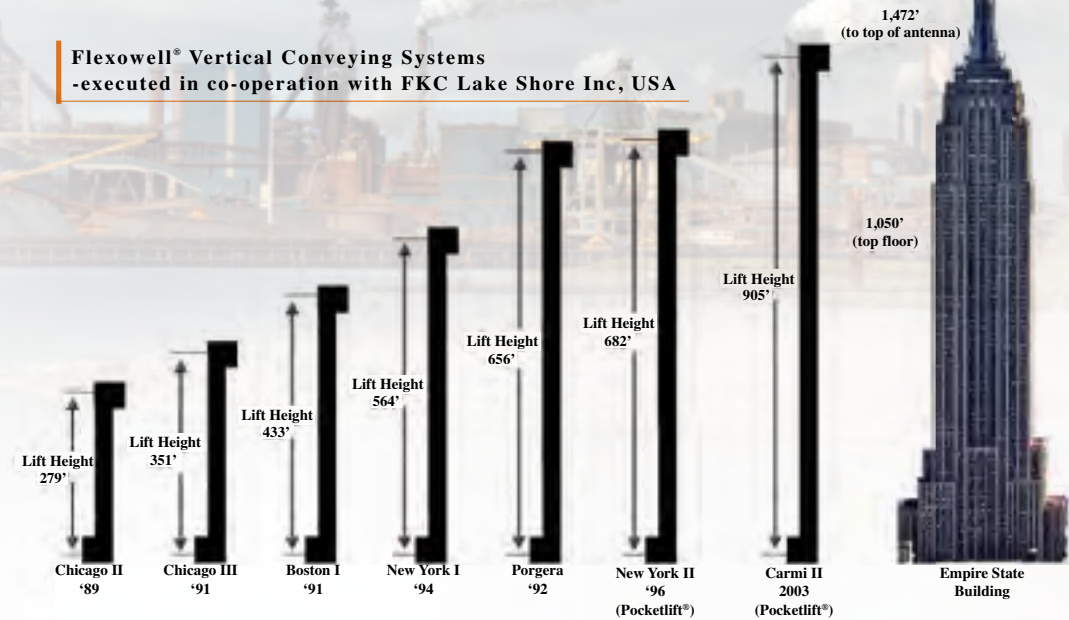
CROSS CLEATS...

For optimum carrying efficiency, you can specify base belting without cleats for elevations up to 18°, or with cleats for steep applications. Select from a variety of cleat styles consistent with the angle of inclination and the type of material being handled. In some styles, a two part cleat is an option, consisting of a rubber base and either rubber or urethane blade.

FLEXOWELL®

RISING ABOVE THE COMPETITION

Flexowell® Vertical Conveying Systems
 -executed in co-operation with FKC Lake Shore Inc, USA



As the *true world leader* in flexible sidewall conveying technology, we have proven our high capacity and superior quality conveying capabilities. Compared with installations by the competition...

ONLY FLEXOWELL® CAN "MEASURE UP"

- | | |
|--------------------------|--|
| ✓ Most Installations | → over 60,000 belts supplied |
| ✓ Most Experienced | → since 1964, the originator of flexible sidewall conveyor concept |
| ✓ Highest Capacity | → vertical 211,888 ft ³ / hr |
| ✓ Highest Lift | → 905' Vertical |
| ✓ Widest Belts | → 126" - single or double cross-rigid plies (as required) |
| ✓ Strongest Belts | → to 4560 piw |
| ✓ Ultra-Low Belt Stretch | → fabric or steel cord |
| ✓ Highest Sidewalls | → 24.8" |
| ✓ Highest Cleats | → 23.6" - 2 part design 11" to 23.6" |
| ✓ Broad Market Coverage | → presence in 45 countries |

Don't settle for less.
FLEXOWELL®

The FIRST and ALWAYS THE BEST.

Bi-State Rubber UHMW Stub Idler

Special "radius" designed stub idlers with two heavy duty sealed bearings. All "UHMW" Design for longer wear life, helps provide extra protection to both the base cross-rigid belt and the corrugated sidewalls. Specially designed for high angle or incline style pocket belts. See back page showing field examples.



Features

- All virgin UHMW Material or Polyurethane
- Heavy duty design
- Heavy duty sealed bearings
- Available in 4", 5", and 6" diameters
- Custom sizes are available upon special request.
- Fits most standard brackets
- Custom mounting brackets are available upon request.

Style # BSR-6UGR-SP-6x6 Shown

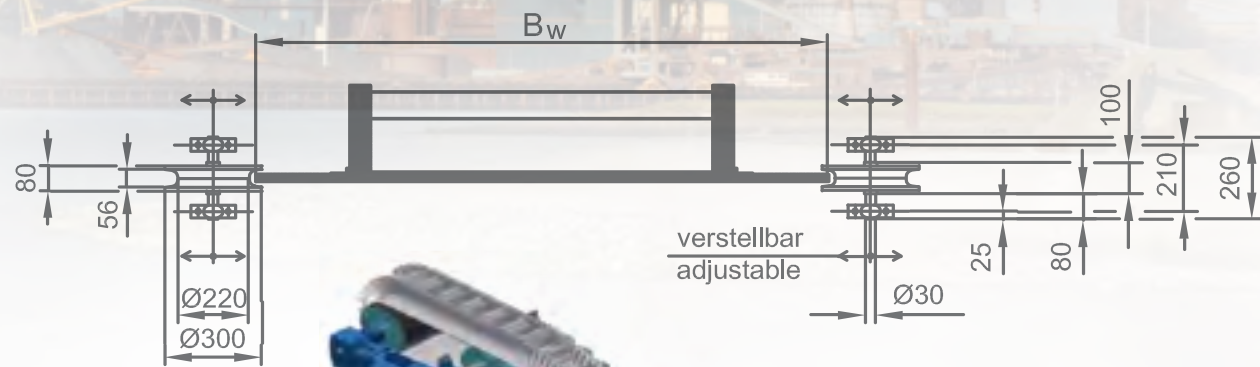


*Patent pending



Bi-State Rubber Pocket Belt Guide Wheels

Special “all rubber” designed guide wheel for use on incline and vertical pocket belt conveyor systems. The rubber wheels won't damage the belt free lateral area as would metal guide rollers which are commonly used. Designed by Flexowell.



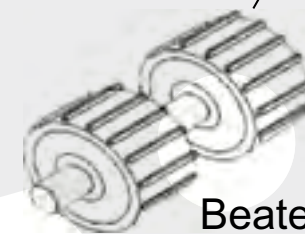
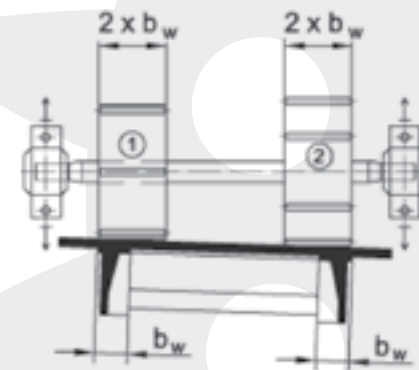
Style # BSR-FGR260 Shown



Bi-State Rubber Beater Pulley/Deflection Wheels

Special designed Beater Pulley to help clean out pockets on vertical and incline pocket systems. Beater Pulley gently knocks the belt from the bottom side to help loosen material for a better discharge.

Deflection wheels are designed per your application and conveyor requirements. They come in either Standard or Mine Duty classifications or in special cases Engineered Class wheels are offered.



Beater Pulley



Minet Super Screw, Flexible Fastener

High Resistance Fasteners Using Self Tapping Screws



MATERIAL reinforced rubber

INSTALLATION using Minet screws with a screwdriver tool. No special tooling required

APPLICATIONS joining of textile belts under high tension, heat and in abrasive conditions. for solid-woven and multiple belts.

FEATURES leakproof joint without hinge, flexible over pulleys, long reachback into belt, as strong as hot vulcanized splice.

BENEFITS:

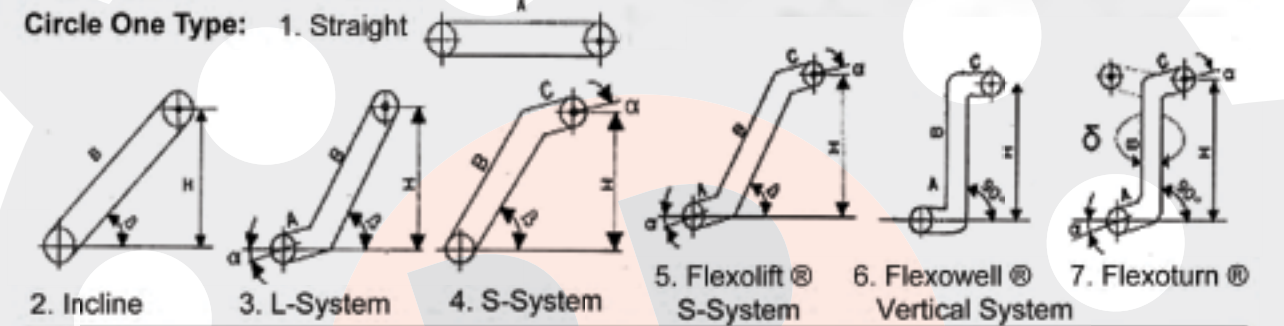
LEAK-PROOF All Super-Screw flexible fasteners are in one piece, with no hinge. There is no possibility for conveyed material to sift through the splice.

FLEXIBLE Flexible Super-Screw fasteners are designed to follow belt movement around the pulleys.

Flexowell® Belt Design Worksheet

Please fax to 636.349.2393 upon completion

Basic Customer Information	
Company:	Date:
Address:	Phone:
City, State:	Fax:
Postal Code:	Contact:
Country:	E-mail:

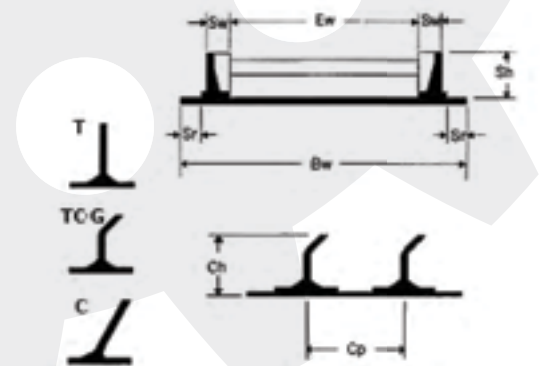


"A" Feeding:	ft	"C" Discharge:	ft	"B" Incline Angle:	deg
"B" Incline:	ft	"H" Lift Height:	ft	"O" Torsion Angle:	deg

Capacity (tonnage):	stph	Material:	
Max. Lump Size:	in.	Density:	lbs/ft
Belt Speed:	fpm	Belt Width:	in.
Material Temp:	deg F	Moisture:	%

Check all that apply:	Oil/Fat: <input type="checkbox"/>	Splice: <input type="checkbox"/>	Open End: <input type="checkbox"/>
	Vulcanized Endless: <input type="checkbox"/>	Mechanical: <input type="checkbox"/>	Fire Resistant: <input type="checkbox"/>

Belt Width (Bw):	in
Base Belt Tension Rating:	piw
Base Belt Quality (eg. black standard):	
Sidewall Recess (Sr):	in
Effective Width (Ew):	in
Sidewall Height (Sh):	in
Sidewall Width (Sw):	in
Cleat Type: <input type="checkbox"/> T / <input type="checkbox"/> C / <input type="checkbox"/> TCG	
Cleats screwed to sidewalls? <input type="checkbox"/> Y / <input type="checkbox"/> N	
Cleat Height (Ch):	in
Cleat Pitch (Cp):	in
Belt Length (open or endless):	ft
Pulley Diameter (in.) Head:	Tail:
Winged Pulleys? <input type="checkbox"/> Y / <input type="checkbox"/> N	
Existing Belt Manufacturer:	



Additional Information

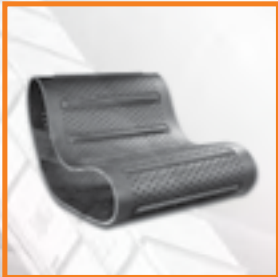
Other items offered by Bi State Rubber:



WEIGHT FEEDER BELTS



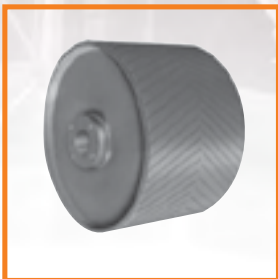
MAGNETIC SEPARATOR BELTS



TUMBLE / SHOT BLAST BELTS



ARGONICS BELT SCRAPERS / SKIRTING SYSTEMS



VAN GORP PULLEYS

VACUUM AND MATERIAL HANDLING HOSES



FLUE DUCT AND SPOOL TYPE EXPANSION JOINTS



CONVEYOR FLAT BELTING



AIR SLIDE MATERIALS - NEEDED AND WOVEN



BOOTS AND BELLOWS

