C101™/ C102™ Series
G101™/ G102™ Series
Combination Pump/Valves
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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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) can be mounted to remote PTO's operating in either direction of rotation. Single shaft units (C102/G102) mount directly to the vehicle drive train. All can be connected in two- or three-line circuits to control single-acting cylinders.

All units are supplied with factory-set 2000 psi relief valves.
C101™/C102™ Series, G101™/G102™ Series
Combination Pump Valves

Coding: C101/C102 Series

Example:

- **Mounting**
  - 1: Remote Mount
  - 2: Direct Mount

- **Displacements**
  - Gear Width: 20 in.
  - Gear Width: 25 in.

- **Rotation C102 Direct Mount Only**
  - Blank: Clockwise
  - 1: Counter Clockwise

- **Rotation G102 Only**
  - R: Clockwise
  - L: Counter Clockwise

- **Spool Options**
  - 1: Detent
  - 2: Spring Return

- **Mounting Flange G102 Only**
  - 2S: SAE 2 Bolt B
  - CS: Cloverleaf Mount
  - 4S: SAE 4 Bolt B

Coding: G101/G102 Series

Example:

- **Mounting**
  - 1: Remote Mount
  - 2: Direct Mount

- **Displacements**
  - Gear Width: 0.7 in.
  - Gear Width: 1.5 in.
  - Gear Width: 2.0 in.

- **Rotation G102 Only**
  - R: Clockwise
  - L: Counter Clockwise

- **Mounting Bracket Part Numbers**
  - C101: Mounting Bracket 314-0100-005
  - C102: Support Bracket 391-1832-323
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

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASK-6</td>
<td>10 Digit Part No.</td>
</tr>
<tr>
<td>314-9414-006</td>
<td>ASK-6 without Toggle with Air Hose, Fittings</td>
</tr>
<tr>
<td>ASK-13</td>
<td>10 Digit Part No.</td>
</tr>
<tr>
<td>314-9414-013</td>
<td>ASK-13 with Air Metering Controller</td>
</tr>
<tr>
<td>ASK-17</td>
<td>10 Digit Part No.</td>
</tr>
<tr>
<td>314-9414-017</td>
<td>ASK-17 without Air Hose, Fittings</td>
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</table>

G101/G102 AIR SHIFT KITS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ASK-16</td>
<td>10 Digit Part No.</td>
</tr>
<tr>
<td>308-9414-016</td>
<td>ASK-16 without Toggle with Air Hose, Fittings</td>
</tr>
<tr>
<td>ASK-20</td>
<td>10 Digit Part No.</td>
</tr>
<tr>
<td>308-9414-020</td>
<td>ASK-20 with Air Metering Controller</td>
</tr>
</tbody>
</table>

C101 Air-Shift Installation

Standard C101
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.

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

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.

Model Features

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Maximum Speed</th>
<th>Available Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>G101</td>
<td>2400 rpm</td>
<td>A,B,D,E</td>
</tr>
<tr>
<td>G102</td>
<td>2400 rpm</td>
<td>A,B,C,F</td>
</tr>
<tr>
<td>C101</td>
<td>2400 rpm</td>
<td>A,B,D,E</td>
</tr>
<tr>
<td>C102</td>
<td>2400 rpm</td>
<td>A,B,C,F</td>
</tr>
</tbody>
</table>

* All C102/G102 units can be ordered for either direction of rotation from the factory; all C101/G101 units can be field set for either direction of rotation.
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.
C101™/C102™ Series, G101™/G102™ Series
Combination Pump Valves

Dimensions G101/G102

G101

G102 (CW Rotation Shown)

G101 Dimensions

<table>
<thead>
<tr>
<th>Gear</th>
<th>.75&quot;</th>
<th>1.50&quot;</th>
<th>2.00&quot;</th>
</tr>
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<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>11.94</td>
<td>12.69</td>
<td>13.19</td>
</tr>
<tr>
<td>&quot;B&quot;</td>
<td>6.19</td>
<td>6.94</td>
<td>7.44</td>
</tr>
<tr>
<td>&quot;C&quot;</td>
<td>1.50</td>
<td>2.25</td>
<td>2.75</td>
</tr>
<tr>
<td>&quot;D&quot;</td>
<td>1.02</td>
<td>.27</td>
<td>-.23</td>
</tr>
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</table>

Wt (lbs) 33 36 38

G102 Dimensions

<table>
<thead>
<tr>
<th>Gear</th>
<th>.75&quot;</th>
<th>1.50&quot;</th>
<th>2.00&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>11.25</td>
<td>12.00</td>
<td>12.50</td>
</tr>
<tr>
<td>&quot;B&quot;</td>
<td>8.50</td>
<td>9.25</td>
<td>9.75</td>
</tr>
<tr>
<td>&quot;C&quot;</td>
<td>6.30</td>
<td>7.00</td>
<td>7.50</td>
</tr>
<tr>
<td>&quot;D&quot;</td>
<td>1.50</td>
<td>2.25</td>
<td>2.75</td>
</tr>
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</table>

Wt (lbs) 37 40 42
Catalog HY09-0101/US

Dimensions C101/C102

Combination Pump Valves

C101

<table>
<thead>
<tr>
<th>Gear</th>
<th>2.00&quot;</th>
<th>2.50&quot;</th>
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</thead>
<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>15.13</td>
<td>16.13</td>
</tr>
<tr>
<td>&quot;B&quot;</td>
<td>9.16</td>
<td>9.66</td>
</tr>
<tr>
<td>&quot;C&quot;</td>
<td>2.75</td>
<td>3.25</td>
</tr>
<tr>
<td>&quot;D&quot;</td>
<td>0.75</td>
<td>1.25</td>
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Wt (lbs) | 64    | 67    |

#21 P&W KEY
(.25Wx.38Hx.125L)

MOUNTING SCREW
5/8-11 UNC THD
FOUR PLACES

C101™ /C102™ Series, G101™ /G102™ Series

C102 (CCW Rotation Shown)

<table>
<thead>
<tr>
<th>Gear</th>
<th>2.00&quot;</th>
<th>2.50&quot;</th>
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<tbody>
<tr>
<td>&quot;A&quot;</td>
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<td>15.0</td>
</tr>
<tr>
<td>&quot;B&quot;</td>
<td>11.09</td>
<td>11.59</td>
</tr>
<tr>
<td>&quot;C&quot;</td>
<td>8.08</td>
<td>8.58</td>
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<tr>
<td>&quot;D&quot;</td>
<td>2.75</td>
<td>3.25</td>
</tr>
<tr>
<td>&quot;E&quot;</td>
<td>2.69</td>
<td>3.19</td>
</tr>
</tbody>
</table>

Wt. (lbs) | 67    | 70    |

S A E "B" INVOLUTE SPLINE
13 TEETH - 16/32 PITCH
FLAT ROOT SIDE FIT

Parker Hannifin Corporation
Gear Pump Division
Youngstown, Ohio USA
The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer (“Buyer”) shall be governed by all of the following Terms and Conditions. Buyer’s order for any such item communicated to Parker Hannifin Corporation, its subsidiary or an authorized distributor (“Seller”) verbally or in writing, shall constitute acceptance of this offer.

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, different from, 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. If payment is not made within 30 days of the date of delivery, Seller may impose a finance charge of one and one-half percent (1.5%) per month on any such delinquent amount until paid. Unless otherwise agreed, interest in apparatus belonging to Seller which is utilized in the manufacture of items sold pursuant to this contract. Such tooling, including without limitation, dies, fixtures, molds and patterns, shall constitute the entire agreement 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.

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 the date of shipment from Parker Hannifin Corporation. This WARRANTY COMPRESSES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREBUNDER. SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, 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. WITHSTANDING 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, SPECIAL DAMAGES OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREBUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, DEFECT, OR INFRINGEMENT INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to make 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 charges by Buyer. In the event 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. Buyer’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. 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 such items delivered hereunder for which the designs are specified in whole or in 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.

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: The terms and conditions set forth herein, together with any amendments, modifications and any different 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 other item 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.

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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.
Sales Offices Worldwide

**North America**
Gear Pump Division Headquarters  
101 Canterbury Road  
Kings Mountain, NC  28086  
phone 704 730 2000  
fax 704 730 5832  
toll free 888 700  7411

Gear Pump Division Facility  
2701 Intertech Drive  
Youngstown, OH  44509  
phone 330 270 6000  
fax 330 270 6185  
toll free 888 700  7511