

## Bushing Pumps, Motors and Flow Dividers

- Single or multiple units available.
- Displacement 10 cc/rev to 40 cc/rev.
- Minimum operating speed 600 rpm.
- Maximum operating speed 3000 rpm.
- Maximum continuous operating pressure 4500 psi (310 bar).<sup>\*1</sup>
- Cast iron construction.
- Compatible with mineral oil, water glycol, invert emulsion and fire resistant fluid.
- Also available as a clutch pump.

### Mounting Flange Options:

SAE 'A' 2 bolt, SAE 'B' 2 bolt, European 4 bolt Group II.<sup>\*2</sup>

Also available as a clutch pump.

### Drive Shaft Options:

SAE 'A' 9 tooth, SAE 'B' 13 tooth, SAE 'A' keyed, SAE 'B' keyed, 1:8 taper, European Group II.<sup>\*2</sup>

### Various Porting Options:

BSP, SAE, NPT, JIC (ODT).

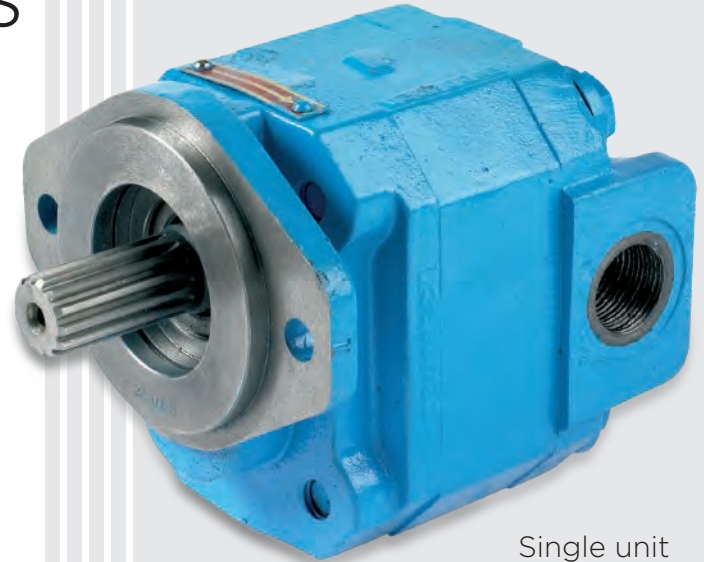
<sup>\*1</sup> Only available in 10cc, 15cc and 20cc pumps (424 series)

<sup>\*2</sup> Only available for 10cc, 15cc, 20cc and 25cc pumps and motors

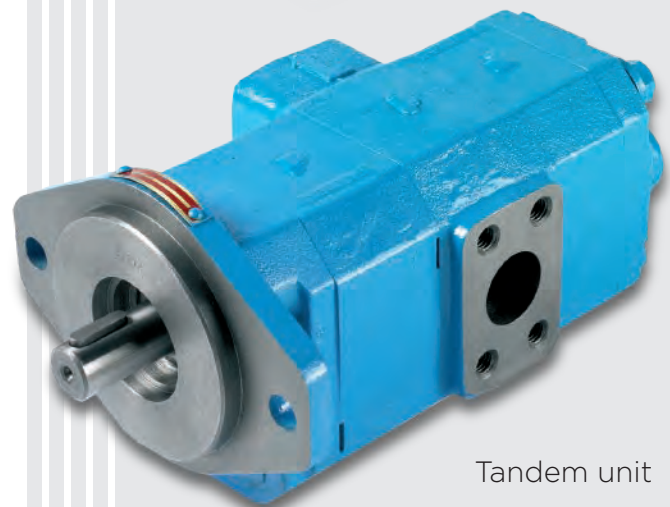
Performance and Dimensions overleaf



Please discuss your application with our sales engineers



Single unit



Tandem unit

### Recommended Operating Conditions:

Fluid viscosity, normal operating conditions  
9 to 220 cst.

Fluid temperature should not exceed 82° C  
for mineral oil or 57° C for water glycol.

Recommended system oil cleanliness should  
be equal to or better than ISO4406 19/17/14.

Inlet pressure; for best operation with  
mineral oil, pressure should not exceed minus  
0.237 bar (7 in HG) or with water glycol,  
minus 0.101 bar (3 in HG).

# Series 124/424 Pumps, Motors and Flow Dividers

## PERFORMANCE DATA

### Pump Performance

| Output- L/min/igpm - Input-Kw/Horsepower |                      | Input Speed - rpm     |   |          |         |           |          |           |         |
|--|----------------------|-----------------------|---|----------|---------|-----------|----------|-----------|---------|
|  |                      | 1000                  |   | 1500     |         | 1800      |          |           |         |
| Gear widths - code                       | Gear widths - inches | Displacement - cc/rev | Maximum continuous working pressure-bar/psi | Output   | Input   | Output    | Input    | Output    | Input   |
|  |                      |                       |   | 05       | 1/2     | 10        | 241/3500 | 9 / 1.9   | 4 / 6   |
| 07                                       | 3/4                  | 15                    | 241/3500                                    | 13 / 2.9 | 7 / 9   | 21 / 4.6  | 10 / 13  | 26 / 5.7  | 12 / 16 |
| 10                                       | 1                    | 20                    | 241/3500                                    | 19 / 4.1 | 9 / 12  | 29 / 6.4  | 13 / 18  | 35 / 7.7  | 16 / 21 |
| 12                                       | 1.1/4                | 25                    | 241/3500                                    | 23 / 5.1 | 11 / 15 | 36 / 7.9  | 16 / 21  | 44 / 9.7  | 20 / 27 |
| 15                                       | 1.1/2                | 30                    | 228/3300                                    | 29 / 6.3 | 13 / 17 | 44 / 9.7  | 19 / 25  | 53 / 11.7 | 22 / 30 |
| 17                                       | 1.3/4                | 35                    | 200/2900                                    | 33 / 7.3 | 13 / 17 | 51 / 11.2 | 19 / 25  | 62 / 13.7 | 23 / 31 |
| 20                                       | 2                    | 40                    | 172/2500                                    | 38 / 8.3 | 13 / 17 | 58 / 12.8 | 19 / 25  | 70 / 15.4 | 23 / 31 |

- Flows quoted are at test pressure equivalent to the maximum continuous working pressure, using 32cSt oil at 65° C.
- When using water based fluids, the maximum continuous working pressure is reduced. Please consult sales department.
- Performance data is derived from tests conducted to simulate working conditions. Continuous operation at maximum performance may compromise unit life.

### Motor Performance

|                    |       |                    | Output Speed - rpm |             |             |             |             |
|--------------------|-------|--------------------|--------------------|-------------|-------------|-------------|-------------|
|                    |       |                    | 900                | 1200        | 1500        | 1800        |             |
| Gear widths - code | 10    | 1                  | Output Kw / hp     | 7.1 / 9.5   | 9.5 / 12.7  | 11.8 / 15.7 | 14.0 / 18.8 |
|                    |       |                    | Output Nm / in.lb  | 75.1 / 665  | 75.1 / 665  | 74.6 / 660  | 74.0 / 655  |
|                    |       |                    | Input l.min / igpm | 27.0 / 6.0  | 33.0 / 7.0  | 40.0 / 9.0  | 46.0 / 10.0 |
|                    |       |                    | Output Kw / hp     | 9.0 / 11.9  | 11.9 / 15.8 | 14.7 / 19.6 | 17.6 / 23.4 |
|                    |       |                    | Output Nm / in.lb  | 93.8 / 830  | 93.8 / 830  | 93.2 / 825  | 92.6 / 820  |
|                    |       |                    | Input l.min / igpm | 32.0 / 7.0  | 40.0 / 9.0  | 48.0 / 10.5 | 56.0 / 12.5 |
|                    | 12    | 1.1/4              | Output Kw / hp     | 10.0 / 13.4 | 13.4 / 17.9 | 16.7 / 22.3 | 20.0 / 26.6 |
|                    |       |                    | Output Nm / in.lb  | 106.2 / 940 | 106.2 / 940 | 105.6 / 935 | 105.1 / 930 |
|                    |       |                    | Input l.min / igpm | 37.0 / 8.0  | 46.0 / 10.0 | 56.0 / 12.5 | 65.0 / 14.5 |
|                    |       |                    | Output Kw / hp     | 10.3 / 13.8 | 13.8 / 18.4 | 17.0 / 22.7 | 20.3 / 27.1 |
|                    |       |                    | Output Nm / in.lb  | 109.0 / 965 | 109.0 / 965 | 107.9 / 955 | 107.3 / 950 |
|                    |       |                    | Input l.min / igpm | 41.0 / 9.0  | 52.0 / 11.5 | 63.0 / 14.0 | 74.0 / 16.5 |
| 15                 | 1.1/2 | Output Kw / hp     | 10.2 / 13.6        | 13.6 / 18.1 | 16.9 / 22.5 | 20.1 / 26.8 |             |
|                    |       | Output Nm / in.lb  | 107.3 / 950        | 107.3 / 950 | 106.8 / 945 | 106.2 / 940 |             |
|                    |       | Input l.min / igpm | 46.0 / 10.0        | 59.0 / 13.0 | 71.0 / 16.0 | 84.0 / 18.5 |             |
|                    |       | Output Kw / hp     | 10.2 / 13.6        | 13.6 / 18.1 | 16.9 / 22.5 | 20.1 / 26.8 |             |
|                    |       | Output Nm / in.lb  | 107.3 / 950        | 107.3 / 950 | 106.8 / 945 | 106.2 / 940 |             |
|                    |       | Input l.min / igpm | 46.0 / 10.0        | 59.0 / 13.0 | 71.0 / 16.0 | 84.0 / 18.5 |             |

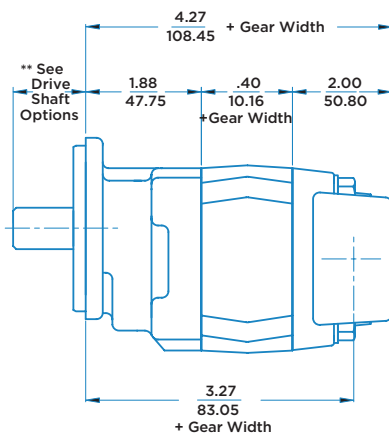
\* These gear widths are the popular sizes for motor configurations but any of the gear widths listed in the Pump Performance table can be supplied.

### Weights (approximate)

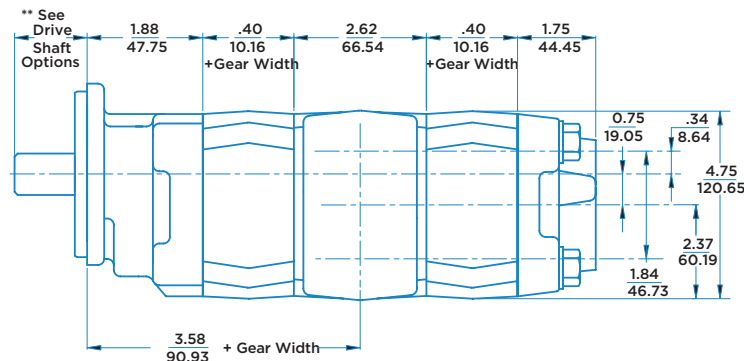
| Gear widths (ins) | 1/2 | 3/4 | 1   | 1.1/4 | 1.1/2 | 1.3/4 | 2    |
|-------------------|-----|-----|-----|-------|-------|-------|------|
| Single unit (kg)  | 7.5 | 8.0 | 8.5 | 9.0   | 9.5   | 10.0  | 10.5 |

For multiple unit weights, please consult our sales department

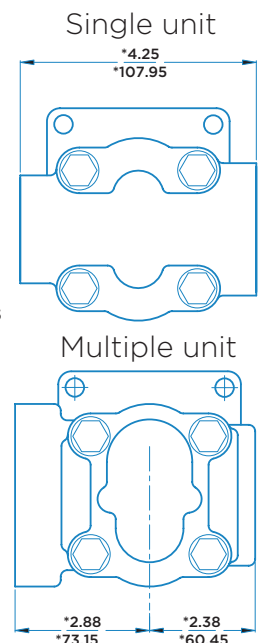
### Dimensions



Single unit



Tandem unit



\* Standard port arrangement, dimension will change with the type of port  
 \*\* Dimensional information for mounting flange and shaft options are shown on the attached Data Sheet FS100.



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