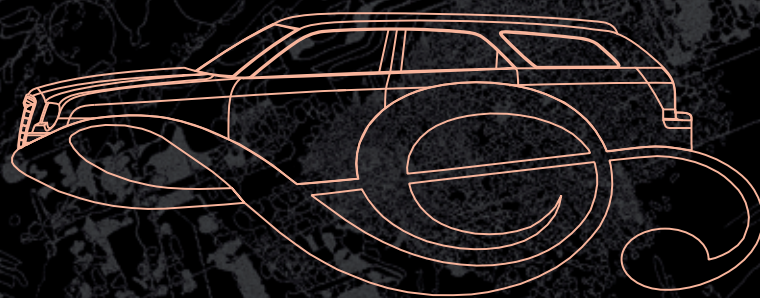




**GROUND ZERO<sup>®</sup>**



*Reference Line*

*Sound Quality for highest demands ~ Selected parts  
Noble materials ~ Handmade speakers  
Pure High End*

These are just a few keywords describing the Plutonium Reference line. You will soon discover the fact that we have been setting a high value on the typical Ground Zero advantages such as dynamics, individualism, flexibility, stability and power in this product line. That's why the Reference products do not only sound pure and audiophile, but also extremely dynamic and direct. Due to the finest parts, the Reference amplifiers impress with more than enough power which almost is 100% stable, even at 1 Ohm. No matter if you like a fresh or a warm sound, due to the adjustable BIAS-Setting (Class AB -> Class A) the amplifiers can be tuned individually. Deactivatable filters and potentiometers (Bypass - function) of both Reference amplifiers allow a music playback how it's supposed to be: Pure and directly! Also the crossover of the Reference composystem, manufactured by Mundorf, comes only with the minimum needed and precious parts. Gold-plated jumpers and a 180° phaseshift switch allow an optimal adjustment to the place of listening and a flexible operation in many different combinations. For example, you can combine a GZPM Reference 100 with the GZPT Reference 25 tweeter as well as with the GZPK Reference 180 or the GZPW Reference 18. These handmade in Europe and selected in pairs speakers have a lot of individual attributes, which make each one of them unique. The baskets are built from resonance-free "Stabilit" material. Pure copper voice coils are used to avoid as much loss as possible. Hybrid magnets, consisting of combined neodym and ceramic, lead to an enormous linear magnetic flux density. Besides that copper rings in the motor and mineral coating on the cone help to minimize distortions nearly to zero. The tweeter has a complex multi-part adopted volume which allows to use it from about 2 kHz on. Due to the straight playback without any "nice-playing" and a terrific, wide virtual stage, it leads him to be the cream of the crop of his type. Summing up, everyone who loves pure music or wants to enjoy several hours stress-free listening and for every individualist, who thinks the best hasn't been good enough till now will be highly impressed of the Plutonium Reference line.



Zvone Raspor started his company ZR speakerlabs as a speaker service company in the 80's. Soon, the deployment of home speakers, single chassis and noblest amplifiers followed. Raspor, who is also a musician and painter, faces his creation of audio components as an art form. The fanatic HiFi lover builds all his products by hand in his house in Slovenia, based on over 20 years of research.

**GZPX Reference 2.180**

- 2-Way crossover "Made in Germany"
- Induction-free Supreme® capacitors
- Distortion-free copperfoil inductors
- Superior Supreme® resistors

**Reference Componentsystem**

- Containing:
- GZPT Reference 25
  - GZPK Reference 180
  - GZPX Reference 2.180

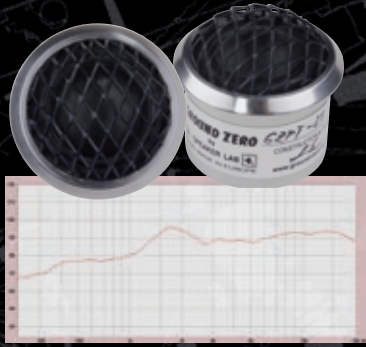


"... unbelievable controlled, precise bass ..."

"The sound stage is produced enormously 3-dimensional ..."

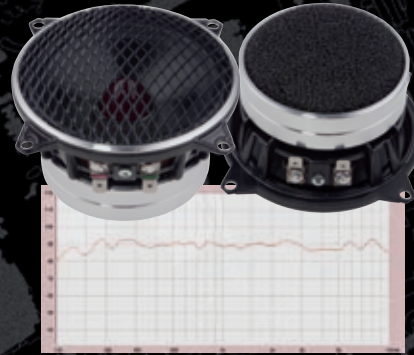
"It seems like you could feel the singer standing right in front of you."

## GZPT Reference 25



25 mm / 1" Silk Tweeter with complex multi-part adopted volume. Can be used with a cut-off frequency of 2 kHz.

## GZPM Reference 100



100 mm / 4" Midrange with wide frequency range. Resonance free up to 6 kHz.

## GZPK Reference 180

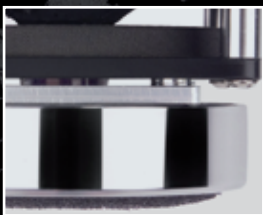


180 mm / 7.09" Midwoofer with high midrange efficiency. Developed for precise and dynamic music reproduction.

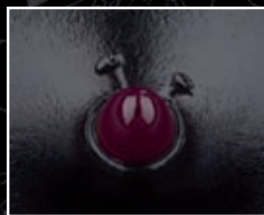
## GZPW Reference 18



180 mm / 7.09" Midwoofer with linear frequency response down to 40 Hz. Strong paper dustcap and high Qts effect a powerful and precise bass performance.



Cooling system reduces compression and increases power handling



Wooden Phaseplugs for wide dispersion and linear off-axis



M-Caps Supreme® guarantee fine graduation of the frequency range



Hand-wound copper voice coils for pure and direct SQ



Special neodymium motors for high efficiency (GZPM Reference 100)

Model	GZPT Reference 25	GZPM Reference 100	GZPK Reference 180	GZPW Reference 18
Type	Tweeter	Midrange	Midwoofer / Midrange	Mid-, Kick-, Subwoofer
Voice-coil diameter mm / inch	25 / 1"	25 / 1"	25 / 1"	25 / 1"
Voice-coil wire	Alu-copper	Copper	Copper	Copper
Basket / Housing	Aluminium	Aluminium cast	Stabilit	Stabilit
Copper-ring	✓	✓	✓	✓
Magnet	Neodym	Neodym	Neodym-ceramic	Neodym-ceramic
Cone	Mineral coated silk	Mineral coated paper composit	Mineral coated paper composit	Mineral coated paper composit
Dustcap	-	-	-	✓
Phaseplug	-	✓	✓	-
Impedance Ω	6	4	4	4
Re Ω	5.9	3.9	3.7	3.6
FS Hz	1550	71.8	45.8	42.7
Qms	-	2.94	1.84	3.33
Qes	-	0.50	0.39	0.84
Qts	-	0.43	0.32	0.67
Vas Liter / cu.ft.	-	4.33 / 0.15	24.7 / 0.87	24.5 / 0.86
Mms	-	4.7 grams	13.2 grams	15.3 grams
SPL dB / 1W1m	90	86.75	89.7	85.4
BL TESLA - M	-	4.07	6	4.2
Power W / RMS	100 (2 kHz / 12 dB)	100	100	100
Recommended frequency range	2 - 20 kHz	120 - 6000 Hz	70 - 5000 Hz	40 - 3000 Hz
Outer diameter mm / inch	50 / 1.97"	100 / 4"	180 / 7.09"	180 / 7.09"
Mounting diameter mm / inch	44 / 1.73"	94 / 3.7"	157 / 6.18"	157 / 6.18"
Mounting depth mm / inch	34 / 1.34"	52 / 2.05"	70 / 2.76"	70 / 2.76"

Model	GZPX Reference 2.180
Type	Crossover
Way	2
Cutoff-frequency	4500 Hz
Impedance	4Ω
Slope lowpass	off / 6 dB switchable
Slope highpass	12 dB
Tweeter protection	10 W bridgeable
Tweeter phaseshift	0 / 180°
Tweeter level adjustment	0 / - 3 dB
Inductors	Copperfoil inductors
Capacitors	Mcap Supreme®
Resistors	M-Resist Supreme®
Bi-Wiring	✓
Powerhandling	> 300 W
Recommended speaker combination	GZPT Reference 25 & GZPK Reference 180
Alternative speaker combinations	GZPT Reference 25 & GZPW Reference 18
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	GZPT Reference 25 & GZPM Reference 100
Dimensions cm	17.2 x 14.2 x 5.3
Dimensions inch	6.8" x 5.6" x 2.1"



The famous Sanken transistors guarantee pure Sound Quality and an output power up to 2800 Watt.



The toned plexiglas bottom allows to have a look at a gorgeous white illuminated inside with shielded transformers of the high current power supply, which is extremely stable and creates almost zero interferences.

A second view brings out more High-End parts, such as the exclusively made M-Caps, Sound Quality Elna capacitors, Burr Brown IC's, shielded potentiometers and many others which keep the signal clean, the noise low and the SQ up to a level never reached before.



Impressive features like BIAS-setting, which allows to adjust the amp from Class AB to Class A without any power loss. Wide-band high-, low- and bandpass filters, phaseshift and bass remote complete the feature list. The deactivatable filters (Bypass-function) turn these units to pure sound quality amplifiers without any unnecessary parts in the signal path.



Model	GZPA Reference 2	GZPA Reference 4
Type	Analog 2 Channel	Analog 4 Channel
RMS Power @ 4Ω <b>CEA Standard CEA-2006-A</b>	2 x 420 W (1% THD+N) 2 x 500 W (10% THD+N)	4 x 150 W (1% THD+N) 4 x 180 W (10% THD+N)
RMS Power @ 2Ω <b>CEA Standard CEA-2006-A</b>	2 x 750 W (1% THD+N) 2 x 900 W (10% THD+N)	4 x 270 W (1% THD+N) 4 x 325 W (10% THD+N)
RMS Power @ 1Ω <b>CEA Standard CEA-2006-A</b>	2 x 1150 W (1% THD+N) 2 x 1350 W (10% THD+N)	4 x 425 W (1% THD+N) 4 x 500 W (10% THD+N)
RMS Power @ 4Ω bridged <b>CEA Standard CEA-2006-A</b>	1 x 1500 W (1% THD+N) 1 x 1800 W (10% THD+N)	2 x 540 W (1% THD+N) 2 x 650 W (10% THD+N)
RMS Power @ 2Ω bridged <b>CEA Standard CEA-2006-A</b>	1 x 2300 W (1% THD+N) 1 x 2700 W (10% THD+N)	2 x 850 W (1% THD+N) 2 x 1000 W (10% THD+N)
RMS Power @ 4Ω (16 V)	2 x 500 W (1% THD+N)	4 x 180 W (1% THD+N)
RMS Power @ 2Ω (16 V)	2 x 900 W (1% THD+N)	4 x 325 W (1% THD+N)
RMS Power @ 1Ω (16 V)	2 x 1400 W (1% THD+N)	4 x 500 W (1% THD+N)
RMS Power @ 4Ω bridged (16 V)	1 x 1800 W (1% THD+N)	2 x 650 W (1% THD+N)
RMS Power @ 2Ω bridged (16 V)	1 x 2800 W (1% THD+N)	2 x 1000 W (1% THD+N)
Damping factor	> 250	> 250
Signal to noise ratio	> 75 dB	> 75 dB
By-pass function	✓	✓
Subsonicfilter via Highpass	✓	✓
Phaseshift (only at activated Lowpass mode)	✓	-
Bass Remote control (only at activated Lowpass mode)	✓	-
Deactivatable white LED illumination	✓	✓
Lowpass crossover	20 Hz - 400 Hz / 200 Hz - 4000 Hz	40 Hz - 3000 Hz
Highpass crossover	20 Hz - 400 Hz / 200 Hz - 4000 Hz	20 Hz - 1000 Hz
Bandpassfilter	20 Hz - 4000Hz	20 Hz - 3000 Hz
BIAS-Setting	Class AB > Class A	Class AB > Class A
Frequency response	10 Hz - 30 kHz	10 Hz - 30 KHz
Efficiency @ 4Ω	80%	80%
Operating voltage	10 - 16 V DC	10 - 16 V DC
Input sensitivity	100 mV - 10 V (± 5%)	100 mV - 10 V (± 5%)
Fuse	6 x 40 A	6 x 40 A
Dimensions W x H x L mm / inch	236 x 67.5 x 590 / 9.29" x 2.66" x 23.23"	236 x 67.5 x 590 / 9.29" x 2.66" x 23.23"