






일반 메탈씰 타입별 적용범위·성능 비교

Performing solid sealability under severe high temp., high pressure, ultrahigh vacuum, ultracold temperature, etc
Please select a appropriate Seal type by using condition and requirement such as fluid, pressure, temp, etc, with referring to the below table.

☑ 헬리코플렉스씰 (Technetics Group)과 관련해서는 별도의 자료 참고하시기 바랍니다.

Metal Seal Type	(MO) O-RING	(MC) C-RING	(ME) E-RING	(SMC) C-RING with SPRING	WIRE RING
Cross Section Shape					
Seating load	20 ~ 670 N/mm	30 ~ 300 N/mm	5 ~ 16 N/mm	90 ~ 510 N/mm	740 ~ 1050 N/mm
Standard material	SUS304,SUS321	Alloy718	Alloy718	Alloy X-750	SUS304, Cu, Al, Ni, Si
Plating & Coating	Gold, Silver, Copper, Nickel, Indium, PTFE	GoGold, Silver, Copper, Nickel, Indium, PTFE	Not recommended	Gold, Silver, Copper, Nickel, Indium, PTFE	-
Pressure rating	5 ~ 170 Mpa	200 ~ 690 Mpa	10 ~ 38 Mpa	400 ~ 650 Mpa	140 Mpa
Leak rate (Sealing level) ¹	1.E+01 ~ 1.E-11 mbar.l /sec.He	1.E-01 ~1.E-12 mbar- l /sec.He	1.E+03 ~1.E-4 mbar- l /sec.He	1.E-02 ~ 1.E-13 mbar- l /sec.He	1.E-06 ~1.E-10 mbar- l /sec.He
Temperature range	-253 ~ + 870 °C	-253 ~ + 870°C	-253 ~ + 870 °C	-253 ~ + 870 °C	-253 ~ + 870 °C
Available size	OD 6.35 ~ 7600 mm	OD 6.0 ~ 3000 mm	OD 45 ~ 1200 mm	OD 20.0 ~ 7600 mm	6.35 ~ 600 mm
Cross Section (&thickness)	0.89 ~ 15.88 (25종)	0.79 ~ 12.70 (20종)	1.88 ~ 7.49 (9종)	1.57 ~ 12.70 (8종)	0.89 ~ 3.18 (4종)
Springback	0.01 ~ 0.51 mm	0.03 ~ 0.64 mm	0.30 ~ 1.21 mm	0.08 ~ 0.56 mm	0.0 ~ 0.05 mm
Characteristics	<ul style="list-style-type: none"> Moderate~High Load Ultrahigh Vacuum ~ High pressure capability Static seal, Once used, Almost not reusable ² 	<ul style="list-style-type: none"> Moderate Load Good springback Ultrahigh Vacuum(10-10 Torr) ~High pressure capability Static seal, Once used, Almost not reusable ² 	<ul style="list-style-type: none"> Lowest load High springback Standard size available for AS1895 Flanges Static & Semi-static seal & Reusable. 	<ul style="list-style-type: none"> High load & Lowest leak rate ³ Ultrahigh Vacuum ~ High pressure capability Static seal, Once used, Almost not reusable ² 	<ul style="list-style-type: none"> High load "crush sealing" High pressure capability Very low springback High creep & relaxation Low cost Static seal, not reusable ²

! NOTE :

1. Polishing, Plating, Seating load에 따라 leak rate (Sealing level)가 달라짐
2. Static seals, Once used, should be replaced because of the high plastic deformation or permanent set (i.e. low elastic springback).
3. Generally, a higher seating load will ensure greatly leak tightness.

AEGIS
Sealing Technologies