

# 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- L/s Helium gas leak	Max. working temperature	Pour point	Density
			Pa at 20°C	Torr mmHg. at 20°C				
Model	Gauss	mPa.sec (cP) at 27°C	Pa at 20°C	Torr mmHg. at 20°C	Less than 1E-11	°C	°C	g/cm <sup>3</sup>
MFF-R68	600	8,500	1E-14	1E-16	Ok	120	-30	2.25
MFF-R55	500	5,000	1E-12	7.5E-15	Ok	120	-30	2.2
MFF-R43	450	2,800	1E-12	7.5E-15	Ok	120	-30	2.17
MFF-R42	400	2,000	1E-12	7.5E-15	Ok	120	-30	2.14
MFF-KC5	500	pudding Form Not liquid	1E-14	1E-16	Ok	190	-20	2.20
MFF-M58	550	8,500	2E-9	1.5E-11	Ok	200	-5	2.27
MFF-M45	400	5,000	2E-9	1.5E-11	Ok	200	-5	2.17

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

Item	Saturation Magnetization	Viscosity	Vapor Pressure		Torr- L/s Helium gas leak	Max. working temperature	Pour point	Density
			Pa. at 20°C	Torr mmHg. at 20°C				
Model	Gauss	mPa.sec (cP) at 27°C	Pa. at 20°C	Torr mmHg. at 20°C	Less than 1E-11	°C	°C	g/cm <sup>3</sup>
MFS-630	600	2,200	1E-7	7.5E-10	Ok	200	-40	1.39
MFS-513	500	900	1E-7	7.5E-10	Ok	200	-40	1.31
MFS-407	400	500	1E-7	7.5E-10	Ok	200	-40	1.21
MFH-503	500	210	1E-7	7.5E-10	Ok	160	-30	1.30
MFA-830	850	2,900	4E-8	3E-10	Ok	120	-10	1.68
MFA-808	780	800	4E-8	3E-10	Ok	120	-10	1.52
MFA-603	580	300	4E-8	3E-10	Ok	120	-10	1.36
MFA-502	470	240	4E-8	3E-10	Ok	120	-10	1.31
MFA-402	400	160	4E-8	3E-10	Ok	120	-10	1.23

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

MFG-50	500		1E-10	7.5E-13	Ok	100	-90	1.4
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\*The Max. working temperature depends on the temperature applied directly to the ferrofluid, vacuum pressure, RPM, shaft diameter, etc..

\*Vapor pressure and Torr are the value of Pure base oil used.

\*Besides the above products, we can make custom orders

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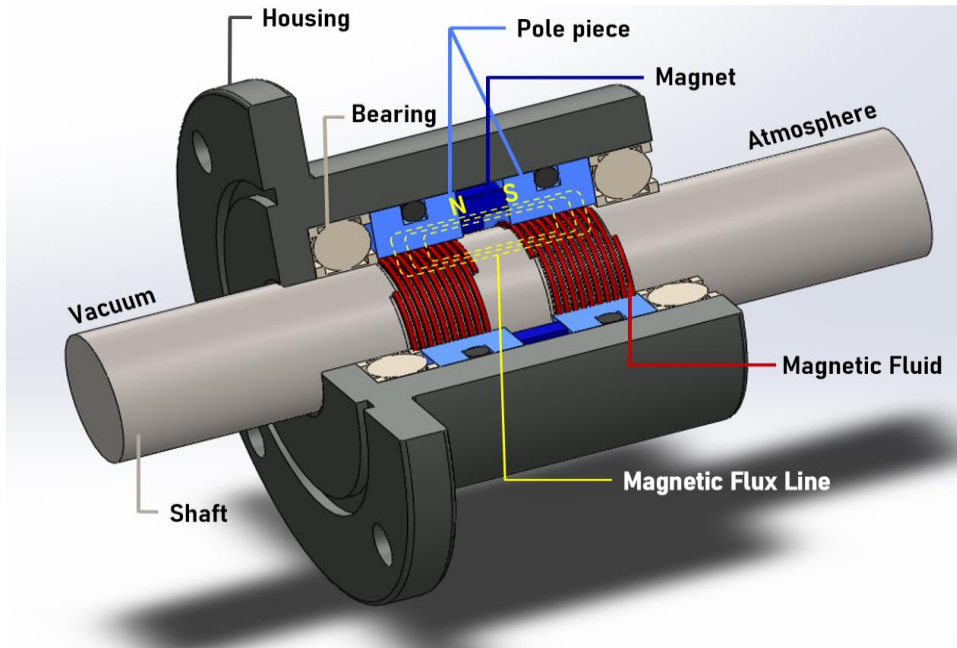
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## Ferrofluid seal

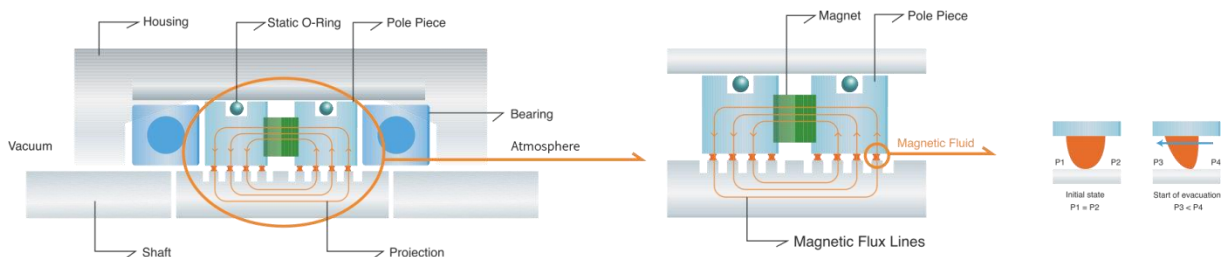
Ferro-fluid seal : It is the no friction Sealing material that magnetic fluid injected into the gap between the magnet and the rotating shaft forms a type of "Liquid O-Ring" by magnetic field formed by the magnet and the pole piece. No friction, enhances facility durability and prevents harmful gas and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



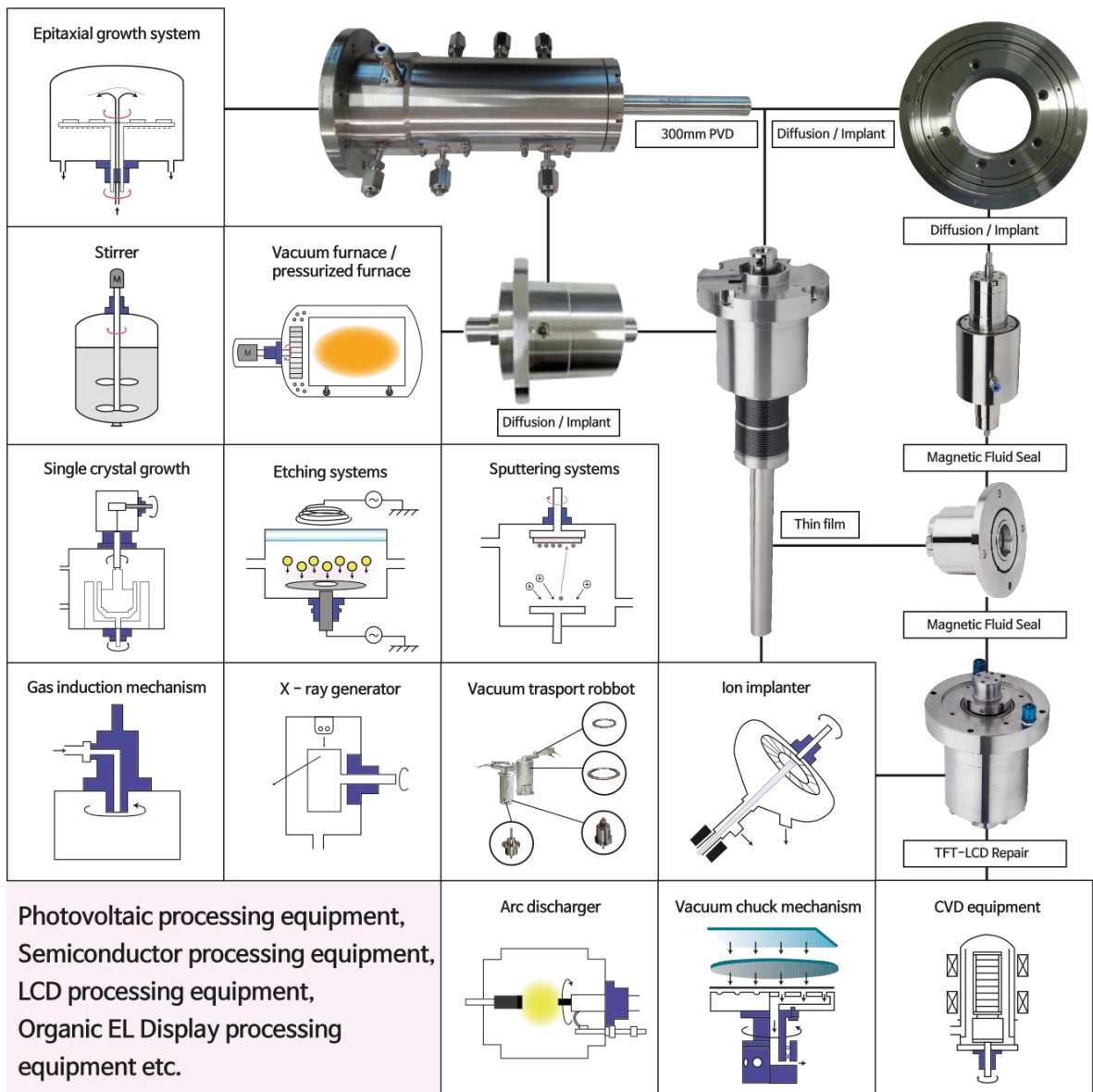
## Feedthrough Exploded view and how it works



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## ● Feedthrough and equipment where ferrofluids are used



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

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You can make an order with the specifications you want.

We constantly develop and release new products.

Please contact us.

