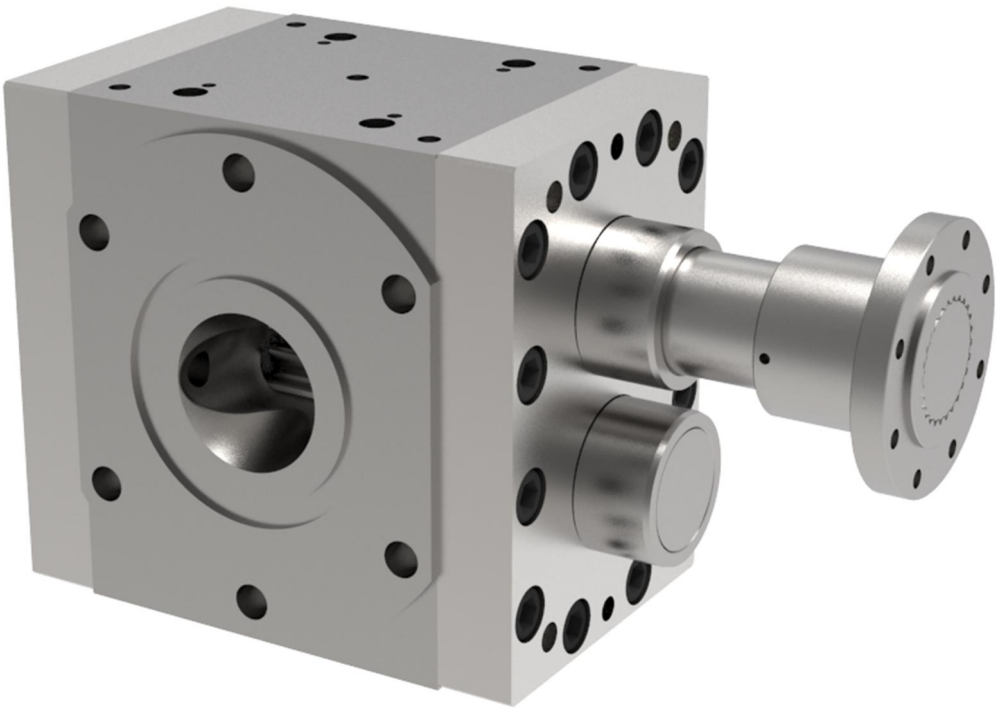
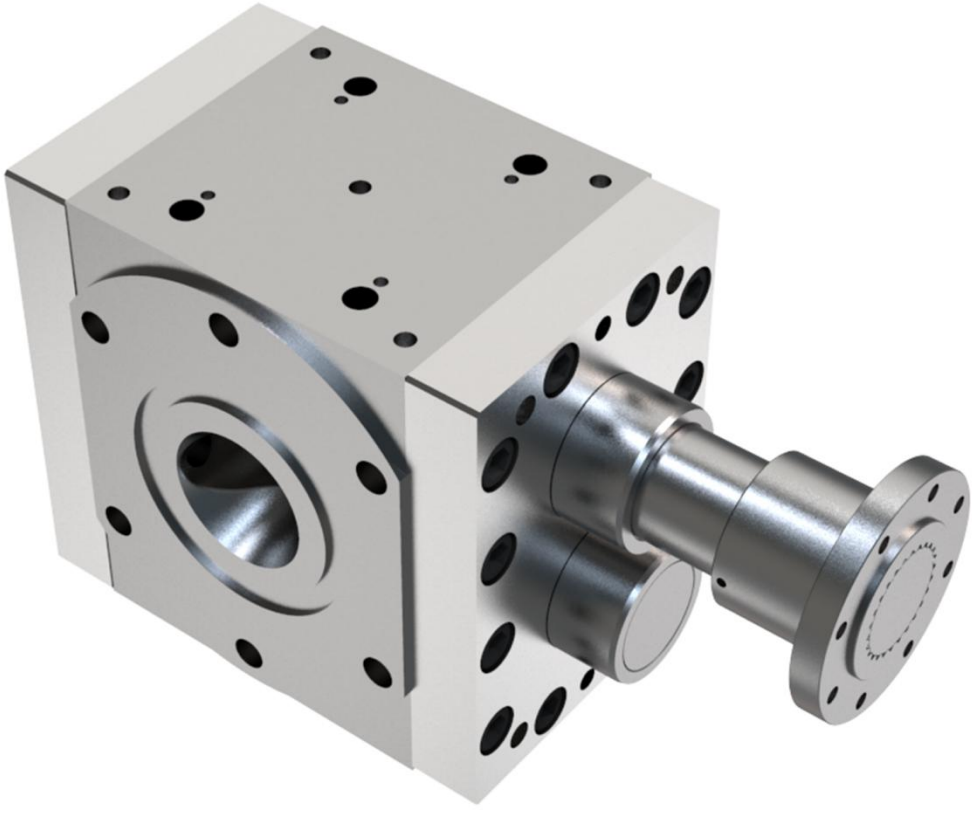
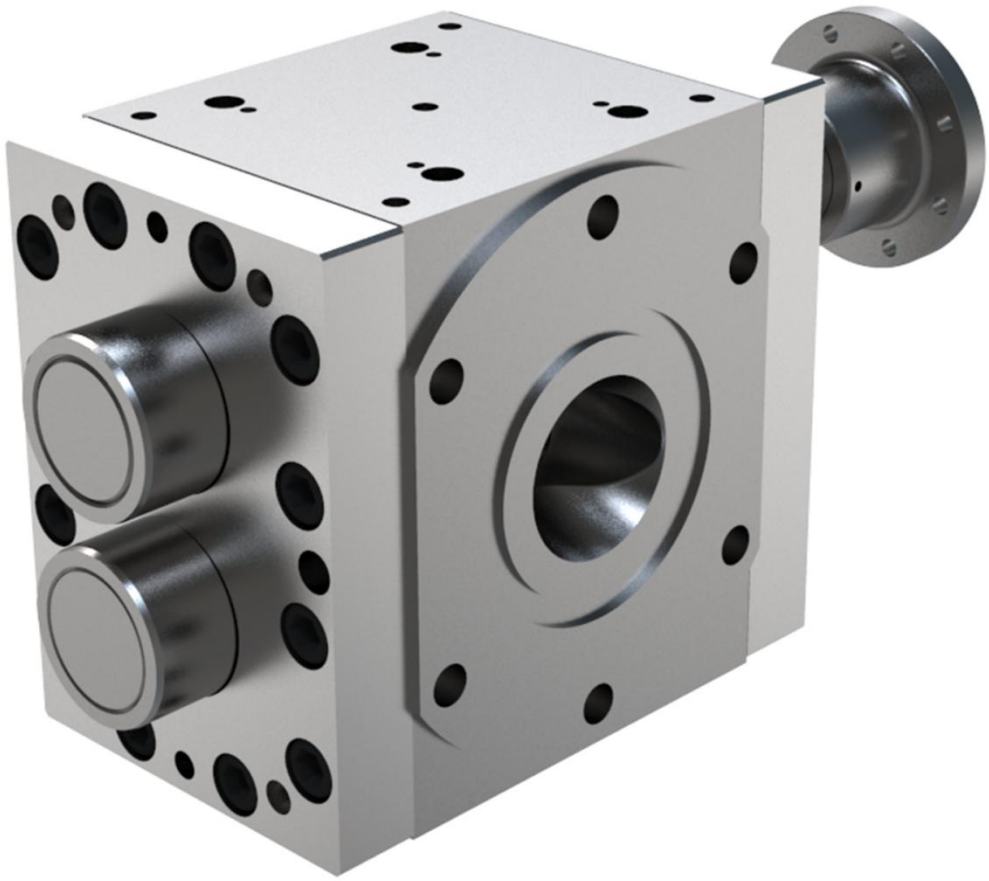






Gear pump for rubber and elastomer extrusion

Optimized tooth shape design, more stable conveying, minimal fluctuation
Runner design without dead ends, no material residue
Special lubrication and sealing structure, suitable for rubber and easily degradable materials
Optional wear-resistant configuration, suitable for high filling conditions
Suitable for electric heating

We provide a full set of solutions for melt pumps, driving devices, control systems and supporting screen changers and die heads

NER series melt gear pump is a melt gear pump for the extrusion system of thermoplastic materials. It is suitable for the extrusion and transportation of thermoplastic high-viscosity polymer melt; it is generally installed between the exit of the extruder and the die and used as a melt metering pump;

The main materials that can be conveyed by the melt gear pump are:

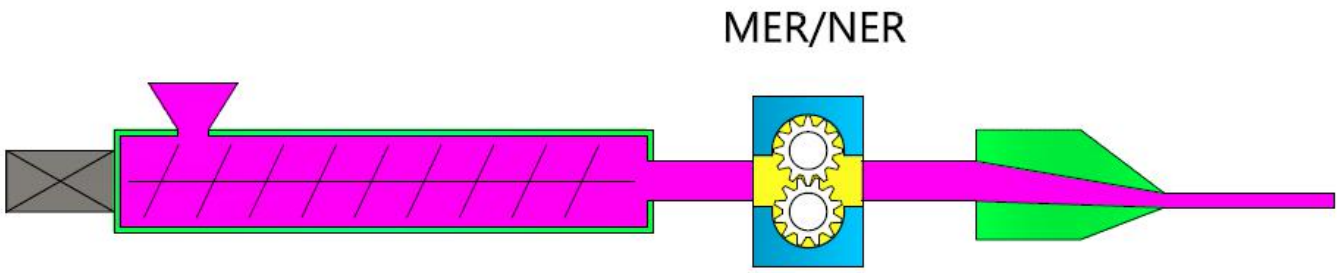
Thermoplastic materials and their blends
PET PBT PTT
PA6 PA66 PA12
PE LDPE LLDPE HDPE HMWPE
PP EVA PB

PB PS HIPS ABS SAN
PC PEK PMMA POM
TPU PLA PBS

Rubber and elastomer materials

NR BR CR NBR
IR IIR
SBR HNBR
EPM EPDM
PU TPU
ACM CSM
ECO SI

The application of extrusion pump in rubber extrusion processing



The main function of the melt pump:

1. Significantly improve the stability of die pressure and improve product quality;
2. It can realize the nearly linear output of the flow, which is easy to control;
3. Increase the extrusion volume and increase the output;
4. Reduce the load of the extruder, save energy and reduce costs.

The main features of our company's melt gear pump:

1. Very small pressure and flow pulsation, can achieve linear output of flow, suitable for precision extrusion system;
2. Use different structures and material configurations for different working conditions to better meet the individual needs of users;
3. It can be applied to the working conditions of high temperature (350℃), high pressure (40MPa) and high viscosity (40,000Pa•s);
4. Precise structure, high precision and long life.

The main structure of NER series melt gear pump:

Rotor type: helical or spur gear
Heating method: electric heating/heat medium heating

Sealing structure:

■ Dynamic melt seal + packing seal
■ Mechanical seal
■ Dynamic seal with cooling melt

Material configuration of the main structure of the melt gear pump

Material group		case	gear	bush	End plate	Features and applicable working conditions	Remarks
A	Standard	Nitrided steel	Nitrided steel	Tool steel	alloy steel	Good wear resistance, high toughness, high cost performance Suitable for most working conditions with low abrasion	Spare parts support
H	High wear resistance	Nitrided steel	High speed steel /coating	High speed steel /ceramics	alloy steel	High strength, high wear resistance Suitable for abrasive wear conditions	Need to be customized
SS	Corrosion resistant type	stainless steel	Nitrided steel	Tool steel	stainless steel	Wear-resistant and corrosion-resistant Suitable for low corrosive conditions	Need to be customized
HS	High corrosion resistance	stainless steel	Stainless tool steel	Stainless tool steel	stainless steel	High corrosion resistance Suitable for highly corrosive working conditions	Need to be customized
T	Special type	Special alloy	Special materials	Special materials	Special materials	High temperature resistance or high corrosion resistance Suitable for working conditions with special requirements	Need to be customized

Main technical features of NER series melt gear pump:

1. Optimized melt flow channel design: eliminate dead corners in the flow channel,

reduce polymer residues to a minimum, and improve the quality of products;
2. Improved gear parameter design: more accurate rotation displacement design makes the output pressure more stable and adapts to precise extrusion conditions;
3. A wide range of applicable viscosity: different sealing methods can be applied to working conditions from low viscosity to very high viscosity;
4. A variety of installation methods: to meet the individual needs of users;
5. High-precision manufacturing and excellent heat treatment: more precise and more durable;

Technical data:

Viscosity ： 1～40000Pa•s（1～40,000,000cP）

Suction side pressure ： 0～30MPa

Discharge side pressure ： 0～40MPa

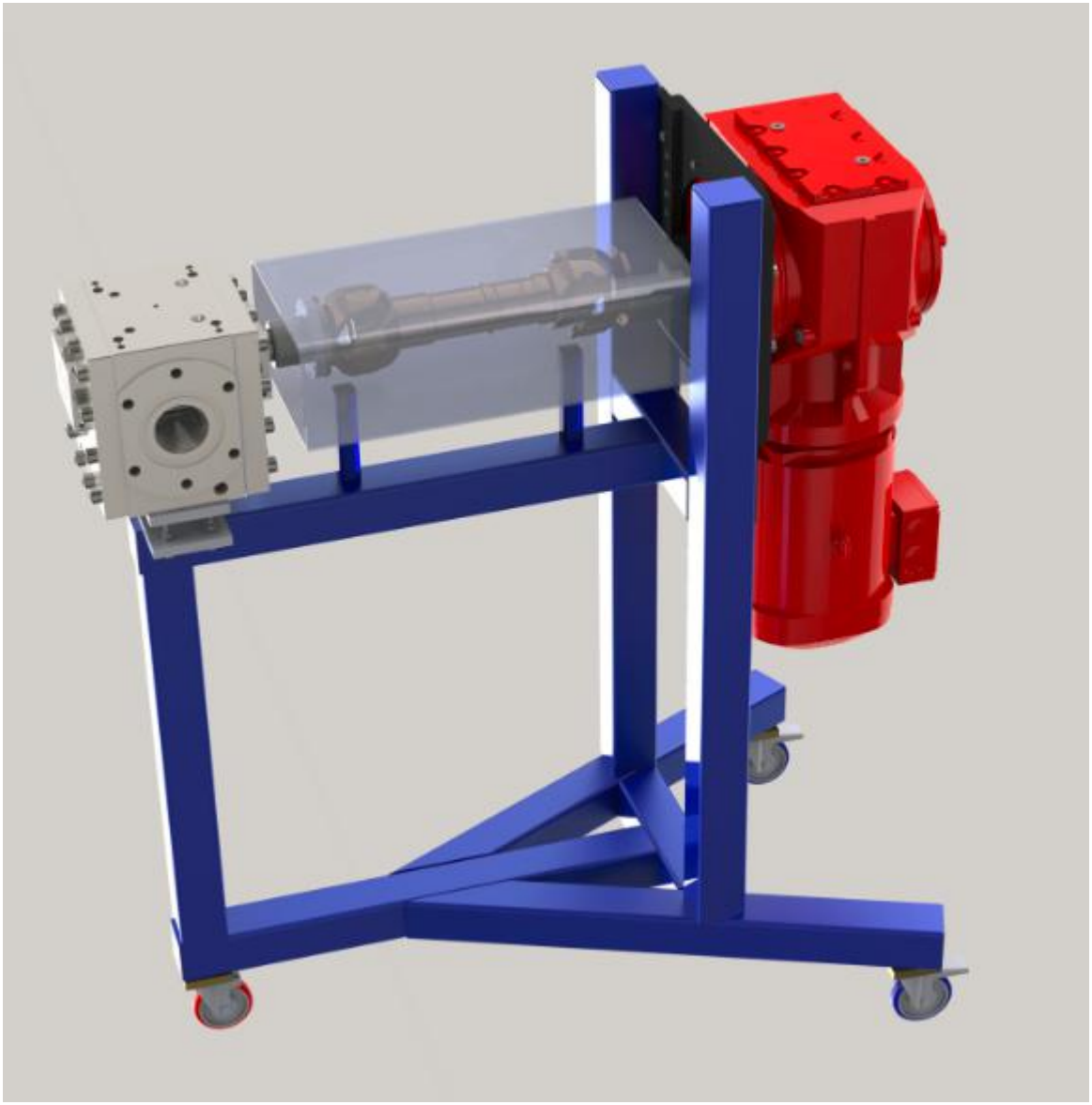
Differential pressure ： 25MPa

Temperature ： ≤350℃

Heating ： Electric heating

The installation structure of melt gear pump:

It is recommended to use a universal coupling to connect the reducer and the melt pump to eliminate the effects of thermal deformation; the melt gear pump is a positive displacement forced delivery pump, and the pump output flow can be adjusted by adjusting the pump speed. It is recommended to use frequency conversion adjustment The speed mode can realize the nearly linear flow output of the gear pump.



Pump size and Technical data

Model	cc/r	Inlet pres. MPa	Outlet pres. MPa	Max. flow rate m^3/h			Temp
				Low viscosity material	High viscosity material	Ultra high viscosity material	
				<200Pa.s	200～2000Pa.s	＞2000Pa.s	
NER-5	5	0～30	≤40.0	0.028	0.019	0.012	≤350℃
NER-10	10			0.054	0.038	0.024	
NER-20	20			0.108	0.076	0.049	
NER-32	32			0.173	0.121	0.078	
NER-50	50			0.270	0.189	0.122	

NER -75	75			0.365	0.243	0.162	
NER -100	100			0.486	0.324	0.216	
NER -160	160			0.778	0.518	0.346	
NER -200	200			0.972	0.648	0.432	
NER -250	250			1.080	0.675	0.473	
NER -355	355			1.5	0.9	0.7	
NER -500	500			2.2	1.2	0.9	
NER -750	750			3.2	1.8	1.4	
NER -1000	1000			3.8	2.2	1.9	
NER -1200	1200			4.5	2.6	2.3	
NER -1600	1600			6.0	3.5	3.0	
NER -2000	2000			7.6	4.3	3.8	
NER -2500	2500			8.1	4.7	4.1	
NER -3150	3150			10.2	6.0	5.1	
NER -4000	4000			10.8	7.6	6.5	
NER -6300	6300			17.0	10.2	9.2	
NER -8000	8000			17.3	13.0	11.7	
Please consult with the manufacturers for the bigger or lower specification							

The flow rate of the melt gear pump is related to the working speed, material viscosity, and working pressure. Please consult the manufacturer for specific selection.
The selection needs to provide parameters: 1 flow or output 2 material name 3 material viscosity 4 material corrosivity/toxicity 5 inlet and outlet pressure (pressure difference) 6 operating temperature