

Vacuum Reactor Discharge Pump—— High Pressure, Channel Heating

DHK Series Polymer Melts Gear Pump

DHK series melt gear pump is especially suitable for high temperature and high viscosity polymer melt reaction transportation that requires high output pressure, such as resin, chemical fiber and other industries. It is generally installed in the lower part of the reactor and used as a 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 conveyed by the melt gear pump are:

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

Other stock solutions, solutions, glues, oligomers, prepolymers, etc. in the polymer material industry;

It can also be used to transport hot melt adhesives, asphalt, paints, adhesives,

pharmaceuticals, food, grease, fuels, oils, dyes, coatings, lubricants, polyols and other materials that do not contain 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

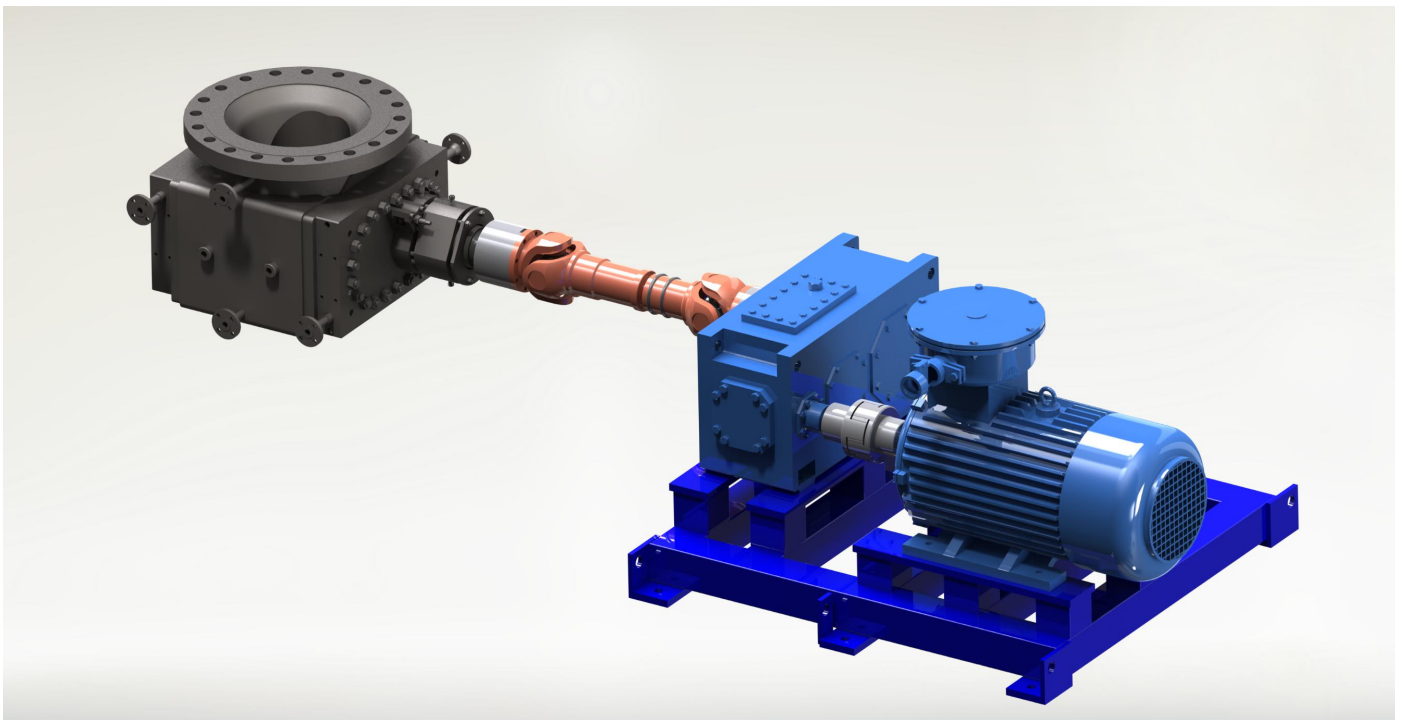
Temperature : $\leq 350^{\circ}\text{C}$

Heating method : Fully Jacketed

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

Installation method

DHK 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	Outlet pres. MPa	Max. flow rate m ³ /h				Temp
				Low viscosity material	Medium viscosity material	High viscosity material	Ultra high viscosity material	
				< 50Pa.s	50~200Pa.s	200~2000Pa.s	> 2000Pa.s	
DHK-5	5	Vacuum -0.09 ~4.0	≤35.0	0.041	0.027	0.019	0.012	≤350℃
DHK-10	10			0.081	0.054	0.038	0.024	
DHK-20	20			0.162	0.108	0.076	0.049	
DHK-32	32			0.259	0.173	0.121	0.078	
DHK-50	50			0.405	0.270	0.189	0.122	
DHK-75	75			0.527	0.365	0.243	0.162	
DHK-100	100			0.702	0.486	0.324	0.216	
DHK-160	160			1.123	0.778	0.518	0.346	
DHK-200	200			1.404	0.972	0.648	0.432	
DHK-250	250			1.620	1.080	0.675	0.473	
DHK-355	355			2.3	1.5	0.9	0.7	
DHK-500	500			3.2	2.2	1.2	0.9	
DHK-750	750			4.9	3.2	1.8	1.4	
DHK-1000	1000			5.4	3.8	2.2	1.9	
DHK-1200	1200			6.5	4.5	2.6	2.3	
DHK-1600	1600			8.6	6.0	3.5	3.0	
DHK-2000	2000			10.8	7.6	4.3	3.8	

DHK-2500	2500	Please consult the manufacturer for larger or smaller specifications		10.8	8.1	4.7	4.1
DHK-3150	3150			13.6	10.2	6.0	5.1
DHK-4000	4000			13.0	10.8	7.6	6.5
DHK-6300	6300			20	17	10	9
DHK-8000	8000			22	17	13	12
DHK-9000	9000			24	19	15	13
DHK-12000	12000			32	26	18	16
DHK-18000	18000			49	39	27	24
DHK-25000	25000			68	54	38	34
DHK-38000	38000			103	82	57	51
DHK-54000	54000			146	117	82	73
DHK-80000	80000			216	173	121	108
Please consult the manufacturer for larger or smaller specifications							