

ITAHYDRAULIC Product Guide

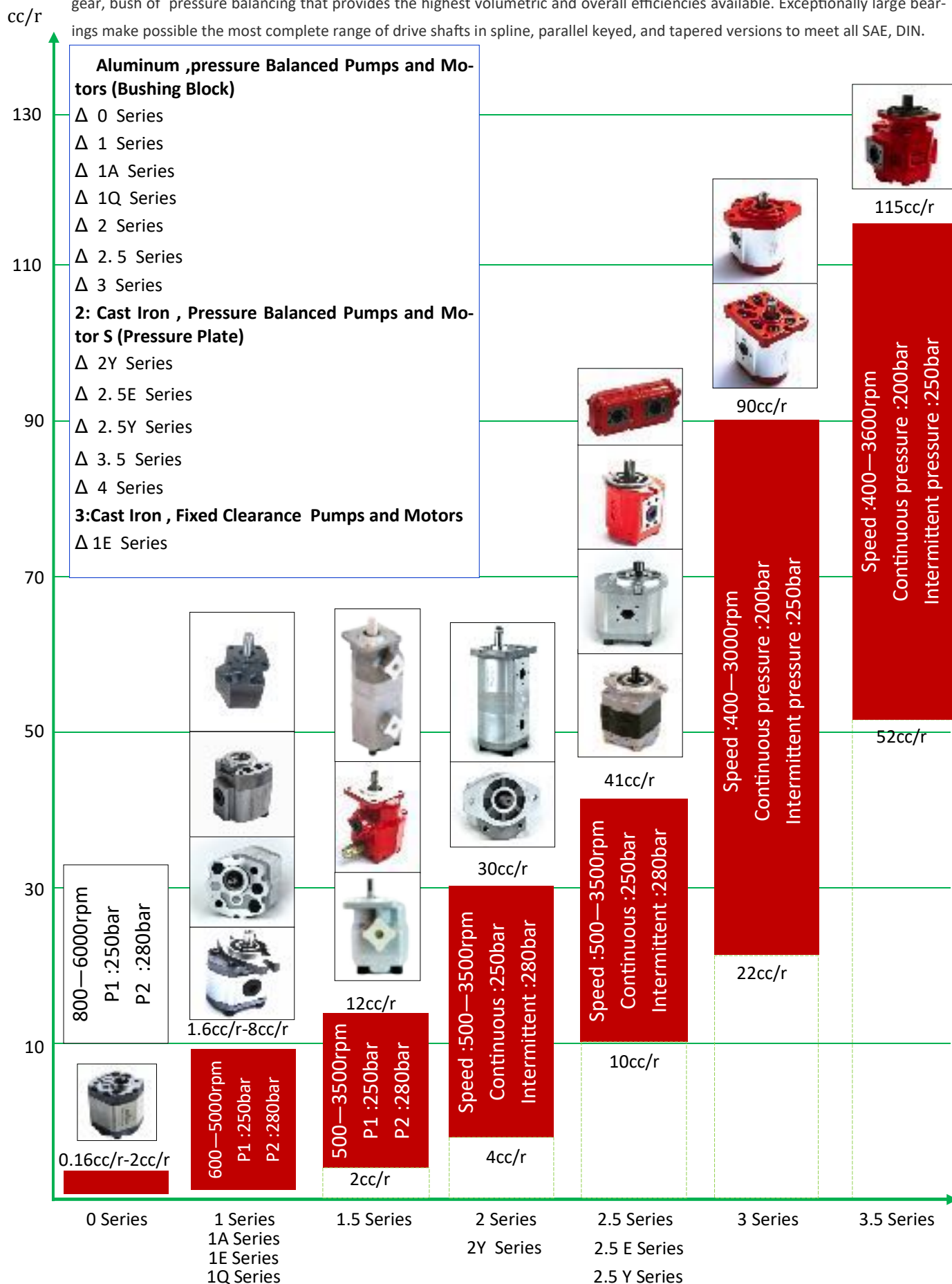
In an effort to make Our Customer “ Quickly to understand ITAHYDRAULIC ’s Products ”,our Team is working to simplify the pricing, ordering and delivery of our products to our distributors so that ITAHYDRAULIC is your fr st choice in solv- ing your customers’ needs.

This guide provides the details on each product family and specific products in stock at ITAHYDRAULIC as well as information as to why a specific family should be choose.

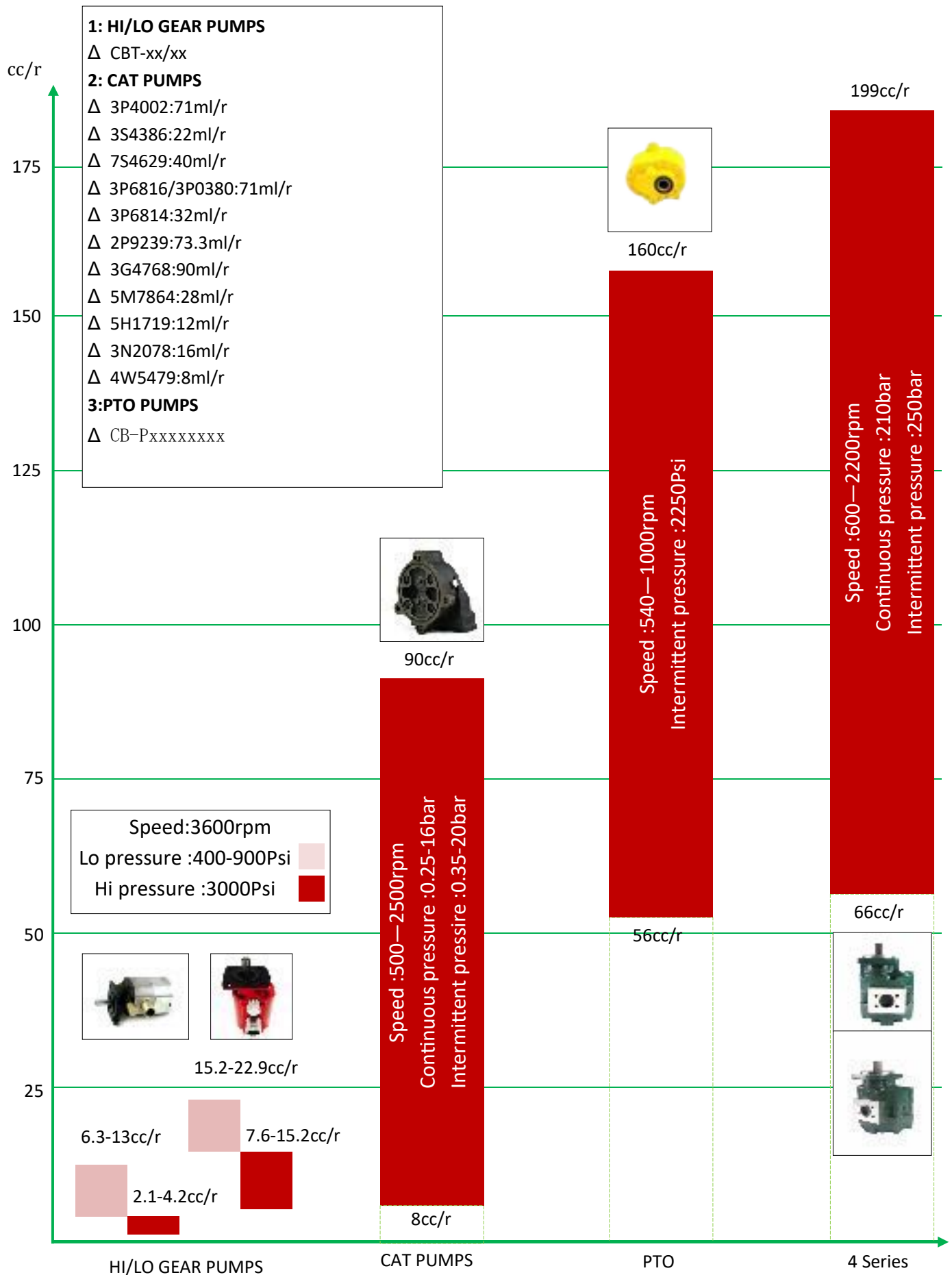


STANDARD CAPABILITIES GUIDE TO GEAR PUMPS AND MOTORS

Gear pumps and motors meet a wide range of mobile and industrial applications. SAE and EUROPEAN mounting flanges and rear covers are available in both cast iron and aluminum for reduced weight. The extruded aluminum body houses , single piece gear, bush of pressure balancing that provides the highest volumetric and overall efficiencies available. Exceptionally large bearings make possible the most complete range of drive shafts in spline, parallel keyed, and tapered versions to meet all SAE, DIN.



STANDARD CAPABILITIES GUIDE TO GEAR PUMPS AND MOTORS



ORDER CODE

Pos.1	2	3	4	5	6	7	8	9	-	O	F	Y
Group	Improve number	Gear pump	Pressure (bar)	ml/r(cc/r)	Ports INLET/OUTLET	Shaft+ flange	Rotation	Ports position				
0	/	P	G 250	0.16	G1/4 /Φ5.5xΦ9.6x1.45 Hole with seal groove	B01	TABG + THROUGH 2 BOLT(22mm PILOT)	BF	Back inlet/front outlet			
				0.25				BB	Back inlet/back outlet			
				0.38				BS	Back inlet/side outlet			
				0.50				SB	Side inlet/back outlet			
				0.75				SF	Side inlet/Front outlet			
				1.00				SS	Side inlet/side outlet			
				1.25							X	✓
1	AT AB A Q	P DP	G 250	1.50	G3/8 /Φ9xΦ12.7x1.45 Hole with seal groove G1/2/ G3/8 M14x1.5(Facing)/M14x1.5(Facing) G3/8/ G1/4 G3/8/ G3/8 X (Φ30xM6xΦ12) / (Φ30xM6xΦ12)	B02 Z02 P01	TABG + THROUGH 2 BOLT(32mm PILOT) EUR TAPER 1:8 + EUR RECTANGULAR(25.4mm PILOT) Φ12.7 + SAE A	BF	Back inlet/front outlet			
				1.60				BB	Back inlet/back outlet			
				1.80				BS	Back inlet/side outlet			
				2.10				SB	Side inlet/back outlet		X	✓
				2.70				SF	Side inlet/Front outlet			
				3.20				SS	Side inlet/side outlet			
				3.70								
1.5	AT AB A	P DP	G 250	4.20	NPT1/2/ NPT1/2 + (25.2x25.2) xM6xΦ14.5/(25.2x25.2) xM6xΦ14.5	P04	4-Φ9 Square Flange, Tang shaft Φ12.5mm Key 4x6.5x16mm	BF	Back inlet/front outlet			
				4.80				BB	Back inlet/back outlet			
				5.80				BS	Back inlet/side outlet			
				8.00				SB	Side inlet/back outlet		X	✓
				2				SF	Side inlet/Front outlet			
				3				SS	Side inlet/side outlet			
				4								
2	A AB AH L /	P DP TP	G 250	6	G3/4 / G1/2 NPT3/4/ NPT1/2 PT3/4/ PT1/2 M20x1.5/M18x1.5 (7/8-14UNF-2B)/(3/4-16UNF-2B) (1-1/16-12UN-2B)/(7/8-14UNF-2B) X(Φ40xM6xΦ15)/(Φ35xM6xΦ15) X(Φ40xM6xΦ20)/(Φ35xM6xΦ15) + (Φ40xM8xΦ20)/(Φ30xM6xΦ13) + (Φ30xM6xΦ13)/(Φ30xM6xΦ13)	P02 P03 S02 S03 Z03 Z18 Z11 B11	Φ18 + SAE A Φ19.05+ SAE A Spline 11Z 16/32 + SAE A Spline 9Z 16/32 + SAE A EUR TAPER 1:8 + EUR RECTANGULAR(36.5mm PILOT) GERMAN TAPER 1:5 + GERMAN RECTANGULAR TABG + THROUGH 2 BOLT(50mm PILOT) TABG + THROUGH 4 BOLT(50mm PILOT)	BB	Back inlet/back outlet			
				8				BS	Back inlet/side outlet			
				10				SB	Side inlet/back outlet		✓	✓
				12				SS	Side inlet/side outlet			
				14								
				16								
				18								
			F 200	20								
				23								
				25								
				28								
				30								

ORDER CODE

Pos.1	2		3	4	5	6		7		8	9		-	O	-	F	Y		
Group	Improve number		Gear pump	Pressure (bar)	ml/r (cc/r)		Ports INLET/OUTLET		Shaft+ flange	Rotation		Ports position							
2.5	A	Cast iron covers	P	G	250	20	G1/ G1/2 G1/ G3/4 □ (30.2x58.7xM10xφ25/(26.2x52.4) xM10xφ19	S02	Spline 11Z 16/32 + SAE A	B L R	Bi- direc- tion CCW CW	BB BS SB SS	Back inlet/back outlet Back inlet/side outlet Side inlet/back outlet Side inlet/side outlet	✓		✓			
	C	Aluminum covers, cast iron body, side plate structure		F	200	25												LJ02	
	/	Aluminum covers				27												LJ03	
						30													
						32												F77	
						36													
3	A	Cast iron covers	P DP TP	G	250	22	□ (58.7x28.4)x7/16-14UNCxφ33/ (52.4x26.2)x3/8-16UNCxφ27 □ (φ56xM10xφ27)/ (φ56xM10xφ19) □ (φ62xM10xφ33)/ (φ51xM10xφ27) (1-5/8-12UN-2B)/(1-5/16-12UN-2B) G1/G1	S05 Z05	Spline 13Z 16/32 + SAE A EUR TAPER 1.8 + EUR REC- TANGULAR(50.8mm PILOT)	B L R	Bi- direc- tion CCW CW	BB BS SB SS	Back inlet/back outlet Back inlet/side outlet Side inlet/back outlet Side inlet/side outlet	✓		✓			
	B	Side plate structure				26												F36	
	E	Cast iron covers with side plate structure				34												F10	
	/	Aluminum covers				39												F12	
						43												LJ53	
						51												L00	
3.5	E	Cast iron covers	P DP TP M	F	200	52	G1/G1 (G1-1/4)/(G1-1/4)	S02	Spline 11Z 16/32 + SAE A	B L R	Bi- direc- tion CCW CW	BB BS SB SS	Back inlet/back outlet Back inlet/side outlet Side inlet/back outlet Side inlet/side outlet	✓		✓			
	B	Side plate structure				63												L00	
	/	Aluminum covers				73												L99	
						85													
						93													
						104													
4			P	F	200	66	+ (φ65xM10xφ30) / (φ65xM10xφ24)	S68	Spline 14Z 12/24+SAE BB	B L R	Bi- direc- tion CCW CW	BB BS SB SS	Back inlet/back outlet Back inlet/side outlet Side inlet/back outlet Side inlet/side outlet	✓		✓			
						83												F16	
						91													
						99													
						116													
						132													
O:Outboard bearing +:Diamond port F:FPW seal □ #-type port Y:Relief valve XX-type port																			

Group 1A Gear Pumps and Motors “Quiet Series”

Constructed of an aluminum center section and cast iron /aluminum end plates ,model 1APF is a high pressure hydraulic gear Pumps and Motor with 8 displacement sizes from 0.07-0.48in³/rev(1.3-8.0cm³/rev). The standard mounting flange is a SAE AA - 2 bolt. Standard ports are SAE-6 inlet and SAE-6 outlet; and the driver shaft is a 1/2" diameter straight shaft with 1/8" key.



Recommended Working Conditions

FILTRATION:25 micron or better

INLET PRESSURE:12-32 psi absolute

AMBIENT TEMP:-22°-55°C(-8°-130°F)

OIL VISCOSITY:6-200 cSt

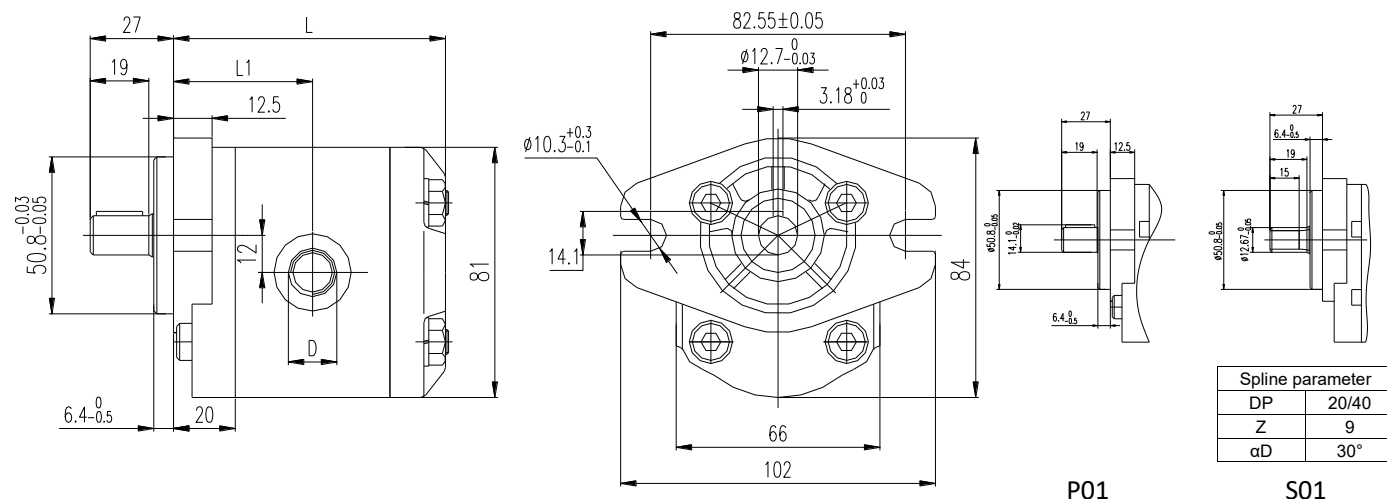
OIL TEMP:-25°-80°C(-12°-175°F)

Technical Specifications

Model	Displacement		Pressure		Speed		Weight
	in^3/rev	cm^3/rev	Cont.	Peak	Min.RPM	Max.RPM	lbs
1APF-1.3	0.07	1.3	2900	3625	650	4000	2.02
1APF-2.0	0.12	2.0	2900	3625	650	4000	2.31
1APF-2.7	0.16	2.7	2900	3625	650	4000	2.68
1APF-3.4	0.20	3.4	2900	3625	650	4000	2.99
1APF-4.1	0.25	4.1	2900	3625	650	4000	3.34
1APF-5.1	0.31	5.1	2900	3625	650	4000	3.78
1APF-6.1	0.30	6.1	2900	3625	650	3600	4.18
1APF-8.0	0.48	8.0	2900	3625	650	3600	5.01

Installation Data

Model	L		L1		Ports	
	in	cm	in	cm	In	Out
1APF-1.3	3.23	8.2	1.65	4.2	SAE-6	SAE-6
1APF-2.0	3.30	8.4	1.69	4.3	SAE-6	SAE-6
1APF-2.7	3.39	8.6	1.73	4.4	SAE-6	SAE-6
1APF-3.4	3.46	8.8	1.77	4.5	SAE-6	SAE-6
1APF-4.1	3.54	9.0	1.81	4.6	SAE-6	SAE-6
1APF-5.1	3.66	9.3	1.87	4.7	SAE-6	SAE-6
1APF-6.1	3.78	9.6	1.93	4.9	SAE-6	SAE-6
1APF-8.0	3.97	10.1	2.01	5.1	SAE-6	SAE-6



Spline parameter	
DP	20/40
Z	9
αD	30°

P01

S01

	Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Ordering Example:	1APF	1.3	LJ66	P01	L	SS	

<u>Category + Group</u>	<u>Displacement</u>	<u>Port Combo</u>	<u>Drive Shaft</u>	<u>Rotation</u>	<u>Port</u>	<u>Options</u>
Pump:1APF	1.3/2.0/2.7/3.4	LJ66= -6-6	P01=1/2"KEYED	L=CCW	SS=SIDE PORT	
Motor:1AMF	4.1/5.1/6.1/8.0			R=CW	BB=REAR PORT	
				B=Bi Ro		

Group 1 Gear Pumps and Motors "Quiet Series"

Constructed of an aluminum center section and cast iron end plates, model 1PF is a high pressure hydraulic gear Pumps and Motor with 12 displacement sizes from 0.07-0.49in³/rev(1.1-8.0cm³/rev). The standard mounting flange is a European - 4 bolt. Standard ports are G3/8 inlet and G3/8 outlet; and the driver shaft is a taper shaft with 1:8.



Recommended Working Conditions

FILTRATION: 25 micron or better

INLET PRESSURE: 12-32 psi absolute

AMBIENT TEMP: -22°-55°C (-8°-130°F)

OIL VISCOSITY: 6-200 cSt

OIL TEMP: -25°-80°C (-12°-175°F)



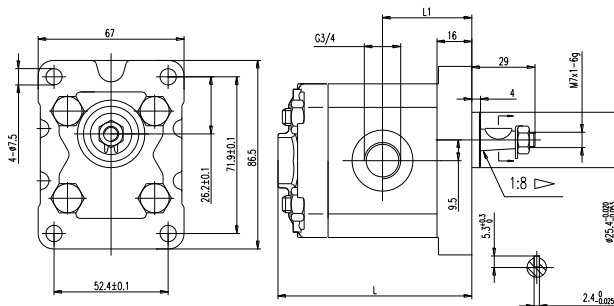
Technical Specifications

Model	Displacement		Pressure		Speed		Weight
	in ³ /rev	cm ³ /rev	Cont.	Peak	Min.RPM	Max.RPM	
1PF-1.1	0.07	1.1	2900	3625	600	6000	1.1
1PF-1.3	0.08	1.3	2900	3625	600	6000	1.1
1PF-1.6	0.10	1.6	2900	3625	600	6000	1.1
1PF-1.8	0.11	1.8	2900	3625	600	6000	1.1
1PF-2.1	0.13	2.1	2900	3625	600	6000	1.1
1PF-2.7	0.16	2.7	2900	3625	600	6000	1.1
1PF-3.2	0.20	3.2	2900	3625	600	5000	1.1
1PF-3.7	0.23	3.7	2900	3625	600	4500	1.1
1PF-4.2	0.26	4.2	2900	3625	600	4000	1.1
1PF-4.8	0.29	4.8	2320	2900	600	3500	1.1
1PF-5.8	0.35	5.8	2320	2900	600	2900	1.1
1PF-8.0	0.49	8.0	2320	2900	600	2100	1.1

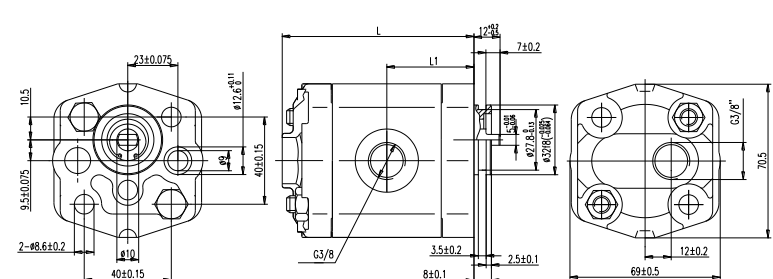
Installation Data

Model	L(B02)		L(Z02)		L1(B02)		L1(Z02)		Ports	
	in	cm	in	cm	in	cm	in	cm	In	Out
1PF-1.1	2.91	7.4	2.95	7.5	1.30	3.3	1.30	3.3	G3/8	G3/8
1PF-1.3	2.95	7.5	2.99	7.6	1.32	3.35	1.34	3.4	G3/8	G3/8
1PF-1.6	2.99	7.6	3.07	7.8	1.34	3.4	1.38	3.5	G3/8	G3/8
1PF-1.8	3.03	7.7	3.09	7.85	1.36	3.45	1.4	3.55	G3/8	G3/8
1PF-2.1	3.07	7.8	3.11	7.9	1.38	3.5	1.42	3.6	G3/8	G3/8
1PF-2.7	3.15	8.0	3.19	8.1	1.42	3.6	1.46	3.7	G3/8	G3/8
1PF-3.2	3.23	8.2	3.27	8.3	1.46	3.7	1.50	3.8	G3/8	G3/8
1PF-3.7	3.31	8.4	3.35	8.5	1.50	3.8	1.54	3.9	G3/8	G3/8
1PF-4.2	3.39	8.6	3.43	8.7	1.54	3.9	1.57	4.0	G3/8	G3/8
1PF-4.8	3.46	8.8	3.50	8.9	1.57	4.0	1.61	4.1	G3/8	G3/8
1PF-5.8	3.62	9.2	3.66	9.3	1.65	4.2	1.69	4.3	G3/8	G3/8
1PF-8.0	3.94	10.0	3.98	10.1	1.81	4.6	1.85	4.7	G3/8	G3/8

Z02



B02



Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Ordering Example:	1PF	1.1	L46	Z02	L	SS

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Pump: 1PF Motor: 1MF	1.1/1.3/1.6/1.8 2.1/2.7/3.2/3.7 4.2/4.8/5.8/8.0	L46=G3/8- G3/8	Z02=Eur Shaft 1:8 B02=Through 2 bolt 32 pilot	L=CCW R=CW B=Bi Ro	SS=SIDE PORT BB=REAR PORT	

Group 2 Gear Pumps and Motors "SAE-A "

Constructed of an aluminum center section and cast iron/aluminum end plates ,2AHPF is a high pressure hydraulic gear Pumps and Motor with 11 displacement sizes from 0.24-1.52in³/rev(4-25cm³/rev). The standard mounting flange is a SAE A - 2 bolt. Standard drive shaft is a 5/8" straight shaft with 5/32"key. Additional shaft options are available as outlined in the Ordering Example.

Recommended Working Conditions

FILTRATION:25 micron or better OIL VISCOSITY:6-200 cSt
INLET PRESSURE:12-32 psi absolute OIL TEMP:-25°-80°C(-12°-175°F)
AMBIENT TEMP:-22°-55°C(-8°-130°F)

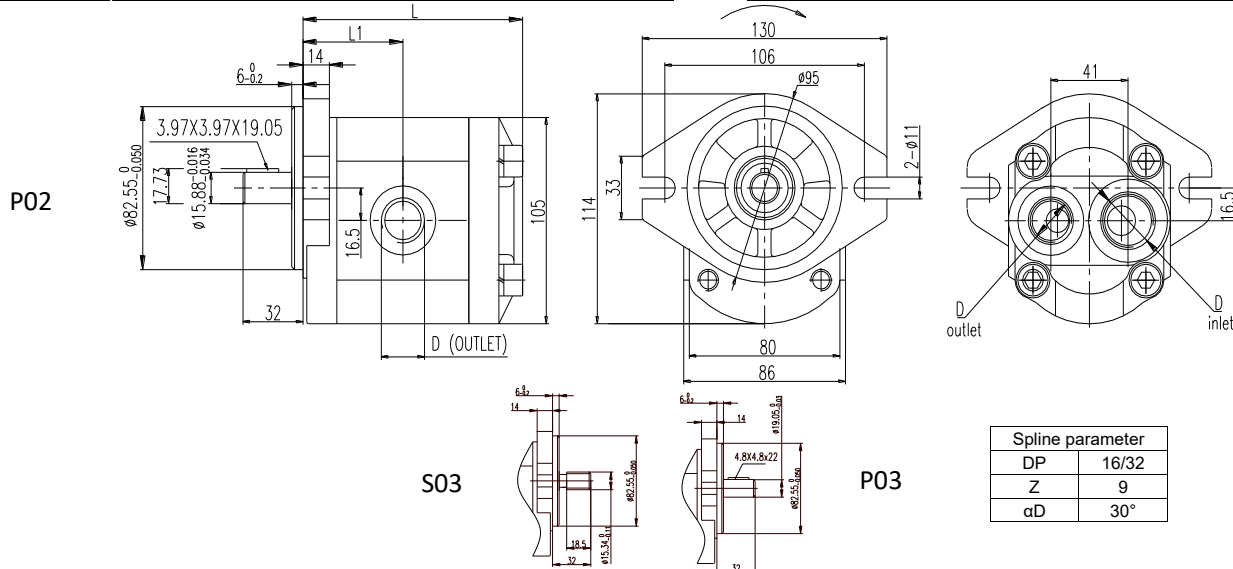
Flow Rate (gpm) = Displacement(in³/rev) X Speed (rpm) /231
Volumetric efficiency ≥93%

Technical Specifications

Model	Displacement		Pressure		Speed		Weight
	in ³ /rev	cm ³ /rev	Cont.	Peak	Min.RPM	Max.RPM	
2AHPF-4	0.24	4	2900	3625	600	4000	7.80
2AHPF-6	0.36	6	2900	3625	600	4000	8.05
2AHPF-8	0.48	8	2900	4061	600	4000	8.25
2AHPF-10	0.61	10	2900	4061	600	3500	8.30
2AHPF-12	0.73	12	2900	4061	600	3500	8.55
2AHPF-14	0.85	14	2900	4061	600	3500	8.70
2AHPF-16	0.97	16	2900	4061	600	3000	8.85
2AHPF-18	1.09	18	2900	4061	600	3000	9.30
2AHPF-20	1.22	20	2900	4061	500	2500	9.80
2AHPF-23	1.40	23	2900	4061	500	2500	10.25
2AHPF-25	1.52	25	2900	4061	500	2000	10.50

Installation Data

Model	L		L1		Ports	
	in	cm	in	cm	In	Out
2AHPF-4	3.70	9.4	1.69	4.3	SAE-12	SAE-10
2AHPF-6	3.87	9.8	1.77	4.5	SAE-12	SAE-10
2AHPF-8	3.95	10.0	1.85	4.7	SAE-12	SAE-10
2AHPF-10	4.12	10.5	1.89	4.8	SAE-12	SAE-10
2AHPF-12	4.25	10.8	1.97	5.0	SAE-12	SAE-10
2AHPF-14	4.35	11.0	2.00	5.1	SAE-12	SAE-10
2AHPF-16	4.50	11.4	2.07	5.3	SAE-12	SAE-10
2AHPF-18	4.60	12.0	2.20	5.6	SAE-12	SAE-10
2AHPF-20	5.72	12.8	2.36	6.0	SAE-12	SAE-10
2AHPF-23	4.84	13.6	2.52	6.4	SAE-16	SAE-12
2AHPF-25	5.05	14.7	2.87	7.3	SAE-16	SAE-12



Category + Group Displacement Port Combo Drive Shaft Rotation Port Options

Ordering Example: 2AHPF 4 LJ36 P02 L SS

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Pump:2AHPF	4/6/8/10/12/14	LJ39= -12-10	P02=5/8"KEYED	L=CCW	SS=SIDE PORT	
Motor:2AHMF	16/18/20/23/25	LJ36= -10-10	P03=3/4"KEYED	R=CW	BB=REAR PORT	
		LJ40= -12-12	S03=9T SPLINE	B=Bi Ro		
			S02=11T SPLINE			

Group 2 Gear Pumps and Motors "Z11/Z17"

Constructed of an aluminum center section and cast iron end plates ,model 2APF is a high pressure hydraulic gear Pumps and Motor with 11 displacement sizes from 0.24-1.52in³/rev(4-25cm³/rev). The standard mounting flange is a European - 4 bolt. Standard drive shaft is a Taper shaft with 1:5. Additional shaft options are available as outlined in the Ordering Example.

Recommended Working Conditions

FILTRATION:25 micron or better OIL VISCOSITY:6-200 cSt
INLET PRESSURE:12-32 psi absolute OIL TEMP:-25°-80°C(-12°-175°F)
AMBIENT TEMP:-22°-55°C(-8°-130°F)

Flow Rate (gpm) = Displacement(in³/rev) X Speed (rpm) /231
Volumetric efficiency ≥93%

Technical Specifications

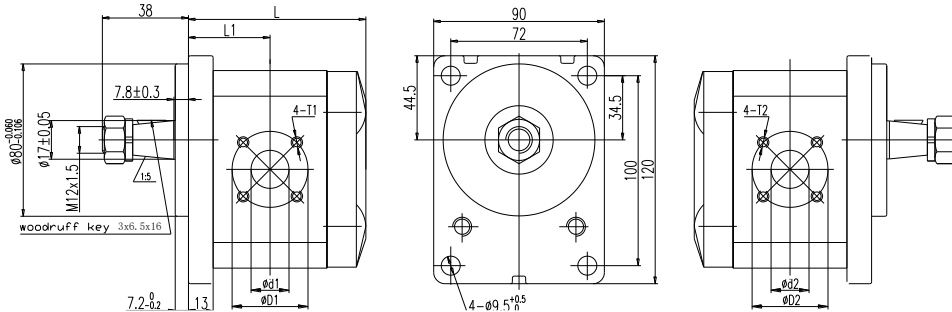
Model	Displacement		Pressure		Speed		Weight
	in ³ /rev	cm ³ /rev	Cont.	Peak	Min.RPM	Max.RPM	
2APF-4	0.24	4	2900	3625	600	4000	3.54
2APF-6	0.36	6	2900	3625	600	4000	3.65
2APF-8	0.48	8	2900	4061	600	4000	3.74
2APF-10	0.61	10	2900	4061	600	3500	3.76
2APF-12	0.73	12	2900	4061	600	3500	3.88
2APF-14	0.85	14	2900	4061	600	3500	3.95
2APF-16	0.97	16	2900	4061	600	3000	4.01
2APF-18	1.09	18	2900	4061	600	3000	4.22
2APF-20	1.22	20	2900	4061	500	2500	4.45
2APF-23	1.40	23	2900	4061	500	2500	4.65
2APF-25	1.52	25	2900	4061	500	2000	4.76

Installation Data

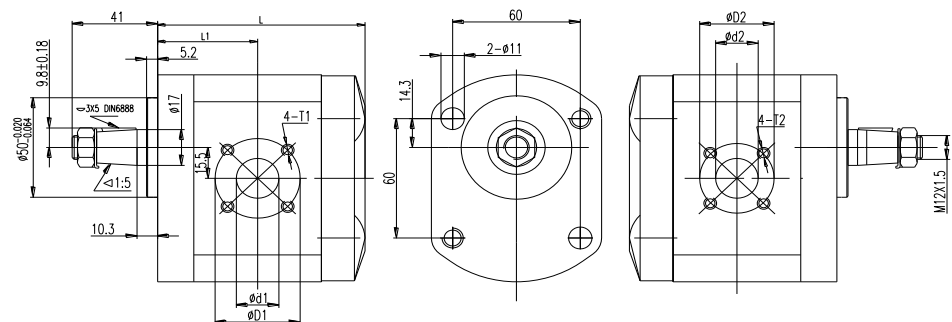
Model	L		L1		Ports	
	in	cm	in	cm	In	Out
2APF-4	3.74	9.5	1.69	4.3	40-M6-20	35-M6-15
2APF-6	3.90	9.9	1.77	4.5	40-M6-20	35-M6-15
2APF-8	4.01	10.2	1.85	4.7	40-M6-20	35-M6-15
2APF-10	4.12	10.5	1.89	4.8	40-M6-20	35-M6-15
2APF-12	4.25	10.8	1.97	5.0	40-M6-20	35-M6-15
2APF-14	4.37	11.1	2.00	5.1	40-M6-20	35-M6-15
2APF-16	4.49	11.4	2.07	5.3	40-M6-20	35-M6-15
2APF-18	4.60	11.7	2.13	5.4	40-M6-20	35-M6-15
2APF-20	4.76	12.1	2.20	5.6	40-M6-20	35-M6-15
2APF-23	4.92	12.5	2.28	5.8	40-M6-20	35-M6-15
2APF-25	5.00	12.7	2.36	6.0	40-M6-20	35-M6-15



Z17



Z11



Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Ordering Example: 2APF	4	F52	Z17	L	SS	

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Pump:2APF	4/6/8/10/12/14	F52=40-M6	Z17=Germany shaft	L=CCW	SS=SIDE PORT	
Motor:2AMF	16/18/20/23/27	-20/35-M6-15	1:5	R=CW	BB=REAR PORT	
			Z11=Through 2 bolt	B=Bi Ro		
			1:5			

Group 2 Gear Pumps and Motors "Z03"

Constructed of an aluminum center section and cast iron end plates, model 2APF is a high pressure hydraulic gear Pumps and Motor with 11 displacement sizes from 0.24-1.52in³/rev(4-25cm³/rev). The standard mounting flange is a European - 4 bolt. Standard drive shaft is a taper shaft with 1:8. Additional shaft options are available as outlined in the Ordering Example.



Recommended Working Conditions

FILTRATION: 25 micron or better
INLET PRESSURE: 12-32 psi absolute
AMBIENT TEMP: -22°-55°C (-8°-130°F)

OIL VISCOSITY: 6-200 cSt
OIL TEMP: -25°-80°C (-12°-175°F)

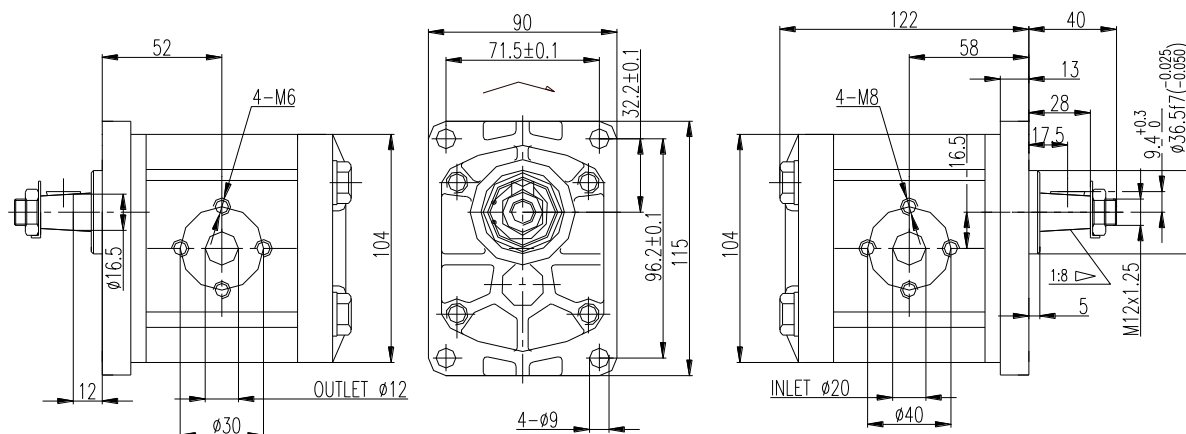
Flow Rate (gpm) = Displacement(in³/rev) X Speed (rpm) / 231
Volumetric efficiency ≥ 93%

Technical Specifications

Model	Displacement		Pressure		Speed		Weight
	in ³ /rev	cm ³ /rev	Cont.	Peak	Min.RPM	Max.RPM	
2APF-4	0.24	4	2900	3625	600	4000	3.54
2APF-6	0.36	6	2900	3625	600	4000	3.65
2APF-8	0.48	8	2900	4061	600	4000	3.74
2APF-10	0.61	10	2900	4061	600	3500	3.76
2APF-12	0.73	12	2900	4061	600	3500	3.88
2APF-14	0.85	14	2900	4061	600	3500	3.95
2APF-16	0.97	16	2900	4061	600	3000	4.01
2APF-18	1.09	18	2900	4061	600	3000	4.22
2APF-20	1.22	20	2900	4061	500	2500	4.45
2APF-23	1.40	23	2900	4061	500	2500	4.65
2APF-25	1.52	25	2900	4061	500	2000	4.76

Installation Data

Model	L		L1		Ports	
	in	cm	in	cm	In	Out
2APF-4	3.74	9.5	1.69	4.3	40-M6-20	35-M6-15
2APF-6	3.90	9.9	1.77	4.5	40-M6-20	35-M6-15
2APF-8	4.01	10.2	1.85	4.7	40-M6-20	35-M6-15
2APF-10	4.12	10.5	1.89	4.8	40-M6-20	35-M6-15
2APF-12	4.25	10.8	1.97	5.0	40-M6-20	35-M6-15
2APF-14	4.37	11.1	2.00	5.1	40-M6-20	35-M6-15
2APF-16	4.49	11.4	2.07	5.3	40-M6-20	35-M6-15
2APF-18	4.60	11.7	2.13	5.4	40-M6-20	35-M6-15
2APF-20	4.76	12.1	2.20	5.6	40-M6-20	35-M6-15
2APF-23	4.92	12.5	2.28	5.8	40-M6-20	35-M6-15
2APF-25	5.00	12.7	2.36	6.0	40-M6-20	35-M6-15



Z03

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Ordering Example: 2APF	4	F52	Z03	L	SS	

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Pump: 2APF Motor: 2AMF	4/6/8/10/12/14 16/18/20/23/25	F52=40-M6 -20/35-M6-15	Z03=Eur shaft 1:8	L=CCW R=CW B=Bi Ro	SS=SIDE PORT BB=REAR PORT	

Group 3 Gear Pumps and Motors "SAE-B"

Constructed of an aluminum center section and cast iron end plates, model 3APF is a high pressure hydraulic gear Pumps and Motor with 10 displacement sizes from 1.34-5.43in³/rev(22-89cm³/rev). The standard mounting flange is a SAE B - 2 bolt with a 7/8" diameter straight shaft and 1/4" key.



Recommended Working Conditions

FILTRATION: 25 micron or better

OIL VISCOSITY: 7-700 cSt

INLET PRESSURE: 12-32 psi absolute

OIL TEMP: -25°-80°C (-12°-175°F)

AMBIENT TEMP: -22°-55°C (-8°-130°F)

Flow Rate (gpm) = Displacement(in³/rev) X Speed (rpm) / 231

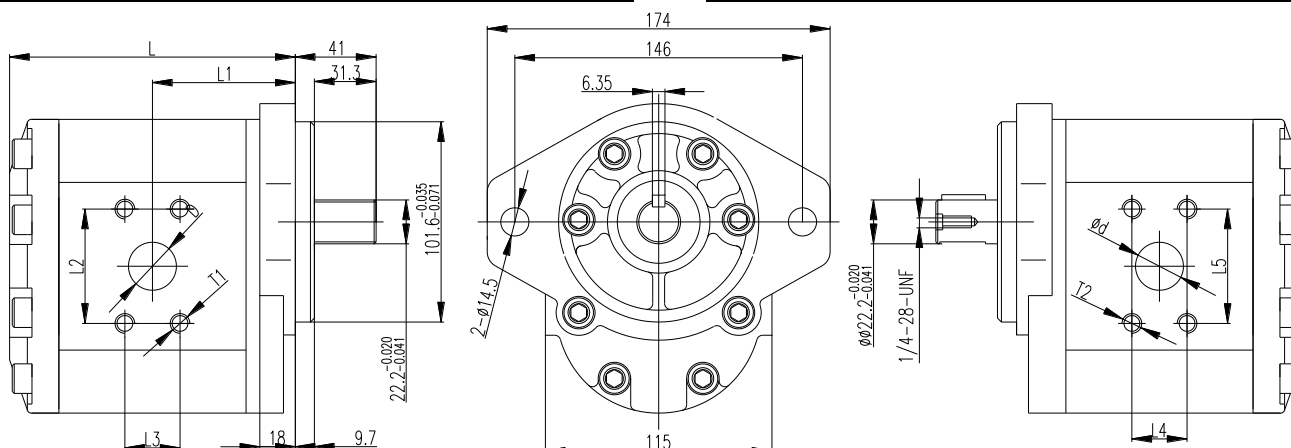
Volumetric efficiency ≥ 93%

Technical Specifications

Model	Displacement		Pressure		Speed		Weight
	in ³ /rev	cm ³ /rev	Cont.	Peak	Min.RPM	Max.RPM	
3APF-22	1.34	22	3625	4350	500	3000	19.35
3APF-26	1.57	26	3625	4350	500	3000	19.55
3APF-34	2.07	34	3625	4350	500	3000	20.20
3APF-39	2.38	39	3625	4350	500	3000	20.65
3APF-43	2.62	43	3625	4350	500	2800	20.85
3APF-51	3.11	51	3625	4350	500	2800	21.50
3APF-60	3.84	60	2900	3625	500	2800	22.25
3APF-70	4.27	70	2900	3335	500	2500	22.75
3APF-78	4.76	78	2900	3335	500	2300	23.50
3APF-89	5.43	89	2610	2900	500	2300	25.00

Installation Data

Model	L		L1		Ports	
	in	cm	in	cm	In	Out
3APF-22	5.16	13.1	2.60	6.6	SAE-16	SAE-12
3APF-26	5.27	13.4	2.63	6.7	SAE-16	SAE-12
3APF-34	5.47	13.9	2.71	6.9	SAE-16	SAE-12
3APF-39	5.62	14.3	2.79	7.1	SAE-16	SAE-12
3APF-43	5.78	14.7	2.87	7.3	SAE-16	SAE-12
3APF-51	5.98	15.2	2.99	7.6	SAE-16	SAE-12
3APF-60	6.22	15.8	3.11	7.9	SAE-16	SAE-12
3APF-70	6.53	16.6	3.22	8.2	SAE-20	SAE-16
3APF-78	6.73	17.1	3.34	8.5	SAE-20	SAE-16
3APF-89	6.93	17.6	3.46	8.8	SAE-20	SAE-16



S05

Spline parameter	
DP	16/32
Z	13
αD	30°

P16

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Ordering Example:	3APF	22	LJ42	P16	L	SS

Category + Group	Displacement	Port Combo	Drive Shaft	Rotation	Port	Options
Pump: 3APF	22/26/34/39/43	LJ42= -16-12	P16=7/8" KEY	L=CCW	SS=SIDE PORT	
Motor: 3AMF	51/60/70/78/89	LJ53= -20-16	S05=13T SPLINE	R=CW	BB=REAR PORT	
				B=Bi Ro		

Hydraulic Hi/Lo Gear Pump Model CBT 8-16 GPM

Model CBT is a Hi/Lo hydraulic gear pump with 12 displacement combinations with maximum pressures of 900 psi for the low pressure pump and 3000 psi for the high pressure pump. The change from Lo to Hi pressure is automatic with the Lo pressure preset from 400 to 900 psi (preset at approx.450 psi). Applications for Hi/Lo pumps include log splitters, presses, etc. where rapid movement of the cylinder at low pressure is required prior to automatically switching to the high pressure mode to meet load requirements.



Recommended Working Conditions

FILTRATION: 25 micron or better
INLET PRESSURE: 12-32 psi absolute
AMBIENT TEMP: -22°-55°C (-8°-130°F)

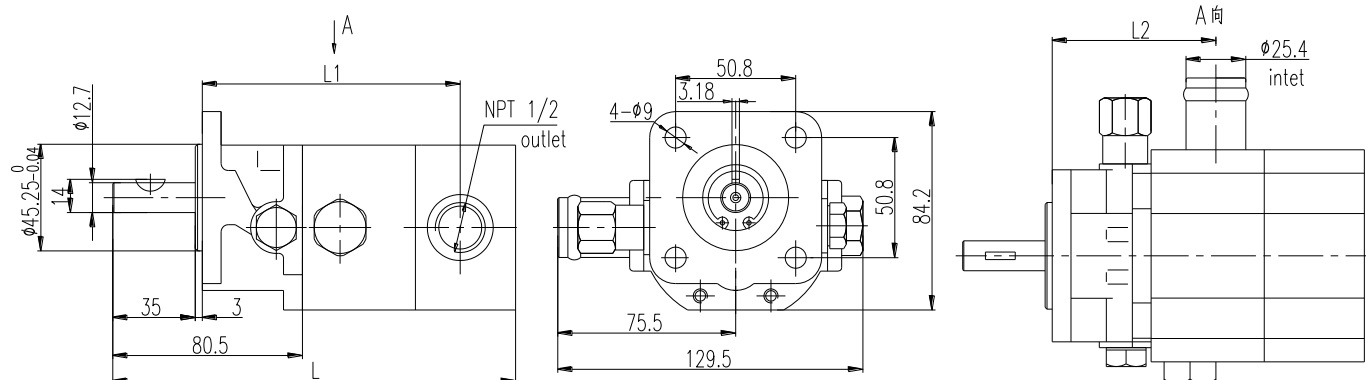
OIL VISCOSITY: 7-700 cSt
OIL TEMP: -25°-80°C (-12°-175°F)

Flow Rate (gpm) = Displacement(in³/rev) X Speed (rpm) / 231
Volumetric efficiency ≥ 93%

Technical Specifications

Model	Flow at 3600 rpm (gpm)	Displacement in ³ /rev(cm ³ /rev)		Pressure psi		Speed (rpm)	Dimensions			Weight (lbs)
		LO	HI	LO	HI		L	L1	L2	
CBT-6.3/2.1	8	0.130(2.1)	0.385(6.3)	400/900	3000	3600	6.07"	3.74"	2.41"	8.8
CBT-8.8/3.6	11	0.189(3.6)	0.537(8.8)	400/900	3000	3600	6.61"	4.24"	2.74"	9.8
CBT-10.9/3.6	13	0.189(3.6)	0.665(10.9)	400/900	3000	3600	7.00"	4.53"	3.04"	10.8
CBT-13/4.2	16	0.256(4.2)	0.793(13.0)	400/900	3000	3600	6.70"	4.37"	3.04"	11.5

Installation Data



Category + Group	Displacement	Options
Ordering Example: CBT	6.3/2.1	C=All Cast

Category + Group

CBT

Displacement

6.3/2.1=8 GPM
8.8/3.6=11 GPM
10.9/3.6=13 GPM
13.0/4.2=16 GPM

Options

C=All Cast
/=All Aluminum

Hydraulic Hi/Lo Gear Pump Model CBT 22-28 GPM

Model CBT is a Hi/Lo hydraulic gear pump offers maximum pressures of 900 psi for the low pressure pump and 3000 psi for the high pressure pump. The change from Lo to Hi pressure is automatic with the Lo pressure preset from 400 to 900 psi (preset at approx.850 psi). Applications for Hi/Lo pumps include log splitters, presses, etc. where rapid movement of the cylinder at low pressure is required prior to automatically switching to the high pressure mode to meet load requirements.



Recommended Working Conditions

FILTRATION:25 micron or better
INLET PRESSURE:12-32 psi absolute
AMBIENT TEMP:-22°-55°C(-8°-130°F)

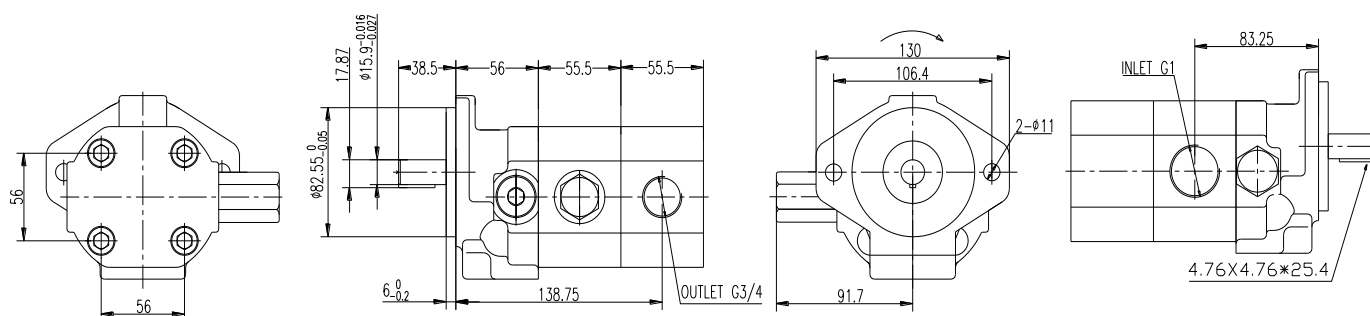
OIL VISCOSITY:7-700 cSt
OIL TEMP:-25°-80°C(-12°-175°F)

Flow Rate (gpm) = Displacement(in³/rev) X Speed (rpm) /231
Volumetric efficiency ≥93%

Technical Specifications

Model	Flow at 3600 rpm (gpm)	Displacement in ³ /rev(cm ³ /rev)		Pressure psi		Speed (rpm)	Weight (lbs)
		LO	HI	LO	HI		
CBT-15.2/7.6	22	0.465(7.63)	0.93(15.26)	400/900	3000	3600	18.6
CBT-22.9/7.6	28	0.465(7.63)	1.395(22.88)	400/900	3000	3600	19.7

Installation Data



Category + Group	Displacement	Options
Ordering Example: CBT	15.2/7.6	C=All Cast

Category + Group

CBT

Displacement

15.2/7.6=22 GPM
22.9/7.6=28 GPM

Options

C=All Cast
/=All Aluminum

STANDARD CAPABILITIES GUIDE TO ORBIT MOTORS

