



Vacuum Reactor Discharge Pump—— High Pressure, Full Jacket

HK Series Polymer Melts Gear Pump

HK series melt gear pump is especially suitable for the reaction and transportation of high temperature and high viscosity polymer melt requiring high output pressure, such as resin, chemical fiber and other industries. It is generally installed in the lower part of the reactor to make the feed pump. This series of melt gear pumps have good self-priming performance, and can be used for conveying and pressurizing polymer materials under vacuum reaction conditions.

The main materials that can be transported by melt gear pump are as follows:

polymer melt

PET PBT PTT

PA6 PA66 PA12

PE LDPE LLDPE HDPE HMWPE

PP EVA PB

PB PS HIPS ABS SAN

PC PEK PMMA POM

TPU PLA PBS

Stock solution, solution, glue solution, oligomer and prepolymer in other polymer industry;

It can also be used to transport hot melt adhesive, asphalt, paint, adhesive,

pharmaceutical, food, grease, fuel, oil, dye, coating, lubricant, polyol and other materials without particulate impurities.

Technical data:

Viscosity : 1~30, 000Pa•s (1,000~30,000,000cP)

Suction side pressure : Vacuum (-0.05~-0.09MPa) ~4MPa

Discharge side pressure : 0~35MPa

Differential pressure : 25MPa

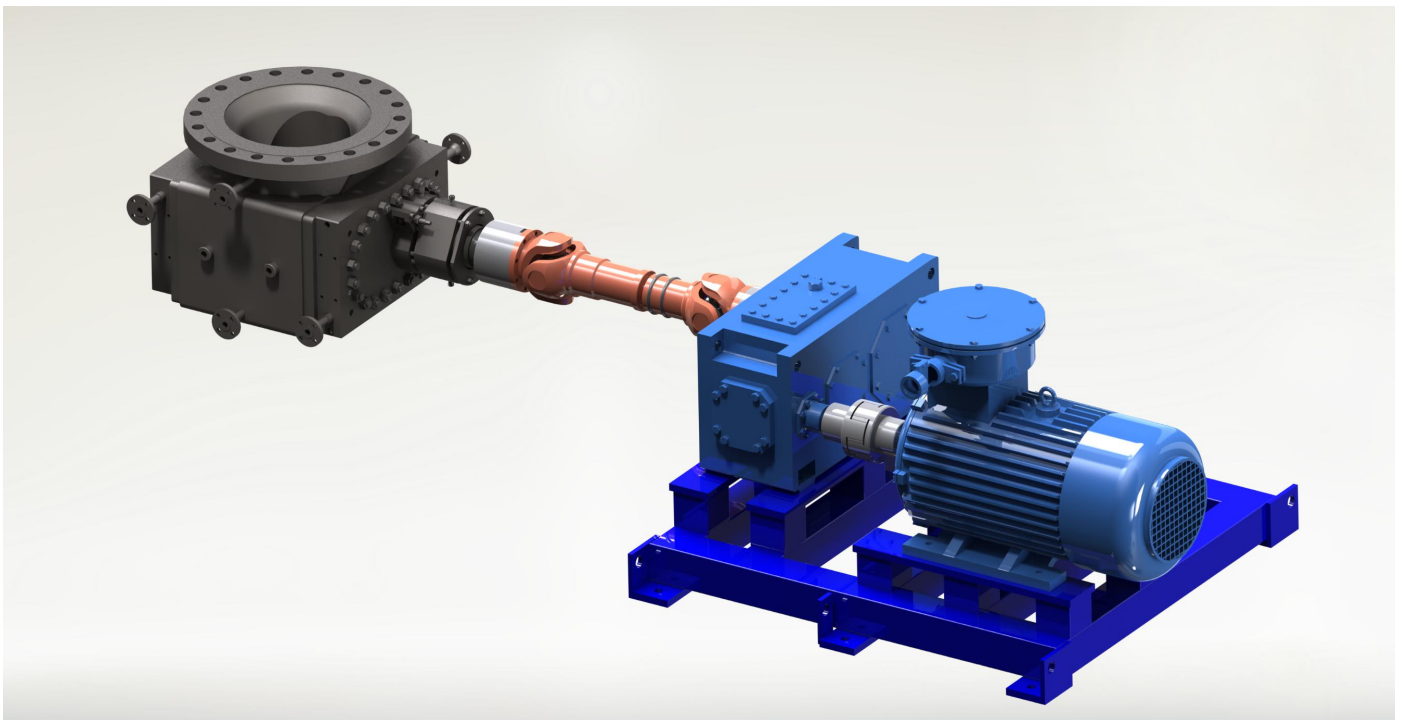
Temperature : $\leq 350^{\circ}\text{C}$

Heating method : Fully Jacketed

HTM pressure : $\leq 1.6\text{MPa}$

Installation method

HK series melt gear pumps are generally installed at the bottom of the reactor and are driven by a motor + reducer + universal coupling. The melt gear pump is a positive displacement forced delivery pump. The pump output flow can be adjusted by adjusting the pump speed. It is recommended Using frequency conversion speed regulation, can realize the nearly linear flow output of the gear pump.



Main structure of gear pump:

Rotor type: helical or spur gear

Heating method: Heat medium heating

Sealing structure:

- Dynamic melt seal + packing seal
- Mechanical seal
- Dynamic seal with cooling melt
- High temperature resistant packing seal

Main structural materials of melt gear pump:

Pump casing: stainless steel/alloy steel/corrosion-resistant alloy

Gear: Nitrided steel/tool steel/stainless steel + coating/corrosion resistant alloy

Bearing: tool steel/copper alloy/stainless steel + coating/corrosion resistant alloy

Pump size and Technical data

Model	cc/r	Inlet pres. Mpa	Outl et pres .MPa	Max. flow rate m ³ /h				Tem p
				Low viscos ity materi al	Mediu m viscos ity materi al	High viscosi ty materi al	Ultra high viscosi ty materi al	
				< 50Pa. s	50~ 200Pa .s	200~ 2000P a.s	> 2000P a.s	
HK-355	355	Vacuu m -0.09 ~4.0	≤35. 0	2.3	1.5	0.9	0.7	≤350 ℃
HK-500	500			3.2	2.2	1.2	0.9	
HK-750	750			4.9	3.2	1.8	1.4	
HK-100 0	100 0			5.4	3.8	2.2	1.9	
HK-120 0	120 0			6.5	4.5	2.6	2.3	
HK-160 0	160 0			8.6	6	3.5	3	
HK-200 0	200 0			10.8	7.6	4.3	3.8	
HK-250 0	250 0			10.8	8.1	4.7	4.1	
HK-315 0	315 0			13.6	10.2	6	5.1	
HK-400 0	400 0			13	10.8	7.6	6.5	
HK-630 0	630 0			20	17	10	9	
HK-800 0	800 0			22	17	13	12	
HK-900 0	900 0			24	19	15	13	
HK-120 00	120 00			32	26	18	16	
HK-180 00	180 00			49	39	27	24	
HK-250 00	250 00			68	54	38	34	
HK-380	380			103	82	57	51	

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HK-540 00	540 00			146	117	82	73	
HK-800 00	800 00			216	173	121	108	
Please consult the manufacturer for larger or smaller specifications								