

Booster Pump—— Low-pressure, Channel Heating

DLS Series Polymer Melts Gear Pump

DLS series melt gear pumps are suitable for reaction delivery and pressurization of high-temperature and high-viscosity polymer melts with lower output pressure, such as resin, chemical fiber and other industries. They are generally installed in melt pipelines and used as booster pumps; The body gear pump has a certain self-priming performance, and can be used to transport and pressurize polymer materials under lower vacuum suction 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: $1E-3\sim30$, $000Pa \cdot s (1\sim30,000,000cP)$

Suction side pressure : $(-0.00 \sim -0.03 \text{MPa}) \sim 5 \text{MPa}$

Discharge side pressure : $0\sim5MPa$

Differential pressure: 5MPa

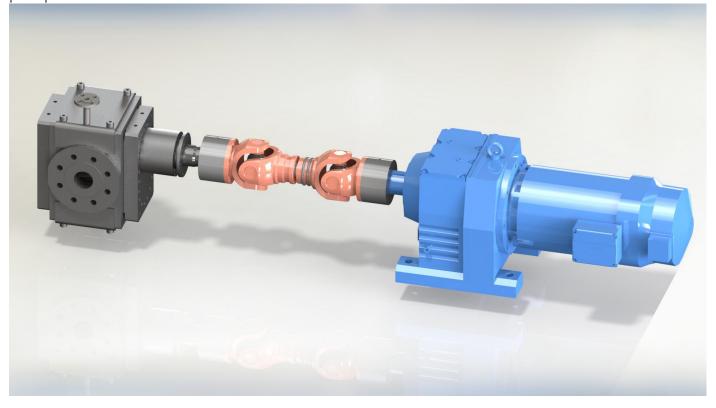
Temperature : ≤350°C

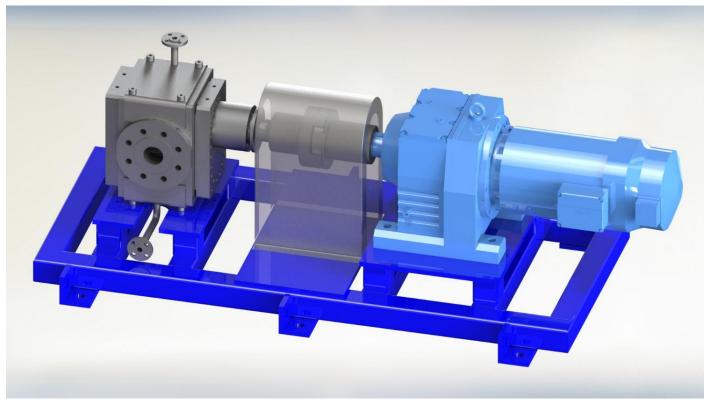
Heating: Fully Jacketed

HT medium pressure : ≤1.6MPa

Installation method

DLS series melt gear pumps are generally installed in the melt pipeline at the bottom of the reactor and used as booster pumps or metering pumps. They are driven by motor + reducer + universal coupling, or motor + reducer + flexible coupling. Shaft drive. Melt gear pump is a positive displacement forced delivery pump. The output flow of the pump can be adjusted by adjusting the speed of the pump. Frequency conversion speed regulation is recommended, which 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

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		Inlet	Outlet						
Model	cc/r	pres.	pres.	Max. flow rate m ³ /h				Temp	
		Мра	MPa						
				Low	Medium	High	Ultra high		
				viscosity	viscosity	viscosity	viscosity		
				material	material	material	material		
				<50Pa.s	50~	200~	>		
				_30Pa.S	200Pa.s	2000Pa.s	2000Pa.s		
		Vacuum							
DLS-5	5	-0.05∼	≤5.0	0.041	0.027	0.019	0.012	≤350°C	
		5.0							
DLS-10	10			0.081	0.054	0.038	0.024		
DLS-20	20			0.162	0.108	0.076	0.049		
DLS-32	32			0.259	0.173	0.121	0.078		
DLS-50	50			0.405	0.270	0.189	0.122		

DLS-75	75		0.527	0.365	0.243	0.162	
DLS-100	100		0.702	0.486	0.324	0.216	
DLS-160	160		1.123	0.778	0.518	0.346	
DLS-200	200		1.404	0.972	0.648	0.432	
DLS-250	250		1.620	1.080	0.675	0.473	
DLS-355	355		2.3	1.5	0.9	0.7	
DLS-500	500		3.2	2.2	1.2	0.9	
DLS-750	750		4.9	3.2	1.8	1.4	
DLS-1000	1000		5.4	3.8	2.2	1.9	
DLS-1200	1200		6.5	4.5	2.6	2.3	
DLS-1600	1600		8.6	6.0	3.5	3.0	
DLS-2000	2000		10.8	7.6	4.3	3.8	
DLS-2500	2500		10.8	8.1	4.7	4.1	
DLS-3150	3150		13.6	10.2	6.0	5.1	
DLS-4000	4000		13.0	10.8	7.6	6.5	
DLS-6300	6300		20	17	10	9	
DLS-8000	8000		22	17	13	12	
DLS-9000	9000		24	19	15	13	
DLS-12000	12000		32	26	18	16	
DLS-18000	18000		49	39	27	24	
DLS-25000	25000		68	54	38	34	
DLS-38000	38000		103	82	57	51	
DLS-54000	54000		146	117	82	73	
DLS-80000	80000		216	173	121	108	

Please consult the manufacturer for larger or smaller specifications ${\bf r}$