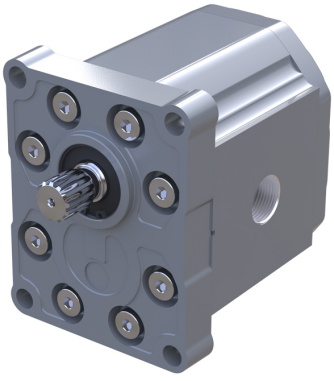
Gear Pumps
Group 3

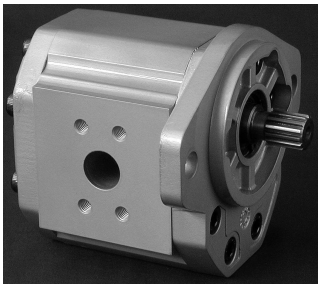
General Information

The Danfoss Group 3 is a range of peak performance fixed-displacement gear pumps. Constructed of a high-strength extruded aluminum body with aluminum cover and flange, all pumps are pressurebalanced for exceptional efficiency.



Group 3 gear pumps' attributes

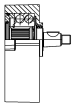
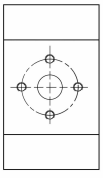
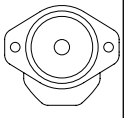
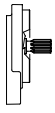
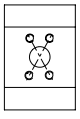
- Wide range of displacements from 22 to 90 cm3 /rev [from 1.34 to 5.49 in3 /rev]
- Continuous pressure rating up to 250 bar [3625 psi]
- Speeds up to 3000 min-1 (rpm)
- SAE, DIN and European standard mounting flanges • High quality case hardened steel gears
- Multiple pump configurations in combination with SNP1NN, SNP2NN and SNP3NN



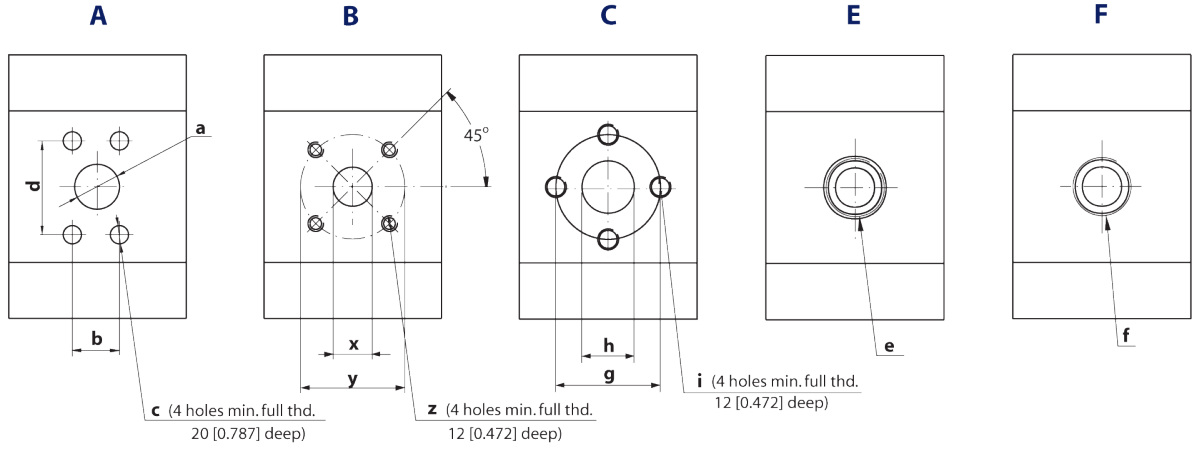
Technical data for SNP3NN

SNP3NN pump model		Frame size									
		022	026	033	038	044	048	055	063	075	090
Displacement	cm3/rev [in3/rev]	22.1 [1.35]	26.2 [1.60]	33.1 [2.02]	37.9 [2.32]	44.1 [2.69]	48.3 [2.93]	55.1 [3.36]	63.4 [3.87]	74.4 [4.54]	88.2 [5.38]
Peak pressure	bar [psi]	270 [3910]	270 [3910]	270 [3910]	270 [3910]	270 [3910]	250 [3625]	250 [3625]	230 [3350]	200 [2910]	170 [2465]
Rated pressure		250 [3625]	250 [3625]	250 [3625]	250 [3625]	250 [3625]	230 [3350]	230 [3350]	210 [3045]	180 [2610]	150 [2175]
Minimum speed	min-1 (rpm)	800	800	800	800	800	800	800	600	600	600
Maximum speed		3000	3000	3000	3000	3000	3000	2500	2500	2500	2500

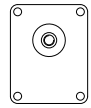
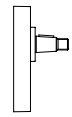
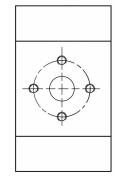
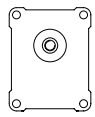
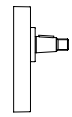
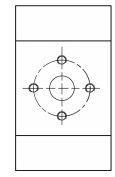
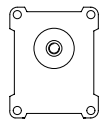
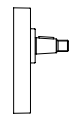
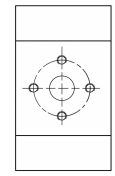
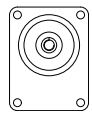
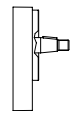
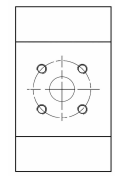
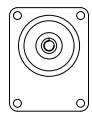
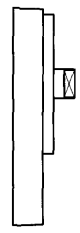
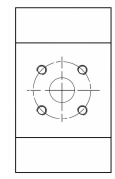
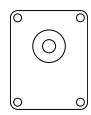
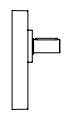
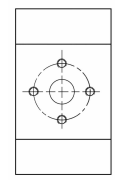
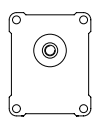
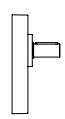
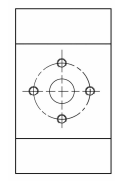
Shaft, flange, and port configurations

Motor	Code	Flange		Shaft		Port	
SNP3NN	**91BA**	Outrigger bearing with European four bolt flange Pilot Ø50,8		Taper 1:8 M14x1,5 key 4x7,5		European flanged port + pattern	
SNP3NN	**D7SA**	pilot Ø 101.6 mm [4.0 in] SAE B, 2-bolt, special for double shaft seal		Splined shaft SAE J498 13T - 16/32DP		Vertical four bolt flanged port	

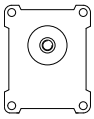
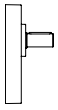
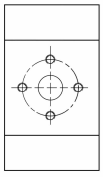
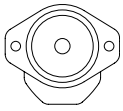
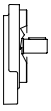
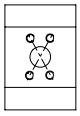
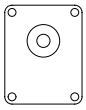
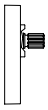
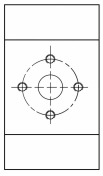
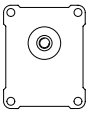
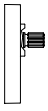
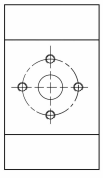
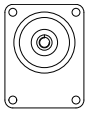
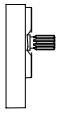
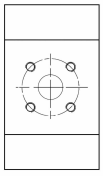
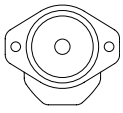
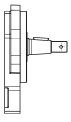
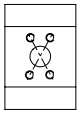
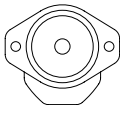
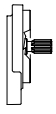
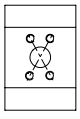
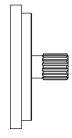
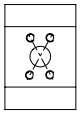
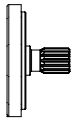
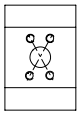
PORTING
- SAE
- X
-+
-Gas
-UNF



Shaft, flange, and port configurations

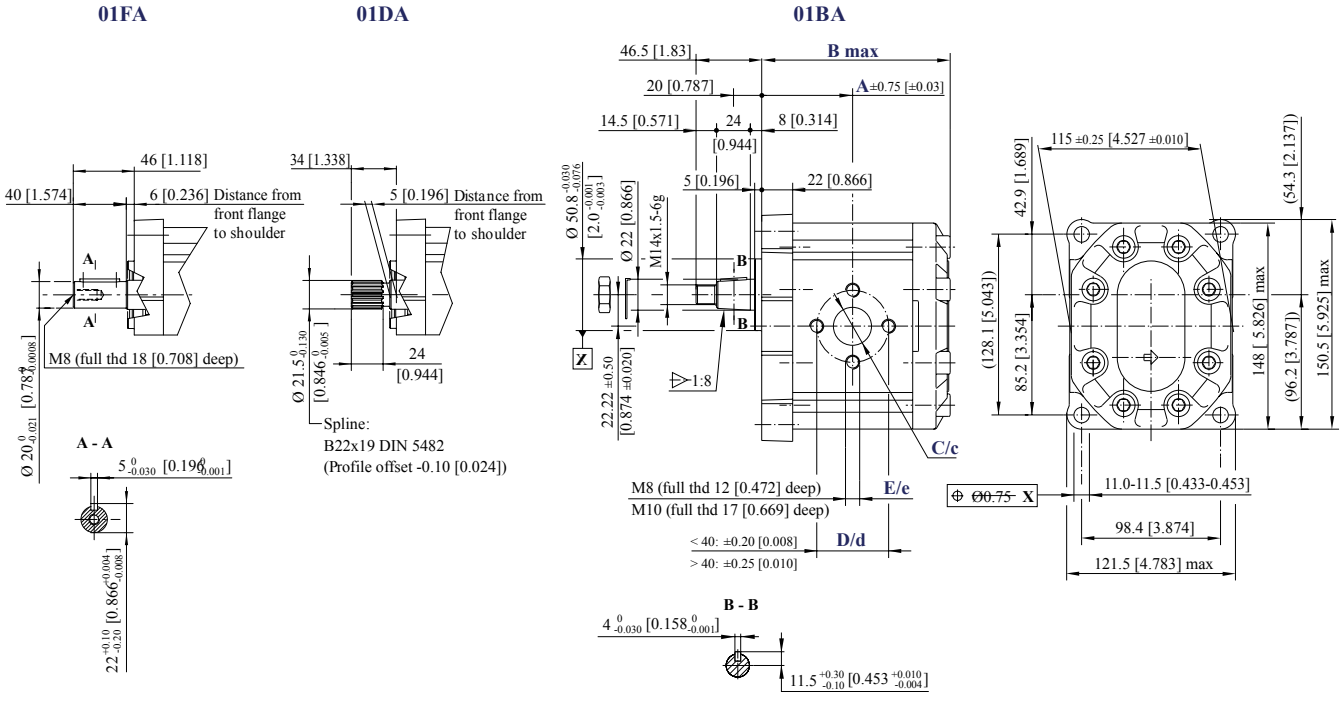
Motor	Code	Flange		Shaft		Port	
SEP3NN SNP3NN	**01BA**	pilot Ø 50.8 mm [2.0 in] European 01, 4-bolt		1:8 tapered		European flanged port + pattern	
SNP3NN	**02BA**	pilot Ø 50.8 mm [2.0 in] European 02, 4-bolt		1:8 tapered		European flanged port + pattern	
SNP3NN	**03BB**	pilot Ø 60.3 mm [2.374 in] European 03, 4-bolt		1:8 tapered		European flanged port + pattern	
SNP3NN	**06AA**	pilot Ø 105 mm [4.133 in] German, 4-bolt		1:5 tapered		German std ports port X pattern	
SNP3NN	**06CA**	pilot Ø 105 mm [4.133 in] German, 4-bolt		Tang 8 x Ø 22,2		German std ports port X pattern	
SEP3NN SNP3NN	**01FA**	pilot Ø 50.8 mm [2.0 in] European 01 4-bolt		Ø 20 mm [0.787 in] parallel		European flanged port + pattern	
SNP3NN	**02FA**	pilot Ø 50.8 mm [2.0 in] European 02 4,-bolt		Ø 20 mm [0.787 in] parallel		European flanged port + pattern	

Shaft, flange, and port configurations

Motor	Code	Flange		Shaft		Port	
SNP3NN	**03FB**	pilot Ø 60.3 mm [2.374 in] European 03, 4-bolt		Ø 22 mm [0.866 in] parallel		European flanged port + pattern	
SEP3NN SNP3NN	**07GA**	pilot Ø 101.6 mm SAE B, 2-bolt		Ø 22.225 mm [0.875 in] parallel		Vertical four bolt flanged port	
SNP3NN	**01DA**	pilot Ø 50.8 mm [2.0 in] European 01, 4-bolt		Splined shaft 13T – m 1.60 DIN 5482 – B22 x 19		European flanged port + pattern	
SNP3NN	**02DA**	pilot Ø 50.8 mm [2.0 in] European 02, 4-bolt		Splined shaft 13T – m 1.60 DIN 5482 – B22 x 19		European flanged port + pattern	
SNP3NN	**06DD**	pilot Ø 105 mm [4.133 in] German 4-bolt		Splined shaft 15T – m 1.60 DIN 5482 – B28 x 25		German std ports port X pattern	
SNP3NN	**07BC**	pilot Ø 101.6 SAE B, 2-bolt		1:8 tapered - 5/8 - 18 UNF - 2A		Vertical four bolt flanged port	
SEP3NN SNP3NN	**07SA**	pilot Ø 101.6 mm SAE B, 2-bolt		Splined shaft SAE J498 13T – 16/32DP		Vertical four bolt flanged port	
SNP3NN	**08RA**	pilot Ø 127 mm [5.0 in] SAE C, 4-bolt		Splined shaft SAE J498 14T - 12/24DP		Vertical four bolt flanged port	
SNP3NN	**09SB**	pilot Ø 82.55 mm [3.25 in] SAE A, 2-bolt		Splined shaft SAE J498 13T - 16/32DP		Vertical four bolt flanged port	

Dimensions

SNP3NN - 01FA, 01DA, 01BA / SEP3NN - 01BA



SNP3NN – 01FA, 01BA, 01DA and SEP3NN – 01FA, 01BA dimensions

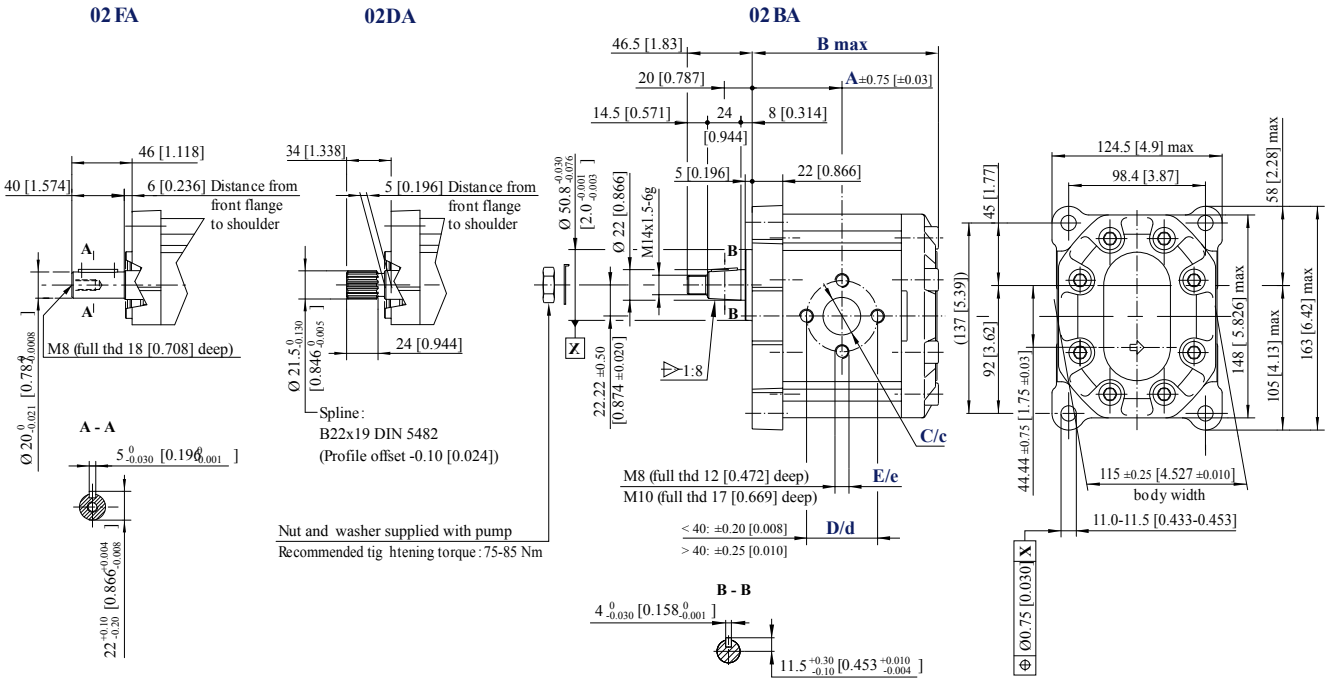
Frame size		022	026	033	038	044	048	055	063	075	090
Dimension	A	63 [2.480]	64.5 [2.539]	67 [2.637]	68.8 [2.708]	71 [2.795]	72.5 [2.854]	75 [2.952]	78 [3.07]	82 [3.228]	87 [3.425]
	B	132.5 [5.216]	135.5 [5.334]	140.5 [5.531]	144 [5.669]	148.5 [5.846]	151.5 [5.964]	156.5 [6.161]	162.5 [6.397]	170.5 [6.712]	180.5 [7.106]
Inlet	C	20 [0.787]		27 [1.063]				36 [1.417]			
	D	40 [1.575]		51 [2.007]				62 [2.441]			
	E	M8		M10							
Outlet	c	20 [0.787]				27 [1.063]					
	d	40 [1.575]				51 [2.001]					
	e	M8				M10					

Model code examples and maximum shaft torque

Flange/drive gear	Model code example	Maximum shaft torque
01DA	SNP3NN/075LN01DAP1CDCANNNN/NNNNN	290 N•m [2566 lb•in]
01FA	SNP3NN/033RN01FAP1CAC7NNNN/NNNNN	210 N•m [1858 lb•in]
01BA	SNP3NN/022RN01BAP1C7C7NNNN/NNNNN	350 N•m [3097 lb•in]

Dimensions

SNP3NN - 02FA,02DA and 02BA



SNP3NN - 02FA, 02DA AND 02BA dimensions

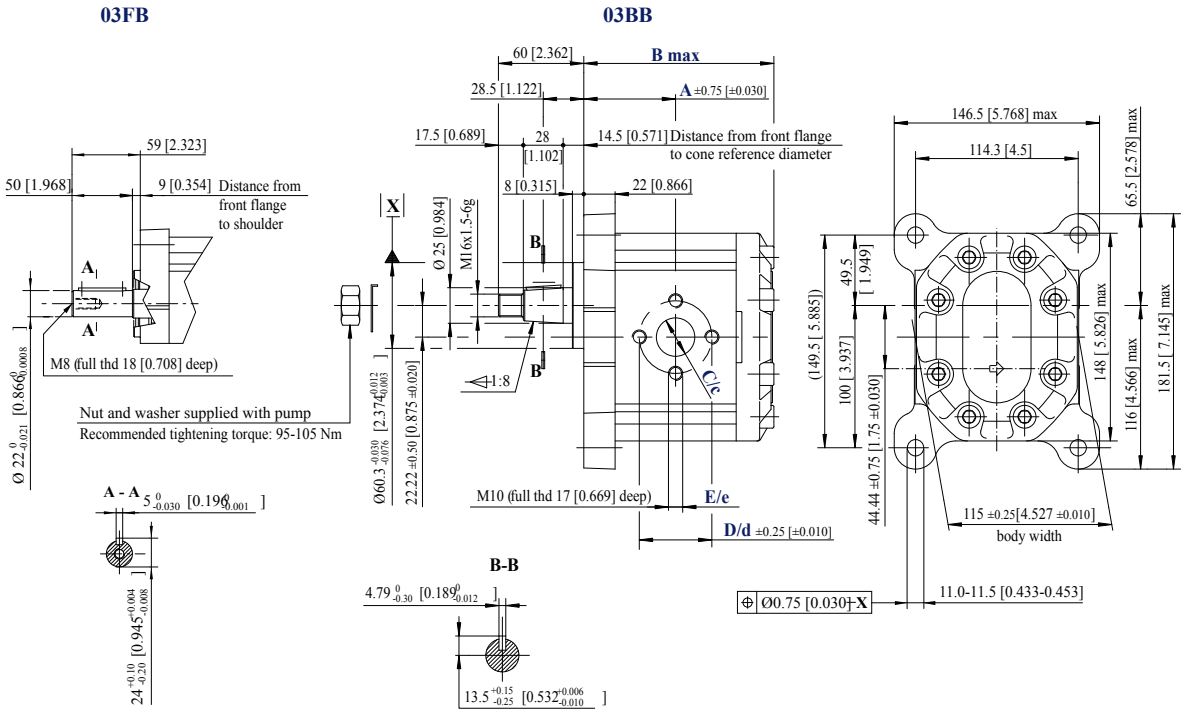
Frame size		022	026	033	038	044	048	055	063	075	090
Dimension	A	63 [2.480]	64.5 [2.539]	67 [2.637]	68.8 [2.708]	71 [2.795]	72.5 [2.854]	75 [2.952]	78 [3.07]	82 [3.228]	87 [3.425]
	B	132.5 [5.216]	135.5 [5.334]	140.5 [5.531]	144 [5.669]	148.5 [5.846]	151.5 [5.964]	156.5 [6.161]	162.5 [6.397]	170.5 [6.712]	180.5 [7.106]
Inlet	C	20 [0.787]		27 [1.063]				36 [1.417]			
	D	40 [1.575]		51 [2.007]				62 [2.441]			
	E	M8		M10							
Outlet	c	20 [0.787]				27 [1.063]					
	d	40 [1.575]				51 [2.001]					
	e	M8				M10					

Model code examples and maximum shaft torque

Flange/drive gear configuration	Model code example	Maximum shaft torque N•m [lb•in]
02FA	SNP3NN/044RN02FAP1CACANNNN/NNNNN	210 [1858]
02DA	SNP3NN/033RN02DAP1CAC7NNNN/NNNNN	290 [2566]
02BA	SNP3NN/026LN02BAP1C7C7NNNN/NNNNN	350 [3097]

Dimensions

SNP3NN - 03FB, 03BB



SNP3NN – 03FB and 03BB dimensioins

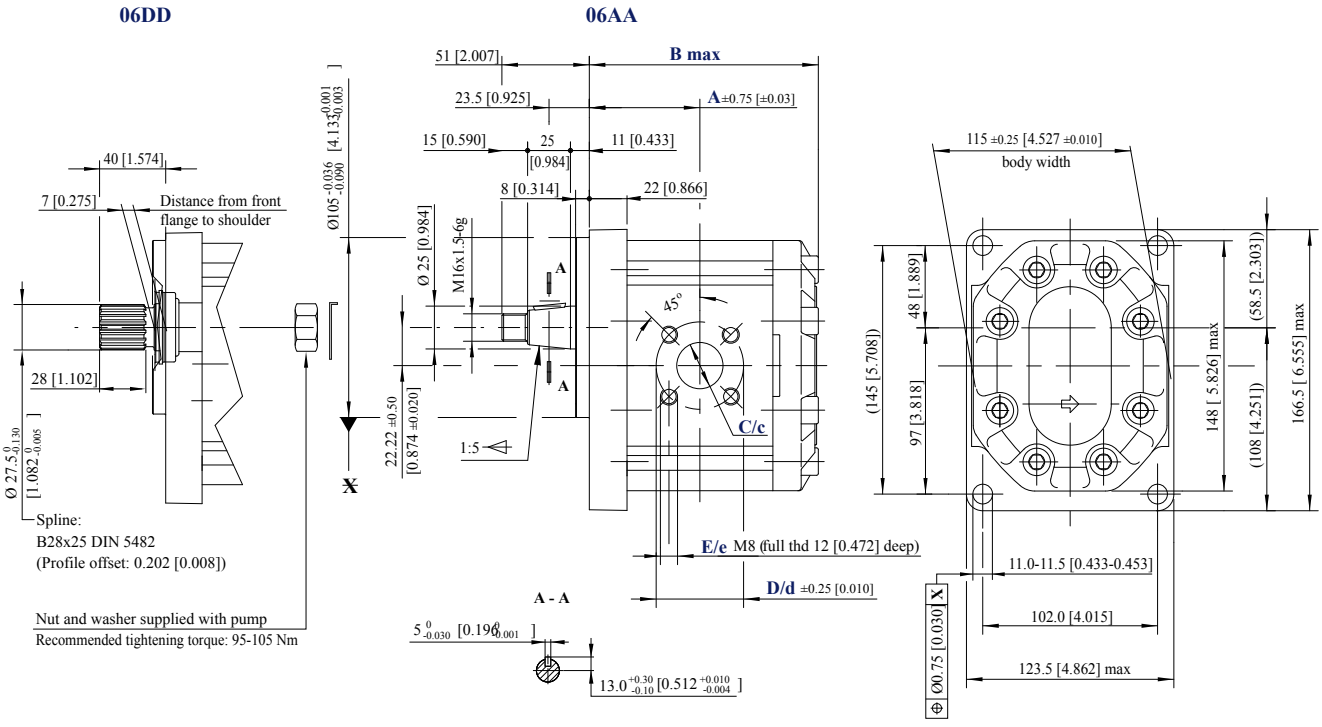
Type (displacement)		022	026	033	038	044	048	055	063	075	090
Dimension	A	63.0 [2.480]	64.5 [2.539]	67.0 [2.637]	68.8 [2.708]	71.0 [2.795]	72.5 [2.854]	75.0 [2.952]	78.0 [3.070]	82.0 [3.228]	87.0 [3.425]
	B	132.5 [5.216]	135.5 [5.334]	140.5 [5.531]	144.0 [5.669]	148.5 [5.846]	151.5 [5.964]	156.5 [6.161]	162.5 [6.397]	170.5 [6.712]	180.5 [7.106]
Inlet	C	20 [0.787]		27 [1.063]				36 [1.417]			
	D	40 [1.575]		51 [2.007]				62 [2.441]			
	E	M8		M10							
Outlet	c	20 [0.787]				27 [1.063]					
	d	40 [1.575]				51 [2.001]					
	e	M8				M10					

Model code examples and maximum shaft torque

Flange/drive gear configuration	Model code example	Maximum shaft torque N•m [lb•in]
03FB	SNP3NN/044LN03FBP1CACANNNN/NNNNN	300 [2655]
03BB	SNP3NN/090RN03BBP1CDCANNNN/NNNNN	500 [4425]

Dimensions

SNP3NN - 06DD, 06AA



SNP3NN – 06DD and 06AA dimensions

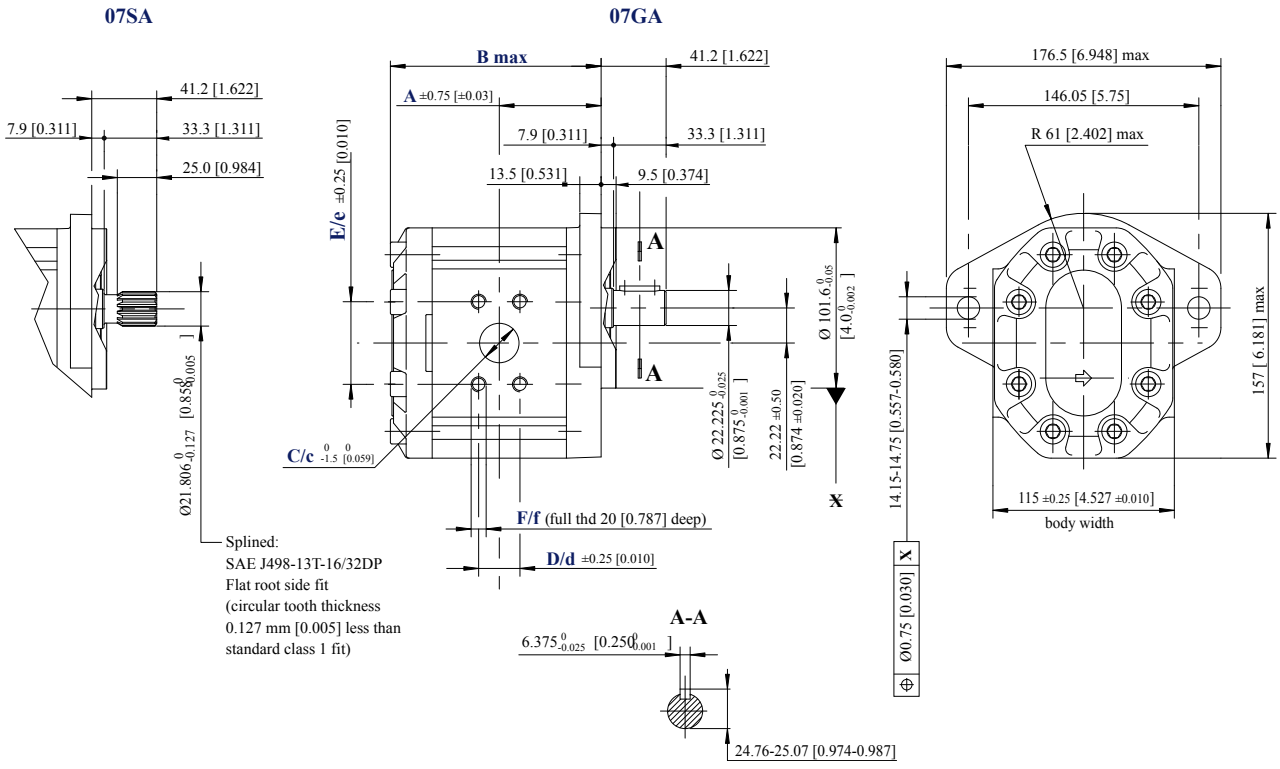
Type (displacement)		022	026	033	038	044	048	055	063	075	090
Dimension	**A**	63.0 [2.480]	64.5 [2.539]	67.0 [2.637]	68.8 [2.708]	71.0 [2.795]	72.5 [2.854]	75.0 [2.952]	78.0 [3.070]	82.0 [3.228]	87.0 [3.425]
	B	132.5 [5.216]	135.5 [5.334]	140.5 [5.531]	144.0 [5.669]	148.5 [5.846]	151.5 [5.964]	156.5 [6.161]	162.5 [6.397]	170.5 [6.712]	180.5 [7.106]
Inlet	**C**	27 [1.063]							36 [1.417]		
	D	55 [2.165]									
	E	M8									
Outlet	**c**	18 [0.708]							27 [1.063]		
	d	55 [2.165]									
	e	M8									

Model code examples and maximum shaft torque

Flange/drive gear configuration	Model code example	Maximum shaft torque N•m [lb•in]
06DD	SNP3NN/044RN06DDP1BBBANNNN/NNNNN	450 [3982]
06AA	SNP3NN/026LN06AAP1BBBANNNN/NNNNN	300 [2655]

Dimensions

SNP3NN and SEP3NN - 07SA, 07GA



SNP3NN, SEP3NN – 07SA and 07GA dimensions

Type (displacement)		022	026	033	038	044	048	055	063	075	090
Dimension	A	63.0 [2.480]	64.5 [2.539]	67.0 [2.637]	68.8 [2.708	71.0 [2.795]	72.5 [2.854]	75.0 [2.952]	78.0 [3.070]	82.0 [3.228]	87.0 [3.425]
	B	132.5 [5.216]	135.5 [5.334]	140.5 [5.531]	144.0 [5.669]	148.5 [5.846]	151.5 [5.964]	156.5 [6.161]	162.5 [6.397]	170.5 [6.712]	180.5 [7.106]
Inlet	C	25.4 [1]		31.8 [1.251]				38.1 [1.5]			
	D	26.19 [1.031]		30.18 [1.188]				35.71 [1.405]			
	E	52.37 [2.061]		58.72 [2.311]				69.85 [2.75]			
	F	3/8–16UNC–2B		7/16–14UNC–2B				½–13UNC–2B			
Outlet	c	19.1 [0.751]		25.4 [1.0]				31.8 [1.251]			
	d	22.23 [0.875]		26.19 [1.031]				30.18 [1.188]			
	e	47.63 [1.875]		52.37 [2.061]				58.72 [2.311]			
	f	3/8–16UNC–2B		3/8–16UNC–2B				7/16–14UNC–2B			

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