



## Truck Hydraulics

Series GPA, GP1, F1, T1, F2, F3, VP1,  
Fixed and Variable Displacement Pumps,  
Motors and Accessories



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**Change History for edition 01.2017**

Pages 9, 42-46: New F3 pump incorporated.  
 Page 52: Ordering no. for Black Painted VP1 pumps  
 Pages 59-64: BPV for F1, T1 and for F2 changed. New design of Manual override.  
 Pages 49 and 52: Centre of gravity changed, VP1.  
 Pages 17, 19-21: New GP1-pump. Page 76: New pump pictures for GPA and GP1  
 Pages 51, 52 and 67: LS-control with alternative drain port T.  
 Pages 23 and 40: Mass moment of inertia  
 Pages 59 and 61: BPV-F1 and BPV-F2

On our website, [www.parker.com/pmde](http://www.parker.com/pmde),  
 you can find:  
 2D & 3D drawings,  
 Installation Manuals,  
 Service Manuals,  
 Spare Parts Lists

**Conversion factors**

|  |                 |
|--|-----------------|
| 1 kg.....                                | 2.20 lb         |
| 1 N.....                                 | 0.225 lbf       |
| 1 Nm.....                                | 0.738 lbf ft    |
| 1 bar.....                               | 14.5 psi        |
| 1 l.....                                 | 0.264 US gallon |
| 1 cm <sup>3</sup> .....                  | 0.061 cu in     |
| 1 mm.....                                | 0.039 in        |
| <sup>9</sup> / <sub>5</sub> °C + 32..... | 1°F             |
| 1 kW.....                                | 1.34 hp         |



**WARNING – USER RESPONSIBILITY**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS 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 or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

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Please contact your Parker representation for a detailed "Offer of Sale".

# F1 Motor



5  
6

| Contents                        | Page | Chapter |
|---------------------------------|------|---------|
| Pump and Line selection .....   | 12   | 2       |
| Specifications .....            | 38   |         |
| Ordering code.....              | 38   |         |
| Installation .....              | 38   |         |
| Port size.....                  | 38   |         |
| Standard versions.....          | 38   |         |
| Suction fittings .....          | 56   | 11      |
| Installation and start up ..... | 75   | 14      |

### Specifications

| Motor frame size F1-                       | 25-M  | 41-M  | 51-M  | 61-M  | 81-M  | 101-M | 121-M |
|--|-------|-------|-------|-------|-------|-------|-------|
| <b>Displacement</b> [cm <sup>3</sup> /rev] | 25.6  | 40.9  | 51.1  | 59.5  | 81.6  | 102.9 | 118,5 |
| <b>Max operating pressure</b> [bar]        |       |       |       |       |       |       |       |
| continuous                                 | 250   | 250   | 250   | 250   | 250   | 250   | 250   |
| intermittent                               | 350   | 350   | 350   | 350   | 350   | 350   | 350   |
| <b>Max Shaft speed</b> [rpm]               |       |       |       |       |       |       |       |
| - continuous                               | 2 300 | 2 000 | 1 800 | 1 700 | 1 500 | 1 400 | 1300  |
| - intermittent                             | 3 000 | 2 700 | 2 400 | 2 200 | 2 000 | 1 800 | 1700  |
| <b>Torque</b> (theor.) [Nm]                |       |       |       |       |       |       |       |
| at 200 bar                                 | 81    | 130   | 162   | 189   | 259   | 327   | 376   |
| at 350 bar                                 | 142   | 227   | 284   | 331   | 453   | 572   | 658   |
| <b>Max output power</b> [kW]               |       |       |       |       |       |       |       |
| - continuous                               | 20    | 27    | 31    | 34    | 41    | 48    | 51    |
| - intermittent                             | 26    | 37    | 41    | 44    | 54    | 62    | 67    |
| <b>Weight</b> [kg]                         | 8.5   | 8.5   | 8.5   | 8.5   | 12.5  | 12.5  | 12.5  |

### Ordering code

Example: **F1 - 81 - M**  
 F1 Motor frame size ———  
 25, 41, 51, 61, 81, 101 or 121

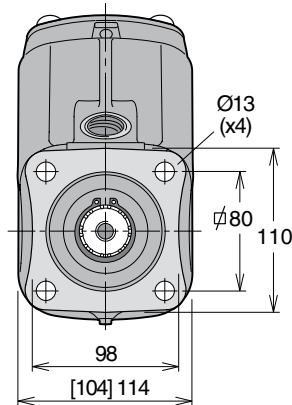
### Port size

| F1 motor frame size | Port size  |
|---------------------|------------|
| F1-25/41/51/61      | 3/4"<br>1" |
| -81/101/121         | 1"         |

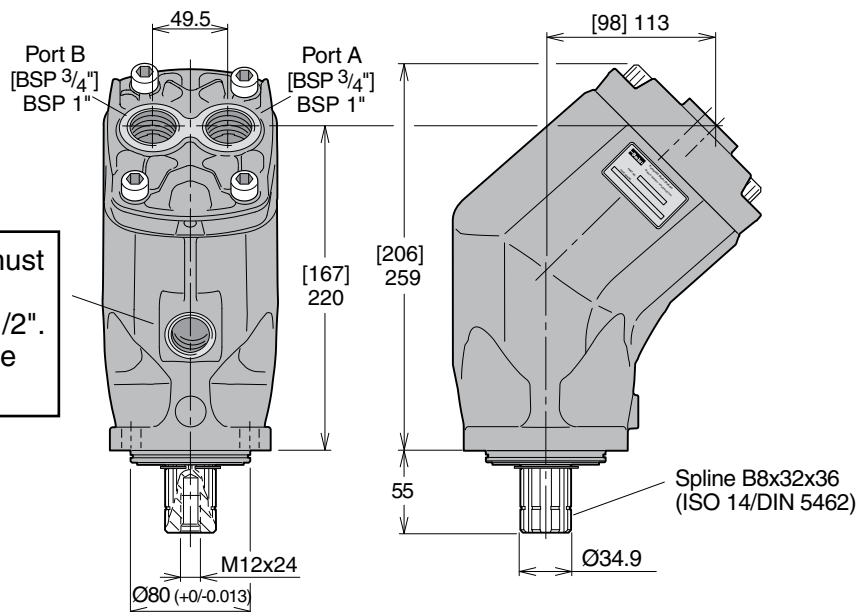
### Standard versions

| Designation | Ordering no. |
|-------------|--------------|
| F1-25-M     | 378 1724     |
| F1-41-M     | 378 1740     |
| F1-51-M     | 378 1750     |
| F1-61-M     | 378 1760     |
| F1-81-M     | 378 1780     |
| F1-101-M    | 378 1800     |
| F1-121-M    | 378 4120     |

### Installation dimensions



**NOTE:** - Dimensions, in mm, are valid for all frame sizes, except those in brackets [ ] which are valid for F1-25/-41/-51/-61-M only.



Note ! Drain line must be mounted.  
 Connection BSP 1/2".  
 Maximum drain line pressure is 3 bar

Spline B8x32x36  
 (ISO 14/DIN 5462)