

ENGINEERING
TOMORROW



Technical Information

Orbital Motors

Type OMP, OMR and OMH



Revision history*Table of revisions*

| Date | Changed | Rev |
|----------------|--|------------|
| January 2018 | Updated OMH 500 function diagram | 0402 |
| March 2016 | Engineering Tomorrow | 0401 |
| August 2015 | Dimensions updated | 0400 |
| November 2014 | Converted to Danfoss layout - DITA CMS | DA |
| November 2012 | Planetary Gears deleted | CF |
| September 2011 | Typo | CE |
| September 2010 | New back cover | CD |
| March 2010 | Japan location | CC |
| June 2007 | Major revision with new lit-number (minus OMEW, will be prepared separately) | CA |
| March 2006 | Small updates | B |

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A wide range of Orbital Motors

Orbital Motors Introduction

Danfoss is a world leader within production of low speed orbital motors with high torque. We can offer more than 3000 different orbital motors, categorized in types, variants and sizes (including different shaft versions).

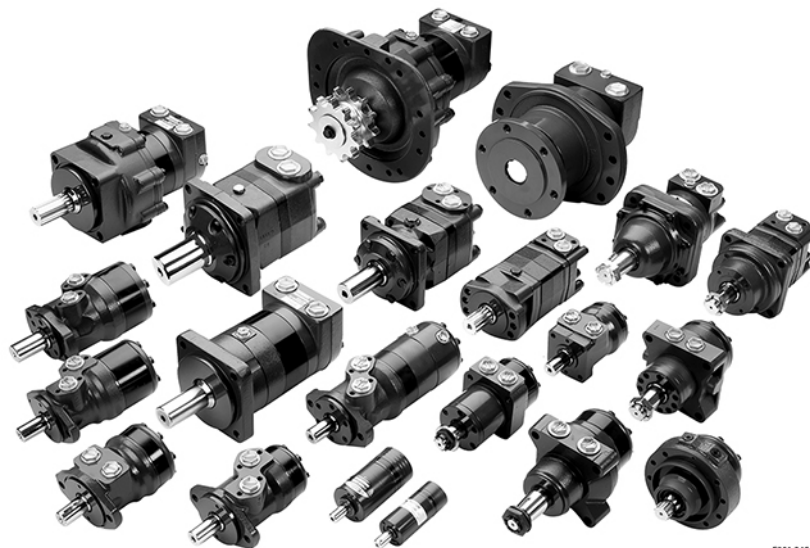
The motors size vary (rated displacement) from 8 to 800 cm³ [0.50 to 48.9 in³] per revolution.

- Small sized motors:
 - OML and OMM
- Medium sized motors:
 - OMP, OMR and OMH
 - OMP X and OMR X
 - DH and DS
 - OMEW
- Large sized motors:
 - OMS, OMT and OMV
 - TMK
 - TMT
 - TMTHW
 - TMVW

Speeds range up to approximate 2500 min⁻¹ (rpm) for the smallest type and up to approximate 600 min⁻¹ (rpm) for the largest type.

Maximum operating torques vary from 13 to 4000 N·m [115 to 35 400 lb·in] (peak) and maximum outputs are from 2.0 to 95 kW [2.7 to 128 hp].

Wide range of Danfoss orbital motors



F301 245

Orbital Motors Features

- Smooth running over the entire speed range
- Constant operating torque over a wide speed range
- High starting torque
- High return pressure without the use of drain line (high pressure shaft seal)
- High efficiency

A wide range of Orbital Motors

- High radial and axial bearing capacity
- Long life under extreme operating conditions
- Robust and compact design
- For applications in both open and closed loop hydraulic systems
- Suitable for a wide variety of hydraulics fluids

Technical Features

The program is characterized by technical features appealing to a large number of applications and by motors that can be adapted to a given application.

Adaptions comprise the following variants:

- Motors with:
 - corrosion resistant parts
 - needle bearing (OMP, OMR)
 - low leakage version or super low leakage version (OMR, OMR X)
 - integrated negative holding brake
 - integrated flushing valve
 - speed sensor
 - tachometer connection
 - black finish paint
- Short motors without bearings or Ultra short motors
- Wheel motors with recessed mounting flange

Orbital Motors Application Areas

The orbital motors are used in the following application areas:

- Construction equipment
- Agricultural equipment
- Material handling & Lifting equipment
- Forestry equipment
- Lawn and turf equipment
- Machine tools and stationary equipment
- Marine equipment
- Special purpose

Orbital Motors Literature Overview

A general catalog of all Orbital Motors with technical data gives a quick motor reference based on: selection of orbital motor, function in hydraulic systems, power, torque, speed and capabilities. More detailed information can be found in an individual motor catalogs.

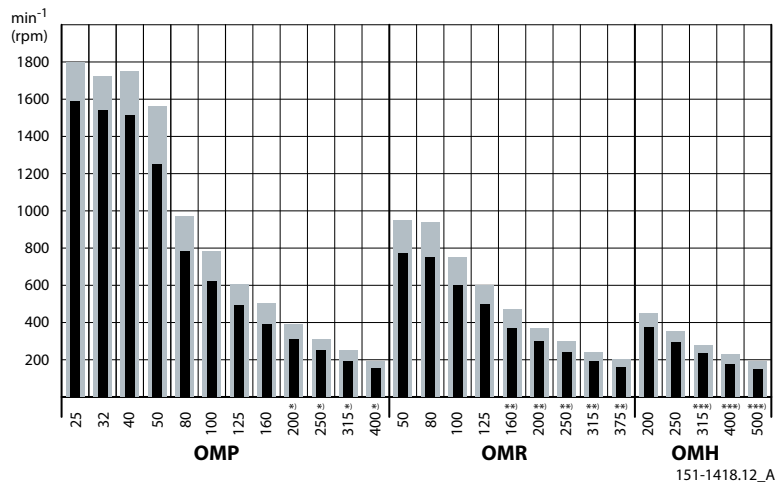
| Literature title | Literature type | Reference number |
|---------------------------------|-----------------------|------------------|
| Orbital Motors in General | Technical Information | BC00000083 |
| OML and OMM Orbital Motors | Technical Information | BC00000087 |
| OMP, OMR and OMH Orbital Motors | Technical Information | BC00000084 |
| OMP X and OMR X Orbital Motors | Technical Information | BC00000388 |
| OMS, OMT and OMV Orbital Motors | Technical Information | BC00000090 |
| DH and DS Orbital Motors | Technical Information | BC00000092 |
| OMEW Orbital Motors | Technical Information | BC00000062 |

A wide range of Orbital Motors

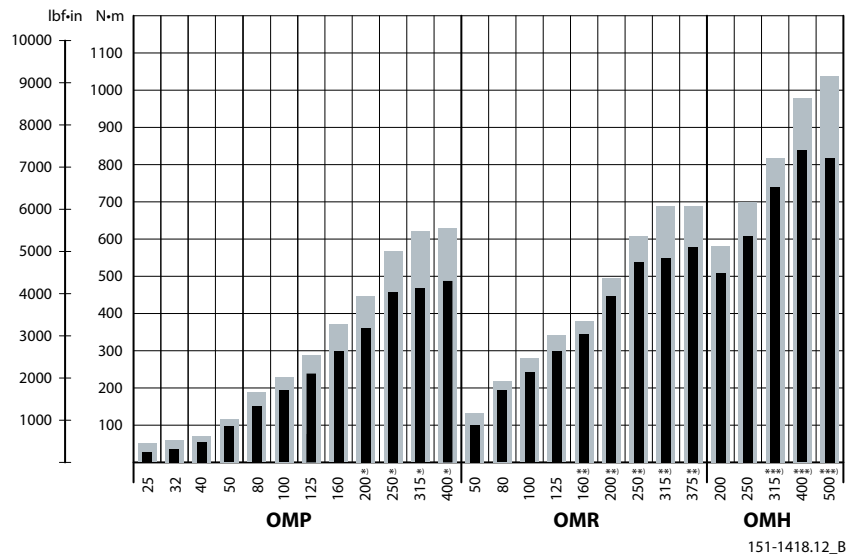
| Literature title | Literature type | Reference number |
|--|-----------------------|------------------|
| TMK, TMKW, TMK FL Orbital Motors | Technical Information | BC0000098 |
| TMT, TMTU, TMTW, TMT FL Orbital Motors | Technical Information | BC00000102 |
| TMTHW Orbital Motors | Technical Information | BC00000230 |

Speed, torque and output

Maximum speed

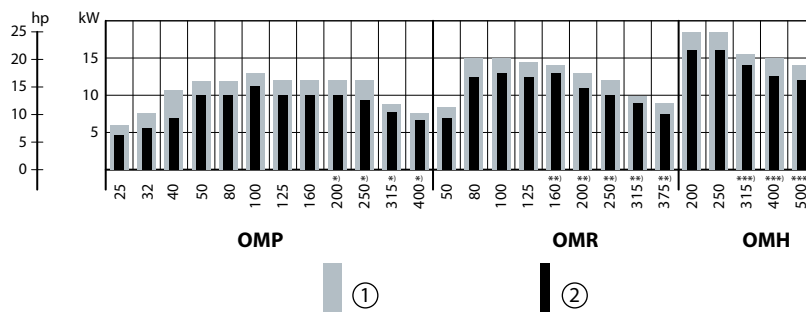


Maximum torque



A wide range of Orbital Motors

Maximum output



151-1418.12_C

- 1. Intermittend values
- 2. Continuous values

- * Cylindrical 32 mm or 1 1/4 in shaft
- ** Cylindrical 32 mm, 35 mm, 1 1/4 in or 1 1/4 in tapered shaft
- *** Cylindrical 35 mm, 1 1/4 in splined or 35 mm tapered shaft

The bar diagrams above are useful for a quick selection of relevant motor size for the application. The final motor size can be determined by using the function diagram for each motor size.

- OMP and OMPW: see [OMP function diagrams](#)
- OMR and OMRW: see [OMR function diagrams](#) on page 58
- OMH: see [OMH function diagrams](#) on page 92

The function diagrams are based on actual tests on a representative number of motors from our production. The diagrams apply to a return pressure between 5 and 10 bar. [75 and 150 psi] when using mineral based hydraulic oil with a viscosity of 35 mm²/s [165 SUS] and a temperature of 50°C [120°F]. For further explanation concerning how to read and use the function diagrams, please consult the paragraph "Selection of motor size" in the technical information *General Orbital Motors 520L0232*.

OMP versions and code numbers

This section shows the different versions/configuration codes and the ordering numbers.

- Section [OMP technical data](#) on page 14, specify the technical data for OMP X for each shaft type.
- In section [OMP function diagrams](#) on page 24, the diagram for each motor size is shown.
- See [OMP dimensions](#) on page 34 for outer main dimensions for the different OMP X motor types.

OMP versions and code numbers
OMP standard motors

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | |
|----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code |
| Cyl. Ø25 mm | G 1/2 | Side port | - | - | Yes | - | OMP | A1 |
| Cyl. Ø25 mm | G 1/2 | Side port | G 1/4 | - | Yes | - | OMP | A2 |
| Cyl. Ø25 mm | G 1/2 | End port | G 1/4 | Yes | - | Yes | OMP | A3 |
| Cyl. 1 in | G 1/2 | Side port | - | - | Yes | - | OMP | A4 |
| Cyl. 1 in | G 1/2 | Side port | G 1/4 | - | Yes | - | OMP | A5 |
| Cyl. 1 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMP | A6 |
| Splined 1 in | G 1/2 | Side port | - | - | Yes | - | OMP | A7 |
| Splined 1 in | G 1/2 | Side port | G 1/4 | - | Yes | - | OMP | A8 |

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| A1 | 151-0340 | 151-0341 | 151-0342 | 151-0310 | 151-0311 | 151-0312 | 151-0313 | 151-0314 | 151-0315 | 151-0316 | 151-0317 | 151-0318 |
| A2 | 151-0640 | 151-0641 | 151-0652 | 151-0610 | 151-0611 | 151-0612 | 151-0613 | 151-0614 | 151-0615 | 151-0616 | 151-0617 | 151-0618 |
| A3 | - | - | - | 151-5191 | 151-5192 | 151-5193 | 151-5194 | 151-5195 | 151-5196 | 151-5197 | 151-5198 | 151-5199 |
| A4 | - | - | 11090903 | 151-0300 | 151-0301 | 151-0302 | 151-0303 | 151-0304 | 151-0305 | 151-0306 | 151-0307 | 151-0308 |
| A5 | - | - | - | 151-0600 | 151-0601 | 151-0602 | 151-0603 | 151-0604 | 151-0605 | 151-0606 | 151-0607 | 151-0608 |
| A6 | 151-7080 | 151-7081 | 151-7082 | 151-7041 | 151-7042 | 151-7043 | 151-7044* | 151-7045 | 151-7046 | - | 151-7048 | 151-7049 |
| A7 | - | - | - | 151-0330 | 151-0331 | 151-0332 | 151-0333 | 151-0334 | 151-0335 | 151-0336 | 151-0337 | 151-0338 |
| A8 | - | - | - | 151-0630 | 151-0631 | 151-0632 | 151-0633 | 151-0634 | 151-0635 | 151-0636 | 151-0637 | 151-0638 |

* Motor painted black

Mounting flange: 4 hole oval flange (A4)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | |
|----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code |
| Cyl. Ø32 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMP | B1 |

OMP versions and code numbers

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----|----|----|-----|----------|----------|----------|----------|----------|----------|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| B1 | - | - | - | - | - | - | 151-5004 | 151-5005 | 151-5006 | 151-5007 | 151-5008 | 151-5009 |

Mounting flange: Square flange (C)

| Spigot diameter | Ø44.4 mm [1.75 in] | | | | | | | | | | | |
|----------------------|--------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|--|--|--|
| Bolt circle diameter | Ø82.5 mm [3.25 in] | | | | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | | | | |
| Cyl. Ø25 mm | G 1/2 | End port | G 1/4 | Yes | - | Yes | OMP | C1 | | | | |
| Cyl. 1 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMP | C2 | | | | |
| Cyl. 1 in | 1/2-14 NPTF | Side port | 7/16-20 UNF | Yes | - | Yes | OMP | C3 | | | | |

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----------|----------|----------|----------|-----|----------|----------|----------|----------|----------|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| C1 | - | - | - | 151-5211 | 151-5212 | - | - | - | 151-5216 | - | - | - |
| C2 | - | - | 11130216 | 151-7061 | 151-7062 | 151-7063 | - | 151-7065 | 151-7066 | 151-7067 | 151-7068 | 151-7069 |
| C3 | - | - | - | - | - | 151-7023 | - | - | 151-7026 | - | 151-7028 | - |

Mounting flange: Wheel

| Spigot diameter | Ø80 mm [3.15 in] | | | | | | | | | | | |
|----------------------|-------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|--|--|--|
| Bolt circle diameter | Ø103 mm [4.06 in] | | | | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | | | | |
| Cyl. Ø25 mm | G 1/2 | Side port | Yes | Yes | - | Yes | OMPW | D1 | | | | |

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| D1 | - | - | 11036135 | 151-7101 | 151-7102 | 151-7103 | 151-7104 | 151-7105 | 151-7106 | 151-7107 | 151-7108 | 151-7109 |

OMP motors with corrosion resistant parts

Mounting flange: 2 hole oval flange (A2)

| Spigot diameter | Ø82.5 mm [3.25 in] | | | | | | | | | | | |
|----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|--|--|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | | | | |
| Cyl. Ø25 mm | G 1/2 | Side port | G1/4 | Yes | - | Yes | OMP C | E1 | | | | |

OMP versions and code numbers

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----|----------|----------|----------|-----|----------|----------|----------|----------|-----|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| E1 | 151-5376 | - | - | 151-1208 | 151-1209 | 151-1210 | - | 151-1211 | 151-1212 | 151-1213 | 151-1214 | - |

OMP motors with needle bearings

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | | | | |
|-----------------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|--|--|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | | | | |
| Cyl. Ø25 mm | G 1/2 | Side port | G1/4 | Yes | - | Yes | OMP N | F1 | | | | |

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----------|----------|----|----------|-----|-----|----------|-----|----------|-----|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| F1 | - | - | 11071283 | 151-5311 | - | 151-5313 | - | - | 151-5316 | - | 151-5318 | - |

OMPW motors with needle bearings

Mounting flange: Wheel

| Spigot diamer | Ø80 mm [3.15 in] | | | | | | | | | | | |
|-----------------------------|-------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|--|--|--|
| Bolt circle diameter | Ø103 mm [4.06 in] | | | | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | | | | |
| Tap. Ø28.5 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMPW N | F2 | | | | |

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| F2 | - | - | 151-5324 | 151-5301 | 151-5302 | 151-5303 | 151-5304 | 151-5305 | 151-5306 | 151-5307 | 151-5308 | 151-5309 |

OMP motors with free running gerotor

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | | | | |
|-----------------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|--|--|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | | | | |
| Cyl. Ø25 mm | G 1/2 | Side port | G1/4 | Yes | - | - | OMP | G1 | | | | |

OMP versions and code numbers

Code numbers

| Conf. code | Displacement | | | | | | | | | | | |
|------------|--------------|----|----|----|----|----------|----------|----------|----------|-----|----------|-----|
| | 25 | 32 | 40 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| G1 | - | - | - | - | - | 151-0622 | 151-0623 | 151-0624 | 151-0625 | - | 151-0627 | - |

Features available (options)

Low leakage (low speed valve)

Speed sensor

Viton shaft seal

Reverse rotation

Painted

OMP technical data

OMP with 25 mm and 1 in cylindrical shaft

OMP 25 cm³ - 100 cm³

| Type | | | OMP | OMP | OMP | OMP | OMP | OMP |
|--|---|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Motor size | | | 25 | 32 | 40 | 50 | 80 | 100 |
| Geometric displacement | cm ³ [inch] | | 25.0 [1.53] | 32.0 [1.96] | 40.0 [2.45] | 48.6 [2.97] | 77.8 [4.76] | 97.3 [5.95] |
| Max. speed | min ⁻¹ [rpm] | cont. | 1600 | 1560 | 1500 | 1230 | 770 | 615 |
| | | int. ¹⁾ | 1800 | 1720 | 1750 | 1540 | 960 | 770 |
| Max. torque | N·m [lbf·in] | cont. | 33 [290] | 43 [380] | 52 [460] | 93 [820] | 150 [1330] | 190 [1680] |
| | | int. ¹⁾ | 47 [420] | 61 [540] | 74 [660] | 120 [1060] | 190 [1680] | 230 [2040] |
| Max. output | kW [hp] | cont. | 4.5 [6.0] | 5.8 [7.8] | 7.0 [9.4] | 10.0 [13.4] | 10.0 [13.4] | 11.0 [14.8] |
| | | int. ¹⁾ | 6.1 [8.2] | 7.8 [10.5] | 10.6 [14.2] | 12.0 [16.1] | 12.0 [16.1] | 13.0 [17.4] |
| Max. pressure drop | bar [psi] | cont. | 100 [1450] | 100 [1450] | 100 [1450] | 140 [2030] | 140 [2030] | 140 [2030] |
| | | int. ¹⁾ | 140 [2030] | 140 [2030] | 140 [2030] | 175 [2540] | 175 [2540] | 175 [2540] |
| | | peak ²⁾ | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] |
| Max. oil flow | l/min [US gal/min] | cont. | 40 [10.6] | 50 [13.2] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] |
| | | int. ¹⁾ | 45 [11.9] | 55 [14.5] | 70 [18.5] | 75 [19.8] | 75 [19.8] | 75 [19.8] |
| Max. starting pressure with unloaded shaft | bar [psi] | standard | 10 [145] | 10 [145] | 10 [145] | 10 [145] | 10 [145] | 10 [145] |
| | | free running gerotor | - | - | - | - | - | 2 [29] |
| Min starting torque | at max. press drop cont. N·m [lbf·in] | | 30 [270] | 40 [350] | 45 [400] | 80 [710] | 135 [1200] | 170 [1510] |
| | at max. press.drop int. ¹⁾ N·m [lbf·in] | | 40 [350] | 55 [490] | 63 [560] | 100 [890] | 170 [1510] | 210 [1860] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data is based on splined 6B shaft.

OMP 125 cm³ - 400 cm³

| Type | | | OMP | OMP | OMP | OMP | OMP | OMP |
|------------------------|----------------------------|--------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| Motor size | | | 125 | 160 | 200 | 250 | 315 | 400 |
| Geometric displacement | cm ³ [inch] | | 125.0 [7.65] | 155.7 [9.53] | 194.6 [11.91] | 242.3 [14.83] | 306.1 [18.73] | 389.2 [23.82] |
| Max. speed | min ⁻¹ [rpm] | cont. | 480 | 385 | 310 | 250 | 195 | 155 |
| | | int. ¹⁾ | 600 | 480 | 385 | 310 | 245 | 190 |

OMP technical data

 OMP 125 cm³ - 400 cm³ (continued)

| Type | | | OMP | OMP | OMP | OMP | OMP | OMP |
|--|--|----------------------|----------------|----------------|----------------|---------------|---------------|---------------|
| Motor size | | | 125 | 160 | 200 | 250 | 315 | 400 |
| Max. torque | N·m [lbf·in] | cont. | 240 [2120] | 300 [2660] | 300 [2660] | 300 [2660] | 300 [2660] | 300 [2660] |
| | | int. | 290 [2570] | 370 [3280] | 380 [3360] | 410 [3630] | 390 [3450] | 420 [3720] |
| Max. output | kW [hp] | cont. | 10 [13.4] | 10 [13.4] | 8.0 [10.7] | 6.0 [8.1] | 5.0 [6.7] | 4.0 [5.4] |
| | | int. | 12.0 [16.1] | 12.0 [16.1] | 11.0 [14.8] | 9.0 [12.1] | 7.0 [9.4] | 6.0 [8.1] |
| Max. pressure drop | bar [psi] | cont. | 140 [2030] | 140 [2030] | 115 [1670] | 90 [1310] | 75 [1090] | 60 [870] |
| | | int | 175 [2540] | 175 [2540] | 150 [2180] | 125 [1810] | 100 [1450] | 80 [1160] |
| | | peak ²⁾ | 225 [3260] | 225 [3260] | 225 [3260] | 180 [2610] | 160 [2320] | 130 [1890] |
| Max. oil flow | l/min [US gal/min] | cont. | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] |
| | | int. | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] |
| Max. starting pressure with unloaded shaft | bar [psi] | standard | 9 [130] | 7 [100] | 5 [75] | 5 [75] | 5 [75] | 5 [75] |
| | | free running gerotor | 2 [29] | 2 [29] | 2 [29] | - | - | - |
| Min starting torque | at max. press drop cont. N·m [lbf·in] | | 210 [1860] | 280 [2480] | 270 [2390] | 280 [2480] | 280 [2480] | 280 [2480] |
| | at max. press.drop int. N·m [lbf·in] | | 270 [2390] | 350 [3100] | 360 [3190] | 390 [3450] | 370 [3280] | 400 [3540] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data is based on splined 6B shaft.

| Type | Max. inlet pressure | Max. return pressure with drain line | | |
|--------------|---------------------|--------------------------------------|------------|------------|
| OMP 25 - 400 | bar [psi] | cont. | 200 [2900] | 200 [2900] |
| | bar [psi] | int. ¹⁾ | 225 [3263] | 225 [3263] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

OMP with 1 in splined and 28.5 mm tapered shaft

| Type | | OMP | OMP | OMP | OMP | OMP | OMP | OMP | OMP | OMP |
|------------------------|----------------------------|--------------------|----------------|----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| Motor size | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| Geometric displacement | cm ³ [inch] | 48.6 [2.97] | 77.8 [4.76] | 97.3 [5.95] | 125.0 [7.65] | 155.7 [9.53] | 194.6 [11.91] | 242.3 [14.83] | 306.1 [18.73] | 389.2 [23.82] |
| Maximum speed | min ⁻¹ [rpm] | cont. | 1230 | 770 | 615 | 480 | 385 | 310 | 250 | 195 |
| | | int. ¹⁾ | 1540 | 960 | 770 | 600 | 480 | 385 | 310 | 245 |

OMP technical data

| Type | | | OMP | OMP | OMP | OMP | OMP | OMP | OMP | OMP | |
|---|---|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| Maximum torque | N·m [lbf·in] | cont. | 93 [820] | 150 [1330] | 190 [1680] | 240 [2120] | 300 [2660] | 360 [3190] | 360 [3190] | 360 [3190] | 360 [3190] |
| | | int. ¹⁾ | 120 [1060] | 190 [1680] | 230 [2040] | 290 [2570] | 370 [3280] | 450 [3980] | 460 [4070] | 470 [4160] | 460 [4070] |
| Maximum output | kW [hp] | cont. | 10.0 [13.4] | 10.0 [13.4] | 11.0 [14.8] | 10.0 [13.4] | 10.0 [13.4] | 10.0 [13.4] | 8.0 [10.7] | 6.0 [8.0] | 5.0 [6.7] |
| | | int. ¹⁾ | 12.0 [16.1] | 12.0 [16.1] | 13 [17.4] | 12.0 [16.1] | 12.0 [16.1] | 12.0 [16.1] | 10.5 [14.1] | 7.5 [10.1] | 6.0 [8.0] |
| Maximum pressure drop | bar [psi] | cont. | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 105 [1520] | 90 [1310] | 70 [1020] |
| | | int. ¹⁾ | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 140 [2030] | 120 [1740] | 90 [1310] |
| | | peak ²⁾ | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 180 [2610] | 160 [2320] | 130 [1890] |
| Maximum oil flow | l/min [US gal/min] | cont. | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] |
| | | int. ¹⁾ | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] |
| Maximum starting pressure with unloaded shaft | bar [psi] | | 10 [145] | 10 [145] | 10 [145] | 9 [130] | 7 [100] | 5 [75] | 5 [75] | 5 [75] | 5 [75] |
| Minimum starting torque | at max. press drop cont. N·m [lbf·in] | | 80 [710] | 135 [1200] | 170 [1510] | 210 [1860] | 280 [2480] | 340 [3010] | 330 [2920] | 340 [3010] | 345 [3050] |
| | at max. press.drop int. ¹⁾ N·m [lbf·in] | | 100 [890] | 170 [1510] | 210 [1860] | 270 [2390] | 350 [3100] | 420 [3720] | 440 [3890] | 450 [3980] | 425 [3760] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

OMP with 32 mm cylindrical shaft

| Type | | | OMP | OMP | OMP | OMP | OMP | OMP | OMP | OMP | |
|------------------------|----------------------------|--------------------|----------------|----------------|----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| Geometric displacement | cm ³ [inch] | | 48.6 [2.97] | 77.8 [4.76] | 97.3 [5.95] | 125.0 [7.65] | 155.7 [9.53] | 194.6 [11.91] | 242.3 [14.83] | 306.1 [18.73] | 389.2 [23.82] |
| Maximum speed | min ⁻¹ [rpm] | cont. | 1230 | 770 | 615 | 480 | 385 | 310 | 250 | 195 | 155 |
| | | int. ¹⁾ | 1540 | 960 | 770 | 600 | 480 | 385 | 310 | 245 | 190 |
| Maximum torque | N·m [lbf·in] | cont. | 93 [820] | 150 [1330] | 190 [1680] | 240 [2120] | 300 [2660] | 360 [3190] | 460 [4070] | 470 [4160] | 490 [4340] |
| | | int. ¹⁾ | 120 [1060] | 190 [1680] | 230 [2040] | 290 [2570] | 370 [3280] | 450 [3980] | 570 [5050] | 620 [5490] | 630 [580] |
| Maximum output | kW [hp] | cont. | 10.0 [13.4] | 10.0 [13.4] | 11.0 [14.8] | 10.0 [13.4] | 10.0 [13.4] | 10.0 [13.4] | 9.5 [12.7] | 7.5 [10.1] | 6.5 [8.7] |
| | | int. ¹⁾ | 12.0 [16.1] | 12.0 [16.1] | 13.0 [17.4] | 12.0 [16.1] | 12.0 [16.1] | 12.0 [16.1] | 12.0 [16.1] | 9.0 [12.1] | 7.5 [10.1] |
| Maximum pressure drop | bar [psi] | cont. | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 120 [1740] | 95 [1380] |
| | | int. ¹⁾ | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 160 [2320] | 125 [1810] |
| | | peak ²⁾ | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 225 [3260] | 180 [2610] |

OMP technical data

| Type | | | OMP | OMP | OMP | OMP | OMP | OMP | OMP | OMP | OMP |
|---|--|---|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 400 |
| Maximum oil flow | l/min [US gal/min] | cont. | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] | 60 [15.9] |
| | | int. ¹⁾ | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] |
| Maximum starting pressure with unloaded shaft | bar [psi] | | 10 [145] | 10 [145] | 10 [145] | 9 [130] | 7 [100] | 5 [75] | 5 [75] | 5 [75] | 5 [75] |
| Minimum starting torque | at max. press drop cont. N•m [lbf•in] | | 80 [710] | 135 [1200] | 170 [1510] | 210 [1860] | 280 [2480] | 340 [3010] | 420 [3720] | 460 [4070] | 460 [4070] |
| | | at max. press.drop int. ¹⁾ N•m [lbf•in] | 100 [890] | 170 [1510] | 210 [1860] | 270 [2390] | 350 [3100] | 420 [3720] | 530 [4690] | 600 [5310] | 600 [5310] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

| Type | | | Max. inlet pressure | Max. return pressure with drain line |
|--------------|-----------|--------------------|---------------------|--------------------------------------|
| OMP 25 - 400 | bar [psi] | cont. | 175 [2540] | 175 [2540] |
| | bar [psi] | int. ¹⁾ | 200 [2900] | 200 [2900] |
| | bar [psi] | peak ²⁾ | 225 [3260] | 225 [3260] |

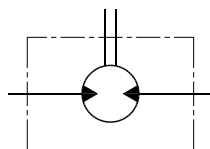
¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Maximum permissible shaft seal pressure
OMP with High Pressure Shaft Seal (HPS)

OMP with HPS and without drain connection:

The shaft seal pressure equals the average of input pressure and return pressure.

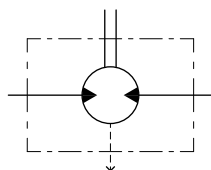


151-1743.10

$$P_{\text{seal}} = \frac{P_{\text{in}} + P_{\text{return}}}{2}$$

OMP with HPS and drain connection:

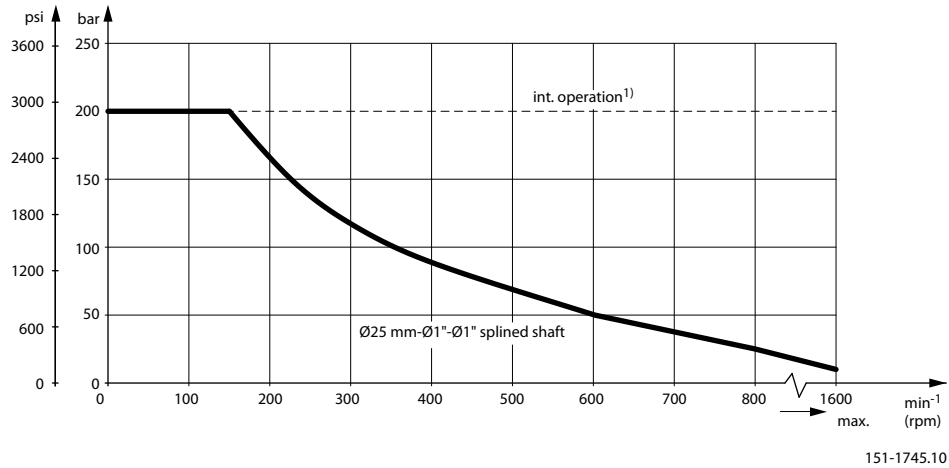
The shaft seal pressure equals the pressure in the drain line.



151-1855.10

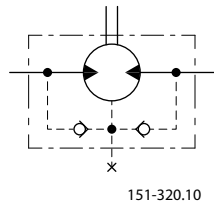
OMP technical data

Maximum permissible shaft seal pressure



OMP with standard shaft seal, check valves and without use of drain connection:

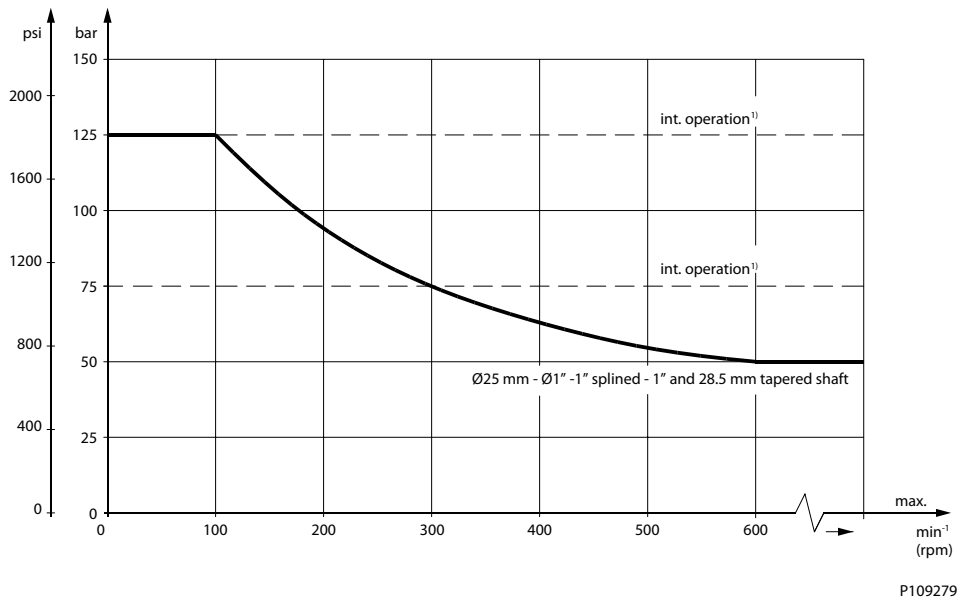
The pressure on the shaft seal never exceeds the pressure in the return line



OMP with standard shaft seal, check valves and with drain connection:

The shaft seal pressure equals the pressure on the drain line.

Maximum return pressure without drain line or max. pressure in the drain line



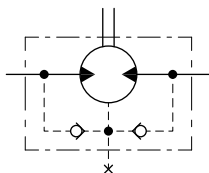
OMP technical data

1. Intermittent operation: the permissible values may occur for max. 10% of every minute.

OMP with Standard Shaft Seal

OMP with standard shaft seal, check valves and without use of drain connection:

The pressure on the shaft seal never exceeds the pressure in the return line

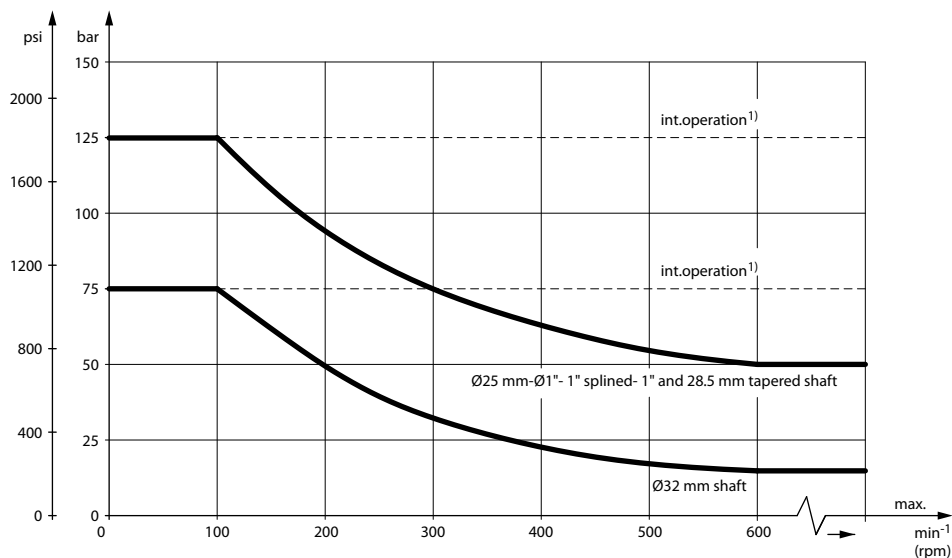


151-320.10

OMP with standard shaft seal, check valves and with drain connection:

The shaft seal pressure equals the pressure on the drain line.

Maximum return pressure without drain line or max. pressure in the drain line



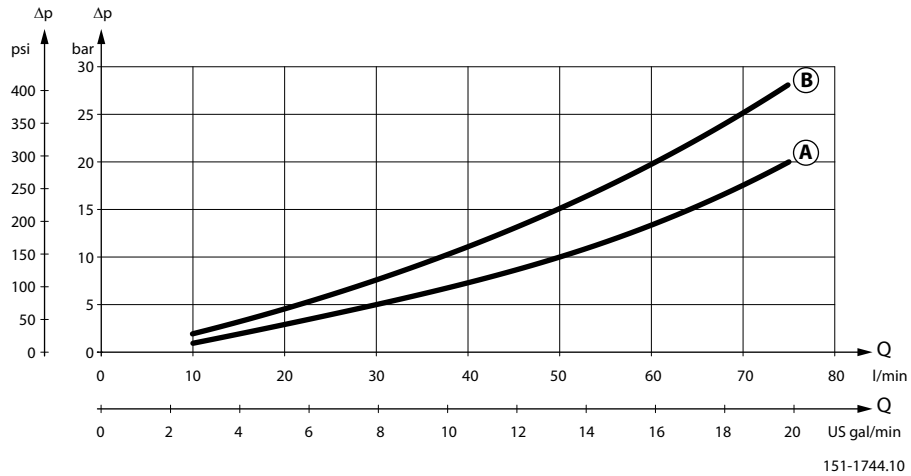
151-1563.10

OMP technical data

1. Intermittent operation: the permissible values may occur for max. 10% of every minute.

Pressure drop in OMP motor

The curve applies to an unloaded motor shaft and an oil viscosity of 35 mm²/s [165 SUS]



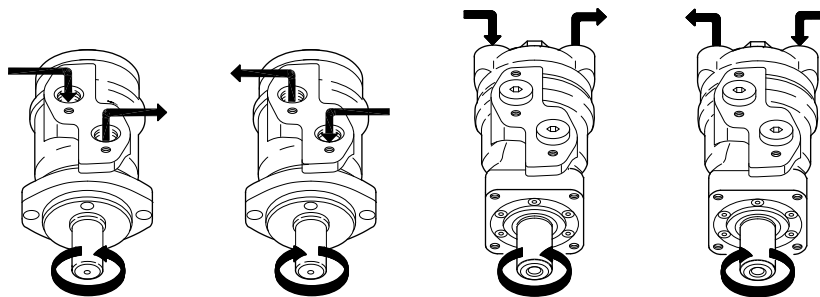
- A:** OMP 50 - 400
- B:** OMP 25 - 40 / OMPW

Oil flow in drain line

Max. oil flow in the drain line at return pressure less 5-10 bar

| Pressure drop | 100 bar [1450 psi] | | 140 bar [2030 psi] | |
|---------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | 20 mm ² /s [100 SUS] | 35 mm ² /s [165 SUS] | 20 mm ² /s [100 SUS] | 35 mm ² /s [165 SUS] |
| Max. oil flow | 2.5 l/min [0.66 US gal/min] | 1.8 l/min [0.78 US gal/min] | 3.5 l/min [0.93 US gal/min] | 2.8 l/min [0.74 US gal/min] |

Direction of shaft rotation: clockwise



151-1836.10

Permissible shaft loads

OMP technical data

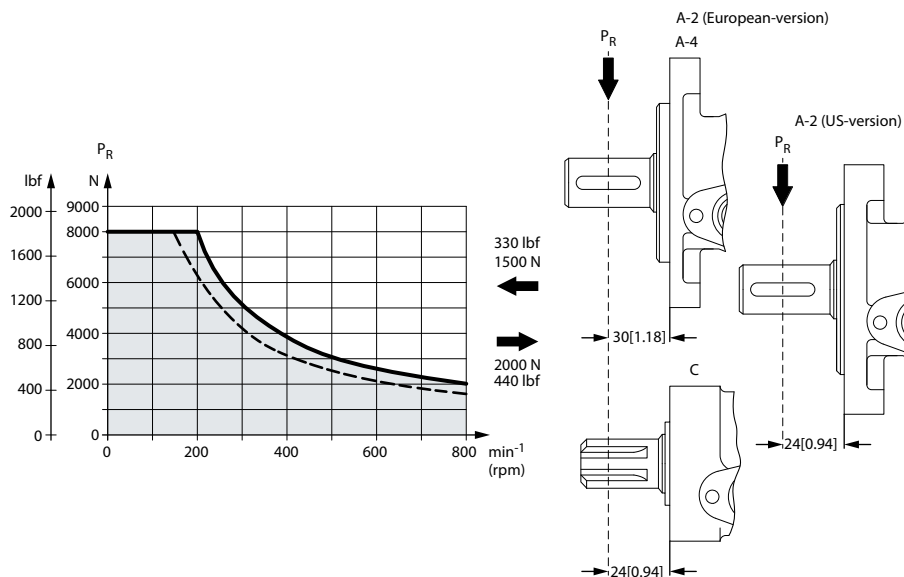
OMP and OMR shaft loads

The permissible radial shaft load (P_R) depends on: a distance from the point of load to the mounting flange (L), speed (n), mounting flange and shaft version.

| Mounting flange | 4-oval flange** 2-hole oval flange (European version) | 4-hole oval flange | Square flange** 2-hole oval flange (US-version) |
|---|---|---|---|
| Shaft version | 25 mm cylindrical shaft 1 in splined shaft | 32 mm cylindrical shaft | 25 mm cylindrical shaft |
| Permissible shaft load (P_R) - l in mm | $\frac{800}{n} \cdot \frac{250000}{95 + L} \text{ N}^*$ | $\frac{800}{n} \cdot \frac{187500}{95 + L} \text{ N}^*$ | $\frac{800}{n} \cdot \frac{250000}{101 + L} \text{ N}^*$ |
| Permissible shaft load (P_R) - l in inch | $\frac{800}{n} \cdot \frac{2215}{3.74 + L} \text{ lbf}^*$ | $\frac{800}{n} \cdot \frac{1660}{3.74 + L} \text{ lbf}^*$ | $\frac{800}{n} \cdot \frac{2215}{3.98 + L} \text{ lbf}^*$ |

** For both European and US-version

* $n \geq 200 \text{ min}^{-1}$ [rpm]; $\leq 55 \text{ mm}$ [2.2 in]. $n < 200 \text{ min}^{-1}$ [rpm]; $= > P_{Rmax} = 8000 \text{ N}$ [1800 lbf]



151-1203.10

----- cylindrical shaft 32 mm [1.26 in]

_____ other shaft versions

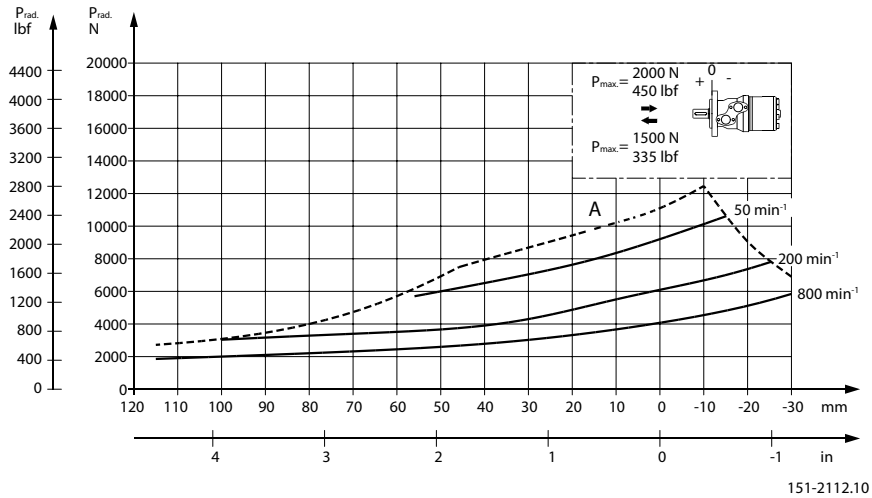
The curve shows the relation between P_R and n :

- when $L = 30 \text{ mm}$ [1.18 in] for motors with A2 (European version) and A4 oval mounting flange
- when $L = 24 \text{ mm}$ [0.94 in] for motors with square mounting flange and A2 (US version)

For applications with special performance requirements we recommend OMP and OMR with the output shaft running in needle bearings.

OMP technical data

OMP N shaft loads



The output shaft on OMP N can be offered in needle bearings. These bearings and the recessed mounting flange allow a higher permissible radial load in comparison to OMP motors.

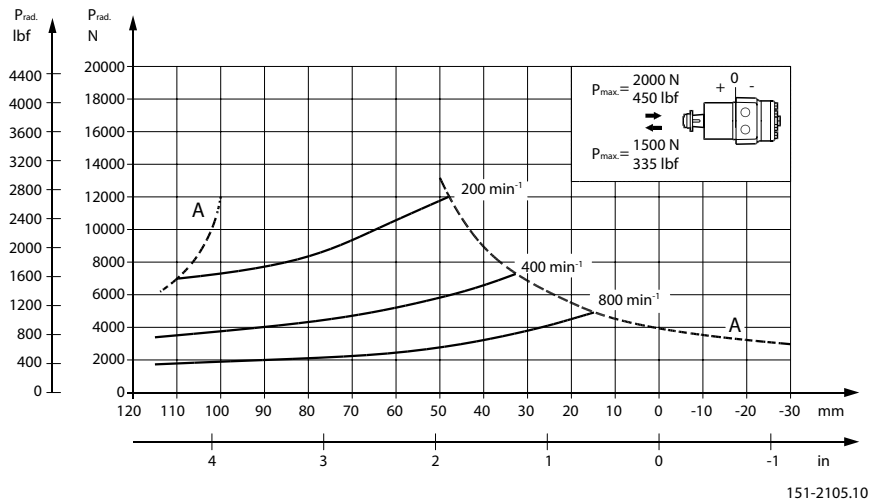
The permissible radial load on the shaft is shown for different speeds as a function of the distance from the mounting flange to the point of load application.

Curve A indicates the max. radial shaft load. Any shaft load exceeding the values quoted in curve A will involve risk of breakage.

The other curves apply to a B₁₀ bearing life of 2000 hours at the number of revolutions indicated by the curve letter. Mineral based hydraulic oil with a sufficient content of anti-wear additives must be used.

Bearing life calculations can be made using the explanation and formula provided in the chapter "Bearing dimensioning" in the technical information *General Orbital Motors*, **BC0000083**.

OMPW with slide bearings shaft loads



The output shaft on OMPW can be offered in slide bearings similar to the other OMP motors. The permissible higher radial load is therefore due to the recessed mounting flange moving the point of load closer to the motor bearings.

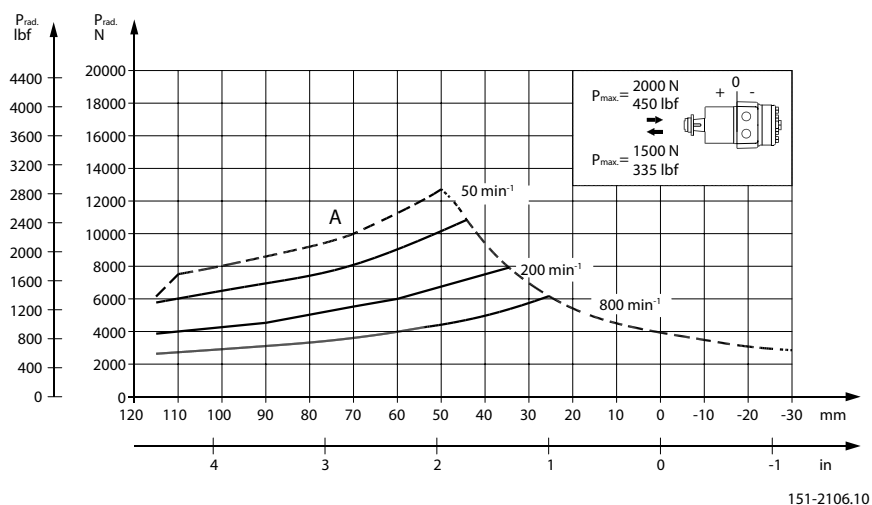
The permissible radial load on the shaft is shown for different speeds as a function of the distance from the mounting flange to the point of load application.

OMP technical data

The curves are not based on calculations of B10 bearing life. They represent absolute limits that must not be exceeded.

Curve A indicates the max. radial shaft load. Any shaft load exceeding the values quoted in curve A will involve risk of breakage.

OMPW N with needle bearing shaft loads



The output shaft on OMPW N can be offered in needle bearings. These bearings and the recessed mounting flange allow a higher permissible radial load in comparison to OMP motors.

The permissible radial load on the shaft is shown for different speeds as a function of the distance from the mounting flange to the point of load application.

Curve A indicates the max. radial shaft load. Any shaft load exceeding the values quoted in curve A will involve risk of breakage.

The other curves apply to a B_{10} bearing life of 2000 hours at the number of revolutions indicated by the curve letter. Mineral based hydraulic oil with a sufficient content of anti-wear additives must be used.

Bearing life calculations can be made using the explanation and formula provided in the chapter "Bearing dimensioning" in the technical information *General Orbital Motors*, **BC0000083**.

OMP function diagrams

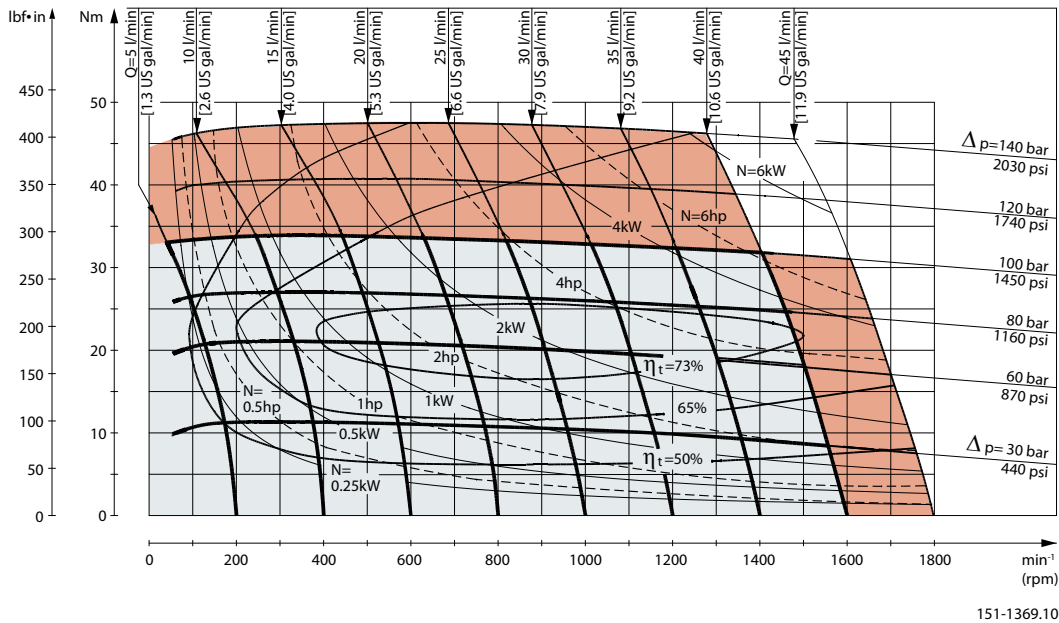
Explanation of function diagram use, basis and conditions can be found in [Speed, Torque and Output](#).

- Continuous range
- Intermittent range (max. 10% operation every minute)

Max. permissible continuous/intermittent pressure drop for the actual shaft version can be found in [OMP technical data](#) on page 14.

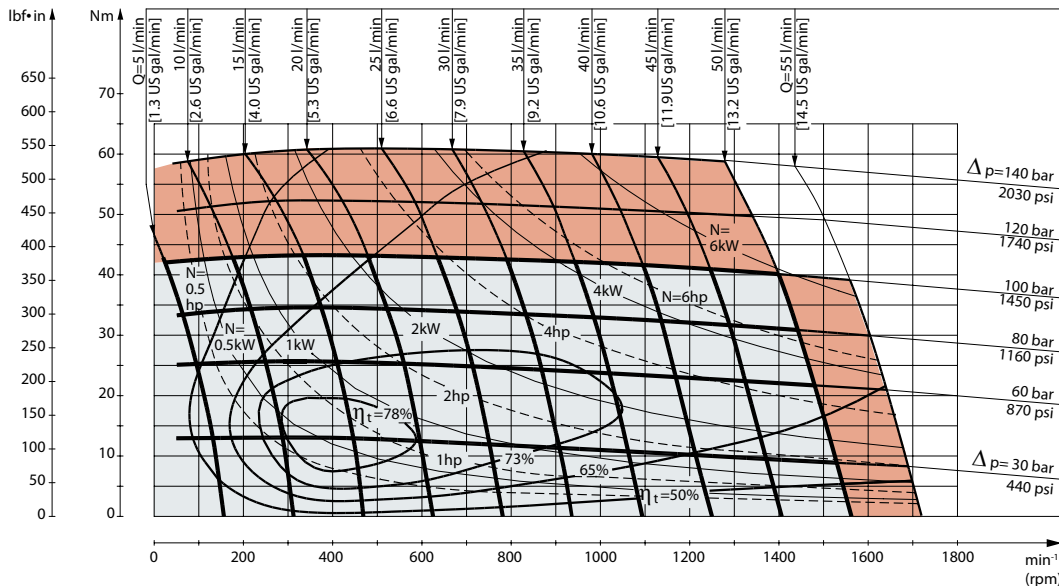
Intermittent pressure drop and oil flow must not occur simultaneously.

OMP 25 function diagram



151-1369.10

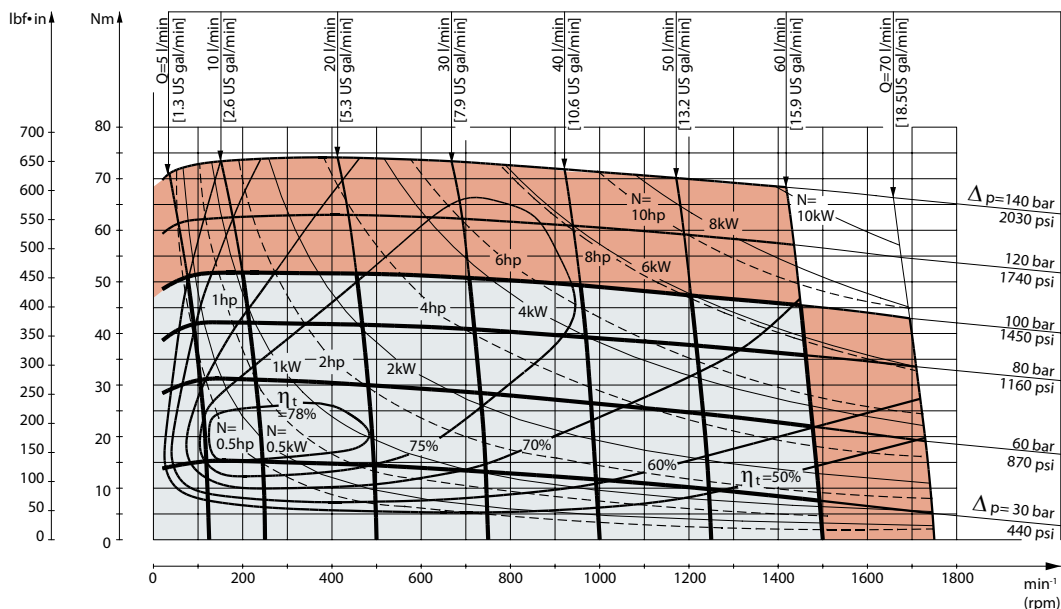
OMP 32 function diagram



151-1383.10

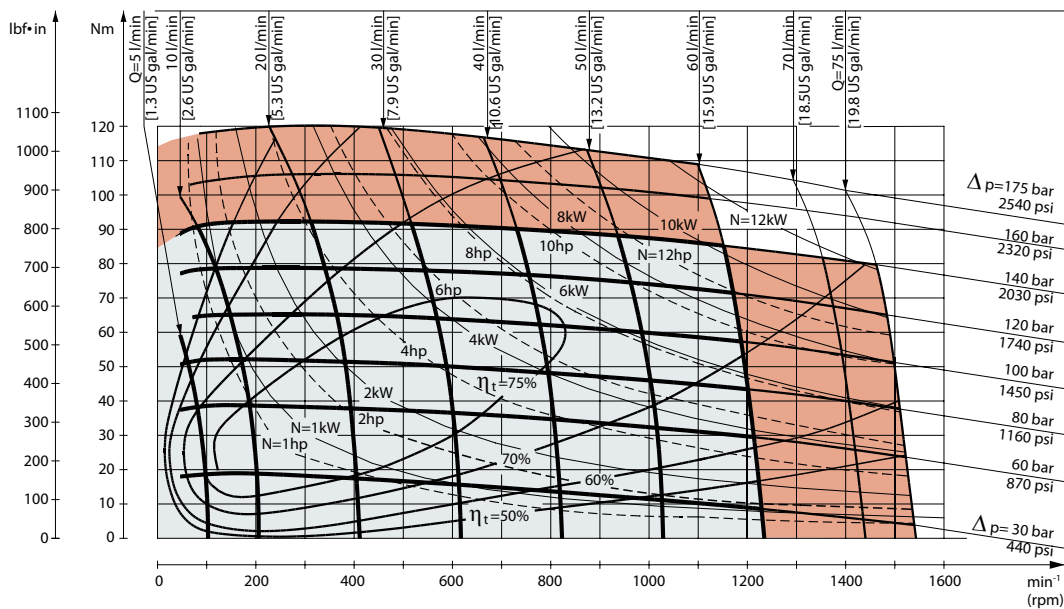
OMP function diagrams

OMP 40 function diagram



151-1384.10

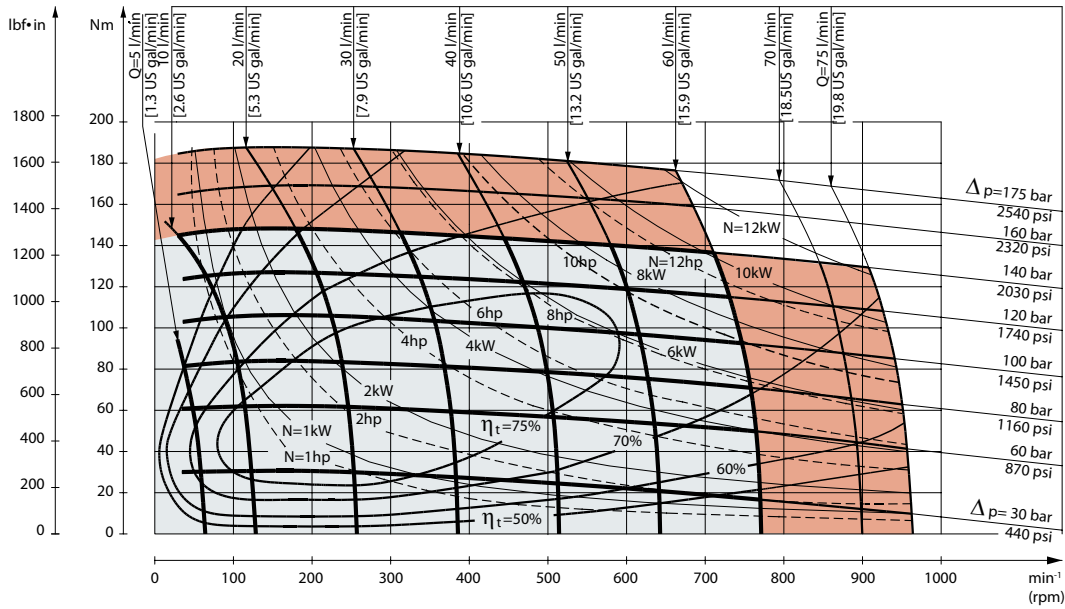
OMP 50 function diagram



151-177.10

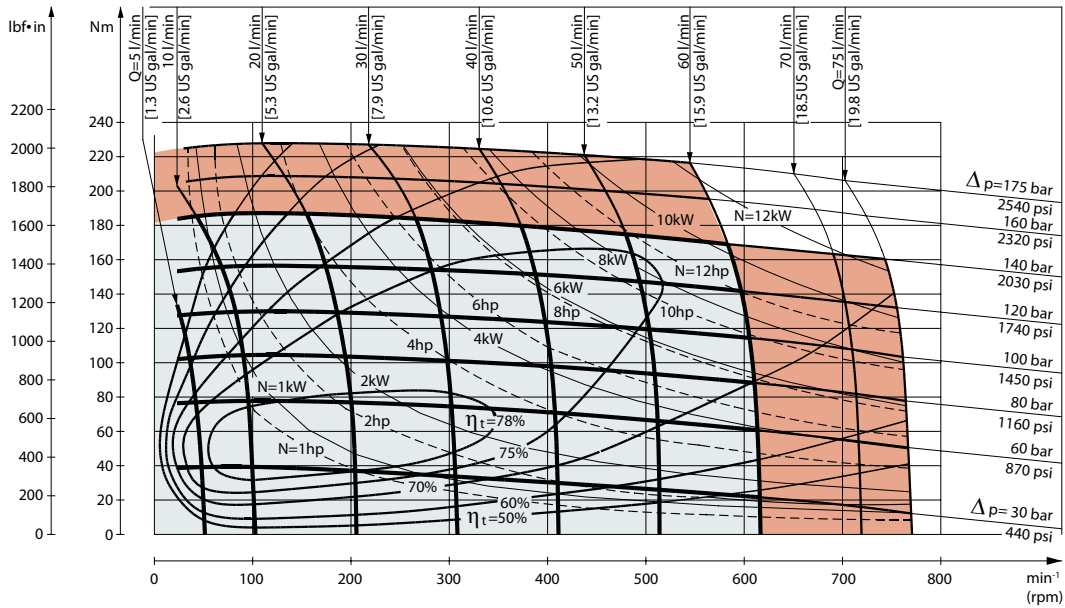
OMP function diagrams

OMP 80 function diagram



151-178.10

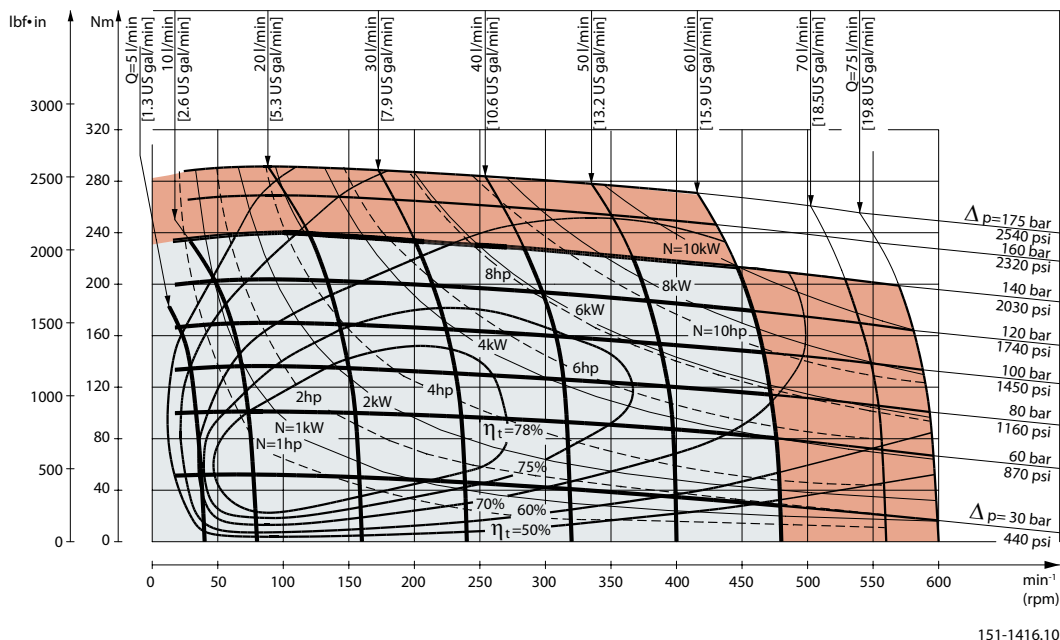
OMP 100 function diagram



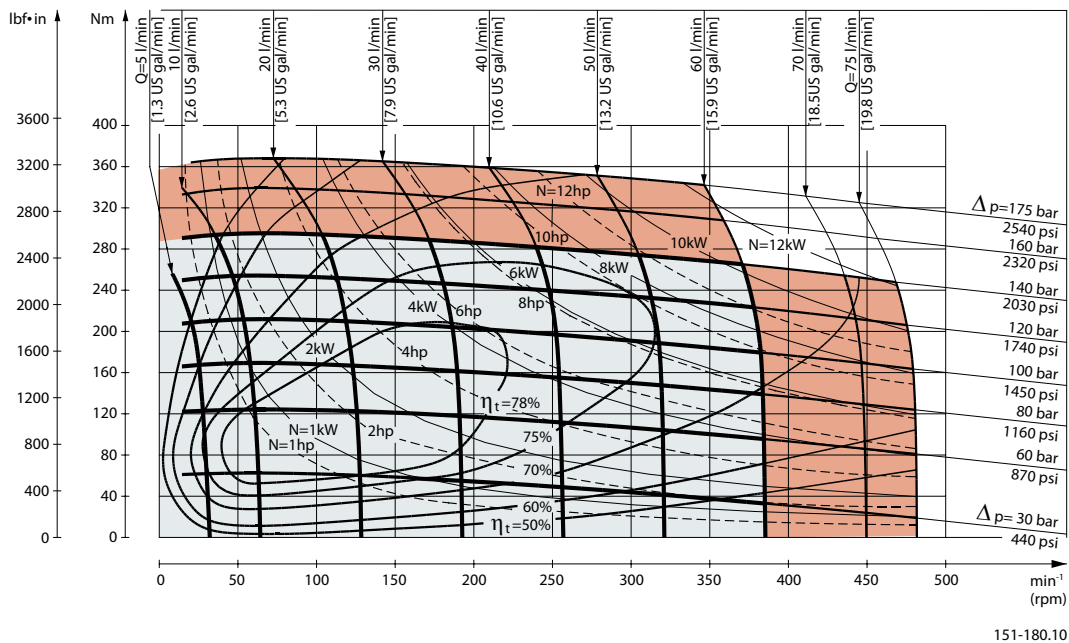
151-179.10

OMP function diagrams

OMP 125 function diagram

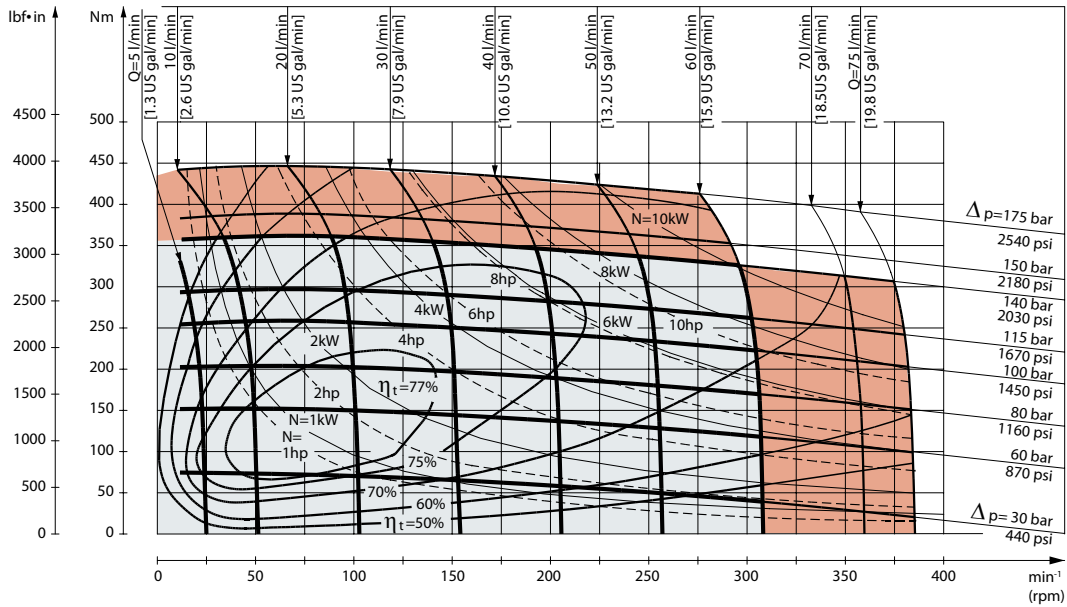


OMP 160 function diagram



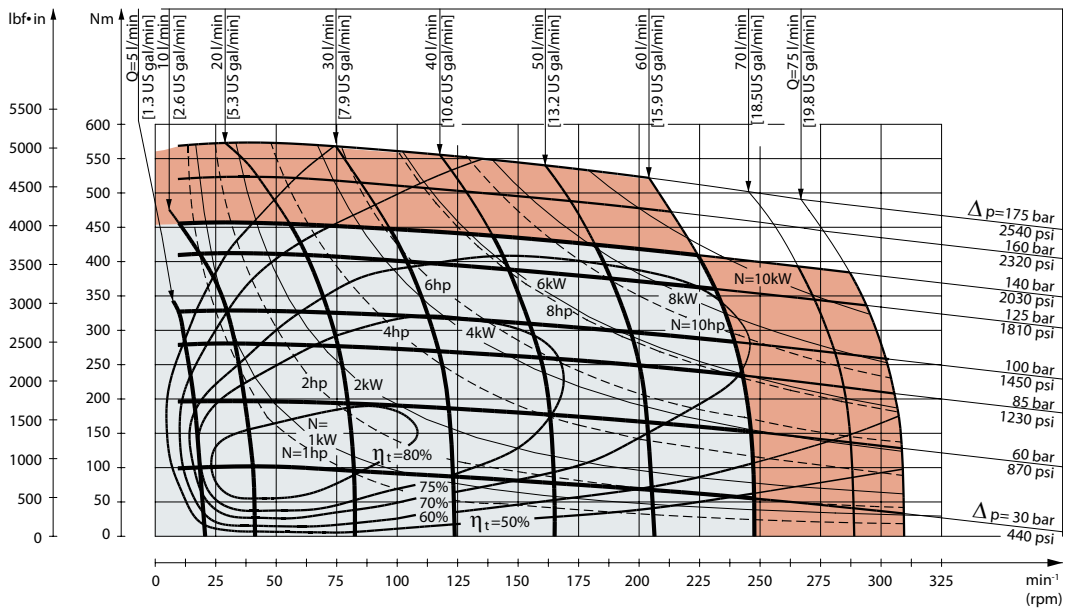
OMP function diagrams

OMP 200 function diagram



151-181.10

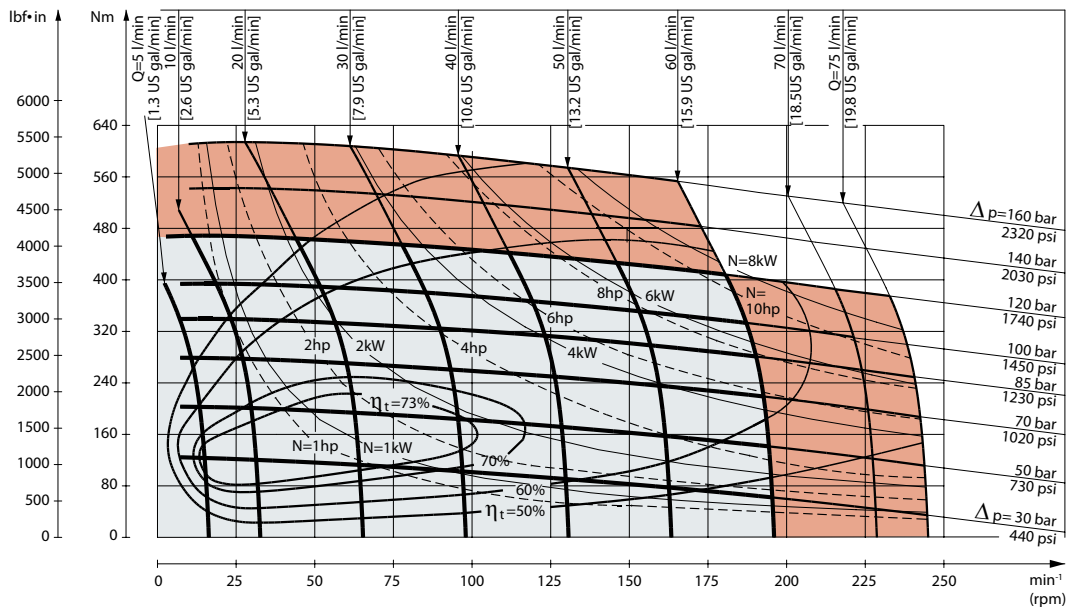
OMP 250 function diagram



151-1244.10

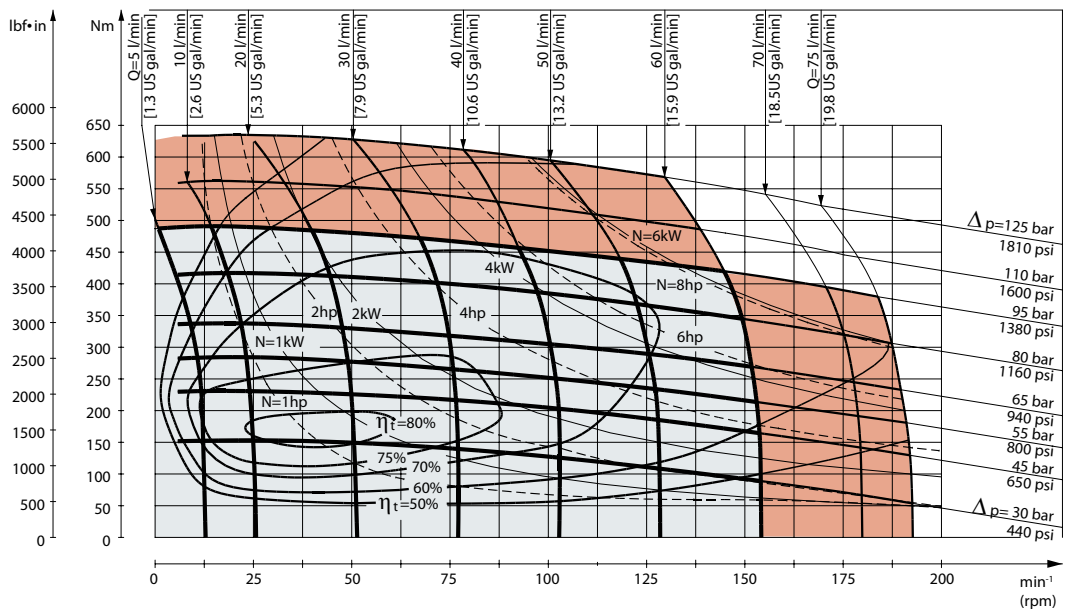
OMP function diagrams

OMP 315 function diagram



151-182.10

OMP 400 function diagram

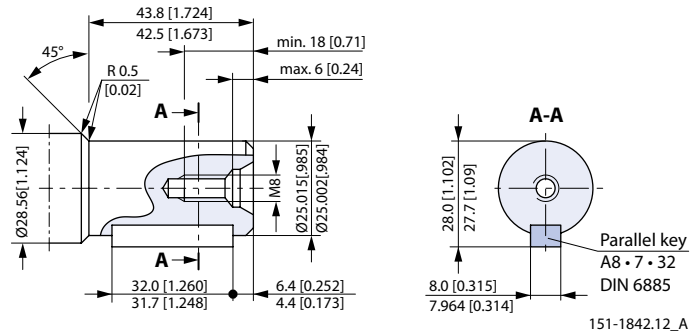


151-1161.10

OMP shaft version

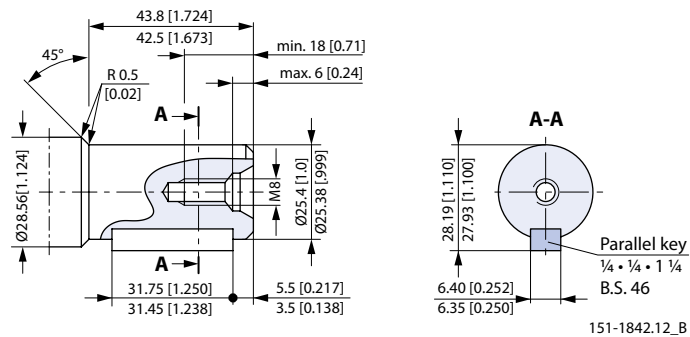
OMP shaft version

Cylindrical shaft 25 mm; Parallel key DIN 6885



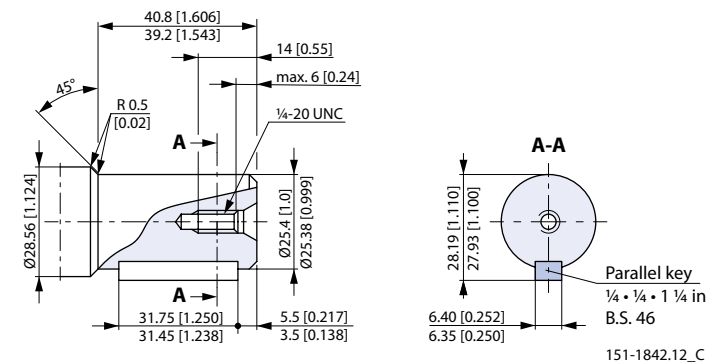
Max. torque: 360 N·m [3185 lb·in]

Cylindrical shaft 1 in; Parallel key B.S. 46



Max. torque: 360 N·m [3185 lb·in]

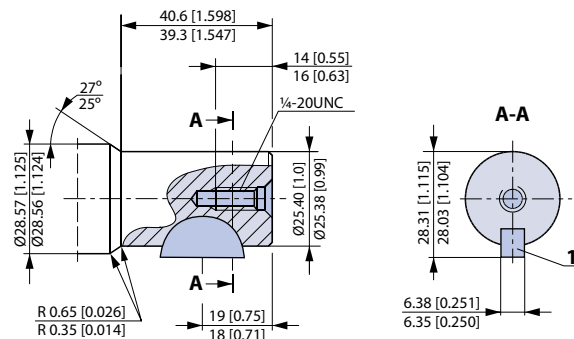
Cylindrical shaft 1 in; Parallel key B.S. 46 (US version)



Max. torque: 360 N·m [3185 lb·in]

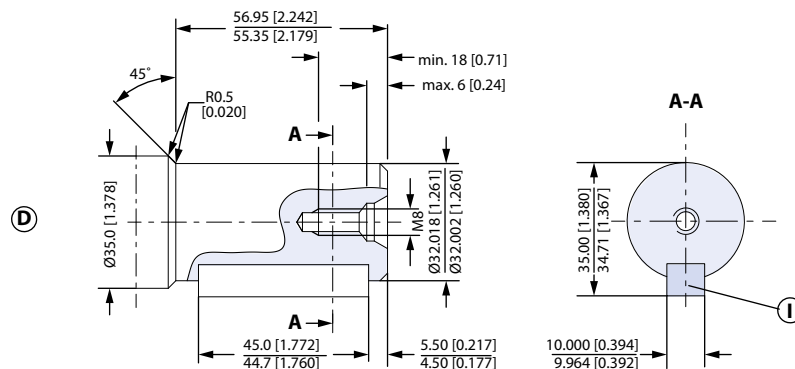
OMP shaft version

Cylindrical shaft 1 in (US version); SAE J502



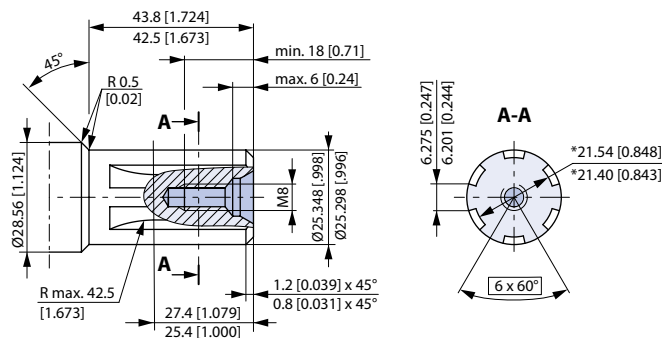
1 Woodruff key ¼ x 1 in SAE J502

Cylindrical shaft 32 mm; DIN 6885



I: Parallel key A10 • 8 • 45; DIN 6885

Splined shaft B.S. 2059 (SAE 6B)

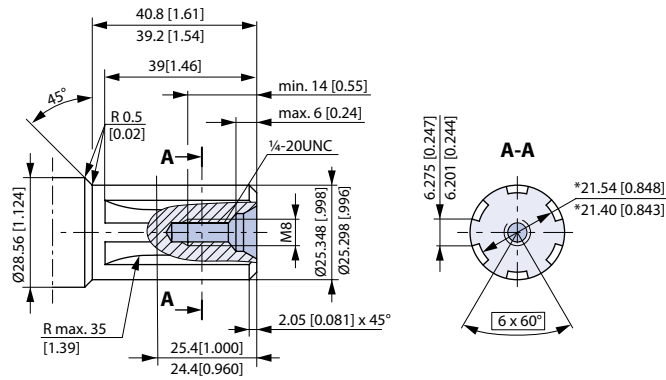


Straight-sided, bottom fitting, dep. Fit 2, Nom. size 1 in; * Deviates from B.S. 2059 (SAE 6B)

151-1843.11_D

OMP shaft version

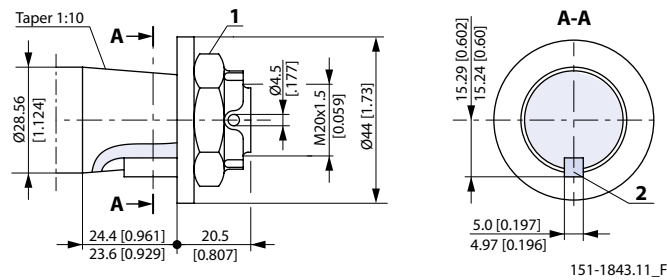
Splined shaft B.S. 2059 (SAE 6B); US version



Straight-sided, bottom fitting, deep. Fit 2; Nom. size 1 in, *Deviates from B.S. 2059 (SAE 6B)

Max. cont. torque 400 N·m [3540 lb·in]

Tapered shaft (taper 1:10); Parallel key DIN 6885



1. DIN 937 NV 30; Tightening torque: 100 ± 10 N·m [885 ± 88.5 lb·in]
2. Parallel key B5 · 5 · 14; DIN 6885

OMP port thread versions

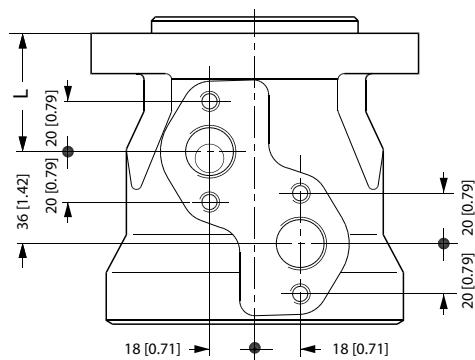
Main port thread versions

Main ports overview

| G ISO 228/1 – G1/2 | UNF 7/8–14 UNF O-ring boss | NPTF 1/2–14 NPTF | G drain ISO 228/1 – G1/4 | UNF drain 7/16–20 UNF O-ring boss |
|-------------------------------------|---|-----------------------------------|---|--|
| | | | | |

OMP manifold mount

European version



151-2135.10

L: see dimensional drawing for given OMP motor:

- [OMP dimensions - European version](#) on page 34
- [OMP dimensions - US version](#) on page 42

L: see dimensional drawing for given OMR motor:

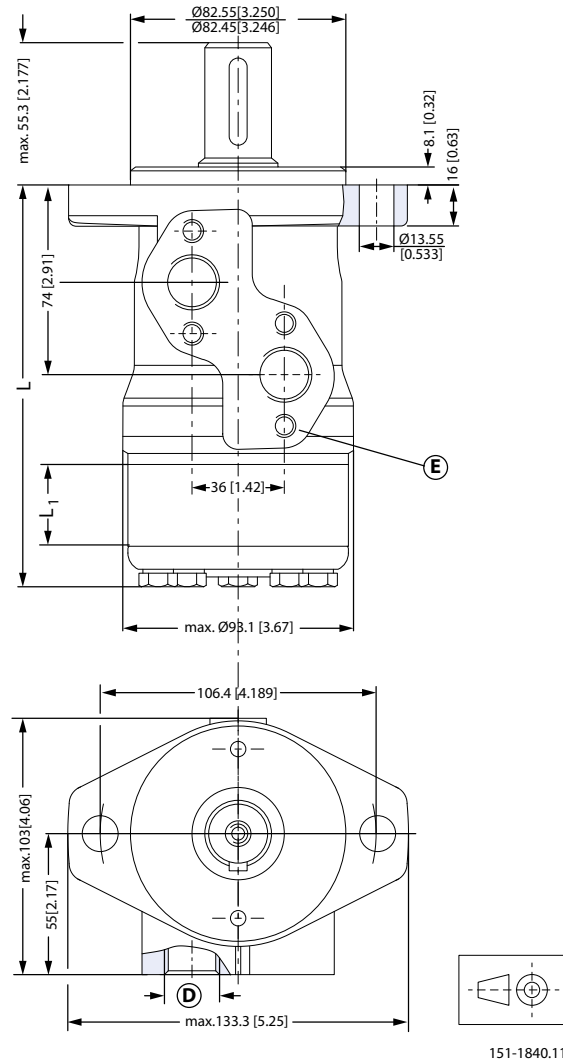
- [OMR dimensions - European version](#) on page 69
- [OMR dimensions - US version](#) on page 79

OMP dimensions

OMP dimensions - European version

OMP Side port version with 2 hole oval mounting flange (A2-flange)

Side port - European version



151-1840.11

Tolerance for basic dimensions = ± 1 mm [0.04 in]

D: G 1/2; 15 mm [0.59 in] deep

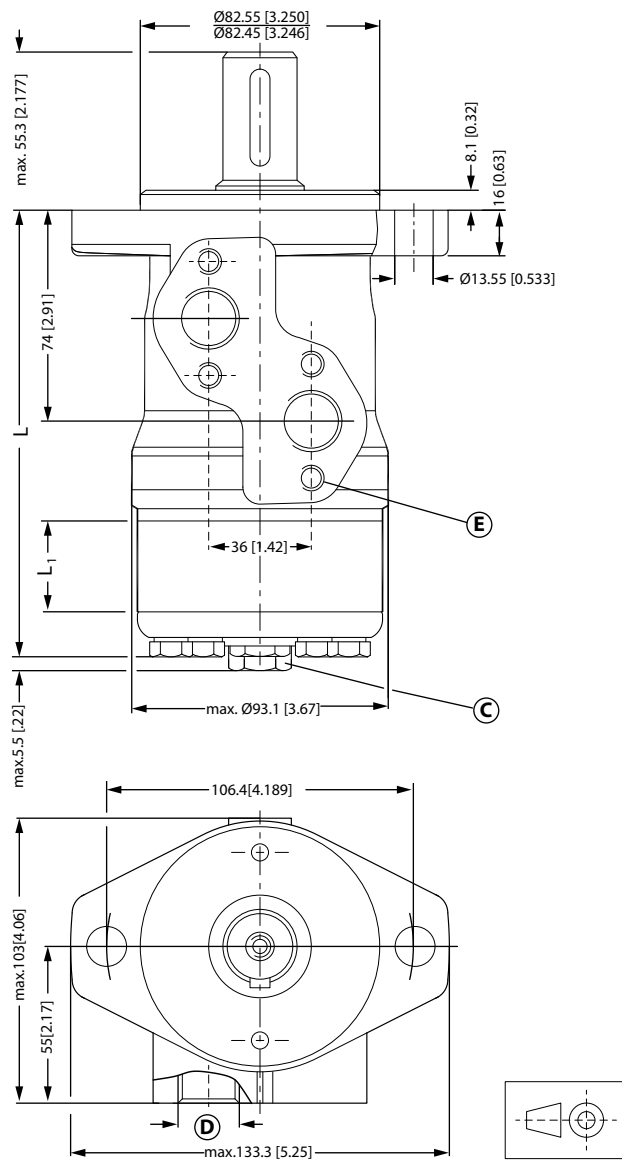
E: M8; 13 mm [0.51 in] deep (4 pcs.)

| Type | | OMP 25 | OMP 32 | OMP 40 | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-----------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| L_{Max} | mm [in] | 130.8 [5.15] | 131.9 [5.19] | 133.2 [5.24] | 133.2 [5.24] | 137.2 [5.40] | 139.7 [5.50] | 143.5 [5.65] | 147.5 [5.81] | 152.7 [6.01] | 159.2 [6.27] | 167.6 [6.60] | 178.7 [7.04] |
| L_1 | mm [in] | 4.1 [0.16] | 5.2 [0.20] | 6.5 [0.26] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

OMP dimensions

EU version side port offset with 2-hole oval mounting flange (A2-flange) with drain connection

Side port - European version



151-1850.11

Tolerance for basic dimensions = ± 1 mm [0.04 in]

- C:** Drain connection G $\frac{1}{4}$; 12 mm [0.47 in] deep
- D:** G $\frac{1}{2}$; 15 mm [0.59 in] deep
- E:** M8; 13 mm [0.51 in] deep (4 pcs.)

Port connections:

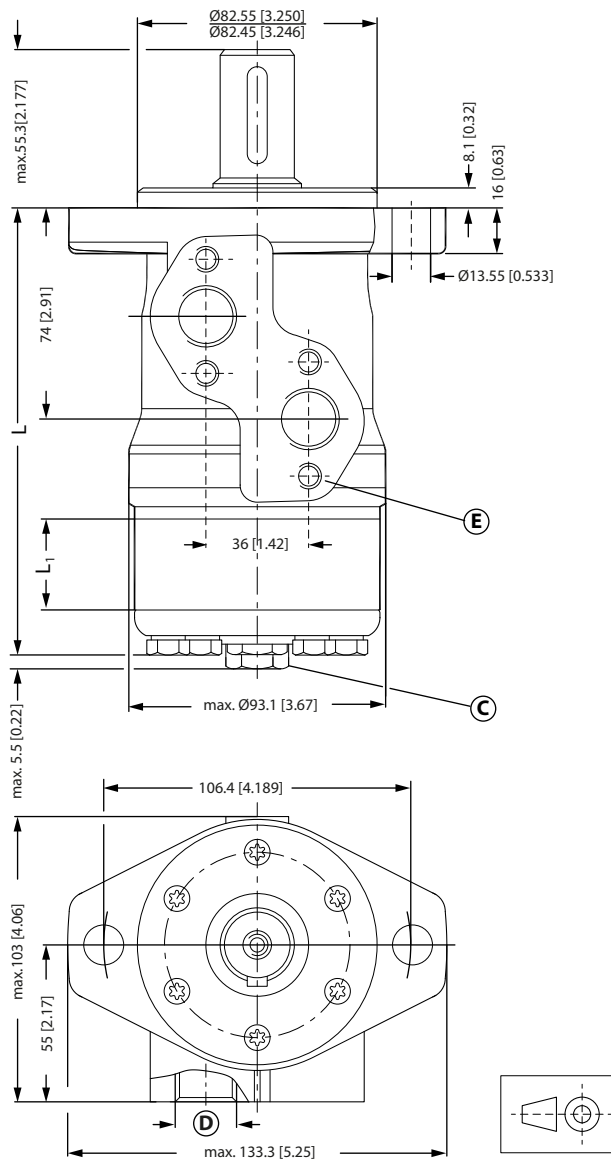
- A, B** Main ports: G $\frac{1}{2}$; min 15 mm [0.59 in] deep
- C** Drain port: G $\frac{1}{4}$; 11.5 mm [0.45 in]
- D** Thread: M8; 13 mm [0.51 in] deep

OMP dimensions

| Type | | OMP 25 | OMP 32 | OMP 40 | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| L _{Max.} | mm [in] | 130.8 [5.15] | 131.9 [5.19] | 133.2 [5.24] | 133.2 [5.24] | 137.2 [5.40] | 139.7 [5.50] | 143.5 [5.65] | 147.5 [5.81] | 152.7 [6.01] | 159.2 [6.27] | 167.6 [6.60] | 178.7 [7.04] |
| L ₁ | mm [in] | 4.1 [0.16] | 5.2 [0.20] | 6.5 [0.26] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

OMP C and OMP N-side port version with 2 hole oval mounting flange (A2-flange)

Side port - European version



151-1841.12

Tolerance for basic dimensions = ± 1 mm [0.04 in]

C: Drain connection G ¼; 12 mm [0.47 in] deep

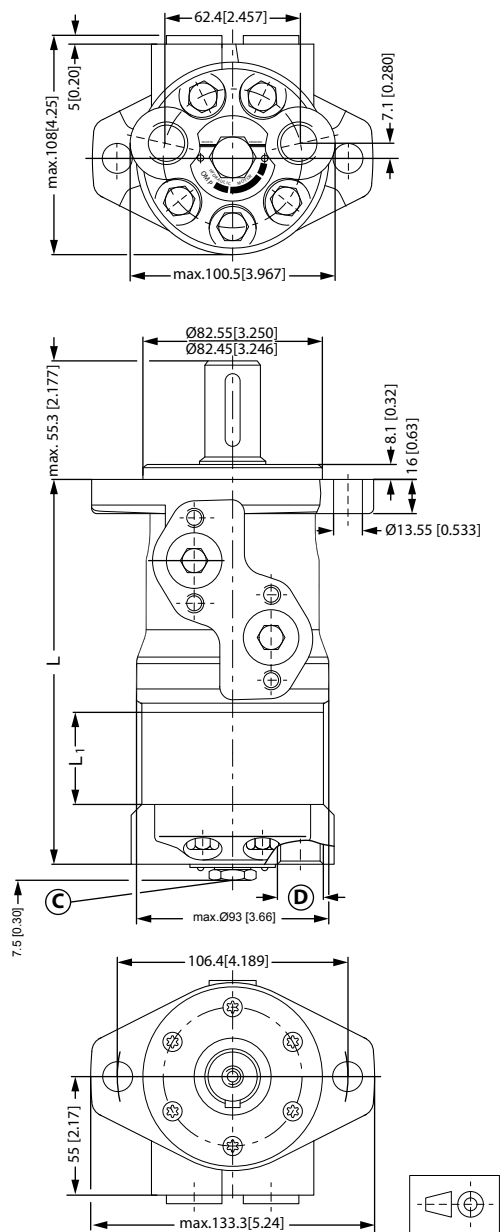
D: G ½; 15 mm [0.59 in] deep

OMP dimensions

E: M8; 13 mm [0.51 in] deep (4 pcs.)

EU version end port with 2-hole oval mounting flange (A2-flange)

End port - European version



Tolerance for basic dimensions = ± 1 mm [0.04 in]

C: Drain connection G 1/4; 12 mm [0.47 in] deep

D: G 1/2; 15 mm [0.59 in] deep

Port connections:

A, B Main ports: G 1/2; min 15 mm [0.59 in] deep

OMP dimensions

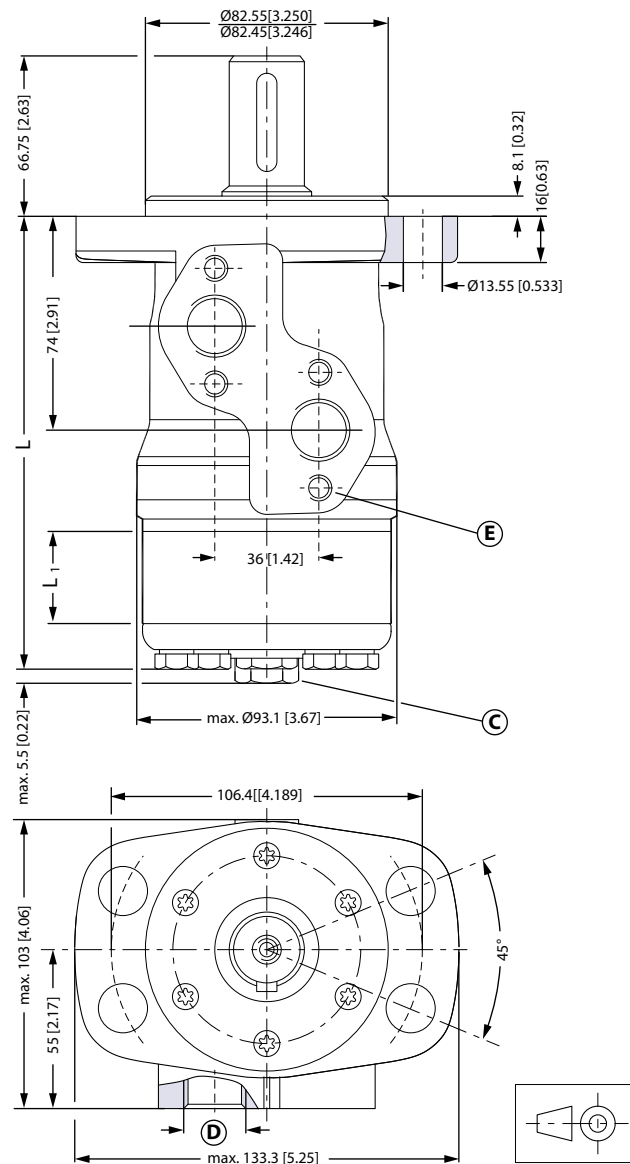
C Drain port: G 1/4; 12 mm [0.47 in] deep

D Thread: M8; 13 mm [0.51 in] deep

| Type | | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L _{Max.} | mm [in] | 146.7 [5.78] | 150.6 [5.93] | 153.2 [6.03] | 157.0 [6.18] | 161.0 [6.34] | 166.2 [6.54] | 172.7 [6.80] | 181.1 [7.13] | 192.2 [6.57] |
| L ₁ | mm [in] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

Side port version with 4 hole oval mounting flange (A4-flange)

Side port - European version



151-1747.13

Tolerance for basic dimensions = ±1 mm [0.04 in]

OMP dimensions

C: Drain connection G ¼; 12 mm [0.47 in] deep

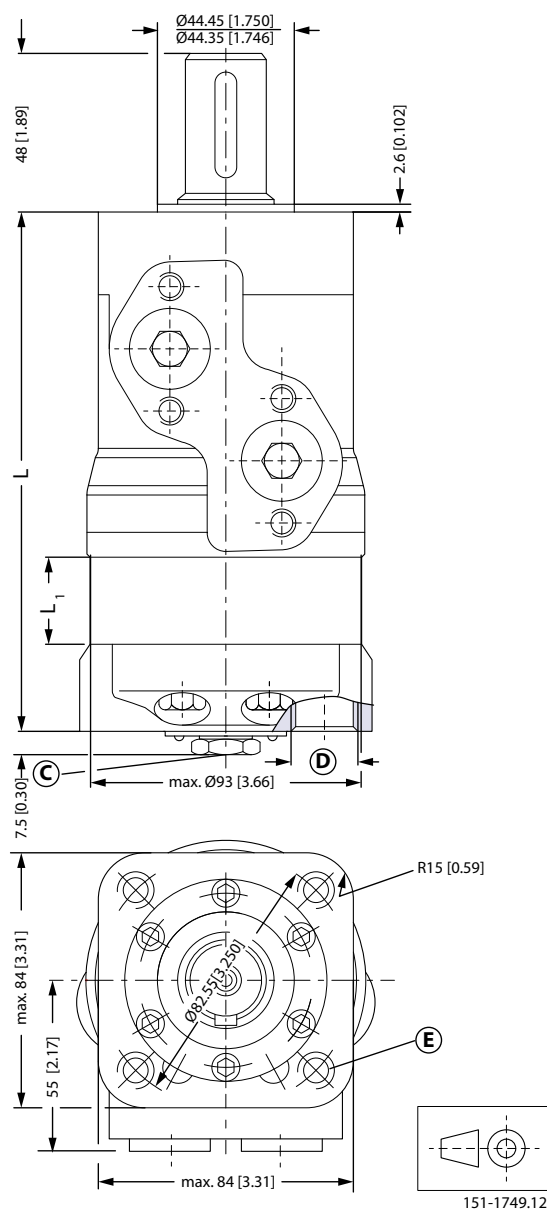
D: G ½; 15 mm [0.59 in] deep

E: M8; 13 mm [0.51 in] deep (4 pcs.)

| Type | | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L _{Max.} | mm [in] | 133.2 [5.24] | 137.2 [5.40] | 139.7 [5.50] | 143.5 [5.65] | 147.5 [5.81] | 152.7 [6.01] | 159.2 [6.27] | 167.6 [6.60] | 178.7 [7.04] |
| L ₁ | mm [in] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

End port version with square mounting flange (C-flange)

End port - European version



OMP dimensions

Tolerance for basic dimensions = ± 1 mm [0.04 in]

C: Drain connection G ¼; 12 mm [0.47 in] deep (4 pcs.)

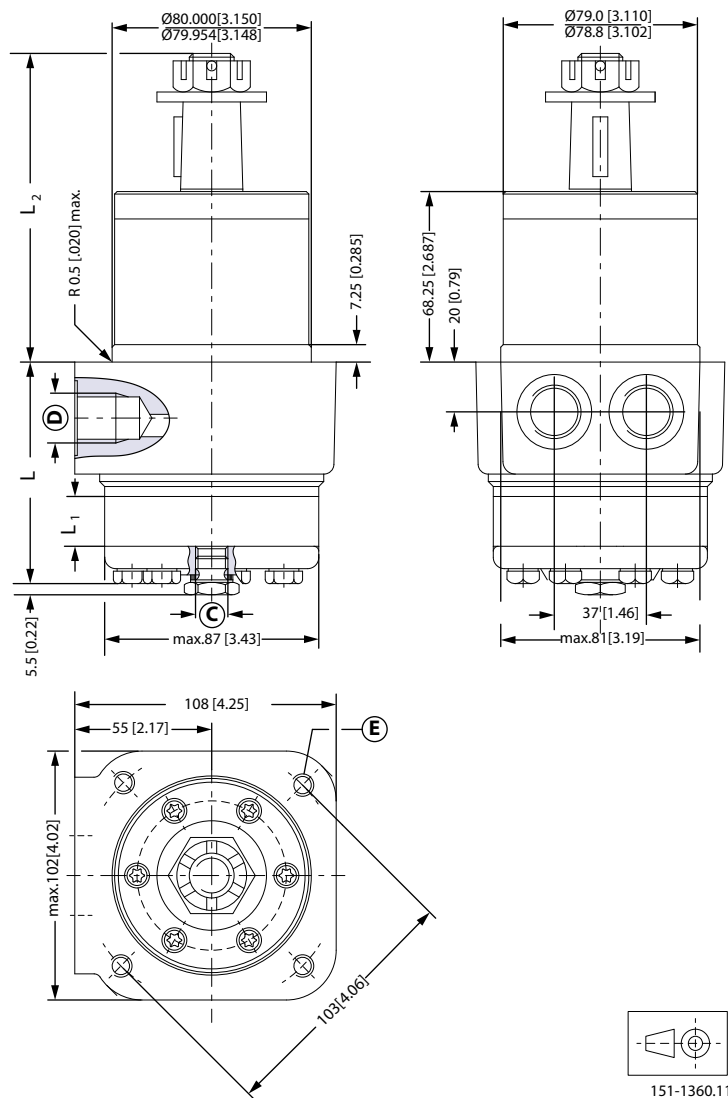
D: G ½; 15 mm [0.59 in] deep

E: M10; 15 mm [0.59 in] deep

| Type | | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L _{Max.} | mm [in] | 152.7 [6.01] | 156.6 [6.17] | 159.2 [6.27] | 162.9 [6.41] | 167.0 [6.57] | 172.2 [6.78] | 178.7 [7.04] | 187.1 [7.37] | 198.2 [7.80] |
| L ₁ | mm [in] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

EU version OMPW and OMPW N motors wheel type

Wheel motor -- European version



Tolerance for basic dimensions = ± 1 mm [0.04 in]

OMP dimensions

C: Drain connection G 1/4; 12 mm [0.47 in] deep

D: G 1/2; 15 mm [0.59 in] deep

E: M10; 20 mm [0.79 in] deep (4 pcs.)

Port connections:

A, B Main ports: G 1/2; min 15 mm [0.59 in] deep

C Drain port: G 1/4; 12 mm [0.47 in] deep

D Thread: M10, 20 mm [0.78 in] deep

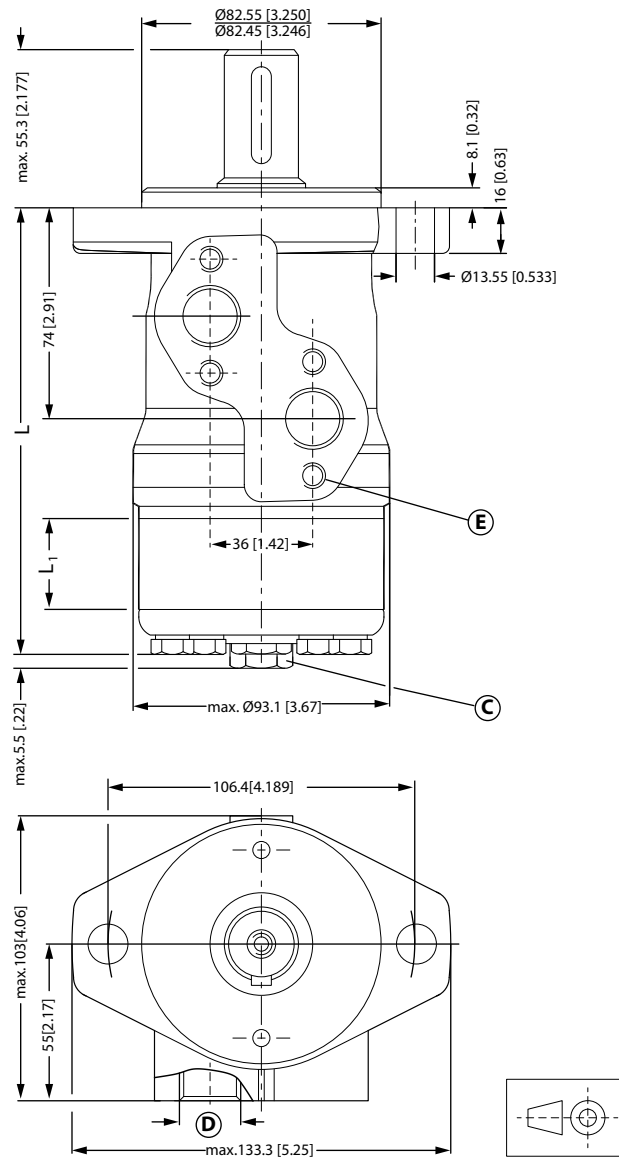
| Type | | OMP 40 | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| L _{Max.} | mm [in] | 73.5 [2.89] | 73.5 [2.89] | 77.4 [3.05] | 80.0 [3.15] | 83.7 [3.30] | 87.8 [3.46] | 93.0 [3.66] | 99.5 [3.92] | 107.9 [4.25] | 119.0 [4.69] |
| L ₁ | mm [in] | 6.5 [0.26] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

OMP dimensions

OMP dimensions - US version

US version side port offset with 2-hole oval mounting flange (A2-flange)

Side port - US version



151-1850.11

Tolerance for basic dimensions = ± 1 mm [0.04 in]

- C:** Drain connection G $\frac{1}{4}$; 12 mm [0.47 in] deep
- D:** G $\frac{1}{2}$; 15 mm [0.59 in] deep
- E:** M8; 13 mm [0.51 in] deep (4 pcs.)

Port connections:

- A, B** Main ports: 7/8 - 14 UNF; min. 16.7 mm [0.66 in] deep
- C** Drain port: 7/16 - 20 UNF; 11.5 mm [0.45 in] deep

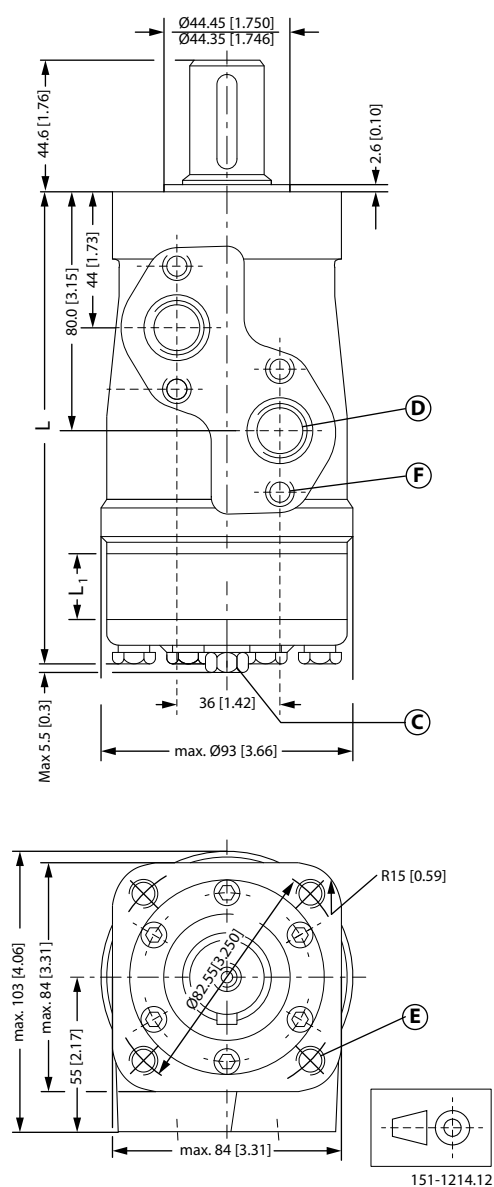
OMP dimensions

D Thread: M8; 13 mm [0.51 in] deep

| Type | | OMP 25 | OMP 32 | OMP 40 | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{Max.} | mm | 137.2 | 138.3 | 139.6 | 139.6 | 143.6 | 146.1 | 149.9 | 153.9 | 159.1 | 165.6 | 174.0 | 185.1 |
| | [in] | [5.40] | [5.44] | [5.50] | [5.50] | [5.65] | [5.75] | [5.90] | [6.06] | [6.26] | [6.52] | [6.85] | [7.29] |
| L ₁ | mm | 4.1 | 5.2 | 6.5 | 6.5 | 10.4 | 13.0 | 16.7 | 20.8 | 26.0 | 32.5 | 40.9 | 52.0 |
| | [in] | [0.16] | [0.20] | [0.26] | [0.26] | [0.41] | [0.51] | [0.66] | [0.82] | [1.02] | [1.28] | [1.61] | [2.05] |

US version side port with square mounting flange (C-flange)

Side port - US version



Tolerance for basic dimensions = ±1 mm [0.04 in]

C: Drain connection 7/16 - 20 UNF; 12 mm [0.47 in] deep

OMP dimensions

D: 7/8 - 14 UNF; 16.76 mm [0.66 in] deep or 1/2 - 14 NPTF

E: 3/8 - 16 UNC; 15 mm [0.59 in] deep (4 off)

F: M8; 13 mm [0.51 in] deep (4 pcs.)

Port connections:

A, B Main ports: 7/8 - 14 UNF; min. 11.5 mm [0.45 in] deep

C Drain port: 7/16 - 20 UNF; 11.5 mm [0.45 in] deep

D Thread: 3/8 - 16 UNC; 15 mm [0.59 in] deep

| Type | | OMP 40 | OMP 50 | OMP 80 | OMP 100 | OMP 125 | OMP 160 | OMP 200 | OMP 250 | OMP 315 | OMP 400 |
|-------------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L _{Max.} | mm [in] | 139.6 [5.50] | 139.6 [5.50] | 143.5 [5.65] | 146.1 [5.75] | 149.8 [5.90] | 153.9 [6.06] | 159.1 [6.26] | 165.6 [6.52] | 174.0 [6.85] | 185.1 [7.29] |
| L ₁ | mm [in] | 6.5 [0.26] | 6.5 [0.26] | 10.4 [0.41] | 13.0 [0.51] | 16.7 [0.66] | 20.8 [0.82] | 26.0 [1.02] | 32.5 [1.28] | 40.9 [1.61] | 52.0 [2.05] |

OMR versions and code numbers
OMR versions and code numbers
OMR standard motors
Mounting flange: 2 hole oval flange (A2)

| Spigot diameter | Ø82.5 mm [3.25 in] | | | | | | | |
|----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code |
| Cyl. Ø25 mm | G 1/2 | Side port | - | - | Yes | - | OMR | A1 |
| Cyl. Ø25 mm | G 1/2 | Side port | G 1/4 | - | Yes | Yes | OMR | A2 |
| Cyl. Ø25 mm | G 1/2 | End port | G 1/4 | Yes | - | Yes | OMR | A3 |
| Cyl. 1 in | G 1/2 | Side port | - | - | Yes | - | OMR | A4 |
| Cyl. 1 in | G 1/2 | Side port | G 1/4 | - | Yes | Yes | OMR | A5 |
| Cyl. 1 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMR | A6 |
| Splined 1 in | G 1/2 | Side port | - | - | Yes | - | OMR | A7 |
| Splined 1 in | G 1/2 | Side port | G 1/4 | - | Yes | Yes | OMR | A8 |
| Splined 1 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMR | A9 |
| Cyl. Ø32 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMR | A10 |
| Tap. Ø28.5 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMR | A11 |

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| A1 | 151-0410 | 151-0411 | 151-0412 | 151-0413 | 151-0414 | 151-0415 | 151-0416 | 151-0417 | 151-0418 |
| A2 | 151-0710 | 151-0711 | 151-0712 | 151-0713 | 151-0714 | 151-0715 | 151-0716 | 151-0717 | 151-0718 |
| A3 | 151-6190 | 151-6191 | 151-6192 | 151-6193 | 151-6194 | 151-6195 | 151-6196 | 151-6197 | 151-6198 |
| A4 | 151-0400 | 151-0401 | 151-0402 | 151-0403 | 151-0404 | 151-0405 | 151-0406 | 151-0407 | 151-0408 |
| A5 | 151-0700 | 151-0701 | 151-0702 | 151-0703 | 151-0704 | 151-0705 | 151-0706 | 151-0707 | 151-0708 |
| A6 | 151-7240 | 151-7241 | 151-7242 | 151-7243 | 151-7244 | 151-7245 | 151-7246 | 151-7247 | 151-7248 |
| A7 | 151-0420 | 151-0421 | 151-0422 | 151-0423 | 151-0424 | 151-0425 | 151-0426 | 151-0427 | 151-0428 |
| A8 | 151-0720 | 151-0721 | 151-0722 | 151-0723 | 151-0724 | 151-0725 | 151-0726 | 151-0727 | 151-0728 |
| A9 | 151-7250 | 151-7251 | 151-7252 | 151-7253 | 151-7254 | 151-7255 | 151-7256 | 151-7257 | 151-7258 |
| A10 | 151-0248 | 151-0242 | 151-0243 | 151-0208 | 151-0244 | 151-0245 | 151-0247 | 151-0246 | 151-6294 |
| A11 | 151-0265 | 151-0266 | 151-0267 | 151-6295 | 151-0268 | 151-0269 | 151-0271 | 151-0270 | 151-6296 |

Mounting flange : 4 hole oval flange (A4)

| Spigot diameter | Ø82.5 mm [3.25 in] | | | | | | | |
|----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code |
| Cyl. Ø25 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMR | B1 |
| Cyl. Ø32 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMR | B2 |
| Cyl. Ø1 1/4 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMR | B3 |

OMR versions and code numbers

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| B1 | 151-6010 | 151-6011 | 151-6012 | 151-6013 | 151-6014 | 151-6015 | 151-6016 | 151-6017 | 151-6018 |
| B2 | 151-6000 | 151-6001 | 151-6002 | 151-6003 | 151-6004 | 151-6005 | 151-6006 | 151-6007 | 151-6008 |
| B3 | 151-6110 | 151-6111 | 151-6112 | 151-6113 | 151-6114 | 151-6115 | 151-6116 | 151-6117 | 151-6118 |

Mounting flange: Square flange (C)

| Spigot diamer | Ø44.4 mm [1.75 in] | | | | | | | | |
|-----------------------------|---------------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø82.5 mm [3.25 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Cyl. Ø25 mm | G 1/2 | End port | G 1/4 | Yes | - | Yes | OMR | C1 | |
| Cyl. 1 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMR | C2 | |

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| C1 | 151-6210 | 151-6211 | 151-6212 | 151-6213 | 151-6214 | 151-6215 | 151-6216 | 151-6217 | 151-6218 |
| C2 | 151-7260 | 151-7261 | 151-7262 | 151-7263 | 151-7264 | 151-7265 | 151-7266 | 151-7267 | 151-7269 |

OMR motors with corrosion resistant parts

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | |
|-----------------------------|----------------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Cyl. Ø25 mm | G 1/2 | Side port | G1/4 | Yes | - | Yes | OMR C | D1 | |

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| D1 | 151-1231 | 151-1232 | 151-1233 | 151-1238 | 151-1234 | 151-1235 | 151-1236 | 151-1237 | 151-1243 |

OMR motors with needle bearings

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | |
|-----------------------------|----------------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Cyl. Ø25 mm | G 1/2 | Side port | G1/4 | Yes | - | Yes | OMR N | E1 | |

OMR versions and code numbers

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|-----|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| E1 | 151-6380 | 151-6381 | - | 151-6383 | 151-6384 | 151-6385 | 151-6386 | 151-6387 | 151-6388 |

OMRW motors with needle bearings

Mounting flange: Wheel

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | |
|-----------------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø147.6 mm [5.81 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Tap. Ø35 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMRW N | F1 | |
| Tap. Ø 1 1/4 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMRW N | F2 | |

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| F1 | 151-6300 | 151-6301 | 151-6302 | 151-6303 | 151-6304 | 151-6305 | 151-6306 | 151-6307 | 151-6308 |
| F2 | 151-6430 | 151-6431 | 151-6432 | 151-6433 | 151-6434 | 151-6435 | 151-6436 | 151-6437 | 151-6438 |

OMR motors with integrated brake

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | |
|-----------------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Cyl. Ø25 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMR F | G1 | |

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| G1 | - | 151-6461 | 151-6462 | 151-6463 | 151-6464 | 151-6465 | 151-6466 | 151-6467 | 151-6468 |

OMR motors with integrated brake and needle bearings

Mounting flange: 2 hole oval flange (A2)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | |
|-----------------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Cyl. 1 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMR NF | H1 | |

OMR versions and code numbers

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| H1 | - | 151-6471 | 151-6472 | 151-6473 | 151-6474 | 151-6475 | 151-6476 | 151-6477 | 151-6478 |

OMRW motors with integrated brake and needle bearings

Mounting flange: Wheel

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | | |
|----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|--|
| Bolt circle diameter | Ø147.6 mm [5.81 in] | | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code | |
| Tap. Ø35 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMRW NF | J1 | |

Code numbers

| Conf. code | Displacement | | | | | | | | |
|------------|--------------|----|----------|----------|----------|----------|-----|-----|-----|
| | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| J1 | - | - | 151-6442 | 151-6443 | 151-6444 | 151-6445 | - | - | - |

Features available (options)

Low leakage (low speed valve) Reverse rotation

Speed sensor Painted

Viton shaft seal

OMR technical data

Technical data for OMR with 25 mm and 1 in cylindrical shaft

| Type | | | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR |
|--|---|--------------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| Geometric displacement | cm ³ | | 51.6 | 80.3 | 99.8 | 125.7 | 159.6 | 199.8 | 249.3 | 315.7 | 372.6 |
| | [inch] | | [3.16] | [4.91] | [6.11] | [7.69] | [9.77] | [12.23] | [15.26] | [19.32] | [22.80] |
| Max. speed | min ⁻¹ | cont. | 775 | 750 | 600 | 475 | 375 | 300 | 240 | 190 | 160 |
| | [rpm] | int. ¹⁾ | 970 | 940 | 750 | 600 | 470 | 375 | 300 | 240 | 200 |
| Max. torque | N·m [lbf·in] | cont. | 100 | 195 | 240 | 300 | 300 | 300 | 300 | 300 | 300 |
| | | | [890] | [1730] | [2120] | [2660] | [2660] | [2660] | [2660] | [2660] | [2660] |
| | int. ¹⁾ | 130 | 220 | 280 | 340 | 390 | 390 | 380 | 420 | 430 | |
| | | [1150] | [1960] | [2480] | [3010] | [3450] | [3450] | [3360] | [3720] | [3810] | |
| Max. output | kW [hp] | cont. | 7.0 | 12.5 | 13.0 | 12.5 | 10.0 | 8.0 | 6.0 | 5.0 | 4.0 |
| | | | [9.4] | [16.8] | [17.4] | [16.8] | [13.4] | [10.7] | [8.1] | [6.7] | [5.4] |
| | int. ¹⁾ | 8.5 | 15.0 | 15.0 | 14.5 | 12.5 | 10.0 | 8.0 | 6.5 | 6.0 | |
| | | [11.4] | [20.1] | [20.1] | [19.4] | [16.8] | [13.4] | [10.7] | [8.7] | [8.1] | |
| Max. pressure drop | bar [psi] | cont. | 140 | 175 | 175 | 175 | 130 | 110 | 80 | 70 | 55 |
| | | | [2030] | [2540] | [2540] | [2540] | [1890] | [1600] | [1160] | [1020] | [800] |
| | int. ¹⁾ | 175 | 200 | 200 | 200 | 175 | 140 | 110 | 100 | 85 | |
| | | [2540] | [2900] | [2900] | [2900] | [2540] | [2030] | [1600] | [1450] | [1230] | |
| | peak ²⁾ | 225 | 225 | 225 | 225 | 225 | 225 | 200 | 150 | 130 | |
| | | [3260] | [3260] | [3260] | [3260] | [3260] | [3260] | [2900] | [2180] | [1890] | |
| Max. oil flow | l/min [US gal/min] | cont. | 40 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | | | [10.6] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] |
| | int. ¹⁾ | 50 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | |
| | | [13.2] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | |
| Max. starting pressure with unloaded shaft | bar | | 10 | 10 | 10 | 9 | 7 | 5 | 5 | 5 | 5 |
| | [psi] | | [145] | [145] | [145] | [130] | [100] | [75] | [75] | [75] | [75] |
| Min starting torque | at max. press drop cont. N·m [lbf·in] | | 80 | 150 | 200 | 250 | 240 | 260 | 240 | 260 | 240 |
| | | | [710] | [1330] | [1770] | [2210] | [2120] | [2300] | [2120] | [2300] | [2120] |
| | at max. press.drop int. ¹⁾ N·m [lbf·in] | | 100 | 170 | 230 | 280 | 320 | 330 | 310 | 350 | 380 |
| | | | [890] | [1510] | [2040] | [2480] | [2830] | [2920] | [2740] | [3100] | [3360] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data for OMR with 1 in splined and 28.5 mm tapered shaft

| Type | | | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR | |
|------------------------|--------------------|--------------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| Geometric displacement | cm ³ | | 51.6 | 80.3 | 99.8 | 125.7 | 159.6 | 199.8 | 249.3 | 315.7 | 372.6 |
| | [inch] | | [3.16] | [4.91] | [6.11] | [7.69] | [9.77] | [12.23] | [15.26] | [19.32] | [22.80] |
| Max. speed | min ⁻¹ | cont. | 775 | 750 | 600 | 475 | 375 | 300 | 240 | 190 | 160 |
| | [rpm] | int. ¹⁾ | 970 | 940 | 750 | 600 | 470 | 375 | 300 | 240 | 200 |
| Max. torque | N·m [lbf·in] | cont. | 100 | 195 | 240 | 300 | 360 | 360 | 360 | 360 | 360 |
| | | | [890] | [1730] | [2120] | [2660] | [3190] | [3190] | [3190] | [3190] | [3190] |
| | int. ¹⁾ | 130 | 220 | 280 | 340 | 430 | 440 | 470 | 470 | 460 | |
| | | [1150] | [1950] | [2480] | [3010] | [3810] | [3890] | [4160] | [4160] | [4070] | |

OMR technical data

| Type | | | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR | |
|--|--|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| Max. output | kW [hp] | cont. | 7.0 | 12.5 | 13.0 | 12.5 | 12.5 | 10.0 | 7.0 | 5.0 | 5.0 |
| | | | [9.4] | [16.8] | [17.4] | [16.8] | [16.8] | [13.4] | [9.4] | [6.7] | [6.7] |
| | | int. ¹⁾ | 8.5 | 15.0 | 15.0 | 14.5 | 14.0 | 13.0 | 9.5 | 8.0 | 7.0 |
| | | | [11.4] | [20.1] | [20.1] | [19.4] | [18.8] | [17.4] | [12.7] | [10.7] | [9.4] |
| Max. pressure drop | bar [psi] | cont. | 140 | 175 | 175 | 175 | 165 | 130 | 100 | 85 | 70 |
| | | | [2030] | [2540] | [2540] | [2540] | [2390] | [1890] | [1450] | [1230] | [1020] |
| | | int. ¹⁾ | 175 | 200 | 200 | 200 | 200 | 175 | 140 | 115 | 90 |
| | | | [2540] | [2900] | [2900] | [2900] | [2900] | [2540] | [2030] | [1670] | [1310] |
| | | peak ²⁾ | 225 | 225 | 225 | 225 | 225 | 225 | 200 | 150 | 130 |
| | | | [3260] | [3260] | [3260] | [3260] | [3260] | [3260] | [2900] | [2180] | [1890] |
| Max. oil flow | l/min [US gal/min] | cont. | 40 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | | | [10.6] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] |
| | | int. ¹⁾ | 50 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| | | | [13.2] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] |
| Max. starting pressure with unloaded shaft | bar | 10 | 10 | 10 | 9 | 7 | 5 | 5 | 5 | 5 | |
| | [psi] | [145] | [145] | [145] | [130] | [100] | [75] | [75] | [75] | [75] | |
| Min starting torque | at max. press drop cont. N•m [lbf•in] | cont. | 80 | 150 | 200 | 250 | 300 | 300 | 290 | 315 | 300 |
| | | | [710] | [1330] | [1770] | [2210] | [2660] | [2660] | [2570] | [2790] | [2660] |
| | | int. ¹⁾ | 100 | 170 | 230 | 280 | 350 | 400 | 400 | 400 | 380 |
| | | | [890] | [1510] | [2040] | [2480] | [3100] | [3540] | [3540] | [3540] | [3360] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data for OMR with 32 mm, 1 ¼ in cylindrical shaft and 35 mm, 1 ¼ in tapered shaft

| Type | | | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR | |
|------------------------|-------------------|--------------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| Geometric displacement | cm ³ | | 51.6 | 80.3 | 99.8 | 125.7 | 159.6 | 199.8 | 249.3 | 315.7 | 372.6 |
| | [inch] | | [3.16] | [4.91] | [6.11] | [7.69] | [9.77] | [12.23] | [15.26] | [19.32] | [22.80] |
| Max. speed | min ⁻¹ | cont. | 775 | 750 | 600 | 475 | 375 | 300 | 240 | 190 | 160 |
| | [rpm] | int. ¹⁾ | 970 | 940 | 750 | 600 | 470 | 375 | 300 | 240 | 200 |
| Max. torque | N•m [lbf•in] | cont. | 100 | 195 | 240 | 300 | 380 | 450 | 540 | 550 | 580 |
| | | | [890] | [1730] | [2120] | [2660] | [3360] | [3980] | [4780] | [4870] | [5130] |
| | | int. ¹⁾ | 130 | 220 | 280 | 340 | 430 | 500 | 610 | 690 | 690 |
| | | | [1150] | [1957] | [2480] | [3010] | [3810] | [4430] | [5400] | [6110] | [6110] |
| Max. output | kW [hp] | cont. | 7.0 | 12.5 | 13.0 | 12.5 | 12.5 | 11.0 | 10.0 | 9.0 | 7.5 |
| | | | [9.4] | [16.8] | [17.4] | [16.8] | [16.8] | [14.8] | [13.4] | [12.1] | [10.1] |
| | | int. ¹⁾ | 8.5 | 15.0 | 15.0 | 14.5 | 14.0 | 13.0 | 12.0 | 10.0 | 9.0 |
| | | | [11.4] | [20.1] | [20.1] | [19.4] | [18.8] | [17.4] | [16.1] | [13.4] | [12.1] |
| Max. pressure drop | bar [psi] | cont. | 140 | 175 | 175 | 175 | 175 | 175 | 175 | 135 | 115 |
| | | | [2030] | [2540] | [2540] | [2540] | [2540] | [2540] | [2540] | [1960] | [1670] |
| | | int. ¹⁾ | 175 | 200 | 200 | 200 | 200 | 200 | 200 | 175 | 150 |
| | | | [2540] | [2900] | [2900] | [2900] | [2900] | [2900] | [2900] | [2540] | [2180] |
| | | peak ²⁾ | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 210 | 175 |
| | | | [3260] | [3260] | [3260] | [3260] | [3260] | [3260] | [3260] | [3050] | [2540] |

OMR technical data

| Type | | | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR | OMR |
|--|---|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Motor size | | | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 315 | 375 |
| Max. oil flow | l/min [US gal/min] | cont. | 40 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | | | [10.6] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] | [15.9] |
| | int. ¹⁾ | | 50 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| | | | [13.2] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] | [19.8] |
| Max. starting pressure with unloaded shaft | bar | | 10 | 10 | 10 | 9 | 7 | 5 | 5 | 5 | 5 |
| | [psi] | | [145] | [145] | [145] | [130] | [100] | [75] | [75] | [75] | [75] |
| Min starting torque | at max. press drop cont. N·m [lbf·in] | | 80 | 150 | 200 | 250 | 320 | 410 | 500 | 500 | 470 |
| | | | [710] | [1330] | [1770] | [2210] | [2830] | [3630] | [4430] | [4430] | [4170] |
| | at max. press.drop int. ¹⁾ N·m [lbf·in] | | 100 | 170 | 230 | 280 | 370 | 460 | 550 | 660 | 570 |
| | | | [890] | [1510] | [2040] | [2480] | [3280] | [4070] | [4870] | [5840] | [5050] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

| Type | | | Max. inlet pressure | Max.return pressure with drain line |
|--------------|-----------|--------------------|---------------------|-------------------------------------|
| OMR 50 - 375 | bar [psi] | cont | 175 [2540] | 175 [2540] |
| | bar [psi] | int. ¹⁾ | 200 [2900] | 200 [2900] |
| | bar [psi] | peak ²⁾ | 225 [3260] | 225 [3260] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data for parking brake motor OMR F, OMR NF and OMRW NF

| Technical data for brake motor | | |
|-------------------------------------|--------------|------------|
| Holding torque ¹⁾ | N·m [lbf·in] | 400 [3540] |
| Min. release pressure ²⁾ | bar [psi] | 21 [305] |
| Max. pressure in brake line | bar [psi] | 200 [2900] |

¹⁾ This brake is to be used only as a passive parking brake. It may not be used for dynamic braking.

²⁾ Brake motors must always have a drain line. The brake release pressure is the difference between the pressure in the brake release line and the pressure in the drain line.

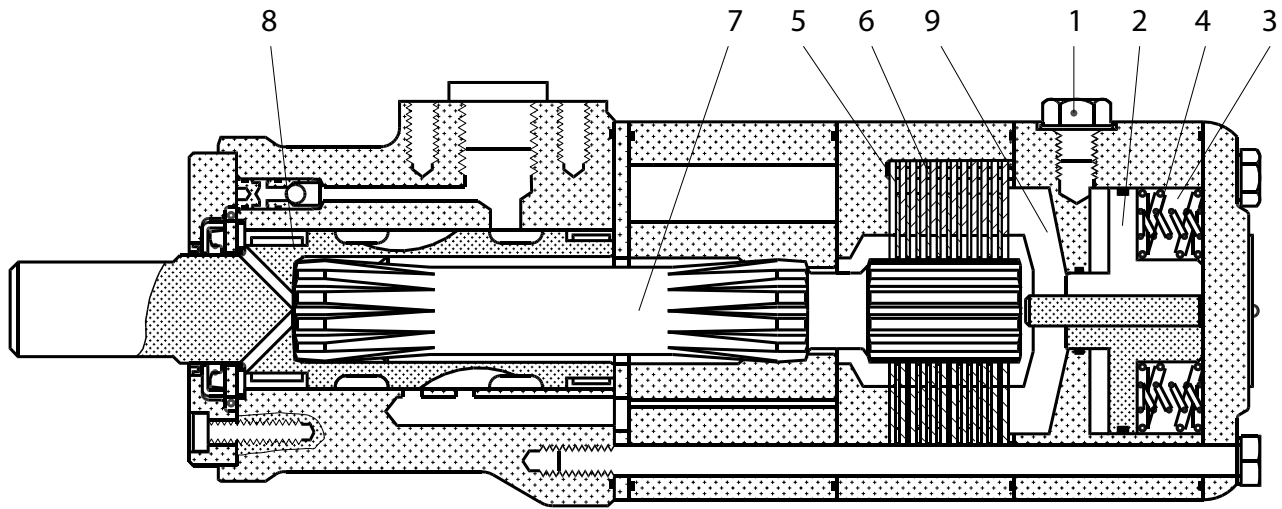
OMR F function

In normal condition where there is no pressure on the integrated brake in OMR, i.e. the brake is applied. The brake is released when hydraulic pressure of 21 bar [300 psi] min. is applied to the brake release port (1).

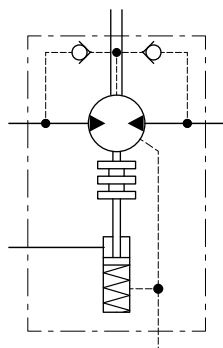
The pressure forces the piston (2) against the springs (3 and 4) disengaging the outer and inner discs (5 and 6) from each other so that the cardan shaft (7) and consequently output shaft (8) become free to rotate.

If the pressure on the brake release port is reduced to less than 21 bar [300 psi], the springs force the piston and pressure pad (9) against the brake discs and the cardan shaft/output shaft begin to lock up.

OMR technical data



151-1739.10.10

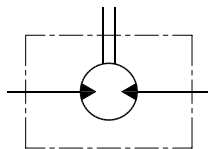


151-1726.10

Maximum permissible shaft seal pressure

High Pressure Shaft Seal (HPS) in motor

- OMR with HPS, without check valves and without drain connection:
 The shaft seal pressure equals the average of input pressure and return pressure



151-1743.10

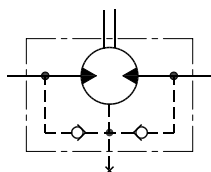
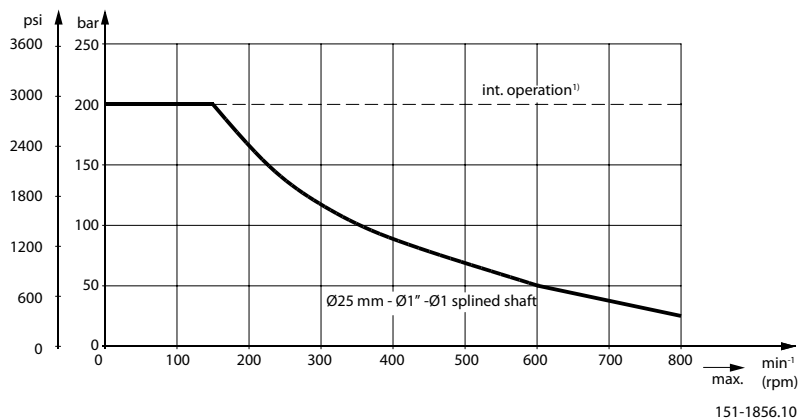
$$P_{\text{seal}} = \frac{P_{\text{in}} + P_{\text{return}}}{2}$$

- with HPS, check valves and

OMR technical data

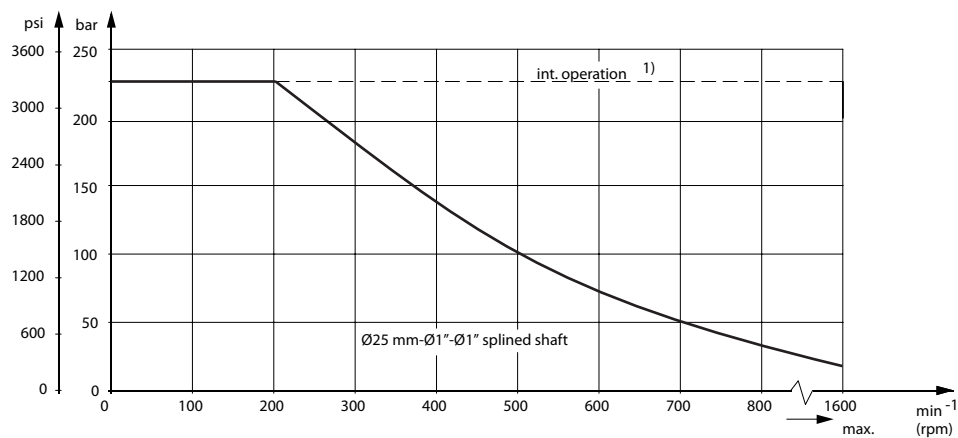
- with drain connection – **The shaft seal pressure equals the pressure in the drain line.**
- without drain connection – **The shaft seal pressure never exceeds the pressure in the return line.**

Max. permissible shaft seal pressure



151-320.10

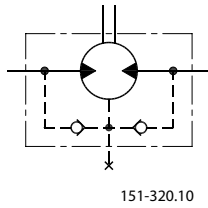
Maximum permissible shaft seal pressure



OMR with Standard Shaft seal

OMR with standard shaft seal, check valves and without use of drain connection:
 The pressure on the shaft seal never exceeds the pressure in the return line

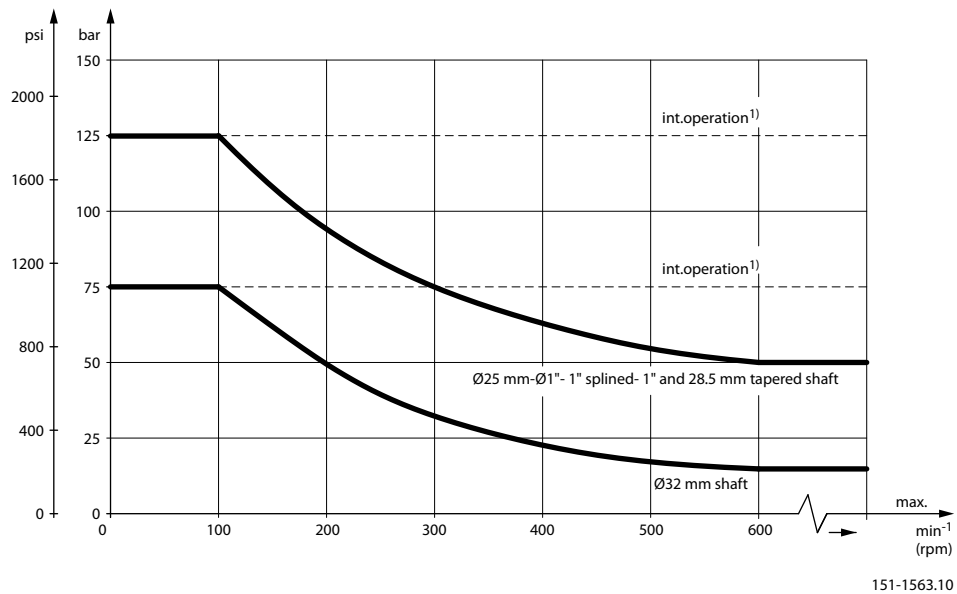
OMR technical data



OMR with standard shaft seal, check valves and with drain connection:

The shaft seal pressure equals the pressure on the drain line.

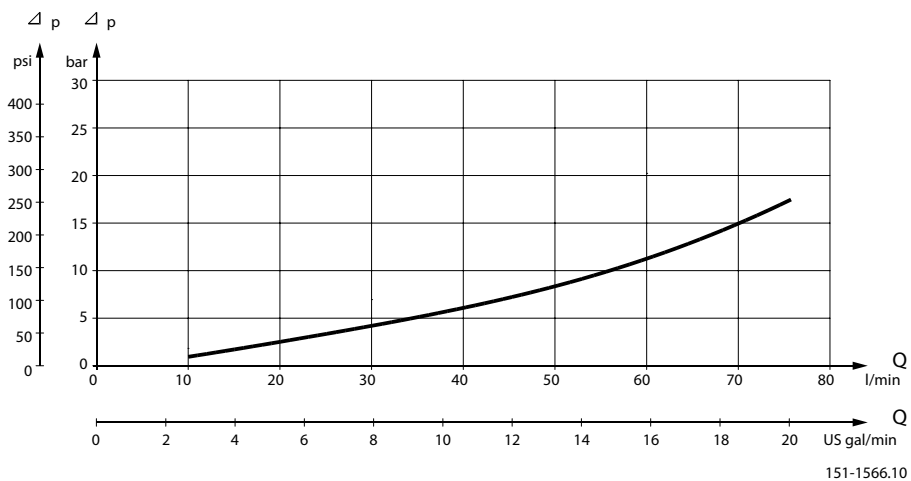
Max. return pressure without drain line or max. pressure in the drain line



1) Intermittent operation: the permissible values may occur for max. 10% of every minute.

Pressure drop in OMR motor

The curve applies to an unloaded motor shaft and an oil viscosity of 35 mm²/s [165 SUS]



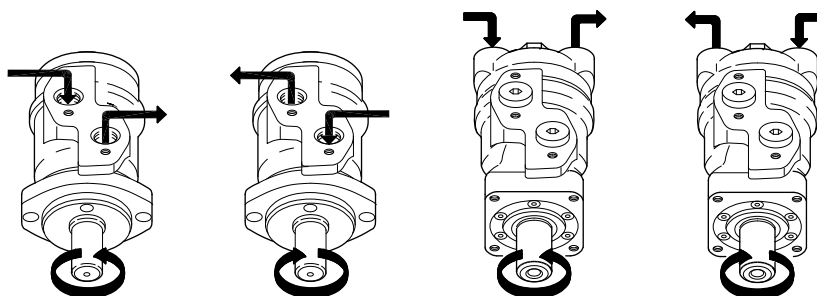
OMR technical data

Oil flow in drain line

Max. oil flow in the drain line at return pressure less 5-10 bar

| Pressure drop | 100 bar [1450 psi] | | 140 bar [2030 psi] | |
|---------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | 20 mm ² /s [100 SUS] | 35 mm ² /s [165 SUS] | 20 mm ² /s [100 SUS] | 35 mm ² /s [165 SUS] |
| Max. oil flow | 2.5 l/min [0.66 US gal/min] | 1.8 l/min [0.78 US gal/min] | 3.5 l/min [0.93 US gal/min] | 2.8 l/min [0.74 US gal/min] |

Direction of shaft rotation: clockwise



151-1836.10

Permissible shaft loads

OMP and OMR shaft loads

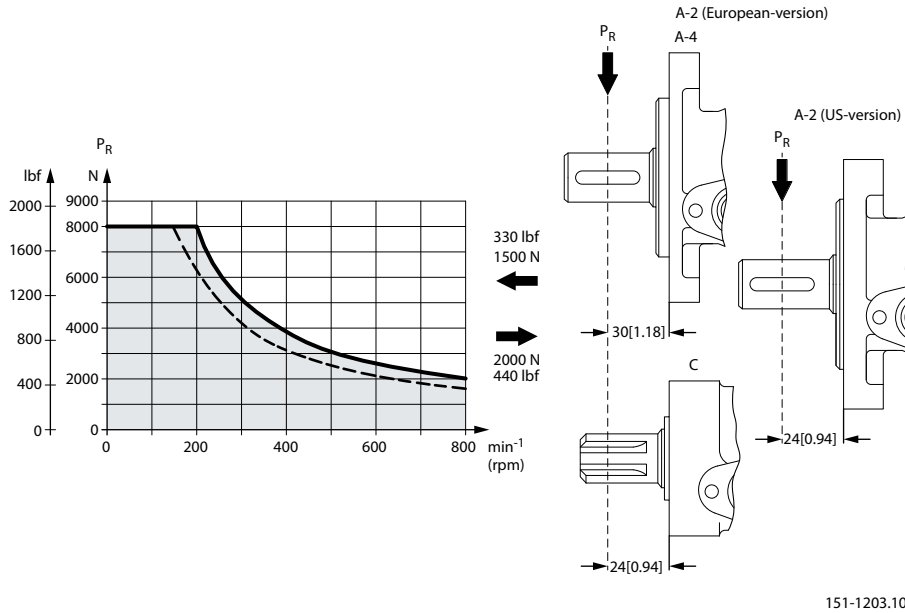
The permissible radial shaft load (P_R) depends on: a distance from the point of load to the mounting flange (L), speed (n), mounting flange and shaft version.

| Mounting flange | 4-oval flange** 2-hole oval flange (European version) | 4-hole oval flange | Square flange** 2-hole oval flange (US-version) |
|---|---|---|---|
| Shaft version | 25 mm cylindrical shaft 1 in cylindrical shaft 1 in splined shaft | 32 mm cylindrical shaft | 25 mm cylindrical shaft |
| Permissible shaft load (P_R) - l in mm | $\frac{800}{n} \cdot \frac{250000}{95 + L} \text{ N}^*$ | $\frac{800}{n} \cdot \frac{187500}{95 + L} \text{ N}^*$ | $\frac{800}{n} \cdot \frac{250000}{101 + L} \text{ N}^*$ |
| Permissible shaft load (P_R) - l in inch | $\frac{800}{n} \cdot \frac{2215}{3.74 + L} \text{ lbf}^*$ | $\frac{800}{n} \cdot \frac{1660}{3.74 + L} \text{ lbf}^*$ | $\frac{800}{n} \cdot \frac{2215}{3.98 + L} \text{ lbf}^*$ |

** For both European and US-version

* $n \geq 200 \text{ min}^{-1}$ [rpm]; $\leq 55 \text{ mm}$ [2.2 in]. $n < 200 \text{ min}^{-1}$ [rpm]; $= > P_{R\text{max}} = 8000 \text{ N}$ [1800 lbf]

OMR technical data



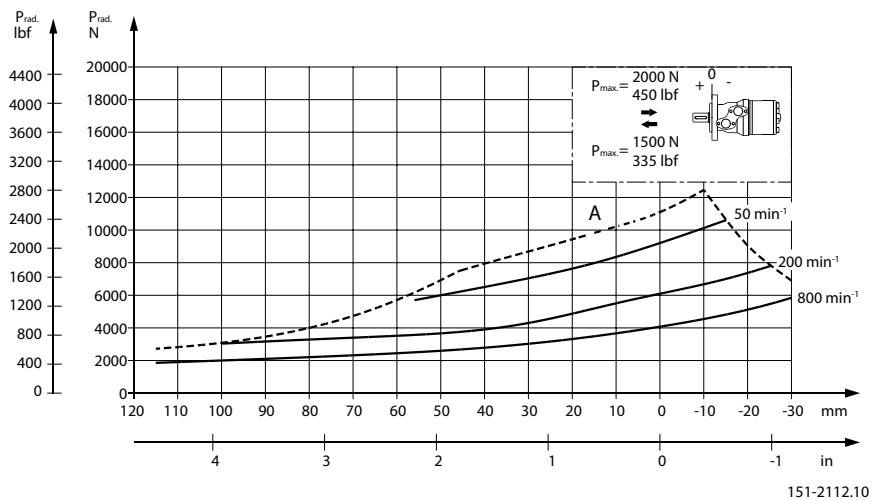
----- cylindrical shaft 32 mm [1.26 in]
 _____ other shaft versions

The curve shows the relation between P_R and n :

- when $l = 30$ mm [1.18 in] for motors with A2 (European version) and A4 oval mounting flange
- when $l = 24$ mm [0.94 in] for motors with square mounting flange and A2 (US version)

For applications with special performance requirements we recommend OMP and OMR with the output shaft running in needle bearings.

OMR N and OMR NF with needle bearings shaft loads



The output shaft on OMR N and OMR NF runs in needle bearings. These bearings and the recessed mounting flange allow a higher permissible radial load in comparison to OMR motors with slide bearings.

The permissible radial load on the shaft is shown for different speeds as a function of the distance from the mounting flange to the point of load application.

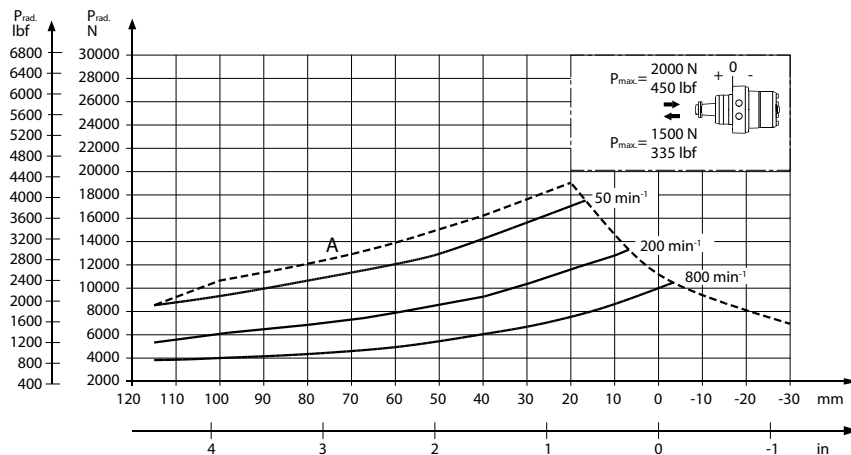
OMR technical data

Curve A indicates the max. radial shaft load. Any shaft load exceeding the values quoted in curve A will involve risk of breakage.

The other curves apply to a B₁₀ bearing life of 2000 hours at the number of revolutions indicated by the curve letter. Mineral based hydraulic oil with a sufficient content of anti-wear additives must be used.

Bearing life calculations can be made using the explanation and formula provided in the chapter "Bearing dimensioning" in the technical information *General Orbital Motors*, **BC0000083**.

OMRW N and OMRW NF with Needle Bearings



151-2113.10

The output shaft on OMRW N runs in needle bearings. These bearings and the recessed mounting flange allow a higher permissible radial load in comparison to OMR motors with slide bearings.

The permissible radial load on the shaft is shown for different speeds as a function of the distance from the mounting flange to the point of load application.

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

The other curves apply to a B₁₀ bearing life of 2000 hours at the number of revolutions indicated by the curve letter. Mineral based hydraulic oil with a sufficient content of anti-wear additives must be used.

Bearing life calculations can be made using the explanation and formula provided in the chapter »Bearing dimensioning« in the technical information *Orbital Motors General 520L0232*.

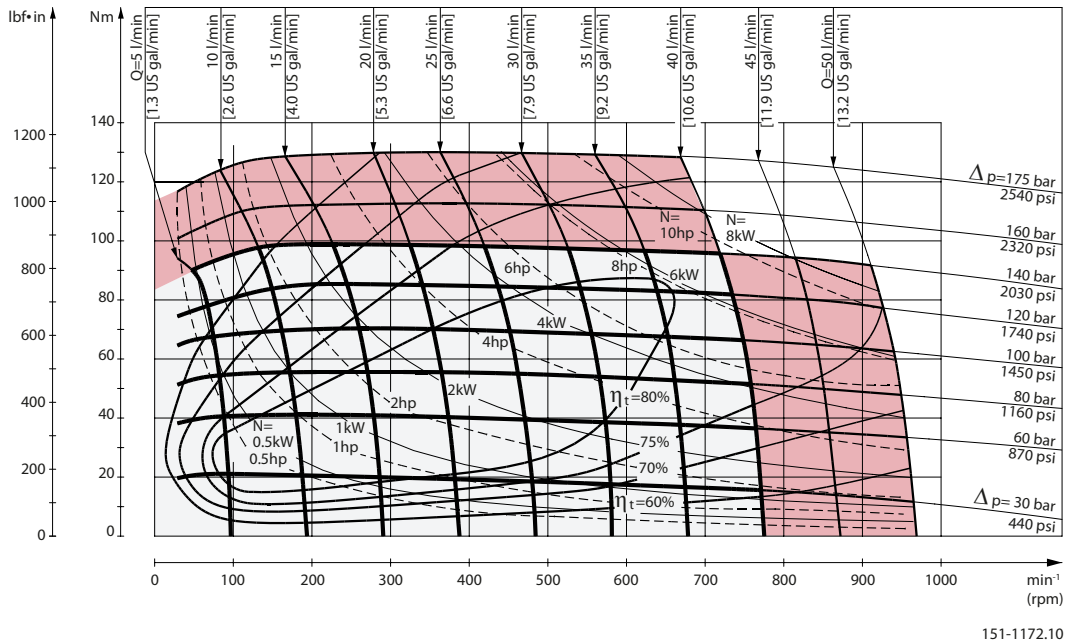
OMR function diagrams

Performance graphs for OMR X motors according to the displacement. Blue area shows continuous range and red area shows intermittent range (max. 10% operation every minute).

Explanation of function diagram use, basis and conditions can be found in [Speed, Torque and Output](#).

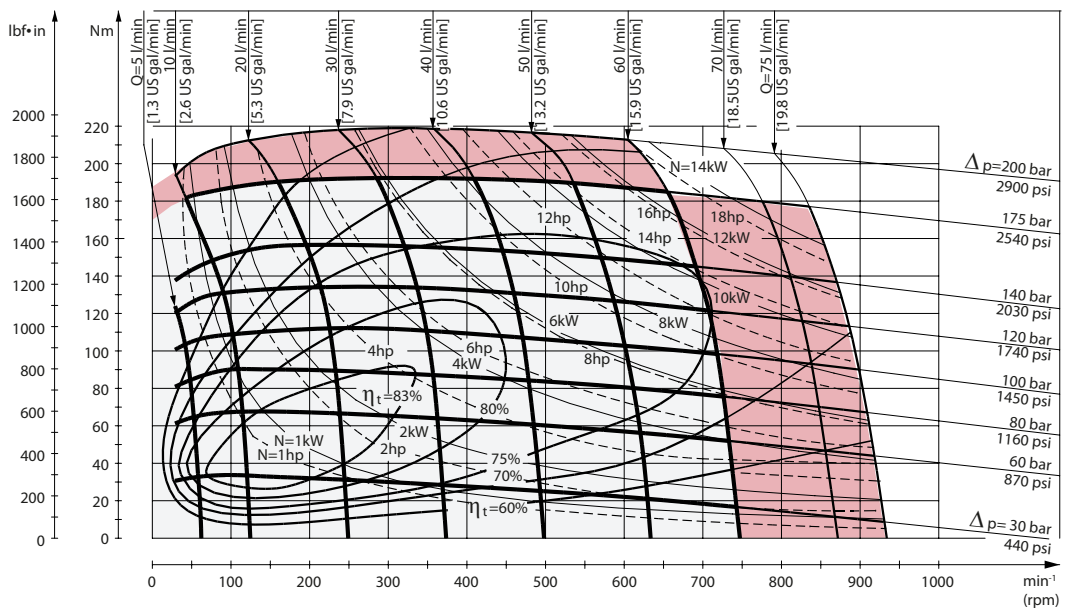
Intermittent pressure drop and oil flow must not occur simultaneously. Max. permissible continuous/ intermittent pressure drop for the actual shaft version can be found in [OMR technical data](#) on page 49.

OMR 50 function diagram



151-1172.10

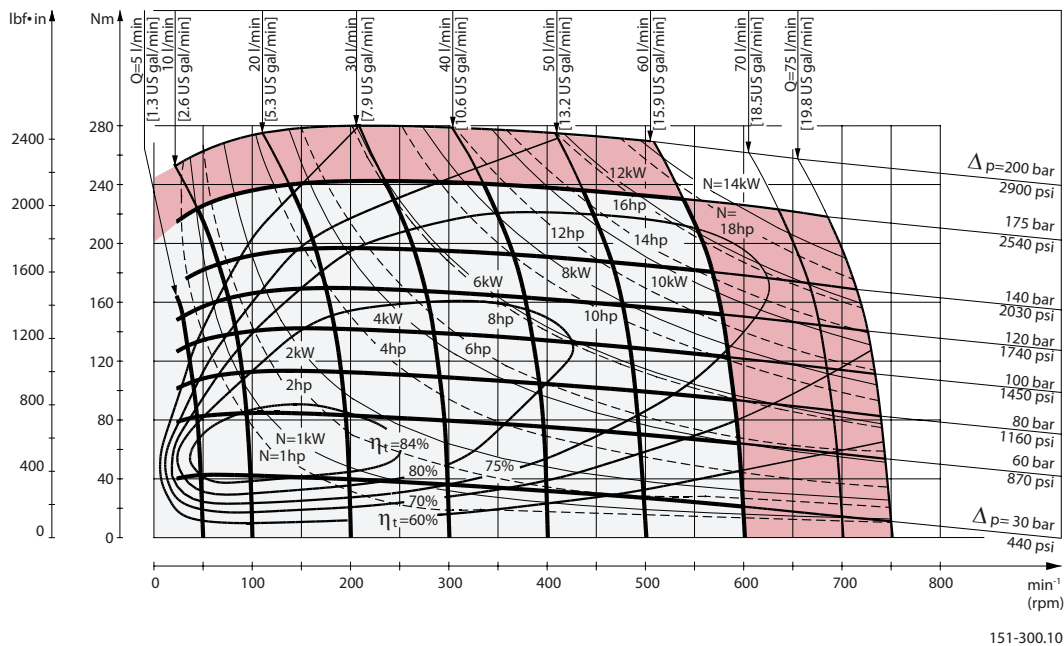
OMR 80 function diagram



151-299.10

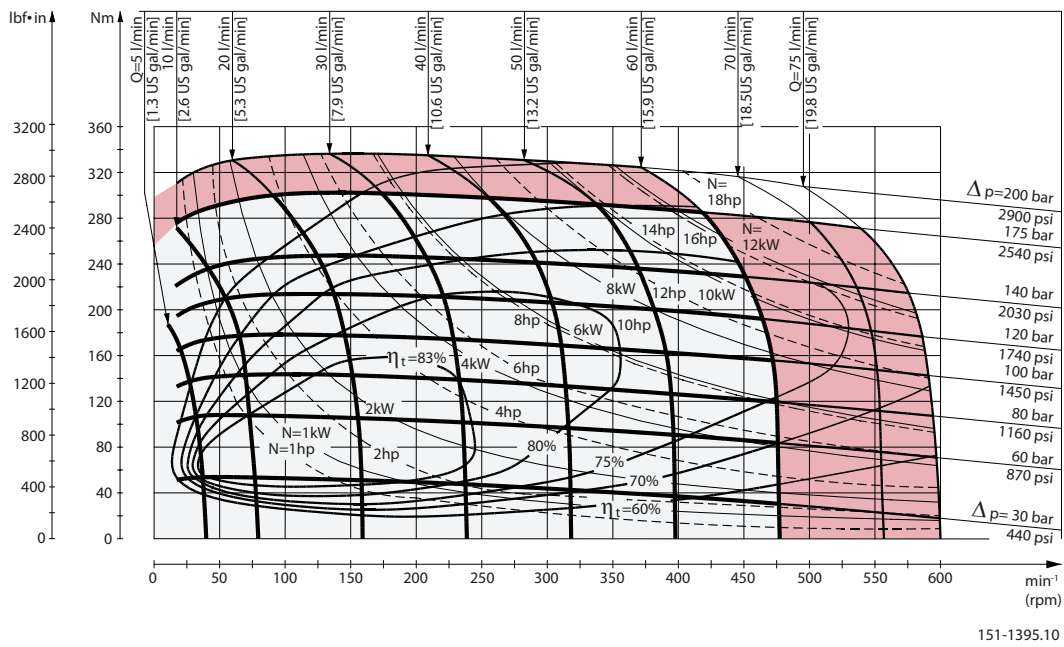
OMR function diagrams

OMR 100 function diagram



151-300.10

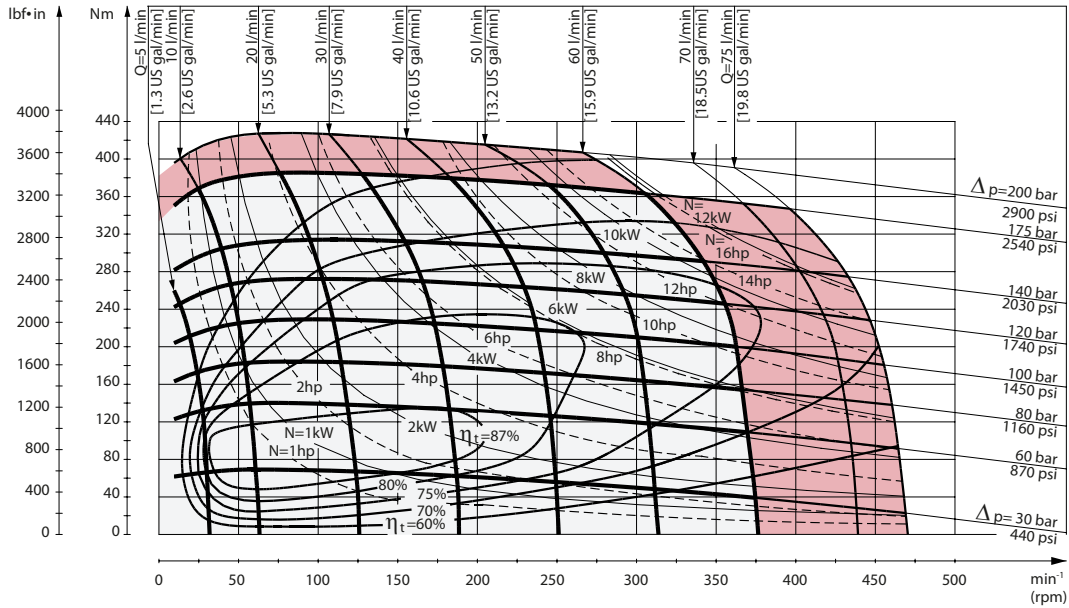
OMR 125 function diagram



151-1395.10

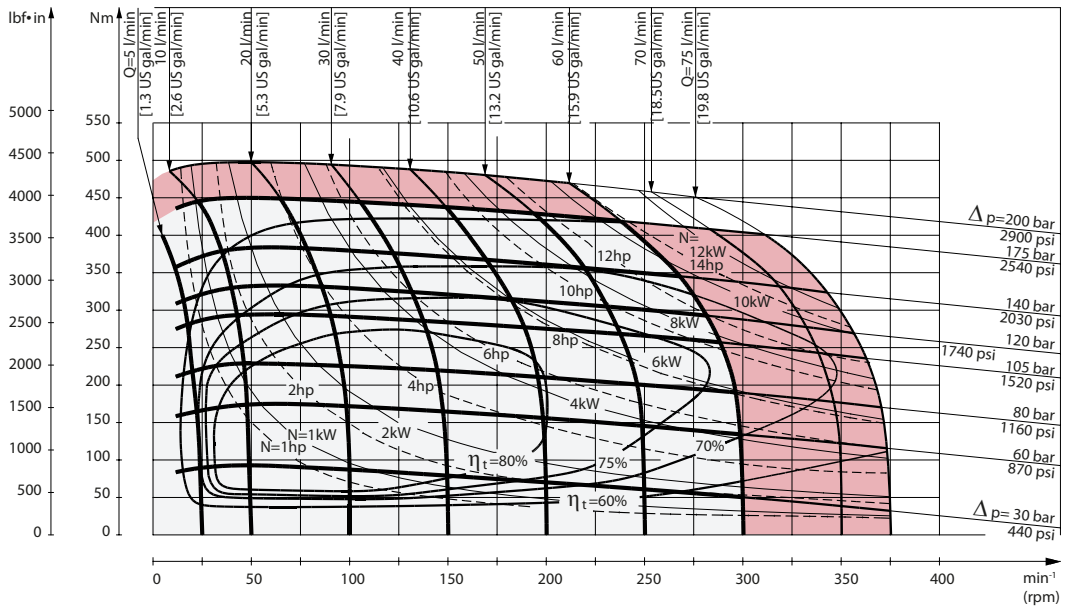
OMR function diagrams

OMR 160 function diagram



151-1044.10

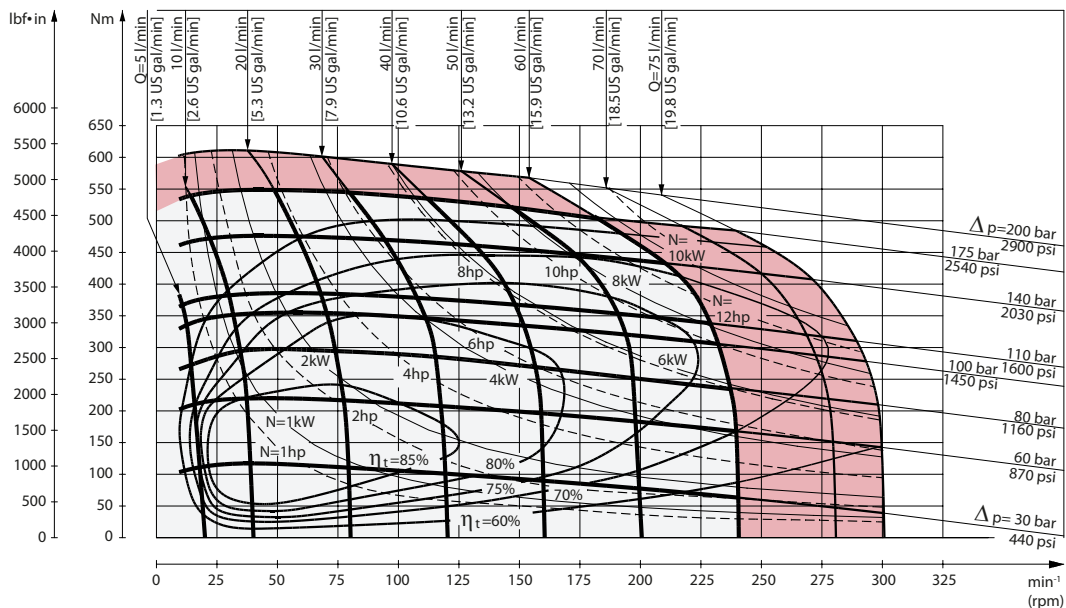
OMR 200 function diagram



151-1396.10

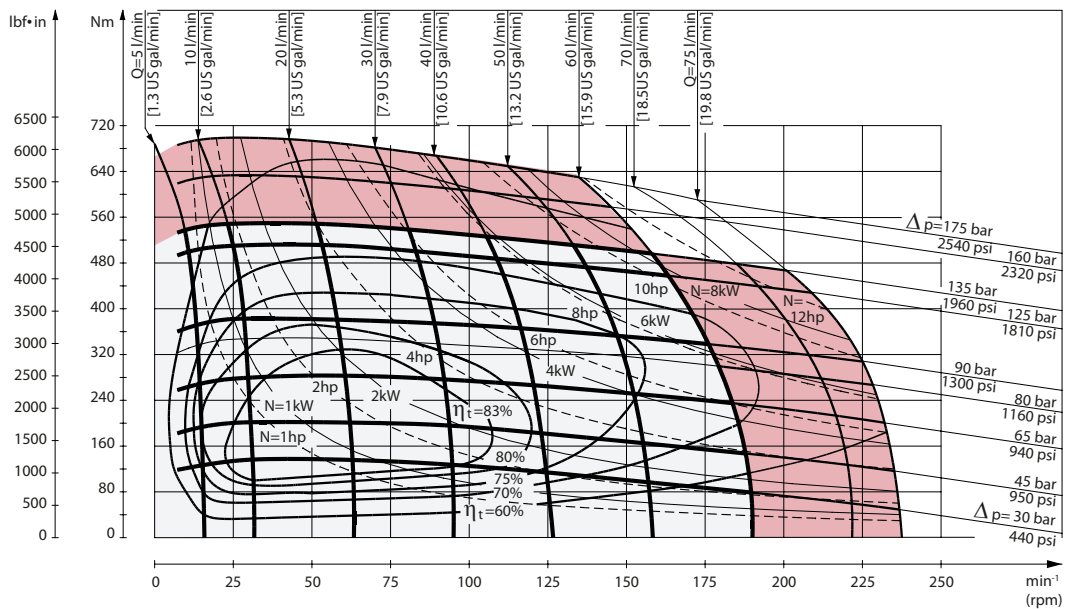
OMR function diagrams

OMR 250 function diagram



151-1119.10

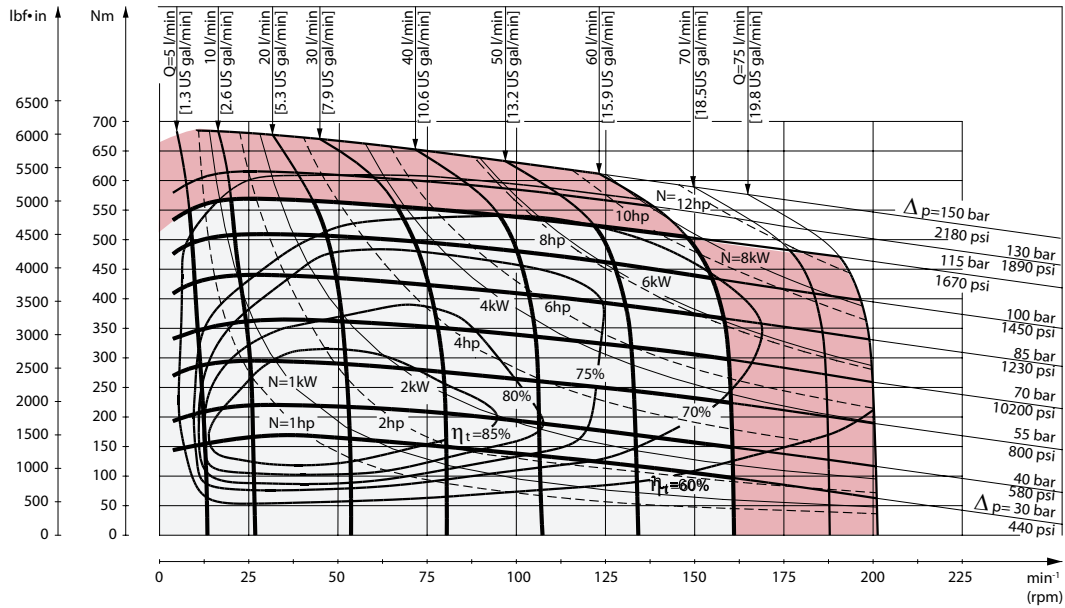
OMR 315 function diagram



151-809.10

OMR function diagrams

OMR 375 function diagram

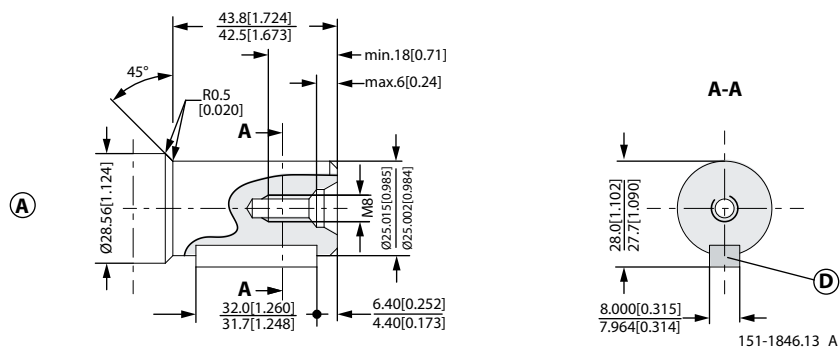


151-1385.12

OMR Shaft version

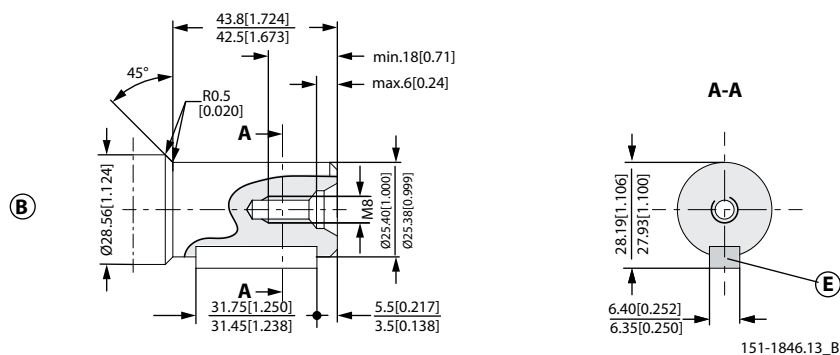
OMR shaft version

Cylindrical shaft 25 mm



D: Parallel key A8 · 7 · 32 DIN 6885
 Max. torque 360 N·m [3185 lb·in]

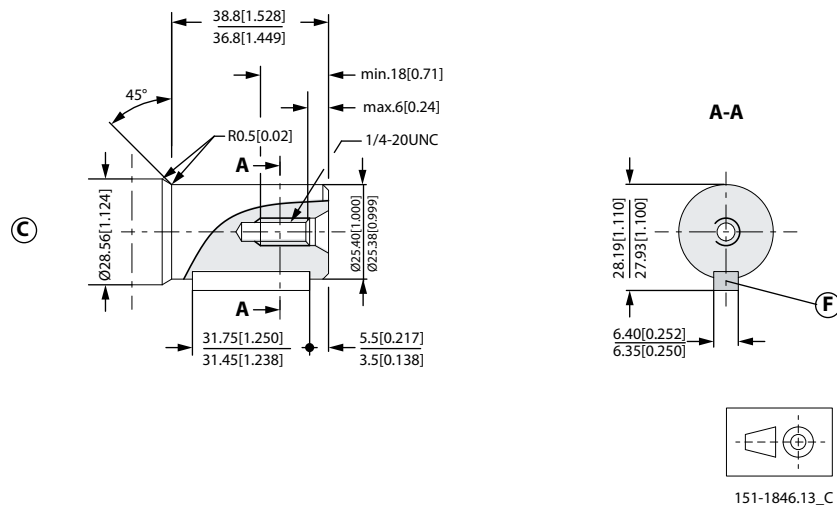
Cylindrical shaft 1 in



E: Parallel key $\frac{1}{4} \cdot \frac{1}{4} \cdot 1 \frac{1}{4}$ in B.S. 46
 Max. torque 360 N·m [3185 lb·in]

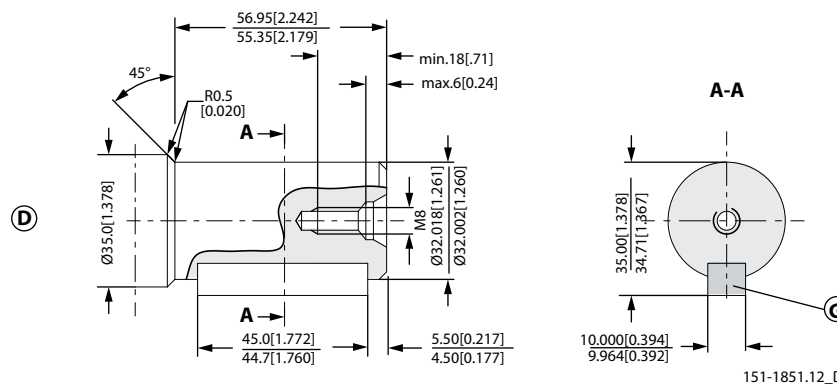
OMR Shaft version

Cylindrical shaft 1 in (US version)



F: Parallel key $\frac{1}{4} \cdot \frac{1}{4} \cdot 1 \frac{1}{4}$ in B.S. 46
 Max torque 360 N·m [3185 lb·in]

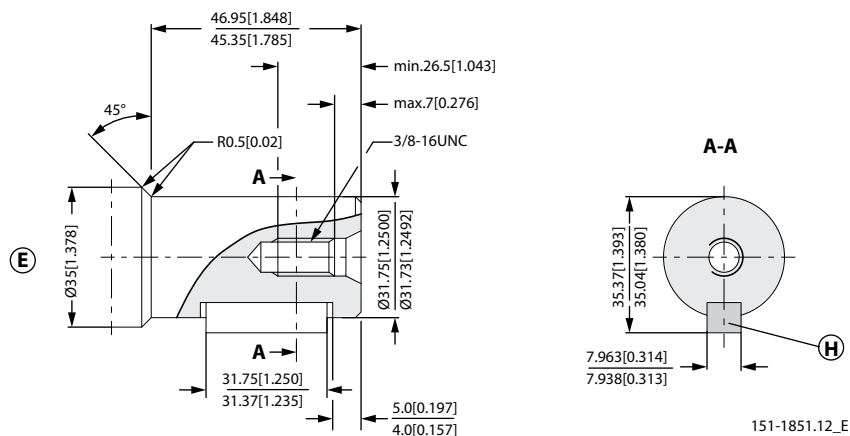
D – Cylindrical shaft 32 mm



G: Parallel key A10 · 8 · 45 DIN 6885

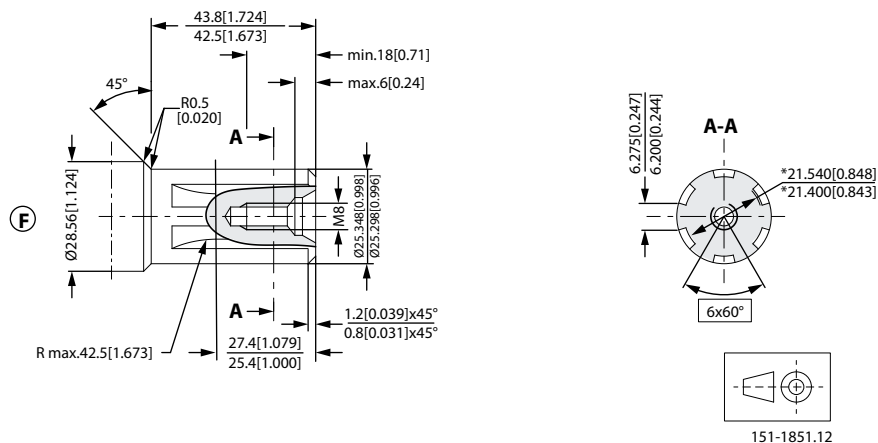
OMR Shaft version

E – Cylindrical shaft 1 ¼ in (US version)



H: Parallel key 5/16 • 5/16 • 1 ¼ in B.S. 46

F – Involute splined shaft B.S. 2059 (SAE 6B)



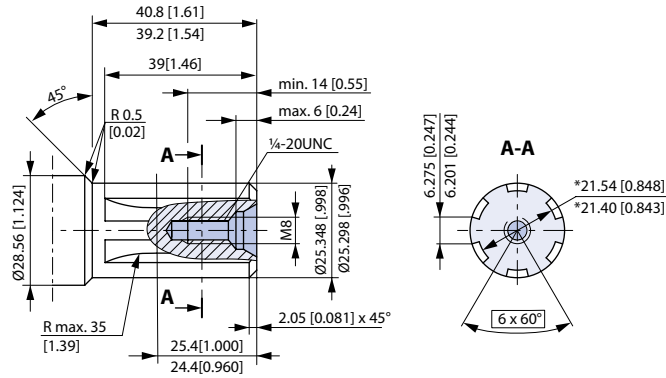
F: Straight-sided, bottom fitting, deep. Fit 2; Nom. size 1 in

*Deviates from B.S. 2059 (SAE 6B)

Max. torque 360 N·m [3185 lb·in] Max. cont. torque 400 N·m [3540 lb·in]

OMR Shaft version

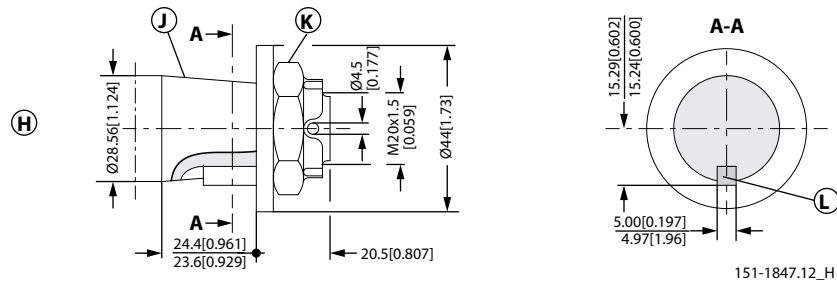
Splined shaft B.S. 2059 (SAE 6B - US version)



Straight-sided, bottom fitting, deep. Fit 2; Nom. size 1 in, *Deviates from B.S. 2059 (SAE 6B)

Max. cont. torque 400 N·m [3540 lb·in]

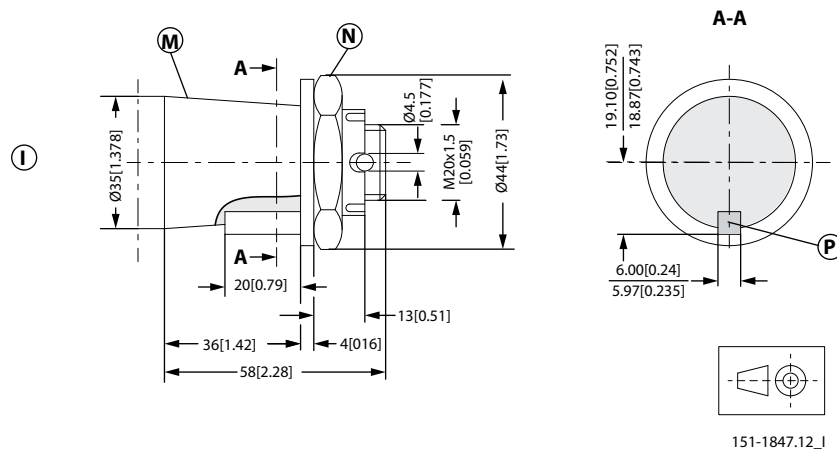
H – Tapered shaft 28.5 mm; ISO/R775 (taper 1:10)



K: DIN 937 NV 30 Tightening torque: 100 ± 10 N·m [885 ± 85 lb·in]

L: Parallel key B5 • 5 • 14 DIN 6885

I – Tapered shaft 35 mm (taper 1:10)

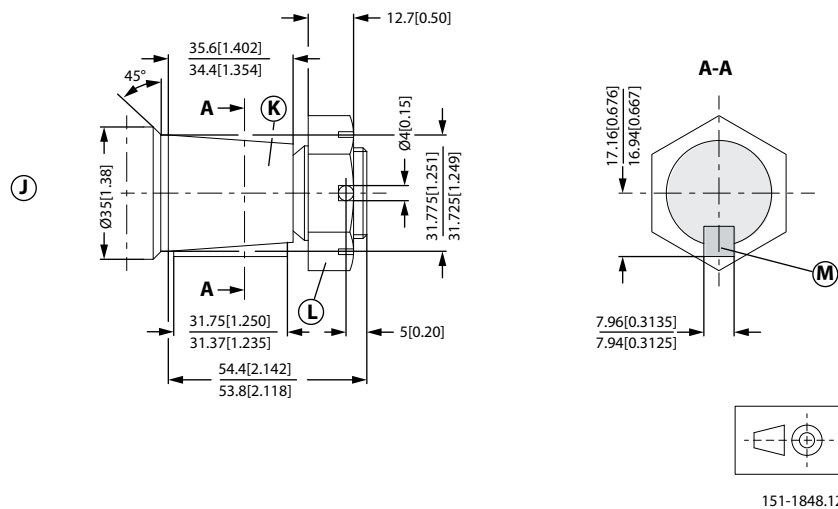


N: DIN 937 NV 41 Tightening torque: 200 ± 10 N·m [1770 ± 85 lb·in]

P: Parallel key B6 • 6 • 20 DIN 6885

OMR Shaft version

J – Tapered shaft 1 ¼ in (taper 1:8); SAE J501



- L:** 1 - 20 UNF across flats 1 7/16; Tightening torque: 200 ± 10 N•m [1770 ± 85 lb•in]
- M:** Parallel key 5/16 • 5/16 • 1 ¼ SAE J501; Max. cont. torque 400 N•m [3540 lb•in]

OMR port thread versions

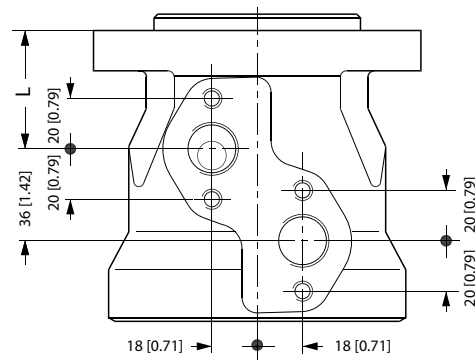
Main port thread versions

Main ports overview

| G ISO 228/1 – G1/2 | UNF 7/8–14 UNF O-ring boss | NPTF 1/2–14 NPTF | G drain ISO 228/1 – G1/4 | UNF drain 7/16–20 UNF O-ring boss |
|------------------------------|--------------------------------------|----------------------------|------------------------------------|---|
| | | | | |

OMR manifold mount

European version



151-2135.10

L: see dimensional drawing for given OMR motor:

- [OMR dimensions - European version](#) on page 69
- [OMR dimensions - US version](#) on page 79

L: see dimensional drawing for given OMP motor:

- [OMP dimensions - European version](#) on page 34
- [OMP dimensions - US version](#) on page 42

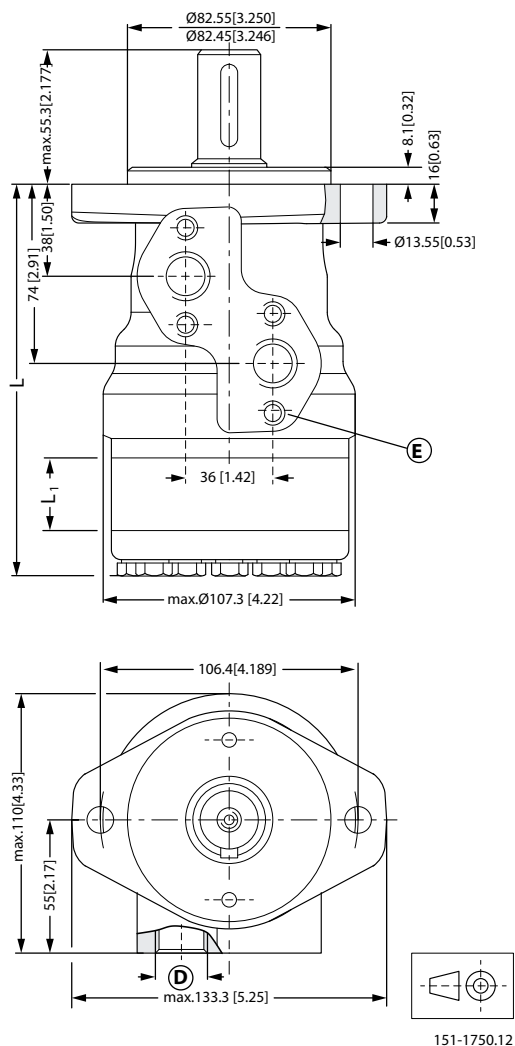
OMR dimensions

OMR dimensions - European version

OMR Side port version with 2-hole oval mounting flange (A2 flange)

- With high pressure shaft seal

Side port - European version



D: G ½; 15 mm [0.59 in] deep

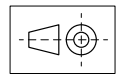
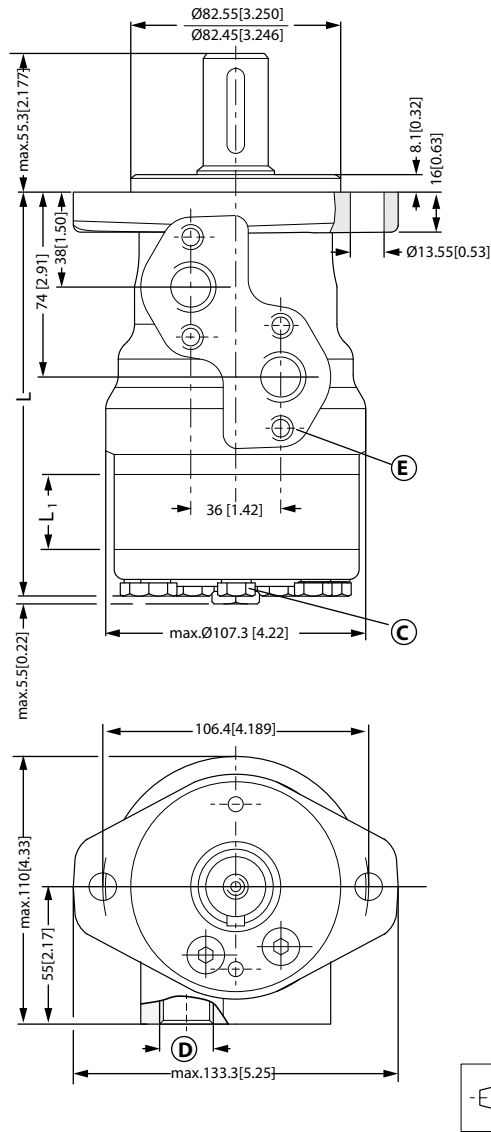
E: M8; 13 mm [0.51 in] deep (4 pcs.)

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{Max} | mm | 137.8 | 142.8 | 146.2 | 150.6 | 156.6 | 163.6 | 172.3 | 183.6 | 193.8 |
| | [in] | [5.43] | [5.62] | [5.76] | [5.93] | [6.17] | [6.44] | [6.78] | [7.23] | [7.63] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR dimensions

EU version side port with 2-hole oval mounting flange (A2-flange)

Side port - European version



151-1845.12

- C:** Drain connection G ¼; 15 mm [0.47 in] deep
- D:** G ½; 15 mm [0.59 in] deep
- E:** M8; 13 mm [0.51 in] deep (4 pcs.)

Port connections:

- A, B** Main ports: G 1/2; min 15 mm [0.59 in] deep
- C** Drain port: G 1/4; 12 mm [0.47 in] deep

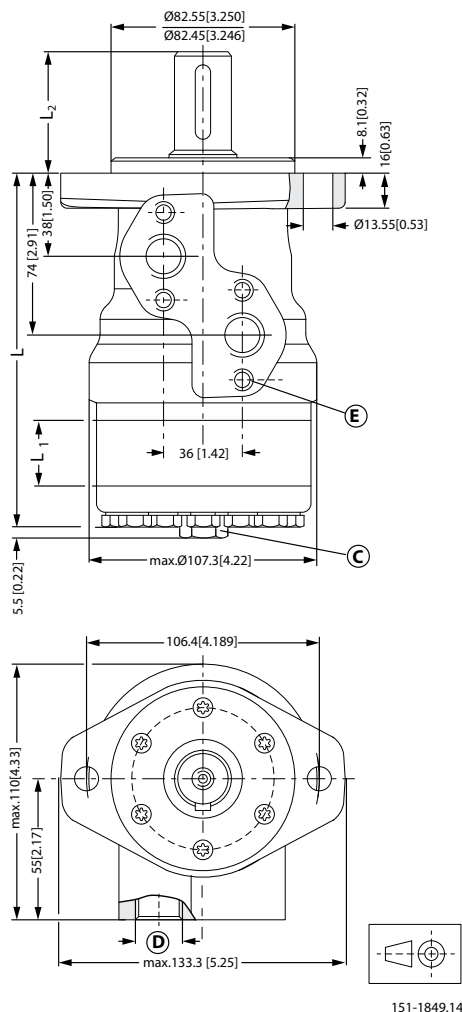
| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{MAX} | mm | 137.8 | 142.8 | 146.2 | 150.6 | 156.6 | 163.6 | 172.3 | 183.6 | 193.8 |
| | [in] | [5.43] | [5.62] | [5.76] | [5.93] | [6.17] | [6.44] | [6.78] | [7.23] | [7.63] |

OMR dimensions

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|----------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR, OMR C and OMR N Side port version with 2-hole oval mounting flange (A2 flange)

Side port - European version



151-1849.14

C: Drain connection G ¼; 12 mm [0.47 in] deep

D: G ½; 15 mm [0.59 in] deep

E: M8; 13 mm [0.51 in] deep (4 pcs.)

| Output shaft. max. | | Cylindrical shaft 32 mm [1.26 in] | Cylindrical shaft 25 mm [0.98 in] | Tapered shaft 28.56 mm [1.12 in] |
|--------------------|------|-----------------------------------|-----------------------------------|----------------------------------|
| L ₂ max | mm | 68.3 | 55.3 | 56.65 |
| | [in] | [2.69] | [2.18] | [2.23] |

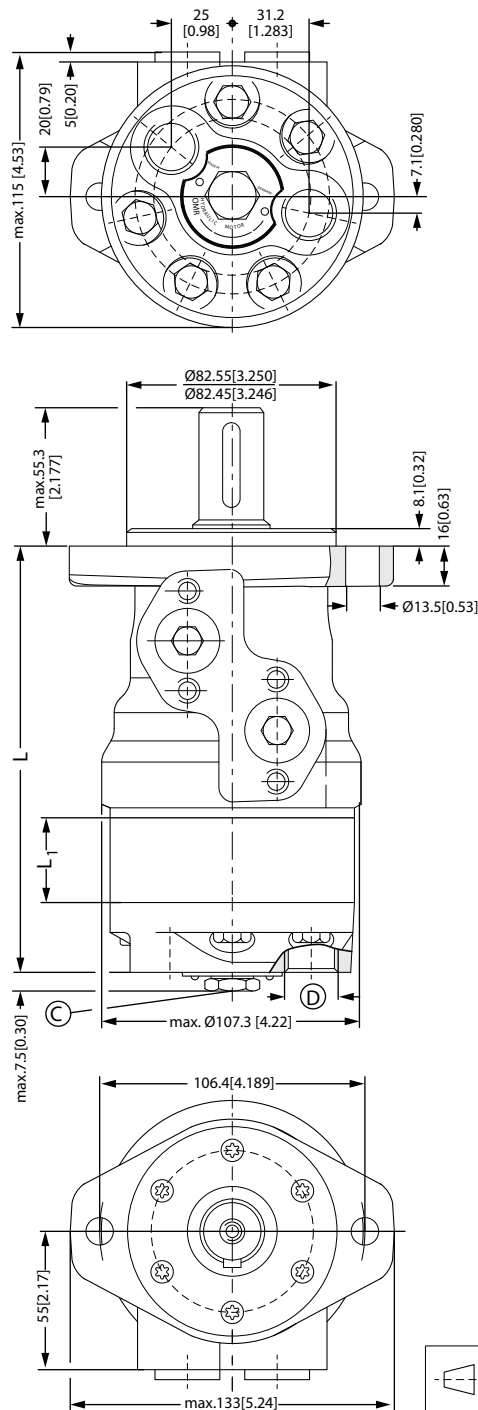
| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{max} | mm | 137.8 | 142.8 | 146.2 | 150.6 | 156.6 | 163.6 | 172.3 | 183.6 | 193.8 |
| | [in] | [5.43] | [5.62] | [5.76] | [5.93] | [6.17] | [6.44] | [6.78] | [7.23] | [7.63] |

OMR dimensions

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|----------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

EU version end port version with 2-hole oval mounting flange (A2-flange)

End port - European version



OMR dimensions

C: G ¼; 12 mm [0.47 in] deep

D: G ½; 15 mm [0.59 in] deep

Port connections:

A, B Main ports: G 1/2; min 15 mm [0.59 in] deep

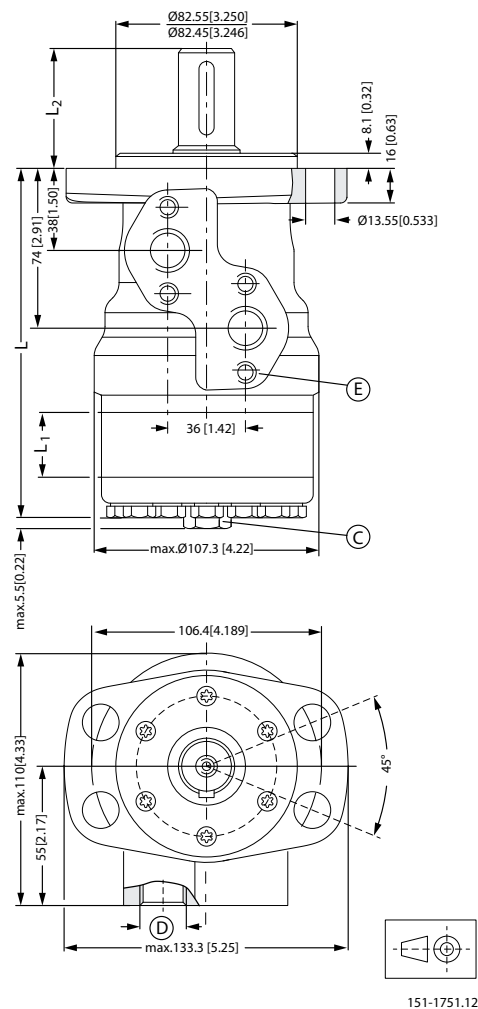
C Drain port: G 1/4; 12 mm [0.47 in] deep

D Thread: M8; 13 mm [0.51 in] deep

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{Max} | mm | 152.2 | 157.2 | 160.6 | 165.0 | 171.0 | 178.0 | 186.7 | 198.0 | 208.2 |
| | [in] | [5.99] | [6.19] | [6.32] | [6.50] | [6.73] | [7.01] | [7.35] | [7.80] | [8.20] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR Side port version with 4-hole oval mounting flange (A4 flange)

Side port - European version



C: Drain connection G ¼; 15 mm [0.47 in] deep

OMR dimensions

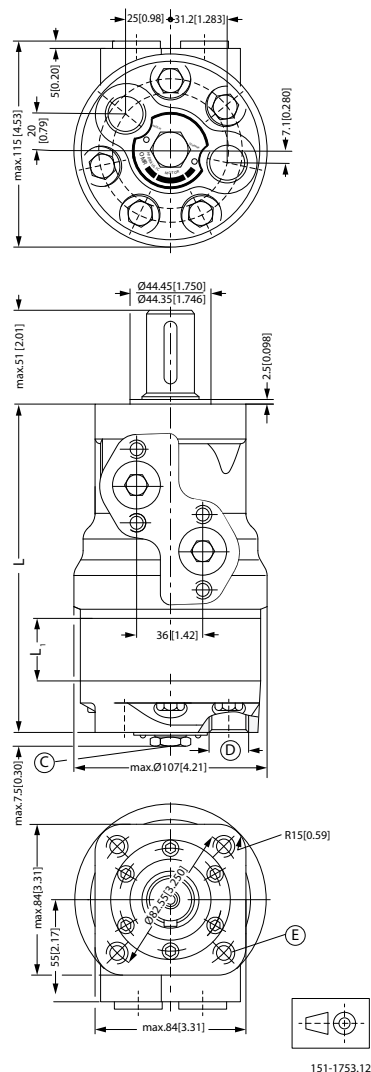
- D:** G 1/2; 15 mm [0.59 in] deep
- E:** M8; 13 mm [0.51 in] deep (4 pcs.)

| Output shaft.max. | | Cylindrical shaft 32 mm [1.26 in] | Cylindrical shaft 25 mm [0.98 in] | Tapered shaft 28.56 mm [1.12 in] |
|-------------------|------|-----------------------------------|-----------------------------------|----------------------------------|
| L2 | mm | 68.3 | 55.3 | 56.3 |
| | [in] | [2.69] | [2.18] | [2.22] |

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|-------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{Max.} | mm | 137.8 | 142.8 | 146.2 | 150.6 | 156.6 | 163.6 | 172.3 | 183.6 | 193.8 |
| | [in] | [5.43] | [5.62] | [5.76] | [5.93] | [6.17] | [6.44] | [6.78] | [7.23] | [7.63] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR End port version with square mounting flange (C-flange)

End port - European version



OMR dimensions

C: Drain connection G ¼; 12 mm [0.47 in] deep

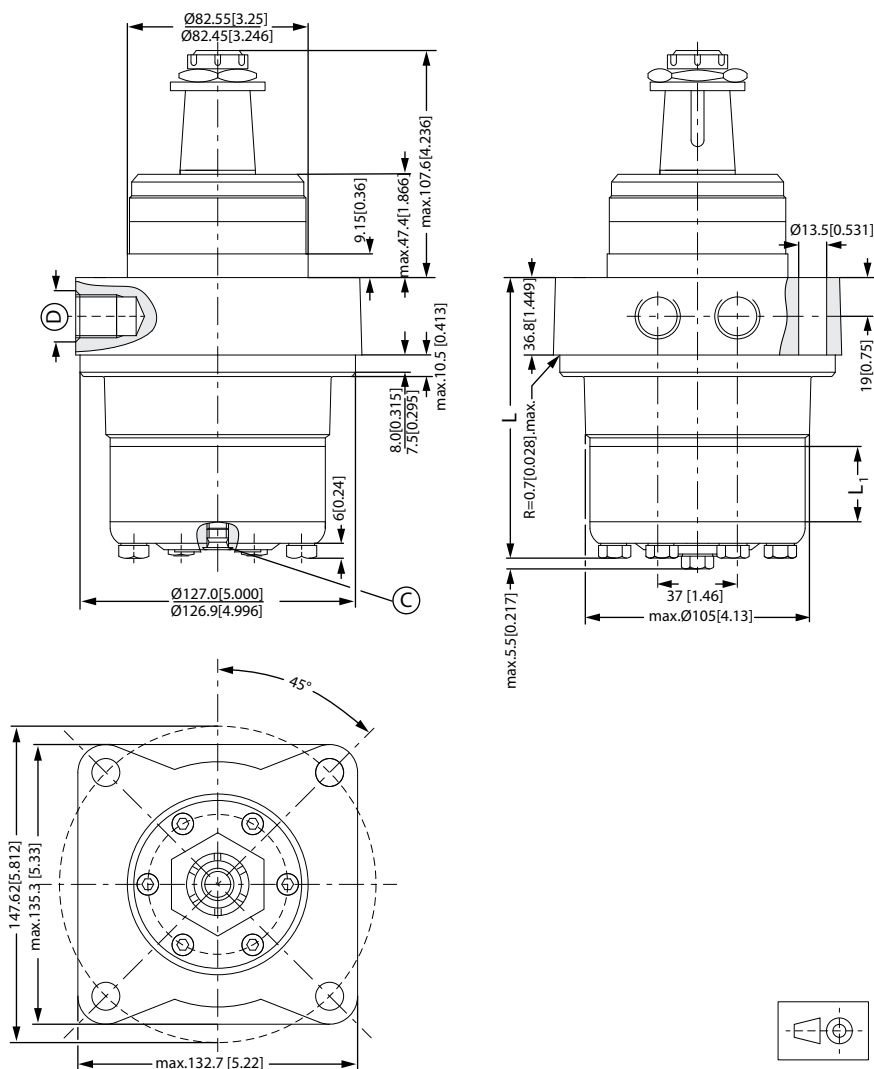
D: G ½; 15 mm [0.59 in] deep

E: M10; 15 mm [0.59 in] deep (4 pcs.)

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|-------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{Max.} | mm | 158.6 | 163.3 | 167.0 | 171.0 | 177.0 | 184.0 | 192.7 | 204.0 | 214.2 |
| | [in] | [6.24] | [6.44] | [6.57] | [6.73] | [6.97] | [7.24] | [7.24] | [8.03] | [8.43] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMRW N wheel motor

Wheel motor - European version



151-1386.12

C: Drain connection G ¼; 12 mm [0.47 in] deep

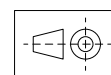
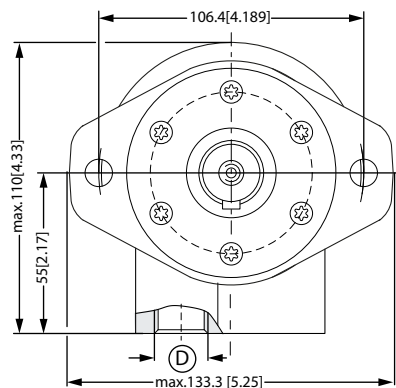
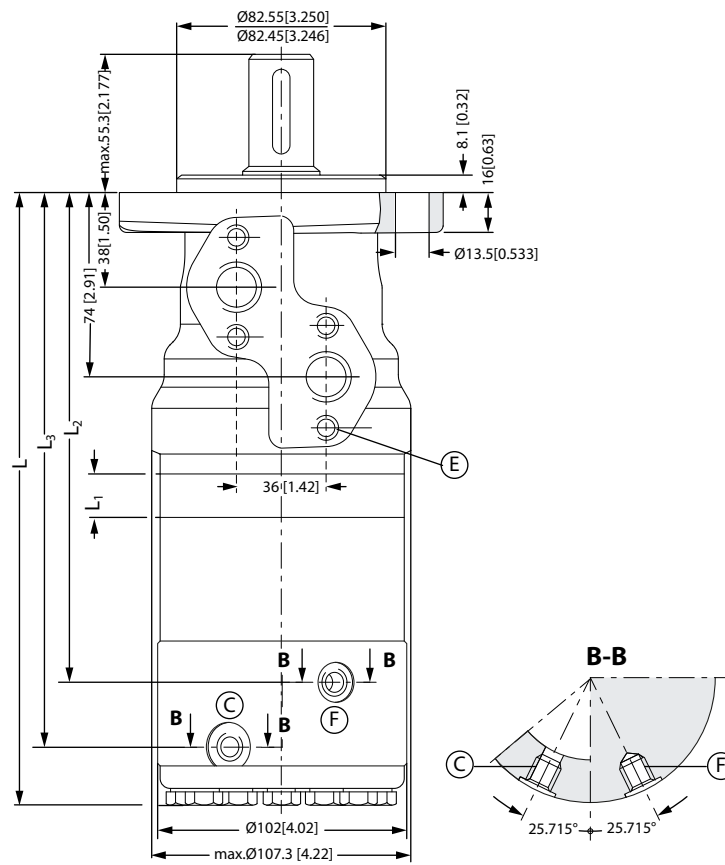
D: G ½; 15 mm [0.59 in] deep

OMR dimensions

| Type | | OMRW 50 N | OMRW 80 N | OMRW 100 N | OMRW 125 N | OMRW 160 N | OMRW 200 N | OMRW 250 N | OMRW 315 N | OMRW 375 N |
|-------------------|------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| L _{Max.} | mm | 113.7 | 114.7 | 118.1 | 122.5 | 128.5 | 135.1 | 144.2 | 155.5 | 165.7 |
| | [in] | [4.48] | [4.52] | [4.65] | [4.82] | [5.06] | [5.33] | [5.68] | [6.12] | [6.52] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR F motor

F motor - European version



151-1719.12

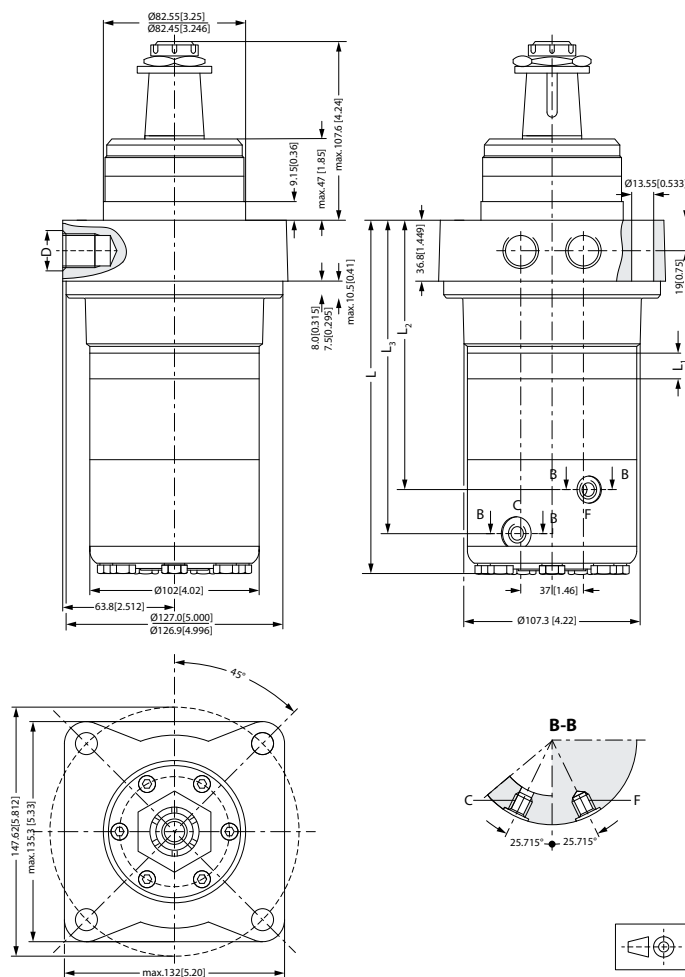
OMR dimensions

- C:** Drain connection G ¼; 12 mm [0.47 in] deep
- D:** G ½; 15 mm [0.59 in] deep
- E:** M8; 13 mm [0.51 in] deep
- F:** Brake release connection G ¼

| Type | | OMR 80 F | OMR 100 F | OMR 125 F | OMR 160 F | OMR 200 F | OMR 250 F | OMR 315 F | OMR 375 F |
|-------------------|------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| L _{max.} | mm | 242.7 | 246.1 | 250.5 | 265.1 | 263.5 | 272.2 | 283.5 | 293.7 |
| | [in] | [9.56] | [9.69] | [9.86] | [10.10] | [10.37] | [10.72] | [11.16] | [11.56] |
| L ₁ | mm | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |
| L ₂ | mm | 186.8 | 190.2 | 194.6 | 200.6 | 207.6 | 216.3 | 227.6 | 237.7 |
| | [in] | [7.35] | [7.49] | [7.66] | [7.90] | [8.17] | [8.51] | [8.96] | [9.36] |
| L ₃ | mm | 210.3 | 213.7 | 218.1 | 224.1 | 231.1 | 239.8 | 251.1 | 261.2 |
| | [in] | [8.28] | [8.41] | [8.58] | [8.82] | [9.10] | [9.45] | [9.88] | [10.28] |

OMRW NF motor

NF motor - European version



151-1793.12

OMR dimensions

- C:** Drain connection G ¼; 12 mm [0.47 in] deep
- D:** G ½; 15 mm [0.59 in] deep
- E:** M8; 13 mm [0.51 in] deep
- F:** Brake release connection G ¼

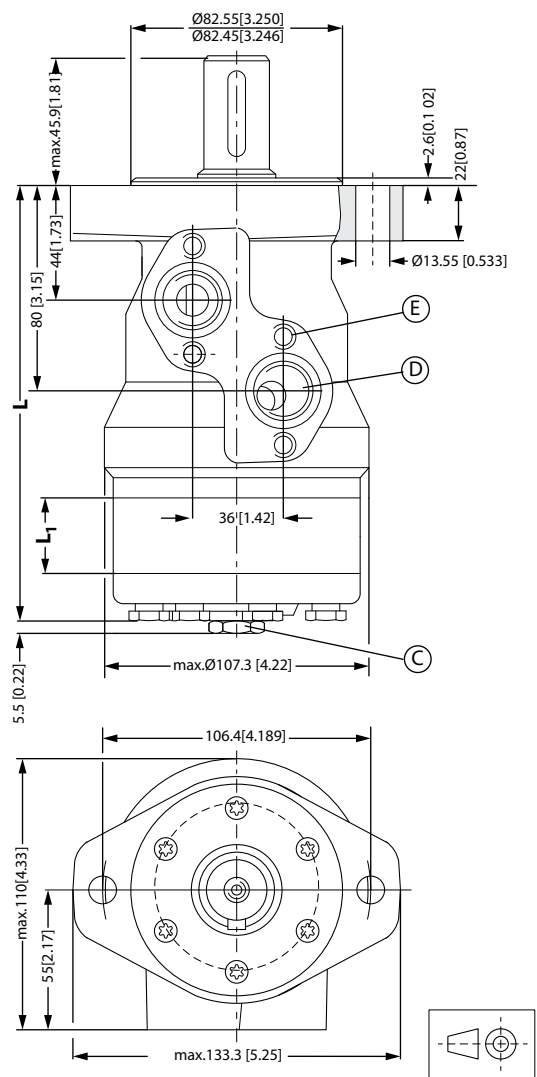
| Type | | OMRW 80 NF | OMRW 100 NF | OMRW 125 NF | OMRW 160 NF | OMRW 200 NF | OMRW 250 NF | OMRW 315 NF | OMRW 375 NF |
|--------------------|------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| L _{max.} | mm | 213.2 | 218.0 | 222.4 | 228.4 | 235.4 | 242.7 | 254.0 | 264.2 |
| | [in] | [8.39] | [8.58] | [8.76] | [8.99] | [9.27] | [9.56] | [10.0] | [10.40] |
| L ₁ | mm | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |
| L _{2 max} | mm | 159.2 | 161.9 | 166.3 | 172.3 | 179.3 | 188.7 | 200.0 | 210.2 |
| | [in] | [6.27] | [6.37] | [6.55] | [6.78] | [7.06] | [7.43] | [7.87] | [8.28] |
| L ₃ | mm | 182.7 | 185.4 | 189.8 | 195.8 | 202.8 | 212.2 | 223.5 | 233.7 |
| | [in] | [7.19] | [7.30] | [7.47] | [7.71] | [7.98] | [8.35] | [8.80] | [9.20] |

OMR dimensions

OMR dimensions - US version

US version side port with 2-hole oval mounting flange (A2-flange)

Side port - US version



151-1223.13

- C:** Drain connection 7/16 - 20 mm UNF; 12 mm [0.47 in] deep
- D:** 7/8 - 14 UNF; 16.76 mm [0.66 in] deep
- E:** M8; 13 mm [0.51 in] deep (4-off)

Port connections:

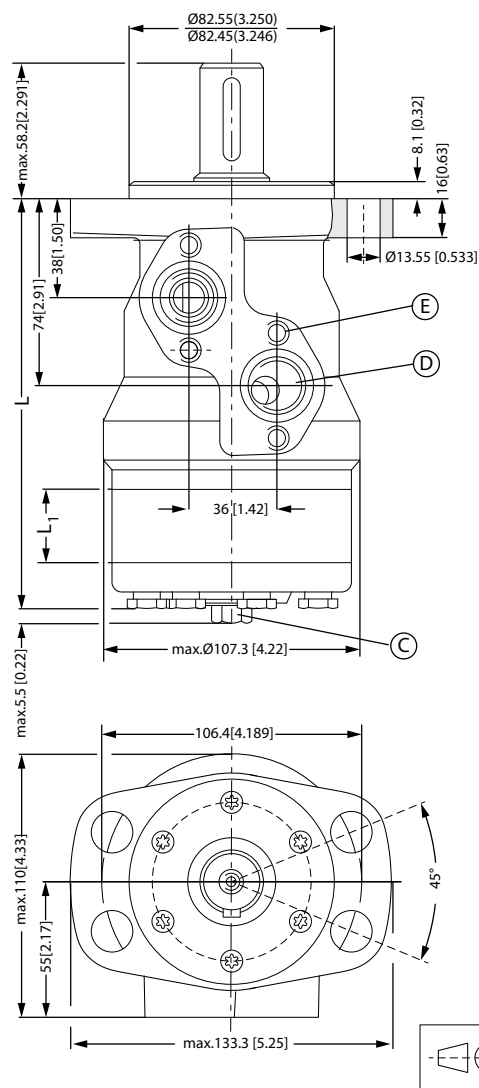
- A, B** Main ports: 7/8 - 14 UNF; min. 16.7 mm [0.66 in] deep
- C** Drain port: 7/16 - 20 UNF; 12 mm [0.47 in] deep
- D** Thread: M8; 13 mm [0.51 in] deep

OMR dimensions

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{max} | mm | 143.7 | 148.7 | 152.1 | 156.5 | 162.5 | 169.5 | 178.2 | 189.5 | 199.7 |
| | [in] | [5.66] | [5.85] | [5.99] | [6.16] | [6.40] | [6.67] | [7.02] | [7.46] | [7.86] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 64.8 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR Side port version with 4-hole oval mounting flange (A4-flange)

Side port - US version



151-1221.13

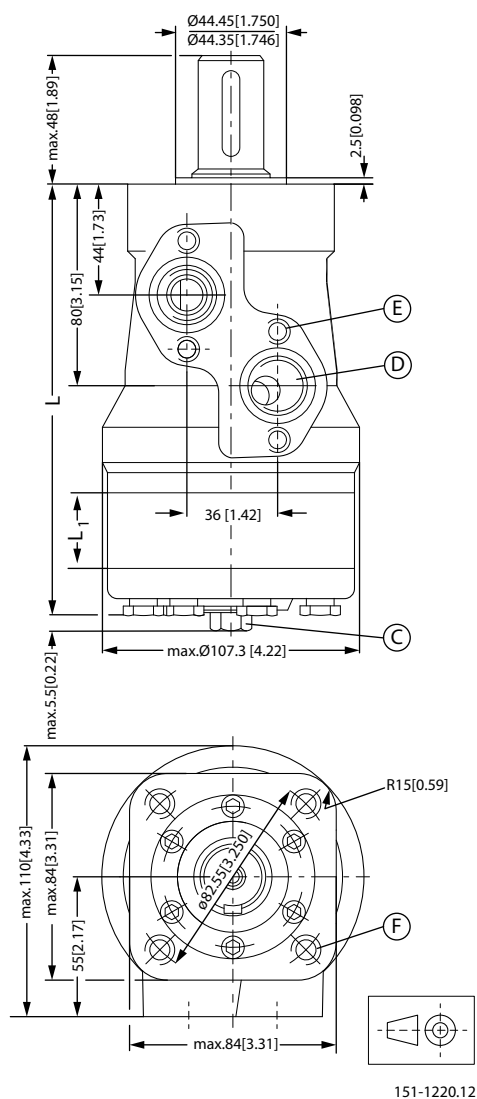
- C:** Drain connection 7/16 - 20 UNF; 12 mm [0.47 in] deep
- D:** 7/8 - 14 UNF; 17 mm [0.66 in] deep
- E:** M8; 13 mm [0.51 in] deep (4-off)

OMR dimensions

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{max} | mm | 137.8 | 142.8 | 146.2 | 150.6 | 156.6 | 163.6 | 172.3 | 183.6 | 193.8 |
| | [in] | [5.43] | [5.62] | [5.76] | [5.93] | [6.17] | [6.44] | [6.78] | [7.23] | [7.63] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

US version side port with square mounting flange (C-flange)

Side port - US version



- C:** Drain connection 7/16 - 20 mm UNF; 12 mm [0.47 in] deep
- D:** 7/8 - 14 UNF; 17 mm [0.66 in] deep
- E:** M8; 13 mm [0.51 in] deep (4-off)
- F:** 3/8 - 16 UNC; 15 mm [0.59 in] deep (4-off)

Port connections:

OMR dimensions

A, B Main ports: 7/8 - 14 UNF; min. 16.7 mm [0.66 in] deep

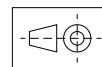
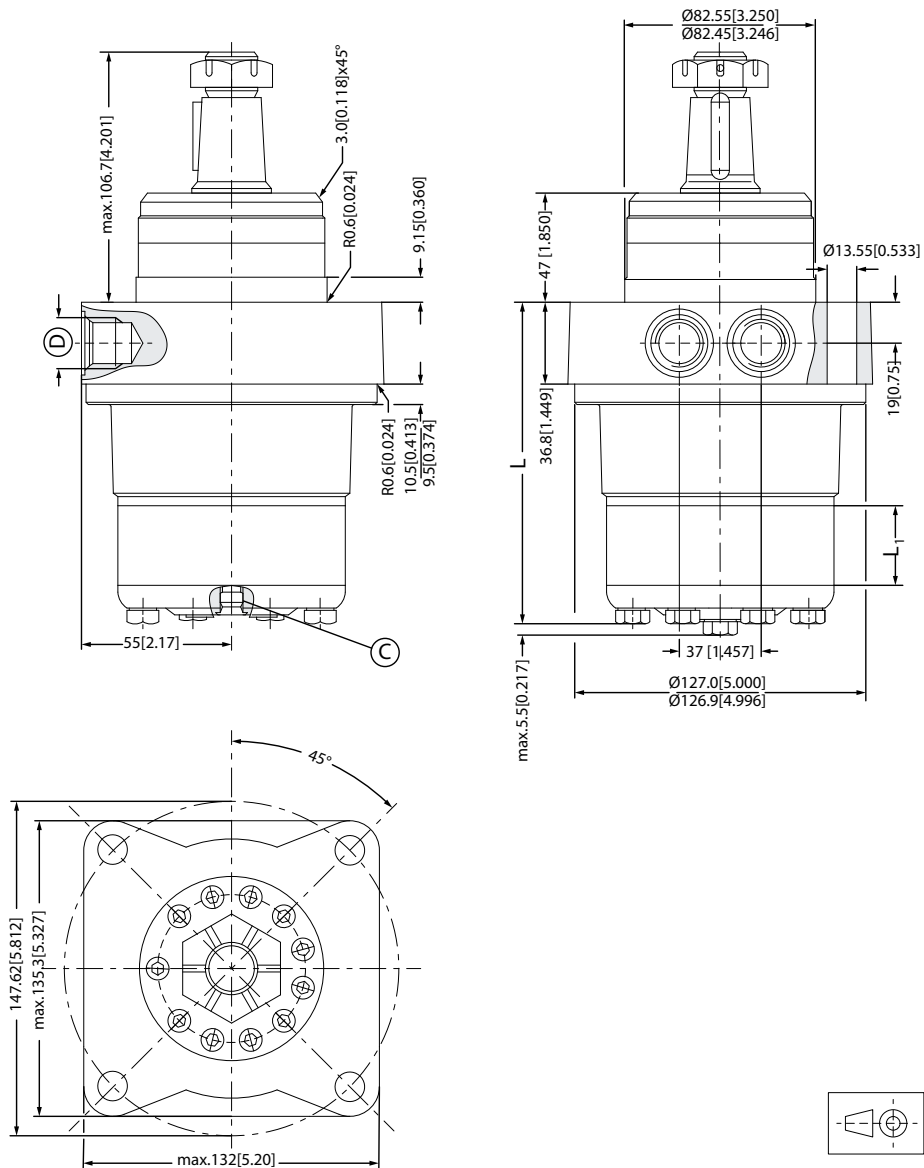
C Drain port: 7/16 - 20 UNF; 12 mm [0.47 in] deep

D Thread: 3/8 - 16 UNC; 15 mm [0.59 in] deep

| Type | | OMR 50 | OMR 80 | OMR 100 | OMR 125 | OMR 160 | OMR 200 | OMR 250 | OMR 315 | OMR 375 |
|------------------|------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| L _{max} | mm | 143.8 | 148.8 | 152.2 | 156.6 | 162.6 | 169.6 | 178.3 | 189.6 | 199.8 |
| | [in] | [5.66] | [5.86] | [5.99] | [6.17] | [6.40] | [6.68] | [7.02] | [7.46] | [7.87] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMRW N wheel motor

Wheel motor - US version



151-1625.12

OMR dimensions

C: Drain connection 7/16 - 20 UNF; 12 mm [0.47 in] deep

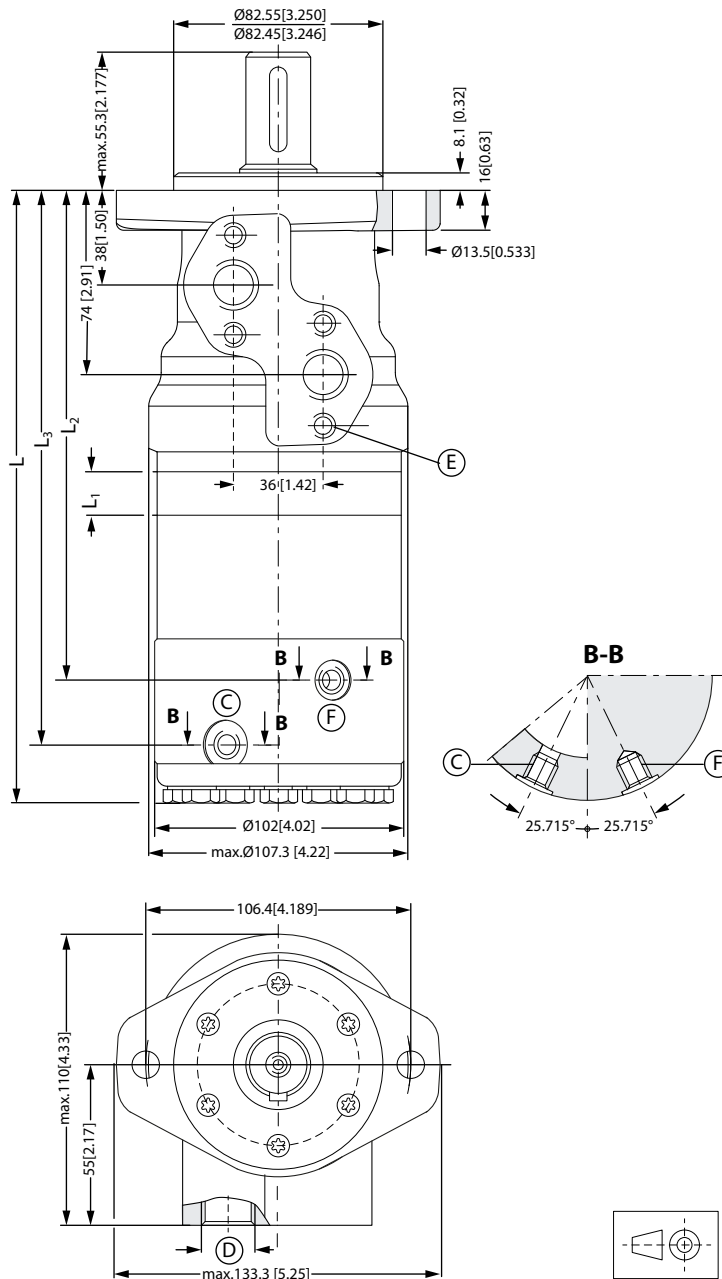
D: 7/8 - 14 UNF; 17 mm [0.66 in] deep

| Type | | OMRW 50 N | OMRW 80 N | OMRW 100 N | OMRW 125 N | OMRW 160 N | OMRW 200 N | OMRW 250 N | OMRW 315 N | OMRW 375 N |
|------------------|------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| L _{max} | mm | 113.7 | 114.7 | 118.1 | 122.5 | 128.5 | 135.1 | 144.2 | 155.5 | 165.7 |
| | [in] | [4.48] | [4.52] | [4.65] | [4.82] | [5.06] | [5.33] | [5.68] | [6.12] | [6.52] |
| L ₁ | mm | 9.0 | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.35] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMR dimensions

OMR NF motor

NF motor - US version



- C:** Drain connection 7/16 - 20 UNF
- D:** 7/8 - 14 UNF, 0.66 in (15 mm) deep
- E:** M8; 0.51 in (13 mm) deep
- F:** Brake release connection 7/16 - 20 UNF

OMR dimensions

| Type | | OMR 80 NF | OMR 100 NF | OMR 125 NF | OMR 160 NF | OMR 200 NF | OMR 250 NF | OMR 315 NF | OMR 375 NF |
|------------------|------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| L _{max} | mm | 248.7 | 252.1 | 256.5 | 262.5 | 269.5 | 278.2 | 289.5 | 299.7 |
| | [in] | [9.79] | [9.93] | [10.10] | [10.33] | [10.61] | [10.95] | [11.40] | [11.80] |
| L ₁ | mm | 14.0 | 17.4 | 21.8 | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [0.55] | [0.69] | [0.86] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |
| L ₂ | mm | 186.8 | 196.2 | 200.6 | 206.6 | 213.6 | 222.3 | 233.6 | 243.7 |
| | [in] | [7.35] | [7.72] | [7.90] | [8.13] | [8.41] | [8.75] | [9.19] | [9.59] |
| L ₃ | mm | 216.3 | 213.7 | 224.1 | 230.1 | 237.1 | 245.8 | 257.1 | 267.2 |
| | [in] | [8.51] | [8.41] | [8.82] | [9.06] | [9.33] | [9.68] | [10.12] | [10.52] |

OMH versions and code numbers

This section shows the different versions/configuration codes and the ordering numbers.

- Section [OMH technical data](#) on page 87, specify the technical data for OMH for each shaft type.
- In section [OMH function diagrams](#) on page 92, the diagram for each motor size is shown.
- See [OMH dimensions](#) on page 100 for outer main dimensions for the different OMH motor types.

OMH versions and code numbers
OMH standard motors

Mounting flange: 4 hole oval flange (A4)

| Spigot diamer | Ø82.5 mm [3.25 in] | | | | | | | |
|-----------------------|---------------------|------------|-----------------|---------------------|--------------------------|-------------|-----------------------|------------|
| Bolt circle diameter | Ø106.4 mm [4.20 in] | | | | | | | |
| Shaft | Main port size | Port style | Drain port size | Standard shaft seal | High pressure shaft seal | Check valve | Main type designation | Conf. code |
| Cyl. Ø32 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMH | A1 |
| Cyl. Ø35 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMH | A2 |
| Cyl. 1 1/4 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMH | A3 |
| Splined 1 in (SAE 6B) | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMH | A4 |
| Splined 1 1/4 in | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMH | A5 |
| Splined 1 1/4 in | 7/8-14 UNF | Side port | 7/16-20 UNF | Yes | - | Yes | OMH | A6 |
| Tap. Ø35 mm | G 1/2 | Side port | G 1/4 | Yes | - | Yes | OMH | A7 |

Code numbers

| Conf. code | Displacement | | | | |
|------------|--------------|----------|----------|----------|----------|
| | 200 | 250 | 315 | 400 | 500 |
| A1 | 151H1002 | 151H1003 | 151H1004 | 151H1005 | 151H1006 |
| A2 | 151H1012 | 151H1013 | 151H1014 | 151H1015 | 151H1016 |
| A3 | 151H1042 | 151H1043 | 151H1044 | 151H1045 | 151H1046 |
| A4 | 151H1080 | 151H1082 | 151H1083 | 151H1084 | 151H1081 |
| A5 | 151H1022 | 151H1023 | 151H1024 | 151H1025 | 151H1026 |
| A6 | 151H1052 | 151H1053 | 151H1054 | 151H1055 | 151H1056 |
| A7 | - | - | 151H1034 | 151H1035 | 151H1036 |

OMH technical data

Technical data for OMH with 1 in SAE 6 B splined shaft

| Type | | | OMH | OMH | OMH | OMH | OMH |
|---|--|--------------------|---------|---------|---------|---------|---------|
| Motor size | | | 200 | 250 | 315 | 400 | 500 |
| Geometric displacement | cm ³ | | 201.3 | 252.0 | 314.9 | 396.8 | 470.6 |
| | [inch] | | [12.32] | [15.42] | [19.27] | [24.28] | [28.80] |
| Maximum speed | min ⁻¹ | cont. | 370 | 295 | 235 | 185 | 155 |
| | [rpm] | int. ¹⁾ | 445 | 350 | 285 | 225 | 190 |
| Maximum torque | N·m [lbf·in] | cont. | 340 | 340 | 340 | 340 | 340 |
| | | int. ¹⁾ | 510 | 510 | 540 | 540 | 520 |
| Maximum output | kW [hp] | cont. | 11.2 | 7.5 | 5.2 | 4.8 | 3.7 |
| | | int. ¹⁾ | 17.2 | 11.9 | 9.7 | 8.2 | 6.0 |
| Maximum pressure drop | bar [psi] | cont. | 115 | 90 | 75 | 60 | 50 |
| | | int. ¹⁾ | 170 | 145 | 120 | 95 | 75 |
| | | peak ²⁾ | 215 | 175 | 145 | 110 | 90 |
| Maximum oil flow | l/min [US gal/min] | cont. | 75 | 75 | 75 | 75 | 75 |
| | | int. ¹⁾ | 90 | 90 | 90 | 90 | 90 |
| Maximum starting pressure with unloaded shaft | bar [psi] | | 7 | 7 | 7 | 7 | 7 |
| Minimum starting torque | at maximum press drop cont. | | 255 | 270 | 280 | 290 | 300 |
| | at maximum press.drop int. ¹⁾ | | 390 | 435 | 450 | 450 | 450 |
| | N·m [lbf·in] | | [2250] | [2400] | [2500] | [2550] | [2650] |
| | N·m [lbf·in] | | [3450] | [3850] | [4000] | [4000] | [4000] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data for OMH with 32 mm and 1 1/4 in cylindrical shaft

| Type | | | OMH | OMH | OMH | OMH | OMH |
|------------------------|-------------------|--------------------|---------|---------|---------|---------|---------|
| Motor size | | | 200 | 250 | 315 | 400 | 500 |
| Geometric displacement | cm ³ | | 201.3 | 252.0 | 314.9 | 396.8 | 470.6 |
| | [inch] | | [12.32] | [15.42] | [19.27] | [24.28] | [28.80] |
| Maximum speed | min ⁻¹ | cont. | 370 | 295 | 235 | 185 | 155 |
| | [rpm] | int. ¹⁾ | 445 | 350 | 285 | 225 | 190 |
| Maximum torque | N·m [lbf·in] | cont. | 510 | 610 | 590 | 590 | 580 |
| | | int. ¹⁾ | 580 | 700 | 670 | 700 | 680 |
| | | | [4500] | [5400] | [5220] | [5220] | [5130] |
| | | | [5130] | [6200] | [5930] | [6200] | [6020] |

OMH technical data

| Type | | | OMH | OMH | OMH | OMH | OMH |
|---|---|--------------------|----------------|----------------|----------------|----------------|----------------|
| Motor size | | | 200 | 250 | 315 | 400 | 500 |
| Maximum output | kW [hp] | cont. | 16.0 [21.5] | 16.0 [21.5] | 12.5 [16.8] | 10.0 [13.4] | 8.5 [11.4] |
| | | int. ¹⁾ | 18.5 [24.8] | 18.5 [24.8] | 14.0 [18.8] | 12.0 [16.1] | 10.0 [13.4] |
| Maximum pressure drop | bar [psi] | cont. | 175 [2540] | 175 [2540] | 135 [1960] | 105 [1520] | 85 [1230] |
| | | int. ¹⁾ | 200 [2900] | 200 [2900] | 155 [2250] | 125 [1810] | 100 [1450] |
| | | peak ²⁾ | 225 [3260] | 225 [3260] | 190 [2760] | 155 [2250] | 130 [1890] |
| Maximum oil flow | l/min [US gal/min] | cont. | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] |
| | | int. ¹⁾ | 90 [23.8] | 90 [23.8] | 90 [23.8] | 90 [23.8] | 90 [23.8] |
| Maximum starting pressure with unloaded shaft | bar [psi] | | 7 [100] | 7 [100] | 7 [100] | 7 [100] | 7 [100] |
| Minimum starting torque | at max. press drop cont. N•m [lbf•in] | | 390 [3450] | 520 [4600] | 510 [4510] | 490 [4340] | 490 [4340] |
| | at max. press.drop int. ¹⁾ N•m [lbf•in] | | 450 [3980] | 590 [5220] | 590 [5220] | 600 [5310] | 600 [5310] |

¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Technical data for OMH with 35 mm cylindrical, 1 1/4 in splined and 35 mm tapered shaft

| Type | | | OMH | OMH | OMH | OMH | OMH |
|------------------------|---------------------------|--------------------|------------------|------------------|------------------|------------------|------------------|
| Motor size | | | 200 | 250 | 315 | 400 | 500 |
| Geometric displacement | cm ³ [inch] | | 201.3 [12.32] | 252.0 [15.42] | 314.9 [19.27] | 396.8 [24.28] | 470.6 [28.80] |
| Maximum speed | min ⁻¹ | cont. | 370 | 295 | 235 | 185 | 155 |
| | [rpm] | int. ^{fn} | 445 | 350 | 285 | 225 | 190 |
| Maximum torque | N•m [lbf•in] | cont. | 510 [4500] | 610 [5400] | 740 [6550] | 840 [7440] | 820 [7260] |
| | | int. ^{fn} | 580 [5130] | 700 [6200] | 820 [7260] | 980 [8670] | 1040 [9210] |
| Maximum output | kW [hp] | cont. | 16.0 [21.5] | 16.0 [21.5] | 14.0 [18.8] | 12.5 [16.8] | 11.0 [14.8] |
| | | int. ^{fn} | 18.5 [24.8] | 18.5 [24.8] | 15.5 [20.8] | 15.0 [20.1] | 14.0 [18.8] |
| Maximum pressure drop | bar [psi] | cont. | 175 [2540] | 175 [2540] | 175 [2540] | 155 [2250] | 125 [1810] |
| | | int. ^{fn} | 200 [2900] | 200 [2900] | 200 [2900] | 190 [2760] | 160 [2320] |
| | | peak ²⁾ | 225 [3260] | 225 [3260] | 225 [3260] | 210 [3050] | 180 [2610] |

OMH technical data

| Type | | | OMH | OMH | OMH | OMH | OMH |
|---|---|--------------------|---------------|---------------|---------------|---------------|---------------|
| Motor size | | | 200 | 250 | 315 | 400 | 500 |
| Maximum oil flow | l/min [US gal/min] | cont. | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] | 75 [19.8] |
| | | int. ^{fn} | 90 [23.8] | 90 [23.8] | 90 [23.8] | 90 [23.8] | 90 [23.8] |
| Maximum starting pressure with unloaded shaft | bar [psi] | | 7 [100] | 7 [100] | 7 [100] | 7 [100] | 7 [100] |
| Minimum starting torque | at max. press drop cont. N·m [lbf·in] | | 390 [3450] | 520 [4600] | 660 [5840] | 720 [6370] | 720 [6370] |
| | at max. press.drop int. ^{fn} N·m [lbf·in] | | 450 [3980] | 590 [5220] | 730 [6460] | 880 [7790] | 880 [7790] |

^{fn} Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for maximum 1% of every minute.

| Type | | | Maximum inlet pressure | Maximum return pressure with drain line |
|---------------|-----------|--------------------|------------------------|---|
| OMH 200 - 500 | bar [psi] | cont. | 200 [2900] | 175 [2540] |
| | bar [psi] | int. ¹⁾ | 225 [3260] | 200 [2900] |
| | bar [psi] | peak ²⁾ | 250 [3630] | 225 [3260] |

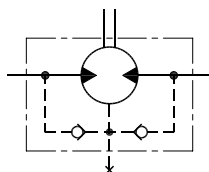
¹⁾ Intermittent operation: the permissible values may occur for max. 10% of every minute.

²⁾ Peak load: the permissible values may occur for max. 1% of every minute.

Maximum permissible shaft seal pressure
OMH with Standard Shaft Seal

OMH with standard shaft seal, check valves and without use of drain connection:

The pressure on the shaft seal never exceeds the pressure in the return line



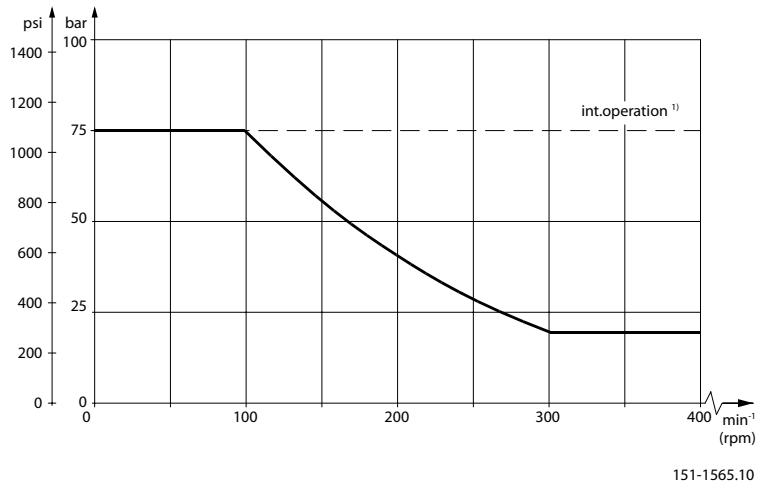
151-320.10

OMH with standard shaft seal, check valves and with drain connection:

The shaft seal pressure equals the pressure on the drain line.

OMH technical data

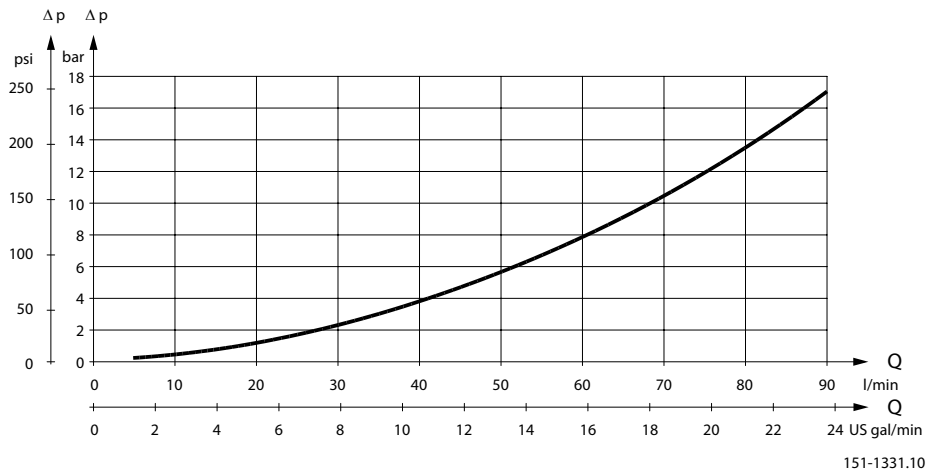
Maximum return pressure without drain line or max. pressure in the drain line



1)

Pressure drop in OMH motor

The curve applies to an unloaded motor shaft and an oil viscosity of 35 mm²/s [165 SUS]



Oil flow in drain line

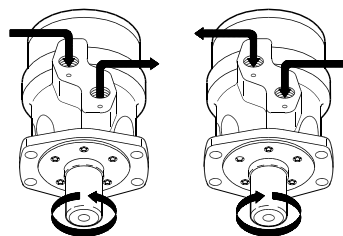
Max. oil flow in the drain line at return pressure less 5-10 bar

| Pressure drop | 100 bar [1450 psi] | | 140 bar [2030 psi] | |
|---------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | 20 mm ² /s [100 SUS] | 35 mm ² /s [165 SUS] | 20 mm ² /s [100 SUS] | 35 mm ² /s [165 SUS] |
| Max. oil flow | 2.5 l/min [0.66 US gal/min] | 1.8 l/min [0.78 US gal/min] | 3.5 l/min [0.93 US gal/min] | 2.8 l/min [0.74 US gal/min] |

¹⁾ Intermittent operation: the permissible values may occur for maximum 10% of every minute.

OMH technical data

Direction of shaft rotation



151-2107.10

Permissible shaft loads

OMH permissible shaft loads

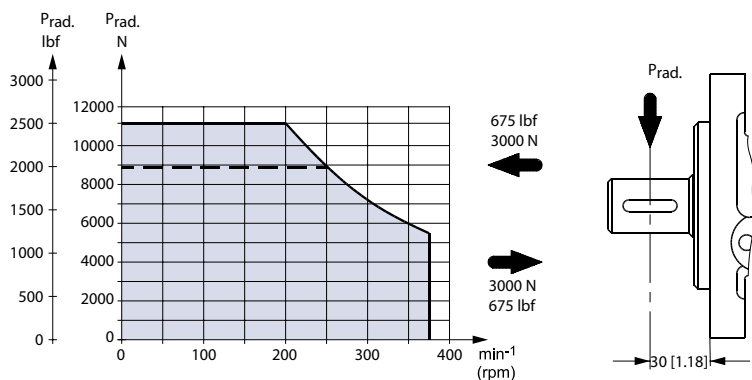
The permissible shaft load (P_{rad}) is calculated from the speed (n) and the distance (l) between the point of load application and the mounting flange.

$$P_{rad} = \frac{1100}{n} \cdot \frac{250000}{103.5 + l} \quad N^*; l \text{ in mm}$$

$$P_{rad} = \frac{1100}{n} \cdot \frac{2215}{4.07 + l} \quad \text{lbf}^*; l \text{ in inch}$$

* $n > 200 \text{ min}^{-1}$ (rpm); $l < 60 \text{ mm}$ [2.36 in]

$n < 200 \text{ min}^{-1}$ (rpm); $\Rightarrow PR_{max} = 11000 \text{ N}$ [2475 lbf]



151-1474.10

----- 1 in SAE 6B splined shaft

The drawing shows the permissible radial load when $l = 30 \text{ mm}$ [1.18 in].

OMH function diagrams

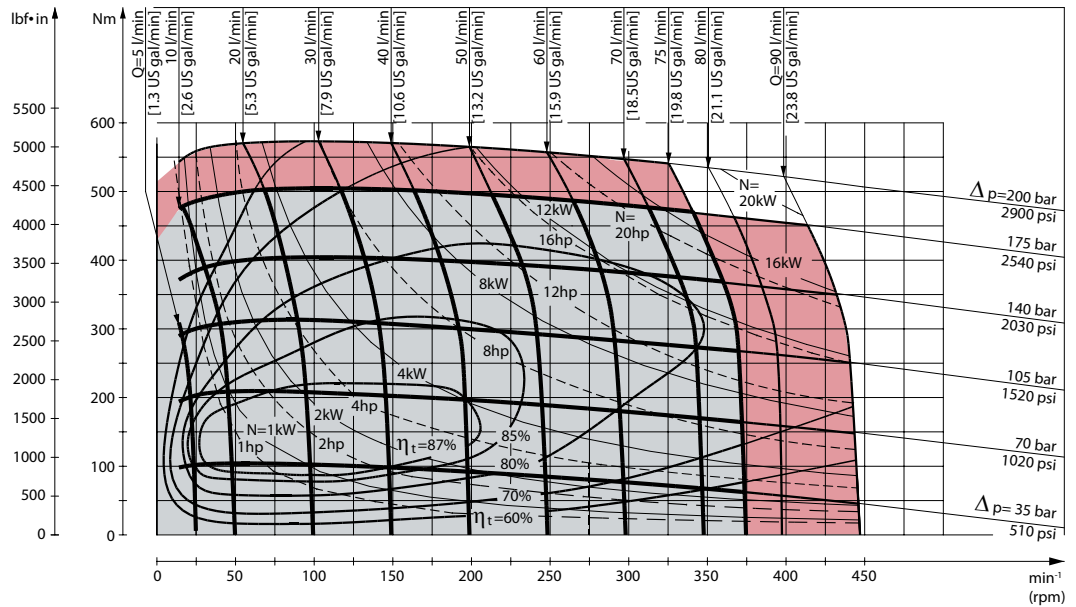
Explanation of function diagram use, basis and conditions can be found in [Speed, torque and output](#) on page 8.

- Continuous range
- Intermittent range (max. 10% operation every minute)

Maximum permissible continuous/intermittent pressure drop for the actual shaft version can be found in [OMH technical data](#) on page 87.

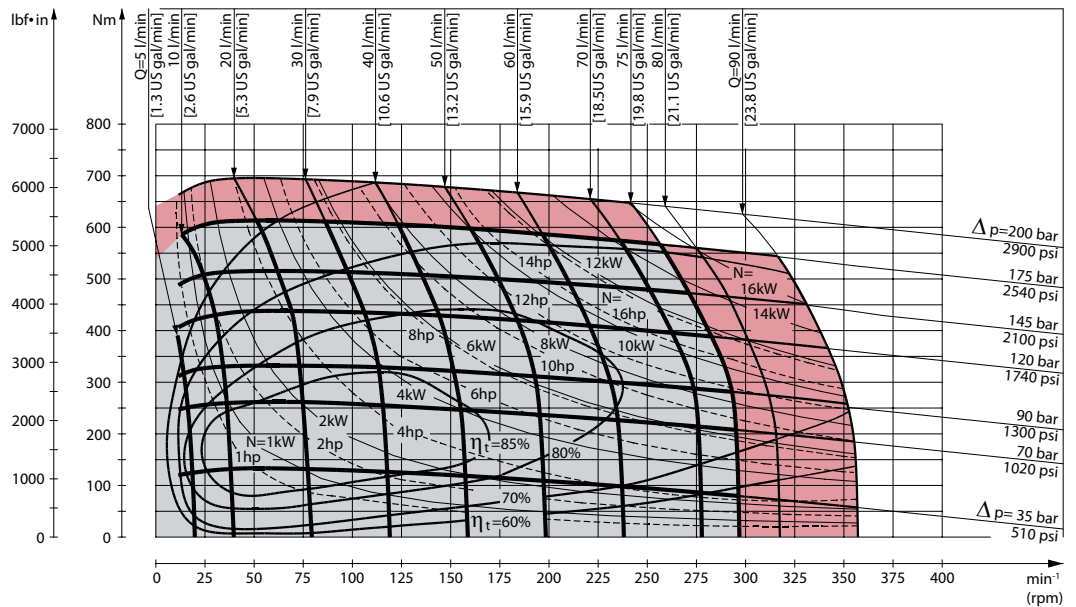
[Intermittent pressure drop and oil flow must not occur simultaneously.](#)

OMH 200 function diagram



151-1486.10

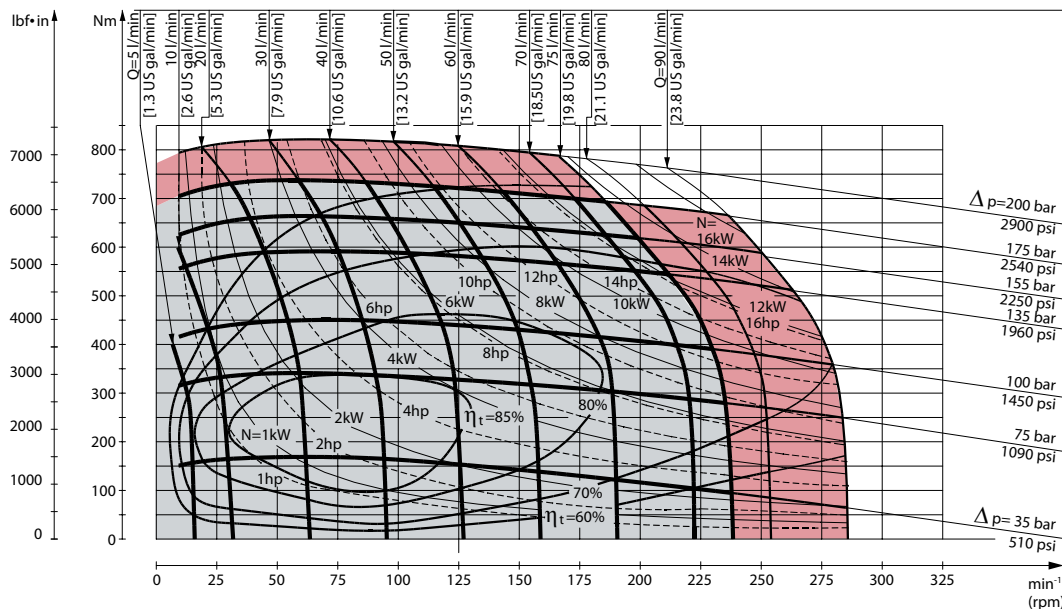
OMH 250 function diagram



151-1487.10

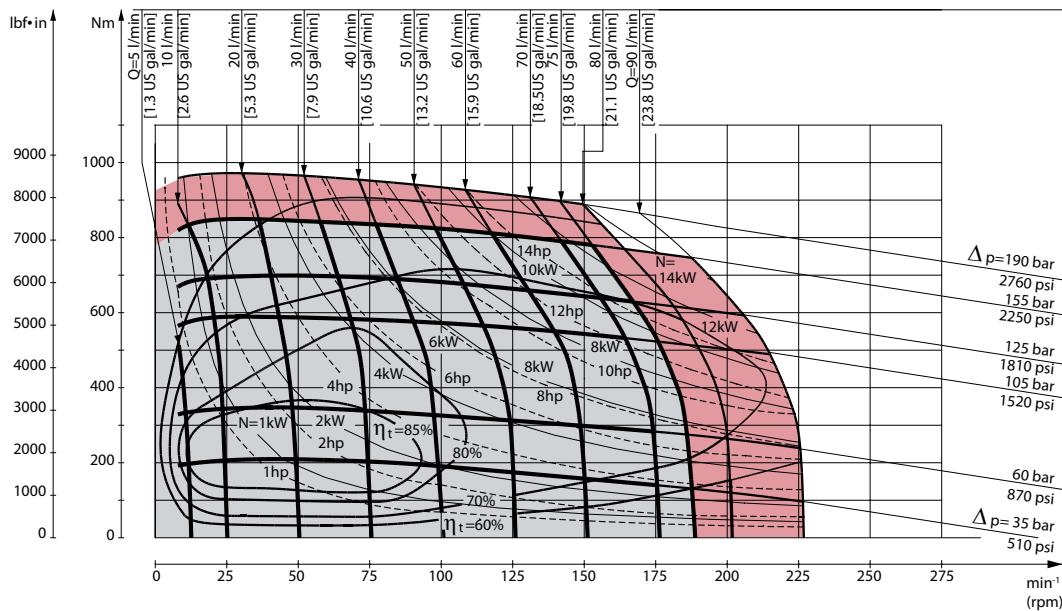
OMH function diagrams

OMH 315 function diagram



151-1488.10

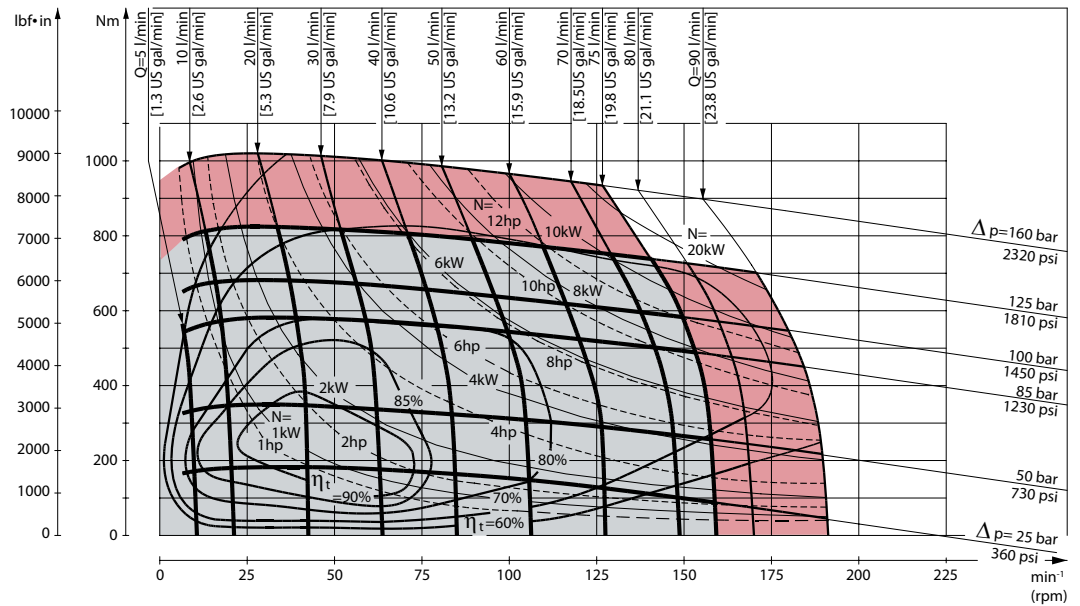
OMH 400 function diagram



151-1489.10

OMH function diagrams

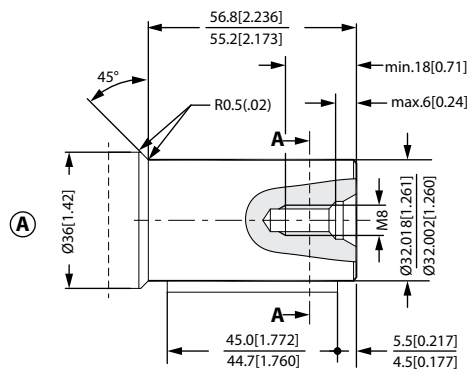
OMH 500 function diagram



151-1490.10

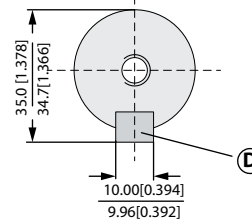
OMH shaft version

Shaft Version

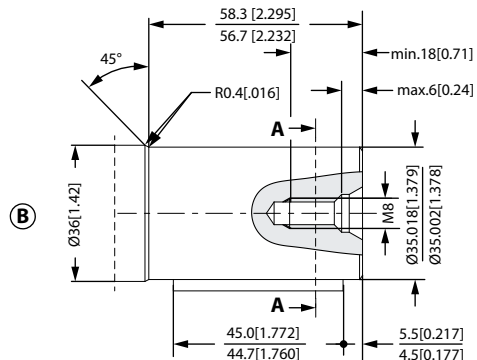


A: Cylindrical shaft 32 mm

D: Parallel key, A10 × 8 × 45, DIN 6895

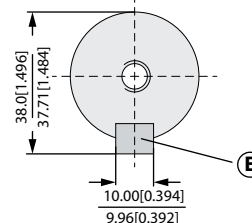


151-1852.12_A



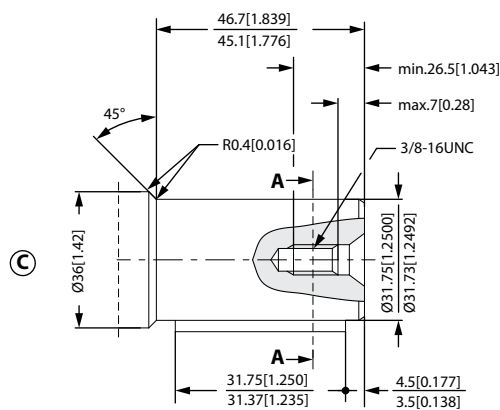
B: Cylindrical shaft 35 mm

E: Parallel key, A10 × 8 × 45, DIN 6895



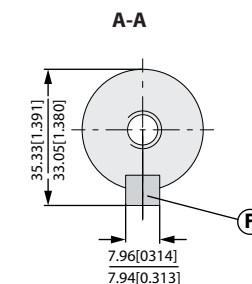
151-1852.12_B

US version



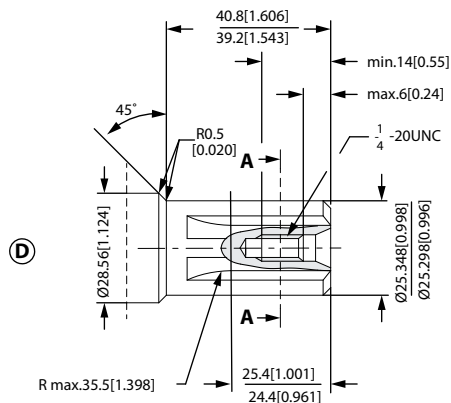
C: Cylindrical shaft 1 1/4 in

F: Parallel key, 5/16 × 5/16 × 1 1/4 in, SAE J 744



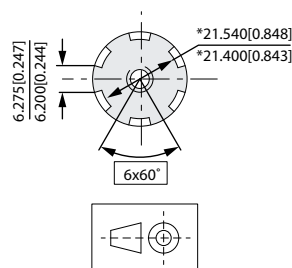
151-1852.12_C

OMH shaft version

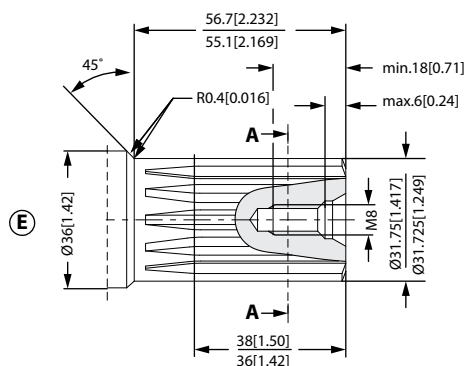


D: Splined shaft, SAE 6 B (B.S. 2059), Straight-sided, bottom fitting, deep. Fit 2, Nom. size 1 in

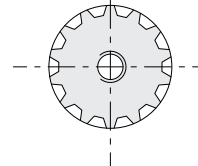
*Deviates from SAE 6 B (B.S. 2059)



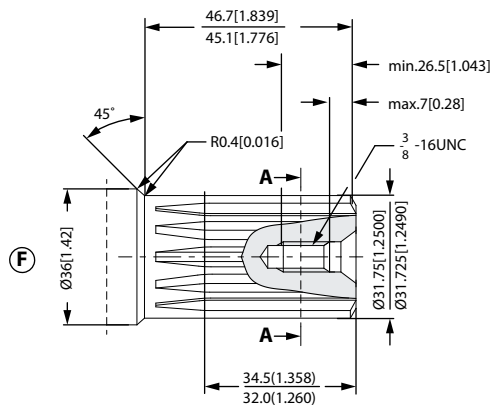
151-1853.12_D



E: Involute splined shaft, ANS B92.1 - 1996 standard, Flat root side fit, Pitch 12/24, Teeth 14, Major dia. 1.25 inch, Pressure angle 30°

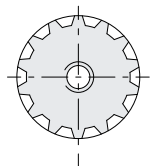


151-1853.12_E



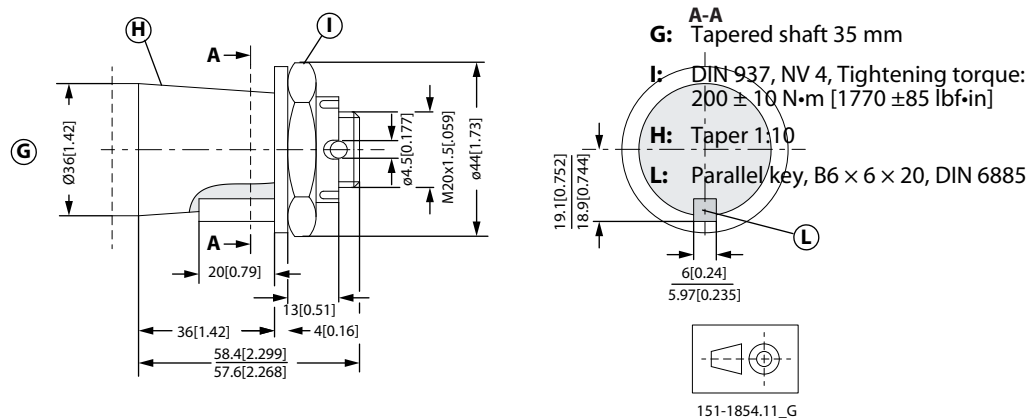
F: Involute splined shaft, ANS B92.1 - 1996 standard, Flat root side fit, Pitch 12/24, Teeth 14, Major dia. 1.25 inch, Pressure angle 30°

A-A



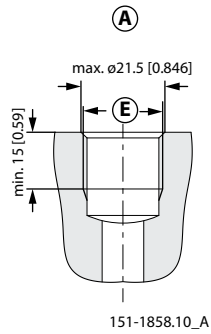
151-1854.11_F

OMH shaft version

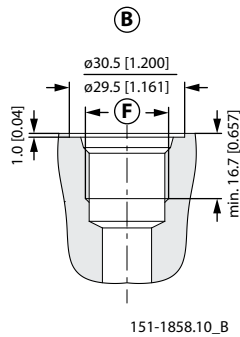


OMH port thread versions

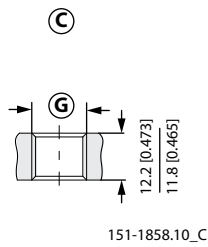
Port Thread Versions



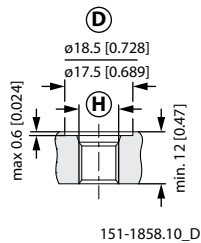
- A:** G main ports
- E:** ISO 228/1 - G1/2



- B:** UNF main ports
- F:** 7/8 - 14 UNF O-ring boss port



- C:** G drain port
- G:** ISO 228/1 - G1/4

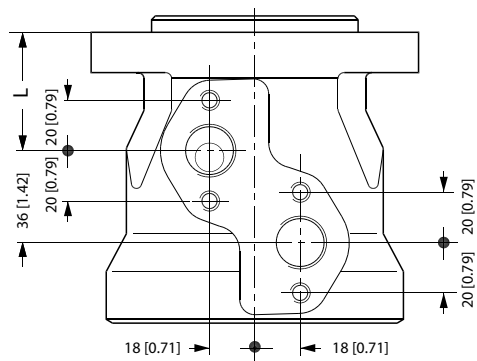


- D:** UNF drain port
- H:** 7/16 - 20 UNF, O-ring boss port

OMH port thread versions

OMH manifold mount

European version



151-2135.10

L: see dimensional drawing for given OMH motor:

[OMH dimensions - European version](#) on page 100

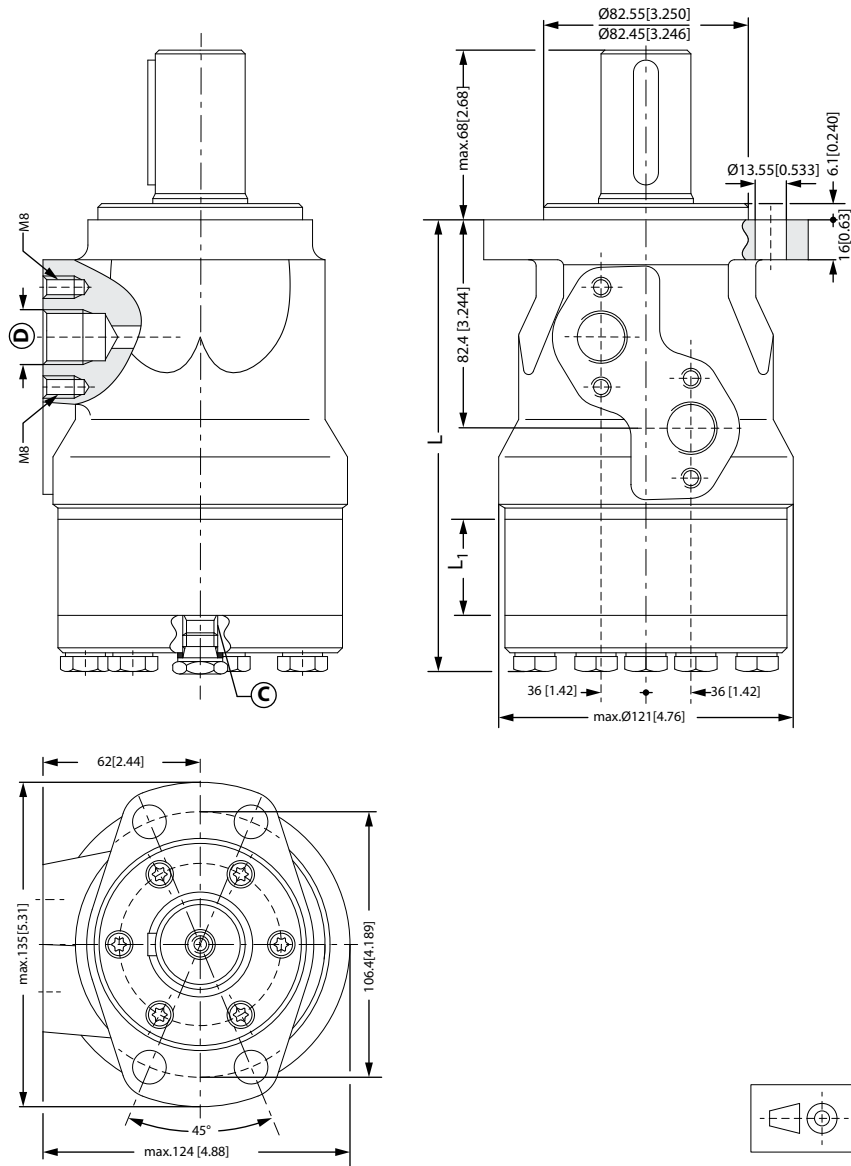
[OMH dimensions - US version](#) on page 101

OMH dimensions

OMH dimensions - European version

OMH side port version with 4 hole oval mounting flange (A4-flange)

Side port - European version



C: Drain connection, G ¼; 12 mm [0.47 in] deep

D: G ½; 15 mm [0.59 in] deep

| Type | | OMH 200 | OMH 250 | OMH 315 | OMH 400 | OMH 500 |
|-------------------|------|---------|---------|---------|---------|---------|
| L _{Max.} | mm | 171.8 | 179.5 | 187.5 | 198.8 | 209.0 |
| | [in] | [6.77] | [7.07] | [7.39] | [7.83] | [8.23] |

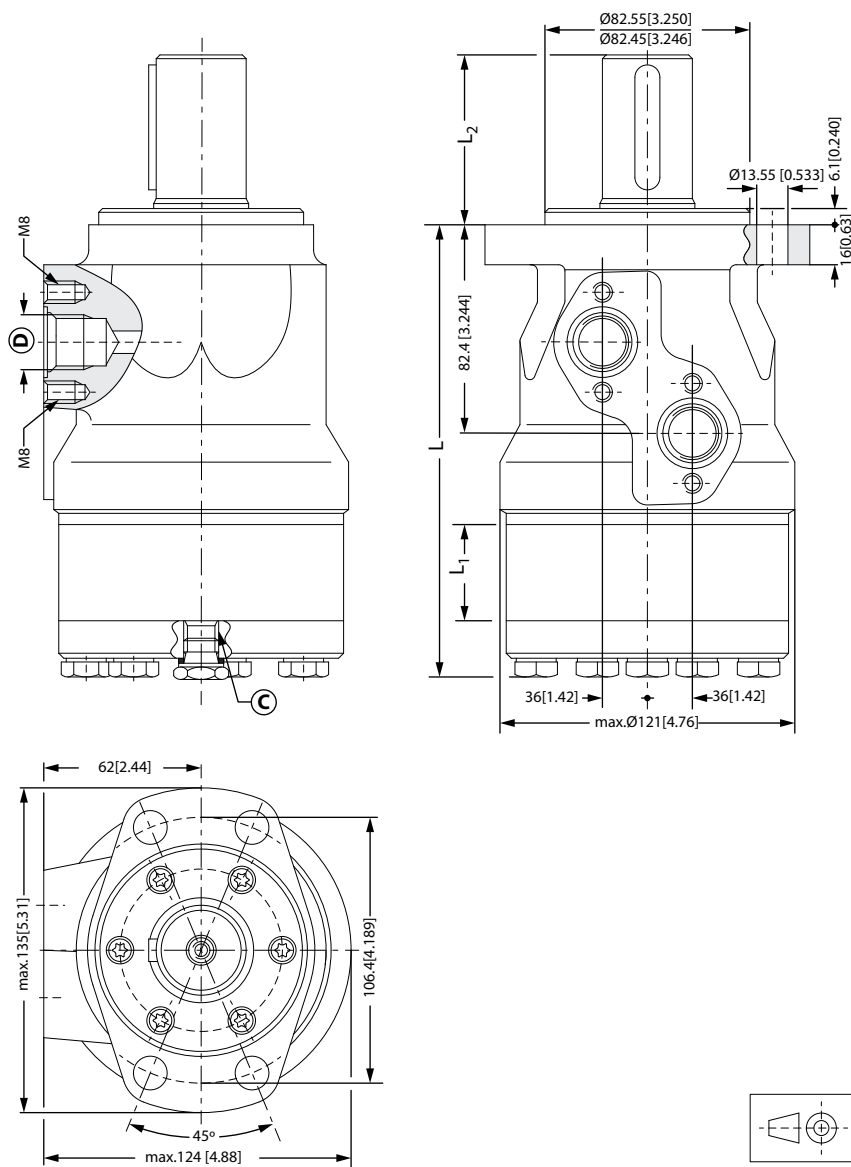
OMH dimensions

| Type | | OMH 200 | OMH 250 | OMH 315 | OMH 400 | OMH 500 |
|----------------|------|---------|---------|---------|---------|---------|
| L ₁ | mm | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

OMH dimensions - US version

OMH side port version with 4 hole oval mounting flange (A4 flange)

Side port - US version



151-1324.12.22

- C:** Drain connection, 7/16 - 20 UNF; 12 mm [0.47 in] deep
- D:** 7/8 - 14 UNF; 15 mm [0.59 in] deep

OMH dimensions

| Output shaft. maximum | | Splined shaft 1 in | Other shaft versions |
|-----------------------|------|--------------------|----------------------|
| L ₂ | mm | 50.5 | 58.0 |
| | [in] | [1.99] | [2.28] |

| Type | | OMH 200 | OMH 250 | OMH 315 | OMH 400 | OMH 500 |
|-------------------|------|---------|---------|---------|---------|---------|
| L _{Max.} | mm | 171.8 | 179.5 | 187.5 | 198.8 | 209.0 |
| | [in] | [6.77] | [7.07] | [7.39] | [7.83] | [8.23] |
| L ₁ | mm | 27.8 | 34.8 | 43.5 | 54.8 | 65.0 |
| | [in] | [1.09] | [1.37] | [1.71] | [2.16] | [2.56] |

Weight of motors

Weight of OMP, OMR and OMH motors

Weight of OMP, OMR and OMH motors

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-0208 | 7.2 | [15.9] |
| 151-0242 | 6.9 | [15.2] |
| 151-0243 | 7.0 | [15.4] |
| 151-0244 | 7.5 | [16.5] |
| 151-0245 | 8.0 | [17.6] |
| 151-0246 | 9.0 | [19.8] |
| 151-0247 | 8.5 | [18.7] |
| 151-0248 | 6.7 | [14.8] |
| 151-0265 | 6.7 | [14.8] |
| 151-0266 | 6.9 | [15.2] |
| 151-0267 | 7.0 | [15.4] |
| 151-0268 | 7.5 | [16.5] |
| 151-0269 | 8.0 | [17.6] |
| 151-0270 | 9.0 | [19.8] |
| 151-0271 | 8.5 | [18.7] |
| 151-0300 | 5.6 | [12.3] |
| 151-0301 | 5.7 | [12.6] |
| 151-0302 | 5.9 | [13.0] |
| 151-0303 | 6.0 | [13.2] |
| 151-0304 | 6.2 | [13.7] |
| 151-0305 | 6.4 | [14.1] |
| 151-0306 | 6.6 | [14.6] |
| 151-0307 | 6.9 | [15.2] |
| 151-0308 | 7.4 | [16.3] |
| 151-0310 | 5.6 | [12.3] |
| 151-0311 | 5.7 | [12.6] |
| 151-0312 | 5.9 | [13.0] |
| 151-0313 | 6.0 | [13.2] |
| 151-0314 | 6.2 | [13.7] |
| 151-0315 | 6.4 | [14.1] |
| 151-0316 | 6.6 | [14.6] |
| 151-0317 | 6.9 | [15.2] |
| 151-0318 | 7.4 | [16.3] |
| 151-0319 | 5.6 | [12.3] |
| 151-0330 | 5.6 | [12.3] |
| 151-0331 | 5.7 | [12.6] |
| 151-0332 | 5.9 | [13.0] |
| 151-0333 | 6.0 | [13.2] |
| 151-0334 | 6.2 | [13.7] |
| 151-0335 | 6.4 | [14.1] |
| 151-0336 | 6.6 | [14.6] |
| 151-0337 | 6.9 | [15.2] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-0338 | 7.4 | [16.3] |
| 151-0340 | 5.5 | [12.1] |
| 151-0341 | 5.5 | [12.1] |
| 151-0342 | 5.6 | [12.3] |
| 151-0400 | 6.7 | [14.8] |
| 151-0401 | 6.9 | [15.2] |
| 151-0402 | 7.0 | [15.4] |
| 151-0403 | 7.2 | [15.9] |
| 151-0404 | 7.5 | [16.5] |
| 151-0405 | 8.0 | [17.6] |
| 151-0406 | 8.5 | [18.7] |
| 151-0407 | 9.0 | [19.8] |
| 151-0408 | 9.5 | [20.9] |
| 151-0410 | 6.7 | [14.8] |
| 151-0411 | 6.9 | [15.2] |
| 151-0412 | 7.0 | [15.4] |
| 151-0413 | 7.2 | [15.9] |
| 151-0414 | 7.5 | [16.5] |
| 151-0415 | 8.0 | [17.6] |
| 151-0416 | 8.5 | [18.7] |
| 151-0417 | 9.0 | [19.8] |
| 151-0418 | 9.5 | [20.9] |
| 151-0420 | 6.7 | [14.8] |
| 151-0421 | 6.9 | [15.2] |
| 151-0422 | 7.0 | [15.4] |
| 151-0423 | 7.2 | [15.9] |
| 151-0424 | 7.5 | [16.5] |
| 151-0425 | 8.0 | [17.6] |
| 151-0426 | 8.5 | [18.7] |
| 151-0427 | 9.0 | [19.8] |
| 151-0428 | 9.5 | [20.9] |
| 151-0600 | 5.6 | [12.3] |
| 151-0601 | 5.7 | [12.6] |
| 151-0602 | 5.9 | [13.0] |
| 151-0603 | 6.0 | [13.2] |
| 151-0604 | 6.2 | [13.7] |
| 151-0605 | 6.4 | [14.1] |
| 151-0606 | 6.6 | [14.6] |
| 151-0607 | 6.9 | [15.2] |
| 151-0608 | 7.4 | [16.3] |
| 151-0610 | 5.6 | [12.3] |
| 151-0611 | 5.7 | [12.6] |
| 151-0612 | 5.9 | [13.0] |

Weight of motors
Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-0613 | 6.0 | [13.2] |
| 151-0614 | 6.2 | [13.7] |
| 151-0615 | 6.4 | [14.1] |
| 151-0616 | 6.6 | [14.6] |
| 151-0617 | 6.9 | [15.2] |
| 151-0618 | 7.4 | [16.3] |
| 151-0622 | 5.9 | [13.0] |
| 151-0624 | 6.2 | [13.7] |
| 151-0625 | 6.4 | [14.1] |
| 151-0627 | 6.9 | [15.2] |
| 151-0630 | 5.6 | [12.3] |
| 151-0631 | 5.7 | [12.6] |
| 151-0632 | 5.9 | [13.0] |
| 151-0633 | 6.0 | [13.2] |
| 151-0634 | 6.2 | [13.7] |
| 151-0635 | 6.4 | [14.1] |
| 151-0636 | 6.6 | [14.6] |
| 151-0637 | 6.9 | [15.2] |
| 151-0638 | 7.4 | [16.3] |
| 151-0640 | 5.5 | [12.1] |
| 151-0641 | 5.5 | [12.1] |
| 151-0642 | 5.6 | [12.3] |
| 151-0646 | 5.9 | [13.0] |
| 151-0700 | 6.7 | [14.8] |
| 151-0701 | 6.9 | [15.2] |
| 151-0702 | 7.0 | [15.4] |
| 151-0703 | 7.2 | [15.9] |
| 151-0704 | 7.5 | [16.5] |
| 151-0705 | 8.0 | [17.6] |
| 151-0706 | 8.5 | [18.7] |
| 151-0707 | 9.0 | [19.8] |
| 151-0708 | 9.5 | [20.9] |
| 151-0710 | 6.7 | [14.8] |
| 151-0711 | 6.9 | [15.2] |
| 151-0712 | 7.0 | [15.4] |
| 151-0713 | 7.2 | [15.9] |
| 151-0714 | 7.5 | [16.5] |
| 151-0715 | 8.0 | [17.6] |
| 151-0716 | 8.5 | [18.7] |
| 151-0717 | 9.0 | [19.8] |
| 151-0718 | 9.5 | [20.9] |
| 151-0720 | 6.7 | [14.8] |
| 151-0721 | 6.9 | [15.2] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-0722 | 7.0 | [15.4] |
| 151-0723 | 7.2 | [15.9] |
| 151-0724 | 7.5 | [16.5] |
| 151-0725 | 8.0 | [17.6] |
| 151-0726 | 8.5 | [18.7] |
| 151-0727 | 9.0 | [19.8] |
| 151-0728 | 9.5 | [20.9] |
| 151-1208 | 5.6 | [12.3] |
| 151-1209 | 5.7 | [12.6] |
| 151-1210 | 5.9 | [13.0] |
| 151-1211 | 6.2 | [13.7] |
| 151-1212 | 6.4 | [14.1] |
| 151-1213 | 6.6 | [14.6] |
| 151-1214 | 6.9 | [15.2] |
| 151-1215 | 7.4 | [16.3] |
| 151-1217 | 6.0 | [13.2] |
| 151-1231 | 6.7 | [14.8] |
| 151-1232 | 6.9 | [15.2] |
| 151-1233 | 7.0 | [15.4] |
| 151-1234 | 7.5 | [16.5] |
| 151-1235 | 8.0 | [17.6] |
| 151-1236 | 8.5 | [18.7] |
| 151-1237 | 9.0 | [19.8] |
| 151-1238 | 7.2 | [15.9] |
| 151-1243 | 9.5 | [20.9] |
| 151-5001 | 5.6 | [12.3] |
| 151-5002 | 5.7 | [12.6] |
| 151-5003 | 5.9 | [13.0] |
| 151-5004 | 6.0 | [13.2] |
| 151-5005 | 6.2 | [13.7] |
| 151-5006 | 6.4 | [14.1] |
| 151-5007 | 6.6 | [14.6] |
| 151-5008 | 6.9 | [15.2] |
| 151-5009 | 7.4 | [16.3] |
| 151-5010 | 5.4 | [11.9] |
| 151-5174 | 5.4 | [11.9] |
| 151-5191 | 6.1 | [13.4] |
| 151-5192 | 6.2 | [13.7] |
| 151-5193 | 6.4 | [14.1] |
| 151-5194 | 6.5 | [14.3] |
| 151-5195 | 6.7 | [14.8] |
| 151-5196 | 6.9 | [15.2] |
| 151-5197 | 7.1 | [15.7] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-5198 | 7.4 | [16.3] |
| 151-5199 | 7.9 | [17.4] |
| 151-5211 | 5.5 | [12.1] |
| 151-5212 | 5.6 | [12.3] |
| 151-5213 | 5.8 | [12.8] |
| 151-5214 | 5.9 | [13.0] |
| 151-5215 | 6.1 | [13.4] |
| 151-5216 | 6.3 | [13.9] |
| 151-5217 | 6.5 | [14.3] |
| 151-5218 | 6.8 | [15.0] |
| 151-5219 | 7.3 | [16.1] |
| 151-5301 | 5.5 | [12.1] |
| 151-5302 | 5.6 | [12.3] |
| 151-5303 | 5.8 | [12.8] |
| 151-5304 | 5.9 | [13.0] |
| 151-5305 | 6.1 | [13.4] |
| 151-5306 | 6.3 | [13.9] |
| 151-5307 | 6.5 | [14.3] |
| 151-5308 | 6.8 | [15.0] |
| 151-5309 | 7.3 | [16.1] |
| 151-5311 | 5.6 | [12.3] |
| 151-5312 | 5.7 | [12.6] |
| 151-5313 | 5.9 | [13.0] |
| 151-5315 | 6.2 | [13.7] |
| 151-5316 | 6.4 | [14.1] |
| 151-5318 | 6.9 | [15.2] |
| 151-6000 | 6.7 | [14.8] |
| 151-6001 | 6.9 | [15.2] |
| 151-6002 | 7.0 | [15.4] |
| 151-6003 | 7.2 | [15.9] |
| 151-6004 | 7.5 | [16.5] |
| 151-6005 | 8.0 | [17.6] |
| 151-6006 | 8.5 | [18.7] |
| 151-6007 | 9.0 | [19.8] |
| 151-6008 | 9.5 | [20.9] |
| 151-6010 | 6.7 | [14.8] |
| 151-6011 | 6.9 | [15.2] |
| 151-6012 | 7.0 | [15.4] |
| 151-6013 | 7.2 | [15.9] |
| 151-6014 | 7.5 | [16.5] |
| 151-6015 | 8.0 | [17.6] |
| 151-6016 | 8.5 | [18.7] |
| 151-6017 | 9.0 | [19.8] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-6018 | 9.5 | [20.9] |
| 151-6110 | 6.7 | [14.8] |
| 151-6111 | 6.9 | [15.2] |
| 151-6112 | 7.0 | [15.4] |
| 151-6113 | 7.2 | [15.9] |
| 151-6114 | 7.5 | [16.5] |
| 151-6115 | 8.0 | [17.6] |
| 151-6116 | 8.5 | [18.7] |
| 151-6117 | 9.0 | [19.8] |
| 151-6118 | 9.5 | [20.9] |
| 151-6190 | 7.3 | [16.1] |
| 151-6191 | 7.5 | [16.5] |
| 151-6192 | 7.6 | [16.8] |
| 151-6193 | 7.8 | [17.2] |
| 151-6194 | 8.1 | [17.9] |
| 151-6195 | 8.6 | [19.0] |
| 151-6196 | 9.1 | [20.1] |
| 151-6197 | 9.6 | [21.2] |
| 151-6198 | 10.1 | [22.3] |
| 151-6210 | 6.7 | [14.8] |
| 151-6211 | 6.9 | [15.2] |
| 151-6212 | 7.0 | [15.4] |
| 151-6213 | 7.2 | [15.9] |
| 151-6214 | 7.5 | [16.5] |
| 151-6215 | 8.0 | [17.6] |
| 151-6216 | 8.5 | [18.7] |
| 151-6217 | 9.0 | [19.8] |
| 151-6218 | 9.5 | [20.9] |
| 151-6294 | 9.5 | [20.9] |
| 151-6295 | 7.2 | [15.9] |
| 151-6296 | 9.5 | [20.9] |
| 151-6300 | 9.0 | [19.8] |
| 151-6301 | 9.4 | [20.7] |
| 151-6302 | 9.5 | [20.9] |
| 151-6303 | 9.7 | [21.4] |
| 151-6304 | 10.0 | [22.1] |
| 151-6305 | 10.5 | [23.1] |
| 151-6306 | 11.0 | [24.3] |
| 151-6307 | 11.5 | [25.4] |
| 151-6308 | 12.0 | [26.5] |
| 151-6380 | 6.7 | [14.8] |
| 151-6381 | 6.9 | [15.2] |
| 151-6383 | 7.2 | [15.9] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-6384 | 7.5 | [16.5] |
| 151-6385 | 8.0 | [17.6] |
| 151-6386 | 8.5 | [18.7] |
| 151-6387 | 9.0 | [19.8] |
| 151-6388 | 9.5 | [20.9] |
| 151-6430 | 9.0 | [19.8] |
| 151-6431 | 9.4 | [20.7] |
| 151-6432 | 9.5 | [20.9] |
| 151-6433 | 9.7 | [21.4] |
| 151-6434 | 10.0 | [22.1] |
| 151-6435 | 10.5 | [23.1] |
| 151-6436 | 11.0 | [24.3] |
| 151-6437 | 11.5 | [25.4] |
| 151-6438 | 12.0 | [26.5] |
| 151-6442 | 14.5 | [32.0] |
| 151-6443 | 14.7 | [32.4] |
| 151-6444 | 15.0 | [33.1] |
| 151-6445 | 15.5 | [34.2] |
| 151-6461 | 11.5 | [25.4] |
| 151-6462 | 12.0 | [26.5] |
| 151-6463 | 12.0 | [26.5] |
| 151-6464 | 12.5 | [27.6] |
| 151-6465 | 12.5 | [27.6] |
| 151-6466 | 13.0 | [28.7] |
| 151-6467 | 13.5 | [29.8] |
| 151-6468 | 14.0 | [30.9] |
| 151-6471 | 11.5 | [25.4] |
| 151-6472 | 12.0 | [26.5] |
| 151-6473 | 12.0 | [26.5] |
| 151-6474 | 12.5 | [27.6] |
| 151-6475 | 12.5 | [27.6] |
| 151-6476 | 13.0 | [28.7] |
| 151-6477 | 13.5 | [29.8] |
| 151-6478 | 14.0 | [30.9] |
| 151-7021 | 5.0 | [11.0] |
| 151-7022 | 5.1 | [11.2] |
| 151-7023 | 5.3 | [11.7] |
| 151-7024 | 5.4 | [11.9] |
| 151-7025 | 5.6 | [12.3] |
| 151-7026 | 5.8 | [12.8] |
| 151-7027 | 6.0 | [13.2] |
| 151-7028 | 6.3 | [13.9] |
| 151-7029 | 6.8 | [15.0] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-7041 | 5.6 | [12.3] |
| 151-7042 | 5.7 | [12.6] |
| 151-7043 | 5.9 | [13.0] |
| 151-7044 | 5.4 | [11.9] |
| 151-7045 | 6.2 | [13.7] |
| 151-7046 | 6.4 | [14.1] |
| 151-7047 | 6.6 | [14.6] |
| 151-7048 | 6.9 | [15.2] |
| 151-7049 | 7.4 | [16.3] |
| 151-7061 | 5.0 | [11.0] |
| 151-7062 | 5.1 | [11.2] |
| 151-7063 | 5.3 | [11.7] |
| 151-7065 | 5.6 | [12.3] |
| 151-7066 | 5.8 | [12.8] |
| 151-7067 | 6.0 | [13.2] |
| 151-7068 | 6.3 | [13.9] |
| 151-7069 | 6.8 | [15.0] |
| 151-7080 | 5.4 | [12.0] |
| 151-7081 | 5.4 | [12.0] |
| 151-7082 | 5.6 | [12.3] |
| 151-7101 | 5.5 | [12.1] |
| 151-7102 | 5.6 | [12.3] |
| 151-7103 | 5.8 | [12.8] |
| 151-7104 | 5.9 | [13.0] |
| 151-7105 | 6.1 | [13.4] |
| 151-7106 | 6.3 | [13.9] |
| 151-7107 | 6.5 | [14.3] |
| 151-7108 | 6.8 | [15.0] |
| 151-7109 | 7.3 | [16.1] |
| 151-7240 | 6.7 | [14.8] |
| 151-7241 | 6.9 | [15.2] |
| 151-7242 | 7.0 | [15.4] |
| 151-7243 | 7.2 | [15.9] |
| 151-7244 | 7.5 | [16.5] |
| 151-7245 | 8.0 | [17.6] |
| 151-7246 | 8.5 | [18.7] |
| 151-7247 | 9.0 | [19.8] |
| 151-7248 | 9.5 | [20.9] |
| 151-7250 | 6.7 | [14.8] |
| 151-7251 | 6.9 | [15.2] |
| 151-7252 | 7.0 | [15.4] |
| 151-7253 | 7.2 | [15.9] |
| 151-7254 | 7.5 | [16.5] |

Weight of motors

Weight of OMP, OMR and OMH motors (continued)

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151-7255 | 8.0 | [17.6] |
| 151-7256 | 8.5 | [18.7] |
| 151-7257 | 9.0 | [19.8] |
| 151-7258 | 9.5 | [20.9] |
| 151-7260 | 6.1 | [13.4] |
| 151-7261 | 6.3 | [13.9] |
| 151-7262 | 6.4 | [14.1] |
| 151-7263 | 6.6 | [14.6] |
| 151-7264 | 6.9 | [15.2] |
| 151-7265 | 7.4 | [16.3] |
| 151-7266 | 7.9 | [17.4] |
| 151-7267 | 8.4 | [18.5] |
| 151-7269 | 8.9 | [19.6] |
| 151H1002 | 10.5 | [23.1] |
| 151H1003 | 11.0 | [24.3] |
| 151H1004 | 11.5 | [25.4] |
| 151H1005 | 12.3 | [27.1] |
| 151H1006 | 13.0 | [28.7] |
| 151H1012 | 10.5 | [23.1] |
| 151H1013 | 11.0 | [24.3] |
| 151H1014 | 11.5 | [25.4] |
| 151H1015 | 12.3 | [27.1] |
| 151H1016 | 13.0 | [28.7] |
| 151H1022 | 10.5 | [23.1] |
| 151H1023 | 11.0 | [24.3] |
| 151H1024 | 11.5 | [25.4] |
| 151H1025 | 12.3 | [27.1] |
| 151H1026 | 13.0 | [28.7] |
| 151H1034 | 11.5 | [25.4] |
| 151H1035 | 12.3 | [27.1] |
| 151H1036 | 13.0 | [28.7] |
| 151H1042 | 10.5 | [23.1] |
| 151H1043 | 11.0 | [24.3] |
| 151H1044 | 11.5 | [25.4] |
| 151H1045 | 12.3 | [27.1] |
| 151H1046 | 13.0 | [28.7] |
| 151H1052 | 10.5 | [23.1] |
| 151H1053 | 11.0 | [24.3] |
| 151H1054 | 11.5 | [25.4] |
| 151H1055 | 12.3 | [27.1] |
| 151H1056 | 13.0 | [28.7] |
| 151H1080 | 10.5 | [23.1] |
| 151H1081 | 13.0 | [28.7] |

Weight of motors*Weight of OMP, OMR and OMH motors (continued)*

| Code no | Weight | |
|----------|--------|--------|
| | kg | [lb] |
| 151H1082 | 11.0 | [24.3] |
| 151H1083 | 11.5 | [25.4] |
| 151H1084 | 12.3 | [27.1] |

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