

Casing: High shock capacity ductile (nodular) iron. Cast steel optional, sizes 118 - 218.

Rotor Housing: Pearlitic gray iron for rotor sizes 106 through 187; bronze sizes 218 and larger. Special bimetallic housings available in some sizes for low viscosity, high pressure services.

Power Rotor: Alloy steel, nitride hardened and thread ground.

Idler Rotors: Pearlitic gray iron, hardened and thread ground for sizes 106 through 187; alloy steel, hardened and thread ground sizes 218 and larger.

Gaskets: Cellulose and non-asbestos fiber.

Seal & Bearing: Type B: Buna N bellows mechanical seal, Buna N O-rings and standard external, permanently greased packed, deep groove ball bearing - recommended for distillate fuels and lubricating oil or hydraulic fluids.

Type H: Positive drive mechanical seal, fluorocarbon O-rings and external high temperature, permanently greased packed, deep groove ball bearing.

Accessories: Completely mounted, built to order pump/driver assemblies are available with baseplates, ANSI RF spool pieces.

Outlet Pressure: 1500 PSIG (103 BAR) maximum for distillate & residual fuels and crude oils. 2200 PSIG (152 BAR) maximum for lube, seal and hydraulic oils. Minimum recommended differential pressure is 40 PSI (2.8 BAR) when viscosity is >100 ssu and 25 PSI (1.7 BAR) when viscosity is <100 ssu.

Inlet Pressure:

Type B & H:	75 PSIG (5 BAR) maximum, distillate fuel, lube - sizes 106 - 187
	50 PSIG (3 BAR) maximum, distillate fuel, lube - sizes 218 - 400
Type H:	40 PSIG (2.7 BAR) maximum, residuals and crude oil - sizes 106 - 187
	10 PSIG (0.7 BAR) maximum, residuals and crude oil - sizes 218 - 400

Viscosity: 33 ssu (2.0 CST) minimum: Type B - 3000 ssu (650 CST) maximum (consider cold start)
Type H - Viscosities above 3000 ssu (650 CST)

Temperature:

Type B:	0 to 180°F	
Type H:	Sizes 106 - 187	0 to 225°F (-18 to 107°C)
	Sizes 218 and up	0 to 200°F (-18 to 93°C)

Speed: Do not exceed 1800 RPM when pumping residual fuels or crude oil due to the presence of abrasives and contaminants.

Drive: Direct only. (no shaft side loading)

Rotation: Clockwise facing pump shaft standard. Consult Imo for counterclockwise.

Mounting: May be foot mounted in any orientation. Flange mounting optional for vertical applications.

Filtration: Inlet strainers are required to keep contaminants and abrasives out of the pump. They 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.

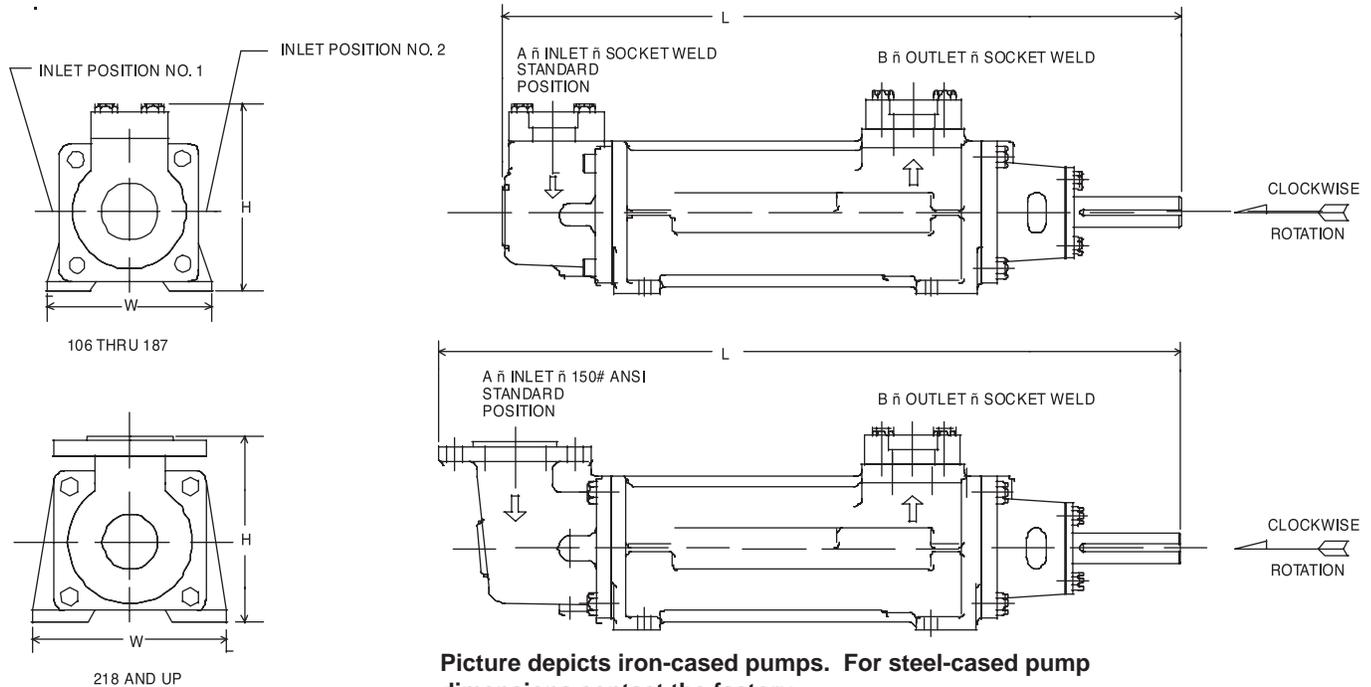


12D - 118 Typical of sizes 106 through 187

4 to 400 GPM (16 to 1514 L/M) Pressure to 2200 PSIG (152 BAR)

Series 12D Imo pumps are intended for relatively high pressure service on petroleum or similar viscosity liquids. Typical applications include crude oil pipeline service, fuel atomization for burning in a steam boiler, fuel injection for combustion gas turbines, fluid power service on hydraulically operated machinery, gas sealing in centrifugal compressors and hydrostatic bearing support.

These pumps are hydraulically balanced in both the axial and radial directions which eliminates bearing loads due to discharge pressure. The single bearing is external to the liquid pumped and does not rely on the lubricating qualities of the pumped liquid. The single mechanical seal is exposed only to inlet pressure. Very low airborne noise levels are normal for Imo three screw positive displacement pumps as are high operating efficiencies and non-pulsating delivery of flow.



Picture depicts iron-cased pumps. For steel-cased pump dimensions contact the factory

SIZE	A		B		H		L		W		WEIGHT	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	LBS.	KG
106	1	25.4	1	25.4	6.8	171.5	25	635	6	152.4	71	32.2
118	1 1/2	38.1	1	25.4	7.0	177.8	26	660.4	6 1/4	158.8	85	38.5
137	1 1/2	38.1	1	25.4	7.3	184.2	30	760.4	6 1/2	165.1	103	46.7
156	2	50.8	1 1/2	38.1	7.8	196.9	34	863.6	7	177.8	140	63.5
187	2	50.8	1 1/2	38.1	8.3	209.6	38	965.2	8 1/2	215.9	193	87.5
218	2 1/2	63.5	2	50.8	9.5	241.3	50	1270.0	10	254.0	298	135.1
250	3	76.2	2 1/2	63.5	10.9	276.2	55	1397.0	11	279.4	408	185.0
275	3	76.2	3	76.2	12.3	311.2	59	1498.6	11	279.4	538	244.0
312	4	101.6	3	76.2	12.9	327.0	65	1651.0	12	304.8	649	294.3
350	5	127.0	3	76.2	15.2	385.8	72	1828.8	13	330.2	950	430.8
400*	6	152.4	4	101.6	19.2	487.7	74	1879.6	14	355.6	1125	510.2

DATA NOMINAL REQUEST CERTIFIED DRAWING FOR CONSTRUCTION

*1500# ANSI DISCHARGE



BR012DPS Revision 00

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