$3.00 U.S.

Pressure Connections Corp.

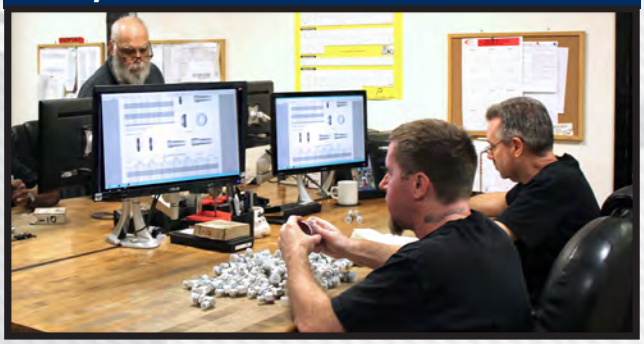
Your Quality Connection

Hydraulic Fluid Power

PRESSURE CONNECTIONS

Our trained Quality Assurance Personnel follow a rigid inspection program to ensure that our fittings meet or surpass the strictest requirements of SAE.

Quality Assurance Lab



We design our products to the strictest requirements of SAE, and improve our designs as we solve problems or reflect the latest changes in SAE design. We can also design custom fittings to fit your needs.

Engineering

Optical Comparator

Pressure Test Stand

Our Glastonbury Southern Gage trained personnel use only certified instrumentation and equipment in the quality process giving you leak free performance.

Precision Instruments

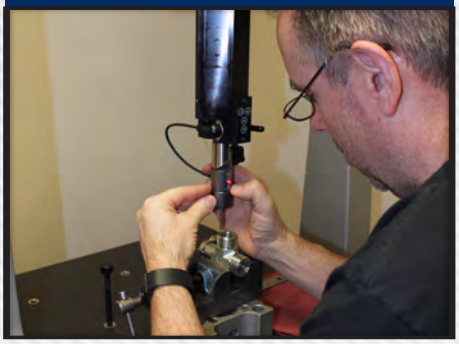
All equipment is calibrated at regularly scheduled intervals. Records and instrument serial numbers are kept on file to guarantee the accuracy of every inspection.

"The Corrective Preventive Action program you've setup at Pressure Connections is top notch. ***It is one of the best I've seen."***

ISO 9001:2015 Audit

ISO Auditor
W.J. Davis
Quality Assurance Systems

Coordinate Measuring Machine (CMM)



Only a CMM can verify that an OFS groove is manufactured to exact SAE J1453 specifications. We use a state-of-the-art CMM to measure the latest OFS "dovetail" and standard OFS groove designs.

"How can an OFS fitting leak?"

The Answer: Grooves that are too small or too large don't apply the correct pressure on the O-ring to seal properly.

Quality Symbol

Quality Assurance Points

Coordinate Measuring Machine - *CMM*

Male O-Ring Face Seal Groove Diameters: The CMM is the only way to identify and discard out of spec OFS grooves that will not give the correct Fill & Squeeze (1) for the O-ring to seal properly.

Internal Flares like Female JIC and Female JIC Swivel: The CMM enables us to identify and discard parts that have incorrect sealing angles.

Female O-Ring Boss Counter Bore Angles: The CMM identifies and discards the angles that will not give the proper Fill & Squeeze (1) of the O-ring for a proper seal.

Optical Comparator

The **QUADRA-CHEK 2000** is used to identify and discard out of spec JIC nose diameters and 37° angles.

Male JIC Nose Diameters: We discard small diameters that will distort the sealing surface and prevent a proper seal.

Male JIC 37° Angles: We reject the sealing angles that won't seal properly.

Fixed Pitch *Glastonbury Southern Gage* Thread Gauges

Third-Party Calibration on a regular, computer-scheduled basis.

Long-Form Certifications for each newly purchased gauge & recalibration.

No-Go Gauges: No-Go gauges enable us to identify parts that have insufficient thread material. Insufficient threaded parts cannot reliably handle the PSI ratings set forth by SAE.

Go Gauges: Go gauges enable us to inspect and eliminate parts that would be difficult to install properly.

L1 / L2 Gauges: These gauges allow us to examine and discard male pipe threads that can bottom out and cause a spiral leak path.

6-Step Gauges: The 6-Step guage facilitates inspecting and discarding parts that have flat threads that will not seal.

Calipers: Calipers assist in inspecting & discarding incorrect male O-ring diameters that can allow an improper Fill & Squeeze (1) or percentage of rubber in the hole.

Pressure Test Stand • Rockwell Hardness Tester • Profilometer

Pressure Test Stand
Verifies burst pressure ratings.

Rockwell Hardness Tester
Tests the hardness of the steel to ensure tensile strength, which is needed to keep the connection tight.

Profilometer - Electronically Measures Surface Finish or Smoothness
Male and Female JIC Flare, Female OFS Flat-Face, Female O-Ring Boss, and 30° chamfers.

(1) Fill & Squeeze Parker O-Ring Handbook ORD5700A, Pages 3-8 & 3-9
Also see ISO 9001 Requirements on Page 58

QAS INTERNATIONAL
ISO 9001:2015
REGISTERED FIRM
Certificate no. US2036

To ***Guarantee the Accuracy*** of each inspection, all gauges and equipment are regularly calibrated to the strictest of ISO 9001:2015 specifications.

Our ***Quality Assurance Lab*** gauges and tests the parts both before and after they are plated. This ensures uniformity in the plating process. Finally, our shipping department carefully packages your order, to avoid thread damage in transit.

Should a problem arise, we will put in place a ***Preventive Action*** to resolve the problem. Our Quality Manager will solve it quickly, even if that means flying out to you or your customer. We won't just tell you to ship the parts back and try another batch.

Your Quality Connection

PRESSURE CONNECTIONS CORP.

Your Quality Connection

Pressure Connections has been in business since 1981 and is a certified ISO 9001:2015 Registered firm. We are dedicated to long-term customer relationships through **Our Business Philosophy, Our Vision, and Our Mission.**

Mission

To ship every order every day with **quality parts** and **quality packaging**; right parts, on time, every time.

Vision

To provide our customers with the highest **value** from excellent **service**, superior **quality**, and a competitive **price**.

We Support Urban Ministry

You support responsible urban ministries with every purchase from Pressure Connections, including Urban Concern, and Youth for Christ - City Life Center. Check them out on the web at ***www.urbanconcern.org*** and ***www.coyfc.org***.

CARE
SERVE
DO RIGHT

1-Year Warranty

PCC warrants to the customer that the equipment and parts (excluding wear parts) will be free from defects in material and workmanship under normal use and service for a period of three hundred sixty-five **(365) days** after delivery to customer, or **2,000 hours** of normal use. Any warranty claims not submitted in writing by customer to PCC within the applicable warranty period and within thirty (30) days of discovery of defect will be deemed waived. The obligation of PCC shall be limited to the repair or replacement ex works facility designated by PCC (excluding shipping costs, to be paid by customer), of the equipment or such parts which PCC determines were defective in material or workmanship under normal storage, use and service. This warranty applies only to new equipment and parts and expressly excludes wear parts. This warranty shall not apply to items manufactured by others attached to or incorporated in the equipment and/or parts, or to which the equipment and/or parts are attached or incorporated, and customer's recourse for defects in such equipment and/or parts of others shall be exclusively against the manufacturer of the equipment and/or parts under the terms of the PCC's warranty. This limited warranty does not apply to failures or defects of the equipment components, and/or parts (including wear parts) due to ordinary wear and tear, neglect (including but not limited to improper maintenance and storage), accident, improper installation or operation, or modification not authorized in writing by PCC (including but not limited to use of unauthorized parts or attachments). Any alteration or modification of the equipment or parts, or attaching of any parts or equipment not manufactured by PCC or not intended to be attached to the equipment or parts, or maintenance, use or operation of the equipment or parts contrary to PCC's or the manufacturer's instructions, shall at PCC's election void this warranty. This limited warranty shall extend only to the customer and is not assignable. The exclusive remedy of customer under this warranty or otherwise in connection with the equipment and for parts, shall be repair or replacement of the equipment and/or parts in accordance with this paragraph, PCC's sole and absolute discretion

Quality Assurance Department

We will provide a Certificate of Conformance upon request. A Variety of certifications are available. We are confident that our Quality Assurance program and personnel will be able to satisfy any quality concerns you or your customers may have.

Furthermore, we have established a Performance Team to handle written customer evaluations of our overall performance. This team is ready to respond to customer quality and service issues.

Certified ISO 9001:2015

We are a certified ISO 9001:2015 Registered firm. Our Quality Assurance program is able to provide high quality fittings and service according to ISO 9001 principles. All of the documentation needed to satisfy your quality system requirements is on hand. At your request we will provide a Corrective Action Report and Evaluation (C.A.R.E). We also have Initial Sample Inspection and Final Inspection Reports.

We strive to provide you with the best value. Our Business Philosophy and personal convictions drive our commitment to excellence. We guarantee that you will be completely satisfied with the quality of our product(s). With an industry low PPM, our products are leak-free guaranteed and our excellent service makes us easy to do business with.

From Page A-58: Section 7

Frequently Asked Questions

Need to Return Parts?

Just call and ask for a ***Returned Goods Authorization (RGA)*** form. We ask that the parts be securely packaged as they'll need to be in original condition upon our inspection.

A credit will be issued toward your next order minus a 20% processing and restocking fee. We cannot fulfill return requests for damaged items, special orders, unusually high demand orders, Price On Request (POR) orders, items purchased over one year, or items not originally purchased from us. Also, we are not able to accept returns larger than 5% of your total sales.

Need A Special Fitting?

We are competitive on special steel adapters. **Our Engineering Department** can design fittings to meet your needs. Special Order and Made to Order (MTO) runs have a 10% over-run or under-run variance, which is standard in manufacturing. The invoice will be adjusted accordingly.

Have A Shipment Problem?

Call, Fax, or Email us and we'll ship your replacement parts the very same day. If you need to return parts, we'll issue an RGA to make sure you receive a credit for the parts and reimburse you for the return shipping costs. We ask that all claims be made within 5 (FIVE) days of the receipt of the material.

Need to Cancel an Order?

All we ask is that you put it in writing. Special orders, unusually high demand orders, volume priced orders, Made to Order (MTO) and Price on Request (POR) orders are considered non-cancelable, but don't worry, we'll notify you in writing before we accept an order for a non-cancelable part.

No Time to Compare Prices?

We'll compare our prices with your other source for you. Before placing your next order with someone else, fax it to us. We'll compare prices, check stock, and fax it back ASAP to show you the difference.

Ordering Process

Use Your Own Part Numbers

To assist our customers we show the following in our Catalogs and Website.

- Pictures / Drawings
- Reference Numbers
- Crossover Charts

If you need assistance we're here to help so please call us for any inquiries regarding your order.

Descriptions, pictures, and crossover numbers are for reference only. We'll be glad to provide detailed information upon request. Pressure Connections cannot be held responsible for typographical or pictorial errors.

Pressure Connections Reserves the Right to Update Information Without Notice.
Images of Parts are Shown in Callout Order.

Simplified Ordering Process

Save time by ordering from us

- Large Inventory
- Use Your Own Part Numbers
- On Time Delivery
- Trained and Certified Team
- Live Person Answering the Phone
- 24-Hour Fax and Email

(Business Hours: 8:00 am - 5:00 pm EST. M-F)

Discounted Terms

Our terms are 1/2% 10 / Net 30 Days. Invoices are dated the day your parts are shipped. Remember, discounts apply to 'product only' for non-C.O.D. shipments.

$25 Minimum Order
- $5 Service fee for orders under the minimum

We're Easy to do Business With!

Hydraulic Fluid Power

Featured Products

LEGEND plus™

These high-quality cylinders reinforce our "Leak-Free" Quality Satisfaction Guaranteed standard that you have come to know & trust from Pressure Connections. The Legend Plus™ Series compliments our Hose & Hose Fittings, Hose Assemblies, & Adaptor lines so you can have the same confidence that you have experienced all along with us.

Features

- Single Acting
- Telescopic
- Tie-Rod
- Black Standard
- Double Acting
- Welded
- Double Rod End
- Custom Options Available

Applications

Agriculture | Automotive | Construction | Forestry

Material Handling | Oil Service | Truck & Trailer | Waste & Refuse

Legend Series™ Also Available

LEGEND SERIES

Legend Plus™ Cyinders

Legend Series™ Pumps

Legend Series™ Motors

Legend Series™ Power Units

See ***Hydraulic Cylinder Safety*** on Page 17

Legend Plus™ Cylinders

Ordering Example	LPTC-3018-FB-90-BLK
	1 2 3 4 5 6 7 8 9

1 - Cylinder Product Line: (L) Legend™
2 - Cylinder Brand: (P) Legend Plus™
3 - Body Type: (T) Tie-rod, (W) Welded
4 - Mounting Method: (C) Clevis vs. (CT) Crosstube vs. (T) Trunion, (P) Pin-Eye
5 - Bore: 3.0"
6 - Stroke: 18"
7 - Port: (FB) Female O-Ring Boss vs. (FP) NPTF Female Pipe
8 - Port Position: 0° (Not Called Out), 90°
9 - Color: Black (Not Called Out), Red

Legend Series™ Pumps

Ordering Example	Category	Series	Displacement	Drive Shaft	Rotation	Options
	GXP -	20 -	25 -	P -	C -	

Category	Series	Displacement *(see chart)*	Drive Shaft**	Rotation	Options
Gear Pump	20 Series *SAE "A" Mount*	04/06/08/10/12 14/16/20/25/30/32	P = 5/8" Dia. Straight P1 = 3/4" Dia. Straight S9 = SAE 9-Tooth Spline S11* = SAE 11-Tooth Spline	C = Clockwise A = Counter-Clockwise *(viewed from shaft end)*	BB = Rear Ports

Legend Series™ Motors

Ordering Example	Model	Frame Size	Flange	Drive Shaft	Ports	Options
	P101 -	100 -	H2 -	K -	P -	

Model	Frame Size	Mounting Flange*	Drive Shaft*	Port Size	Options
P101	36 (2.20) 50 (3.15) 80 (4.74) 100 (5.87) 125 (7.20) 160 (9.51) 200 (11.59) 250 (14.09) 315 (19.03) 400 (23.61)	H2 = SAE "A" 2-Bolt H4 = SAE "A" 4-Bolt H6 = Magneto	K = 1" Woodruff Key S = SAE 6B Spline H = 1" Parallel 0.40" Dia. Cross Hole H1 = 1" Parallel 0.31" Dia. Cross Hole	P = 1/2 NPTF S = 7/8 -14 SAE F = Manifold	F = Free Running N = 1800 lb. Radial Load Bearings R = Reverse Rotation

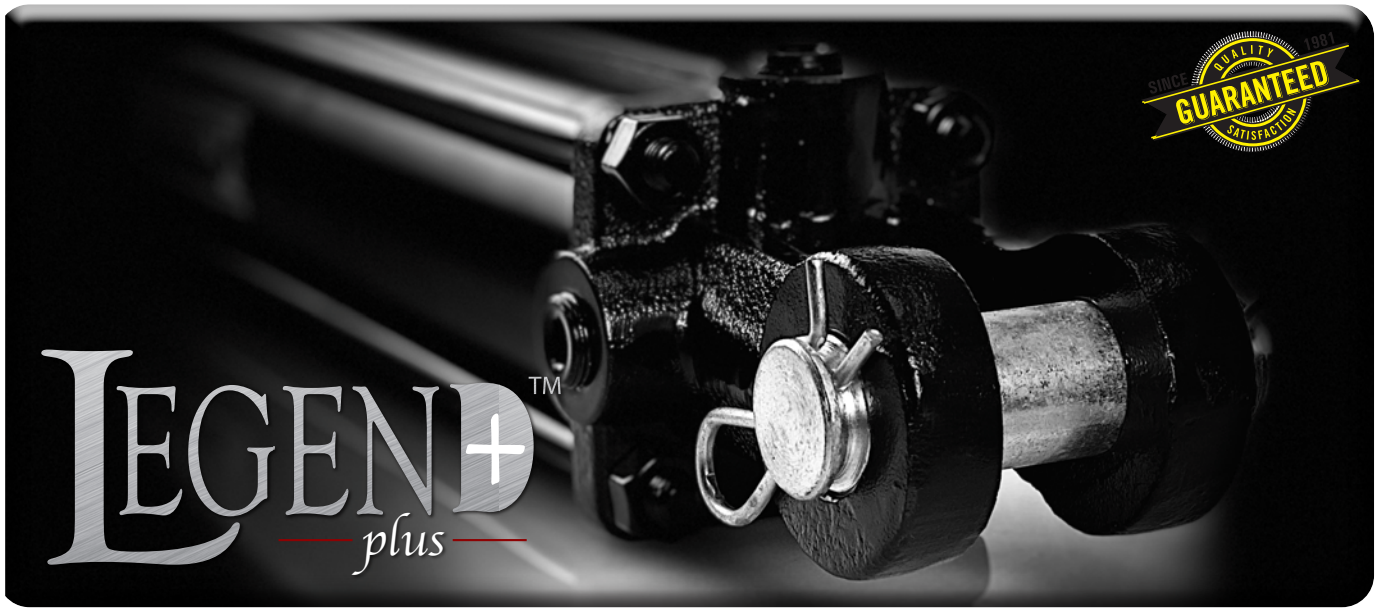
Legend Series™ Hydraulic Power Units

Send us your Power Unit Specs or Requirements

LPTC

Legend Plus ™ TIE-ROD CYLINDER

Hydraulic Cylinder



FEATURES

Tube: Skived Tube
Rod: High Tensile Ground & Polished Hard Chrome Plated Rod
Piston: High Tensile Steel
Base End: Ductile Iron Clevis End Mount
Rod End: Screw-On Ductile Iron Clevis Item
Piston Seals: High Quality Compact Seals For Excellent Performance
Rod Seals: Standard Polyurethane Rod Seal With Inner O-Ring, Pom-C Wear Rings With Rod Wiper
Warranty: 2-Year Limited Warranty
Pressure: 3,000 PSI
Color: Black

APPLICATIONS

Agriculture | Construction | Forestry | Material Handling | Oil Service | Truck & Trailer | Waste & Refuse

LPTC

3000 PSI DOUBLE ACTING TIE-ROD

Hydraulic Cylinder

MODEL	Bore x Stroke (inch)	Rod Dia. (inch)	Pin Dia. (inch)	Pin to Pin on Center (inch)		Max Rated PSI & Column Load On Full Extension		Port	Weight (lbs)
				Retracted	Extended	PSI	LBS		
2 Inch Bore									
LPTC-2004	2 X 4	1.125	1.00	14.25	18.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	15.6
LPTC-2006	2 X 6	1.125	1.00	16.25	22.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	16.5
LPTC-2008	2 X 8	1.125	1.00	18.25	26.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	17.8
LPTC-2010	2 X 10	1.125	1.00	20.25	30.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	20.0
LPTC-2012	2 X 12	1.125	1.00	22.25	34.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	21.0
LPTC-2014	2 X 14	1.125	1.00	24.25	38.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	22.0
LPTC-2016	2 X 16	1.125	1.00	26.25	42.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	22.9
LPTC-2018	2 X 18	1.125	1.00	28.25	46.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	24.0
LPTC-2020	2 X 20	1.125	1.00	30.25	50.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	24.9
LPTC-2024	2 X 24	1.125	1.00	34.25	58.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	27.0
LPTC2030	2 X 30	1.125	1.00	40.25	70.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	34.9
LPTC-2036	2 X 36	1.125	1.00	46.25	82.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	39.9
LPTC-2048	2 X 36	1.125	1.00	58.25	106.25	3,000	9,420	#8 SAE (3/4 - 16 UNF)	49.8
2 1/2 Inch Bore									
LPTC-2504	2 1/2 X 4	1.125	1.00	14.25	18.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	17.9
LPTC-2506	2 1/2 X 6	1.125	1.00	16.25	22.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	19.6
LPTC-2508	2 1/2 X 8	1.125	1.00	18.25	26.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	21.4
LPTC-2510	2 1/2 X 10	1.125	1.00	20.25	30.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	23.1
LPTC-2512	2 1/2 X 12	1.125	1.00	22.25	34.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	24.9
LPTC-2514	2 1/2 X 14	1.125	1.00	24.25	38.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	26.5
LPTC-2516	2 1/2 X 16	1.250	1.00	26.25	42.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	28.9
LPTC-2518	2 1/2 X 18	1.250	1.00	28.25	46.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	30.6
LPTC-2520	2 1/2 X 20	1.250	1.00	30.25	50.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	32.4
LPTC-2524	2 1/2 X 24	1.250	1.00	34.25	58.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	36.2
LPTC-2530	2 1/2 X 30	1.250	1.00	40.25	70.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	42.1
LPTC-2536	2 1/2 X 36	1.250	1.00	46.25	82.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	47.8
LPTC-2548	2 1/2 X 48	1.250	1.00	58.25	106.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	58.9
3 Inch Bore									
LPTC-3004	3 X 4	1.25	1.00	14.25	18.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	23.6
LPTC-3006	3 X 6	1.25	1.00	16.25	22.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	25.6
LPTC-3008	3 X 8	1.25	1.00	18.25	26.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	27.8
LPTC-3010	3 X 10	1.25	1.00	20.25	30.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	30.0
LPTC-3012	3 X 12	1.25	1.00	22.25	34.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	32.0
LPTC-3014	3 X 14	1.25	1.00	24.25	38.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	34.2
LPTC-3016	3 X 16	1.50	1.00	26.25	42.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	37.5
LPTC-3018	3 X 18	1.50	1.00	28.25	46.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	39.9

LPTC

3000 PSI DOUBLE ACTING TIE-ROD

Hydraulic Cylinder

MODEL	Bore x Stroke (inch)	Shaft Dia. (inch)	Pin Dia. (inch)	Pin to Pin on Center (inch)		Max Rated PSI & Column Load On Full Extension		Port	Weight (lbs)
				Retracted	Extended	PSI	LBS		
3 Inch Bore (cont.)									
LPTC-3024	3 X 24	1.50	1.00	34.25	58.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	47.2
LPTC-3030	3 X 30	1.50	1.00	40.25	70.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	55.6
LPTC-3032	3 X 32	1.50	1.00	42.25	74.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	58.0
LPTC-3036	3 X 36	1.50	1.00	46.25	82.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	62.8
LPTC-3048	3 X 48	1.50	1.00	58.25	106.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	77.4
3 1/2 Inch Bore									
LPTC-3504-FB	3 1/2 X 4	1.50	1.00	14.25	18.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	27.6
LPTC-3506-FB	3 1/2 X 6	1.50	1.00	16.25	22.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	30.4
LPTC-3508-FB	3 1/2 X 8	1.50	1.00	20.25	26.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	33.3
LPTC-3510-FB	3 1/2 X 10	1.50	1.00	20.25	30.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	36.2
LPTC-3512-FB	3 1/2 X 12	1.50	1.00	22.25	34.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	39.0
LPTC-3514-FB	3 1/2 X 14	1.50	1.00	24.25	38.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	42.1
LPTC-3516-FB	3 1/2 X 16	1.50	1.00	26.25	42.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	45.0
LPTC-3518-FB	3 1/2 X 18	1.50	1.00	28.25	46.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	47.8
LPTC-3520-FB	3 1/2 X 20	1.50	1.00	30.25	50.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	50.7
LPTC-3524-FB	3 1/2 X 24	1.50	1.00	34.25	58.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	56.7
LPTC-3536-FB	3 1/2 X 36	1.50	1.00	46.25	82.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	75.4
LPTC-3548-FB	3 1/2 X 48	1.50	1.00	58.25	106.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	92.8
4 Inch Bore									
LPTC-4004-FB	4 X 4	1.50	1.00	14.25	18.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	35.5
LPTC-4006-FB	4 X 6	1.50	1.00	16.25	22.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	39.0
LPTC-4008-FB	4 X 8	1.50	1.00	18.25	26.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	42.5
LPTC-4010-FB	4 X 10	1.50	1.00	20.25	30.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	46.1
LPTC-4012-FB	4 X 12	1.50	1.00	22.25	34.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	49.6
LPTC-4014-FB	4 X 14	1.50	1.00	24.25	38.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	52.9
LPTC-4016-FB	4 X 16	1.75	1.00	26.25	42.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	57.5
LPTC-4018-FB	4 X 18	1.75	1.00	28.25	46.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	61.3
LPTC-4020-FB	4 X 20	1.75	1.00	30.25	50.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	65.0
LPTC-4030-FB	4 X 30	2.00	1.00	34.25	70.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	93.3
LPTC-4036-FB	4 X 36	2.00	1.00	40.25	82.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	106.3
LPTC-4048-FB	4 X 48	2.00	1.00	58.25	106.25	3,000	31,416	#8 SAE (3/4 - 16 UNF)	131.8
ASAE									
LPTC-2008-FB-ASAE	2 x 8	1.125	1.00	20.25	28.25	3,000	7,854	#8 SAE (3/4 - 16 UNF)	19.6
LPTC-2508-FB-ASAE	2.5 x 8	1.125	1.00	20.25	28.25	3,000	12,272	#8 SAE (3/4 - 16 UNF)	22.0
LPTC-3008-FB-ASAE	3 x 8	1.250	1.00	20.25	28.25	3,000	17,672	#8 SAE (3/4 - 16 UNF)	28.4
LPTC-3016-FB-ASAE	3 x 16	1.500	1.25	31.50	47.50	3,000	17,672	#8 SAE (3/4 - 16 UNF)	39.2
LPTC-3508-FB-ASAE	3.5 x 8	1.500	1.00	20.25	28.25	3,000	24,053	#8 SAE (3/4 - 16 UNF)	34.4
LPTC-3516-FB-ASAE	3.5 x 16	1.500	1.25	31.50	47.50	3,000	24,053	#8 SAE (3/4 - 16 UNF)	48.1
LPTC-4008-FB-ASAE	4 x 8	1.500	1.00	20.25	28.25	3,000	31416	#8 SAE (3/4 - 16 UNF)	43.7
LPTC-4016-FB-ASAE	4 x 16	2.000	1.25	31.50	47.50	3,000	31416	#8 SAE (3/4 - 16 UNF)	66.1

NON-ASAE cylinders are designed per ASAE requirements, however they are not classified ASAE due to their varying pin to pin dimensions.
ASAE Cylinders meet ASAE specifications. These specifications establish common mounting i.e. (pin to pin dimensions) & clearance dimensions i.e. (clevis cap/rod clevis throat width & pin diameters) for cylinders & trailing-type agricultural implements. This criteria is only applicable to 8" & 16" stroke cylinders.
All 2" through 4" bore cylinders with 8" stroke are designed with the rod threaded to accommodate a stroke control collar per ASAE specifications.

LPWC

Legend Plus ™ WELDED CLEVIS CYLINDER

Hydraulic Cylinder

FEATURES

Tube: Skived Tube
Rod: High Tensile Ground & Polished Hard Chrome Plated Rod
Piston: High Tensile Steel
Piston Seals: High Quality Compact Seals for Excellent Performance
Rod Seals: Standard Polyurethane Rod Seal with Inner O-Ring, Pom-C Wear Rings with Rod Wiper
Warranty: 2-Year Limited Warranty
Pressure: 3,000 PSI
Color: Black

APPLICATIONS

Agriculture | Construction | Forestry | Material Handling | Oil Service | Truck & Trailer | Waste & Refuse

LPWC

3000 PSI DOUBLE ACTING WELDED

Hydraulic Cylinder

MODEL	Bore x Stroke (inch)	Rod Diameter (inch)	Pin Diameter (inch)	Pin to Pin on Center (inch)		Port	Weight (lbs)
				Retracted	Extended		
2 Inch Bore							
LPWC-2004-FB	2 X 4	1.25	1.00	14.25	18.25	#8 SAE (3/4 - 16 UNF)	13.2
LPWC-2006-FB	2 X 6	1.25	1.00	16.25	22.25	#8 SAE (3/4 - 16 UNF)	14.8
LPWC-2008-FB	2 X 8	1.25	1.00	18.25	26.25	#8 SAE (3/4 - 16 UNF)	16.1
LPWC-2010-FB	2 X 10	1.25	1.00	20.25	30.25	#8 SAE (3/4 - 16 UNF)	17.6
LPWC-2012-FB	2 X 12	1.25	1.00	22.25	34.25	#8 SAE (3/4 - 16 UNF)	19.0
LPWC-2014-FB	2 X 14	1.25	1.00	24.25	38.25	#8 SAE (3/4 - 16 UNF)	20.5
LPWC-2016-FB	2 X 16	1.25	1.00	26.25	42.25	#8 SAE (3/4 - 16 UNF)	21.8
LPWC-2018-FB	2 X 18	1.25	1.00	28.25	46.25	#8 SAE (3/4 - 16 UNF)	23.4
LPWC-2020-FB	2 X 20	1.25	1.00	30.25	50.25	#8 SAE (3/4 - 16 UNF)	24.7
LPWC-2024-FB	2 X 24	1.25	1.00	34.25	58.25	#8 SAE (3/4 - 16 UNF)	27.6
LPWC-2030-FB	2 X 30	1.25	1.00	40.25	70.25	#8 SAE (3/4 - 16 UNF)	32.0
LPWC-2036-FB	2 X 36	1.25	1.00	46.25	82.25	#8 SAE (3/4 - 16 UNF)	36.2
2 1/2 Inch Bore							
LPWC-2504-FB	2 1/2 X 4	1.50	1.00	14.25	18.25	#8 SAE (3/4 - 16 UNF)	16.5
LPWC-2506-FB	2 1/2 X 6	1.50	1.00	16.25	22.25	#8 SAE (3/4 - 16 UNF)	18.3
LPWC-2508-FB	2 1/2 X 8	1.50	1.00	18.25	26.25	#8 SAE (3/4 - 16 UNF)	20.3
LPWC-2510-FB	2 1/2 X 10	1.50	1.00	20.25	30.25	#8 SAE (3/4 - 16 UNF)	22.3
LPWC-2512-FB	2 1/2 X 12	1.50	1.00	22.25	34.25	#8 SAE (3/4 - 16 UNF)	24.0
LPWC-2514-FB	2 1/2 X 14	1.50	1.00	24.25	38.25	#8 SAE (3/4 - 16 UNF)	26.0
LPWC-2516-FB	2 1/2 X 16	1.50	1.00	26.25	42.25	#8 SAE (3/4 - 16 UNF)	28.0
LPWC-2518-FB	2 1/2 X 18	1.50	1.00	28.25	46.25	#8 SAE (3/4 - 16 UNF)	30.0
LPWC-2520-FB	2 1/2 X 20	1.50	1.00	30.25	50.25	#8 SAE (3/4 - 16 UNF)	31.7
LPWC-2524-FB	2 1/2 X 24	1.50	1.00	34.25	58.25	#8 SAE (3/4 - 16 UNF)	35.7
LPWC-2530-FB	2 1/2 X 30	1.50	1.00	40.25	70.25	#8 SAE (3/4 - 16 UNF)	41.4
LPWC-2536-FB	2 1/2 X 36	1.50	1.00	46.25	82.25	#8 SAE (3/4 - 16 UNF)	47.2
3 Inch Bore							
LPWC-3004-FB	3 X 4	1.50	1.00	14.25	18.25	#8 SAE (3/4 - 16 UNF)	20.5
LPWC-3006-FB	3 X 6	1.50	1.00	16.25	22.25	#8 SAE (3/4 - 16 UNF)	22.5
LPWC-3008-FB	3 X 8	1.50	1.00	18.25	26.25	#8 SAE (3/4 - 16 UNF)	24.7
LPWC-3010-FB	3 X 10	1.50	1.00	20.25	30.25	#8 SAE (3/4 - 16 UNF)	26.9
LPWC-3012-FB	3 X 12	1.50	1.00	22.25	34.25	#8 SAE (3/4 - 16 UNF)	28.9
LPWC-3014-FB	3 X 14	1.50	1.00	24.25	38.25	#8 SAE (3/4 - 16 UNF)	31.1
LPWC-3016-FB	3 X 16	1.50	1.00	26.25	42.25	#8 SAE (3/4 - 16 UNF)	33.1
LPWC-3018-FB	3 X 18	1.50	1.00	28.25	46.25	#8 SAE (3/4 - 16 UNF)	35.3
LPWC-3020-FB	3 X 20	1.50	1.00	30.25	50.25	#8 SAE (3/4 - 16 UNF)	37.5
LPWC-3024-FB	3 X 24	1.50	1.00	34.25	58.25	#8 SAE (3/4 - 16 UNF)	41.7
LPWC-3030-FB	3 X 30	1.50	1.00	40.25	70.25	#8 SAE (3/4 - 16 UNF)	48.1
LPWC-3036-FB	3 X 36	1.50	1.00	46.25	82.25	#8 SAE (3/4 - 16 UNF)	54.5

LPWC

3000 PSI DOUBLE ACTING WELDED
Hydraulic Cylinder

MODEL	Bore x Stroke (inch)	Rod Diameter (inch)	Pin Diameter (inch)	Pin to Pin on Center (inch)		Port	Weight (lbs)
				Retracted	Extended		
3 1/2 Inch Bore							
LPWC-3504-FB	3 1/2 X 4	1.75	1.00	14.25	18.25	#8 SAE (3/4 - 16 UNF)	27.6
LPWC-3506-FB	3 1/2 X 6	1.75	1.00	16.25	22.25	#8 SAE (3/4 - 16 UNF)	30.2
LPWC-3508-FB	3 1/2 X 8	1.75	1.00	18.25	26.25	#8 SAE (3/4 - 16 UNF)	33.1
LPWC-3510-FB	3 1/2 X 10	1.75	1.00	20.25	30.25	#8 SAE (3/4 - 16 UNF)	35.9
LPWC-3512-FB	3 1/2 X 12	1.75	1.00	22.25	34.25	#8 SAE (3/4 - 16 UNF)	38.6
LPWC-3514-FB	3 1/2 X 14	1.75	1.00	24.25	38.25	#8 SAE (3/4 - 16 UNF)	41.4
LPWC-3516-FB	3 1/2 X 16	1.75	1.25	26.25	42.25	#8 SAE (3/4 - 16 UNF)	44.3
LPWC-3518-FB	3 1/2 X 18	1.75	1.25	28.25	46.25	#8 SAE (3/4 - 16 UNF)	47.2
LPWC-3520-FB	3 1/2 X 20	1.75	1.25	30.25	50.25	#8 SAE (3/4 - 16 UNF)	49.8
LPWC-3524-FB	3 1/2 X 24	1.75	1.25	34.25	58.25	#8 SAE (3/4 - 16 UNF)	55.6
4 Inch Bore							
LPWC-4004-FB	4 X 4	2.00	1.00	14.25	18.25	#8 SAE (3/4 - 16 UNF)	33.1
LPWC-4006-FB	4 X 6	2.00	1.00	16.25	22.25	#8 SAE (3/4 - 16 UNF)	36.6
LPWC-4008-FB	4 X 8	2.00	1.00	18.25	26.25	#8 SAE (3/4 - 16 UNF)	40.3
LPWC-4010-FB	4 X 10	2.00	1.00	20.25	30.25	#8 SAE (3/4 - 16 UNF)	44.1
LPWC-4012-FB	4 X 12	2.00	1.00	22.25	34.25	#8 SAE (3/4 - 16 UNF)	47.6
LPWC-4014-FB	4 X 14	2.00	1.00	24.25	38.25	#8 SAE (3/4 - 16 UNF)	51.4
LPWC-4016-FB	4 X 16	2.00	1.50	26.25	42.25	#8 SAE (3/4 - 16 UNF)	55.1
LPWC-4018-FB	4 X 18	2.00	1.50	28.25	46.25	#8 SAE (3/4 - 16 UNF)	58.6
LPWC-4020-FB	4 X 20	2.00	1.50	30.25	50.25	#8 SAE (3/4 - 16 UNF)	62.4
LPWC-4024-FB	4 X 24	2.00	1.50	34.25	58.25	#8 SAE (3/4 - 16 UNF)	69.7
LPWC-4030-FB	4 X 30	2.00	1.50	40.25	70.25	#8 SAE (3/4 - 16 UNF)	80.7
LPWC-4036-FB	4 X 36	2.00	1.50	46.25	82.25	#8 SAE (3/4 - 16 UNF)	91.7
ASAE							
LPWC-2008-FB-ASAE	2 X 8	1.25	1.00	20.25	28.25	#8 SAE (3/4 - 16 UNF)	17.0
LPWC-2008-FB90-ASAE	2 X 8	1.25	1.00	20.25	28.25	#8 SAE (3/4 - 16 UNF)	17.0
LPWC-2508-FB-ASAE	2 1/2 X 8	1.50	1.00	20.25	28.25	#8 SAE (3/4 - 16 UNF)	21.4
LPWC-3008-FB-ASAE	3 X 8	1.50	1.00	20.25	28.25	#8 SAE (3/4 - 16 UNF)	25.8
LPWC-3508-FB-ASAE	3 1/2 X 8	1.75	1.00	20.25	28.25	#8 SAE (3/4 - 16 UNF)	34.4
LPWC-4008-FB-ASAE	4 X 8	2.00	1.00	20.25	28.25	#8 SAE (3/4 - 16 UNF)	42.1

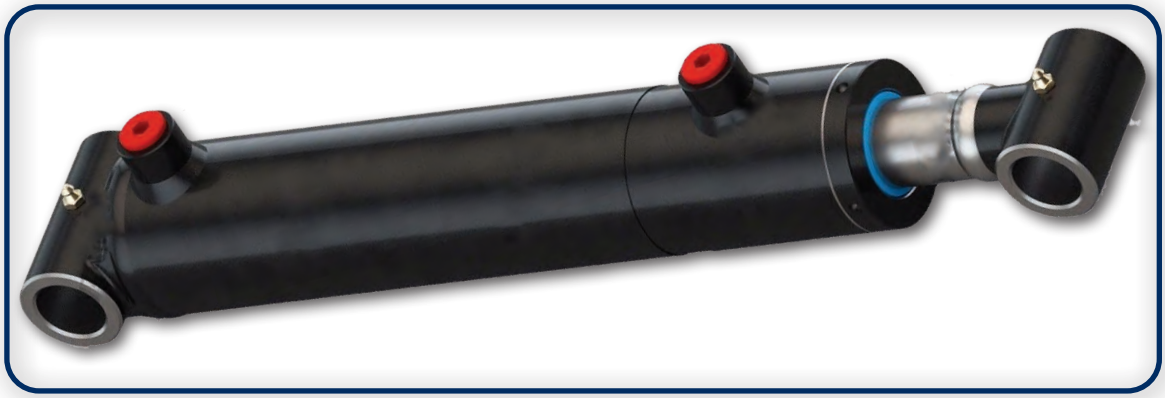
NON-ASAE cylinders are designed per ASAE requirements, however they are not classified ASAE due to their varying pin to pin dimensions. ASAE Cylinders meet ASAE (American Society of Agricultural Engineers) specifications. These specifications establish common mounting i.e. (pin to pin dimensions) & clearance dimensions i.e. (clevis cap/rod clevis throat width & pin diameters) for cylinders & trailing-type agricultural implements. This criteria is only applicable to 8" & 16" stroke cylinders. All 2" through 4" bore cylinders with 8" stroke are designed with the rod threaded to accommodate a stroke control collar per ASAE specifications.

LPWCT

WELDED CYLINDER - CROSS TUBE

Hydraulic Cylinder - 3000 PSI DOUBLE ACTING

LEGEND™ plus



FEATURES

Tube: Skived Tube
Rod: High Tensile Ground & Polished Hard Chrome Plated Rod
Piston: High Tensile Steel
Piston Seals: High Quality Compact Seals for Excellent Performance
Rod Seals: Standard Polyurethane Rod Seal with Inner O-Ring, Pom-C Wear Rings with Rod Wiper
Warranty: 2-Year Limited Warranty
Pressure: 3,000 PSI
Color: Black

APPLICATIONS

Agriculture | Construction | Forestry | Material Handling | Oil Service | Truck & Trailer | Waste & Refuse

LPWCT

WELDED CYLINDER - CROSS TUBE

Hydraulic Cylinder - 3000 PSI DOUBLE ACTING

MODEL	Bore x Stroke (inch)	Rod Diameter (inch)	Pin Diameter (inch)	Cross Tube Length (inch)		Port	Weight (lbs)
				Rod End	Base End		
1 1/2 Inch Bore							
LPWCT-1504-FB	1 1/2 X 4	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	9.0
LPWCT-1506-FB	1 1/2 X 6	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	10.1
LPWCT-1508-FB	1 1/2 X 8	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	11.4
LPWCT-1510-FB	1 1/2 X 10	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	12.8
LPWCT-1512-FB	1 1/2 X 12	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	14.1
LPWCT-1514-FB	1 1/2 X 14	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	15.4
LPWCT-1516-FB	1 1/2 X 16	1.00	0.75	2.00	2.25	#4 SAE (7/16 - 20 UNF)	18.7
2 Inch Bore							
LPWCT-2004-FB	2 X 4	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	13.0
LPWCT-2006-FB	2 X 6	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	14.0
LPWCT-2008-FB	2 X 8	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	15.0
LPWCT-2010-FB	2 X 10	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	15.4
LPWCT-2012-FB	2 X 12	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	16.1
LPWCT-2014-FB	2 X 14	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	17.2
LPWCT-2016-FB	2 X 16	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	21.6
LPWCT-2018-FB	2 X 18	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	22.0
LPWCT-2020-FB	2 X 20	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	23.3
LPWCT-2024-FB	2 X 24	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	27.5
LPWCT-2028-FB	2 X 28	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	31.5
LPWCT-2030-FB	2 X 30	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	33.7
LPWCT-2032-FB	2 X 32	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	35.9
LPWCT-2034-FB	2 X 34	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	37.2
LPWCT-2036-FB	2 X 36	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	38.5
LPWCT-2040-FB	2 X 40	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	39.6
LPWCT-2048-FB	2 X 48	1.25	1.00	2.25	2.75	#6 SAE (9/16 - 18 UNF)	49.5
2 1/2 Inch Bore							
LPWCT-2504-FB	2 1/2 X 4	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	6.1
LPWCT-2506-FB	2 1/2 X 6	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	17.6
LPWCT-2508-FB	2 1/2 X 8	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	18.7
LPWCT-2510-FB	2 1/2 X 10	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	21.6
LPWCT-2512-FB	2 1/2 X 12	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	23.8
LPWCT-2514-FB	2 1/2 X 14	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	26.4
LPWCT-2516-FB	2 1/2 X 16	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	29.9
LPWCT-2518-FB	2 1/2 X 18	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	30.8
LPWCT-2520-FB	2 1/2 X 20	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	32.1
LPWCT-2524-FB	2 1/2 X 24	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	37.4
LPWCT-2528-FB	2 1/2 X 28	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	41.8
LPWCT-2530-FB	2 1/2 X 30	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	44.0

LPWCT

WELDED CYLINDER - CROSS TUBE

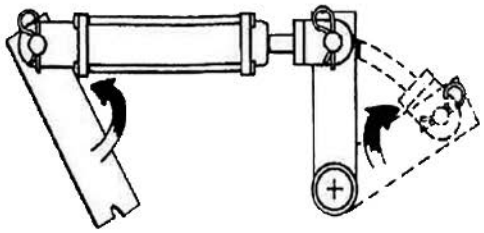
Hydraulic Cylinder - 3000 PSI DOUBLE ACTING

MODEL	Bore x Stroke (inch)	Rod Diameter (inch)	Pin Diameter (inch)	Cross Tube Length (inch)		Port	Weight (lbs)
				Rod End	Base End		
2 1/2 Inch (cont.)							
LPWCT-2532-FB	2 1/2 X 32	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	46.00
LPWCT-2534-FB	2 1/2 X 34	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	48.00
LPWCT-2536-FB	2 1/2 X 36	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	49.70
LPWCT-2540-FB	2 1/2 X 40	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	55.20
LPWCT-2548-FB	2 1/2 X 48	1.50	1.00	2.25	3.25	#8 SAE (3/4 - 16 UNF)	62.30
3 Inch							
LPWCT-3004-FB	3 X 4	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	18.25
LPWCT-3006-FB	3 X 6	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	22.25
LPWCT-3008-FB	3 X 8	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	26.25
LPWCT-3010-FB	3 X 10	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	30.25
LPWCT-3012-FB	3 X 12	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	34.25
LPWCT-3014-FB	3 X 14	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	38.25
LPWCT-3016-FB	3 X 16	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	42.25
LPWCT-3018-FB	3 X 18	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	46.25
LPWCT-3020-FB	3 X 20	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	50.25
LPWCT-3024-FB	3 X 24	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	58.25
LPWCT-3030-FB	3 X 30	1.50	1.00	2.25	3.75	#8 SAE (3/4 - 16 UNF)	70.25
3 1/2 Inch							
LPWCT-3506-FB	3 1/2 X 6	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	29.30
LPWCT-3508-FB	3 1/2 X 8	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	32.60
LPWCT-3510-FB	3 1/2 X 10	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	35.90
LPWCT-3512-FB	3 1/2 X 12	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	39.40
LPWCT-3514-FB	3 1/2 X 14	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	40.90
LPWCT-3516-FB	3 1/2 X 16	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	44.90
LPWCT-3518-FB	3 1/2 X 18	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	48.20
LPWCT-3520-FB	3 1/2 X 20	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	51.30
LPWCT-3524-FB	3 1/2 X 24	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	56.30
LPWCT-3528-FB	3 1/2 X 28	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	60.30
LPWCT-3530-FB	3 1/2 X 30	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	64.50
LPWCT-3532-FB	3 1/2 X 32	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	68.40
LPWCT-3534-FB	3 1/2 X 34	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	72.50
LPWCT-3536-FB	3 1/2 X 36	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	76.60
LPWCT-3540-FB	3 1/2 X 40	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	80.70
LPWCT-3548-FB	3 1/2 X 48	1.75	1.25	2.25	4.25	#8 SAE (3/4 - 16 UNF)	84.70
4 Inch							
LPWCT-4008-FB	4 X 8	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	40.90
LPWCT-4010-FB	4 X 10	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	44.70
LPWCT-4012-FB	4 X 12	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	48.20
LPWCT-4014-FB	4 X 14	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	51.90
LPWCT-4016-FB	4 X 16	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	55.40
LPWCT-4018-FB	4 X 18	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	59.20
LPWCT-4020-FB	4 X 20	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	62.70
LPWCT-4024-FB	4 X 24	2.00	1.50	2.50	4.75	#8 SAE (3/4 - 16 UNF)	68.40

HYDRAULIC CYLINDER SAFETY

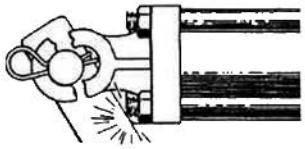
General Cautions:

- Always use a relief or bypass valve in your hydraulic system to prevent personal injury and/or breakage of equipment of components. Never operate a cylinder above rated pressures.
- Never use a cylinder as a transport device.
- Use correct fittings and proper hydraulic oil.

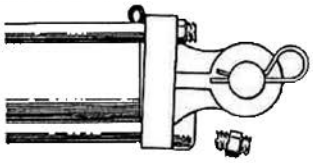


Binding

Check clevis clearances before, during and after extending the cylinder and before using the cylinder under pressure to avoid possible injury, or bent or broken rods or clevises caused by binding.

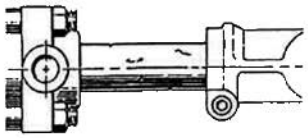


Excessive Pressure



Too much pressure can lead to Extruded Static Seals and/or Broken Tie Rods. To avoid this, check the pressure rating of the cylinder against the system pressure of the tractor.

Rough or Scored Rod



Protect the rod at all times and make sure that nothing hits or rubs it when it is extended. Rough Places on the rod damage the seals and reduce their normal life resulting in the necessity for frequent replacement.

Dirty Oil

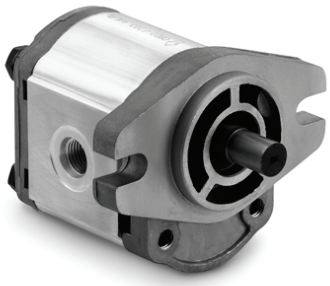
Oil must filtered to minimum of 25 Microns. Oil & Filters must be changed regularly. Spin-On type filters shall be changed at a 50 Hour interval upon initial operation & 250 Hour intervals thereafter. The use of a Condition Indicator is recommended along with a Maintenance Schedule and/or Maintenance Log. Consult your tractor or implement owner's manual for oil and filtration change recommendations.

Pinhole Leaks

If you observe a Pinhole Leak, or a leak of any kind, initiate an IMMEDIATE SHUT DOWN of the machine. If oil penetrates the skin and/or makes contact with the eyes seek IMMEDIATE medical attention! Hydraulic oil in the blood stream can result in Blood Poisoning and can be fatal.

PCC Pump Series

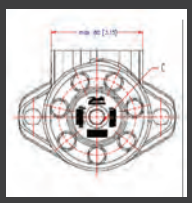
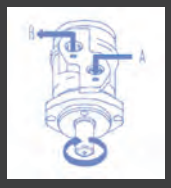
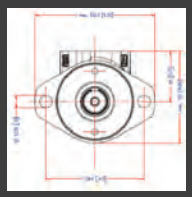
LEGEND™ SERIES



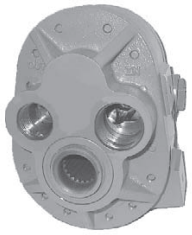
Pump Features

- PTO Pumps
- Hi/Lo Pumps
- Mini Pumps
- Double/Triple Pumps

More Pumps Available

Send Us Your Specs or Requirements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Model GXP10

Hydraulic Pump

Our Model **GXP10** Gear Pump is constructed of an aluminum gear body and end plates and is available in 8 displacement sizes from 0.08 - 0.48 in^3/rev. (1.3 - 8.0 cm^3/rev). The standard mounting flange is a SAE AA - 2-bolt; standard ports are SAE-6 inlet and SAE-6 outlet; and the drive shaft is a 1/2" diameter straight shaft with 1/8" key.

Recommended working conditions:

FILTRATION: 25 micron or better
OIL TEMP: -12° to 175° F (-25° to 80° C)
OIL VISCOSITY: 6 - 200 cSt
AMBIENT -8° to 130° F (-22° - 55° C)
INLET PRESSURE: 12 to 32 PSI absolute

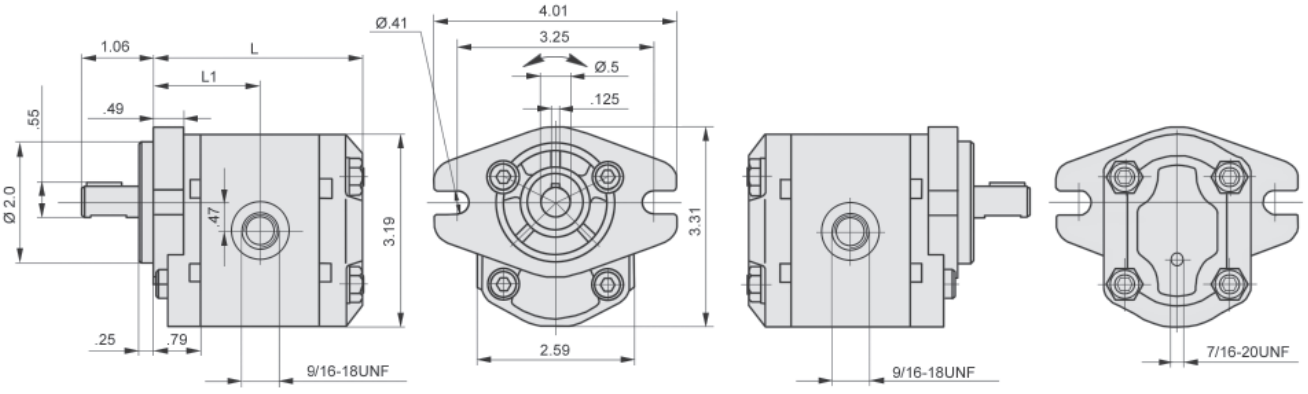
Technical Specifications

Model	Displacement *in³ (cm ³) / rev*	Pressure *psi*	Speed - *rpm*		Weight *lbs*
			Rated	Max	
GXP10-13	0.08 (1.3)	3,625	2,000	5,00	6.02
GXP10-20	0.12 (2.0)	3,625	2,000	5,00	6.31
GXP10-27	0.16 (2.7)	3,625	2,000	5,00	6.68
GXP10-34	0.20 (3.4)	3,625	2,000	5,00	6.99
GXP10-41	0.25 (4.1)	3,625	2,000	4,00	7.34
GXP10-51	0.31 (5.1)	3,625	2,000	4,00	7.78
GXP10-61	0.37 (6.1)	3,625	2,000	4,00	8.18
GXP10-80	0.48 (8.0)	3,480	2,000	4,00	9.01

Flow Rate (gpm) = Displacement (in^3/rev) X Speed (rpm) / 231
Volumetric efficiency % ≥93

Installation Data

Model	L	L1	Ports	
			In	Out
GXP10-13	3.23"	1.65"	SAE-6	SAE-6
GXP10-20	3.30"	1.69"	SAE-6	SAE-6
GXP10-27	3.39"	1.73"	SAE-6	SAE-6
GXP10-34	3.46"	1.77"	SAE-6	SAE-6
GXP10-41	3.54"	1.81"	SAE-6	SAE-6
GXP10-51	3.66"	1.87"	SAE-6	SAE-6
GXP10-61	3.78"	1.93"	SAE-6	SAE-6
GXP10-80	3.97"	2.01"	SAE-6	SAE-6



Ordering Example: GXP - 10 - 20 - P - C

(Category: GXP | Series: 10 | Displacement: 20 | Drive Shaft: P | Rotation: C)

Category	Series	Displacement *(see chart)*	Drive Shaft**	Rotation
Gear Pump	10 Series *SAE "AA" Mount*	13/20/27/34 41/51/61/80	P = 1/2" Dia. Straight	C = Clockwise A = Counter-Clockwise B = Bidirectional *(viewed from shaft end)*

Model GXP20

Hydraulic Pump

Our Model **GXP20** Gear Pump is constructed of an aluminum center section and cast iron end plates. It is a high pressure hydraulic pump with 11 displacement sizes from 0.24 - 1.95 in ³/rev. (4 - 32 cm ³/rev). The standard mounting flange is a SAE A - 2 bolt. Standard drive shaft is a 5/8" straight shaft with 5/32" key. Additional shaft options are available as outlined in the ordering example.

Recommended working conditions:

FILTRATION: 25 micron or better
OIL TEMP: -12° to 175°F (-25° to 80°C)

OIL VISCOSITY: 6 - 200 cSt
AMBIENT -8° to 130°F (-22° to 55°C)

INLET PRESSURE: 12 to 32 PSI absolute

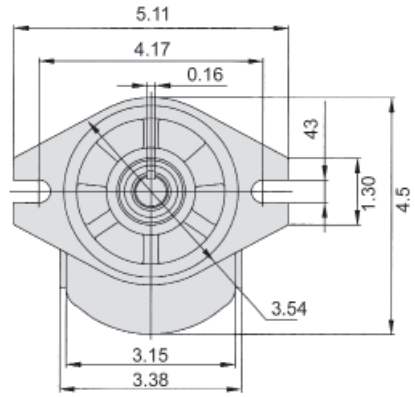
Technical Specifications

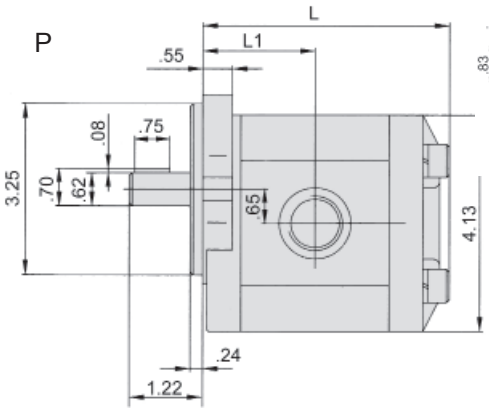
Model	Displacement	Pressure	Speed rpm		Weight
	in³ / rev	psi	Rated	Max	lbs
GXP20-04	0.24 (4)	3,650	2,000	3,600	7.80
GXP20-06	0.36 (6)	3,650	2,000	3,600	8.05
GXP20-08	0.48 (8)	3,650	2,000	3,600	8.25
GXP20-10	0.61 (10)	3,650	2,000	3,600	8.30
GXP20-12	0.73 (12)	3,650	2,000	3,600	8.55
GXP20-14	0.85 (14)	3,650	2,000	3,600	8.70
GXP20-16	0.97 (16)	2,900	2,000	3,600	8.85
GXP20-20	1.22 (20)	2,900	2,000	3,600	9.30
GXP20-25	1.52 (25)	2,900	2,000	3,600	9.80
GXP20-30	1.83 (30)	2,300	2,000	3,600	10.25
GXP20-32	1.95 (32)	2,300	2,000	3,600	10.50

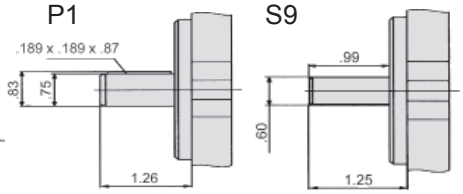
Installation Data

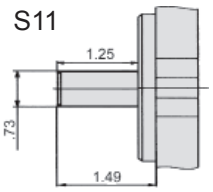
Model	L	L1	Ports	
			In	Out
GXP20-04	3.70"	1.69"	SAE-12	SAE-10
GXP20-06	3.87"	1.77"	SAE-12	SAE-10
GXP20-08	3.95"	1.85"	SAE-12	SAE-10
GXP20-10	4.12"	1.89"	SAE-12	SAE-10
GXP20-12	4.25"	1.97"	SAE-12	SAE-10
GXP20-14	4.35"	2.00"	SAE-12	SAE-10
GXP20-16	4.50"	2.07"	SAE-12	SAE-10
GXP20-20	4.72"	2.20"	SAE-12	SAE-10
GXP20-25	5.05"	2.36"	SAE-12	SAE-10
GXP20-30	5.35"	2.52"	SAE-16	SAE-12
GXP20-32	5.79"	2.87"	SAE-16	SAE-12

Flow Rate (gpm) = Displacement (in³ /rev) X Speed (rpm) / 231
Volumetric efciency% ≥93









Ordering Example:

Category	Series	Displacement	Drive Shaft	Rotation	Options
GXP	20	25	P	C	

Category	Series	Displacement *(see chart)*	Drive Shaft**	Rotation	Options
Gear Pump GXP	20 Series *SAE "A" Mount*	04/06/08/10/12 14/16/20/25/30/32	P = 5/8" Dia. Straight P1 = 3/4" Dia. Straight S9 = SAE 9-Tooth Spline S11* = SAE 11-Tooth Spline	C = Clockwise A = Counter-Clockwise *(viewed from shaft end)*	BB* = Rear Ports

** Special Order*
*** Additional seal and shaft options available.*

Model GXP25

Hydraulic Pump

Our Model **GXP25** Gear Pump constructed of an aluminum center section and cast iron end plates. It is a high pressure hydraulic pump with 10 displacement sizes from 1.34 - 5.43 in ³/rev (22 - 89 cm³/rev). The standard mounting is a SAE B - 2-bolt with a 7/8" diameter straight shaft and 1/4" key.

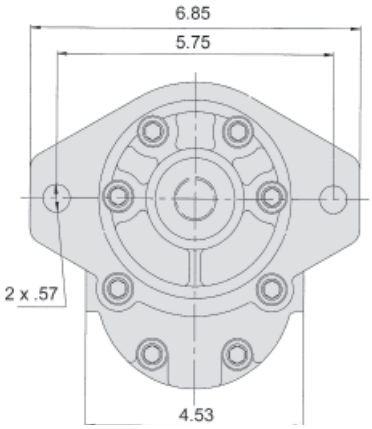
Technical Specifications

Model	Displacement in³ (cm³) / rev	Pressure psi	Speed rpm		Weight Lbs.
			Rated	Max	
GXP25-22	1.34 (22)	3,625	2,000	3,000	19.35
GXP25-26	1.57 (26)	3,625	2,000	3,000	19.55
GXP25-34	2.07 (34)	3,625	2,000	3,000	20.20
GXP25-39	2.38 (39)	3,625	2,000	3,000	20.65
GXP25-43	2.62 (43)	3,625	2,000	2,800	20.85
GXP25-51	3.11 (51)	3,625	2,000	2,800	21.50
GXP25-60	3.84 (60)	2,900	1,500	2,800	22.25
GXP25-70*	4.27 (70)	2,900	1,500	2,500	22.75
GXP25-78*	4.76 (78)	2,900	1,500	2,300	23.50
GXP25-89*	5.43 (89)	2,600	1,500	2,000	25.00

Flow Rate (gpm) = Displacement (in³/rev) X Speed (rpm) / 231
Volumetric efficiency % ≥93

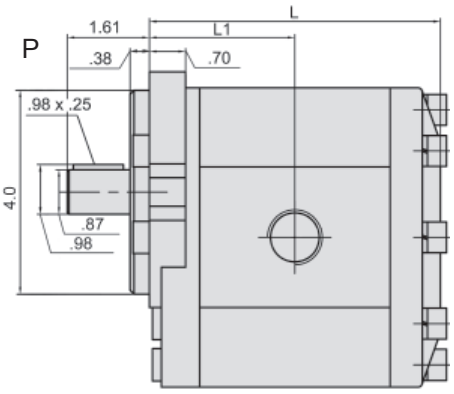
Recommended working conditions:

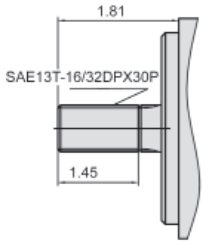
FILTRATION: 25 micron or better
OIL VISCOSITY: 7 to 700 cSt
INLET PRESSURE: 12 to 32 PSI absolute
OIL TEMPERATURE: -12° to +175° F (-25° to +80° C)
AMBIENT -8° to +130° F (-22° to +55° C)



Installation Data

Model	L	L1	Ports	
			In	Out
GXP25-22	5.16"	2.60"	SAE-16	SAE-12
GXP25-26	5.27"	2.63"	SAE-16	SAE-12
GXP25-34	5.47"	2.71"	SAE-16	SAE-12
GXP25-39	5.62"	2.79"	SAE-16	SAE-12
GXP25-43	5.78"	2.87"	SAE-16	SAE-12
GXP25-51	5.98"	2.99"	SAE-16	SAE-12
GXP25-60	6.22"	3.11"	SAE-16	SAE-12
GXP25-70*	6.53"	3.22"	SAE-20	SAE-16
GXP25-78*	6.73"	3.34"	SAE-20	SAE-16
GXP25-89*	6.93"	3.46"	SAE-20	SAE-16





Ordering Example:

Category	Series		Displacement		Drive Shaft		Rotation		Options
GXP	25	-	34	-	P	-	C	-	

Category	Series	Displacement *(see chart)*	Drive Shaft**	Rotation
Gear Pump GXP	25 Series *SAE "B" Mount*	22/26/34/39/43/51 60/70*/78*/89*	P = 7/8" Dia. Straight S13 = 13-Tooth Spline	C = Clockwise A = Counter-Clockwise *(viewed from shaft end)*

** Special Order.*
*** Additional seal and shaft options available.*

Model Double/Triple Pumps

Hydraulic Pump

GXP10-GXP20-GXP25

Our Gear Pump Models **GXP10**, **GXP20** and **GXP25** are available with features that **allow pumps to be stacked** to produce double and triple pumps from the base model. Technical data, including displacement sizes, working pressure, rated speed, etc. is as per the first pump position pump model. For example model GXP20D-12/08-S9-C is a double pump with displacements of 0.73 and 0.48 in3/rev (12 and 8 cm³/rev) rated at 2,000 rpm and 2,900 psi with a 9-tooth spline drive shaft and clockwise rotation.

Recommended working conditions:

FILTRATION: 25 micron or better
OIL VISCOSITY: 7 to 700 cSt
INLET PRESSURE: 12 to 32 PSI absolute
OIL TEMPERATURE: -12° to +175° F (-25° to +80° C)
AMBIENT -8° to +130° F (-22° to +55° C)

Installation Data

Custom stacked pumps can also be produced by special order. Consult factory for details.

Ordering Example:

Category		Series/Stack		Pump 1 Size		Pump 2 Size		Pump 3 Size		Drive Shaft		Rotation
GXP	-	20D	-	12	/	08	/		-	P	-	C

Category	Series	Stack	Pump Sizes	Drive Shaft	Rotation
Gear Pump GXP	10 = *SAE "AA" Mount* 20 = *SAE "A" Mount* 25 = *SAE "B" Mount*	D = Double T = Triple	See displacement options below	See shaft options below	C = Clockwise A = Counter-Clockwise *(viewed from shaft end)*

10 - Disp. Options

Model	Displacement in³ (cm³) / rev
GXP10-13	0.07 (1.3)
GXP10-20	0.12 (2.0)
GXP10-27	0.16 (2.7)
GXP10-34	0.20 (3.4)
GXP10-41	0.25 (4.1)
GXP10-51	0.31 (5.1)
GXP10-61	0.37 (6.1)
GXP10-80	0.48 (8.0)

10 Shaft Options
P = 1/2" Dia. Straight

20 - Disp. Options

Model	Displacement in³ (cm³) / rev
GXP20-04	0.24 (4)
GXP20-06	0.36 (6)
GXP20-08	0.48 (8)
GXP20-10	0.61 (10)
GXP20-12	0.73 (12)
GXP20-14	0.85 (14)
GXP20-16	0.97 (16)
GXP20-20	1.22 (20)
GXP20-25	1.52 (25)
GXP20-30	1.83 (30)
GXP20-32	1.95 (32)

20 Shaft Options
P = 5/8" Dia. Straight
P1 = 3/4" Dia. Straight
S9 = 9-Tooth Spline
S11 = 11-Tooth Spline

25 - Disp. Options

Model	Displacement in³ (cm³) / rev
GXP25-22	1.34 (22)
GXP25-26	1.57 (26)
GXP25-34	2.07 (34)
GXP25-39	2.38 (39)
GXP25-43	2.62 (43)
GXP25-51	3.11 (51)
GXP25-60	3.84 (60)
GXP25-70	4.27 (70)
GXP25-78	4.76 (78)
GXP25-89	5.43 (89)

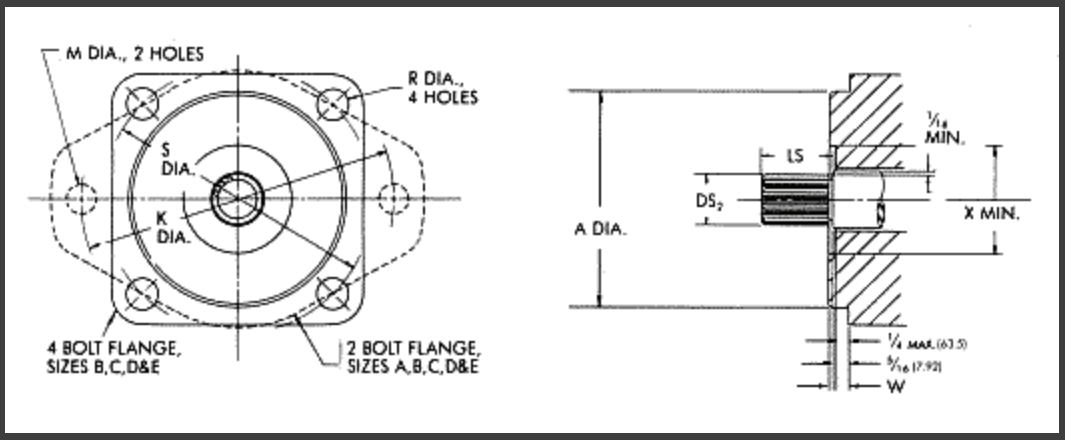
25 Shaft Options
P = 7/8" Dia. Straight
S13 = 13-Tooth Spline

LEGEND™ SERIES

Motor Features

- Low Speed
- Parallel or Series Systems
- High Torque
- Compact

More Motors Available



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Model P101

Hydraulic Motor

Crossover to CharLynn 101 Series

Our Model **P101 Series** Motor is a compact and efficient design that features the advanced **ROTORTORC™** Gear Set and Shaft-Distribution-Flow in a Low-Speed/High-Torque (LSHT) motor, which can be used in either parallel or series type hydraulic systems.
These advanced design, low-weight construction motors are manufactured to the same high standards for reliability and durability as our other hydraulic components. They go through the same Quality Assurance inspections as our other Hydraulic Product Lines.

Technical Specifications

MODEL		P101 36	P101 50	P101 80	P101 100	P101 125	P101 160	P101 200	P101 250	P101 315	P101 400
Displacement *in³/rev (cm³/rev)*		2.20 (36.0)	3.15 (51.7)	4.74 (77.7)	5.87 (96.2)	7.20 (120)	9.51 (157)	11.59 (195)	14.09 (240)	19.03 (315)	23.61 (390)
Max Speed *rpm*	Cont	1500	1150	770	615	490	383	310	250	192	155
	Int.	1650	1450	960	770	615	475	385	310	240	190
Max Torque *in•lbf*	Cont	487	885	1292	1611	2089	2673	3186	3363	3319	3186
	Int.	673	1133	1646	2009	2567	3275	3894	4071	4912	4646
Max Differential *psi*	Cont	1813	2031	2031	2031	2031	2031	2031	2031	1813	1450
	Int.	2393	2538	2538	2538	2538	2538	2538	2538	2031	1813
Max Flow *gpm*	Cont	14.53	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85
	Int.	15.85	19.82	19.82	19.82	19.82	19.82	19.82	19.82	19.82	19.82
Weight		13.90 lbs	13.85 lbs	14.25 lbs	14.45 lbs	14.70 lbs	15.15 lbs	15.60 lbs	16.15 lbs	16.95 lbs	17.75 lbs

Continuous (Cont.) = maximum of continuous operation. Intermittent (Int.) = maximum operating range for 6 seconds per minute

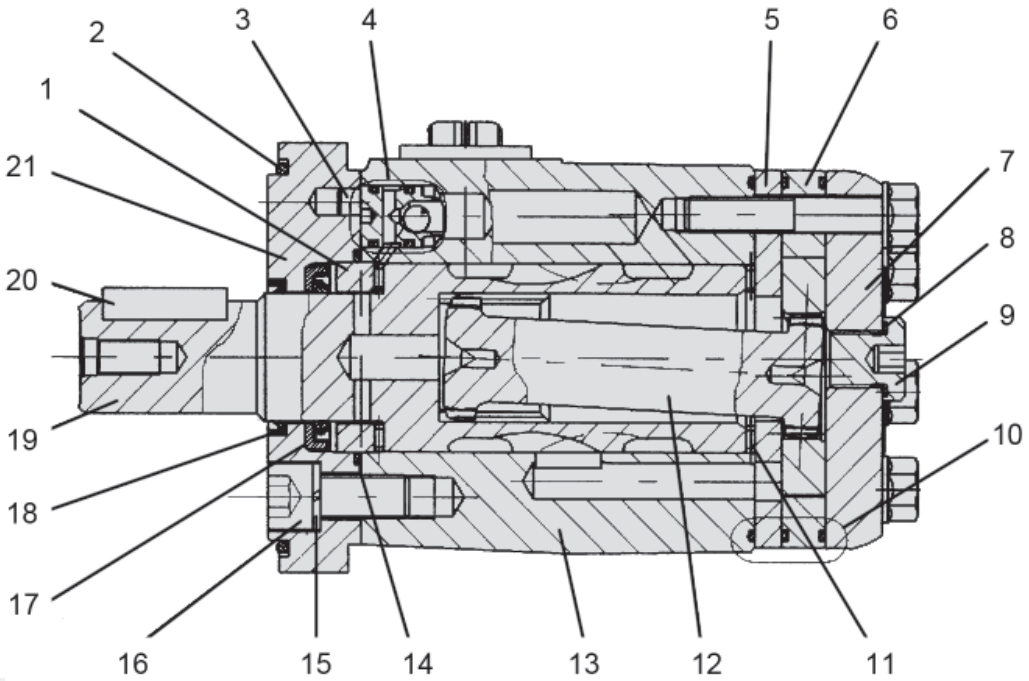


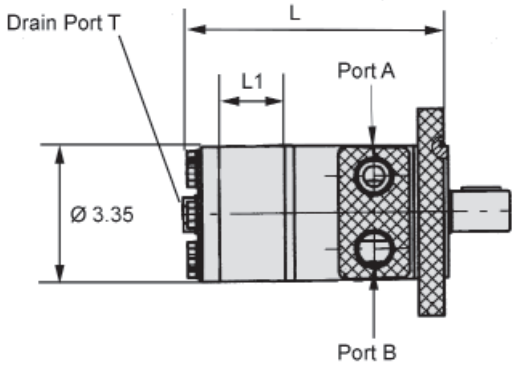
Diagram Key

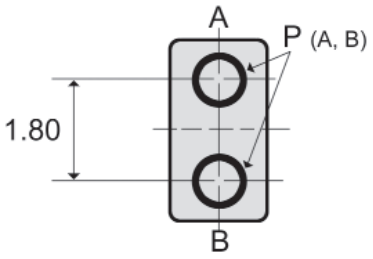
1 Thrust Washer
2 O-Ring
3 Pin
4 Check Valve
5 Wear Plate
6 ROTORTORC™ Gear Set
7 End Cover
8 Seal
9 Case Drain Plug
10 O-Ring
11 Thrust Needle Bearing
12 Drive Shaft
13 Housing
14 O-Ring
15 Lock Washer
16 Bolt
17 Shaft Seal
18 Dust Seal
19 Output Shaft
20 Key
21 Front Cover

Model P101

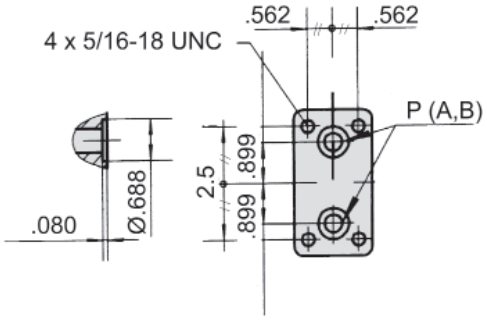
Hydraulic Motor

P101 Mounting Data



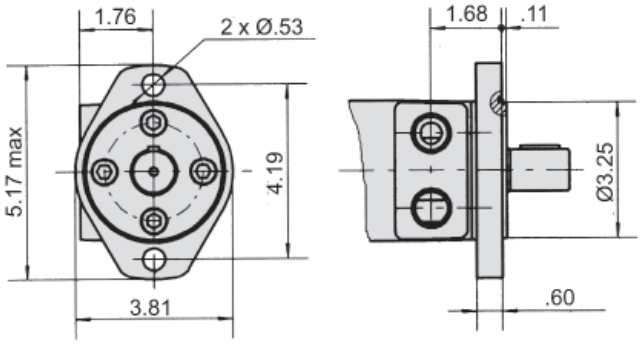


Manifold Mount

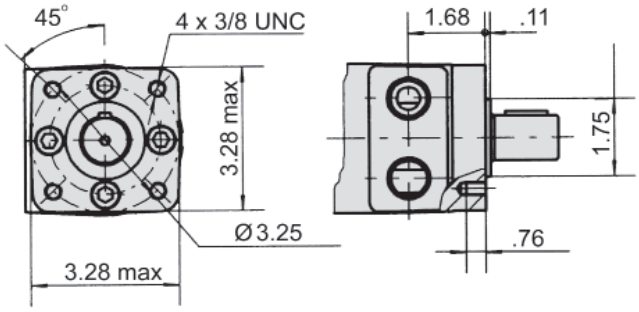


MODEL	L	L1
P101 36	5.51”	0.27”
P101 50	5.55”	0.28”
P101 80	5.69”	0.41”
P101 100	5.79”	0.51”
P101 125	5.91”	0.63”
P101 160	6.10”	0.83”
P101 200	6.30”	1.02”
P101 250	6.54”	1.26”
P101 315	7.72”	1.65”
P101 400	7.32”	2.04”

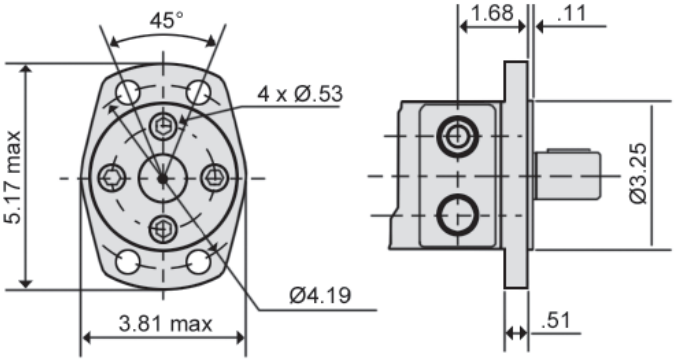
H2 - SAE “A” 2-Bolt



H4 - SAE “A” 4-Bolt



H6 - Magneto

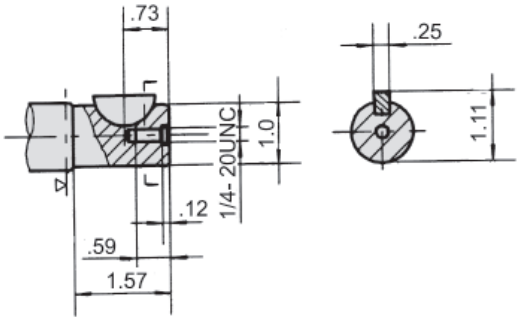


Ports	SAE Sizes	NPT Sizes
P (A, B)	7/8 - 14 SAE	1/2 - 14 NPTF
T	7/16 - 20 SAE	7/16 - 20 SAE

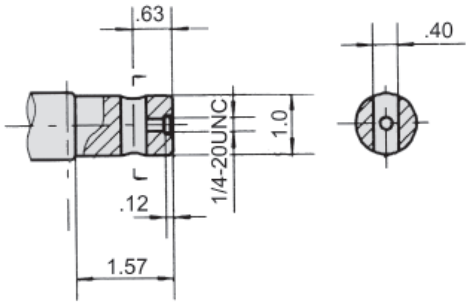
Model P101

Hydraulic Motor
P101 Drive Shaft Data

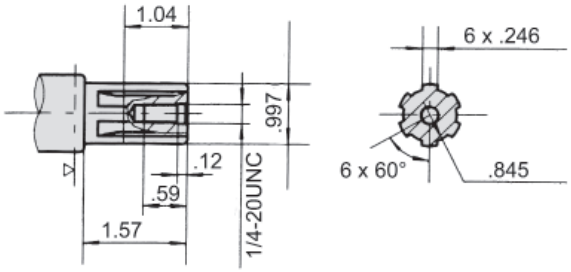
K - 1" Woodruff Key



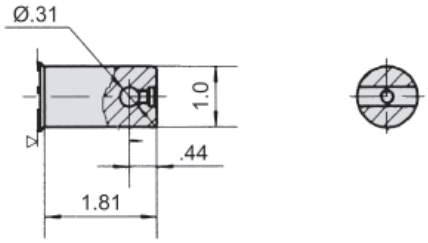
H - 1" Parallel .40 Dia. Cross Hole



S - SAE 6B Spline



H1 - 1" Parallel .31 Dia. Cross Hole



Ordering Example:

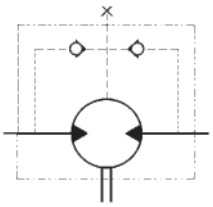
Model		Frame Size		Flange		Drive Shaft		Ports		Options
P101	-	100	-	H2	-	K	-	P	-	

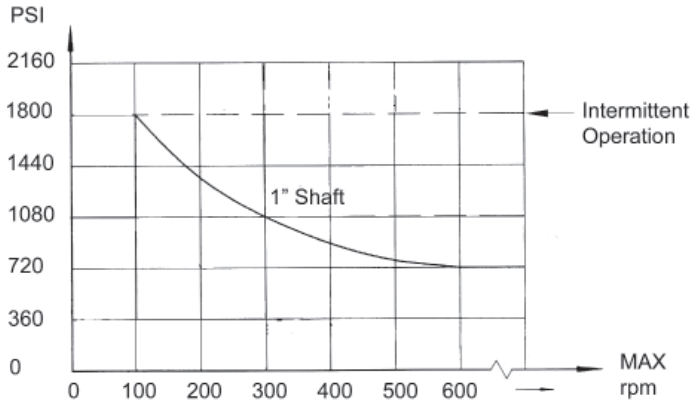
Model	Frame Size	Mounting Flange**	Drive Shaft**	Port Size	Options
P101	36 (2.20) 50 (3.15) 80 (4.74) 100 (5.87) 125 (7.20) 160 (9.51) 200 (11.59) 250 (14.09) 315 (19.03) 400 (23.61)	H2 = SAE "A" 2-Bolt H4 = SAE "A" 4-Bolt H6 = Magneto	K = 1" Woodruff Key S = SAE 6B Spline H = 1" Parallel 0.40" Dia. Cross Hole H1 = 1" Parallel 0.31" Dia. Cross Hole	P = 1/2 NPTF S = 7/8 -14 SAE F = Manifold	F* = Free Running N* = 1800 lb. Radial Load Bearings R* = Reverse Rotation

**Special Order*
***Additional flange and drive shaft options available please consult factory.*

Seal kits for P101 Motors are available.

Shaft Seal Rated Pressure

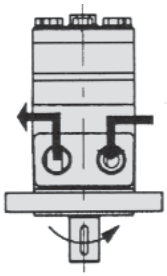




Case Drain

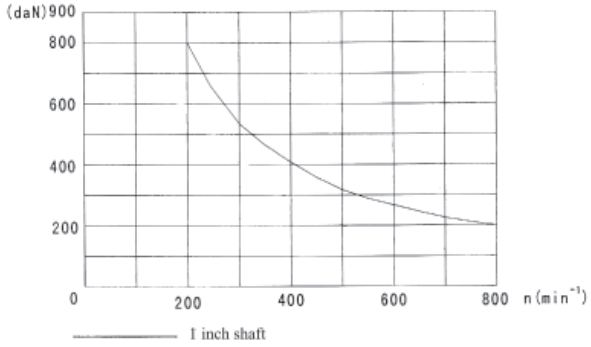
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used, the pressure exerted on the shaft seal is equal to the return line pressure.

Shaft Rotation Direction

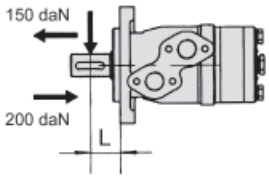


Radial Forces

Status of the shaft's radial force



$$Fr = \frac{800}{n} * \frac{2500}{95 + L}$$



Fr = Radial Force (daN)
L = Distance (in.)
n = Speed (rpm)

Rhomb Flange L= 1.18″
Square Flange L= 0.95″

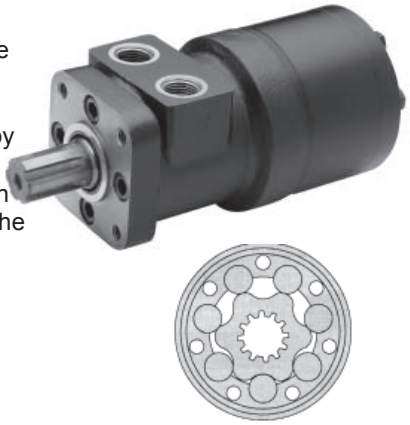
Model P103

Hydraulic Motor

Crossover to CharLynn 103

Our Model **P103 Series** Motor is a compact, low noise, and efficient design that features the advanced ROLORTORC™ Gear Set and Shaft Distribution Flow in a Low-Speed/High-Torque (LSHT) motor. The **ROLORTORC™** Gear Set also affords a reliable smooth start up at low pressure. These motors are available with optional radial needle bearings (by special order) for side load applications.

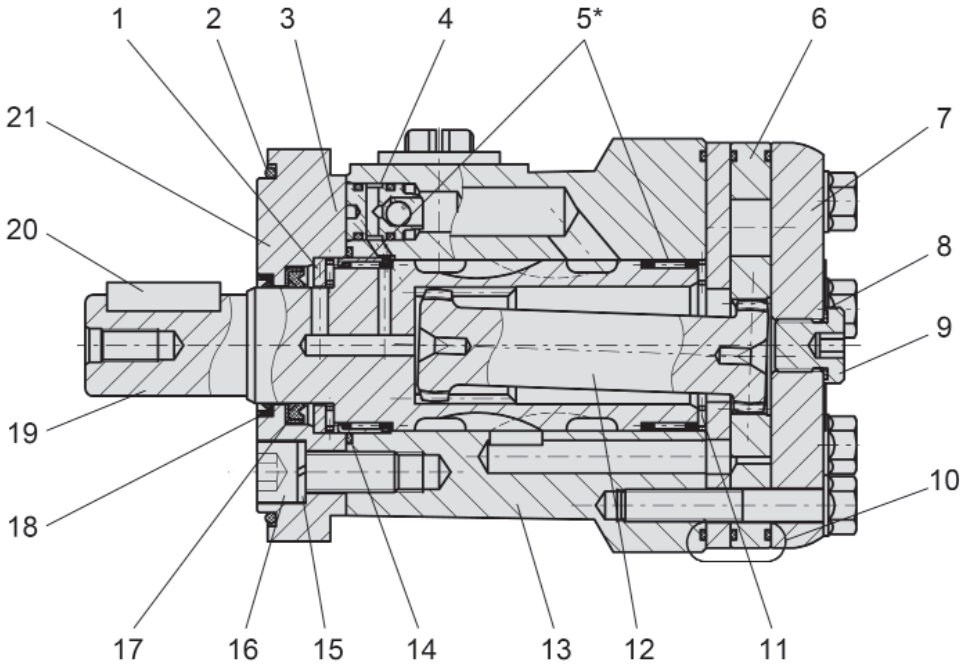
These advanced design, low-weight construction motors are manufactured to the same high standards for reliability and durability as our other hydraulic components. They go through the same Quality Assurance inspections as our other Hydraulic Product Lines.



Technical Specifications

MODEL		P103 50	P103 80	P103 100	P103 125	P103 160	P103 200	P103 250	P103 315	P103 375
Displacement *in³/rev (cm³/rev)*		3.15 (51.7)	4.97 (81.5)	6.22 (102)	7.76 (127.2)	9.59 (157.2)	11.87 (194.5)	15.46 (253.3)	19.36 (317.5)	23.27 (381.4)
Max Speed *rpm*	Cont	960	750	600	475	378	310	240	190	155
	Int.	1150	940	750	600	475	385	300	240	190
Max Torque *in•lbf*	Cont	885	1725	2124	2655	3186	3186	3451	3451	3230
	Int.	1115	1947	2478	3009	3805	3894	4336	4735	4381
Max Differential *psi*	Cont	2031	2321	2321	2321	2321	2321	2321	2031	1450
	Int.	2538	2900	2900	2900	2900	2900	2900	2538	2031
Max Flow *gpm*	Cont	13.21	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85
	Int.	15.85	19.81	19.81	19.81	19.81	19.81	19.81	19.81	19.81
Weight		16.20 lbs	16.80 lbs	17.35 lbs	17.95 lbs	18.65 lbs	19.35 lbs	20.65 lbs	22.10 lbs	23.30 lbs

Continuous = maximum of continuous operation. Intermittent = maximum operating range for 6 seconds per minute



**Shown with optional radial needle bearings for side load applications.*

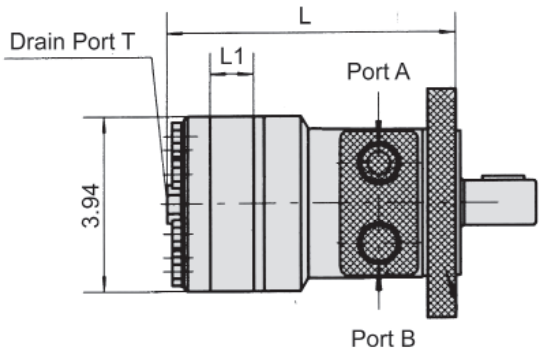
Diagram Key

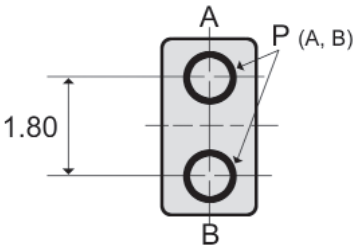
1 Thrust Washer
2 O-Ring
3 Pin
4 Check Valve
5 Radial Needle Bearings
6 ROLORTORC™ Gear Set
7 End Cover
8 Seal
9 Case Drain Plug
10 O-Ring
11 Thrust Needle Bearing (2)
12 Drive Shaft
13 Housing
14 O-Ring
15 Lock Washer
16 Bolt
17 Shaft Seal
18 Dust Seal
19 Output Shaft
20 Key
21 Front Cover

Model P103

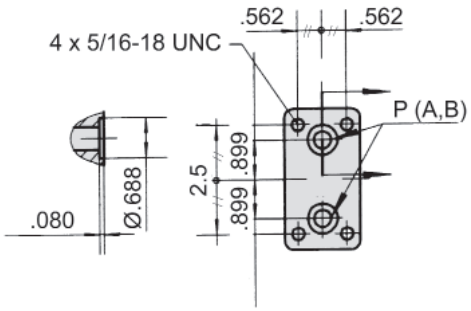
Hydraulic Motor

P103 Mounting Data



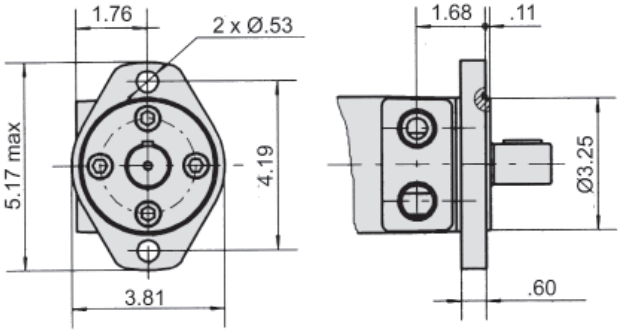


Manifold Port

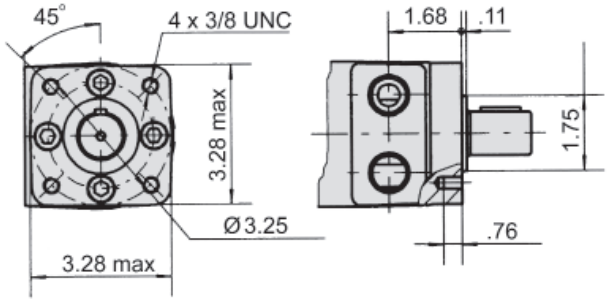


MODEL	L	L1
P103 50	5.67”	0.39”
P103 80	5.90”	0.63”
P103 100	6.06”	0.79”
P103 125	6.26”	0.98”
P103 160	6.51”	1.24”
P103 200	6.85”	1.57”
P103 250	7.24”	1.97”
P103 315	7.72”	2.44”
P103 375	8.19”	2.91”

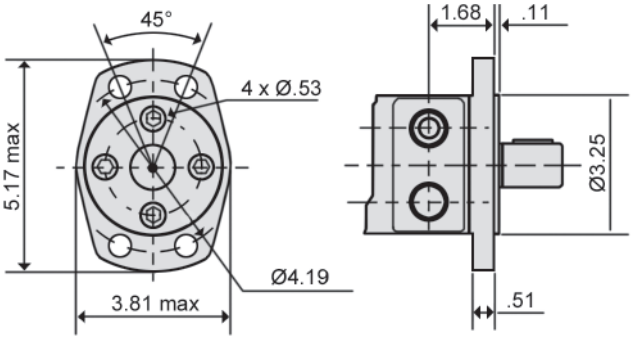
H2 - SAE “A” 2-Bolt



H4 - SAE “A” 4-Bolt



H6 - Magneto



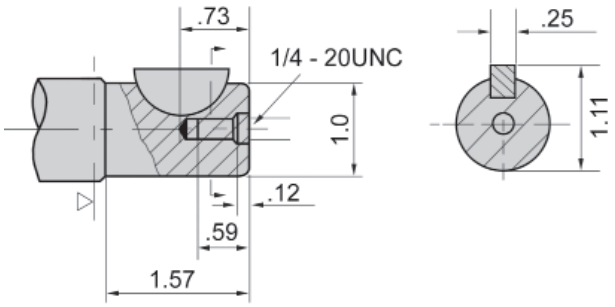
Ports	SAE Sizes	NPT Sizes
P (A, B)	7/8 - 14 SAE	1/2 - 14 NPTF
T	7/16 - 20 SAE	7/16 - 20 SAE

Model P103

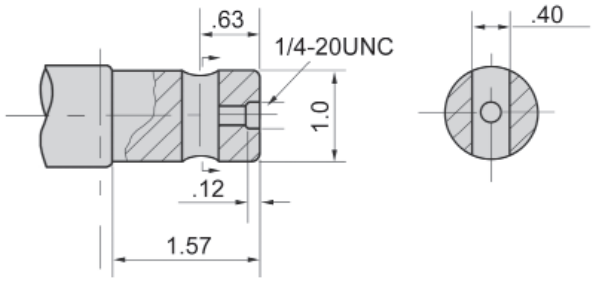
Hydraulic Motor

P103 Drive Shaft Data

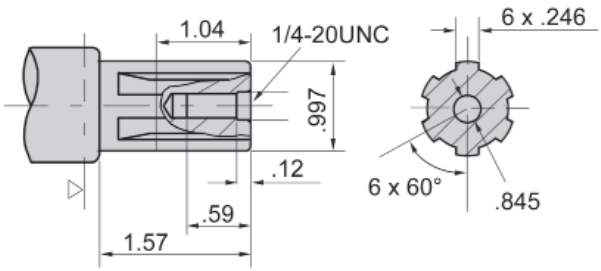
K - 1” Woodruff Key



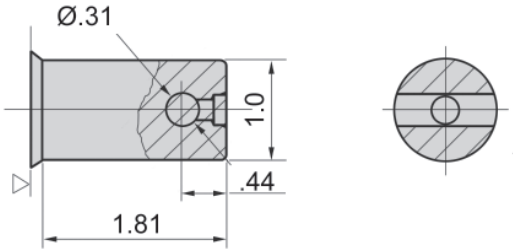
H - 1” Parallel .40 Dia. Cross Hole



S - SAE 6B Spline



H1 - 1” Parallel .31 Dia. Cross Hole



Ordering Example:

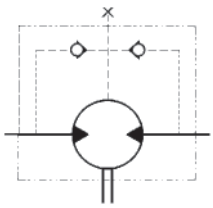
Model		Frame Size		Flange		Drive Shaft		Ports		Options
P103	-	250		H4	-	K	-	S	-	

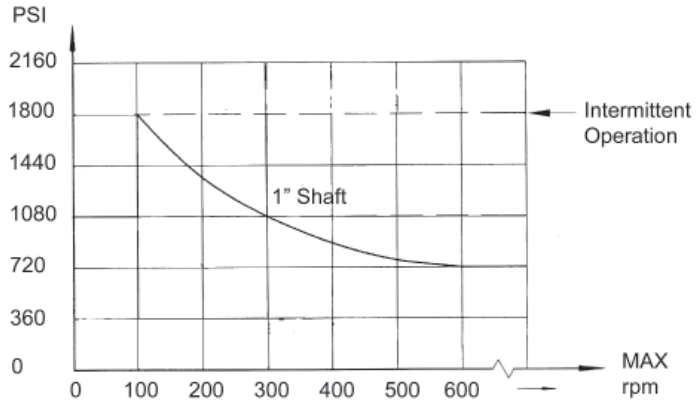
Model	Frame Size	Mounting Flange**	Drive Shaft**	Port Size	Options
P103	50 (3.15) 80 (4.97) 100 (6.22) 125 (7.76) 160 (9.59) 200 (11.87) 250 (15.46) 315 (19.38) 375 (23.27)	H2 = SAE “A” 2-Bolt H4 = SAE “A” 4-Bolt H6 = Magneto	K = 1” Woodruff Key S = SAE 6B Spline H = 1” Parallel 0.40 Dia. Cross Hole H1 = 1” Parallel 0.31 Dia. Cross Hole	P = 1/2 NPTF S = 7/8 -14 SAE F = Manifold	F* = Free Running N* = 1800 lb. Radial Load Bearings

**Special Order*
***Additional flange and drive shaft options available please consult factory.*

Seal kits for P103 Motors are available.

Shaft Seal Rated Pressure

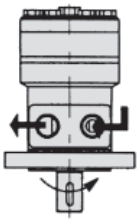




Case Drain

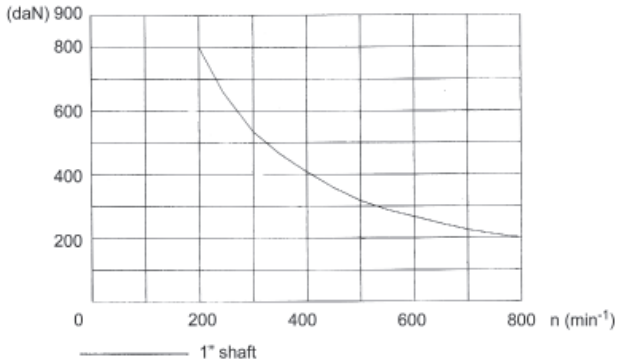
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used, the pressure exerted on the shaft seal is equal to the return line pressure.

Shaft Rotation Direction

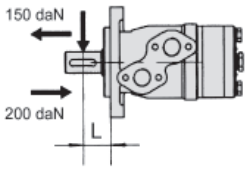


Radial Forces

Status of the Shaft's Radial Force



$$Fr = \frac{800}{n} * \frac{2500}{95 + L}$$



Fr = Radial Force (daN)
L = Distance (in.)
n = Speed (rpm)

Rhomb Flange L= 1.18″
Square Flange L=0.95″

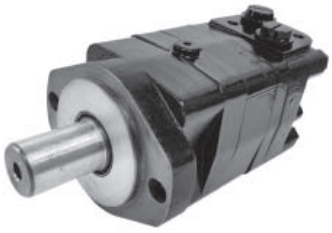
Model P104

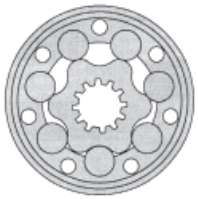
Hydraulic Motor

Crossover to CharLynn 104

Our Model **P104 Series** Motor is a compact and efficient design that features the advanced **ROLORTORC**™ Gear Set and **DISC** Distribution Flow for high-pressure applications. The output shaft's tapered roller bearings permit high axial and radial forces offering smooth rotation during both low-pressure start up and high-pressure operation. These motors can be supplied with various options for multi-functional operations in accordance with the application requirements.

These advanced design, low-weight construction motors are manufactured to the same high standards for reliability and durability as our other hydraulic components. They go through the same Quality Assurance inspections as our other Hydraulic Product Lines.





Technical Specifications

MODEL		P104 80	P104 100	P104 125	P104 160	P104 200	P104 250	P104 315	P104 400	P104 475
Displacement *in³/rev (cm³/rev)*		4.92 (81)	6.15 (101)	7.63 (125)	9.39 (154)	11.83 (194)	14.83 (243)	18.97 (311)	24.04 (394)	28.98 (475)
Max Speed *rpm*	Cont	800	748	600	470	375	300	240	185	155
	Int.	988	900	720	560	450	360	280	225	185
Max Torque *in•lbf*	Cont	1991	2566	3230	4292	5185	6265	7787	7786	8053
	Int.	2212	2832	3540	4778	5707	7142	8495	8495	8495
Max Differential *psi*	Cont	2973	2973	2973	3045	3045	2900	2900	2320	2030
	Int.	3265	3265	3265	3265	3265	3265	3265	2563	2175
Max Flow *gpm*	Cont	17.1	19.81	19.81	19.81	19.81	19.81	19.81	19.81	19.81
	Int.	21.13	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77
Weight		23.70 lbs	24.05 lbs	24.75 lbs	25.00 lbs	26.15 lbs	27.35 lbs	28.95 lbs	30.95 lbs	32.80 lbs

Continuous = maximum of continuous operation. Intermittent = maximum operating range for 6 seconds per minute

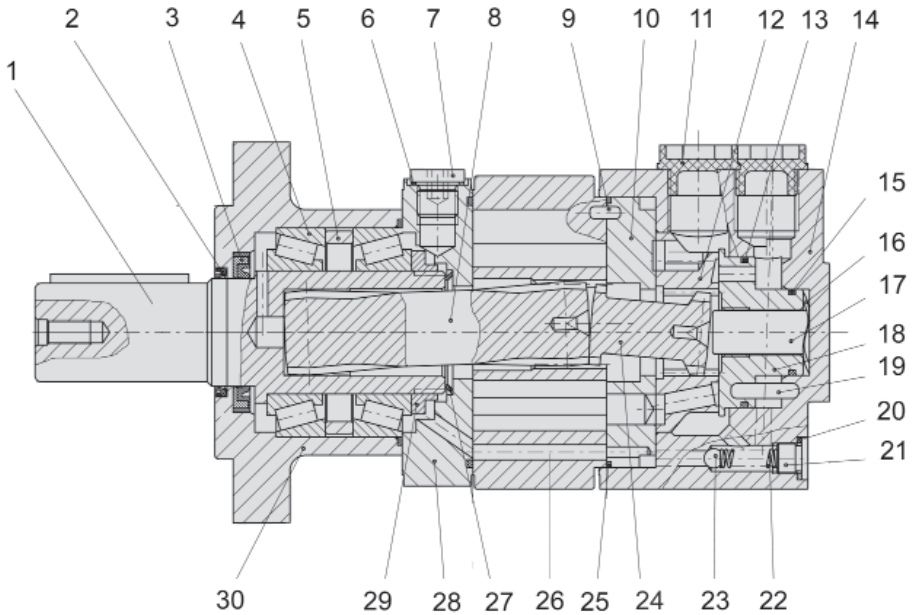


Diagram Key

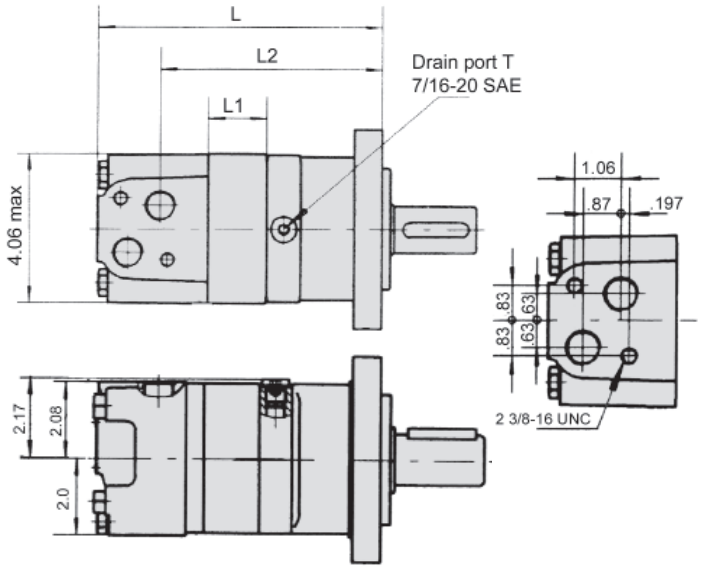
1 Output Shaft
2 Dust Seal
3 Shaft Seal
4 Roller Bearing
5 Bearing Spacer
6 Seal Washer
7 Case Drain Plug
8 Drive Link
9 Pin
10 Timing Plate
11 Shipping Plug
12 Distributor Plate
13 O-Ring
14 Rear Housing
15 O-Ring
16 Balancer Spring
17 Spacer
18 Balance Plate
19 Pin
20 Seal Washer
21 Check Valve Plug
22 Check Valve Spring
23 Ball Check (steel)
24 Distributor Drive Link
25 Body O-Ring
26 ROLORTORC™ Set
27 Oil Control Ring
28 Drain Manifold
29 Bearing Nut
30 Shaft Housing

Model P104

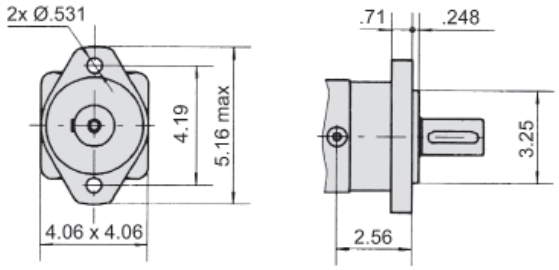
Hydraulic Motor

P104 Mounting Data

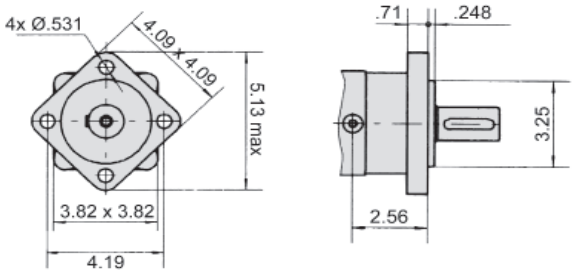
S Ports - 7/8 - 14 SAE



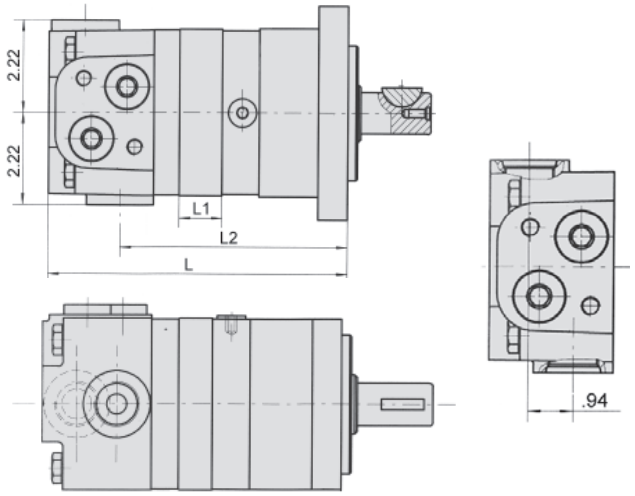
E2 - SAE "A" 2-Bolt



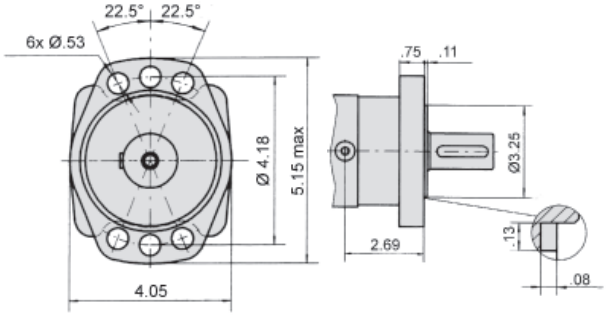
E4 - SAE "A" 4-Bolt



ED Ports (180° Apart) - 1 1/16 - 12 SAE

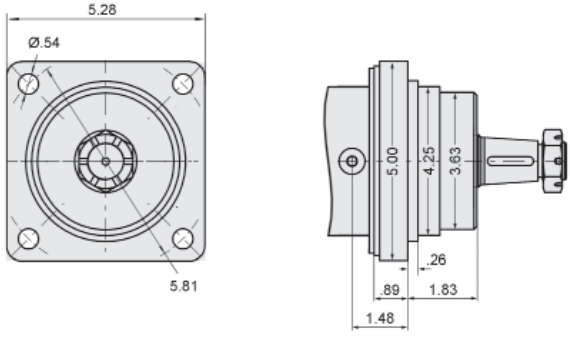


F6 - 6-Bolt Magneto



WE - Wheel Mount (4-bolt)

Drop-in replacement for Char-Lynn 105-XXXX series.



MODEL	L	L1	L2
P104 80	6.70"	0.63"	4.98"
P104 100	6.85"	0.79"	5.14"
P104 125	7.04"	0.98"	5.33"
P104 160	7.22"	1.24"	5.49"
P104 200	7.57"	1.57"	5.83"
P104 250	7.95"	1.97"	6.22"
P104 315	8.43"	2.44"	6.69"
P104 400	8.82"	2.71"	7.08"
P104 475	9.37"	3.26"	7.63"

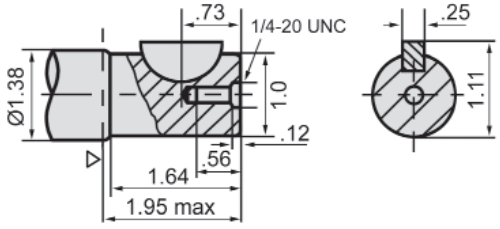
Port	SAE Sizes	NPT Sizes
P (A, B)	7/8 - 14 SAE	1/2 - 14 NPTF
T	7/16 - 20 SAE	7/16 - 20 SAE

Model P104

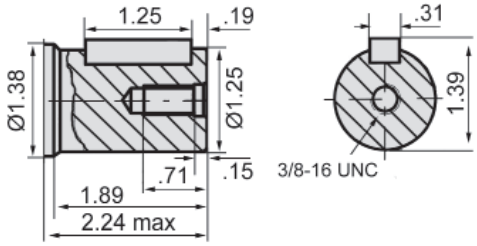
Hydraulic Motor

P104 Drive Shaft Data

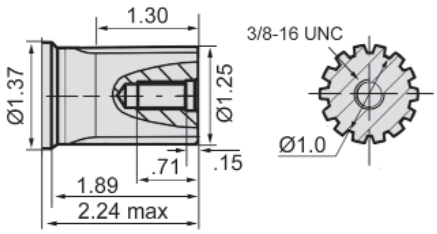
K - 1” Woodruff Key



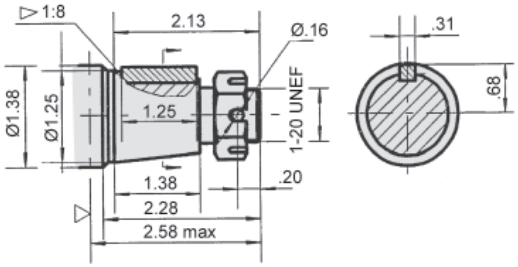
G - 1 1/4” Parallel Key



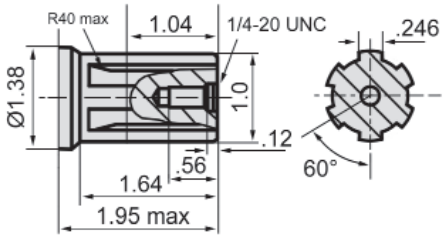
F - 1 1/4” - 14 DP Spline



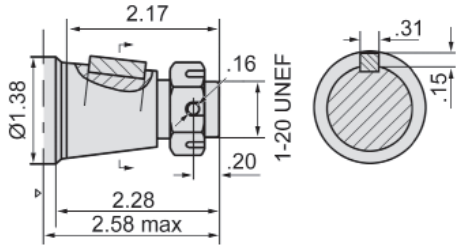
T3 - 1 1/4” Tapered



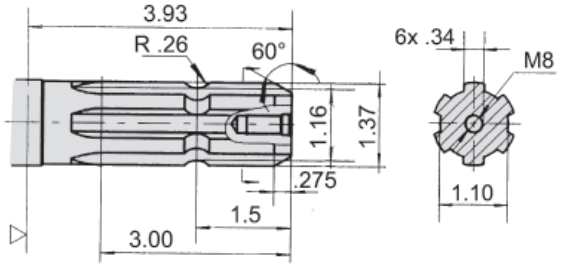
S1 - SAE 6B Spline



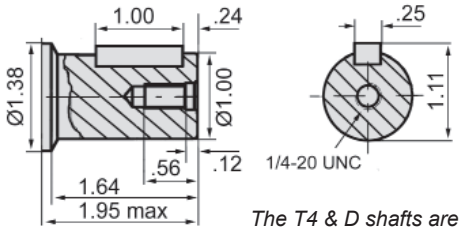
T4 - 1 1/4” Tapered



SL - 6 Spline PTO



D - 1” Parallel Key



The T4 & D shafts are only available with the Wheel Mount (WE).

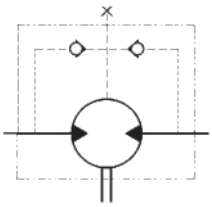
Ordering Example:

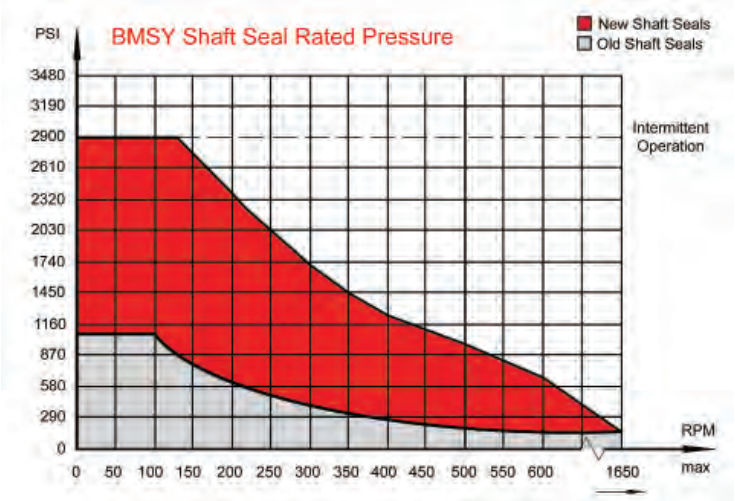
Model		Frame Size		Flange		Drive Shaft		Ports		Options
P104	-	200		E2	-	K	-	S	-	

Model	Frame Size	Mounting Flange**	Drive Shaft**	Port Size	Options
P104	80 (4.92) 100 (6.15) 125 (7.63) 160 (9.59) 200 (11.84) 250 (15.40) 315 (19.20) 400 (24.04) 475 (28.98)	E2 = SAE “A” 2 Bolt E4 = SAE “A” 4-Bolt F6 = Magneto WE = Wheel Mount	K = 1” Woodruff Key G = 1 1/4” Parallel Key S1 = SAE 6B Spline T3 = 1 1/4” Tapered F = 1 1/4” - 14 DP Spline SL* = 6 Spline PTO D*** = 1” Parallel Key T4*** = 1 1/4” Tapered	S = 7/8 - 14 SAE ED = Side Ports 1 1/16 - 12 SAE	F* = Free Running

** Special order*
*** Additional flange and drive shaft options available please consult factory.*
**** The T4 & D shafts are only available with the Wheel Mount (WE).*

Shaft Seal Rated Pressure

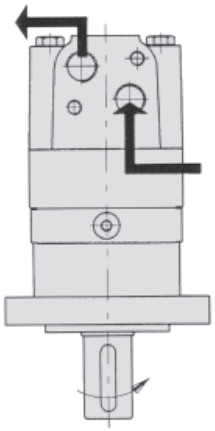




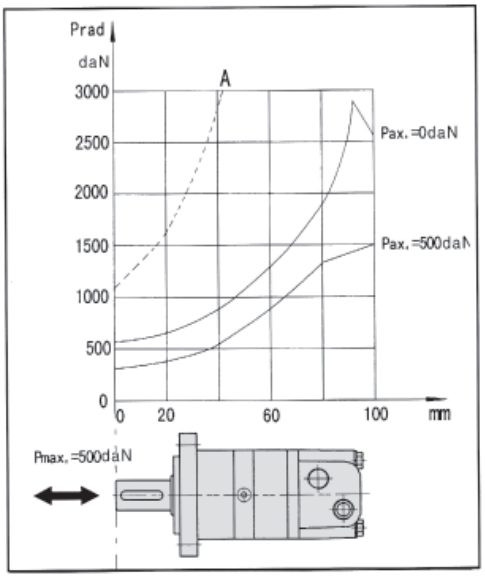
Case Drain

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used, the pressure exerted on the shaft seal is equal to the return line pressure.

Shaft Rotation Direction



Axial and Radial forces



The output shaft runs tapered bearings that permit high axial and radial forces.

Curve “A” shows max radial shaft load. Any shaft loads exceeding the values quoted in the curve will involve risk of breakage.

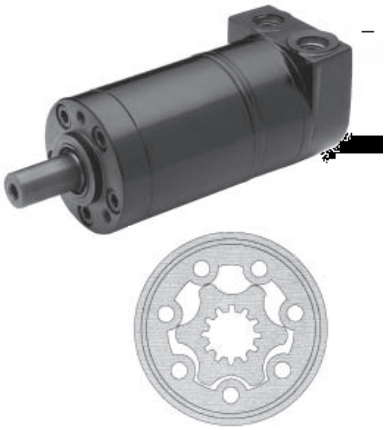
The two other curves apply to a B10 bearing life of 3,000 hours at 200 rpm.

Model P129

Hydraulic Motor

Crossover to CharLynn 129 & Danfoss OMM

Our Model **P129 Series** Motor is a compact and highly efficient design that features the advanced **ROTORTORC™** Gear Set and Shaft Distribution Flow in a Low-Speed/High-Torque (LSHT) motor, which can be used in either parallel or series type systems. These advanced design, low-weight construction motors are manufactured to the same high standards for reliability and durability as our other hydraulic components. They go through the same Quality Assurance inspections as our other Hydraulic Product Lines.



Technical Specifications

MODEL		P129 8	P129 12.5	P129 20	P129 32	P129 40	P129 50
Displacement *in³/rev (cm³/rev)*		0.50 (8.2)	0.76 (12.9)	1.21 (19.9)	1.93 (31.6)	2.43 (39.8)	3.07 (50.3)
Max Speed *rpm*	Cont	1950	1550	1000	630	500	400
	Int.	2450	1940	1250	800	630	500
Max Torque *in•lbf*	Cont	97	141	221	354	398	407
	Int.	132	203	310	504	620	779
Max Differential *psi*	Cont	1450	1450	1450	1450	1233	1015
	Int.	2030	2030	2030	2030	1740	1450
Max Flow *gpm*	Cont	3.96	5.28	5.28	5.28	5.28	5.28
	Int.	5.28	6.60	6.60	6.60	6.60	6.60
Weight		4.30 lbs	4.50 lbs	4.72 lbs	4.95 lbs	5.00 lbs	5.10 lbs

Continuous = maximum of continuous operation. Intermittent = maximum operating range for 6 seconds per minute

	Max Inlet Pressure
Cont.	2538 psi
Int.	3263 psi

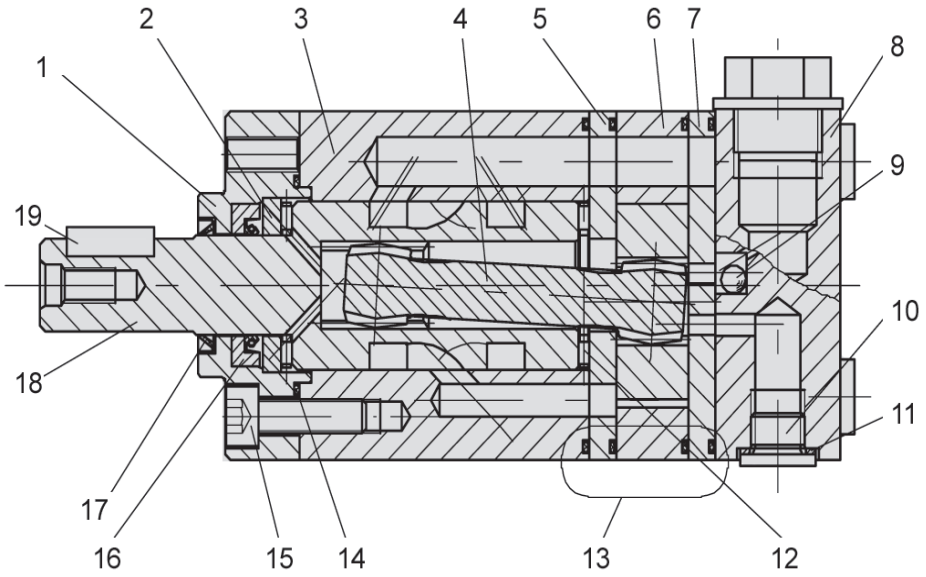
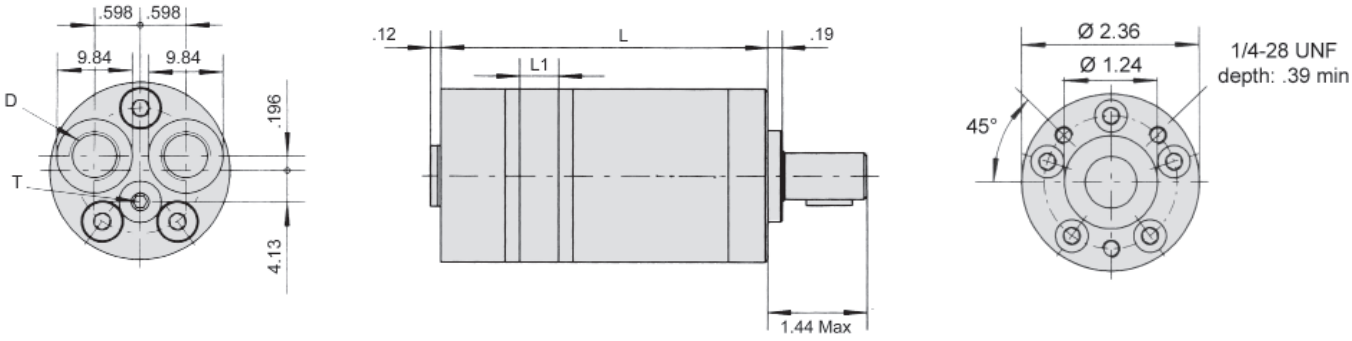


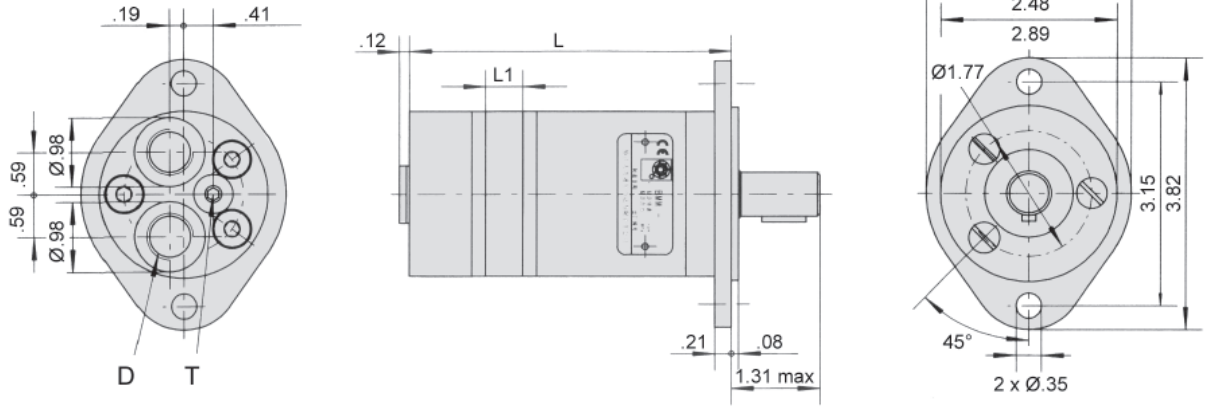
Diagram Key

1 Front Cover
2 Thrust Washer
3 Housing
4 Drive Link
5 Front Plate
6 ROTORTORC™ Gear Set
7 End Plate
8 End Cover
9 Ball
10 Drain Plug
11 Washer
12 Axial Needle Bearing
13 O-Ring
14 O-Ring
15 Screw
16 Shaft Seal
17 Dust Deal
18 Shaft
19 Key

U - Circle Flange



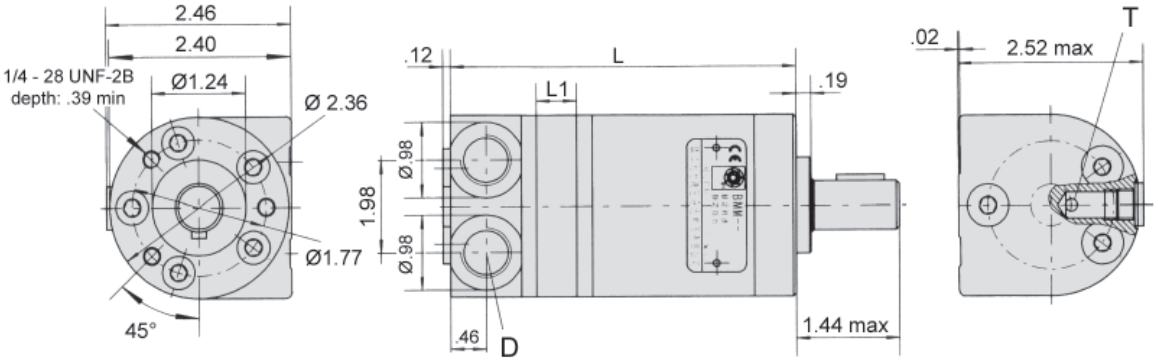
F - 2-Bolt



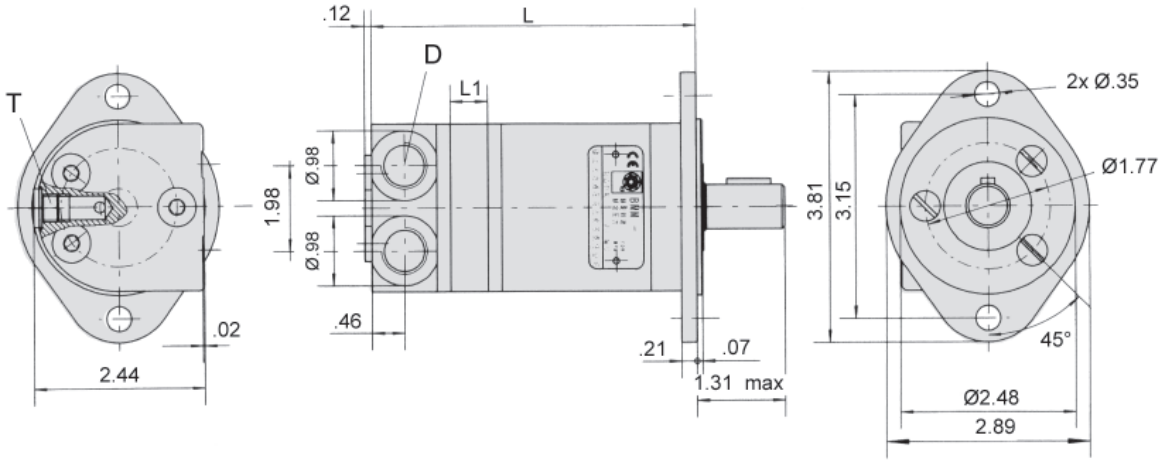
MODEL	U Mount		F Mount	
	L	L1	L	L1
P129 8	4.09”	.13”	4.21”	0.13”
P129 12.5	4.17”	.21”	4.29”	0.21”
P129 20	4.29”	.33”	4.40”	0.33”
P129 32	4.48”	.53”	4.62”	0.53”
P129 40	4.64”	.67”	4.76”	0.67”
P129 50	4.80”	.84”	4.92”	0.84”

Port Sizes	U Mount	F Mount
D	9/16 - 18 SAE	9/16 - 18 SAE
T	3/8 - 24 SAE	3/8 - 24 SAE

U - Circle Flange



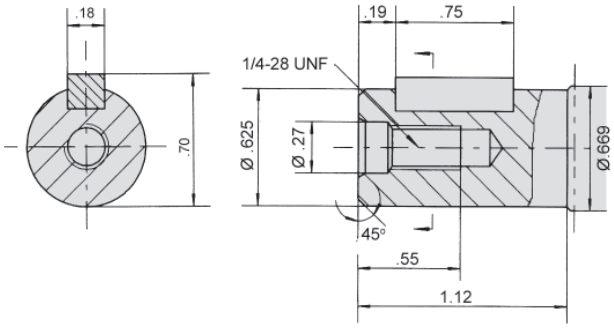
F - 2-Bolt



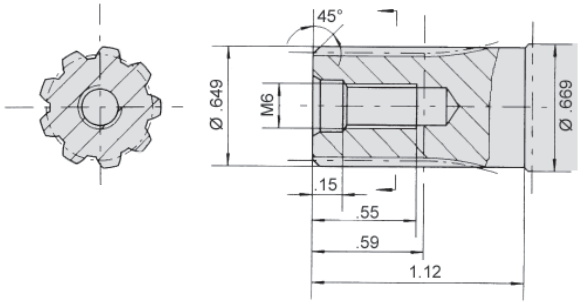
MODEL	U Mount		F Mount	
	L	L1	L	L1
P129 8	4.13”	0.13”	4.29”	.13”
P129 12.5	4.21”	0.21”	4.37”	.21”
P129 20	4.33”	0.33”	4.48”	.33”
P129 32	4.52”	0.53”	4.68”	.53”
P129 40	4.64”	0.67”	4.80”	.67”
P129 50	4.84”	0.84”	5.00”	.84”

Ports	U Mount	F Mount
D	9/16 - 18 SAE	9/16 - 18 SAE
T	3/8 - 24 SAE	3/8 - 24 SAE

B - 5/8" Straight Key



C - 9 Tooth Spline



Ordering Example:

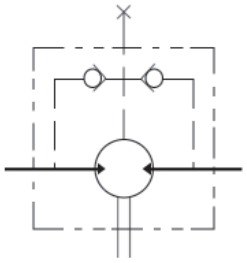
Model	Frame Size	Flange	Drive Shaft	Ports
P129	- 20	- U	- B	- 1U

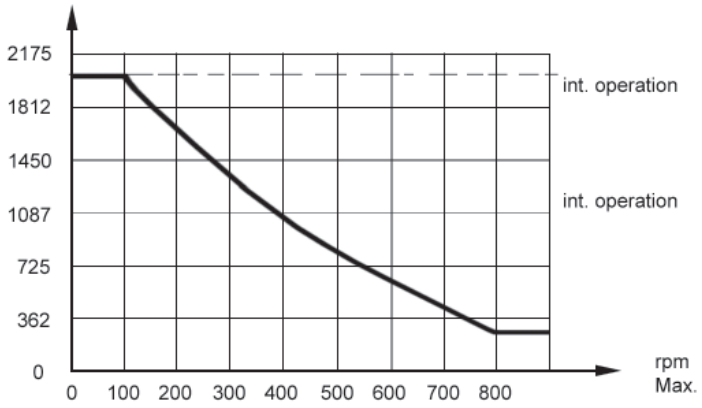
Model	Frame Size	Mounting Flange	Drive Shaft	Port Location & Size
P129	8 (0.50) 12.5 (0.76) 20 (1.22) 32 (1.95) 40 (2.44) 50 (3.07)	U = Circle Flange F = 2-Bolt	B = 5/8" Straight Key C* = 9-Tooth Spline	U = Side Port: 9/16 - 18 SAE 1U = Back Port: 9/16 - 18 SAE

**Special Order*

Seal kits for P129 Motors are available for purchase.

Shaft Seal Rated Pressure

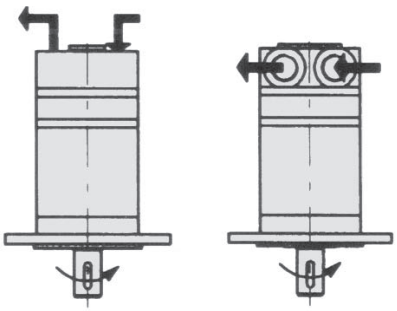




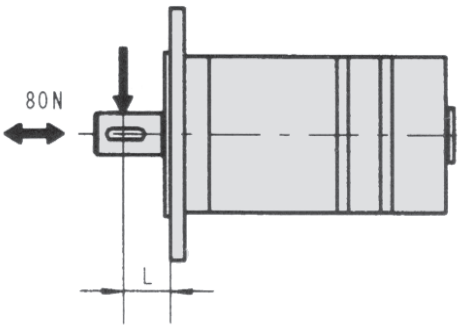
Case Drain

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

Shaft Rotation Direction



Radial Forces



$$F_r = \frac{130400}{61.5 + L} n$$

F_r = Radial Force (daN)
L = Distance (in.)
n = Speed (rpm)

Rhomb Flange L= 0.59”
Square Flange L= 0.79”

Model P500

Hydraulic Motor

Crossover to White 500/530 Series

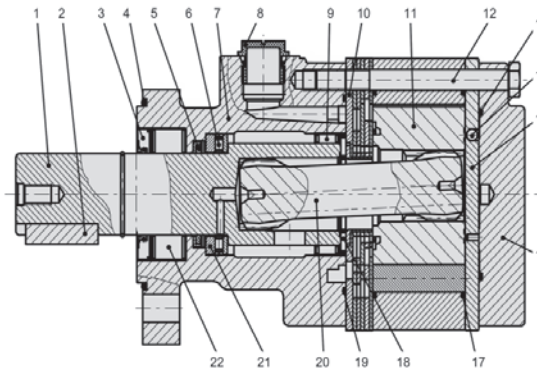
Our Model **P500 Series** Motors is a compact and efficient design that features the **GEROLER ROLORTORC**™ Gear Set and High-Speed Distribution Flow for high-pressure applications. The output shaft tapered roller bearings permit **high axial and radial forces** offering a smooth rotation during both low-pressure start up and high-pressure operation. These motors can be supplied with various options for multi-functional operations in accordance with the application requirements.

These advanced design, low-weight construction motors are manufactured to the same high standards for reliability and durability as our other hydraulic components. They go through the same Quality Assurance inspections as our other Hydraulic Product Lines.

Technical Specifications

MODEL		P500 125	P500 160	P500 200	P500 230	P500 250	P500 300	P500 350	P500 375	P500 475	P500 540	P500 750
Displacement *in³/rev (cm³/rev)*		7.20 (118)	9.52 (156)	11.96 (196)	13.91 (228)	15.68 (257)	18.08 (296)	21.05 (345)	22.63 (371)	28.18 (462)	32.94 (540)	45.45 (745)
Max Speed *rpm*	Cont	360	375	330	290	290	250	220	200	160	140	100
	Int.	490	470	425	365	350	315	270	240	195	170	120
Max Torque *in•lbf*	Cont	2876	3983	4691	5531	6195	7169	8009	8762	9602	8673	9293
	Int.	3363	4646	5310	6284	6992	8231	9160	10089	10443	10974	10443
Max Differential *psi*	Cont	2973	2973	2973	2973	2973	2973	2973	2973	2538	2030	1523
	Int.	3481	3481	3481	3481	3481	3481	3481	3481	2973	2538	1740
Max Flow *gpm*	Cont	14.00	15.85	17.96	17.96	19.81	19.81	19.81	19.81	19.81	19.81	19.81
	Int.	15.85	19.81	22.45	22.45	23.77	25.09	25.09	23.77	23.77	23.77	23.77
Weight		27.45 lbs	29.00 lbs	29.20 lbs	29.45 lbs	30.15 lbs	31.00 lbs	32.00 lbs	32.35 lbs	33.35 lbs	35.10 lbs	37.75 lbs

Continuous (Cont.) = maximum of continuous operation. Intermittent (Int.) = maximum operating range for 6 seconds per minute



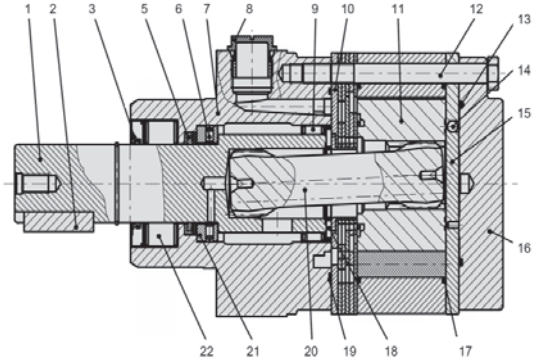


Diagram Key

1 Output Shaft
2 Key
3 Dust Seal
4 O-Ring
5 Shaft Seal
6 Axial Needle Bearing
7 Housing
8 Port Plug
9 Radial Needle Bearing
10 Timing Plate
11 ROLORTORC™ Gear Set
12 Bolt
13 O-Ring
14 Ball
15 Balance Plate
16 End Cover
17 O-Ring
18 Axial Needle Bearing
19 O-Ring
20 Drive Shaft
21 Thrust Washer
22 Radial Needle Bearing

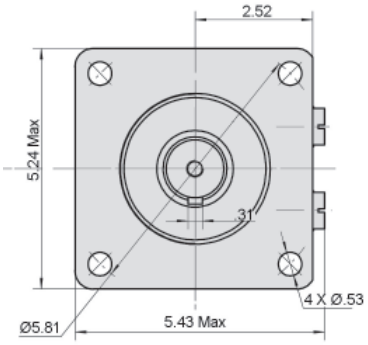
Model P500

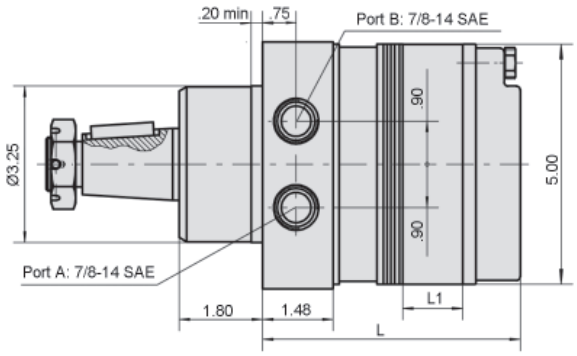
Hydraulic Motor

P500 Mounting Data

WS - Wheel Drive

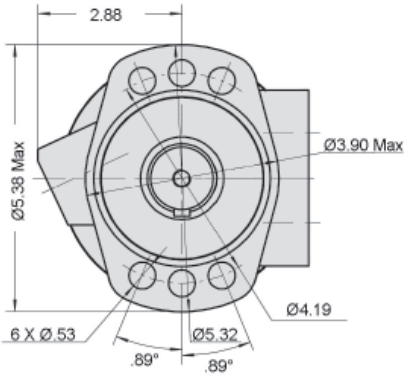
Motor Size	L	L1
125	4.68”	0.40”
160	4.80”	0.53”
200	4.94”	0.67”
230	5.04”	0.77”
250	5.14”	0.87”
300	5.30”	1.00”
350	5.43”	1.16”
375	5.53”	1.25”
475	5.83”	1.55”
540	6.14”	1.86”
750	6.93”	2.50”

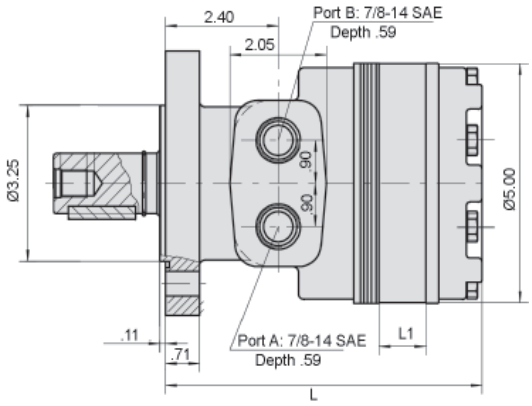




FS - Magneto Mount

Motor Size	L	L1
125	6.18”	0.40”
160	6.30”	0.53”
200	6.44”	0.67”
230	6.54”	0.77”
250	6.63”	0.87”
300	6.77”	1.00”
350	6.93”	1.16”
375	7.03”	1.25”
475	7.32”	1.55”
540	7.64”	1.86”
750	8.27”	2.50”





Ordering Example:

Model		Frame Size		Flange		Drive Shaft		Ports
P500	-	**20**	-	**U**	-	**B**	-	**1U**

Model	Frame Size	Mounting Flange	Drive Shaft	Port Size	Rotation
P500	125 (7.20) 160 (9.52) 200 (11.96) 230 (13.91) 250 (15.68) 300 (18.08) 350 (21.05) 375 (22.63) 475 (28.18) 540 (32.94) 750 (45.45)	WS = Wheel Mount FS = Magneto Mount	RW = 1” Keyed SW = 6B Spline G2 = 1 1/4” Keyed FD1 = 14-Tooth Spline T4 = 1 1/4” Tapered G32 = 1 1/2” Keyed T31 = 1 1/2” Tapered	S = 7/8 - 14 SAE	Omit = Clockwise R = Counter-Clockwise *Note: Direction of rotation is indicated when “A” port is pressurized* **Options** CR = Cavity Valve Relief

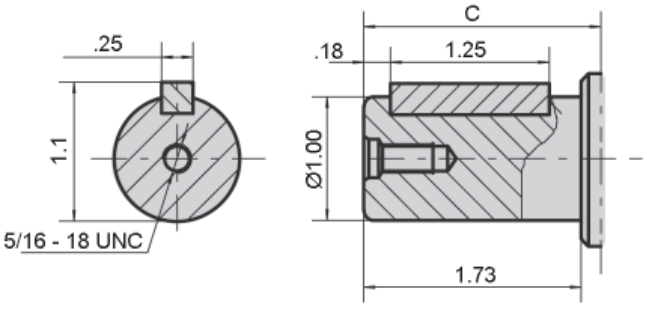
Seal kits for P500 motors are available.

Model P500

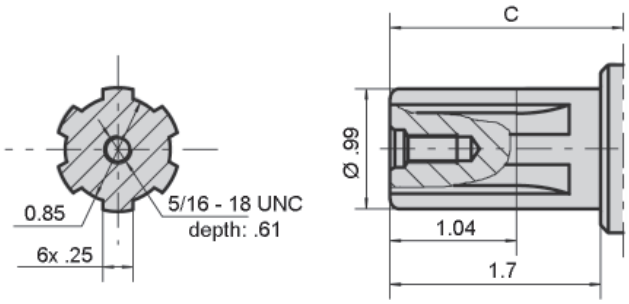
Hydraulic Motor

P500 Drive Shaft Data

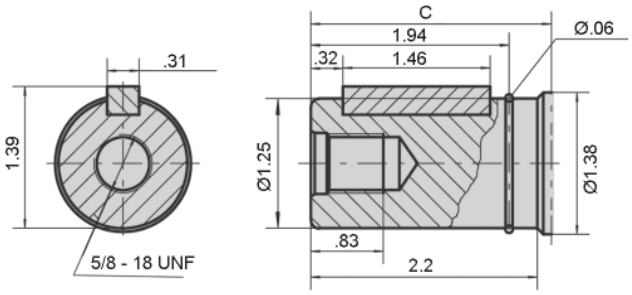
RW - 1" Keyed



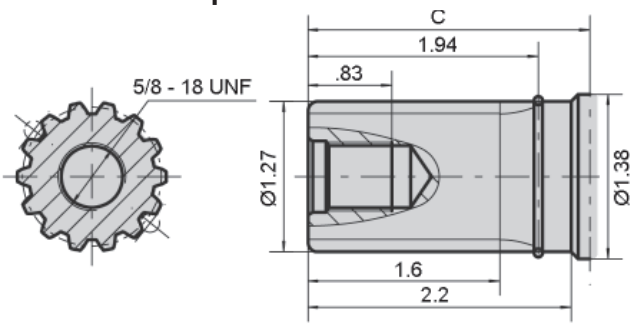
SW - 6B Spline



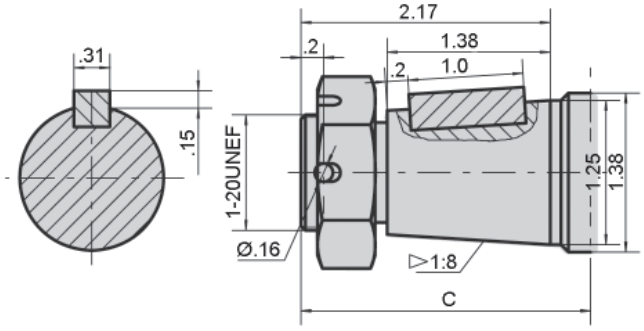
G2 - 1 1/4" Keyed



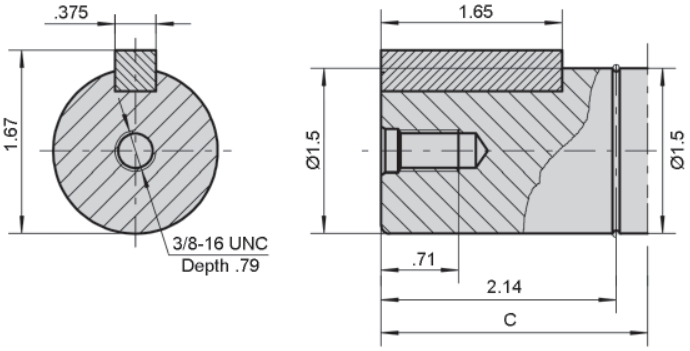
FD1 - 14-Tooth Spline



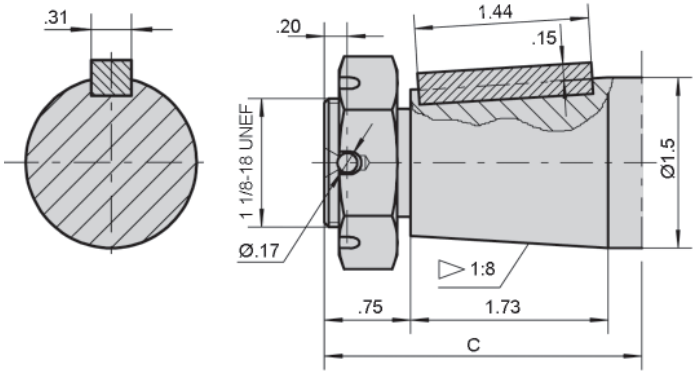
T4 - 1 1/4" Tapered



G32 - 1 1/2" Keyed



T31 - 1 1/2" Tapered



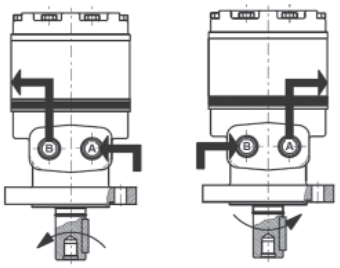
Dimension "C"

From Mounting Flange to Shaft End

Shaft Code	Wheel Mount (WS)	Magneto Mount (FS)
RW	3.58"	1.96"
SW	3.58"	1.96"
G2	4.05"	2.40"
T4	4.21"	2.56"
FD1	4.05"	2.40"
G32	4.23"	2.56"
T31	4.61"	2.93"

Shaft Rotation Direction: Reverse Timed

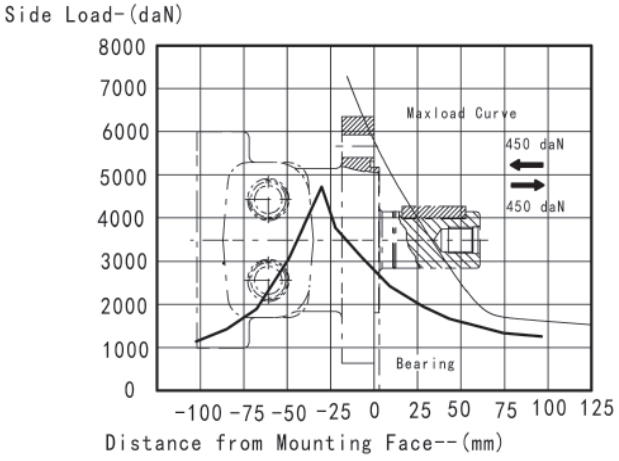
When looking at the shaft end of motor, shaft will rotate:
- Clockwise when port “B” is pressurized.
- Counter-clockwise when port “A” is pressurized.



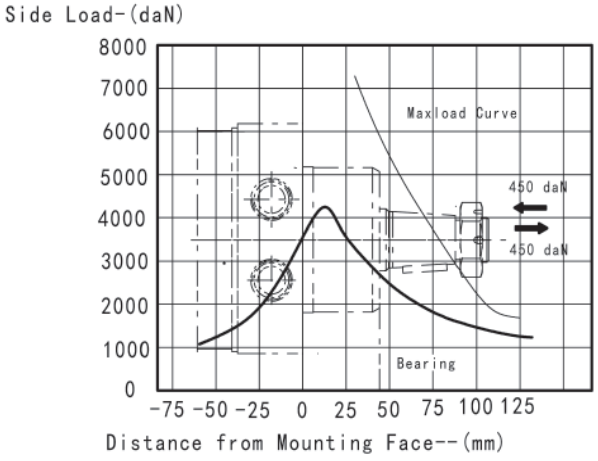
NEW Increased Radial Load Capacity!

Radial Forces - P500

Magneto Mount



Wheel Mount

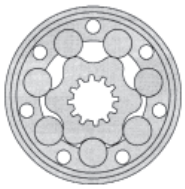


Model P6K

Hydraulic Gear Motor

Crossover to CharLynn 6000 Series

Our Model **P6K Series** Motor is a compact and efficient design that features the advanced **ROLORTORC**™ Gear Set and **DISC** Distribution Flow for high-pressure applications. The output shaft tapered roller bearings permit **high axial and radial forces** offering a smooth operation during low-pressure start up and high-pressure operation. These motors can be supplied with various options for multi-functional operations in accordance with the application requirements.
These advanced design, low-weight construction motors are manufactured to the same high standards for reliability and durability as our other hydraulic components. They go through the same Quality Assurance inspections as our other Hydraulic Product Lines.



Technical Specifications

MODEL		P6K 200	P6K 250	P6K 315	P6K 400	P6K 500	P6K 630	P6K 800	P6K 1000
Displacement *in³/rev (cm³/rev)*		11.93 (195.6)	15.01 (246.1)	19.01 (311.6)	23.87 (391.3)	29.95 (490.8)	38.01 (623)	48.96 (802.4)	59.90 (981.6)
Max Speed *rpm*	Cont	765	610	480	382	304	240	186	152
	Int.	865	830	690	570	455	360	280	230
Max Torque *in•lbf*	Cont	5000	6284	8142	10266	12789	13099	13984	14824
	Int.	7434	9558	11727	14382	16639	16726	16639	16462
Max Differential *psi*	Cont	2900	2900	2900	2900	2900	2538	2031	2031
	Int.	4351	4351	4351	4351	3988	3263	2538	2031
Max Flow *gpm*	Cont	39.62	39.62	39.62	39.62	39.62	39.62	39.62	39.62
	Int.	44.90	54.15	59.43	59.43	59.43	59.43	59.43	59.43
Weight		56 lbs	57 lbs	59 lbs	60 lbs	63 lbs	66 lbs	70 lbs	74 lbs

Continuous (Cont.) = maximum of continuous operation. Intermittent (Int.) = maximum operating range for 6 seconds per minute

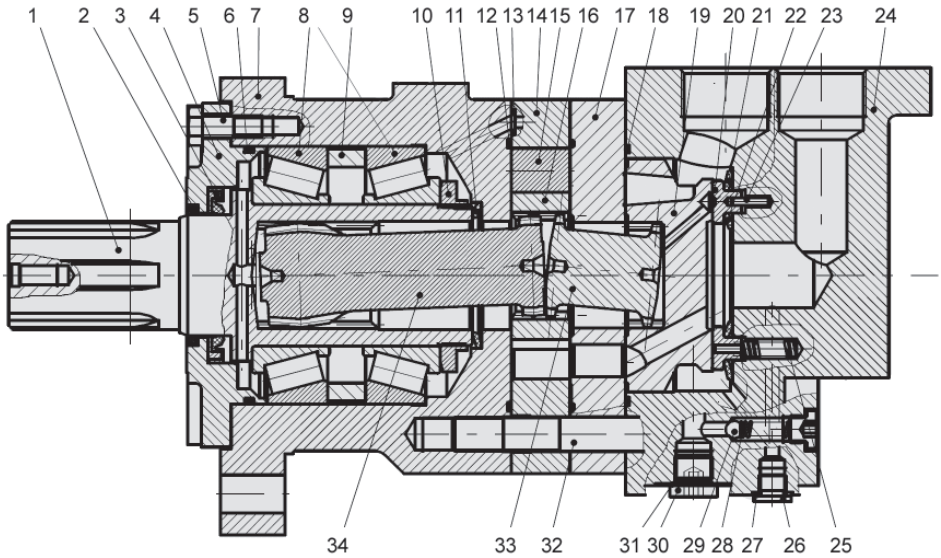
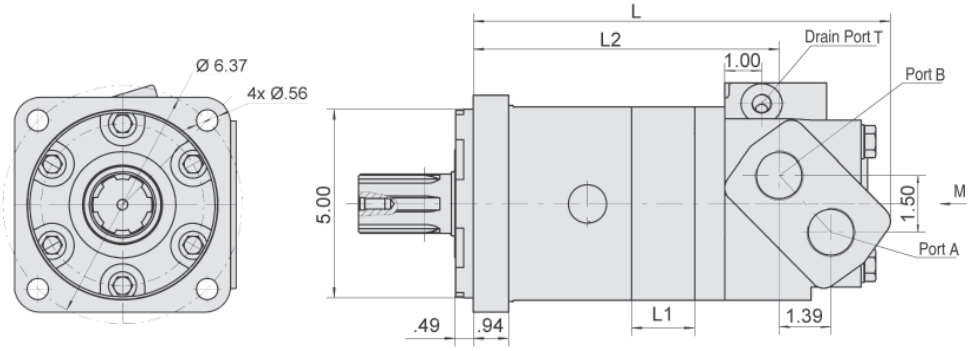


Diagram Key

1	Output Shaft	18	O-Ring
2	Dust Seal	19	Distributor Plate
3	Shaft Seal	20	O-Ring
4	Front Cover	21	Channel Plate
5	Bolt	22	Seal
6	O-Ring	23	Seal
7	Housing	24	Pin
8	Needle Bearing	25	Spring
9	Spacer Bushing	26	Drain Plug
10	Lock Nut	27	O-Ring
11	Butterfly Washer	28	Spring
12	O-Ring	29	Ball
13	Pin	30	Drain Plug
14	Stator	31	Seal
15	Roller	32	Bolt
16	Rotor	33	Coupling
17	Balance Plate	34	Drive Link

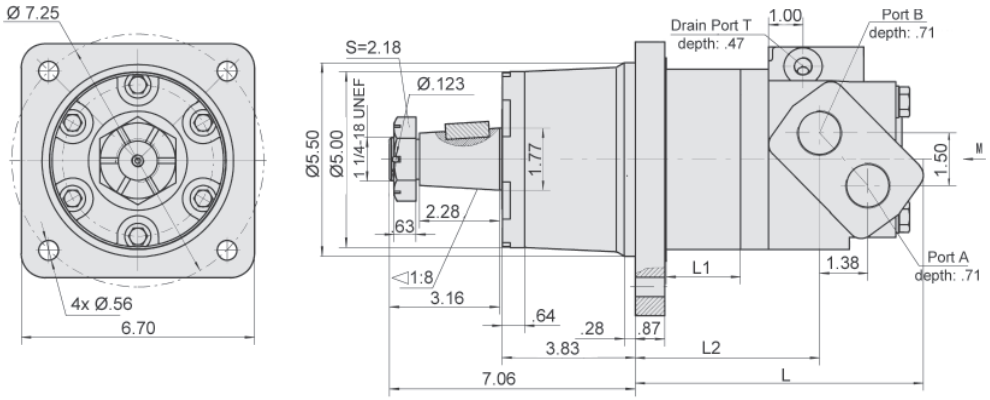
CC - SAE "CC" Mount

Motor Size	L	L1	L2
200	10.43"	0.85"	7.38"
250	10.67"	1.07"	7.60"
315	10.94"	1.36"	7.87"
400	11.30"	1.71"	8.23"
500	11.73"	2.14"	8.70"
630	12.32"	2.72"	9.25"
800	13.11"	3.50"	10.03"
1000	13.89"	4.29"	10.81"



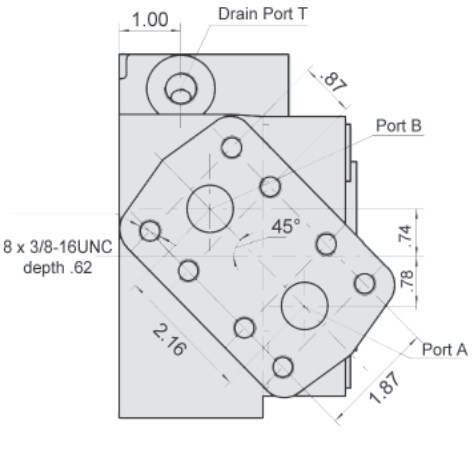
W - Wheel Mount

Motor Size	L	L1	L2
200	7.04"	0.85"	4.03"
250	7.28"	1.07"	4.25"
315	7.56"	1.36"	4.55"
400	7.91"	1.71"	4.90"
500	8.34"	2.14"	5.33"
630	8.92"	2.72"	5.91"
800	9.70"	3.50"	6.69"
1000	10.49"	4.29"	7.48"

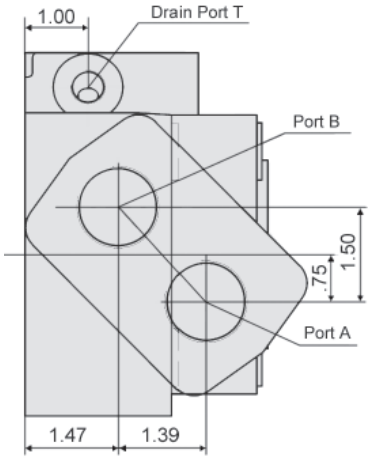


P6K Port Data

SF



SF5 & SF7



Port Sizes

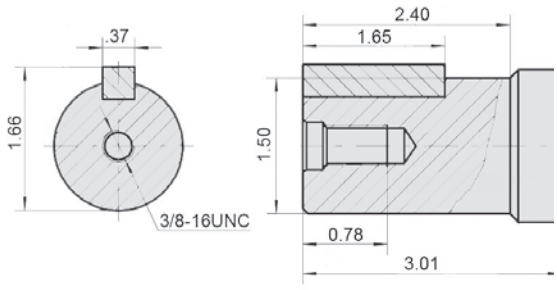
Model	P (A, B)	T
SF	3/4" Split	7/16-20 SAE
SF5	1 5/16-12 SAE	7/16-20 SAE
SF7	G1 (BSP)	G 1/4

Model P6K

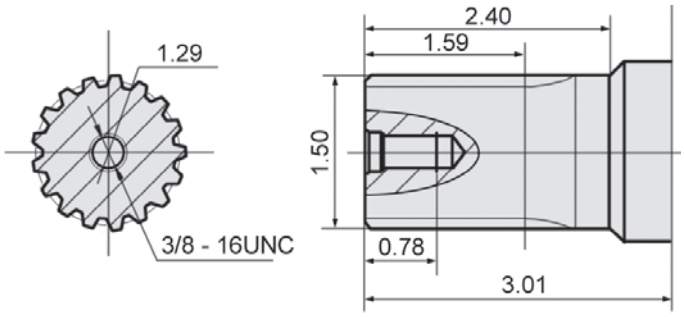
Hydraulic Gear Motor

PK6 Drive Shaft Data

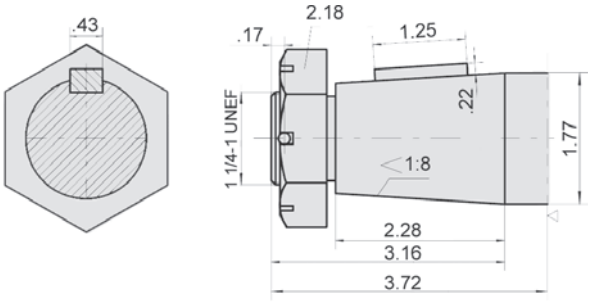
G2 - 1 1/2" Parallel Key



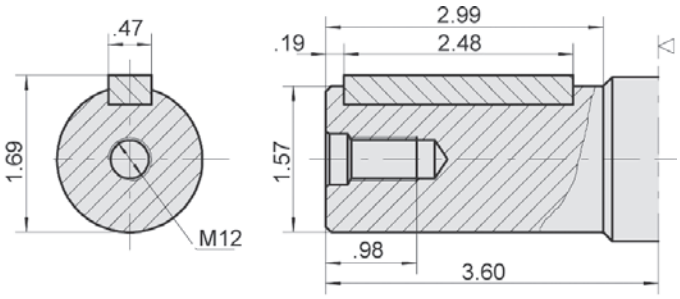
FE - 17-Tooth DP 12/24 Spline



T1 - 1 3/4" Tapered



Y1 - 40 mm Parallel Key



Ordering Example:

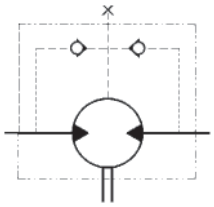
Model		Frame Size		Flange		Drive Shaft		Ports		Rotation
P6K	-	250	-	CC	-	G2	-	SF5	-	

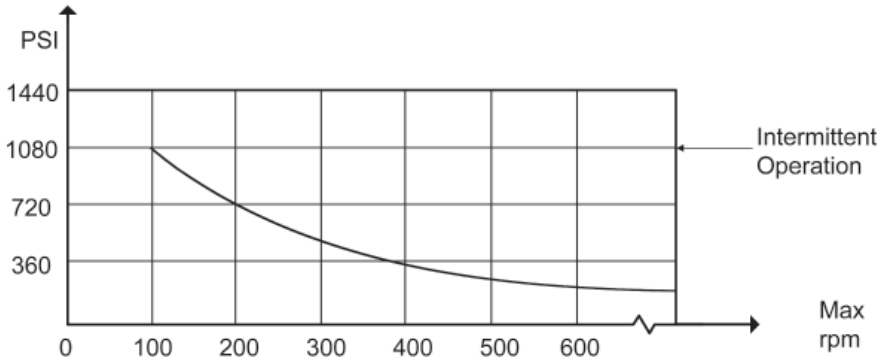
Model	Frame Size	Mounting Flange	Drive Shaft**	Port Size	Rotation
P6K	200 (11.93) 250 (15.01) 315 (19.01) 400 (23.87) 500 (29.95) 630 (38.01) 800 (48.96) 1000 (59.90)	CC = SAE "CC" W* = Wheel	G2 = 1 1/2" Parallel Key FE = 17-Tooth Spline T1* = 1 3/4" Tapered Y1* = 40mm Parallel Key	SF5 = 1 5/16-12 SAE SF* = 3/4" Split Flange SF7* = G1 (BSP) Staggered	Omit = Clockwise R = Counter-Clockwise *Note: Direction of rotation is indicated when "A" port is pressurized*

**Special Order*
***Additional shaft options available. Please consult factory.*

Seal kits for P6K motors are available for purchase. Order seal kit using item description: "P6K Seal Kit".

Shaft Seal Rated Pressure

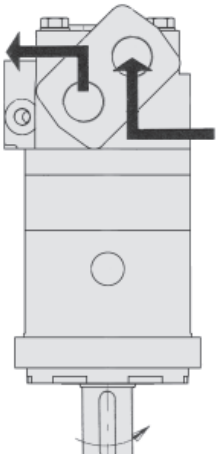




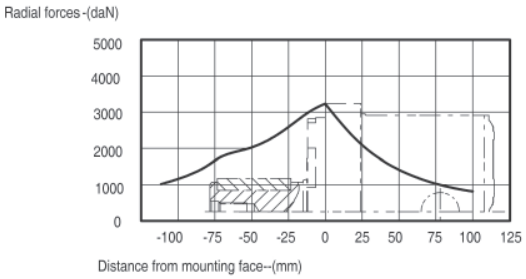
Case Drain

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

Shaft Rotation Direction



BMK6 for CC Mounting Radial forces



The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12x106 revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.
The maximum load curve is defined by bearing static load capacity.

Hydraulic Power Units | PCC HPU Series

LEGEND+ plus™

Our **HPU Series** power units are some of the most reliable and durable units in the industry for use with dump trailers, dump trucks, boat lifts, lift gates, tow trucks, car haulers, agriculture, snow plow equipment and many other applications.

Advantages

- Optimized Motor-Pump Unit Produce Increased Efficiency and Low Operating Noise Level
- Custom Configurations Can be Made for Your Application
- Limited Number of Components, Quick and Easy Installation
- Valve Cavities Conform to International Standards
- Certifications are Available Upon Request
- Electric Motor (AC or DC)

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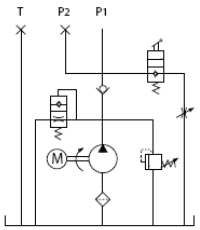
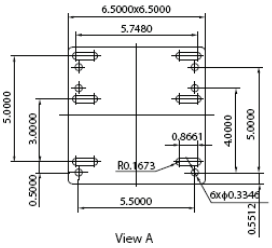
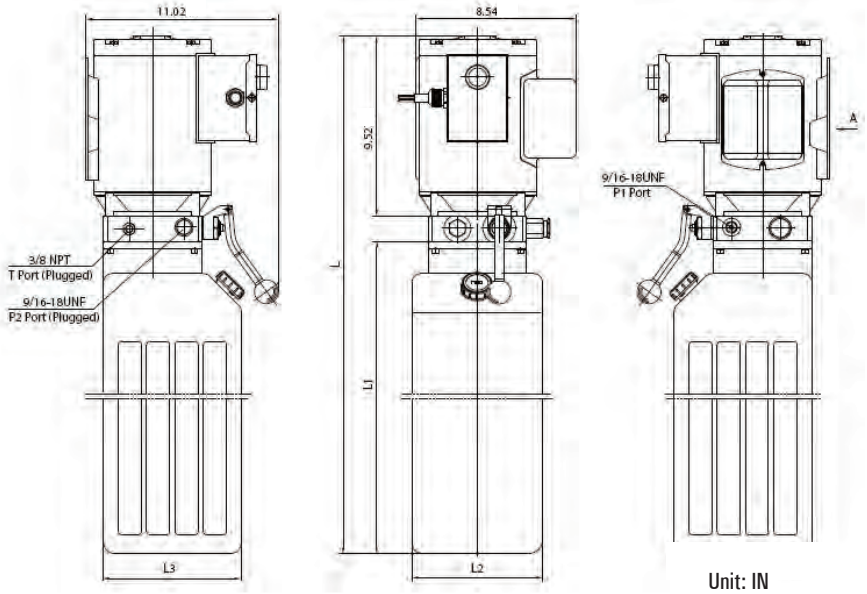
Auto Hoist

Hydraulic Power Unit





This power unit is widely used in two-post **Auto Hoists**. Push the start button on the motor to lift the machine. The lowering movement is activated by the manual release valve, with the lowering speed controlled by the throttle valve in the return line. This power unit can also be used in different kinds of hydraulic fork lift and scissors lift applications.



Unit: IN

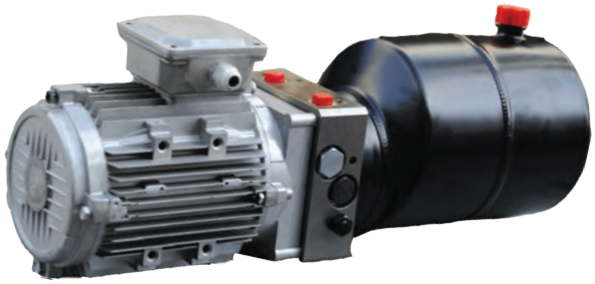
Details

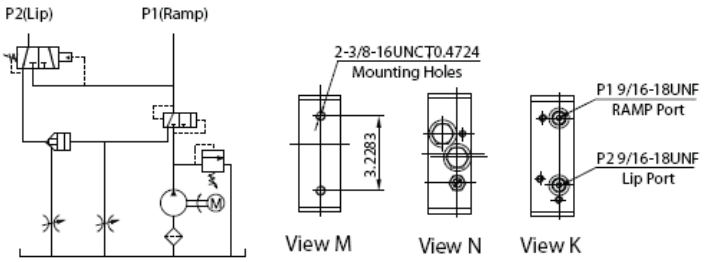
1. The power unit is of S3 duty, which can only be worked intermittently, I.E, 1 minute on and 9 minutes off.
2. Clean all of the hydraulic parts concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15 ~ 68 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the initial running of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. The power unit should be mounted vertically.
7. More pump sizes and tank sizes are avaiable upon request.
8. 60HZ motors with CSA or UL certification are available upon request.

Motor Volt (V AC)	Motor Power (HP)	Rated Speed (RPM)	Displacement (in3/r)	Relief Valve (PSI)	Tank Capacity (QT)	L	L1	L2	L3
						Dimensions (IN.)			
115 (60hz)	1.5	3,450	0.05	2,900	6.4	24.05	13.19	7.09	7.09
					8.4	28.19	17.32		
			0.08	2,538	6.4	24.05	13.19		
					8.4	28.19	17.32		
115/230 (50/60hz)		2,830/3,450	0.05	2,900	6.4	24.05	13.19		
					8.4	28.19	17.32		
			0.08	2,538	6.4	24.05	13.19		
					8.4	28.19	17.32		
208/240 (50/60hz)	3.0		0.13	2,900	12.7	32.13	21.26	6.49	7.25
					14.8	34.49	23.62	6.89	
230/460 (60hz)		3,450			12.7	32.13	21.26	6.49	
					14.8	34.49	23.62	6.89	
190/208-240/380/460 (50/60hz)		2,830/3,450			12.7	32.13	21.26	6.49	
			0.16		14.8	34.49	23.62	6.89	
		1,450/1,725	0.26	2,538	12.7	32.13	21.26	6.49	
					14.8	34.49	23.62	6.89	

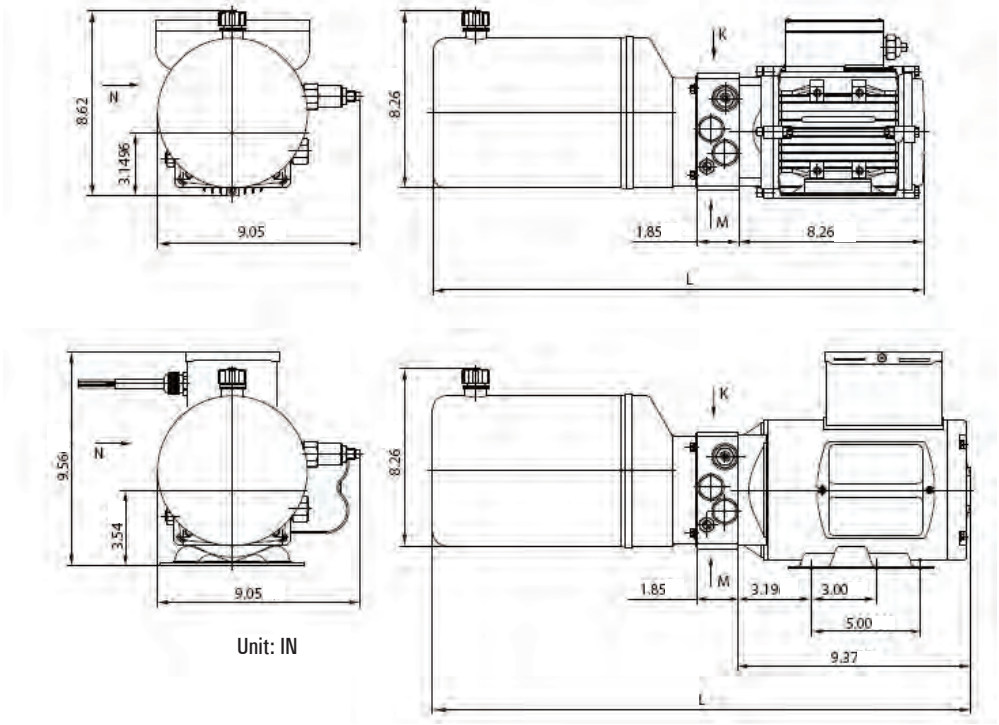
Dock Leveler

Hydraulic Power Unit





This power unit is designed exclusively for the **Dock Leveler**, consisting of high pressure gear pump, AC motor, multi-functional manifold, valves and tank, etc. Once the ramp is fully lifted, the lip rises automatically. Both lowering movements are activated by the solenoid valves with speeds adjusted by the throttles.



Unit: IN

Details

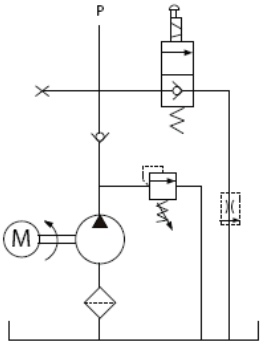
1. The power unit is of S3 duty, which can only be worked intermittently, I.E, 1 minute on and 9 minutes off.
2. Clean all of the hydraulic parts concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15～68 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the first start of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. The manual override function is available on request.
7. 60HZ motors with CSA or UL certification are available upon request.

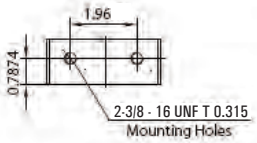
Motor Volt (V AC)	Motor Power (HP)	Rated Speed (RPM)	Displacement (in^3/r)	Relief Valve (PSI)	Tank Capacity (QT)	L (IN.)
115/230	1.0	1,750	0.1	2,320	3.68	17.99
			0.2	2,023	6.36	21.93
			0.1	2,320	3.68	19.09
			0.2	2,023	6.36	23.03
230/460	1.5	3,450	0.1	2,400	3.68	17.99
					3.68	19.09

Pallet Truck

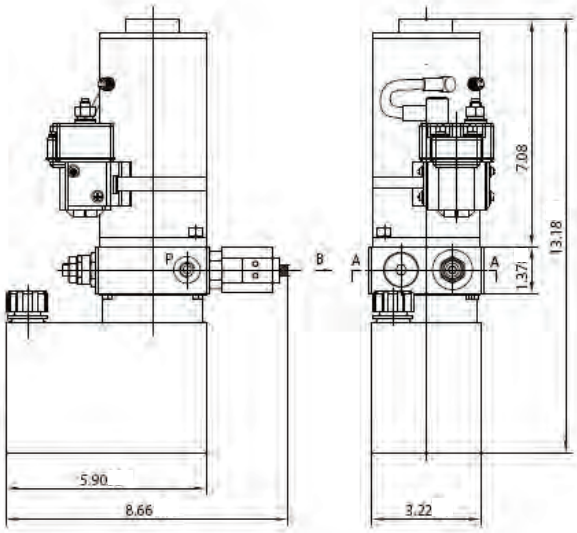
Hydraulic Power Unit

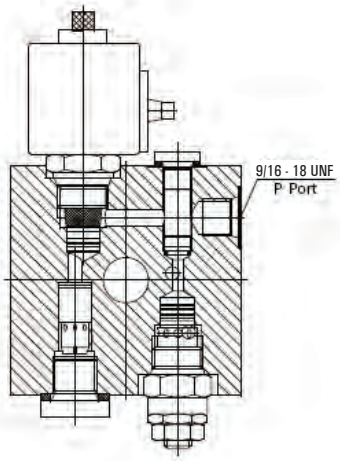
Designed specifically for vertical mount **Pallet Truck** applications, this power unit features a permanent magnet motor with a power up gravity down circuit. Activate the start solenoid to start the motor to lift the machine. The lowing movement is activated by the solenoid valve with the lowering speed controlled by the pressure compensated flow control valve. Products of this series can be widely used in the industry of logistic devices such as fork lifts, mini-lift tables.





View B



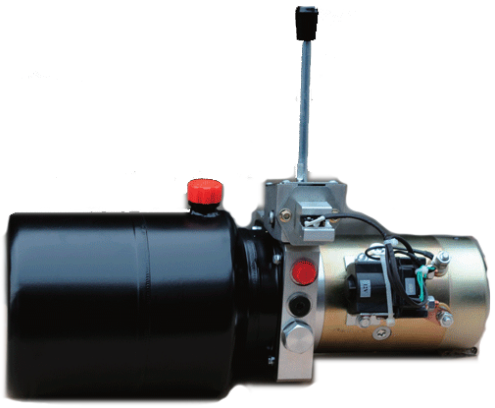


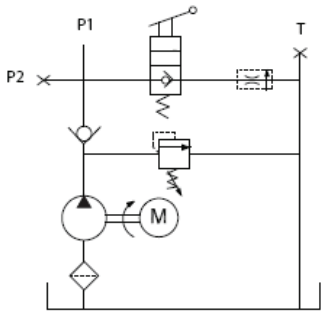
Unit: IN

Details

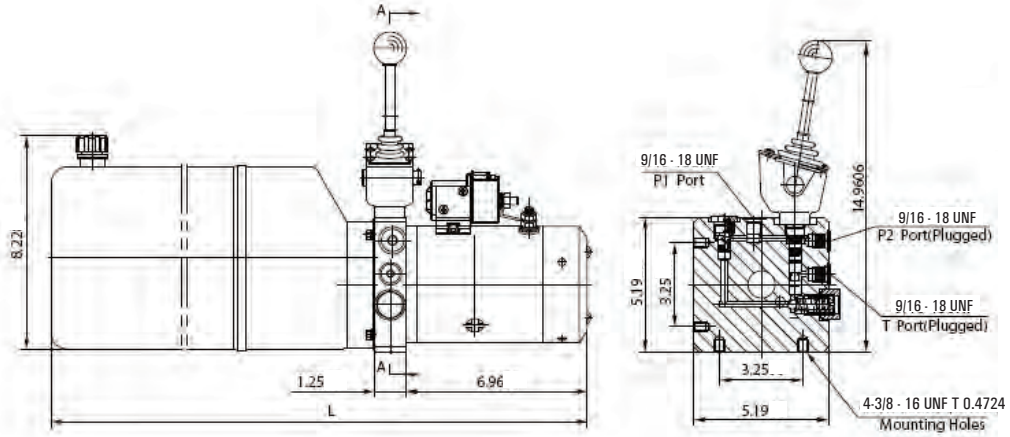
1. This power unit is of S3 duty cycle, i.e., non-continuous operation, 30 seconds on and 270 seconds off.
2. Clean all the hydraulic components concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15～46 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the first start of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. More pump sizes and tank sizes are available upon request.
7. This power unit is designed to be mounted vertically.

Motor Volt (V DC)	Motor Power (HP	Nominal Speed (RPM)	Displacement (in^3/r)	Relief Valve Pressure (PSI)	Tank Capacity (QT)
12	1.0	3,500	0.03	2,320	1.04
			0.04		
24			0.03		1.60
			0.04		





This power unit is designed for the **Material Handling industry** standard Horizontal mount, consisting of highly efficient gear pump, DC motor, manual raise and lower valve, tank, etc. The up and down movement are controlled by the lever of the manual release valve, which is equipped with an electric switch to activate the motor. The lowing speed is controlled by the pressure compensated flow control valve.



Unit: IN

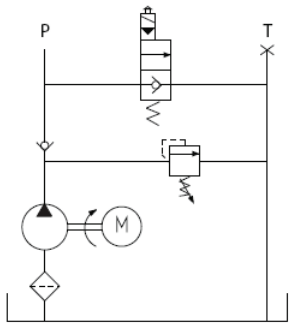
Details

1. This power unit is of S3 duty cycle, i.e., non-continuous operation, 30 seconds on and 270 seconds off.
2. Clean all the hydraulic components concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15～46 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the first start of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. More pump sizes and tank sizes are available upon request.
7. This power unit is designed to be mounted vertically.

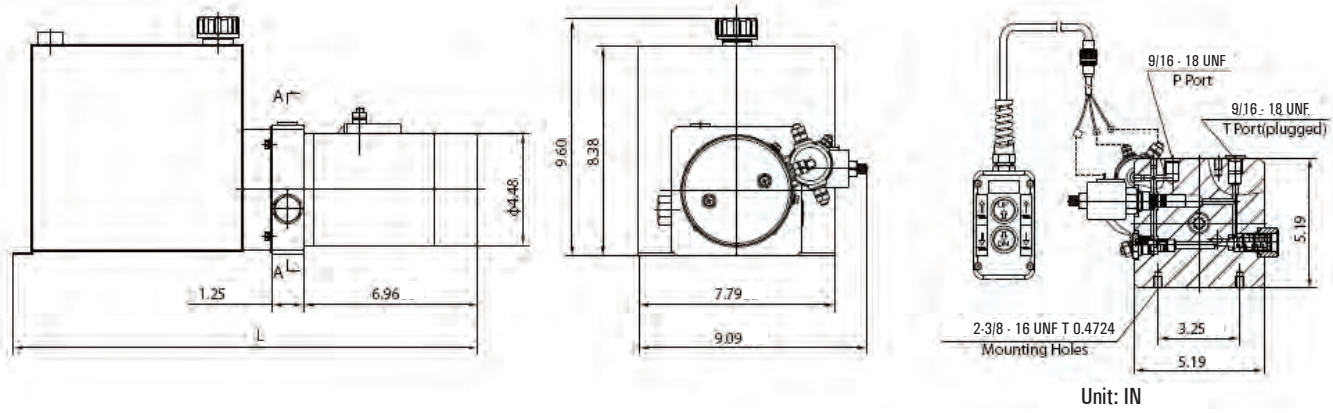
Motor Volt (V DC)	Motor Power (HP	Nominal Speed (RPM)	Displacement in^3/r	Relief Valve Pressure (PSI)	Tank Capacity (QT)	Dimensions L(in.)
12	2.0	2,500	0.08	2,900	3.7	16.10
			0.10		5.3	18.07
			0.13		5.3	18.07
24	2.7		0.13		2.4	20.04
			0.16		8.4	22.80
			0.17		8.4	22.80

Dump Trailer

Hydraulic Power Unit
Single Acting - Vertical Mount



This **Dump Trailer** power unit has a power up gravity down circuit. Start the motor to extend the cylinder and activate the solenoid valve to retract the circuit. Manual override to solenoid valve can be provided if required. Also a pressure compensated flow control can be added to the circuit to control the descent speed of the cylinder.



Unit: IN

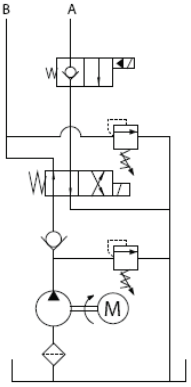
Details

1. This power unit is of S3 duty cycle, i.e., non-continuous operation, 30 seconds on and 270 seconds off.
2. Clean all the hydraulic components concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15～46 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the first start of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. More pump sizes and tank sizes are available upon request.
7. This power unit is designed to be mounted vertically.

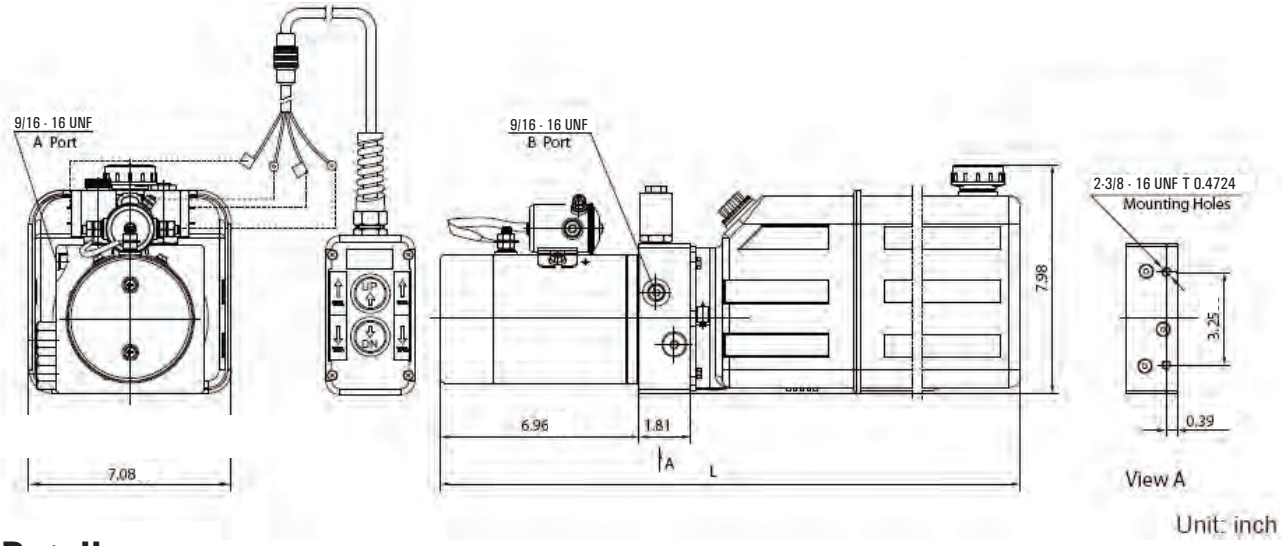
PCC Part No.	Motor Volt (V DC)	Motor Power (HP	Nominal Speed (RPM)	Displacement (in^3/r)	Relief Valve Pressure (PSI)	Tank Capacity (QT)	Dimensions L(in.)
HPU-12V-S2L-10Q	12	2.0	2,500	0.13	2,900	10.6	20.35
HPU-12V-S2L-12Q						12.7	21.98
HPU-12V-S2L-14Q						14.8	26.25
HPU-12V-S2L-21Q						21.1	31.14
HPU-24V-S2L-10Q	24	2.7		0.17	2,610	10.6	20.35
HPU-24V-S2L-12Q						12.7	21.98
HPU-24V-S2L-14Q						14.8	26.25
HPU-24V-S2L-21Q						21.1	31.14

Dump Trailer

Hydraulic Power Unit
Double Acting - Vertical Mount



This **Dump Trailer** power unit has a power up power down circuit with load holding on both A & B ports. A pressure compensated flow control can be added to circuit to control the decent speed of the cylinder.



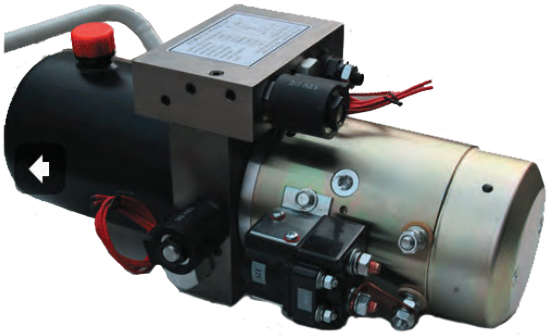
Details

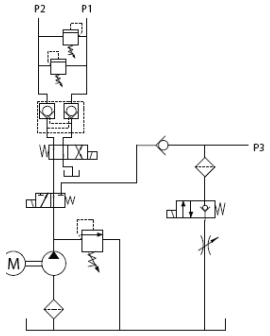
1. This power unit is of S3 duty cycle, i.e., non-continuous operation, 30 seconds on and 270 seconds off.
2. Clean all the hydraulic components concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15 ~ 46 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the first start of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. More pump sizes and tank sizes are available upon request.
7. This power unit is designed to be mounted vertically.

PCC Part No.	Motor Volt (V DC)	Motor Power (HP	Nominal Speed (RPM)	Displacement (in^3/r)	Relief Valve Pressure (PSI)	Tank Capacity (QT)	Dimensions L(in.)
HPU-12V-D2P	12	2.7	2,500	0.13	3,190	4.2	16.65
HPU-12V-D2P						6.4	21.96
HPU-12V-D2P						8.4	26.10
HPU-24V-D2P	24					4.2	16.65
HPU-24V-D2P						6.4	21.96
HPU-24V-D2P						8.4	26.10

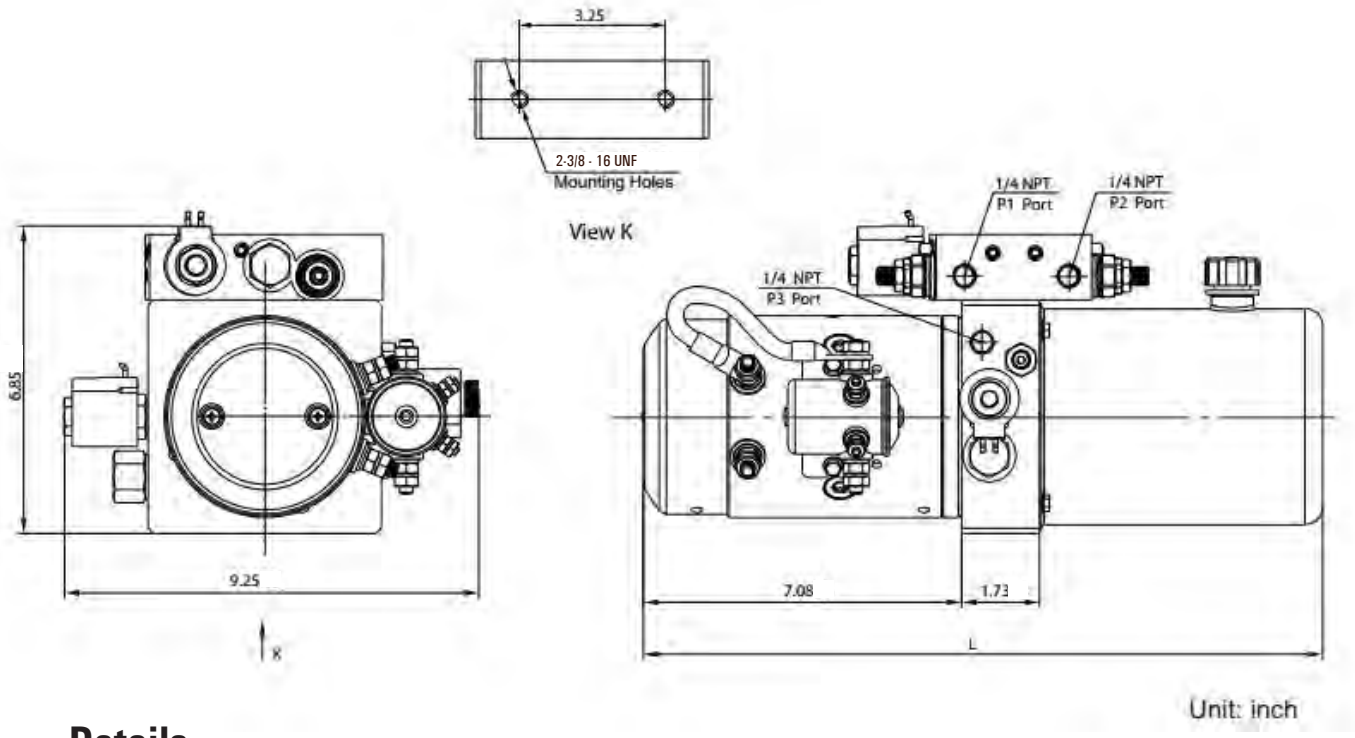
Snow Plow

Hydraulic Power Unit





This power unit was specifically designed for **Snow Plow** applications and has a power up gravity down circuit. Start the motor to extend the cylinder and activate the solenoid valve to retract the circuit. Manual override to solenoid valve can be provided if required. Also a pressure compensated flow control can be added to the circuit to control the descent speed of the cylinder.



Details

1. This power unit is of S3 duty cycle, i.e., non-continuous operation, 30 seconds on and 270 seconds off.
2. Clean all the hydraulic components concerned before installation of the power unit.
3. Viscosity of the hydraulic oil should be 15 ~ 46 cSt, and should be clean and free of impurities, N46 hydraulic oil is recommended.
4. Check the oil level in the tank after the first start of the power unit.
5. Change the oil after the first 100 hours of running the power unit, then change the oil every 3,000 hours.
6. More pump sizes and tank sizes are available upon request.
7. This power unit is designed to be mounted vertically.

Motor Volt (V DC)	Motor Power (HP	Displacement in^3/r	Relief Valve Pressure (PSI)	Tank Capacity (QT)	Dimensions L(in.)
12	2.0	0.13	2,610	1.6	15.11
		0.13		2.1	17.32
		0.10		1.6	15.11

ISO 9001 Requirements

ISO 9001:2015 Audit:

"Pressure Connections is a really exceptional example of ISO 9001 at work. In regards to quality management, you guys have that one thousand and ten percent."

James Mitchell
ISO Auditor, Quality Assurance Systems Inc

What Does ISO 9000 Certified Mean?

"The Quality Assurance standard (ISO 9001:2015) lays down the requirements that a quality system should meet, but does not dictate how they should be achieved." -**Institute of Quality Assurance (IQA)**

In other words, ***achievement*** will vary from one company to another. Pressure Connections has laid down the strictest requirements for us to meet and achieve the highest quality for our customers. **This supports our Business Philosophy, Vision, and Mission.**

(Ref. www.pressureconnections.com - See About Us)

What does ISO 9001 Require?	Pressure Connections Standard	ISO 9000 Standard
1. How Many Trained Quality Assurance Personnel are required?	**7 Full Time**	**1 Part Time**
2. How many dollars in Thread Gauges are required?	**$300,000**	**$0**
3. Is a Coordinate Measuring Machine (CMM) required?	**Yes**	**No**
4. Is a Comparator required?	**Yes**	**No**
5. Is a Rockwell Hardness Tester required?	**Yes**	**No**
6. Is a Profilometer (Surface Finish Tester) required?	**Yes**	**No**
7. Is a Pressure Test Stand required?	**Yes**	**No**
8. Do O-Rings need to be installed with O-Ring Mandrels?	**Yes**	**No**

Quality Assurance Department

We will provide a Certificate of Conformance upon request. A Variety of certifications are available. We are confident that our Quality Assurance program and personnel will be able to satisfy any quality concerns you or your customers may have. Furthermore, we have established a Performance Team to handle written customer evaluations of our overall performance. This team is ready to respond to customer quality and service issues.

Every employee strives to provide you with the best all-around value. Our Conduct Code and personal convictions drive our commitment to excellence. We gurantee that you will be completely satisfied with the quality of our product or we'll issue a Return Goods Authorization form for a full refund. Our goal is to make it easy to do business with us.

At Pressure Connections, ISO 9001 is more than just a certificate. It is a quality system applied to our daily practices enabling us to continually improve our processes.

We are an **ISO 9001:2015** registered firm. We will provide you with with the documentation needed to satisfy your quality system requirements. At your request, we will provide a Corrective Action Report and Evaluation (C.A.R.E). We also have Initial Sample Inspection, In-Process and Final Inspection Reports.

PRESSURE CONNECTIONS CORP. TERMS OF SALE

The following Terms of Sale ("Terms and Conditions") are a part of the sales contract ("Contract") between Pressure Connections Corp. (PCC) and Customer for the sale of Equipment and/or Parts and the provision of any ancillary services (collectively "Equipment" and/or "Parts") described on the face side of this form. The Contract between with Customer consists solely of the form of Quotation received from PCC, if any, PCC's Invoice, these Terms and Conditions, and any other documents expressly incorporated into the Quotation; **The acceptance by Customer of delivery of the Equipment and/or Parts (whether or not Customer signs the acknowledgment on the face hereof) will be Customer's agreement to the Contract and these Terms and Conditions, to the exclusion of any prior, additional or different terms or conditions.**

1. Prices and Terms of Payment
(a) Unless otherwise stated in this Contract, PCC's price quotations are subject to Customer acceptance within thirty (30) days, and may be withdrawn or canceled by PCC at any time after such date or before receipt of written notice of acceptance. Orders will be billed at prices in effect at time of shipment unless otherwise so stated in the Contract.
(b) This Contract is subject to final approval (including credit approval) and acceptance by PCC's home office and is not binding on PCC until signed by an authorized officer of PCC and such written acceptance is delivered to Customer.
(c) Prices do not include (and Customer shall pay when due) federal, state or local sales, use, excise, or other taxes, tariffs, or duties.
(d) Customer shall make all payments, without any setoff or deduction, on the term of ½% 10, Net 30 Days, interest on any delinquent balance at a rate of the lesser of 1 ½% for every 30 day period of delinquency or the maximum rate permitted by law. Customer shall pay all attorneys' fees, court costs, and all other costs incurred by PCC in collecting past due accounts, including interest on such amounts at the rate provided above.
(e) In the event Purchaser cancels the order, all amounts previously paid by Purchaser shall be retained by Seller as liquidated damages.

2. Delivery
(f) Shipping dates are estimates only. PCC will use commercially reasonable efforts to ship by the date specified, but shall not be liable to Customer for any delay in delivering the Equipment and/or Parts (including any resulting incidental or consequential damages). Shipping dates shall in any event be extended for delays, such as but not limited to acts of God, fires, strikes, transportation delays, delays of PCC's vendors, or any other cause beyond PCC's reasonable control. If shipment or delivery of Equipment and/or Parts is delayed by or at the request of Customer, payment will become due in full thirty (30) days from the date such Equipment and/or Parts is ready for shipment. In such event, Customer shall pay on demand storage charges and other incidental expenses incurred by PCC as a result of the delay in addition to any interest on late payment. Shipment from stock is subject to availability.
(g) Unless otherwise stated in the Contract, the Equipment and/or Parts will be delivered to Customer Ex Works PCC's designated point of shipment, and Customer shall make all arrangements (and shall pay all costs) for transportation, handling and installation of the Equipment and/or Parts after delivery.
(h) Instructions for any special shipping, packing, or handling services must be given by Customer in writing at the time of placing the order. Customer will pay all costs for such services.

3. Cancellation
Customer may cancel the Contract prior to delivery only upon written approval by PCC and upon payment by Customer to PCC of the following charges:
(a) For Equipment and/or Parts to be fabricated by PCC or its subcontractors, specialty, custom, or made to order Equipment and/or Parts, Customer shall pay to PCC on demand all direct and indirect costs (including without limitation engineering, product development, and allocable overhead and administrative costs) incurred by PCC or such subcontractor in performing under the Contract, as determined by PCC, prior to written notice of cancellation, plus profit in an amount equal to twenty percent (20%) of all such direct and indirect costs; provided that the liability of Customer shall not exceed the purchase price for the Equipment and/or Parts provided in this Contract.
(b) For stock item, PCC's loss of profit as reasonably determined by PCC.
(c) Any deposits or progress payments made by Customer on Equipment and/or Parts will be retained by PCC and applied to such cancellation charges. Customer acknowledges that any cancellation charges payable by Customer hereunder are not a penalty but are a reasonable approximation of the economic loss to PCC resulting from cancellation.

4. Proprietary Information
All specifications, drawings, designs, manufacturing data and all other data furnished by or belonging to PCC, or pertaining to Equipment and Parts, and all terms of sale ("Information") are trade secrets and proprietary information of PCC. Customer will not use or disclose (and will take steps to prevent its employees and contractors from using or disclosing) the Information except as specifically authorized by PCC.

5. Security Interest and Insurance
As security for payment of all amounts due PCC under this Contract, Customer hereby grants to PCC a security interest in the Equipment and/or Parts and all proceeds or products thereof and replacements or substitutions therefor, and PCC shall have all rights of a secured party under the Uniform Commercial Code in effect from time to time in the State of Ohio or any other applicable jurisdiction or any successor law or laws of like effect. Customer shall sign, and/or hereby authorizes PCC to prepare and file all financing statements and other documents which PCC may deem necessary or desirable to perfect such security interest in any public office. Until full and irrevocable payment for the Equipment and/or Parts, Customer shall maintain replacement value insurance covering the Equipment and/or Parts against loss of damage from any cause with PCC named as insured or co-insured to the extent of the unpaid purchase price.

6. Governmental Requirements; Industry Standards
PCC does not represent or warrant that the equipment and/or parts comply or will comply with any particular federal, state, or local statutes, regulations, or requirements of any type, including but not limited to occupation safety (e.g., OSHA or MSHA) requirements, environmental requirements, any electrical codes, or any voluntary industry standards. Since applications of the equipment and/or parts vary, customer shall be solely responsible for compliance with all such federal, state, and local statutes, regulations, or requirements of any type, and with any voluntary industry standards, and customer will indemnify and hold PCC harmless from any claims by third parties (including employees of customer) related to such compliance or to operation or use of the equipment and/or parts, including court costs and attorneys' fees.

7. Limited Warranty / Exclusive Remedy
PCC warrants to the customer that the equipment and parts (excluding wear parts) will be free from defects in material and workmanship under normal use and service for a period of three hundred sixty-five **(365) days** after delivery to customer, or **2,000 hours** of normal use. Any warranty claims not submitted in writing by customer to PCC within the applicable warranty period and within thirty (30) days of discovery of defect will be deemed waived. The obligation of PCC shall be limited to the repair or replacement ex works facility designated by PCC (excluding shipping costs, to be paid by customer), of the equipment or such parts which PCC determines were defective in material or workmanship under normal storage, use and service. This warranty applies only to new equipment and parts and expressly excludes wear parts. This warranty shall not apply to items manufactured by others attached to or incorporated in the equipment and/or parts, or to which the equipment and/or parts are attached or incorporated, and customer's recourse for defects in such equipment and/or parts of others shall be exclusively against the manufacturer of the equipment and/or parts under the terms of the PCC's warranty. This limited warranty does not apply to failures or defects of the equipment components, and/or parts (including wear parts) due to ordinary wear and tear, neglect (including but not limited to improper maintenance and storage), accident, improper installation or operation, or modification not authorized in writing by PCC (including but not limited to use of unauthorized parts or attachments). Any alteration or modification of the equipment or parts, or attaching of any parts or equipment not manufactured by PCC or not intended to be attached to the equipment or parts, or maintenance, use or operation of the equipment or parts contrary to PCC's or the manufacturer's instructions, shall at PCC's election void this warranty. This limited warranty shall extend only to the customer and is not assignable. The exclusive remedy of customer under this warranty or otherwise in connection with the equipment and for parts, shall be repair or replacement of the equipment and/or parts in accordance with this paragraph, PCC's sole and absolute discretion.

8. Limitation of Liability
PCC's liability (and the exclusive remedy of customer) under this warranty for any alleged defect or failure of the equipment and/or parts (including results of operation of the equipment and/or parts, and whether resulting from defects, failures, or errors in design, materials or workmanship, or otherwise) is limited as provided in 7 above. PCC shall not be liable to customer for any direct, indirect, or consequential damages in connection with the equipment and/or parts or otherwise in connection with this contract, including but not limited to damages resulting from delays; loss of use of property; results of use of the equipment and/or parts; losses of income, profit or production; or increased costs of operation, or damages to other property arising in connection with the equipment and/or parts.

9. Exclusion of Expressed / Implied Warranties
Except as provided in paragraph 7 above, PCC disclaims any and all express and implied warranties in any way relating to the equipment and/or parts, including without limitation any implied warranties of merchantability or fitness for a particular purpose.

10. Dispute Resolution / Arbitration Procedure
(a) Except as provided herein, all disputes relating to this Contract or to the Equipment and/or Parts in any way ("Dispute") shall be resolved by arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"), and judgment upon the award rendered in the arbitration may be entered in any court having jurisdiction. The parties also agree that the AAA Optional Rules for Emergency Measures of Protection shall apply to the proceedings. The arbitration shall be conducted and the award made in Franklin County, Ohio before a single arbitrator. The arbitrator shall be selected from a list of approved arbitrators maintained by the Association of Equipment Manufacturers ("AEM") or its successor. If the AAA is unable to furnish a list of potential arbitrators satisfying such requirements, PCC shall supply Customer a list of at least five (5) such persons from which the arbitrator shall be selected by Customer. Any award shall be final and binding on the parties. The arbitrator shall include in the award the costs and attorneys' fees incurred by the prevailing party in the arbitration.
(b) Notwithstanding the above, the arbitration provisions in Paragraph 10(a) above shall not apply, at PCC's sole option, including in circumstances in which Customer has already served a demand for arbitration upon PCC, to any one or more claims or actions against Customer by PCC in connection with (i) collection of any amounts due PCC by Customer for the Equipment and/or Parts or otherwise under this Contract, including but not limited to interest on such amounts and attorneys' fees as provided above, (ii) enforcement by PCC of any security interest in the Equipment and/or Parts and/or the proceeds thereof under this Contract or otherwise under applicable law, or (iii) exercise by PCC of any and all remedies available to it in law or in equity in connection with actions described in (i) and (ii) above, including without limitation foreclosure and replevin. Any actions described in this Paragraph 10(b) are referred to as "Excluded Actions." PCC may at PCC's option maintain any such Excluded Actions in any state or federal court in the State of Ohio described in Paragraph 12 or in any other court having jurisdiction over Customer, and the parties hereto irrevocably consent to the jurisdiction of such courts in connection with Excluded Actions and agree that any such courts are a proper venue for any such Excluded Actions.

11. Entire Agreement
The Contract is the entire agreement of the parties relating to the Equipment and/or Parts and supersedes all prior discussions, correspondence or agreements (whether written or oral). The contract may not be amended nor any terms added, deleted, or changed except in writing signed by the parties and expressly stated to be an amendment. The Contract shall inure to the benefit of and be binding on the parties and their respective successors and assigns. Any execution by PCC of a document submitted by Customer in connection with Equipment and/or Parts shall not constitute acceptance by PCC of any such additional or conflicting terms, or any modification of this Contract, but only acknowledgment of receipt of such document.

12. Governing Law; Jurisdiction
This Contract shall be interpreted in accordance with and its performance shall be governed by the laws of the State of Ohio without regard to conflict of laws principles. The parties hereby agree that the state courts located in the State of Ohio or the United States District Court for the Southern District of Ohio, Eastern Division, shall have exclusive jurisdiction over any action or suit between the parties (including any action to compel arbitration or to enforce an arbitration award) in connection with this Contract or the Equipment and/or Parts, and the parties hereto irrevocably consent to the jurisdiction of such courts in connection with such action or suit, and agree that any such courts are a proper venue for any such action or suit. Notwithstanding the above, any Excluded Actions may be maintained by PCC in any state or federal court having jurisdiction over Customer or such Excluded Actions.

PRESSURE CONNECTIONS CORP.
610 Claycraft Rd. Columbus, OH 43230
Phone (614) 863-6930 • Fax (614) 864-1327
www.PressureConnections.com

Product Lines

Hose & Fittings

Steel Adapters

Brass Fittings

QD Couplings

316 Stainless

Live Swivels

Push-To-Connects & DOT Fittings

Metric & BSP

Valves

Pneumatics

GagePorts & Test Points

Custom Kits

Fluid Power Power Products

We are a certified ISO 9001:2015 Registered firm. Our Quality Assurance program is able to provide high quality fittings and service according to ISO 9001 principles. All of the documentation needed to satisfy your quality system requirements is on hand. At your request we will provide a Corrective Action Report and Evaluation (C.A.R.E.). We also have Initial Sample Inspection and Final Inspection Reports.

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