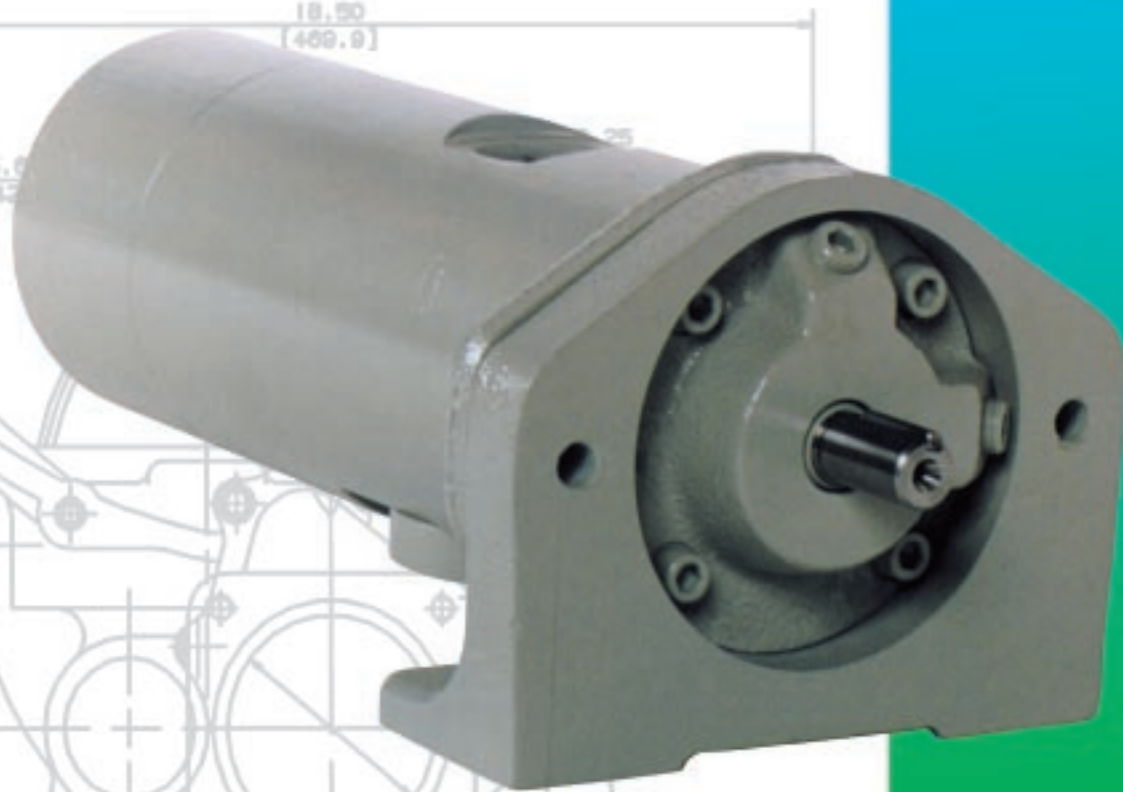




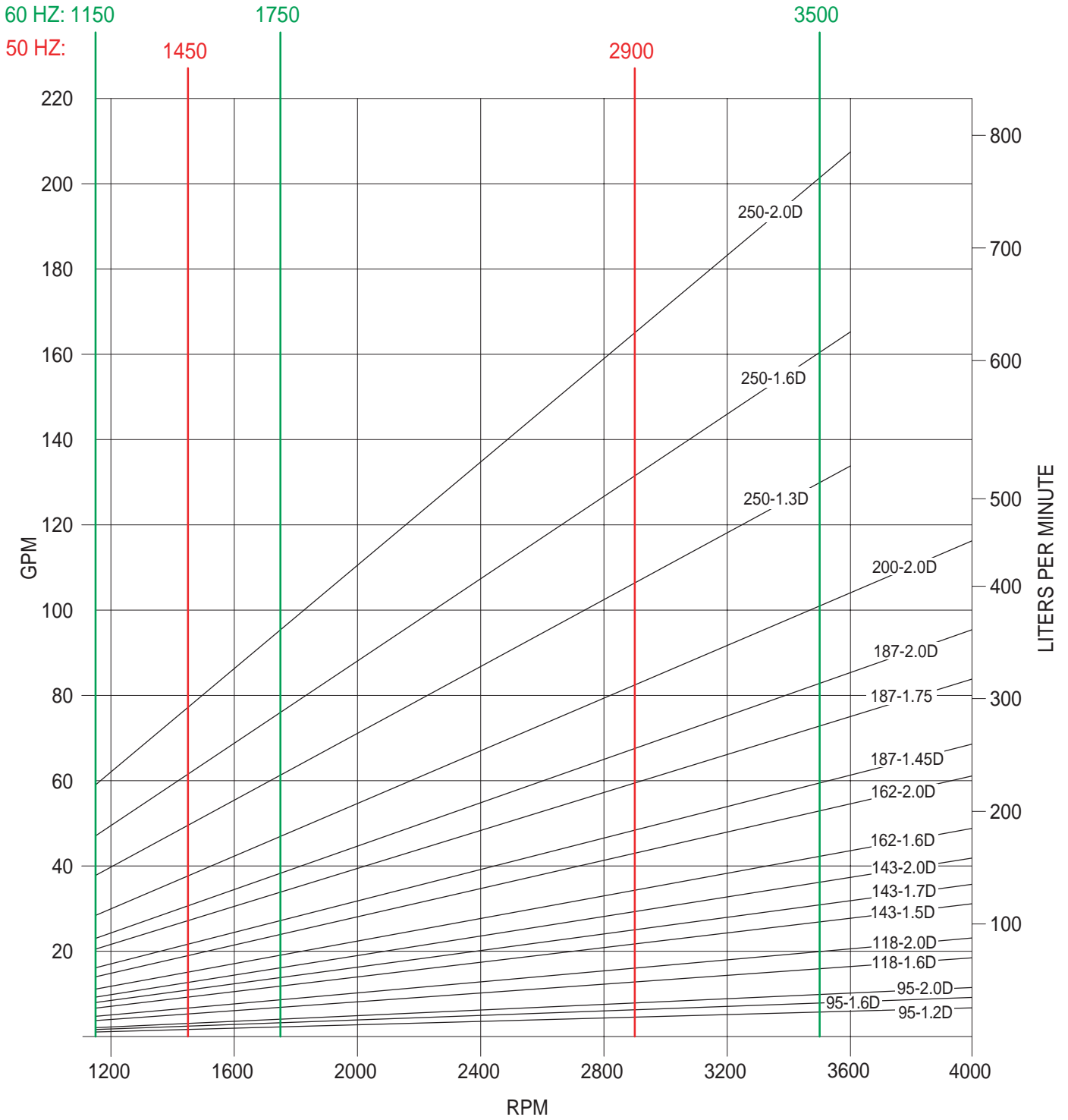
3G SERIES THREE SCREW PUMPS



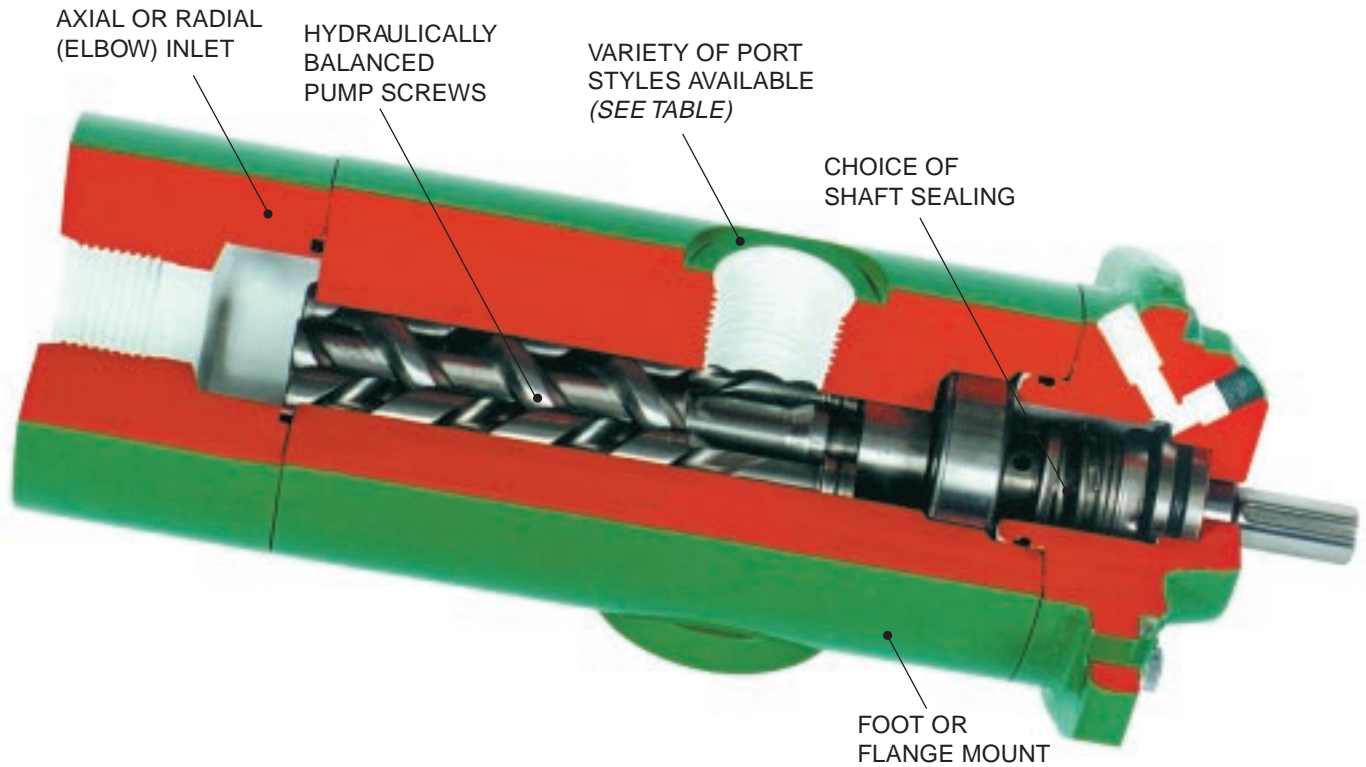
The reliable pump people

ROTARY SCREW PUMPS

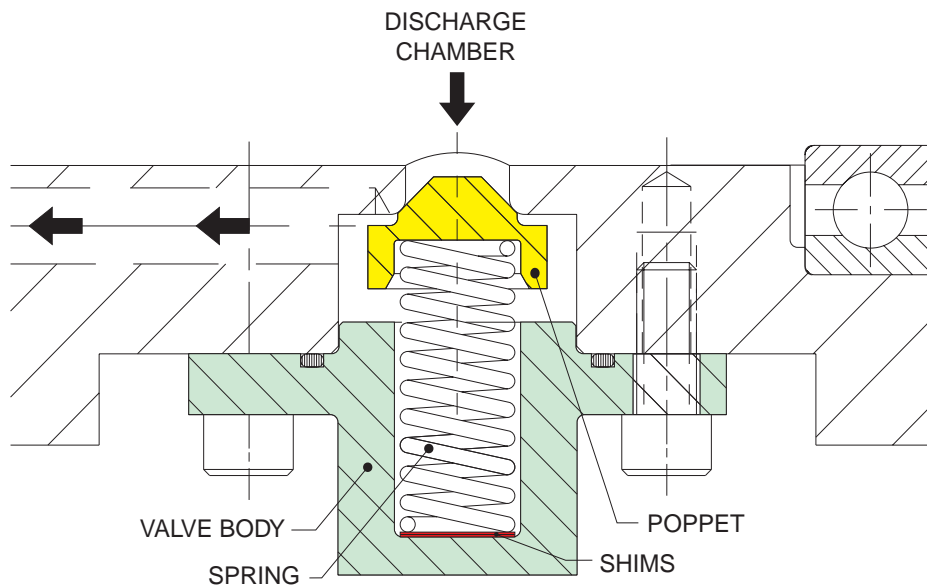
Performance Shown at 150 PSID (10 BAR), 200 SSU (43 CST)



Imo Series 3G Pump



Shown Above: 3G-095, Flange Mount Iron Cased Axial Inlet, Built-In Relief Valve



Shown Above: Tamper Resistant Optional Built-In Pressure Relief Valve

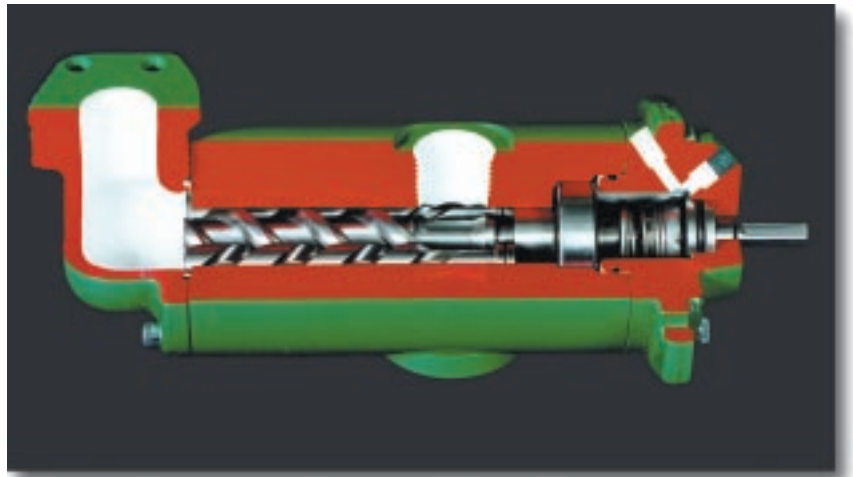
Applications

The 3G series pump is intended for use in lubrication, hydraulic and control oil services such as those found on rotating machinery or other equipment needing forced lubrication, circulation, fluid transfer, distillate fuel burner or similar systems. This series is available in seventeen displacements fitted into five casing sizes. Pump casings are produced from cast iron with the option of cast steel.

Cast iron units can be equipped with either lip or mechanical shaft seals. Inlet porting can be either radial (elbow), rotatable in 90° increments, or axial. An internal tamper resistant relief valve is available as an option. Porting on the 95 through 162 rotor size pumps can be either SAE straight thread or SAE 4-bolt, Code 61, flange pad. Porting on the 187 through 250 pumps is SAE 4-bolt, Code 61, flange pad.

Steel case pumps are equipped with mechanical shaft seals, SAE 4-bolt flange pads. An optional bolt-on tamper resistant relief valve is also available. All SAE flange pads accept 4-bolt, O-ring sealed, Code 61 mating flanges of either socket weld or FNPT style.

Both iron and steel pumps are designed for flange mounting and can be provided with mating foot brackets or pump to motor (C-face) brackets. Flange or foot mounting on rotor sizes 95 through 162 and flange mounting on rotor sizes 187 through 250 allows the pump outlet port to be directed radially in 90° increments. Port options allow almost any global standard connection type. Units can also be supplied for vertical tank mounting.

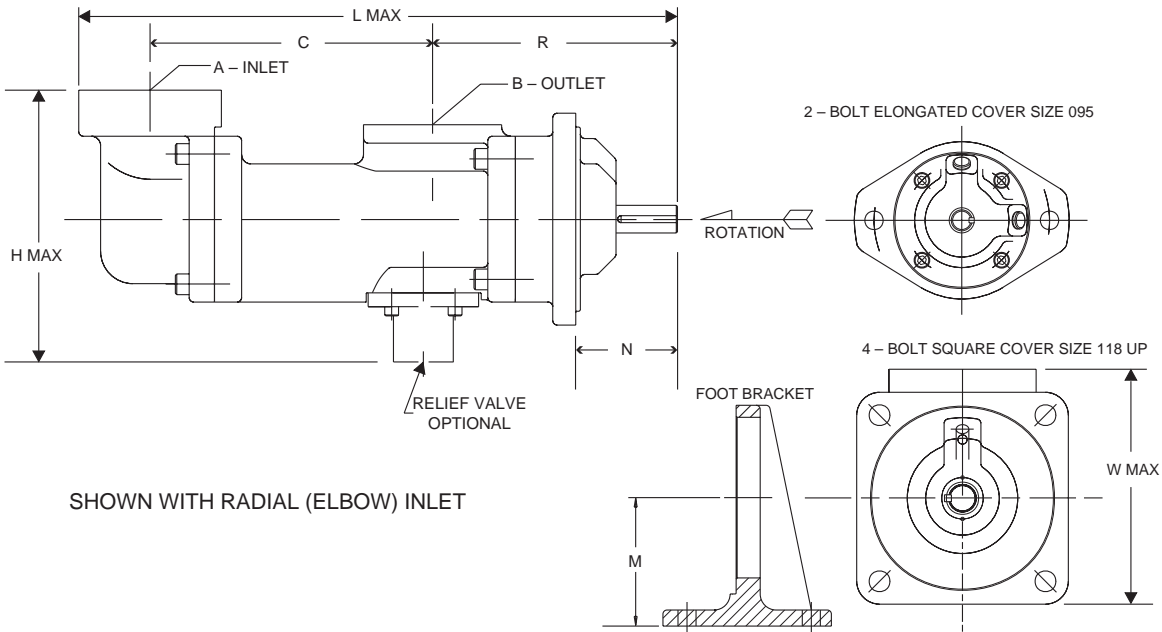


3G095 with radial SAE pad inlet port

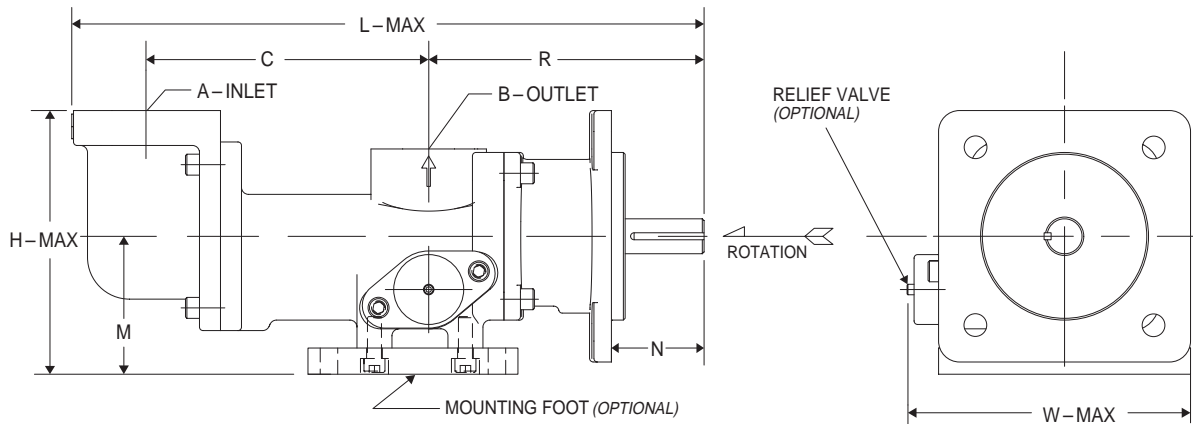


3G095 mounted to a "C" face electric motor on lube oil service

2-210 GPM (7-795 L/M) Pressure to 250 PSIG (17 BAR)



PUMP SIZE	A		B		C		H		L		M		N		R		W		WEIGHT*	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	LBS.	KG
95	1	25.4	3/4	19	4.66	118.4	4.57	116.1	10.83	275.1	2.25	57.2	1.88	47.8	5.02	127.5	5.25	133.4	18	8.0
118	1-1/2	38.1	1	25.4	6	152.4	5.76	146.3	13.91	353.3	4.00	101.6	2.80	71.1	6.19	157.2	9	228.6	34	15.4
143/162	2	50.8	1-1/2	38.1	7.67	194.8	7.57	192.3	16.26	413.1	4.00	101.6	2.76	70.1	6.65	168.9	7.75	196.9	44	20.0



PUMP SIZE	A		B		C		H		L		M		N		R		W		WEIGHT*	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	LBS.	KG
187/200	3	76.2	2	50.8	10.06	255.5	9.44	239.8	22.52	572	4.94	125.5	3.31	84.1	9.84	249.9	5.62	142.7	117	53
250	4	101.6	2-1/2	63.5	12.61	320.3	10.19	258.8	25.84	656.3	4.94	125.5	3.31	84.1	10.21	259.3	5.62	142.7	131	59.4

* Inlet and Outlet are SAE 4-bolt 3000 PSI flange pads.

* Flange mounted version. Weights exclude port adapters and mounting foot bracket/plate.

For a more detailed view of the above referenced outline drawings, please refer to our website at <http://www.imo-pump.com>

Specifications

- Casing** Cast iron or cast steel.
- Rotors** Power rotor is ductile (nodular) iron. Idler rotors are gray iron. A premium rotor option is offered for fluids in the 32-60 SSU (2-10 CST) range or for steel cased pumps.
- Shaft Seal**
- Type L: Steel backed PTFE double lip seal for cast iron pumps only, recommended for clean lubricating oil, for viscosities up to 15,000 SSU.
 - Type V: Fluoroelastomer bellows mechanical seal with carbon on ni-resist faces, fluoroelastomer O-rings, recommended for viscosities below 3000 SSU (650 CST) and distillate fuel oils.
 - Type H: Metal bellows balanced, positive drive mechanical seal with carbon on silicon carbide faces, fluoroelastomer O-rings, recommended for viscosities above 3000 SSU (650 CST) or for closer compliance with API.
 - Type J: Balanced, positive drive mechanical seal with neoprene O-rings for high inlet pressure / low differential pressure applications.
 - Type N: No shaft seal (must use mounting option I).
- Bearing** Internal, ball type.
- Relief Valve** Optional internal, tamper resistant, built-in pressure relief valve for viscosities not exceeding 1500 SSU (324 CST). Specify differential set pressure in 15 PSI (1.03 BAR) increments, i.e. 60, 75...255. This relief valve is intended for momentary protection for the pump against overpressure. It is not intended to be a pressure control device. Minimum set pressure is 60 PSID (4.1 BAR). Maximum set pressure is 255 PSID (17.6 BAR). Steel cased pumps can include optional bolt-on relief valve with external return-to-tank connection.
- Viscosity** 15,000 SSU (3200 CST) maximum type "L" seal. 3000 SSU (648 CST) maximum type "V" seal. 15,000 SSU (3200 CST) type "H" seal.
- Inlet Pressure** 50 PSIG (3.4 BAR) maximum.
- Outlet Pressure** 250 PSIG (17 BAR) maximum [(to 300 PSIG (20.7 BAR) with inlet at 50 PSIG (3.4 BAR)]. Operation at differential pressures below 40 PSI (2.8 BAR) may require pump modification- consult Imo Pump with full operating range data.
- Temperature** 0 to 225°F (-18 to 107°C)
- Drive/Rotation** Direct only. Clockwise facing pump shaft standard. Counterclockwise optional.
- Speed** Size 95: 5000 rpm maximum. Sizes 118-200: 4000 rpm maximum. Size 250: 3600 rpm maximum.
- Mounting** May be foot or flange mounted in any orientation. Vertical tank mounts available.

Connections

	Port Type Availability	
	Iron Case	Steel Case
Inlet Port Type		
Axial SAE Straight Thread	Yes	No
Axial SAE 4-Bolt Pad, Code 61	Yes	Yes
Radial SAE Straight Thread	Yes	No
Radial SAE 4-Bolt Pad, Code 61	Yes	Yes
Outlet Port Type		
Radial SAE Straight Thread	Yes	No
Radial SAE 4-Bolt Pad, Code 61	Yes	Yes

Straight thread for use with O-ring fittings. SAE pad is for use with mating SAE 4-bolt 3000 PSI flanges.

Filtration Inlet strainers are required to keep contaminants and abrasives out of the pump and must be selected in consultation with the strainer vendor to prevent pump starvation. Normally, 60 mesh (0.01 inch- 238 micron) for light and 1/8-3/16 inch (3-5mm) openings for heavy oils are recommended. Return line filters for closed loop systems also recommended.

Accessories Completely mounted pump/driver assemblies with baseplates or NEMA 'C' face motor adapters are available.

Model Code Nomenclature

Model No. Code Example AA 3G/N L I J F B 118SP 000

Design Sequence _____

Pump Series _____

Separator _____

Premium Rotor Set (Y = Yes / N = No) _____

Seals _____

L = Double Teflon lip seal, Fluorocarbon O-rings
(cast iron pump case only)

V = Fluorocarbon Bellows mechanical seal,
carbon on Ni-resist, Fluorocarbon O-rings

H = Metal bellows balanced mechanical seal,
carbon on silicon carbide, Fluorocarbon
O-rings

N = No shaft seal (must use mounting "I"),
Fluorocarbon O-rings

J = Metal Bellows balanced mechanical seal,
carbon on silicon carbide, Neoprene
O-rings

Case Material and Outlet Port _____

I = Iron case, SAE straight thread port**

P = Iron case, SAE 4-bolt port pad

S = Steel case, SAE 4-bolt port pad

***Not Available on Rotor Sizes 187 thru 250*

Inlet Port _____

J = Axial inlet, SAE straight thread port**

K = Axial inlet, SAE 4-bolt port pad

L = Radial inlet, SAE straight thread port**

M = Radial inlet, SAE 4-bolt pad

N = Axial inlet, SAE straight thread port**

P = Axial inlet 4-bolt port pad

R = Radial inlet, straight thread port**

S = Radial inlet 4-bolt port pad

***Not Available on Rotor Sizes 187 thru 250*

_____ *Designator for Special Modifications*

_____ *Size/Lead/Rotation*

095AE = 1.2D, CW	162SP = 1.6D, CW
095AF = 1.2D, CCW	162SR = 1.6D, CCW
095SP = 1.6D, CW	162SC = 2.0D, CW
095SR = 1.6D, CCW	162SD = 2.0D, CCW
095SC = 2.0D, CW	187SY = 1.45D, CW
095SD = 2.0D, CCW	187SZ = 1.45D, CCW
118SP = 1.6D, CW	187SM = 1.75D, CW
118SR = 1.6D, CCW	187SN = 1.75D, CCW
118SC = 2.0D, CW	187SC = 2.0D, CW
118SD = 2.0D, CCW	187SD = 2.0D, CCW
143SJ = 1.5D, CW	200SC = 2.0D, CW
143SK = 1.5D, CCW	200SD = 2.0D, CCW
143SE = 1.7D, CW	250AL = 1.3D, CW
143SF = 1.7D, CCW	250AM = 1.3D, CCW
143SC = 2.0D, CW	250SP = 1.6D, CW
143SD = 2.0D, CCW	250SR = 1.6D, CCW
	250SC = 2.0D, CW
	250SD = 2.0D, CCW

_____ *Relief Valve Set Range (Limit 1500 ssu)*

A = No relief valve

B = 60/75 psi differential

C = 90/105/120 psi differential

D = 135/150/165 psi differential

E = 180/195/210/225/240/255 psi differential

Iron Pump has Integral Valve / Steel Pump has Bolt-on Valve

_____ *Mounting*

C = SAE flange mount

F = Foot mount

I = Integral flange mount

(note: must specify "N" for "Seals")

On the cover..3G-095 foot mounted cast iron cased with optional built-in relief valve



The Reliable Pump People



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