



High Pressure Gear Pump (HGP) Chemical Industrial Pump (CIP)

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



High Pressure Gear Pump



Chemical Industrial Pump

Features

- Compact / low profile design
- Leak-free operation
- Manufactured to ISO-9002 standards
- Special processing of material up to 850° F
- Heavy duty construction
- Through hardened tool steel gears

The PSI High Pressure Gear Pump (HGP) is ideal for the most demanding extrusion processes. The HGP is capable of processing highly viscous, filled materials and can operate at pressures up to 10,000 psi (7,500 ΔP). The pump system is mounted between the extruder and the die head to eliminate any process variations initiating in the extruder. The HGP will accurately meter polymer and pressure to the die, providing consistent output, precise gauge control and ultimately a superior end product. PSI manufactures complete pump systems, controls and all interfacing equipment, which can be mounted on a custom designed support stand, or supplied as individual components.

The Chemical Industrial Pump (CIP) is a universal, precision gear pump designed for a wide variety of processes including chemical, industrial, injection and prepolymer applications. Precision ground gears provide precise metering and constant pressure (1,000 ΔP). PSI can provide complete system assemblies including the gear pump, motor, reducer, coupling, universal drive shaft, base plate/cart, and drive controls.

Benefits

More accurate gauge control

Lower processing temperatures

Lower energy consumption and shear stress

Faster start-ups

Reduced scrap

Increased life on extruder screw & barrel

Applications

- Blown film and cast film
- Sheet
- Coating
- Pipe and profile
- Pelletizing (strand and underwater)
- Compounding
- Wire and cable
- Tubing & profile
- Lab lines
- High pressures

Exclusive applications for CIP

- Solvents
- Oligomers
- Prepolymers
- Epoxy resins
- Hot-melt adhesive
- Acids
- Hardeners
- Silicones
- Oils
- Plasticizers
- Metering
- Lubrication

Technical Data For Our High Pressure Gear Pump

Model	Pump Output (lbs/hr) (kg/hr)	Volumetric Displacement (cc/rev)	Capacity at SG = 1 (lbs/hr/RPM) (kg/hr/RPM)	Weight (lbs) (kg)
HGP-28/12	2.66-53.2 1.21-24.1	4.03	.532 .241	18 8.2
HGP-28/20	4.82-96.4 2.19-43.7	7.30	.964 .437	20 9.1
HGP-38/23	13.3-266 6.03-121	20.6	2.66 1.21	30 14
HGP-45/27	23.1-462 10.5-210	34.8	4.62 2.10	40 18
HGP-60/36	45.6-912 20.7-414	69	9.12 4.14	100 45
HGP-70/45	74.5-1490 33.8-676	113	14.9 6.76	150 68
HGP-76/50	122.5-2450 55.6-1111	185	24.5 11.1	185 84
HGP-90/55	151-3020 68.5-1370	227	30.2 13.7	225 102
HGP-110/70	300-3005 136-1363	455	60.1 27.3	390 177
HGP-110/90	393-3925 178-1780	596	78.5 35.6	400 181
HGP-150/75	730-7300 331-3311	1,108	146 66.2	1,053 478
HGP-150/100	975-9750 442-4423	1,477	195 88.5	1,114 505

For larger sizes and special applications contact our PSI sales office

Technical Data For Our Chemical Industrial Pump

Model	Pump Output (lbs/hr) (kg/hr)	Volumetric Displacement (cc/rev)	Capacity at SG = 1 (lbs/hr/RPM) (kg/hr/RPM)	Weight (lbs) (kg)
CIP-28	95-400 43.1-181	10.3	1.36 .62	22 10
CIP-38	280-1125 127-510	33.8	4.42 2.0	40 18
CIP-45	550-2250 249-1021	58.2	7.7 3.5	62 28
CIP-60	1050-4200 476-1905	115	15.2 6.9	125 57
CIP-70	1600-6400 726-2903	176	23.2 10.5	180 82
CIP-76	2500-10350 1134-4695	283	37.3 16.9	195 88
CIP-90	3600-14500 1633-6577	392	51.8 23.5	245 111
CIP-110	6700-26800 3039-12156	727	96.1 43.6	410 186
CIP-150/75	10100-40500 4581-18371	1,108	146 66.2	1053 478
CIP-150/100	13500-54500 6123-24721	1,477	195 88.5	1114 505
CIP-150/125	17000-68000 7711-30845	1,846	244 111	1184 537
CIP-150/150	20000-81000 9072-36741	2,215	293 133	1250 567