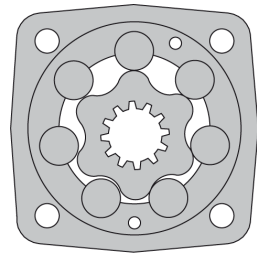


HYDRAULIC MOTORS OS



OIL FLOW IN DRAIN LINE

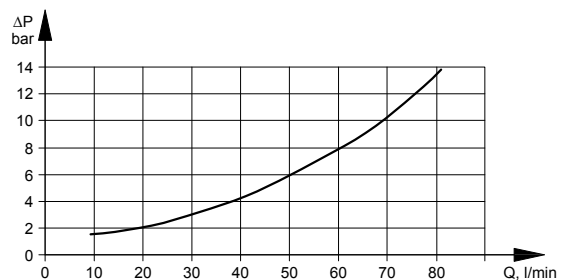
| Pressure drop (bar) | Viscosity (mm ² /s) | Oil flow in drain line (l/min) |
|---------------------|--------------------------------|--------------------------------|
| 140 | 20 | 1,5 |
| | 35 | 1 |
| 210 | 20 | 3 |
| | 35 | 2 |



GENERAL

| | |
|---|---|
| Displacement, (cm ³ /rev) | 564,9 |
| Max. Speed, (RPM) | 1000 |
| Max. Torque, (daNm) | cont.: 85 int.: 99 |
| Max. Output, (kW) | 23 |
| Max. Pressure Drop, (bar) | cont.: 210 int.: 275 |
| Max. Oil Flow, (l/min) | 90 |
| Min. speed, (RPM) | 5 |
| Permissible Shaft Loads, (daN) | Pa=500 |
| Pressure fluid | Mineral based- HLP(DIN 51524) or HM(ISO 6743/4) |
| Temperature range, (°C) | - 40 ÷ 140 |
| Optimal Viscosity range, (mm ² /s) | 20 ÷ 75 |
| Filtration | ISO code 20/16 (Min. recommended fluid filtration of 25 micron) |

PRESSURE LOSSES



SPECIFICATION DATA

| Type | | OS 80 | OS 100 | OS 125 | OS 160 | OS 200 | |
|---|--------------------------|------------|------------|------------|------------|------------|-----|
| Displacement [cm ³ /rev.] | | 80,5 | 100 | 125,7 | 159,7 | 200 | |
| Max. Speed, [RPM] | cont. | 810 | 750 | 600 | 470 | 375 | |
| | int. | 1000 | 900 | 720 | 560 | 450 | |
| Max. Torque [daNm] | cont. | 20 | 25 | 32 | 40 | 46 | |
| | int. | 24 | 30 | 38 | 48 | 60 | |
| | peak | 26 | 32 | 40 | 51 | 65 | |
| Max. Output [kW] | cont. | 16 | 17,5 | 17,5 | 17,5 | 15,5 | |
| | int. | 19 | 21 | 21 | 21 | 22 | |
| Max. Pressure Drop [bar] | cont. | 175 | 175 | 175 | 175 | 160 | |
| | int. | 210 | 210 | 210 | 210 | 210 | |
| | peak | 250 | 250 | 225 | 225 | 225 | |
| Max. Oil Flow [l/min] | cont. | 65 | 75 | 75 | 75 | 75 | |
| | int. | 80 | 90 | 90 | 90 | 90 | |
| Max. Inlet Pressure, [bar] | cont. | 210 | 210 | 210 | 210 | 210 | |
| | int. | 250 | 250 | 250 | 250 | 250 | |
| | peak | 300 | 300 | 300 | 300 | 300 | |
| Max. Return Pressure w/o Drain Line or Max. Pressure in Drain Line, [bar] | cont. | 0-100 | RPM | 100 | 100 | 100 | 100 |
| | cont. | 100-300 | RPM | 50 | 50 | 50 | 50 |
| | cont. | >300 | RPM | 20 | 20 | 20 | 20 |
| | int. | 0-max. | RPM | 100 | 100 | 100 | 100 |
| Max. Return Pressure with Drain Line [bar] | cont. | 140 | 140 | 140 | 140 | 140 | |
| | int. | 175 | 175 | 175 | 175 | 175 | |
| | peak | 210 | 210 | 210 | 210 | 210 | |
| Max. Starting Pressure with Unloaded Shift, [bar] | | 12 | 10 | 10 | 8 | 8 | |
| Min. Starting Torque [daNm] | at max press. drop cont. | 16,5 | 20,5 | 26 | 28 | 33 | |
| | at max press. drop int. | 19,5 | 25 | 31 | 39 | 41 | |
| Min. Speed, [RPM] | | 10 | 10 | 8 | 8 | 6 | |
| Weight, [kg] | OS(FE) | 9,8(10,2) | 10(10,4) | 10,3(10,7) | 10,7(11,1) | 11,1(11,5) | |
| | OSWE | 10,3(10,7) | 10,5(10,9) | 10,8(11,2) | 11,2(11,6) | 11,6(12) | |
| | OSZE | 7,8(8,2) | 8(8,4) | 8,3(8,7) | 8,7(9,1) | 9,1(9,5) | |
| | OSVE | 5,7(6,1) | 5,9(6,3) | 6,2(6,6) | 6,6(7) | 7(7,4) | |
| | OSQE | 10,2(10,6) | 10,4(10,8) | 10,7(11,1) | 11,1(11,5) | 11,5(11,9) | |
| | OSBE | 16,8(17,2) | 17,0(17,4) | 17,3(17,7) | 17,7(18,1) | 18,1(18,5) | |

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

SPECIFICATION DATA

| Type | | | | OS 250 | OS 315 | OS 400 | OS 475 | OS 525 | OS 565 |
|--|---------------|----------------|-------------------|------------|------------|------------|------------|------------|------------|
| Displacement [cm³/rev.] | | | | 250 | 314,9 | 397 | 474,6 | 522,7 | 564,9 |
| Max. Speed, [RPM] | cont. | | | 300 | 240 | 185 | 160 | 145 | 130 |
| | int. | | | 360 | 290 | 230 | 190 | 175 | 160 |
| Max. Torque [daNm] | cont. | | | 50 | 63 | 67 | 58 | 58 | 58 |
| | int. | | | 63 | 79 | 79 | 68 | 69 | 69 |
| | peak | | | 69 | 84 | 85 | 84 | 85 | 85 |
| Max. Output [kW] | cont. | | | 13,5 | 11,0 | 10,5 | 8,4 | 7,6 | 6,9 |
| | int. | | | 19 | 18 | 15 | 11,3 | 10,4 | 9,6 |
| Max. Pressure Drop [bar] | cont. | | | 140 | 140 | 120 | 85 | 80 | 75 |
| | int. | | | 175 | 175 | 140 | 100 | 90 | 85 |
| | peak | | | 200 | 185 | 140 | 115 | 105 | 100 |
| Max. Oil Flow [l/min] | cont. | | | 75 | 75 | 75 | 75 | 75 | 75 |
| | int. | | | 90 | 90 | 90 | 90 | 90 | 90 |
| Max. Inlet Pressure, [bar] | cont. | | | 210 | 210 | 210 | 210 | 210 | 210 |
| | int. | | | 250 | 250 | 250 | 250 | 250 | 250 |
| | peak | | | 300 | 300 | 300 | 300 | 300 | 300 |
| Max. Return Pressure w/o Drain Line or Max. Pressure in Drain Line, [bar] | cont. | 0-100 | RPM | 100 | 100 | 100 | 100 | 100 | 100 |
| | cont. | 100-300 | RPM | 50 | 50 | 50 | 50 | 50 | 50 |
| | cont. | >300 | RPM | - | - | - | - | - | - |
| | int. | 0-max. | RPM | 100 | 100 | 100 | 100 | 100 | 100 |
| Max. Return Pressure with Drain Line [bar] | cont. | | | 140 | 140 | 140 | 140 | 140 | 140 |
| | int. | | | 175 | 175 | 175 | 175 | 175 | 175 |
| | peak | | | 210 | 210 | 210 | 210 | 210 | 210 |
| Max. Starting Pressure with Unloaded Shift, [bar] | | | | 8 | 8 | 8 | 8 | 8 | 8 |
| Min. Starting Torque [daNm] | at max | press. | drop cont. | 36 | 44 | 47 | 47 | 47 | 47 |
| | at max | press. | drop int. | 44 | 52 | 55 | 55 | 55 | 55 |
| Min. Speed, [RPM] | | | | 6 | 5 | 5 | 5 | 5 | 5 |
| Weight, [kg] | OS(FE) | | | 11,6(12) | 12,3(12,7) | 13,2(13,6) | 14(14,4) | 14,9(15,3) | 14,9(15,3) |
| | OSWE | | | 12,1(12,5) | 12,8(13,2) | 13,7(14,1) | 14,5(14,9) | 15,4(15,8) | 15,4(15,8) |
| | OSZE | | | 9,6(10) | 10,3(10,7) | 11,2(11,6) | 12(12,4) | 12,9(13,3) | 12,9(13,3) |
| | OSVE | | | 7,5(7,9) | 8,2(8,6) | 9,1(9,5) | 9,9(10,3) | 10,8(11,2) | 10,8(11,2) |
| | OSQE | | | 12(12,4) | 12,7(13,1) | 13,6(14) | 14,4(14,8) | 15,3(15,7) | 15,3(15,7) |
| | OSBE | | | 18,6(19) | 19,3(19,7) | 20,2(20,6) | 21(21,4) | 21,9(22,3) | 21,9(22,3) |

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

SPECIFICATION DATA for OS...LSV

Low Speed Valve (LSV) "LSV" Series hydraulic motors have been designed to operate with normal pressure drop and to ensure smooth run at low speed (up to 200 min⁻¹), as the best security for operation is guaranteed at frequency of rotation 20 ÷ 50 min. They have an increased starting pressure drop and are not recommended for using at pressure less than 40 bars.

Look at specification data for hydraulic motors standard version. The modification concerns only the following parameters: maximum speed, maximum output, maximum Oil flow and maximum starting pressure.

| Type | | OS 80 | OS 100 | OS 125 | OS 160 | OS 200 | OS 250 | OS 315 | OS 400 |
|--|-------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Max. Speed, [RPM] | cont. | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 185 |
| | int. | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 225 |
| Max. Output [kW] | cont. | 4,6 | 6,0 | 7,4 | 8,0 | 8,0 | 8,8 | 10,6 | 9,5 |
| | int. | 6,5 | 8,4 | 10,0 | 12,2 | 12,4 | 13,4 | 15,0 | 12,8 |
| Max. Oil Flow [l/min] | cont. | 16 | 20 | 25 | 32 | 40 | 50 | 65 | 75 |
| | int. | 20 | 25 | 32 | 40 | 50 | 62,5 | 80 | 90 |
| Max. Starting Pressure with Unloaded Shift, [bar] | | 25 | 20 | 20 | 15 | 15 | 15 | 15 | 15 |

SPECIFICATION DATA for OS...LL

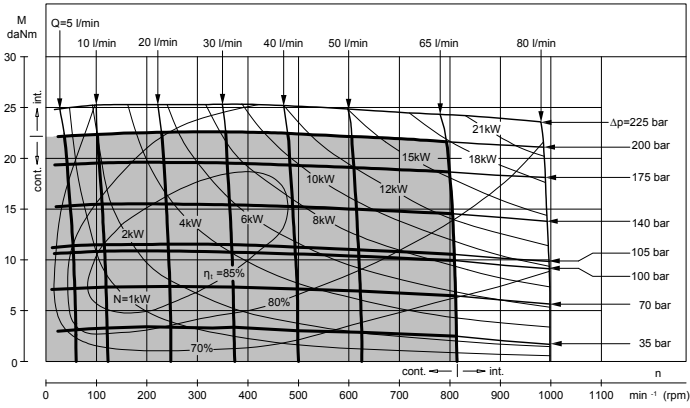
Low Leakage (LL) "LL" Series hydraulic motors have been designed to operate at the whole standard range of working conditions (pressure drop and frequency of rotation), but with considerable decreased volumetric losses in the drainage ports. Their main purpose is to operate as series-connected motors in hydraulic systems. For this version is permissible decreasing of the maximal torque with up to 5% (at middle speed) and up to 10% (at high speed) in comparison to the standard versions of motors.

Look at specification data for hydraulic motors standard version. The modification concerns only the parameters: maximum torque, maximum output, minimum starting torque.

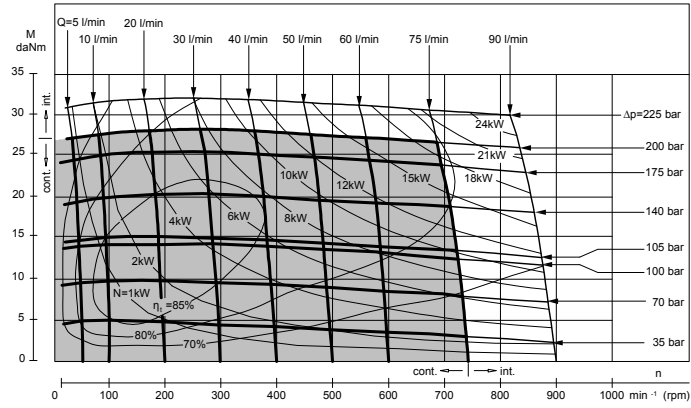
| Type | | OS 80 | OS 100 | OS 125 | OS 160 | OS 200 | OS 250 | OS 315 | OS 400 |
|------------------------------------|-------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Max. Torque [daNm] | cont. | 22,9 | 28,5 | 36,4 | 33,2 | 39,0 | 43,8 | 52,6 | 56,5 |
| | int. | 25,2 | 31,1 | 39,6 | 46,8 | 48,8 | 52,6 | 61,4 | 67,2 |
| Max. Output [kW] | cont. | 17,8 | 19,3 | 19,3 | 14,8 | 13,3 | 11,8 | 10,9 | 9,5 |
| | int. | 19,3 | 21,3 | 21,4 | 20,0 | 16,6 | 14,2 | 12,8 | 12,3 |
| Min. Starting Torque [daNm] | cont. | 18,7 | 23,2 | 29,6 | 27,3 | 32,2 | 35,1 | 43,0 | 45,8 |
| | int. | 20,3 | 25,9 | 32,3 | 38,0 | 40,0 | 43,0 | 50,7 | 53,6 |

FUNCTION DIAGRAMS

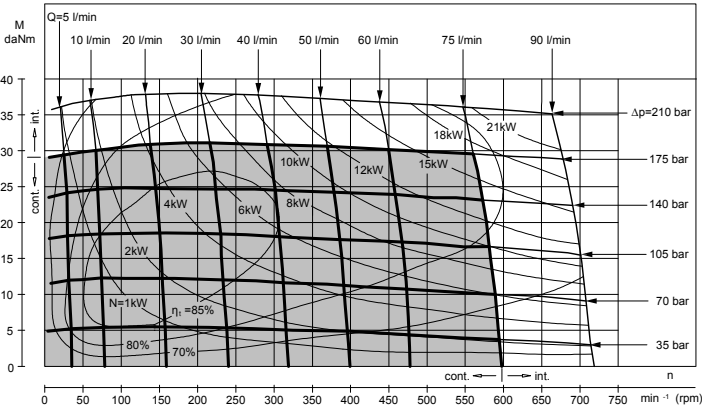
OS 80



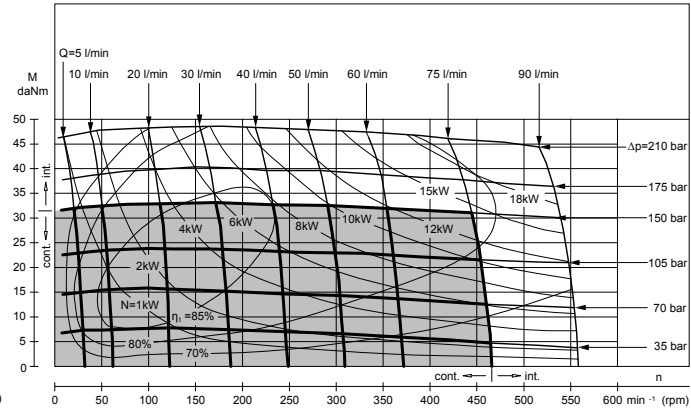
OS 100



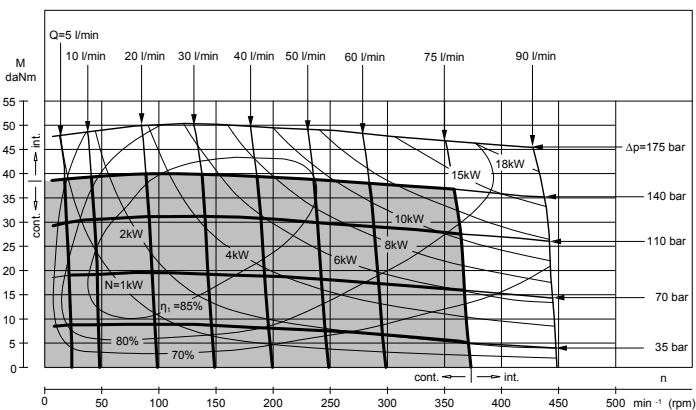
OS 125



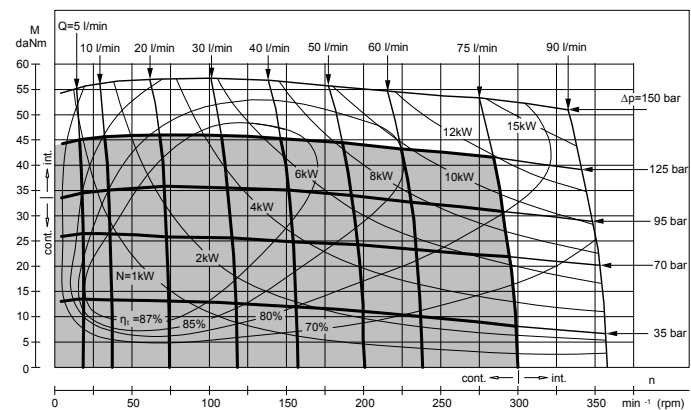
OS 160



OS 200



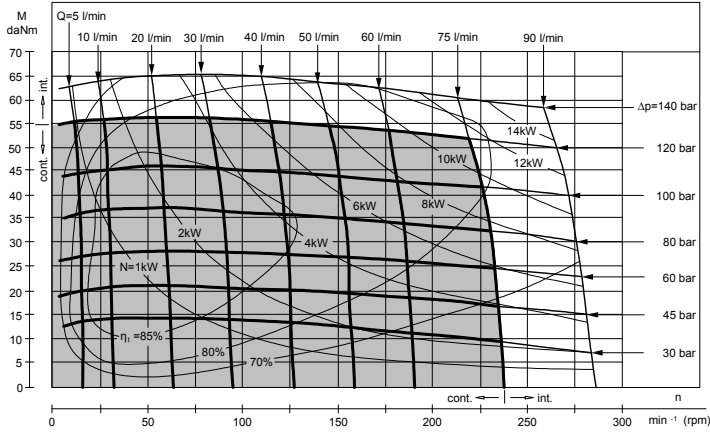
OS 250



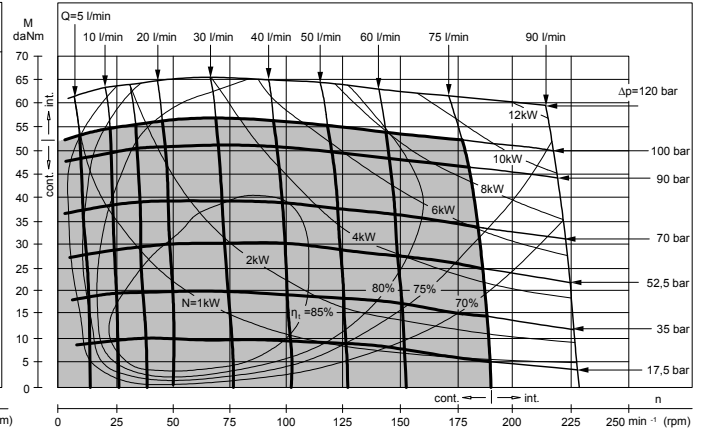
The function diagrams data was collected at back pressure 5+10 bar and oil with viscosity of 32 mm²/s at 50° C.

FUNCTION DIAGRAMS

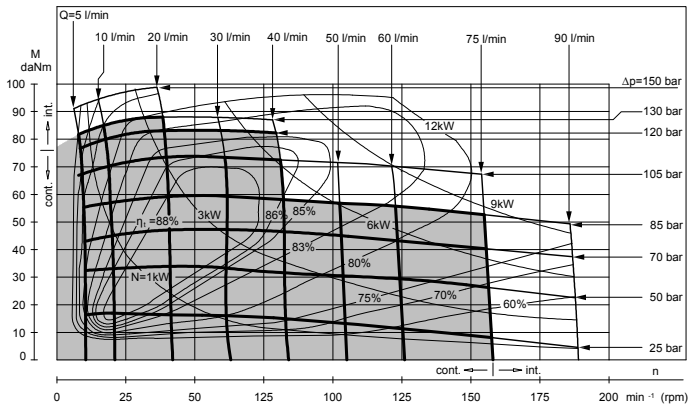
OS 315



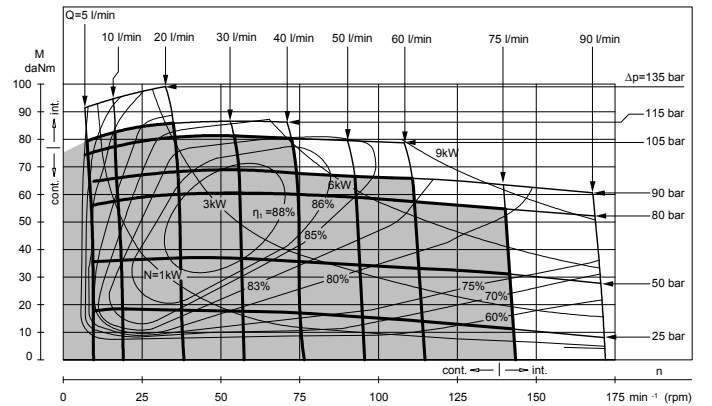
OS 400



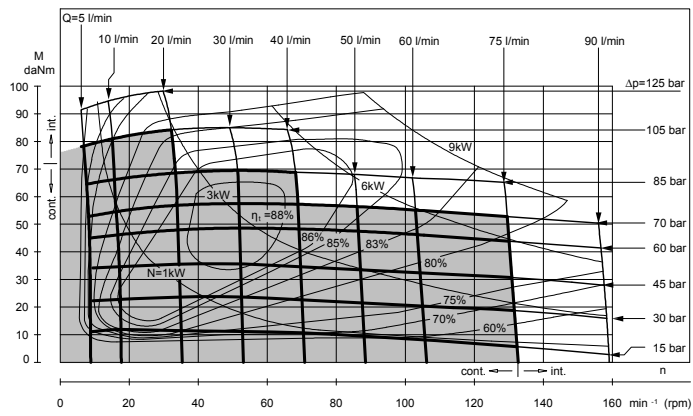
OS 475



OS 525

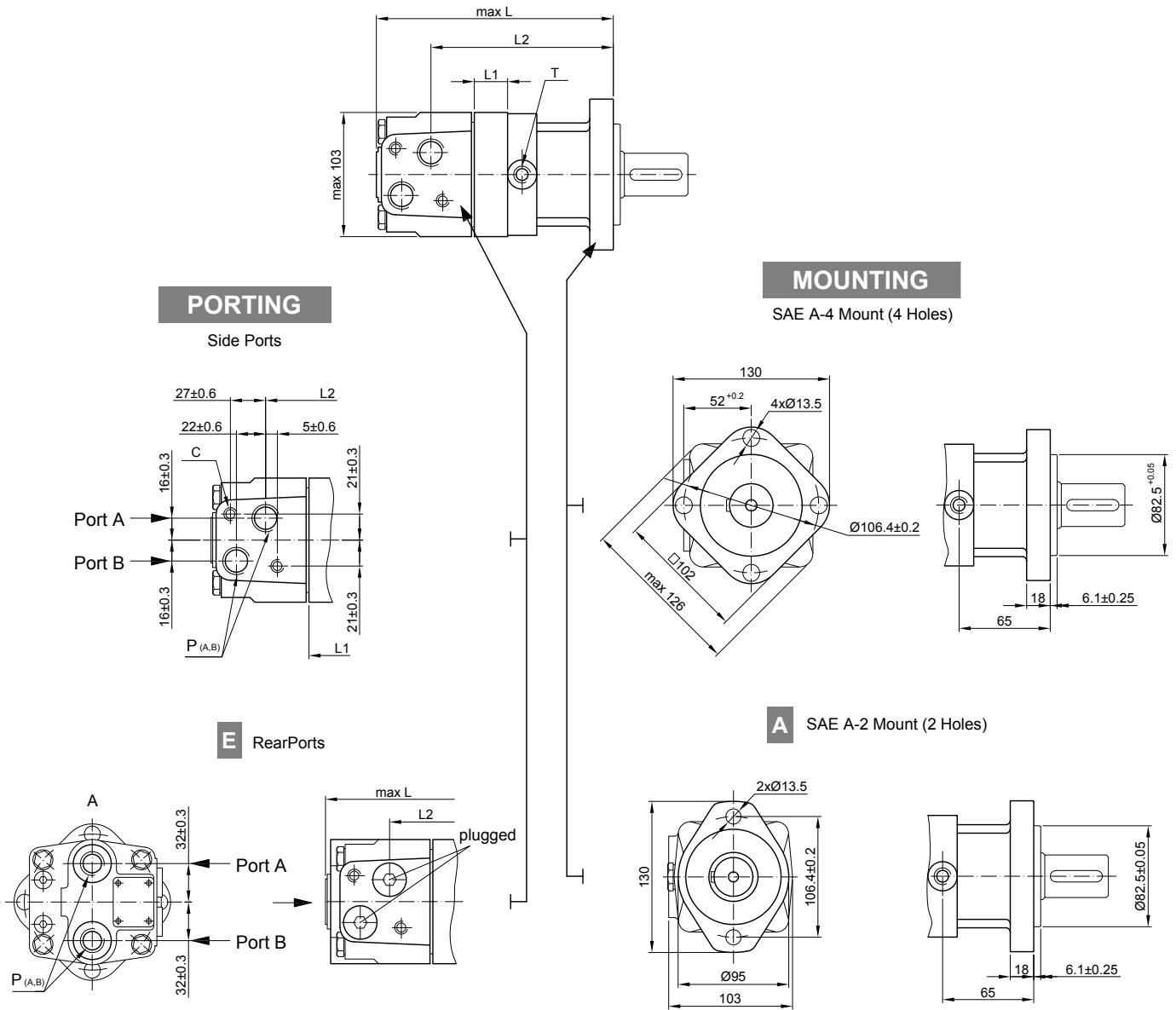


OS 565



The function diagrams data was collected at back pressure 5+10 bar and oil with viscosity of 32 mm²/s at 50° C.

DIMENSIONS AND MOUNTING DATA



C : 2xM10 - 12 mm depth

P_(A,B) : 2xG1/2 or 2xM22x1,5 - 15 mm depth

T : G1/4 or M14x1,5 - 12 mm depth (plugged)

Standard Rotation

Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

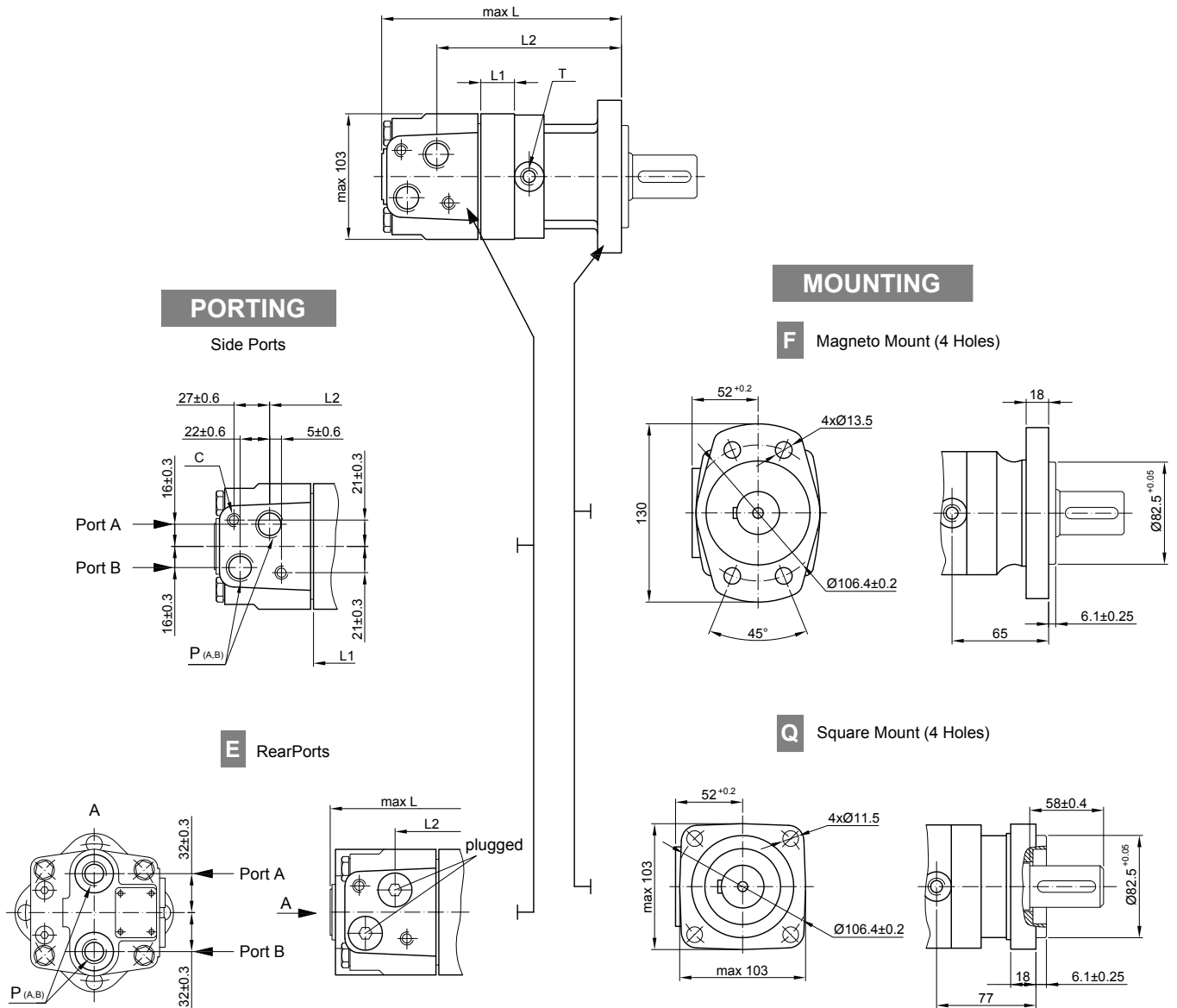
Reverse Rotation

Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

| Type | L , mm | L2 , mm | Type | L , mm | L1 , mm |
|-----------|--------|---------|------------|--------|---------|
| OS(A) 80 | 167 | 122 | OS(A)E 80 | 174 | 11 |
| OS(A) 100 | 170 | 126 | OS(A)E 100 | 177 | 14,5 |
| OS(A) 125 | 175 | 130 | OS(A)E 125 | 182 | 19 |
| OS(A) 160 | 181 | 136 | OS(A)E 160 | 188 | 25 |
| OS(A) 200 | 188 | 143 | OS(A)E 200 | 195 | 32 |
| OS(A) 250 | 197 | 152 | OS(A)E 250 | 204 | 41 |
| OS(A) 315 | 208 | 163 | OS(A)E 315 | 215 | 53 |
| OS(A) 400 | 222 | 177 | OS(A)E 400 | 229 | 67 |
| OS(A) 475 | 237 | 193 | OS(A)E 475 | 242 | 82,6 |
| OS(A) 525 | 229 | 185 | OS(A)E 525 | 234 | 74,5 |
| OS(A) 565 | 235 | 191 | OS(A)E 565 | 240 | 80,2 |

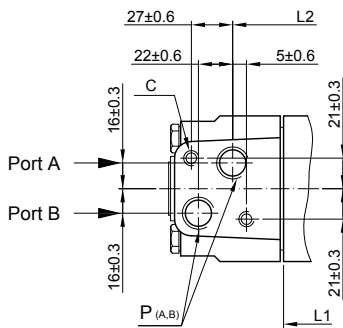
The permissible output torque for shafts must be not exceeded!

DIMENSIONS AND MOUNTING DATA

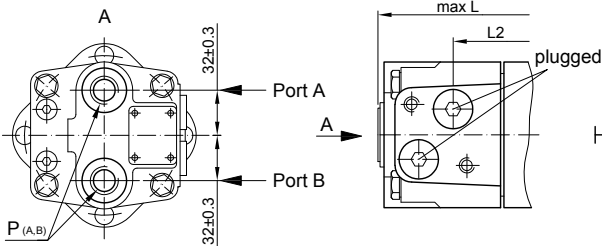


PORTING

Side Ports

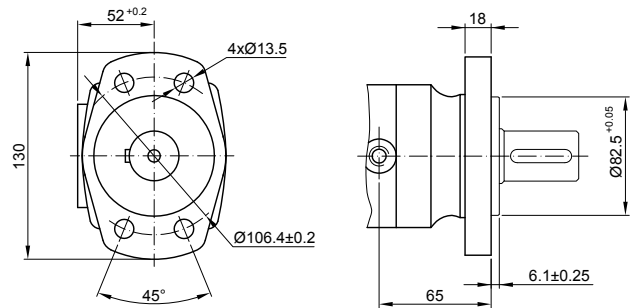


Rear Ports

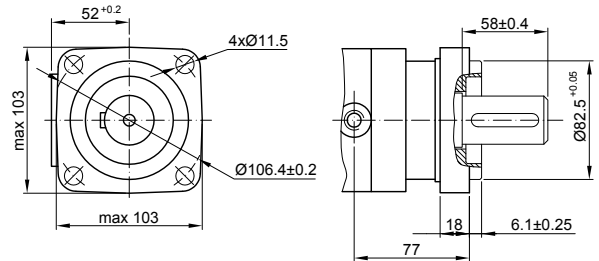


MOUNTING

F Magneto Mount (4 Holes)



Q Square Mount (4 Holes)



C : 2xM10 - 12 mm depth

P_(A,B) : 2xG1/2 or 2xM22x1,5 - 15 mm depth

T : G1/4 or M14x1,5 - 12 mm depth (plugged)

Standard Rotation

Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

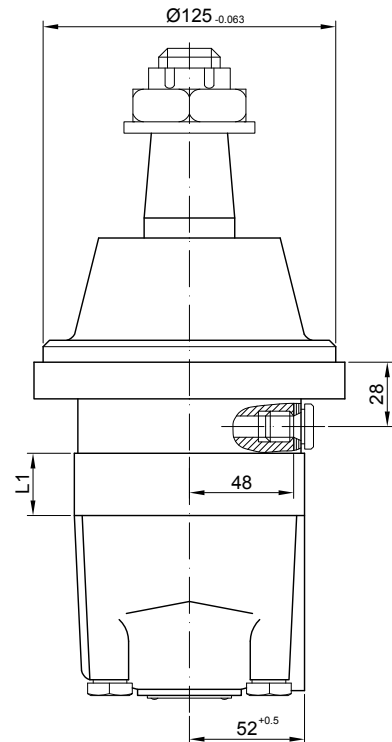
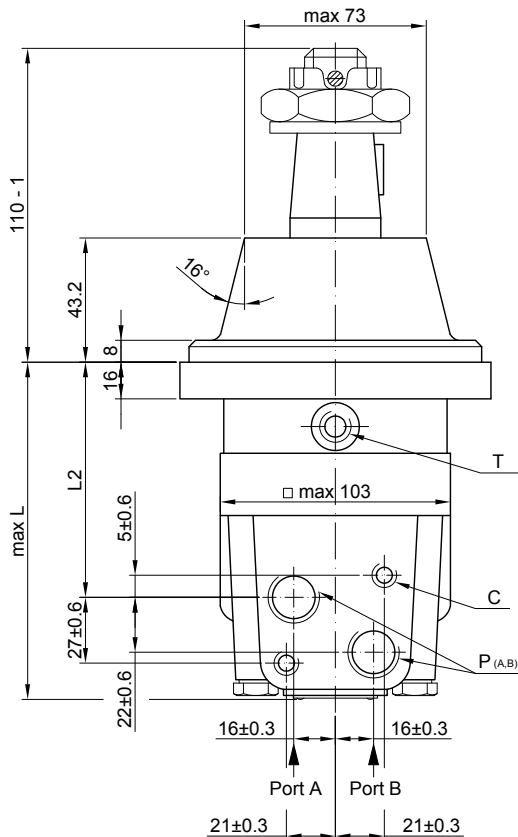
Reverse Rotation

Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

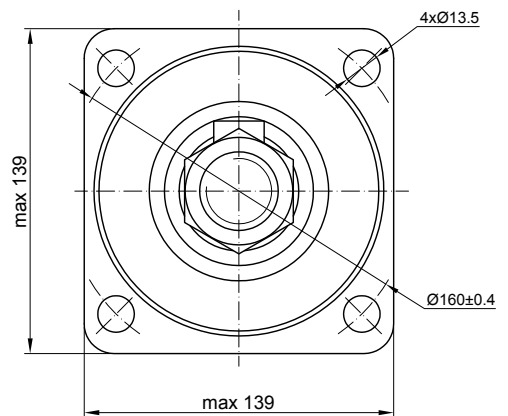
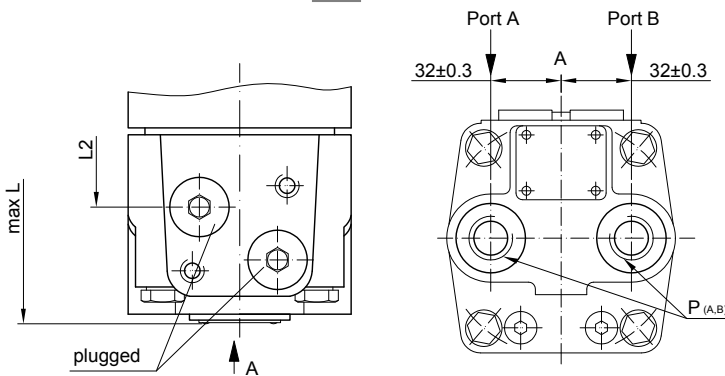
| Type | L , mm | L2 , mm | Type | L , mm | L2 , mm | Type | L , mm | Type | L , mm | L1 , mm |
|---------|--------|---------|---------|--------|---------|----------|--------|----------|--------|---------|
| OSF 80 | 167 | 122 | OSQ 80 | 178 | 134 | OSFE 80 | 174 | OSQE 80 | 186 | 11 |
| OSF 100 | 170 | 126 | OSQ 100 | 181 | 138 | OSFE 100 | 177 | OSQE 100 | 189 | 14,5 |
| OSF 125 | 175 | 130 | OSQ 125 | 186 | 142 | OSFE 125 | 182 | OSQE 125 | 194 | 19 |
| OSF 160 | 181 | 136 | OSQ 160 | 192 | 148 | OSFE 160 | 188 | OSQE 160 | 200 | 25 |
| OSF 200 | 188 | 143 | OSQ 200 | 199 | 155 | OSFE 200 | 195 | OSQE 200 | 207 | 32 |
| OSF 250 | 197 | 152 | OSQ 250 | 208 | 164 | OSFE 250 | 204 | OSQE 250 | 216 | 41 |
| OSF 315 | 208 | 163 | OSQ 315 | 219 | 175 | OSFE 315 | 215 | OSQE 315 | 227 | 53 |
| OSF 400 | 222 | 177 | OSQ 400 | 233 | 189 | OSFE 400 | 229 | OSQE 400 | 241 | 67 |
| OSF 475 | 237 | 193 | OSQ 475 | 247 | 205 | OSFE 475 | 242 | OSQE 475 | 254 | 82,6 |
| OSF 525 | 229 | 185 | OSQ 525 | 240 | 197 | OSFE 525 | 234 | OSQE 525 | 246 | 74,5 |
| OSF 565 | 235 | 191 | OSQ 565 | 246 | 203 | OSFE 565 | 240 | OSQE 565 | 252 | 80,2 |

DIMENSIONS AND MOUNTING DATA - OSW

W Wheel Mount



E Rear Port



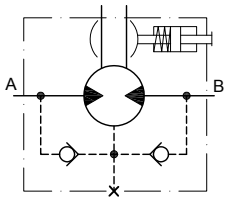
- C :2xM10 -12 mm depth
- P_(A,B) :2xG1/2 or 2xM22x1,5 - 15 mm depth
- T :G1/4 or M14x1,5 -12 mm depth (plugged)

Standard Rotation
Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

Reverse Rotation
Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

| Type | L , mm | L1 , mm | L2 , mm | Type | L , mm |
|----------------|--------|---------|---------|-----------------|--------|
| OSW 80 | 129 | 11 | 85 | OSWE 80 | 140 |
| OSW 100 | 132 | 14,5 | 88 | OSWE 100 | 143 |
| OSW 125 | 137 | 19 | 93 | OSWE 125 | 148 |
| OSW 160 | 143 | 25 | 99 | OSWE 160 | 154 |
| OSW 200 | 150 | 32 | 106 | OSWE 200 | 161 |
| OSW 250 | 159 | 41 | 115 | OSWE 250 | 170 |
| OSW 315 | 169 | 53 | 126 | OSWE 315 | 181 |
| OSW 400 | 183 | 67 | 141 | OSWE 400 | 194 |
| OSW 475 | 198 | 82,6 | 156 | OSWE 475 | 207 |
| OSW 525 | 190 | 74,5 | 148 | OSWE 525 | 199 |
| OSW 565 | 196 | 80,2 | 154 | OSWE 565 | 205 |

DIMENSIONS AND MOUNTING DATA - OSB



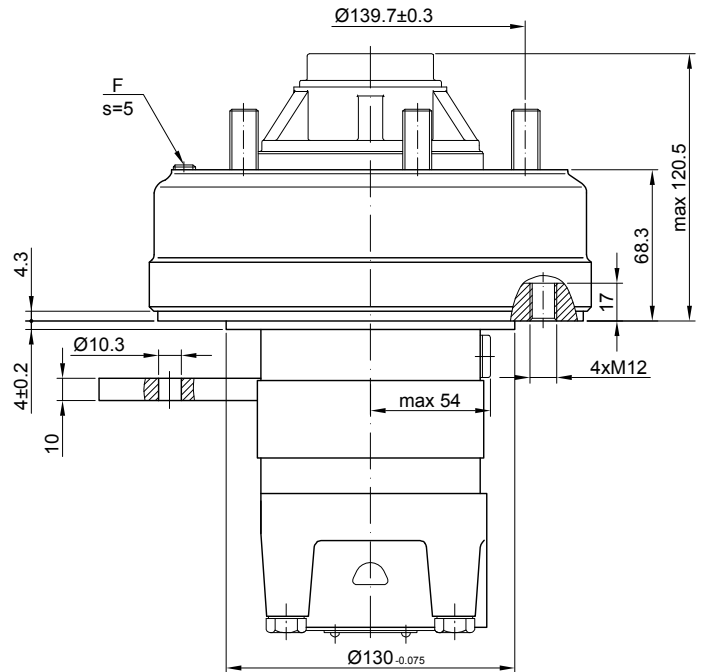
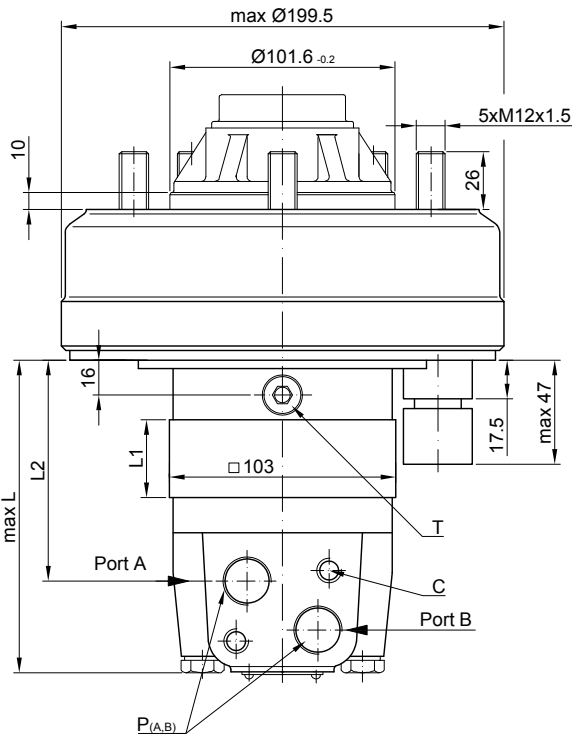
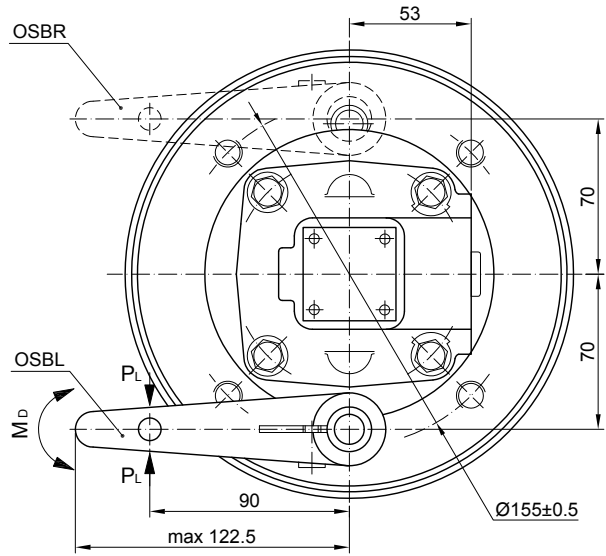
B Motor with Brum Brake

Actuating the brake level, the brake shaft is turned. The rectangular shape of the inner part of this shaft forces the brake pads to be pressed against the brake drum. This brakes the wheel or the winch drum.

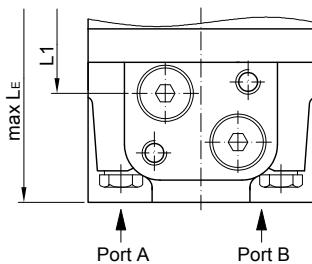
Releasing the level, the springs pull it and the brake pads back to the initial position. The motor output shaft is released. Minimum angle adjustment is 10°. It can be adjusted by dismounting the level. Depending on the application You can choose the actuating direction of the brake level. The rod connection actuating the brake should be capable of moving at last 25 mm from neutral to extreme position.

- C: 2xM10 - 12 mm depth
- D: Wheel bolts 5xM12x1,5
- E: 4xM12; 17mm depth, 90°

- F: Inspection hole for checking brake lining
- T: G 1/4 or M14x1,5 - 12 mm depth (plugged)
- P :2xG1/2 or 2xM22x1,5 - 15 mm depth



E Rear Port



Standard Rotation
Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

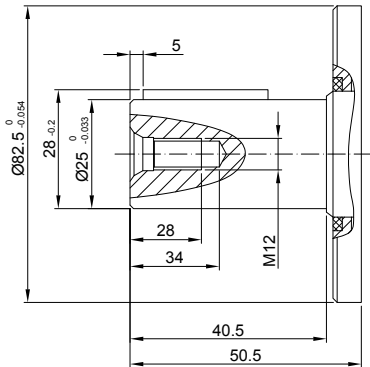
Reverse Rotation
Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

| Type | L , mm | L1 , mm | L2 , mm | L _E , mm |
|---------|--------|---------|---------|---------------------|
| OSB 80 | 119 | 14,0 | 74 | 127 |
| OSB 100 | 122 | 17,4 | 77 | 130 |
| OSB 125 | 126 | 21,8 | 82 | 134 |
| OSB 160 | 132 | 27,8 | 88 | 140 |
| OSB 200 | 139 | 34,8 | 95 | 147 |
| OSB 250 | 148 | 43,5 | 110 | 156 |
| OSB 315 | 159 | 54,8 | 115 | 167 |
| OSB 400 | 174 | 69,4 | 130 | 182 |
| OSB 475 | 188 | 82,6 | 143 | 196 |
| OSB 525 | 180 | 74,5 | 135 | 188 |
| OSB 565 | 186 | 80,2 | 141 | 192 |

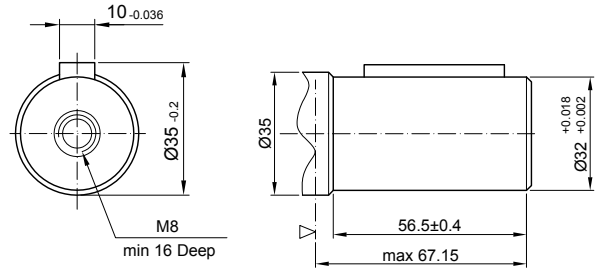
For rear ported motors.

SHAFT EXTENSIONS

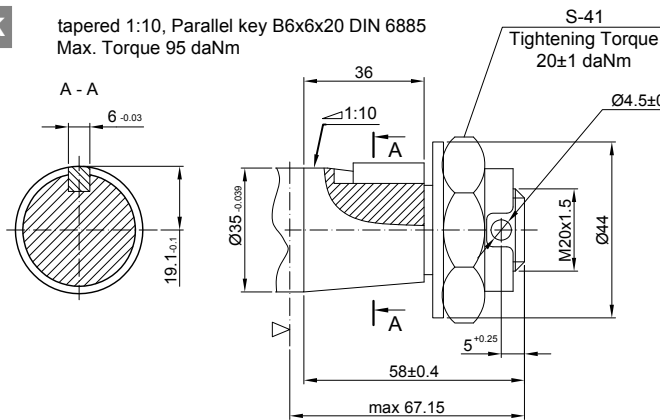
B Ø 25 mm straight



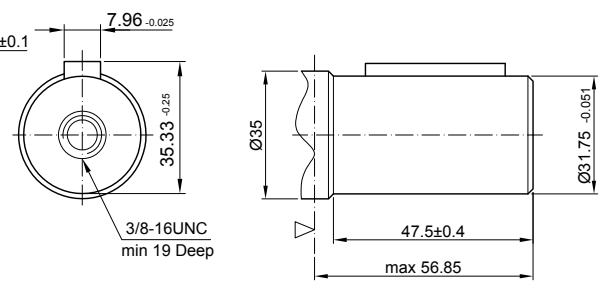
C Ø32 straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



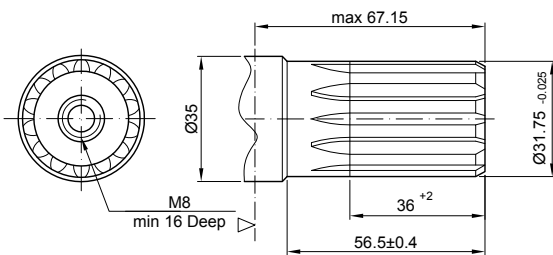
K tapered 1:10, Parallel key B6x6x20 DIN 6885
Max. Torque 95 daNm



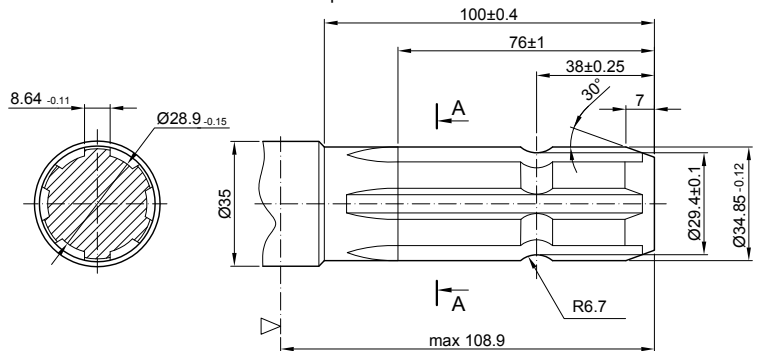
CO Ø1 1/4" straight, Parallel key 5/16"x5/16"x1 1/4" BS46
Max. Torque 77 daNm



SH Ø1 1/4" splined 14T, DP12/24 ANSI B92.1-1976
Max. Torque 95 daNm

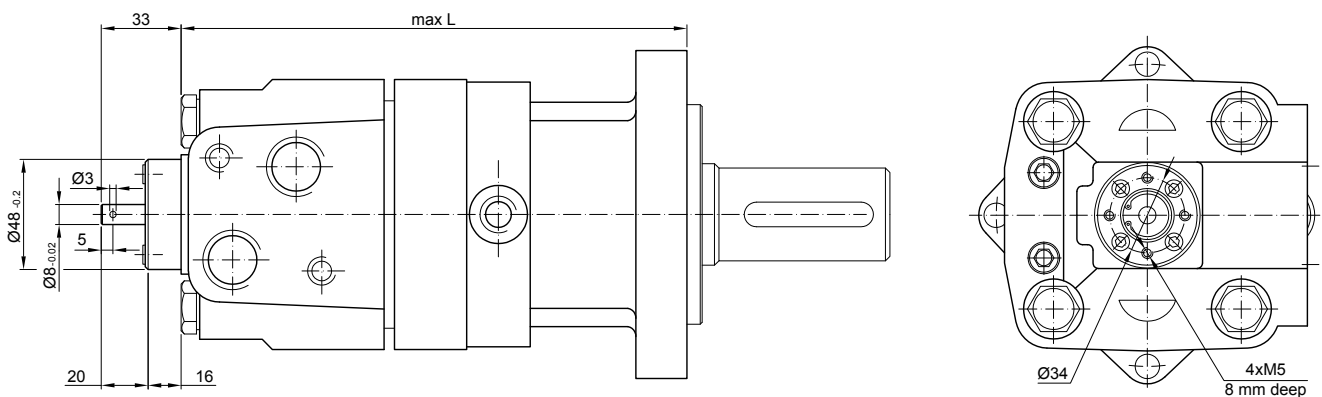


SL Ø34.85 p.t.o. DIN 9611 Form 1
Max. Torque 77 daNm



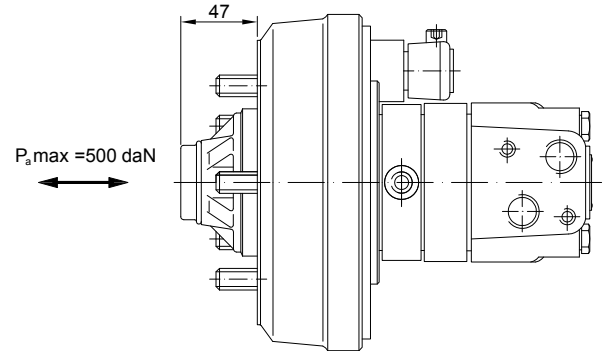
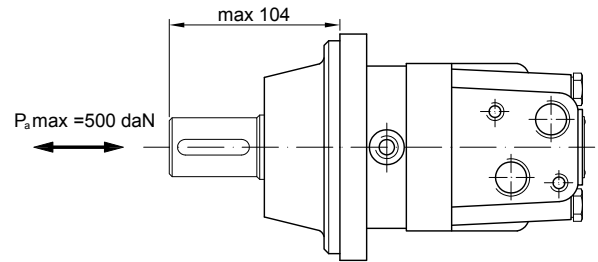
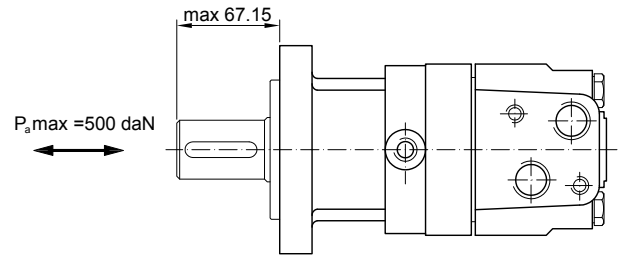
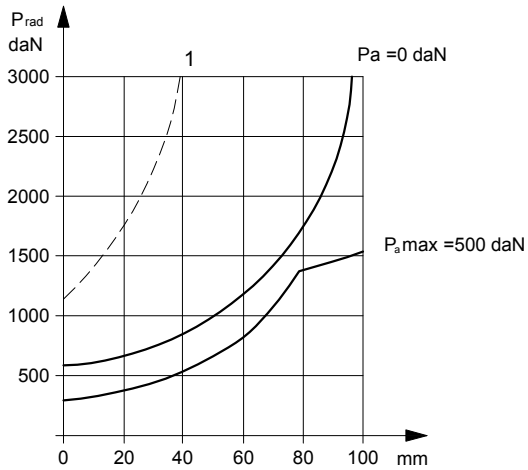
▽ Motor Mounting Surface

MOTORS WITH TACHO CONNECTION - Option "T"

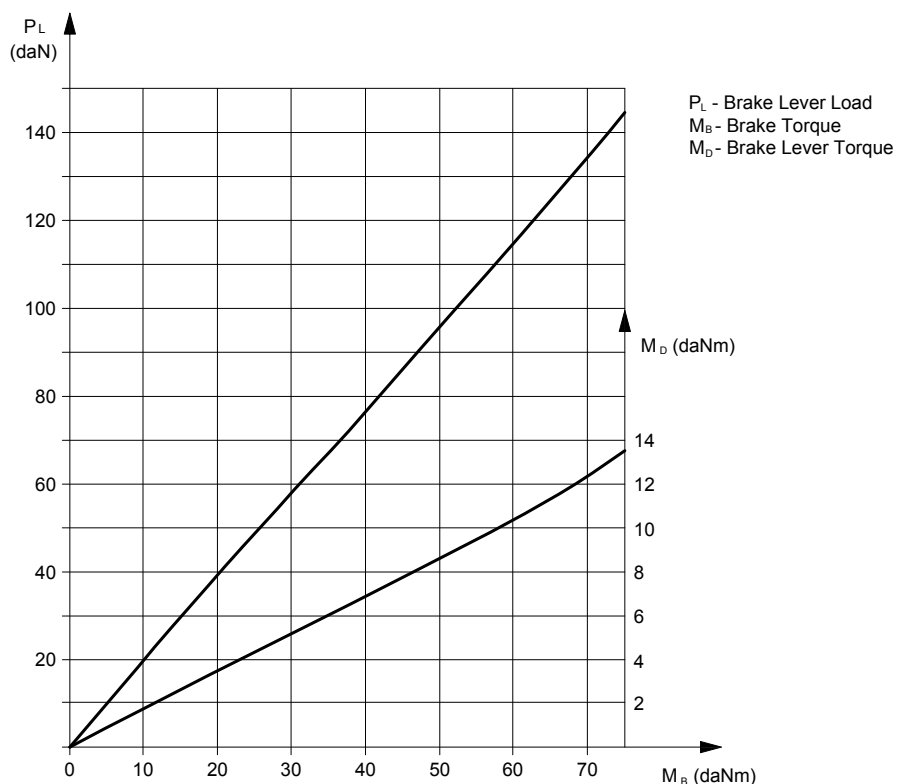


PERMISSIBLE SHAFT LOADS

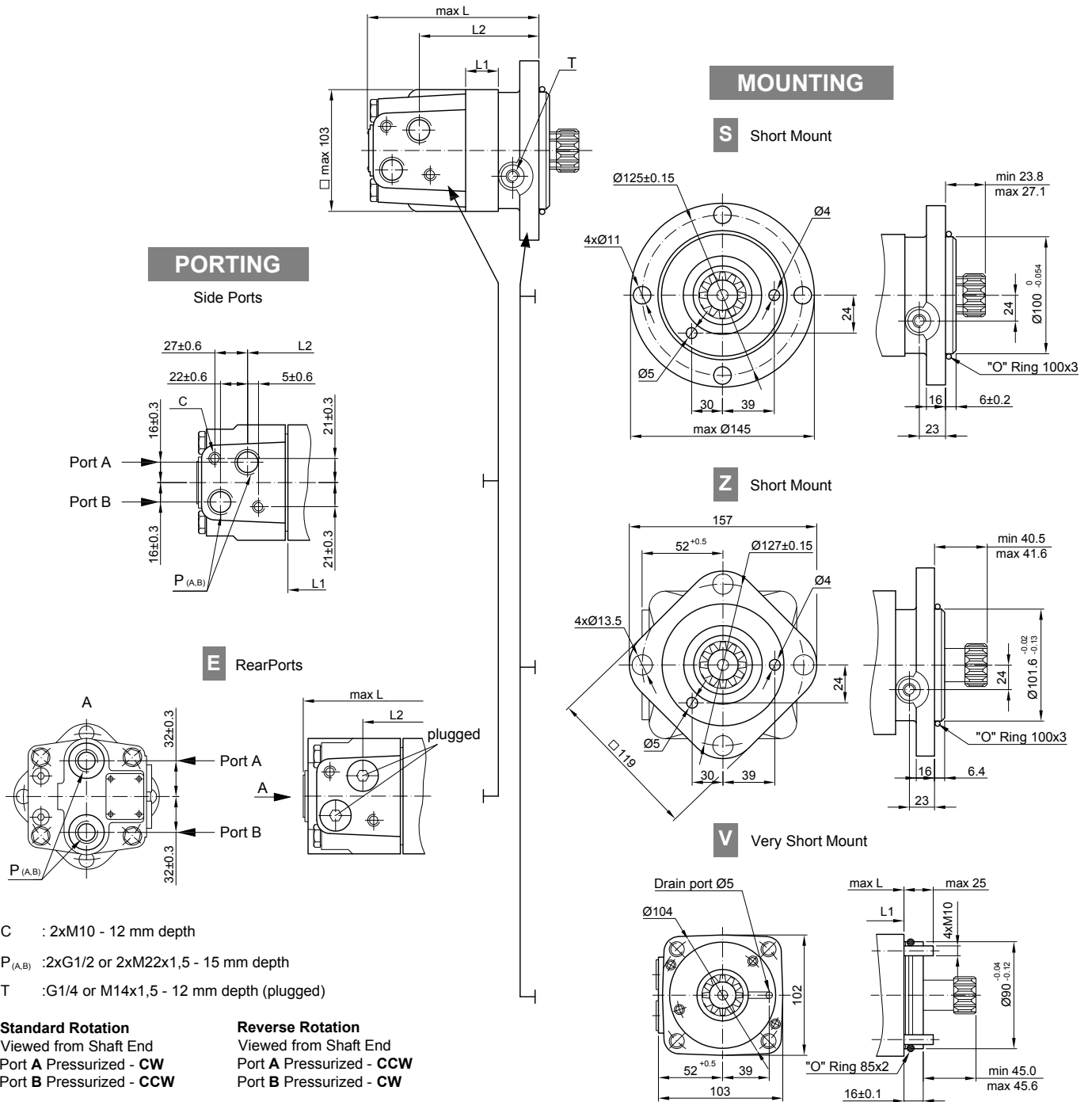
The output shaft runs in tapered bearings that permit high axial and radial forces. Curve "1" shows max. radial shaft load. Any shaft load exceeding the values quoted in the curve will seriously reduce motor life. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



FUNCTION DIAGRAM OSB



DIMENSIONS AND MOUNTING DATA

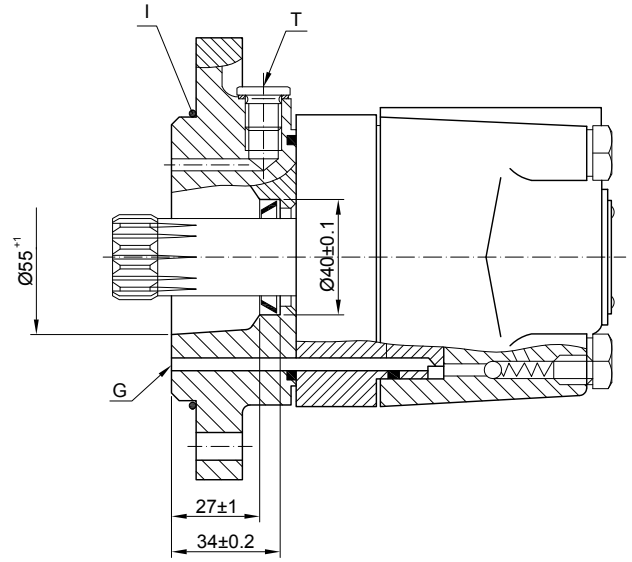
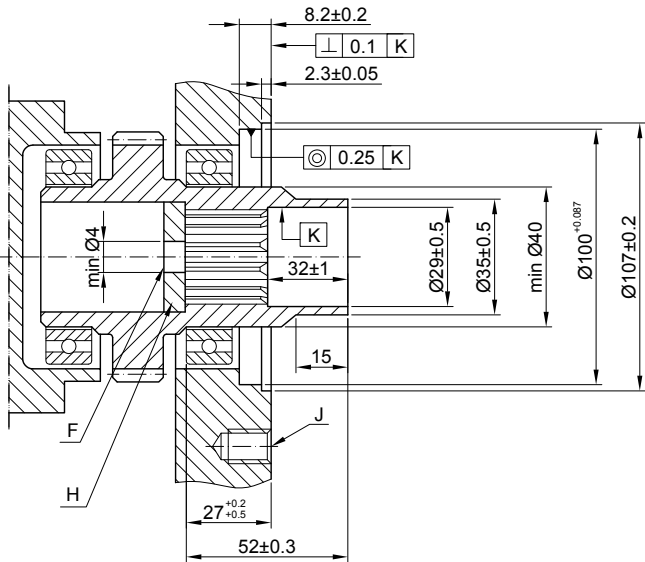


| Type | L , mm | L2 , mm | Type | L , mm | L2 , mm | Type | L , mm | Type | L , mm | L1 , mm |
|---------|--------|---------|---------|--------|---------|----------|--------|----------|--------|---------|
| OSS 80 | 122 | 79 | OSV 80 | 88 | 48 | OSSE 80 | 133 | OSVE 80 | 96 | 11 |
| OSS 100 | 125 | 83 | OSV 100 | 91 | 51 | OSSE 100 | 136 | OSVE 100 | 99 | 14,5 |
| OSS 125 | 130 | 86 | OSV 125 | 96 | 56 | OSSE 125 | 141 | OSVE 125 | 104 | 19 |
| OSS 160 | 136 | 92 | OSV 160 | 102 | 62 | OSSE 160 | 147 | OSVE 160 | 110 | 25 |
| OSS 200 | 143 | 100 | OSV 200 | 109 | 69 | OSSE 200 | 154 | OSVE 200 | 117 | 32 |
| OSS 250 | 152 | 108 | OSV 250 | 118 | 78 | OSSE 250 | 163 | OSVE 250 | 126 | 41 |
| OSS 315 | 163 | 119 | OSV 315 | 129 | 89 | OSSE 315 | 174 | OSVE 315 | 137 | 53 |
| OSS 400 | 177 | 133 | OSV 400 | 143 | 103 | OSSE 400 | 188 | OSVE 400 | 151 | 67 |
| OSS 475 | 194 | 152 | OSV 475 | 160 | 116 | OSSE 475 | 203 | OSVE 475 | 166 | 82,6 |
| OSS 525 | 186 | 144 | OSV 525 | 152 | 108 | OSSE 525 | 195 | OSVE 525 | 158 | 74,5 |
| OSS 565 | 192 | 150 | OSV 565 | 158 | 114 | OSSE 565 | 201 | OSVE 565 | 164 | 80,2 |

The width of the geroler is 3 mm greater than L1.
 OSZ(E) have the same dimension as type OSS(E)

DIMENSIONS OF THE ATTACHED COMPONENT

For OSS



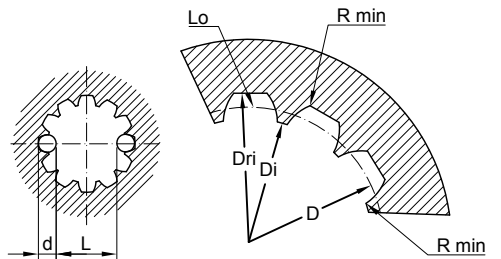
- F:** Oil circulation hole
- G:** Internal drain channel
- H:** Hardened stop plate
- I:** O- Ring 100x3mm (for OSS)

- J:** 2xM 10 - depth 13
- T:** Drain connection G1/4 or M14x1,5

INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

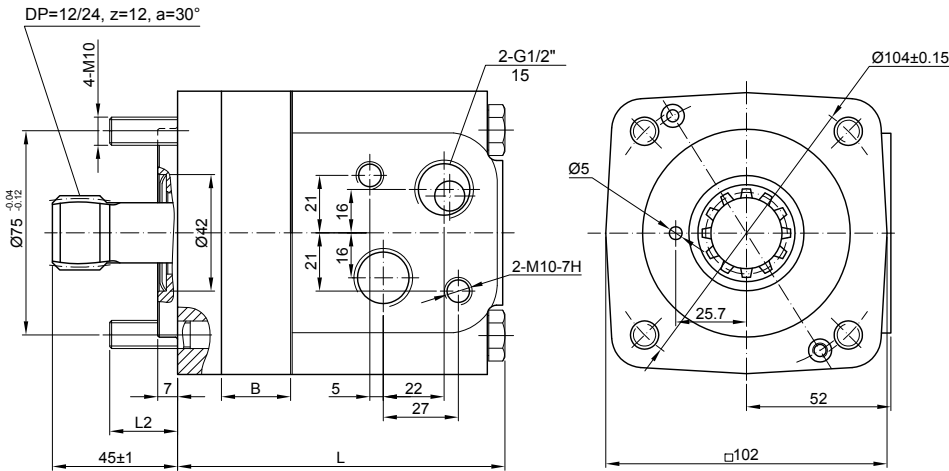
| Fillet Root Side Fit | mm | |
|------------------------------|------|------------------------|
| Number of Teeth | z | 12 |
| Diametral Pitch | DP | 12 / 24 |
| Pressure Angle | | 30° |
| Pitch Dia. | D | 25,4 |
| Major Dia. | Dri | 28,0 ^{-0,1} |
| Minor Dia. | Di | 23,0 ^{+0,033} |
| Space Width [Circular] | Lo | 4,308±0,020 |
| Fillet Radius | Rmin | 0,2 |
| Max. Measurement between Pin | L | 17,62 ^{+0,15} |
| Pin Dia. | d | 4,835±0,001 |

Above are when hardened



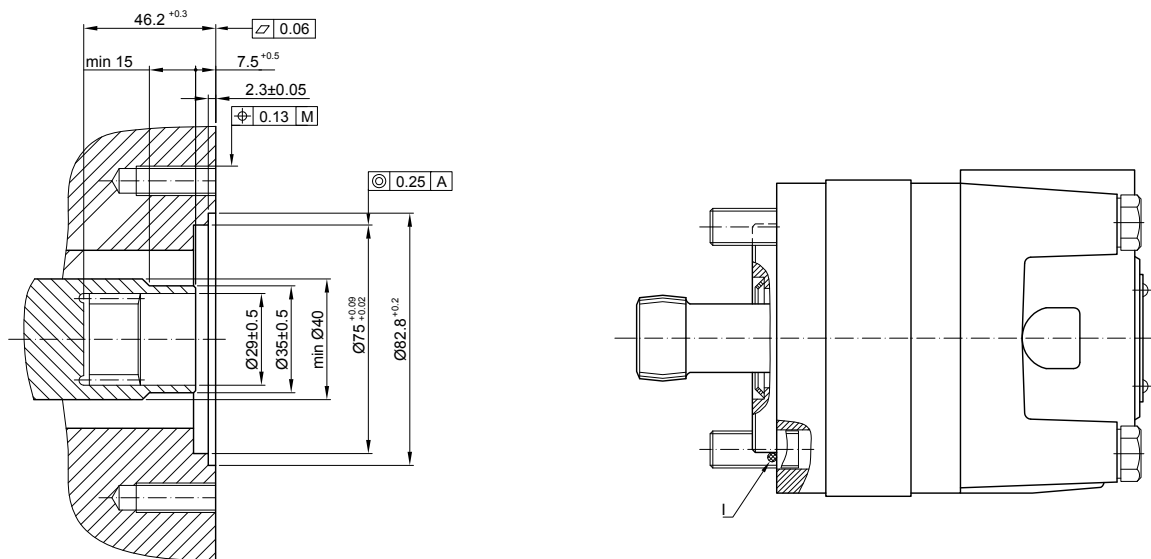
Hardening Specification:
 HRC 60±2
 Effective case depth (HRC 52) 0,7±0,2 mm
 Material 20 MoCr4 DIN 17210 or better

OUTLINE DIMENSIONS REFERENCE for OSU



| Type | L , mm | L2 , mm | B , mm |
|---------|--------|---------|--------|
| OSU 80 | 106 | 22 | 11,5 |
| OSU 100 | 111,5 | 18,5 | 15 |
| OSU 125 | 116 | 19 | 19,5 |
| OSU 160 | 122 | 18 | 25,5 |
| OSU 200 | 129 | 21 | 33,5 |
| OSU 250 | 138 | 22 | 41,5 |
| OSU 315 | 150 | 20 | 53,5 |
| OSU 400 | 164 | 21 | 67,5 |

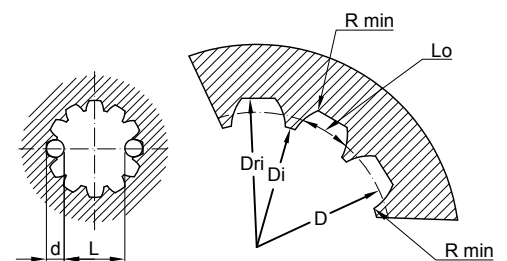
DIMENSIONS OF THE ATTACHED COMPONENT for OSU



- J: 4xM10-26 mm depth, 90° , Ø104
- I: O- Ring 75x3 mm

INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

| Fillet Root Side Fit | | mm |
|------------------------------|------|------------------------|
| Number of Teeth | z | 12 |
| Diametral Pitch | DP | 12 / 24 |
| Pressure Angle | | 30° |
| Pitch Dia. | D | 25,4 |
| Major Dia. | Dri | 28,0 ^{-0.1} |
| Minor Dia. | Di | 23,0 ^{+0.033} |
| Space Width [Circular] | Lo | 4,308±0,020 |
| Fillet Radius | Rmin | 0,2 |
| Max. Measurement between Pin | L | 17,62 ^{+0.15} |
| Pin Dia. | d | 4,835±0,001 |

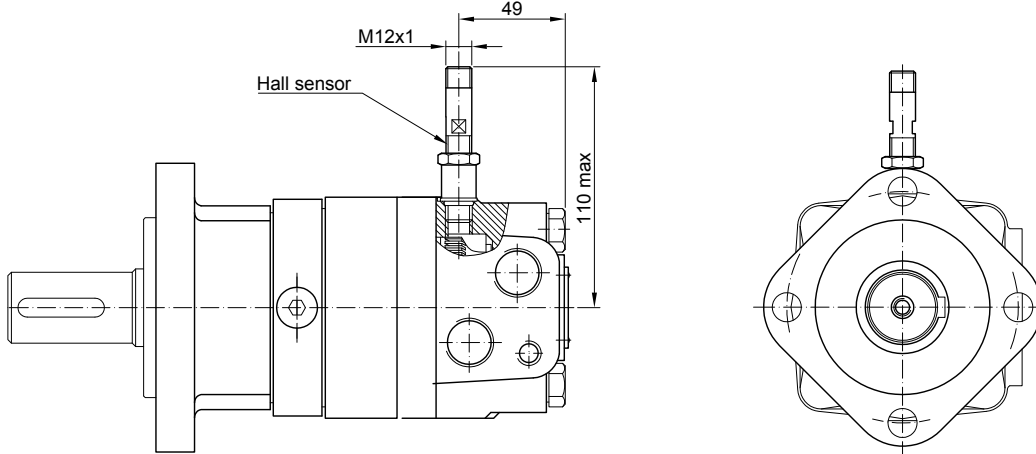


Hardening Specification:
 HRC 60±2
 Effective case depth (HRC 52) 0,7±0,2 mm
 Material 20 MoCr4 DIN 17210 or better

Above are when hardened

HYDRAULIC MOTORS WITH SPEED SENSOR TYPE OS...RS

Meta Hydraulic is introducing hydraulic motor with a new generation of speed sensor. The electric output signal is a standard voltage signal that can be used for regulating the speed of a motor. The speed is measured by a sensor in accordance with the Hall principle. Signal processing and amplification are performed in the sensor housing. Connection is provided in the housing by a Plug connector M12 Series.



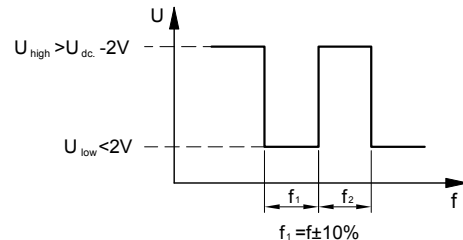
This performance is applicable for all motors of OS series. The main technical features correspond to the standard motors series OS.

DIFFERENTIAL HALL SENSOR

TECHNICAL DATA

| | |
|-----------------------|------------------------|
| Frequency range | 3...20 000 Hz |
| Output | PNP |
| Power supply | 10...36 VDC |
| Current input | 20 mA (@24 VDC) |
| Current load | 500 mA (@24 VDC;24°C) |
| Ambient Temperature | minus 40... plus 125°C |
| Protection | IP 67 |
| Plug connector | M12-Series |
| Mounting principle | ISO 6149 |
| Pulses per revolution | 54 |

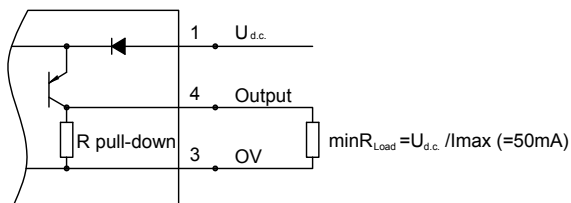
OUTPUT SIGNAL



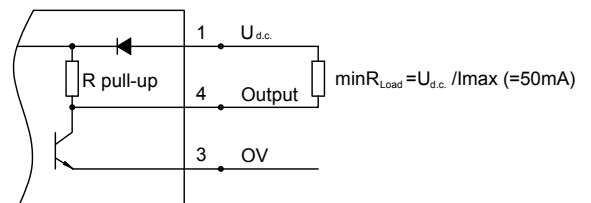
Load max.: $I_{high}=I_{low}<50\text{mA}$
No load current, max: 20 mA

WIRING DIAGRAM

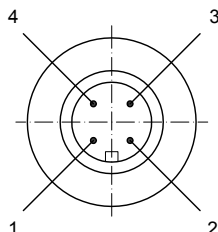
PNP



NPN



STICK TYPE



| Terminal No. | Connection |
|--------------|-------------------|
| 1 | U _{d.c.} |
| 2 | No connection |
| 3 | 0V |
| 4 | Output signal |

ORDER CODE

| | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| OS | | | | | | | | | | | |

| 1 | Mounting Flange |
|-------------|---------------------------|
| omit | SAE A mount, four holes |
| A | SAE A mount, two holes |
| F | Magneto mount, four holes |
| Q | Square mount, four holes |
| B | Motor with drum brake |
| S | Short mount |
| U | Ultra short mount |
| W | Wheel mount |

| 2 | Port type |
|-------------|------------|
| omit | Side ports |
| E | Rear ports |

| 3 | Displacement code |
|------------|---|
| 80 | 80,5 [cm ³ /rev] |
| 100 | 100,0 [cm ³ /rev] |
| 125 | 125,7 [cm ³ /rev] |
| 160 | 159,7 [cm ³ /rev] |
| 200 | 200,0 [cm ³ /rev] |
| 250 | 250,0 [cm ³ /rev] |
| 315 | 314,9 [cm ³ /rev] |
| 400 | 397,0 [cm ³ /rev] |
| 475 | 474,6 [cm ³ /rev] (w/o Function diagram) |
| 525 | 522,7 [cm ³ /rev] (w/o Function diagram) |
| 565 | 564,9 [cm ³ /rev] (w/o Function diagram) |

| 4 | Shaft Extensions |
|-----------|--|
| B | Ø25 mm straight |
| C | Ø32 straight, Parallel key A10x8x45 DIN6885 |
| CO | Ø1 1/4" straight, Parallel key 5/16"x5/16"x1 1/4" BS46 |
| K | Ø35 tapered 1:10, Parallel key B6x6x20 DIN6885 |
| SL | Ø34,85 p.t.o. DIN 9611 Form 1 |
| SH | Ø1 1/4" splined 14T ANSI B92.1 - 1976 |

| 5 | Ports |
|-------------|------------------|
| omit | BSPP (ISO 228) |
| M | Metric (ISO 262) |

| 6 | Actuating Direction ** |
|----------|------------------------|
| R | Right |
| L | Left |

| 7 | Speed Monitoring |
|-------------|---|
| omit | none |
| T | with tacho connection (only for side ports) |
| RS-P | with speed sensor (PNP pull-down resistor) |
| RS-N | with speed sensor (NPN pull-up resistor) |

| 8 | Special Features (see Specification data on page OS - 03) |
|-------------|---|
| omit | none |
| LL | Low Leakage |
| LSV | Low Speed Valve |

| 9 | Rotation |
|-------------|-------------------|
| omit | Standard Rotation |
| R | Reverse Rotation |

| 10 | Option (Paint) |
|-------------|---------------------------|
| omit | no paint |
| P | Painted |
| PC | Corrosion Protected Paint |

| 11 | Design Series |
|-------------|-------------------|
| omit | Factory specified |

The permissible output torque for shafts must be not exceeded!

** Only for OSB motors