

## **Booster Pump—— Low-pressure, Full Jacket**

### **LS Series Polymer Melts Gear Pump**

LS series melt gear pumps are suitable for the 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 the melt pipeline and used as a booster pump; 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-3~30, 000Pa•s (1~30,000,000cP)

Suction side pressure : ( -0.00~-0.03MPa ) ~5MPa

Discharge side pressure : 0~5MPa

Differential pressure : 5MPa

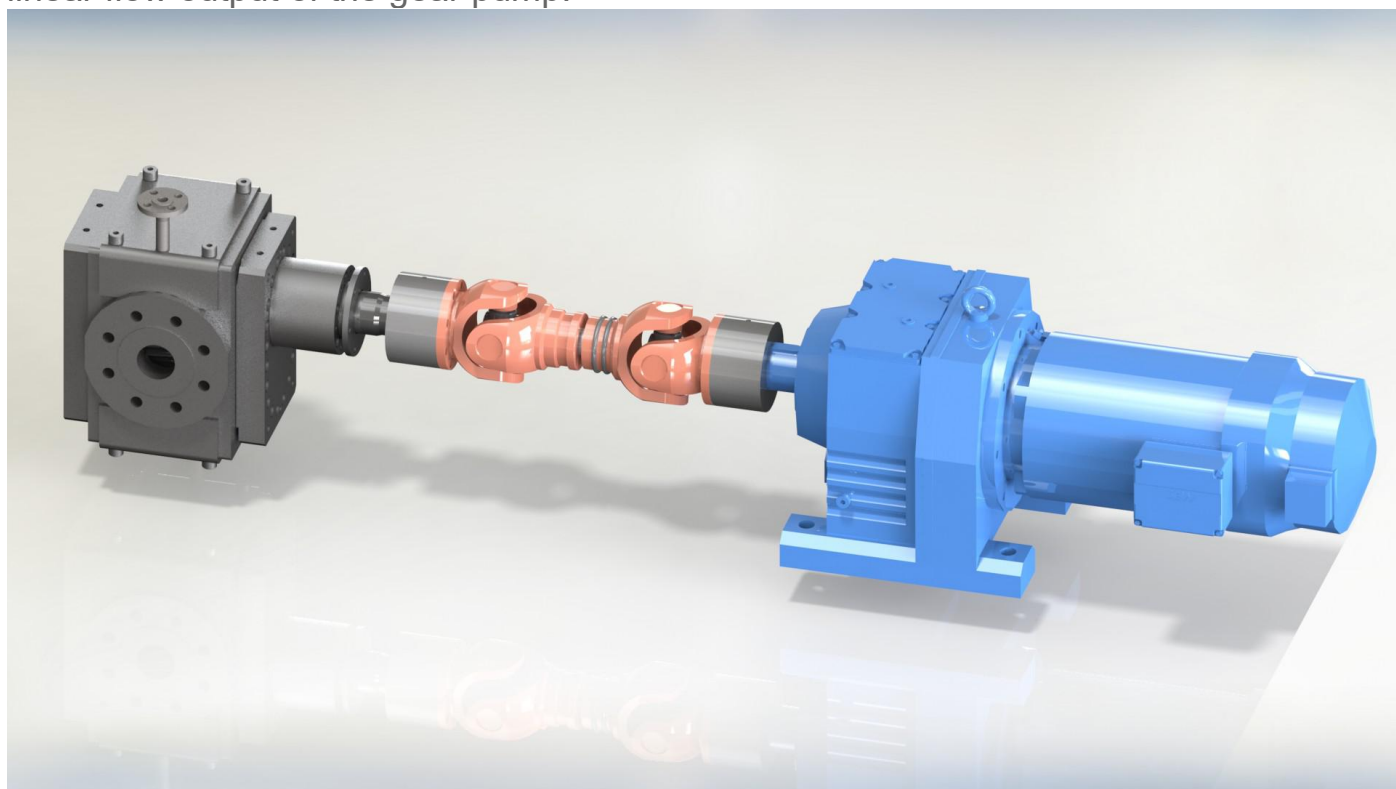
Temperature :  $\leq 350^{\circ}\text{C}$

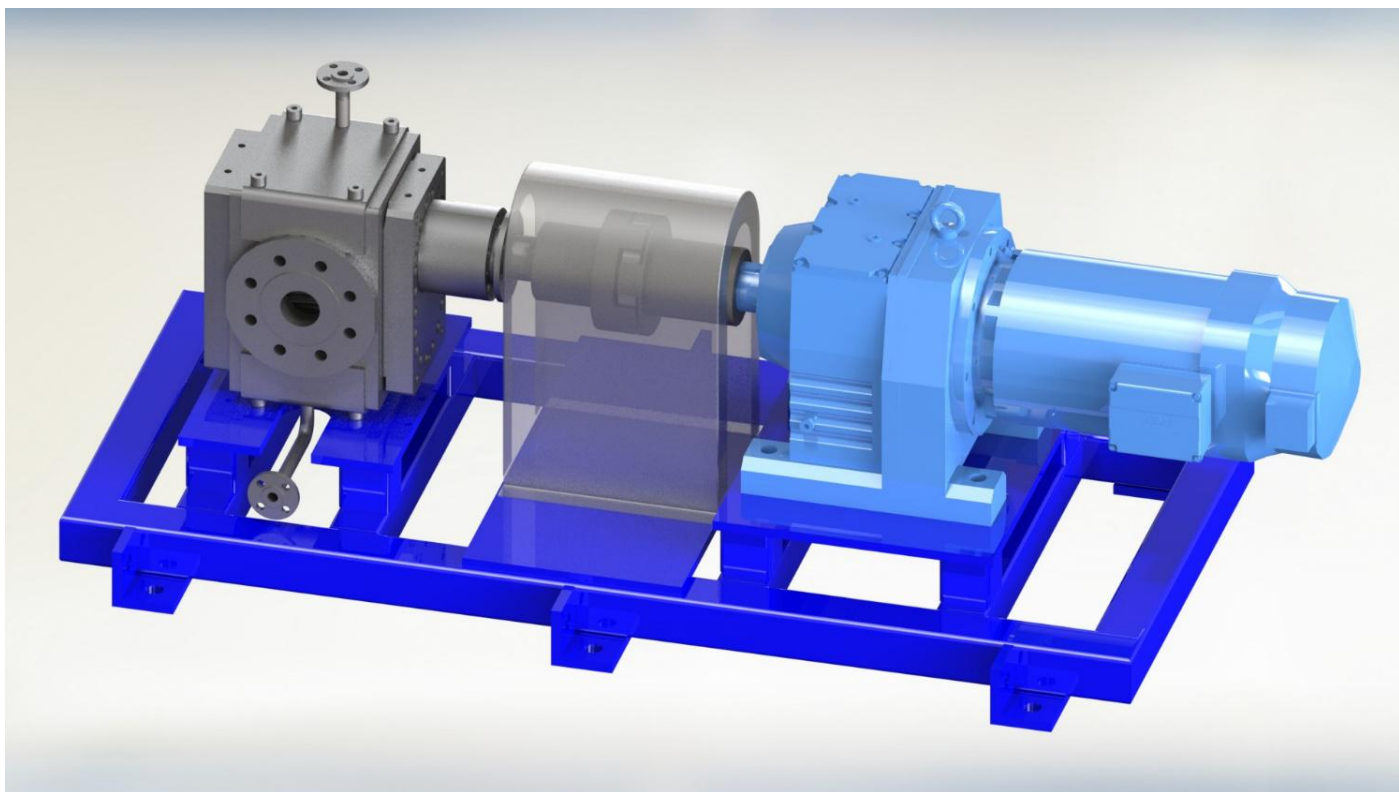
Heating : Fully Jacketed

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

### Installation method

The LS series melt gear pump is generally installed in the melt pipeline at the bottom of the reactor and used as a booster pump or a metering pump. It is driven by a motor + reducer + universal coupling. It can also be driven by a 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

Model	cc/r	Inlet pres. Mpa	Outlet pres. MPa	Max. flow rate m <sup>3</sup> /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	
LS-500	500	Vacuum -0.05~ 5.0	≤5.0	3.2	2.2	1.2	0.9	≤350℃
LS-750	750			4.9	3.2	1.8	1.4	
LS-1000	1000			5.4	3.8	2.2	1.9	
LS-1200	1200			6.5	4.5	2.6	2.3	
LS-1600	1600			8.6	6.0	3.5	3.0	

LS-2000	2000			10.8	7.6	4.3	3.8	
LS-2500	2500			10.8	8.1	4.7	4.1	
LS-3150	3150			13.6	10.2	6.0	5.1	
LS-4000	4000			13.0	10.8	7.6	6.5	
LS-6300	6300			20	17	10	9	
LS-8000	8000			22	17	13	12	
LS-9000	9000			24	19	15	13	
LS-12000	12000			32	26	18	16	
LS-18000	18000			49	39	27	24	
LS-25000	25000			68	54	38	34	
LS-38000	38000			103	82	57	51	
LS-54000	54000			146	117	82	73	
LS-80000	80000			216	173	121	108	
Please consult the manufacturer for larger or smaller specifications								