



# Technical Data

## Technical Data

Frame size		4,0	6,0	8,0	011	014	017	019	022	025
Displacement	cm <sup>3</sup> /rev	3.9	6.0	8.4	10.8	14.4	16.8	19.2	22.8	25.2
	[in <sup>3</sup> /rev]	[0.24]	[0.37]	[0.51]	[0.66]	[0.88]	[1.02]	[1.17]	[1.39]	[1.54]
<b>SNP2NN</b>										
Peak pressure	bar [psi]	280	280	280	280	280	280	230	200	175
		[4060]	[4060]	[4060]	[4060]	[4060]	[4060]	[3335]	[2900]	[2638]
Rated pressure	bar [psi]	250	250	250	250	250	250	210	180	160
		[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3045]	[2610]	[2320]
Minimum speed at 0-100 bar	min <sup>-1</sup> (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	–
Maximum speed		4000	4000	4000	4000	3500	3000	3000	3000	3000
<b>SKP2NN</b>										
Peak pressure	bar [psi]	280	280	280	280	280	280	260	230	200
		[4060]	[4060]	[4060]	[4060]	[4060]	[4060]	[3770]	[3335]	[2900]
Rated pressure	bar [psi]	250	250	250	250	250	250	240	210	190
		[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3480]	[3045]	[2755]
Minimum speed at 0-100 bar	min <sup>-1</sup> (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
<b>Both (SNP2NN, SKP2NN)</b>										
Weight	kg [lb]	2.3	2.4	2.5	2.7	2.9	3.0	3.1	3.2	3.3
		[5.1]	[5.3]	[5.5]	[5.8]	[6.3]	[6.5]	[6.7]	[7.0]	[7.3]
Moment of inertia of rotating components	x 10 <sup>-6</sup>	21.3	26.5	32.4	38.4	47.3	53.3	59.2	68.1	74.1
	kg·m <sup>2</sup> [x 10 <sup>-6</sup> lb·ft <sup>2</sup> ]	[505]	[629]	[769]	[911]	[1122]	[1265]	[1405]	[1616]	[1758]
Theoretical flow at maximum speed	l/min	15.6	24.0	33.6	43.2	50.4	50.4	57.6	68.4	75.6
	[US gal/min]	[4.1]	[6.3]	[8.9]	[11.4]	[13.3]	[13.3]	[15.2]	[18.0]	[20.0]

1 kg·m<sup>2</sup> = 23.68 lb·ft<sup>2</sup>

### ⚠ Caution

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



## Product code

## Model code

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
SNP2NN	/ 019	R	N	01	DA							/		

### A Family

<b>SEP2NN</b>	Low-cost Gr2 Pump
<b>SNP2NN</b>	Std Group 2 Pump
<b>SNP2EN</b>	Std Group 2 Pump + External Drain RV
<b>SNP2IN</b>	Std Group 2 Pump + Internal Drain RV
<b>SNP2KS</b>	Std Group 2 Pump + Priority Flow Divider + Dynamic Load Sensing, Inlet on body-Outlet on cover + drain on cover driven side - special (project not 100% complete)
<b>SNC2NN</b>	Std Group 2 Pump Inlet & Outlet in the Cover
<b>SND2NN</b>	Std Group 2 Pump Inlet on body outlet on cover
<b>SKP2NN</b>	High Torque Group 2 Pump

<b>SKP2EN</b>	High Torque Group 2 Pump + Ext.Drain RV
<b>SKP2IN</b>	High Torque Group 2 Pump + Int.Drain RV
<b>SKC2NN</b>	High Torque Group 2 Pump Inlet & Outlet on Cover
<b>SHP2NN</b>	High Pressure Group 2 Pump
<b>SHP2EN</b>	High Pressure Group 2 Pump + Ext.Drain RV - never released, but feasible
<b>SHP2IN</b>	High Pressure Group 2 Pump + Int.Drain RV
<b>SNZ2NN</b>	Std Group 2 Pump inlet on body-outlet on cover+RV int.drain on cover - special
<b>XEP2NN</b>	Economic Spare Product Gr2 Pump

### B Displacement

<b>3,0</b>	Displacement 3,0cc - special
<b>4,0</b>	Displacement 4,0cc
<b>5,5</b>	Displacement 5,5cc - special
<b>6,0</b>	Displacement 6,0cc
<b>6,5</b>	Displacement 6,5cc - special
<b>7,0</b>	Displacement 7,0cc - special
<b>7,5</b>	Displacement 7,5cc - special
<b>8,0</b>	Displacement 8,0cc
<b>8,7</b>	Displacement 8,7cc - special

<b>9,0</b>	Displacement 9,0cc - special
<b>9,5</b>	Displacement 9,5cc - special
<b>011</b>	Displacement 11cc
<b>012</b>	Displacement 12cc - special
<b>014</b>	Displacement 14cc
<b>016</b>	Displacement 16cc - special
<b>017</b>	Displacement 17cc
<b>019</b>	Displacement 19cc
<b>021</b>	Displacement 21cc - special

<b>022</b>	Displacement 22cc
<b>025</b>	Displacement 25cc
<b>028</b>	Displacement 28cc - special

### C Rotation

<b>R</b>	Right (Clockwise)
<b>L</b>	Left (Counterclockwise)

### D Project version

<b>N</b>	Standard gear pump
<b>6</b>	Short version - special



A B C D E F G H I J K L M N O

SNP2NN / 019 R N 01 DA

## E Mounting flange

Code	Description (Type of flange • Type of drive gear • Preferred ports for configuration)
01	pilot Ø36,5+4 holes
02	pilot Ø80+4 holes
03	pilot Ø52+O-ring+4 holes through body
04	pilot Ø50+2 holes through body
A4	pilot Ø50+2 holes through body+seal on pilot
05	pilot Ø50+2 holes through body
06	SAE A pilot Ø82,55+2 holes
A6	SAE A pilot Ø82,55+2 holes+seal on pilot
09	pilot Ø52,34+2 threaded holes
91	Outrig. Type 01+taper shaft 1:8-M12x1,25-Key4 - Outrigger bearing
94	Outrig. Type 04+taper shaft 1:5-M12x1,25-Key3 - Outrigger bearing
9A	Outrig. Type 01+taper shaft 1:8-M12x1,25-Key3.2 - Outrigger bearing
9B	Outrig. Type 01+taper shaft 1:8-M12x1,25-Key4+pilot Ø50,8 - Outrigger bearing
9C	Outrig. Type 01+taper shaft 1:8-M12x1,25-Key3.2+ radial roller bearing - Outrigger bearing
9F	Outrig. Type 02+taper shaft 1:5-M14x1,5-Key4+special shaft seal - Outrigger bearing
9J	Outrig. Type 06 with parallel shaft Ø3/4 (Ø19.05 mm) - Outrigger bearing
9L	Outrig. Type 01 parallel shaft Ø22 pilot Ø50,8 - Outrigger bearing
9M	Outrig. Type 01 parallel shaft Ø18 pilot Ø36,5 - Outrigger bearing

## F Drive gear

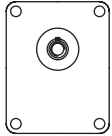
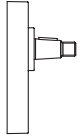
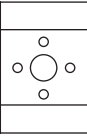
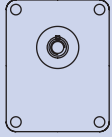
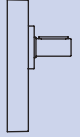
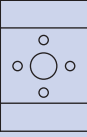
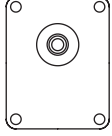
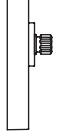
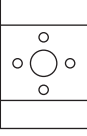
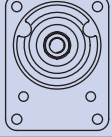
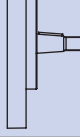
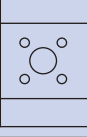
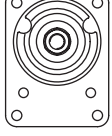
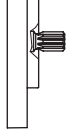
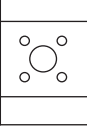
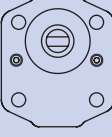
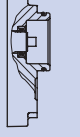
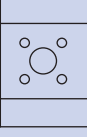


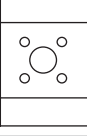
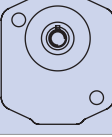
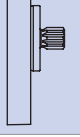
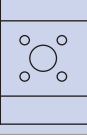
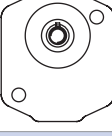

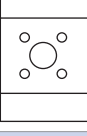
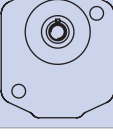
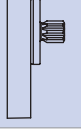
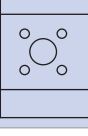
AA	Taper 1:5-M12x1,25-Key 3
AB	Taper 1:5-M12x1,5-Key 3
AC	Taper 1:5-M14x1,5-Key 4
AD	Taper 1:5-M12X1,25-Key 3-Special
AM	Taper 1:5-M12X1,25-Key 3-without nut and washer
B1	Taper 1:8-M12x1,25-Key 4/6 lowered
B2	Taper 1:8-M12x1,5-Key 4/ 3,2-w/o nut and washer
BA	Taper 1:8-M12x1,25-Key 4
BB	Taper 1:8-M12x1,25-Key 4/3,2
BC	Taper 1:8-M12x1,5-Key 4/3,2
BJ	Taper 1:8-M12x1,25-Key 4/3 black steel
CA	Tang 8x17,8xL6,5 FR03
CD	Tang 8x Ø17,8xL6,5 Short - Special
CF	Tang 8x Ø17,46xL9,6-Special
DA	Spline DIN 5482 B17x14-L10
DB	Spline DIN 5482 B17x14-L14
DF	Spline DIN 5482 B17x14 - Special
FA	Parallel Ø15-L30+Key 4x25
GA	Parallel SAE Ø15,875-L23,8-Key 4x18
GB	Parallel SAE Ø15,875-L50,8-Key 4x40
SA	Spline SAE J498-9T-16/32
SB	Spline SAE J498-11T-16/32
SF	Spline SAE J498-9T-16/32-reinforced fillet
SG	Spline SAE J498-11T-16/32-Special



## Product Options

### Flange, shaft and ports configurations

#### Available flange, shaft and ports configurations

Code	Flange	Shaft	Ports
<b>01BA</b>	pilot Ø 36.5 mm [1.438 in] European 01, 4-bolt 	1:8 tapered 	European flanged, + pattern 
<b>01FA</b>	pilot Ø 36.5 mm [1.438 in] European 01, 4-bolt 	Ø 15 mm [0.59 in] parallel 	European flanged, + pattern 
<b>01DA</b>	pilot Ø 36.5 mm [1.438 in] European 01, 4-bolt 	Splined 9T - m 1.60 DIN 5482-B17x14 	European flanged, + pattern 
<b>02AA</b>	pilot Ø 80 mm [3.15 in] German PTO, 4-bolt 	1:5 tapered 	German std, X pattern 
<b>02DB</b>	pilot Ø 80 mm [3.15 in] German PTO, 4-bolt 	Splined 9T - m 1.60 DIN 5482-B17x14 	German std, X pattern 
<b>03CA</b>	Turolla 03 	Turolla tang 	German std, X pattern 
<b>04AA</b>	pilot Ø 50 mm [1.969 in] German PTO, 2-bolt 	1:5 tapered 	German std, X pattern 
<b>04DB</b>	pilot Ø 50 mm [1.969 in] German PTO, 2-bolt 	Splined 9T - m 1.60 DIN 5482-B17x14 	German std, X pattern 
<b>05AA</b>	pilot Ø 50 mm [1.969 in] German PTO, 2-bolt 	1:5 tapered 	German std, X pattern 
<b>05DB</b>	pilot Ø 50 mm [1.969 in] German PTO, 2-bolt 	Splined 9T - m 1.60 DIN 5482-B17x14 	German std, X pattern 

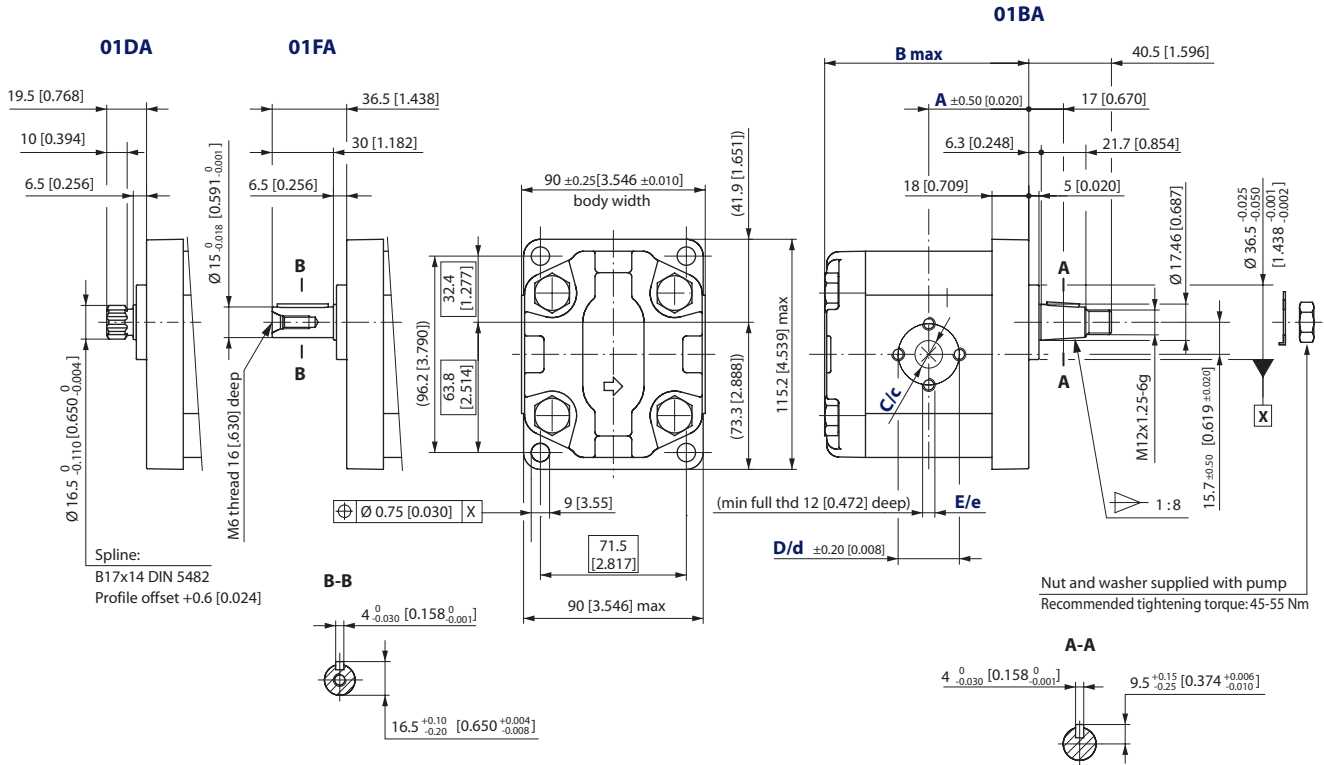


# Dimensions

## SNP2NN – 01DA, 01FA and 01BA

Standard porting for 01DA, 01FA and 01BA

mm [in]



## SNP2NN – 01BA, 01FA and 01DA dimensions

Frame size		4,0	6,0	8,0	011	014	017	019	022	025
Dimension	<b>A</b>	43.25 [1.703]	45 [1.772]	45 [1.772]	49 [1.929]	52 [2.047]	52 [2.047]	56 [2.205]	59 [2.323]	59 [2.323]
	<b>B</b>	90.0 [3.543]	93.0 [3.681]	97.5 [3.839]	101.5 [3.996]	107.5 [4.232]	111.5 [4.390]	115.5 [4.574]	121.5 [4.783]	125.5 [4.941]
Inlet	<b>C</b>	13.5 [0.531]	13.5 [0.531]	13.5 [0.531]	13.5 [0.531]	20 [0.787]	20 [0.787]	20 [0.787]	20 [0.787]	23.5 [0.925]
	<b>D</b>	30 [1.181]	30 [1.181]	30 [1.181]	30 [1.181]	40 [1.575]	40 [1.575]	40 [1.575]	40 [1.575]	40 [1.575]
	<b>E</b>	M6				M8				
Outlet	<b>c</b>	13.5 [0.531]							20 [0.787]	
	<b>d</b>	30 [1.181]							40 [1.575]	
	<b>e</b>	M6							M8	

## Model code examples and maximum shaft torque

Flange/drive gear	Model code example	Maximum shaft torque
<b>01DA</b>	SNP2NN/014LN01DAP1C7C3NNNN/NNNN	90 N•m [797 lbf•in]
<b>01FA</b>	SNP2NN/019LN01FAP1C7C3NNNN/NNNN	90 N•m [797 lbf•in]
<b>01BA</b>	SNP2NN/8,0LN01BAP1C3C3NNNN/NNNN	150 N•m [1328 lbf•in]

For further details on ordering, see [Model Code](#), pages 8-13.