

# MAGNETIC FLUID

- for **Gas & Dust sealing SPECIFICATION**



## ● For Corrosive gas (Base oil : perfluore polyether)

Item	Saturation Magnetization	Viscosity	Vapor Pressure	Torr	Torr* L/s Helium gas leak	Continuous operating Max.Temp.	Non-continuous operating Max.Temp.	Pour point
Model	Gauss	mPa.sec at 27°C	Pa. at 20°C	mmHg	less than 1E <sup>-11</sup>	°C	°C	°C
MFF-R68	600	8,500	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	100	120	-30
MFF-R55	500	5,000	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	100	120	-30
MFF-R43	450	2,800	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	100	120	-30
MFF-R42	400	2,000	1X10 <sup>-12</sup>	7.5 X 10 <sup>-15</sup>	Ok	100	120	-30
MFF-KC5	500	<25,000	1X10 <sup>-14</sup>	7.5 X 10 <sup>-17</sup>	Ok	150	180	-20
MFF-03	550	8,500	2X10 <sup>-9</sup>	1.5 X 10 <sup>-11</sup>	Ok	150	180	-5
MFF-02	400	5,000	2X10 <sup>-9</sup>	1.5 X 10 <sup>-11</sup>	Ok	150	180	-5

## ● For Non-Corrosive gas

Item	Saturation Magnetization	Viscosity	Vapor Pressure	Torr	Torr* L/s Helium gas leak	Continuous operating Max.Temp.	Non-continuous operating Max.Temp.	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	°C
MFS-630	600	2,200	1 X 10 <sup>-7</sup>	7.5 X 10 <sup>-10</sup>	Ok	170	200	-40
MFS-513	500	900	1 X 10 <sup>-7</sup>	7.5 X 10 <sup>-10</sup>	Ok	170	200	-40
MFS-407	400	500	1 X 10 <sup>-7</sup>	7.5 X 10 <sup>-10</sup>	Ok	170	200	-40
MFH-503	500	210	1 X 10 <sup>-5</sup>	1 X 10 <sup>-8</sup>	Ok	120	150	-30
MFA-10	850	2,900	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	80	120	-10
MFA-08	780	800	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	80	120	-10
MFA-06	580	300	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	80	120	-10
MFA-04	470	240	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	80	120	-10
MFA-02	400	160	4 X 10 <sup>-8</sup>	3 X 10 <sup>-10</sup>	Ok	80	120	-10

## ■ Grease type (Not Liquid) For Non-Corrosive gas

MFG-50	500		1X10 <sup>-10</sup>	7.5 X 10 <sup>-13</sup>	Ok	100	120	-90
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\*Temperature is change depends on working temperature, vapor pressure, RPM, shaft diameter.

\*There are other standards we have except above, and we can customizing.

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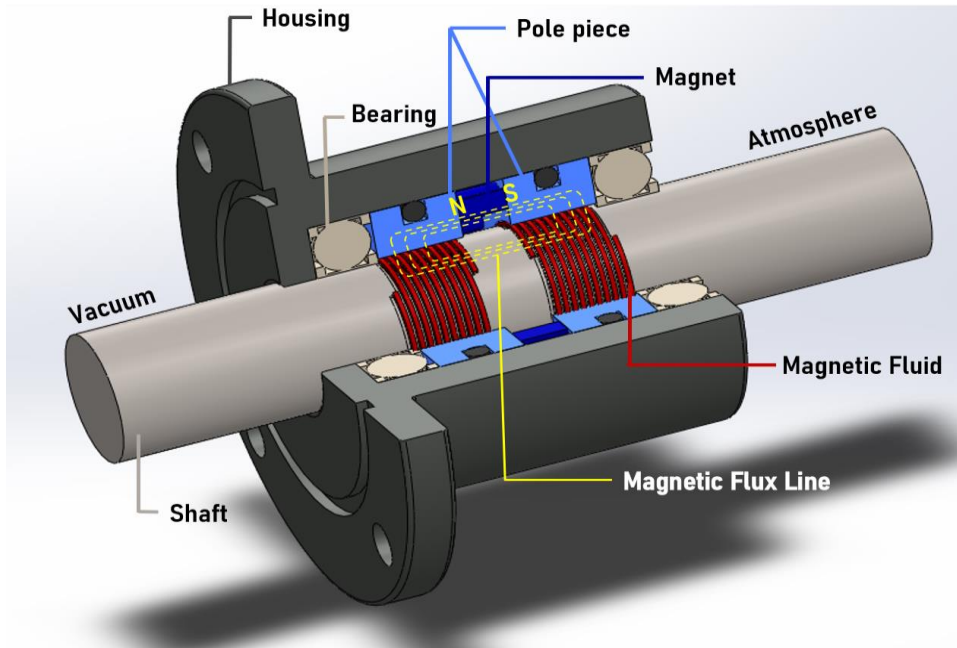
## ● Ferrofluid seal

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.

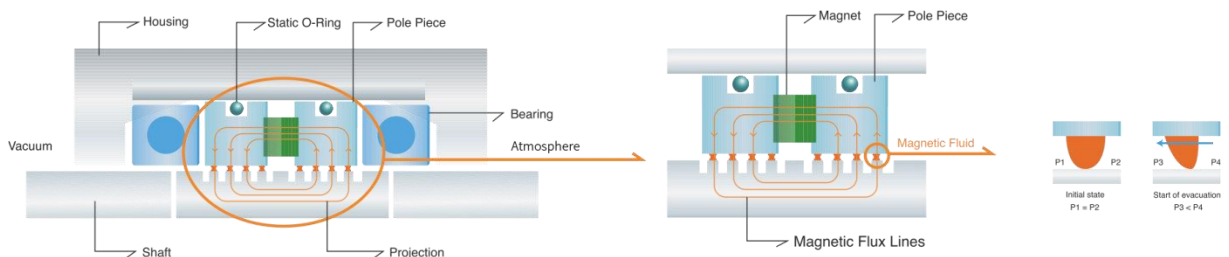
Used for Ion Implant Systems , CVD, Organic EL, Sputter, Ion implanters, X-ray generators, Wafer transfer robot, LCD conveying agitator, Plasma Etching Systems, Optical accelerator, HID Lamp, Automobile HID Lamp Manufacturing Process, CD RW and so on.

Main customers : Rigaku , Samsung, LG, SKhynix , etc.

## ● Feedthrough Parts diagram



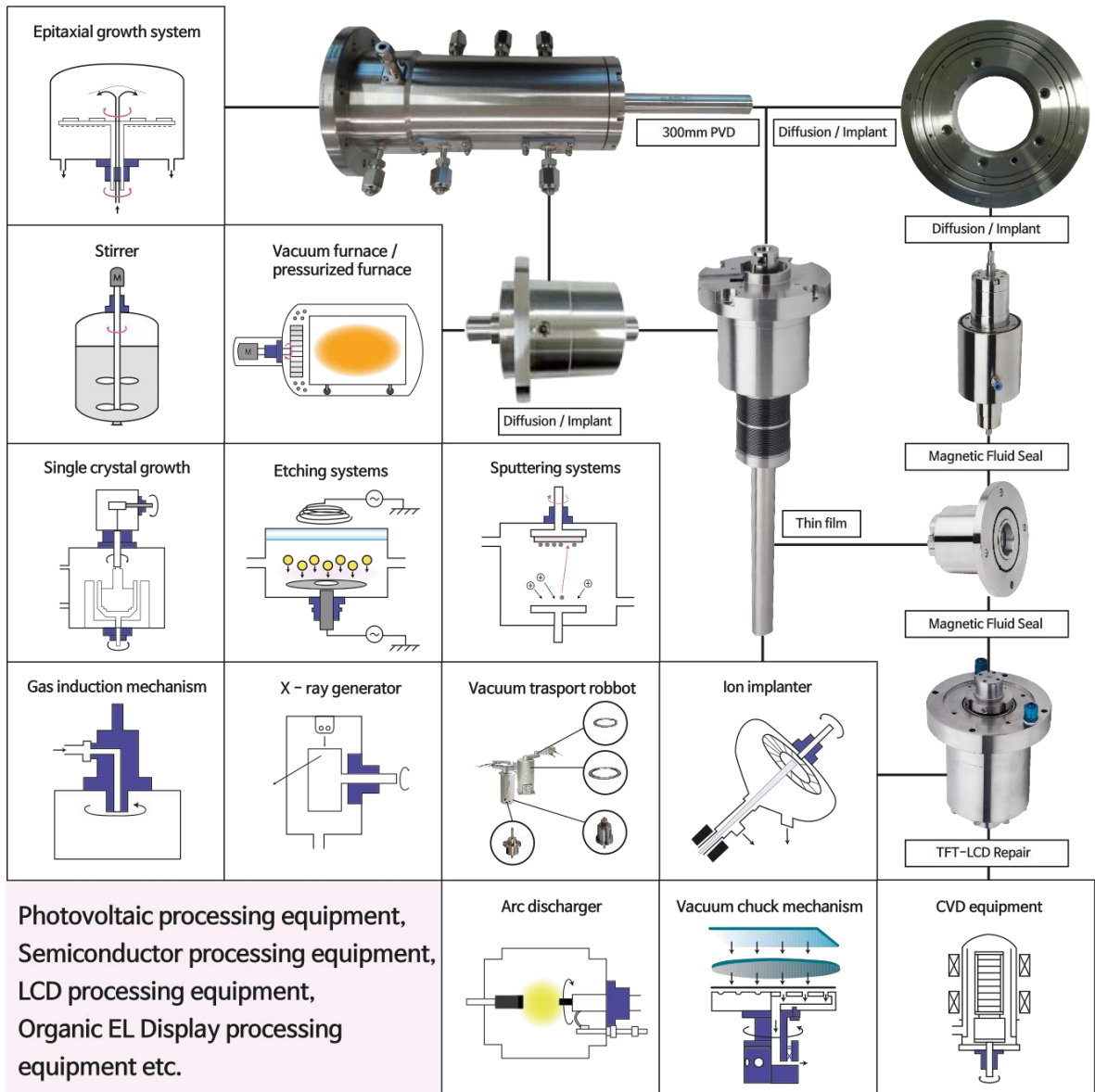
## ● Feedthrough Exploded view and how it works



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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.

