SUNFAB

GB

Pump SCP 012-130

ISO

Sunfab SCP-ISO is a series of piston pumps with a fixed displacement for mobile and stationary hydraulics.

Sunfab SCP-ISO covers the entire displacement range 12–130 cm³/revs at a maximum working pressure of 40 MPa. The pump is drained externally.

Sunfab SCP-ISO are speed optimised and therefore supplied in either left (L) or right (R) handed designs.

Sunfab SCP-ISO's well dimensioned, double tapered roller bearings permit high shaft loads and lead to excellent speed characteristics.

Sunfab SCP-ISO's high level of reliability is based on the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Other advantages of Sunfab SCP-ISO:

- High maximum speed while maintaining low noise levels
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- O-rings on all contact surfaces as well as double shaft seals eliminate oil leakage from the pump

(1) The values shown are valid for an absolute pressure of 1 bar at the suction inlet.

(2) By increase of the input pressure the rotational speeds can be increased to the max. admissible speed $n_{max.}$

(3) Contious power data are based on maximum output power without external cooling of the pump.

Subject to design alteration

Type SCP-ISO			012	017	025	034	047	056	064	084	108	130
Nominal oil flow at pump speed	rpm	500	5.8	7.9	12.5	17.0	23.5	28.0	31.5	41.5	54.0	65.0
		1000	12.0	16.2	25.0	34.0	47.0	56.0	63.5	83.5	108.0	130.0
		1500	18.3	24.7	37.5	51.0	70.5	84.0	95.5	125.0	162.0	195.0
			l/min									
Displacement		cm³/rev.	12.6	17.0	25.4	34.2	47.1	56.0	63.6	83.6	108.0	130.0
Max working pressure		MPa	40	40	40	40	40	40	40	40	40	35
Max pump speed	$n_{max\ (1)}$	rpm	3300	3200	2550	2250	2200	2100	2050	1700	1700	1600
	$n_{max\ limit\ (2)}$	rpm	6000	5700	4700	4550	4300	3750	3700	3350	3000	2900
Max power	(3)	kW	20	25	40	55	65	80	90	100	130	135
Weight		kg	7.5	7.5	8.5	8.5	15.5	15.5	15.5	27.0	29.5	29.5
Mass moment of inertia (x 10^{-3})		kg m²	0.9	0.9	1.1	1.1	2.6	2.6	2.6	7.4	7.4	7.4
Direction of rotation			supplied in right or left-hand designs									

SAMT HYDRAULICS

Versions, main data

Example **SCP 012 L N I4 A TM Z1 3**

Type:
P Pump with fixed displacement

Size:
012 Displacement cm³/rev.
017
025
034
047
056
064
084
108
130

Direction of rotation:
L Left-hand
R Right-hand

Shaft seal:
N Nitrile
H Nitrile, high pressure
V Viton, high temperature

Mounting flange:
I4 ISO 4-bolt (ISO 3019-2)

Type of shaft:

Spline shaft (DIN 5480)

	A	C	E
SCP 012-017	W25x1.25x18x9g	W20x1.25x14x9g	
SCP 025	W30x2x14x9g	W25x1,25x18x9g	
SCP 034	W30x2x14x9g		
SCP 047–056	W35x2x16x9g	W32x2x14x9g	W30x2x14x9g
SCP 064	W35x2x16x9g		
SCP 084	W40x2x18x9g	W35x2x16x9g	
SCP 108	W45x2x21x9g	W40x2x18x9g	
SCP 130	W45x2x21x9g		

Key shaft (DIN 6885)

	B	D
SCP 012-017	∅25 k6	∅20 k6
SCP 025	∅30 k6	∅25 k6
SCP 034	∅30 k6	
SCP 047–056	∅35 h8	∅30 k6
SCP 064	∅35 h8	
SCP 084	∅40 k6	
SCP 108-130	∅45 k6	

Connections:
SCP 012-017 **TM** Thread M
SCP 025-130 **FM** Flange M

Connection cover
SCP 012-130 **Z1** Suction 40°, pressure outlet standard orientation

Option:
SCP 012-130 **3** External drainage + optimised

Choice of shaft seal

Pump SCP-ISO	Code	Temp. °C	Max. housing pressure MPa at rpm 500	1000	1500	2000	2500	3000
012-034	N	75	1.09	0.55	0.36	0.27	0.22	0.18
	H	75	4.91	2.46	1.64	1.23	0.98	0.82
	V	90	1.09	0.55	0.36	0.27	0.22	0.18
047-064	N	75	1.09	0.55	0.36	0.27	0.22	0.18
	H	75	4.91	2.46	1.64	1.23	0.98	0,82
	V	90	1.09	0.55	0.36	0.27	0.22	0.18
084-130	N	75	0.76	0.38	0.25	0.19	0.15	0.13
	H	75	3.44	1.72	1.15	0.86	0.69	0.57
	V	90	0.76	0.38	0.25	0.19	0.15	0.13

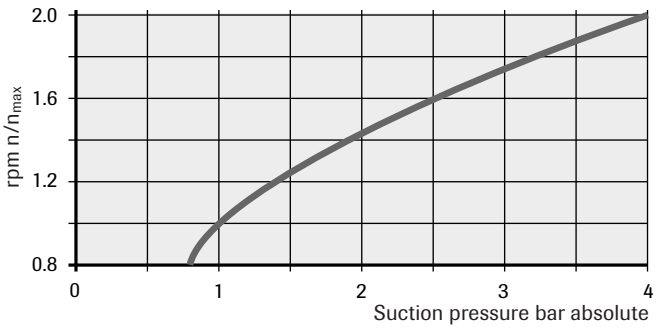
Factors affecting the choice of shaft seal include the hydraulic pump housing pressure and the drainage oil temperature.

The drainage oil should have a maximum temperature of 75 °C with a Nitrile shaft seal and 90 °C with a Viton shaft seal. These temperatures must not be exceeded.

Code according to Versions, main data.

The housing pressure must be equal to or greater than the external pressure on the shaft seal.

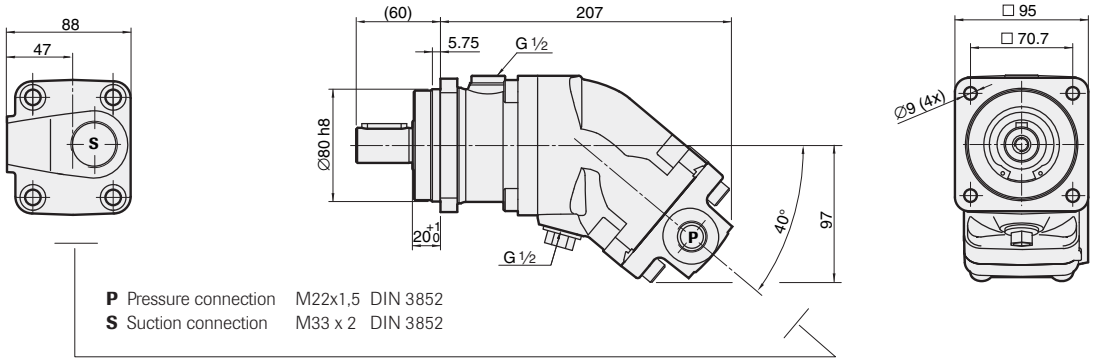
Minimum inlet pressure at suction port with increased speed



Operating above the max. pump speed n_{max} requires increased inlet pressure.

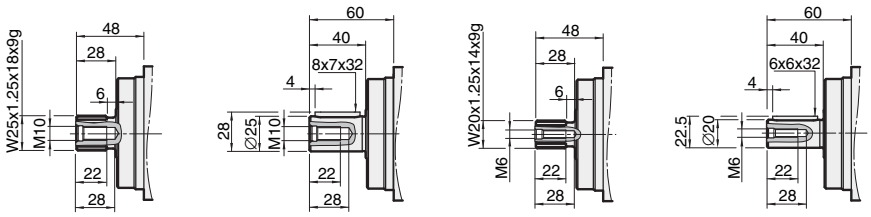
Note that the max. permissible speed $n_{max\ limit}$ must not be exceeded.

Dimensions
SCP 012-017



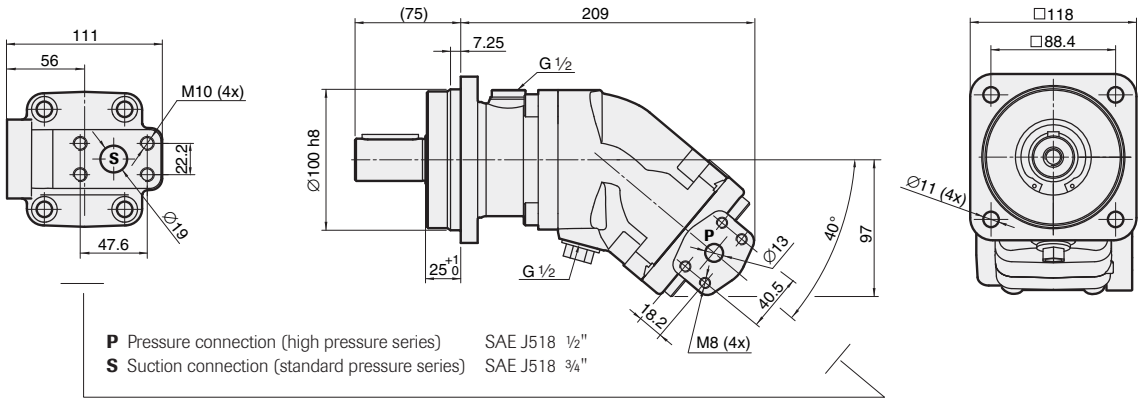
P Pressure connection M22x1,5 DIN 3852
S Suction connection M33 x 2 DIN 3852

Right-hand design **R**. Left-hand design **L** has pressure outlets on the opposite side



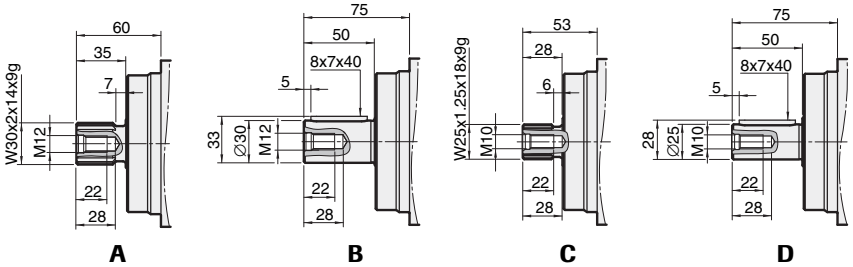
A **B** **C** **D**

SCP 025-034



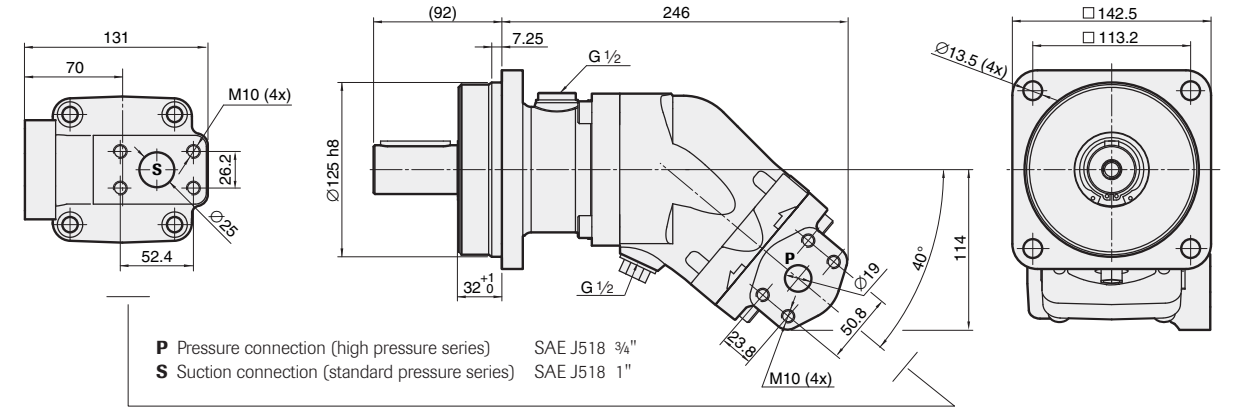
P Pressure connection (high pressure series) SAE J518 ½"
S Suction connection (standard pressure series) SAE J518 ¾"

Right-hand design **R**. Left-hand design **L** has pressure outlets on the opposite side.



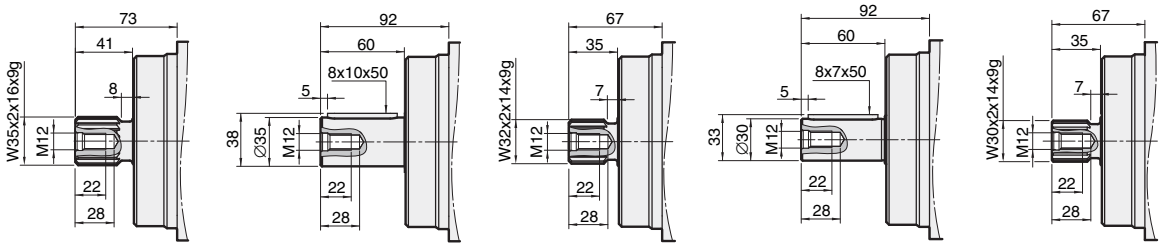
A **B** **C** **D**

SCP 047-064

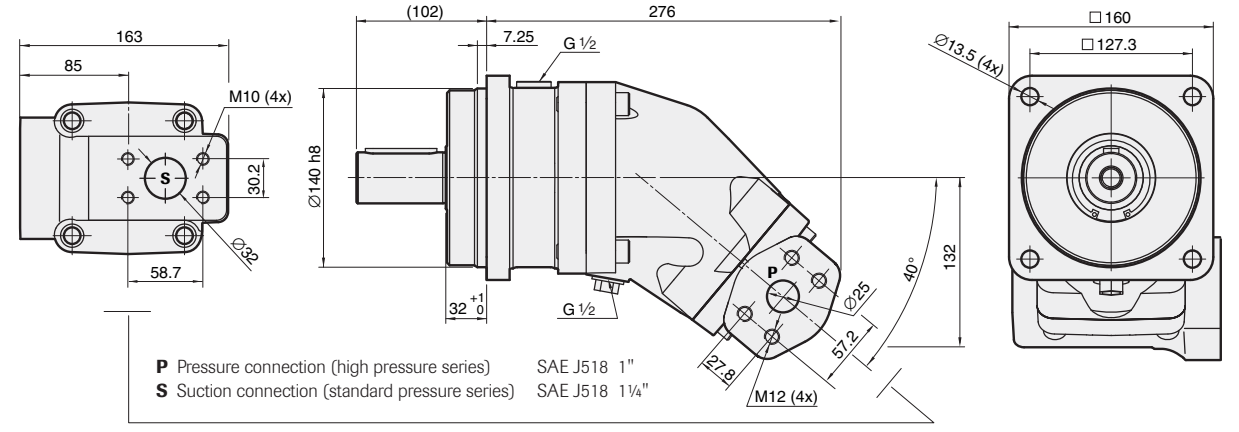


P Pressure connection (high pressure series) SAE J518 ¾"
S Suction connection (standard pressure series) SAE J518 1"

Right-hand design **R**. Left-hand design **L** has pressure outlets on the opposite side.

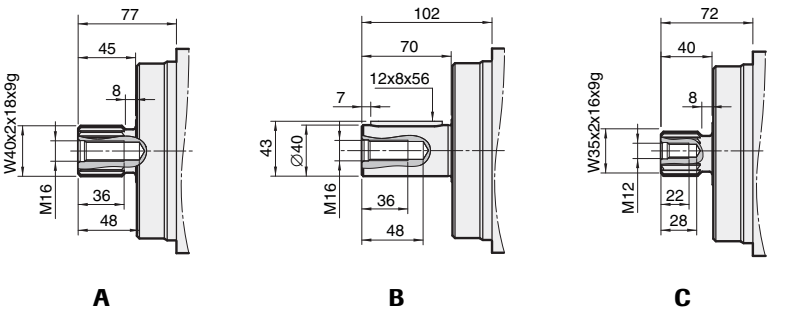


SCP 084

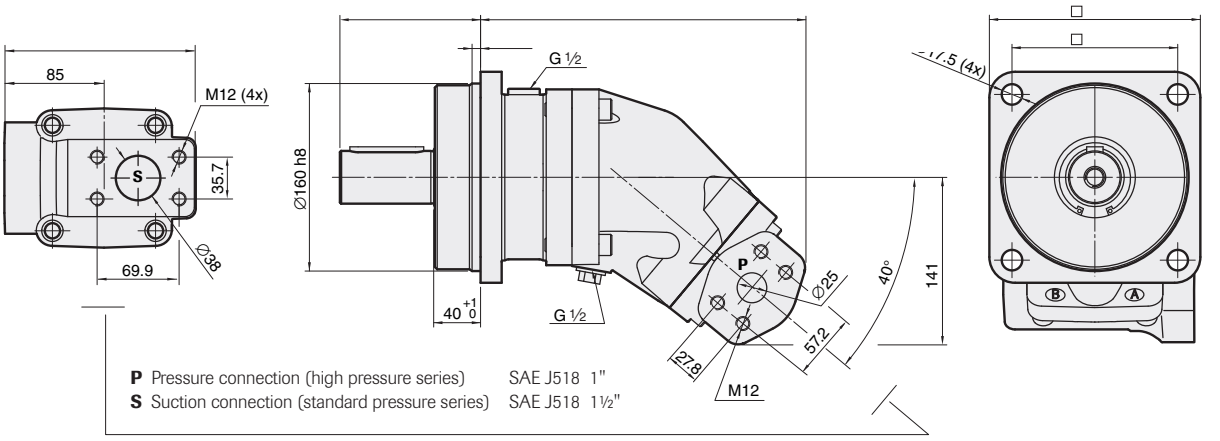


P Pressure connection (high pressure series) SAE J518 1"
S Suction connection (standard pressure series) SAE J518 1¼"

Right-hand design **R**. Left-hand design **L** has pressure outlets on the opposite side.

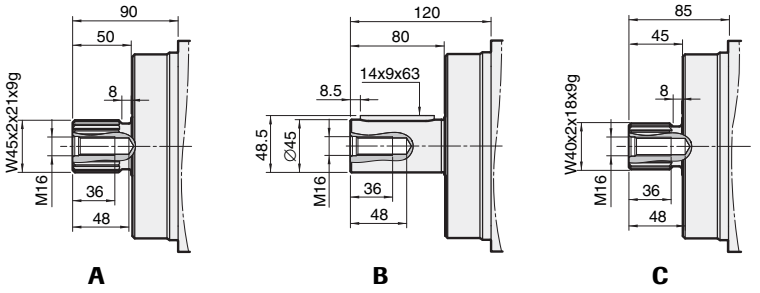


SCP 108

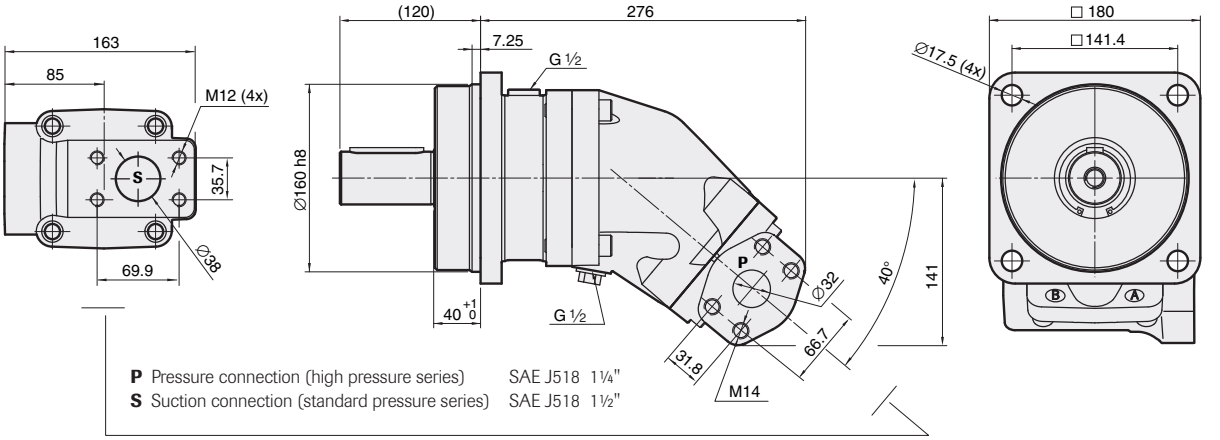


P Pressure connection (high pressure series) SAE J518 1"
S Suction connection (standard pressure series) SAE J518 1½"

Right-hand design **R**. Left-hand design **L** has pressure outlets on the opposite side.

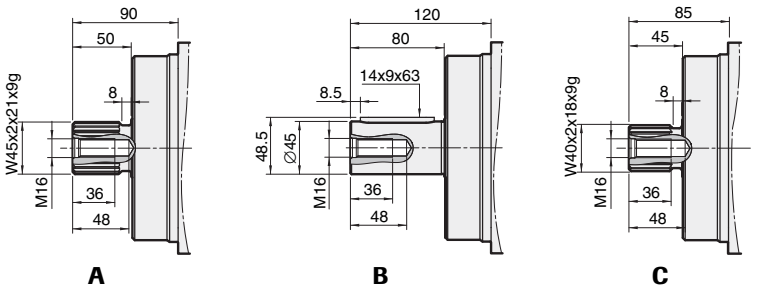


SCP 130



P Pressure connection (high pressure series) SAE J518 1¼"
S Suction connection (standard pressure series) SAE J518 1½"

Right-hand design **R**. Left-hand design **L** has pressure outlets on the opposite side.



SUNFAB

SAMT HYDRAULICS

Factory 19 / 5 Lyn Parade PRESTONS NSW 2170
Ph: (02) 9607 4100 Fax: (02) 9607 4200

WARNING

When the pump is running:

1. Do not touch the pressure hose
2. Watch out for rotating parts
3. The pump and hoses may be hot