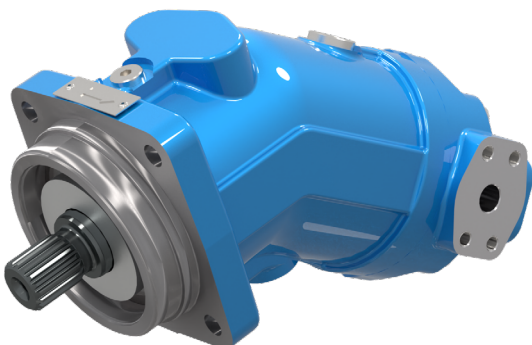




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Type	Displacement cm ³ /rev [in ³ /rev]	Max. flow l/min [U.S. gpm]	Max pressure bar [psi]	Max peak pressure bar [psi]
SH11C 010	10.3 [0.626]	32 [8.5]	430 [6235]	480 [6960]
SH11C 016	16 [0.976]	50 [13.2]	430 [6235]	480 [6960]
SH11C 020	19.9 [1.213]	50 [13.2]	430 [6235]	480 [6960]
SH11C 030	31.9 [1.945]	80 [21.1]	430 [6235]	480 [6960]
SH11C 045*	46 [2.807]	103 [27.2]	430 [6235]	480 [6960]
SH11C 055	56.35 [3.437]	282 [74.45]	430 [6235]	480 [6960]
SH11C 063	63.26 [3.859]	112 [29.5]	430 [6235]	480 [6960]
SH11C 075	77.82 [4.747]	127 [33.5]	430 [6235]	480 [6960]
SH11C 090	86.23 [5.26]	388 [102.5]	430 [6235]	480 [6960]
SH11C 108	108.4 [6.612]	140 [36.96]	430 [6235]	480 [6960]
SH11C 125	124.8 [7.613]	155 [40.92]	430 [6235]	480 [6960]
SH11C 160	163.9 [9.998]	173 [45.67]	430 [6235]	480 [6960]
SH11C 180	178.1 [10.864]	193 [50.95]	430 [6235]	480 [6960]

*: Under development

SH11C pumps are a family of fixed displacement, bent axis piston pumps for operation in open circuit. The proven design incorporating the lens shape valve plate, the high quality components and manufacturing techniques make the SH11C pumps to able provide up to 430 bar [6235 psi] continuous and 480 bar [6960 psi] peak performance. Fully laboratory tested and field proven, these pumps provide maximum efficiency and longlife. Heavy duty bearings permit high radial and axial loads.

Versatile design will be fit the SH11C pumps to any application both industrial and mobile. SH11C pumps are available in both ISO and SAE version.

Simbology:

C	N/bar [lbf/psi]	Load
F_{ax max}	N [lbf]	Axial pushing load
F_{ax max}	N [lbf]	Axial pulling load
F_q	N [lbf]	Radial load
F_{q max}	N [lbf]	Maximum permissible radial load
J	kg·m ² [lbf·ft ²]	Moment of inertia
m	kg [lbs]	Weight
n_{max}	rpm	Maximum speed
p_{max}	bar [psi]	Maximum continuous pressure
p_{peak}	bar [psi]	Maximum pressure peak

Q_{max}	l/min [U.S. gpm]	Maximum flow
Q_d	l/min [U.S. gpm]	External drain flow
T_k	Nm/bar [lbf.ft/psi]	Torque constant
T_{max}	Nm [lbf.ft]	Maximum torque at pressure continuous
T_{peak}	Nm [lbf.ft]	Maximum torque at pressure peak
V_g	cm ³ /rev [in ³ /rev]	Displacement
P_{max}	kW [hp]	Maximum power at p _{nom}
η_{hm}	%	Mech-hyd. efficiency
η_v	%	Volumetric efficiency

Hydraulic fluids:

Use fluids with mineral oil basis and anticorrosive, antioxidant and wear preventing addition agents (HL or HM). Viscosity range at operating temperature must be of 15 ÷ 40 cSt. For short periods and upon cold start, a max. viscosity of 800 cSt is allowed, for different types of viscosity please contact Dana. Viscosities less than 10 cSt are not allowed. A viscosity range of 10 ÷ 15 cSt is allowed for extreme operating conditions and for short periods only.

Temperature ranges:

The operating temperature of the oil must be within -25°C ÷ 115°C [-13°F ÷ 239°F]. For applications with lower temperatures please contact Dana.

Filtering:

A correct filtering is essential for long and satisfactory life of axial piston units. In order to ensure a correct functioning of the unit, the max. permissible contamination class is 21/19/16 according to ISO 4406:1999.

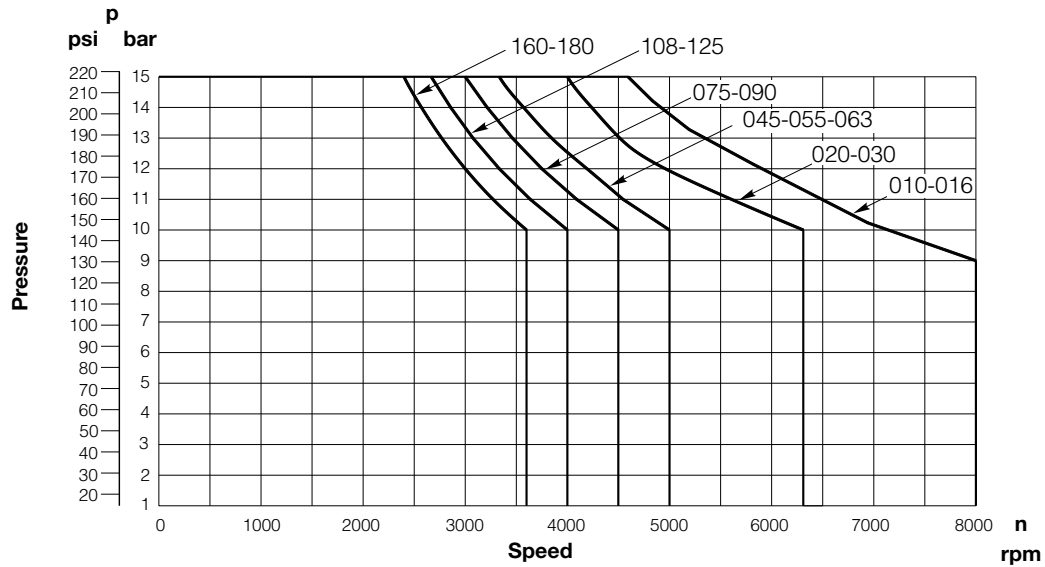
Operating pressure:

Maximum permissible case drain pressure is 10 bar [145 psi].

A higher pressure can damage the main shaft seal or reduce its life.

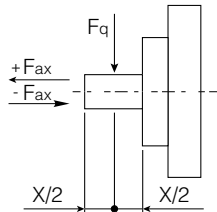
Case drain pressure:

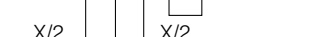
Maximum permissible case drain pressure is 10 bar [145 psi]. A higher pressure can damage the main shaft seal or reduce its life.



Output shaft:

Table is a guide to determine max. permissible loads. Values are calculated in such a way to assure at least 80% of the bearing operating life where no external load is applied. The published values are related to loads applied in the middle of shaft and in the least favourable direction.



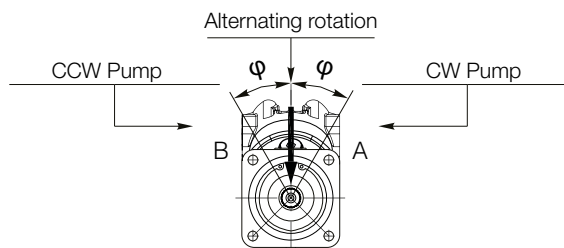
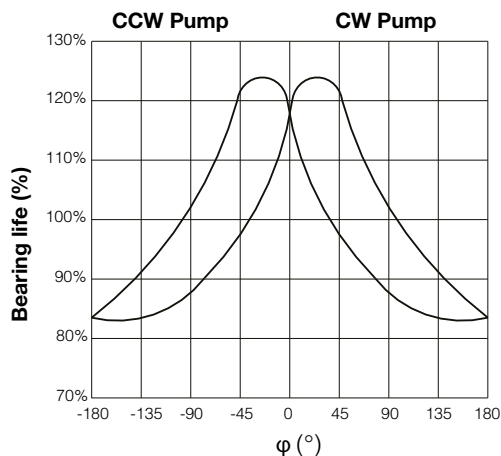
				Size												
				010	016	020	030	045*	055	063	075	090	108	125	160	180
Radial load	F _{q max}	N [lbf]		3000 [674.4]	3200 [719.4]	4300 [967.5]	6100 [1372.5]	8350 [1877.2]	9200 ^[1] [2068]	10300 ^[1] [2317.5]	11500 ^[1] [2587.5]	12900 ^[1] [2902.5]	13600 ^[1] [3060]	15900 ^[1] [3577.5]	18400 ^[1] [4140]	20600 ^[1] [4635]
Load		N/bar [lbf/psi]		8.5 [0.128]	9 [0.135]	12 [0.18]	19 [0.285]	23.8 [0.357]	25 [0.375]	30 [0.45]	25.7 [0.386]	28.5 [0.428]	35 [0.525]	37 [0.555]	41 [0.615]	45 [0.675]
Axial pulling load	F _{ax max}	N [lbf]	250 bar [3625 psi]	550 [123.6]	850 [191.1]	1000 [225]	1300 [292.5]	1740 [391.2]	1920 [432]	2150 [484]	2300 [517.5]	2800 [630]	2900 [652.5]	3300 [742.5]	3800 [855]	4050 [911.2]
			350 bar [5075 psi]	800 [179.8]	1050 [236.0]	1300 [292.5]	1800 [405]	2400 [539.5]	2650 [596]	2990 [673]	3550 [798.75]	3800 [855]	4050 [911.25]	4550 [1023.7]	5300 [1192.5]	5800 [1305]
Axial pushing load	F _{ax max}	N [lbf]	< 100 bar [< 1450 psi]	320 [71.9]	320 [71.9]	500 [112.5]	500 [112.5]	800 [179.8]	800 [180]	1000 [225]	1000 [225]	1250 [281.25]	1250 [281.25]	1600 [360]	1600 [360]	
			> 100 bar [> 1450 psi]	3 [0.045]	3 [0.045]	5 [0.075]	5 [0.075]	8.7 [0.131]	9 [0.135]	9 [0.135]	12 [0.18]	12 [0.18]	13 [0.195]	13 [0.195]	17 [0.255]	17 [0.255]

* : under development

1) : in the following table, values of F_{q max} for the output shafts

			Max permissible radial force on the shaft:			
			SAI (SH11C 055-063)	SAM (SH11C 075-090)	SAO (SH11C 108-125)	SAP (SH11C 160-180)
Radial load	F_{q max}	N [lbf]	6500 [1462.5]	6500 [1462.5]	6500 [1462.5]	6500 [1462.5]

When an external side (radial) load is applied to the drive shaft, the bearing life will vary accordingly to the magnitude, location and direction of the load. The diagram shows how the bearing operating life varies versus the direction of the load. In the diagram 100% represents the bearing operating life where no external side load is applied to the drive shaft.



The bearing operating life increases up to 30% when the load is applied with some peculiar directions and the maximum increase is dependent on the operating pressure and the nominal size of the unit.

When considering the permissible axial force, the force - transfer direction must be taken in account:

- Pushing axial loads increase the bearing life.
- Pulling axial loads reduce the bearing life (if possible pulling axial loads should be avoided).

Seals:

Seals used on SH11C series are of FKM (Fluoroelastomer). In case of use of special fluids, contact Dana.

Minimum rotating speed:

If uniformity of constant flow is required, speed must not be less than 500 rpm. In case of use of special applications, contact Dana.

Installation:

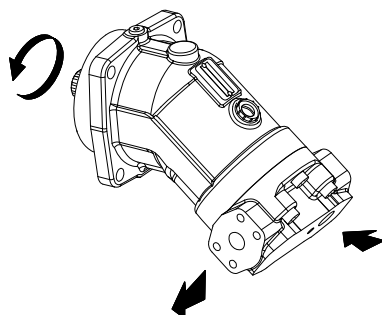
SH11C series motors can be installed in every position or direction. These axial piston units have separate ports and drain chambers and so must be always drained. For further details see on the General Information Catalogue, the section "General installation guidelines".

Flangeable valves:

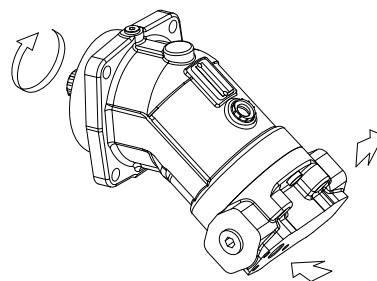
Flangeable valves are available for motors both in open and closed loop. For more information see the catalogue Axial Valves.

Relation between direction of rotation and direction of flow:

The relation between direction of rotation of shaft and direction of flow is shown in the picture below.



CW rotating pump



CCW rotating pump

			Size												
			010	016	020	030	045*	055	063	075	090	108	125	160	180
Displacement	V _g	cm³/rev [in³/rev]	10.3 [0.626]	16 [0.976]	19.9 [1.213]	31.9 [1.945]	46 [2.807]	56.35 [3.437]	63.26 [3.859]	77.82 [4.747]	86.23 [5.26]	108.4 [6.612]	124.8 [7.613]	163.9 [9.998]	178.1 [10.864]
Max. pressure	p _{max}	bar [psi]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]	430 [6235]
Max. peak pressure	p _{peak}	bar [psi]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]	480 [6960]
Max. continuous speed	n _{max}	rpm	3150	3150	2500	2500	2245	2000	2000	1800	1800	1600	1550	1450	1450
Max. intermittent speed ⁽¹⁾	n _{max}	rpm	6000	6000	4750	4750	4250	3750	3750	3350	3350	3000	3000	2650	2650
Max. flow	Q _{max}	l/min [US gpm]	32 [8.5]	50 [13.2]	50 [13.2]	80 [21.1]	103 [27.2]	282 [74.45]	112 [29.5]	127 [33.5]	388 [102.5]	140 [36.96]	155 [40.92]	173 [45.67]	193 [50.95]
Max. power at p _{max} ⁽²⁾	P _{max}	kW [hp]	23 [30.8]	35.8 [48]	35.8 [48]	57 [76.4]	74 [99.2]	80.3 [107.6]	91 [24.0]	100 [134]	111 [148.7]	124 [166.2]	138 [184.9]	170 [227.8]	185 [48.9]
Max. cont. torque at p _{max}	T _{max}	Nm [lbf.ft]	71 [52.36]	110 [81.13]	136 [100.23]	218 [160.66]	315 [232.33]	386 [284.48]	433 [319.12]	533 [392.82]	590 [435.13]	742 [546.85]	855 [630.13]	1122 [826.91]	1219 [898.40]
Max peak torque at p _{peak}	T _{peak}	Nm [lbf.ft]	79 [58.27]	122 [89.98]	152 [112.02]	244 [179.82]	352 [260.36]	431 [317.65]	484 [356.71]	595 [438.51]	659 [486.05]	829 [610.97]	954 [703.10]	1253 [923.46]	1361 [1003.06]
Moment of inertia ⁽³⁾	J	kg·m² [lbf.ft²]	0.0005 [0.0118]	0.0005 [0.0118]	0.001 [0.0235]	0.001 [0.0235]	0.004 [0.094]	0.004 [0.094]	0.004 [0.094]	0.007 [0.1645]	0.007 [0.1645]	0.012 [0.2820]	0.012 [0.2820]	0.022 [0.5170]	0.022 [0.5170]
Weight ⁽³⁾	m	kg [lbs]	6 [13.22]	6 [13.22]	10 [22.04]	10 [22.04]	18 [39.68]	19 [41.876]	19 [41.876]	23.7 [52.23]	23.7 [52.23]	35 [77.14]	35 [77.14]	48 [105.79]	48 [105.79]
External drain flow ⁽⁴⁾	Q _d	l/min [US gpm]	0.8 [0.2113]	0.8 [0.2113]	1 [0.264]	1 [0.264]	1.2 [0.317]	1.2 [0.317]	1.2 [0.317]	2.5 [0.66]	2.5 [0.66]	3 [0.79]	3 [0.79]	3 [0.79]	3 [0.79]

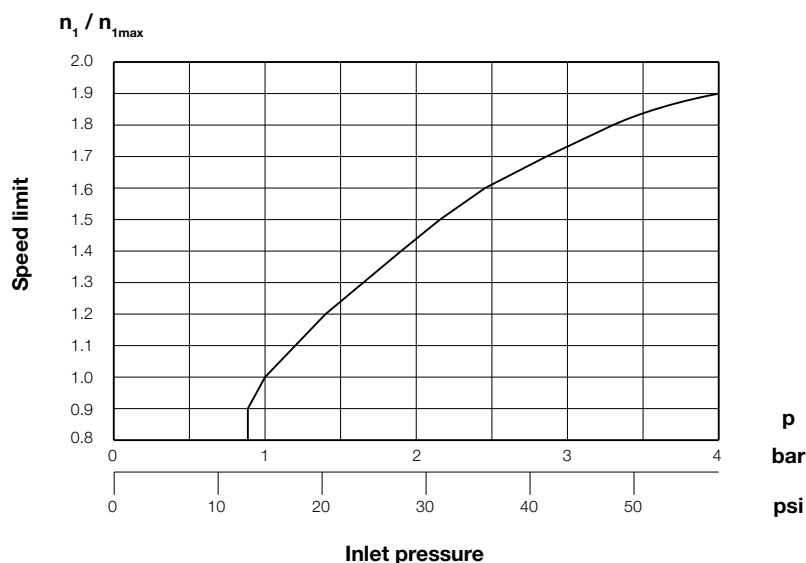
* : under development

Theoretical values, without considering η_{hm} and η_v approximate values. Peak operations must not exceed 1% of every minute. Simultaneous maximum pressure and maximum speed are not recommended.

Notes: Calculation of permissible speed

- 1) The pump rotation speed may be increased by increasing the suction pressure. To calculate the max. permissible speed related to the pump suction pressure see the diagram below.
- 2) The values are valid for a rotating speed of n_1 max cont.
- 3) Approximate values.
- 4) Average values at 250 bar [3625 psi] with mineral oil at 45°C [113°F] and 35 cSt of viscosity.

Speed limits calculation:



The following alphanumeric codes system has been developed to identify all of the configuration options for the SH11C motors. Use the model code below to specify the desired features.

All alphanumeric digits system of the code must be present when ordering.

We advise to carefully read the catalogue before filling the ordering code.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Series	Pump	Size	Version	Mount flange	Shaft end	Port cover	Direction of rotation	Seal	Valve	Valve feature	Flushing valve	Special feature	Painting
SH11C	P	030	ME	OC	CMB	FP2	DX	V	XXXX	000	XX	RD	01

1
Series
SH11C Fixed displacement, bent axis, axial piston unit

2
Pump
P Pump

3
Size
010 10.3 cm ³ /rev [0.626 in ³ /rev]
016 16 cm ³ /rev [0.976 in ³ /rev]
020 19.9 cm ³ /rev [1.213 in ³ /rev]
030 31.9 cm ³ /rev [1.945 in ³ /rev]
045* 46 cm ³ /rev [2.807 in ³ /rev]
055 56.35 cm ³ /rev [3.437 in ³ /rev]
063 63.26 cm ³ /rev [3.859 in ³ /rev]
075 77.82 cm ³ /rev [4.747 in ³ /rev]
090 86.23 cm ³ /rev [5.260 in ³ /rev]
108 108.4 cm ³ /rev [6.612 in ³ /rev]
125 124.8 cm ³ /rev [7.613 in ³ /rev]
160 163.9 cm ³ /rev [9.998 in ³ /rev]
180 178.1 cm ³ /rev [10.984 in ³ /rev]

*: under development

1	2	3	4	5	6	7	8	9	10	11	12	13	14
SH11C	P	030	ME	OC	CMB	FP2	DX	V	XXXX	000	XX	RD	01

4	Version
ME	ISO
SE	SAE

5	Mount flange	Size					
		010 - 016	020 - 030	045* - 055 - 063	075 - 090	108 - 125	160 - 180
OA	ISO 4 holes Ø 80 mm [Ø3.15 in]	ME	–	–	–	–	–
OB	ISO 4 holes Ø 100 mm [Ø3.937 in]	–	ME	–	–	–	–
OC	ISO 4 holes Ø 125 mm [Ø4.921 in]	–	–	ME	–	–	–
OD	ISO 4 holes Ø 140 mm [Ø5.511 in]	–	–	–	ME	–	–
OE	ISO 4 holes Ø 160 mm [Ø6.299 in]	–	–	–	–	ME	–
OF	ISO 4 holes Ø 180 mm [Ø7.086 in]	–	–	–	–	–	ME
02	SAE-B 2 holes	SE	–	–	–	–	–
05	SAE-C 4 holes	–	SE	SE	SE	–	–
08	SAE-D 4 holes	–	–	–	–	SE	SE

* : under development

- 1) The ME digit means that the flange is only available for the ISO version.
- 2) The SE digit means that the flange is only available for the SAE version.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
SH11C	P	030	ME	OC	CMB	FP2	DX	V	XXXX	000	XX	RD	01

6		Size					
Shaft end		010 - 016	020 - 030	045* - 055 - 063	075 - 090	108 - 125	160 - 180
CAV	Parallel keyed Ø20 mm k6 [0.787 in k6] Key 6x6x30 [0.23x0.23x1.18]	ME	–	–	–	–	–
CMB	Parallel keyed Ø25 mm k6 [0.984 in k6] Key 8x7x32 [0.31x0.27x1.25]	ME-SE	–	–	–	–	–
CBM	Parallel keyed Ø25 mm k6 [0.984 in k6] Key 8x7x40 [0.31x0.27x1.57]	–	ME	–	–	–	–
CBN	Parallel keyed Ø 30 mm k6 [1.181 in k6] Key 8x7x40 [0.31x0.27x1.57]	–	ME	–	–	–	–
CAW	Parallel keyed Ø 30 mm k6 [1.181 in k6] Key 8x7x50 [0.31x0.27x1.97]	–	–	ME	–	–	–
CBP	Parallel keyed Ø 40 mm k6 [1.574 in k6] Key 12x8x56 [0.47x0.31x2.204]	–	–	–	ME	–	–
CAK	Parallel keyed Ø 40 mm k6 [1.574 in k6] Key 12x8x63 [0.47x0.31x2.48]	–	–	–	–	ME	–
CAJ	Parallel keyed Ø 45 mm k6 [1.772 in k6] Key 14x9x63 [0.55x0.35x2.48]	–	–	–	–	ME-SE	–
CBQ	Parallel keyed Ø 45 mm k6 [1.772 in k6] Key 14x9x70 [0.55x0.35x2.75]	–	–	–	–	–	ME
CAX	Parallel keyed Ø 50 mm k6 [1.968 in k6] Key 14x9x70 [0.55x0.35x2.75]	–	–	–	–	–	ME-SE
CAY	Parallel keyed Ø 35 mm k6 [1.377 in k6] Key 10x8x56 [0.39x0.31x2.204]	–	–	–	ME	–	–
SAF	Splined W20x1.25x30x14x9g DIN 5480	ME	–	–	–	–	–
SAG	Splined W25x1.25x18x9g DIN 5480	ME	ME	–	–	–	–
SAI	Splined W30x2x14x9g DIN 5480	–	ME	ME	–	–	–
SAM	Splined W35x2x16x9g DIN 5480	–	–	ME	ME	–	–
SAO	Splined W40x2x18x9g DIN 5480	–	–	–	ME	ME	–
SAP	Splined W45x2x21x9g DIN 5480	–	–	–	–	ME	ME
SAR	Splined W50x2x24x9g DIN 5480	–	–	–	–	–	ME
C16	Parallel keyed Ø 22.22 mm [0.874 in] Key 6.35x6.25x25.4 [0.25x0.246x1]	–	SE	–	–	–	–
C17	Parallel keyed Ø 31.75 mm [1.25 in] Key 7.93x7.3x40 [0.31x0.287x1.57]	–	–	SE	–	–	–
C18	Parallel keyed Ø 44.45 mm [1.75 in] Key 11.11x9.2x60 [0.43x0.36x2.36]	–	–	–	SE	SE	SE
S05	Splined 13T 16/32 DP	SE	SE	–	–	–	–
S12	Splined 14T 12/24 DP	–	SE	SE	SE	–	–
S15	Splined 13T 8/16 DP	–	–	–	–	SE	SE
S16	Splined 23T 16/32 DP	–	–	–	–	SE	–

* : under development

1) The ME digit means that the flange is only available for the ISO version.

2) The SE digit means that the flange is only available for the SAE version.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
SH11C	P	030	ME	OC	CMB	FP2	DX	V	XXXX	000	XX	RD	01

7		Size					
Port cover		010 - 016	020 - 030	045* - 055 - 063	075 - 090	108 - 125	160 - 180
FP2	Frontal ports	ME-SE	ME-SE	ME-SE	ME-SE	ME-SE	ME-SE

* : under development

1) The ME digit means that the flange is only available for the ISO version.

2) The SE digit means that the flange is only available for the SAE version.

8		Direction of rotation (viewed from shaft side)	
DX	CW		
SX	CCW		

9		Seal	
V	FKM		

10		Valve	
XXXX	None		

11		Valve feature	
000	None		

1	2	3	4	5	6	7	8	9	10	11	12	13	14
SH11C	P	030	ME	OC	CMB	FP2	DX	V	XXXX	000	XX	RD	01

12

Flushing valve

XX	None
----	------

13

Special feature

Size

		Size					
		010 - 016	020 - 030	045* - 055 - 063	075 - 090	108 - 125	160 - 180
XX	None	•	•	•	•	•	•
RD	Drain plugs reversed	–	•	•	•	•	•
TZ	Tachometer + sensor 2-channel-Hall effect	–	•	•	•	•	•
03	SAE Version with ISO port Cover	•	–	–	–	–	–

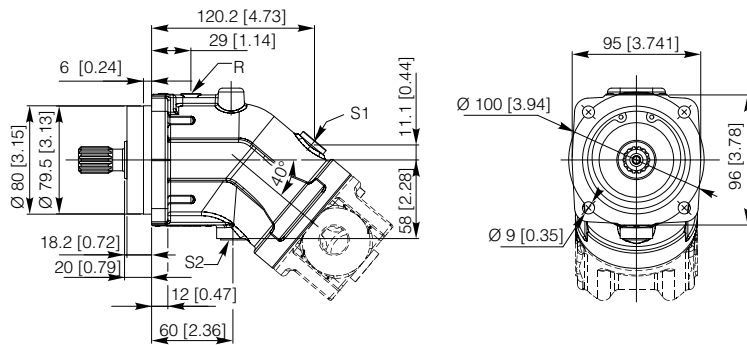
*: under development

•: Available

14

Painting

XX	None
01	Painted RAL 9005
02	Painted RAL 5015

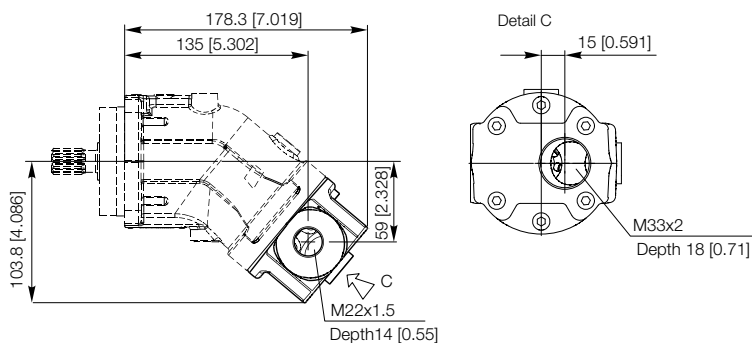


S1, S2: Drain ports (1 plugged) - 3/8 G (BSPP)
A, B: Service line ports
R: Air bleed (plugged) - 1/8 G (BSPP)

7

Port cover

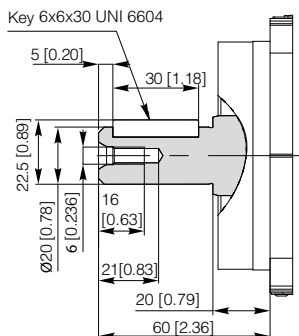
FP2



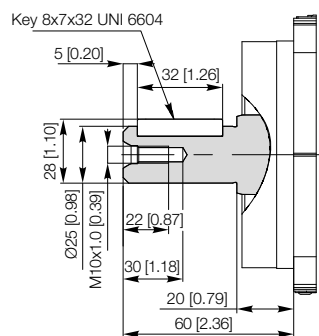
6

Shaft end

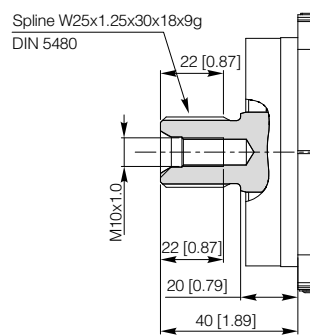
CAV Parallel keyed shaft



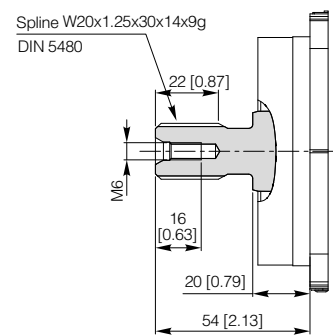
CMB Parallel keyed shaft



SAG Splined shaft



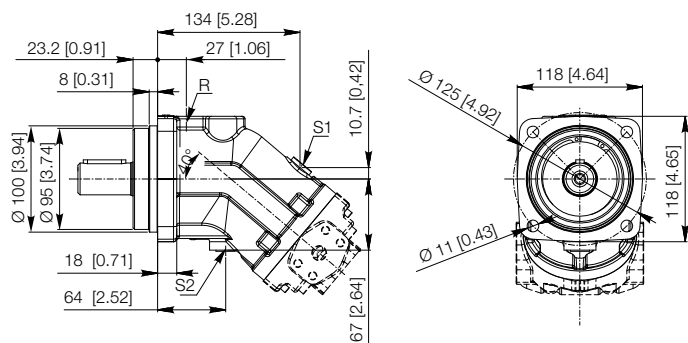
SAF Splined shaft



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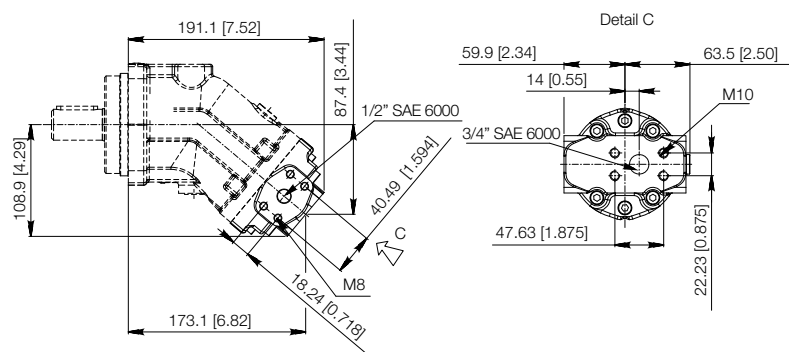


S1, S2: Drain ports (1 plugged) - 3/8 G (BSPP)
 A, B: Service line ports
 R: Air bleed (plugged) - 1/8 G (BSPP)

7

Port cover

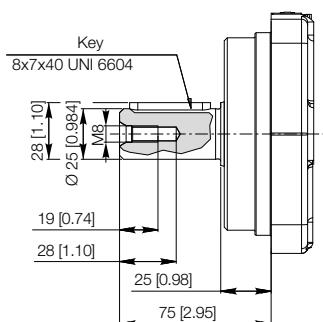
FP2



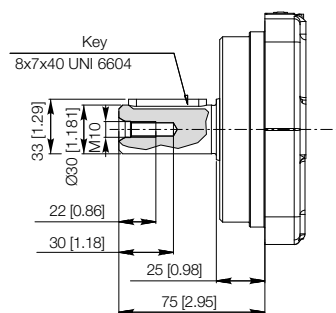
6

Shaft end

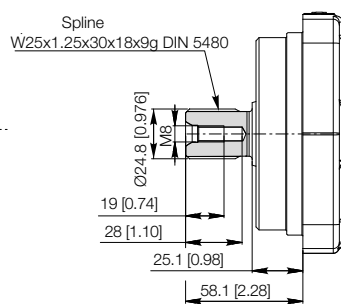
CBM Parallel keyed shaft



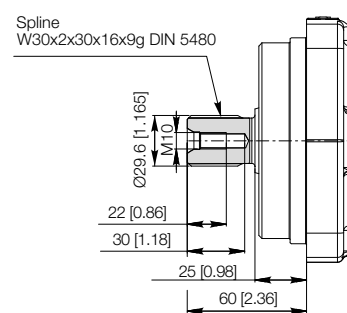
CBN Parallel keyed shaft

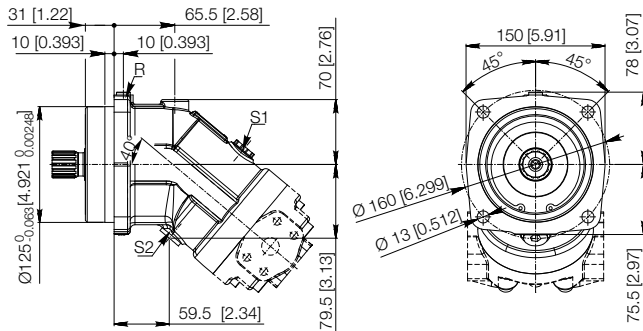


SAG Splined shaft



SAI Splined shaft



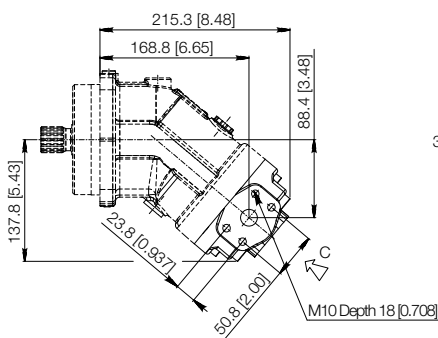


S1, S2: Drain ports (1 plugged) - 1/2 G (BSPP)
A, B: Service line ports
R: Air bleed (plugged) - 1/8 G (BSPP)

7

Port cover

FP2

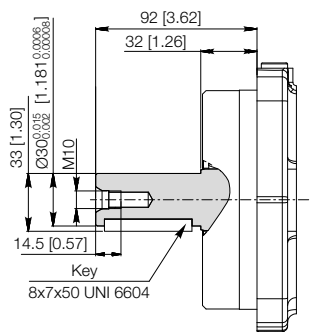


Detail C

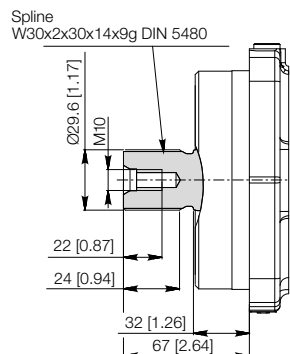
6

Shaft end

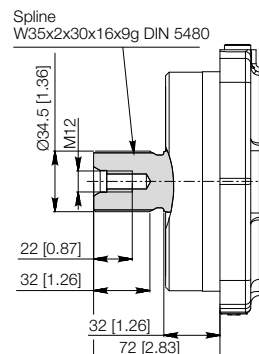
CAW Parallel keyed shaft

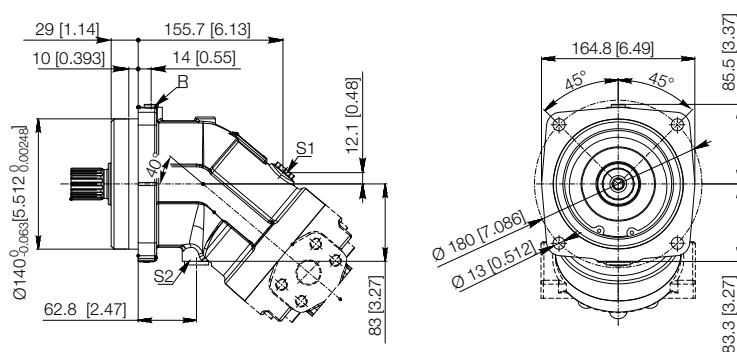


SAI Splined shaft



SAM Splined shaft



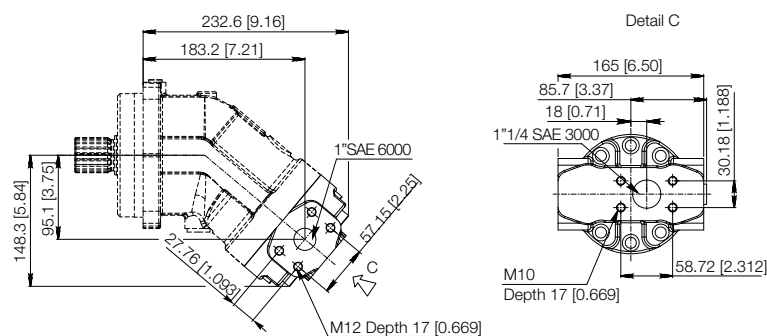


S1, S2: Drain ports (1 plugged) - 1/2 G (BSPP)
 A, B: Service line ports
 R: Air bleed (plugged) - 1/8 G (BSPP)

7

Port cover

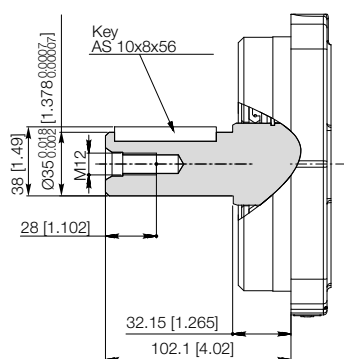
FP2



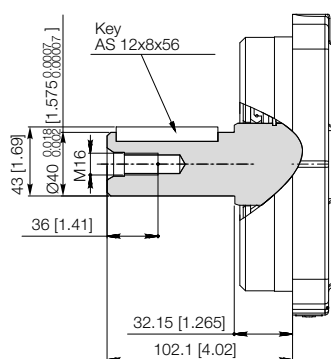
6

Shaft end

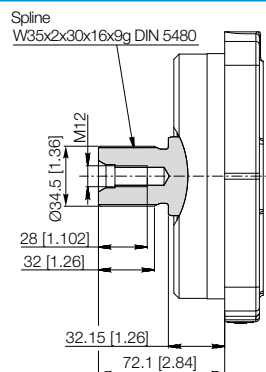
CAY

Parallel
keyed shaft

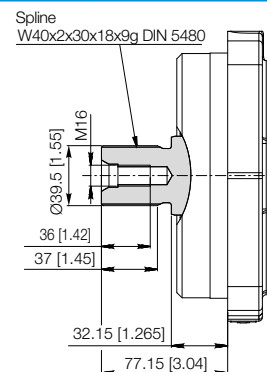
CBP

Parallel
keyed shaft

SAM

Splined
shaft

SAO

Splined
shaft

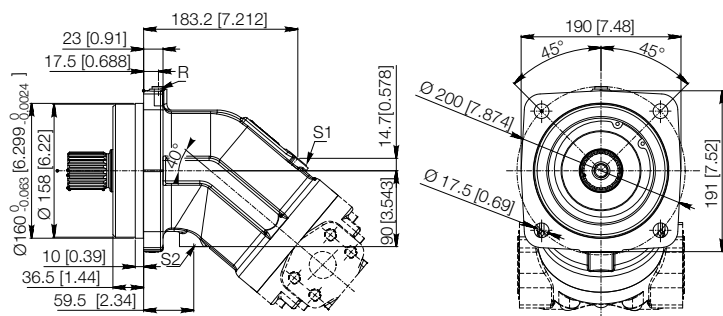
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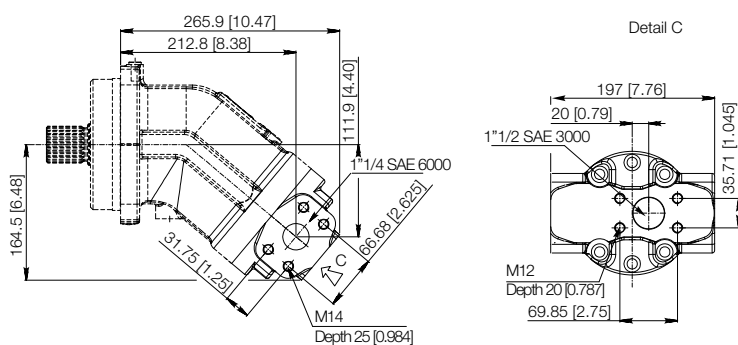


S1, S2: Drain ports (1 plugged) - 1/2 G (BSPP)
A, B: Service line ports
R: Air bleed (plugged) - 1/8 G (BSPP)

7

Port cover

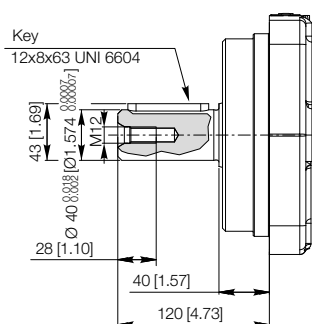
FP2



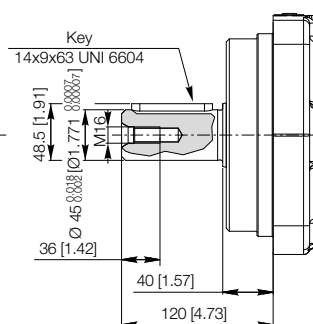
6

Shaft end

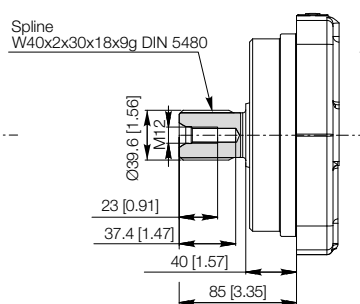
CAK

Parallel
keyed shaft


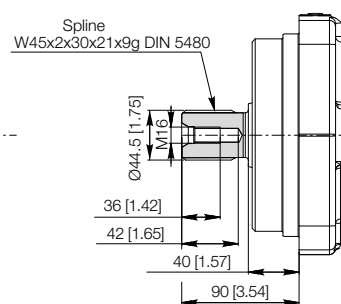
CAJ

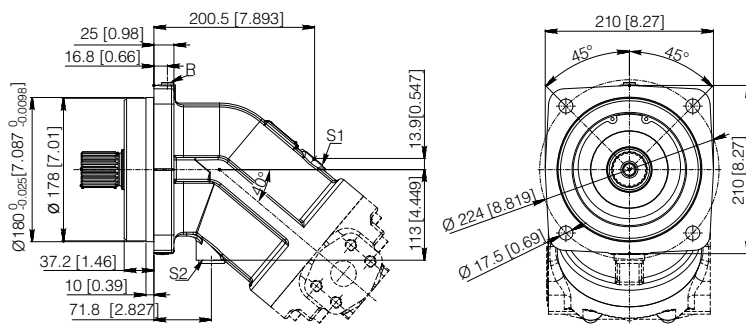
Parallel
keyed shaft


SAO

Splined
shaft


SAP

Splined
shaft


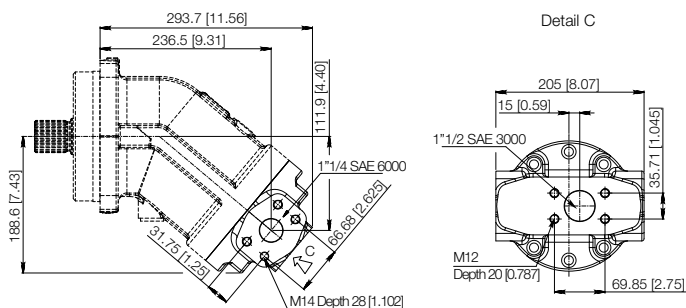


S1, S2: Drain ports (1 plugged) - 1/2 G (BSPP)
 A, B: Service line ports
 R: Air bleed (plugged) - 1/8 G (BSPP)

7

Port cover

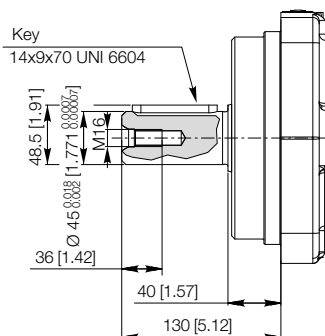
FP2



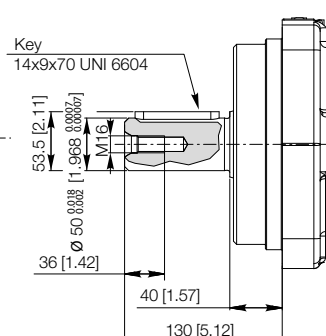
6

Shaft end

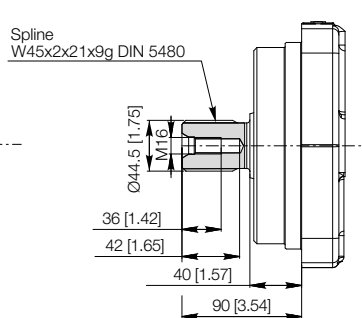
CBQ

Parallel
keyed shaft

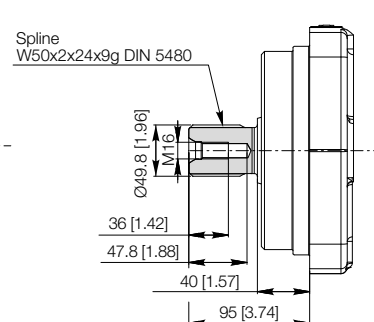
CAX

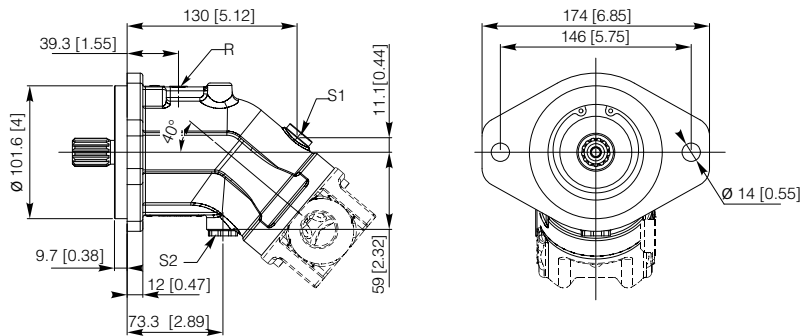
Parallel
keyed shaft

SAP

Splined
shaft

SAR

Splined
shaft

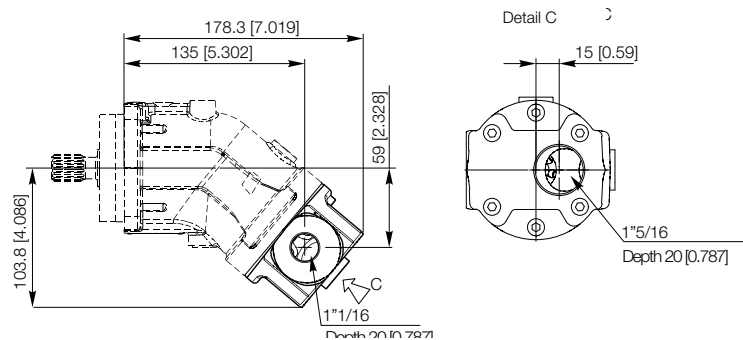


S1, S2: Drain ports (1 plugged) - 3/4"-16 UNF 2B
A, B: Service line ports
R: Air bleed (plugged) - 7/16"-20 UNF 2B

7

Port cover

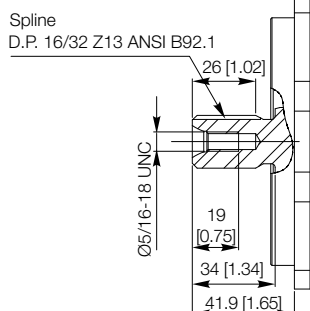
FP2



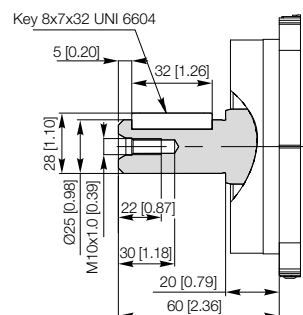
6

Shaft end

S05 Splined shaft



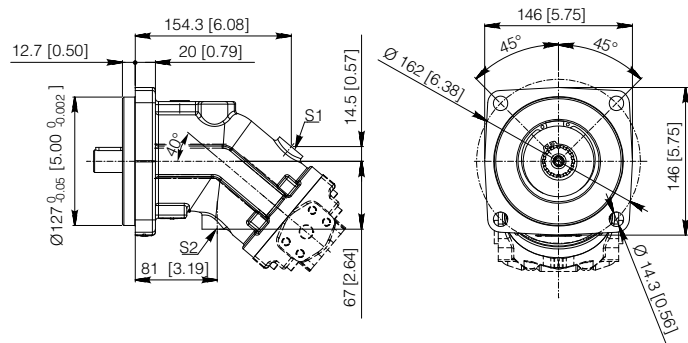
CMB Parallel keyed shaft



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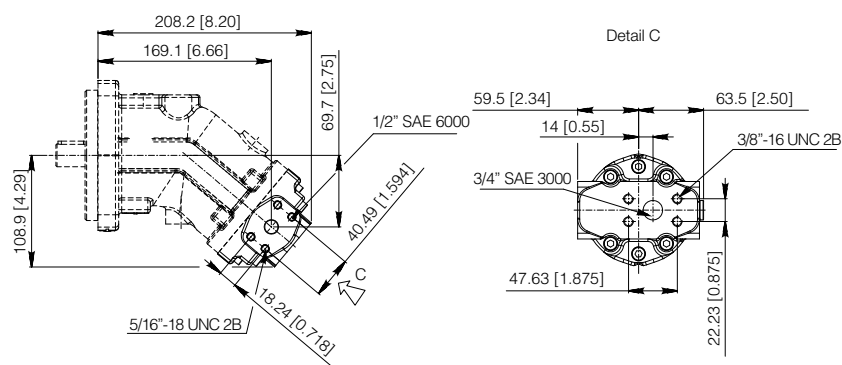


S1, S2: Drain ports (1 plugged) - 3/4"-16 UNF 2B
A, B: Service line ports
R: Air bleed (plugged) - 7/16"-20 UNF 2B

7

Port cover

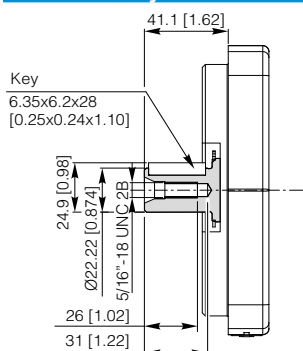
FP2



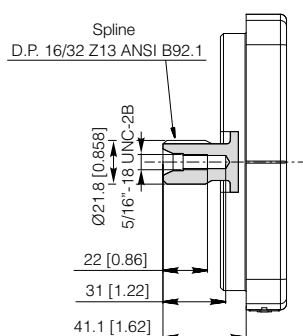
6

Shaft end

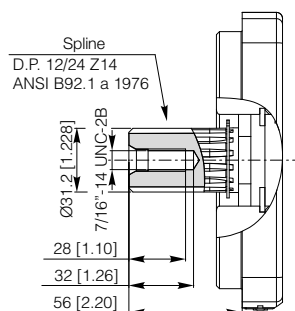
C16 Parallel keyed shaft



S05 Splined shaft



S12 Splined shaft



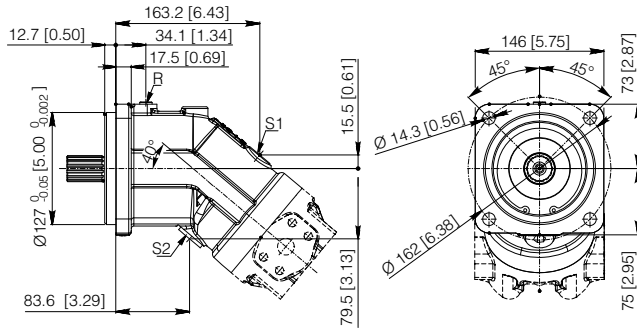
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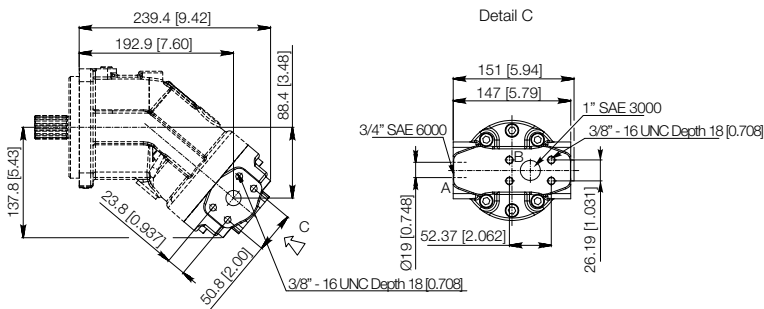


S1, S2: Drain ports (1 plugged) - 1" 1/16 - 12 UN 2B
A, B: Service line ports
R: Air bleed (plugged) - 7/16"-20 UNF

7

Port cover

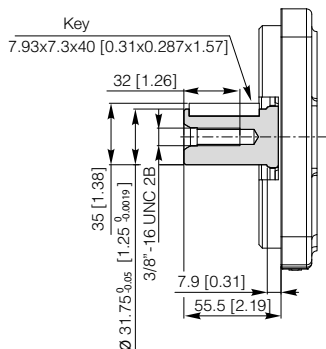
FP2



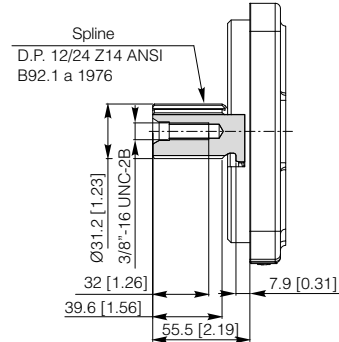
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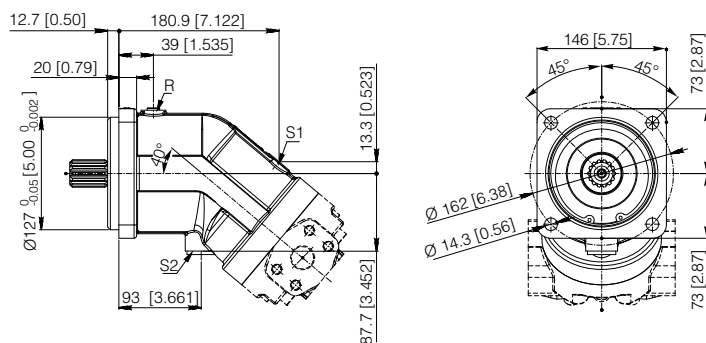
Shaft end

C17 Parallel keyed shaft



S12 Splined shaft



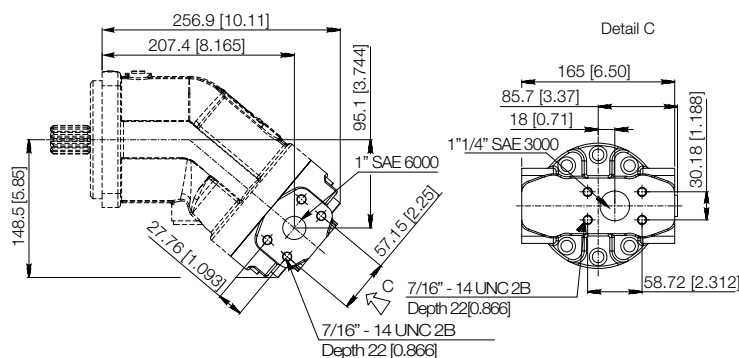


S1, S2: Drain ports (1 plugged) - 1" 1/16-12 UN 2B
 A, B: Service line ports
 R: Air bleed (plugged) - 7/16"-20 UNF 2B

7

Port cover

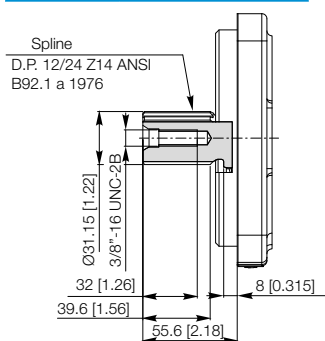
FP2



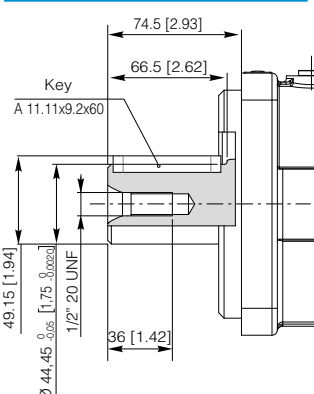
6

Shaft end

S12 Splined shaft



C18 Parallel shaft



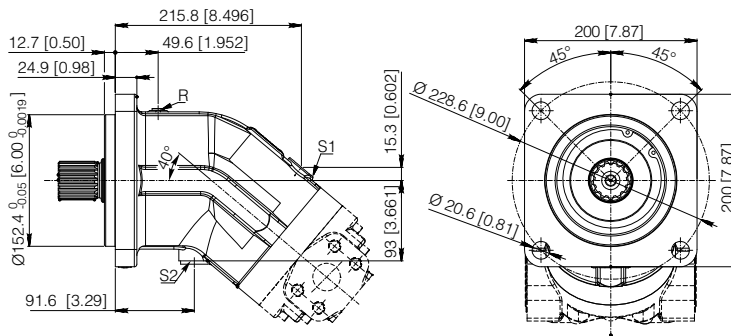
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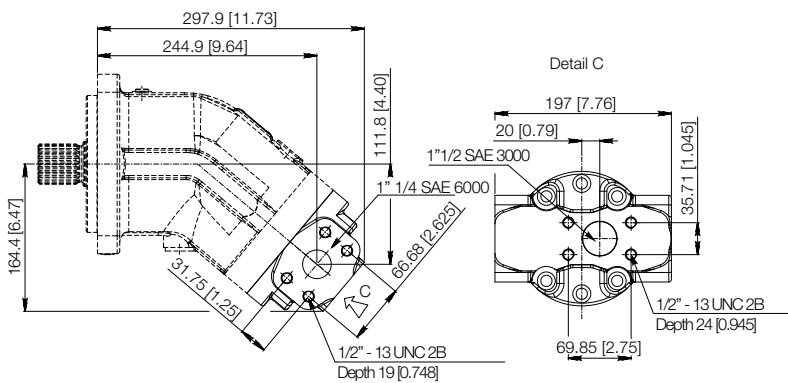


S1, S2: Drain ports (1 plugged) - 1" 1/16-12 UN 2B
A, B: Service line ports
R: Air bleed (plugged) - 7/16"-20 UNF

7

Port cover

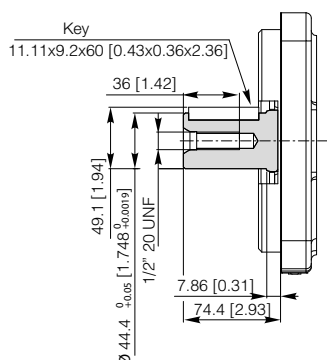
FP2



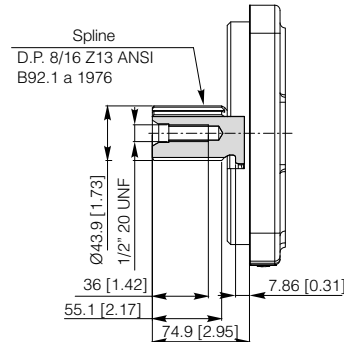
6

Shaft end

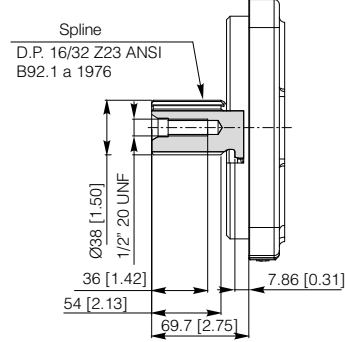
C18 Parallel keyed shaft

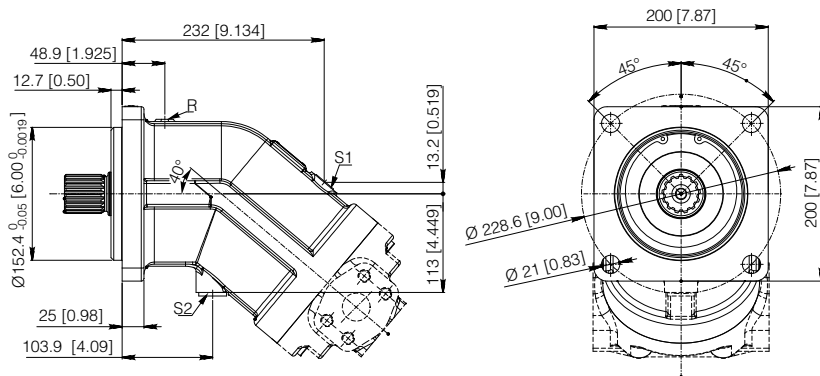


S15 Splined shaft



S16 Splined shaft



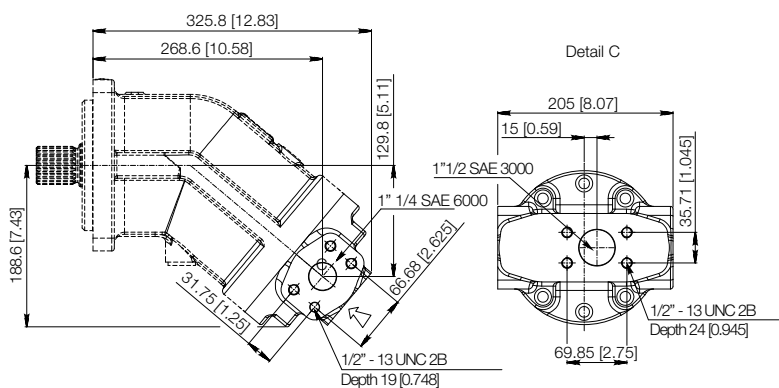


S1, S2: Drain ports (1 plugged) - 1" 1/16-12 UN 2B
 A, B: Service line ports
 R: Air bleed (plugged) - 7/16"-20 UNF

7

Port cover

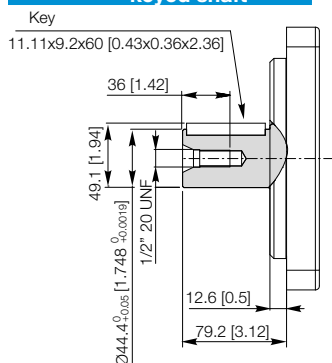
FP2



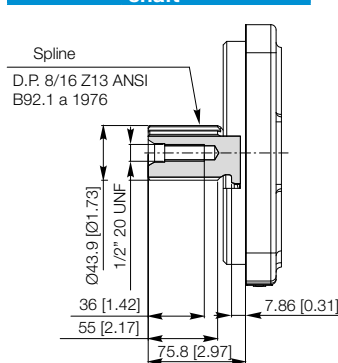
6

Shaft end

C18 Parallel keyed shaft



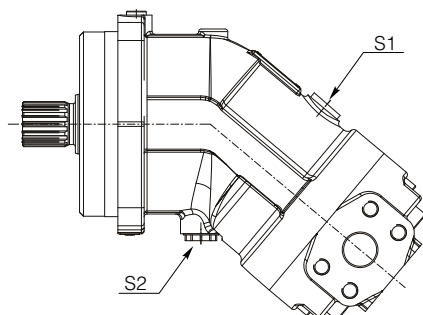
S15 Splined shaft



13

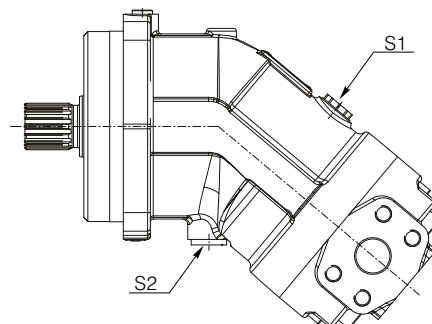
Drain plug reversed "RD"

STANDARD VERSION



S1 - Metallic plug.
S2 - Plastic plug.

"RD" VERSION

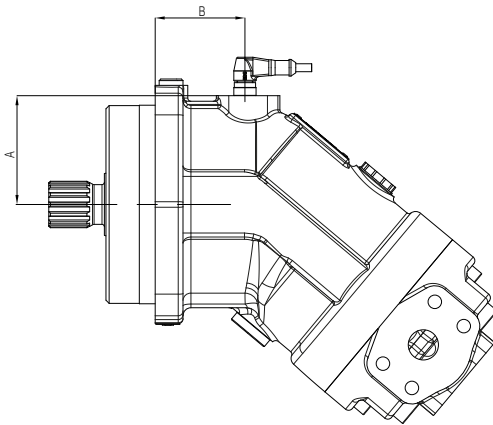


S1 - Plastic plug.
S2 - Metallic plug.

For the SH11C is possible to request the drain plug reversed compared to standard.
If it is necessary in this configuration, to specify in the purchase order the value "RD" (see position 13 of ordering code).

13

Version with tachometer and sensor “TZ”



	ME					SE				
	020 030	045-055 063	075 090	108 125	160 180	020 030	045-055 063	075 090	108 125	160 180
A mm [inch]	61.5 [2.42]	56.5 [2.22]	63 [2.48]	74 [2.91]	74.5 [2.93]	78.5 [3.09]	81 [3.18]	88 [3.46]	106 [4.17]	107.5 [4.23]
B mm [inch]	57 [2.24]	68.5 [2.69]	71.7 [2.82]	77.4 [3.04]	85 [3.34]	57 [2.24]	68.5 [2.69]	71.7 [2.82]	77.4 [3.04]	85 [3.34]

2-Channel differential-hall effect operating principle Sensor with dual-channel output (90°)
Power supply 8-32 VDC
Frequency 0-20.000 Hz
Operating temperature -40°C +125°C
Degree of protection IP67
Sensor connector Deutsch DT04-4P
Electromagnetic compatibility according to EN 60947-5-2
Resistance to schock and vibration in accordance with IEC 68-2-17 IEC 68-2-6

	Size				
	020 030	045-055 063	075 090	108 125	160 180
Number of pulses per revolution	38	47	53	59	67