

# MAGNETIC FLUID

- for **Gas & Dust sealing SPECIFICATION**



## ● For Corrosive gas(Reactive gas) sealing (Base oil : perfluore polyether[PFPE])

Item	Saturation Magnetization	Viscosity	Vapor Pressure	Torr	Torr* L/s Helium gas leak	Max. working temperature	Pour point
Model	Gauss	mPa.sec at 27°C	Pa. at 20°C	mmHg	less than 1E <sup>-11</sup>	°C	°C
MFF-R68	600	8,500	1X10 <sup>-14</sup>	1 X 10 <sup>-16</sup>	Ok	120	-30
MFF-R55	500	5,000	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	120	-30
MFF-R43	450	2,800	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	120	-30
MFF-R42	400	2,000	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	120	-30
MFF-KC5	500	<25,000	1X10 <sup>-14</sup>	1 X 10 <sup>-16</sup>	Ok	190	-20
MFF-M58	550	8,500	2X10 <sup>-9</sup>	1.5 X 10 <sup>-11</sup>	Ok	200	-5
MFF-M45	400	5,000	2X10 <sup>-9</sup>	1.5 X 10 <sup>-11</sup>	Ok	200	-5

## ● For Non-Corrosive gas(Inert gas)&dust sealing

Item	Saturation Magnetization	Viscosity	Vapor Pressure	Torr	Torr* L/s Helium gas leak	Max. working temperature	Pour point
Model	Gauss	mPa.sec at 27°C	Pa. at 20°C	mmHg at 20°C	less than 1E <sup>-11</sup>	°C	°C
MFS-630	600	2,200	1 X 10 <sup>-7</sup>	7.5 X 10 <sup>-10</sup>	Ok	200	-40
MFS-513	500	900	1 X 10 <sup>-7</sup>	7.5 X 10 <sup>-10</sup>	Ok	200	-40
MFS-407	400	500	1 X 10 <sup>-7</sup>	7.5 X 10 <sup>-10</sup>	Ok	200	-40
MFH-503	500	210	1 X 10 <sup>-5</sup>	1 X 10 <sup>-8</sup>	Ok	160	-30
MFA-830	850	2,900	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	120	-10
MFA-808	780	800	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	120	-10
MFA-603	580	300	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	120	-10
MFA-502	470	240	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	120	-10
MFA-402	400	160	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	120	-10

## ■ Grease type (Not Liquid) For Non-Corrosive gas&dust sealing + lubrication

MFG-50	500		1X10 <sup>-10</sup>	7.5 X 10 <sup>-13</sup>	Ok	100	-90
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\*사용온도는 증기압, RPM, shaft 직경 등에 따라 변동될 수 있습니다.

\*증기압과 Torr는 사용된 Pure base oil의 수치입니다.

\*상기 규격 이외에도 여러가지 규격이 있으며, 주문 제작도 가능합니다.

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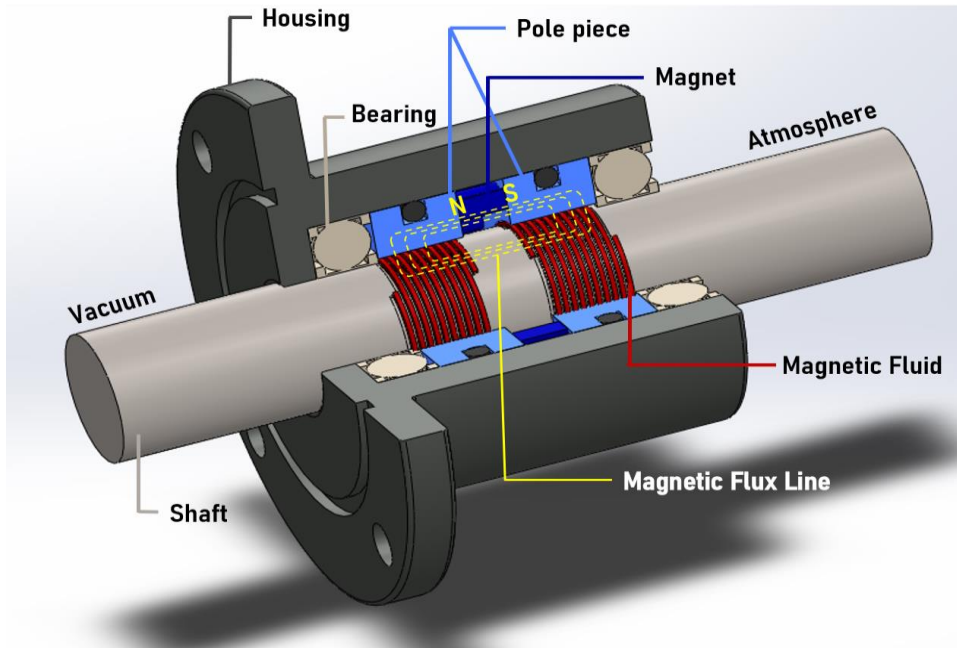
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## ● Ferrofluid seal

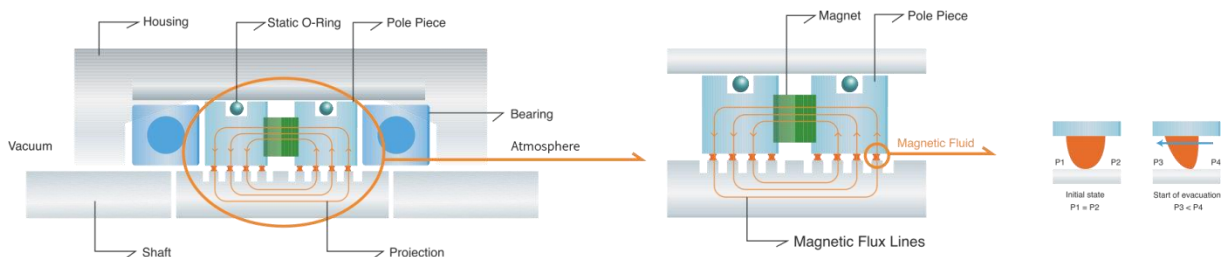
Ferro-fluid seal : It is the no friction Sealing material that magnetic fluid injected into the gap between the magnet and the rotating shaft forms a type of "Liquid O-Ring" by magnetic field formed by the magnet and the pole piece. No friction, enhances facility durability and prevents harmful gas and dust from being subjected to ultra high vacuum conditions.

Used for Ion Implant Systems , CVD, Organic EL, Sputter, Ion implanters, X-ray generators, Wafer transfer robot, LCD conveying agitator, Plasma Etching Systems, Optical accelerator, HID Lamp, Automobile HID Lamp Manufacturing Process, CD RW and so on.  
Main customers : Rigaku , Samsung, LG, SKhynix , etc.

## ● Feedthrough Parts diagram



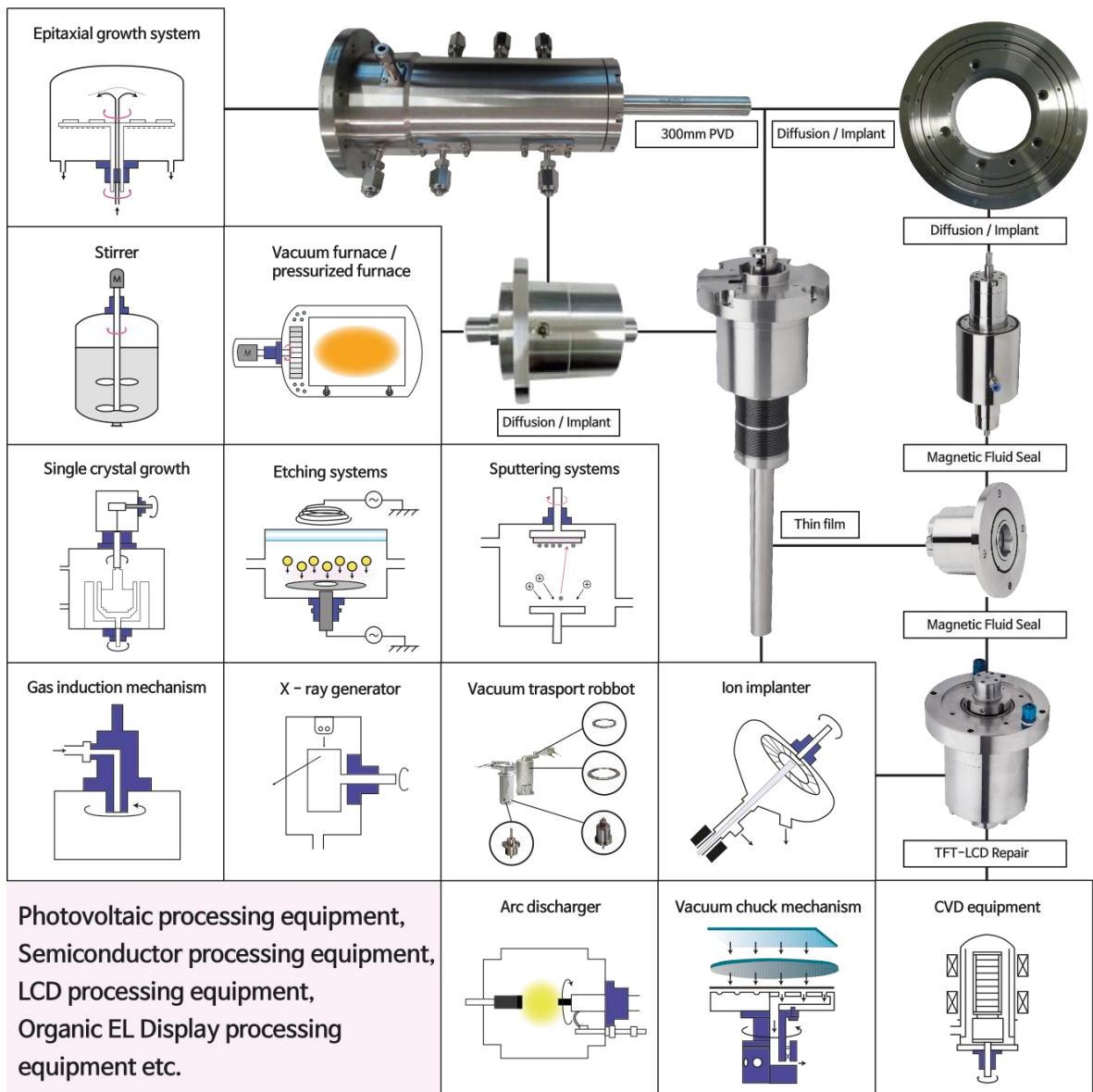
## ● Feedthrough Exploded view and how it works



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## ● Feedthrough and equipment where ferrofluids are used



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Address : #403 – 3 dong, Gyeonggi Technopark, 705 Haean-ro, Sangnok-gu, Ansan-Si,  
Gyeonggi-do, Republic of South Korea  
Post code : 15588

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**TEL : 031-500-4633 / FAX : 031-500-4631**

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**Mail : [magron@magron.co.kr](mailto:magron@magron.co.kr)**

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**Web site (Korean) : [www.magron.co.kr](http://www.magron.co.kr)**

**Web site (English) : [www.ferrozone.co.kr](http://www.ferrozone.co.kr)**

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We constantly develop and release new products.

Please contact us.

