NEW

3TPW

Cast Iron Gear Pump

Galtech

titan POWER

walvoil
FLUID POWER E|MOTION

A member of
INTERPUMP GROUP

3TPW
Cast Iron Gear Pump

Walvoil presents the new range of **3TPW** Cast Iron Pumps.
These pumps are particularly suitable for all applications where traditional aluminum pumps are used at the limit of their performance; eg. for installation on mobile equipment intended for heavy duty operating cycles, where pressures or mechanical stresses are typically higher.
Its two-piece construction allows an increase in pressures with P1 up to 300 bar *(4350 psi)* pressure on a wide displacement range of 23.9 to 79.8 cm³/ rev *(1.46 to 4.87 in³/rev)*.
The new 3TPW completes the cast iron pump range. Thanks to a wide range of integrated valves, this pump is suitable for mobile applications in Agricultural and Construction/Earth Moving sectors (Skid Steer Loaders, Telehandlers and Backhoe Loaders).

- ☐ **Long life expectancy**
- ☐ **High efficiencies**
- ☐ **High pressure limits**
- ☐ **Reduced number of components**
- ☐ **Reduced overall dimension**

GENERAL WORKING CONDITIONS		
Displacement		from 23.9 to 79.8 cm³/rev *from 1.46 to 4.87 in³/rev*
Max continuous pressure	up to	300 bar - *4350 psi*
Fluid		hydraulic mineral oil-based
Fluid temperature	with NBR (buna N) seals	from -20 to +80 °C *from -4 to +176 °F*
Viscosity	Recommended	from 15 to 92 mm²/s (cSt)
	Permitted for starting	2000 mm²/s (cSt)
Max level of contamination	Recommended for operating pressure > 150 bar *(2150 psi)*	20/18/15 ISO 4406 *class 9 (NAS 1638)*
	Recommended for operating pressure < 150 bar *(2150 psi)*	21/19/16 ISO 4406 *class 10 (NAS 1638)*

NOTE- For motor version, please contact our Sales Dpt.

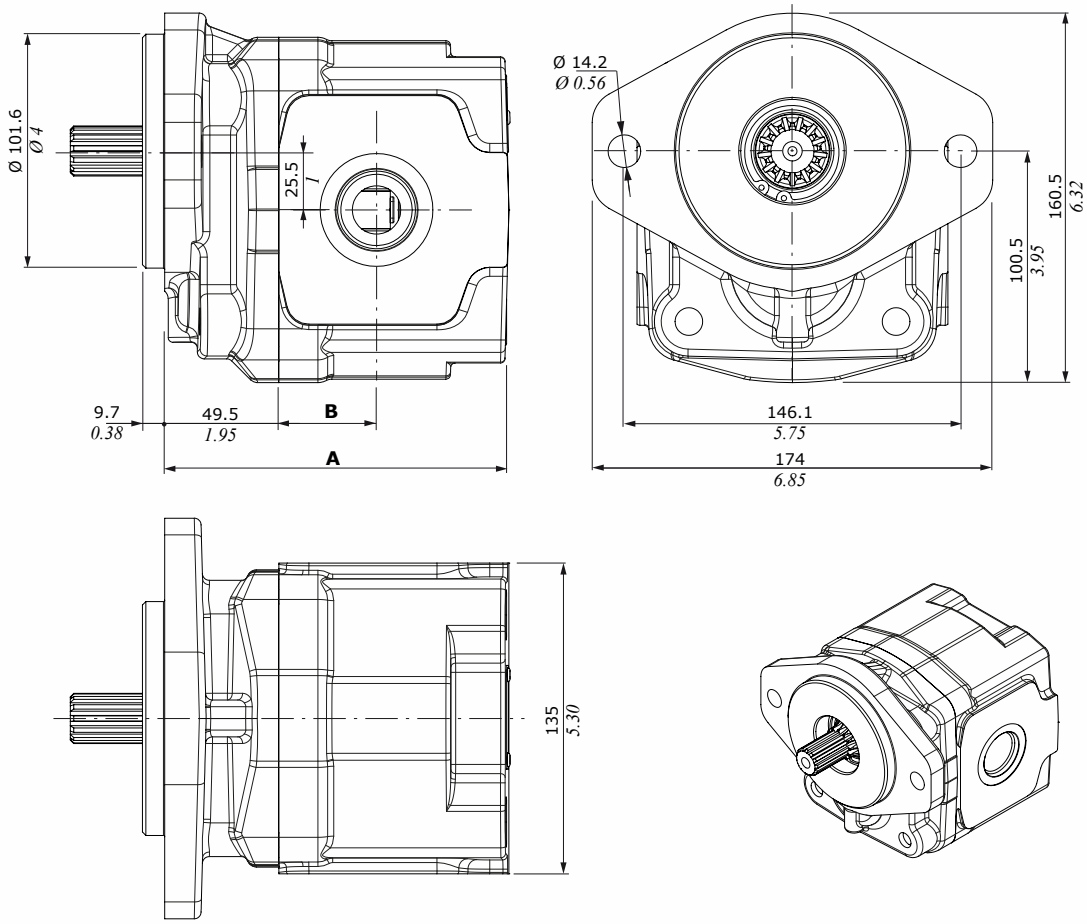
Technical data

GROUP 3TPW	Displacement		Max continuous pressure		Max intermittent pressure		Max peak pressure		Max rotation speed
	cm³/rev	*in³/rev*	bar	*psi*	bar	*psi*	bar	*psi*	rpm
3TPW 230	23.9	*1.46*	300	*4,350*	320	*4,640*	330	*4,785*	3000
3TPW 280	28	*1.71*	300	*4,350*	320	*4,640*	330	*4,785*	3000
3TPW 320	32.2	*1.96*	300	*4,350*	320	*4,640*	330	*4,785*	3000
3TPW 390	39.7	*2.42*	300	*4,350*	320	*4,640*	330	*4,785*	3000
3TPW 430	43.8	*2.67*	300	*4,350*	320	*4,640*	330	*4,785*	3000
3TPW 470	47.9	*2.92*	290	*4,205*	310	*4,495*	320	*4,640*	3000
3TPW 520	52.0	*3.18*	290	*4,205*	310	*4,495*	320	*4,640*	2800
3TPW 560	56.8	*3.47*	290	*4,205*	310	*4,495*	320	*4,640*	2500
3TPW 600	60.9	*3.72*	270	*3,915*	290	*4,205*	300	*4,350*	2500
3TPW 650	65-0	*3.97*	250	*3,625*	270	*3,915*	280	*4.060*	2500
3TPW 710	71.6	*4.37*	230	*3,335*	250	*3,625*	260	*3,770*	2500
3TPW 790	79.8	*4.87*	210	*3,045*	230	*3,335*	240	*3,480*	2500

NEW

Dimensions

The dimensional drawing represents the version with **SAEB** flange (for other flanges, see the next page).

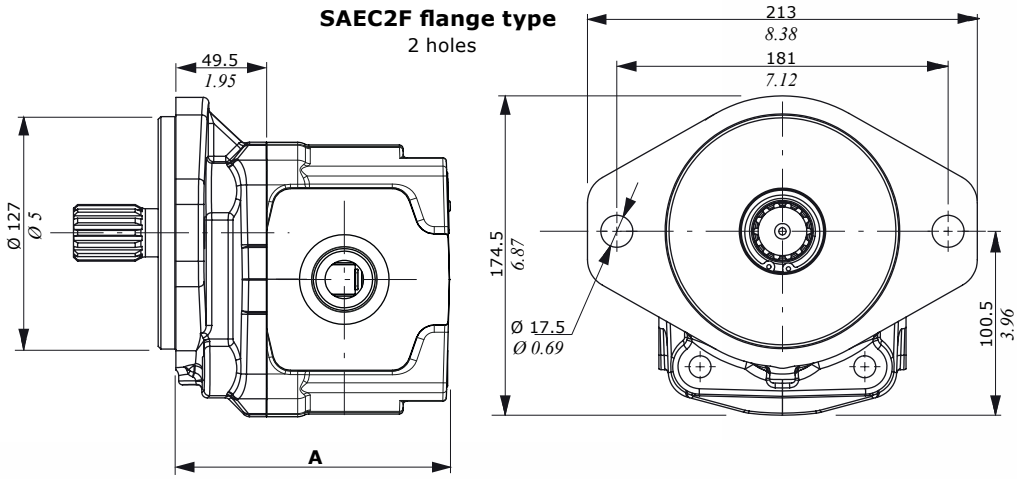


GROUP 3TPW	Dimension A		Dimension B Porting type G (BSP) W (UN-UNF) F (SAE)		N (EUROPEAN)		T (GERMAN)	
	mm	*in*	mm	*in*	mm	*in*	mm	*in*
3TPW 230	125.5	*4.94*	27	*1.06*	35	*1.37*	33	*1.30*
3TPW 280	128.5	*5,06*	30	*1.18*	35	*1.37*	33	*1.30*
3TPW 320	131.5	*5.18*	32	*1.26*	36	*1.41*	34	*1.33*
3TPW 390	137	*5.39*	36	*1.41*	37	*1.37*	36	*1.41*
3TPW 430	140	*5.51*	38.5	*1.51*	38	*1.50*	38.5	*1.51*
3TPW 470	143	*5.63*	41	*1.61*	39	*1.53*	41	*1.61*
3TPW 520	146	*5.75*	41	*1.61*	40	*1.57*	41	*1.61*
3TPW 560	149.5	*5.88*	42.5	*1.67*	40	*1.57*	42.5	*1.67*
3TPW 600	152.5	*6*	43.5	*1.71*	40	*1.57*	43.5	*1.71*
3TPW 650	155.5	*6.12*	44.5	*1.75*	44	*1.73*	44.5	*1.75*
3TPW 710	160.5	*6.32*	46	*1.81*	49	*1.93*	46	*1.81*
3TPW 790	166.5	*6.55*	52	*2.04*	55	*2.16*	52	*2.04*

3TPW
Cast Iron Gear Pump

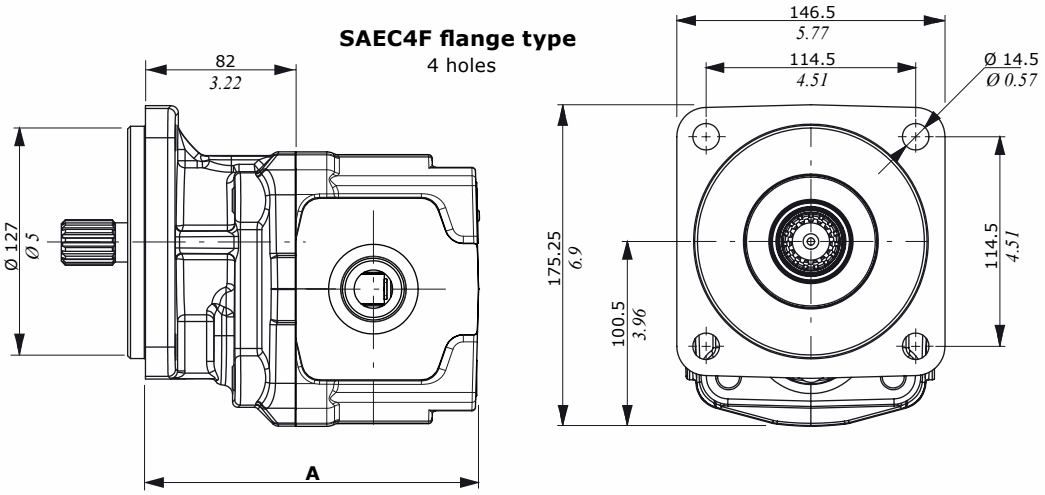
Dimensions

SAEC2F flange type
2 holes



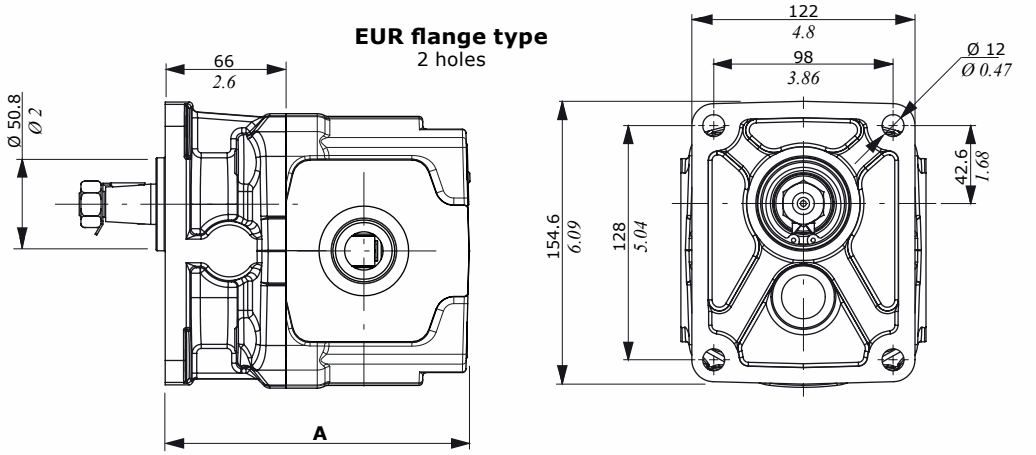
GROUP 3TPW	A mm	A in
3TPW 230	125.5	4.94
3TPW 280	128.5	5,06
3TPW 320	131.5	5.18
3TPW 390	137	5.39
3TPW 430	140	5.51
3TPW 470	143	5.63
3TPW 520	146	5.75
3TPW 560	149.5	5.88
3TPW 600	152.5	6
3TPW 650	155.5	6.12
3TPW 710	160.5	6.32
3TPW 790	166.5	6.55

SAEC4F flange type
4 holes



GROUP 3TPW	A mm	A in
3TPW 230	158	6.22
3TPW 280	161	6.33
3TPW 320	164	6.45
3TPW 390	169.5	6.67
3TPW 430	172.5	6.78
3TPW 470	175.5	6.90
3TPW 520	178.5	7.02
3TPW 560	182	7.16
3TPW 600	185	7.28
3TPW 650	188	7.40
3TPW 710	193	7.59
3TPW 790	199	7.83

EUR flange type
2 holes



GROUP 3TPW	A mm	A in
3TPW 230	142	5.59
3TPW 280	145	5.70
3TPW 320	148	5.83
3TPW 390	153.5	6.04
3TPW 430	156.5	6.16
3TPW 470	159.5	6.28
3TPW 520	162.5	6.4
3TPW 560	166	6.53
3TPW 600	169	6.65
3TPW 650	172	6.77
3TPW 710	177	6.97
3TPW 790	183	7.20

NEW

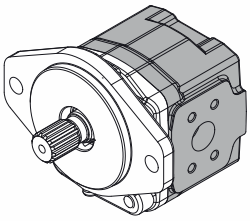
Body options

G0 Body:
Single stage.

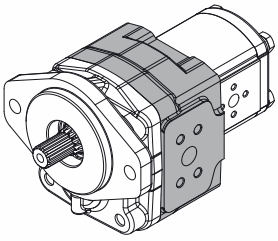
G2 body:
Stage for G2 pump. connection

G3 body:
Stage for G3 pump. connection needs a kit flange for implementing 3TPW+3TPW

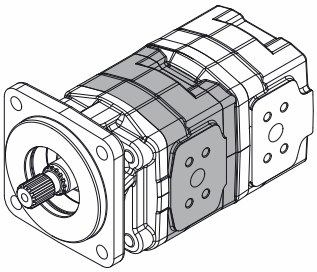
GV body:
Stage for auxiliary valves.



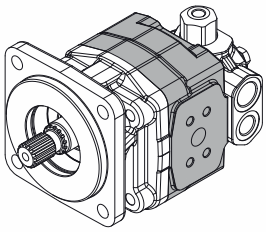
3TPW example



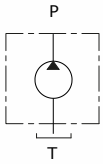
3TPW + 2SP example

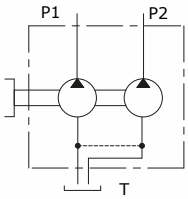


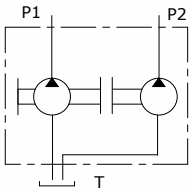
3TPW + 3TPW example

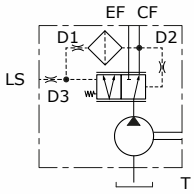


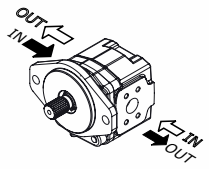
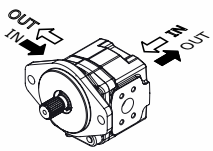
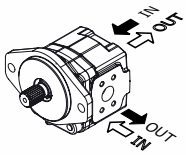
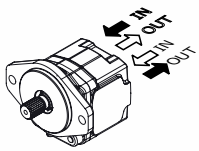
3TPW + AUX example









Connection position			
0	**1**	**3**	**4**
			

*Clockwise rotation - **D***

*Anti-clockwise rotation - **S***

Auxiliary valves for GV body	
VLPI	Pressure relief valve (internal drain)
VLPE	Pressure relief valve(external drain)
VRF	Flow regulator
VRFVLP	Flow divider and relief valve
UNLD	Unloading valve
CP	Priority valve
VA	Anticavitation valve
VMA	Anticavitation and Antishock valve

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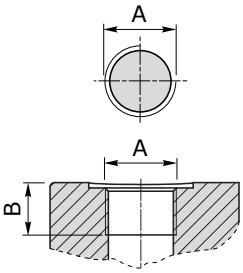
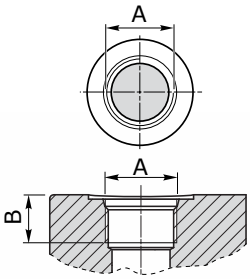
Ports and connections

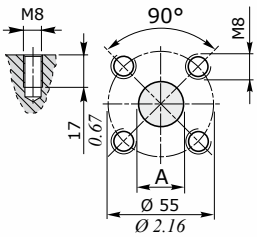
G: BSP



W: UN-UNF

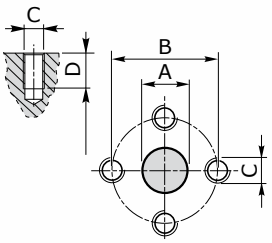


T: German Flange



GROUP 3TPW	Port Threading													
	G (BSP)						W (UN-UNF)				T (GERMAN)			
	A		B				A		B		A			
	IN	OUT	IN		OUT		IN	OUT	IN-OUT		Ø IN		Ø OUT	
			mm	*in*	mm	*in*			mm	*in*	mm	*in*	mm	*in*
3TPW 230	G1	G3/4	20	*0.79*	18	*0.71*	SAE16	SAE12	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 280	G1	G3/4	20	*0.79*	18	*0.71*	SAE16	SAE12	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 320	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 390	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 430	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 470	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 520	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 560	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 600	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 650	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 710	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*
3TPW 790	G1 1/4	G1	20	*0.79*	18	*0.71*	SAE20	SAE16	20.5	*0.81*	27	*1.06*	19	*0.75*

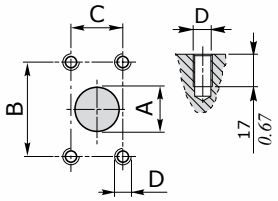
N: European Flange



GROUP 3TPW	Port Threading N (EUROPEAN)													
	A				B				C		D			
	Ø IN		Ø OUT		Ø IN		Ø OUT		Ø IN	Ø OUT	IN		OUT	
	mm	*in*	mm	*in*	mm	*in*	mm	*in*			mm	*in*	mm	*in*
3TPW 230	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 280	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 320	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 390	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 430	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 470	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 520	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 560	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 600	27	*1.06*	19	*0.75*	51	*2.01*	40	*1.57*	M10	M8	17	*0.67*	15	*0.59*
3TPW 650	33	*1.30*	19	*0.75*	62	*2.44*	40	*1.57*	M12	M8	17	*0.67*	15	*0.59*
3TPW 710	33	*1.30*	27	*1.06*	62	*2.44*	51	*2.01*	M12	M10	17	*0.67*	15	*0.59*
3TPW 790	33	*1.30*	27	*1.06*	62	*2.44*	51	*2.01*	M12	M10	17	*0.67*	15	*0.59*

Ports and connections

F: SAE J518-1 connection



GROUP 3TPW	Port Threading F (SAE J518-1 connection)													
	A				B				C				D	
	Ø IN		Ø OUT		Ø IN		Ø OUT		Ø C		Ø D		Ø IN	Ø OUT
	mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*		
3TPW 230	25	*0.98*	19	*0.75*	52.4	*2.06*	47.6	*1.87*	26.2	*1.03*	22.2	*0.87*	M10	M10
3TPW 280	25	*0.98*	19	*0.75*	52.4	*2.06*	47.6	*1.87*	26.2	*1.03*	22.2	*0.87*	M10	M10
3TPW 320	32	*1.25*	19	*0.75*	58.7	*2.31*	47.6	*1.87*	30.2	*1.19*	22.2	*0.87*	M10	M10
3TPW 390	32	*1.25*	19	*0.75*	58.7	*2.31*	47.6	*1.87*	30.2	*1.19*	22.2	*0.87*	M10	M10
3TPW 430	32	*1.25*	25	*0.98*	58.7	*2.31*	52.4	*2.06*	30.2	*1.19*	26.2	*1.03*	M10	M10
3TPW 470	39	*1.53*	25	*0.98*	69.8	*2.75*	52.4	*2.06*	35.7	*1.4*	26.2	*1.03*	M12	M10
3TPW 520	39	*1.53*	25	*0.98*	69.8	*2.75*	52.4	*2.06*	35.7	*1.4*	26.2	*1.03*	M12	M10
3TPW 560	39	*1.53*	32	*1.25*	69.8	*2.75*	58.7	*2.31*	35.7	*1.4*	30.2	*1.19*	M12	M10
3TPW 600	39	*1.53*	32	*1.25*	69.8	*2.75*	58.7	*2.31*	35.7	*1.4*	30.2	*1.19*	M12	M10
3TPW 650	39	*1.53*	32	*1.25*	69.8	*2.75*	58.7	*2.31*	35.7	*1.4*	30.2	*1.19*	M12	M10
3TPW 710	39	*1.53*	32	*1.25*	69.8	*2.75*	58.7	*2.31*	35.7	*1.4*	30.2	*1.19*	M12	M10
3TPW 790	39	*1.53*	32	*1.25*	69.8	*2.75*	58.7	*2.31*	35.7	*1.4*	30.2	*1.19*	M12	M10

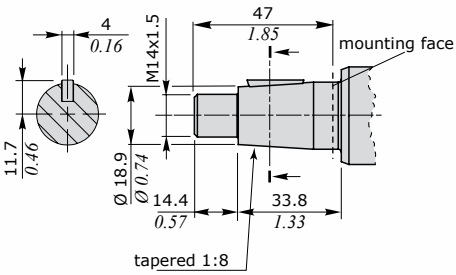
Portings and connections		Porting type				
		G	W	T	N	F
connection options	0	●	●	●	●	●
	1	●	●	-	-	-
	3	●	●	-	-	-
	4	●*	●*	-	-	-

(*) Only for G0 body.

Shaft features

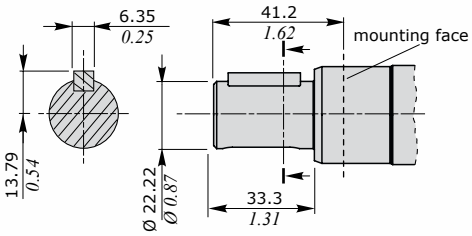
10

Torque 240 Nm / *178 ft-lbs*



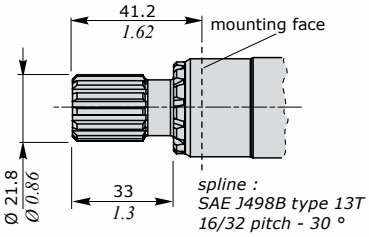
13

Torque 200 Nm / *148 ft-lbs*



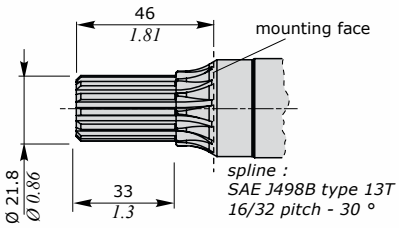
S13

Torque 280 Nm / *207 ft-lbs*



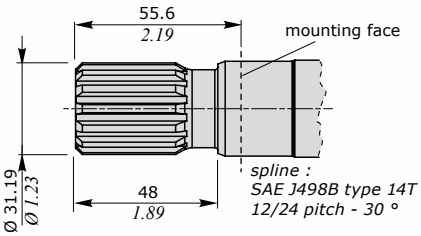
S13N

Torque 300 Nm / *221 ft-lbs*



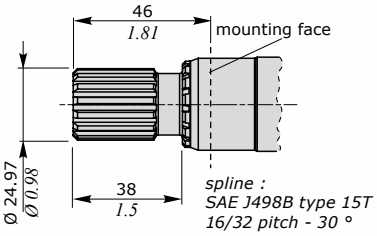
S14 - S14L

Torque 900 Nm / *664 ft-lbs*

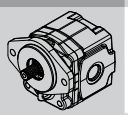
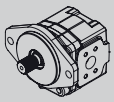
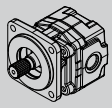
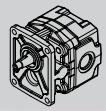


S15 - S15L

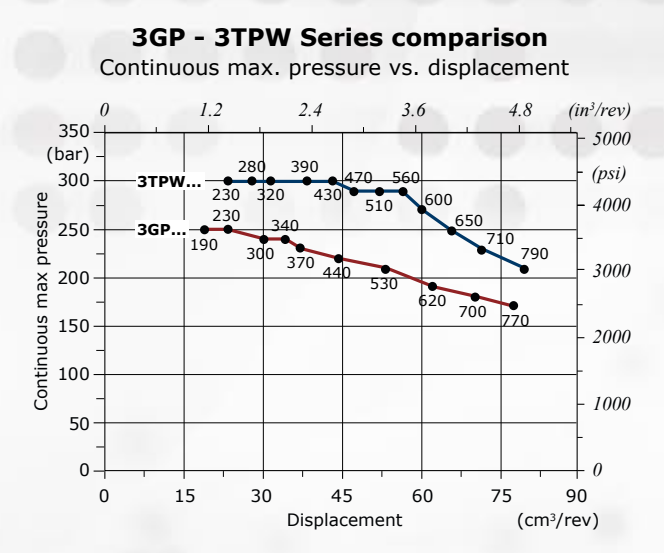
Torque 400 Nm / *296 ft-lbs*



Flange combination and 3GP - 3TPW comparison

GROUP 3TPW		Shaft type							
		10 Conic 1:8	13 SAE B 7/8"	S13 SAE B 13T	S13N SAE B 13T NS	S14 SAE C 14T	S14L SAE C 14T L	S15 SAE B 15T	S15L SAE B 15T L
SAEB		-	◇	◇	◇	◇	-	◇	-
SAEC2F		-	◇	◇	◇	◇	-	◇	-
SAEC4F		-	-	-	-	-	◇	-	◇
EUR		◇	-	-	-	-	-	-	-

◇ = STANDARD COMBINATION



Description composition

3TPW - G0 - 600 - D - SAEB2F - B - N - S13 - 0 - F

1 2 3 4 5 6 7 8 9 10

Reference	Type
1	Pump type
2	Body type
3	Displacement
4	Rotation direction
5	Flange type
6	Shaft seal up 3 bar
7	Seal type NBR
8	Shaft type
9	P Side porting
10	Port type

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