

Vacuum Reactor Discharge Pump—— Medium And Low Pressure, Channel Heating

DLK Series Polymer Melts Gear Pump

DLK series melt gear pumps are suitable for the reaction transportation of high temperature and high viscosity polymer melts that require low output pressure and large flow, such as resin, chemical fiber and other industries. They are 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 : $1\text{E-}3 \sim 30,000\text{Pa}\cdot\text{s}$ ($1 \sim 30,000,000\text{cP}$)

Suction side pressure : $(-0.05 \sim -0.09\text{MPa}) \sim 4\text{MPa}$

Discharge side pressure : $0 \sim 7\text{MPa}$

Differential pressure : 5MPa

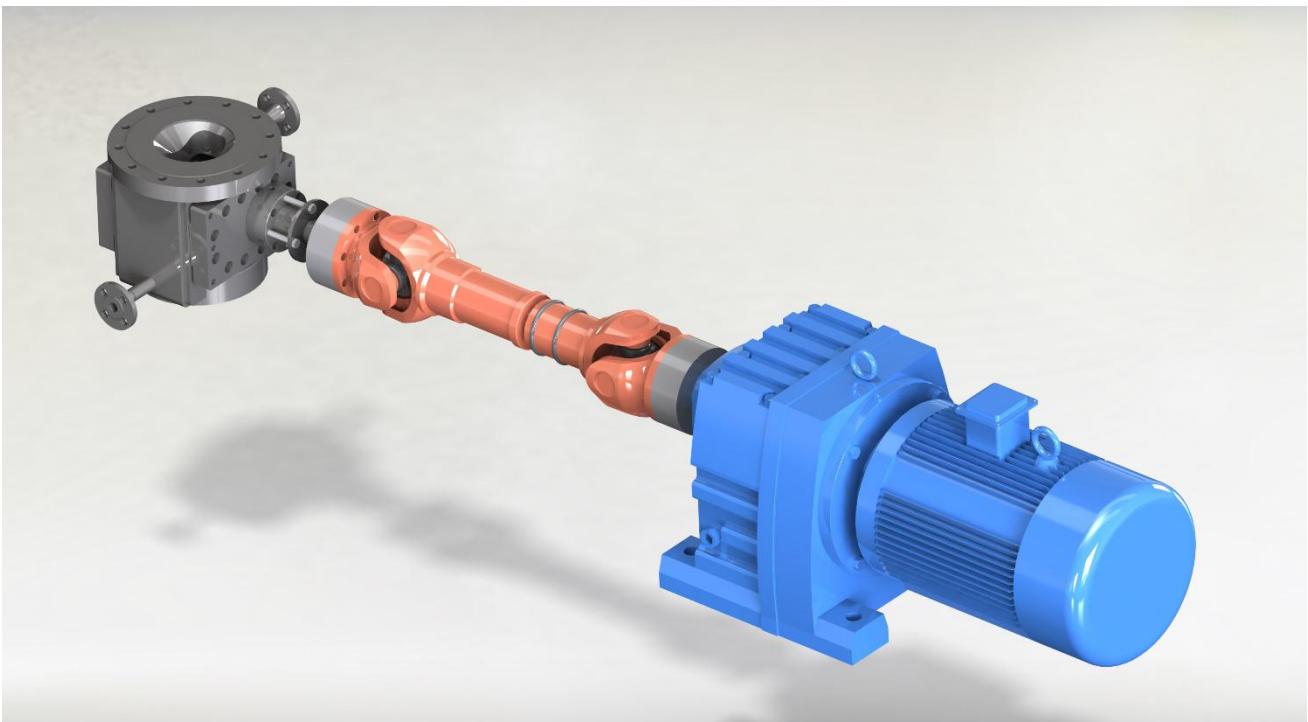
Temperature : $\leq 350^\circ\text{C}$

Heating : Fully Jacketed

HT medium pressure : $\leq 1.6\text{MPa}$

Installation method

DLK 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	
DLK-5	5	Vacuum -0.09 ~4.0	≤10.0	0.041	0.027	0.019	0.012	≤350 ℃
DLK-10	10			0.081	0.054	0.038	0.024	
DLK-20	20			0.162	0.108	0.076	0.049	
DLK-32	32			0.259	0.173	0.121	0.078	
DLK-50	50			0.405	0.270	0.189	0.122	
DLK-75	75			0.527	0.365	0.243	0.162	
DLK-100	100			0.702	0.486	0.324	0.216	
DLK-160	160			1.123	0.778	0.518	0.346	
DLK-200	200			1.404	0.972	0.648	0.432	
DLK-250	250			1.620	1.080	0.675	0.473	
DLK-355	355			2.3	1.5	0.9	0.7	
DLK-500	500			3.2	2.2	1.2	0.9	
DLK-750	750			4.9	3.2	1.8	1.4	
DLK-1000	1000			5.4	3.8	2.2	1.9	
DLK-1200	1200			6.5	4.5	2.6	2.3	
DLK-1600	1600			8.6	6.0	3.5	3.0	
DLK-2000	2000			10.8	7.6	4.3	3.8	

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