



# Turbomolecular MagLev

Model **MK**



## Reliability

5 active axis MagLev technology



## Compact Design

Integrated controller



## Process Capable

Durable rotor design for high gas load



## Ease Of Use

Automatic calibration



## Performance

Pumping speeds from 1650 l/sec to 4200 l/sec



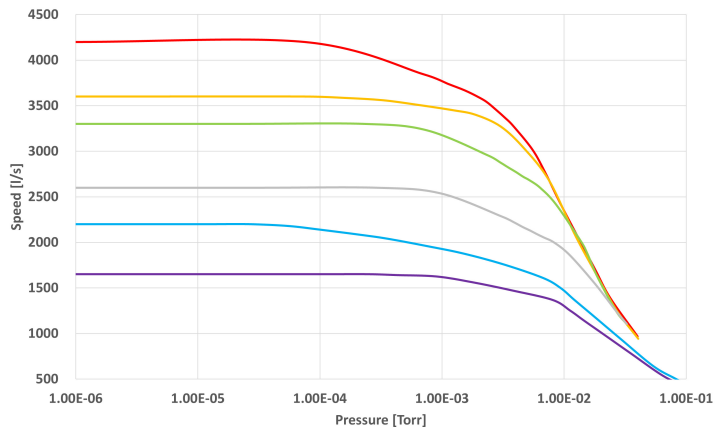
Max  
N<sub>2</sub> 4.4 slm  
Ar 2.6 slm



Specifications		EMT1704MK	EMT2204MK	EMT3004MK	EMT3304MK	EMT3804MK	EMT4204MK
Inlet flange		ISO-F200	ISO-F250	ISO-F250	ISO-F320	ISO-F320	ISO-F400
Outlet flange		KF40	KF40	KF40	KF40	KF40	KF40
Volume flow rate	N <sub>2</sub>	1650 L/s	2200 L/s	2600 L/s	3300 L/s	3600 L/s	4200 L/s
	N <sub>2</sub> (with inlet screen)	1570 L/s	2100 L/s	2500 L/s	2700 L/s	3400 L/s	4000 L/s
	H <sub>2</sub>	1550 L/s	1800 L/s	2300 L/s	2300 L/s	2700 L/s	2700 L/s
Maximum compression ratio	N <sub>2</sub>	> 2×10 <sup>8</sup>	> 2×10 <sup>8</sup>	> 1×10 <sup>8</sup>	> 1×10 <sup>8</sup>	> 2×10 <sup>8</sup>	> 2×10 <sup>8</sup>
	H <sub>2</sub>	3×10 <sup>3</sup>	3×10 <sup>3</sup>	3×10 <sup>3</sup>	3×10 <sup>3</sup>	2×10 <sup>3</sup>	2×10 <sup>3</sup>
Base pressure		< 2×10 <sup>-7</sup> Pa [1.5×10 <sup>-9</sup> Torr]	< 2×10 <sup>-7</sup> Pa [1.5×10 <sup>-9</sup> Torr]	< 2×10 <sup>-7</sup> Pa [1.5×10 <sup>-9</sup> Torr]	< 2×10 <sup>-7</sup> Pa [1.5×10 <sup>-9</sup> Torr]	< 5×10 <sup>-7</sup> Pa [3.8×10 <sup>-9</sup> Torr]	< 5×10 <sup>-7</sup> Pa [3.8×10 <sup>-9</sup> Torr]
Maximum throughput	N <sub>2</sub>	8110 Pa·L/s [4400 sccm]	8110 Pa·L/s [4400 sccm]	4060 Pa·L/s [2200 sccm]	4060 Pa·L/s [2200 sccm]	5160 Pa·L/s [2800 sccm]	5160 Pa·L/s [2800 sccm]
	Ar	4790 Pa·L/s [2600 sccm]	4790 Pa·L/s [2600 sccm]	3130 Pa·L/s [1700 sccm]	3130 Pa·L/s [1700 sccm]	2580 Pa·L/s [1400 sccm]	2580 Pa·L/s [1400 sccm]
Maximum backing pressure		100 Pa [0.75 Torr]	100 Pa [0.75 Torr]	110 Pa [0.82 Torr]	110 Pa [0.82 Torr]	100 Pa [0.75 Torr]	100 Pa [0.75 Torr]
Maximum continuous running pressure (N <sub>2</sub> )		220 Pa [1.65 Torr]	220 Pa [1.65 Torr]	170 Pa [1.28 Torr]	170 Pa [1.28 Torr]	160 Pa [1.2 Torr]	160 Pa [1.2 Torr]
Vibration (0 - peak)		<0.01 μm	<0.01 μm	<0.01 μm	<0.01 μm	<0.01 μm	<0.01 μm
Rated rotational speed		27000 min <sup>-1</sup>	27000 min <sup>-1</sup>	27000 min <sup>-1</sup>	27000 min <sup>-1</sup>	24000 min <sup>-1</sup>	24000 min <sup>-1</sup>
Mounting orientation		Any	Any	Any	Any	Any	Any
Approx. Weight		65 kg	62 kg	73 kg	70 kg	78 kg	75 kg

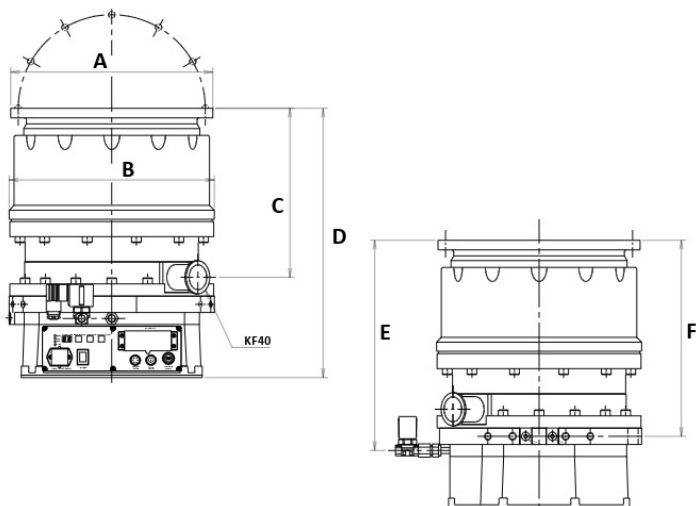
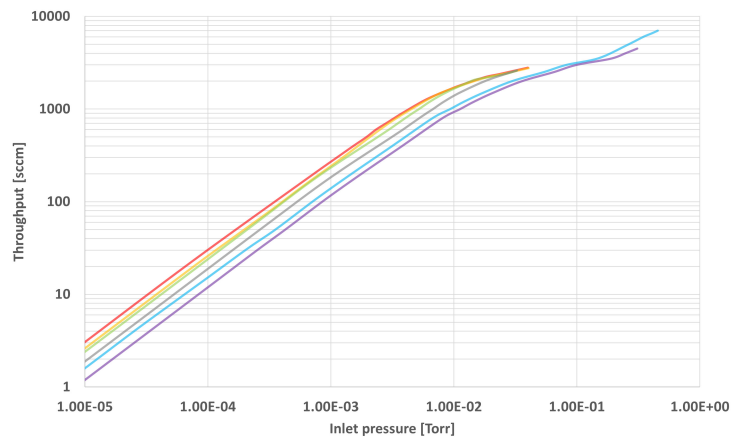
Volume Flow Rate N<sub>2</sub>

— EMT4204MK — EMT3804MK — EMT3304MK  
— EMT3004MK — EMT2204MK — EMT1704MK



Throughput for N<sub>2</sub>

— EMT4204MK — EMT3804MK — EMT3304MK  
— EMT3004MK — EMT2204MK — EMT1704MK



Model MK

Dimensions (mm)	EMT1704	EMT2204	EMT3004	EMT3304	EMT3804	EMT4204
Flange	ISO-F200	ISO-F250	ISO-F250	ISO-F320	ISO-F320	ISO-F400
A	285	335	335	425	425	510
B	340	340	380	380	415	415
C	335	280	357	277	324	276
D	501	446	525	445	492	444
E	403	348	427	347	394	346
F	380	325	403	323	370	322