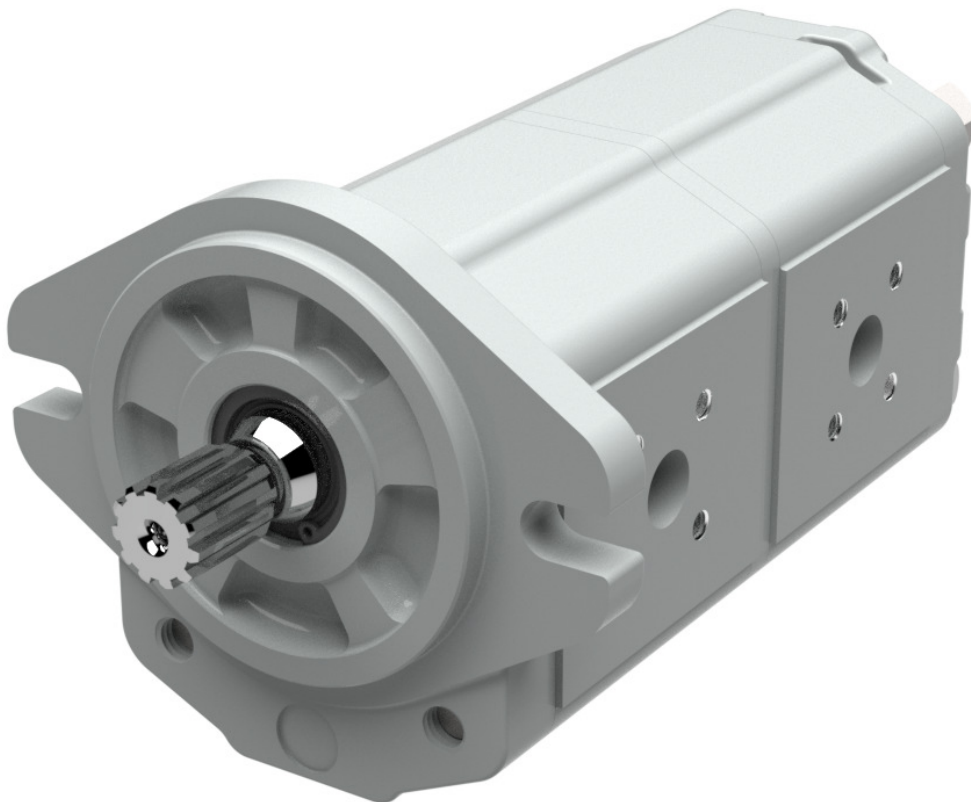


Technical Information

GearMe

Aluminum Group 2 Compact Pump



Revision history*Table of revisions*

Date	Changed	Rev
February 2023	Fixed typo	0203
January 2023	Renamed product	0202
August 2022	Updated specifications, model code, and dimensions	0201
April 2020	First edition	0101

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General information

Overview

A relevant market trend in modern mobile systems is increased machine complexity and greater emphasis in hydraulic capacity. Compact size and high performance through varied operational conditions is mandatory in gear pumps. Commonly an efficient pump configuration involves using multiple pump sections in a single unit, where each section is isolated to a specific function. A common gear pump application utilizes the first stage for steering, second stage for work function and optional third stage is used for auxiliary accessories.

In order to meet this fundamental requirement, Danfoss has upgraded the multi-pump section designs and developed a compact multiple pump. This solution helps to reduce axial length by approximately up to 30 mm per additional stage compared to the standard multi-stage combination. Additionally, the maximum torque is 120 Nm, ensuring a wide range of working pressure and displacements available by stages. Single and common inlet options are also available to provide value when reduction of hose/tube connections are needed.

For operational conditions and product options please refer to aluminum gear pumps group 2 catalog:

<https://assets.danfoss.com/documents/DOC322978892089/DOC322978892089.pdf>.

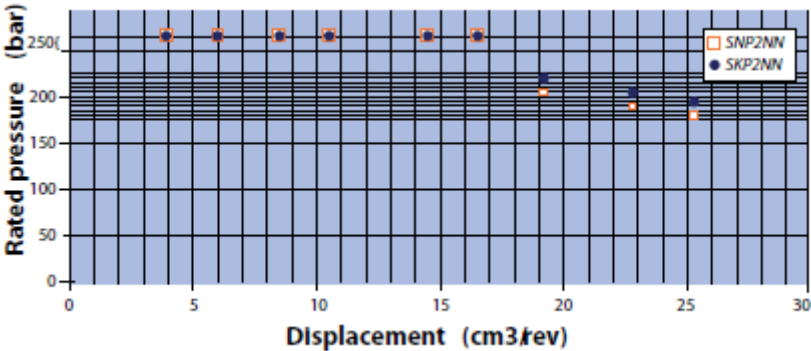
Compact Tandem Pump (top), Standard Tandem Pump (bottom)



General information

Pump displacements

Quick reference chart for pump displacements vs. rated pressure



Technical Data

Specifications

Frame size		4,0	6,0	8,0	011	014	017	019	022	025
Displacement	cm ³ /rev [in ³ /rev]	3.9 [0.24]	6.0 [0.37]	8.4 [0.51]	10.8 [0.66]	14.4 [0.88]	16.8 [1.02]	19.2 [1.17]	22.8 [1.39]	25.2 [1.54]
SKP2										
Peak pressure	bar [psi]	280 [4060]	280 [4060]	280 [4060]	280 [4060]	280 [4060]	280 [4060]	260 [3770]	230 [3335]	200 [2900]
Rated pressure		250 [3625]	250 [3625]	250 [3625]	250 [3625]	250 [3625]	250 [3625]	240 [3480]	210 [3045]	190 [2755]
Minimum speed at 0-100 bar	min ⁻¹ (rpm)	600	600	600	500	500	500	500	500	500
Minimum speed at 100-180 bar		1200	1200	1000	800	750	750	700	700	700
Min. speed at 180 bar to rated pressure		1400	1400	1400	1200	1000	1000	1000	800	800
Maximum speed		4000	4000	4000	4000	3500	3000	3000	3000	3000
Both										
Weight	kg [lb]	2.3 [5.1]	2.4 [5.3]	2.5 [5.5]	2.7 [5.8]	2.9 [6.3]	3.0 [6.5]	3.1 [6.7]	3.2 [7.0]	3.3 [7.3]
Moment of inertia of rotating components	x 10 ⁻⁶ kg·m ⁻² [x 10 ⁻⁶ lb·ft ²]	21.3 [505]	26.5 [629]	32.4 [769]	38.4 [911]	47.3 [1122]	53.3 [1265]	59.2 [1405]	68.1 [1616]	74.1 [1758]
Theoretical flow at maximum speed	l/min [US gal/min]	15.6 [4.1]	24.0 [6.3]	33.6 [8.9]	43.2 [11.4]	50.4 [13.3]	50.4 [13.3]	57.6 [15.2]	68.4 [18.0]	75.6 [20.0]

$$1 \text{ kg} \cdot \text{m}^2 = 23.68 \text{ lb} \cdot \text{ft}^2$$

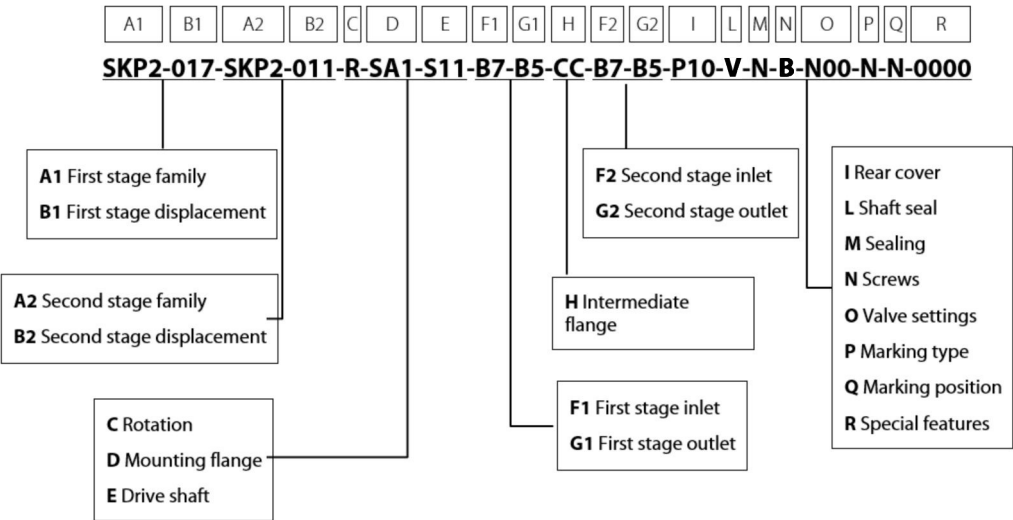
! Caution

The rated and peak pressure mentioned are for pumps with flanged ports only. When threaded ports are required a de-rated performance must be considered. To verify the compliance of a high pressure application with a threaded ports pump apply to a Danfoss representative.

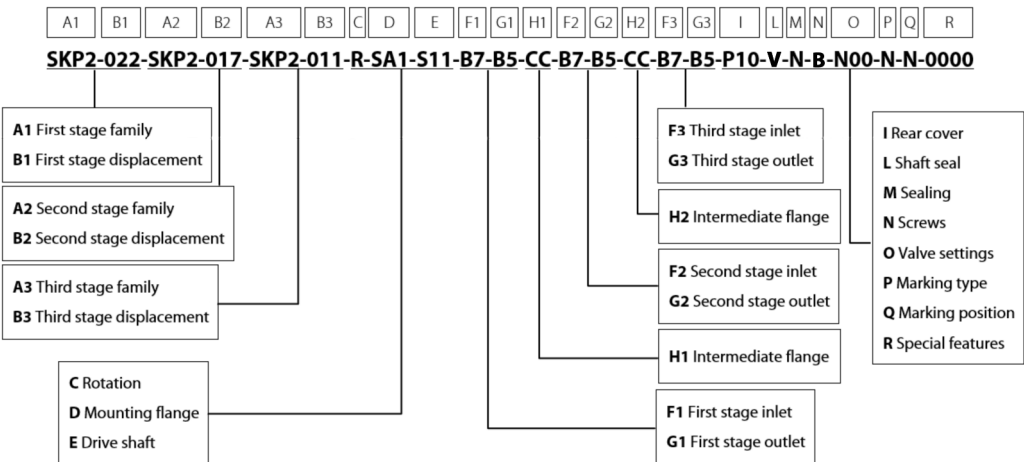
Product Code

Model code

Tandem pump model code



Triple pump model code



A Family

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
•	•	•	•												

SKP2	HighTorque Group 2 Pump														
-------------	-------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Product Code

B Displacement

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
	•	•	•												

4,0	Displacement 3,9 cc
6,0	Displacement 6,0cc
8,0	Displacement 8,4 cc
011	Displacement 10,8 cc
014	Displacement 14,4 cc
017	Displacement 16,8 cc
019	Displacement 19,2 cc
022	Displacement 22,8 cc
025	Displacement 25,2 cc

Other frame sizes and displacements are available upon request.

C Rotation

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
		•													

R	Right (Clockwise)
L	Left (Counterclockwise)

D Mounting flange

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
			•	•	•										

E10	European 4 bolts pilot Ø36,5
B10	German 4 bolts pilot Ø80
B20	German 2-bolt (\ mounting holes pattern) pilot Ø50
B22	German 2-bolt (/ mounting holes pattern) pilot Ø50
SA1	SAE-A 2 bolts pilot Ø82,55
SA2	SAE-A 2 bolts pilot Ø82,55 + Oring on pilot
SB1	SAE-B 2 bolts pilot Ø101,6

E Drive shaft

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
				•	•	•									

T80	Taper 1:8-M12x1,25-Key 4
T50	Taper 1:5-M12x1,25-Key 3
S09	Spline SAE J498 - 9T
S11	Spline SAE J498 - 11T
S13	Spline SAE J498 - 13T (only with flange SB1)

Technical Information
GearMe Aluminum Group 2 Compact Pump

Product Code

PS1	Parallel SAE Ø15,875 (Ø5/8")
PS3	Parallel SAE Ø19,05 (Ø3/4")
SD1	Spline DIN 5482 B17x14 - L10
SD2	Spline DIN 5482 B17x14 - L14

F Inlet size; G Outlet size

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
					•	•	•	•							

B5	15x35xM6	
B6	15x40xM6	
B7	20x40xM6	
C3	13,5x30xM6	
C5	13,5x40xM8	
C7	20x40xM8	
C8	23.5x40xM8	
E4	3/4-16UNF	
E5	7/8-14UNF	
E6	1-1/16-12UN	
F3	3/8 GAS	
F4	1/2 GAS	
F5	3/4 GAS	
NN	Without port on body	

For standard port combinations refer to aluminum gear pumps group 2 catalog. Other port options are available upon request.

H Intermediate flange

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
							•	•							

CC	Compact intermediate flange
-----------	-----------------------------

I Rear cover

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
								•	•	•					

P10	Standard pump cover
I10	Pump cover for relief valve
E14	Pump cover for relief valve+external drain 3/4-16UNF-2B

Product Code

L Shaft seal

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
										•					

V	VITON
---	-------

M Sealing

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
										•					

N	NBR
---	-----

N Screws

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
											•				

B	Anti-corrosion screws
---	-----------------------

O Valve settings

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
												•	•	•	

N00	No valve
V**	Integral relief valve

[For valve settings refer to aluminum gear pumps group 2 catalog.](#)

P Marking type

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
														•	

N	Standard Danfoss Marking
A	Standard Danfoss Marking+Customer Code
Z	Without Marking

Q Marking position

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
														•	

S	Sticker on body
---	-----------------

R Special features

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
															•

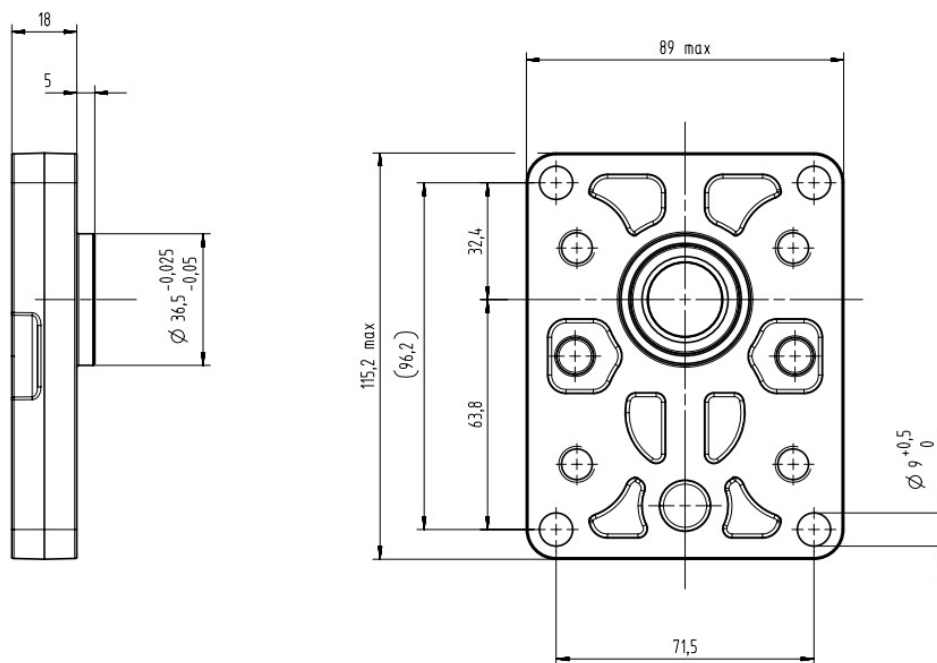
Product Code

0000	No special features
-------------	---------------------

Mounting flange options

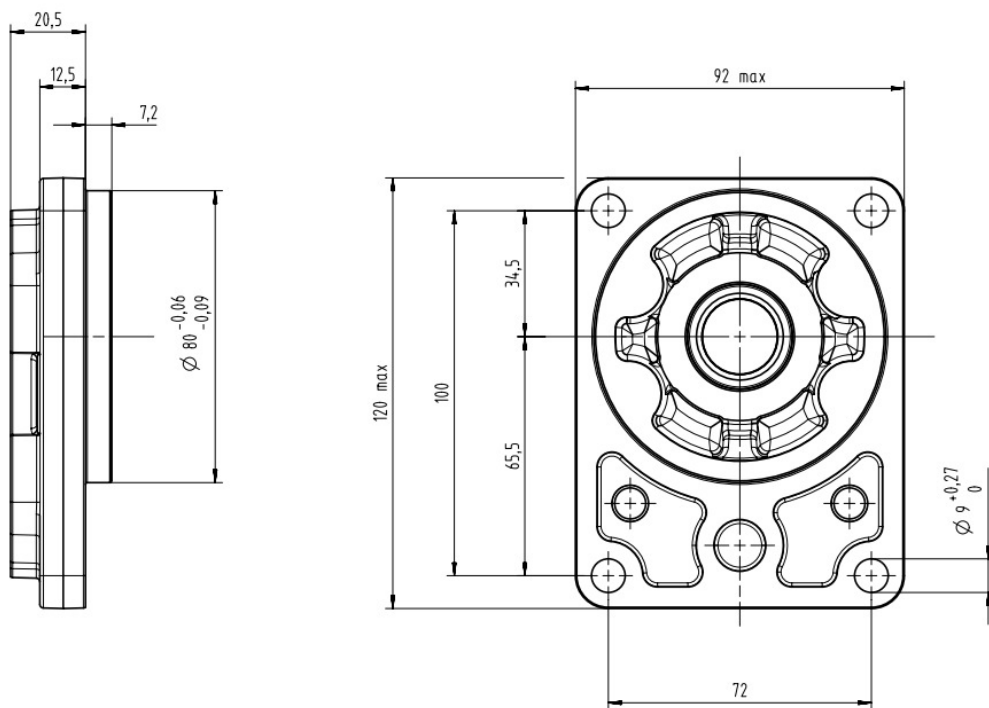
Flanges

E10

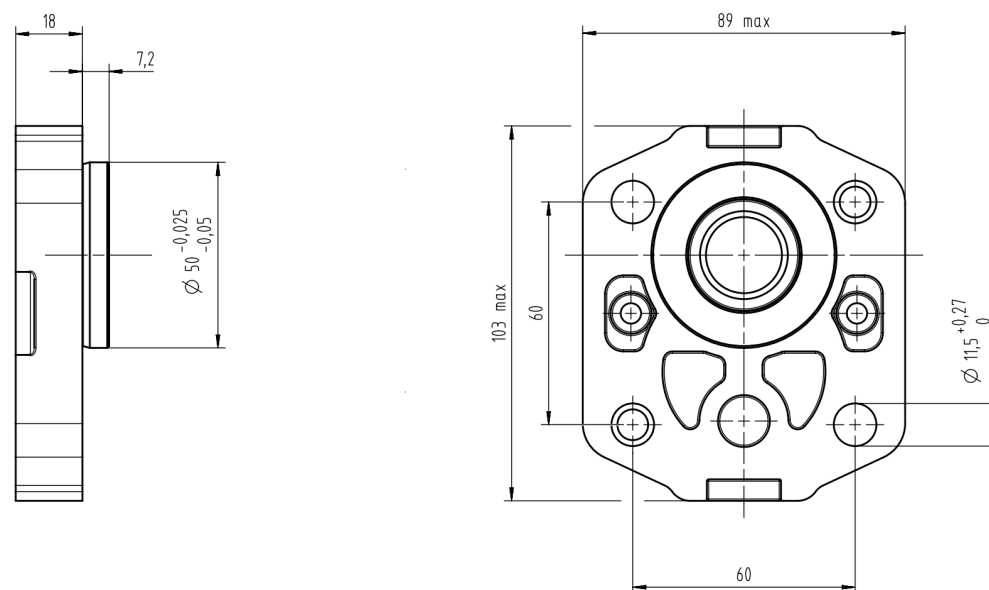


Mounting flange options

B10

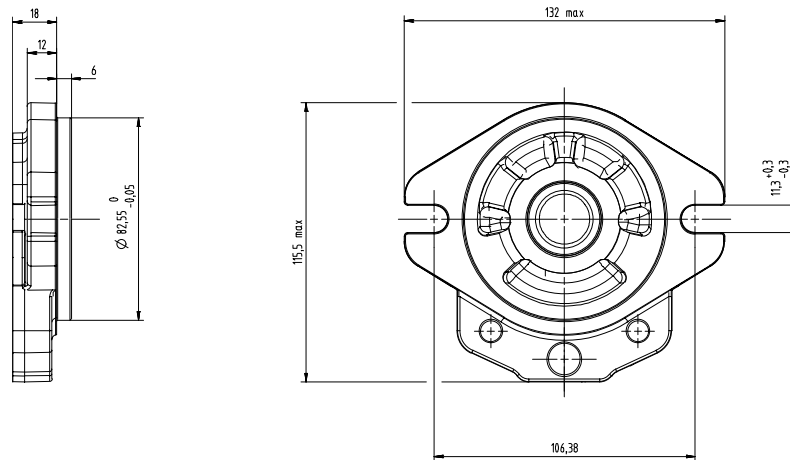


B20

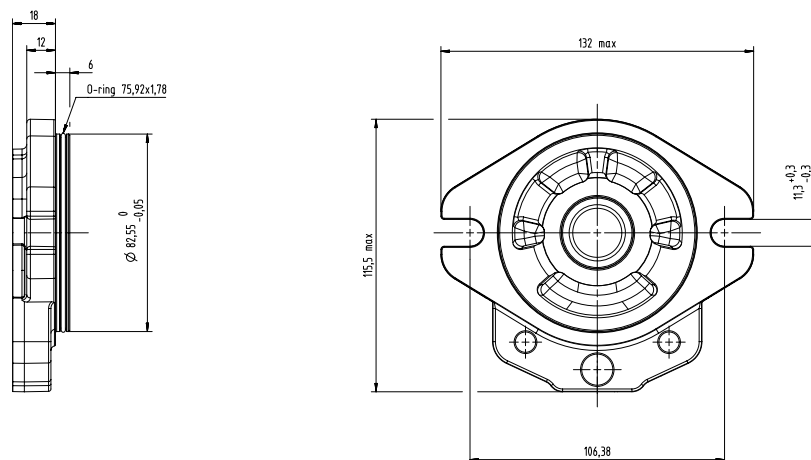


Mounting flange options

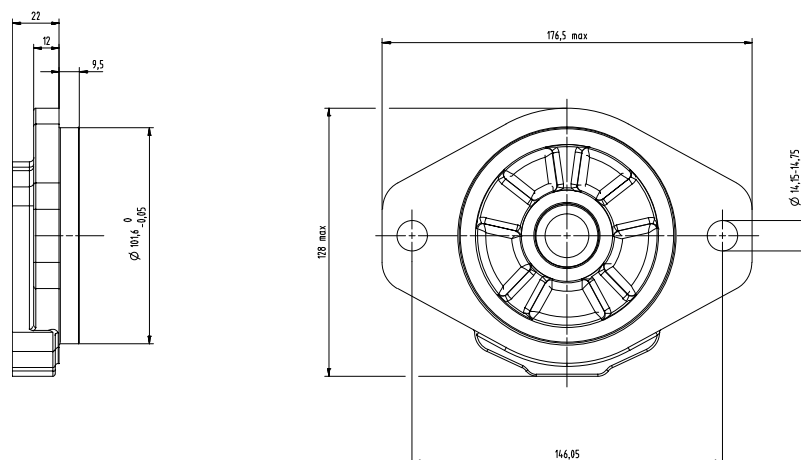
SA1



SA2



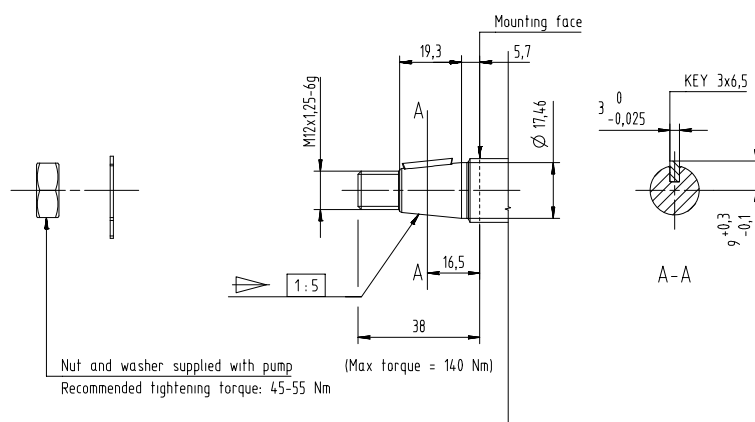
SB1



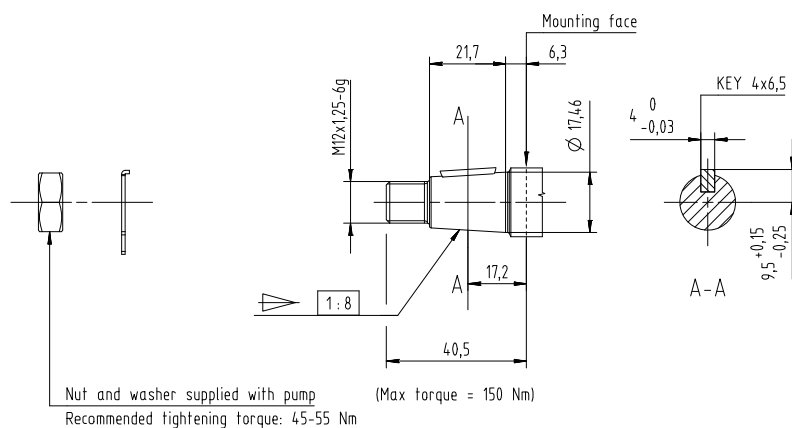
Shaft options

Shafts

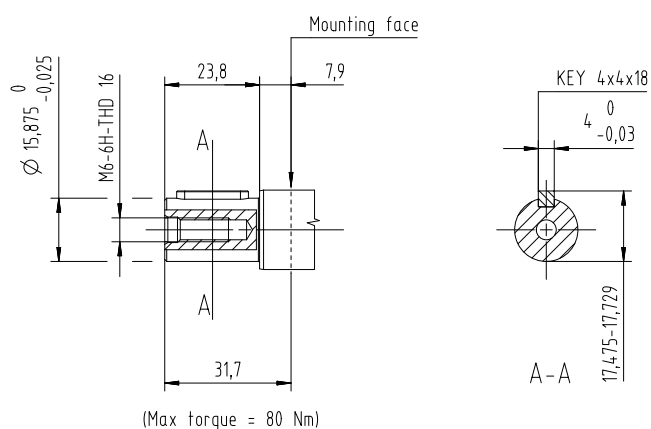
T50



T80

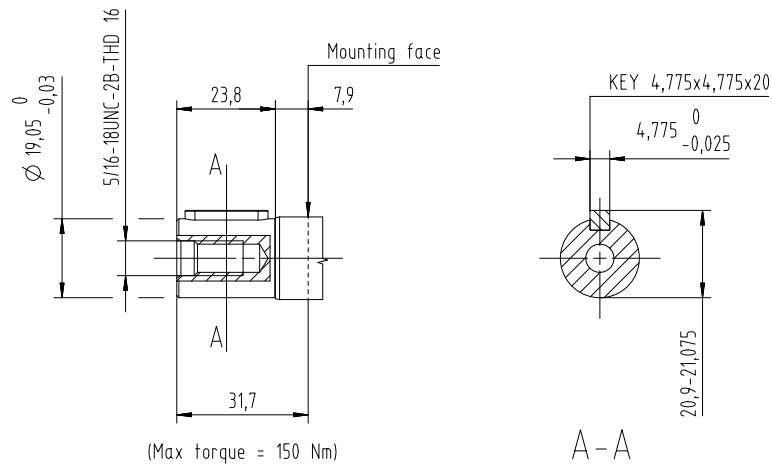


PS1

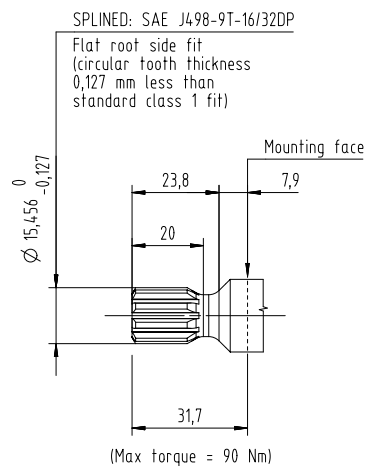


Shaft options

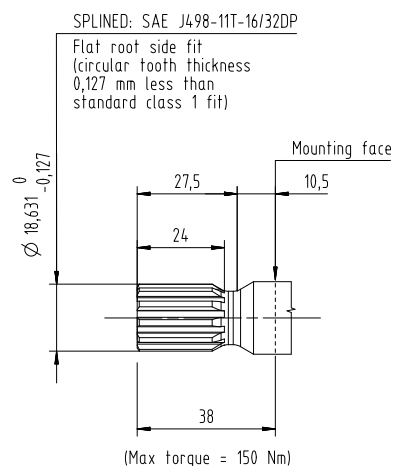
PS3



S09

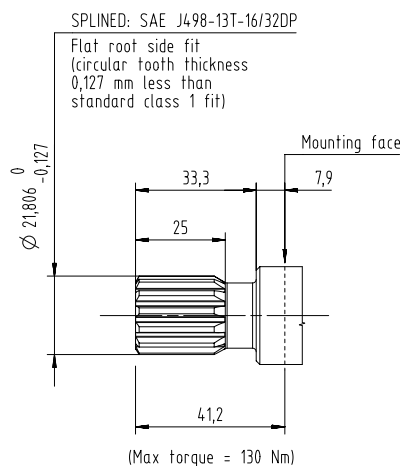


S11

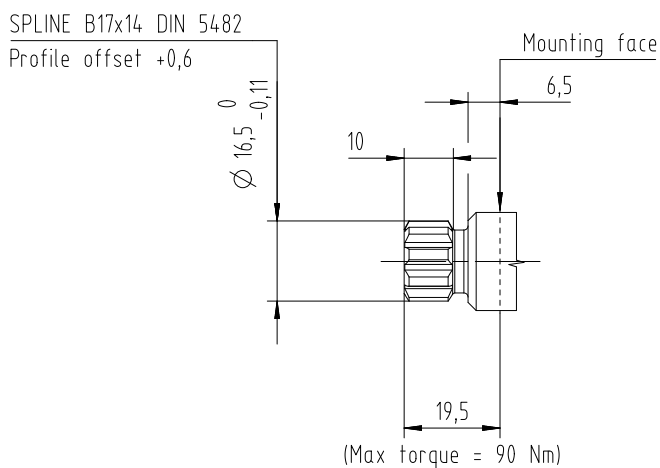


Shaft options

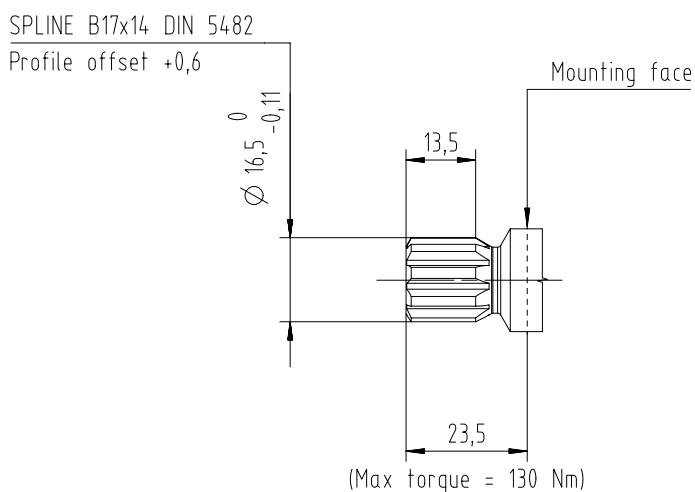
S13



SD1

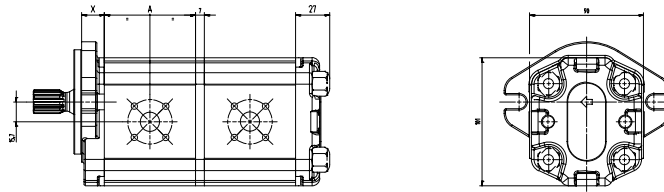


SD2



Dimensions

Dimensions



Frame size	4,0	6,0	8,0	011	014	017	019	022	025
Dimension A	50,5	54	58	62	68	72	76	82	86

Mounting flange	E10	B10	B20 (B22)	SA1 (SA2)	SB1
Dimension X	18	20.5	18	18	22

Service Parts

Seal kits

Seal kits available for tandem pumps:

- 211.22.009.0K single inlet
- 211.22.029.0K modular

Products we offer:

- Cartridge valves
- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
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www.daikin-sauer-danfoss.com

**Danfoss
Power Solutions (US) Company**
2800 East 13th Street
Ames, IA 50010, USA
Phone: +1 515 239 6000

**Danfoss
Power Solutions GmbH & Co. OHG**
Krokamp 35
D-24539 Neumünster, Germany
Phone: +49 4321 871 0

**Danfoss
Power Solutions ApS**
Nordborgvej 81
DK-6430 Nordborg, Denmark
Phone: +45 7488 2222

**Danfoss
Power Solutions Trading
(Shanghai) Co., Ltd.**
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
Phone: +86 21 2080 6201

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