

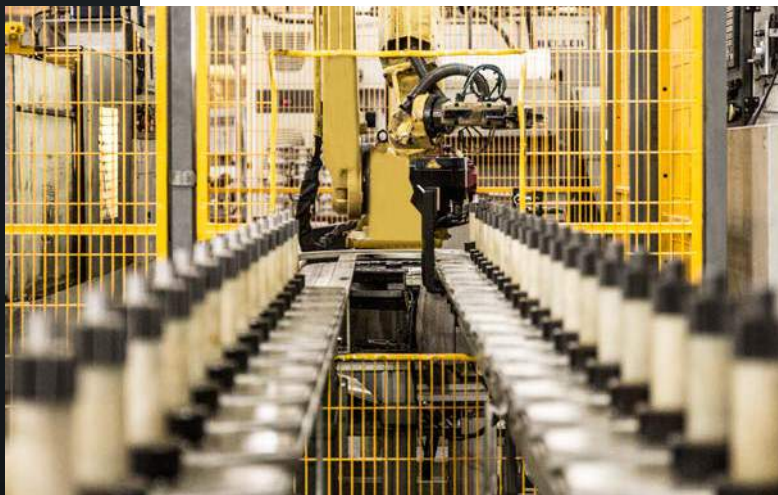


HYDRAULIC OIL PUMPS
AND MOTORS

**PRODUCT
CATALOG**



HYDRAULIC OIL PUMPS AND MOTORS



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About us

Hybel is one of the main Brazilian players in the metalworking industry, operating since 1981 in the segment of pumps and hydraulic motors. It is the company with the largest number of distribution and business units in the main market centers of the country, in its segment. The company also has a unit located in Chicago, U.S.

Hybel is located in Criciúma, Southern State of Santa Catarina, which is one of the Brazilian States with the highest economic and social development indexes. The company currently counts with highly trained team of professionals, also counting with its own foundry and heat treatment, as well as having the ISO 9001:2015 quality system, ensuring Hybel's quality products.

Industry Focus

Through an extensive portfolio of products and services, Hybel operates in competitive and key segments for the economic development.

- Agricultural
- Roads
- Mobile Construction
- Industrial



Products

Hybel's Hydraulic Pumps and Motors are synonymous of high quality and performance. All equipments are developed with noble materials, divided into several volumetric displacements, ranging from 1,2cm³/rev up to 20 l cm³/rev., with maximum continuous working pressure of up to 280bar. Hybel's products can be configured for single or multiple stages, including custom development for specific application.

Foundry and Heat Treatment

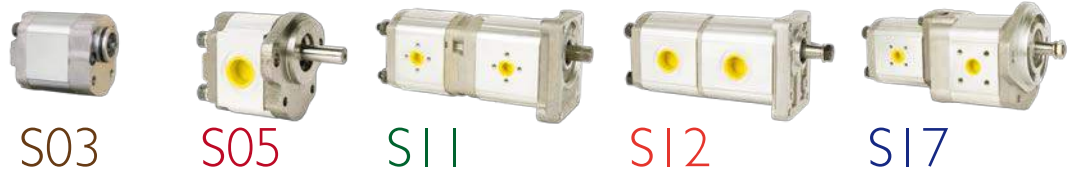
Hybel is one of the few companies in its sector in Brazil that has its own foundry, ensuring greater quality control throughout the manufacturing process, allowing more competitive prices. Hybel also has a heat treatment unit, updated with the latest equipment in high technology and automated systems providing a wide range of complex and diverse thermal cycling.

Quality Control

Hybel uses CNC machines arranged in robot cells, where each piece is inspected to a strict quality control process, ensuring the delivery of high performance and added value products.

Aluminibeta Series

The Aluminibeta series products are synonymous of high-performance and efficiency, with low noise levels and high operating pressures. With small size and low weight in relation to the strength transmitted, its construction is composed of a main body made of aluminum alloy and multiple gears rotor gears with sliding bearings, allowing hydrostatic compensation. The Aluminibeta project allow pumps to be assembled in single or multiple units, with or without auxiliary valves.



Iron Pump Series

The "Iron Pump" Hydraulic Pumps Series are developed for the most diverse applications. They are robust equipment for accurate and efficient projects, designed for long lasting life. They are assembled in single or multiple units, having a main body, mounting flange and back cover segmented parts. Produced from high resistance casted iron, this is a project which allows a wide range of combinations and assemblies.



Bushing Pump Series

The hydraulic pumps and motors from the bushing motors series are specially designed for applications requiring larger pressures and rotations, providing better volumetric efficiency, higher pressures up to 280bar and low noise level. The Bushing Pump Series can be built as a single or multiple units, having a main body, mounting flanges and covers in segmented parts, allowing a diverse range of assembly combinations.



Hydraulic Motors

Hybel's hydraulic motors are built with extreme precision ensuring high quality standards and performance. It is developed with noble materials, divided into several volumetric displacements, ranging from 36 to 800 cm³/rev., maximum pressure of up to 275 bar and speed ranging from 10 to 1000 rpm at a maximum torque of up to 2110 Nm.



H-DS



H-OMR



H-OMP



H-OMH



H-OMS



H-OMT



H-OMV

Interchangeable Parts for Different Brands

Cartridges Series for VQ Vane Pumps

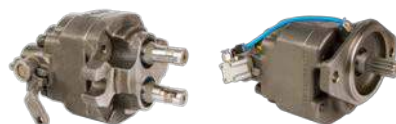


Pump Parts and Piston engines



Special Series

Among the wide range that makes up its product's portfolio, Hybel has developed the special series. With its own characteristics, they meet the most diverse construction needs of the agricultural, road, mobile construction and industrial markets.



Pumps for dump trucks

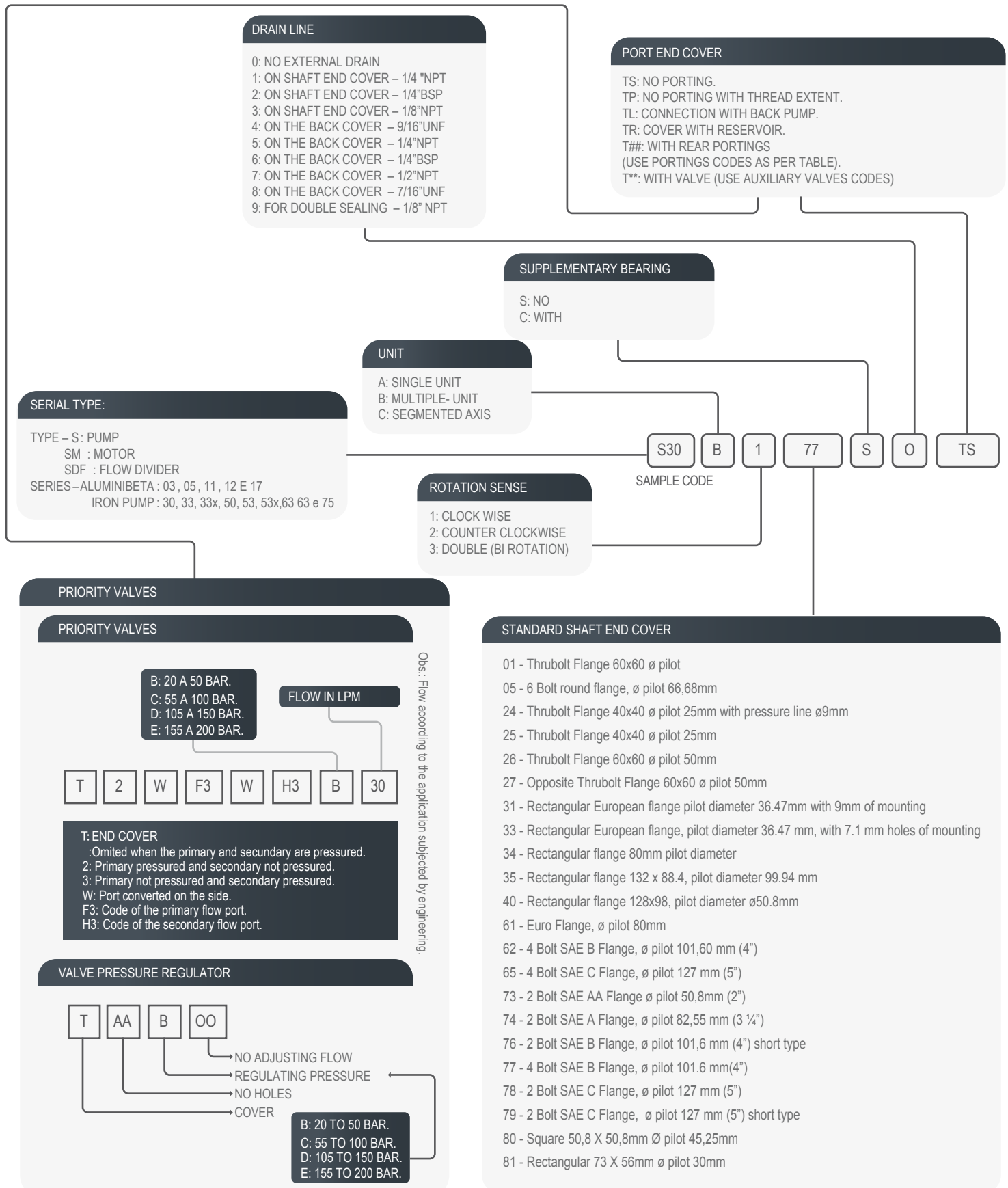


Flow dividers



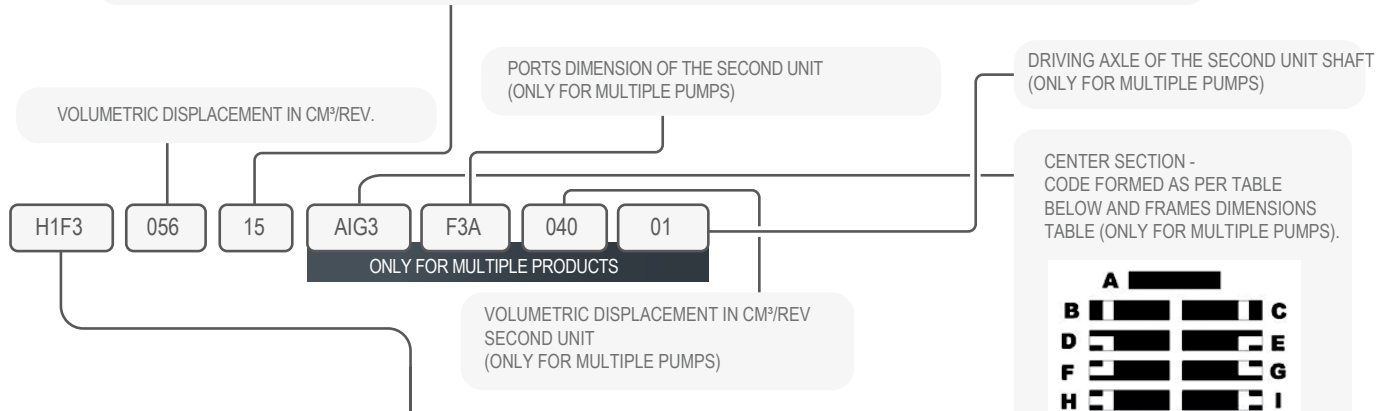
Pumps for transmissions

Configure your product



SHAFT OPTIONS

- | | |
|---|--|
| 01 - Beveled Drive Shaft 5mm | 31 - Cylindrical Keyed $\varnothing$ 3/4" long |
| 08 - Splined 8 teeth Euro | 32 - Cylindrical Keyed Parallel $\varnothing$ 1/2" |
| 09 - Spline 11 teeth 16/32DP | 33 - Cylindrical Keyed $\varnothing$ 3/4" |
| 11 - Spline 09 teeth DIN 5482 | 34 - Cylindrical Keyed $\varnothing$ 18 mm |
| 12 - Spline 6 teeth | 35 - Cylindrical Keyed $\varnothing$ 7/8" SAE B |
| 13 - SAE A - Spline 9 teeth $\varnothing$ 5/8" | 37 - Cylindrical Keyed $\varnothing$ 1" SAE B-B |
| 15 - SAE B - Spline 13 teeth $\varnothing$ 7/8" | 39 - Cylindrical Keyed $\varnothing$ 1.1/4" SAE C |
| 16 - Spline 13 teeth DIN 5480 | 42 - Tapered keyed 1:5 with Thread M12x1.5mm – 3mm |
| 17 - SAE C Spline 14 teeth $\varnothing$ 1.1/4" | 44 - Tapered keyed 1:5 with Thread M16x1.5mm – 5mm |
| 18 - SAE B-B - Spline 15 teeth $\varnothing$ 1" | 46 - Tapered keyed 1:8 with Thread M12x1.5mm – 3mm |
| 25 - Cylindrical Keyed $\varnothing$ 5/8" | 47 - Tapered keyed 1:8 with Thread M12x1.5mm – 4mm |
| 26 - Cylindrical Keyed $\varnothing$ 12mm | 49 - Tapered keyed 1:8 with Thread M10X1mm – 3mm |



PORT OPTIONS

This code is formed by identifying the $\varnothing$ ext. of the desired tube in connections (1st code), accompanied by the identification of the connection type (2nd code), the complete code is formed by the group of digits identifying the left connections of the product to the right, viewed from the side of the shaft and regardless of the rotation direction, noting that the axis matrix should be seen in the upper position.

1st Code			2nd Code					
Connection Size			Split Flange Mounting Screw		Straight Thread		Thread for Tube	
No Port								
Inches	Mm	A	SAE Code 1	Metric Code 2	SAE Code 3	Metric Code 4	NPT Code 5	BSP Code 6
1/4"	6,4	B			1/2-20 UNF		1/4-19	1/4-19
3/8"	9,5	C			9/16-18UNF		3/8-19	3/8-19
1/2"	12,7	D	5/16-18 UNC	M8x1,25	3/4-16 UNF	M18X1,5	1/2-14	1/2-14
5/8"	15,9	E			7/8-14 UNF	M12X1,5		
3/4"	19,0	F	3/8-16 UNC	M10x1,5	1 1/16-12 UNF	M26X1,5	3/4-14	3/4-14
7/8"	22,2	G			1 3/16-12 UNF	M30X1,5		
1"	25,4	H	3/8-16 UNC	M10x1,5	1 5/16-12 UNF	M33X2	1-11 1/2	1-11
1 1/4"	31,8	I	7/16-14 UNC	M10x1,5	1 5/8-12 UNF	M42X2	1 1/4-11 1/2	1 1/4-11
1 1/2"	38,1	J	1/2-13 UNC	M12x1,75	1 7/8-12 UNF	M48X2	1 1/2-11 1/2	1 1/2-11
2"	50,8	K	1/2-13 UNC	M12x1,75	2 1/2-12 UNF			2-11
2 1/2"	63,5	L	1/2-13 UNC	M12x1,75				
3"	76,2	M	5/8-11 UNC	M16x2,0				

CODE	Ø A mm	Ø B mm	C	European Flange	
P	13 mm	30 mm	M6X1	Code 7 for 45°	Code 8 for 90°
Q	15 mm	35 mm	M6X1		
R	18 mm	55 mm	M8X1,25		
S	19 mm	40 mm	M8X1,25		
T	20 mm	40 mm	M6X1		
U	26 mm	55 mm	M8X1,25		
V	28 mm	55 mm	M8X1,25		
X	33 mm	62 mm	M12X1,75		



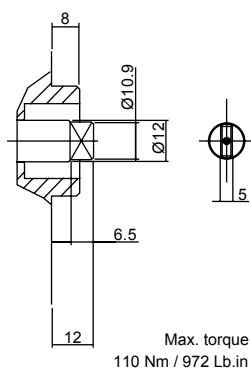
Series S03

S03

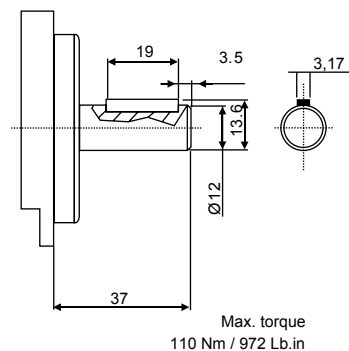
Parameter	Unit	Volumetric Options						
Nominal Size	TN	12	16	21	25	33	36	43
Volumetric Displacement	cm ³ /rev	1.2	1.6	2.1	2.5	3.3	3.6	4.3
	in ³ /rev	0.073	0.098	0.128	0.153	0.201	0.220	0.262
Maximum Continuous Pressure	bar	250					220	200
Maximum Intermittent Pressure	bar	275					250	230
Starting Pressure	bar	300					280	250
Maximum Rotation	rpm	4000						3500
Minimum Rotation	rpm	500						

Shaft Options

01 - Beveled Drive Shaft 5mm

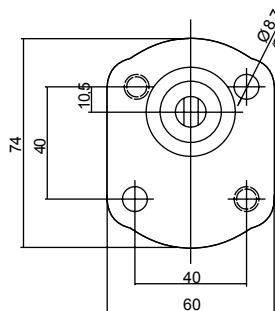


26 - Cylindrical Keyed ø12mm

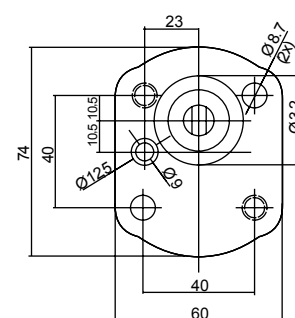


Standard Shaft End Cover Options

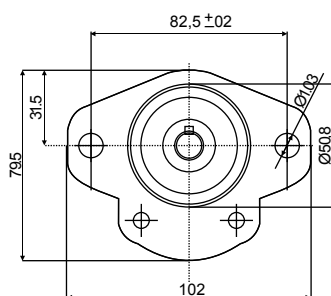
25 - Thrubolt Flange 40x40 ø pilot 25mm



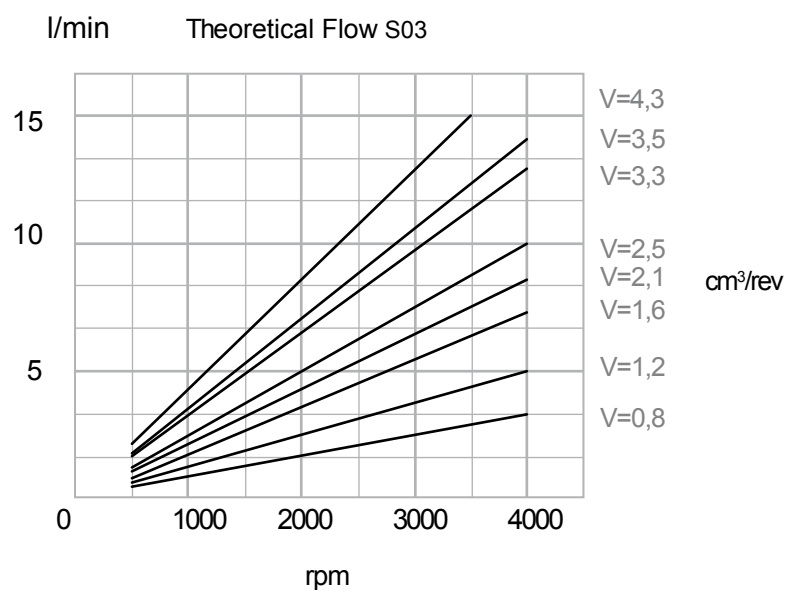
24 - Thrubolt Flange 40x40 ø pilot 25mm with pressure line ø9mm



73 - 2 Bolt SAE AA Flange ø pilot 50,8mm (2")



Graphic

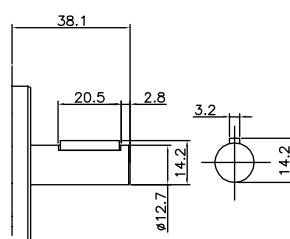


Series S05

Parameter	Unit	Volumetric Options							
Nominal Size	TN	3	4	5	6	7	8	10	12
Volumetric Displacement	cm³/rev	03	04	05	06	07	08	10	12
	in³/rev	0,18	0,24	0,31	0,37	0,43	0,49	0,61	0,73
Maximum Continuous Pressure	bar	260						240	220
Intermittent Maximum Pressure	bar	280						270	250
Starting Pressure	bar	300						290	270
Maximum Rotation	rpm	6000			4000		3000		2500
Minimum Rotation	rpm	500							

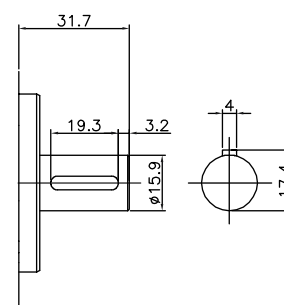
Shaft options

32 - Cylindrical Keyed Parallel ø 1/2"



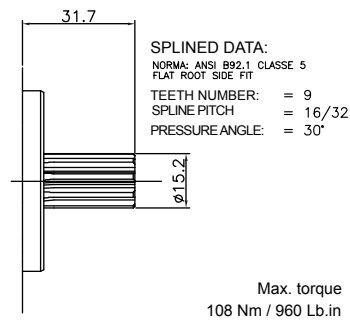
Max. torque
43 Nm / 385 Lb.in

25 - Cylindrical Keyed ø 5/8"

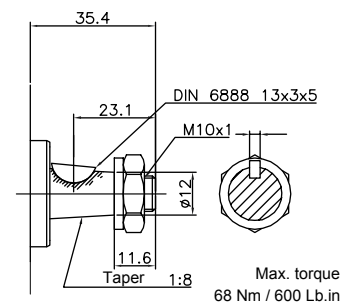


Max. torque
85 Nm / 750 Lb.in

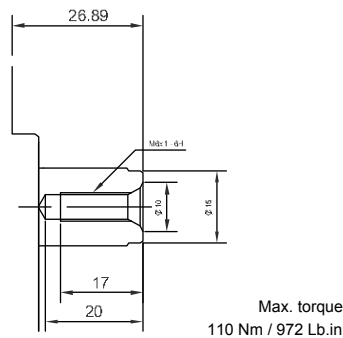
13 - SAE A - Spline 9 teeth ϕ 5/8"



49 - Tapered Keyed 1:8 with Thread M10X1mm

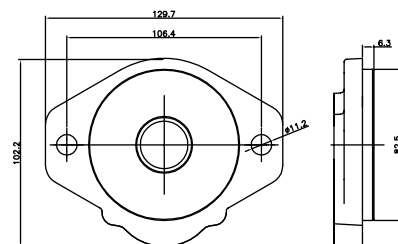


01 - Beveled Drive Shaft 5mm

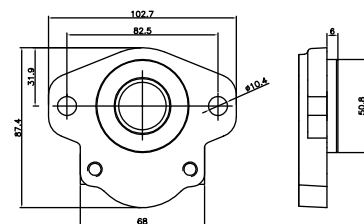


Standard Shaft End Cover Options

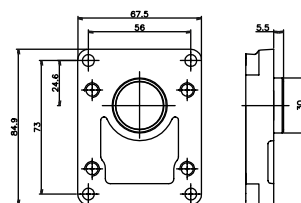
74 - 2 Bolt SAE A Flange, ϕ pilot 82,55 mm (3 1/4")



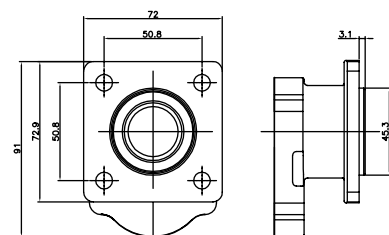
73 - Thru-bolt Flange 40x40 ϕ pilot 25mm with pressure line ϕ 9mm



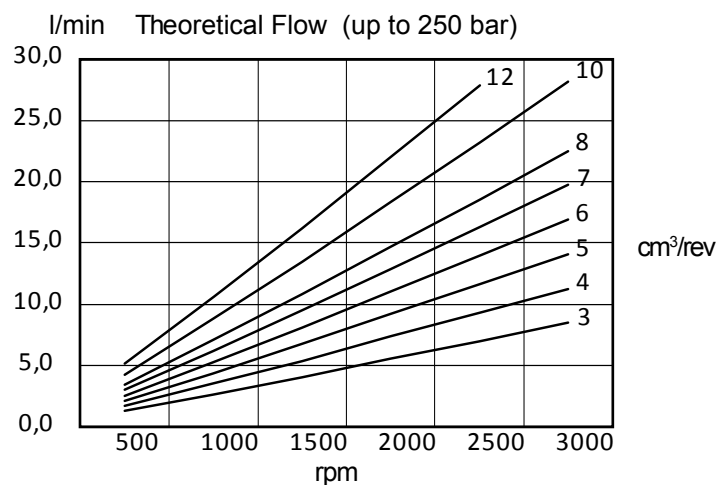
81 - Rectangular 73 X 56mm ϕ pilot 30mm



80 - Square 50,8 X 50,8mm ϕ pilot 45,25mm



Graphic





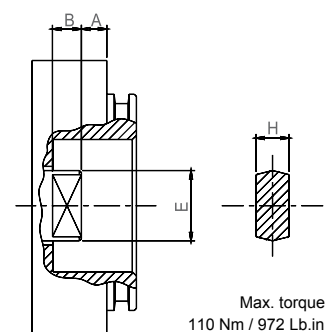
Series SII

SII

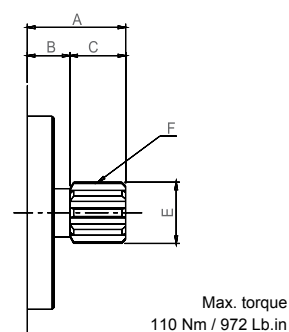
Parameter	Unit	Volumetric Options									
Nominal Size	TN	2	4	6	8	11	14	16	19	22	26
Volumetric Displacement	cm ³ /rev	2,5	4	5,6	8,1	11,2	14,2	16,3	19,4	22,7	26,4
	in ³ /rev	0,15	0,24	0,34	0,49	0,68	0,87	0,99	1,18	1,38	1,61
Maximum Continuous Pressure	bar	250							210	160	110
Intermittent Maximum Pressure	bar	280							230	180	130
Start Pressure	bar	300							250	200	150
Maximum Rotation	rpm	4000				3500	3000		2500	2200	
Minimum Rotation	rpm	600		500							

Shaft options

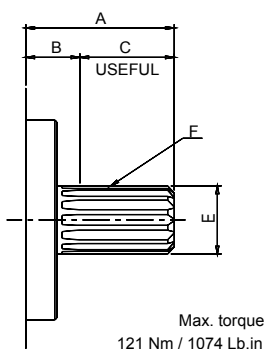
- 01** - Beveled Drive Shaft 5mm.
Available Mounting Flanges: 01



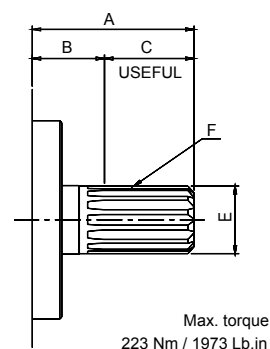
- 11** - Spline 09 teeth DIN 5482
Available Mounting Flanges: 26 27 31 33 34 74



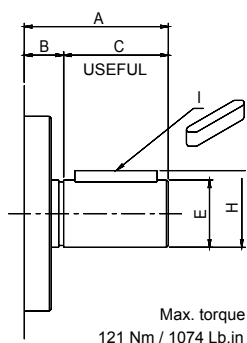
- 13** - SAE A - Spline 9 teeth ϕ 5/8"
Available Mounting Flanges: 26 27 31 33 34 74



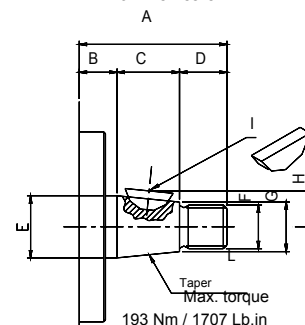
- 16** - Spline 13 teeth DIN 5480
Available Mounting Flanges: 26 27 31 33 34 74



- 34** - Cylindrical Keyed ϕ 18 mm
Available Mounting Flanges: 26 27 31 33 34 74



- 41 / 42** - Tapered keyed 1:5 with Thread M12x1.5mm - 3mm
46 / 47 - Available Mounting Flanges: 26 27 31 33 34 74

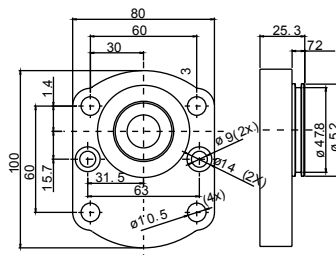


Standard Shaft Dimensions

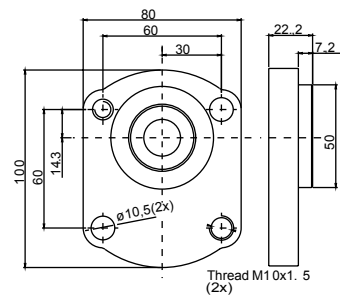
SHAFT	A	B	C	D	E	F	G	H	I	J
SHAFT DIMENSIONS WITH FLANGE 01										
1	6.115	7	-	-	ø17	-	-	8	-	-
SHAFT DIMENSIONS WITH FLANGE 26/27										
11	26.5	11.5	15	-	ø16.5	B17x14 DIN 5482				
13	39	11.2	23.8	-	ø15.47	ANSI B92.1/76, 30 DEGREE, 16/32 DP, 9D				
16	39.5	21.5	18	-	ø17.7	DIN 5480, 30 DEGREE, 13D				
34	38.5	10.5	28	-	ø18	-	-	20.5	6x6x22	-
41/42	40.5	10.4	17.1	13	ø17	M12x1.5	ø13.58	9.4	4x5/3x5	1:5
46/47	44	7.4	24	12.6	ø18	M12x1.5	ø15	9.3/9.2	3x5/4x5	1:8
SHAFT DIMENSIONS WITH FLANGE 31/33										
11	23	8	15	-	ø16.5	B17x14 DIN 5482				
13	35.4	11.6	23.8	-	ø15.47	ANSI B92.1/76, 30 DEGREE, 16/32 DP, 9D				
16	36	18	18	-	ø17.7	DIN 5480, 30 DEGREE, 13D				
34	35	7	28	-	ø18	-	-	20.5	6x6x22	-
41/42	37	6.8	17.1	13	ø17	M12x1.5	ø13.58	9.4	4x5/3x5	1:5
46/47	40.4	3.8	24	12.6	ø18	M12x1.5	ø15	9.3/9.2	3x5/4x5	1:8
SHAFT DIMENSIONS WITH FLANGE 34/37										
11	24	9	15	-	ø16.5	B17x14 DIN 5482				
13	36.5	12.7	23.8	-	ø15.47	ANSI B92.1/76, 30 DEGREE, 16/32 DP, 9D				
16	37	19	18	-	ø17.7	DIN 5480, 30 DEGREE, 13D				
34	36	8	28	-	ø18	-	-	20.5	6x6x22	-
41/42	28	8	17.1	13	ø17	M12x1.5	ø13.58	9.4	4x5/3x5	1:5
46/47	41.5	5	24	12.6	ø18	M12x1.5	ø15	9.3/9.2	3x5/4x5	1:8
SHAFT DIMENSIONS WITH FLANGE 74										
11	23.4	8.4	15	-	ø16.5	B17x14 DIN 5482				
13	35.9	12.1	23.8	-	ø15.47	ANSI B92.1/76, 30 DEGREE, 16/32 DP, 9D				
16	36.4	18.4	18	-	ø17.7	DIN 5480, 30 DEGREE, 13D				
34	35.4	7.4	28	-	ø18	-	**	20.5	6x6x22	**
41/42	37.4	7.3	17.1	13	ø17	M12x1.5	ø13.58	9.4	4x5/3x5	1:5
46/47	41	4.3	24	12.6	ø18	M12x1.5	ø15	9.3/9.2	3x5/4x5	1:8

Standard Shaft End Cover Options

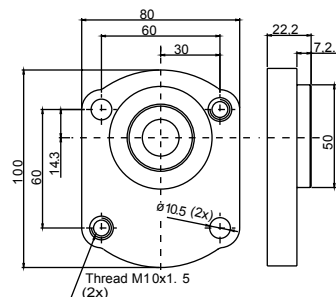
01 - Thrubolt Flange 60x60 ø pilot



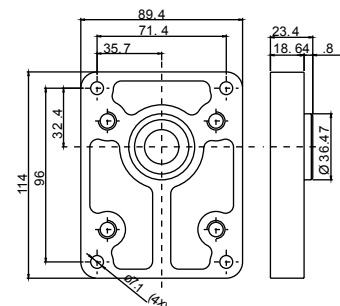
26 - Thrubolt Flange 60x60 ø pilot 50mm



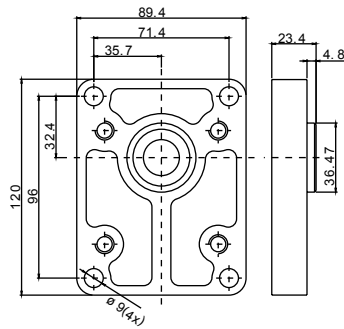
27 - Opposite Thrubolt Flange 60x60 ø pilot 50mm



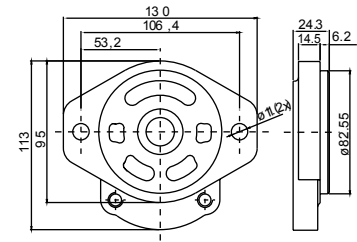
33 - Rectangular European flange, pilot diameter 36.47 mm, with 7.1 mm holes of mounting



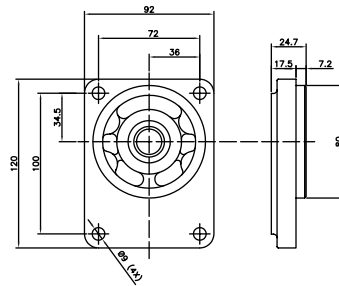
31 - Rectangular European flange pilot diameter
36.47mm with 9mm of mounting



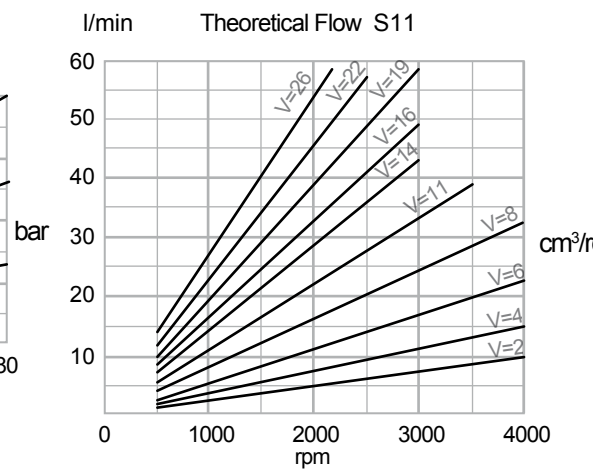
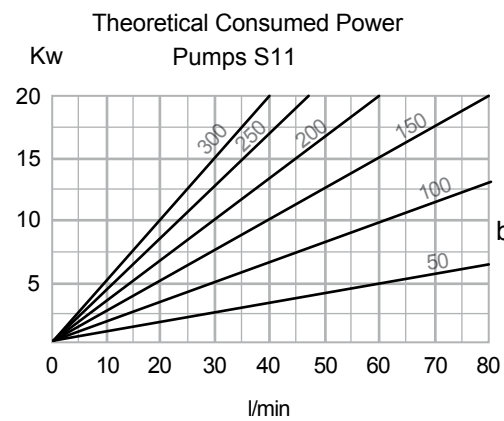
74 - 2 Bolt SAE A Flange, ϕ pilot 82,55 mm (3 1/4")



34 - Rectangular flange 80mm pilot diameter



Graphic





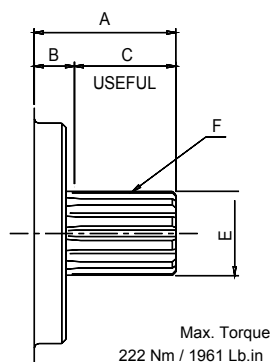
Series S12

S12

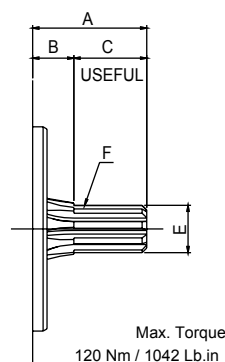
Parameter	Unit	Volumetric Options																				
Nominal Size	TN	2	4	5	6	7	8	9	11	12	13	14	16	19	21	23	25	27	31	33	38	
Volumetric Displacement	cm³/rev	2,5	4	5	6,2	7,2	8,15	9,17	11,2	12,2	13,3	14,5	16,3	19,7	21,1	23,4	25,2	27	31	32,9	37,8	
	in³/rev	0,15	0,24	0,31	0,38	0,48	0,5	0,54	0,68	0,73	0,81	0,89	0,99	1,2	1,29	1,43	1,59	1,65	1,89	2,01	2,31	
Maximum Continuous Pressure	bar	250												240	230	220	200	150	110	90		
Maximum Intermittent Pressure	bar	300												260	250	240	220	165	130	110		
Starting Pressure	bar	325												290	275	250	245	190	170	140		
Maximum Rotation	rpm	4000								3600	3300	3000						2800	2400	2300	2100	2000
Minimum rotation	rpm	600	500																			

Spindle options

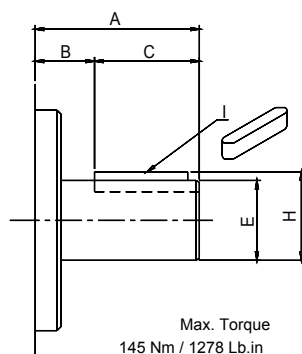
- 09** - Spline 11 teeth 16/32DP
Available mounting flanges: 34 74



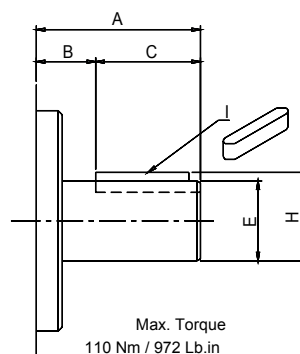
- 13** - SAE A - Spline 9 teeth ϕ 5/8"
Available mounting flanges: 05 74



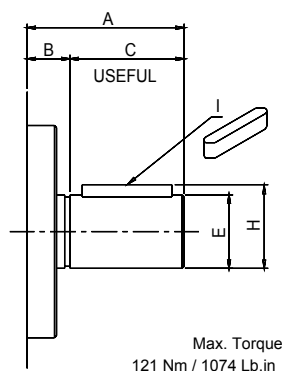
- 33** - Cylindrical Keyed ϕ 3/4"
Available mounting flanges: 34 74



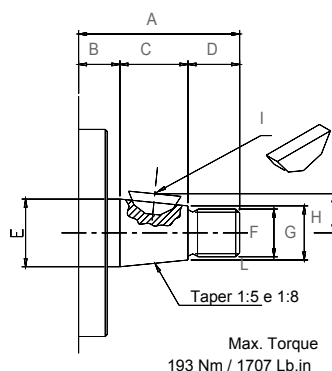
- 25** - Cylindrical Keyed ϕ 5/8"
Available mounting flanges: 74 34



- 34** - Cylindrical Keyed ϕ 18 mm
Available mounting flanges: 26 27 31 33 34 37 74



- 42** - Tapered keyed 1:5 with Thread M12x1.5mm – 3mm
46 Available mounting flanges: 26 27 31 33 34 37 74

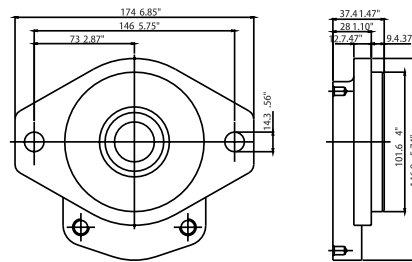


Standard shaft dimensions

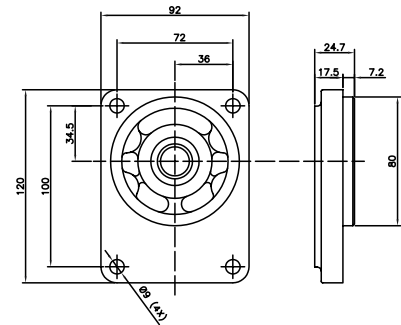
SHAFT	A	B	C	D	E	F	G	I
SHAFT DIMENSIONS WITH FLANGE 74/77								
9	32	9	23	-	ø19.5	ANSI B92.1/76, 30 DEG, 16/32 DP, 11D		
33	40.2	15	25	-	ø19.042	-	-	4.76x4.76x22.22
25	31.8	9.6	22.2	-	ø15.87	-	-	4x4x9
SHAFT DIMENSIONS WITH FLANGE 34/33/31								
9	31.5	8.5	23	-	ø19.05	ANSI B92.1/76, 30 DEG, 24/48 DP, 14T		
33	39.6	14.6	25	-	ø19.042	-	-	4.76x4.76x22.22
25	31.8	9.6	22.2	-	ø15.87	-	-	4x4x19

Standard Shaft End Cover Options

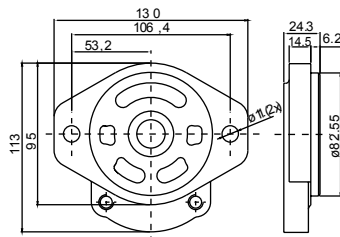
77 - 4 Bolt SAE B Flange, ø pilot 101.6 mm (4")



34 - Rectangular flange 80mm pilot diameter

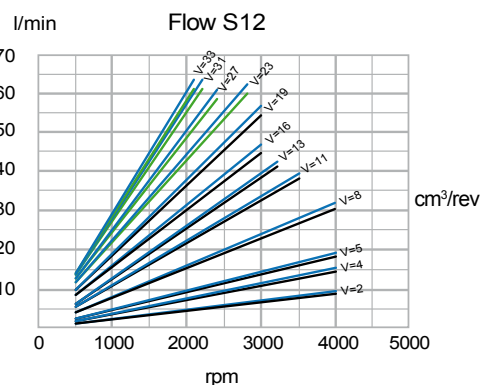


74 - 2 Bolt SAE A Flange, ø pilot 82,55 mm (3 1/4")



Graphic

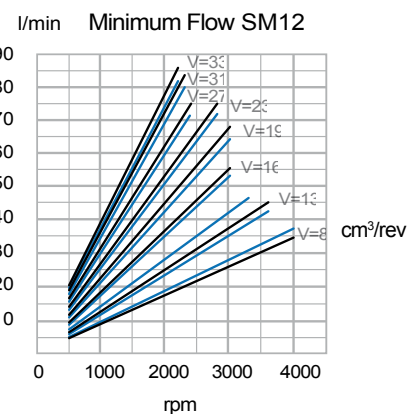
PUMP



Motors Power in hp SM12

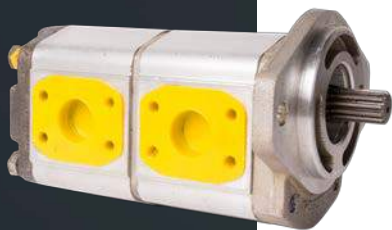
Calculating a pressure 250 Bar								
Vol. Disp. cm³/rev	Rotation in rpm							
	500	1000	1500	2000	2500	3000	3500	4000
2,5	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
8,15	1,98	4,01	6,06	8,11	10,11	12,04	13,87	15,76
11,2	2,75	5,58	8,43	11,26	14,05	16,73	19,27	**
13,3	3,23	6,55	9,90	13,23	16,49	19,64	**	**
16,3	3,92	7,93	11,99	16,03	19,99	23,80	**	**
19,7	4,68	9,48	14,33	19,15	23,88	28,44	**	**
23,4	5,49	11,13	16,82	22,49	28,04	**	**	**
27	6,26	12,69	19,18	25,65	31,97	**	**	**
31	7,10	14,40	21,77	29,10	**	**	**	**
32,9	10,60	7,45	22,83	30,52	**	**	**	**

MOTOR



Motors Torque in daNm SM12

Calculating a pressure 250 Bar								
Vol. Disp. cm³/rev	Rotation in rpm							
	500	1000	1500	2000	2500	3000	3500	4000
2,5	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
8,15	2,82	2,86	2,88	2,89	2,88	2,86	2,82	2,80
11,2	3,92	3,97	4,00	4,01	4,00	3,97	3,92	**
13,3	4,60	4,66	4,70	4,71	4,70	4,66	**	**
16,3	5,58	5,65	5,69	5,71	5,69	5,65	**	**
19,7	6,66	6,75	6,80	6,82	6,80	6,75	**	**
23,4	7,82	7,92	7,99	8,01	7,99	**	**	**
27	8,92	9,04	9,11	9,13	9,11	**	**	**
31	10,11	10,25	10,33	10,36	**	**	**	**
32,9	10,60	10,75	10,84	10,86	**	**	**	**



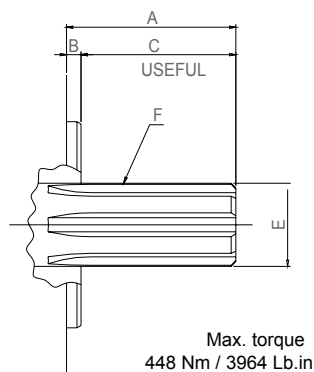
Series S17

S17

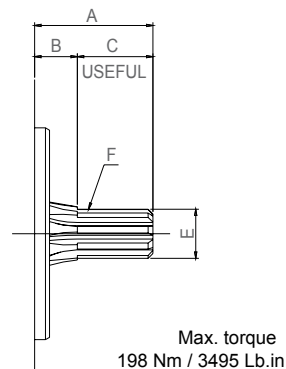
Parameter	Unit	Volumetric Options												
Nominal Size	TN	14	16	19	23	25	28	33	38	44	52	57	61	73
Volumetric Displacement	cm³/rev	13,7	15,7	18,6	22,7	24,6	27,7	32,5	37,5	43,4	51,3	57,1	61,2	73,3
	in³/rev	0,84	0,96	1,13	1,38	1,5	1,69	1,98	2,29	2,65	3,13	3,5	3,75	4,5
Maximum Continuous Pressure	bar	250								220	200	180	160	145
Intermittent Maximum Pressure	bar	280								240	220	200	180	160
Starting Pressure	bar	300								250	230	210	195	170
Maximum Rotation	rpm	3400		3300		3100		3000		2800	2600	2500		2200
Minimum Rotation	rpm	500												

Shaft options

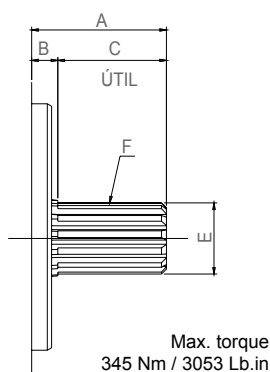
- 12** - Spline 6 teeth
Available mounting flanges: 05



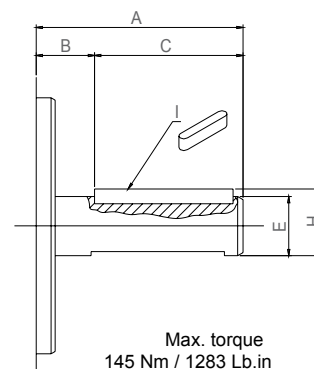
- 13** - SAE A - Spline 9 teeth ϕ 5/8"
Available mounting flanges: 05 74



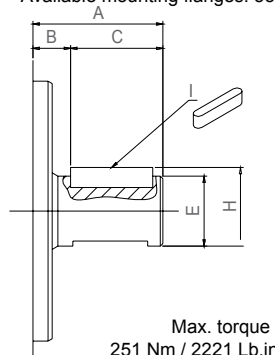
- 15** - SAE B - Spline 13 teeth ϕ 7/8"
Available mounting flanges: 35 74 77



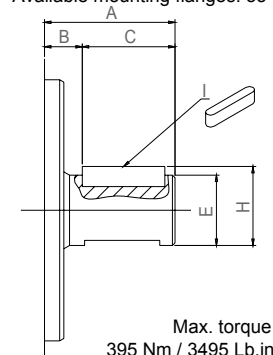
- 31** - Cylindrical Keyed ϕ 3/4" long
Available mounting flanges: 05



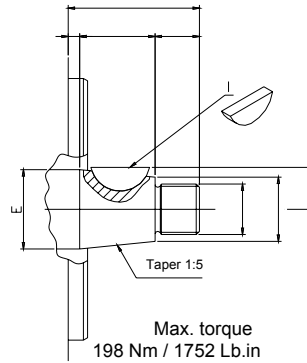
- 35** - Cylindrical Keyed ϕ 7/8" SAE B
Available mounting flanges: 35 74 77



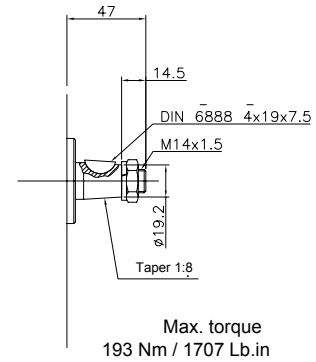
- 37** - Cylindrical Keyed ϕ 1" SAE B-B
Available mounting flanges: 35 74 77



44 - Tapered keyed 1:5 with Thread M16x1.5mm – 5mm
Available mounting flanges: 74 77



47 - Tapered keyed 1:8 with Thread M12x1.5mm – 4mm

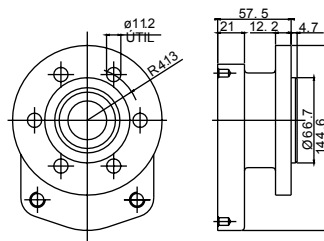


Standard shaft dimensions

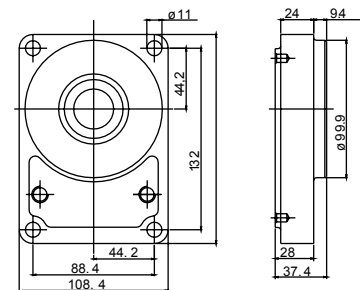
SHAFT	A	B	C	D	E	F	G	H	I	J
SHAFT DIMENSIONS WITH FLANGE 05										
12	54.8	7.8	47	-	ø26.9	6 TEETH SPLINED - $\phi \geq 26,9$ / $\phi \leq 21,8$				
13	31.8	8	23.8	-	ø15.47	ANSI B92.1/76, 30 DEG, 1/6/32 DP, 9D				
SHAFT DIMENSIONS WITH FLANGE 35/77/74										
13	31.8	8	23.8	-	ø15.47	ANSI B92.1/76, 30 DEG, 1/6/32 DP, 9D				
15	41.2	7.9	33.3	-	ø21.29	ANSI B92.1/76, 30 DEG, 1/6/32 DP, 13D				
31	66.7	18.8	47.9	-	ø19.05	-	-	21.4	4.75x4.75x44.7	
35	41.2	11.9	29.3	-	ø22.22	-	-	25.5	6.35x9.5x26.1	
37	49.2	14.2	35	-	ø25.35	-	-	28.1	6.35x6.35x31.8	
44	41.4	3.6	23.8	14	ø25	M16x1.5	ø20	13.3	5x7.5	1:5

Standard Shaft End Cover Options

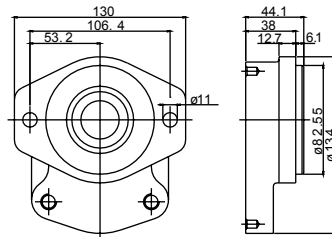
05 - 6 Bolt round flange, ø pilot 66,68mm



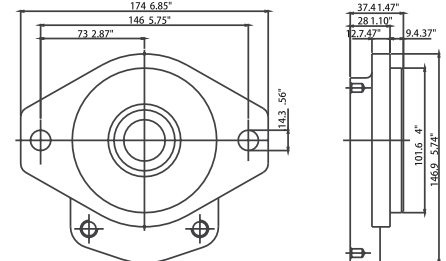
35 - Rectangular flange 132 x 88.4, pilot diameter 99.94 mm



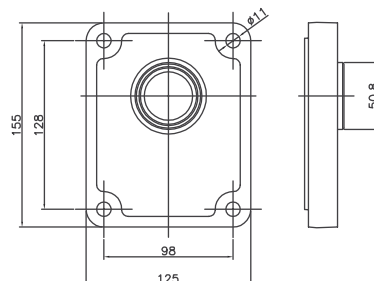
74 - 2 Bolt SAE A Flange, ø pilot 82,55 mm (3 1/4")



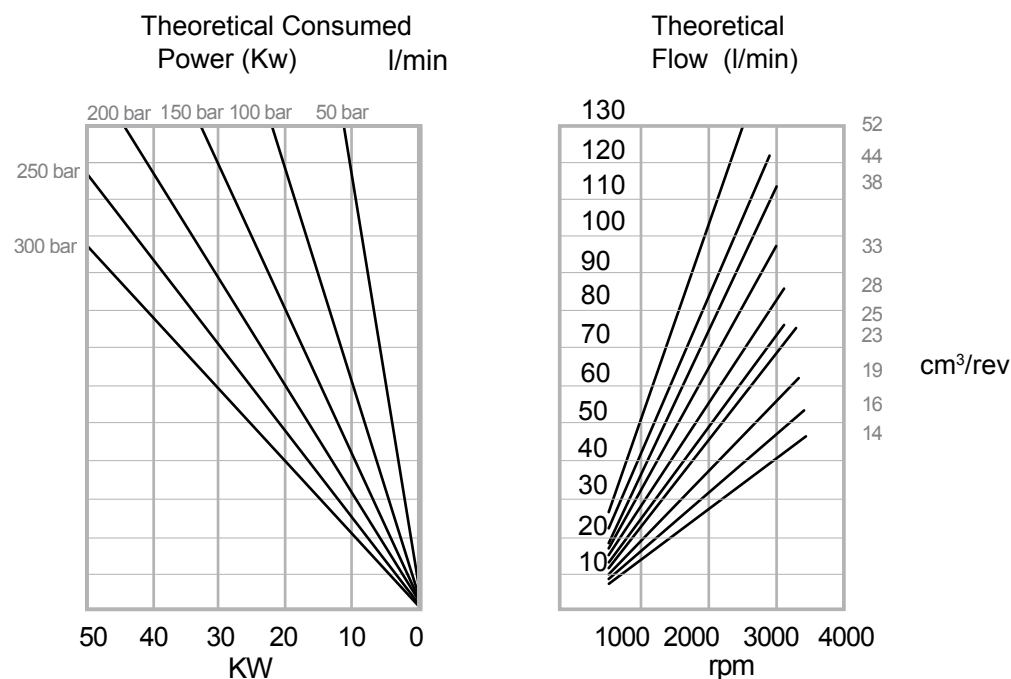
77 - 4 Bolt SAE B Flange, ø pilot 101.6 mm(4")



40 - Rectangular flange 128x98, pilot diameter ø50.8mm

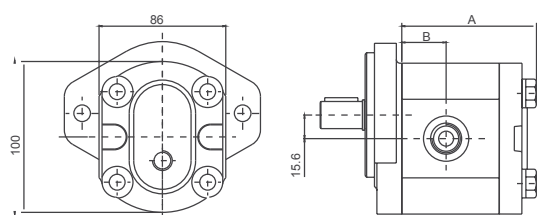


Graphic

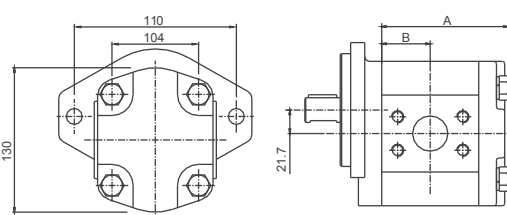


Pumps and Motors Dimensions

S11 S12



S17



Nominal Size			A - Dimension - Overall length						B - Dimension to port center					
			mm			in			mm			in		
S11	S12	S17	S11	S12	S17	S11	S12	S17	S11	S12	S17	S11	S12	S17
2	2	14	70,3	72,8	94,3	2,76	2,86	3,71	21,2	22,4	34,1	0,83	0,88	1,34
4	4	16	72,8	74,4	96,3	2,86	2,93	3,79	22,4	23,6	35,1	0,88	0,93	1,38
5,5	5	19	74,4	79,4	99,3	2,93	3,12	3,91	23,6	25,7	36,6	0,93	1,01	1,44
8	8	23	79,4	84,4	103,4	3,12	3,32	4,07	25,7	28,2	38,7	1,01	1,11	1,52
11	11	25	84,4	87,8	105,4	3,32	3,45	4,15	28,2	30,2	38,7	1,11	1,20	1,56
14	13	28	87,8	92,8	108,4	3,45	3,65	4,27	30,2	32,4	41,2	1,20	1,27	1,62
16	16	33	92,8	98,2	113,5	3,65	3,86	4,47	32,4	34,9	43,7	1,27	1,37	1,72
19	19	38	98,2	104,2	118,5	3,86	4,10	4,67	34,9	37,6	46,2	1,37	1,48	1,82
22,5	23	44	104,2	109,1	124,6	4,10	4,29	4,91	37,6	40,6	49,3	1,48	1,60	1,94
26	27	52	109,1	115	132,7	4,29	4,53	5,22	40,6	43,5	53,4	1,60	1,71	2,10
**	31	**	**	121,5	**	**	4,78	**	**	46,8	**	**	1,84	**
**	33	**	**	124,7	**	**	4,91	**	**	48,4	**	**	1,90	**

- We recommend filters capable of controlling the fluid cleanliness class 19/17/14 or better, as per ISO 4406 standard.
- The maximum vacuum allowance in the pump suction line is of 130 mm/Hg.



Series S30

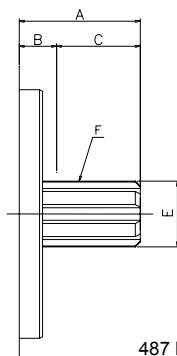
S30

Parameter	Unit	Volumetric Options								
Nominal Size	TN	16	24	32	40	48	56	64	72	80
Volumetric Displacement	cm ³ /rev	16,1	24,3	32,2	40,4	48,4	56,5	64,4	72,65	80,72
	in ³ /rev	0,98	1,48	1,96	2,46	2,95	3,45	3,94	4,43	4,92
Continuous Maximum Pressure	bar	175					140		120	
Intermittent Maximum Pressure	bar	210					175		140	
Maximum Rotation	rpm	2400								
Minimum Rotation	rpm	500								

Spindle options

12- Spline 6 teeth

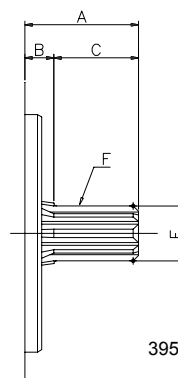
Available Mounting Flanges: 05 62 65 74 77



Max. torque
487 Nm / 4309 Lb.in

13- SAE A - Spline 9 teeth ø 5/8"

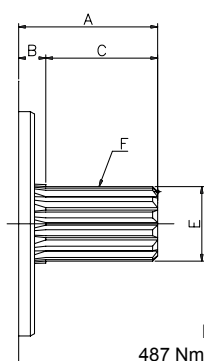
Available Mounting Flanges: 05 74



Max. torque
395 Nm / 3495 Lb.in

15- SAE B - Spline 13 teeth ø 7/8"

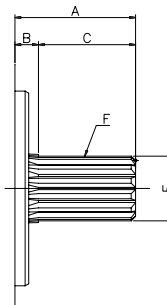
Available Mounting Flanges: 62 65 77



Max. torque
487 Nm / 4309 Lb.in

18- SAE B-B - Spline 15 teeth ø 1"

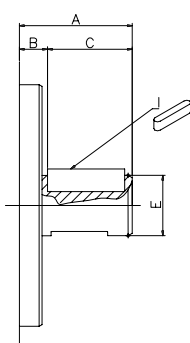
Available Mounting Flanges: 05 62 65 74 76 77



Max. torque
487 Nm / 4309 Lb.in

35- Cylindrical Keyed ø 7/8" SAE B

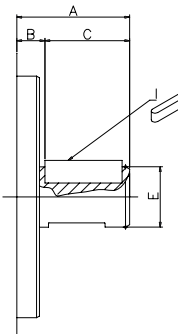
Available Mounting Flanges: 62 65 77



Max. torque
238 Nm / 2106 Lb.in

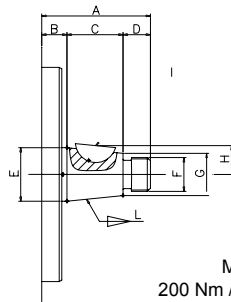
37- Cylindrical Keyed ø 1" SAE B-B

Available Mounting Flanges: 05 62 65 74 76 77



Max torque
360 Nm / 3185 Lb.in

44- Tapered keyed 1:5 with Thread M16x1.5mm – 5mm
Available mounting flanges: 05 62 65 74 76 77

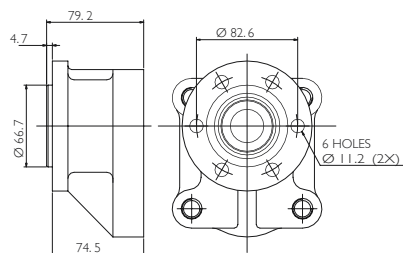


Standard shaft dimensions - S30

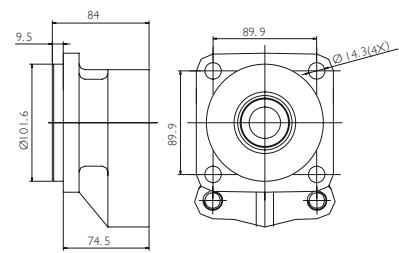
SHAFT	A	B	C	D	E	F	G	H	I	J
SHAFT DIMENSIONS WITH FLANGE 05										
12	49.5	4.7	44.8	-	ø26.9	SPLINED 6 TEETH, ømax. 26.9 ømin. 21.8				
13	31.9	8.1	23.8	-	ø15.47	ANSI B92.1/76, 30 DEG, 16/32 DP, 9T				
18	41.5	2.5	39	-	ø24.9	ANSI B92.1/76, 30 DEG, 16/32 DP, 15T				
37	49.4	13.7	35.7	-	ø25.369	-	-	28.2	6.35x6.35x31.8	-
44	51	12	26.6	-	ø25.369	20	ø20	13.6	5x7.5	1:5
SHAFT DIMENSIONS WITH FLANGE 62/65										
12	49.5	4.7	44.8	-	ø26.9	SPLINED 6 TEETH, ømax. 26.9 ømin. 21.8				
15	41.5	8.2	33.3	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
18	41.5	2.5	39	-	ø24.9	ANSI B92.1/76, 30 DEG, 16/32 DP, 15T				
35	41.5	12.2	29.3	-	ø22.225	**	**	25	6.35x9.5x26.1	**
37	49.4	13.7	35.7	-	ø25.369	**	**	28.2	6.35x5.35x31.8	**
44	51	12	26.6	-	ø25.369	M16x1.5	ø20	13.6	5x7.5	1:5
SHAFT DIMENSIONS WITH FLANGE 74										
12	49.5	4.7	44.8	-	ø26.9	SPLINED 6 TEETH, ømax. 26.9 ømin. 21.8				
13	31.9	8.1	23.8	-	ø15.47	ANSI B92.1/76, 30 DEG, 16/32 DP, 9T				
15	41.5	8.2	33.3	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
35	41.5	12.2	29.3	-	ø22.225	**	**	25	6.35x9.5x26.15	**
44	51	12	26.6	-	ø25.369	M16x1.5	ø20	13.6	5x7.5	1:5
SHAFT DIMENSIONS WITH FLANGE 76										
15	41.2	7.9	33.3	-	ø22.2	SPLINED 6 TEETH, ømax. 26.9 ømin. 21.8				
35	40.6	11.3	29.3	-	ø22.2	**	**	25	6.35x9.5x26.1	**
44	50	2.2	34.8	-	ø26.9	M16x1.5	ø20	13.9	5x7.5	1:5
SHAFT DIMENSIONS WITH FLANGE 77										
12	49.5	4.7	44.8	-	ø21.79	SPLINED 6 TEETH, ømax. 26.9 ømin. 21.8				
15	41.5	8.2	33.3	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
18	41.5	2.5	39	-	ø24.9	ANSI B92.1/76, 30 DEG, 16/32 DP, 15T				
35	41.5	12.2	29.3	-	ø22.225	**	**	25	6.35x9.5x26.1	**
37	49.4	13.7	35.7	-	ø25.369	**	**	28.2	6.35x6.35x31.8	**
44	51	12	26.6	-	ø25.369	M16x1.5	ø20	13.6	5x7.5	1:5

Standard Shaft End Cover Options

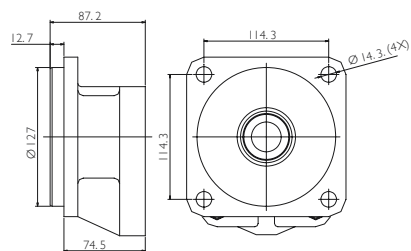
05 - 6 Bolt round flange, ø pilot 66,68mm



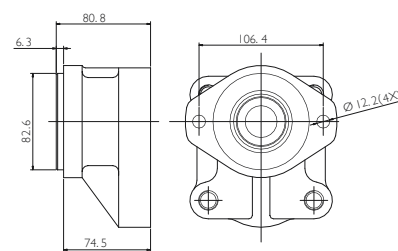
62 - 4 Bolt SAE B Flange, ø pilot 101,60 mm (4")



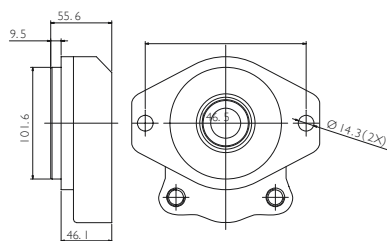
65 - 4 Bolt SAE C Flange, ø pilot 127 mm (5")



74 - 2 Bolt SAE A Flange, ø pilot 82,55 mm (3 1/4")

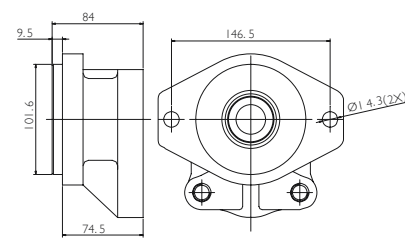


76 - 2 Bolt SAE B Flange, ø pilot 101,6 mm (4") short type



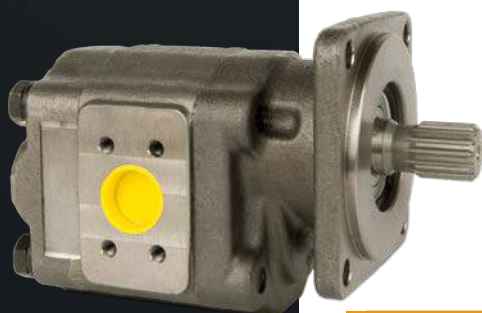
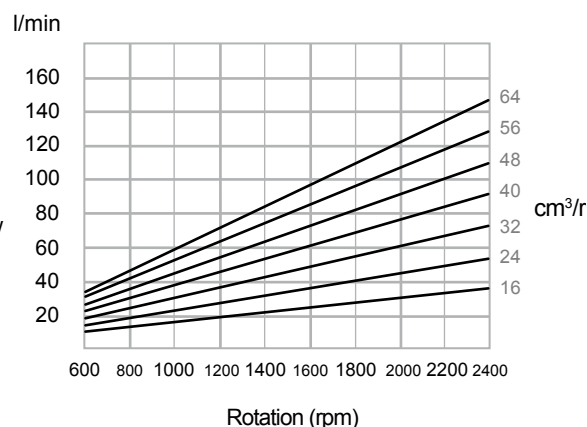
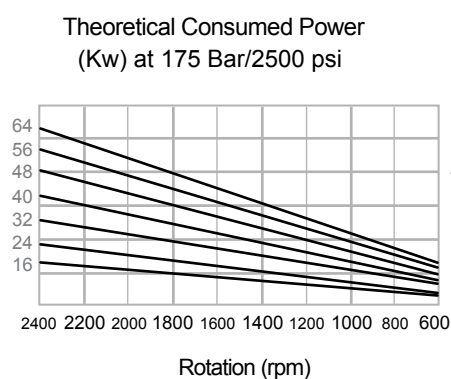
Only without supplementary roll

77 - 4 Bolt SAE B Flange, ø pilot 101.6 mm(4")



Graphic

Theoretical Flow
(l/min) at 175 Bar/2500 psi

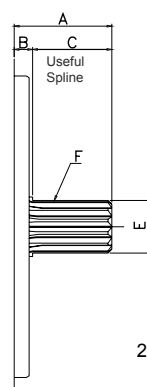


Series S50

Parameter	Unit	Volumetric Options											
Nominal Size	TN	21	31	42	52	63	73	83	94	104	115	125	
Volumetric Displacement	cm ³ /rev	20,9	31,3	41,8	52,2	62,7	73	83,6	94	104,5	114,93	125,38	
	in ³ /rev	1,28	1,91	2,55	3,18	3,83	4,45	5,1	5,74	6,38	7,01	7,65	
Continuous Maximum Pressure	bar	175								140		120	
Intermittent Maximum Pressure	bar	210								175		140	
Maximum Rotation	rpm	2400											
Minimum Rotation	rpm	500											

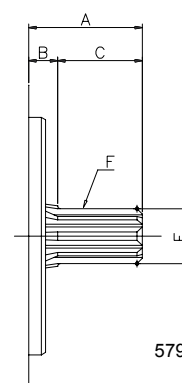
Shaft options

15 - SAE B - Spline 13 teeth ϕ 7/8"
Available mounting flanges: 05 06 62 65 77 78 79



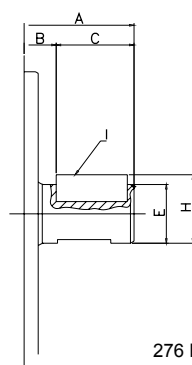
Max.torque
268 Nm / 2371 Lb.in

17 - SAE C Spline 14 teeth ϕ 1.1/4"
Available mounting flanges: 62 65 76 77 78 79



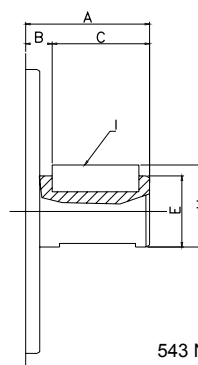
Max.torque
579 Nm / 5125 Lb.in

37 - Cylindrical Keyed ϕ 1" SAE B -B
Available mounting flanges: 62 65 77 78



Max.torque.
276 Nm / 2442 Lb.in

39 - Cylindrical Keyed ϕ 1.1/4" SAE C
Available mounting flanges: 62 65 77 78



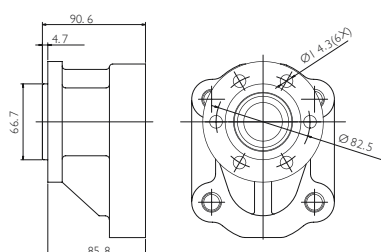
Max.torque
543 Nm / 4810 Lb.in

Standard shaft dimensions - S50

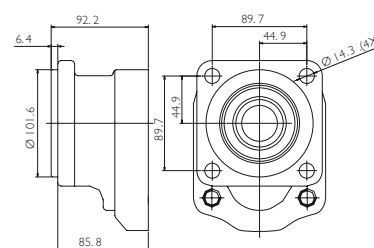
SHAFT	A	B	C	D	E	F	G	H	I	J
SHAFT DIMENSIONS WITH FLANGE 05										
15	41.2	7.8	33.4	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
SHAFT DIMENSIONS WITH FLANGE 62/65										
15	41.2	7.8	33.4	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
17	55.5	20.6	34.9	-	ø31.3	ANSI B92.1/76, 30 DEG, 24/48 DP, 14T				
37	49.2	14.4	34.8	-	ø25.336	**	**	28.1	6.35x9.5x31.8	**
39	55.5	11.9	43.6	-	ø31.73	**	**	35.4	7.95x12x38.8	**
SHAFT DIMENSIONS WITH FLANGE 76/79										
15	66.6	33.2	33.4	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
17	55.5	20.6	34.9	-	ø31.3	ANSI B92.1/76, 30 DEG, 16/32 DP, 15T				
SHAFT DIMENSIONS WITH FLANGE 77/78										
15	41.2	7.8	33.4	-	ø21.79	ANSI B92.1/76, 30 DEG, 16/32 DP, 13T				
17	55.5	20.6	34.9	-	ø31.3	ANSI B92.1/76, 30 DEG, 16/32 DP, 15T				
37	49.2	14.4	34.8	-	ø25.336	**	28.1		6.35x9.5x31.8	**
39	55.5	11.9	43.6	-	ø31.73	**	35.4		7.95x12x38.8	**

Standard Shaft End Cover Options

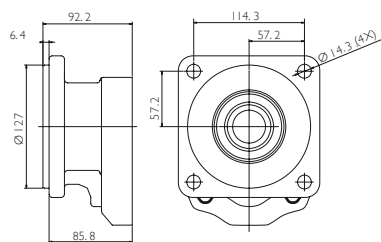
05 - 6 Bolt round flange, ϕ pilot 66,68mm



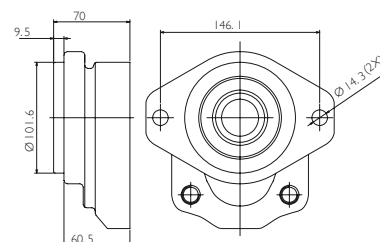
62 - 4 Bolt SAE B Flange, ϕ pilot 101,60 mm (4")



65 - 4 Bolt SAE C Flange, ø pilot 127 mm (5")

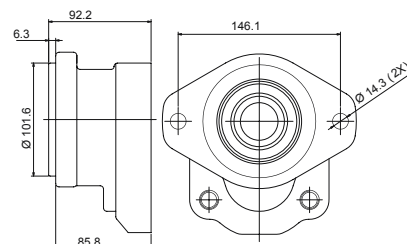


76 - 2 Bolt SAE B Flange, ø pilot 101,6 mm (4") short type

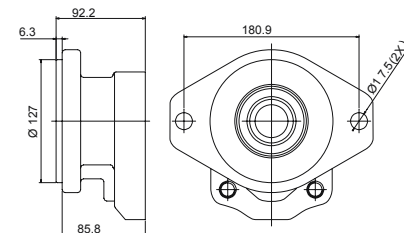


Not available with out board bearing

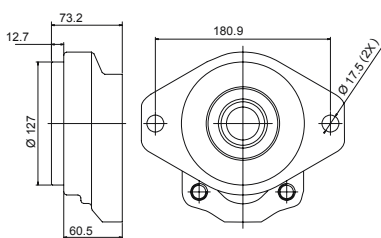
77 - 4 Bolt SAE B Flange, ø pilot 101.6 mm(4")



78 - 2 Bolt SAE C Flange, ø pilot 127 mm (5")



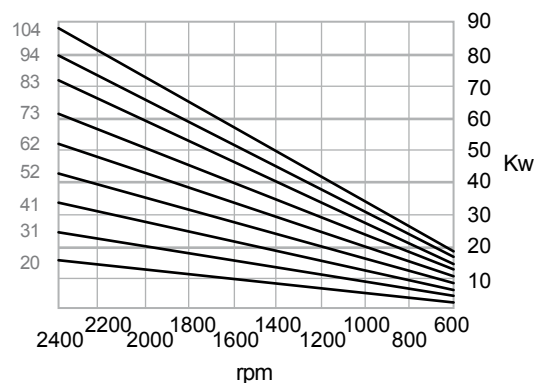
79 - 2 Bolt SAE C Flange, ø pilot 127 mm (5") short type



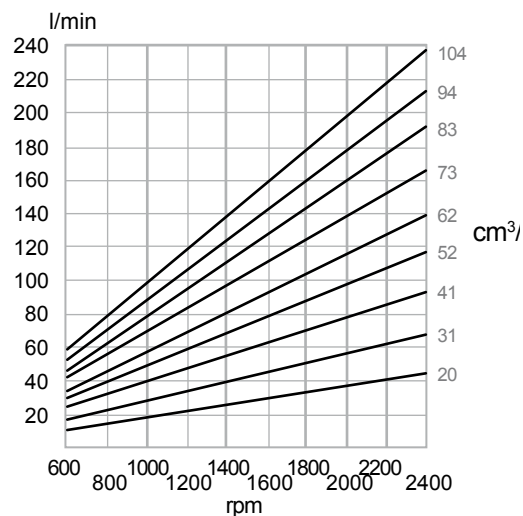
Not available with bearing

Graphic

Theoretical Consumed Power (Kw) at 175 Bar/2500 psi



Theoretical Flow (l/min) at 175 Bar/2500 psi





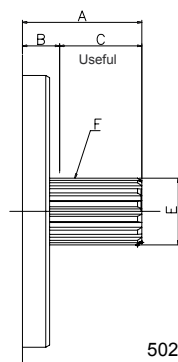
Series S75

S75

Parameter	Unit	Volumetrics Options									
Nominal Size	TN	50	67	84	101	117	134	151	168	185	201
Volumetric Displacement	cm ³ /rev	50,4	67,2	84	100,8	117,6	134,4	151,2	168	184,8	201,6
	in ³ /rev	3,08	4,1	5,13	6,15	7,18	8,2	9,23	10,25	11,28	12,3
Continuous Maximum Pressure	bar	175					140			120	
Intermittent Maximum Pressure	bar	210					175			140	
Maximum Rotation	rpm	2400									
Minimum Rotation	rpm	500									

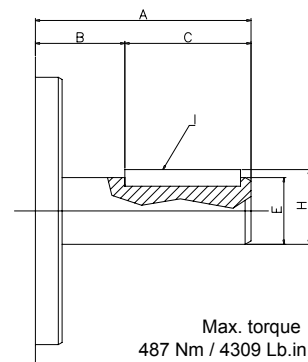
Shaft options

17 - SAE C Spline 14 teeth ϕ 1.1/4"
Available mounting flanges: 65 78



Max. torque
502 Nm / 4442 Lb.in

39 - Cylindrical Keyed ϕ 1.1/4" SAE C
Available mounting flanges: 65 78



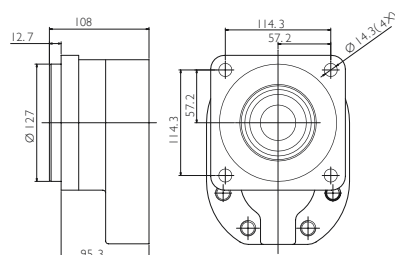
Max. torque
487 Nm / 4309 Lb.in

Standard shaft dimensions - S75

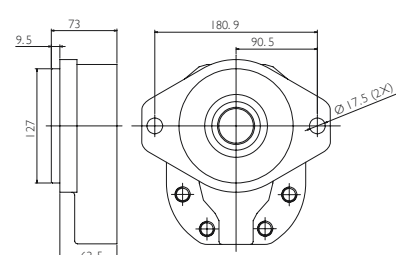
SHAFT	A	B	C	D	E	F	G	H	I	J
SHAFT DIMENSIONS WITH FLANGE 65										
17	55.4	10.9	44.5	-	ϕ 31.3	ANSI B92.1/76, 30 DEG, 12/24 DP, 13T				
39	55.5	13.8	41.7	-	ϕ 31.72	**		35.5	7.91x7.91x38.1	**
SHAFT DIMENSIONS WITH FLANGE 62/65										
ANSI B92.1/76, 30 DEG, 12/24 DP, 13T										
17	87.1	42.66	44.5	-	ϕ 31.3					
39	55.5	13.8	41.7	-	ϕ 31.72	**	**	35.5	7.91x7.91x38.1	**

Standard Shaft End Cover Options

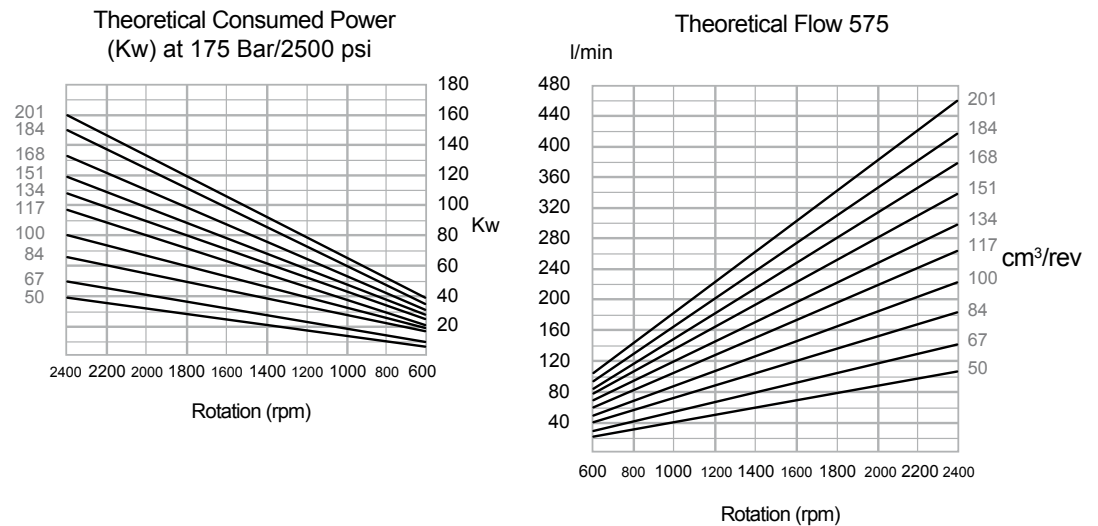
65 - 4 Bolt SAE C Flange, ϕ pilot 127 mm (5")



78 - 2 Bolt SAE C Flange, ϕ pilot 127 mm (5")



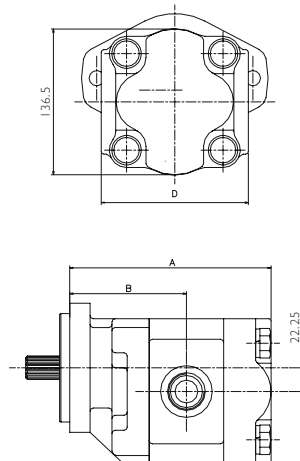
Graphic



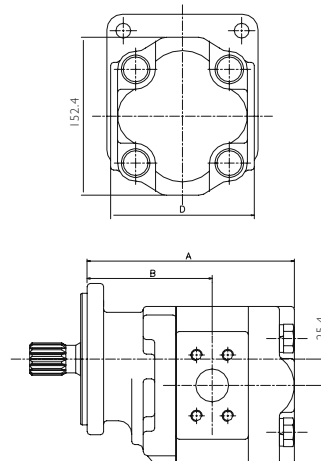
Pumps and Motors Dimensions

Unidirectional and bidirectional rotation with intern and extern drain

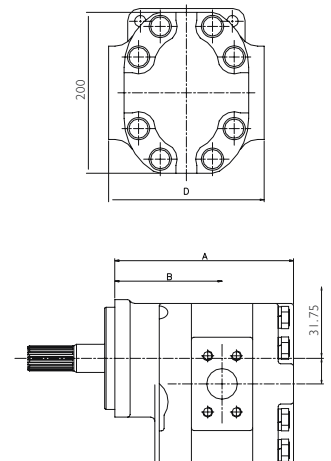
S30



S50



S75



Nominal Size			Eng. Size			Length A (mm)			Length B (mm)			Width D (mm)		
S30	S50	S75	S30	S50	S75	S30	S50	S75	S30	S50	S75	S30	S50	S75
16	20	50	1/2	1/2	3/4	150,8/ 122,2	161,9/ 136,5	190,55	90,45/ 56,05	101,55/ 75,85	108,38	138,1	150,8	190,5 to 193,7*
24	31	67	3/4	3/4	1	157,15/ 128,55	168,25/ 142,85	196,9	93,63/ 56,18	104,73/ 79,03	108,5	138,1	163,5	190,5 to 193,7*
32	42	84	1	1	1 1/4	163,5/ 134,9	174,6/ 149,2	203,25	96,8/ 56,3	107,9/ 82,2	108,63	138,1	163,5	190,5 to 193,7*
40	52	100	1 1/4	1 1/4	1 1/2	169,85/ 141,25	180,95/ 155,55	209,60	99,98/ 56,43	111,08/ 85,38	108,75	138,1	163,5	190,5 to 193,7*
48	62	117	1 1/2	1 1/2	1 3/4	176,20/ 147,60	187,3/ 161,9	215,95	103,15/ 56,55	114,25/ 88,55	108,88	138,1	163,5	190,5 to 193,7*
56	73	134	1 3/4	1 3/4	2	182,55/ 153,95	193,65/ 168,25	222,3	106,33/ 56,68	117,43/ 91,73	109,00	138,1	163,5	190,5 to 193,7*
64	83	151	2	2	2 1/4	188,9/ 160,3	200/ 174,6	228,65	109,5/ 56,8	120,6/ 94,90	109,13	138,1	163,5	190,5 to 193,7*
-	94	168	-	2 1/4	-	-	206,35/ 180,95	235	-	123,78/ 98,08	109,25	-	163,5	190,5 to 193,7*
-	104	184	-	2 1/2	2 3/4	-	212,7/ 187,3	241,35	-	126,95/ 101,25	109,38	-	163,5	190,5 to 193,7*
-	-	201	-	-	3	-	-	247,7	-	-	109,5	-	-	190,5 to 193,7*

* Port flange type (190,5mm) or port SAE type (193,7mm).

- We recommend filters capable of controlling the fluid cleanliness class 19/17/14 or better, as per ISO 4406 standard.
- The maximum suction line allowed is 130 mm/Hg.



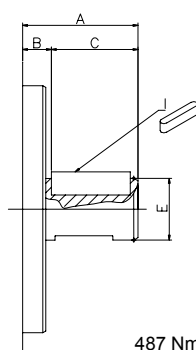
Series S33

S33

Parameter	Unit	Nominal Size						
Nominal Size		16	24	32	40	48	56	64
Volumetric Displacement	cm ³ /rev	16,1	24,3	32,3	40,4	48,4	56,5	64,6
	in ³ /rev	0,98	1,48	1,96	2,46	2,95	3,44	3,94
Maximum Continuous Pressure	bar	245					225	210
Intermittent Maximum Pressure	bar	275			265		245	225
Maximum Rotation	rpm	2400						
Minimum Rotation	rpm	500						

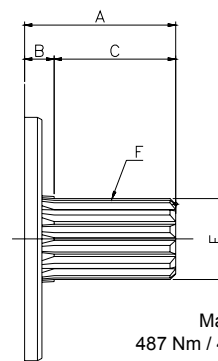
Shaft options

37 - Cylindrical Keyed $\varnothing$ 1" SAE B-B
Available mounting flanges: 62 65 77



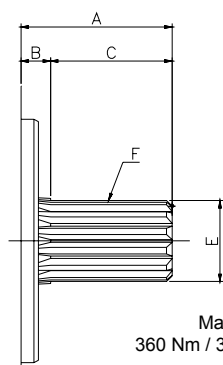
Max. torque
487 Nm / 4309 Lb.in

18 - SAE B-B - Spline 15 teeth $\varnothing$ 1"
Available mounting flanges: 62 65 77



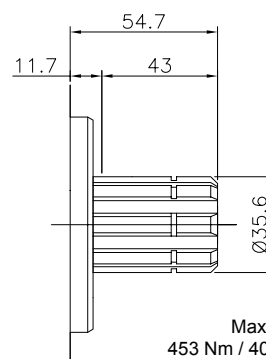
Max. torque
487 Nm / 4309 Lb.in

15 - SAE B - Spline 13 teeth $\varnothing$ 7/8"
Available mounting flanges: 62 65 77



Max. torque
360 Nm / 3185 Lb.in

08 - Splined 8 teeth Euro



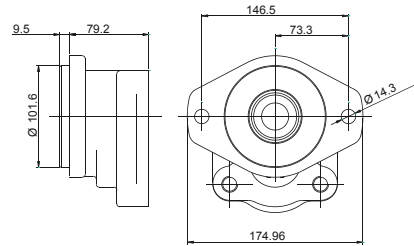
Max. torque
453 Nm / 4008 Lb.in

Shaft dimensions

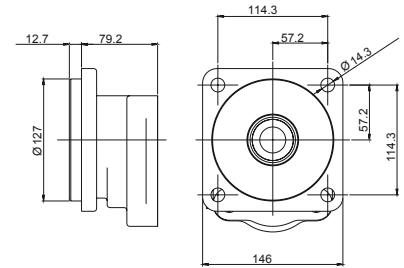
Shaft	A	B	C	D	E	F	G	H	I	L
S33	Shaft dimensions with flange 62/65/77									
15	41.5	8.2	33.2	-	21.79		ANSI B92.1/70, 30 DEG, 16/32 DP, 13T			
18	46.3	7.3	39.0	-	24.90		ANSI B92.1/70, 30 DEG, 16/32 DP, 15T			
37	46.3	11.3	35.0	-	25.36	-	-	28.2	6.35x6.35x31.8	-

Standard mounting flange options

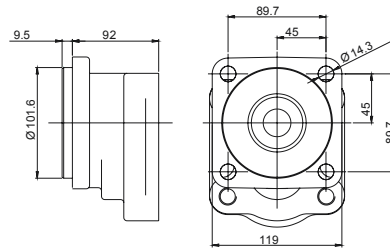
77 - 4 Bolt SAE B Flange, $\varnothing$ pilot 101.6 mm (4")



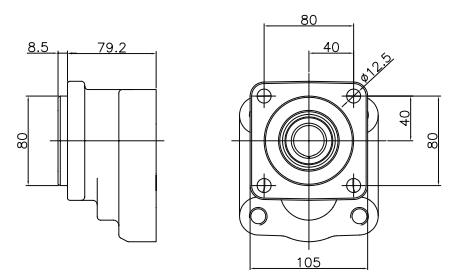
65 - 4 Bolt SAE C Flange, $\varnothing$ pilot 127 mm (5")



62 - 4 Bolt SAE B Flange, $\varnothing$ pilot 101,60 mm (4")

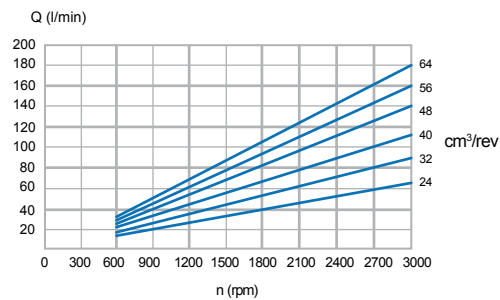


61 - Euro Flange, $\varnothing$ pilot 80mm

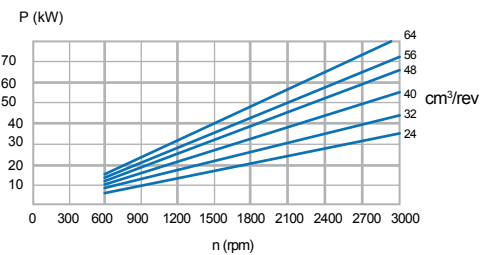


Graphic

**Pump
Theoretical Flow**



**Pump
Theoretical Consumed Power**



MOTOR SM33

Speed rpm	32 cm³/rev		40 cm³/rev		48 cm³/rev		56 cm³/rev		64 cm³/rev	
	A	B	A	B	A	B	A	B	A	B
900	10,1	1010	12,3	1270	14,5	1530	16,7	1665	19	1770
	38	114,1	47	143,5	55	172,9	63	188,1	72	200,0
1200	12,8	1005	15,7	1265	18,6	1525	21,4	1660	24,3	1760
	49	113,6	59	142,9	70	172,3	81	187,6	92	198,9
1500	15,6	1000	19,1	1255	22,6	1515	26,1	1650	29,6	1750
	59	113,0	72	141,8	85	171,2	99	186,4	112	197,7
1800	18,4	995	22,5	1250	26,6	1505	30,8	1640	34,9	1740
	69	112,4	85	141,2	101	170,0	116	185,3	132	196,6
2100	21,1	990	25,9	1240	30,7	1495	35,4	1625	40,2	1720
	80	111,9	98	140,1	116	168,9	134	183,6	152	194,3
2400	23,9	985	29,3	1235	34,7	1480	40,1	1605	45,5	1695
	90	111,3	111	139,5	131	167,2	152	181,3	172	191,5
3000	29,2	980	35,9	1230	42,6	1475	49,3	1595	56,0	1685
	110	110,7	136	139,0	161	166,7	186	180,2	212	190,4



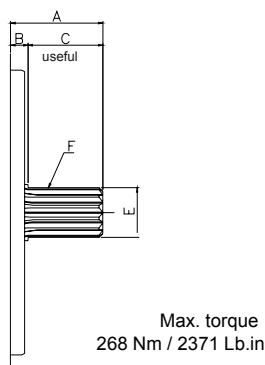
Series S53

S53

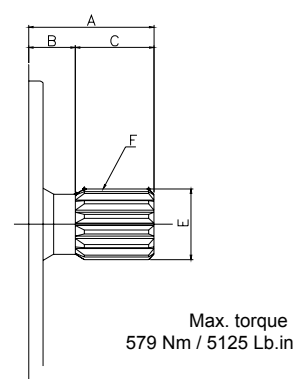
Parameter	Unit	Nominal Size								
Nominal Size		21	31	42	52	63	73	83	94	104
Volumetric Displacement	cm ³ /rev	20,9	31,3	41,8	52,2	62,7	73	83,6	94	104,5
	in ³ /rev	1,28	1,91	2,55	3,18	3,83	4,45	5,1	5,74	6,38
Maximum Continuous Pressure	bar	245					225	210	190	175
Intermittent Maximum Pressure	bar	275					265	245	225	190
Maximum Rotation	rpm	2400								
Minimum Rotation	rpm	500								

Shaft options

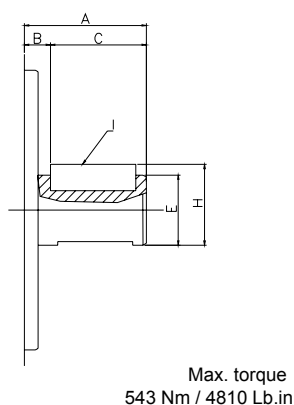
15 - SAE B - Spline 13 teeth ϕ 7/8"
Available mounting flanges: 62 65 77 78



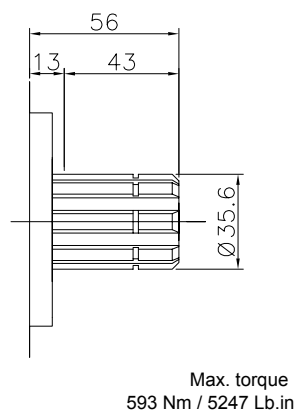
17 - SAE C Spline 14 teeth ϕ 1.1/4"
Available mounting flanges: 62 65 77 78



39 - Cylindrical Keyed ϕ 1.1/4" SAE C
Available mounting flanges: 62 65 77 78



08 - Splined 8 teeth Euro

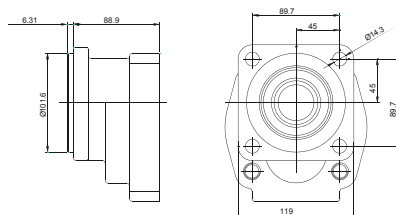


Shaft dimensions

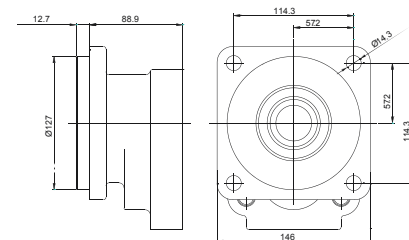
SHAFT	A	B	C	D	E	F	G	H	I	L
S53	Shaft dimensions with flange 62/65/77/78									
15	41,4	8,05	33,4		21,79	ANSI B92.1/70, 30 DEG, 16/32 DP, 13T				
17	55,5	7,8	47,8		31,30	ANSI B92.1/70, 30 DEG, 24/48 DP, 14T				
39	55,5	14,6	41,1		31,73					

Standard Shaft End Cover Options

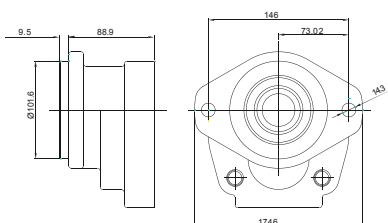
62 - 4 Bolt SAE B Flange, $\varnothing$ pilot 101,60 mm (4")



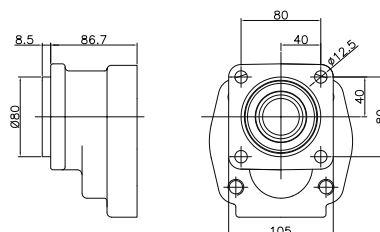
65 - 4 Bolt SAE C Flange, $\varnothing$ pilot 127 mm (5")



77 - 4 Bolt SAE B Flange, $\varnothing$ pilot 101.6 mm (4")

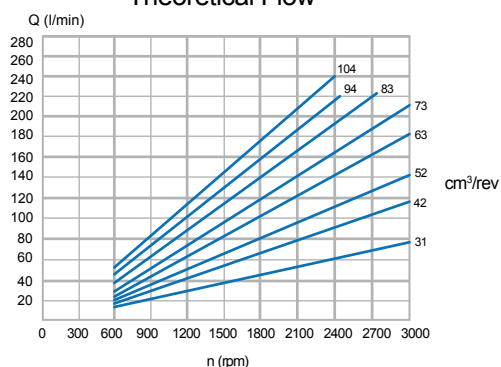


61 - Euro Flange, $\varnothing$ pilot 80mm

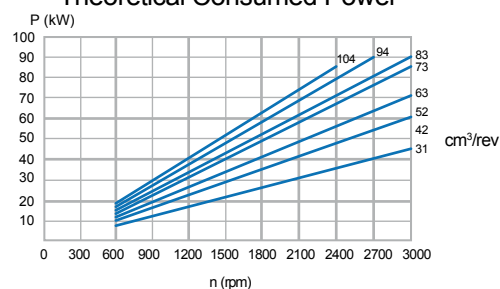


Graphic

Pump
Theoretical Flow



Pump
Theoretical Consumed Power



MOTOR SM53

Speed rpm	42 cm³/rev		52 cm³/rev		63 cm³/rev		73 cm³/rev		83 cm³/rev		94 cm³/rev		104 cm³/rev	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
900	13,4	1320	16,0	1670	18,6	2025	21,2	2225	23,8	2350	26,4	2425	28,9	2450
	51	149,1	61	188,7	70	228,8	80	251,4	90	265,5	100	274,0	110	276,8
1200	16,9	1315	20,4	1660	23,8	2015	27,2	2215	30,6	2340	34,0	2410	37,4	2435
	64	148,6	77	187,6	90	227,7	103	250,3	116	264,4	129	272,3	142	275,1
1500	20,5	1300	24,7	1640	28,9	1990	33,2	2195	37,4	2315	41,7	2385	45,9	2410
	77	146,9	93	185,3	110	224,8	126	248,0	142	261,6	158	269,5	174	272,3
1800	24,0	1295	29,0	1635	34,1	1980	39,2	2180	44,2	2300	49,3	2375	54,4	2395
	91	146,3	110	184,7	129	223,7	148	246,3	167	259,9	187	268,3	206	270,6
2100	27,5	1285	33,4	1620	39,3	1965	45,2	2165	51,1	2285	57,0	2355	62,9	2380
	104	145,2	126	183,0	149	222,0	171	244,6	193	258,2	216	266,1	238	268,9
2400	31,0	1265	37,7	1600	44,4	1940	51,2	2135	57,9	2255	64,6	2325	71,3	2350
	117	142,9	143	180,8	168	219,2	194	241,2	219	254,8	245	262,7	270	265,5



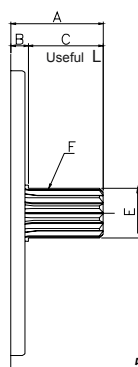
Series S63

S63

Parameter	Unit	Nominal Size							
Nominal Size		44	59	74	89	103	118	133	148
Volumetric Displacement	cm ³ /rev	44,3	59,0	73,8	88,5	103,3	118,0	132,8	147,5
	in ³ /rev	2,7	3,6	4,5	5,4	6,3	7,2	8,1	9,0
Maximum Continuous Pressure	bar	245						225	210
Intermittent Maximum Pressure	bar	275					265	245	225
Maximum Rotation	rpm	2400							
Minimum Rotation	rpm	500							

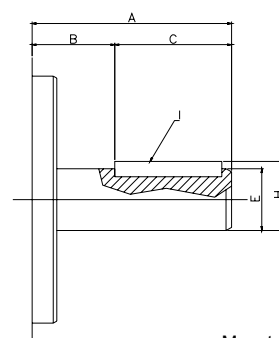
Shaft options

17 - SAE C Spline 14 teeth ϕ 1.1/4"
Available mounting flanges: 65 78



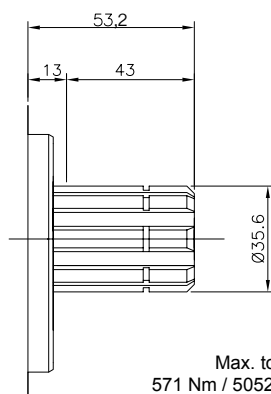
Max. torque
502 Nm / 4442 Lb.in

39 - Cylindrical Keyed ϕ 1.1/4" SAE C
Available mounting flanges: 65 78



Max. torque
480 Nm / 4160 Lb.in

08 - Splined 8 teeth Euro



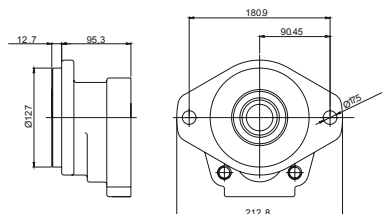
Max. torque
571 Nm / 5052 Lb.in

Shaft dimensions

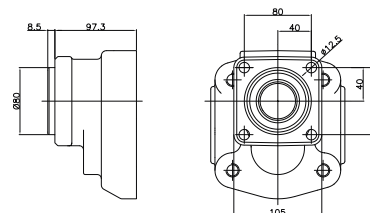
SHAFT	A	B	C	D	E	F	G	H	I	L
S63	Shaft dimensions with flange 65 / 78									
17	55.4	7.6	47.8	-	31.30	ANSI B92.1/70, 30 DEG, 12/24 DP, 13T				
39	55.6	14.6	41.1	-	31.72	-	-	35.5	7.91x7.91x38.8	

Standard Shaft End Cover Options

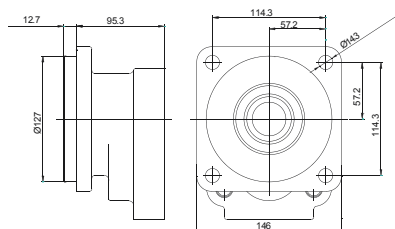
78 - 2 Bolt SAE C Flange, $\varnothing$ pilot 127 mm (5")



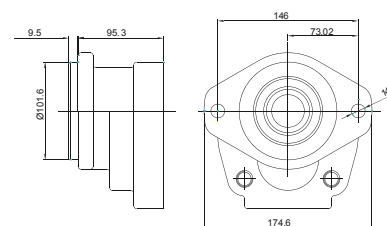
61 - Euro Flange, $\varnothing$ pilot 80mm



65 - 4 Bolt SAE C Flange, $\varnothing$ pilot 127 mm (5")

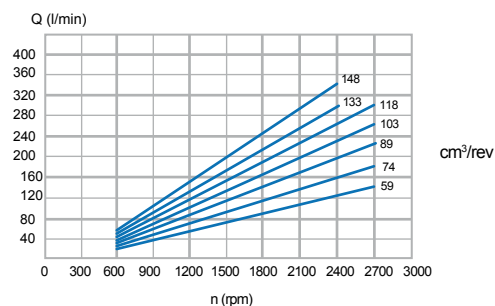


77 - 4 Bolt SAE B Flange, $\varnothing$ pilot 101.6 mm(4")

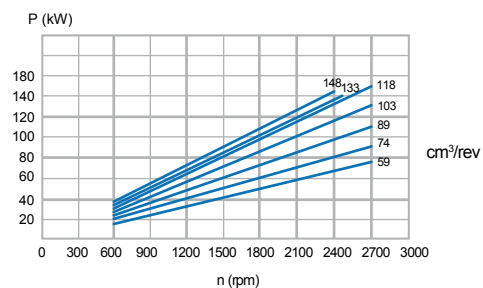


Graphic

**Pump
Theoretical Flow**



**Pump
Theoretical Consumed Power**

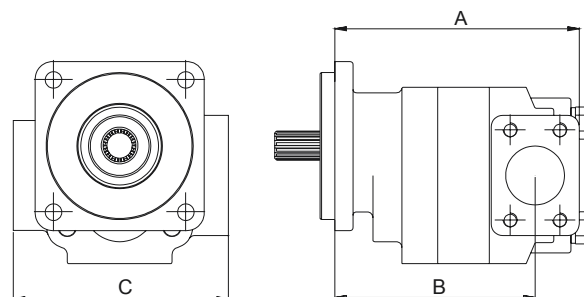


MOTOR SM63

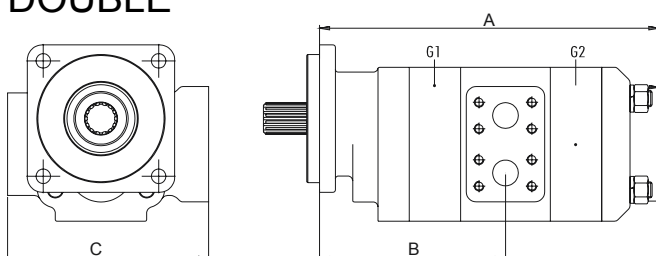
Speed rpm	59 cm³/rev		74 cm³/rev		89 cm³/rev		103 cm³/rev		118 cm³/rev		133 cm³/rev		148 cm³/rev	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
900	18,4	1865	22,0	2355	25,6	2860	29,2	3370	32,9	3850	36,5	4020	40,1	4125
	70	210,7	83	266,1	97	323,1	111	380,8	124	435,0	138	454,2	152	466,1
1200	23,3	1845	28,1	2330	32,9	2830	37,6	3335	42,4	3810	47,2	3980	52,0	4080
	88	208,5	106	263,3	124	319,7	142	376,8	160	430,5	179	449,7	197	461,0
1500	28,2	1815	34,1	2295	40,1	2780	46,0	3280	52,0	3750	57,9	3915	63,8	4020
	107	205,1	129	259,3	152	314,1	174	370,6	197	423,7	219	442,3	242	454,2
1800	33,1	1805	40,2	2280	47,3	2765	54,4	3265	61,5	3730	68,6	3895	75,7	3995
	125	203,9	152	257,6	179	312,4	206	368,9	233	421,4	260	440,1	287	451,4
2100	37,9	1755	46,2	2220	54,4	2690	62,8	3160	71,1	3610	79,3	3770	87,6	3865
	144	198,3	175	250,8	206	303,9	238	357,0	269	407,9	300	426,0	332	436,7
2400	42,8	1705	52,3	2155	61,7	2615	71,2	3055	80,6	3490	90,1	3645	99,5	3740
	162	192,6	198	243,5	234	295,5	269	345,2	305	394,3	341	411,8	377	422,6

S33- S53- S63

SINGLE



DOUBLE



Nominal Size Single/Double			Eng. Size (G) in			Length A (mm) Single/Double			Length A (mm) Single/Double			Width C (mm) Single/Double		
S33	S53	S63	S33	S53	S63	S33	S53	S63	S33	S53	S63	S33	S53	S63
16	20	44	1/2	1/2	3/4	170,00	192,09	198,49	138,20	153,90	166,65	174,75	180,84	187,45
24	31	59	3/4	3/4	1	176,25	198,44	204,84	144,55	160,25	173,00	174,75	180,84	187,45
32	42	74	1	1	1 1/4	182,60	204,79	211,19	150,96	166,60	179,35	174,75	180,84	187,45
40	52	89	1 1/4	1 1/4	1 1/2	188,95	211,14	217,54	157,25	172,95	185,70	174,75	180,84	187,45
48	63	103	1 1/2	1 1/2	1 3/4	195,30	217,49	223,89	163,60	179,30	192,05	174,75	180,84	187,45
56	73	118	1 3/4	1 3/4	2	201,65	223,84	230,24	169,95	185,65	198,40	174,75	180,84	187,45
64	83	133	2	2	2 1/4	208,00	230,19	236,59	176,30	192,00	204,75	174,75	180,84	187,45
-	94	148	-	2 1/4	2 1/2	-	236,54	242,94	-	198,35	211,11	-	180,84	187,45
104														

* The length for the double pump is formed by the sum of G1 (the first stage gear width) and G2 (the second stage gear width) also must be added the constant measure of the series, as shown above.

- We recommend filters capable of controlling the fluid cleanliness class 19/17/14 or better, as per the ISO 4406 standard.
- Maximum vacuum allowance in the pump suction line is of 130 mm/Hg.



Series S33x

High pressure pumps

S33x

Parameter	Unit	Nominal Size						
Nominal Size		16	24	32	40	48	56	64
Volumetric Displacement	cm ³ /rev	16,1	24,3	32,3	40,4	48,4	56,5	64,6
	in ³ /rev	0,98	1,48	1,96	2,46	2,95	3,44	3,94
Maximum Continuous Pressure	bar	280			260		240	220
Intermittent Maximum Pressure	bar	300			280		245	225
Maximum Rotation	rpm	2400						
Minimum Rotation	rpm	500						

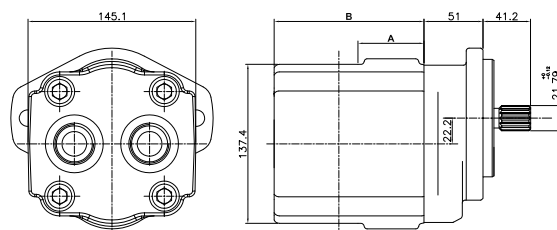
Shaft options

- See shaft options S33

Standard Shaft End Cover Options

- See standard shaft end cover options S33

Pumps and motors dimensions



Nominal Size (cm ³ /rot)	16	24	32	40	48	56	64
Measure "A" (mm)	25,42	31,77	38,12	44,47	50,82	57,17	63,53
Measure "B" (mm)	97,90	104,25	110,06	116,95	123,30	129,65	136,00

- We recommend filters capable of controlling the fluid cleanliness class 19/17/14 or better, as per the ISO 4406 standard.
- The maximum vacuum allowance in the pump suction line is of 130 mm/Hg.



Series S53x

High pressure pumps

S53x

Parameter	Unit	Nominal Size								
Nominal Size		21	31	42	52	63	73	83	94	104
Volumetric Displacement	cm ³ /rev	20,9	31,3	41,8	52,2	62,7	73	83,6	94	104,5
	in ³ /rev	1,28	1,91	2,55	3,18	3,83	4,45	5,1	5,74	6,38
Maximum Continuous Pressure	bar	280			260	245	240	230	210	190
Intermittent Maximum Pressure	bar	300			280	265	260	245	225	205
Maximum Rotation	rpm	2400								
Minimum Rotation	rpm	500								

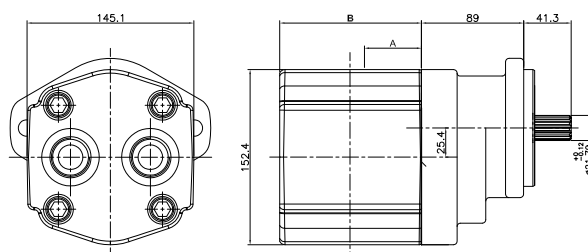
Shaft options

- See shaft options S53

Standard Shaft End Cover Options

- See standard shaft end cover options S53

Pumps and motors dimensions



Nominal Size (cm ³ /rot)	21	31	42	52	63	73	83	94	104
Measure "A" (mm)	25,42	31,77	38,12	44,47	50,82	57,17	63,52	69,87	76,22
Measure "B" (mm)	97,90	104,25	110,60	116,95	123,30	129,65	136,00	142,35	148,70

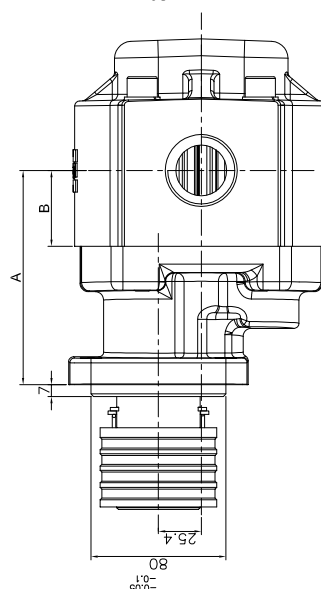
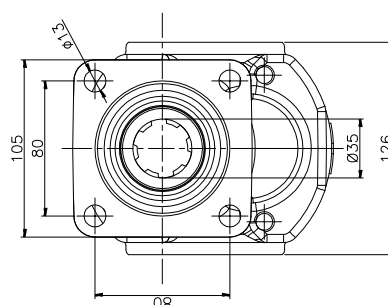
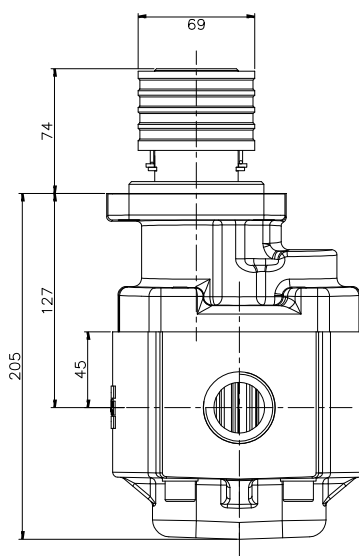
- We recommend filters capable of controlling the fluid cleanliness class 19/17/14 or better, as per the ISO 4406 standard.
- The maximum suction line allowed is 130 mm/Hg.



Series S80

Pumps for agricultural implement with quick coupler

Nominal Size	Max. Cont. Pressure	Max. Intern. Pressure	Maximum Rotation	Minimum Rotation	Weight	Inlet Suction	Outlet Pressure	Size	Size
cm ³ / rev	bar	bar	rpm		kg	BSP	BSP	mm	mm
100	200	215	2200	500	15,9	1.1/4"	"1.1/4"	127	45
100	175	200	2000	500	17,1	1.1/4"	"1.1/4"	125.1	43.1



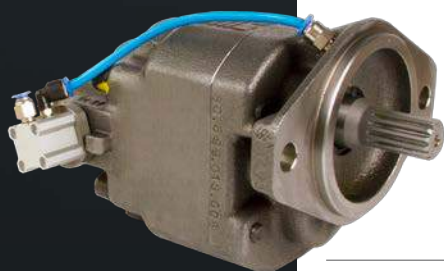
Series H200 - H250

Pumps for dump trucks

H200

For Assembly with Cardan

Drive	Cable or pneumatic
Shaft Type	Cylindrical Keyed Ø 13/16"
Direction of Rotation	02 Axes (CW / CCW)
Port Options	Inlet 1 "NPT - Outlet 3/4" NPT
Maximum Working Pressure	140 BAR (2000 PSI)
Maximum Peak Pressure	175 BAR (2500 PSI)
Maximum Working Rotation	1800 rpm
Volumetric Displacement	67 and 84 cm³/rev
Working Temperature	15 to 80°C
Recommended Fluid	ISO 68 / 100
Mounting Flange	2 holes Ø pilot 4"



H200 Coupled

For Mounting with Power Plug

Drive	Cable or pneumatic
Shaft Type	SAE B Splined 13 teeth Ø 7/8"
Direction of Rotation	CW or CCW
Port Options	Inlet 1 "NPT - Outlet 3/4" NPT
Maximum Working Pressure	140 BAR (2000 PSI)
Maximum Peak Pressure	175 BAR (2500 PSI)
Maximum Working Rotation	1800 rpm
Volumetric Displacement	67 and 84 cm³/rev
Working Temperature	15 to 80°C
Recommended Fluid	ISO 68 / 100
Mounting Flange	SAE B 2 holes Ø pilot 101,6 mm



H250

For Assembly with Cardan - Heavy Line

Drive	Cable or pneumatic
Shaft Type	Cylindrical Keyed Ø 1"
Direction of Rotation	02 Axes (CW / CCW)
Port Options	Inlet 1 "NPT - Outlet 3/4" NPT
Maximum Working Pressure	245 BAR (3500 PSI)
Maximum Peak Pressure	270 BAR (3900 PSI)
Maximum Working Rotation	2400 rpm
Volumetric Displacement	52 63 73 83 94 104 cm ³ /rev
Working Temperature	15 to 80°C
Recommended Fluid	ISO 68 / 100
Mounting Flange	2 holes Ø pilot 4"



H250 Coupled

For Mounting with Power Plug - Heavy Line

Drive	Cable or pneumatic
Shaft Type	SAE B Splined 13 teeth Ø 7/8"
Direction of Rotation	CC o CCW
Port Options	Inlet 1 "NPT - Outlet 3/4" NPT
Maximum Working Pressure	245 BAR (3500 PSI)
Maximum Peak Pressure	270 BAR (3900 PSI)
Maximum Working Rotation	2400 rpm
Volumetric Displacement	52 63 73 83 94 104 cm ³ /rev
Working Temperature	15 to 80°C
Recommended Fluid	ISO 68 / 100
Mounting Flange	SAE B 2 holes Ø pilot 101,6 mm

Configure your Hydraulic Motors

Example Code:

SM25

A

3

77

S

4

TYPE AND SERIES

TYPE – SM : MOTOR

SERIES

- 22 – HOMP
- 23 – HOMR
- 24 – HOMH
- 25 – HOMS
- 26 – HOMT
- 27 – HOMV
- 28 – HDS

UNIT

A: SINGLE UNIT

ROTATION

3: DOUBLE ROTATION

SHAFT END COVER

H-OMP / SM22

74: SAE A FLANGE 2 HOLES, PILOT Ø82,5 MM.

H-OMR / SM23

46: 4 HOLES OVAL FLANGE, PILOT Ø82.5MM
47: 4 HOLES SQUARE FLANGE, PILOT Ø82.5MM
74: SAE A FLANGE 2 HOLES, PILOT Ø82.5MM

H-OMH / SM24

46: 4 HOLES OVAL FLANGE, PILOT Ø82.5MM

H-OMS / SM25

55: 6 HOLES OVAL FLANGE, PILOT Ø82 5MM
53: 4 HOLES SQUARE FLANGE, 106.4x106.4 PILOT Ø82.5MM
54: 4 HOLES ROUND FLANGE, PILOT Ø100MM

H-OMT / SM26

51: 4 HOLES SQUARE FLANGE, PILOT Ø125MM
52: 4 HOLES ROUND FLANGE, PILOT Ø125MM

H-OMV / SM27

49: 4 HOLES ROUND FLANGE, PILOT Ø140MM
50: 4 HOLES SQUARE FLANGE, PILOT Ø160MM

H-DS / SM28

48: 4 HOLES SQUARE FLANGE, PILOT Ø44.5MM
74: SAE A FLANGE 2 HOLES, PILOT Ø82.6MM

SUPPLEMENTARY BEARING

S: NO
C: WITH

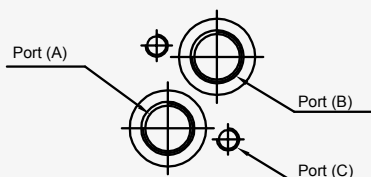
DRAIN LINE

SERIES	THREAD	CODE
22	H-OMP 7/16"UNF	8
23	H-OMR 7/16"UNF	8
24	H-OMH 7/16"UNF	8
25	H-OMS 7/16"UNF	8
26	H-OMT 9/16"UNF	4
27	H-OMV 9/16"UNF	4
28	H-DS 7/16"UNF	8
NO DRAIN		0

TS**EE3****100****15S**

VOLUMETRIC DISPLACEMENT IN cm^3/rot
SEE TABLE IN EACH SERIES PAGE

	SERIES	BOLT (C)	PORT (A)	PORT (B)	CODE
22	H-OMP	M8X1.5	7/8-14 UNF	7/8-14 UNF	EE3
23	H-OMR	M8X1.5	7/8-14 UNF	7/8-14 UNF	EE3
24	H-OMH	M8X1.5	7/8-14 UNF	7/8-14 UNF	EE3
25	H-OMS	M10X1.5	7/8-14 UNF	7/8-14 UNF	EE3
26	H-OMT		1 1/16-12 UNF	1 1/16-12 UNF	FF3
27	H-OMV		1 5/16-12 UNF	1 5/16-12 UNF	HH3
28	H-DS		7/8-14 UNF	7/8-14 UNF	EE3

**PORT TYPE****TS: NO PORTS**

T##: WITH REAR PORT
(USE PORT CODE ACCORDING TO TABLE).

SHAFT OPTIONS**H-OMP / SM22**

37P: KEYED CYLINDRICAL Ø 1".

H-OMR / SM23

37R: KEYED CYLINDRICAL Ø 1".
12R: SPLINED 6 TEETH
53R: KEYED CYLINDRICAL Ø 25mm.
60R: KEYED TAPERED 1:8 THREAD 1"-20 UNF ,
 AXLE PIN 7.94mm.
63R: KEYED TAPERED 1:10, THREAD M20X1.5,
 AXLE PIN 5mm.

H-OMH / SM24

12H: SPLINED 6 TEETH
17H: SAE C SPLINED 14 TEETH
17XH: SAE C SPLINED 14 TEETH (LONG)
39H: SAE C KEYED CYLINDRICAL Ø 31.75mm
40H: KEYED CYLINDRICAL Ø 35mm.
52H: KEYED CYLINDRICAL Ø 32mm.

H-OMS / SM25

12S: SPLINED 6 TEETH
12XS: SPLINED 6 TEETH LONG
15S: SPLINED 13 TEETH
17S: SAE C SPLINED 14 TEETH
37S: KEYED CYLINDRICAL Ø 1".
39S: SAE C KEYED CYLINDRICAL Ø 31.75mm
52S: KEYED CYLINDRICAL Ø 32mm.
60S: KEYED TAPERED 1:8 THREAD 1"-20 UNF ,
 AXLE PIN 7.94mm.
64S: KEYED TAPERED 1:10, THREAD M20X1.5,
 AXLE PIN 6mm.

H-OMT / SM26

12XT: SPLINED 6 TEETH LONG
54T: KEYED CYLINDRICAL Ø 38,1MM.
41T: KEYED CYLINDRICAL Ø 40.
62T: KEYED CONIC 1:8, THREAD Ø 1.1/4"-18 UNF,
 AXLE PIN 11.1mm.
65T: KEYED CONIC 1:10, THREAD M30X2,
 AXLE PIN 12mm.

H-OMV / SM27

24V: 16 SPLINED TEETH SHAFT
27V: KEYED CYLINDRICAL Ø 50mm.
51V: KEYED CYLINDRICAL Ø 2.1/4".
51XV: KEYED CYLINDRICAL Ø 2.1/4" (LONG)
61V: KEYED TAPERED 1:8 THREAD 1.1/2"-18
 UNF, AXLE PIN 14.3mm.
66V: KEYED TAPERED 1:10, THREAD M42X3,
 AXLE PIN 16mm.

H-DS / SM28

12: SPLINED 6 TEETH
37: KEYED CYLINDRICAL Ø 1".



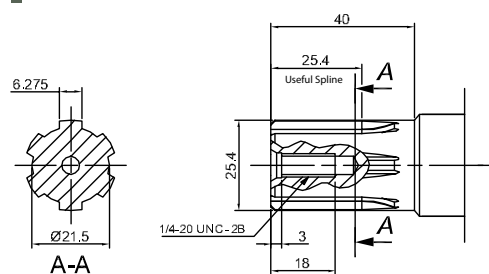
H-DS Series

H-DS

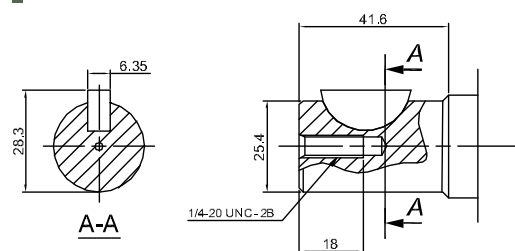
Parameter	Unit	Volumetric Options									
Nominal Size	TN	50	80	100	125	160	200	250	315	375	
Volumetric Displacement	cm³/rev	51,6	80,3	99,8	124,1	155,4	198,2	248,1	310,1	390,7	
Maximum Continuous Rotation	rpm	770	755	605	480	380	305	245	190	155	
Maximum Intermittent Rotation		955	945	760	600	475	380	305	240	195	
Maximum Continuous Torque	Nm	93	159	193	247	314	350	370	415	455	
Maximum Intermittent Torque		116	206	237	304	378	429	469	485	515	
Maximum Continuous Power	hp	8,9	14,3				12,9	10,7	9,3	7,8	
Maximum Intermittent Power		10,5	17,4			16,9	15,8	13,3	10,7	9,3	
Maximum Continuous Pressure	Bar	138					124	107	97	83	
Maximum Intermittent Pressure		172					155	138	114	97	
Maximum Continuous Flow	L/min	40	60								
Maximum Intermittent Flow		50	75								
Motor Weight	kg	6,7	6,9	7,0	7,2	7,5	8	8,5	9	9,3	

Shaft options

12 - Spline 6 teeth

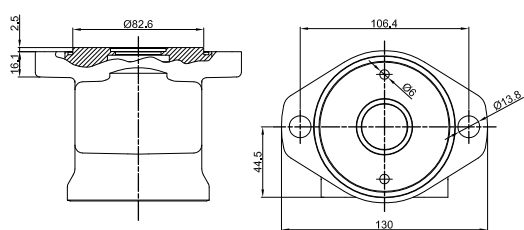


37 - Cylindrical Keyed ø 1"

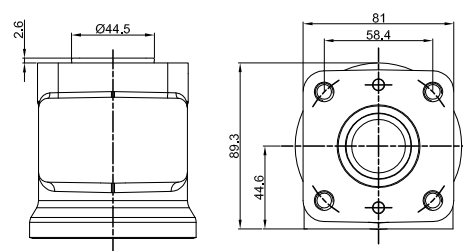


Standard Shaft End Cover Options

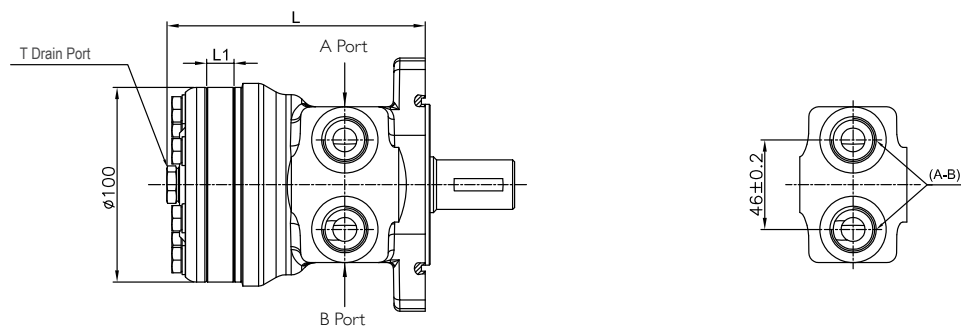
74 - 2 Bolt SAE A Flange, pilot ø 82,6mm



48 - 4 Bolt Square Flange, pilot ø 44,5mm



Dimensions



Model TN	50	80	100	125	160	200	250	315	375
L (mm)	125,6	130,6	130,6	134,0	138,4	144,4	151,4	160,1	171,4
L1 (mm)	9,0	14,0	14,0	17,4	21,8	27,8	34,8	43,5	54,8



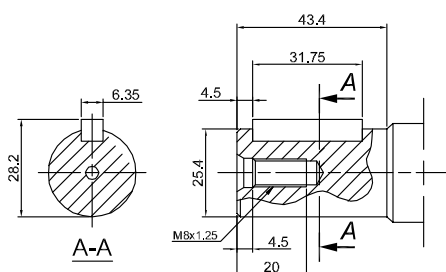
H-OMP Series

H-OMP

Parameter	Unit	Volumetric Options									
Nominal Size	TN	36	50	80	100	125	160	200	250	315	400
Volumetric Displacement	cm³/rev	36	51,7	77,7	96,2	120,2	157,2	194,5	240,3	314,5	389,5
Maximum Continuous Rotation	rpm	1500	1150	770	615	490	383	310	250	192	155
Maximum Intermittent Rotation		1650	1450	960	770	615	475	385	310	240	190
Maximum Continuous Torque	Nm	55	100	146	182	236	302	360	380	375	360
Maximum Intermittent Torque		76	128	186	227	290	370	440	460	555	525
Maximum Continuous Power	hp	10,7	13,4						11,4	3,4	8
Maximum Intermittent Power		15,4	16,1		17,4	16,1			14,1	11,4	9,4
Maximum Continuous Pressure	Bar	125	140						110	90	70
Maximum Intermittent Pressure		165	175						140		105
Maximum Continuous Flow	L/min	55	60								
Maximum Intermittent Flow		60	75								
Motor Weight	kg	5,6		5,7	5,9	6,0	6,2	6,4	6,7	6,9	7,4

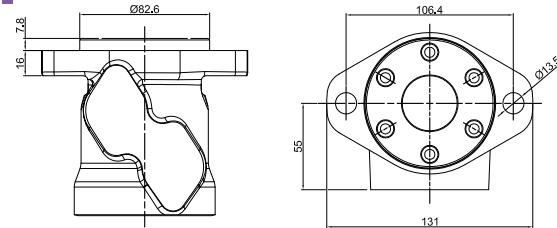
Shaft options

37 - Cylindrical Keyed $\varnothing 1"$

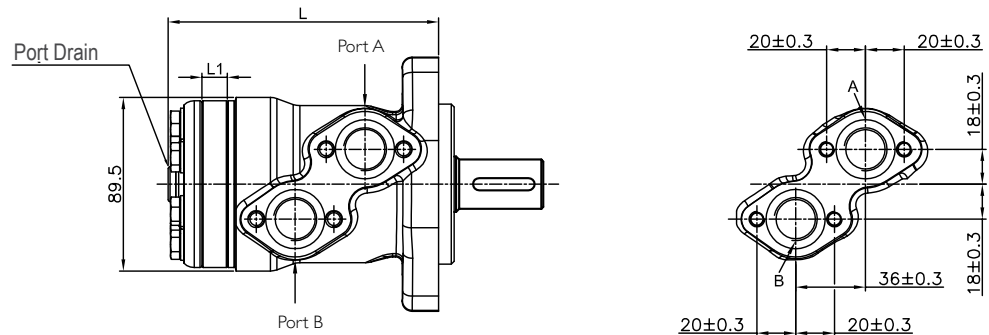


Standard Shaft End Cover Options

74 - 2 Bolt SAE A Flange, pilot $\varnothing 82,5\text{mm}$



Dimensions



Model TN	36	50	80	100	125	160	200	250	315	400
L (mm)	137	137	140,5	143	146	151	157	162	172	182
L1 (mm)	7	7	10,5	13	16	21	26	32	42	52

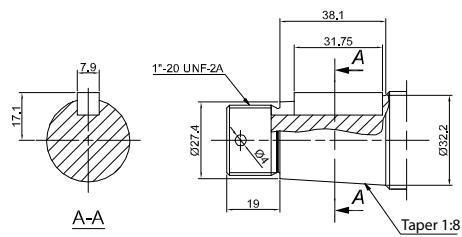


H-OMR Series

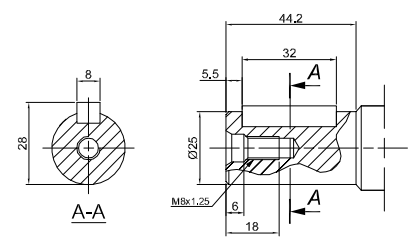
Parameter	Unit	Volumetric Options								
Nominal Size	TN	50	80	100	125	160	200	250	315	375
Volumetric Displacement	cm ³ /rev	51,6	80,3	99,8	125,7	159,6	199,8	249,3	315,7	372,6
Maximum Continuous Rotation	rpm	775	750	600	475	375	300	240	190	160
Maximum Intermittent Rotation		970	940	750	600	470	375	300	240	200
Maximum Continuous Torque	Nm	100	195	240	300					
Maximum Intermittent Torque		130	220	280	340	390	380	420	430	
Maximum Continuous Power	hp	9,4	16,8	17,4	16,8	13,4	10,7	8,1	6,7	5,4
Maximum Intermittent Power		11,4	20,1		19,4	16,8	13,4	10,7	8,7	8,1
Maximum Continuous Pressure	Bar	140	175			130	110	80	70	55
Maximum Intermittent Pressure		175	200			175	140	110	100	85
Maximum Continuous Flow	L/min	40	60							
Maximum Intermittent Flow		50	75							
Motor Weight	kg	6,7	6,9	7,0	7,2	7,5	8	8,5	9	9,3

Shaft options

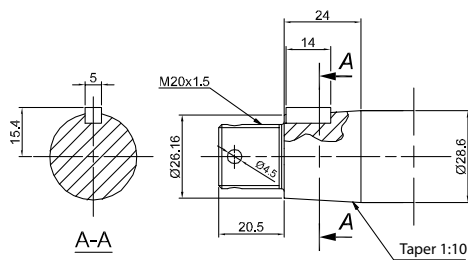
60 - Tapered Keyed 1:8 Thread 1" - 20 UNF
Axle Pin of 7,94mm



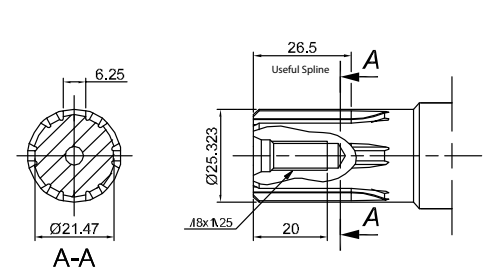
53 - Cylindrical Keyed $\varnothing 25$ mm



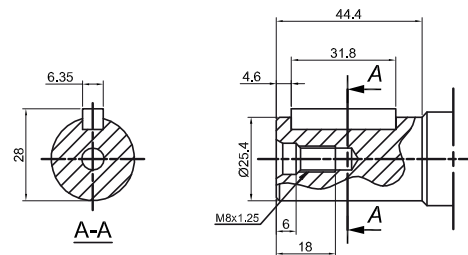
63 - Tapered Keyed 1:10, Thread M20X1,5,
Axle Pin of 5mm



12 - Spline 6 teeth

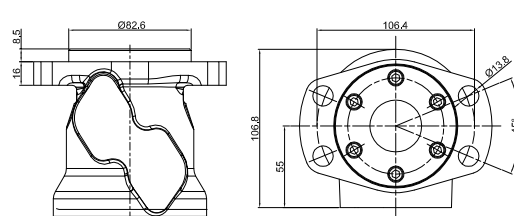


37 - Cylindrical Keyed $\varnothing 1$ "

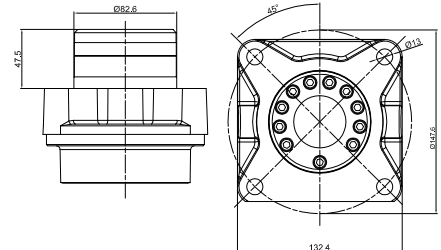


Standard Shaft End Cover Options

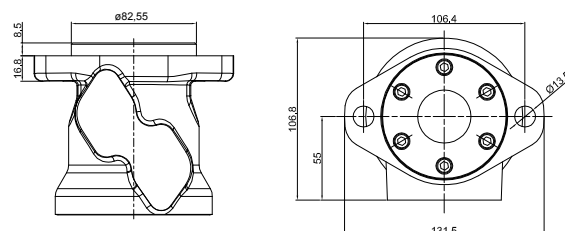
46 - 4 Bolt magneto Flange, pilot $\varnothing 82,5$ mm



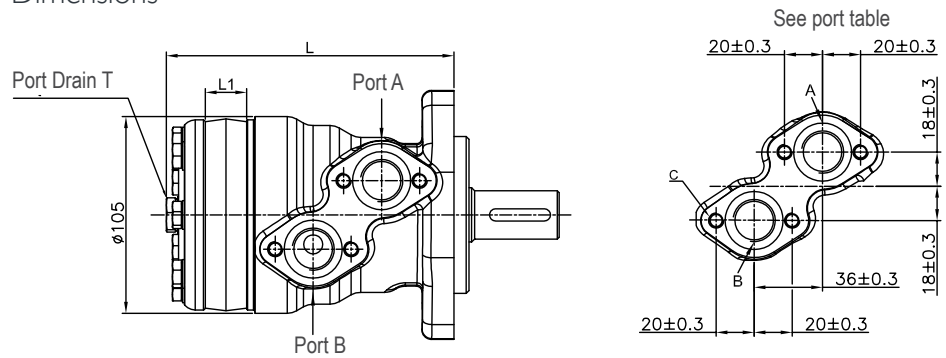
47 - 4 Bolt SQUARE Flange, pilot $\varnothing 82,5$ mm



74 - 2 Bolt SAE A Flange, pilot $\varnothing 82,55$ mm



Dimensions



Model TN	50	80	100	125	160	200	250	315	375
L (mm)	135,5	140,5	144,0	148,5	154,5	161,5	170,5	181,5	191,7
L1 (mm)	9,0	14,0	17,4	21,8	27,8	34,8	43,5	54,8	65,0



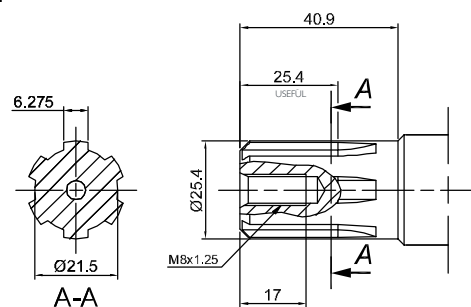
H-OMH Series

H-OMH

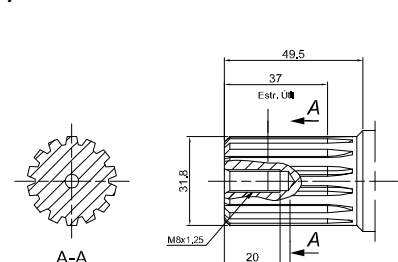
Parameter	Unit	Volumetric Options				
Nominal Size	TN	200	250	315	400	500
Volumetric Displacement	cm ³ /rev	201,3	252,0	314,9	396,8	470,6
Maximum Continuous Rotation	rpm	370	295	235	185	155
Maximum Intermittent Rotation		445	350	285	225	190
Maximum Continuous Torque	Nm	340				
Maximum Intermittent Torque		510		540		
Maximum Continuous Power	hp	15,0	10,0	7,0	6,5	5,0
Maximum Intermittent Power		23,0	16,0	13,0	11,0	8,0
Maximum Continuous Pressure	Bar	115	90	75	60	50
Maximum Intermittent Pressure		170	145	120	95	75
Maximum Continuous Flow	L/min	75				
Maximum Intermittent Flow		90				
Motor Weight	kg	10,5	11,0	11,5	12,3	13,0

Shaft options

12 - Spline 6 teeth



17 - Spline 14 teeth SAE C





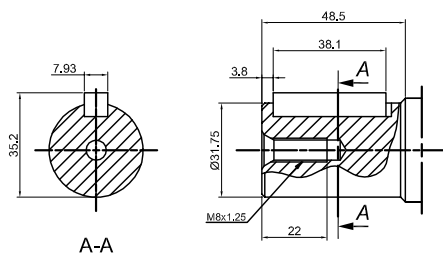
H-OMS Series

H-OMS

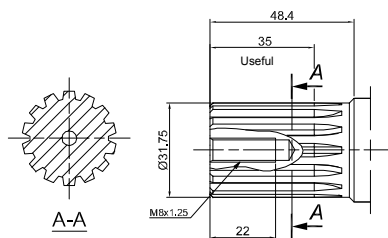
Parameter	Unit	Volumetric Options									
Nominal Size	TN	80	100	125	160	200	250	315	400	500	
Volumetric Displacement	cm³/rev	80,5	100,0	125,7	159,7	200,0	250,0	314,9	393,0	488,0	
Maximum Continuous Rotation	rpm	810	750	600	470	375	300	240	190	155	
Maximum Intermittent Rotation		1000	900	720	560	450	360	285	230	185	
Maximum Continuous Torque	Nm	240	305	375	490	610	720	825	865	850	
Maximum Intermittent Torque		310	390	490	600	720	870	1000	990		
Maximum Continuous Power	hp	20,8	24,1		22,1		19,4	20,1	14,8	12,1	
Maximum Intermittent Power		26,2	30,2		30,8	29,5	24,1	22,8	16,8	14,1	
Maximum Continuous Pressure	Bar	210					200		160	120	
Maximum Intermittent Pressure		275			260	250		240	190	140	
Maximum Continuous Flow	L/min	65	75								
Maximum Intermittent Flow		80	90								
Motor Weight	kg	9,8	10	10,3	10,7	11,1	11,6	12,3	12,6	13,5	

Shaft options

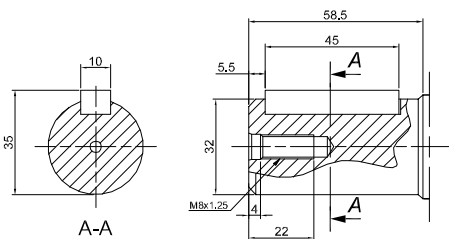
39 - Cylindrical Keyed $\phi 31,75$ mm



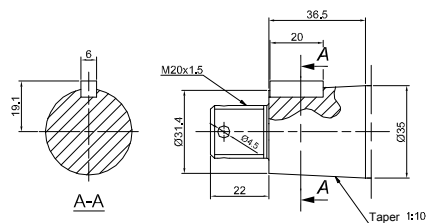
17 - Splined 14 teeth SAE C



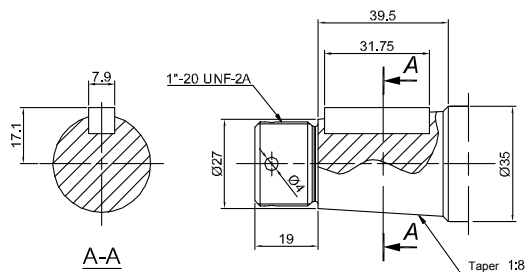
52 - Cylindrical Keyed $\phi 32$ mm



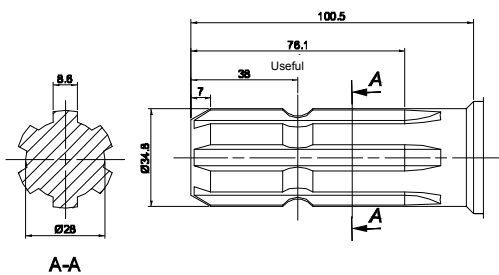
64 - Tapered Keyed 1:10, Thread M20X1.5, Axle Pin of 6mm



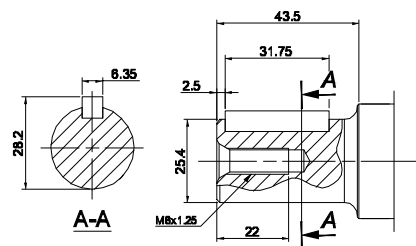
60 - Tapered Keyed 1:8 Thread 1" - 20 UNF, Axle Pin of 7.94mm



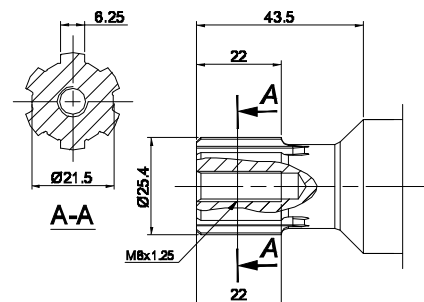
12 - Splined 6 teeth long



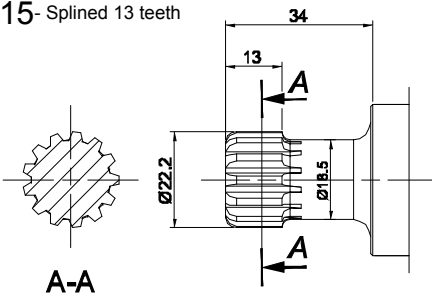
37 - Cylindrical Keyed $\varnothing 1"$



12 - Splined 6 teeth

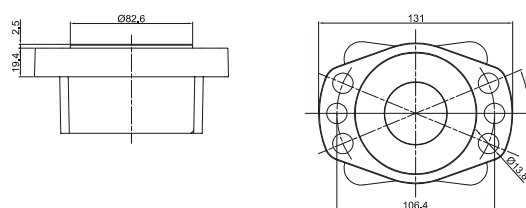


15 - Splined 13 teeth

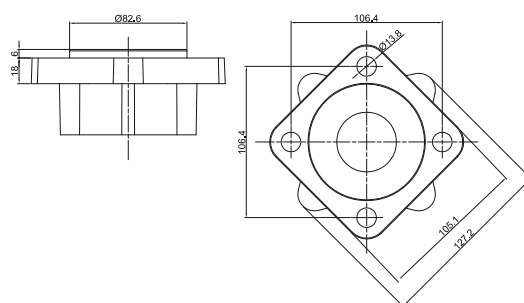


Standard Shaft End Cover Options

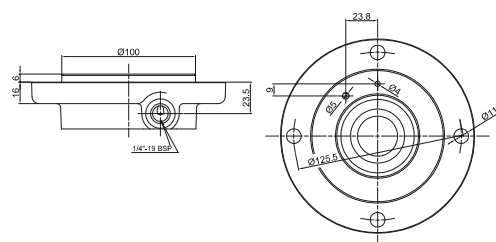
55 - 4 Bolt magneto Flange, pilot $\varnothing 82,5\text{mm}$



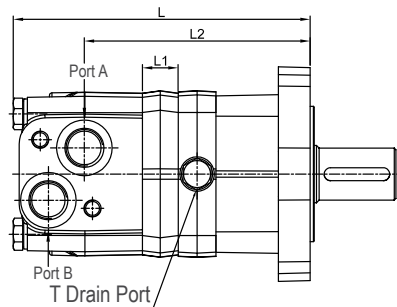
53 - 4 Bolt SQUARE Flange, 106,4 x 106,4 pilot $\varnothing 82,5\text{mm}$



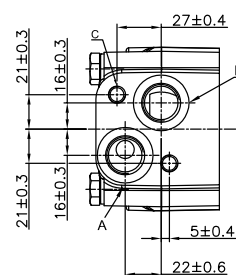
54 - 4 holes ROUND Flange, pilot $\varnothing 100\text{mm}$



Dimensions



See Frames Table



Model	TN	80	100	125	160	200	250	315	400	500
L (mm)		167,0	170,0	175,0	181,0	188,0	196,0	208,0	221,0	221,0
L1 (mm)		14,0	17,4	21,8	27,8	34,8	43,5	54,8	68,4	68,4
L2 (mm)		124,0	127,0	132,0	138,0	145,0	153,0	165,0	178,0	178,0

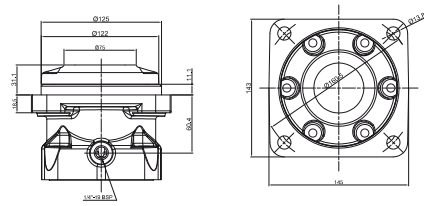


Shaft options

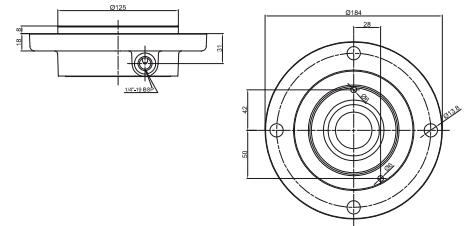
Technical drawing of a bolt with a hexagonal head. The left view shows the hexagonal head with a width of 8,8 and a diameter of Ø28,1. The right view shows the bolt with a total length of 102, a useful length of 78,1, and a thread length of 38. The thread has a pitch of 7. The bolt has a diameter of Ø34,8. Section lines A-A are indicated.

Standard Shaft End Cover Options

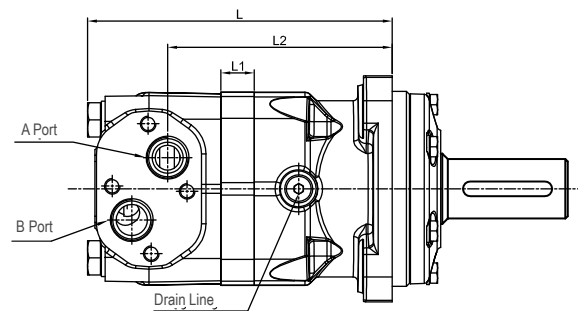
51 - SQUARE Flange pilot ø120mm



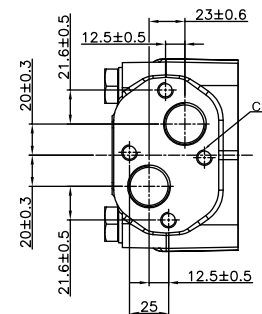
52 - 4 Bolt ROUND Flange, pilot ø125mm



Dimensions



See Ports Table



Model TN	160	200	250	315	400	500
L (mm)	190,0	195,0	201,0	211,0	221,0	235,0
L1 (mm)	16,5	21,5	27,8	37,0	47,5	61,5
L2 (mm)	140,0	145,0	151,0	161,0	171,0	185,0

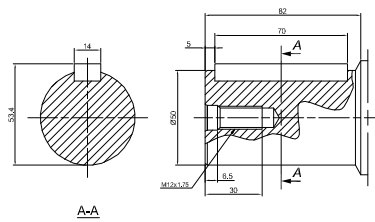


Series H-OMV

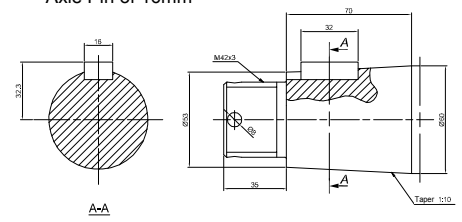
Parameter	Unit	Volumetric Options					
Nominal Size	TN	315	400	500	630	800	
Volumetric Displacement	cm ³ /rev	314,5	400,9	499,6	629,1	801,8	
Maximum Continuous Rotation	rpm	510	500	400	315	250	
Maximum Intermittent Rotation		630	600	480	380	300	
Maximum Continuous Torque	Nm	920	1180	1460	1660	1880	
Maximum Intermittent Torque		1110	1410	1760	1940	2110	
Maximum Continuous Power	hp	57,0	71,7		64,4	57,0	
Maximum Intermittent Power		68,4	85,8		75,1	64,4	
Maximum Continuous Pressure	Bar	200			180	160	
Maximum Intermittent Pressure		240			210	180	
Maximum Continuous Flow	L/min	160	200				
Maximum Intermittent Flow		200	240				
Motor Weight	kg	31,8	32,6	33,5	34,9	36,5	

Shaft options

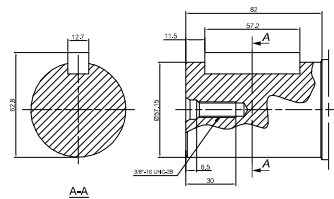
27 - Cylindrical Keyed $\phi 50\text{mm}$



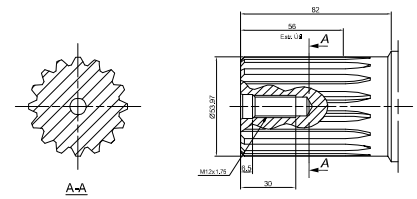
66 - Tapered Keyed 1:10, Thread M42x3
Axle Pin of 16mm



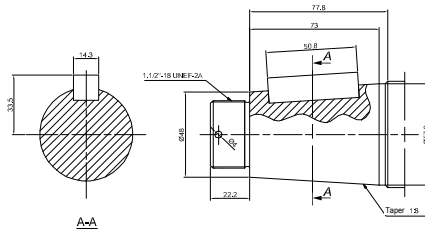
51 - Cylindrical Keyed $\phi 2.1/4"$



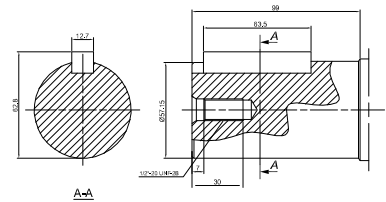
24 - Splined 16 teeth



61 - Tapered Keyed 1:8 Thread $1.1/2"-18\text{ UNF}$,
Axle Pin of 14.3mm

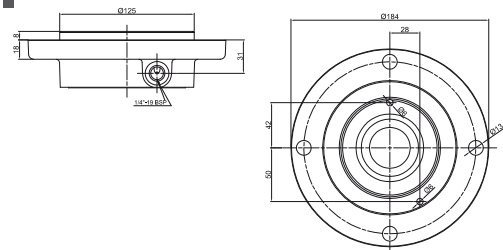


51 - Cylindrical Keyed $\phi 2.1/4"$ long

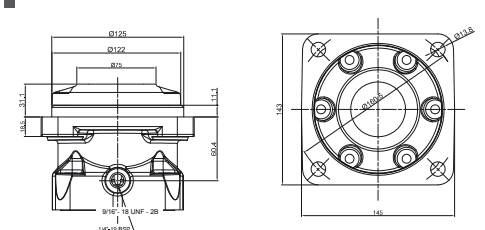


Standard Shaft End Cover Options

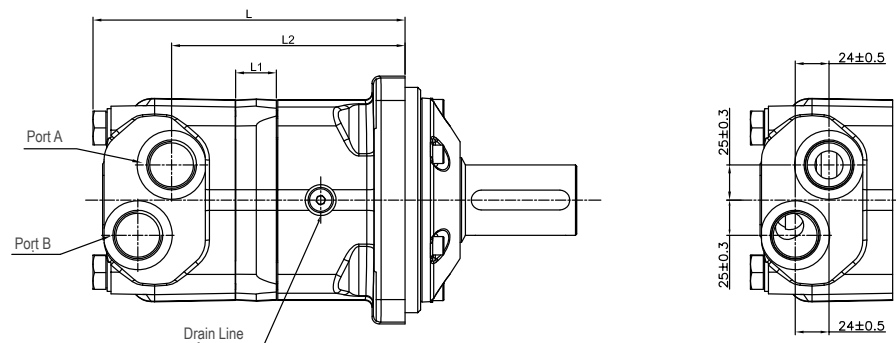
49 - ROUND Flange pilot $\phi 140\text{mm}$



50 - 4 Bolt SQUARE Flange, pilot $\phi 160\text{mm}$



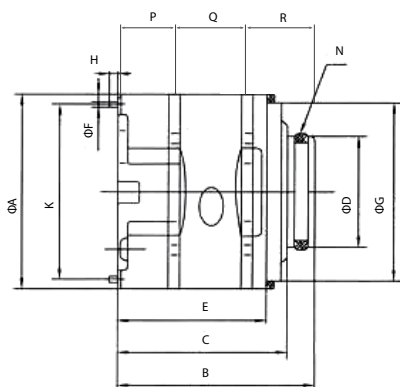
Dimensions



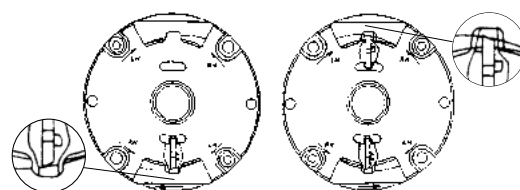
Model TN	315	400	500	630	800
L (mm)	215,0	222,0	230,0	240,0	254,0
L1 (mm)	22,0	29,0	37,0	47,5	61,5
L2 (mm)	160,0	167,0	175,0	186,0	200,0



Replacement Vane Pump Cartridge kits for - VQ Series



Detail of the mounting of the blades in relation to the rotation
Rotary Gear Assembly /rear view



Right Rotation
Rear Cartridge

Right Rotation
Front Cartridge

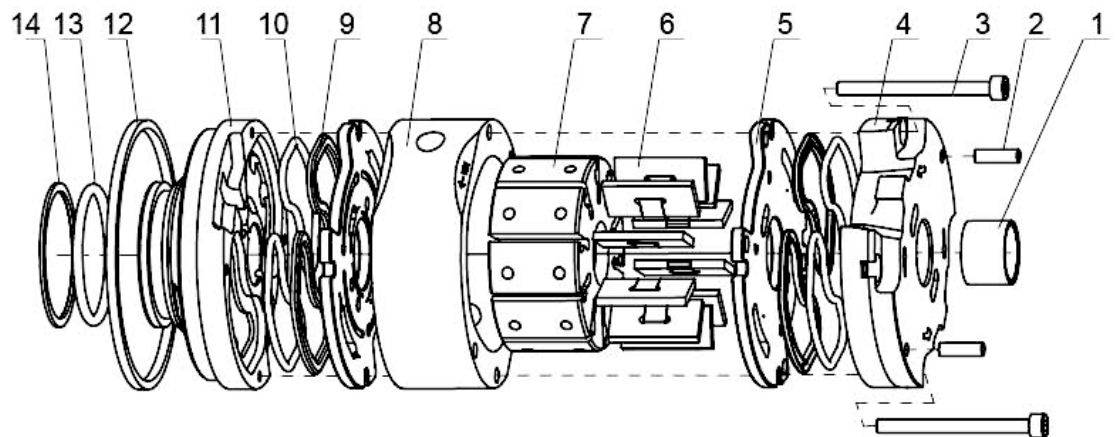
															EXTERNAL DIMENSIONS			
SERIES	T.N.	HYBEL CODE	ROTATION SENSE	ØA	B	C	ØD	E	ØF	ØG	H	K	M (SEALING)	N (O-RING)	P	Q	R	
20VQ	08	V57223008001	TIME-CLOCKWISE	82,50	81,50	70,10	47,20	61,50	4,80	76,20	7	73,60	82,76 x 72,26 x 3,5	40 x 3,5	27,70	21,45	32,30	
		V57223008002	COUNTER-CLOCKWISE															
	11	V57223011001	TIME-CLOCKWISE												19,10	30,47		
		V57223011002	COUNTER-CLOCKWISE															
	12	V57223012001	TIME-CLOCKWISE															
		V57223012003	COUNTER-CLOCKWISE															
25VQ	12	V57223012002	TIME-CLOCKWISE	96,80	98,80	87,00	52,20	71,20	4,80	90,50	7	88,19	97 x 91 x 3,5	44 x 3,5	23,90	33,30	41,20	
		V57223012004	COUNTER-CLOCKWISE															
	14	V57223014001	TIME-CLOCKWISE															
		V57223014002	COUNTER-CLOCKWISE															
	17	V57223017001	TIME-CLOCKWISE															
		V57223017002	COUNTER-CLOCKWISE															
	21	V57223021001	TIME-CLOCKWISE															
		V57223021002	COUNTER-CLOCKWISE															
35VQ	25	V57223025001	TIME-CLOCKWISE	114,30	117,70	105,00	72,20	90,30	6,40	108,00	7	103,94	114,5 x 108,5 x 3,5	63,09 x 3,53	28,50	40,20	49,20	
		V57223025002	COUNTER-CLOCKWISE															
	30	V57223030001	TIME-CLOCKWISE															
		V57223030002	COUNTER-CLOCKWISE															
	35	V57223035001	TIME-CLOCKWISE															
		V57223035002	COUNTER-CLOCKWISE															
	38	V57223038001	TIME-CLOCKWISE															
		V57223038002	COUNTER-CLOCKWISE															
45VQ	42	V57223042001	TIME-CLOCKWISE	133,35	141,10	129,60	80,20	105,50	6,40	127,00	8	123,80	133,6 x 127,6 x 3,5	71 x 3,55	42 - 50 - 60	46,50	62,00	
		V57223042002	COUNTER-CLOCKWISE															
	50	V57223050001	TIME-CLOCKWISE															
		V57223050002	COUNTER-CLOCKWISE															
	60	V57223060001	TIME-CLOCKWISE															
		V57223060002	COUNTER-CLOCKWISE															

SERIES	INSIDE SPLINE TOOTH OUTLINE PARAMETER OF ROTOR				
	NUMBER OF TEETH	PITCH	PRESSURE ANGLE	MAJOR DIAMETER	MINOR DIAMETER
S 20VQ	30	48/96	45°	16.617	15.56
S 25VQ	40	48/96	45°	21.9	20.86
S 35VQ	37	40/80	45°	24.38	23.10
S 45VQ	14	12/24	30°	32.59	27.60

Technical Specifications

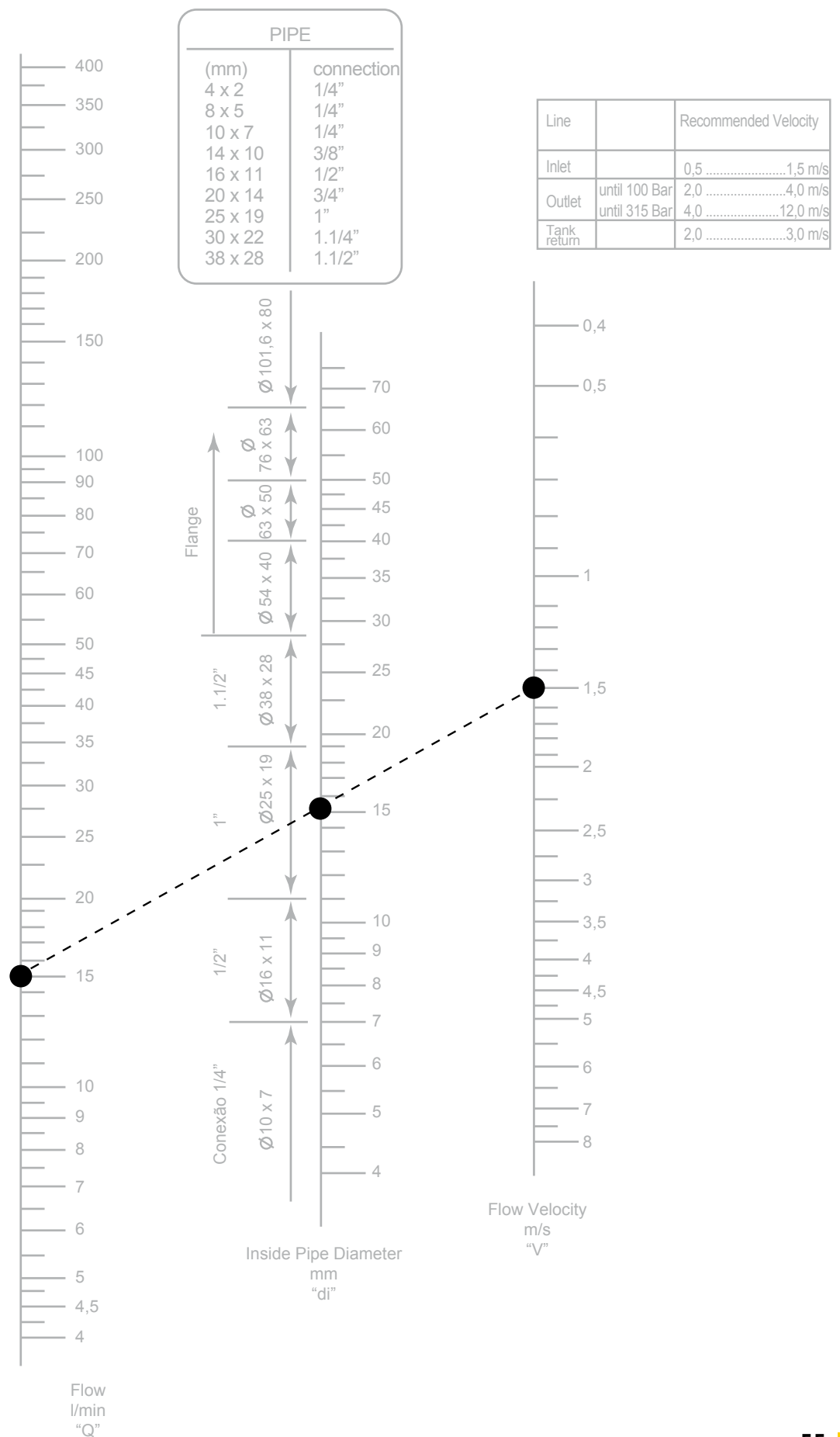
SERIES	Code Flow / Gallons	cm³/rev	Max. Pressure bar	Max. Rotation rpm	Min. Rotation rpm
20VQ	8	27	210	2700	600
	11	35			
	12	40	160		
25VQ	12	38	210	2700	600
	14	43,5		2500	
	17	54			
	21	67			
35VQ	25	81	210	2500	600
	30	95		2400	
	35	109			
	38	119			
45VQ	42	134	175	2400	600
	50	159		2200	
	60	189			

Parts of vane pump



Numbers	Description	Qty
1	Bushing	1
2	Guide Pin	2
3	Bolts	2
4	Inlet Line Board	1
5	Clapper Board	2
6	Vanes Kit	10
7	Rotor	1
8	Cartridge port	1
9	Sealing Ring	4
10	Anti Extrusion Ring	4
11	Output Line Board	1
12	Sealing Ring	1
13	"O" Ring	1
14	Anti Extrusion Seal	1

Nomograph for Pipe Velocity





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