



C101™/C102™ Series
G101™/G102™ Series
Combination Pump/Valves

Catalog HY09-101/US



The Parker Hannifin Gear Pump Division Assures:

- Consistent quality
- Technical innovation
- Premier customer service

Worldwide Sales and Service

Parker operates sales and service centers in major industrial areas worldwide. Call 1-800-C-PARKER for more information, or for a synopsis of the Gear Pump Division, contact a Parker representative.

The Gear Pump Division's ability to engineer specialty products for unique applications has kept us at the forefront of technology, and ensured our position as the industry leader. Our success has come from providing a quality product with excellent sales and service support.

We manufacture hydraulic components for a wide range of industries including:

- Material Handling
- Construction
- Turf Care
- Forestry
- Agriculture
- Industrial



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

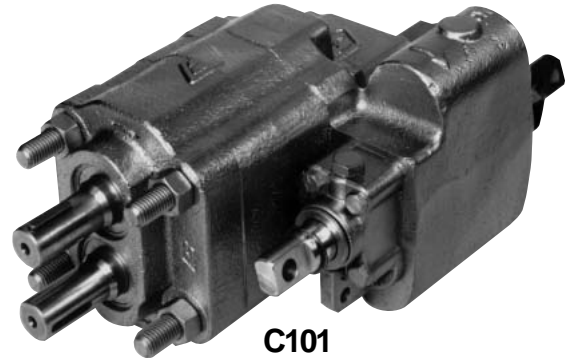
Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the "Offer of Sale".

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Pump/Valve Products

C101/C102

- 39 & 48 gpm @ 1800 rpm
- Pressures to 2500 psi
- Speeds to 2400 rpm
- Choice of mountings
- Air remote operators available
- Relief valve protects pump & cylinder

G101/G102

- 9.5, 21 & 29 gpm @ 1800 rpm
- Pressures to 2500 psi
- Speeds to 2400 rpm
- 2- or 3-line installations
- Choice of mountings
- Air remote operators available
- Relief valve protects pump & cylinder

G104/G105

- 9.5, 21 & 29 gpm @ 1800 rpm
- Pressures to 2500 psi
- Speeds to 2400 rpm
- 3- or 4-line installations
- Choice of mountings
- Air remote operators available
- Main relief valve protects pump & cylinder when valve spool is in either work position
- Optional cylinder port relief valve for lower position

The Broadest Choice

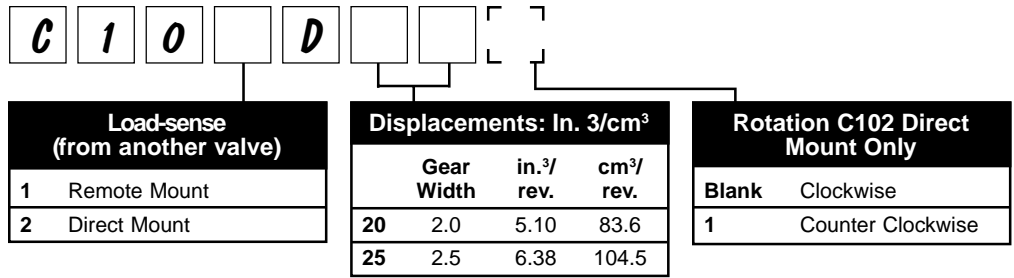
We sell more pump/valve combinations for dump trucks and trailers than any other manufacturer for two reasons: our pump/valve family offer the broadest choice of flow ratings; these units provide the most reliable, trouble-free control for dump trucks.

**Underbody Hoist to Big Trailers -
We Have Your Pump**

Our dump body pump/valve products deliver the right flow range for most applications at 1800 rpm/2000 psi. Models with two shafts (C101/G101/G104) can be mounted to remote PTO's operating in either direction of rotation. Single shaft units (C102/G102/G105) mount directly to the vehicle drive train. All (except G104/G105 models) can be connected in two- or three-line circuits to control single-acting cylinders. The G104/G105 range offers the choice of three- or four-line hookups and a three, or detented fourth, position valve for use with double-acting cylinders. **All units are supplied with factory-set 2000 psi relief valves.**

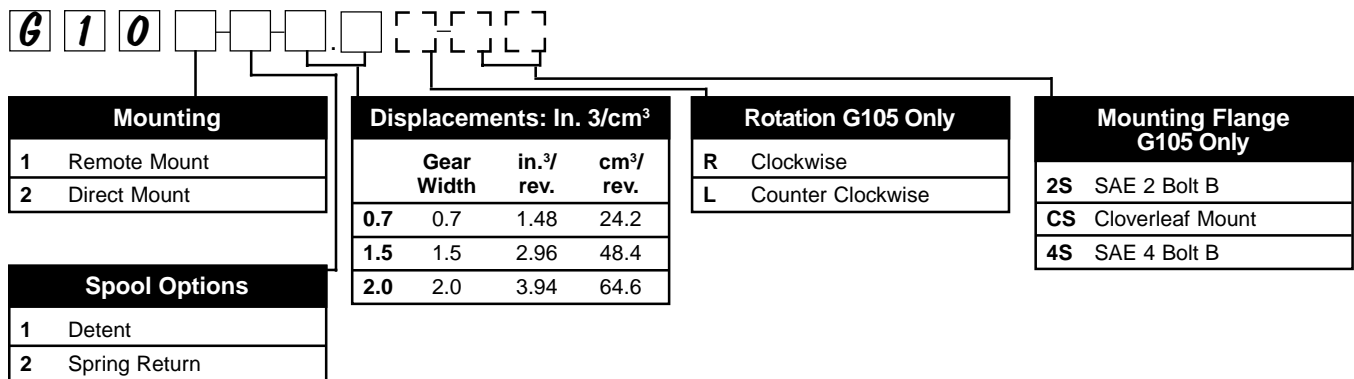
Coding: C101/C102 Series

Example:



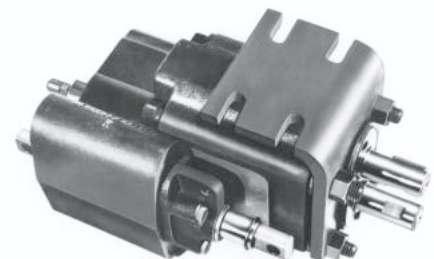
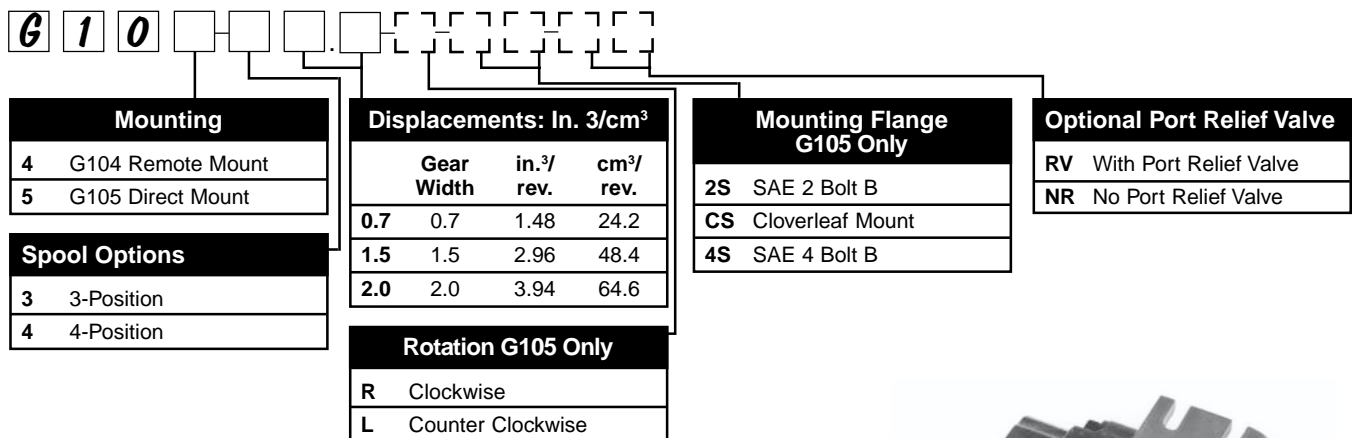
Coding: G101/G102 Series

Example:



Coding: G104/G105 Series

Example:

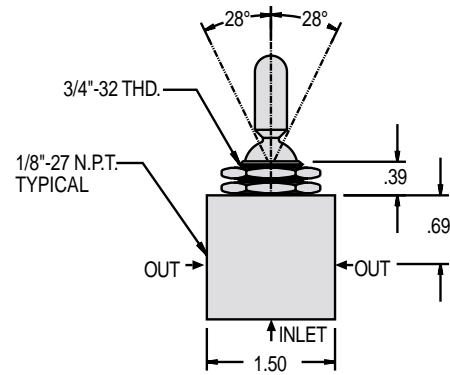
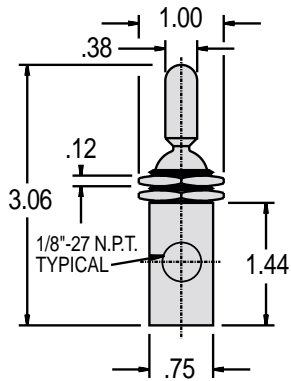


Air Shift Kits

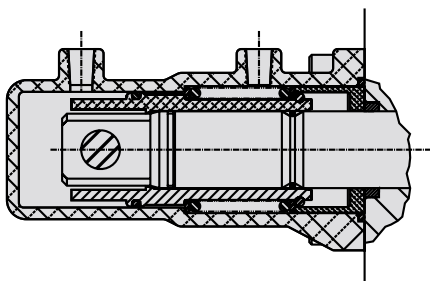
All dump units can be shifted from the cab by cable or by air with our Air Shift kit.

The kit consists of an air cylinder that mounts on the valve unit, a pneumatic control valve that mounts in the cab, 30' of air hose and all necessary connections. A minimum of 80 psi air pressure is required, which can be taken off the brake system or on-board compressor. The shifter can be retro-fit easily to existing pump/valve units by following the simple instructions with each kit.

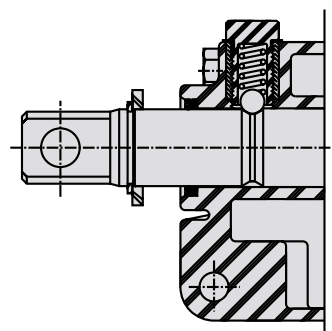
C101/C102 AIR SHIFT KITS	10 Digit Part No.
ASK-5 with Toggle	314-9414-005
ASK-6 without Toggle	314-9414-006
ASK-13 with Air Metering Controller	314-9414-013
ASK-17 without Air Hose, Fittings	314-9414-017
G101/G102 AIR SHIFT KITS	10 Digit Part No.
ASK-15 with Toggle	308-9414-015
ASK-16 without Toggle	308-9414-016
ASK-20 with Air Metering Controller	308-9414-020
G104/G105 AIR SHIFT KITS	10 Digit Part No.
ASK-29 with Toggle	308-9414-029
ASK-28 without Toggle	308-9414-028
ASK-30 with Air Metering Controller	308-9414-030



Air Toggle



C101 Air-Shift Installation



Standard C101

Model Features

Model Number	Maximum psi	gpm @ 1800 rpm				Maximum Speed	Available Features
		¾"	1½"	2"	2½"		
G101	2500	9.5	21	29		2400 rpm	A, B, D*, E
G102	2500	9.5	21	29		2400 rpm	A, B, C*, F
G104	2500	9.5	21	29		2400 rpm	B, D*, E
G105	2500	9.5	21	29		2400 rpm	B, C*, F
C101	2500			39	48	2400 rpm	A, B, D*, E
C102	2500			39	48	2400 rpm	A, B, C*, F

- A: Two- or Three-line Hookup**
- B: Remote Valve Actuation**
- C: Factory Set Rotation**
- D: Either Shaft Rotation**
- E: 1.00" diameter Keyed Shaft**
- F: SAE "B" Splined Shaft (13 teeth, 16/32 pitch)**

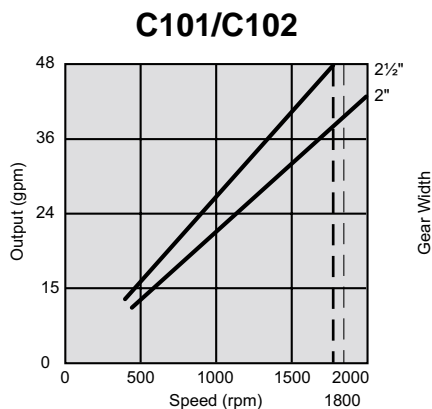
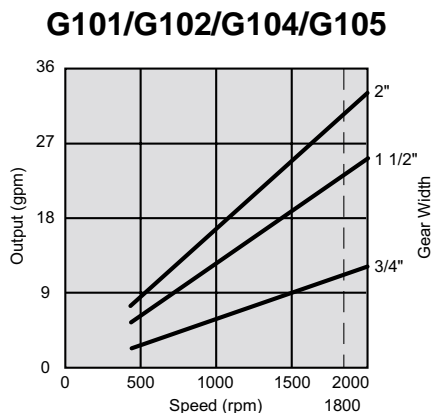
Note: G104/G105 units are for installations requiring 3- 4-line hookup and 4-way control valves.

* All C102/G102/G105 units can be ordered for either direction of rotation from the factory; all C101/G101/G104 units can be field set for either direction of rotation.

Performance Curves

Average Pump Output @ 2000 psi

Performance data shown are average results based on a series of production units and are not representative of any one unit. Tests were run with the oil reservoir temperature at 120°F, viscosity of 150 SUS at 100°F. Requests for more specific data should be directed to our Product Support Department through your sales representative.



Warning

These warnings apply to all pump/valve units.

- **A device to lock the control lever in the neutral position must be installed. Pump/valve units without a lockable control lever may allow the dump bed to rise unintentionally while in transit. Failure to provide such a lock may lead to loss of vehicle control, accidental injury and/or property damage.**
- **Failure to disengage the PTO from driving the pump/valve when in transit may allow the dump bed to rise unintentionally. This may lead to loss of vehicle control, accidental injury and/or property damage.**
- The pump/valves are equipped with a neutral stop device for those applications using a pull-out cable. This device allows the pull-out cable to move the valve spool from the raise to the neutral position only. Since shock loading in the cable is possible, **it is essential that a spring (Part no. 391-3581-854 or equal) be incorporated in the pull-out cable hookup.** Failure to do so could result in breakage of the neutral stop device and could lead to injury. We recommend that the cable be fully enclosed and directly in line with the spool.
- **Never work under a raised dump bed without first securely blocking the bed to prevent its accidental lowering.**
- Three-line installations are recommended whenever possible. Three-line circuits consist of a pump inlet line, a line to the cylinder and a return line to tank. A sleeve must be installed in the pump's inlet to allow oil to circulate through the unit and return to tank when running in neutral. Lower operating temperatures and the ability to install a return-line filter are two advantages of a three-line circuit. Be sure the return line is always below the oil level in the reservoir. Two-line installations are for intermittent operation only.

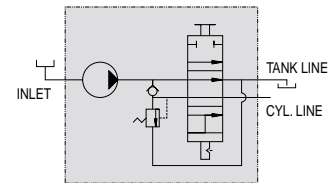
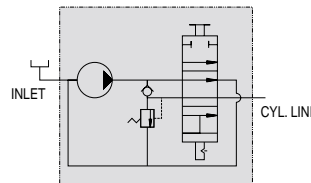
If you do not understand these warnings or have any questions about any of them, contact your distributor or the Product Support Group at: Phone (330) 746-8011 or Fax (330) 740-8344.

Typical Flow Paths in C101/C102 Pump/Valve Units

Explanation of single-acting valve.

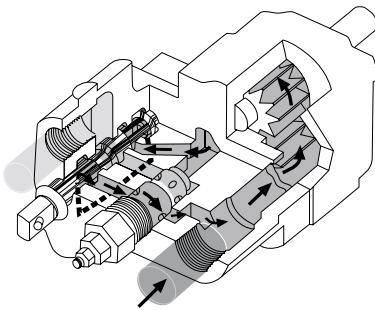
C101/C102: 2-line Installation
 For intermittent operation.

C101/C102: 3-line Installation
 For continuous or intermittent operation.

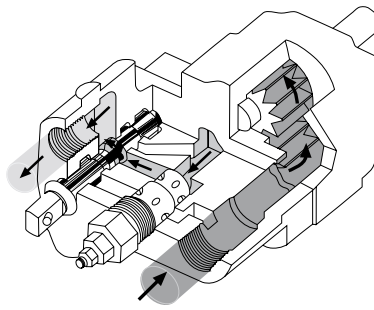


2-line Installation

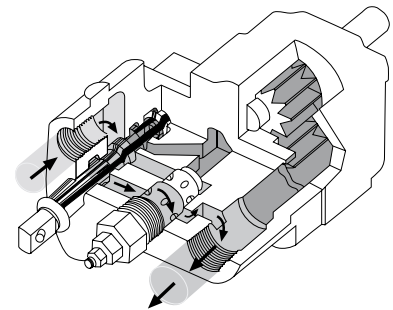
One line to the cylinder, one line to the reservoir.
 For intermittent operation only.



Spool in Neutral:
 Oil recirculates internally.



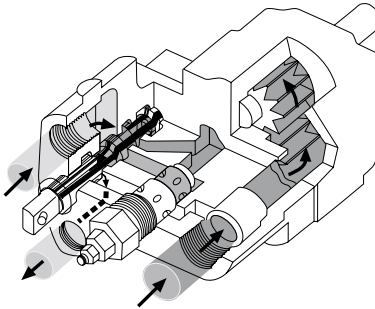
Raise Position:
 Oil is routed through work port to raise the cylinder.



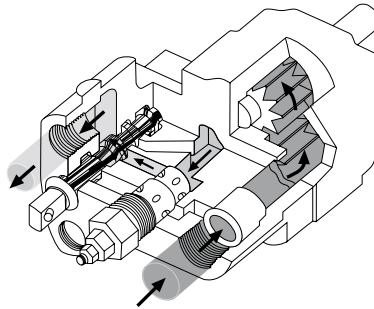
Lower Position:
 Oil flows from the cylinder through the relief valve to return to tank.

3-line Installation

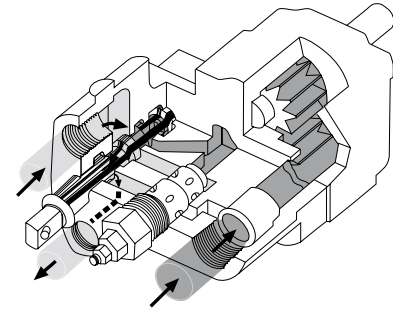
One line to the cylinder, two lines to the reservoir.
 For continuous or intermittent operation.



Spool in Neutral:
 Oil circulates through the pump and returns to tank.



Raise Position:
 Oil is routed through work port to raise the cylinder.



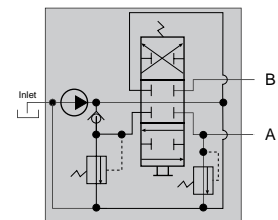
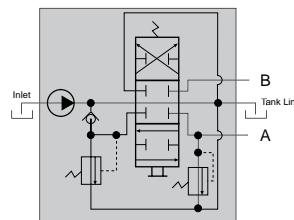
Lower Position:
 Oil flows from the cylinder, through the bottom port and returns to tank.

Typical Flow Paths in G104/G105 Pump/Valve Units

Explanation of single-acting valve.

G104/G105: 4-line Installation
 For continuous or intermittent operation.

G104/G105: 3-line Installation
 For intermittent operation.

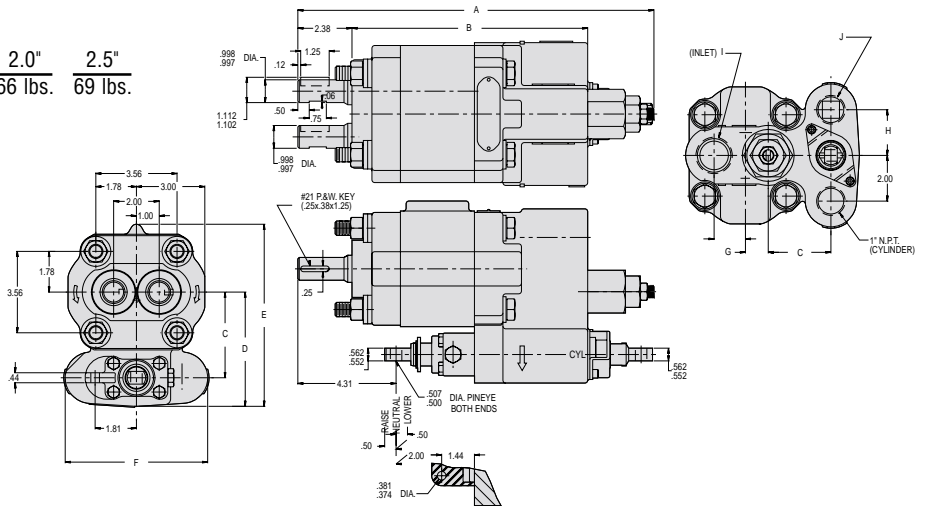


Dimensions

C101

Gear Width $\frac{1.5"}{63 \text{ lbs.}}$ $\frac{2.0"}{66 \text{ lbs.}}$ $\frac{2.5"}{69 \text{ lbs.}}$
Gear Weight

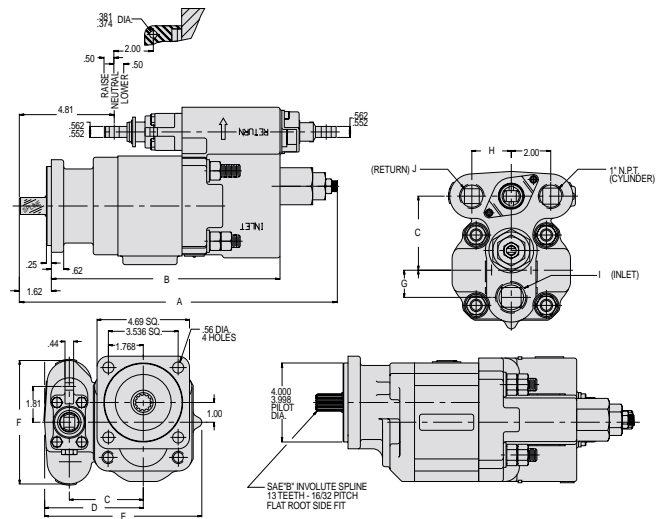
A	13.12+GW
B	7.84+GW
C	3.75
D	5.00
E	7.97
F	6.25
G	1.38
H	2.00
I	1 1/4" NPT
J	1" NPT



C102

Gear Width $\frac{1.5"}{65 \text{ lbs.}}$ $\frac{2.0"}{68 \text{ lbs.}}$ $\frac{2.5"}{71 \text{ lbs.}}$
Gear Weight

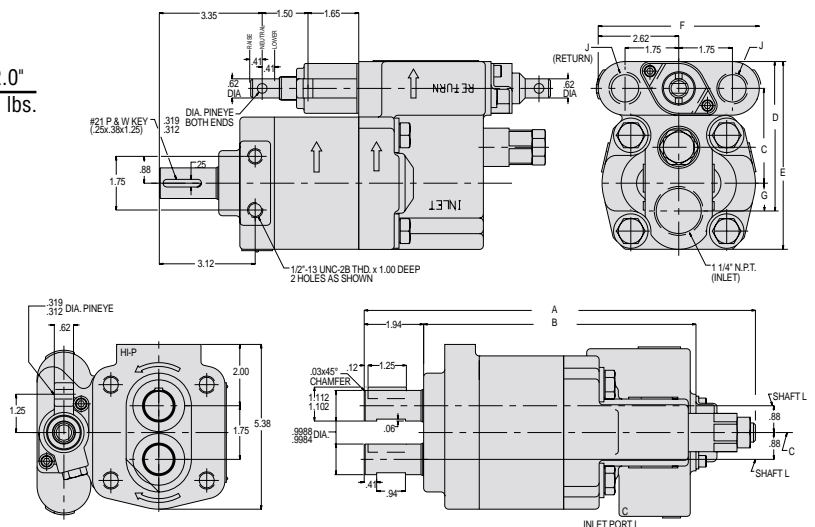
A	13.62+GW
B	9.09+GW
C	3.75
D	5.00
E	7.97
F	6.25
G	1.38
H	2.00
I	1 1/4" NPT
J	1" NPT



G101

Gear Width $\frac{.75"}{31 \text{ lbs.}}$ $\frac{1.5"}{35 \text{ lbs.}}$ $\frac{2.0"}{38 \text{ lbs.}}$
Gear Weight

A	10.56 + GW
B	6.88 + GW
C	3.09
D	3.96
E	6.12
F	5.25
G	.91
H	1.75
I	1 1/4" N.P.T.
J	3/4" N.P.T.

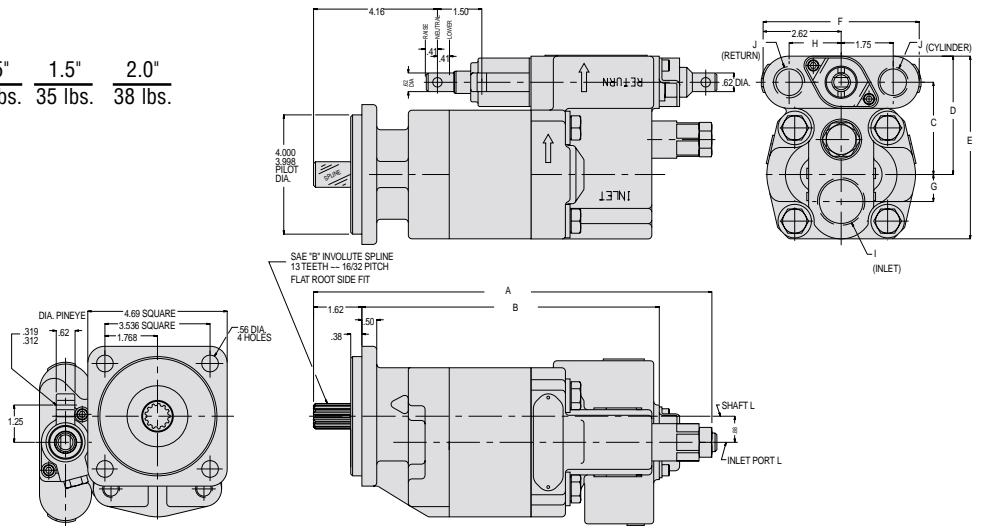


Dimensions

G102

Gear Width $\frac{.75"}{.75"} \quad \frac{1.5"}{1.5"} \quad \frac{2.0"}{2.0"}$
Gear Weight $\frac{31 \text{ lbs.}}{31 \text{ lbs.}} \quad \frac{35 \text{ lbs.}}{35 \text{ lbs.}} \quad \frac{38 \text{ lbs.}}{38 \text{ lbs.}}$

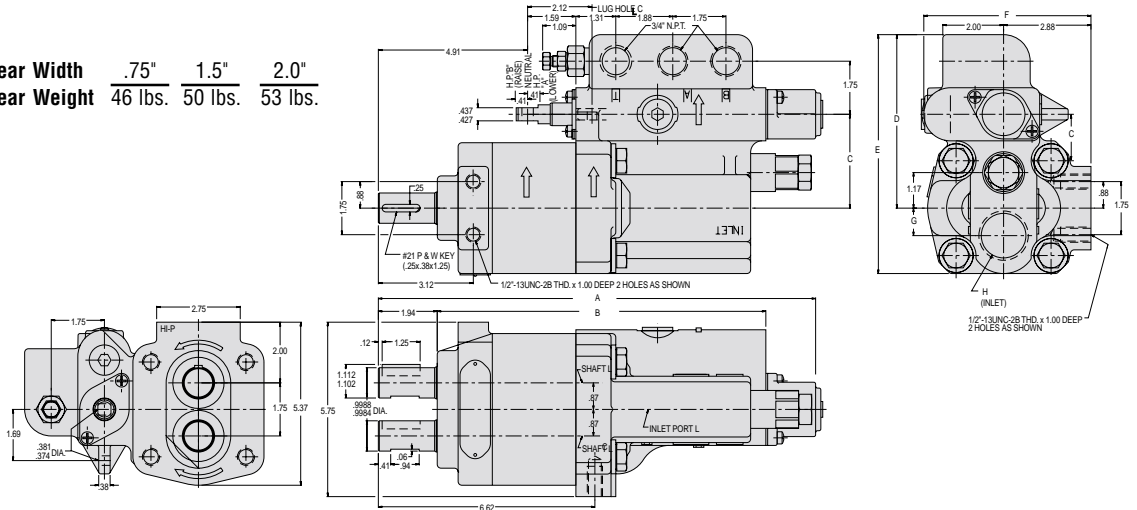
A	11.38 + GW
B	8.00 + GW
C	3.09
D	3.96
E	6.12
F	5.25
G	.91
H	1.75
I	1 ¼" N.P.T.
J	¾" N.P.T.



G104

Gear Width $\frac{.75"}{.75"} \quad \frac{1.5"}{1.5"} \quad \frac{2.0"}{2.0"}$
Gear Weight $\frac{46 \text{ lbs.}}{46 \text{ lbs.}} \quad \frac{50 \text{ lbs.}}{50 \text{ lbs.}} \quad \frac{53 \text{ lbs.}}{53 \text{ lbs.}}$

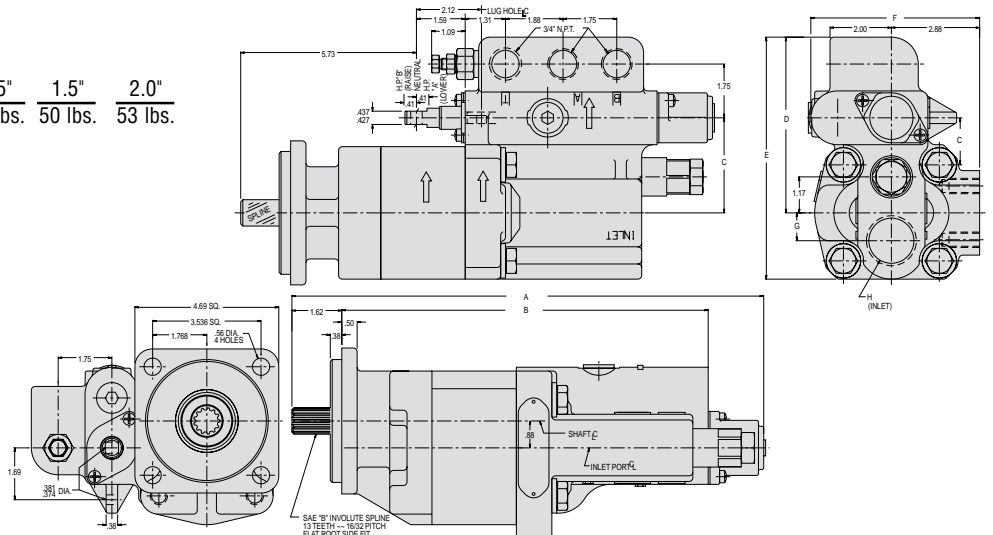
A	12.62 + GW
B	8.81 + GW
C	3.09
D	5.72
E	7.88
F	5.50
G	.91
H	1 ¼" N.P.T.



G105

Gear Width $\frac{.75"}{.75"} \quad \frac{1.5"}{1.5"} \quad \frac{2.0"}{2.0"}$
Gear Weight $\frac{46 \text{ lbs.}}{46 \text{ lbs.}} \quad \frac{50 \text{ lbs.}}{50 \text{ lbs.}} \quad \frac{53 \text{ lbs.}}{53 \text{ lbs.}}$

A	13.44 + GW
B	9.94 + GW
C	3.09
D	5.72
E	7.88
F	5.50
G	.91
H	1 ¼" N.P.T.



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1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from date of shipment from Parker Hannifin Corporation. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED. NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGNS OR SPECIFICATIONS.**

5. Limitation Of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. Patents, U.S. Trademarks, copyrights, trade dress and trade secrets (hereinafter 'Intellectual Property Rights'). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter 'Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues. 9/91P



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Parker Hannifin Corporation

About Parker Hannifin Corporation

Parker Hannifin is a leading global motion-control company dedicated to delivering premier customer service. A Fortune 500 corporation listed on the New York Stock Exchange (PH), our components and systems comprise over 1,400 product lines that control motion in some 1,000 industrial and aerospace markets. Parker is the only manufacturer to offer its customers a choice of hydraulic, pneumatic, and electromechanical motion-control solutions. Our Company has the largest distribution network in its field, with over 7,500 distributors serving more than 350,000 customers worldwide.

Parker's Charter

To be a leading worldwide manufacturer of components and systems for the builders and users of durable goods. More specifically, we will design, market and manufacture products controlling motion, flow and pressure. We will achieve profitable growth through premier customer service.

Product Information

North American customers seeking product information, the location of a nearby distributor, or repair services will receive prompt attention by calling the Parker Product Information Center at our toll-free number: 1-800-C-PARKER (1-800-272-7537). In the UK, a similar service is available by calling 0500-103-203.

The Aerospace Group

is a leader in the development, design, manufacture and servicing of control systems and components for aerospace and related high-technology markets, while achieving growth through premier customer service.



The Climate & Industrial Controls Group

designs, manufactures and markets system-control and fluid-handling components and systems to refrigeration, air-conditioning and industrial customers worldwide.



The Fluid Connectors Group

designs, manufactures and markets rigid and flexible connectors, and associated products used in pneumatic and fluid systems.



The Seal Group designs, manufactures and distributes industrial and commercial sealing devices and related products by providing superior quality and total customer satisfaction.



The Hydraulics Group

designs, produces and markets a full spectrum of hydraulic components and systems to builders and users of industrial and mobile machinery and equipment.



The Filtration Group

designs, manufactures and markets quality filtration and clarification products, providing customers with the best value, quality, technical support, and global availability.



The Automation Group

is a leading supplier of pneumatic and electro-mechanical components and systems to automation customers worldwide.



The Instrumentation Group

is a global leader in the design, manufacture and distribution of high-quality critical flow components for worldwide process instrumentation, ultra-high-purity, medical and analytical applications.





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