

Technical Information

Hydraulic Product Guide

Gear Pumps / Gear Motors / Valves / Orbital Motors / Power Packs





RYAN HYDRAULICS

Keep the concept seeking excellence,
RYAN try our best to create more value for you with products and service.

RYAN Hydraulics

About RYAN

RYAN's manufacturing base was established in 1986, with quality hydraulic components and solutions to hydraulic system in the applications of engineering machinery, mobile industries, agricultural machinery, aviation, mining, and other fields. Main products include gear pump, gear motor, flow divider, orbital motor, loadsensing proportional valve, monoblock valve, sectional valve, manifold assembly and hydraulic power unit as well.

Long-term Development Strategy

Reducing emissions by new energy is one of RYAN's long-term strategies. RYAN will be providing innovative technologies, products, and services for the global development of new energy, moving towards a century development strategy, and writing a century-new chapter in the hydraulic field.



Innovation leads the future

Through a few decades of development, RYAN's manufacturing base has built an intelligent manufacturing factory, gathering international R&D talents, accumulating rich R&D and manufacturing experience, possessing independent intellectual property rights, continuously providing customers with new products and technologies, and creating value for all of the customers.



Hydraulic Product Guide

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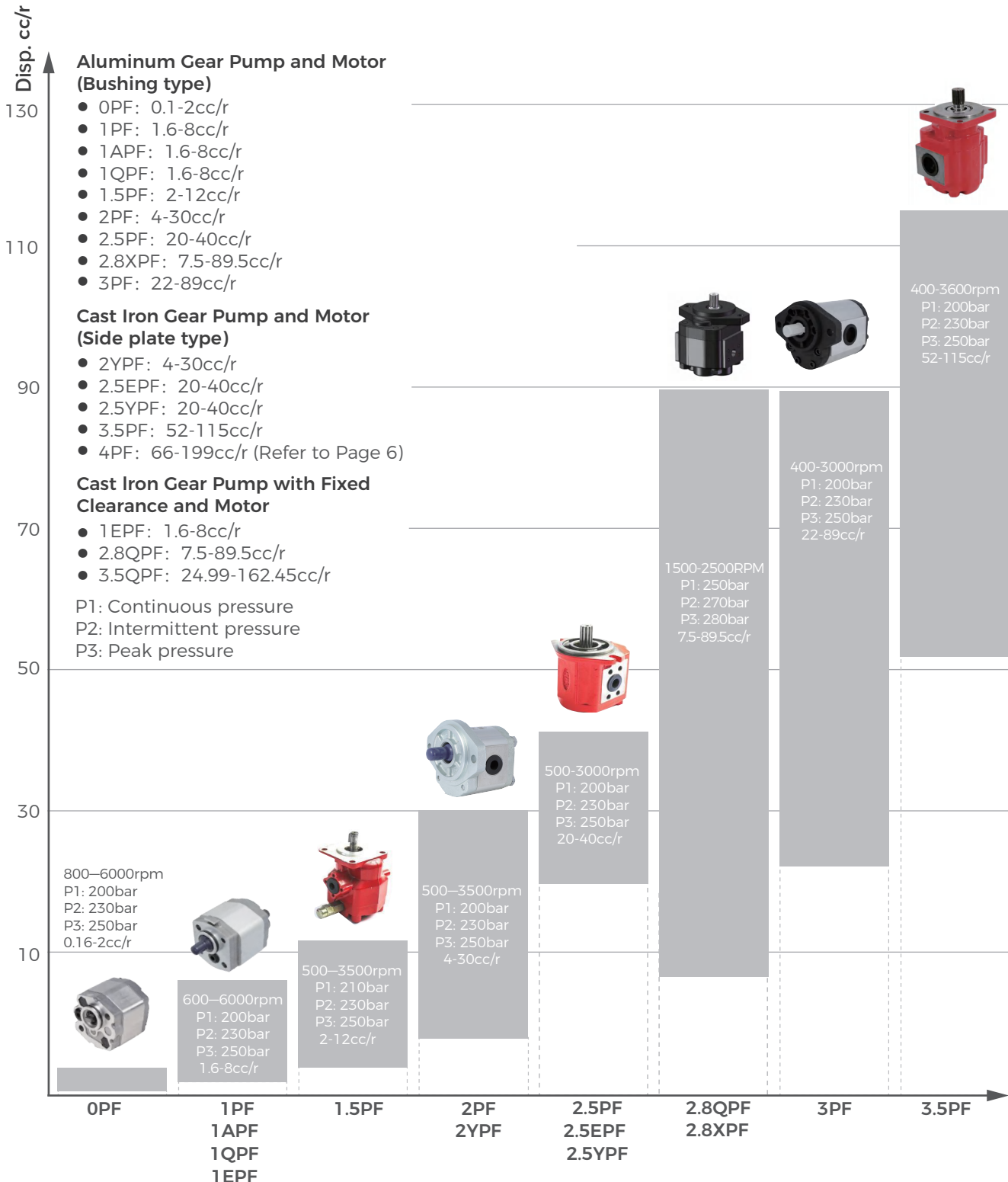


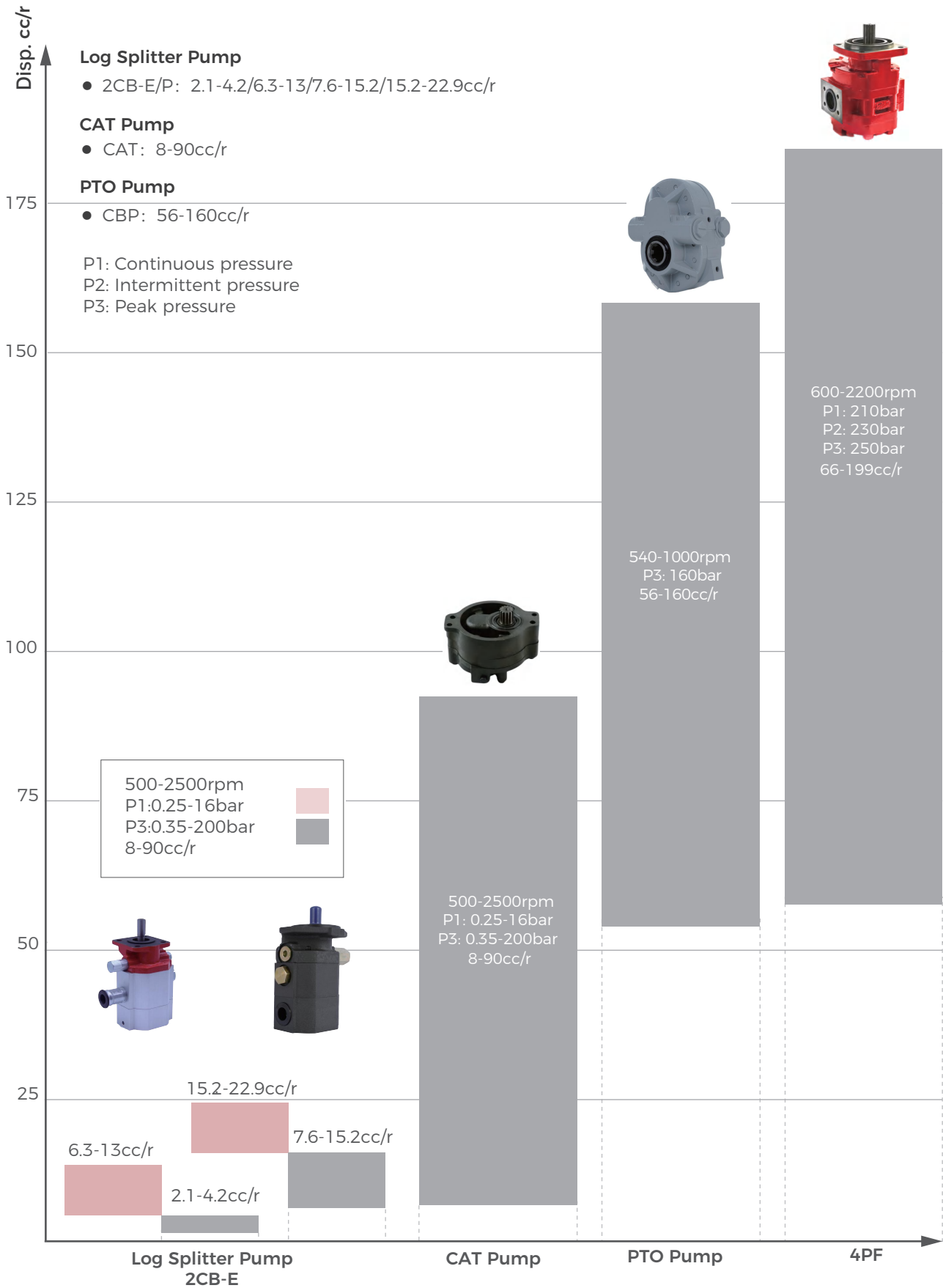
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Gear pumps and motors can be used in a variety of mobile vehicles and industrial equipment. With a wide range of American and European mounting flanges, the complete drive shaft range meets all SAE, DIN and European standard splines keys, flat keys and taper keys, the back covers are available in cast iron special bearings provide excellent volumetric efficiency and overall efficiency.



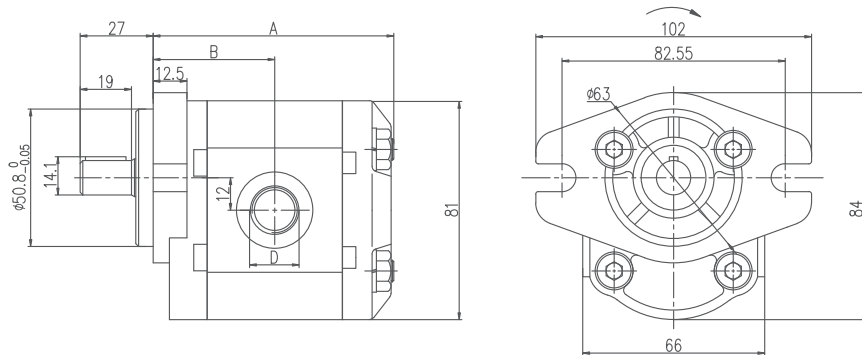




1PF Gear Pump Specifications

Series	Model	Displacement cc/rev	Pressure			Speed		
			P1(Cont.)	P2(Int.)	P3(Peak)	Rated	Min.	Max.
			bar			r/min		
1PF	1PF1.1	1.1	200(250)	230(280)	250(300)	2000	600	6000
	1PF1.6	1.6	200(250)	230(280)	250(300)	2000	600	6000
	1PF2.1	2.1	200(250)	230(280)	250(300)	2000	600	6000
	1PF2.7	2.7	200(250)	230(280)	250(300)	2000	600	6000
	1PF3.2	3.2	200(250)	230(280)	250(300)	2000	600	5000
	1PF3.7	3.7	200(250)	230(280)	250(300)	2000	600	4500
	1PF4.2	4.2	200(250)	230(280)	250(300)	2000	600	4000
	1PF4.8	4.8	160(180)	180(200)	200(230)	2000	600	3500
	1PF5.8	5.8	160(180)	180(200)	200(230)	2000	600	2900
	1PF6.0	6.0	160(180)	180(200)	200(230)	2000	600	2500
	1PF7.0	7.0	160(180)	180(200)	200(230)	2000	600	2500
1PF8.0	8.0	160(180)	180(200)	200(230)	2000	600	2100	

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$ Oil Temperature: -25°C – 80°C (-12°F – 175°F)

Oil Viscosity: 6-200cSt

Ambient Temperature: -22°C – 55°C (-8°F – 130°F)

Inlet Pressure: 12-32psi

Ordering Code

1	AB	P	F	1.1	L01	P006	D02	R	SS						
a	b	c	d	e	f	g	h	i	j						
Group	Improved Code	Type	Version	Displacement cc/r	Inlet/Outlet Ports	Shaft	Flange	Rotation	Ports Combination						
1	At	Cast iron front and rear covers	P	Single pump	1.1	L01	G3/8 $\varnothing 9 \times \varnothing 12.7 \times 1.45$	B007	Oblate key $\varnothing 5\text{mm} \times 7$	A04	2-hole mounting 40×40mm	R	CW	SS	Side inlet and side outlet
	AB	Interchangeable direction aluminum front and rear covers	DP	Double pump	1.6	L05	G1/2 G3/8	Z002	Tapered key 1.5	R01	4-hole mounting 52.4×71.9mm	L	CCW	BS	Back inlet and side outlet
	A	SAE aluminum front cover			2.1	L61	M14×1.5 M14×1.5	P006	Parallel key SAE AA $\varnothing 12.7\text{mm}$	D02	2-slot installation $\varnothing 82.55\text{mm}$	B	Bi-direction	SB	Side inlet and back outlet
	Q	Two-piece aluminum front cover and pump body			.....	L44	G3/8 G1/4	.....						BB	Back inlet and back outlet
					8	.....								



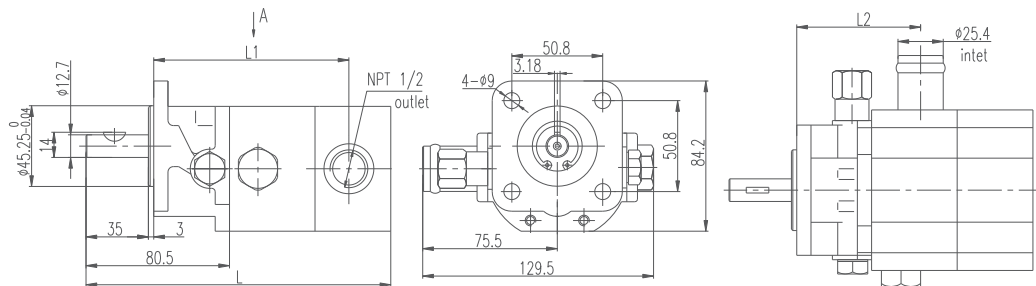
2CB-E Gear Pump Introduction

2CB-E is a combination of high pressure small displacement and low pressure large displacement hydraulic gear pump, there are 12 displacement combinations, the maximum pressure of low pressure pump is 900psi, the maximum pressure of high pressure pump is 3000psi. The preset value of low pressure is 400psi to 900psi(factory preset according to 450psi). Wood splitter pumps are available in both cast iron and aluminum pump bodies. The application of wood splitter pump mainly includes wood splitter, press, etc., which needs to move the cylinder quickly under low pressure, and then automatically switch to the high pressure holding mode of energy saving applications can be selected.

Specifications

Model	Flow (gpm)	Pressure(psi)		Disp.(Cu.in/r)		Speed (rpm)	Port	
		Low	High	Low	High		Inlet	Outlet
2CB-E6.3/2.1	8	400/900	3000	0.385	0.13	3600	1 IN PIPE	1/2 NPT
2CB-E6.3/3.0	8.5	400/900	3000	0.385	0.183			
2CB-E6.3/3.6	9	400/900	3000	0.385	0.220			
2CB-E8.8/2.1	10	400/900	3000	0.537	0.13			

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$

Oil Temperature: -25°C – 80°C (-12°F - 175°F)

Oil Viscosity: 7-700cSt

Ambient Temperature: -22°C – 55°C (-8°F - 130°F)

Inlet Pressure: 12-32psi

Flow(gpm) = Displacement(in^3/rev) X Speed (rpm) /231

Volumetric efficiency $\geq 93\%$

Ordering Code

2 a	CB-E b		6.3/2.1 c		L10 d	
Group	Type	Type	Displacement		Inlet/Outlet Ports	
2	CB-E	Cast iron pump	6.3/2.1	8GPM	L10	PT3/4 PT1/2
	ACB-E	Aluminum pump	8.8/3.6	11GPM	L08	G3/4 G1/2
			10.9/3.6	13GPM		
			13.0/4.2	16GPM		



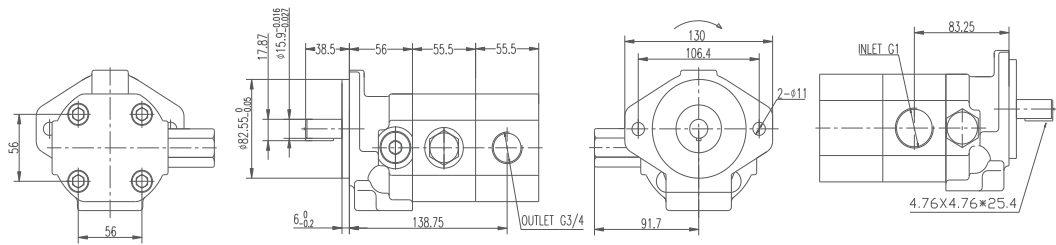
2CB-P Gear Pump Introduction

2CB-P is a combination of high pressure small displacement and low pressure large displacement hydraulic gear pump, the maximum pressure of low pressure pump is 900psi, the maximum pressure of high pressure pump is 3000psi. The preset value of low pressure is 400psi to 900psi(factory preset according to 850psi). Wood splitter pumps are available in both cast iron and aluminum pump bodies. The application of wood splitter pump mainly includes wood splitter, press, etc., which needs to move the cylinder quickly under low pressure, and then automatically switch to the high pressure holding mode of energy saving applications can be selected.

Specifications

Model	Flow(gpm) @3600rpm	Disp. in ³ /rev(cm ³ /rev)		Pressure(Psi)		Speed (rpm)	Weight(kgs)
		Low	High	Low	High		
2CB-P15.2/7.6	22	0.465(7.63)	0.93(15.26)	400/900	3000	3600	18.6
2CB-P22.9/7.6	28	0.465(7.63)	1.395(22.88)	400/900	3000	3600	19.7

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$ Oil Temperature: $-25^{\circ}\text{C} - 80^{\circ}\text{C} (-12^{\circ}\text{F} - 175^{\circ}\text{F})$
 Oil Viscosity: 7-700cSt Ambient Temperature: $-22^{\circ}\text{C} - 55^{\circ}\text{C} (-8^{\circ}\text{F} - 130^{\circ}\text{F})$
 Inlet Pressure: 12-32psi
 Flow(gpm) = Displacement(in³/rev) X Speed (rpm) /231
 Volumetric efficiency $\geq 93\%$

Ordering Code

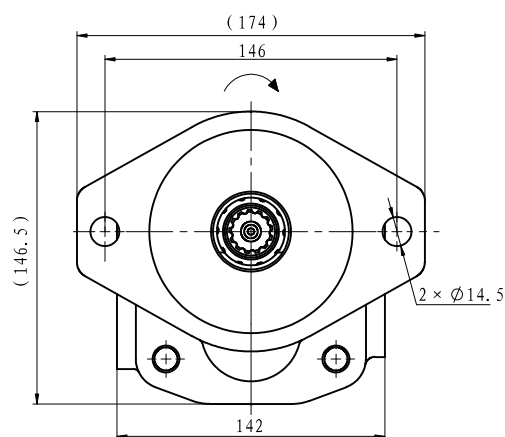
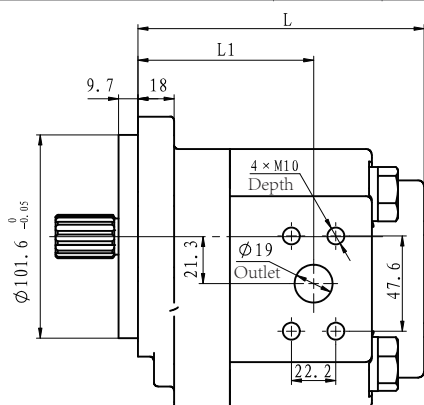
2 a	CB-P b	15.2/7.6 c	L10 d
Group	Type	Displacement	Inlet/Outlet Ports
2	CB-P	Cast iron pump	L10 G1 G3/4
		15.2/7.6 22GPM	
		22.9/7.6 28GPM	



2.8QPF Gear Pump Specifications

Series	Model	Displacement cc/rev	Pressure			Speed		
			P1(Cont.)	P2(Int.)	P3(Peak)	Rated	Min.	Max.
			bar			r/min		
2.8QPF	2.8QPF7.5	7.5	250	270	280	1500	600	2500
	2.8QPF14.9	14.9	250	270	280	1500	600	2500
	2.8QPF22.4	22.4	250	270	280	1500	600	2500
	2.8QPF29.8	29.8	250	270	280	1500	600	2500
	2.8QPF37.3	37.3	250	270	280	1500	600	2500
	2.8QPF44.8	44.8	250	270	280	1500	600	2500
	2.8QPF52.2	52.2	250	270	280	1500	600	2500
	2.8QPF59.7	59.7	250	270	280	1500	600	2500
	2.8QPF67.2	67.2	250	270	280	1500	600	2500
	2.8QPF74.6	74.6	230	240	250	1500	600	2500
	2.8QPF82.1	82.1	200	230	250	1500	600	2500
	2.8QPF89.5	89.5	200	230	250	1500	600	2500

Dimensions



Working Conditions

 Filtration Accuracy: $\geq 25\mu\text{m}$

Oil Viscosity: 6-200cSt

Inlet Pressure: 12-32psi

 Oil Temperature: -25°C – 80°C (-12°F – 175°F)

 Ambient Temperature: -22°C – 55°C (-8°F – 130°F)

Ordering Code

2.8Q	P	F	29.8	F30	S015	D22	R	SS					
a	b	c	e	f	g	h	i	j					
Group	Type	Version	Displacement cc/r	Oil Ports		Shaft		Flange	Rotation		Ports Combination		
2.8Q	P	Single pump	7.5	F	Flange	S015	Splined key 13 teeth 21.81mm	D22	2-hole mounting $\phi 146\text{mm}$	R	cw	SS	Side inlet and side outlet
	DP	Double pump	.....	L	Thread	S026	Splined key 13 teeth 21.8mm	D43	6-hole mounting $\phi 146\text{mm}$	L	CCW	BS	Back inlet and side outlet
	TP	Triple pump	89.5							B	Bi-direction	SB	Side inlet and back outlet
												BB	Back inlet and back outlet

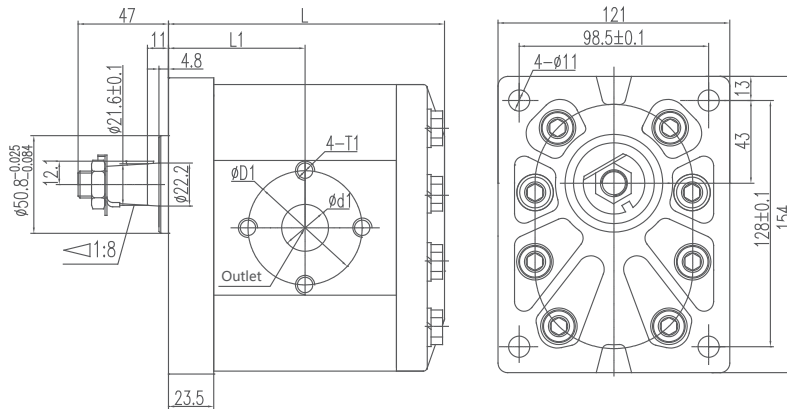
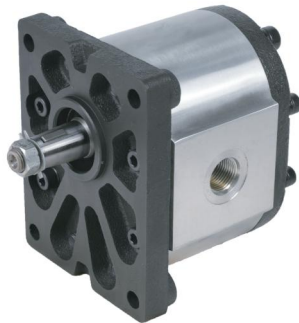
Customers requiring other engine displacements within the range listed in the table above can also have their needs met.



3PF Gear Pump Specifications

Series	Model	Displacement cc/rev	Pressure			Speed		
			P1(Cont.)	P2(Int.)	P3(Peak)	Rated	Min.	Max.
			bar			r/min		
3PF	3APF22	22	200(250)	230(280)	250(300)	2000	400	3000
	3APF26	26	200(250)	230(280)	250(300)	2000	400	3000
	3APF34	34	200(250)	230(280)	250(300)	2000	400	3000
	3APF39	39	200(250)	230(280)	250(300)	2000	400	3000
	3APF43	43	200(250)	230(280)	250(300)	2000	400	2800
	3APF51	51	200(250)	230(280)	250(300)	2000	400	2800
	3APF60	60	180(200)	190(210)	200(230)	1500	400	2400
	3APF70	70	180(200)	190(210)	200(230)	1500	400	2400
	3APF78	78	160(180)	180(200)	200(230)	1500	400	2300
3APF89	89	140(160)	160(180)	180(200)	1500	400	2000	

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu m$
Oil Viscosity: 6-200cSt
Inlet Pressure: 12-32psi

Oil Temperature: $-25^{\circ}C - 80^{\circ}C (-12^{\circ}F - 175^{\circ}F)$
Ambient Temperature: $-22^{\circ}C - 55^{\circ}C (-8^{\circ}F - 130^{\circ}F)$

Ordering Code

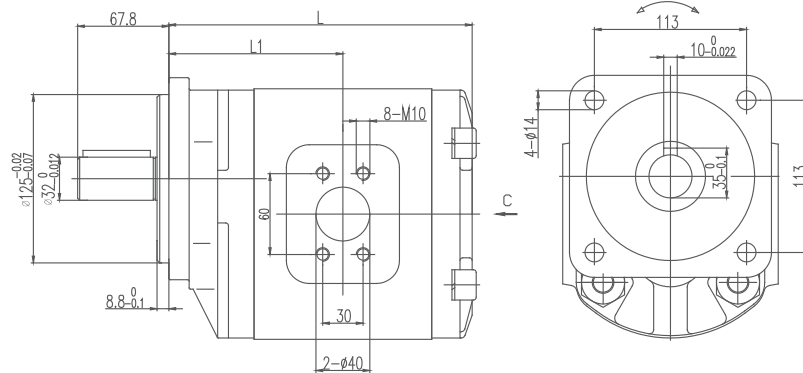
3	A	P	F	22	F10	Z013	R25	R	SS						
a	b	c	d	e	f	g	h	i	j						
Group	Improved Code		Type	Version	Displacement cc/r	Inlet/Outlet Ports	Shaft	Flange	Rotation	Ports Combination					
3	A	Cast iron front and rear covers	P	Single pump	22	L00	G1 G1	Z013	Tapered key 1:8	R25	4-hole mounting 98.5 x 128mm	R	CW	SS	Side inlet and side outlet
	B	Side plate structure	DP	Double pump	26	LJ53	1-5/8-12UN-2B 1-5/16-12UN-2B	S015	Splined key 13 teeth 21.81mm	D21	2-hole mounting Ø146mm	L	CCW	BS	Back inlet and side outlet
	E	Cast iron front and rear cover side plate structure	TP	Triple pump	34	F10	Ø56xM10xØ27 Ø56xM10xØ19			D20	2-hole mounting Ø146mm	B	Bi-direction	SB	Side inlet and back outlet
	/	Aluminum structure			.....	F12	Ø62xM10xØ33 Ø51xM10xØ27							BB	Back inlet and back outlet
					89	.....								



3.5PF Gear Pump Specifications

Series	Model	Disp. cc/rev	Pressure			Speed		
			P1(Cont.)	P2(Int.)	P3(Peak)	Rated	Min.	Max.
			bar			r/min		
3.5PF	3.5PF52	52	210	230	250	1500	600	3600
	3.5PF63	63	210	230	250	1500	600	3600
	3.5PF73	73	210	230	250	1500	600	3600
	3.5PF85	85	210	230	250	1500	600	3600
	3.5PF93	93	180	200	210	1500	600	3600
	3.5PF104	104	180	200	210	1500	600	3600
	3.5PF115	115	160	180	200	1500	600	3600

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$ Oil Temperature: $-25^{\circ}\text{C}-80^{\circ}\text{C}(-12^{\circ}\text{F}-175^{\circ}\text{F})$

Oil Viscosity: 6-200cSt

Ambient Temperature: $-22^{\circ}\text{C}-55^{\circ}\text{C}(-8^{\circ}\text{F}-130^{\circ}\text{F})$

Inlet Pressure: 12-32psi

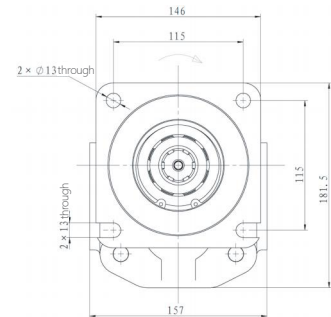
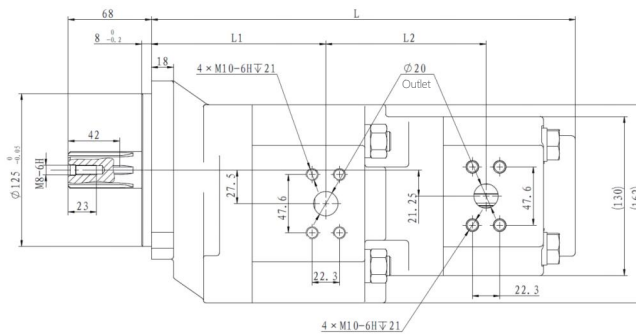
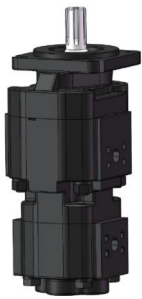
Ordering Code

3.5	B	P	F	52	F10	P086	R31	R	SS							
a	b	c	d	e	f	g	h	i	j							
Group	Improved Code		Type	Version	Displacement cc/r		Inlet/Outlet Ports		Shaft	Flange	Rotation		Ports Combination			
3.5	B	Cast iron covers	P	Single pump	52	52	L00	G1 G1	P086	Parallel Key Ø 32 mm	R31	4-hole installation 113mm	R	CW	SS	Side inlet and side outlet
	E	Cast iron covers side plate structure	DP	Double pump	63	63	LJ53	1-5/8-12UN-2B 1-5/16-12UN-2B					L	CCW	BS	Back inlet and side outlet
	/	Aluminum structure	TP	Triple pump	73	73	F10	Ø56×M10×Ø27 Ø56×M10×Ø19					B	Bi-direction	SB	Side inlet and back outlet
					.....		F12	Ø62×M10×Ø33 Ø51×M10×Ø27							BB	Back inlet and back outlet
					115	115	.....								

3.5QPF Gear Pump Specifications

Series	Model	Disp. cc/rev	Pressure			Speed		
			P1(Cont.)	P2(Int.)	P3(Peak)	Rated	Min.	Max.
			bar			r/min		
3.5QPF	3.5QPF/G24.99	24.99	250	270	280	1500	600	2500
	3.5QPF/G37.49	37.49	250	270	280	1500	600	2500
	3.5QPF/G43.74	43.74	250	270	280	1500	600	2500
	3.5QPF/G49.98	49.98	250	270	280	1500	600	2500
	3.5QPF/G62.48	62.48	250	270	280	1500	600	2500
	3.5QPF/G74.98	74.98	250	270	280	1500	600	2500
	3.5QPF/G81.22	81.22	250	270	280	1500	600	2500
	3.5QPF/G87.47	87.47	250	270	280	1500	600	2500
	3.5QPF/G93.72	93.72	250	270	280	1500	600	2500
	3.5QPF/G99.97	99.97	250	270	280	1500	600	2500
	3.5QPF/G112.46	112.46	230	240	250	1500	600	2500
	3.5QPF/G137.46	137.46	200	230	250	1500	600	2500
	3.5QPF/G149.95	149.95	200	230	250	1500	600	2500
3.5QPF/G162.45	162.45	200	230	250	1500	600	2500	

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$
Oil Viscosity: 6-200cSt
Inlet Pressure: 12-32psi

Oil Temperature: -25°C – 80°C (-12°F – 175°F)
Ambient Temperature: -22°C – 55°C (-8°F – 130°F)

Ordering Code

3.5Q	P	F	24.99	F30	S026	D44	R	SS	
a	b	c	e	f	g	h	i	j	
Group	Type	Version	Displacement cc/r	Oil Ports	Shaft	Flange	Rotation	Ports Combination	
3.5Q	P	Single pump	24.99	F Flange	S026 Splined key 13 teeth 21.81	S 6-hole flange 90,146	R cw	SS Side inlet and side outlet	
	DP	Double pump	.....	L Thread	S027 Splined key 13 teeth 21.8	D 2-hole flange Ø146	L ccw	BS Back inlet and side outlet
	TP	Triple pump	162.45					B Bi-direction	SB Side inlet and back outlet
									BB Back inlet and back outlet

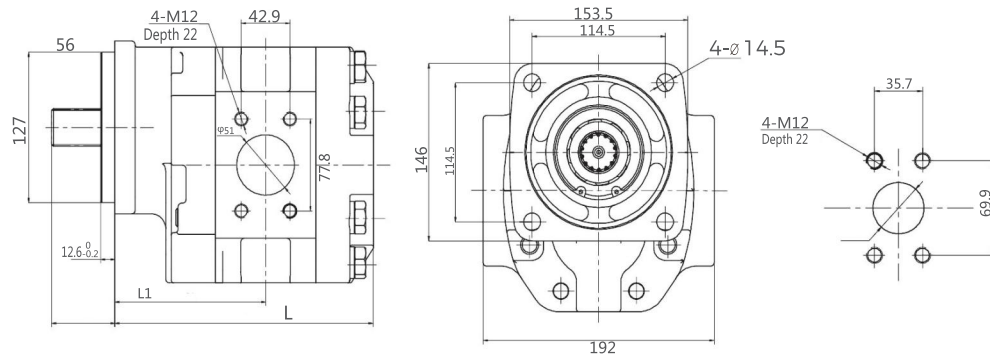
Customers requiring other engine displacements within the range listed in the table above can also have their needs met.



4PF Gear Pump Specifications

Series	Model	Displacement cc/rev	Pressure			Speed		
			P1(Cont.)	P2(Int.)	P3(Peak)	Rated	Min.	Max.
			bar			r/min		
4PF	4PF66	66	210	230	250	1800	600	2200
	4PF83	83	210	230	250	1800	600	2200
	4PF91	91	210	230	250	1800	600	2200
	4PF99	99	210	230	250	1800	600	2200
	4PF116	116	210	230	250	1800	600	2200
	4PF132	132	210	230	250	1800	600	2200
	4PF145	145	210	230	250	1800	600	2200
	4PF149	149	210	230	250	1800	600	2200
	4PF166	166	210	230	250	1800	600	2200
	4PF182	182	180	200	210	1800	600	2200
4PF199	199	180	200	210	1800	600	2200	

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$ Oil Temperature: -25°C – 80°C (-12°F – 175°F)

Oil Viscosity: 6-200cSt

Ambient Temperature: -22°C – 55°C (-8°F – 130°F)

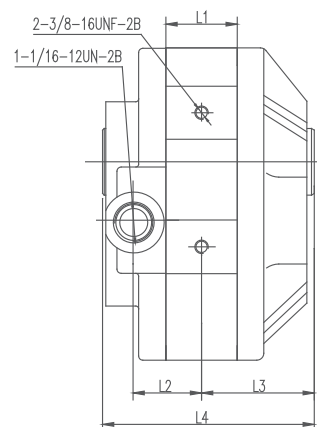
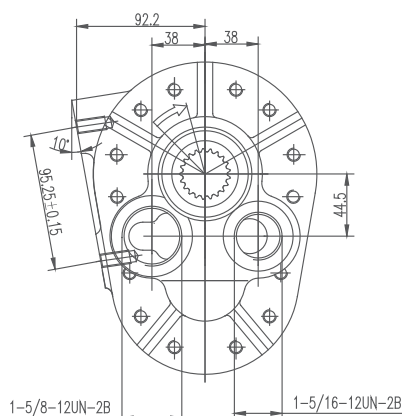
Inlet Pressure: 12-32psi

4	/	P	F	66	L04	S016	E15	R	SS						
a	b	c	d	e	f	g	h	i	j						
Group	Improved Code	Type	Version	Displacement cc/r	Inlet/Outlet Ports	Shaft	Flange	Rotation	Ports Combination						
4	/	Cast Iron	P	Single pump	66	F16	$\text{Ø}65 \times \text{M}10 \times \text{Ø}30$ $\text{Ø}65 \times \text{M}10 \times \text{Ø}24$	S016	Splined key 14 teeth	E15	4-hole flange 114.5×114.5mm	R	CW	SS	Side inlet and side outlet
					83							L	CCW	BS	Back inlet and side outlet
					91							B	Bi-direction	SB	Side inlet and back outlet
													BB	Back inlet and back outlet
					199										

PTO Pump Specifications

Series	Model	Disp.	Pressure	Speed
		cc/rev	Peak	Rated
			bar (psi)	r/min
CBP	CBP160LJ53S33BB	160	160(2320)	1000
	CBP125LJ53S33BB	125		
	CBP90LJ53S33BB	90		
	CBP56LJ53S33BB	56		
	CBP160LJ42H21SS	160		540
	CBP125LJ42H21SS	125		
	CBP90LJ42H21SS	90		
	CBP56LJ42H21SS	56		

Dimensions



Working Conditions

Filtration Accuracy: $\geq 25\mu\text{m}$

Oil Viscosity: 7-700cSt

Inlet Pressure: 12-32psi

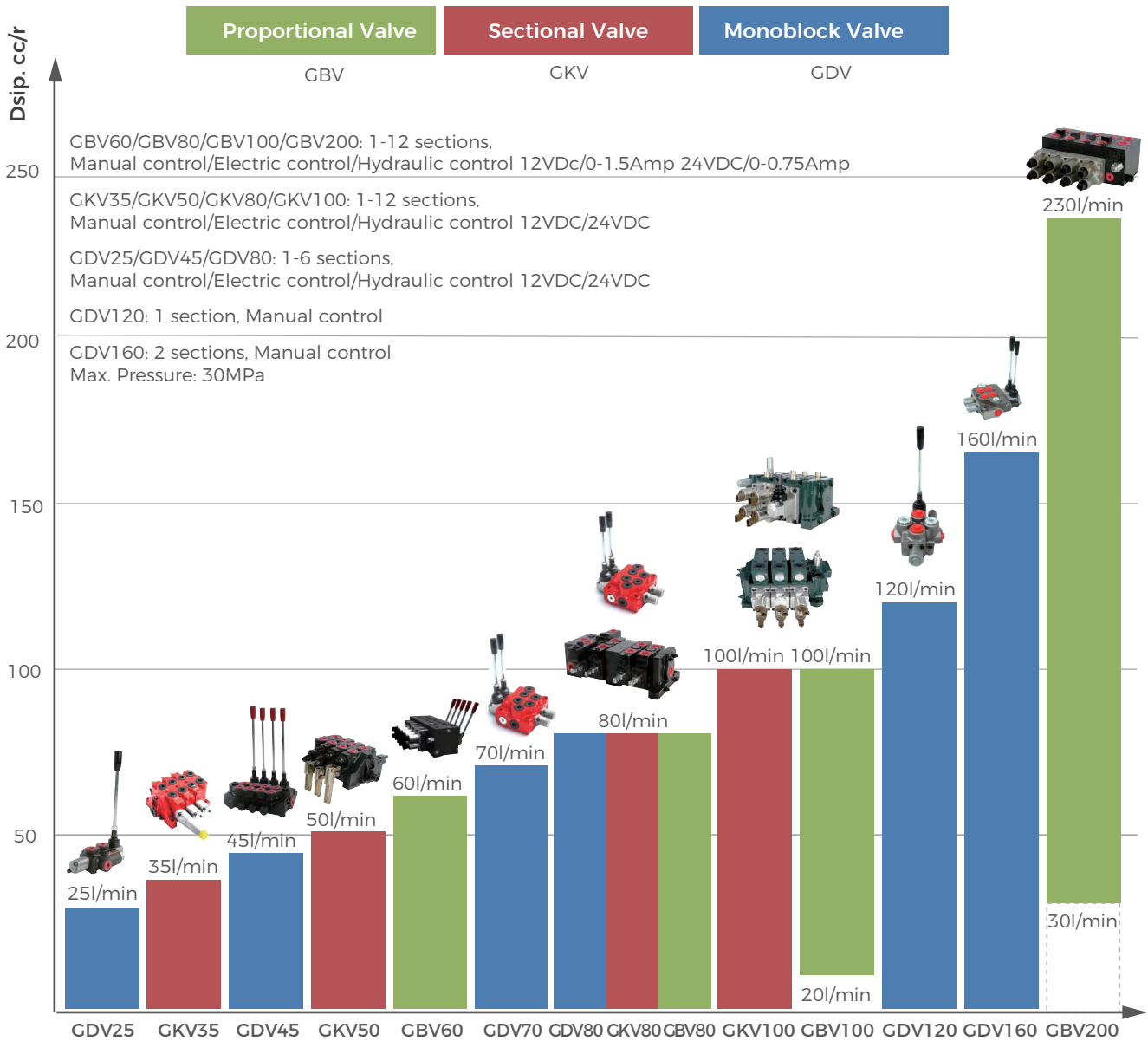
Oil Temperature: $-25^{\circ}\text{C}-80^{\circ}\text{C}(-12^{\circ}\text{F}-175^{\circ}\text{F})$

Ambient Temperature: $-22^{\circ}\text{C}-55^{\circ}\text{C}(-8^{\circ}\text{F}-130^{\circ}\text{F})$

Volumetric efficiency $\geq 93\%$

Ordering Code

CBP	125	LJ42	H21	R	SS			
a	b	c	d	e	f			
Group	Displacement	Inlet/Outlet Ports		Shaft	Rotation	Ports Combination		
CBP	56	LJ42	1-5/16-12UN-2B 1-1/16-12UN-2B	S33	Splined key 21 teeth	R CW	SS	Side inlet and side outlet
	90	LJ53	1-5/8-12UN-2B 1-5/16-12UN-2B	H21	Splined key 6 teeth	L CCW	BB	Back inlet and back outlet
	125							
	160							



GBV60/GBV80/GBV100/GBV200: 1-12 sections,
Manual control/Electric control/Hydraulic control 12Vdc/0-1.5Amp 24VDC/0-0.75Amp

GKV35/GKV50/GKV80/GKV100: 1-12 sections,
Manual control/Electric control/Hydraulic control 12VDC/24VDC

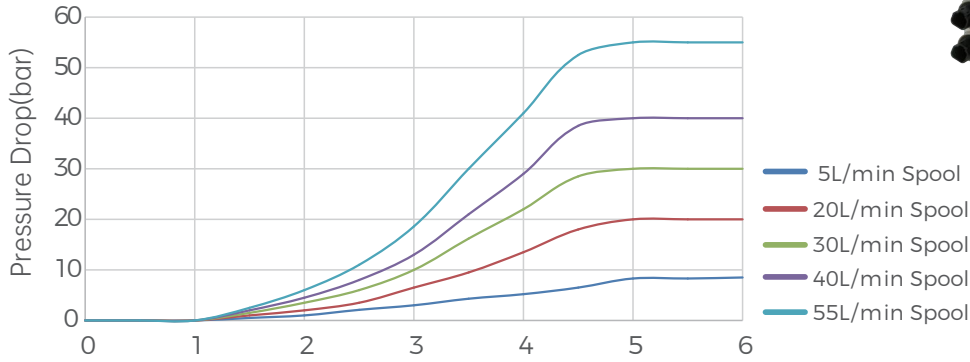
GDV25/GDV45/GDV80: 1-6 sections,
Manual control/Electric control/Hydraulic control 12VDC/24VDC

GDV120: 1 section, Manual control

GDV160: 2 sections, Manual control
Max. Pressure: 30MPa

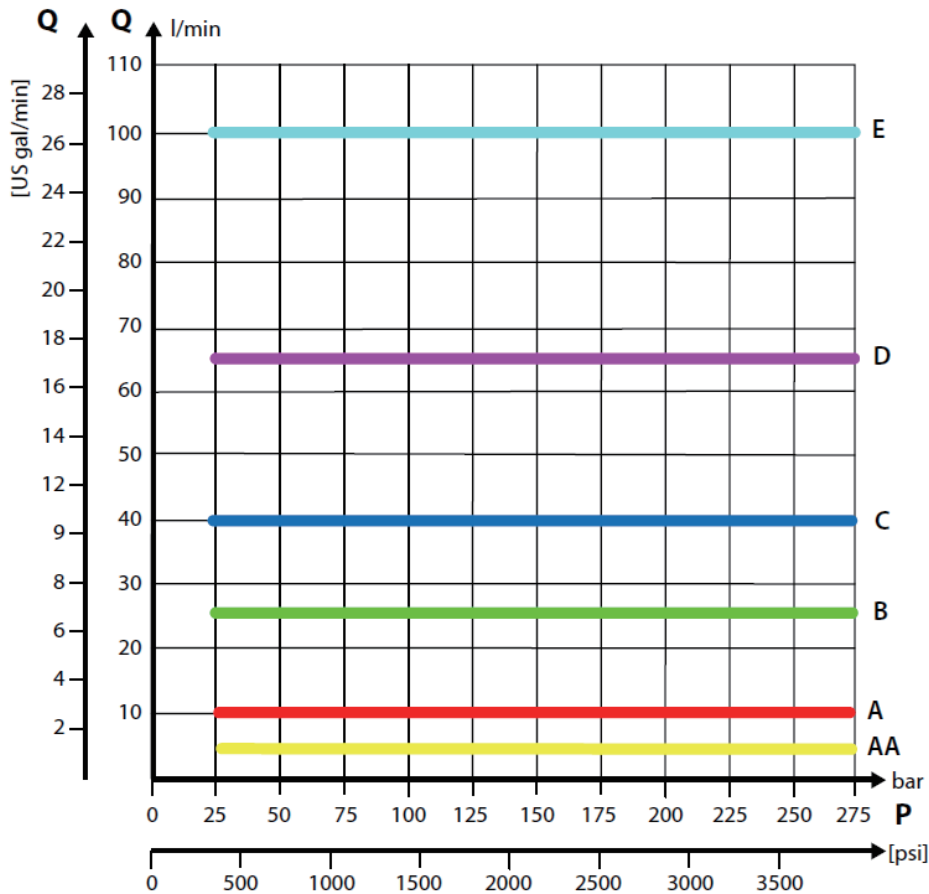
Proportional Valve Characteristic for Standard Spool

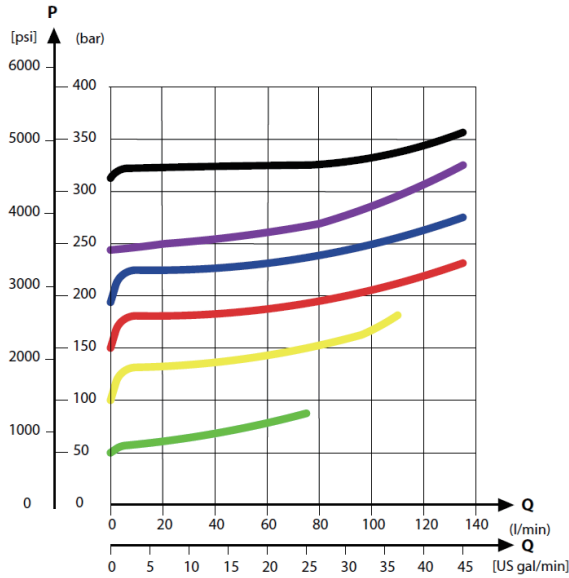
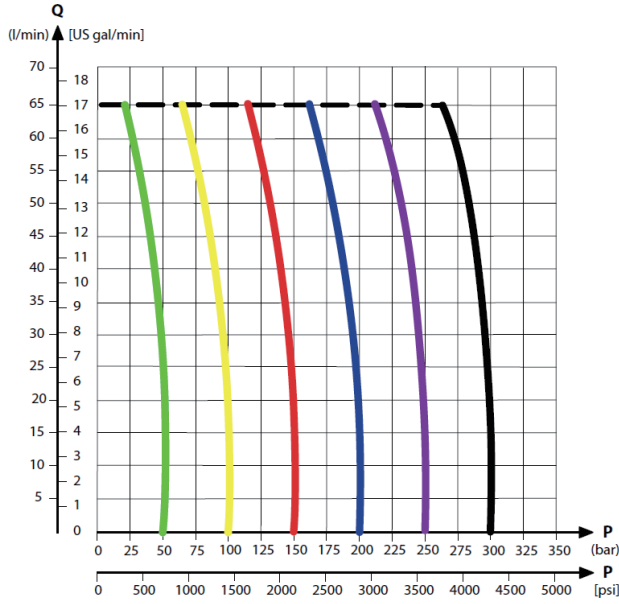
GBV60



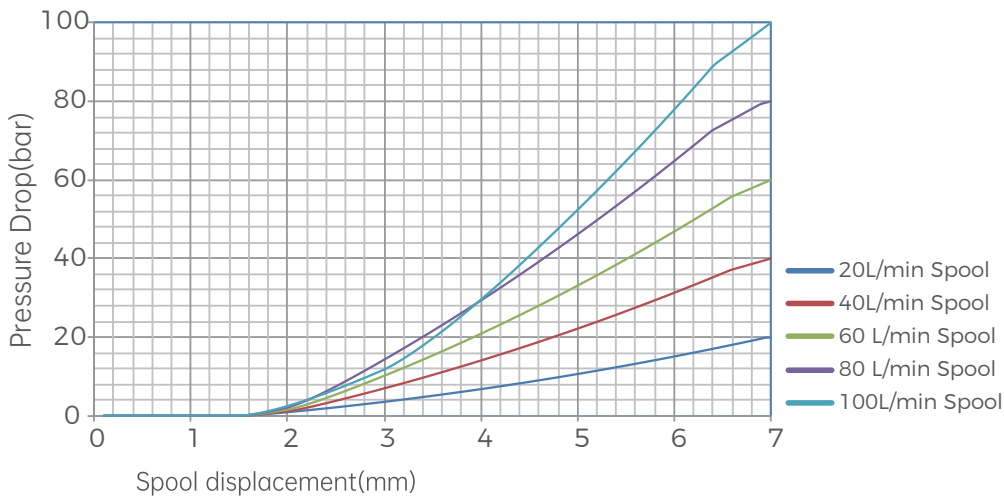
GBV80

Oil flow characteristics depend on spool type



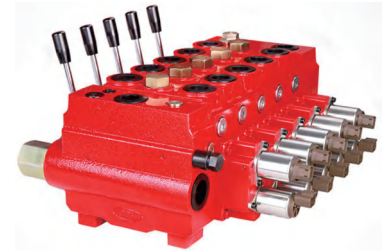
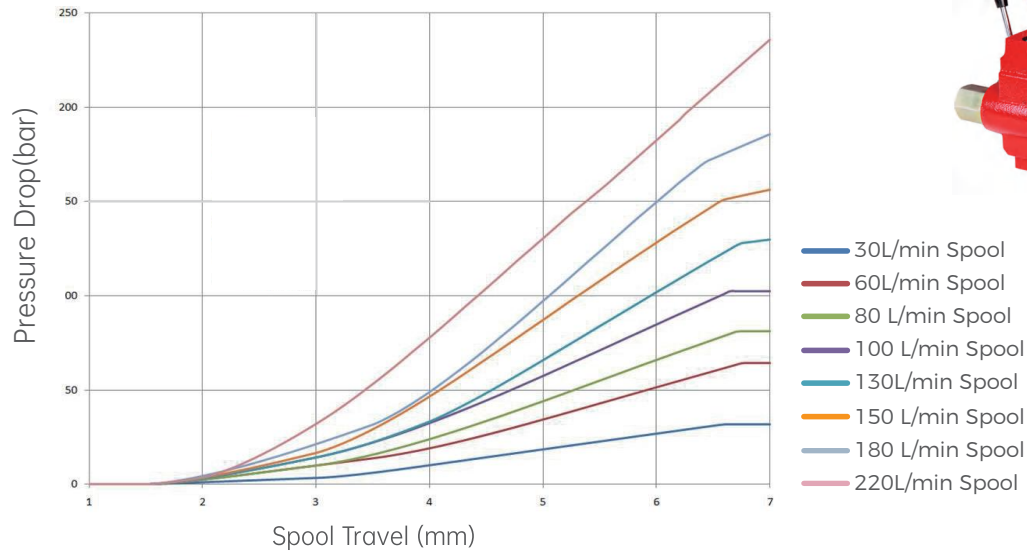


GBV100





GBV200



Ordering Code

GBV100		/2		-J01		/160		-D00		-O1		-Z01	
a		b		c		d		e		f		g	
Model	L/min	Spools		Inlet section code		Main relief valve pressure		End section		Main section		Main section code	
GBV60	60	1	1 spool	J01	Fixed pumps without pilot source	160		D00	No end cap	O1	1st section	Z01	Basic section
GBV80	80	2	2 spools	J02	Variable pumps with pilot source	210						Z02	With check valve and anti-cavitation
GBV100	100	.....		.....								Z03	With overload valve and anti-cavitation
GBV200	220												

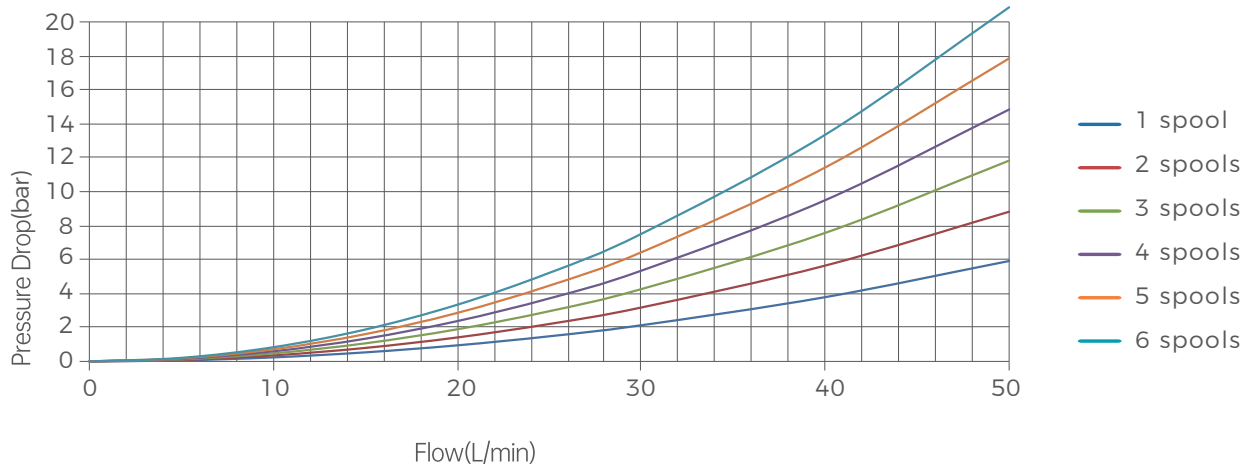
-Q8		-FG1		-DC/12		-QL/80		-O2		-Z02	
h		i		j		k		l		m	
Drive style code		Spool function code		Electrical option		Flow rate		Second section		Main section code	
Q1	Manual control	FG1	O-type	DC/12	12V	80		O2	2nd section	.....
Q2	Hydraulic control	FG2	Y-type	DC/24	24V						
Q3	Manual + Detent	FG3	H-type	DC/00	No electric control						
.....		FG4	With Floating and Post compensation								
Q8	Electric control with floating										



Sectional Control Valve Performance Specifications GKV35

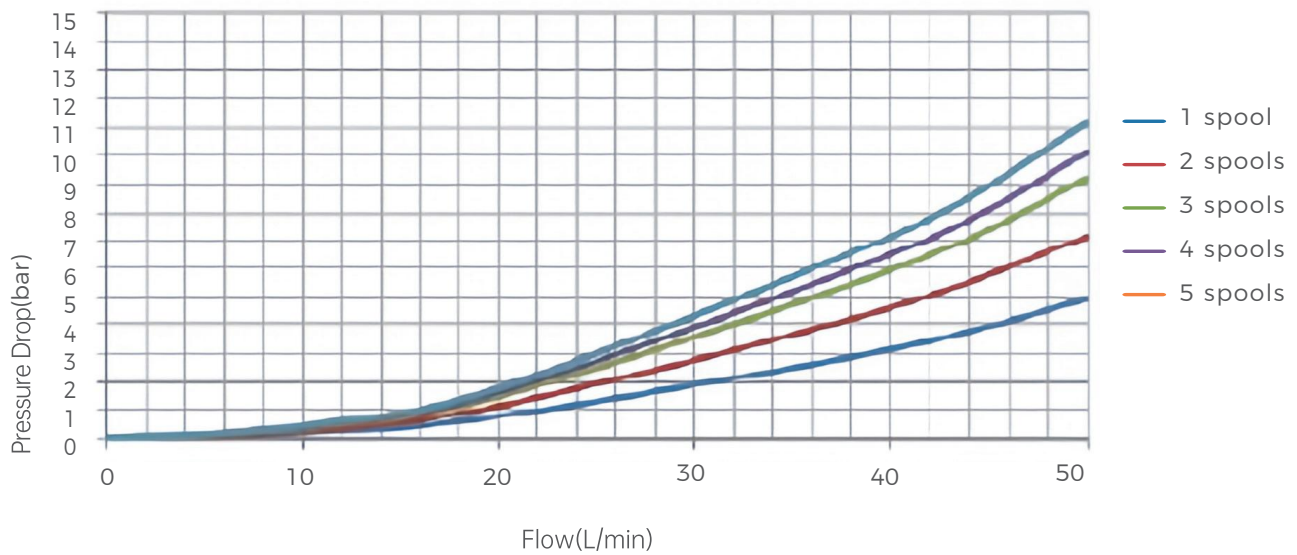


Pressure Drop from Inlet to Tank in Neutral Position (PtoT)



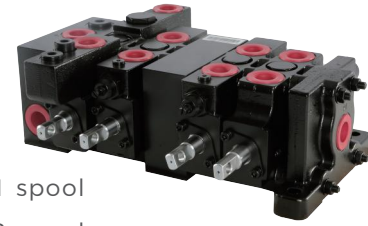
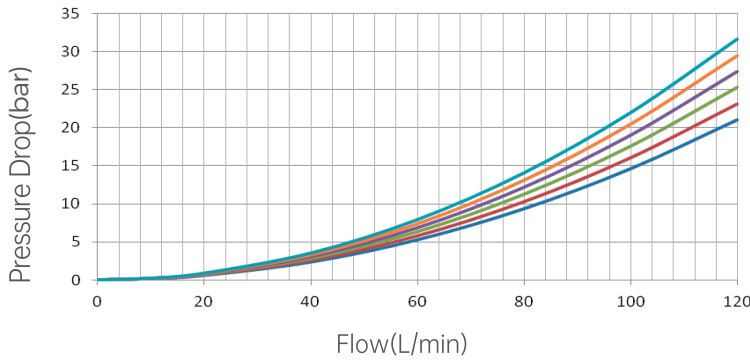
GKV50

Pressure Drop in Neutral Position(PtoT)



GKV80

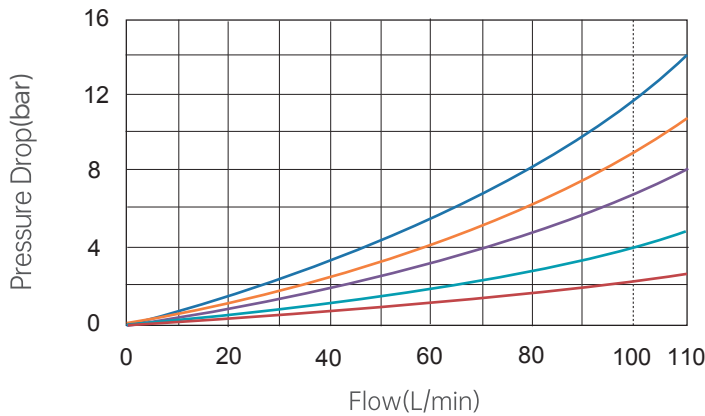
Pressure Drop from Inlet to Tank in Neutral Position (PtoT)



- 1 spool
- 2 spools
- 3 spools
- 4 spools
- 5 spools
- 6 spools

GKV100

Pressure Drop from Inlet to Tank in Neutral Position (PtoT)



- 1 spool
- 2 spools
- 3 spools
- 4 spools
- 5 spools
- 6 spools

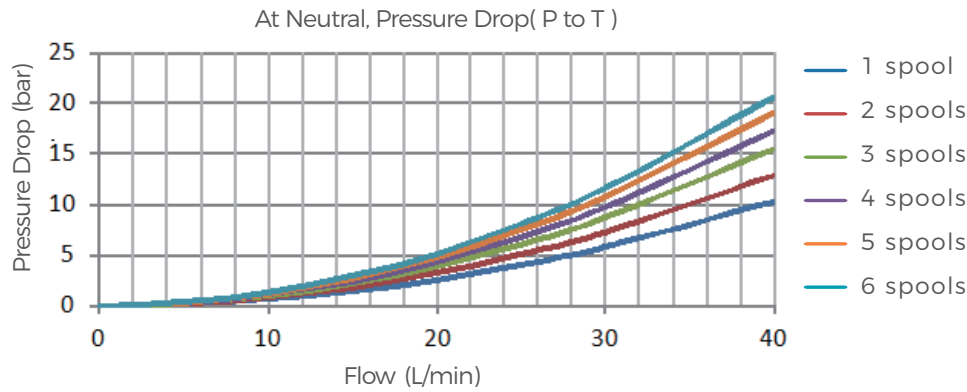
Ordering Code

GKV35		/4		-JK01		/160		-DK01		-O1		-YT01	
a		b		c		d		e		f		g	
Model L/min		Spools		Inlet section code		Main relief valve pressure		Return section code		Main section		Work section code	
GKV35	35	1	1 spool	JK01	With direct-acting relief valve	160bar	DK01	Oil return from inlet section	O1	1st section	YT01	No Load relief valve at both A and B	
GKV50	50	2	2 spools	JK02	With priority relief valve	210bar	DY01	Oil return from end cap			YT02	Load relief valve at A and B	
GKV80	80	3	3 spools								YT03	Load relief valve at A port	
GKV100	100	4	4 spools								.....	
-KQ1		-FG1		-DC/12		-QL/35		-RF0		-O2		-ZK01	
h		i		j		k		l		m		n	
Drive style code		Spool function code		Electrical option		Flow rate		Load relief valve		Second section		Work section code	
KQ1	Manual control	FG1	O-type	DC/12	12V	35LPM	RF0	Without overload protection valve	O2	2nd section	.....	
KQ2	Hydraulic control	FG2	Y-type	DC/24	24V		RF1	Direct-acting relief valves					
KQ3	Manual + Detent	FG3	H-type	/	No electric control		RF2	Differential relief valves					
.....												
KQ6	Electric control with floating	FG5	With Floating										

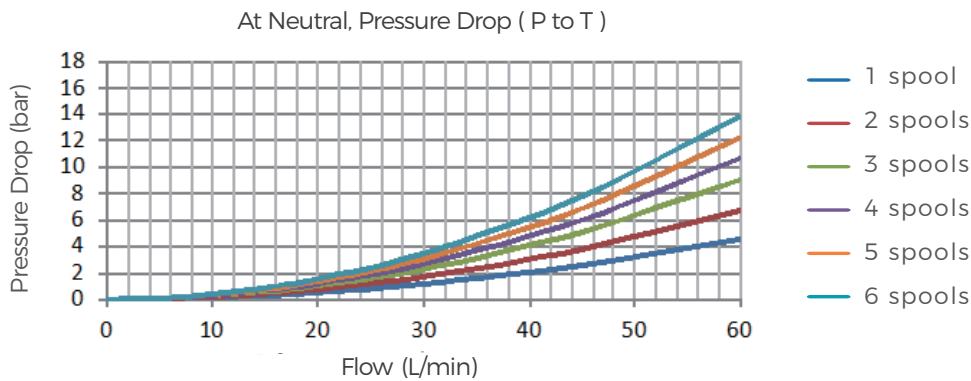


Monoblock Control Valve Performance Specifications

GDV25

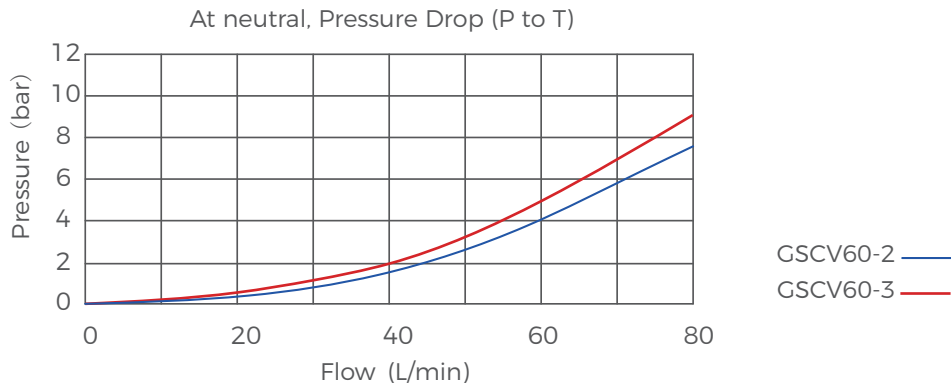


GDV45



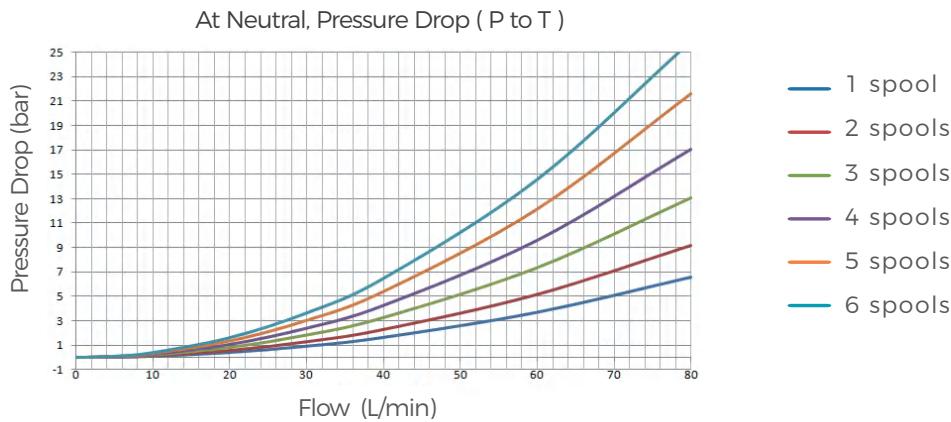
GSCV60

Performance Data



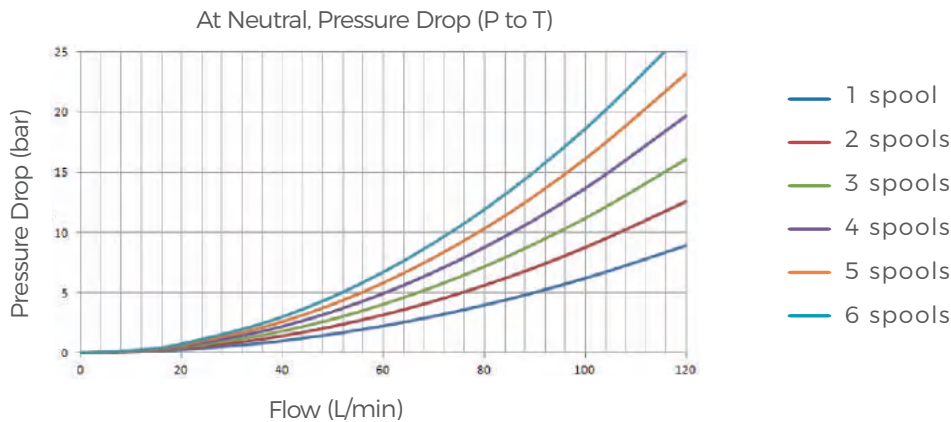
GDV70

Performance Data



GDV80

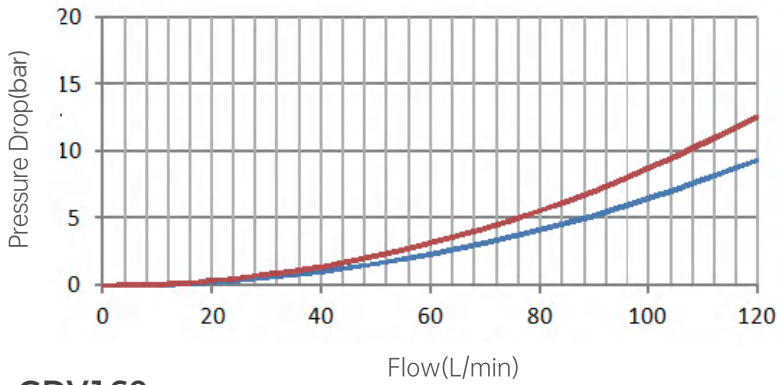
Performance Data





GDV120

Pressure Drop from Inlet to Tank in Neutral Position (PtoT)

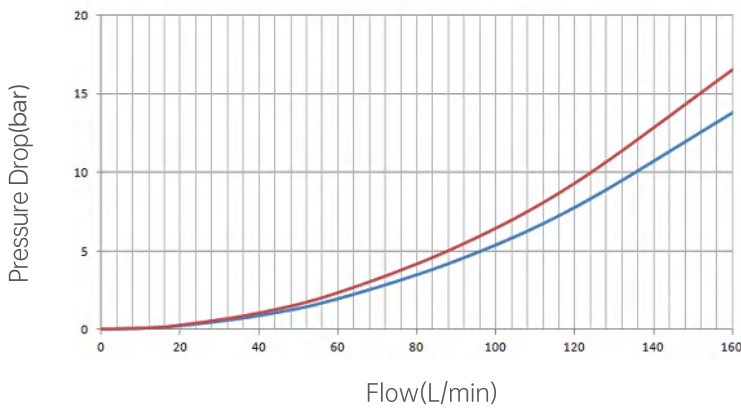


— 1 spool
— 2 spools



GDV160

Pressure Drop from Inlet to Tank in Neutral Position (PtoT)



— 1 spool
— 2 spools

Ordering Code

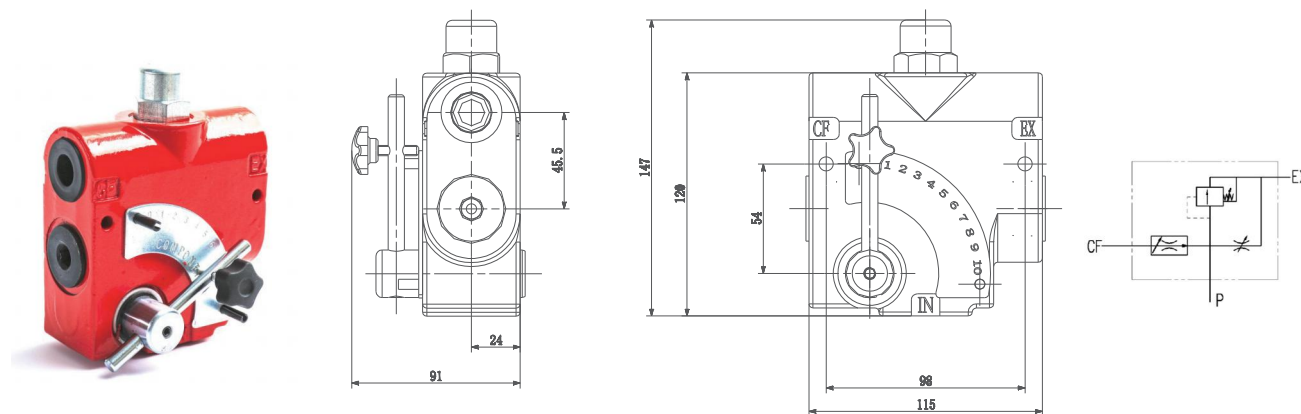
GDV45		-4		-P1		/210		-T1		-D1	
a		b		c		d		e		f	
Model L/min		Spools		Inlet port code		Main relief valve pressure		Return port code		Power beyond	
GDV25	25	1	1 spool	P1	Port on the top	160	T1	Port on the front	D0	Power beyond	
GDV45	45	2	2 spools	P2	Port on the side	210	T2	Port on the top	D1	No power beyond	
GDV70	70	3	3 spools								
GDV80	80	.....								
GDV120	120	6	6 spools								
GDV160	160										

-O1		-FG1		-KQ1		-DC/24		-O2		-FG2	
g		h		i		j		k		l	
Main section		Spool function code		Drive style code		Electric option		Second section		Spool function code	
O1	1st section	FG1	O-type	KQ1	Manual control	DC/12	12V	O2	2nd section	.....
		FG2	Y-type	KQ2	Hydraulic control	DC/24	24V				
		FG3	H-type	KQ3	Manual + detent	/	No electric control				
								
		FG6	With floating	KQ6	Electric control with floating						

LKF Series Flow Control Valve Introduction

LKF series flow control valve with pressure compensation, flow can be adjusted, its special design, makes the orifice area changes with the rotation of the lever, no matter how the pressure of the control port or the overflow oil port changes, the outlet flow is smooth and constant. An adjustable relief valve is integrated into the valve to act as a safety valve, with a preset pressure of 1500psi and field adjustable pressure of 75psi to 3000psi.

Dimensions



Model	Port	Flow(gpm)
LKF-40-3/8NPT	3/8"-NPT	0-40 L/min (0-8gpm)
LKF-60-1/2NPT	1/2"-NPT	0-60 L/min (0-16gpm)
LKF-114-3/4NPT	3/4"-NPT	0-114 L/min (0-30gpm)

Ordering Code

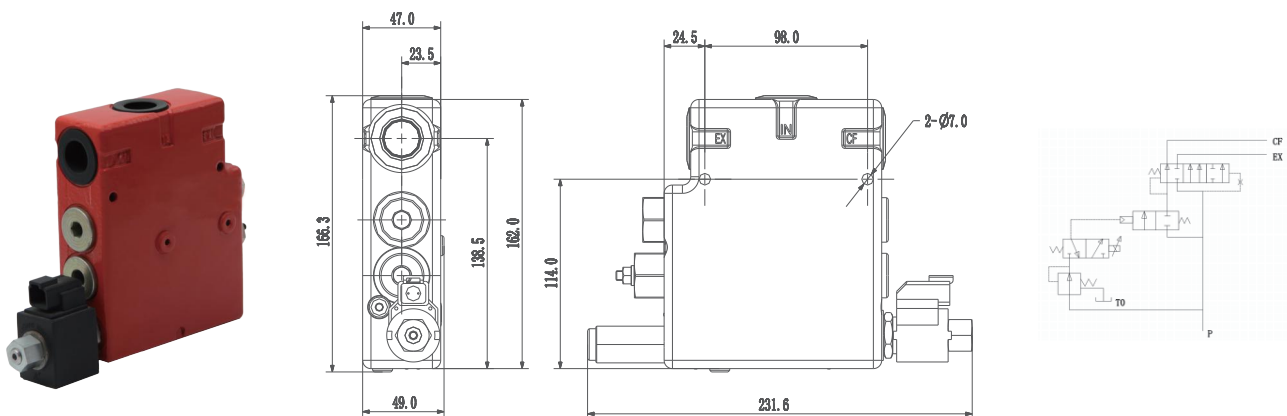
LKF a		40 b	-G3/8 c	-210 d
Model	Flow	Port Size	Rated Pressure	
LKF	Manual control	40 0-40L/min (0-8gpm)	G3/8 G3/8	21MPa
		60 0-60L/min (0-16gpm)	NPT1/2 1/2" - NPT	
		114 0-114L/min (0-30gpm)	NPT3/4 3/4" - NPT	



LKFE Series Flow Control Valve Introduction

LKFE series electronically flow control valve with pressure compensation, flow can be adjusted, it is through the electric proportional flow pressure reducing valve, in order to control the current size. Thus, the pilot pressure is changed, and the opening of the spool of the flow control valve is changed to control the flow. Current range: 0-1500mA. Use Decci plugs, waterproof and IP69K compliant.

Dimensions



Model	Port	Flow (gpm)
LKFE-40-3/8NPT	3/8"-NPT	0-40 L/min (0-8gpm)
LKFE-60-1/2NPT	1/2"-NPT	0-60 L/min (0-16gpm)
LKFE-114-3/4NPT	3/4"-NPT	0-114 L/min (0-30gpm)

Ordering Code

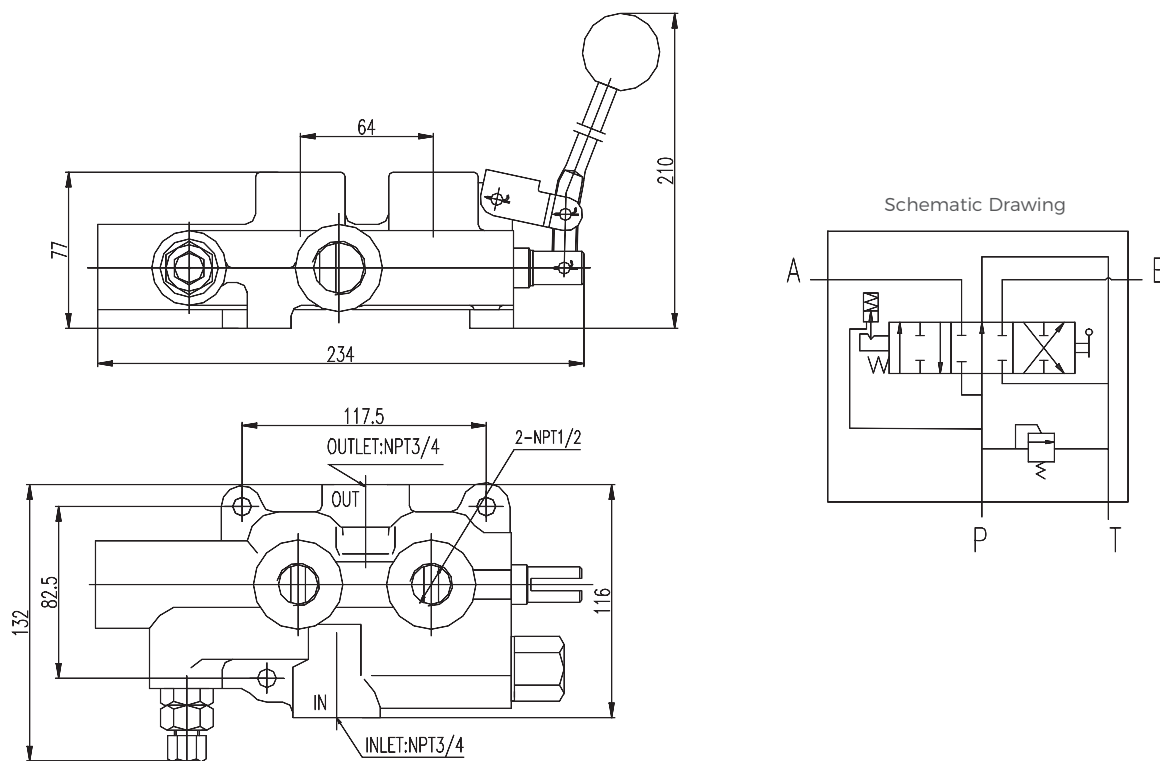
LKFE		-40	-G3/8	-210			
a		b	c	d			
Model	Flow	Port Size		Rated Pressure			
LKFE	Electric control	40	0-40L/min (0-8gpm)	G3/8	G3/8	210	21MPa
		60	0-60L/min (0-16gpm)	NPT1/2	1/2" - NPT		
		114	0-114L/min (0-30gpm)	NPT3/4	3/4" - NPT		

LS-TW-20F Log Splitter Valve

Specifications

Flow	95 (L/min)
Relief Pressure	200 (bar)
Detent Release Pressure	70 to 140 (bar)
Pressure Drop (P to A or B)	3bar (at 75L/min)
Pressure Drop (P to T)	0.8bar (at 75L/min)

Installation Dimensions and Schematics



Ordering Code

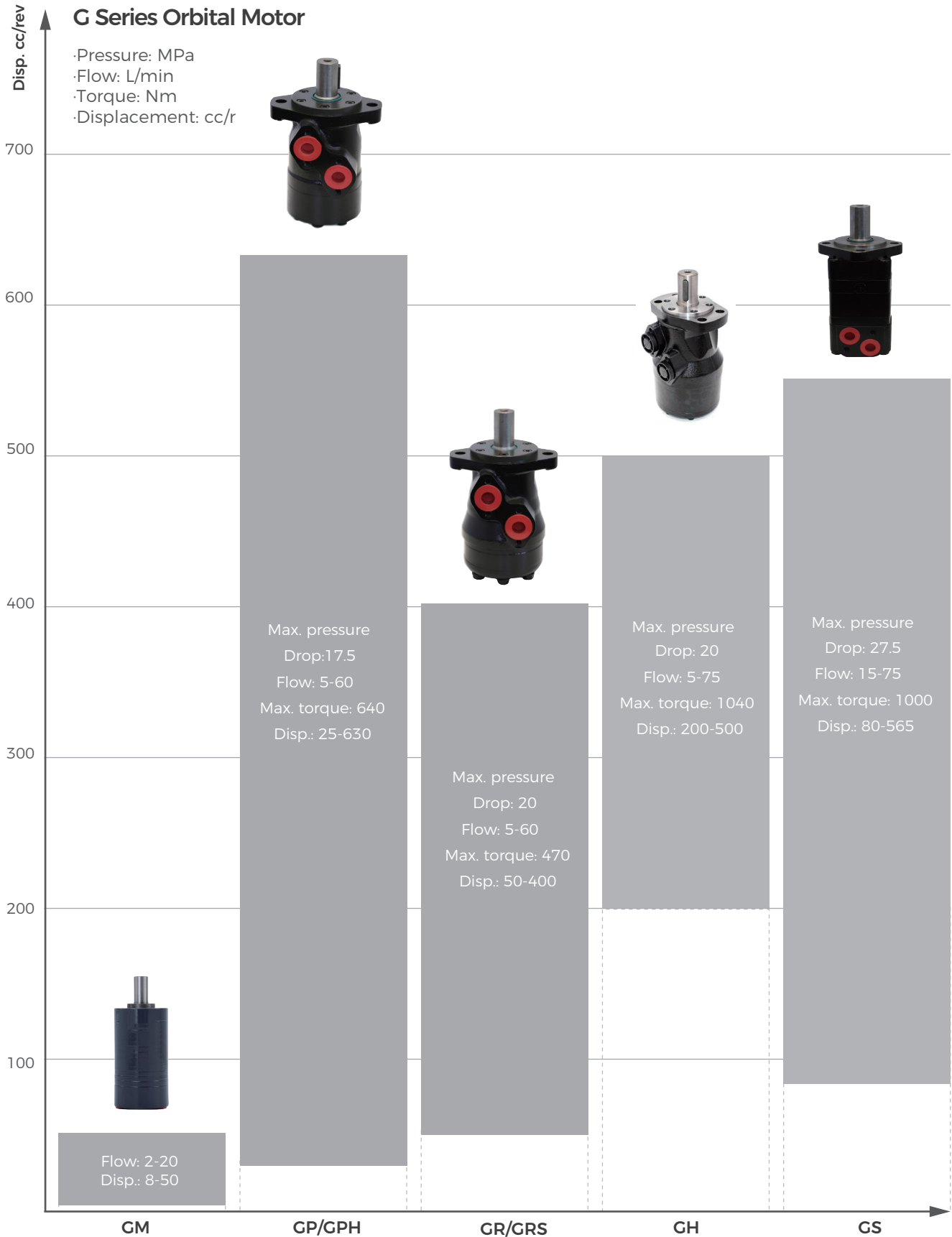
LS	-TW	20	F
a	b	c	d

Ⓐ Model

Ⓑ With pressure release detent

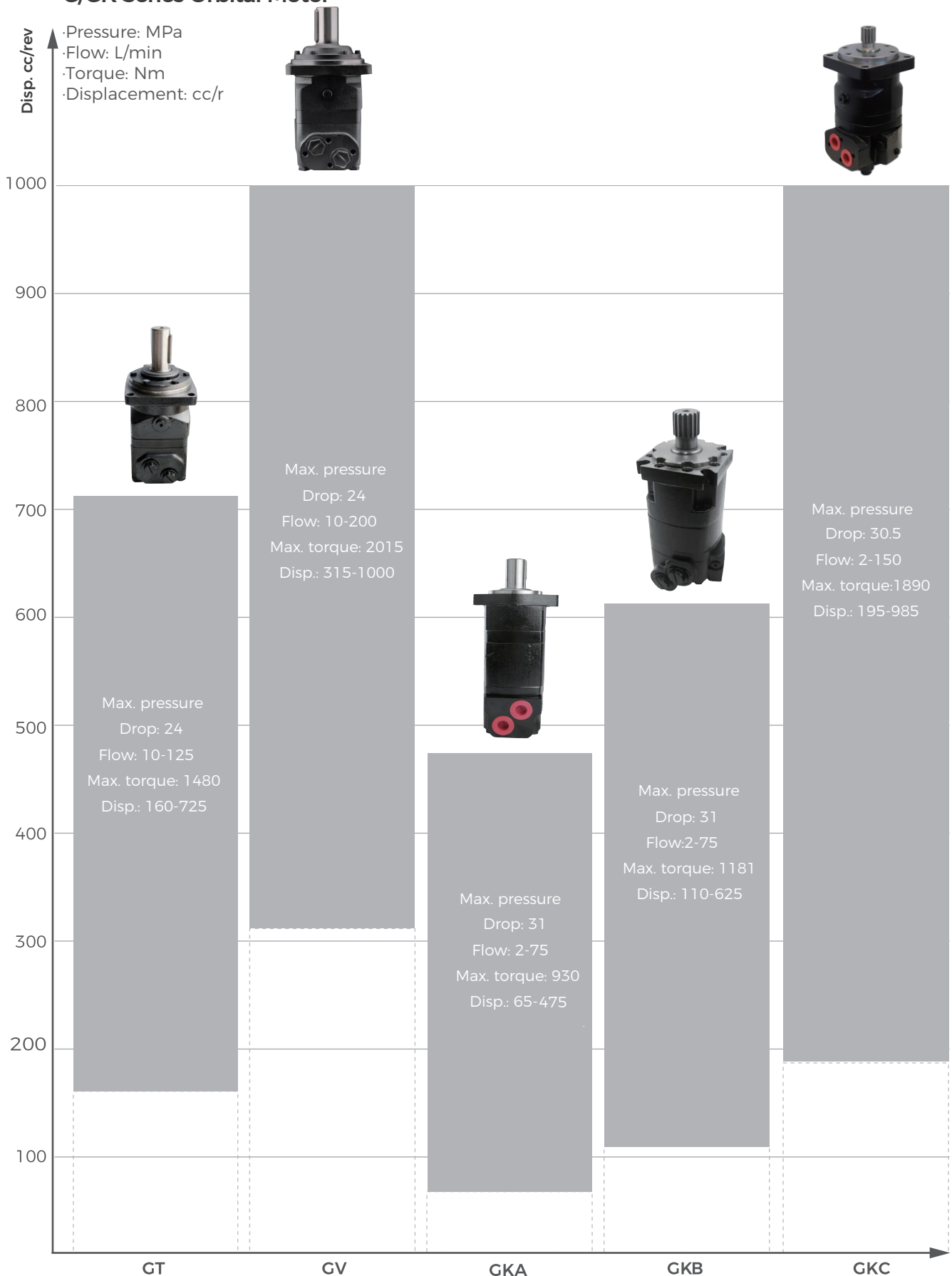
Ⓒ Nominal size(mm)

Ⓓ Pressure: 20MPa





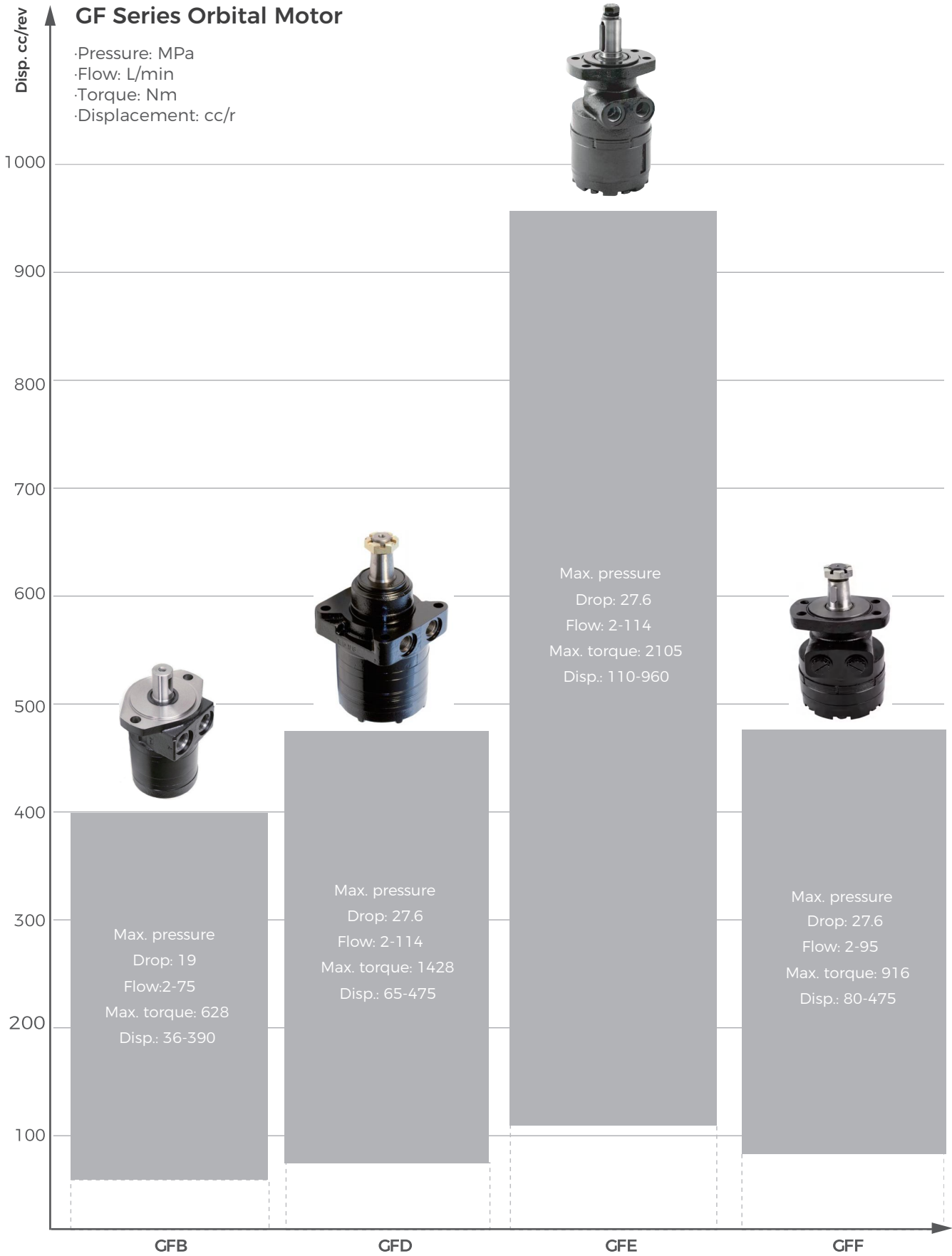
G/GK Series Orbital Motor





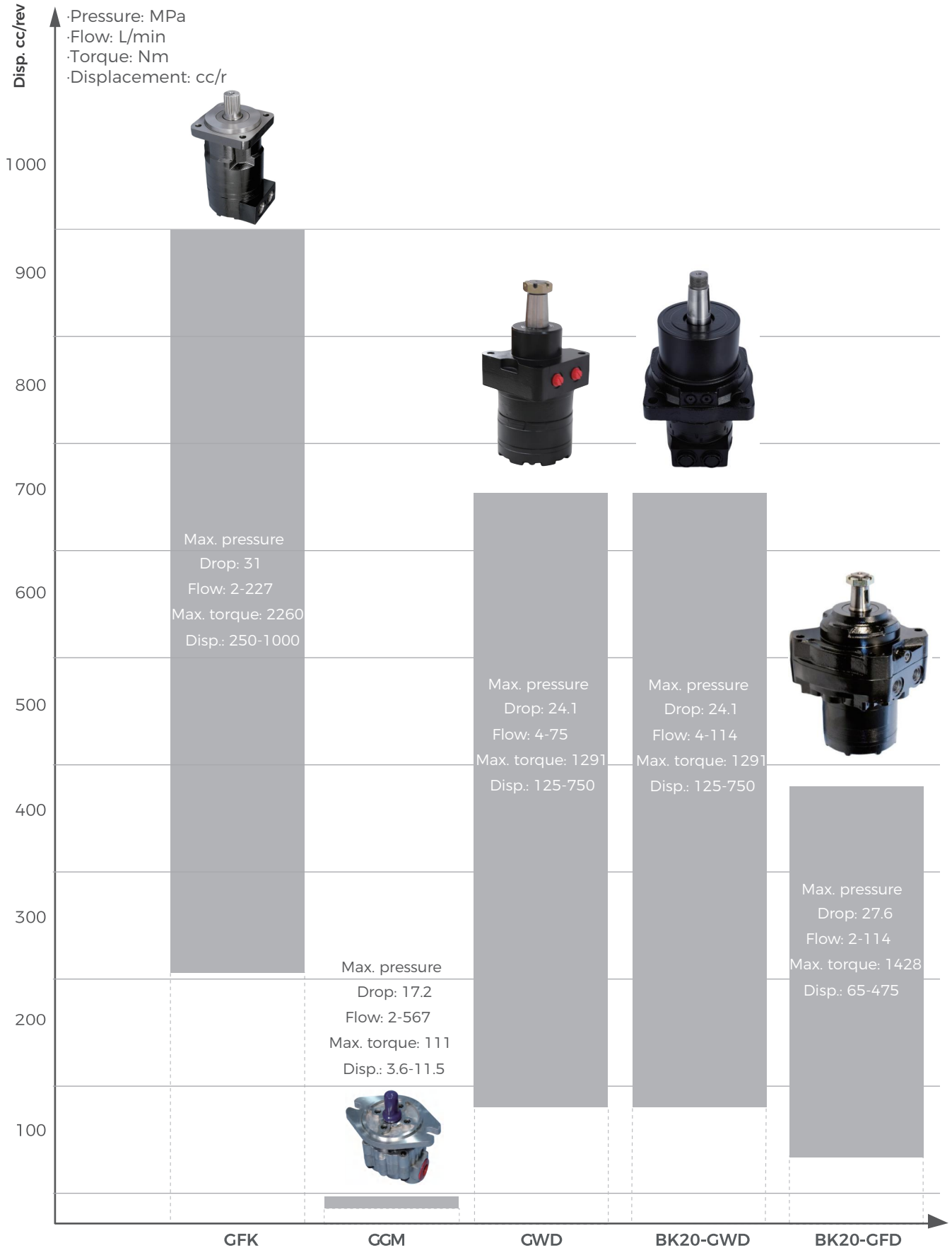
GF Series Orbital Motor

- Pressure: MPa
- Flow: L/min
- Torque: Nm
- Displacement: cc/r





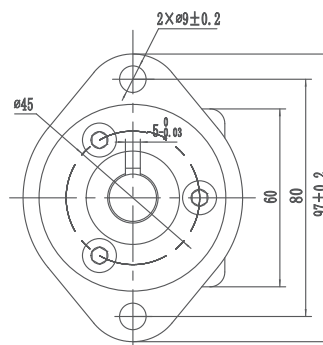
Orbital Motor/Brakes





GM Series Orbital Motors Specifications

Model		GM8	GM12.5	GM20	GM32	GM40	GM50
Displacement	in ³ /rev	0.5	0.77	1.22	1.93	2.43	3.08
	cm ³ /rev	8.2	12.5	19.9	31.6	39.8	50
Max. speed rpm	Cont.	1950	1550	1000	630	500	400
	Int.	2450	1940	1250	800	630	500
Max. torque Nm	Cont.	11	16	25	40	45	46
	Int.	15	23	35	57	70	88
Max. pressure drop bar	Cont.	100	100	100	100	90	70
	Int.	140	140	140	140	140	140
Max. oil flow L/min	Cont.	16	20	20	20	20	20
	Int.	20	25	25	25	25	25
Weight Kg		1.9	2.0	2.1	2.2	2.3	2.5

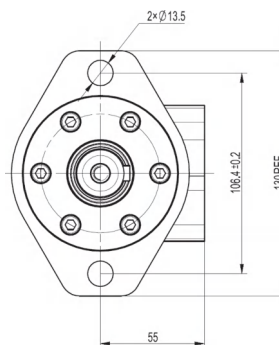


Ordering Code

GM a		8 b		B4 c		SS d	
Series		Displacement		Flange		Shaft	
GM	GM Series Shaft Distribute	8	8.2cm ³ /rev	B4	3-M6 round flange Ø45 pilot Ø31.5×54	SS	Ø16 shaft parallel key 5×5×16
		12.5	12.9cm ³ /rev	B5	3-1/4-28UNF round flange Ø45 pilot Ø31.5×5	ST	Ø15.875 shaft, parallel key 4.8×4.8×19.05
		20	19.9cm ³ /rev	AD	2-Ø9 diamond flange Ø80 pilot Ø63×2	RK	Ø16.5 shaft, splined key B17×14, DIN5482
						
		50	50.3cm ³ /rev				
GA e		A f		B g		S h	
Port		Rotation		Paint		Function	
GA	G3/8, G1/8	A	Standard	A	No paint	A	Standard
U8	9/16-18UNF, 3/8-24UNF	R	Opposite	B	Blue	B	No drain port
GB	End port G3/8, G1/8			C	Black	V	High temperature
				S	Silver grey	S	Low temperature

GP Series Orbital Motors Specifications

Model		GP25	GP32	GP40	GP50	GP80	GP100	GP125	GP160	GP200	GP250	GP315	GP400	GP500	GP630
Displacement	in ³ /rev	1.52	1.95	2.44	3.02	4.83	6.04	7.55	9.66	12.1	15.1	19.3	24.16	30.2	38.5
	cm ³ /rev	25	32	40	49.5	79.2	99	123.8	158.4	198	247.5	316.8	396	495	623.6
Max. speed rpm	Cont.	1600	1560	1500	1210	755	605	486	378	303	242	190	150	120	95
	Int.	1815	1720	1750	1515	945	755	605	472	378	303	236	189	150	120
Max. torque Nm	Cont.	33	43	62	94	151	193	237	313	366	380	380	360	390	440
	Int.	47	61	82	119	195	237	298	378	456	583	560	590	570	640
Max. pressure drop bar	Cont.	100	100	120	140	140	140	140	140	140	110	90	70	60	55
	Int.	140	140	155	175	175	175	175	175	175	175	140	115	90	80
Max. oil flow L/min	Cont.	40	50	60	60	60	60	60	60	60	60	60	60	60	60
	Int.	45	55	70	75	75	75	75	75	75	75	75	75	75	75
Weight Kg		5.6	5.6	5.7	5.8	5.9	6.1	6.2	6.4	6.6	6.8	7.1	7.6	8.9	9.5



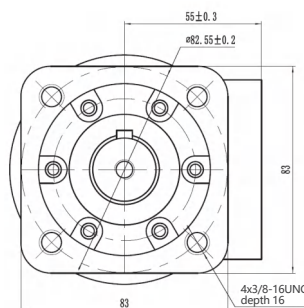
Ordering Code

GP a		25 b		A2 c		S1 d	
Series		Displacement		Flange		Shaft	
GP	GP Series Shaft Distribute	25	25cm ³ /rev	A2	2-Ø13.5 SAE A Ø106.4 pilotØ82.5×2.8	S1	Ø25 shaft Parallel key 8×7×32
		32	32cm ³ /rev	A4	4-Ø13.5 SAE A Ø106.4 pilotØ82.5×2.8	S2	Ø25.4 shaft Parallel key 6.35×6.35×1.75
		40	40cm ³ /rev	H4	4-3/8-16 UNC square flange pilotØ44.4×2.8	R1	Ø25.4 shaft Splined key SAE 6B
		.....		H5	4-M10 square flange pilotØ44.4×2.8	T1	Ø 28.56 taper shaft 1:10 Parallel key B5×5×14
		630	623.6cm ³ /rev			.....
G1 e		A f		S g		A h	
Port		Rotation		Paint		Options	
G1	G1/2, G1/4 manifold 4×M8	A	Standard	A	No paint	A	Standard
M1	M22×1.5, M14×1.5, manifold 4×M8	R	Opposite	B	Blue	N	Big radial force
U2	7/8-1UNF, 7/16-20UN manifold 4×5/16-18UNCF			C	Black	L	Low speed
U1	7/8-14NPTF, 7/16 - 20UNF, manifold 4×5/16 - 18UNC			S	Silver grey		
G2	PT (Rc) 1/2, PT (Rc) 1/4 manifold 4×M8						



GPH Series Orbital Motors Specifications

Model		GPH25	GPH32	GPH40	GPH50	GPH80	GPH100	GPH125	GPH160	GPH200	GPH250	GPH315	GPH400	GP500	GP630
Displacement	in ³ /rev	1.52	1.95	2.44	3.02	4.83	6.04	7.55	9.66	12.1	15.1	19.3	24.16	30.2	38.5
	cm ³ /rev	25	32	40	49.5	79.2	99	123.8	158.4	198	247.5	316.8	396	495	623.6
Max. speed rpm	Cont.	1600	1560	1500	1210	755	605	486	378	303	242	190	150	120	95
	Int.	1815	1720	1750	1515	945	755	605	472	378	303	236	189	150	120
Max. torque Nm	Cont.	33	43	62	94	151	193	237	313	366	380	380	360	390	440
	Int.	47	61	82	119	195	237	298	378	456	583	560	590	570	640
Max. pressure drop bar	Cont.	100	100	120	140	140	140	140	140	140	110	90	70	60	55
	Int.	140	140	155	175	175	175	175	175	175	175	140	115	90	80
Max. oil flow L/min	Cont.	40	50	60	60	60	60	60	60	60	60	60	60	60	60
	Int.	45	55	70	75	75	75	75	75	75	75	75	75	75	75
Weight Kg		5.6	5.6	5.7	5.8	5.9	6.1	6.2	6.4	6.6	6.8	7.1	7.6	8.9	9.5

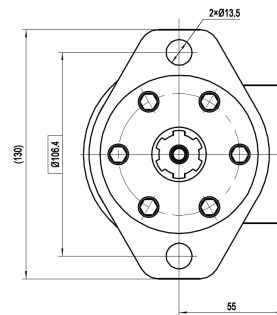


Ordering Code

GPH a		25 b		A2 c		S1 d	
Series		Displacement		Flange		Shaft	
GPH	GPH Series Shaft Distribute	025	25cm ³ /rev	A2	2-Ø13.5 SAE A Ø106.4 pilotØ82.5×2.8	S1	Ø25 shaft Parallel key 8×7×32
		032	32cm ³ /rev	A4	4-Ø13.5 SAE A Ø106.4 pilotØ82.5×2.8	S2	Ø25.4 shaft Parallel key 6.35×6.35×1.75
		040	40cm ³ /rev	H4	4-3/8-16 UNC square flange pilotØ44.4×2.8	R1	Ø25.4 shaft Splinedkey SAE 6B
		.....		H5	4-M10 square flange pilotØ44.4×2.8	T1	Ø28.56 taper shaft 1:10 Parallel key B5×5×14
		630	623.6cm ³ /rev			.....
G1 e		A f		S g		A h	
Port		Rotation		Paint		Options	
G1	G1/2, G1/4 manifold 4×M8	A	Standard	A	No paint	A	Standard
M1	M22×1.5, M14×1.5 manifold 4×M8	R	Opposite	B	Blue	N	Big radial force
U2	7/8-1UNF, 7/16-20UN manifold 4×5/16-18UNCF			C	Black	L	Low speed
U1	7/8-14NPTF, 7/16 - 20UNF, manifold 4×5/16 - 18UNC			S	Silver grey		
G2	PT (Rc) 1/2, PT (Rc) 1/4 manifold 4×M8						

GR Series Orbital Motors Specifications

Model		GR50	GR80	GR100	GR125	GR160	GR200	GR250	GR315	GR400
Displacement	in ³ /rev	3.14	4.9	6.09	7.67	9.74	12.19	15.26	19.26	24.4
	cm ³ /rev	51.5	80.3	99.8	125.7	159.6	199.8	250.1	315.7	397
Max. speed rpm	Cont.	775	750	600	475	375	300	240	190	150
	Int.	970	940	750	600	470	375	300	240	190
Max. torque Nm	Cont.	100	200	240	300	390	385	390	360	380
	Int.	130	220	280	340	430	460	470	470	470
Max. pressure drop bar	Cont.	140	175	175	175	175	140	110	85	65
	Int.	175	200	200	200	200	175	140	115	90
Max. oil flow L/min	Cont.	40	60	60	60	60	60	60	60	60
	Int.	50	75	75	75	75	75	75	75	75
Weight Kg		6.8	6.9	7.2	7.3	7.5	8	8.4	9.1	9.8



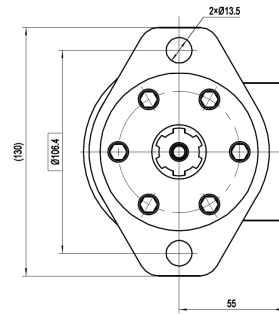
Ordering Code

GR a		80 b		A2 c		S1 d	
Series	Displacement	Flange		Shaft			
GR	GR Series Shaft Distribute	50	51.5cm ³ /rev	A2	2-Ø13.5 SAE A Ø106.4 pilot Ø82.5×2.8	S1	Ø25 shaft Parallel key 8×7×32
		80	80.3cm ³ /rev	A4	4-Ø13.5 SAE A Ø106.4 pilot Ø82.5×2.8	S2	Ø25.4 shaft Parallel key 6.35×6.35×31.75
		100	99.8cm ³ /rev	H4	4-3/8-16 square flange pilot Ø44.4×2.8	R1	Ø25.4 Splined shaft Spline key SAE 6B
		.....		H5	4-M10 square flange pilot Ø44.4×2.8	T1	Ø28.56 Tapered shaft 1:10 Parallel key B5×5×14
		400	397cm ³ /rev			.....
G1 e		R f		C g		A h	
Port	Rotation	Paint		Options			
G1	G1/2, G1/4 manifold 4×M8	A	Standard	A	No paint	A	Standard
M1	M22×1.5, M14×1.5 manifold 4×M8	R	Opposite	B	Blue	N	Big radial force
U2	7/8-14UNF O-ring, 7/16-20UNF manifold 4×5/16-18UNC			C	Black	L	Low speed
U1	1/2-14NPTF, 7/16-20UNF manifold 4×5/16-18UNC			S	Silver grey		
G2	PT(Rc)1/2, PT(Rc)1/4 manifold 4×M8						



GRS Series Orbital Motors Specifications

Model		GRS50	GRS80	GRS100	GRS125	GRS160	GRS200	GR250	GRS315	GRS400
Displacement	in ³ /rev	3.14	4.9	6.09	7.67	9.74	12.19	15.26	19.26	24.4
	cm ³ /rev	51.5	80.3	99.8	125.7	159.6	199.8	250.1	315.7	397
Max. speed rpm	Cont.	775	750	600	475	375	300	240	190	150
	Int.	970	940	750	600	470	375	300	240	190
Max. torque Nm	Cont.	100	200	240	300	390	385	390	360	380
	Int.	130	220	280	340	430	460	470	470	470
Max. pressure drop bar	Cont.	140	175	175	175	175	140	110	85	65
	Int.	175	200	200	200	200	175	140	115	90
Max. oil flow L/min	Cont.	40	60	60	60	60	60	60	60	60
	Int.	50	75	75	75	75	75	75	75	75
Weight Kg		6.9	7.0	7.3	7.4	7.6	8.1	8.5	9.1	9.9

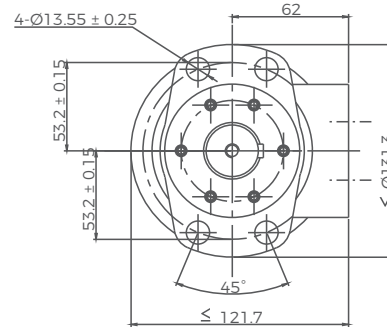


Ordering Code

GRS a		80 b		A2 c		S1 d	
Series		Displacement		Flange		Shaft	
GRS	GRS Series Shaft Distribute	50	51.5cm ³ /rev	A2	2-Ø13.5 SAE A Ø106.4 pilot Ø82.5×2.8	SC	Ø25 shaft Parallel key 8×7×32
		80	80.3cm ³ /rev	A3	4-Ø13.5 SAE A Ø106.4 pilot Ø82.5×2.8	S8	Ø25.4 shaft Parallel key 6.35×6.35×31.75
		100	99.8cm ³ /rev	H4	4-3/8-16 square flange pilot Ø44.4×2.8	R4	Ø25.4 Spline shaft Splined key SAE6B
		.....		H5	4-M10 square flange pilot Ø44.4×2.8	T3	Ø25.4 Tapered shaft 1:8 25.4×6.35
		400	397cm ³ /rev			.....
G1 e		A f		C g		A h	
Port		Rotation		Paint		Options	
G1	G1/2, G1/4	A	Standard	A	No paint	A	Standard
U9	7/8-14UNF O-ring, 7/16-20UNF	R	Opposite	B	Blue	N	Big radial force
UA	1/2-14NPTF, 7/16-20UNF			C	Black	L	Low speed
M2	M18×1.5, M10×1			S	Silver grey		
G8	PT(Rc)1/2, PT(Rc)1/4						

GH Series Orbital Motors Specifications

Model		GH200	GH250	GH315	GH400	GH500
Displacement	in ³ /rev	12.3	15.4	19.2	24.2	30.7
	cm ³ /rev	201.3	252	314.9	396.8	502.4
Max. speed rpm	Cont.	370	295	235	185	150
	Int.	445	350	285	225	180
Max. torque Nm	Cont.	510	610	740	840	820
	Int.	580	700	820	980	1040
Max. pressure drop bar	Cont.	175	175	175	155	125
	Int.	200	200	200	190	160
Max. oil flow L/min	Cont.	75	75	75	75	75
	Int.	90	90	90	90	90
Weight Kg		10.5	11	11.5	12.3	13



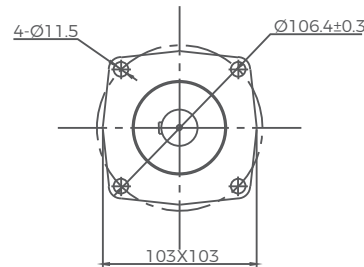
Ordering Code

GH		200		A5		S4	
a		b		c		d	
Series		Displacement		Flange		Shaft	
GH	GH Series Shaft Distribute	200	201.3cm ³ /rev	A5	2-Ø13.5 SAE A Ø106.4 pilot Ø82.5×6	S4	Ø32 shaft Parallel key 10×8×45
		250	252cm ³ /rev	A6	4-Ø13.5 SAE A Ø106.4 pilot Ø82.5×6	SF	Ø35 shaft Parallel key 10×8×45
		315	314.9cm ³ /rev			R3	Ø31.75 shaft , Splined key 14-DP12/24
		400	396.8cm ³ /rev			R6	Ø31.75 Long Shaft Splined key 14-DP12/24
		500	502.4cm ³ /rev			.....
G1		A		C		A	
e		f		g		h	
Port		Rotation		Paint		Options	
G1	G1/2, G1/4 Manifold 4×M8	A	Standard	A	No paint	A	Standard
M1	M22×1.5, M14×1.5 Manifold 4×M8	R	Opposite	B	Blue	N	Big radial force
U2	7/8-14UNF O-ring, 7/16-20UNF Manifold 4×5/16-18UNC			C	Black	D	No drain port
U1	1/2-14 NPTF, 7/16-20UNF Manifold 4×5/16-18UNC			S	Silver grey	F	Free wheeling
G2	PT (Rc) 1/2, PT (Rc) 1/4 Manifold 4×M8					L	Low speed



GS Series Orbital Motors Specifications

Model		GS80	GS100	GS125	GS160	GS200	GS250	GS315	GS400	GS475	GS525	GS565
Displacement	in ³ /rev	4.91	6.1	7.67	9.74	12.2	15.3	19.2	24.2	28.96	31.88	34.47
	cm ³ /rev	80.5	100	125.7	159.7	200	250	314.9	397	474.6	522.7	564.9
Max. speed rpm	Cont.	810	750	600	470	375	300	240	190	160	145	130
	Int.	1000	900	720	560	450	360	290	230	190	175	160
Max. torque Nm	Cont.	240	305	375	490	610	720	825	865	850	850	850
	Int.	310	390	490	600	720	870	1000	990	990	990	990
Max. pressure drop bar	Cont.	210	210	210	210	210	200	200	160	130	115	105
	Int.	275	275	275	275	275	250	240	190	150	135	125
Max. oil flow L/min	Cont.	65	75	75	75	75	75	75	75	75	75	75
	Int.	80	90	90	90	90	90	90	90	90	90	90
Weight Kg		9.9	10.1	10.4	10.8	11.2	11.7	12.4	13.1	14.1	14.6	15



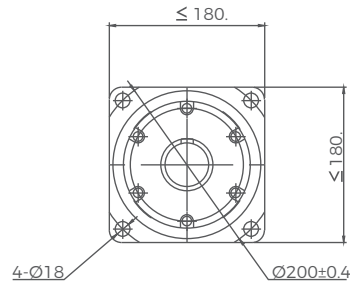
Ordering Code

GS a		200 b		A7 c		S4 d	
Series		Displacement		Flange		Shaft	
GS	GS Series Disc Distribute	80	80.5cm ³ /rev	A7	2-Ø13.5 SAE A Ø106.4 Ø106.4 pilot Ø82.5×6.3	S4	Ø32 Parallel key 10×8×45
GSS	GSS Series Bearingless (Short) Disc Distribute	100	100cm ³ /rev	H3	4-Ø13.5 Square flange Ø106.4 pilot Ø82.5×6.3	R3	Long Ø31.75 splined tooth 14-DP 12/24
		125	125.7cm ³ /rev	A9	6-Ø13.5 SAE A Ø106.4 Ø106.4 pilot Ø82.5×2.6	T4	Tapered Ø35 parallel key B6×6×20
		.....		W1	4-Ø13.5 Wheel flange Ø160 pilot Ø125×8	.....
		565	564.9cm ³ /rev				
G9 e		R f		S g		A h	
Port		Rotation		Paint		Options	
G9	G1/2, G1/4 manifold 2×M10	A	Standard	A	No paint	A	Standard
M8	M22×1.5, M14×1.5 manifold 2×M10	R	Opposite	B	Blue	N	Big radial force
UB	7/8-14UNF O-ring, 7/16-20UNC manifold 2×3/8-16UNC			C	Black	L	Low speed
UC	1/2-14 NPTF, 7/16-20UNF manifold 2×3/8-16UNC			S	Silver grey		



GT Series Orbital Motors Specifications

Model		GT160	GT200	GT250	GT315	GT400	GT500	GT630	GT725
Displacement	in ³ /rev	9.83	12.29	15.36	19.9	25.06	31.95	38.52	44.2
	cm ³ /rev	161.1	201.4	251.8	326.3	410.9	523.6	631.2	724.3
Max. speed rpm	Cont.	622	620	496	382	304	238	197	172
	Int.	775	752	601	461	368	289	234	209
Max. torque Nm	Cont.	470	590	730	950	1080	1220	1300	1270
	Int.	560	710	880	1140	1260	1370	1480	1470
Max. pressure drop bar	Cont.	200	200	200	200	180	160	140	120
	Int.	240	240	240	240	210	180	160	140
Max. oil flow L/min	Cont.	100	125	125	125	125	125	125	125
	Int.	125	150	150	150	150	150	150	150
Weight Kg		20	21.5	21	22	23	24	23.5	24.5



Ordering Code

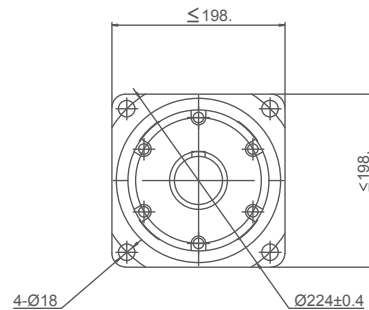
GT a		160 b		H6 c		C2 d	
Series		Displacement		Flange		Shaft	
GT	GT Series Disc Distribute	160	161.1cm ³ /rev	H6	4-Ø14 square Ø160 pilot Ø125×9	C2	Splined key 16-DP12/24
GTS	GTS Series Bearingless (Short) Disc Distribute	200	201.4cm ³ /rev	H7	4-Ø14.5 square Ø162 pilot Ø127×9	SK	Ø40 shaft Parallel key 12×8×70
		250	251.8cm ³ /rev	W2	4-Ø18 Wheel flange Ø200 pilot Ø160×7	SL	Ø38.1 shaft Parallel key 9.53×9.53×57.15
		.....		B2	4-Ø14 circle Ø160 pilot Ø125×8		
		725	724.3cm ³ /rev				

G3 e		A f		B g		N h	
Port		Rotation		Paint		Options	
G3	G3/4, G1/4 manifold 4×M10	A	Standard	A	No paint	A	Standard
M5	M27×2, M14×1.5 manifold 4×M10	R	Opposite	B	Blue	N	Big radial force
U4	1-1/16-12UN O-ring, 9/16-18UNF			C	Black	L	Low speed
U5	1-1/16-12UN O-ring, 7/16-20UNF			S	Silver grey		
G4	G3/4, G1/4						



GV Series Orbital Motors Specifications

Model		CV315	GV400	GV500	CV630	GV800	GV1000
Displacement	in ³ /rev	19.18	24.45	30.48	38.38	48.91	60.39
	cm ³ /rev	314.5	400.9	499.6	629.1	801.8	990
Max. speed rpm	Cont.	510	500	400	320	250	200
	Int.	630	600	480	380	300	240
Max. torque Nm	Cont.	920	1180	1460	1660	1880	2015
	Int.	1110	1410	1760	1940	2110	2280
Max. pressure drop bar	Cont.	200	200	200	180	160	140
	Int.	240	240	240	210	180	160
Max. oil flow L/min	Cont.	160	200	200	200	200	200
	Int.	200	240	240	240	240	240
Weight Kg		31.8	32.6	33.5	34.9	36.5	38.6



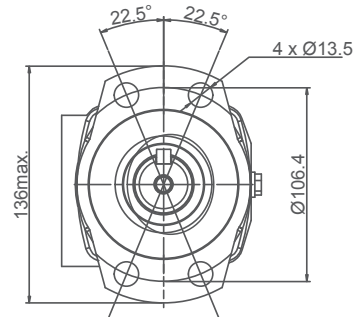
Ordering Code

GV a		315 b		H9 c		C3 d	
Series		Displacement		Flange		Shaft	
GV	GV Series Disc Distribute	315	314.5cm ³ /rev	H9	4-Ø18 Square flange Ø200 pilot Ø160×11	C3	Splined key 16-DP10/20
GVS	GVS Series Bearingless (Short) Disc Distribute	400	400.9cm ³ /rev	W3	4-Ø18 Wheel flange Ø224 pilot Ø180×10	SN	Ø50 shaft Parallel key 14×9×70
		500	499.6cm ³ /rev	B3	4-Ø14 Square flange Ø180 Spigot Ø140×8	RB	Ø53.975 shaft Splined key 16-DP8/16
		.....				RC	Ø53.975 shaft Splined key 16-DP8/16
		1000	990m ³ /rev				
G5 e		R f		C g		A h	
Port		Rotation		Paint		Options	
G5	G1, G1/4 manifold 4×M12	A	Standard	A	No paint	A	Standard
M6	M33×2, M14×1.5 manifold 4×M12	R	Opposite	B	Blue	V	High temperature
U6	1-5/16-12UNF O-ring manifold 9/16-18UNF			C	Black	S	Low temperature
G6	G1,G1/4			S	Silver grey		
M7	M33×2, M14×1.5						



GKA Series Orbital Motors Specifications

Model		GKA66	GKA80	GKA100	GKA130	GKA160	GKA195	GKA245	GKA305	GKA395	GKA490
Displacement	in ³ /rev	4.0	4.9	6.2	8.0	9.6	11.9	14.9	18.7	24.0	29.8
	cm ³ /rev	66	80	100	130	160	195	245	305	395	490
Max. speed rpm	Cont.	1075	908	742	576	477	385	308	246	191	153
	Int.	1214	908	924	720	713	577	462	365	335	230
Max. torque Nm	Cont.	186	235	295	385	455	540	660	765	775	845
	Int.	276	345	445	560	570	665	820	885	925	930
Max. pressure drop bar	Cont.	205	205	205	205	205	205	205	205	155	120
	Int.	310	310	310	310	260	260	260	240	190	140
Max. oil flow L/min	Cont.	72	75	75	75	75	75	75	75	75	75
	Int.	87	75	95	95	115	115	115	115	115	115
Weight Kg		8.8	9.3	9.5	9.8	10.0	10.4	11.3	11.3	11.8	12.2



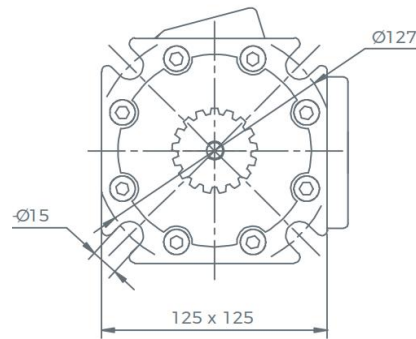
Ordering Code

GKA a		66 b		A7 c		R6 d	
Series		Displacement		Flange		Shaft	
GKA	GKA Series Disc Distribute	66	66cm ³ /rev	A7	2-Ø13.5 SAE A Ø106.4 pilot Ø82.5×6.4	R6	Ø31.25 Shaft Splined key 14-DP12/24
GKAS	GKAS Series Bearingless (Short) Disc Distribute	80	80cm ³ /rev	H3	4-Ø13.5 hole square flange pilot Ø82.5×6.4	S6	Ø25.4 shaft Woodruff key Ø25.4×6.35
		100	100cm ³ /rev	A9	4-Ø13.5 SAE A Ø106.4 pilot Ø82.5×6.4	R8	Ø25.4 shaft Splined key SAE 6B
		.....		W1	4-Ø13.5 hole square flange pilot Ø107.95×46.5	S1	Ø25 shaft Parallel key 8×7×32
		490	490cm ³ /rev	W2	4-Ø13 hole square flange pilot Ø100×6.5	.....
G7 e		A f		B g		N h	
Port		Rotation		Paint		Options	
G7	G1/2, G1/4	A	Standard	A	No paint	A	Standard
DU	G1/2, 7/16-20 UNF	R	Opposite	B	Blue	N	Big radial force
U9	7/8-14 O-ring, 7/16-20 UNF			C	Black	L	Low speed
SB	7/8-14, O-ring G1/4			S	Silver grey		
M4	M22x1.5, M14x1.5						



GKB Series Orbital Motors Specifications

Model		GKB110	GKB130	GKB160	GKB205	GKB245	GKB280	GKB310	GKB395	GKB495	GKB625
Displacement	in ³ /rev	6.7	7.9	9.9	12.5	15.0	17.1	19.0	24.0	30.0	38.0
	cm ³ /rev	110	130	160	205	245	280	310	395	495	625
Max. speed rpm	Cont.	626	722	582	459	383	336	303	239	191	151
	Int.	697	862	693	546	532	468	422	376	305	241
Max. torque Nm	Cont.	32.2	37.6	48.5	59.9	70.5	75.3	85.1	93.1	94.6	97.2
	Int.	47.0	55.8	70.5	80.2	84.4	95.7	106.4	118.3	116.9	118.1
Max. pressure drop bar	Cont.	205	205	205	205	205	205	205	190	140	115
	Int.	310	310	310	310	260	260	260	240	170	140
Max. oil flow L/min	Cont.	75	95	95	95	95	95	95	95	95	95
	Int.	95	115	115	115	130	130	130	130	130	130
Weight Kg		17,9	18,1	18,1	18,4	18,6	19,1	19,5	20,4	21,8	23,1

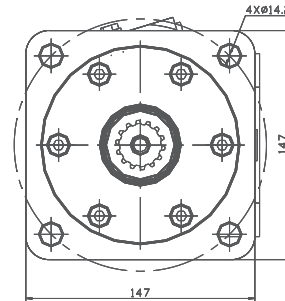


GKB a		110 b		H9 c		SM d	
Port		Rotation		Paint		Shaft	
GKB	GKB Series Disc Distribute	110	110cm ³ /rev	H9	4- Ø15 square pilot Ø101.6×9	SM	Ø31.75 shaft Parallel key 7.96×7.96×41
GKBS	GKBS Series Bearingless (Short) Disc Distribute	130	130cm ³ /rev	HL	4- Ø14.5 square pilot Ø127×12.3	RT	Ø31.7 shaft Splined key 14-DP12/24
		160	160cm ³ /rev	W7	4- Ø14.5 wheel pilot Ø139.6	SAI	Ø40 shaft Parallel key 12×8×70
		.....		HM	4- Ø15 bolt pilot Ø127×12.4	RV	Ø38.1 shaft Splined key 17-DP12/24
		625	625cm ³ /rev	.....		.....
U5 e		A f		B g		N h	
Port		Rotation		Paint		Options	
U5	1-1/16-12 O-ring, 7/16-20UNF	A	Standard	A	No paint	A	Standard
UK	7/8-14 O-ring, 9/16-18UNF	R	Opposite	B	Blue	N	Big radial force
MD	M22×1.5, M14×1.5			C	Black	L	Low speed
UL	Ø19.05, 7/16-20UNF manifold 3×3/8-16UNC			S	Silver grey		



GKC Series Orbital Motors Specifications

Model		GKC195	GKC245	GKC310	GKC390	GKC490	GKC625	GKC735	GKC800	GKC985
Displacement	in ³ /rev	11.9	15.0	19.0	23.9	30.0	38.0	45.0	49.0	60.0
	cm ³ /rev	195	245	310	390	490	625	735	805	985
Max. speed rpm	Cont.	775	615	485	387	307	241	203	187	153
	Int.	866	834	698	570	454	353	303	280	230
Max. torque Nm	Cont.	575	735	930	1155	1445	1480	1378	1582	1685
	Int.	860	1100	1355	1635	1885	1898	1699	1850	1875
Max. pressure drop bar	Cont.	205	205	205	205	205	170	140	140	140
	Int.	310	310	310	310	275	221	170	170	140
Max. oil flow L/min	Cont.	150	150	150	150	150	150	150	150	150
	Int.	170	210	225	225	225	225	225	225	225
Weight Kg		24.9	25.2	25.6	26.3	27.0	27.9	28.6	29.0	30.4



Ordering Code

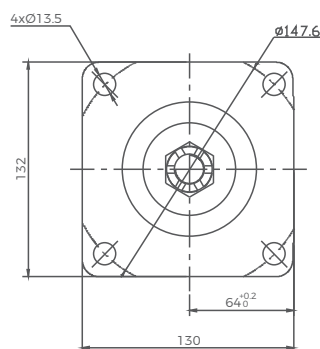
GKC a		195 b		CC c		Y1 d	
Series		Displacement		Flange		Shaft	
GKC	GKC Series Disc Distribute	195	195cm ³ /rev	CC	4-Ø14.2 Square flange Ø162 pilot Ø127×13.2	Y1	Ø35 shaft, Parallel key 12×12×63
GKCS	GKCS Series Bearingless (Short) Disc Distribute	245	245cm ³ /rev			G2	Ø38.1 shaft Parallel key 9.53×9.53×41.9
		310	310cm ³ /rev			FE	Ø38.1 shaft Splined key 17-DP12/24
		.....				T1	1:8 Ø45 tapered shaft 11.13×11.13×31.75
		985	985cm ³ /rev				

G3 e		A f		C g		A h	
Port		Rotation		Paint		Options	
G3	G3/4, G1/4, manifold 4xM10	A	Standard	A	No paint	A	Standard
SF5	1-5/16-12UN O-ring, 7/16-20UNF	R	Opposite	B	Blue	N	Big radial force
SF7	G1, G1/4			C	Black	D	No drain port
		S	Silver grey	F	Free wheeling		



GWD Series Orbital Motors Specifications

Model		GWD120	GWD160	GWD200	GWD230	GWD260	GWD300	GWD350	GWD375	GWD470	GWD540	GWD620	GWD750
Displacement	in ³ /rev	7.4	9.9	12.4	14.2	15.9	18.3	21.2	22.8	28.3	32.7	38.5	45.6
	cm ³ /rev	121	162	204	232	261	300	348	363	465	536	631	748
Max. speed rpm	Cont.	360	370	300	260	260	250	220	200	160	140	120	100
	Int.	490	470	370	320	350	320	270	250	200	170	150	130
Max. torque Nm	Cont.	327	475	542	611	712	825	921	1006	1096	983	1014	1062
	Int.	383	542	633	712	791	938	1045	1158	1184	1243	1291	1237
Max. pressure drop bar	Cont.	207	207	207	207	207	207	207	207	172	138	121	103
	Int.	241	241	241	241	241	241	241	241	189	173	155	121
Max. oil flow L/min	Cont.	45	61	68	68	76	76	76	76	76	76	76	76
	Int.	61	76	83	83	91	95	95	91	91	91	91	91
Weight Kg		13.3	13.3	13.7	13.8	14.1	14.4	15.5	15.0	15.5	16.1	16.8	17.5



Ordering Code

GWD a		AB b		P c		F d	
Series		Displacement		Flange		Shaft	
GWD	GWD Series Disc Distribute	120	121 cm ³ /rev	W4	Ø147.6 Wheel type flange Front pilot 4xØ13.1, rear pilot 128.5x7	SH	Ø35 shaft Parallel key 10x8x45
		160	162 cm ³ /rev	W5	Ø147.6 Wheel type flange Front pilot 4xØ13.1, rear pilot Ø127x7	SL	Ø38 shaft Parallel key 9.5x9.5x38.1
		200	204 cm ³ /rev			TB	Ø35 tapered shaft 1:10 Parallel key 7.96x7x31.5
		.....	.....			TA	Ø38.1 tapered shaft 1:8 Parallel key 7.96x7x36.5
		750	748 cm ³ /rev				
UD e		R f		A g		A h	
Port		Rotation		Paint		Options	
UD	9/16-18UNF	A	Standard	A	No paint	A	Standard
UF	7/8-14 UNF	R	Opposite	B	Blue	F	Free wheeling
GC	G1/2			C	Black	V	High temperature
MC	M22x1.5			S	Silver grey	S	Low temperature



GFB Series Orbital Motors

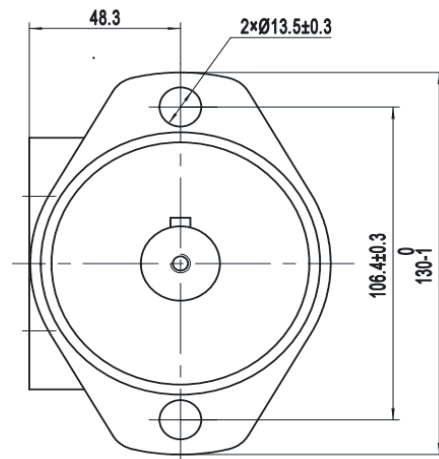
Introduction

1. A durable hydraulic motor with excellent side load capacity, high pressure shaft seal and smooth low speed operation.
2. Suitable for heavy duty applications such as vehicle driving, auger, chain drive, winch and boom slewing.
3. Strong structure, long life, continuous flow through the spline, strong lateral load bearing capacity, good stability in low speed.
4. Standard high pressure shaft seal, reasonable design, stable processing quality, high stability.



General Information

Displacement	36 - 390cc/r
Cont. max. pressure	8.5 - 14MPa
Int. max. pressure	12 - 19MPa
Cont. max. flow	34 - 57L/min
Int. max. flow	42 - 75L/min
Cont. max. torque	54.6 - 445Nm
Int. max. torque	71.1 - 648Nm
Int. max. speed	191 - 1141rpm
Weight	5.93 - 8.8Kg



Used in portable irrigation system, column hole drill, combine harvester head drive and other applications

GFB a	100 b	A1 c	S6 d	G7 e	A f	C g	A h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function
GFB	36 - 390	2-Ø13.5 SAE A Ø106.4 pilot Ø82.5x2.8	Ø25.4 shaft Woodruff key Ø25.4x6.35	G1/2, G1/4	Standard	Black	Standard



GFD Series Orbital Motors

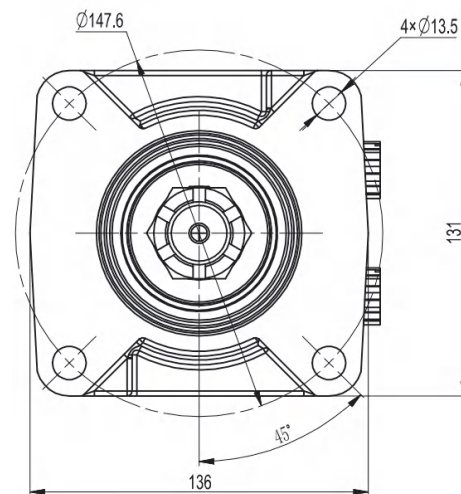
Introduction

1. A durable hydraulic motor with excellent side load capacity, high pressure shaft seal and smooth low speed operation.
2. Suitable for heavy duty applications such as vehicle driving, auger, chain drive, winch and boom slewing.
3. Strong structure, long life, continuous flow through the spline, strong lateral load bearing capacity, good stability in low speed.
4. Standard high pressure shaft seal, reasonable design, stable processing quality, high stability.



General Information

Displacement	140 - 960cc/r
Cont. max. pressure	6.9 - 20.7MPa
Int. max. pressure	10.3 - 27.6MPa
Cont. max. flow	76L/min
Int. max. flow	95 - 114L/min
Cont. max. torque	390 - 1044Nm
Int. max. torque	530 - 1428Nm
Int. max. speed	118 - 660rpm
Weight	14.6 - 22.2Kg



Used in portable irrigation system, column hole drill, combine harvester head drive and other applications

Ordering Code

GFD a	335 b	A1 c	S1 d	GC e	R f	C g	A h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function
GFD	140 - 960	4- \varnothing 13.5 square \varnothing 147.6 pilot \varnothing 82.55 \times 46.7	\varnothing 31.8 Tapered shaft Parallel key 7.96 \times 3.2 \times 25.4	7/8-14UNF, 7/8-14UNF	Opposite	Black	Standard



GFE Series Orbital Motors

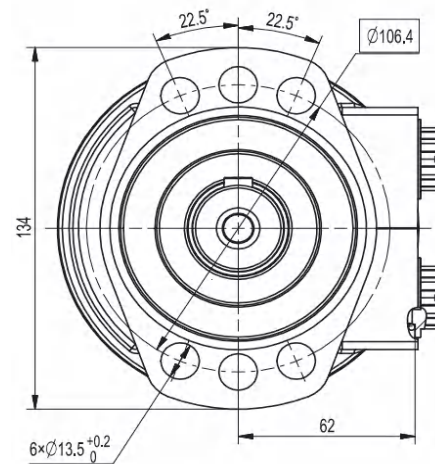
Introduction

1. A durable hydraulic motor with excellent side load capacity, high pressure shaft seal and smooth low speed operation.
2. Suitable for heavy duty applications such as vehicle driving, auger, chain drive, winch and boom slewing.
3. Strong structure, long life, continuous flow through the spline, strong lateral load bearing capacity, good stability in low speed.
4. Standard high pressure shaft seal, reasonable design, stable processing quality, high stability.



General Information

Displacement	110 - 960cc/r
Cont. max. pressure	12.4 - 24.1MPa
Int. max. pressure	15.9 - 27.6MPa
Cont. max. flow	76L/min
Int. max. flow	95 - 114L/min
Cont. max. torque	373 - 1652Nm
Int. max. torque	426 - 2105Nm
Int. max. speed	118 - 672rpm
Weight	13.7 - 20.8Kg



Used in portable irrigation system, column hole drill, combine harvester head drive and other applications

Ordering Code

GFE a	475 b	A10 c	R2 d	UF e	R f	C g	A h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function
GFE	110 - 960	6-Ø13.5 SAE A Ø106.4 pilot Ø82.5×7.87	Ø35 shaft Parallel key 10×8×45	G1/2, G1/2	Opposite	Black	Standard



GFF Series Orbital Motors

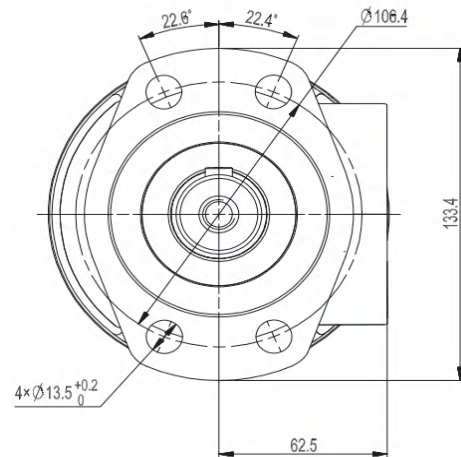
Introduction

1. A durable hydraulic motor with excellent side load capacity, high pressure shaft seal and smooth low speed operation.
2. Suitable for heavy duty applications such as slewing.
3. Strong structure, long life, continuous flow through the spline, strong lateral load bearing capacity, good stability in low speed.
4. Standard high pressure shaft seal, reasonable design, stable processing quality, high stability.



General Information

Displacement	80 - 475cc/r
Cont. max. pressure	9.7 - 20.7MPa
Int. max. pressure	13.8 - 27.6MPa
Cont. max. flow	46 - 76L/min
Int. max. flow	57 - 95L/min
Cont. max. torque	197 - 681Nm
Int. max. torque	296 - 916Nm
Int. max. speed	195 - 693rpm
Weight	13.6 - 17.2Kg



Used in portable irrigation system, column hole drill, combine harvester head drive and other applications

Ordering Code

GFF a	280 b	A9 c	S2 d	G1 e	R f	C g	A h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function
GFF	80 - 475	4-Ø13.5 SAE A Ø106.4 pilot Ø82.55×7.87	Ø32 shaft Parallel key 10×8×45	G1/2, G1/2	Standard	Black	Standard

GFK Series Orbital Motors

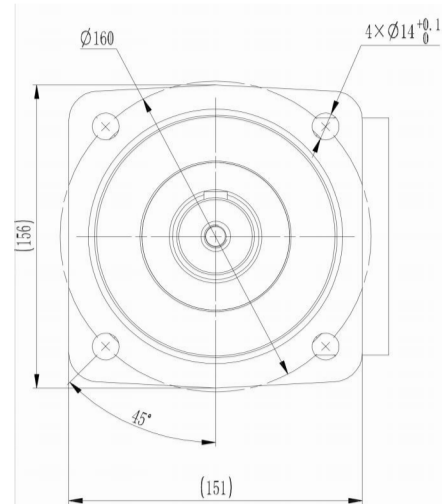
Introduction

1. Super-heavy orbital motor, which can adapt to a variety of harsh working environments to ensure long-term stable operation. With a unique rotating stator structure, the overall structure is tight and durable.
2. Delivers more than 2600Nm of torque.
3. Adopt high pressure shaft sealing technology to effectively prevent liquid leakage. Improve the service life and efficiency of equipment.
4. Rolling blades and sealed commutators maintain high efficiency and provide flat Stable low speed performance.



General Information

Displacement	250 - 1000cc/r
Cont. max. pressure	17.2 - 24.1MPa
Int. max. pressure	19 - 31MPa
Cont. max. flow	114 - 151L/min
Int. max. flow	133 - 227L/min
Cont. max. torque	814 - 2413Nm
Int. max. torque	1043 - 2660Nm
Int. max. speed	218 - 523rpm
Weight	32 - 39.1Kg



Used in heavy duty applications such as vehicle running, spreader, chain drive, winch and large arm

Ordering Code

GFK a	1000 b	W11 c	SK d	D5 e	R f	C g	A h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function
GFK	250 - 1000	4-Ø14 Square flange Ø160 pilot Ø125×11.6	Ø40 shaft Parallel key 12×8×63	19.19 8×3/8-16UNC	Opposite	Black	Standard



GGM Series Orbital Motors

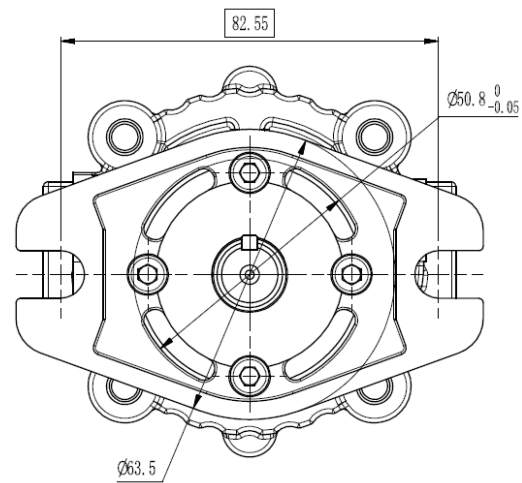
Introduction

1. Aluminum structure provides excellent power to weight ratio.
2. Place in both directions.
3. High pressure mechanical seal series for applications up to 1000PSI(69.0bar).
4. Long life of roller bearing.
5. Nitrile rubber seals are standard for petroleum and glycol based fluids.
6. Output up to 17 HP.
7. Volumetric efficiency up to 85%.
8. Optional external housing drain port (option only for single direction).
9. Dust free ring.



General Information

Displacement	3.6 - 11.5cc/r
Cont. max. pressure	10.35 - 13.8MPa
Int. max. pressure	13.8 - 17.25MPa
Cont. max. flow	10.8 - 34.5L/min
Int. max. flow	18 - 57.5L/min
Cont. max. torque	1.25 - 12.48Nm
Int. max. speed	5000rpm
Weight	1.25 - 1.59Kg



Used in portable irrigation system, column hole drill, combine harvester head drive and other applications

Ordering Code

GGM a	11.5 b	HB c	SQ d	A e	A f	A g	A h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function
GGM	3.6 - 11.5	4-Ø10.4 SAE A Ø82.5 pilot Ø50.8×3.1	Ø9/16 shaft Parallel key 3.2×3.2×25	Rear port SAE 8(3/4-16UNF)	Standard	No paint	Standard



BK20-GWD Series Motor Brakes

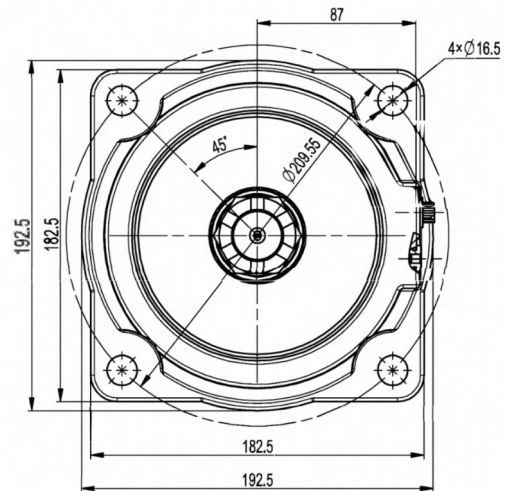
Introduction

1. The steel face seal reduces the sealing under high pressure or high temperature will not be extrusion or melting.
2. The heavy-duty transmission connecting rod is the most durable of its kind.
3. Precise oil distribution design is adopted to achieve high volumetric efficiency.
4. The design of the motor rear housing outlet reduces the pressure on the seal to extend the life of the shaft seal.



General Information

Displacement	540cc/r
Rated brake torque	2600 Nm
Initial release pressure	2.9 MPa
Full release pressure	4.0 MPa
Max. release pressure	20.7 MPa
Release value	13-16cm
Cont. max. pressure	13.8MPa
Int. max. pressure	17.2MPa
Cont. max. torque	1034Nm
Int. max. torque	1277Nm
Cont. max. speed	180rpm
Int. max. speed	210rpm
Weight	30 Kg



Used in medium wheel drive device, screw conveyor, mixer, rotary drive device, winch drive device, mining equipment

Ordering Code

BK20	GWD	540	HI	TA	U5	R	C	A
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function	
BK20	GWD	540	4-Ø16.5 square Ø209.55 pilot Ø134.5×79.5	Ø37.8 shaft length 73 Tapered 1:8 wood ruff key 7.96x7x31.5 Front thread 1-1/1 8UNEF	1-1/16-12UN-2B 7/16-20UNF 7/16-20UNF	Opposite	Black	Standard



BK20-GFD Series Motor Brakes

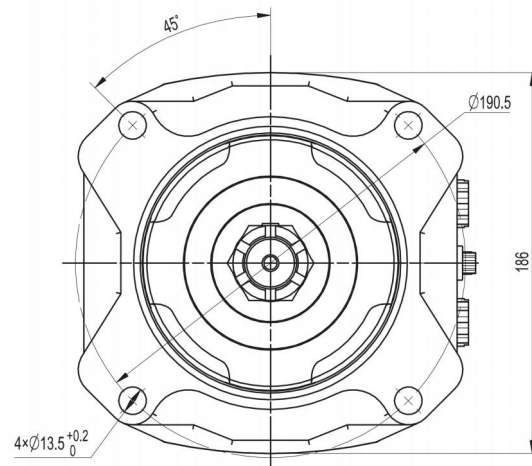
Introduction

1. Integrated in a wet, disc, spring, hydraulic release brake.
2. With spring loaded hydraulic release brake, high pressure shaft seal, with good lateral load capacity and low speed smooth operation performance.
3. The brakes are mounted on the front for reliable operation even in case of system failure, and the brake release port can withstand pressure of 20.7MPa.



General Information

Displacement	335cc/r
Rated brake torque	1350 Nm
Full release pressure	2.2 MPa
Max. release pressure	20.7 MPa
Cont. max. pressure	20.7MPa
Int. max. pressure	27.6MPa
Cont. max. torque	964Nm
Int. max. torque	1297Nm
Cont. max. speed	221 rpm
Int. max. speed	277rpm
Weight	28.9Kg



Used in heavy-duty drive applications of parking brakes

Ordering Code

BK20	GFD	335	W11	TC	UF	R	C	A
Series	a	b	c	d	e	f	g	h
Series	Displacement	Flange	Shaft	Port	Rotation	Paint	Function	
BK20	GFD	335	4-Ø13.5 square Ø190.5 pilot Ø134.5×79.5	Ø31.8 shaft length 73 Tapered 1:8 woodruff key 7.96xØ25.4 Front thread 1-1/18UNEF	7/8-14UNC, 7/8-14UNF	Opposite	Black	Standard

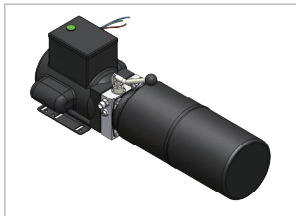


GRH has developed and manufactured hundreds of power packs, this product is a modular customized product, you are welcome to contact GRH engineers, for a more suitable product solution, the following are some common product solution examples.

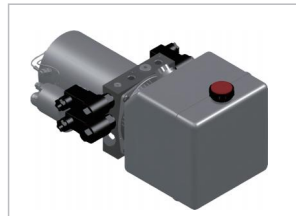
Ordering Code

Pos.1	2	3	4	5	6	7	8	9	10	11			
Motor	Schematic diagram	Disp.(cc/r)	System pressure	Motor power (kW)	Motor voltage (V)	Motor speed (RPM)	Solenoid valve voltage (V)	Tank volume (L)	Installation	Port size			
DC-	DC Motor	F**-	0.25	D-	100bar	**/	24/	**/	12-	4	H- Horizontal	A	M14x1.5
AC-	Three-phase AC Motor		0.5	E-	160bar		24-	5	HS- Side Hor	B	M16x1.5		
A-	Single-phase AC Motor		0.75	F-	200bar			6	V- Vertical	C	G1/4		
			1.6	G-	250bar			8	T- Special	D	G3/8		
			2	H-	315bar			10		E	NPT3/8		
			2.5					12		F	9/16"SAE		
			3										
			3.5										
			4										
			5										
												
			12										

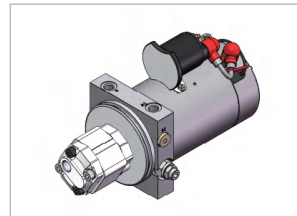
Typical Application



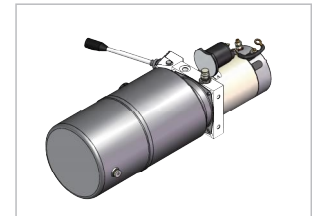
Vehicle Lift Power Pack



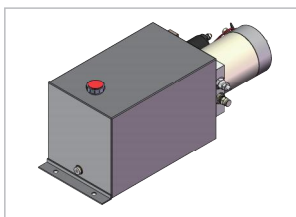
Scissor Lift Power Pack



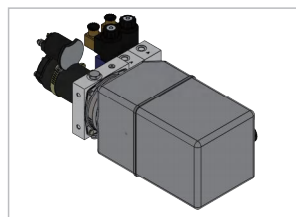
Aerial Working Platform Power Pack



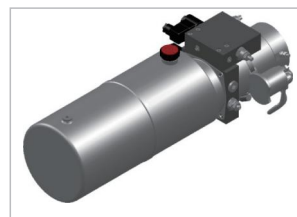
Semi-electric Stacker Power Pack



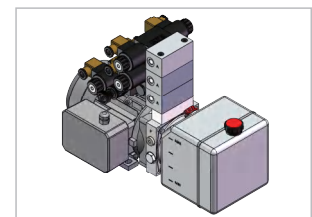
Electrical Stacker Power Pack



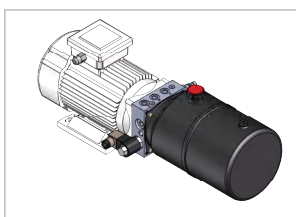
Van Truck Power Pack



Tailgate Power Pack



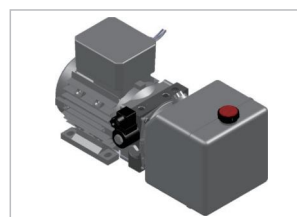
Tyre Changer Power Pack



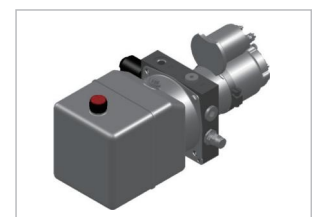
Dock Leveler Power Pack



Snow Sweeper Power Pack



Pallet Vehicle Power Pack



Mini for Medical Power Pack

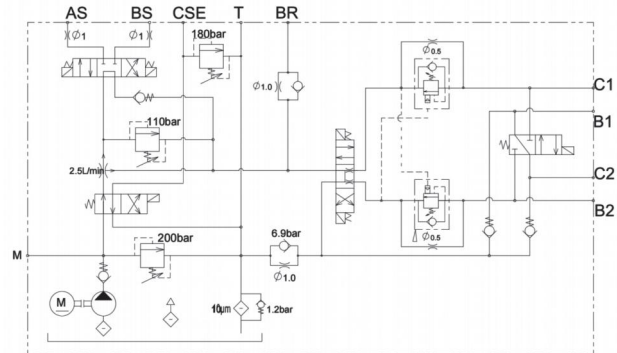


Permanent Magnet Synchronous Hydraulic Power Unit

Introduction

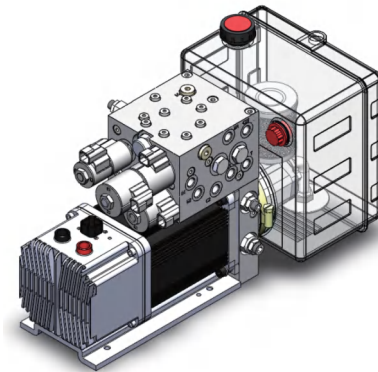
1. The structure integrates permanent magnet synchronous motor, the driver, hydraulic pump, oil tank, relief valve, check valve, solenoid valve, oil filter, air filter and other hydraulic system components.
2. Functional integration of hydraulic steering control circuit, hydraulic lifting control circuit, hydraulic drive walking control circuit.
3. The machine has compact and reasonable structure, high efficiency and energy saving, easy installation and maintenance, and is widely used in self-propelled aerial work platform.

F172

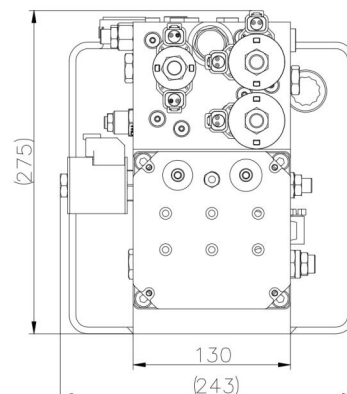
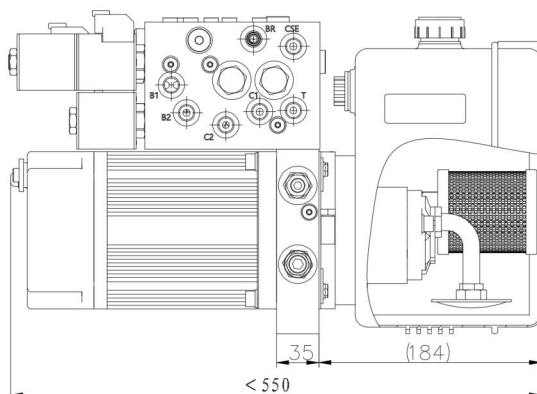


General Information

Electric motor	DC-F172-4.0/F-3.5/24/24-7PH-CD
Hydraulic pump	4cc
Rated pressure	21MPa
Max. pressure	25MPa
Rated speed	3000rpm
Speed range	600~4000rpm
Temperature	-20~80℃
Tank capacity	7L



Appearance Drawing



Energy Recycling Power Unit

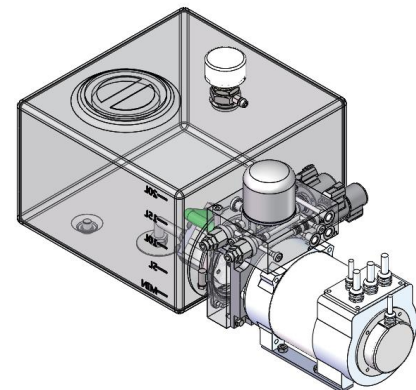
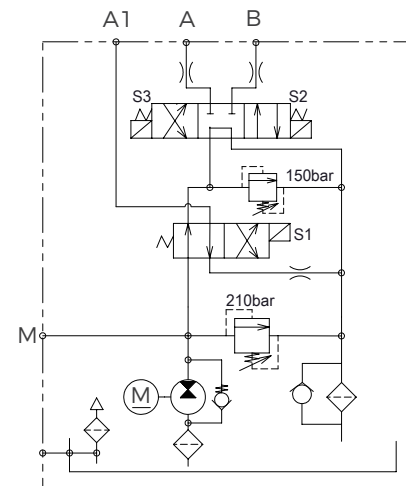
Introduction

1. Integrates high-efficiency motor, high-pressure gear pump, relief valve, return oil filter, and oil tank.
2. Optional 3-5 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Optional electric proportional valve control.
5. Applied in over 12 meters scissor lifts (aerial work platforms).

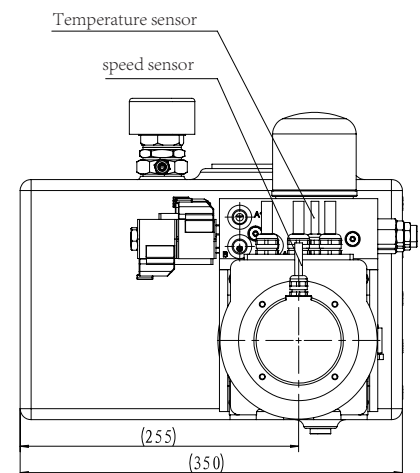
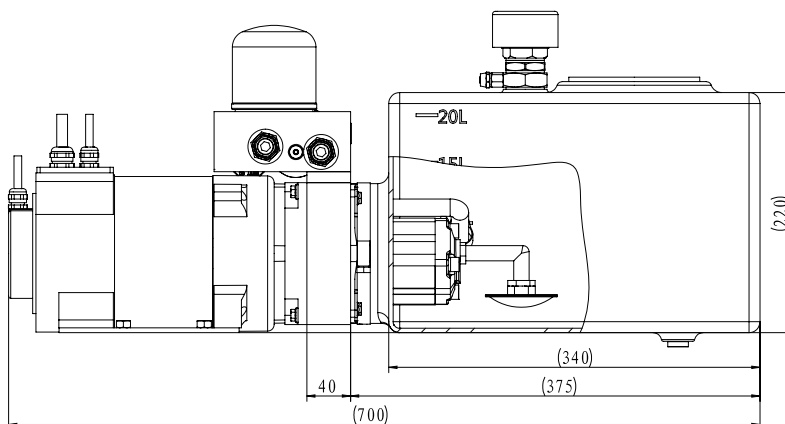
General Information

Model	AC-F91D-4.0/F-3.5/16/2700/24-24H-C
Motor Voltage	16VAC
Motor Power	3.5kW
Motor Speed	2700rpm
Pump Displacement	4.0cc
System Pressure	210bar
Tank Capacity	24L
Port Size	G1/4

F91D



Appearance Drawing





Aerial Working Platform Power Unit

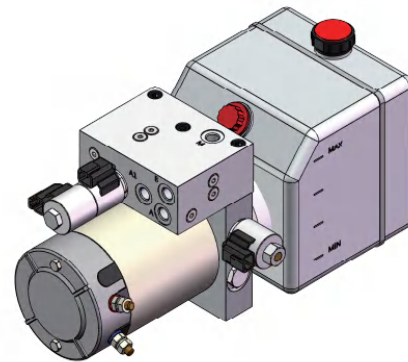
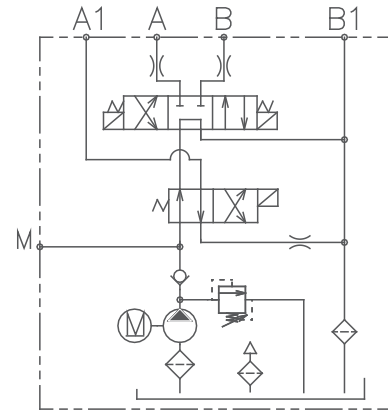
F55

Introduction

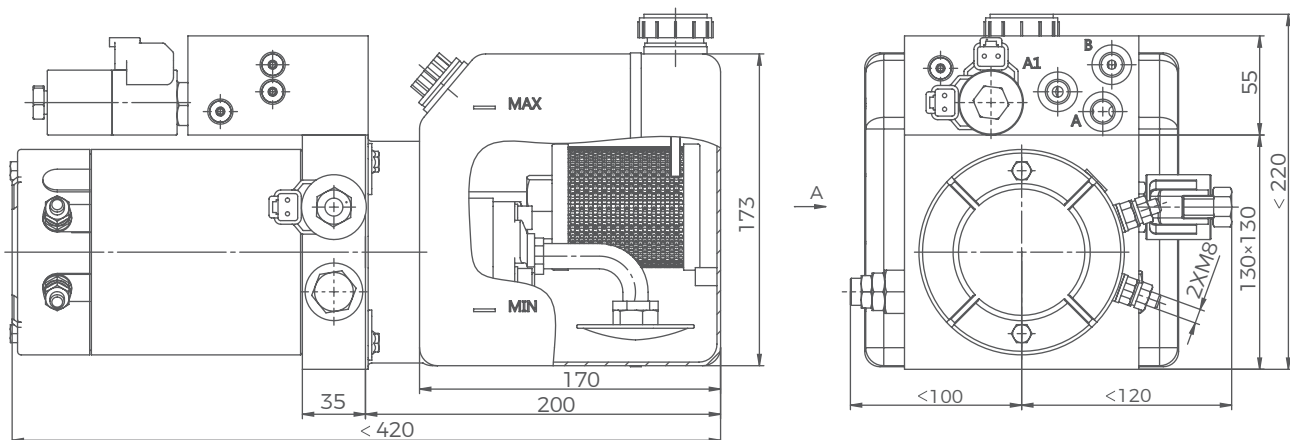
1. High pressure gear pump/ DC motor/ double action.
2. Internal filter integrated.

General Information

Model	DC-F55-2.1/E-2.2/24/20-4PH-C
Motor Voltage	DC24V
Motor Power	2.2kW
Motor Speed	2500~2900rpm
Pump Displacement	2.1cc/r
System Pressure	19MPa
Tank Capacity	4L
Port Size	A, B, A1, M, B1: G1/4



Appearance Drawing

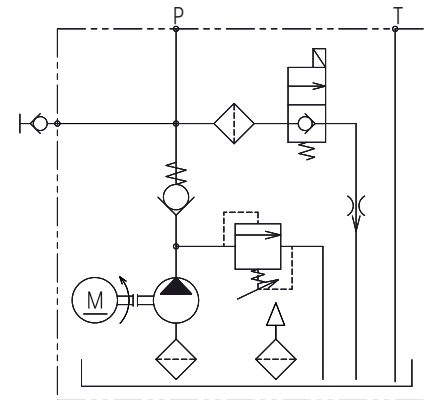


Tail Gate Power Unit

Introduction

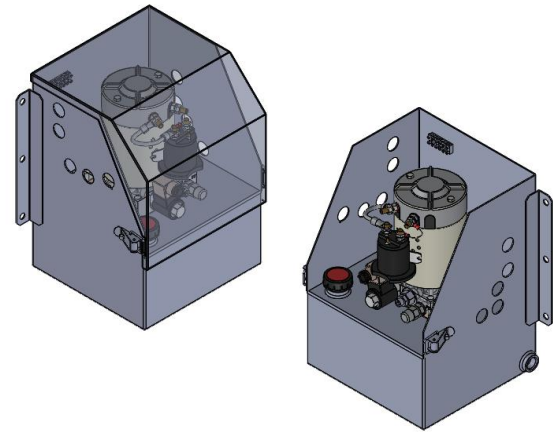
1. Integrates high-efficiency motor, high-pressure gear pump, relief valve, return oil filter, and oil tank.
2. 1.6-3 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Applied in tail gates.

F10

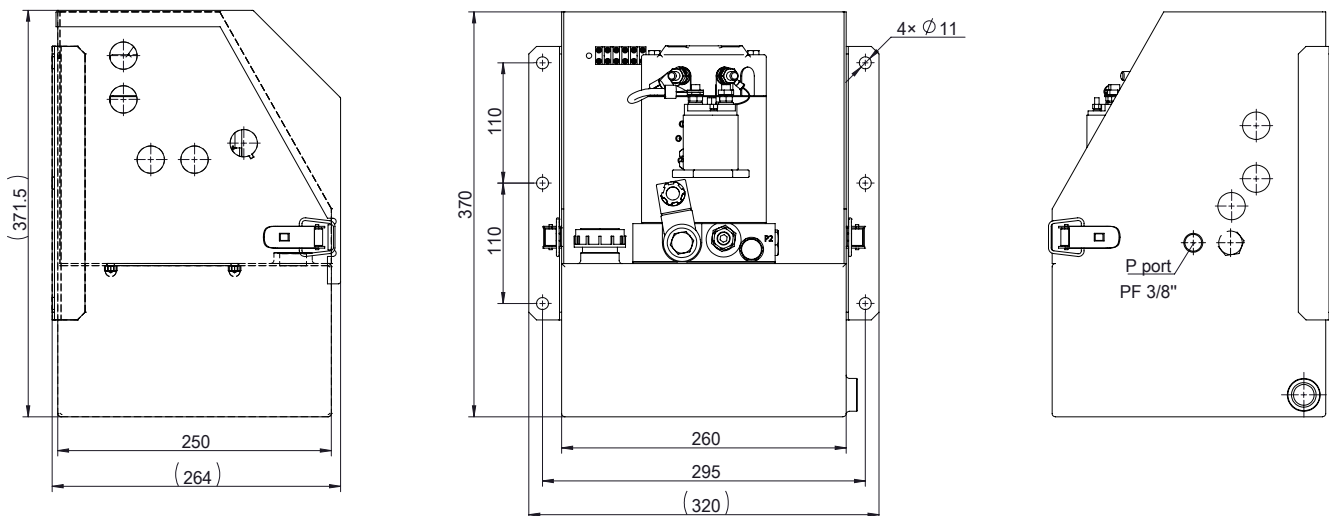


General Information

Model	DC-F10-2.1/F-2.2/24/24-8V-D
Motor Voltage	24VDC
Motor Power	2.2kW
Motor Speed	2500rpm
Pump Displacement	2.1 cc
System Pressure	190bar
Tank Capacity	8L
Port Size	G3/8



Appearance Drawing



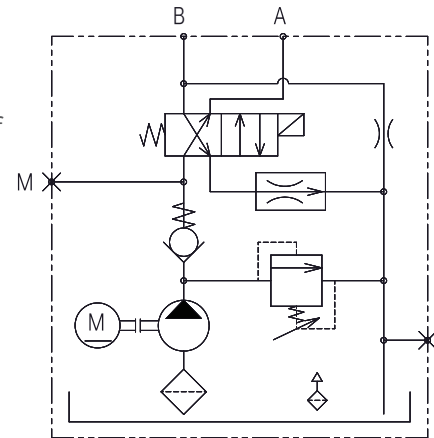


Tail Gate Power Unit

Introduction

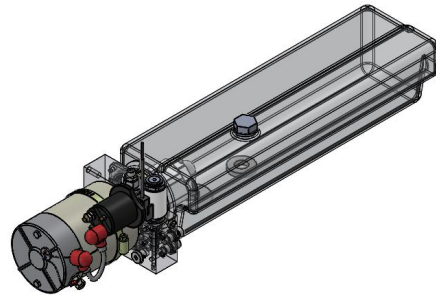
1. Integrates motor, high-pressure gear pump, throttle valve, relief valve and oil tank.
2. Optional 0.5-2.2 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Whole unit IP protection level IP54.
5. Applied in tail gates.

F179

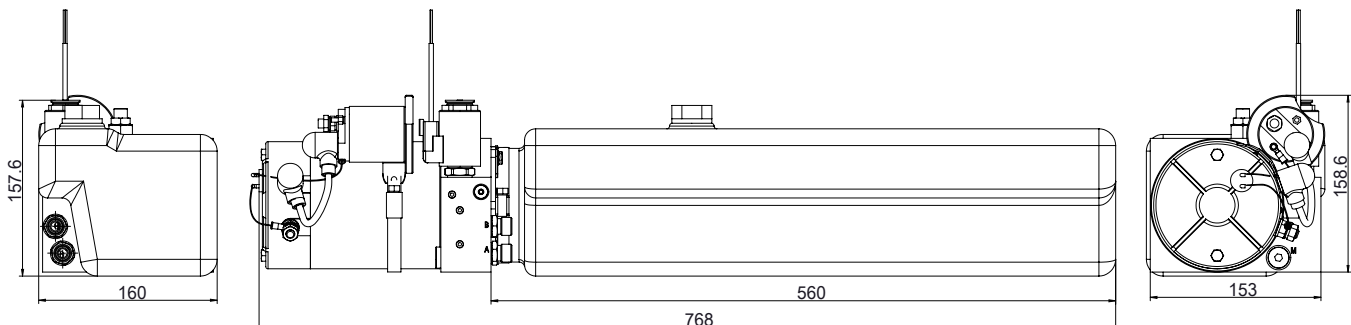


General Information

Model	DC-F179-2.1/F-2.2/24/24-8PH-C
Motor Voltage	4VDC
Motor Power	2.2kW
Pump Displacement	2.1cc
System Pressure	210bar
Tank Capacity	8L
Port Size	G1/4



Appearance Drawing



Mast-type Aerial Work Platform Power Unit

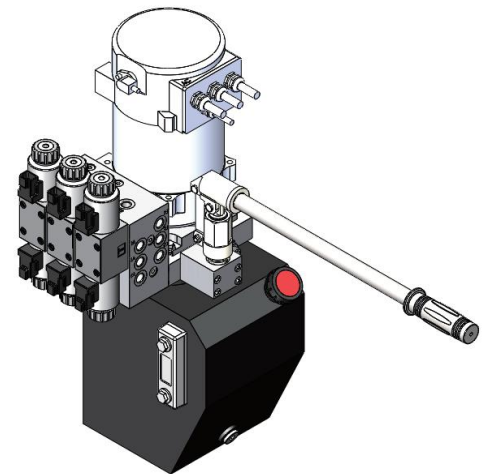
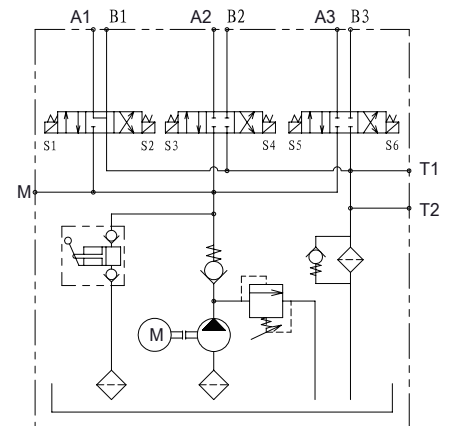
Introduction

1. Integrates high-efficiency motor, high-pressure gear pump, relief valve, return oil filter, and oil tank and emergency manual module.
2. Optional 2-5 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Optional electric proportional valve control.
5. Applied in 8-12 meters mast-type aerial work platforms.

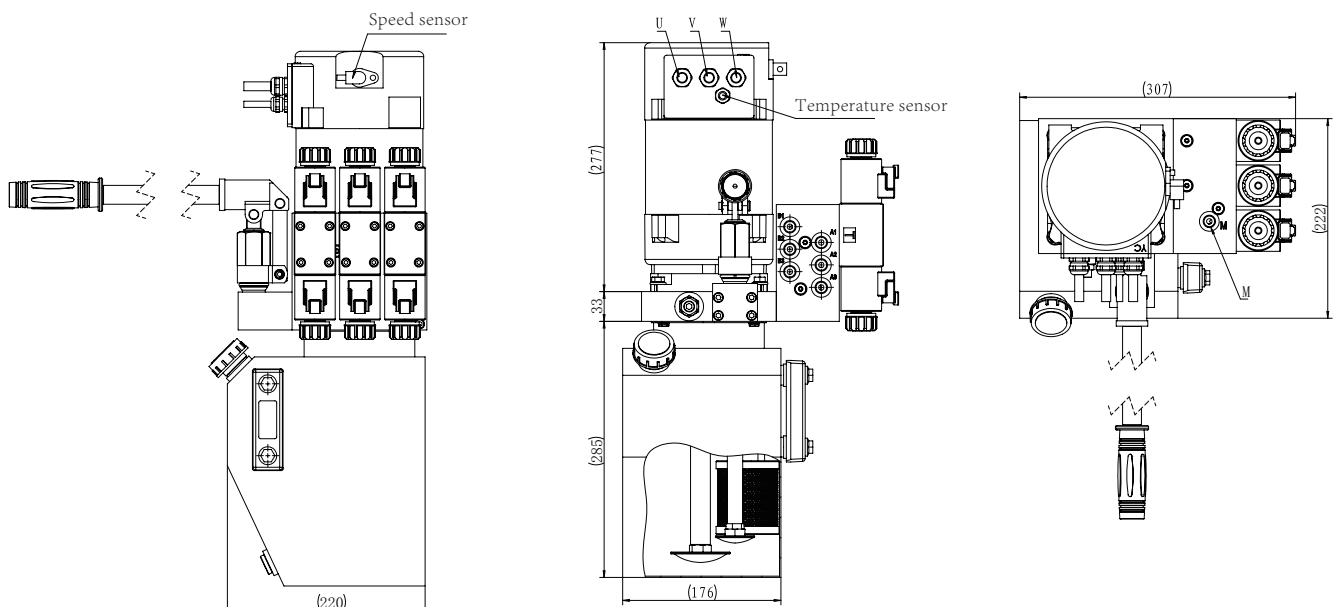
General Information

Model	AC-F42-2.0/F-3.3/17/3000/24-8V-C
Motor Voltage	17VAC
Motor Power	3.3kW
Motor Speed	3000rpm
Pump Displacement	2.0cc
System Pressure	200bar
Tank Capacity	8L
Port Size	G1/4

F42



Appearance Drawing



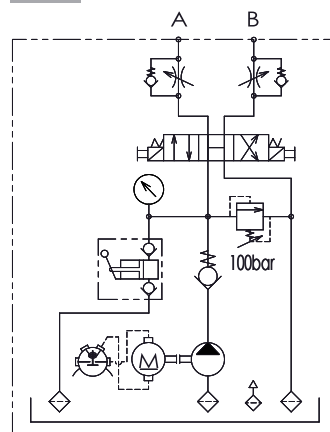


Hydraulic Power Station

Introduction

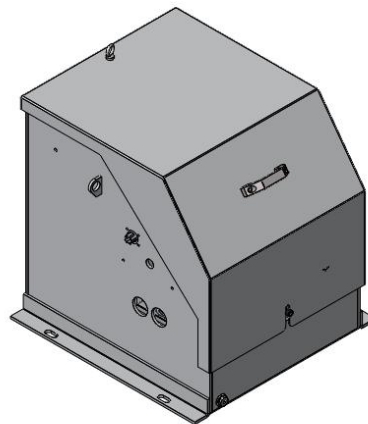
1. Integrates IP67 electric motor, high-pressure gear pump, relief valve, return oil filter, and oil tank and emergency manual module.
2. Optional 2-5 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Applied in lifting control of escalators in super-large excavators.

F74

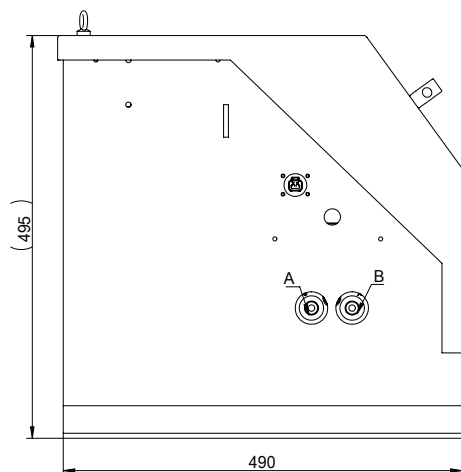
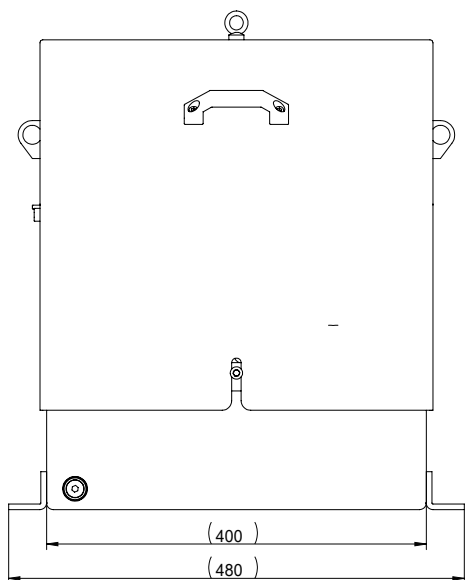


General Information

Model	DC-F74-5.8/D-3.0/24/24-40V-D
Motor Voltage	24VDC
Motor Power	3.0kW
Motor Speed	2500rpm
Pump Displacement	5.8cc
System Pressure	100bar
Tank Capacity	40L
Port Size	G3/8



Appearance Drawing



Emergency Power Unit

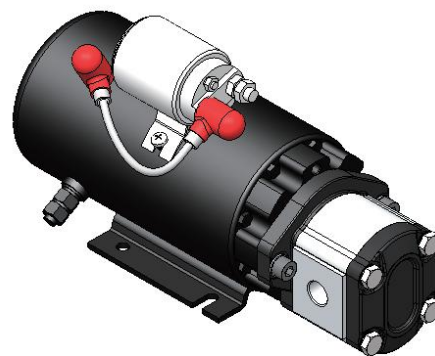
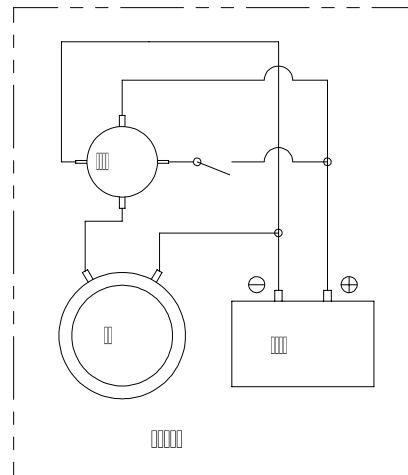
Introduction

1. Integrates IP67 electric motor, IP67 contactor and high pressure gear pump.
2. Optional 3-5 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Applied widely in emergency system of heavy duty construction machines.

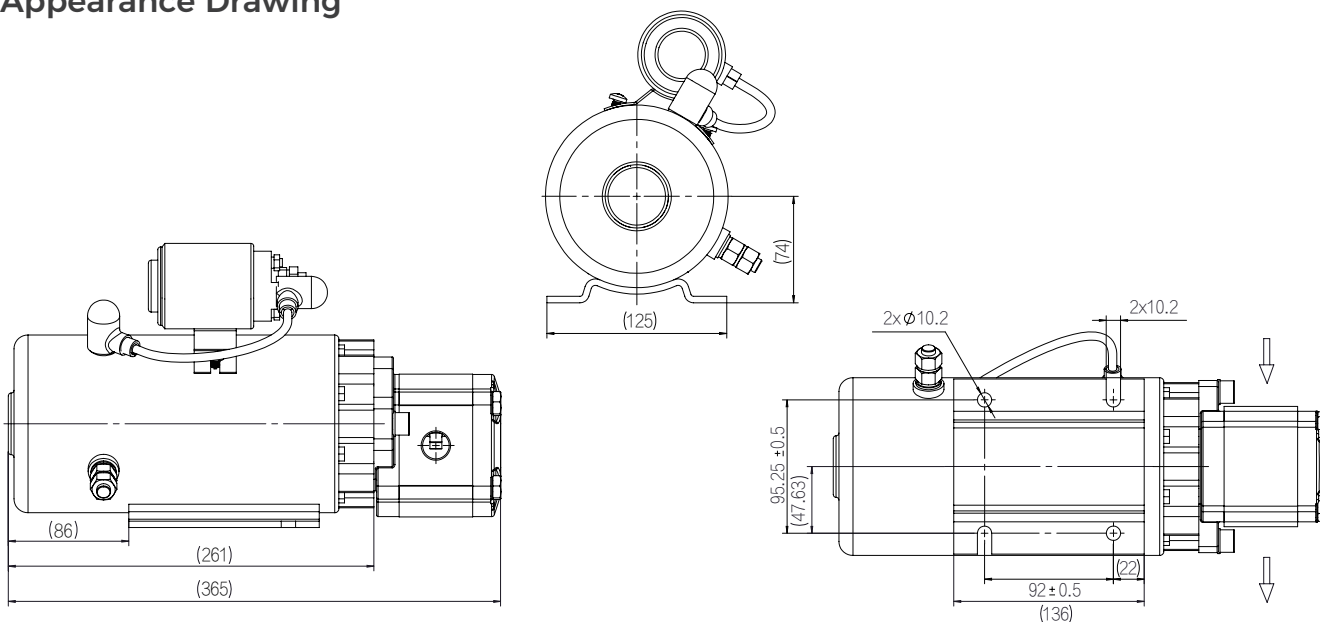
General Information

Motor Voltage	DC-F00-5.0/F-L04-1P67
Motor Power	24VDC
Motor Speed	4.0kW
Pump Displacement	2500rpm
System Pressure	5.0cc
Tank Capacity	190bar
Port Size	G1/2

F00



Appearance Drawing



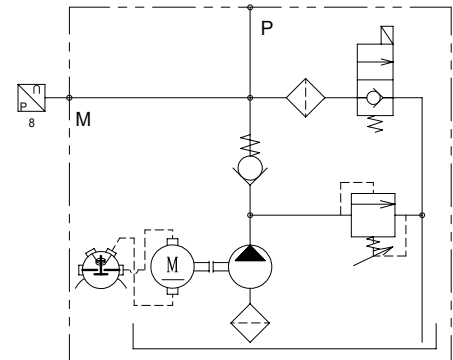


Dump Trailer Power Unit

Introduction

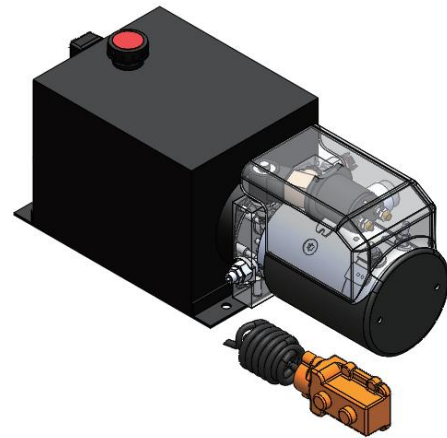
1. Integrates high-efficiency motor, high-pressure gear pump, relief valve, return oil filter, oil tank and warning device.
2. Optional 2-5 kW DC brushed motor, AC induction motor, or permanent magnet synchronous motor.
3. Optional gear pump displacement.
4. Applied in dump trailers.

F08

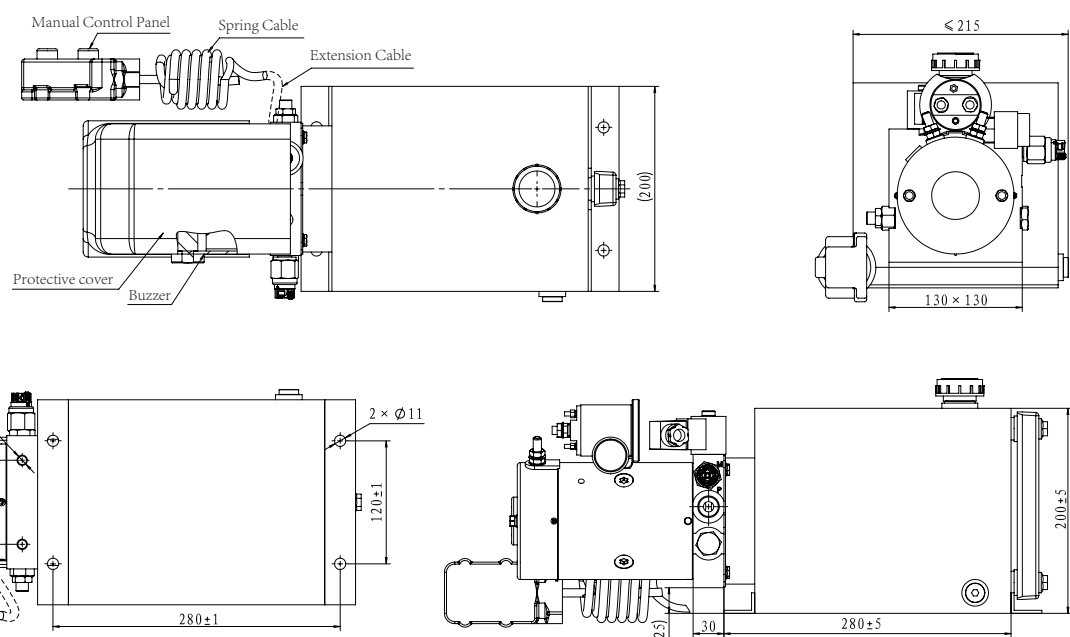


General Information

Model	DC-F08-2.1/F-2.0/12/12-10H-C
Motor Voltage	12VDC
Motor Power	2.0kW
Motor Speed	2500rpm
Pump Displacement	2.1cc
System Pressure	210bar
Tank Capacity	10L
Port Size	G1/4



Appearance Drawing

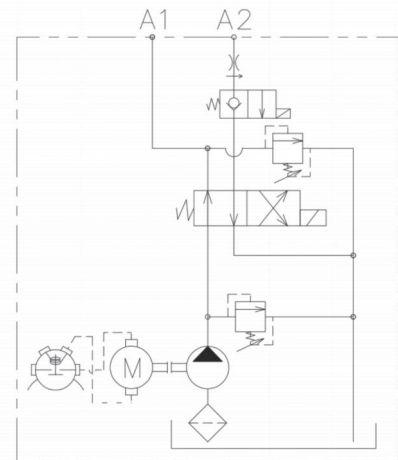


Dump Trailer Power Unit

Introduction

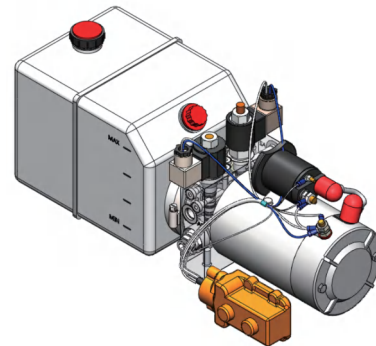
1. Integrates DC brushed motor, hydraulic pump, hydraulic oil tank, relief valve, check valve, solenoid directional valve, return oil filter, air filter and other hydraulic system components.
2. Integrates hydraulic lifting control circuit, speed-limiting unloading circuit and electronic control module.
3. Compact and reasonable structure, high efficiency and energy saving, and is easy to install and maintain. It is widely used in dump trailers.

F133

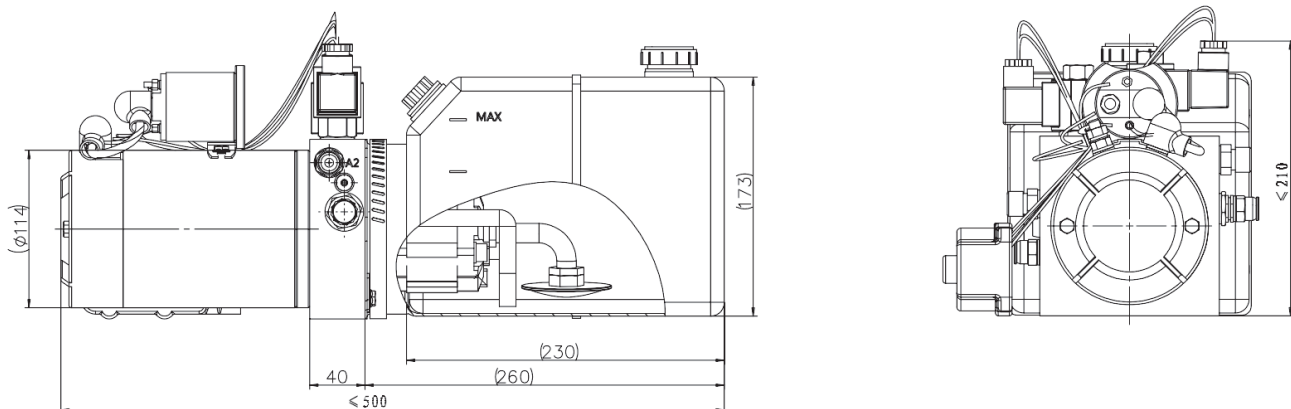


General Information

Model	DC-F133-2.1/F-2.2/24/24-6PH-C
Pump Displacement	2.1cc
System Pressure	21MPa
Max. Pressure	25MPa
Rated Speed	3000rpm
Speed Range	600~4500rpm
Temperature Range	-20~80°C
Tank Size	6L



Appearance Drawing



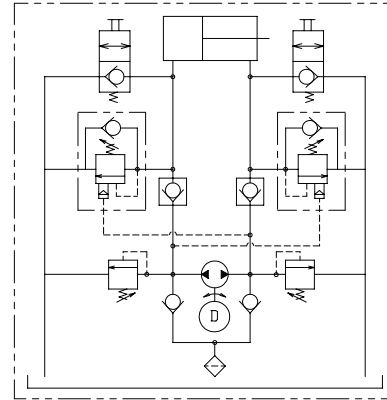


EHA

Introduction

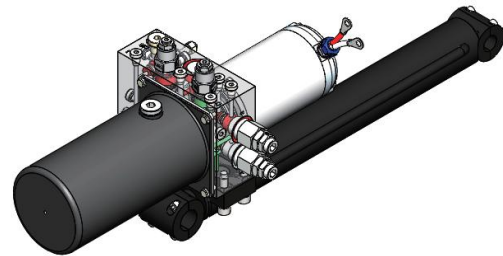
1. Integrates electric motor, bidirectional pump, hydraulic lock, balance valve, relief valve, oil tank and cylinder.
2. Optional 0.25-1.2 kW DC brushed motors and brushless motors.
3. The stroke of the oil cylinder 305mm, maximum thrust 15,800N.
4. Overall protection grade of the machine IP66.
5. Overall machine noise <67dB.
6. Widely applied in medical stretchers and scissor lifts.

F79

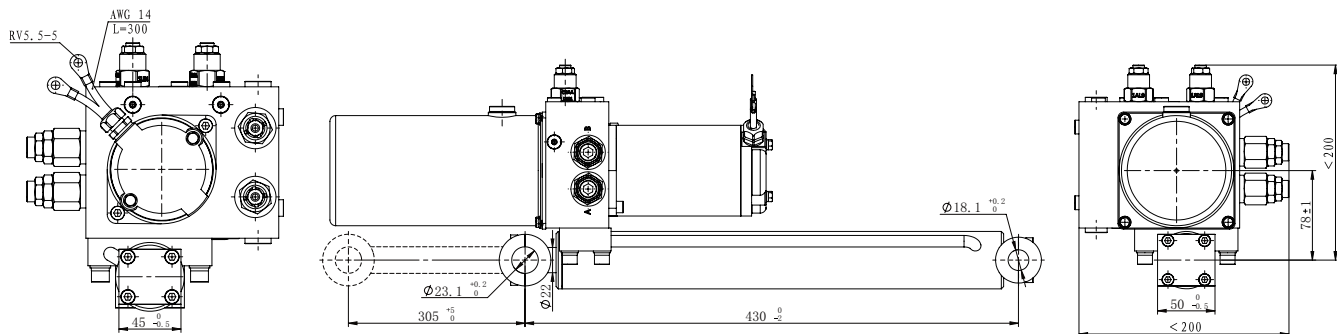


General Information

Model	DC-F79-2.1/F-2.2/24/24-8PHC
Motor Voltage	24VDC
Motor Power	2.2kW
Pump Displacement	2.1cc
System Pressure	10bar
Tank Capacity	8L
Port Size	G1/4



Appearance Drawing





Application	Model	Disp. (cc/r)	Tank volume(L)	Pressure (MPa)	Motor power(kW)	Voltage (V)	Schematic diagram
Vehicle Lift	AC-F5-2.1(2.7)/F-2.2/220(380)/2850/xx-10(12)V-D	2.1-2.7	10-12	18-20	2.2	AC220(380)	
Scissor Lift	AC-F9-2.1/F(G,H)-2.2(3.0)/220(380)/2850/xx-20V-C	2.1	20	20-28	2.2(3.0)	AC220(380)	
Aerial Working Platform	AC-F11-1.1/F-1.5/220/2850/xx-6H-C	1.1	6	18	1.5	AC220	
Semi-electric Stacker	DC-F6-1.6(2.1,2.6)/F-1.6(2.2)/12(24)/2500/xx-5(6,8)HS-D	1.6-2.6	5-8	20	1.6(2.2)	DC12(24)	
Electric Stacker	DC-F10S-1.6(2.6)/F-1.6(2.2)/12(24)/2500/xx-7V-D	1.6-2.6	7	20	1.6(2.2)	DC12(24)	
Van Truck	DC-F39-2.5/E-2/24/2800/xx-8H-A	2.5	8	14	2	DC24	



Application	Model	Disp. (cc/r)	Tank volume(L)	Pressure (MPa)	Motor power(kW)	Voltage (V)	Schematic diagram
Tail Gate	DC-F15-2.1/F-2.0(2.2)/12(24)/2500/xx-9H-A	2.1	9	20	2.0(2.2)	DC12 (24)	
Tyre Changer	AC-F40-3.2(4.2)/F-1.5(2.2)/380/1440/xx-6H-C	3.2-4.2	6	20	1.5(2.2)	AC380	
Dock Leveler	AC-F32-3.2/E-1.5/380/1440/xx-6H-C	3.2	6	16	1.5	AC380	
Snow Sweeper	DC-F36-1.6/F-1.6/12/2500/xx-5H-C	1.6	5	20	1.6	DC12	
Pallet Vehicle	DC-F10-0.5(0.75)/E-0.8/12(24)/3650/xx-1(1.2,1.7)H-C	0.5-0.75	1.0-1.7	16	0.8	DC12 (24)	
Mini for Medical	DC-F02-0.25(0.5)/D-0.5/24/2000/xx-1H-C	0.25-0.5	1	6.5-10	0.3-0.5	DC24	



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