



# Extrusion Gear Pump (EGP)

All PSI products and components are proudly designed and manufactured in the USA



Shown: EGP 45/45

## Features

- Leak-free operation to 5,000 psi {344 bar}
- Process temperatures to 650°F {343°C}
- All parts manufactured to ISO-9002 standards
- Through-hardened tool steel gears
- Compact, low profile design
- Heavy duty construction
- Interchangeable parts with most gear pumps
- Transducer ports integral to housing
- Drop-in replacements available for most competitor's gear pumps

EGP rotary volumetric melt pumps utilize precision ground gears to provide precise and repeatable metering at constant pressure. The design ensures highly accurate output while providing the benefits of lower shear stress, lower extruder energy consumption, lower processing temperatures and higher output rates!

The EGP is capable of processing highly filled materials, fractional melts, recycled materials, highly viscous materials and can operate at pressures up to 5,000 psi (4,000 ΔP). PSI gear pumps are commonly applied to chemical, injection and additive applications. Pumps for reactors, vessels and polymerization plants are also available.

## Benefits

Precisely control output for accurate, stable gauge control

Better than feed screws at generating melt pressure - reduces demand on the extruder and boosts output rates

Decouples the extruder from the die and eliminates output variations caused by extruder wear, feedstock inconsistency, temperature control, etc

Reduce shear stress in the extruder for higher product quality

Lower energy consumption since the extruder no longer has to function as a pump

## Applications

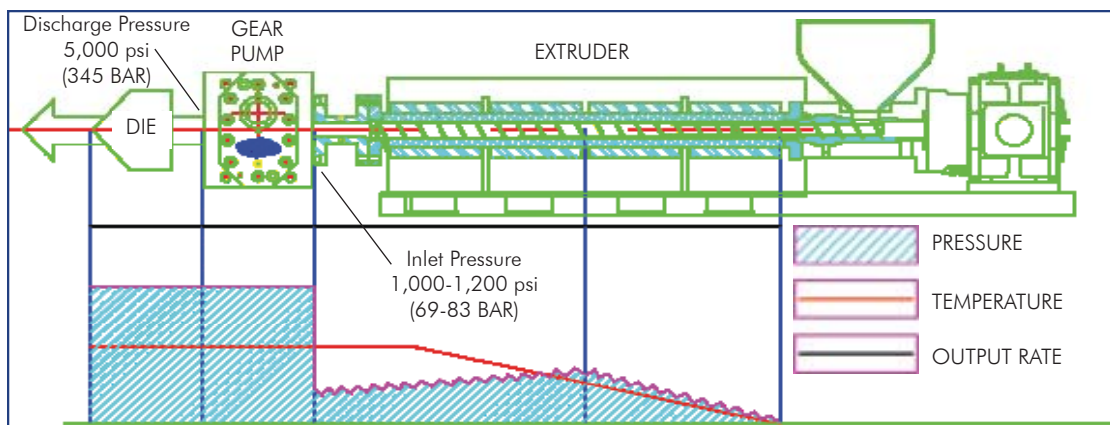
- Sheet
- Coating
- Pipe/tubing/profile
- Compounding
- Wire and cable
- Lab lines
- Textiles (fibers and nonwovens)
- EVA, hot melt adhesive and PSA
- Pelletizing (strand and underwater)
- High pressures
- Blown film and cast film
- PVC and other highly corrosive materials
- Degradable materials

# Technical Data

Model EGP	Pump Output lbs/hr   kg/hr	Capacity at SG = 1		CC/REV	Extruder Size inch   mm	Weight lbs   kg
		lbs/hr/RPM	kg/hr/RPM			
<b>Min 5 RPM Max 100 RPM</b>						
12/1.5	.06-1.3   .027-.59	.013	.006	.11	.75   20	5   2.27
12/3	.13-2.6   .059-1.18	.027	.012	.21	.75   20	6   2.72
12/6	.27-5.4   .122-2.45	.054	.024	.43	.75   20	7   3.18
12/12	.75-15   .340-6.80	.109	.049	.85	.75   20	7   3.18
28/6	1.3-27.2   .617-12.3	.272	.123	2.06	1   25	16   7.26
28/12	2.6-53.2   1.21-24.1	.532	.241	4.03	1   25	18   8.16
28/20	4.82-96.4   2.19-43.7	.964	.437	7.30	1   25	20   9.07
28/28	6.8-136   3.08-61.7	1.36	.617	10.3	2   50	22   9.98
38/38	22-442   10-200	4.42	2.0	33.8	2.5   65	40   18
45/45	38-769   17.5-349	7.7	3.5	58.2	3.5   90	62   28
60/60	76-520   34.5-689	15.2	6.9	115	4.5   114	125   57
70/70	116-2,320   52.6-1,052	23.2	10.5	176	4.5   114	180   82
76/76	186-3,730   84.6-1,692	37.3	16.9	283	6   150	195   88
90/90	293-5,180   133-2,350	51.8	23.5	392	6-8   150-200	245   111
<b>Min 5 RPM Max 50 RPM</b>						
110/110	480-4,805   218-2,180	96.1	43.6	727	8   200	410   186
150/75	730-7,300   331-3,310	146	66.2	1,108		1,053   478
150/100	975-9,750   442-4,423	195	88.5	1,477		1,114   505
150/125	1,220-12,200   553-5,534	244	111	1,846		1,184   537
150/150	1,465-14,650   665-6,645	293	133	2,215		1,250   567
180/135	1,595-15,950   723-7,235	319	145	2,418		1,500   680
180/180	2,130-21,300   966-9,662	426	193	3,224		1,700   771
224/168	3,085-30,850   1,399-13,993	617	280	4,670		2,450   1,111
224/224	4,110-41,100   1,864-18,643	822	373	6,227		2,720   1,234

For larger sizes and special applications contact factory

## Pressure, Temperature and Output Profile With a PSI Gear Pump



## Why Use PSI Pumps?

- Higher output due to the reduction in the extruder head pressure
- Elimination of surging and related defects in the extruded product, resulting in higher yield of finished product per pound
- Reduction in melt temperature reduces the cooling load on downstream equipment and increases output rate