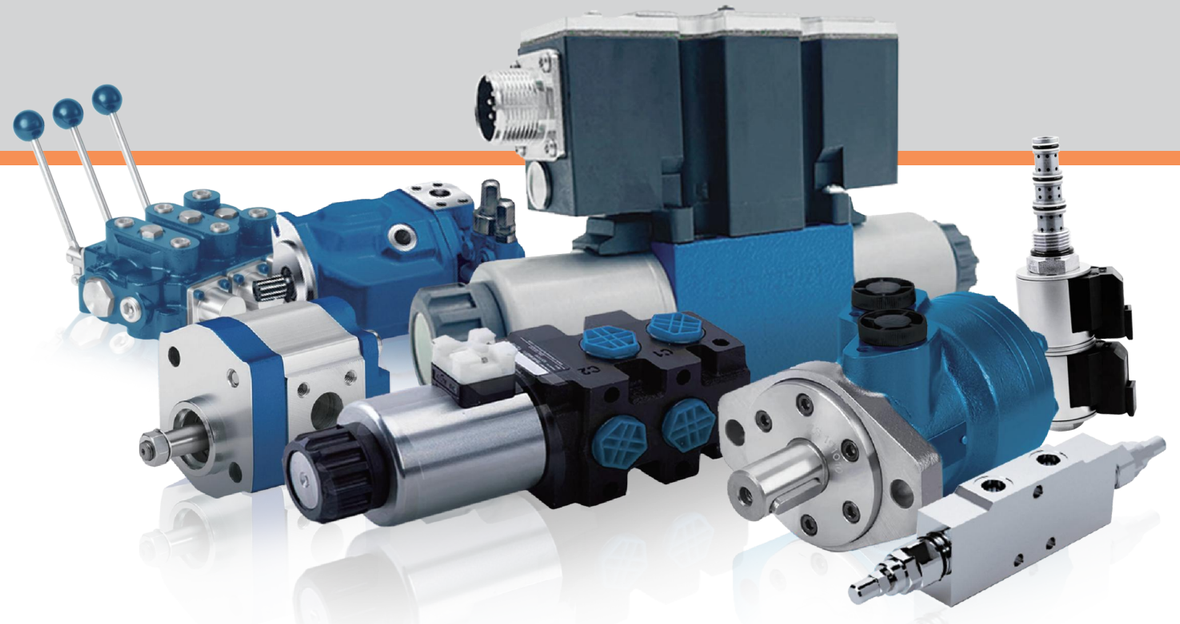
ADIFFER HYDRAULICS

- ***Hydraulic Pumps***
- ***Hydraulic Motors***



"One Stop Hydraulic Solution Provider"

ADIFFER HYDRAULICS

WeChat QR code

Whatsapp QR code

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VERSION: 2024-04

DIFFER
HYDRAULICS

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1 PUMP

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GROUP 2 005
GROUP 2.5 006
GROUP 3 007
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GEAR BOX 013-014

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DH315/DH330/DH350/DH365 016
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RHP2 018
RHP3 019
RHP4 020
PGP620 021
PGP640 022
PR1 023
R5 024
R6 025
R7 026
R9 027
RC 028
RN 029
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1 PUMP

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DPVQ 053
DPV 054
DK3V 055
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DA2F 056
DA2FO 057-058
DA6V 059
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DA4VSG 061
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AR 077
A 078-084
HY107 085
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BM6 ---- 123
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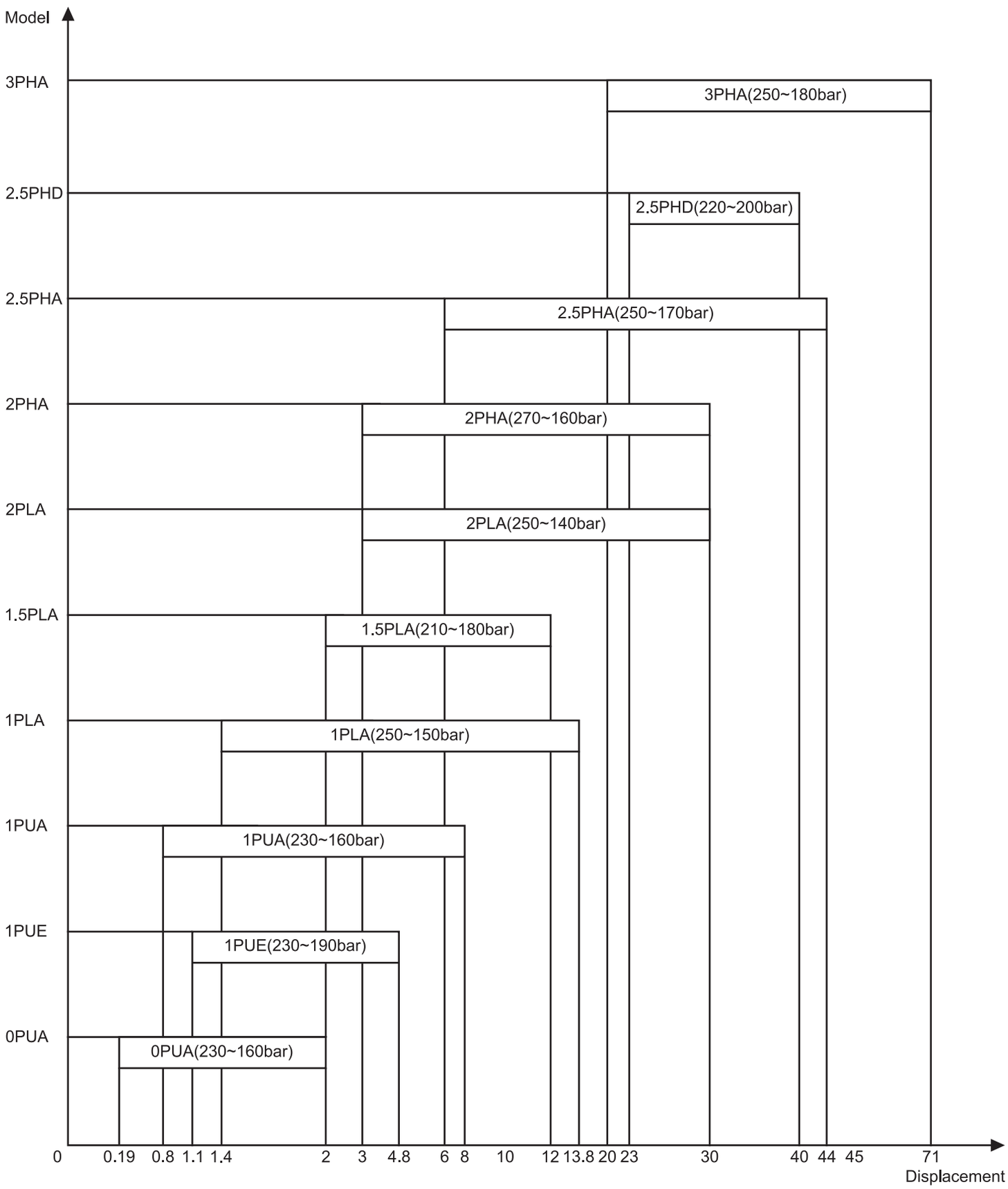
All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Aluminum Gear Pump



Remark: Show these pressures as maximum continous pressure in the graph, product series "HA" denote front and endcover material cast iron, rest series denote front and end cover material aluminum.

For more techinical relation queries please contact our sales team.

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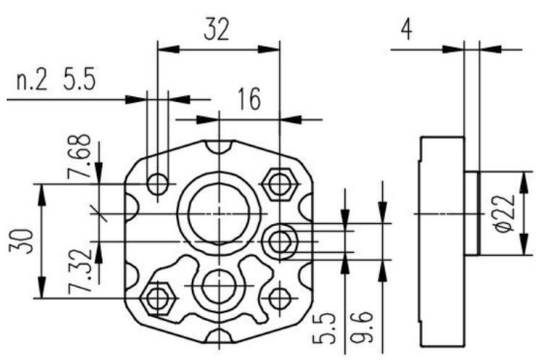
Aluminum Gear Pump

GROUP 0 TYPE

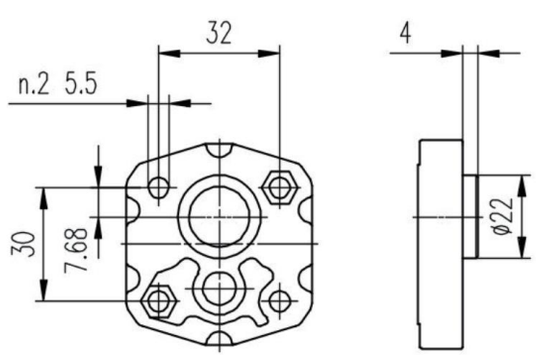
0-PUA	Displace-ment	Rotation	Shaft	Flange	Port size	Port position	Seal
Group: 0	0.19	**D** Clockwise	G0	B0	Z0	Omit	V
P: pump	0.26	**S** Counter clockwise	C0	B1	L0	A	H
UA: Series	0.38	**R** Reversible		A0	L1	B	T
	0.50			A1	L2	C	N
	0.65					D	
	0.75					R	
	0.88						
	1.00						
	1.25						
	1.50						
	1.75						
	2.00						

Omit-Side inlet and side outlet
A-Front inlet and front outlet
B-Back inlet and front outlet
C-Back inlet and side outlet
D-Side inlet and front outlet
R-Back inlet and back outlet

FLANGE

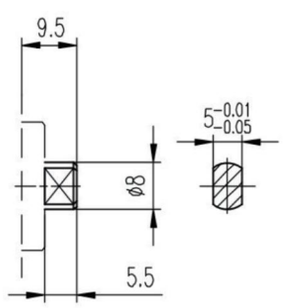


B0(G0, C0)

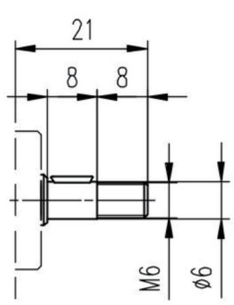


B1(GO, C0)

SHAFT



G0
Max.Torque 10Nm



C0
Max.Torque 8Nm

SEAL MATERIAL:

Omit-Range between -10°C and +80°C,inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures,range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures,range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max.3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max.3 and 10 bar absolute.

For more techinical relation queries please contact our sales team.

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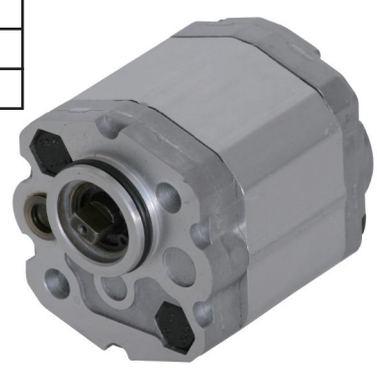
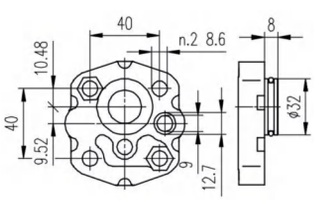
Aluminum Gear Pump

GROUP 1 TYPE

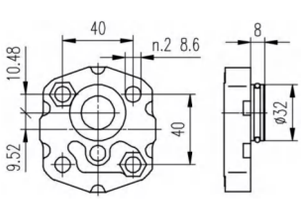
1 PUA	Displace-ment	Rotation	Shaft	Flange	Port size	Port position	Seal
Group: 1	0.8	**D** Clockwise	G0	Q0	L0		
P: pump	1.1	**S** Counter clockwise	G1	Q1	L1		
UA: Series	1.3	**R** Reversible	T0	Q2	N0		
	1.6		T1	B0	L2		
	1.8				L3		
	2.1				Z0		
	2.7				F0		
	3.2				E0		
	3.7						
	4.2						
	4.8						
	5.8						
	7.0						
	8.0						



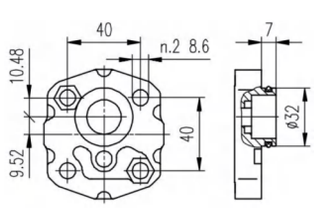
FLANGE



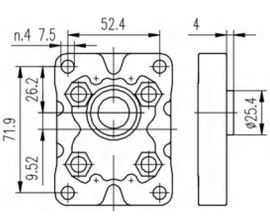
Q0(G0, T0)



Q1(G0, T0, T1)

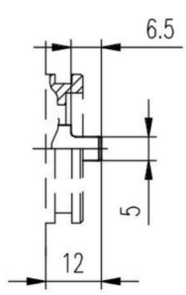


Q2(G1)

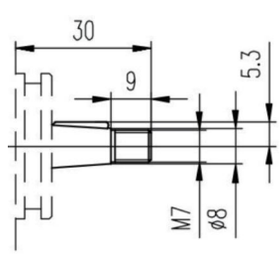


B0(G0, T0)

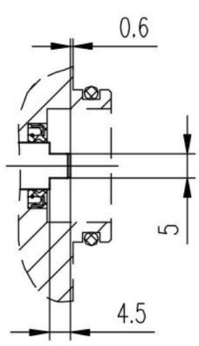
SHAFT



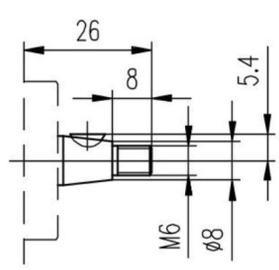
G0
Max.Torque 20Nm



T0
Max.Torque 25Nm



G1
Max.Torque 20Nm



T1
Max.Torque 23Nm

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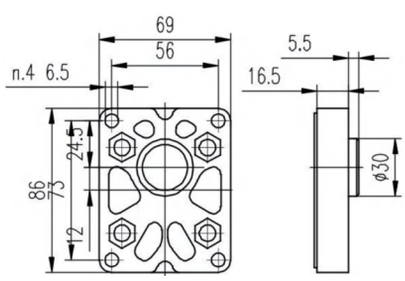
Aluminum Gear Pump

GROUP 1 TYPE

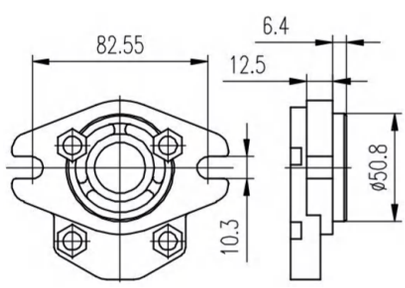
1-PLA/PHA	Displace-ment	Rotation	Shaft	Flange	Port size	Port position	Seal
Group: 1	1.4	**D** Clockwise	C0	B0	E0		
P - PUMP **M** - MOTOR	2.1	**S** Counter clockwise	C1	A0	L0/L1/L2/L3		
LA - Front and end cover mate-rial aluminum **HA** - Front and end cover materia cast iron, pressure than "BA" series high 30 bar.	2.8	**R** Reversible	C2	Q0	R0/R1/R2/R3		
	3.5		C5		U0/U1/U2/U3		
	4.1		S0				
	5.2		S1				
	6.2		T0				
	7.6		G0				
	9.3		G1				
	11.0						
	13.8						

FLANGE

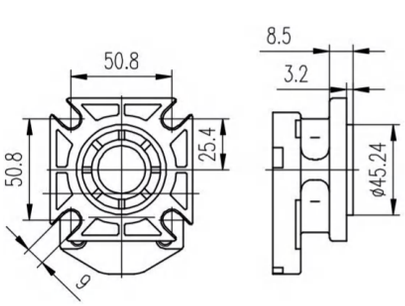
B0(T0, C1, G0)



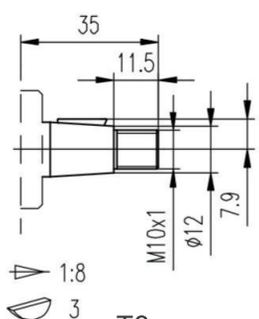
A2(C0, S0, C5)



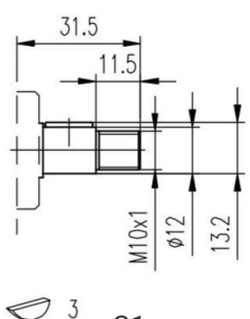
Q0(C2, S1,G1)



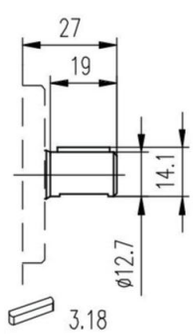
SHAFT



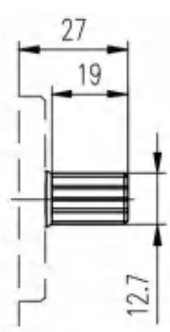
T0
Max.Torque 100Nm



C1
Max.Torque 55Nm



C0
Max.Torque 60Nm



DP20/40-30°-9T
S0
Max.Torque 100Nm

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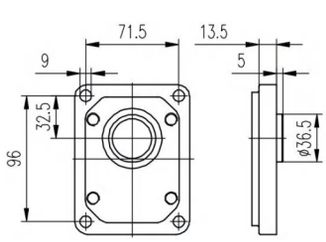
Aluminum Gear Pump

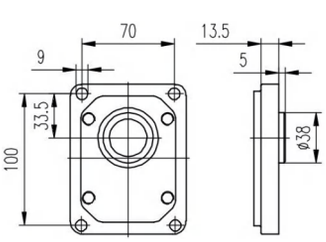
GROUP 2 TYPE

2-PLA/PHA	Displace-ment	Rotation	Shaft	Flange	Port size	Port position	Seal
Group: 2	3	**D** Clockwise	C0	A0	E0/E1/E2/E4		
P - PUMP **M** - MOTOR	4	**S** Counter clockwise	C1	B0	E3		
LA - Front and end cover material alumi-num **HA** - Front and end cover materia cast iron, pressure than "BA" series high 30 bar.	6	**R** Reversible	C2	B1	F0/F1		
	8		C3	B2	F2/F3/F4		
	10		C6	Q0	L0/L1/L3/L4		
	12		T0	Q1	R0/R1/R2		
	14		T1	Q2	U0/U1/U2/U3		
	16		S1				
	18		S2				
	20		S3				
	22		S6				
	25		S8				
	28		G0				
	30		G1				

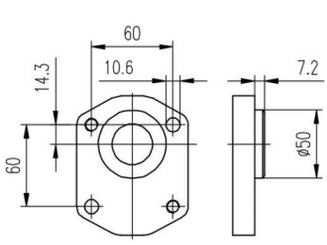
FLANGE



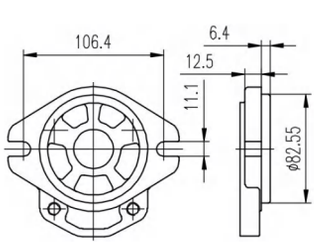
B0(T0, C4, S7)



B1(C2, H0, G0)

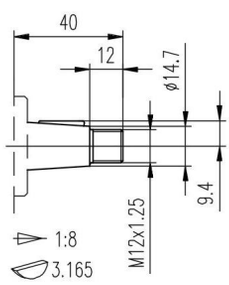


Q0(T1, G0, S3)

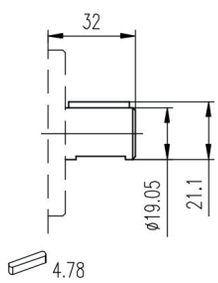


A0(C0, C1, C6)

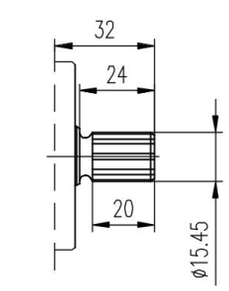
SHAFT



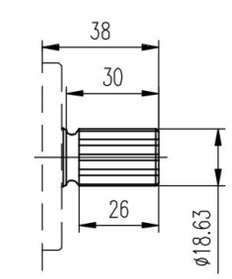
T0
Max.Torque 200Nm



C1
Max.Torque 160Nm



S0
Max.Torque 185Nm



S1
Max.Torque 200Nm

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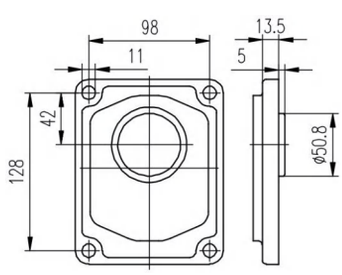
Aluminum Gear Pump

GROUP 2.5 TYPE

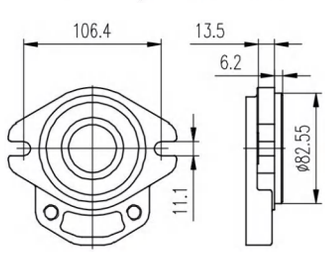
2.5-PLA/PHA	Displace-ment	Rotation	Shaft	Flange	Port size	Port position	Seal
Group: 2.5	6	**D** Clockwise	T0	B0	E0/E1/E2		
P - PUMP	8	**S** Counter clockwise	C1	A1	F0/F1		
LA - Cover material alumi-num	10	**R** Reversible	C2	A2	F2		
HA - Cover materia cast iron, pressure than "BA" series high 30 bar.	12		C6		Z0/Z1/Z2		
	14		H1		U0/U1		
	16		H2		L0/L1		
	19		S0		R0/R1		
	22		S1				
	25		S2				
	28		S3				
	30						
	32						
	36						
	38						
	40						
	44						

FLANGE

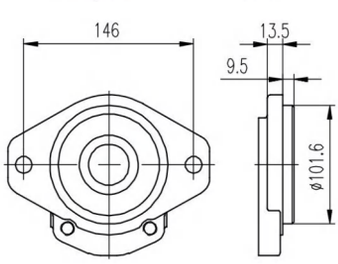
B0(T0)



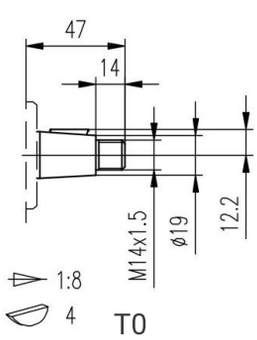
A1(C1, C2, H1, H2, S0, S1, S2, S3)



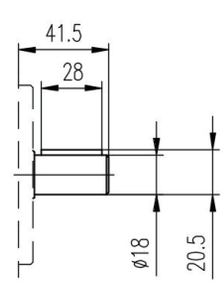
A2(S3, C6)



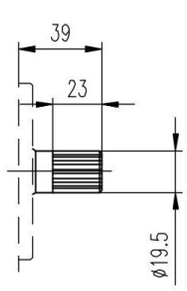
SHAFT



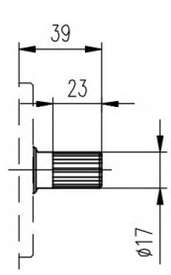
T0
Max.Torque 300Nm



C1
Max.Torque 180Nm



EXT12Z-1.5m-30°
S0
Max.Torque 220Nm



DP16/32-30°-10T
S1
Max.Torque 200Nm

For more techinical relation queries please contact our sales team.

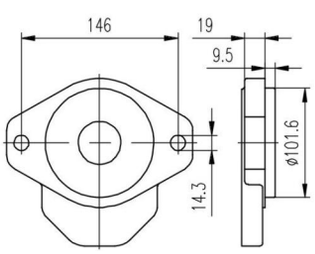
All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Aluminum Gear Pump

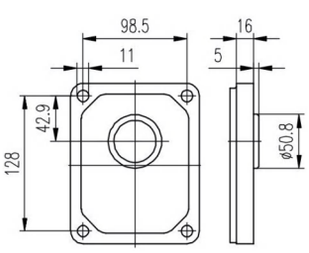
GROUP 3 TYPE

3PHA	Displace-ment	Rotation	Shaft	Flange	Port size	Port position	Seal
3 group	20	**D** Clockwise	C0	B0	E0/E1/E2/E3		
P - PUMP **M** - MOTOR	22	**S** Counter clockwise	C1	B1	L0/L1/L2/L3		
HA - Series	26	**R** Reversible	C2	A0	R0/R1/R2/R3		
	33		C3	A1	U0/U1/U2		
	39		C4				
	46		T0				
	50		T1				
	52		H0				
	55		H1				
	63		H2				
	71		S0				
			S1				

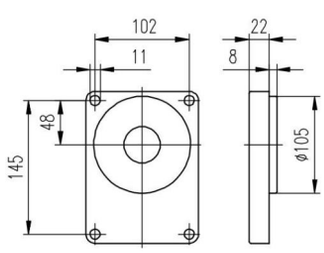
FLANGE



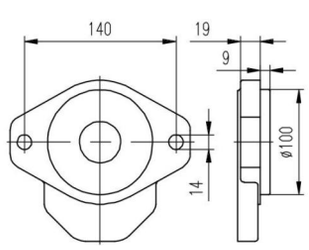
A0(C2, C3, S0, S1)



B1(T0, C4)

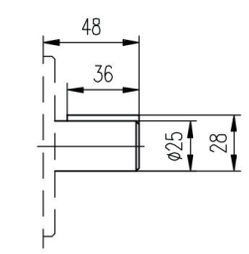


B2(T1)

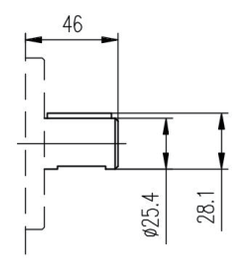


A1(C1, H2)

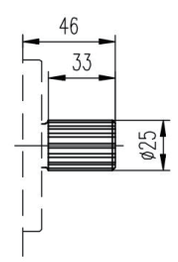
SHAFT



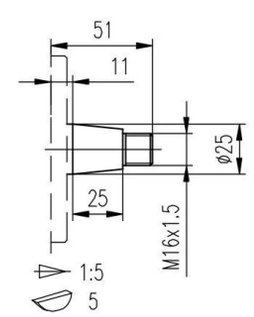
C0
Max.Torque 450Nm



C3
Max.Torque 450Nm



DP16/32-30°-15T
S1
Max.Torque 600Nm



T1
Max.Torque 350Nm

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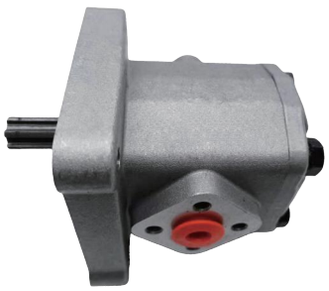
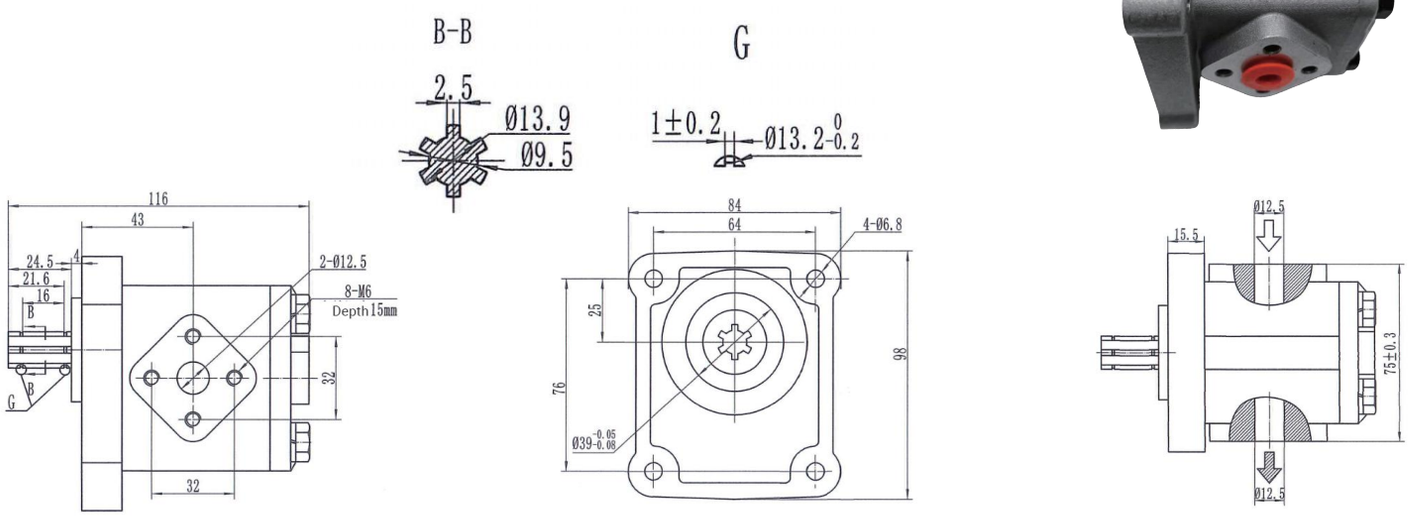
Aluminum Gear Pump

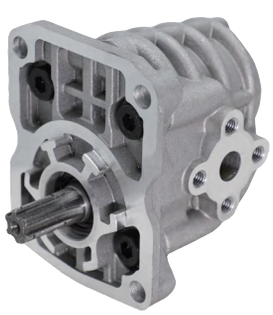
NSH-06 TYPE

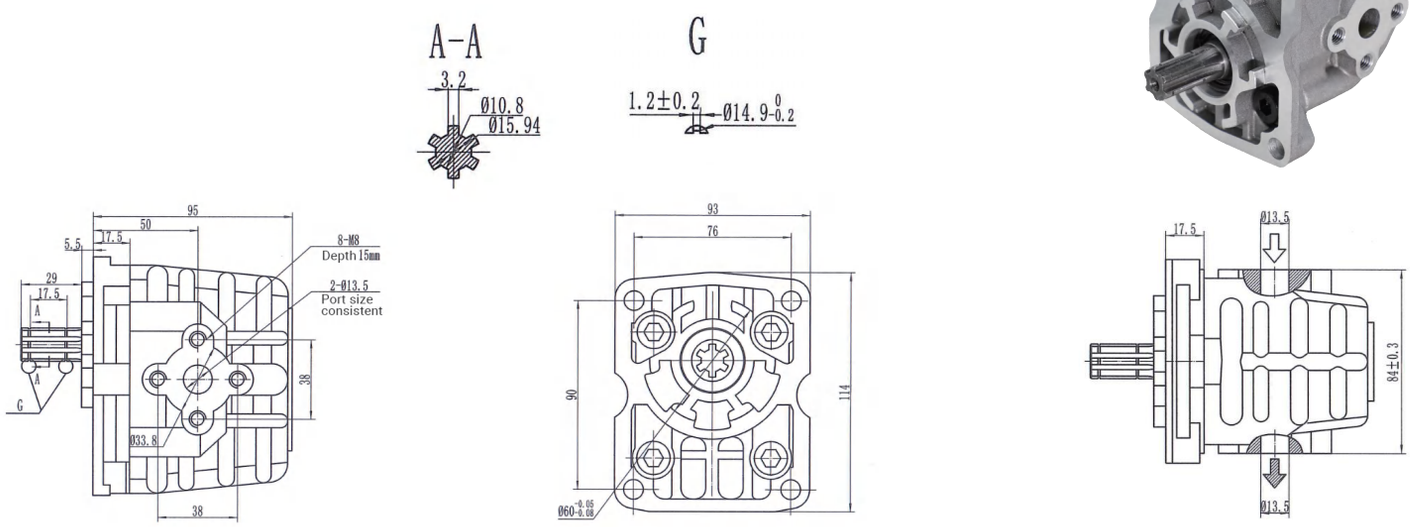




Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-06	06	160	250	2500	91	L

NSH-10 TYPE



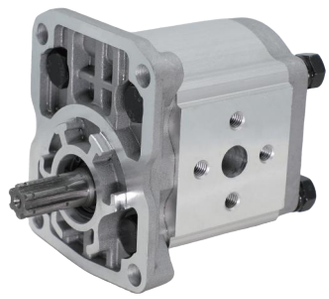


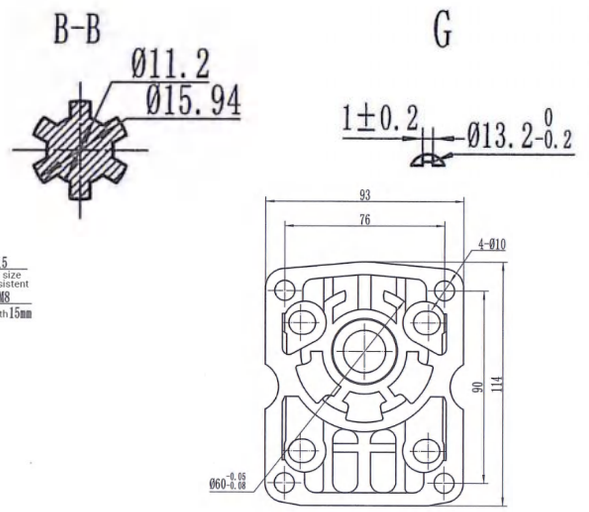
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-10	10	160	250	2500	91	L

For more techinical relation queries please contact our sales team.

Aluminum Gear Pump

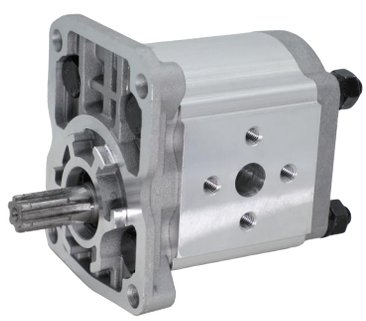
NSH-14 TYPE

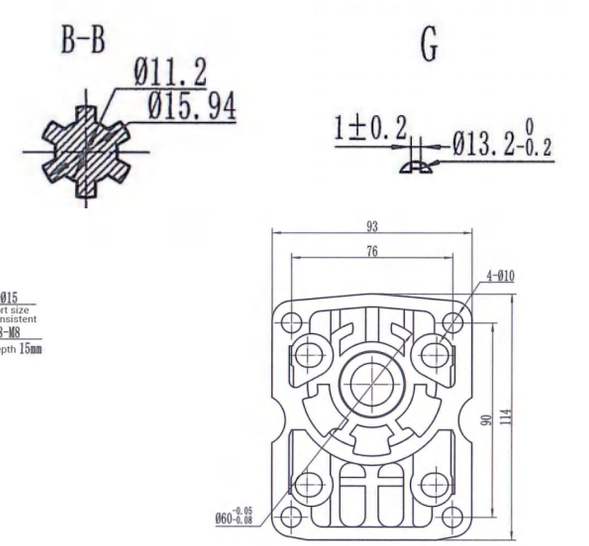




Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-14	14	160	250	2500	91	L

NSH-16 TYPE





Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-16	16	160	250	2500	91	L

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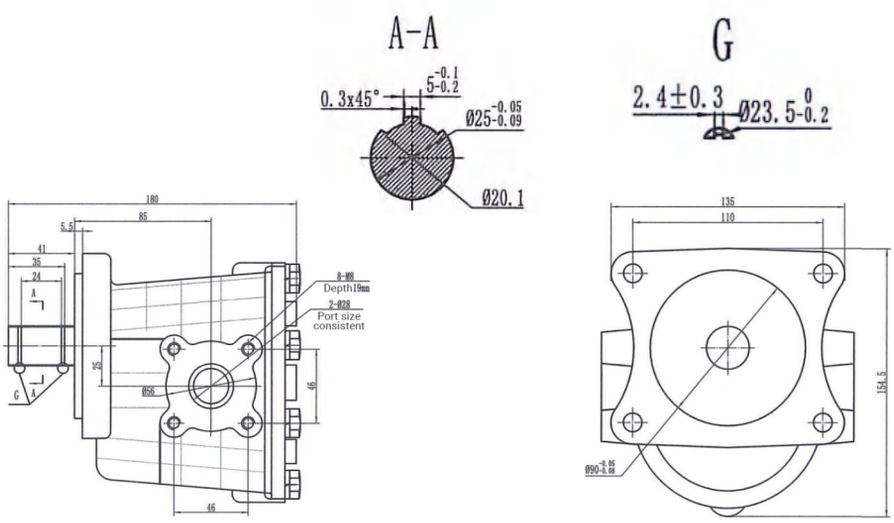
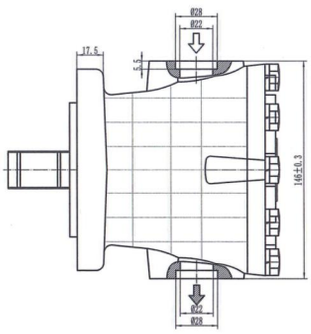
Aluminum Gear Pump

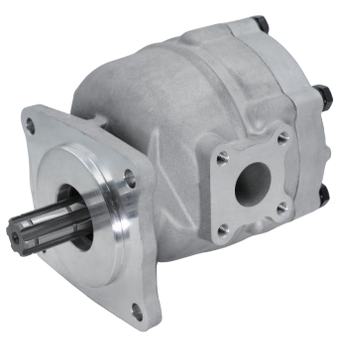
NSH-32A TYPE

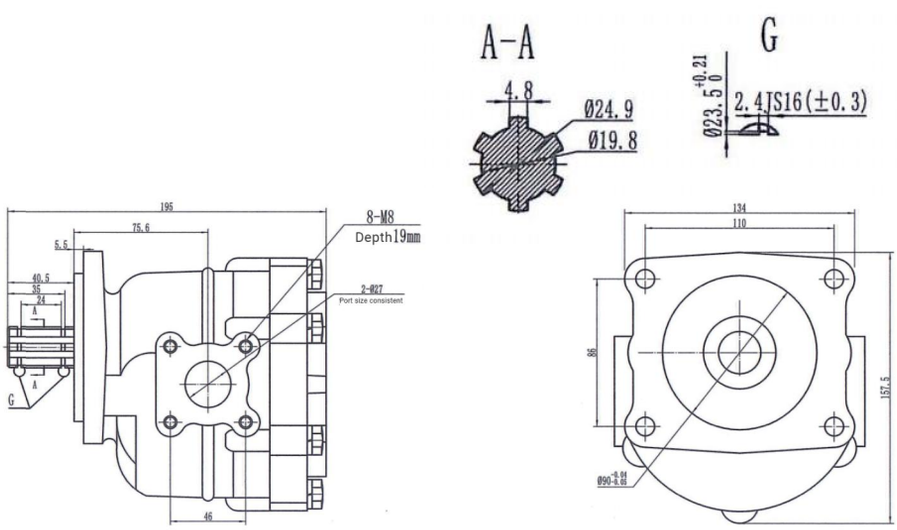


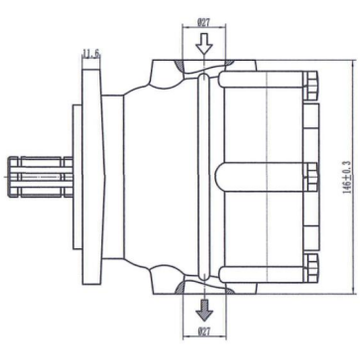


Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-32A	32	160	250	2000	91	L

NEW NSH-32A TYPE





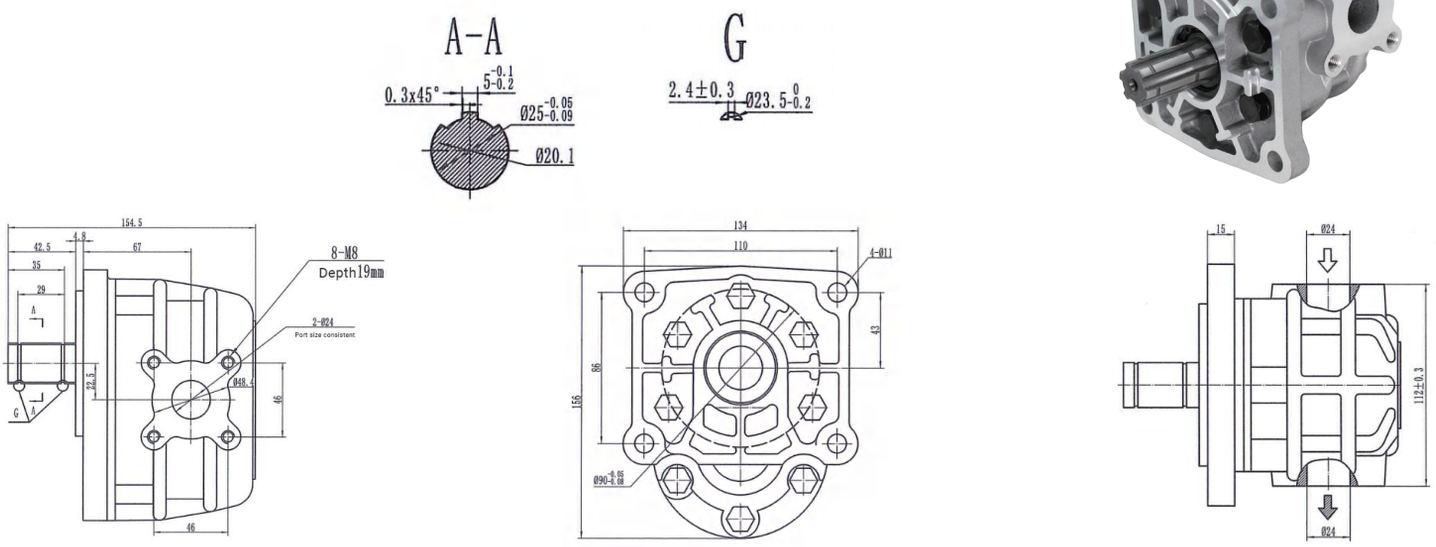


Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NEW NSH-32A	32	160	250	2000	91	L

For more techinical relation queries please contact our sales team.

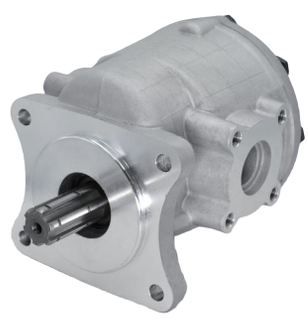
Aluminum Gear Pump

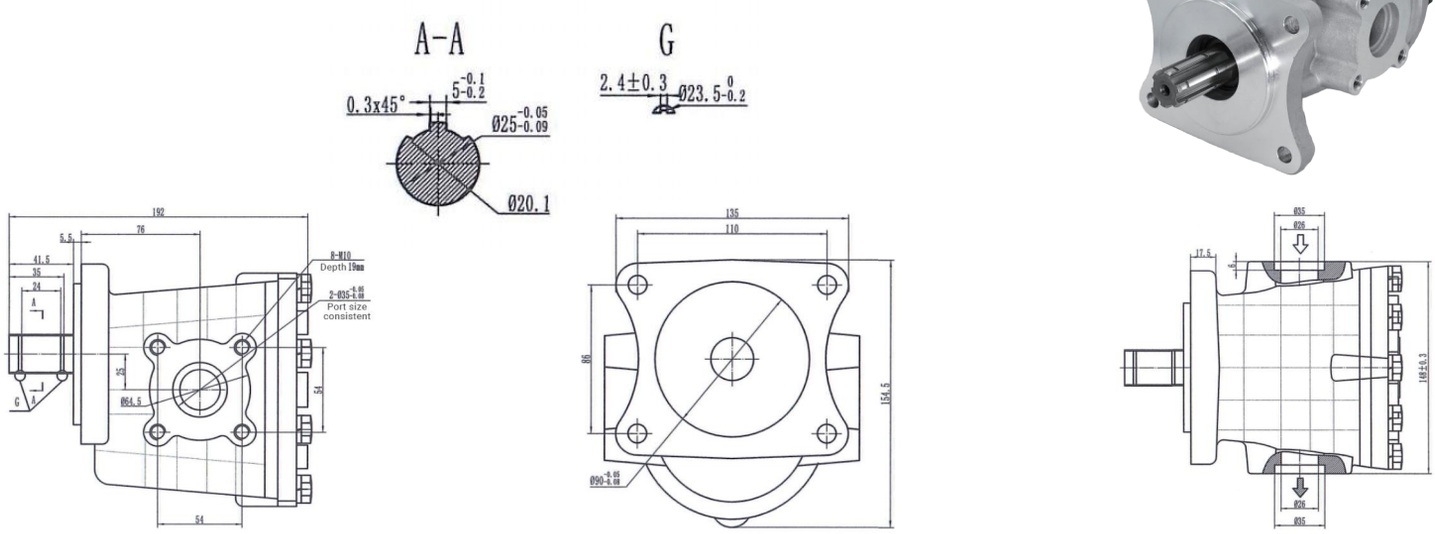
NSH-32D TYPE



Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-32D	32	160	250	2000	91	L

NSH-50A TYPE





Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-50A	50	160	250	2000	91	L

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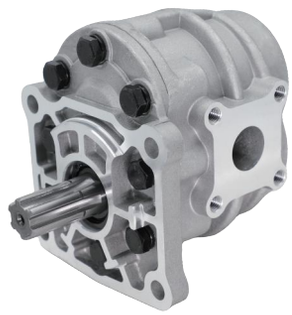
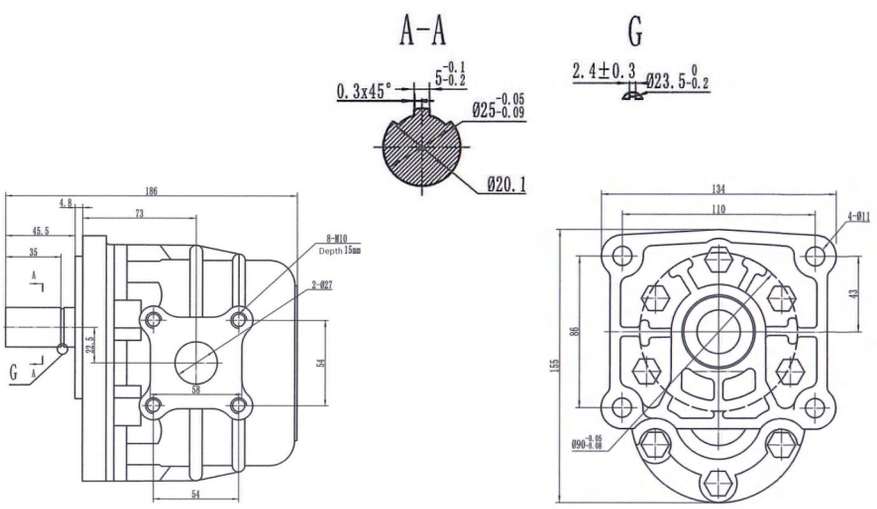
Aluminum Gear Pump

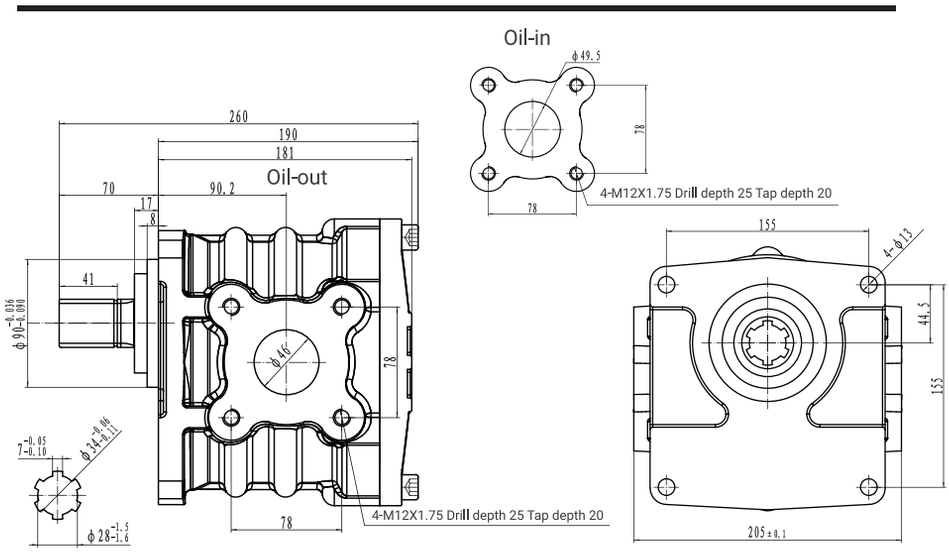
NSH-50D TYPE





Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH-50D	50	160	250	2000	91	L

NSH100-A TYPE



Technical requirement

1. The gear pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear pump.
2. The internal cleanliness of the assembly is not more than 40mg.
3. The test oil is 46 # anti-wear hydraulic oil.
4. Add the oil inlet and outlet with protective cover.

Model	Nominal Displacement (ml/r)	Pressure(Bar)		Rated Speed (r/min)	Volumetric Efficiency (≥%)	Rotation
		Rated	Max			
NSH100-A	100	160	200	600-2500	90	R

For more techinical relation queries please contact our sales team.

Gear Box

KM600 TYPE

KM 600 _ _ - _ _ _

MODEL
KM = Speed increaser (aluminium body)

Series Number
600

P.T.O
1 = Male 1"3/8 DIN 9611
2 = Female 1"3/8 DIN 9611
3 = Female 1"3/8 DIN 9611 short
4 = Female 1"3/8 DIN 9611 tightening

Transmission ratio
Omit = for pumps GR.2
S = SAE A(60100)

Mounting positions
A/B/C

Transmission ratio
1 = 1:1.5
2 = 1:2.0
3 = 1:2.5
4 = 1:3.0
5 = 1:3.5
6 = 1:3.8

KM700 TYPE

KM 700 _ _ - _ _ _

MODEL
KM = Speed increaser (aluminium body)

Series Number
700

P.T.O
1 = Male 1"3/8 DIN 9611
2 = Female 1"3/8 DIN 9611
3 = Female 1"3/8 DIN 9611 short
4 = Female 1"3/8 DIN 9611+ tightening

Transmission ratio
Omit = for pumps GR.3/GR.2
T = SAE B(96101)
W = SAE B(96100)

Mounting positions
A/B/C/D

Transmission ratio
1 = 1:1.5
2 = 1:2.0
3 = 1:2.5
4 = 1:3.0
5 = 1:3.5
6 = 1:3.8

For more techinical relation queries please contact our sales team.

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Gear Box

KM710 TYPE

KM 710 _ - _ _ _

MODEL
KM = Speed increaser (aluminium body)

Series Number
710

P.T.O
5 = Female/Male 1"3/8 DIN 9611
6 = Female/Female 1"3/8 DIN 9611
7 = Male/Male 1"3/8 DIN 9611
8 = Female/Male 1"3/8 DIN 9611+ tightening

Transmission ratio
Omit = for pumps GR.3/GR.2
T = SAE B(96101)
W = SAE B(96100)

Mounting positions
A/B/C/D

Transmission ratio
1 = 1:1.5
2 = 1:2.0
3 = 1:2.5
4 = 1:3.0
5 = 1:3.5
6 = 1:3.8

Type	Ratio	Output torque (N·m)	Lubrication oil	Work temperature	Weight (Kg)
KRT90-1	3.1/1	900	ESSO GEAR OIL CE80W90	-20°～80°	11.5
KRT90-2					
KRT90-3					
KRT120-1	4/1	1200	ESSO GEAR OIL CE80W90	-20°～80°	18.5
KRT120-2					
KRT160-1	8.15/1	1500	ESSO GEAR OIL CE80W90	-20°～80°	30.5
KRT160-2					
KRT190-1	10.2/1	1900	ESSO GEAR OIL CE80W90	-20°～80°	28.5
KRT190-2					
KRT190-3					
KRT200-1	16.43/1	2000	ESSO GEAR OIL CE80W90	-20°～80°	28.5
KRT200-2					
KRT200-3					
KRT300-1	29.5/1	3000	ESSO GEAR OIL CE80W90	-20°～80°	36.5
KRT300-2					
KRT300-3					
KRT350-1	12.1/1 19.1/1 24.3/1 38.3/1	3500	ESSO GEAR OIL CE80W90	-20°～80°	44.5 45.5 46.5 49.5
KRT350-2					
KRT350-3					
KRT400-1	35.35/1	4000	ESSO GEAR OIL CE80W90	-20°～80°	57.5
KRT400-2					
KRT400-3					
KRT500-1	43.6/1	5000	ESSO GEAR OIL CE80W90	-20°～80°	55.5
KRT500-2					
KRT500-3					
KRT650-1	37.8/1	6500	ESSO GEAR OIL CE80W90	-20°～80°	68.5
KRT650-2					
KRT650-3					
KRT800-1	31.67/1	8000	ESSO GEAR OIL CE80W90	-20°～80°	79.5
KRT800-2					
KRT800-3					

For more techinical relation queries please contact our sales team.

Cast-iron Gear Pump

DHC101/102 TYPE

Combination pumps

Pump with Direction Control Valve configured Relief, Spool at raise or neutral position, to protect the system.

- 2-line installation fit for intermittent operation only, 3-line nstallation fit for continuous or intermittent operation.
- Manual and pneumatic operation, customer can replace parts to switch operation way.
- Rated pressure 175/210 bar, Speed range 600-2400 RPM.

DHC 101 - L - AS - 20

Series
C
G

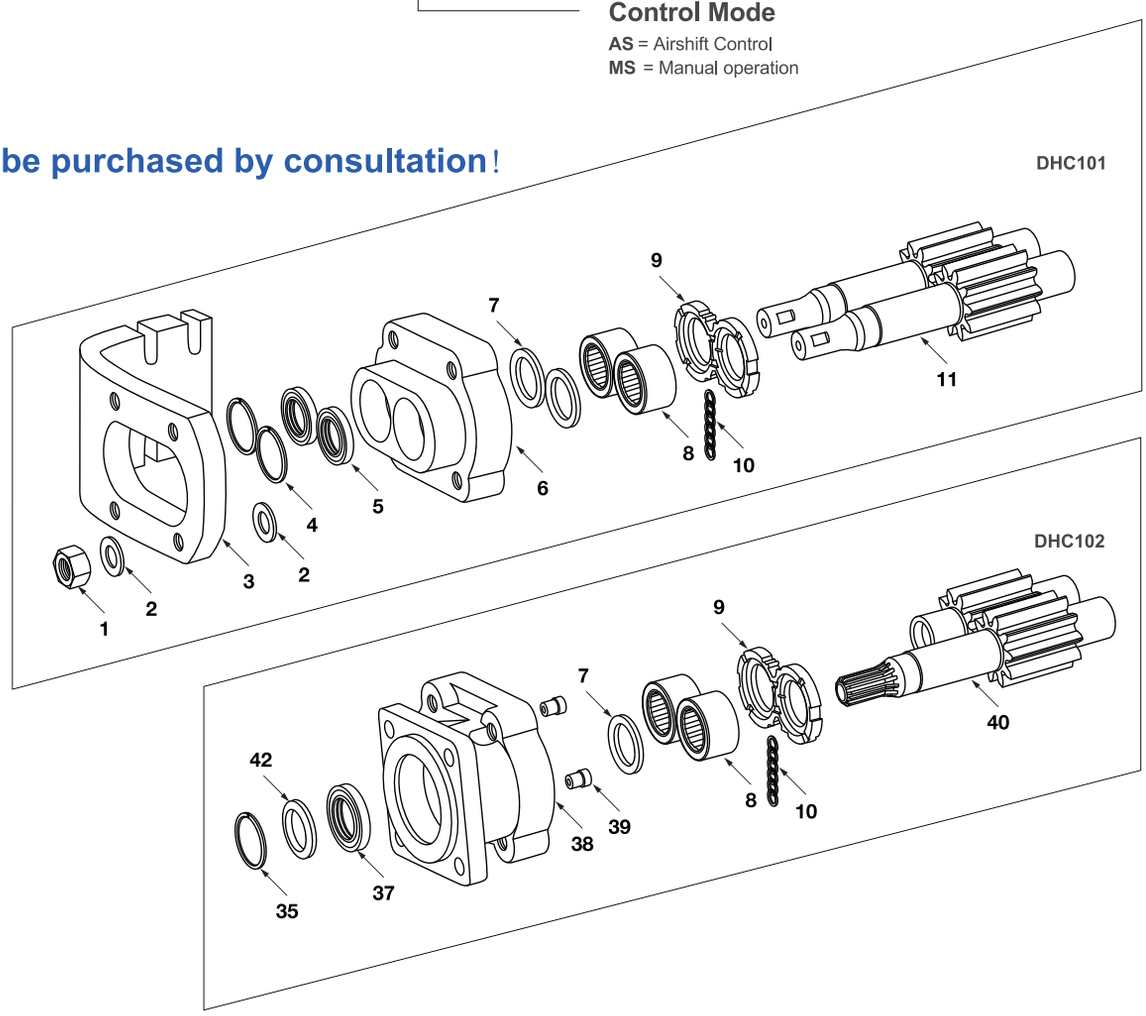
Type of Mount
1 = Remote Mount
2 = Direct Mount

Rotation
R = Right (Clockwise)
L = Left (Counter-clockwise)
X = For 101 Type

Displacement
Displacement in³/r (cm³/r)
20 = 5.10 (83.6) - DH101C & DH102C only
25 = 6.38 (104.6) - DH101C & DH102C only
0.7 = 1.48 (24.3) - DH101G & DH102G only
1.5 = 2.96 (48.5) - DH101G & DH102G only
2 = 3.94 (64.6) - DH101G & DH102G only

Control Mode
AS = Airshift Control
MS = Manual operation

Spare parts can be purchased by consultation!



For more techinical relation queries please contact our sales team.

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Cast-iron Gear Pump

DH315 DH330 DH350 DH365 TYPE

DH315 SERIES

- Heavy duty sleeve bushing design
- Available in 7 gear/displacement sizes
- 2-bolt flange options
- Pressure balanced wear plates
- Working pressure up to 3500 psi
- Multiple bearing carrier options & porting options
- High strength steel gear & shaft sets
- Alternatives for Commercial®/Parker®, Permco® and Muncie® gear products

DH315 Series Specifications		
Displacement	(in^3/r)	.62 - 2.48
	(cm^3/r)	(10.2 - 40.6)
Max. Speed	RPM	3000
Max. Pressure	PSI bar	3500 - 2500 (241 - 172)
Weight	Lbs Kgs	16 - 22 (7 - 10)

DH330 SERIES

- Heavy duty sleeve bushing design
- Available in 7 gear/displacement sizes
- 2-bolt & 4-bolt flange options
- Pressure balanced wear plates
- Working pressure up to 3500 psi
- Multiple bearing carrier options & porting options
- High strength steel gear & shaft sets
- Alternatives for Commercial®/Parker®, Permco® and Muncie® gear products

DH330 Series Specifications		
Displacement	(in^3/r)	.99 - 3.94
	(cm^3/r)	(16.1 - 64.6)
Max. Speed	RPM	3000
Max. Pressure	PSI bar	3500 - 2500 (241 - 172)
Weight	Lbs Kgs	36 - 41 (16 - 19)

DH350 SERIES

- Heavy duty sleeve bushing design
- Available in 9 gear/displacement sizes
- 2-bolt & 4-bolt flange options
- Pressure balanced wear plates
- Working pressure up to 3500 psi
- Multiple bearing carrier options & porting options
- High strength steel gear & shaft sets
- Alternatives for Commercial®/Parker®, Permco® and Muncie® gear products

DH350 Series Specifications		
Displacement	(in^3/r)	1.28 - 6.38
	(cm^3/r)	(20.9 - 104.5)
Max. Speed	RPM	2400
Max. Pressure	PSI bar	3500 - 2500 (241 - 172)
Weight	Lbs Kgs	50 - 60 (23 - 27)

DH365 SERIES

- Heavy duty sleeve bushing design
- Available in 8 gear/displacement sizes
- 2-bolt & 4-bolt flange options
- Pressure balanced wear plates
- Working pressure up to 3500 psi
- Multiple bearing carrier options & porting options
- High strength steel gear & shaft sets
- Alternatives for Commercial®/Parker®, Permco® and Muncie® gear products

DH365 Series Specifications		
Displacement	(in^3/r)	2.70 - 9.00
	(cm^3/r)	(44.3 - 147.5)
Max. Speed	RPM	2400
Max. Pressure	PSI bar	3500 - 3000 (241 - 207)
Weight	Lbs Kgs	56 - 71 (25 - 32)

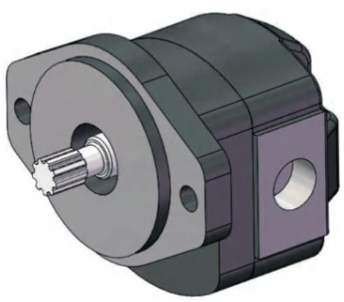
For more techinical relation queries please contact our sales team.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

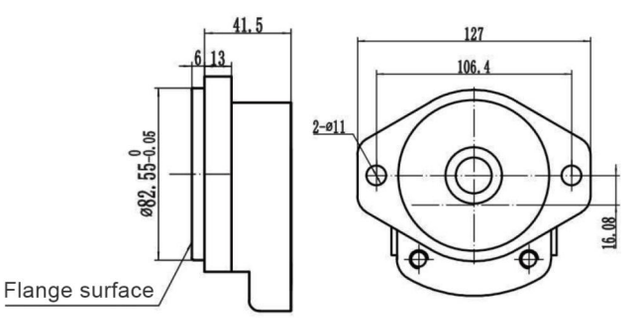
Cast-iron Gear Pump

RHP1 TYPE

PUMP	RHP1	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		03 06 10 15 20 25	**R** Clockwise **L** Counter clockwise **S** Two-way	B4 B5 B8	Q3 J4	E4 E5 U5 U6 U7



FLANGE



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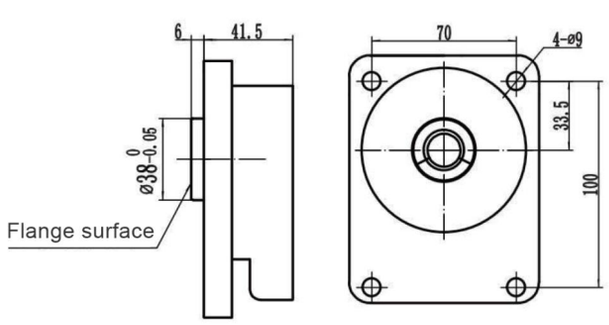

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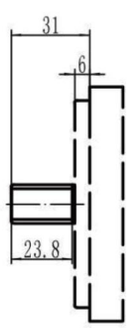

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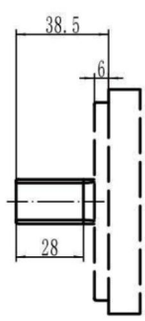

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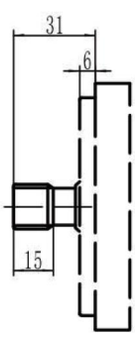

B8

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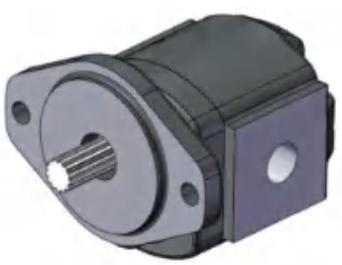
Cast-iron Gear Pump

RHP2 TYPE

PUMP	RHP2	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR		16	**R** Clockwise	B3	Q3	E3
FM - DIVERTER		19	**L** Counter clockwise	B5	Q1	E4
		21	**S** Two-way	B6	D3	E5
		23		B7		U3
		26		C5		U4
		29		C6		U5
		33		C7		U6
		36		T1		U7
		37		T2		
		41				
		44				
		46				
		50				
		52				



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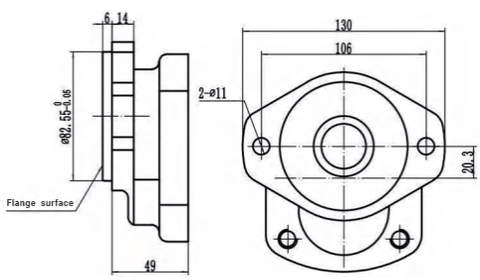

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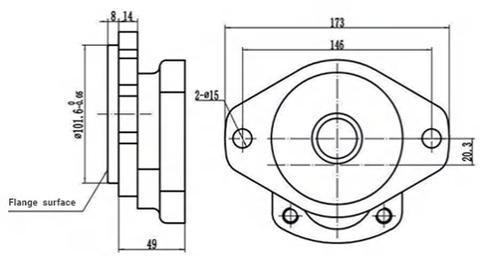

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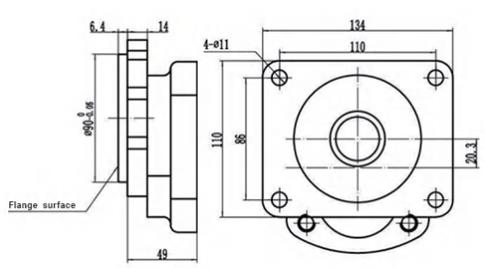

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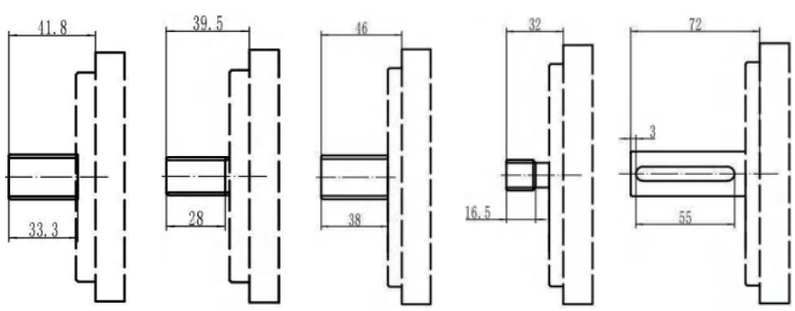

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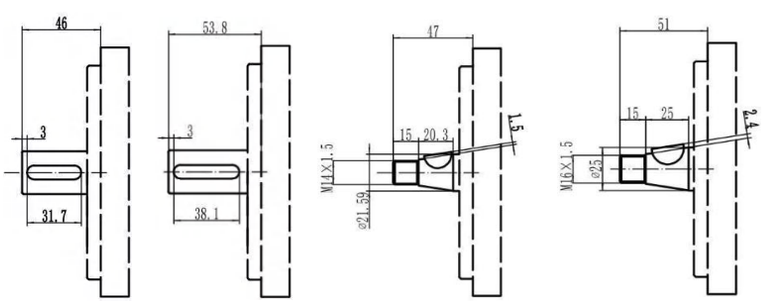

C6 C7 T1 T2

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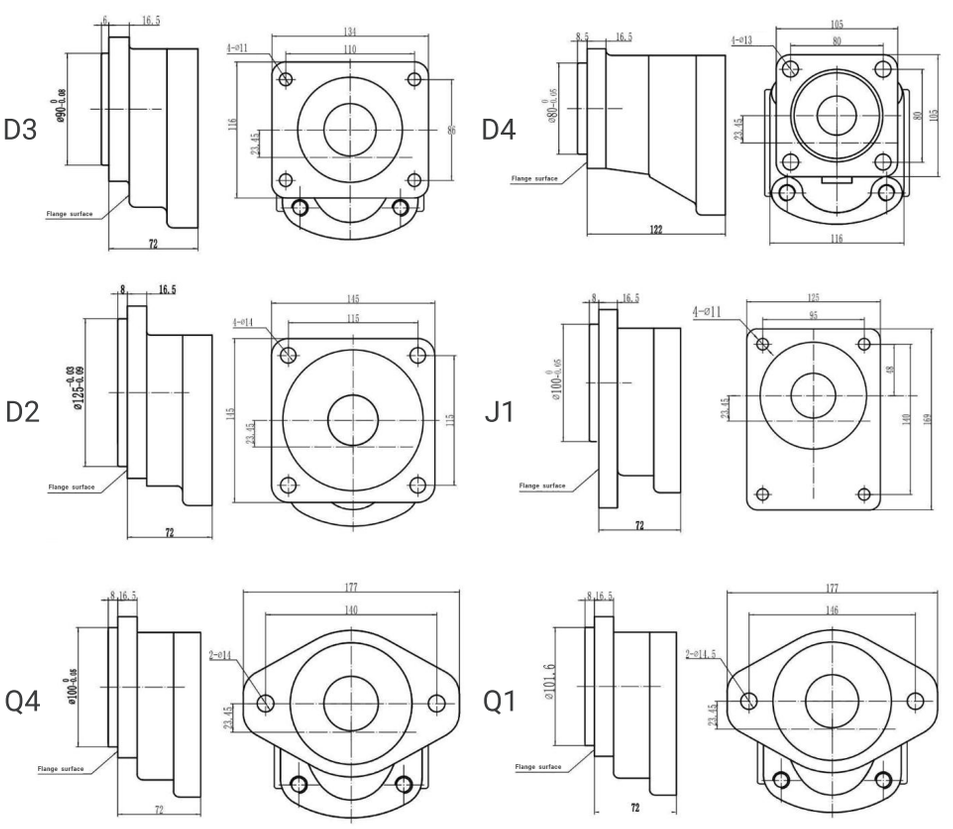
Cast-iron Gear Pump

RHP3 TYPE

PUMP	RHP3	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		17 25 34 42 52 65 73 84 100	**R** Clockwise **L** Counter clockwise **S** Two-way	C2 A1 A3 A4 B6	D3 D2 Q4 D4 J1 Q1	P1 P2 P3 P4 P5 U1 U2 U3 U4 U5 E1 E2 E3 E4

FLANGE



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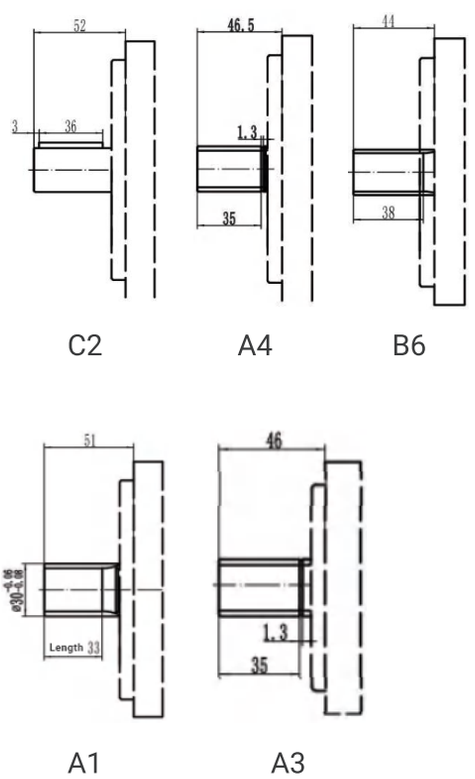

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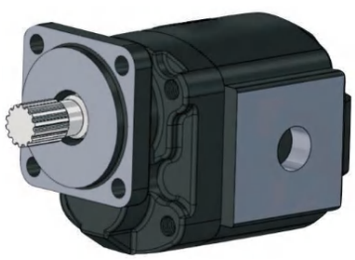
Cast-iron Gear Pump

RHP4 TYPE

PUMP	RHP4	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		25 37.5 43.7 50 62.5 75 81.2 87.5 93.7 100 112.5 125 137.5 150 162.5	**R** Clockwise **L** Counter clockwise **S** Two-way	B1	D5 Q5 Q1 D1	P1 P2 P3 P4 P5 U1 U2 U3 U4 U5 E1 E2 E3 E4



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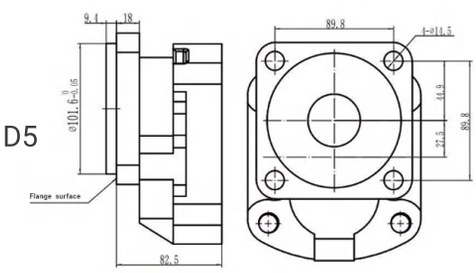

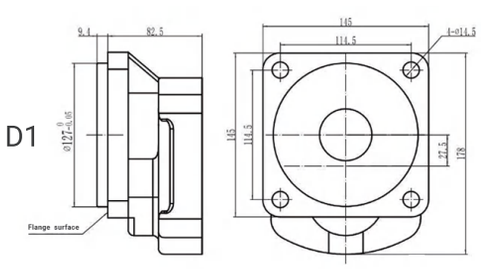

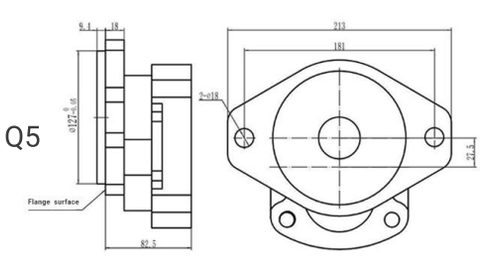

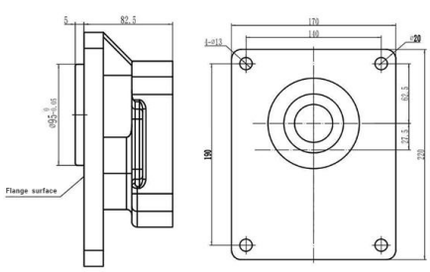

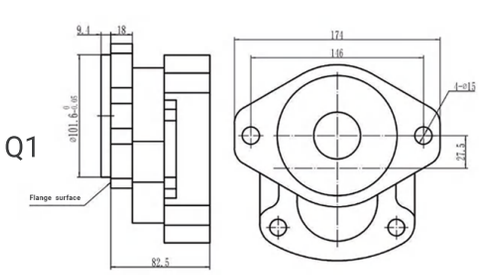

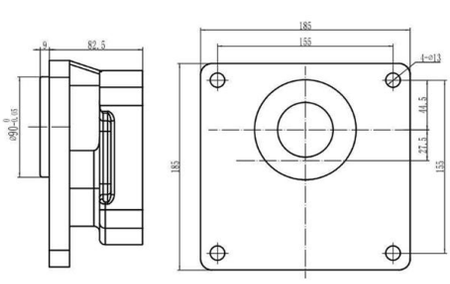

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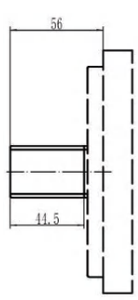
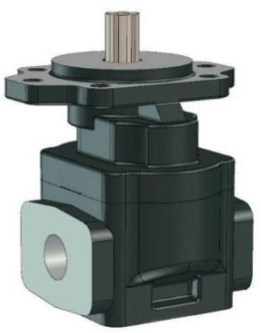


For more techinical relation queries please contact our sales team.

Cast-iron Gear Pump

PGP620 TYPE

PUMP	PGP620	Displacement	Rotation	Shaft	Flange	Port size	
CM - MOTOR		16	**R** Clockwise	B3	D5	P1	E4
FM - DIVERTER		19	**L** Counter clockwise	B5	D1	P2	E5
		21	**S** Two-way	B6	J3	P3	E6
		23		B7	Q3	P4	V1
		26		C5	Q1	P5	V2
		29		C6	F1	P6	V3
		33		C7		N1	V4
		36		T1		N2	V5
		37		T2		N3	V6
		41				N4	K1
		44				N5	K2
		46				N6	K7
		50				E1	L1
		52				E2	L2
						E3	L3



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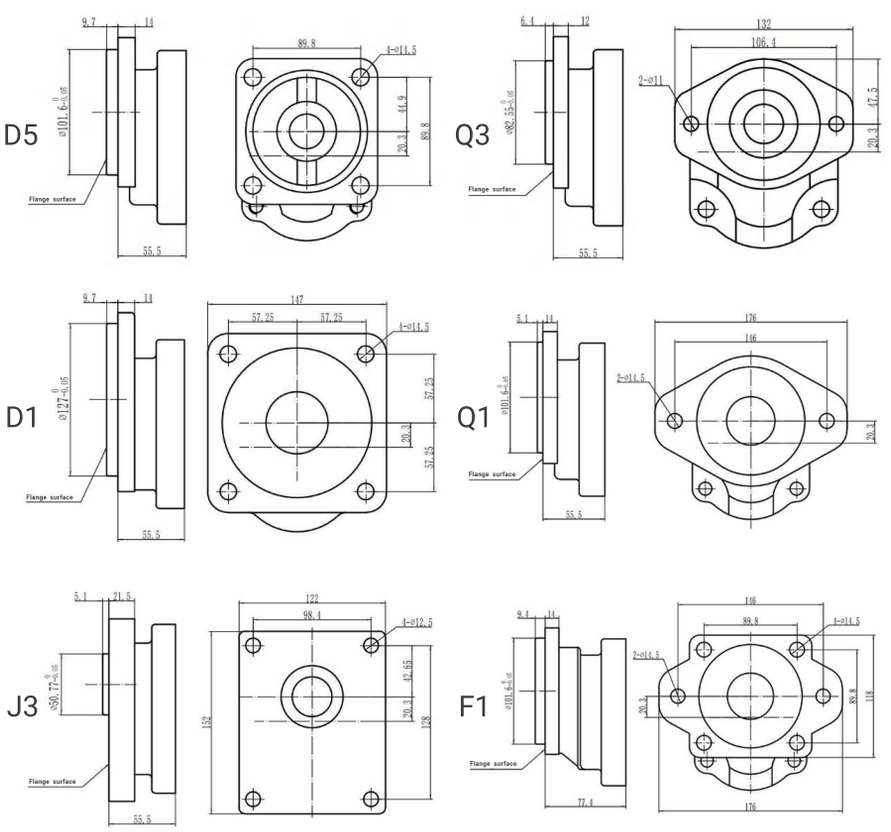

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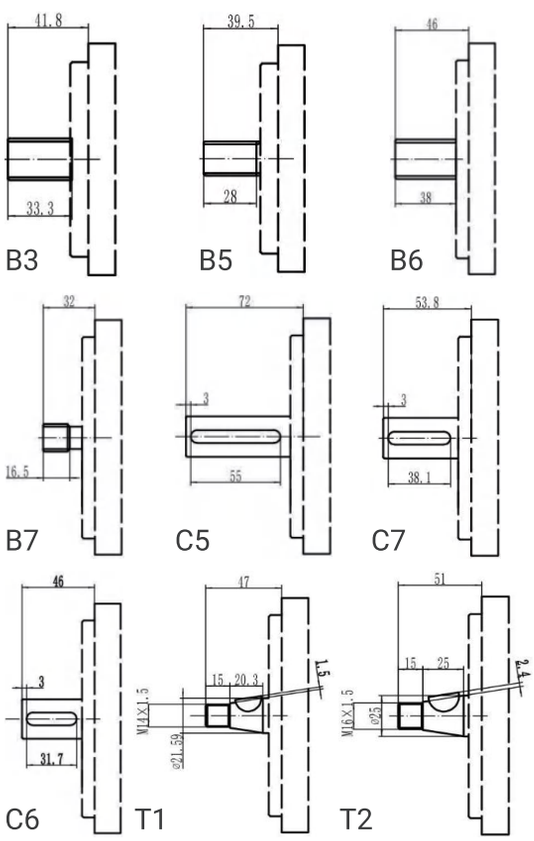

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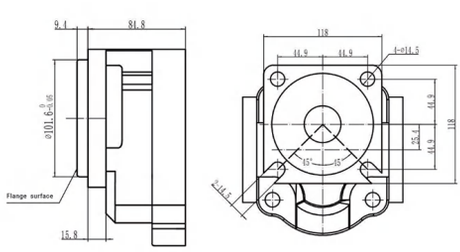
Cast-iron Gear Pump

PGP640 TYPE

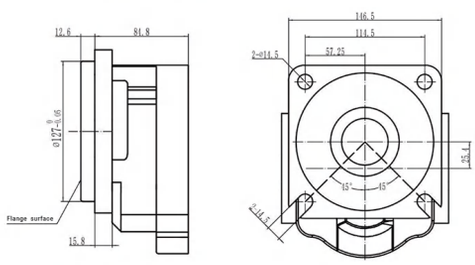
PUMP	PGP640	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		30 35 40 45 50 55 60 65 70 75 80 90 100	**R** Clockwise **L** Counter clockwise **S** Two-way	B3 B6 B1 C8	D7 D8 Q1	E1 E2 E3 E4 V1 V2 V3 V4

FLANGE

D7



D8



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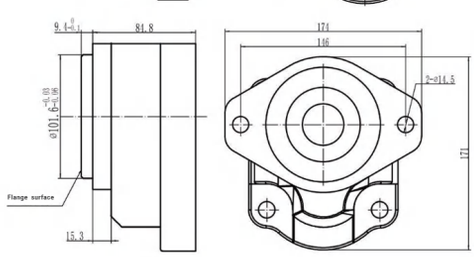

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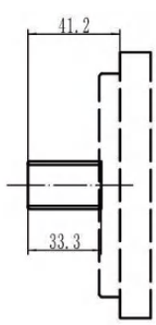

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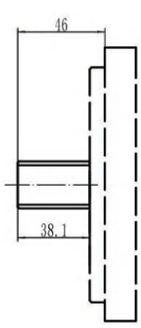

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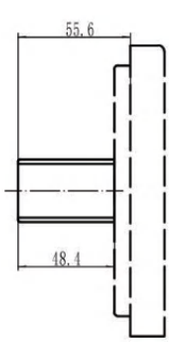

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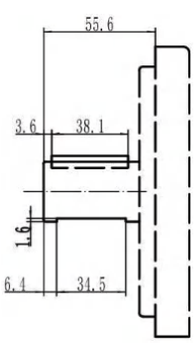

C8

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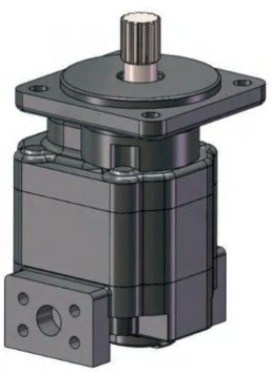
All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

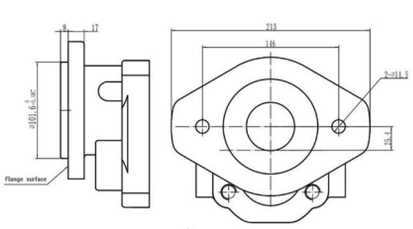
Cast-iron Gear Pump

PR1 TYPE

PUMP	PR1	Displacement	Rotation	Shaft	Flange	Port size	
CM - MOTOR		20	**R** Clockwise	A1	Q1	P1	E2
FM - DIVERTER		25	**L** Counter clockwise	B2	D1	P2	E3
		32		B1	Q5	P3	E4
		40		A2	D2	P4	H1
		45	**S** Two-way	C1		P5	H2
		50				U1	H3
		63				U2	H4
		73				U3	H6
		80				U4	H7
		100				U5	H8
						E1	



FLANGE



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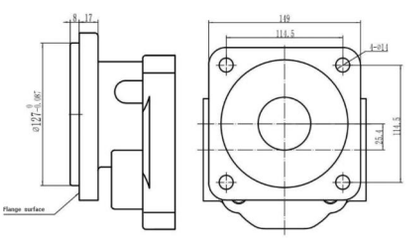

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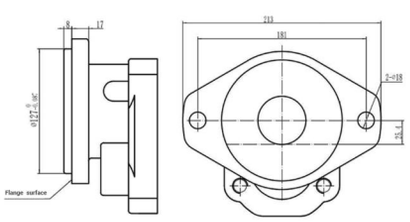

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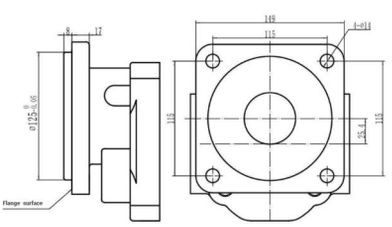

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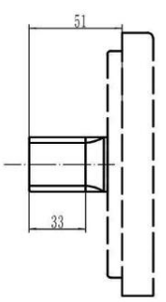
SHAFT



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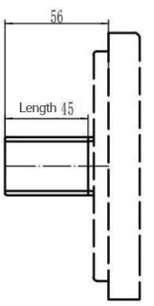

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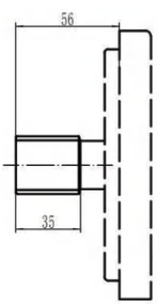

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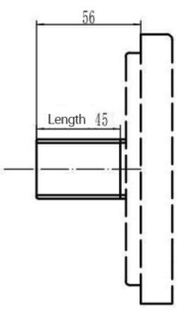

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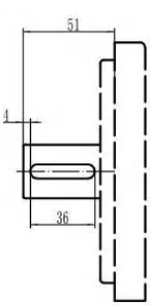

C1

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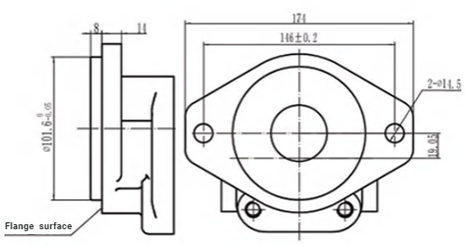
Cast-iron Gear Pump

R5 TYPE

PUMP	R5	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		05 10 16 20 25 30 35 40	**R** Clockwise **L** Counter clockwise **S** Two-way	C3 B4 A6 B5 B3 C10	Q1 Q3 Q6	P1 E3 P2 E4 P5 E5 P6 H2 U1 H3 U2 H4 U3 H5 U4 H7 U5 H8 E2 H9

FLANGE

Q1



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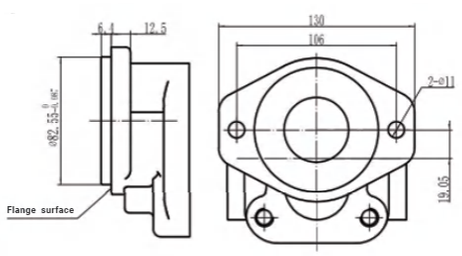

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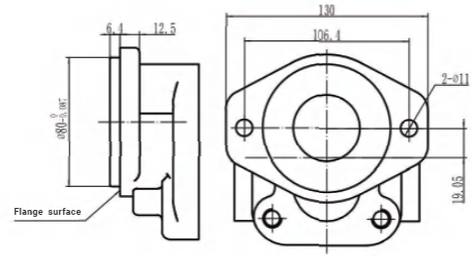

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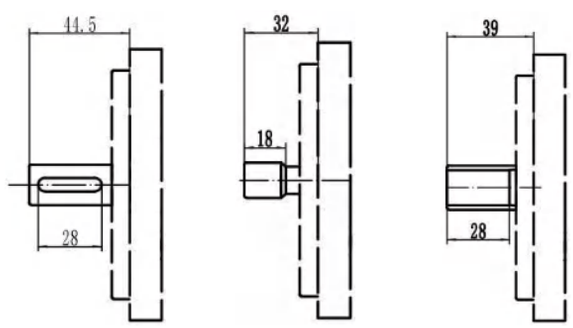
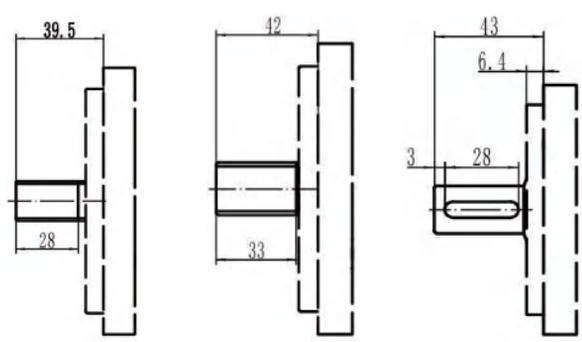


C3 B4 A6



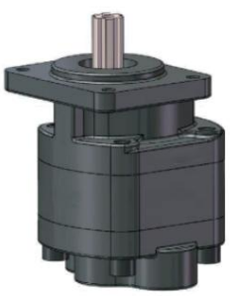
B5 B3 C10

For more techinical relation queries please contact our sales team.

Cast-iron Gear Pump

R6 TYPE

PUMP	R6	Displacement	Rotation	Shaft	Flange	Port size	
CM - MOTOR		20	**R** Clockwise	C2	D3	P1	U5
FM - DIVERTER		25	**L** Counter clockwise	A4	D2	P2	E2
		34		A1	Q4	P3	E3
		42	**S** Two-way	B6	D4	P4	E4
		52			J1	P5	H2
		65			Q1	U1	H3
		84				U2	H4
		100				U3	H6
						U4	H7



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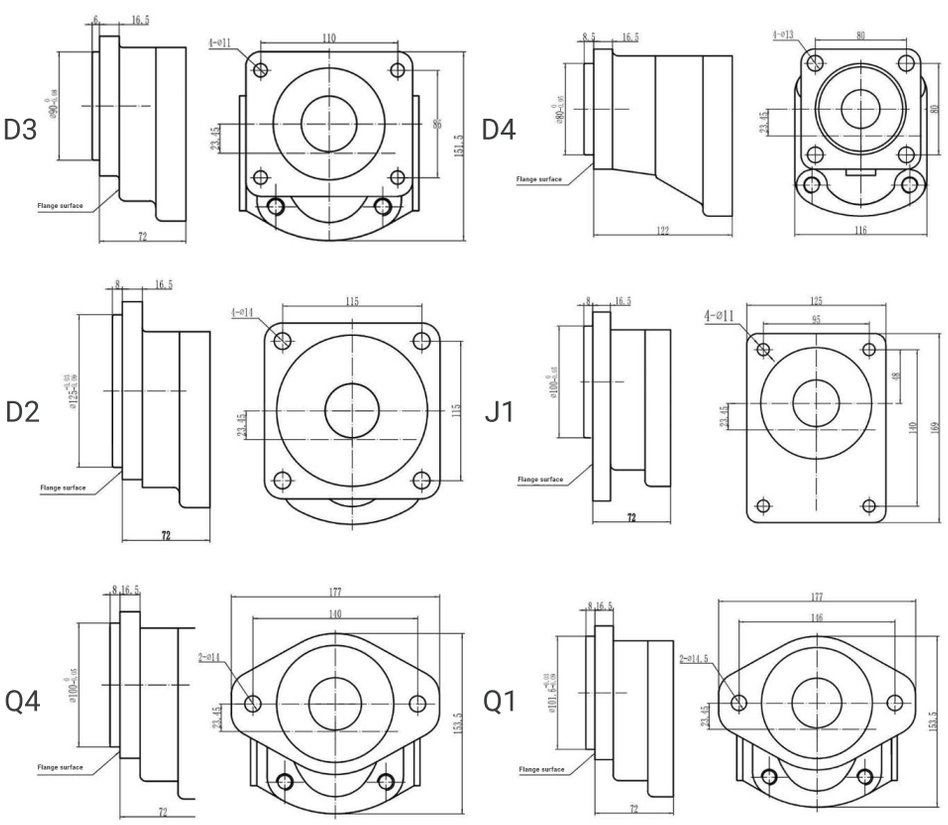

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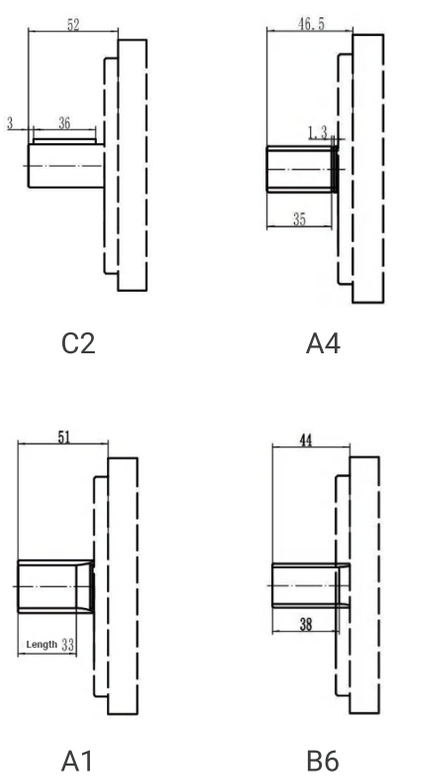

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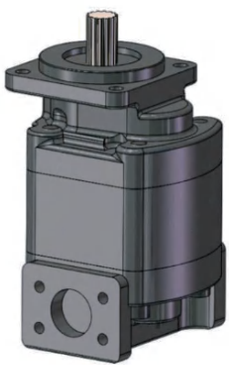
Cast-iron Gear Pump

R7 TYPE

PUMP	R7	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		63 85 100 125 134 150 180	**R** Clockwise **L** Counter clockwise **S** Two-way	B1	Q1 D1 D2	P1 U4 P2 E1 P3 E2 P4 E3 P5 H2 P7 H3 U1 H6 U2 H7 U3



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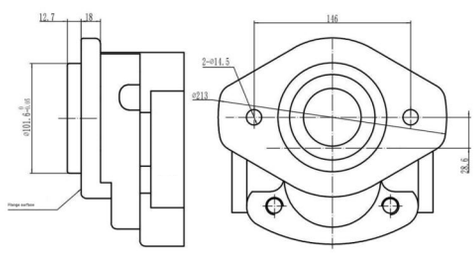

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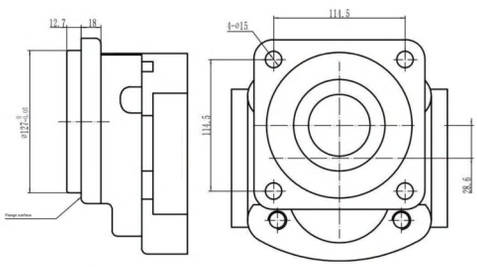

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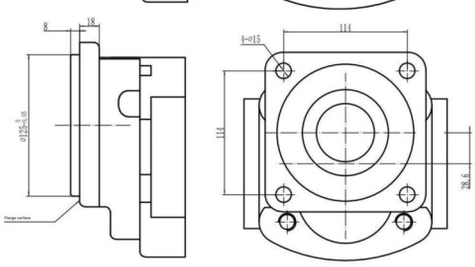

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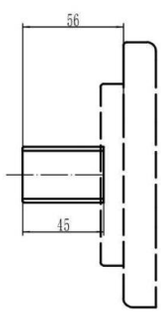

B1

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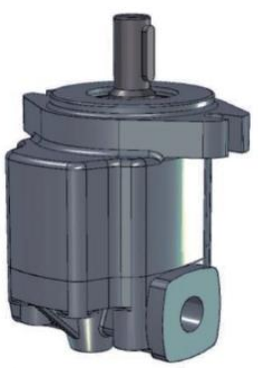
Cast-iron Gear Pump

R9 TYPE

PUMP	R9	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		05 10 15 20 25	**R** Clockwise **L** Counter clockwise **S** Two-way	C3 T3	Q6	U5 U6 U7 E4 E5 E6 K1 K2



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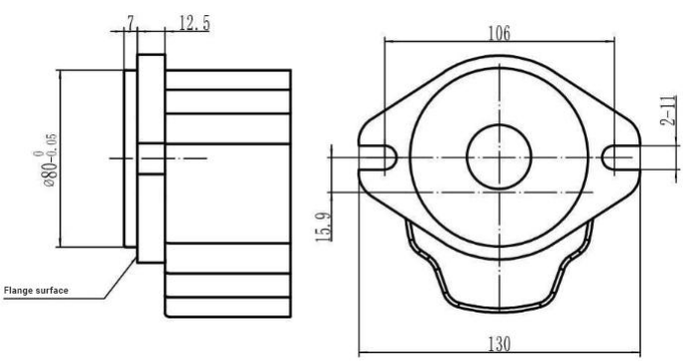

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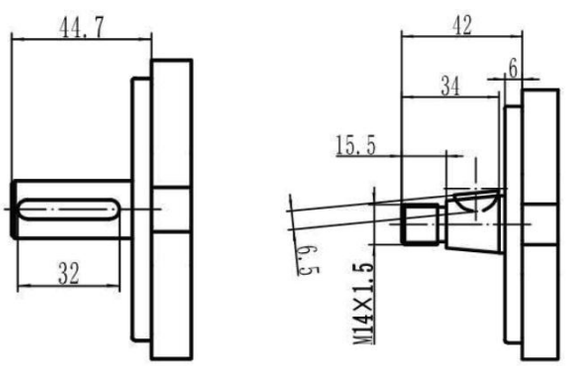

C3 T3

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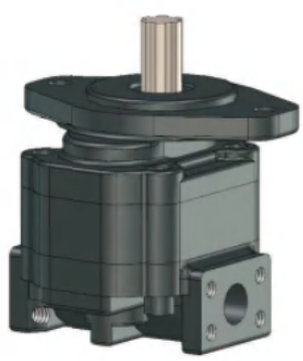
Cast-iron Gear Pump

RC TYPE

PUMP	RC	Displacement	Rotation	Shaft	Flange	Port size	
CM - MOTOR		10	**R** Clockwise	C2	D3	P1	U6
FM - DIVERTER		16	**L** Counter clockwise	A3	Q3	P2	E2
		20		A4	Q1	P3	E3
		25		B3	J1	U1	E4
		32		A5		U2	E5
		35		C9		U3	H2
		40				U4	H3
		50				U5	H4
		63					
		80					



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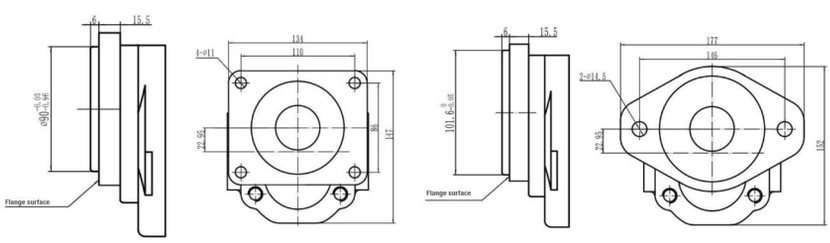

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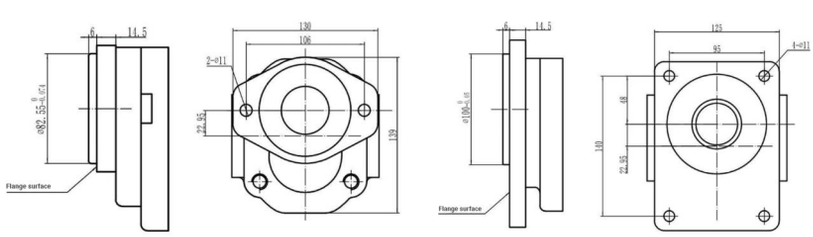

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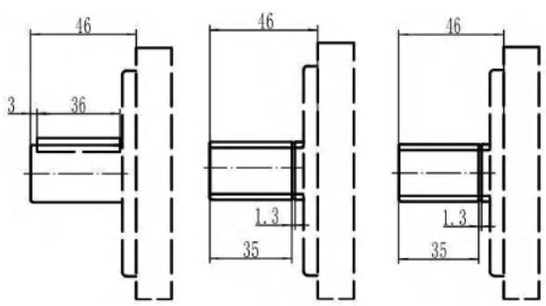

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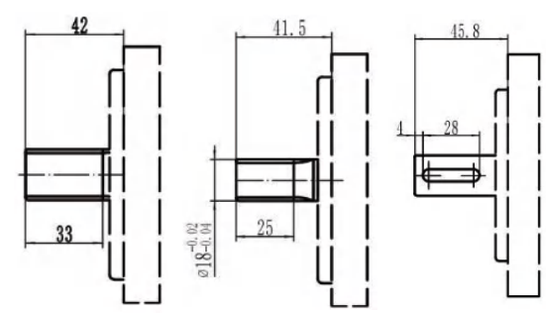

B3 A5 C9

For more techinical relation queries please contact our sales team.

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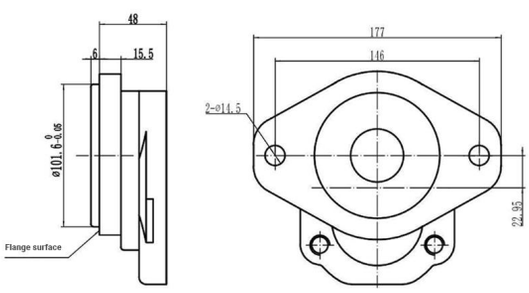
Cast-iron Gear Pump

RN TYPE

PUMP	RN	Displacement	Rotation	Shaft	Flange	Port size	
CM - MOTOR		10	**R** Clockwise	C2	Q1	P1	E2
FM - DIVERTER		16	**L** Counter clockwise	A3	D3	P2	E3
		20		A4		P5	E4
		25		B3		U1	E5
		32		A5		U2	K3
		35				U3	K4
		40				U4	K5
		50				U5	K6
		63				U6	
		80					

FLANGE



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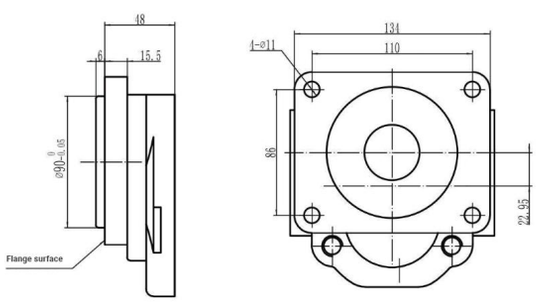

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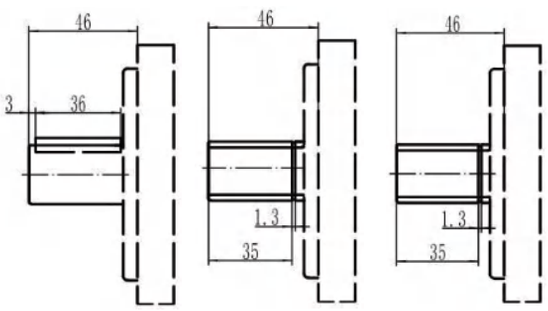
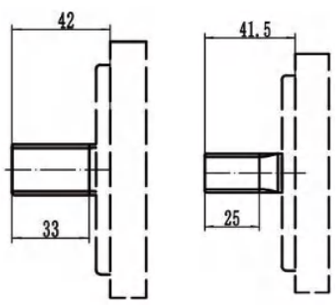


C2 A3 A4



B3 A5

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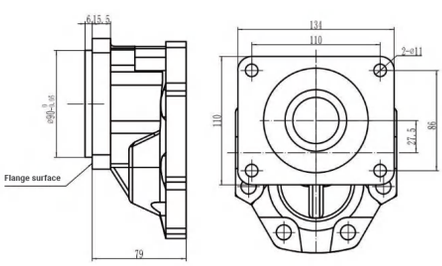
Cast-iron Gear Pump

RCDZY TYPE

PUMP	RCDZY	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR		80	**R** Clockwise	Z1	D3	E1
FM - DIVERTER		100	**L** Counter clockwise	A3	D4	E2
		125	**S** Two-way	A4	M1	E3
						E4
						V1
						V2
						V3
						V4
						H1
						H2
						H3
						H4
						H6
						H7
						H8

FLANGE

D3



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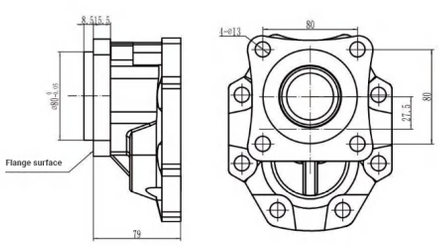

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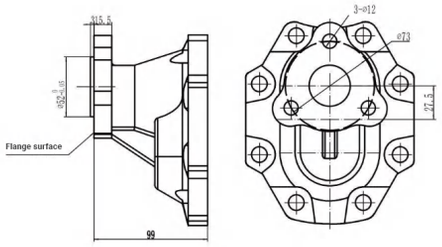

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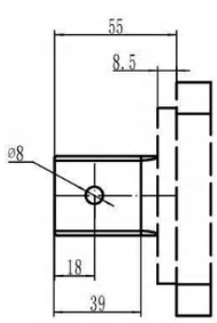

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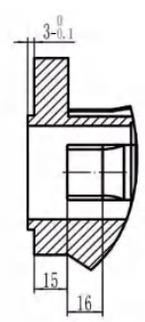

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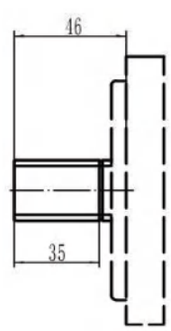

A4

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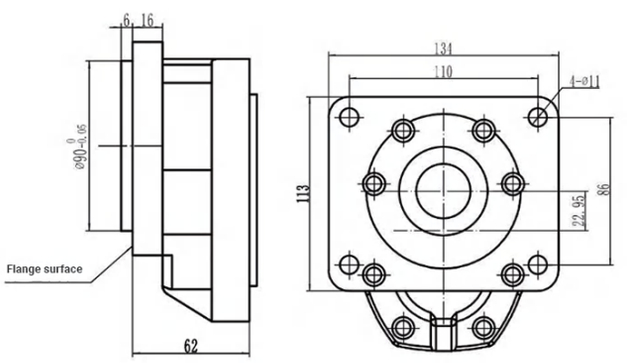
Cast-iron Gear Pump

RCZY TYPE

PUMP	RCZY	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		25 34 42 52 65 74	**R** Clockwise **L** Counter clockwise **S** Two-way	A4 A3	D3 M1	E3 E4 U3 U4 U5 U6 H2 H3 H4 H5 H7 H8

FLANGE



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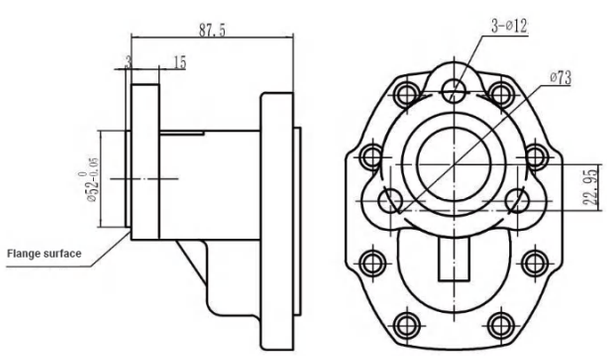

M1

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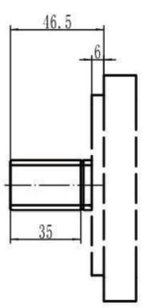

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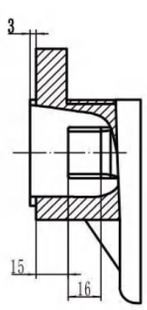

A3

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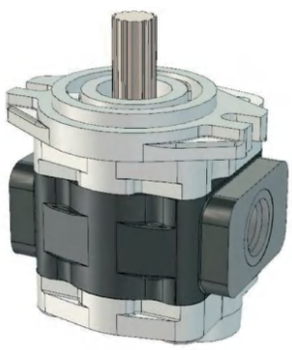
Cast-iron Gear Pump

RCKEC TYPE

PUMP	RCKEC	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		23 25 27 28.2 30 32 36 40 44 48 50 52	**R** Clockwise **L** Counter clockwise **S** Two-way	B3	Q2	P1 P2 P5 E4



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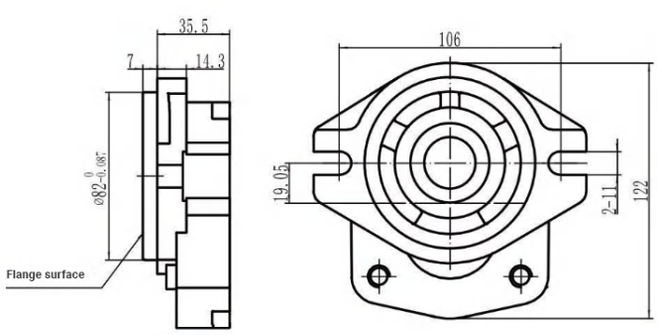

Q2

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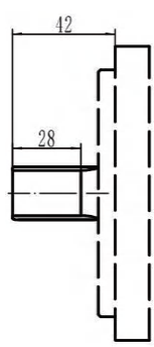

B3

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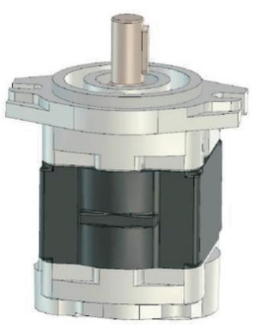
Cast-iron Gear Pump

RCHZ TYPE

PUMP	RCHZ	Displacement	Rotation	Shaft	Flange	Port size
CM - MOTOR **FM** - DIVERTER		23 25 26.5 28.2 30 32 34 36	**R** Clockwise **L** Counter clockwise **S** Two-way	C3 A6 B7 B9	Q3	E3 E5 U3 U6



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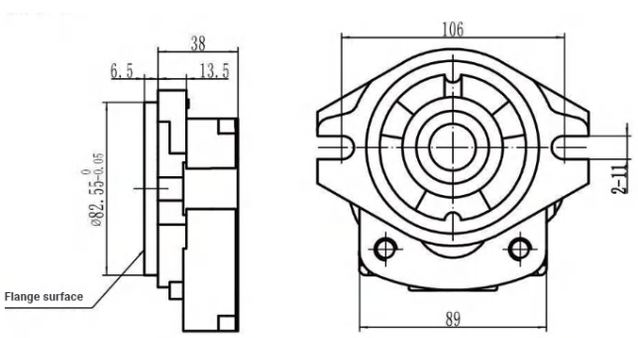

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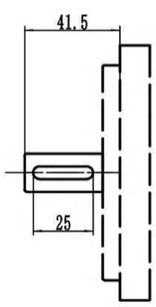

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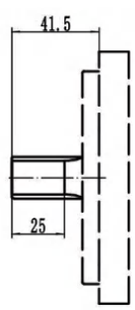

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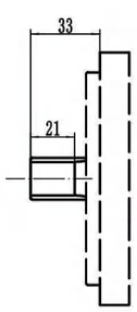

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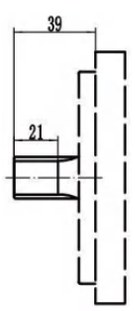

B9

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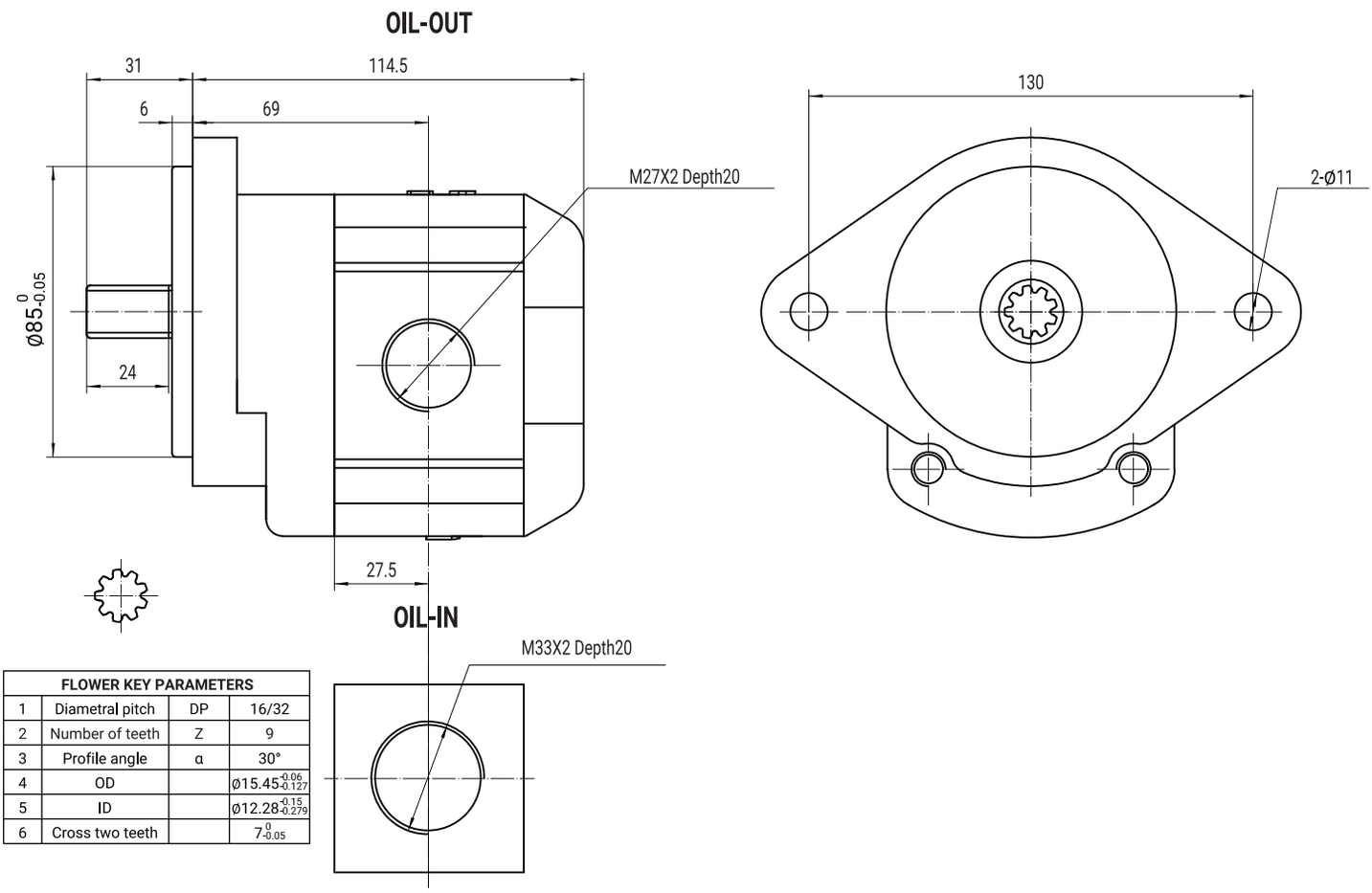
Cast-iron Gear Pump

CBH115006 TYPE

Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBH115006	15	210	250	600-3000	93



FLOWER KEY PARAMETERS			
1	Diametral pitch	DP	16/32
2	Number of teeth	Z	9
3	Profile angle	α	30°
4	OD		Ø15.45 -0.06 -0.127
5	ID		Ø12.28 -0.15 -0.279
6	Cross two teeth		7 0 -0.05

Technical requirement

1. The gear pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. The test oil is 46 # anti-wear hydraulic oil.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: right.
6. Appearance color: blue.

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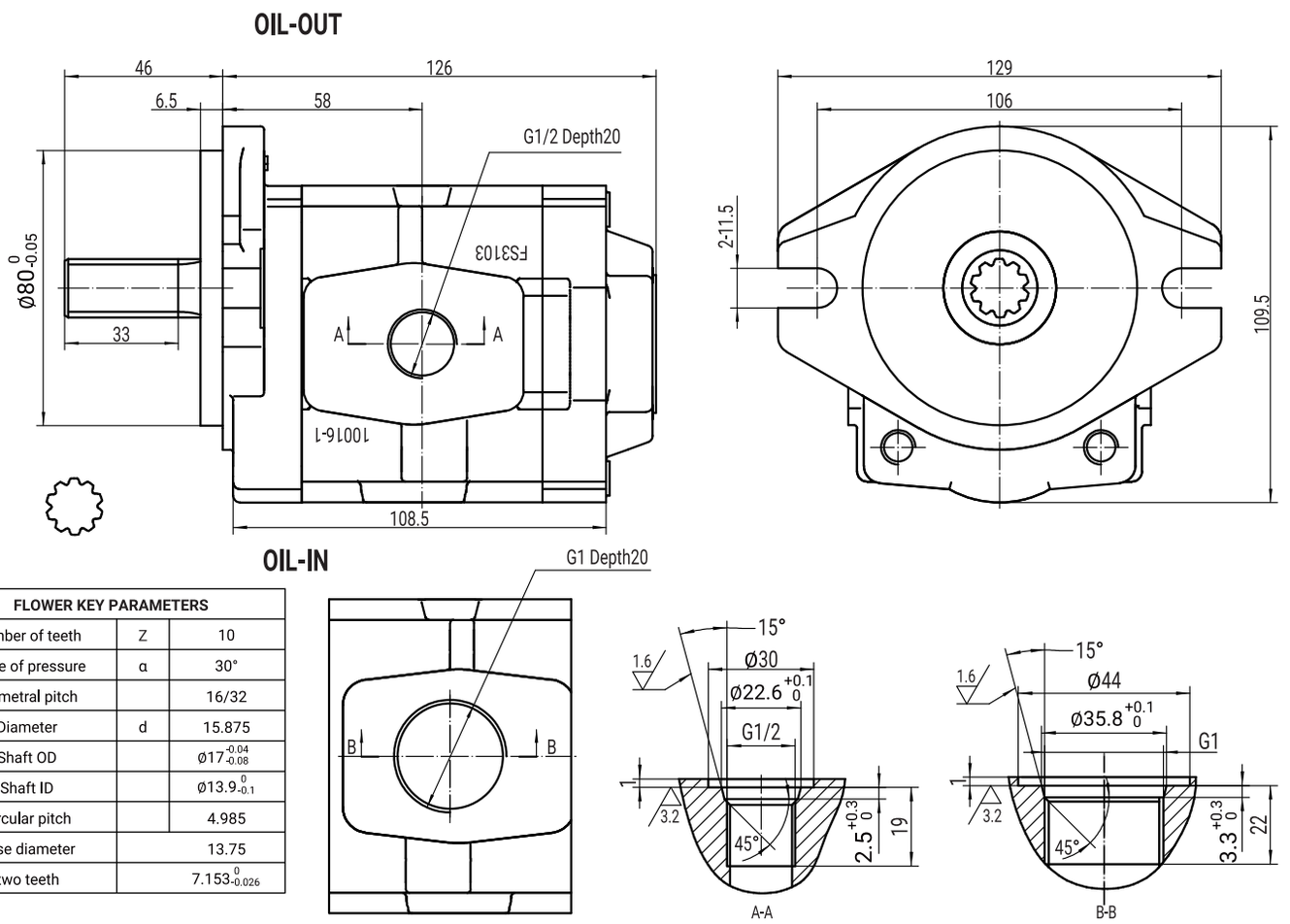
Cast-iron Gear Pump

CBHCB-F11 TYPE

Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBHCB-F11	11	200	250	600-3000	93



	FLOWER KEY PARAMETERS		
1	Number of teeth	Z	10
2	Angle of pressure	α	30°
3	Diametral pitch		16/32
4	Diameter	d	15.875
5	Shaft OD		Ø17 -0.04 -0.08
6	Shaft ID		Ø13.9 0 -0.1
7	Circular pitch		4.985
8	Base diameter		13.75
Cross two teeth			7.153 0 -0.026

Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: right.
6. Appearance color: black.

For more techinical relation queries please contact our sales team.

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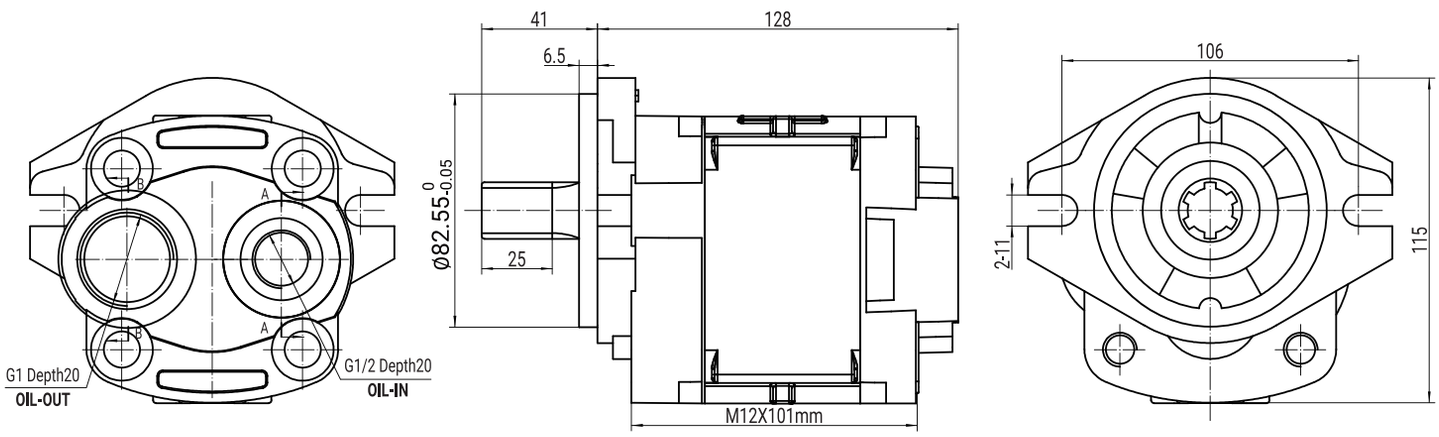
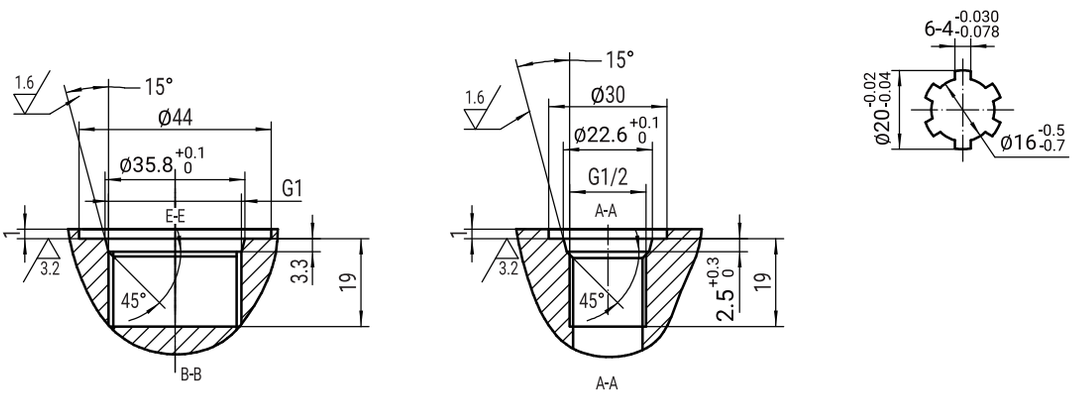
Cast-iron Gear Pump

CBHZ-F31.5ALH6L TYPE

Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBHZ-F31.5ALH6L	31.5	200	250	600-3000	93





Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: left.
6. Appearance color: black.

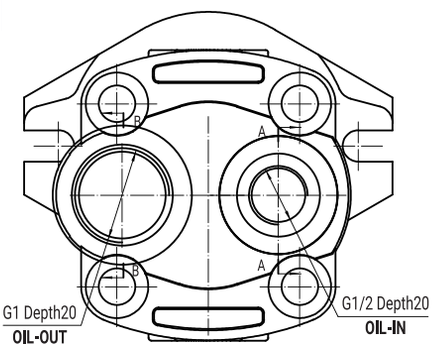
For more techinical relation queries please contact our sales team.

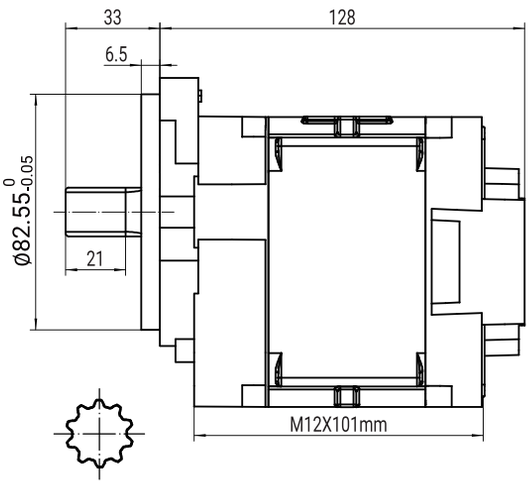
All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

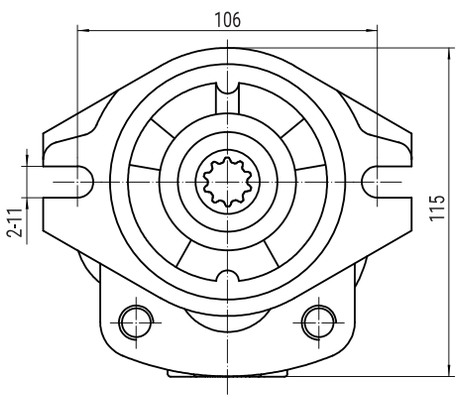
Cast-iron Gear Pump

CBHZ-F31.5ALX11L TYPE

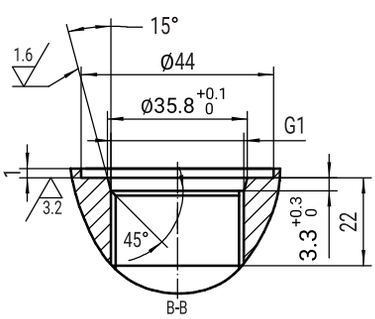
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBHZ-F31.5ALX11L	31.5	200	250	600-3000	93

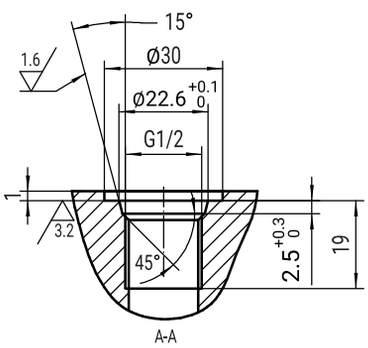






FLOWER KEY PARAMETERS			
1	Diametral pitch	DP	16/32
2	Number of teeth	Z	10
3	Profile angle	α	30°
4	OD		Ø17.04 0 -0.127
5	ID		Ø13.87 0 -0.279





Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: left.
6. Appearance color: black.

For more techinical relation queries please contact our sales team.

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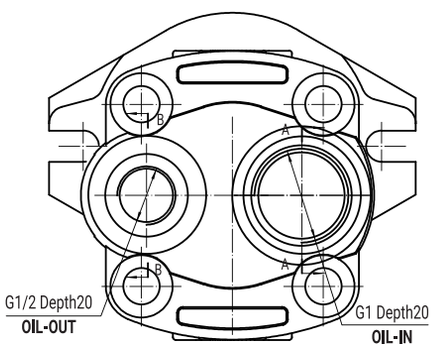
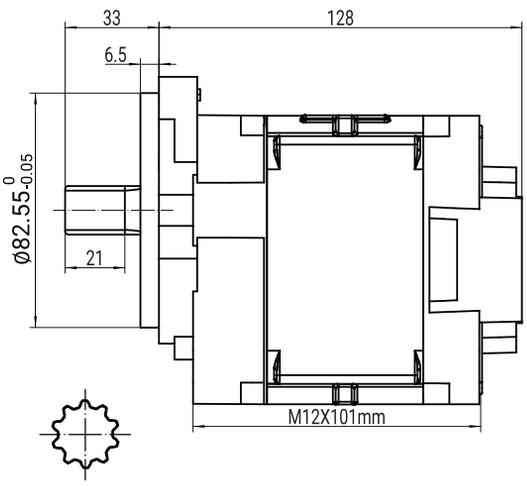
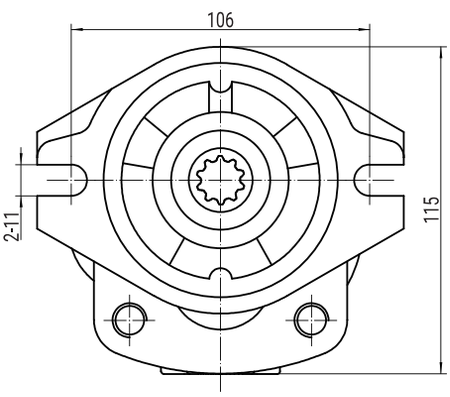
Cast-iron Gear Pump

CBHZ-F31.5ALX11R TYPE

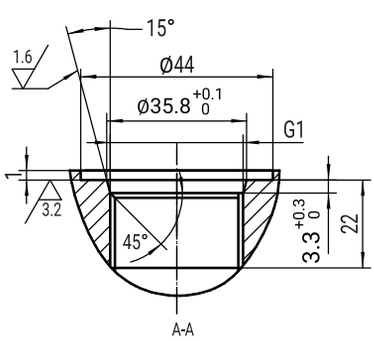
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBHZ-F31.5ALX11R	31.5	200	250	600-3000	93

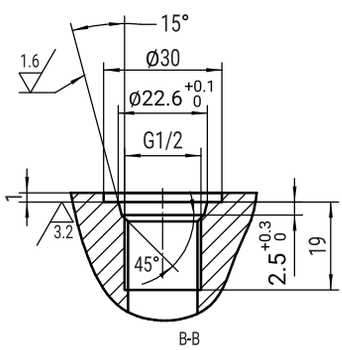






FLOWER KEY PARAMETERS			
1	Diametral pitch	DP	16/32
2	Number of teeth	Z	10
3	Profile angle	α	30°
4	OD		Ø17.04 0 -0.127
5	ID		Ø13.87 0 -0.279





Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: right.
6. Appearance color: black.

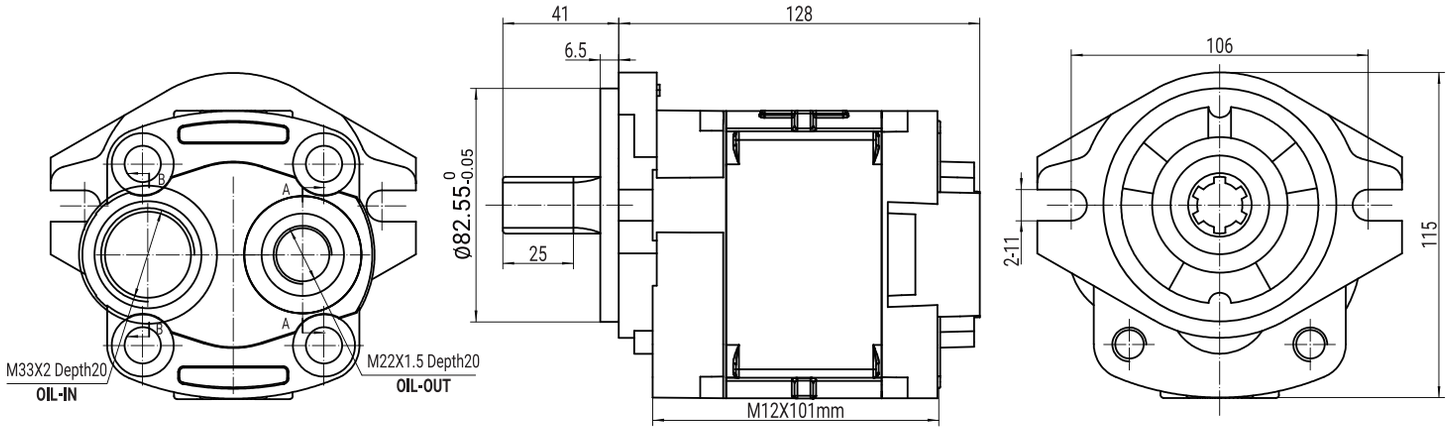
For more techinical relation queries please contact our sales team.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

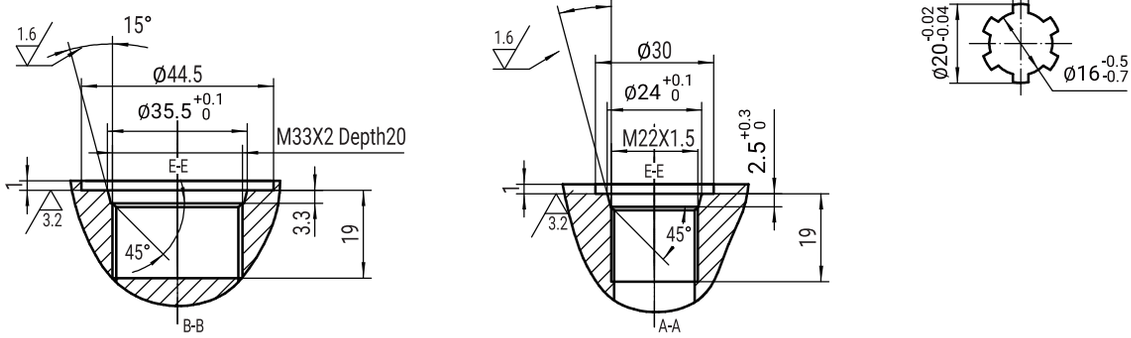
Cast-iron Gear Pump

CBHZG-F32ALHL TYPE

Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBHZG-F32ALHL	31.5	200	250	600-3000	93



METRIC THREAD



Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: left.
6. Appearance color: black.

For more techinical relation queries please contact our sales team.

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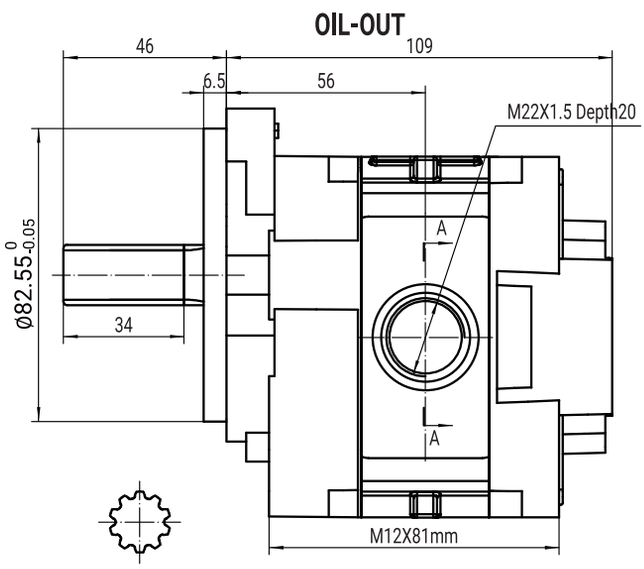
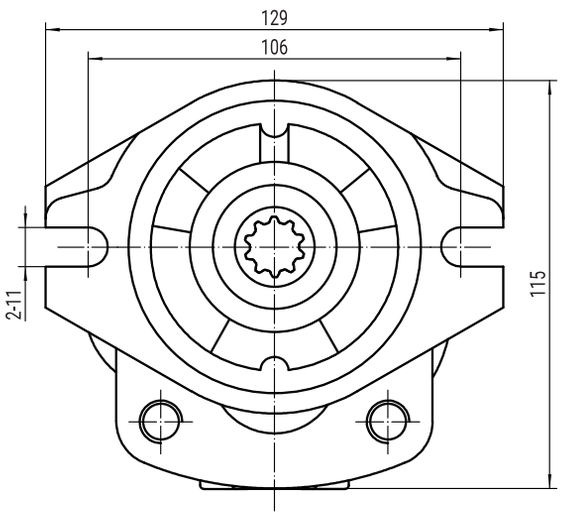
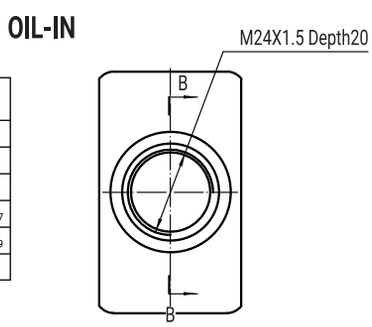
Cast-iron Gear Pump

CBRCH16080 TYPE

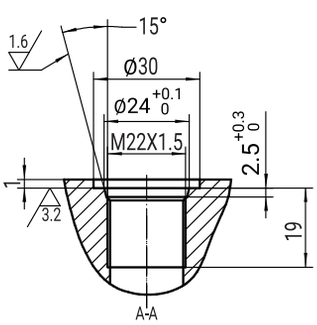
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBRCH16080	16	200	250	600-3000	93

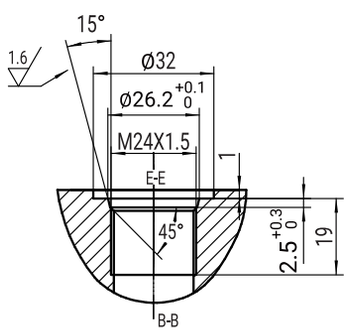






SAE GRADUTE SPLINE PARAMETER	
Number of teeth	10
Diametral pitch	16/32
Angle	30°
OD	Ø17.04 -0.05 -0.127
ID	Ø13.87 -0.11 -0.279
Cross 2 teeth	7.05 0 -0.05





Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: right.
6. Appearance color: black.

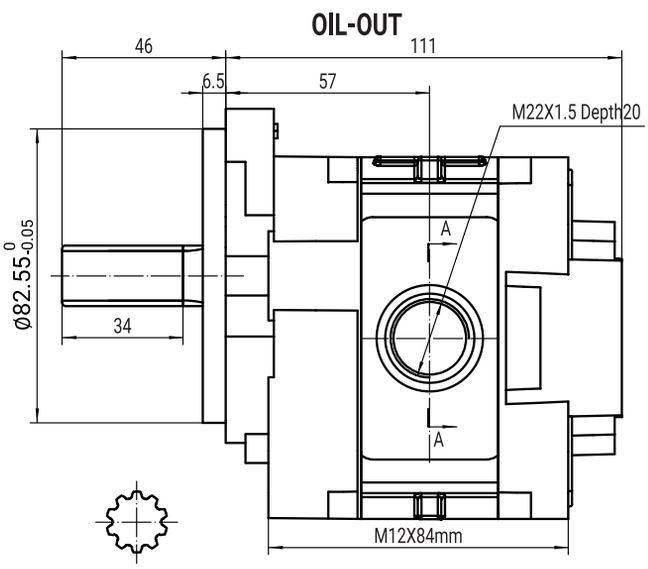
For more techinical relation queries please contact our sales team.

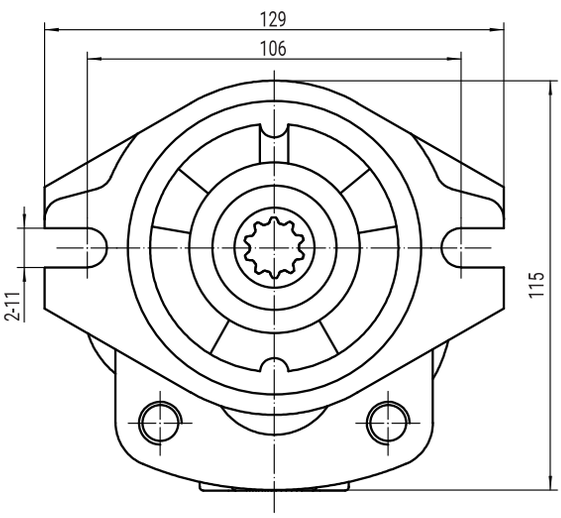
All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

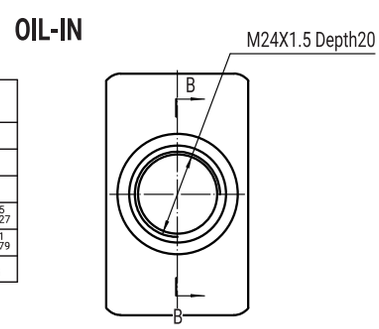
Cast-iron Gear Pump

CBRCH18079 TYPE

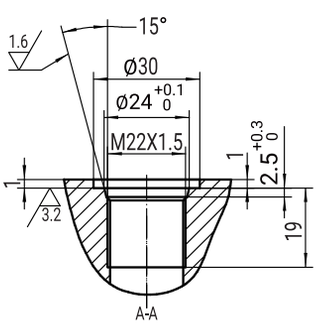
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
CBRCH18079	18	200	250	600-3000	93

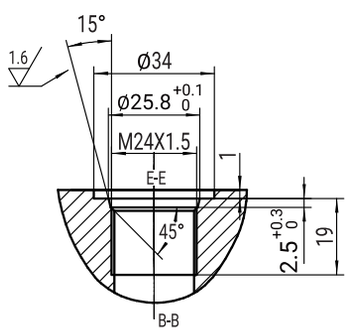






SAE GRADUTE SPLINE PARAMETER	
Number of teeth	10
Diametral pitch	16/32
Angle	30°
OD	Ø17.04 -0.05 -0.127
ID	Ø13.87 -0.11 -0.279
Cross 2 teeth	7.05 0 -0.05





Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: right.
6. Appearance color: black.

For more techinical relation queries please contact our sales team.

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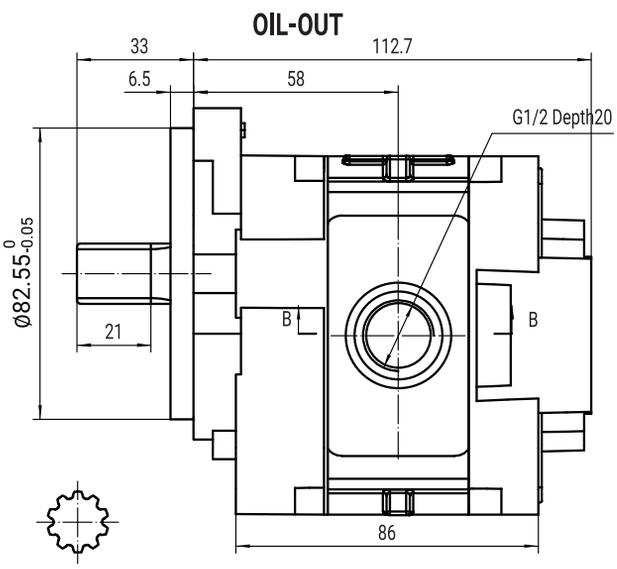
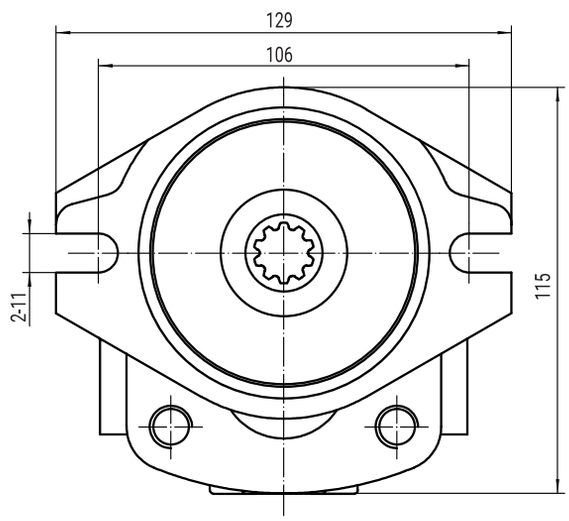
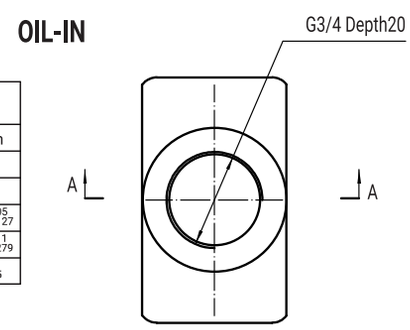
Cast-iron Gear Pump

SGP1A20A2H9-R TYPE

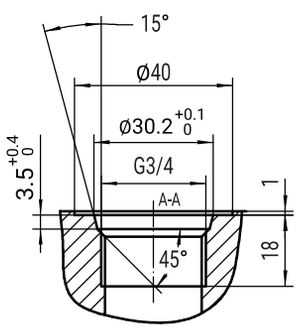
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
SGP1A20A2H9-R	20	200	250	600-3000	93

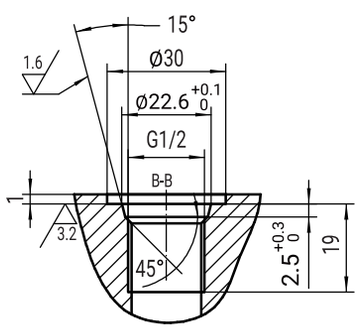






SAE GRADUTE SPLINE PARAMETER	
Number of teeth	10Tooth
Diametral pitch	16/32
Angle	30°
OD	Ø17.04 -0.05 -0.127
ID	Ø13.87 -0.11 -0.279
Cross 2 teeth	7.05 0 -0.05





Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation: right.
6. Appearance color: black.

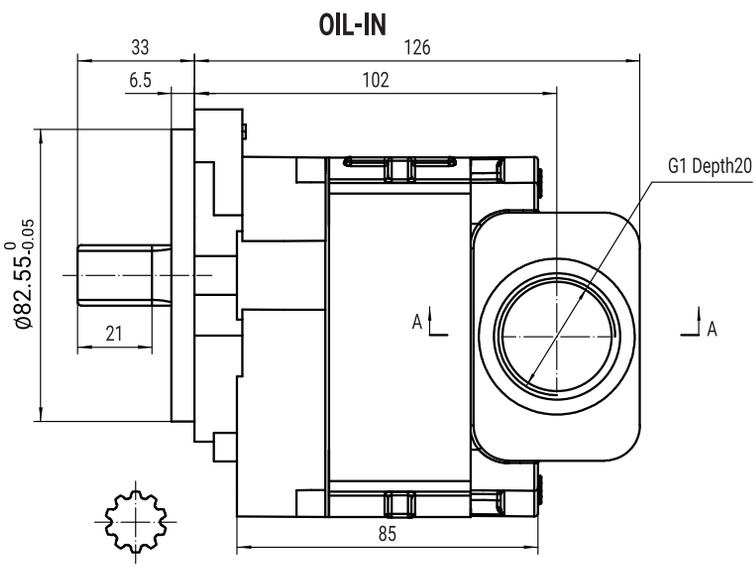
For more techinical relation queries please contact our sales team.

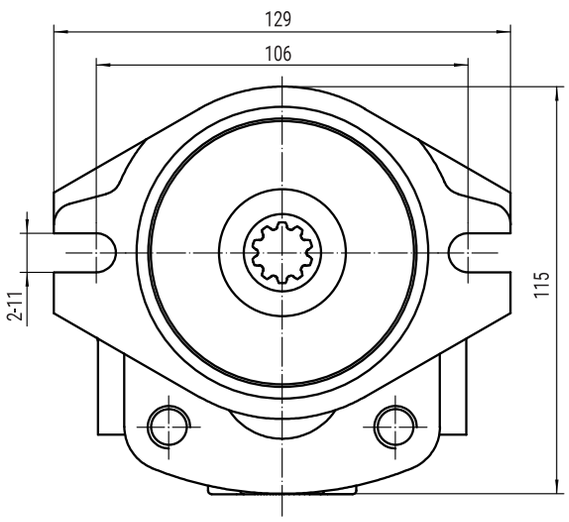
All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Cast-iron Gear Pump

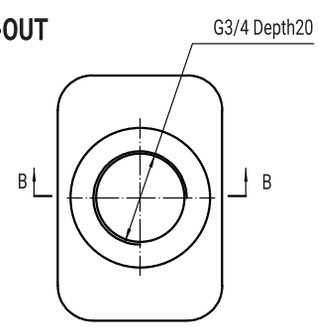
SGP1A20F2H9-L TYPE

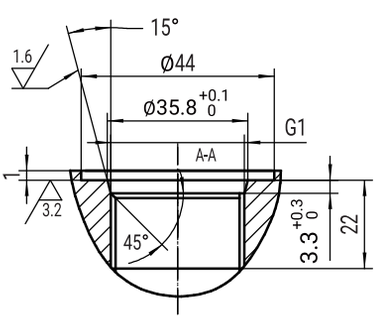
Model	Nominal Displacement (ml/r)	Pressure(Bar)		Speed (r/min)	Volumetric Efficiency (≥%)
		Rated	Max		
SGP1A20F2H9-L	20	200	250	600-3000	93

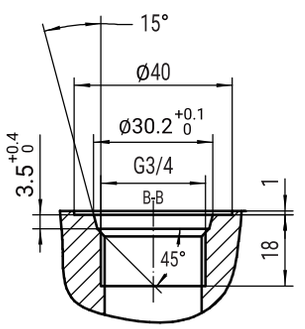




SAE GRADUTE SPLINE PARAMETER	
Number of teeth	10
Diametral pitch	16/32
Angle	30°
OD	Ø17.04 -0.05 -0.127
ID	Ø13.87 -0.11 -0.279
Cross 2 teeth	7.05 0 -0.05







Technical requirement

1. The gear oil pump assembly shall comply with the regulations of JB / T7041-2006 hydraulic gear oil pump.
2. Internal cleanliness of the assembly is not greater than 40mg.
3. Ensure clean oil, choose L-HM46 # hydraulic oil in summer, choose L-HM32 # hydraulic hydraulic oil in winter, hydraulic oil should not be used after deterioration or curing, hydraulic oil must be replaced immediately.
4. Add a protective cover to the oil inlet and outlet.
5. Rotation:left.
6. Appearance color: black.

For more techinical relation queries please contact our sales team.

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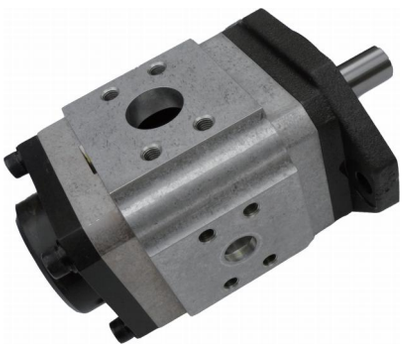
Internal Gear Pump

S/SDNCB TYPE



S/SDNCB	2	-	8	-	2	R	-	H	-	S1

Design number

Pump Body Material
Unmarked: aluminum pump body
H: cast iron pump body

Rotation
R: clockwise (can be omitted)
L: counterclockwise

Shaft Extension Form
1: Flat key
2: Spline (specific parameters see each single pump)

Displacement (mL/r)

4	5	6	8	11	13	16	19	20	22	25	32	40	50	63	64	80	100	125	145	160

Serial Number

2; 2A	4	5	6	8	11	13	16	19	20	22	25

2: Oil inlet and outlet 90.
2A: Oil inlet and outlet 180.

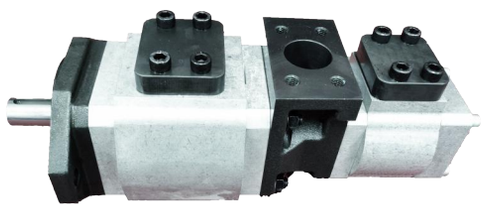
3	25	32	40	50	63	
4	64	80	100			
5	80	100	125	145	160	

SNCB: internal gear pump
SDNCB: low speed pressure maintaining internal gear pump

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Internal Gear Pump

S2NCB TYPE



S2NCB	3	/	3	-	40	/	32	-	1	R	-	H	-	S1

Design number

Pump Body Material
Unmarked: aluminum pump body
H: cast iron pump body

Rotation (as seen from the axial end)
R: clockwise (omitted)
L: counterclockwise

Shaft Extension Form
1: Flat key
2: Spline
... : Corresponding to the front pump series shaft extension

Rear Pump Displacement (mL/r)

2	4	5	6	8	11	13	16	19	20	22	25
3	25	32	40	50							

4	64	80	100		
5	80	100	125	145	160

Front Pump Displacement (mL/r)

2	4	5	6	8	11	13	16	19	20	22	25
3	25	32	40	50							

4	64	80	100		
5	80	100	125	145	160

Rear Pump Series Number
2, 3, 4, 5: oil inlet and outlet 90°
2A: Oil inlet and outlet 180°

Front Pump Series Number
2, 3, 4, 5: oil inlet and outlet 90°
2A: Oil inlet and outlet 180°

S2NCB: Double internal gear pump.

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Internal Gear Pump

S3NCB TYPE

S3NCB | 4 - 3 - 3 / 64 / 25 / 25 - 1 | R - H - S1

Design Number

Pump Body Material
Unmarked: aluminum pump body
H: Cast iron pump body

Rotation (as seen from the axial end)
R: Clockwise (can be omitted)
L: Counterclockwise

Shaft Extension Form
1: Flat key
2: Spline

Rear Pump Capacity

3	25	32	40	50

Medium Pump Capacity

3	25	32	40	50

Front Pump Capacity

4	64	80	100

Rear Pump Series Number
3: Oil inlet and outlet 90°

Medium Pump Series Number
3: Oil inlet and outlet 90°

Front Pump Series Number
4: Oil inlet and outlet 90°

S3NCB: Triple internal gear pump.

For more techinical relation queries please contact our sales team.

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Internal Gear Pump

QT TYPE

QT | 4 | 3 | - | 50 | F | - | A | L

Rotation Direction
No mark: Clockwise direction
L: Counterclockwise direction

Import And Export
A: 0
B: 90
Z : 180
D: 270

Connection Mode
F: Flange connection

Nominal Displacement

31 =20, 25, 32	**22** =4, 6, 8	**23** =4, 6, 8
41 =40, 50, 63	**32** =10, 12, 16	**33** =10, 12, 16
51 =80, 100, 125	**42** =20, 25, 32	**43** =20, 25, 32
61 =160, 200, 250	**52** =40, 52, 63	**53** =40, 52, 63
	62 =80, 100, 125	**63** =80, 100, 125

Pressure Parameters
1 =63bar
2 =125bar
3 =250bar

Series Code Name
2, 3, 4, 5, 6

Type Code: linear conjugate internal gear pump

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Internal Gear Pump

FG1 TYPE SINGLE PUMP

FG	1	-40	-01	R	-V	P	C

Flange Installation Form
C: SAE 2 hole

Shaft Extension Form
P: Flat key shaft
S: Spline shaft

Sealed Form
V: Viton

Rotation Direction (Viewed From The Shaft End)
R: Clockwise
L: Counterclockwise

Design Number
01

Specification

Displacement (mL/r)							
4	8	10	13	16	20	25	32
40	50	63	80	100	125	145	160

Serial Number

Displacement 4...25	0
Displacement 25...63	1
Displacement 63...160	2

Pump Type: Internal gear pump

Counterclockwise is limited to the FG series single pumps

For more techinical relation queries please contact our sales team.

Internal Gear Pump

FG2 TYPE DOUBLE PUMP

FG	2	1	-100	-63	-01	R	-V	P	C	-D

New Design
D

Flange Installation Form
C: SAE 2 hole

Front Pump Shaft Extension Form
P: Flat key shaft
S: Spline shaft

Sealed Form
V: Viton

Rotation Direction (Viewed From The Shaft End)
R: Clockwise

Design Number
01

Rear Pump Specifications

Displacement (mL/r)															
4	8	10	13	16	20	25	32	40	50	63	80	100	125	145	160

Front Pump Specifications

Displacement (mL/r)									
25	32	40	50	63	80	100	125	145	160

Rear Pump Serial Number

Displacement 4...25	0
Displacement 25...63	1
Displacement 63...160	2

Front Pump Series

Displacement 25...63	1
Displacement 63...160	2

Pump Type: Internal gear pump

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Piston Pump

DA10V(S)0 TYPE

DA10V(S)O 71 DR / 31 R P S C 62 N00 SO97

Displacement

Displacement in³/r (cm³/r)

10	18	28	45	60	63
0.61	1.10	1.71	2.75	3.66	3.84

71	74	85	100	140
4.33	4.51	5.18	6.10	8.54

Control Devices

DR **DRG**	Pressure control Pressure remote control
DFR **DFR1**	Pressure and flow control Pressure and flow (X-T port blocked)
DFLR	Pressure, Flow & HP
ED71/72	Electric, negative control
LA*D	Pressure, Flow & HP (53 SERIES)

***Minimum Start of control**
LA5D-10 TO 35 BAR (145 - 507 PSI)
LA6D-36 TO 70 BAR (522 - 1015 PSI)
LA7D-71 TO 105 BAR (1030 - 1523 PSI)
LA9D-141 TO 230 BAR (2045 - 3336 PSI)
LA8D-106 TO 140 BAR (1537 - 2031 PSI)

Design

31 = 18, 28, 45, 71, 74, 100, 140
52/53 = 18, 28, 45, 60/63, 85 displacements available

Direction of Rotation

Viewed from shaft end
R = clockwise
L = counter-clockwise

Seals

P = Buna-N (NBR per DIN IS0 1629)
V = FPM (Flurocarbon/Viton)
E = EPR

Shafts

Type	10	18	28	45	60/63	71/74	85	100	140	
Keyed	3/4"	3/4"	7/8"	1"	1 1/4"	1 1/4"	-	1 1/2"	1 3/4"	**K**
Splined	3/4-11T	3/4-11T	7/8-13T	1-15T	1¼-14T	1¼-14T	1 ½-17T	1 ½-17T	1 ¾-13T	**S**
Splined "S"-Reinforced	-	3/4-11T	7/8-13T	1-15T	1¼-14T	1¼-14T	1 ½-17T	1 ½-17T	-	**R**
Splined Non-Thru Drive	5/8-9T	5/8-9T	3/4-11T	7/8-13T	1-15T	1-15T	1¼-14T	1¼-14T	-	**U**
Splined "U"-Reinforced	-	-	-	7/8-13T	1-15T	-	1¼-14T	1¼-14T	-	**W**
Splined "Full Spline"	-	-	-	-	7/8-13T	-	-	-	-	**Q**
Keyed Metric	18mm	18mm	22mm	25mm	32mm	32mm	-	40mm	45mm	**P**

Special Suffix

SO97[4]	Max volume stop adjust (std)
-	Omit if none required

4) Available on all 52/53 side port/thru drive 31 design non thru

Thru Drives

N00	Without thru drive (Non-Thru Drive)			
K**	With thru drive to accept a secondary pump			
	Mtg Flg	**Hub**	**Sealing**	**To Mount**
K40	82-2(A)	3/4" keyed(A-B)	axial	A10V18 (K)
K03	101-2(B)	7/8" keyed(B)	axial	A10V28 (K)
K05	101-2(B-B)	1" keyed(B-B)	axial	A10V45 (K)
K08	127-2(C)	1-1/4" keyed(C)	axial	A10V71 (K)
K38	127-2(C)	1-1/2" keyed(C)	radial	A10V100 (K)
K21	152-4 (D)	1-3/4" keyed(D)	axial	A10V140 (K)
K01	82-2(A)	5/8" 9T(A)	axial	A10V18(U,W), 10(U)
K52	82-2(A)	3/4" 11T(A-B)	axial	A10V18(S,R), 10(S)
K68/K02	101-2(B)	7/8" 13T(B)	axial	A10V28(S,R), 45(U,W)
K04	101-2(B)	1" 15T(B-B)	axial	A10V45(S,R), 60(U,W)
K07/K15	127-2(C)	1-1/4" 14T(C)	axial	A10V71(S,R), 100 (U,W)
K24	127-2(C)	1-1/2" 17T(C-C)	axial	A10V100(S,R), 85(S)
K17	152-4(D)	1-3/4" 13T(D)	axial	A10V140(S,R)

Service Ports

4-Bolt Flange ports (except where noted)	**11**[1)2)]	Rear ports, Metric Thread
	41[1)2)]	Rear ports, Metric Thread
	61[1)2)3)]	Rear ports, UNC Thread
	91[1)2)]	Rear ports, UNC Thread
	12	Side ports, Metric Thread
	42	Side ports, Metric Thread
	62[3)]	Side ports, UNC Thread
	92	Side ports, UNC Thread
Str. Thread O-ring ports	**14**	Rear ports, Metric Threaded
	64	Rear ports, UNC Threaded

1) A10V28-140 only
2) All REAR porting, Non-thru drive only

Mounting Flange

pilot diameter (in/mm)

CODE	140	100	85	71/74	60/63	45	28	18	10	
C	-	SAE "C", 5.0"	SAE "C", 5.0"	SAE "C", 5.0"	SAE "B", 4.0"	SAE "B", 4.0"	SAE "B", 4.0"	SAE "A", 3.25"	SAE "A", 3.25"	**SAE 2 Bolt**
A	-	125 mm	125 mm	125 mm	-	100 mm	100 mm	80 mm	80 mm	**ISO 2 Bolt Metric**
D	SAE "D", 6.0"	-	-	-	SAE "C", 5.0"	-	-	-	-	**SAE 4 Bolt**
B	180 mm	-	-	-	-	-	-	-	-	**ISO 4 Bolt Metric**

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Piston Pump

DPVB/DPVE TYPE

DIFFER HYDRAULICS

DPVB 5 (F) R S (F) W Y 20 CG C * 12

Model Series
DPVB = Variable displacement pump

Displacement
5 = 10.5 cc/rev (0.64 in³/r)
6 = 13.8 cc/rev (0.84 in³/r)
10 = 21.1 cc/rev (1.29 in³/r)
15 = 33.0 cc/rev (2.01 in³/r)
20 = 42.8 cc/rev (0.64 in³/r)
29 = 2.61 cc/rev (3.76 in³/r)
45 = 94.5 cc/rev (5.76 in³/r)

Mounting
F = Foot Bracket (Omit for flange mount)

Shaft Rotation (Viewed at shaft end)
R = Right Hand (clockwise)
L = Left Hand (counterclockwise)

Displacement Zone
S = One side of center (Pressure Compensated models only)
D = Both sides of center

Flanged Ports
20 = Side/Thru Flanged Ports
29 = Side/Thru Flanged Ports
45 = All Ports

Optional Features
W = Side Ports
X = Side Ports - thru shaft

Shaft Type
Y = SAE models PVB5 through 15 only (Standard)

Control Design Number
*Note: For PVB6, 15 and 29 models, the user must ensure that the max. pressure setting never exceeds 140 or 100 bar (2000 or 1500 psi) dependent on the type of fluidbeing used.
*Please contact our sales team for more detailed model code.

Compensator Variations
D = Dual-range (Electric control 115 volts-60 cycle)
DH = Dual-range (Hydraulic control)
*Omit if not needed

Optional Features
C = Adjustable Maximum Displacement Stop

Control Options
C = Pressure Compensator Pressure adjustment range:17 to 210 bar (250 to 3000 psi)
CM = Pressure Compensator Pressure adjustment range:17 to 100 bar (250 to 1500 psi)
CG = Remotely adjustable pressure setting
CD = Electric dual range pressure
CVP = Pressure limiter load sensing
H = Handwheel
M = Lever

Pump Design Number
40 = 5 or 6 displacement
40 = 10 or 15 displacement
20 = 20 or 29 displacement

DPVE TYPE

DPVE 21 R 9 30 C10

Model Series
DPVE = Variable displacement pump

Flow Rating @ 1800 rpm
19 = 19 USgpm(2.5 in³/r)
21 = 21 USgpm(2.7 in³/r)

Shaft Rotation (Viewed at shaft end)
R = Clockwise
L = Counterclockwise

Input Shaft
1 = SAE BB 1" Keyed
2 = SAE BB 1" 15 Tooth Spline
9 = SAE B 7/8" Keyed

Pump Design Number
30 = Design SAE side ports
40 = Design SAE rear ports

Control Type & Design
C10 = Pressure compensated (PVE19, 250-3000 psi) (PVE21, 250-2700 psi)
CG10 = Remote control pressure compensator adjustable from 350-3000 psi using an external relief valve
CV10 = Load sensing (160 PSID) with pressure compensation PVE 19/21
CVP12 = Load sensing (350 PSID) with pressure compensation PVE 19/21
*Please contact our sales team for more detailed model code.

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Piston Pump

DPVH TYPE

DPVH 98 QI C R A F 2 S 10 C 25 V 31

Model Series
DPVH = Piston Pump

Max. Geometric Displacement
57 = 57.4 cm³/r (3.5 in³/r)
74 = 73.7 cm³/r (4.5 in³/r)
98 = 98.3 cm³/r (6.0 in³/r)
131 = 131.1 cm³/r (8.0 in³/r)

Design/Application
Blank = Design for mobile applications
QI = Quiet design for industrial applications 4000 psi
QP = Quiet power 2000 psi

Mounting Flange, Prime Mover End
C = SAE "C" 4-bolt type
C2 = 2/4 Bolt C mount
C3 = 4 Bolt C Vertical Mount

Shaft Rotation (Viewed at shaft end)
R = Clockwise
L = Counterclockwise

Configuration
Blank = Non-thru-drive (single pump)
A = Thru-drive pump with SAE "A" 2-bolt rear flange mount
B = Thru-drive pump with SAE "B" 2 and 4-bolt rear flange mount
C = Thru-drive pump with SAE "C" 2 and 4-bolt rear flange mount
S = Adjustable max. volume stop (Non-thru drive and non-torque control models only)

Main Ports
F = SAE 4-bolt flange ports

Shaft-End Type, at Prime Mover End
1 = SAE C straight keyed
2 = SAE C splined 14 tooth
3 = SAE CC splined 17 tooth
12 = SAE D splined 13 tooth
13 = SAE CC straight keyed
16 = SAE D straight keyed

Shaft Seal, Prime Mover End
S = Single, one way
D = Double, two way

Pump Design Number
10 = With case to inlet check
11 = No case to inlet check

Pressure Compensator and Adjustment Range
C = 140-280 bar (2000-4000 psi)
CM = 35-140 bar (500-2000 psi)
IC = CETOP 3 interface

Pressure Compensator Factory Setting in Tens of Bar
7 = Normal factory setting of 70 bar (1015 psi) for "CM" models
25 = Normal factory setting of 250 bar (3625 psi) for "C" models

Additional Control Functions
Blank = No additional controls
V = Load sensing, 20 bar (290 psi)

Control Design Number
31 = C, CM, C**V, or IC controls

For more techinical relation queries please contact our sales team.

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Piston Pump

DPVQ TYPE

DPVQ 13 A2 R SE 1 S 20 C* D S*

Model Series
DPVQ = Inline Piston Pump Variable Volume Quiet Series

Displacement
10 = 10.5 cc/rev (0.64 cir) 210 bar (3000 psi)
13 = 13.8 cc/rev (0.84 cir) 140 bar (2000 psi)
20 = 20 cc/rev (1.28 cir) 210 bar (3000 psi)
32 = 32 cc/rev (2.01 cir) 140 bar (2000 psi)
40 = 41 cc/rev (2.5 cir) 140 bar (3000 psi)
45 = 45.1 cc/rev (2.75 cir) 185 bar (2700 psi)

Mounting Flange
A2 = Flange SAE "A" (10/13)
B2 = SAE "B" 2-bolt (20/45)

Shaft Rotation (Viewed at shaft end)
R = Clockwise
L = Counterclockwise

Ports, Type and Location
SE = SAE O-ring rear port
SS = SAE O-ring side port

Shaft
1 = 3/4" Keyed
3 = 5/8"- 9T Splined

Special Pump Option
S2 = Shaft up mounting

Control Option
Blank = Without adjustable Max. displacement stop (standard)
D = Max. adjustable displacement stop (optional)

Control Type
C21-12 = Pressure Compensator
CM7-12 = Low Pressure Compensator
CV**B13** = Load Sensing with bleed down orifice
CV**P13** = Load sensing without bleed orifice
CG30 = Pressure compensator modified for hydraulic remote control
CD21-21 = Electric dual range pressure

Pump Design Series
20 = (10/13/40/45)
21 = (20/21)

Seals
S = Buna N, standard
F = Fluorocarbon, optional

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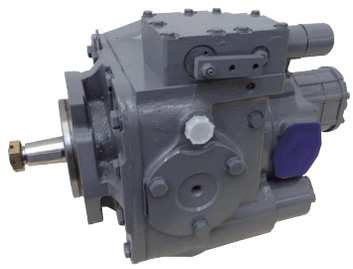
Piston Pump

DPV TYPE



DPV 20 AAA R A A B 31 B1 000

Displacement

Displacement cm³/r (in³/r)

20	21	22	23
33.3 (2.03)	51.6 (3.15)	69.8 (4.26)	89.0 (5.43)

24	25	26	27
118.7 (7.24)	165.8 (10.12)	227.3 (13.87)	333.7 (20.36)

Type of Control

AAA = Without mechanical-hydraulic servo valve, with top cover only
BBB = Without mechanical-hydraulic servo valve, with joining piece and cover
MH = Mechanical hydraulic servo valve
MC = Mechanical-hydraulic servo valve with a pressure override valve (POR)
HDC = Hydraulic Dsiplacement Control
HDP = Hydraulic Displacement Control with pressure override valve (POR)

Rotation

R = Clockwise
L = Counter-Clockwise
V = Reversible

Shaft

A = 14t, 12/24 Pitch, Ø31.20 (1.23”)
B = 19t, 16/32 Pitch, Ø31.75 (1.25”)
C = 21t, 16/32 Pitch, Ø34.50 (1.36”)
D = 23t, 16/32 Pitch, Ø37.68 (1.48”)
E = 27t, 16/32 Pitch, Ø44.03 (1.73”)
F = 40t, 16/32 Pitch, Ø64.66 (2.55”)
G = 3t, 8/16 Pitch, Ø43.71 (1.72”)
I = 20t, 16/32 Pitch, Ø32.91 (1.30”)
J = Cone 1:8, SAE J501, Ø41.27 (1.62”)
K = Cone 1:8, SAE J501, Ø31.75 (1.25”)
L = Parallel with Key, Ø34.925 (1.38”)
M = Parallel with Key, Ø34.925 (1.38”)
P = 15t, 16/32 Pitch, Ø25.40 (1.00”)
R = 13t, 16/32 Pitch, Ø21.80 (0.86”)

Ports

A = SAE J518c, Code 62, Size 1", 6000psi 7/16"-14UNC-2A
B = SAE J518c, Code 61, Size 1", 5000psi 3/8"-16UNC-2A
C = ISO 6162, DN25, Type II, 40 MPa M12
D = SAE J518c, Code 62, Size 3/4", 6000psi 3/8"-16UNC-2B
E = SAE J518c, Code 61, Size 3/4", 5000psi 3/8"-16UNC-2B
F = ISO 6162, DN19, Type II, 40 MPa M10

Design Code

000 = Standard
XXX = Special Production Number

Orifice

A = Ø0.76 (0.030”)
B = Ø0.91 (0.036”)
C = Ø1.05 (0.041”)
D = Ø1.36 (0.054”)
E = Ø1.60 (0.063”)
N = Without Orifice

1 = Orifice in channel "P"
2 = Orifice in channel "A", "B"
3 = Orifice in channel "P", "A", "B"
4 = Orifice in channel "A"
5 = Orifice in channel "B"
6 = Orifice in channel "P", "A"
7 = Orifice in channel "P", "B"
0 = Without Orifice

Pressure Setting of Valve in Manifold Assembly

13 = 1.3 MPa (1.3±0.05 MPa at 3.8 dm³/min)
XX = Other
00 = Without Charge Pump
Other values according to mutual agreement, max 3.5 MPa

Charge Gear Pump

B = 12.3 cm³/r (0.75 in³/r)
C = 18.0 cm³/r (1.10 in³/r)
D = 18.9 cm³/r (1.15 in³/r)
E = 32.8 cm³/r (2.00 in³/r)
F = 65.5 cm³/r (4.00 in³/r)
NN = Without Charge Pump

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Piston Pump

DK3V TYPE

DK3V 280 DT H 100 R – 2N 01

Displacement
63 = 63cm³
112 = 112cm³
140 = 140cm³
280 = 280cm³

DT = Double pump (Tandem type)
DP = Double pump (Parallel type)
S = Single pump

- = Standard
H = With Centrifugal pump
P = With PTO

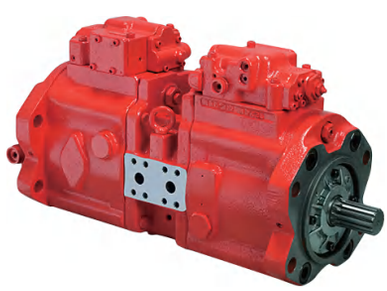
Design code of regulator

Regulator code

Direction of rotation
R = Clockwise
XXX = Counterclockwise(viewed from shaft end)

Desigh code

DK5V TYPE



DK5V 200 DT H 100 R – 9N 01

Displacement
80 = 80 cm³
140 = 140 cm³
200 = 200 cm³

DT = Double pump (Tandem type)
DP = Double pump (Parallel type)
S = Single pump

- = Standard
H = With Centrifugal pump
P = With PTO

Design code of regulator

Regulator code

Direction of rotation
R = Clockwise
L = Counterclockwise

Desigh code

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Piston Pump

DA2F TYPE

DA2F 63 R 2 P 1

Displacement

Displacement ml/r

10	12	23	28	45	55	63
9.4	11.6	22.7	28.1	44.3	54.8	63.0

80	107	125	160	200	250	355
80.0	107	125	160	200	250	355

Direction of Rotation

R = Clockwise
L = Anti-clockwise
W = Alternating

Series

Series	4		2/3		1/2	1/2	2		1/2	2		5		
Size	10	12	23	28	45	55	63	80	107	125	160	200	250	355
Port plate 1	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Port plate 2				●	●	●	●	●	●	●	●	●	●	●
Port plate 3					●	●	●	●	●	●	●			
Port plate 4	●	●	●	●										

Port Plate

1 = Metric port A/B at side (Pump/Motor)
2 = SAE port A/B at side (Pump/Motor)
3 = SAE port A at side and port B at rear (PUMP)
4 = SAE port A at side and port B at rear (PUMP)
5 = B AND S PORT AT REAR
6 = A AND B POR AT REAR

Shaft End

P = keyed shaft GB1096-79
Z = splines shaft DIN 5480
S = splines shaft GB 3478.1-83

DA2F E 80 W 70 A 11

Model Series

DA2F = Fixed displacement motor

Mounting Type

E = Internal Installation

Displacement

Displacement ml/r

55	80	107	125	160
54.8	80.0	107	126.3	160

Direction of Rotation

W = Alternating

Series

71 = 125
70 = 55, 80, 107, 160

Port Plate

11

Shaft End

Z = DN5480
A = Splined shaft

	55	80	107	125	160
Z	●	○	●	○	●
A	●	●	●	●	●

○ NONE ● HAVE

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Piston Pump

DA2FO TYPE

1	2	3	4	5		6	7	8		9	10	11	12	13
_	DA2F	_	0	_	/	6	_	_	-	V	_	_	_	_

Hydraulic fluid

01	Mineral oil and the HFD. HFD for specification 250 to 1000, only used with long life bearing "L" (no code)		
	HFB, HFC hydraulic oil	For specification 5 to 200 (no code)	
		Specification 250 to 1000 (only in combination with long life bearing "L")	E-

Axial plunger unit

02	Fixed-type inclined axis design	A2F

Transmission shaft bearing

		5 to 200	250 to 500	710 to 1000	
03	Standard bearings (no code)	●	●	–	
	Long service life bearing	–	●	●	L

Work pattern

04	Pump, open loop	0

Specifications (NG)

05	5	10	12	16	23	28	32	45	56	63	80	90	107	125	160	180	200	250

Series

06		6

Index

07		NG10 to 180	1
		NG200	3
		NG5 and 250 to 1000	0

Rotation

08	From the axis end	Clockwise	R
		Anticlockwise	L

Seal components

09	Fluoro-rubber (FKM)	V

Drive shaft

10		5	10	12	16	23	28	32	45	56	63	80	90	107	125	160	180	200	250 to 1000	
	Compliance er DIN 5480 spline axis	–	●	●	●	●	●	●	–	●	●	●	●	●	●	●	●	●	–	A
		–	●	●	–	●	●	–	●	●	–	●	–	●	–	●	–	–	●	Z
	Flat-bond axis DIN 6885	●	●	●	●	●	●	●	–	●	●	●	●	●	●	●	●	●	–	B
		–	●	●	–	●	●	–	●	●	–	●	–	●	–	●	–	–	●	P
	Cone axis [1]	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	C

Install the flange

			5 to 250	355 to 1000	
11	A combined ISO 3019-2 similar standard flange	4 Hole	●	–	B
		8 Hole	–	●	H

● = Available stock = Supply as required - = No supply = Preferred model

1) Conical shaft with threaded pin and flat key (DIN 6888). Torque must be transmitted through the tapered pressure fitting.

For more techinical relation queries please contact our sales team.

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Piston Pump

DA2FO TYPE

1	2	3	4	5		6	7	8		9	10	11	12	13
	DA2F		0		/	6			-	V				

Oil port plate for working line[2])

12

	5	23 to 250	23 to 250	355 to 1000	
SAE side flange oil ports A / B and SAE the rear flange oil mouth S	●	–	●	–	05
Side thread oil port A / B and rear thread oil port S	–	●	–	–	06
SAE rear flange oil ports A / B and S	–	–	–	●	11
Side thread oil ports A / B and S	●	–	–	–	07

Standard / special model number

13

Standard Version (no code)	
Standard versions with different installation types, such as T oil port open or closed, contrary to the standard	-Y
Special model	-S

● = Available stock = Supply as required - = No supply = Preferred model

2) Metric fastening thread and thread oil mouth.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Piston Pump

DA6V TYPE

DA6V E 80 HA1 2 F Z

Model Series
DA6V = Variable displacement motor

Mounting Type
E = plug - in E

Size
Displacement ml/r

55	80	107	160
1.5-54.8	23-80	30.8-107	46-160

Shaft End
P = Keyed parallel shaft GB1096-79
Z = Splined shaft DIN 5480
S = Splined shaft GB 3478.1-83

Pipe Connections
F = SAE flange, on side
G = Metric threads, on side

Series
2 = 55, 80, 107, 160

Control Device

		28	55	80	107	160	
Proportional control hydraulic	△p=10 bar	●	●	●	●	●	HD1
	△p=25 bar	●	●	●	●	●	HD2
Two-point control hydraulic		–	–	–	–	–	HZ
		●	–	–	–	●	HZ1
		–	●	●	●	●	HZ3
Proportional control electric	12V	●	●	●	●	●	EP1
	24V	●	●	●	●	●	EP2
Two-point control electric	12V	●	–	–	–	●	EZ1
	24V	●	–	–	–	●	EZ2
	12V	–	●	●	●	–	EZ3
	24V	–	●	●	●	–	EZ4
Automatic control high-pressure related	with minimum pressure increase △p ≤ 10bar	●	●	●	●	●	HA1
	with pressure increase △p = 100 bar	●	●	●	●	●	HA2
	with minimum pressure increase △p ≤ 10bar	–	●	●	●	●	HA3

For more techinical relation queries please contact our sales team.

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Piston Pump

DA4VSO TYPE

DA4VS O 40 DR 10 R P K D 63 N00

Model Series
DA4VS = Piston pump, variable displacement A4VS

Open Circuit Design

Displacement & Flange
40 = (2.44 IN³), C4 / 125
71 = (4.33 IN³), C4 / 140
125 = (7.63 IN³), C4 / 160
180 = (10.98 IN³), C4 / 160
250 = (15.26 IN³), E4 / 224
355 = (21.66 IN³), E4 / 224

Control Options
DR = Pressure
DP = Parallel Control
DRG = Flow
DFR = Pressure and Flow
LR2 = Hyperbolic HP Curve

Series
10 = Size 40 & 71
30 = Size 125-355

Rotation (Viewed from shaft end)
R = Clockwise
L = Counterclockwise

Seals
P = Buna with Viton Shaft Seal
V = Viton

Through Drive
N00 = Non-Thru
K** = Ready to Mount Pump
U** = Capped Universal Thru Drive Requires Adapter

Port Connections on Side
13 = 4 Bolt Flange Metric Bolts
63 = 4 Bolt Flange UNC Bolts
75 = 4 Bolt Flange UNC Bolts with 2nd Pressure Port

Mounting Flange / Pilot
B = Metric 4 Bolt
D = SAE 4 Bolt

Shaft Options

		40	71	125	180	250	355
K	SAE Keyed	1.25”	1.50”	1.75”	2.00”	2.00”	2.75”
S	SAE Splined	14T	17T	13T	15T	15T	15T
P	Metric Keyed	32	40	50	50	60	70
Z	Metric Splined	14T	18T	24T	24T	28T	22T

Max. Operating Pressure
5000 psi (350 bar) Nominal
5800 psi (400 bar) Peak Pressure
*** Call us for series that are not listed.**

For more techinical relation queries please contact our sales team.

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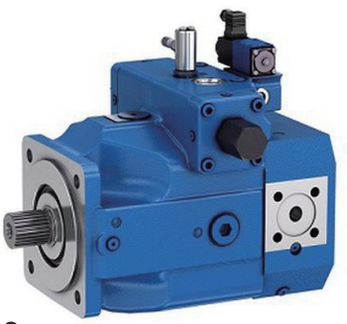
Piston Pump

DA4VSG TYPE



D A4VS G 250 DR / 30 - R P P B 10 N00 _ _

Company
D = Adiffer Hydraulics

Axial piston unit
Variable pump, swashplate design, industrial applications.

Operation model
Pump, closed circuit

Size
displacement 40, 71, 125, 180, 250, 355 (cc/rev.)

Control Options
DR = Constant pressure control
LR = Const. Power control with hyperbolic curve
MA = Manual control
EO = Hydraulic control, with proportional valve
HD = Hydraulic control, pilot pressure dependent

Series
10, 22, 30

Direction of rotation (Viewed on shaft end)
R = Clockwise
L = Counter Clockwise

Seals
P = NBR (Nitrile rubber to DIN ISO 1629) with shaft seal FPM
V = FPM (Fluoride rubber to DIN ISO 1629)

Filtration
N = Without filter
W = Filter in boost circuit, mounted

Valves
0 = Without valve block
9 = Valve block SDVB mounted

Through drive
N00 = Without auxiliary pump, without through drive
K31 = ISO 125, 4-hole, Splined shaft 32x2x30x14x9g, A4VSO/H/G 40
K33 = ISO 140, 4-hole, Splined shaft 40x2x30x18x9g, A4VSO/H/G 71
K34 = ISO 160, 4-hole, Splined shaft 50x2x30x24x9g, A4VSO/H/G 125
K34 = ISO 160, 4-hole, Splined shaft 50x2x30x24x9g, A4VSO/G 180
K35 = ISO 224, 4-hole Splined shaft 60x2x30x28x9g, A4VSO/H/G 250
K99 = IWith through drive, without hub or intermediate flange, with cover closed

Port connections
10 = Port A,B: SAE on the side (same side), metric mounting threads

Mounting flange
10 = ISO 4-bolt

Shaft end
P = Metric Parallel with key to DIN 6885
Z = Metric splined shaft per DIN 5480

For more techinical relation queries please contact our sales team.

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Piston Pump

DA7V TYPE

DA7V 55 LV 2.0 L Z F O O

Model Series
DA7V = Axial piston variable displacement pump

Size
Displacement Vgmin.- Vgmax. ml/rev

20	28	40	55	58	80
0-20.5	8.1-28.1	0-40.1	15.8-54.8	0-58	23.1-80

78	107	117	160	250	355
0-78	30.8-107	0-117	46.2-160	0-250	0-355

Control devices
LV = Constant horsepower control
DR = Constant pressure control
EL = Electric control EL Splined shaft DIN 5480 Z (with proportional valve)
HD = Hydraulic control HD pressure related
MA = Manual control MA Right (clockwise) R (with handwheel)
SC = Brake control
NC = Numerical control

Series
2.0, 5.1

Direction of rotation (Viewed on shaft end)
R = Clockwise
L = Counter Clockwise

Auxiliary equipment
O = None
D = With pressure cut-off built-on for LV, EL and HD
F = Constant pressure control remote controlled order sequence valve and subplate separately)

Stroke limiter
O = None
M = Mechanically adjustable (for LV and DR)

Pipe connections
F = Pressure and suction ports SAE-flanges, on side
G = Pressure and suction ports thread connection

Shaft end
Z = Splined shaft DIN 5480
S = Splined shaft GB3478.1-83
P = Parallel keyed shaft GB1096-79

For more techinical relation queries please contact our sales team.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Piston Pump

DACA TYPE

DACA	39	2	03	02	L	1	A	CC	EA	AAA	2	C	N	A	A	1	0	D	A	15	0	0	B
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Pump Series

01		
	DACA	Hydrostatic - Heavy Duty Variable Pump

Displacement

02		
	39	63.66 cm³/r (3.885 in³/r)
	46	75.28 cm³/r (4.594 in³/r)
	54	89.13 cm³/r (5.439 in³/r)
	64	105.4 cm³/r (6.431 in³/r)
	76	124.8 cm³/r (7.616 in³/r)

Type

03		
	2	Variable Displacement Pump

Design Type

04		
	0	Ball-Guide (Model 76)
	3	Series 1 (Models 39-64)

Input Shaft

05		
	01	(1.500) Diameter straight with (.3750) x (2.5) square key (Models 39-64)
	02	(1.750) Diameter straight with (.4375) x (3.0) square key (Model 76)
	13	13 Tooth 8/16 pitch spline (Model 76)
	14	14 Tooth 12/24 pitch spline (Models 33-64)
	21	21 Tooth 16/32 pitch spline (Models 39-64)
	22	21 Tooth 16/32 pitch spline with (3.22) exten-sion (Models 46-64)
	23	23 Tooth 16/32 pitch spline (Models 39-64)
	24	23 Tooth 16/32 pitch Sspline with 3/8-24 UNF hole (Models 39-64)
	25	21 Tooth 16/32 pitch spline with 3/8-24 UNF hole (Models 39-64)
	27	27 Tooth 16/32 pitch spline (Model 76)
	30	13 Tooth 8/16 pitch spline with (2.93) extension and for 76 seal (Models 54-64)
	33	13 Tooth 8/16 pitch spline with (2.19) extension and for 76 seal (Model 54)
	36	21 Tooth 16/32 pitch spline with M10 x 1.5 threaded hole (Models 39-46)
	37	23 Tooth 16/32 pitch spline with M10 x 1.5 threaded hole (Models 39-54)
	38	27 Tooth 16/32 pitch spline with (2.93) extension and for 76 seal (Models 54-64)
	39	34.9 (1.375) Diameter tapered with 9.5 (.3750) x 25.4 (1.00) square key (Models 39-64)
	40	38 (1.50) Diameter tapered with 9.5 (.3750) x 25.4 (1.00) square key (Models 54-64)
	41	44 (1.75) Diameter tapered with 11 (.4375) x 25.4 (1.00) square key (Model 76)
	44	14 Tooth 12/24 pitch spline with M10 x 1.5 threaded hole (Models 39-46)

Input Rotation

06		
	L	Counterclockwise
	R	Clockwise

Valve Plate

07		
	0	Standard (V-groove)
	1	Propel

Main Ports

08		
	A	25.4 (1.00) - Code 61 per SAE J518
	B	25.4 (1.00) - Code 62 per SAE J518
	D	(1.00) - Code 61 per SAE J518 with port A and B gage ports
	E	(1.00) - Code 62 per SAE J518 with port A and B gage ports

Power Limiter Valve Setting Port A and Port B

09		
	0	None
	C	103 bar (1500 lbf/in²)

For more techinical relation queries please contact our sales team.

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Piston Pump

DACA TYPE

DACA	39	2	03	02	L	1	A	CC	EA	AAA	2	C	N	A	A	1	0	D	A	15	0	0	B
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Power Limiter Valve Setting Port A and Port B

09

D	138 bar (2000 lbf/in²)
E	172 bar (2500 lbf/in²)
F	207 bar (3000 lbf/in²)
G	241 bar (3500 lbf/in²)
H	276 bar (4000 lbf/in²)
J	310 bar (4500 lbf/in²)
K	345 bar (5000 lbf/in²)
L	379 bar (5500 lbf/in²)
M	414 bar (6000 lbf/in²)
N	448 bar (6500 lbf/in²)

Control Option

10

0B	Shipping cover, with control feedback link

Electro-proportional

EJ	Electronic proportional control 12 volt DC
EK	Electronic proportional control 24 volt DC
FD	Electronic proportional control, 12VDC, swash plate electronic sensor feedback, de-stroking valve
FE	Electronic proportional control, 24VDC, swash plate electronic sensor feedback, de-stroking valve
SC	Electric control 12 volt with swashplate feedback sensor, with electrical connectors DIN 43650
SD	Electric control 24 volt with swashplate feedback sensor, with electrical connectors DIN 43650

Forward-Neutral-Reverse

FR	Forward-neutral-reverse control 12 volt DC with 2-pin weatherpack connector
FS	Forward-neutral-reverse control 24 volt DC with 2-pin weatherpack connector

Hydraulic Remote

HA	Hydraulic remote 1.4-14.1 bar (20-205 psi)
HB	Hydraulic remote 1.4-14.1 bar (20-205 psi) with wide band neutral
HC	Hydraulic remote 3.1-14.5 bar (45-210 psi)
HD	Hydraulic remote 4.5-20.0 bar (65-290 psi)
HF	Hydrualic remote 4.5-20.0 bar (65-290 psi) with wide band neutral
HG	Hydraulic remote 4.5-20.0 bar (65-290 lbf/in²) with 12vdc (NC) destroke valve (nonmanifold) with electrical connector (male only) per din 43650
HH	Hydraulic remote 11.0-32.4 bar (160-470 lbf/in²)
HJ	Hydraulic remote 3.1-14.5 bar (45-210 psi) with wide band neutral
HK	Hydraulic remote 4.5-20.0 bar (65-290 lbf/in²) with 12vdc (NC) destroke valve (nonmanifold) with electrical connectors (male & female) per din 43650 for 6.0-10.0 (.24-.39) diameter cable

Mechanical Manual

MA	Manual
MB	Manual with wide band neutral and 3/4-16UN plug in neutral lockout port
MC	Manual with wide band neutral
MD	Manual With (NC) neutral lockout switch (wide band neutral)
ME	Manual with neutral detent (wide band neutral)
MJ	Manual with destroke valve (manifold) 12vdc (NO) 3 pin weatherpack connector
MK	Manual With Neutral Detent (Wide Band Neutral) And 24Vdc (Nc) Destroke Valve (Non-Manifold) With Electrical Connectors (Male & Female) Per Din 43650 For 4.5-8.0(.18-.31) Diameter cable
ML	Manual with (NC) neutral lockout switch (wide band neutral) and 12vdc (NC) destroke valve (non-manifold) with electrical connectors (male & female) per DIN 43650 for 4.5-8.0(.18-.31) diameter cable
MM	Manual with (NO) neutral lockout switch (wide band neutral) and destroke valve (manifold) 12vdc with 2 pin weather pack connector
MN	Manual with (NC) neutral lockout switch (wide band neutral) and destroke valve 12vdc (NO), (non-manifold), no manual override, 2 pin weatherpack connector mounted connector down
MP	Manual with destroke valve (non-manifold) 12vdc (NO), 3 pin packard connector mounted right angle up
MS	Manual with wide band neutral and 24vdc (NC) destroke valve (non-manifold) with electrical connectors (male & female) per din 43650 for 4.5-8.0(.18-.31) diameter cable
MT	With wide band neutral and inching valve with sea

For more techinical relation queries please contact our sales team.

Piston Pump

DACA TYPE

DACA	39	2	03	02	L	1	A	CC	EA	AAA	2	C	N	A	A	1	0	D	A	15	0	0	B
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

MU	Manual with wide band neutral, inching valve with seal and neutral detent
MV	With wide band neutral, inching valve with seal and neutral lockout switch (NC)
MW	Manual with destroke valve (manifold) 12vdc (NO) with 2 pin weatherpack connector
MZ	Manual with (NC) neutral lockout switch (wide band neutral) with packard 2 pin connector
NA	Manual with destroke valve(manifold) 12vdc(NO) 3 pin weatherpack connector and (NC) neutral lockout switch (wide band neutral) with packard 2 pin connector
NB	Manual with destroke valve (manifold) 24vdc (NO) 2 pin weatherpack connector
NC	Manual with wide band neutral, inching valve with seal and neutral lockout switch (NC) with packard 2 pin connector
ND	Manual with destroke valve (manifold) 12vdc (NO) with 2 pin weatherpack connector with (NC) neutral lockout switch (wide band neutral) with packard 2 pin connector
NG	Manual with (NC) neutral lockout switch (wide band neutral) and destroke valve (manifold) 12vdc (NC) with 2 pin weatherpack connector
NH	Manual with neutral detent (wide band neutral) and 12vdc (NO) destroke valve(manifold) with manual override and electrical connectors (male & female) per DIN 43650 for 4.5-8.0(.18-.31) diameter cable
NK	Manual with wide band neutral, inching valve with seal and neutral lockout switch (NO)
NR	Manual with destroke valve (manifold) 12vdc (NO) with 2 pin weatherpack connector. no manual override. (NC) neutral lockout switch (wide band neutral) with packard 2 pin connector
NS	Manual with (NC) neutral lockout switch (wide band neutral) and destroke valve (manifold) 24vdc (NC) with 2 pin weatherpack connector
NT	Manual with (NC) neutral lockout switch (wide band neutral) and destroke valve (manifold) 12vdc (NO) with 2 pin metri-pack connector
NV	Manual with (NC) neutral lockout switch (wide band neutral) and destroke valve (manifold) 24vdc (NO) with 2 pin weatherpack connector
NW	Manual with (NC) neutral lockout switch (wide band neutral) with weatherpack (2) pin connector and destroke valve (manifold) 12vdc (NO) with 2 pin metri-pack connector
PA	Port plate, no control feedback link

Remote Electric

RD	Manual with (NC) neutral lockout switch (wide band neutral) with weatherpack (2) pin connector and destroke valve (manifold) 12vdc (NO) with 2 pin metri-pack connector
RE	Remote electric with (NC) destroke valve, (3) 12vdc with (3) 2 pin weatherpak connectors, no displacement limiter, with 0.33 (.013) control supply orifice
RF	Remote electric with (nc) destroke valve including 3.58 (.141) orifice, (3) 12vdc with (3) 2 pin weatherpak connectors, no displacement limiter, with 0.33 (.013) control supply orifice
RG	Remote electric with (NC) destroke valve, (3) 24vdc with (3) 2 pin weatherpak connectors, no displacement limiter, with 0.33 (.013) control supply orifice
RH	Remote electric with (NC) destroke valve including 3,18 (.125) orifice, (3) 12vdc with (1) 2 pin and (1) 4 pin weatherpak connectors, no displacementlimiter, with 0,33 (.013) control supply orifice
RJ	Remote electric with (NO) destroke valve including 3,58(.141) orifice, (3) 12vdc with (3) 2 pin weatherpak connectors, no displacement limiter, with 0,33 (.013) control supply orifice
RK	Remote electric with (NC) destroke valve, (3) 12vdc with wireleads, no displacement limiter, with 0,33 (.013) control supply orifice

Control Supply Orifice

11

0	None
A	0.71 (.028)Diameter
B	0.91 (.036) Diameter
C	1.12 (.044) Diameter
D	1.32 (.052) Diameter
E	1.45 (.057) Diameter
F	1.65 (.065) Diameter
G	1.85 (.073) Diameter
H	2.39 (.094) Diameter
J	2.59 (.102) Diameter

Pressure Override

12

0	None
2	Internal Pressure Override
5	Internal Pressure Override Externally Adjustable

Pressure Setting for Pressure Override

13

0	None
1	196 bar (2850 lbf/in²)
D	138 bar (2000 psi)
E	172 bar (2500 psi)
F	207 bar (3000 psi)

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Piston Pump

DACA TYPE

DACA	39	2	03	02	L	1	A	CC	EA	AAA	2	C	N	A	A	1	0	D	A	15	0	0	B
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Pressure Setting for Pressure Override

13

G	241 bar (3500 psi)
J	310 bar (4500 psi)
K	345 bar (5000 psi)
L	379 bar (5500 psi)
M	414 bar (6000 psi)
P	362 bar (5250 lbf/in²)

Control Special Features

14

0	No control special features
3	Manual control lever with attachment holes located 66;7 (2.625) and 82;6 (3.25) and 98;4 (3.875) from control shaft mounting hole
6	Control special featuressevere duty coils with boots for electronic proportional control with weather-pack connector
7	Severe duty coils with boots for electronic proportional control
8	Manual control lever with attachment hole located 98;4 (3.875) from control shaft mounting hole
A	No manual control lever
B	Hardened Standard Manual Control lever mounted parallel to the pump drive shaft towards the mounting flange
D	Hardened standard manual control lever
E	Manual control lever with attachment hole 71;9 (2.83) from control shaft mounting hole. lever mounted parallel to pump drive shaft towards the mounting flange
H	Manual control lever with ball stud mounted 50;8 (2.00) from control shaft mounting hole. lever mounted paral□lel to pump drive shaft towards mounting flange
K	Manual control lever with 10;4 (0.41) diameter attachment hole 50;8 (2.00) from control shaft mounting hole
M	Manual control lever with ball stud mounted 76;2 (3.00) from control shaft mounting hole. Lever mounted parallel to pump drive shaft towards mounting flange.
N	Manual control lever with external torsion spring mechanism for neutral return
S	Manual control lever with two 1/4-28 UNF attachment holes located at 85;7 (3.375) and 98;4 (3.875) from control shaft mounting hole. Lever mounted parallel to pump drive shaft towards mounting flange.
W	Manual control lever mounted 1 to 2 spline teeth from vertical with external torsion spring mechanism for neutral return
Y	Manual control lever with two 1/4-28 UNF attach□ment holes located at 85;7 (3.375) and 98;4 (3.875) from control shaft mounting hole

Charge Pump

15

0	Charge pump included
2	Charge pump with integral pressure filter mounted on the -A- port side
3	Charge pump with short element integral pressure filter mounted on the -A- port side and external discharge port for 7/8-14 UNF-2B SAE O-ring fitting with steel hex plug
A	Charge pump with remote pressure filter ports on the -A- port side
B	Charge pump with integral pressure filter mounted on the -B- port side
C	Charge pump with J.Deere integral pressure filter mounted on the -B- port side. diagnostic fitting included
D	Charge pump with external discharge port for 7/8-14 UNF SAE O-ring fitting. With steel hex plug
E	No charge pump
F	Charge pump with external discharge port with 90 degree. 7/8-14 UNF. 37 degree flare tube fitting
G	Charge pump with integral pressure filter and diagnostic fitting mounted on the -B- port side plus inlet gage port with hex plug
H	Charge pump with remote pressure filter ports on -A- port side and inlet gage port on -B- port side
J	Charge pump with integral pressure filter and diagnostic fitting; mounted on the -B- port side and external discharge port with 90 degree; 7/8-14 UNF; 37 degree flare; tube fitting
K	Charge pump with remote pressure filter ports on the -B- port side and external discharge port with 90 degree; 7/8-14 UNF; 37 degree flare; tube fitting
L	Charge pump with integral pressure filter and diagnostic fitting; mount□ed on the -B- port side and external discharge port with straight; 7/8-14 UNF; 37 degree flare; tube fitting
M	Charge pump with remote pressure filter ports on the -B- port side and external dis□charge port with straight 7/8-14 UNF SAE O-ring to 3/4-16 UNF; 37 degree flare; tube fitting
P	Charge pump with remote pressure filter ports on the -B- port side and external discharge port with straight 7/8-14 UNF; 37 degree flare; tube fitting
R	No charge pump; with remote pressure filter ports on the -B- port sideand external discharge port with 90 degree; 7/8-14 UNF; 37 degree flare; tube fitting
S	Charge pump with integral pressure filter and diagnostic fitting; mounted on the -B- port side and external discharge port for 7/8-14 UNF-2B SAE O-ring fitting; with steel hex plug
T	Charge pump with external discharge port with straight 7/8-14 UNF; 37 degree flare; tube fitting
R	Charge pump with integral pressure filter; mounted on the -B- port side and external discharge port for 7/8-14 UNF-2B SAE O-ring fitting; with steel hex plug
W	Charge pump with integral pressure filter mounted on the -A- port side and external discharge port for 7/8-14 UNF-2B SAE O-ring fitting with steel hex plug
Y	Charge pump with remote pressure filter ports on the -B- port side and external dischargeport for 7/8-14 UNF-2B SAE O-ring fitting with steel hex plug
Z	Charge pump with remote pressure filter ports on the -B- port side

For more techinical relation queries please contact our sales team.

Piston Pump

DACA TYPE

DACA	39	2	03	02	L	1	A	CC	EA	AAA	2	C	N	A	A	1	0	D	A	15	0	0	B
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Auxiliary Mounting

16		
	0	No auxiliary mounting
	1	SAE B-pad, no shaft seal and M12x 1.75-6H Thd
	A	SAE A-pad. With shaft seal (dry)
	B	SAE B-pad. With shaft seal (dry)
	C	SAE A-pad. No shaft seal (wet)
	E	SAE C-pad. (Typically front pump of tandem) no shaft seal. Includes 14 tooth 12/24 pitch spline coupling. Charge pressure inlet port with 7/8-14 UNF. 37 degree flare. Tube fitting (45 degree for models 33-46 and straight for models 54-64)
	F	SAE B-pad; no shaft seal
	G	SAE C-pad; (typically front pump of tandem) no shaft seal; Includes 21 tooth 16/32 pitch spline coupling; Charge pressure inlet port with 7/8-14 UNF; 37 degree flare; Tube fitting (45 degree for models 33-46 and straight for models 54-64)
	H	SAE C-pad; (typically front pump of tandem) no shaft seal; Includes 23 tooth 16/32 pitch spline coupling; Charge pressure inlet port with 7/8-14 UNF; 37 degree flare; Tube fitting (45 degree for models 33-46 and straight for models 54-64)
	L	SAE C-pad; (typically front pump of tandem) no shaft seal; Includes 14 tooth 12/24 pitch spline coupling; With 7/8-14 SAE O-ring port for charge pressure inlet (no fitting provided)(models 54-64)

Control Special Features

16		
	N	SAE C-pad; (Typically front pump of tandem) no shaft seal; Includes 14 tooth 12/24 pitch spline coupling; Charge pressure inlet port with 45 deg 7/8-14 UNF; 37 Degree flare; Tube fitting (For models 54-64 Only)
	P	SAE C-pad; (Front of tandem) No shaft seal; includes 14 tooth 12/24 Pitch spline coupling; Chg press inlet port with 7/8-14 UNF; 37 deg flare; Tube fitting (45 deg for models 33-64);Chg press gage port 7/8-14 UNF-2A capped
	R	SAE A-pad With 11 tooth 16/32 pitch internal spline; No shaft seal (wet)
	S	SAE C-pad; (Typically front pump of tandem) no shaft seal; Includes 14 tooth 12/24 pitch spline coupling; Charge pressure inlet port with 7/8-14 UNF; 37 Degree flare; Tube fitting (Straight for models 33-46)
	U	SAE C-pad; (Typically front pump of tandem) no shaft seal; Includes 14 tooth 12/24 pitch spline coupling; Charge pressure inlet port on pump centerline with 7/8-14 UNF; 37 Deg flare; Tube fitting (45 degree for models 33-46 and straight for models 54-64)

Charge Pump Displacement

17		
	0	No Charge Pump
	1	13.9 cm^3/r (0.85 in^3/r)
	2	17.4 cm^3/r (1.06 in^3/r)
	3	21.0 cm^3/r (1.28 in^3/r)
	4	27.9 cm^3/r (1.70 in^3/r)
	5	34.7 cm^3/r (2.12 in^3/r)

2nd Displacement of Dual Element

18		
	0	No Dual Element

Charge Pressure Rel Valve Setting

19		
	0	None
	D	15 bar (220 psi) - Standard
	E	16 bar (240 lbf/in^2)
	F	18 bar (260 lbf/in^2)
	G	19 bar (280 psi)
	H	21 bar (300 lbf/in^2)
	J	22 bar (320 lbf/in^2)
	K	23 bar (340 psi)
	L	24 bar (350 lbf/in^2)
	M	26 bar (380 lbf/in^2)
	N	28 bar (410 lbf/in^2)

Charge Pump Special Features

20		
	0	No charge pump special features
	A	Steel core charge pump gasket
	B	Steel core charge pump gasket and 90 degree inlet fitting; 1 5/8-12 UN threaded end for 37 degree flare tubing ((1.25) OD tubing; (1.25) ID hose)
	J	Steel core charge pump gasket; needle bearing

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Piston Pump

DACA TYPE

DACA	39	2	03	02	L	1	A	CC	EA	AAA	2	C	N	A	A	1	0	D	A	15	0	0	B
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Charge Pump Special Features

20

M	Charge inlet manifold with charge relief valve
N	Steel core charge pump gasket and charge inlet mainifold with charge relief valve
P	Charge inlet manifold with external discharge port for 7/8-14 unf sae o-ring port and steel hex plug in inlet port

Special Pump Assembly Features

21

00	No special features
05	Bottom servo piston with 0.0 degree stop
11	Both servo sleeves have 1/2-20 UNF-2B thread and steel hex bolts
12	Bottom servo sleeve has 7/8-14 UNF SAE O-ring port with hex steel plug
13	Model 76 shaft seal and grade 8 bolts in mounting flange to pump housing (models 54-64)
14	Special thick section end cover gasket
15	Rear pump unit for tandem pump assembly (no shaft seal)
18	Hi-Speed rotating group (model 76)
32	Both servo sleeves have 7/8-14 UNF SAE O-Ring ports and steel hex plugs
39	Bottom servo piston with externally adjustable stop
40	Both servo pistons with externally adjustable stops
53	Model 76 shaft seal
58	1350 Series end yoke assembled to drive shaft (Pos 8,9 must be Code 40)
59	1310 Series end yoke assembled to drive shaft (Pos 8,9 must be Code 40)
67	Metal case drain plug in both ports
79	Rear pump unit for tandem pump assembly (no shaft seal), both servo pistons with externally adjustable stops
82	Rear pump unit for tandem assembly (no shaft seal), top servo piston with externally adjustable stop
83	Externally adjustable displacement stops set at 3.32 in^3/rev (54.4cc/rev)

Paint and Packaging

22

0	Painted primer blue (standard)
A	Painted finish black

Identification on Unit

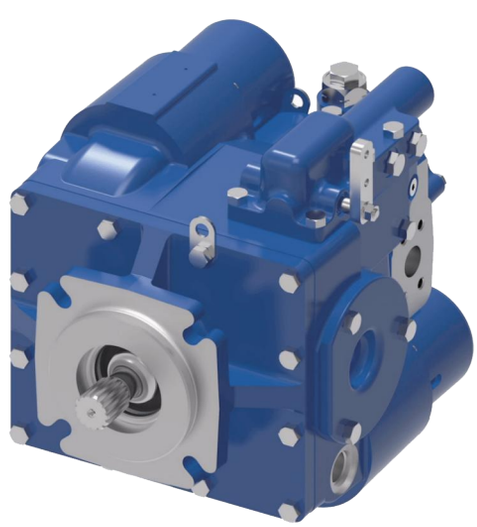
23

0	Standard

Design Code

24

A	A
B	B



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Piston Pump

DA11V TYPE

DIFFER HYDRAULICS

DA11V		O			/ 1			- N							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Axial piston unit

01	DA11V	Swashplate design, variable, nominal pressure 350 bar, maximum pressure 400 bar

Charge pump (impeller)

			40	60	75	95	130	145	190	260
02		without charge pump (no code)	●	●	●	●	●	●	●	●
	L	with charge pump	–	–	–	–	●	●	●	●

Operation

03	O	Pump, open circuit

Size

04	40, 60, 75, 95, 130, 145, 190, 260	≈ Displacement Vg max in cm³

Control unit

						40	60	75	95	130	145	190	260
05	LR	Power control				●	●	●	●	●	●	●	●
	LR .C	with override	cross sensing		negative	●	●	●	●	●	●	●	●
	LR3		high-pressure related		negative	●	●	●	●	●	●	●	●
	LG1		pilot-pressure related		negative	●	●	●	●	●	●	●	●
	LG2				positive	●	●	●	●	●	●	●	●
	LE1		electric	U = 12 V	negative	❍	❍	❍	●	●	●	●	●
	LE2			U = 24 V	negative	❍	●	●	●	●	●	●	●
	L . D. .	with pressure cut-off				●	●	●	●	●	●	●	●
	L . E. .		hydraulic, 2-stage			●	●	●	●	●	●	●	●
	L . . G.		hydraulic, remote controlled			●	●	●	●	●	●	●	●
	L . . .S	with load sensing				●	●	●	●	●	●	●	●
	L . . .S2		electric, prop. override, 24 V			❍	❍	❍	●	●	●	●	●
	L . . .S5		hydraulic, prop. override			❍	❍	❍	●	●	●	●	●
	L . . .H1	with stroke limiter	negative characteristic		Δp = 25 bar	●	●	●	●	●	●	●	●
	L . . .H5				Δp = 15 bar	●	●	●	●	●	●	●	●
	L . . .H2		positive characteristic		Δp = 25 bar	●	●	●	●	●	●	●	●
	L . . .H6				Δp = 10 bar	●	●	●	●	●	●	●	●
	L . . .U1				U = 12 V	●	●	●	●	●	●	●	●
	L . . .U2				U = 24 V	●	●	●	●	●	●	●	●
	DR	Pressure control				●	●	●	●	●	●	●	●
	DRS		with load sensing			●	●	●	●	●	●	●	●
	DRG		remote controlled			●	●	●	●	●	●	●	●
	DRL		for parallel operation			●	●	●	●	●	●	●	●
	HD1	Hydraulic control, pilot-pressure related			Δp = 10 bar	●	●	●	●	●	●	●	●
	HD2		(positive characteristic)		Δp = 15 bar	●	●	●	●	●	●	●	●
	D		with pressure cut-off			●	●	●	●	●	●	●	●
	G		with pressure cut-off, remote controlled			❍	●	❍	❍	❍	❍	●	●
	EP1	Electric control, with proportional solenoid			U = 12 V	●	●	●	●	●	●	●	●
	EP2		(positive characteristic)		U = 24 V	●	●	●	●	●	●	●	●
	D		with pressure cut-off			●	●	●	●	●	●	●	●
	G		with pressure cut-off, remote controlled			●	●	●	●	●	●	●	●

Series

06	1	

Index

07	0	Size 40 ... 130
	1	Size 145 ... 260

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Piston Pump

DA11V TYPE

DA11V _ **O** _ _ / **1** _ _ - **N** _ _ _ _

1 2 3 4 5 6 7 8 9 10 11 12 13

Direction of rotation

08	R	Viewed from shaft end	clockwise
	L		counter-clockwise

Seals

09	N	NBR (nitrile-caoutchouc), shaft seal ring in FKM (fluor-caoutchouc)

Shaft end

				40	60	75	95	130	145	190	260
10	Z	Splined shaft DIN 5480 for single and combination pump		●	●	●	●	●	●	●	●
	P	Parallel keyed shaft DIN 6885		●	●	●	●	●	●	●	●
	S	Splined shaft ANSI B92.1a–1976	for single pump	●	●	●	●	●	●	●	●
	T		for combination pump	●	●	●	–1)	–1)	–1)	●	●

Mounting flange

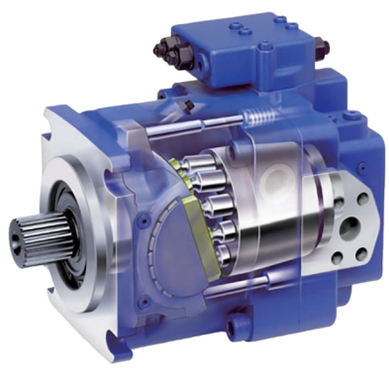
			40	60	75	95	130	145	190	260
11	C	SAE J744 – 2-hole	●	●	–	–	–	–	–	–
	D	SAE J744 – 4-hole	–	–	●	●	●	●	●	●
	G	SAE J617 (SAE 3)	–	–	–	●	●	●	●	–

Service line ports

			40	60	75	95	130	145	190	260
12	12	Pressure and suction port SAE, at side, opposite side (with metric fastening threads)	●	●	●	●	●	●	●	●

Service line ports

						40	60	75	95	130	145	190	260
13		Flange SAE J744	Coupler for splined shaft										
	N00	-	-			●	●	●	●	●	●	●	●
	K01	82-2 (A)	5/8in	9T 16/32DP	(A)	●	●	●	●	●	●	●	●
	K52		3/4in	11T 16/32DP	(A-B)	❍	●	❍	●	●	●	❍	❍
	K02	101-2 (B)	7/8in	13T 16/32DP	(B)	●	●	●	●	●	●	●	●
	K04		1 in	15T 16/32DP	(B-B)	●	●	●	●	●	●	●	●
	K79		W35	2x30x16x9g		●	●	●	●	●	●	●	●
	K07	127-2 (C)	1 1/4in	14T 12/24DP	(C)	–	●	●	●	●	●	●	●
	K24		1 1/2in	17T 12/24DP	(C-C)	–	–	–	●	●	●	●	●
	K80		W30	2x30x14x9g		–	●	●	●	●	●	●	●
	K61		W35	2x30x16x9g		–	●	●	●	●	●	●	●
	K86	152-4 (D)	1 1/4in	14T 12/24DP	(C)	–	–	●	●	●	●	●	●
	K17		1 1/3in	13T 8/16DP	(D)	–	–	–	–	●	●	●	●
	K81		W40	2x30x18x9g		–	–	●	●	●	●	●	●
	K82		W45	2x30x21x9g		–	–	–	●	●	●	●	●
	K83		W50	2x30x24x9g		–	–	–	–	●	●	●	●
	K72	165-4 (E)	1 3/4in	13T 8/16DP	(D)	–	–	–	–	–	–	●	●
	K84		W50	2x30x24x9g		–	–	–	–	–	–	●	●
	K67		W60	2x30x28x9g		–	–	–	–	–	–	–	●



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Piston Pump

DA4VG TYPE

DIFFER HYDRAULICS

DA4V	G			D					/ 32		- N										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

Axial piston unit

01	DA4V	Swashplate design, variable, nominal pressure 400 bar, maximum pressure 450 bar

Operating mode

02	G	Pump, closed circuit

Size

03	28, 40, 56, 71, 90, 125, 180	≈ Displacement Vg max in cm³

Control device

					28	40	56	71	90	125	180
04	NV	Without control module			●	●	●	●	●	●	●
	HD3	Proportional control hydraulic	pilot-pressure related, with inlet filtration in P		●	●	●	●	●	●	●
	HW		mechanical servo		●	●	●	●	●	●	●
	DA1	Automatic control, speed related		U = 12 V	●	●	●	●	●	●	●
	DA2			U = 24 V	●	●	●	●	●	●	●
	DG	Hydraulic control, direct operated			●	●	●	●	●	●	●
	EP3	Proportional control electric	with proportional solenoid with inlet filtration in	U = 12 V	●	●	●	●	●	●	●
	EP4			U = 24 V	●	●	●	●	●	●	●
	EZ1	Two-point control, electric	with switching solenoid	U = 12 V	●	●	●	●	●	●	●
	EZ2			U = 24 V	●	●	●	●	●	●	●
	ET3	Electric control, direct operated two pressure reducing valves (FTDRE)		U = 12 V	●	●	–	–	–	–	–
	ET4			U = 24 V	●	●	–	–	–	–	–
	ET7	Electric control, direct operated two pressure reducing valves (DRE5)		U = 12 V	–	–	–	–	–	●	–
	ET8			U = 24 V	–	–	–	–	–	●	–

Pressure cut-off

			28	40	56	71	90	125	180
05		Without pressure cut-off	●	●	–	–	–	●	–
	D	Pressure cut-off	●	●	●	●	●	●	●

Neutral position switch

			28	40	56	71	90	125	180
06		Without neutral position switch (without code)	●	●	●	●	●	●	●
	L	Neutral position switch (only for HW control)	●	●	●	●	●	●	●

Mechanical stroke limiter

			28	40	56	71	90	125	180
07		Without mechanical stroke limiter (without code)	●	●	●	●	●	●	●
	M	Mechanical stroke limiter, externally adjustable	●	●	●	●	●	●	●

Stroking chamber pressure port

			28	40	56	71	90	125	180
08		Without stroking chamber pressure port X3, X4 (without code)	●	●	●	●	●	●	●
	T	Stroking chamber pressure port X3, X4	●	●	●	●	●	●	●

DA control valve

				NV	HD	HW	DG	DA	EP	EZ	ET	BT
09	1	Without DA control valve		●	●	●	●	–	●	●	●	●
	2	DA control valve, fixed setting		–	●	●	●	●	●	–	–	–
	3R	DA control valve, mechanically adjustable, with position lever	direction of actuation, clockwise	–	●	●	●	●	●	–	–	–
	3L		direction of actuation, counter-clockwise	–	●	●	●	●	●	–	–	–
	7	DA control valve, fixed setting, ports for pilot control device		–	●	●	–	●	●	–	–	–
	8	DA control valve, fixed setting and hydraulic inch valve mounted, control with hydraulic fluid, mineral oil-based		–	–	–	–	●	–	–	–	–

Series

10	32	Series 3, index 2

Direction of rotation (Viewed on drive shaft)

			28	40	56	71	90	125	180
11	R	clockwise	●	●	●	●	●	●	●
	L	counter-clockwise	●	●	●	●	●	●	●

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Piston Pump

DA4VG TYPE

DA4V G _ _ D _ _ _ _ / 32 _ - N _ _ _ _ _ _ _ _ _ _

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Sealing material

				28	40	56	71	90	125	180
12	N	Without neutral position switch (without code)		●	●	●	●	●	●	●

Drive shaft

					28	40	56	71	90	125	180
13	Z	Splined shaft DIN 5480	for single pump		●	●	●	●	●	●	●
	A		for combination pump – 1st pump		–	●	●	●	●	●	–
	S	Splined shaft ANSI B92.1a	for single pump		●	●	●	●	●	●	●
	T		for combination pump – 1st pump		–	–	●	●	●	●	●
	U		only for combination pump – 2nd pump		–	●	–	–	●	–	–

Mounting flange

				28	40	56	71	90	125	180
14	C	SAE J744	2-hole	●	●	●	–	–	–	–
	D		4-hole	–	–	–	–	–	–	●
	F		2+4-hole	–	–	–	●	●	●	–

Working port (port plate)

				28	40	56	71	90	125	180
15	**Port thread: Metric with profile sealing ring seal based on DIN 3852 Fastening thread at the SAE working port and through drive: Metric according to DIN 13**									
	02	SAE working port A and B, top and bottom	suction port S bottom	–	●	●	●	●	●	●
	03	SAE working port A and B, top and bottom	suction port S at top	–	●	●	○	○	○	○
	10	SAE working port A and B, same side right	suction port S bottom	●	–	–	–	–	–	–
		SAE working port A and B, same side left	suction port S bottom	–	–	–	●	○	●	–
	13	SAE working port A and B, same side right	suction port S at top	–	–	–	○	○	○	–
		SAE working port A and B, same side left	suction port S at top	●	–	●	–	–	–	–
	Port thread: Metric with O-ring seal based on ISO 6149 Fastening thread at the SAE working port and through drive: Metric according to DIN 13									
	22	SAE working port A and B, top and bottom	suction port S bottom	–	●	–	–	–	●	–
	30	SAE working port A and B, same side right	suction port S bottom	●	–	–	–	–	–	–

Boost pump

				28	40	56	71	90	125	180
16	N	Without integrated boost pump	without through drive	●	●	●	●	●	●	●
	K		with through drive	●	●	●	●	●	●	●
	F	Integrated boost pump	with and without through drive	●	●	●	●	●	●	●

Through drive

					28	40	56	71	90	125	180
17	00	Without through drive, only for version N and F (position 16)			●	●	●	●	●	●	●
		Flange SAE J744	Hub for splined shaft								
	01	82-2 (A)	5/8 in	9T 16/32DP	●	●	●	●	●	●	●
	52		3/4 in	11T 16/32DP	–	●	●	●	–	–	●
	02	101-2 (B)	7/8 in	13T 16/32DP	●	●	●	●	●	●	●
	04		1 in	15T 16/32DP	●	●	●	●	●	●	●
	09	127-2 (C)	1 in	15T 16/32DP	–	●	–	–	–	–	–
	07	127-2 (C)	1 1/4 in	14T 12/24DP	–	–	●	●	–	–	●
		127-2/4 (C)			–	–	–	–	●	●	–
	73	152-2/4 (D)	W35	2×30×16×9g	–	–	–	–	●	–	–
	69		1 3/4 in	13T 8/16DP	–	–	–	–	–	●	●
	72	165-4 (E)	1 3/4 in	13T 8/16DP	–	–	–	–	–	–	●

High-pressure relief valve

			Setting range Δp_{HD}		28	40	56	71	90	125	180
18	1	High-pressure relief valve, pilot operated	100 … 420 bar	with bypass	–	–	–	●	●	●	●
	3	High-pressure relief valve direct operated, fixed setting	250 … 420 bar	without bypass	●	●	●	–	–	–	–
	5			with bypass	●	●	●	–	–	–	–
	4		100 … 250 bar	without bypass	●	●	●	–	–	–	–
	6			with bypass	●	●	●	–	–	–	–

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Piston Pump

DA4VG TYPE

DA4V G _ _ D _ _ _ _ / 32 _ - N _ _ _ _ _ _ _ _ _ _

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Filtration boost circuit/external boost pressure supply

19				28	40	56	71	90	125	180
	S	Filtration in the boost pump suction line		●	●	●	●	●	●	●
	D	Filtration in the boost pump pressure line	Ports for external boost circuit filtration (Fe and Fa)	●	●	●	●	●	●	●
	F		Attachment filter with cold start valve	–	●	●	●	●	●	●
	P		Attachment filter with cold start valve and visual contamination indicator	–	●	●	●	●	●	●
	B		Attachment filter with cold start valve and electric contamination indicator	–	●	●	●	●	●	●
	E	External boost pressure supply (version without integrated boost pump – N00, K...)		●	●	●	●	●	●	●

Swivel angle sensor

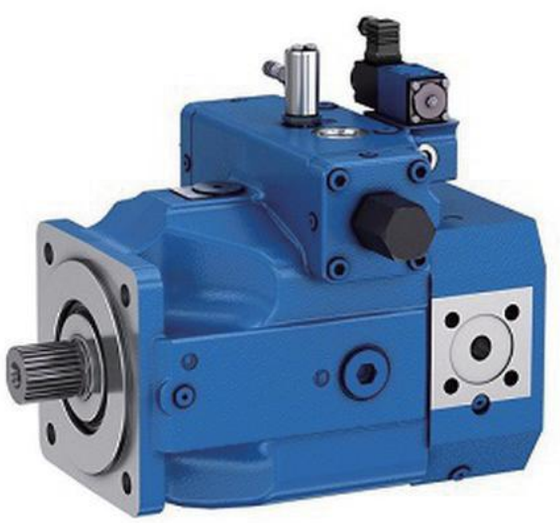
20			28	40	56	71	90	125	180
		Without swivel angle sensor (without code)	●	●	●	●	●	●	●
	R	Electric swivel angle sensor mounted	○	○	○	○	○	○	○

Connector for solenoids

21				28	40	56	71	90	125	180
		Without connector (without code), only with purely hydraulic controls		●	●	●	●	●	●	●
	P	DEUTSCH connector molded, 2-pin	without suppressor diode	●	●	●	●	●	●	●
	Q		with suppressor diode (only for EZ and DA)	●	●	●	●	●	●	●

Standard/special version

22			
		Standard version	without code
	-S	Special version	



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Piston Pump

DA15V TYPE

ADIFFER HYDRAULICS

DA15V _ _ _ _ _ _ _ _ _ _ **/ 11** _ _ **V** _ _ _ _ _ **0 -** _

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Axial piston unit

01

DA15V	Variable swashplate design, nominal pressure 350 bar, maximum pressure 420 bar	unpainted
DLA15V	Variable swashplate design, nominal pressure 350 bar, maximum pressure 420 bar	painted

Operating mode

02

			110	145	175	210	280
	Pump, open circuit	without charge pump	○	●	●	●	●
M		with charge pump	○	●	●	●	●

Size

03

110, 145, 175, 210, 280	Geometric displacement

Swiveling range

04

				110	145	175	210	280
	One-sided swiveling	Vg max: + 50% to + 100%	Vg min: - 5% to + 30%	○	●	●	●	●
M	Two-sided swiveling	Vg max: + 50% to + 100%	Vg min: - 100% to - 50%	○	●	●	●	●

Position 05, 06, 07 with the relevant control axis combination option, controller group a) to e) is described below

05
06
07

05	06	07
a) **Power controller**	No other controller, without code	
Not for swiveling range “M”	b) Pressure controller	No other controller, without code
		c) Stroke control
		d) Override and unloading
		e) Load sensing
	c) Stroke control	No other controller, without code
		e) Load sensing
	e) Load sensing	No other controller, without code
b) **Pressure controller**	No other controller, without code	
	b) Pressure controller	No other controller, without code
		d) Override and unloading
		e) Load sensing
	e) Load sensing	No other controller, without code
c) **Stroke control**	No other controller, without code	
Not for swiveling range “M”	b) Pressure controller	No other controller, without code
		d) Override and unloading
		e) Load sensing
	e) Load sensing	No other controller, without code

Control devices: Controller group a)

					110	145	175	210	280
LR	Power controller	fixed setting			○	●	●	●	●
L4		electric-proportional override	negative control	U = 24 V	○	●	●	●	●
CR	Summation power controller	hydraulic-proportional override, high pressure	negative control	with stop	○	●	●	●	●
PR				without stop	○	●	●	●	●

Controller group b)

				110	145	175	210	280
	Without additional controller (without code)			○	●	●	●	●
DR	**Pressure controller** with oneside swiveling	fixed setting		○	●	●	●	●
DG		hydraulic remote controlled	positive control	○	●	●	●	●
DP		for parallel operation	positive control	○	●	●	●	●

Controller group c)

					110	145	175	210	280
	Without additional controller (without code)				○	●	●	●	●
E2	**Stroke control**	electric-proportional	positive control	U = 24 V	○	●	●	●	●
E6		electric, two-point	positive control	U = 24 V	○	●	●	●	●
H3		hydraulic-proportional,pilot pressure	negative control		○	●	●	●	●

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Piston Pump

DA15V TYPE

DA15V _ _ _ _ _ _ _ _ _ _ **/ 11** _ _ **V** _ _ _ _ _ **0 -** _

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Controller group c)

				110	145	175	210	280
H4	**Stroke control**	Without additional controller (without code)	positive control	○	●	●	●	●
H5			negative control	○	●	●	●	●
H6			positive control	○	●	●	●	●

Controller group d)

					110	145	175	210	280
	Without additional controller (without code)				○	●	●	●	●
V2	Electric directional valve and PRV mounted	only in combination with pressure controller	De-energized standby	U = 24 V	○	●	●	●	●
T6	**Override** electric-proportional	with integrated pilot control valve and only in combination with pressure controller	positive control	U = 24 V	○	●	●	●	●
T8			negative control	U = 24 V	○	●	●	●	●

Controller group e)

			110	145	175	210	280
	Without additional controller (without code)		○	●	●	●	●
S0	**Load-sensing**, pump pressure, internal	fixed setting	○	●	●	●	●

Depressurized basic position and external control pressure supply

08			110	145	175	210	280
	Basic position maximum swivel angle (Vg max)						
A	Without external control pressure supply (standard for power and pressure controllers)		○	●	●	●	●
B	With external control pressure supply (integrated shuttle valve, standard for negative stroke control)		○	●	●	●	●
	Basic position minimum swivel angle (Vg min)						
C	With external control pressure supply (integrated shuttle valve, standard for positive stroke control)		○	●	●	●	●

Connectors for solenoids

09			110	145	175	210	280
0	Without connector (without solenoid, only for hydraulic control)		○	●	●	●	●
H	HIRSCHMANN connector		○	●	●	●	●

Controller group d)

10			110	145	175	210	280
0	Without swivel angle sensor		○	●	●	●	●
V	Optical swivel angle indicator (only for A15VSO)		○	●	●	●	●
B	With electric swivel angle sensor (as per data sheet 95150)	Power supply 5 V DC	○	●	●	●	●
K		Power supply 8 V – 32 V DC	○	●	●	●	●

Series

11		
11	Series 1, Index 1	

Version of port and fastening threads

12		
M	Metric, all fastening threads according to DIN 13, all port threads with O-ring seal according to ISO 6149	

Direction of rotation (Viewed on drive shaft)

13			110	145	175	210	280
R	clockwise		○	●	●	●	●
L	counter-clockwise		○	●	●	●	●

Sealing material

14			110	145	175	210	280
V	FKM (fluoroelastomer)		○	●	●	●	●

Mounting flange

15				110	145	175	210	280
D4	SAE J744	152-4		○	●	–	–	–
E4		165-4		–	–	●	●	●

Drive shaft

16				110	145	175	210	280
A1	Splined shaft DIN 5480	W45x2x21x9g		○	–	–	–	–
A2		W50x2x24x9g		–	●	●	●	–
A4		W60x2x28x9g		–	–	–	–	●

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Piston Pump

DA15V TYPE

ADIFFER HYDRAULICS

DA15V										/ 11			V					0 -	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Drive shaft

				110	145	175	210	280
16	B1	Parallel keyed shaft DIN 6885 (not for A15VLO)	ø45	○	–	–	–	–
	B2		ø50	–	●	●	●	–
	B4		ø60	–	–	–	–	●

Rotary group version

			110	145	175	210	280
17	E	Standard version without charge pump	○	–	–	–	–
	P	Efficiency and speed optimized(version with and without charge pump)	–	●	●	●	●

Through drives

18		Flange SAE J744		Flange SAE J744						
		Diameter	Designation	Diameter		Designation	110	145	175	210	280
	A3S2	82-2 (A)	A3	5/8 in	9T 16/32DP	S2	○	●	●	●	●
	B3S4	101-2 (B)	B3	7/8 in	13T 16/32DP	S4	○	●	●	●	●
	B3S5			1 in	15T 16/32DP	S5	○	●	●	●	●
	C3S7	127-2 (C)	C3	1 1/4 in	14T 12/24DP	S7	○	●	●	●	●
	C3S9			1 1/2 in	17T 12/24DP	S9	○	●	●	●	●
	D4A1	152-4 (D)	D4	W45x2x21x9g		A1	○	●	●	●	●
	D4A2			W50x2x24x9g		A2	○	●	●	●	●
	E4A2	165-4 (E)	E4	W50x2x24x9g		A2	–	–	●	●	●
	E4A4			W60x2x28x9g		A4	–	–	–	–	●
		Flange ISO 3019-2		Hub for splined shaft							
	K3S3	82-2 (A)	K3	3/4 in	11T 16/32DP	S3	○	●	●	●	●
	K5S3		K5				○	●	●	●	●
	L5S4	100-2	L5	7/8 in	13T 16/32DP	S4	○	●	●	●	●
	M4S5	125-4	M4	1 in	15T 16/32DP	S5	○	●	●	●	○
	M4Z7			W32x2x14x9g		Z7	○	○	○	○	○
	N4Z9	140-4	N4	W40x2x18g		Z9	○	○	○	○	●
	P4S7	160-4	P4	1 1/4 in	14T 12/24DP	S7	○	●	●	●	●
	R4S9	180-4	R4	1 1/2 in	17T 12/24DP	S9	–	–	●	●	●
	R4T1			1 3/4 in	13T 8/16DP	T1	–	–	○	○	●
	U000	Prepared for through drive, with pressure-proof plugged cover(see also data sheet 95581)					○	●	●	●	●

Pressure sensors and other sensors

19	0	Without sensor

Standard / special version

20	0	Standard version
	S	Special version

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Piston Pump

AR TYPE

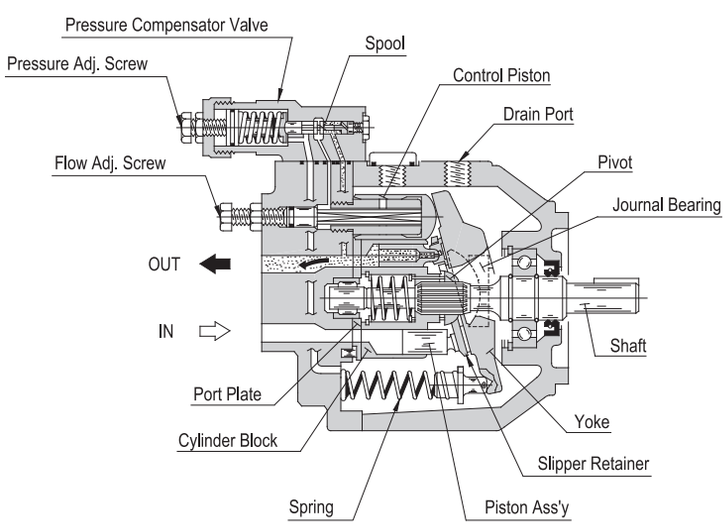
Specifications

Model Numbers	Geometric Displacement cm³/rev	Min. Adj. Flow cm³/rev	Operating Pressure Bar		Shaft Speed Range r/min		Approx. Mass kg
			Rated	Intermittent	Max.	Min.	
AR16-FR01 * * -22	15.8	6.0	160		1800	600	11.8
AR22-FR01 * * -22	22.2	8.5					12.5

Model Number Designation

AR16	-F	R	01	B	S	-22
Series Number	Mounting	Direction of Rotation	Control Type	Pres. Adj. Range	Port Position	Design Number
AR16 (15.8 cm³/rev)	**F :** Flange Mtg.	[Viewed from Shaft End] **R :** Clockwise (Normal)	**01 :** Pressure Compensator Type	**B :** 1.2～7 **C :** 2.0～16	**None:** Axial Port **S :** Side Port	22
AR22 (22.2 cm³/rev)						**22**

AR Series Variable Displacement Piston Pumps



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Piston Pump

A TYPE

Specifications

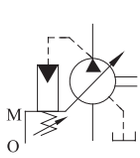
Model Numbers	Geometric Displacement cm³/rev	Minimum Adj. Flow cm³/rev	Operating Pressure Bar		Shaft Speed Range r/min		Approx. Mass kg	
			Rated*2	Intermittent*1	Max.	Min.	Flange Mtg.	Foot Mtg.
A10-FR01B-12	10.0	2	160	210	1800	600	5.1	—
A10-FR01C/H-12							8.5	
A16-*-R-01-*-*-K-32	15.8	4	160	210	1800	600	16.5	18.7
A22-*-R-01-*-*-K-32	22.2	6	160	160	1800	600	16.5	18.7
A37-*-R-01-*-*-K-32	36.9	10	160	210	1800	600	28.0	32.3
A56-*-R-01-*-*-K-32	56.2	12	160	210	1800	600	35.0	39.3
A70-*R01*S-60	70.0	36	250	280	1800	600	58.5	70.5
A90-*R01*S-60	91.0	56	250	280	1800	600	72.5	93
A100-*R01*S-10	100	62	210	210	1800	600	72.5	93
A145-*R01*S-60	145	83	250	280	1800	600	92.5	117.7

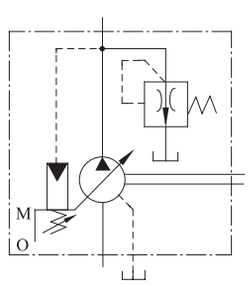
Model Number Designation

A16	-F	-R	-01	-B	-S	-K	-32
Series Number	Mounting	Direction of Rotation	Control Type	Pres. Adj. Range Bar	Port Position	Shaft Extension	Design Number
A16 (15.8 cm³/rev)	**F:** Flange Mtg. **L:** Foot Mtg.	(Viewed from Shaft End) **R:** Clockwise*2 (Normal)	**01:** Pressure Compensator Type	**B:** 12 - 70 **C:** 12 - 160 **H:** 12 - 210	**None:** Axial Port **S:** Side Port.	**K:** Keyed Shaft	**32**
A22 (22.2 cm³/rev)				**B:** 12 - 70 **C:** 12 - 160			**32**
A37 (36.9 cm³/rev)				**B:** 12 - 70 **C:** 12 - 160 **H:** 12 - 210			**32**
A56 (56.2 cm³/rev)							**32**

A70	-F	R	01	B	S	-60
Series Number	Mounting	Direction of Rotation	Control Type	Pres. Adj. Range Bar	Port Position	Design Number
A10 (10.0 cm³/rev)	**F:** Flange*1 Mtg.	(Viewed from Shaft End) **R:** Clockwise*2 (Normal)	**01:** Pressure Compensator Type	**B:** 12 - 70 **C:** 20 - 160 **H:** 20 - 210	—	**12**
A70 (70.0 cm³/rev)	**F:** Flange Mtg. **L:** Foot Mtg.			**B:** 12 - 70 **C:** 15 - 160 **H:** 18 - 210 **K:** 20 - 280	**S:** Side Port	**60**
A90 (91.0 cm³/rev)						**60**
A100 (100 cm³/rev)						**60**
A145 (145 cm³/rev)						**60**

Graphic Symbol





Applicable only for “A200”

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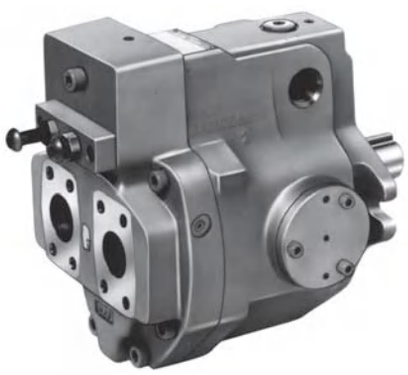
Piston Pump

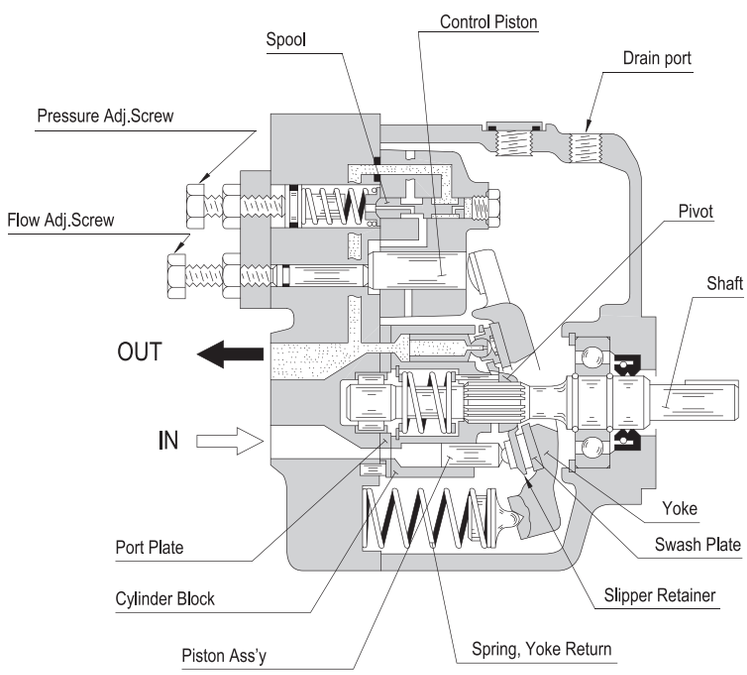
A TYPE

Availability of Control Type

Model Numbers	Geometric Displacement cm³/rev	Control Type										
		01	02	03	04	04E	04EH	05	06	07	09	00-Z500
A10	10.0	O								O		
A16	15.8	O	O	O	O	O	O	O	O	O	O	O
A22	22.2	O	O	O	O	O	O		O	O		
A37	36.9	O	O	O	O	O	O	O	O	O	O	O
A45	45.0	O				O						
A56	56.2	O	O	O	O	O	O	O	O	O	O	O
A70	70.0	O	O	O	O	O	O		O	O	O	O
A90	91.0	O	O	O	O	O	O		O	O		O
A100	100	O			O	O						
A145	145	O	O	O	O	O	O		O	O	O	O
A220	219	O		O	O					O		

A Series Variable Displacement Piston Pumps





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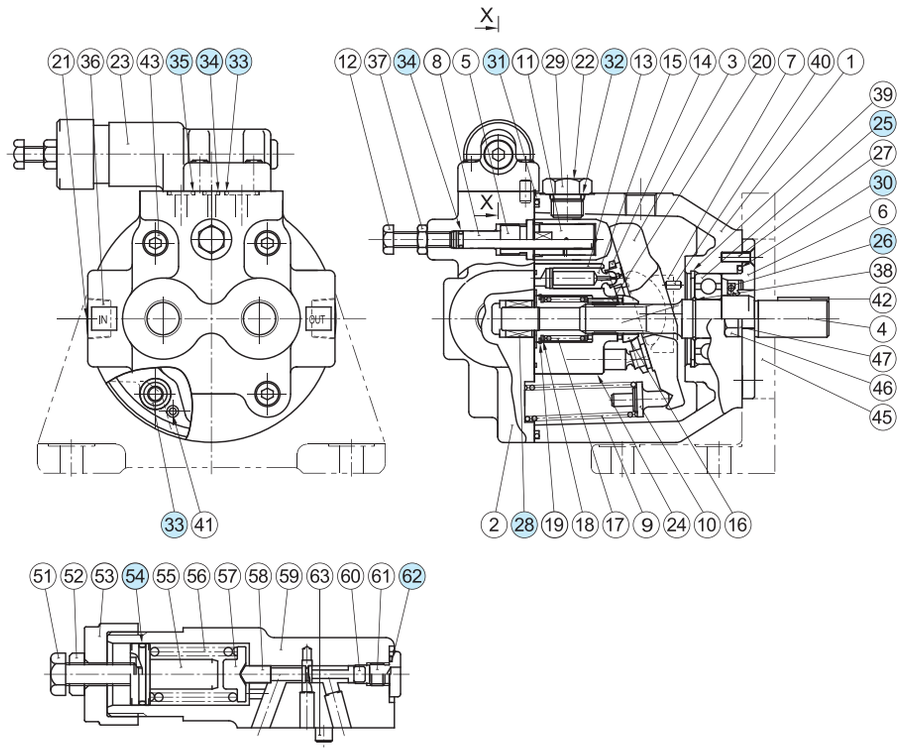
Piston Pump

A TYPE

A10—F—R—01

Item	Name of Parts	Part Numbers	Qty.
25	Bearing	6204	1
26	Oil Seal	TCN24408Y	1
28	Bearing	HMK1215	1
30	O-Ring	SO-NB-G50	1
31	O-Ring	SO-NB-G120	1
32	O-Ring	SO-NB-P14	1
33	O-Ring	SO-NB-P12	1
34	O-Ring	SO-NB-P6	1
35	O-Ring	SO-NB-P9★	1
54	O-Ring	AS568-018 (NBR-70)	1
62	O-Ring	SO-NB-P10	1

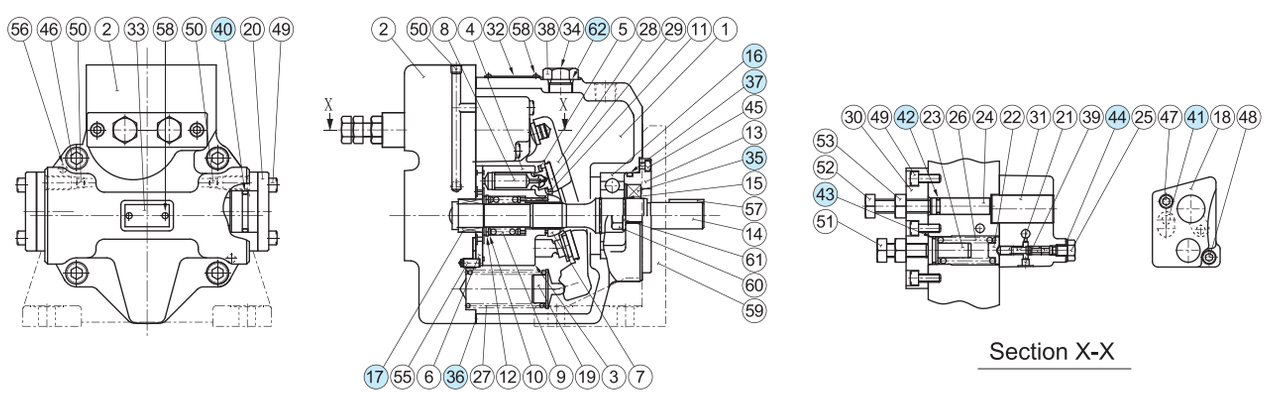
★O-Ring of Item ㉟ shall be SO-NB-P12 in case of A10-FR01-B.



Section X-X

A16/A22/A37/A56—＊—R—01

Item	Name of Parts	Part Numbers				Qty.
		A16-＊-R-01	A22-＊-R-01	A37-＊-R-01	A56-＊-R-01	
16	Bearing	6305		6307	NUP 207E	1
17	Bearing	HMK 1715	Z30-1303-PK410300-8	HMK 2025V2	HMK 2530V2	1
35	Oil Seal	TCN 254511		TCN 355511	TCN 355511	1
36	Gasket	130-PK211969-1		1316-PK211970-9	1307-PK21197-7	1
37	O-Ring	SO-NA-G55		SO-NA-G75		1
40	O-Ring	SO-NA-G25		SO-NA-G30	SO-NA-P36	2
41	O-Ring	SO-NB-P12		SO-NB-P10A		1
42	O-Ring	SO-NB-P9				1
43	O-Ring	AS568-017 (NBR-70)				1
44	Seal Washer	W8				1
62	O-Ring	SO-NB-P14				1



Section X-X

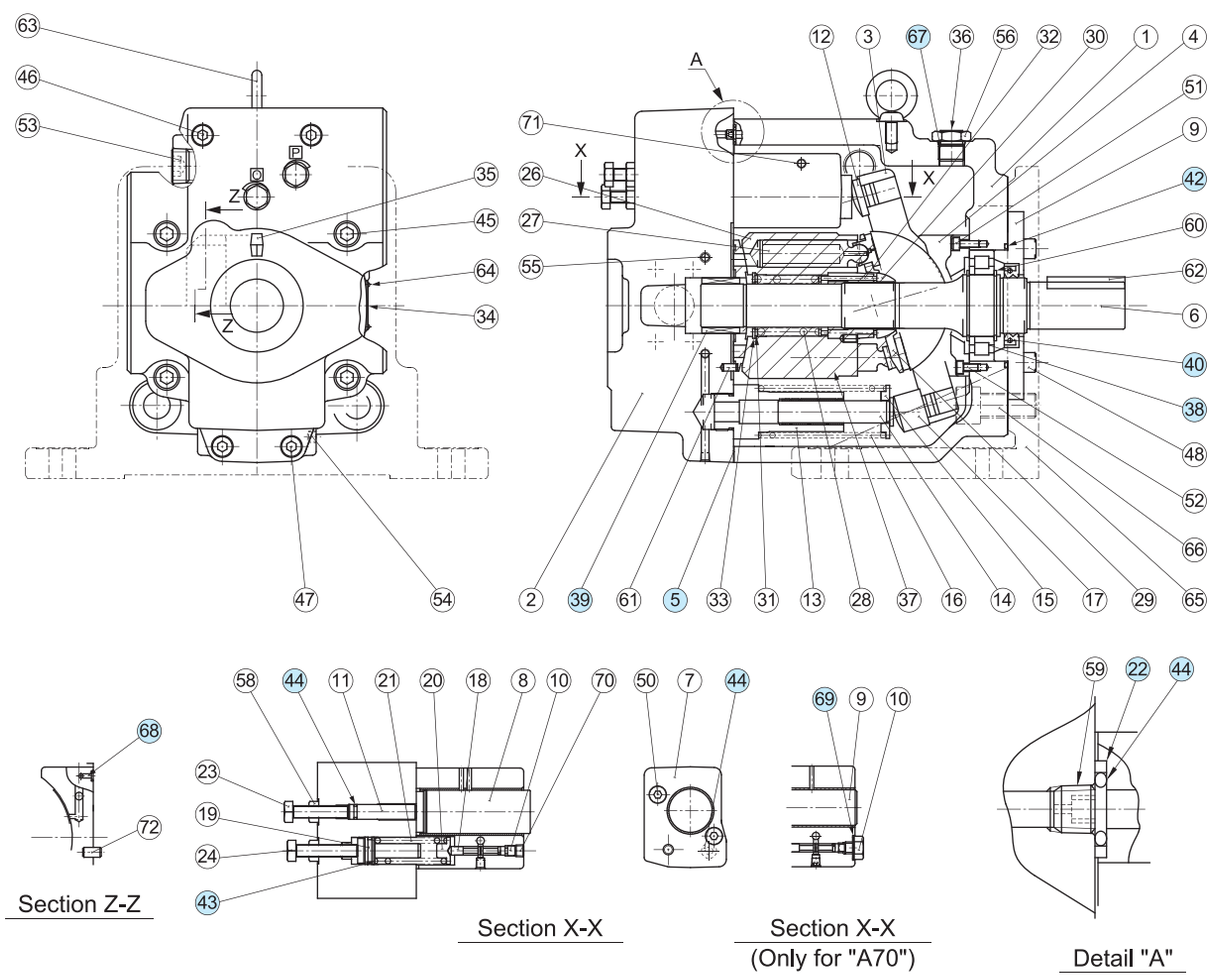
For more techinical relation queries please contact our sales team.

Piston Pump

A TYPE

A70/A90/A100-＊R01＊S

Item	Name of Parts	Part Numbers		Qty.
		A70-＊R01＊S	A90-＊R01＊S A100-＊R01＊S	
5	Gasket	1314E-PK211972-5	1310E-PK211973-3	1
22	Back Up Ring	1310E-PK412440-0	1310E-PK412440-0	1
38	Bearing	NUP 208EX50	NUP 210E	1
39	Needle Bearing	HMK 3030V2	HMK 3530BV2	1
40	Oil Seal	TCN 355511 (FKM)	TCN 456812 (FKM)	1
42	O-Ring	SO-FA-G85	SO-FA-G95	1
43	O-Ring	SO-NA-P18	SO-NA-P18	1
44	O-Ring	SO-NB-P9	SO-NB-P9	3
67	O-Ring	SO-NB-P14	SO-NB-P18	1
68	O-Ring	SO-NB-P5	SO-NB-P5	1
69	Seal Washer	W10	——	1



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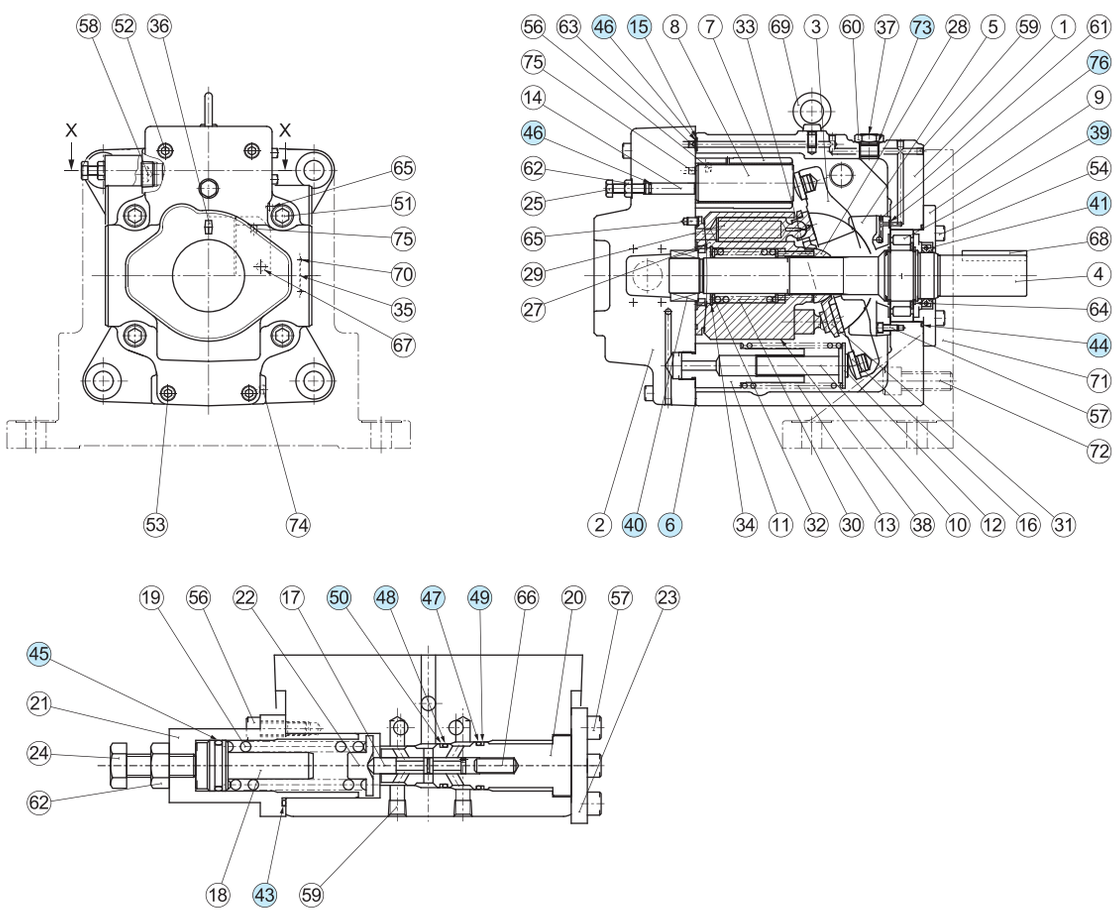
Piston Pump

A TYPE

A145-＊R01＊S

Item	Name of Parts	Part Numbers	Qty.
6	Gasket	1312-PK211974-1	1
15	Back Up Ring	1310E-PK412440-0	1
39	Bearing	NUP 2211ET2	1
40	Needle Bearing	8Q-NK38×55×30	1
41	Oil Seal	TCN 507212 (FKM)	1
43	O-Ring	S-31.5 (NBR-70)	1
44	O-Ring	SO-FA-G105	1
45	O-Ring	SO-NA-P18	1
46	O-Ring	SO-NB-P9	2
47	O-Ring	AS568-017 (NBR-70)	1
48	O-Ring	AS568-016 (NBR-70)	1
49	Back Up Ring	For AS568-017 (NBR-70)	1
50	Back Up Ring	For AS568-016 (NBR-70)	1
73	O-Ring	SO-NB-P18	1
76	O-Ring	SO-NB-P5	1



Section X-X

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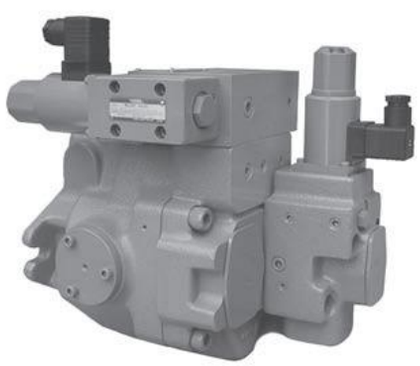
Piston Pump

A TYPE

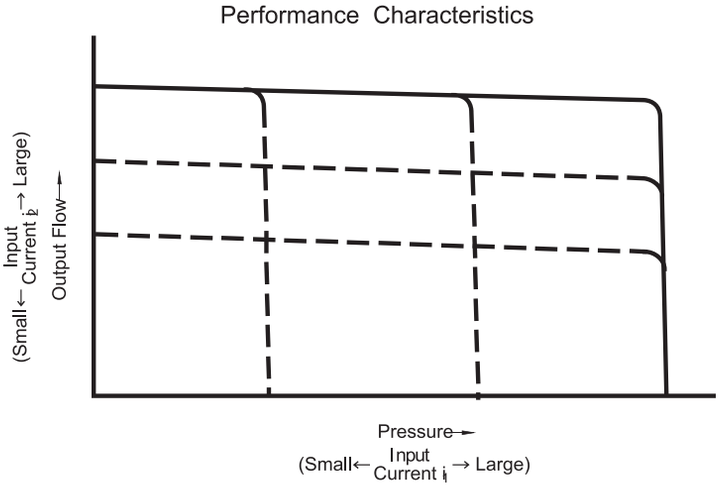
Model Number Designation

A56	-F	-R	-04	-C	-K	-32
Series Number	Mounting	Direction of Rotation	Control Type	Pres. Adj. Range Bar(PSI)	Shaft Extension	Design Number
A16 (15.8 cm³/rev)	**F:** Flange Mtg. **L:** Foot Mtg.	(Viewed from Shaft End) **R:** Clockwise*1	**04:** Proportional Electro-Hydraulic Load Sensing Type	**B:** 15 - 69 (220 - 1000) **C:** 15 - 157 (220 - 2280) **H:** 15 - 206 (220 - 2990)	**K:** Keyed Shaft	**32**
A22 (22.2 cm³/rev)				**B:** 15 - 69 (220 - 1000) **C:** 15 - 157 (220 - 2280)		**32**
A37 (36.9 cm³/rev)				**B:** 20 - 69 (290 - 1000) **C:** 20 - 157 (290 - 2280) **H:** 20 - 206 (290 - 2990)		**32**
A56 (56.2 cm³/rev)						**32**

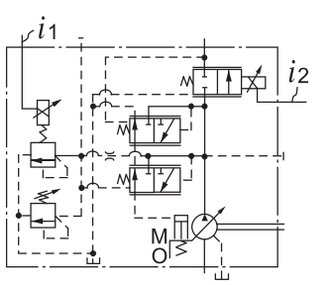
A70	-F	R	04	C	S	-60
Series Number	Mounting	Direction of Rotation	Control Type	Pres. Adj. Range Bar(PSI)	Port Position	Design Number
A70 (70.0 cm³/rev)	**F:** Flange Mtg. **L:** Foot Mtg.	(Viewed from Shaft End) **R:** Clockwise*1	**04:** Proportional Electro-Hydraulic Load Sensing Type	**C:** 15 - 16 (220 - 2320) **H:** 15 - 21 (220 - 3050)	**S:** Side Port	**60**
A90 (91.0 cm³/rev)						**60**
A145 (145 cm³/rev)						**60**



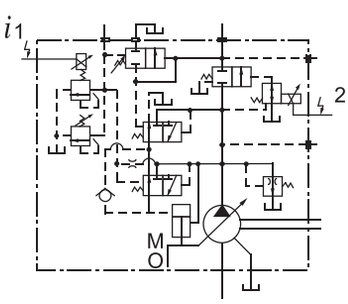
Performance Characteristics



Graphic Symbol



A16/A22/A37/A56



A70/A90/A145

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Piston Pump

A TYPE

Specifications

Descriptions \ Model Numbers			A16	A22	A37	A56	A70	A90	A145
Geometric Displacement		cm^3/rev	15.8	22.2	36.9	56.2	70.0	91.0	145
Operating Pressure Bar		Rated*2	160	160	160	160	210	210	210
		Intermittent*1	210	160	210	210	210	210	210
Shaft Speed Range r/min		Max.	1800	1800	1800	1800	1800	1800	1800
		Min.	600	600	600	600	600	600	600
Flow Control	Flow Adj. Range	L/min	1 - 28.4	1 - 40	1 - 66	1 - 101	1 - 126	1 - 163	2 - 261
	Min. Pres. Required for Flow Adj.	Bar	15	15	15	20	10	10	10
	Differential Pres. (Discharge Pres. -Load Pres.)	Bar	3.7				2.2		
	Step Response*5 (0 → Max. Flow)	ms	70	80	120	125	100	120	210
	Hysteresis		3 % or less*1						
	Rated Current	mA	900	700	740	790	820	920	920
	Coil Resistance (20°C)		10						
Pres. Control	Pres. Adj. Range	Bar	Refer to Model Number Designation						
	Step Response ms	t_1*5	80	80	50	55	150	150	160
		t_2*5	140	90	80	80	80	120	180
	Hysteresis		2 % or less*1						
	Rated Current	mA	(Pres. Adj. Range) B: 770, C:880, H:790				C: 860 H: 765	C: 873 H: 765	C: 875 H: 755
	Coil Resistance (20°C)	Ω	10						
Applicable Amplifier Model*3			AME-D2-1010-11						
Approx. Mass kg	Flange Mtg.		32	32	38	45	72.5	88.5	109.5
	Foot Mtg.		34.2	34.2	43.2	49.3	84.5	109	134.5

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Piston Pump

HY107Y-RP TYPE

HY 107 Y - R P

Model

Variable pump,Swashplate design
Rated pressure 315 bar
Peak pressure 400 bar

Displacement

10、16、18、25、28、32、40、
45、55、63、71、80、90、95、
100、107、125、140、160、180、
200、225、250、280、300、320 ml/r

Controller

M = Fix displacement control
Y = Constant power control
MY = Grading variables control
B = Electro hydraulic
S = Manual control
P = Pressure control

P01 = Pressure control,energy-saving
P02 = Remote pressure control
P03 = Pressure and flow control
P04 = High and low voltage compensation control
P05 = High and low voltage compensation remote control

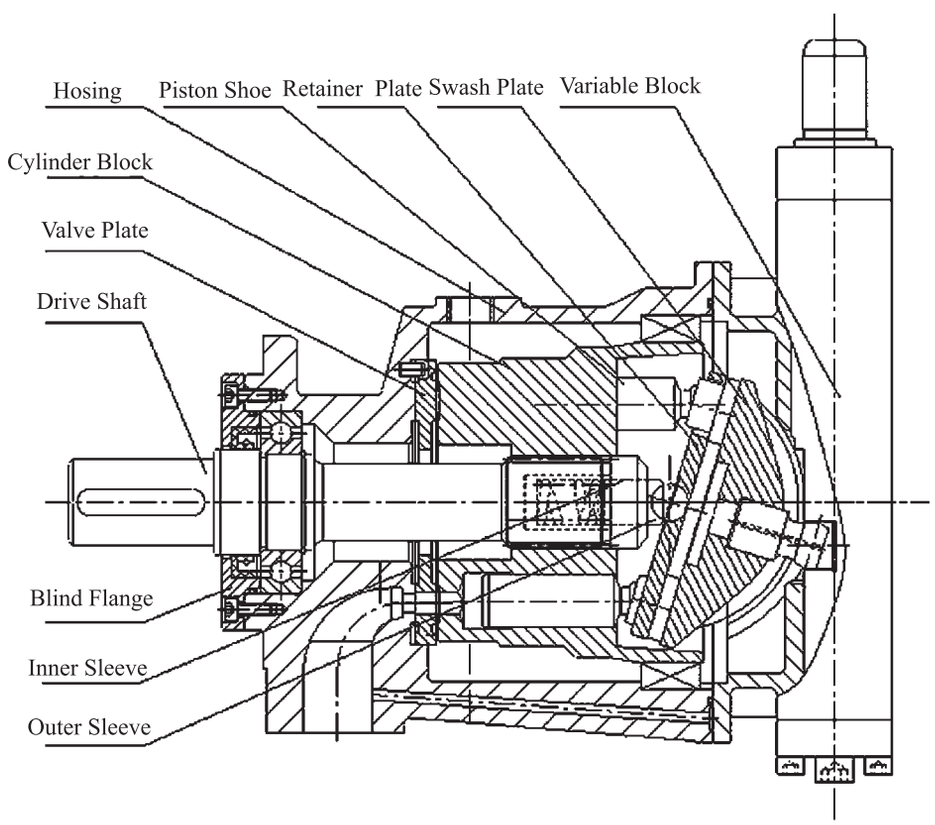
Shaft end

P = Metric parallel with key

Direction of rotation

R = Clockwise
L = Anti-clockwise

CONSTRUCTION



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Piston Pump

**CY14-1B TYPE

C Y 14 - 1 B

Nominal displacement

1.25、2.5、5、10、16、25、32、
40、63、80、160、250、400ml/r

M = Quantitative
S = Manual variable
Y = Pressure compensation variable
MY = Graded variable
B = Electroliquid proportional variable
P = Constant pressure variable
C = Mobile (servo) variable
D = Electric variable

Pressure stage

C = 315Bar

Y = Pump
M = Motor

Cylinder block rotary axial plunger pump (motor)

The first structure code

Technical improvement code number B

G = 160,250 CY 1500 r/min speed-up model

Direction of rotation

Positive rotary pump (clockwise)
F = Reverse pump (Anti-clockwise)

For more techinical relation queries please contact our sales team.

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Piston Pump

V15A TYPE

V	15	A	3	R	_	_	–	_	_	_	_	_	_	_
1	2	3	4	5	6	7		8	9	10	11	12	13	14

Series

01			
	High-pressure structural variable-displacement axial plunger pump Nominal pressure: 175bar	Maximum pressure: 280 bar Single working time: 250bar / 6ms 315bar/2.5ms	V

Specification displacement

02	Code name		8	10	12	15	18	23	25	38	42	50	70
	Size		1					2		3		4	
	Displacement	cm^3/rev	8	10	12	15	18	23.0	25.0	37.8	42.0	51.5	69.7
		In^3/rev	0.48	0.61	0.73	0.90	1.1	1.40	1.52	2.31	2.56	3.14	4.25

Control type

03				
	Standard-type of pressure control			A ※
	Remote control-type pressure control			G
	Load-induction-type control	Induction pressure		HL□
		A	Low pressure: 7KG	
		B	Medium pressure: 14KG	
		C	High pressure: 21KG	
	No segment variable speed, external oil pressure cylinder, flow can be arbitrary change control			B
	Two stages of pressure, two segments of flow control			C
	Two pressure, two flow + Remote control			CG
	Two segments of pressure, Two sections of flow control + Low pressure discharge			CR
	Low-pressure removal + Pressure control			D
	Low-pressure removal + Pressure control + Remote control			DG
	Electric control of two-segment pressure control			E
	Electric control of two-segment pressure control + Remote control			EG
	Electric control two pressure + Two flow control			F
	Electric control two pressure + Two flow control + Remote control			FG
	Remote control regulator (including NG6 interface)			GM
	Remote control regulator + Proportional pressure			GJ
	Remote control regulator + Electronic control removal			GR
	Remote control regulator + Electric control of two segments of pressure			GB
	Remote control regulator + Electronic control discharge + Two segments of pressure			GC
	Load induction regulator + Proportional flow rate + Overflow valve	Induction pressure		HQ□
		A	Low pressure: 7KG	
		B	Medium pressure: 14KG	
		C	High pressure: 21KG	
	Load induction regulator + Proportional pressure + Proportional flow	Induction pressure		HK□
		A	Low pressure: 7KG	
		B	Medium pressure: 14KG	
		C	High pressure: 21KG	

■ = Available stock　- = No supply　※ = Good merchantable quality　△ = Customization

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Piston Pump

V15A TYPE

V	15	A	3	R										
1	2	3	4	5	6	7		8	9	10	11	12	13	14

Pressure adjustment range

04	8	10	12	15	18	23	25	38	42	50	70	
8~70 bar (0.8~6.9 Mpa)	■	■	■	■	■	■	■	■	■	■	■	1
15~140 bar (1.5~13.7 Mpa)	■	■	■	■	■	■	■	■	■	■	■	2
20~210 bar (2.0~20.6 Mpa)	■	■	■	■	■	■	■	■	■	■	■	3
20~250 bar (2.0~24.5 Mpa)	■	■	■	■	■	■	■	■	■	-	-	4

Rotation direction

05	
Clockwise	R
Counterclockwise	L

Pipe direction

06	8	10	12	15	18	23	25	38	42	50	70	
No marked: oil on both sides (flange type)	■	■	■	■	■	■	■	■	■	■	■	※
Rear oil out (flange type)	-	-	-	-	-	■	■	■	■	■	■	B
Oil out on both sides + rear oil out (flange type)	-	-	-	-	-	■	■	■	■	-	-	B2

Input Shaft

07	Displacement	Code
	No mark	Flat key:
	V15,V18	Spline: S 13T 16/32 DP S1 9T 16/32 DP S2 11T 16/32 DP
	V23,V25,V38,V42	Spline: S 13T 16/32 DP S1 15T 16/32 DP S3 13T 16/32 DP lengthened form
	V50,V70	Spline: S 14T 12/24 DP S1 17T 12/24 DP

Voltage

08	
No-voltage	
AC100V (50/60HZ)	A
AC110V (60HZ)	B
AC220V (50/60HZ)	C
AC220V (60HZ)	D
DC 12V	E
DC 24V	F ※

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Piston Pump

V15A TYPE

V	15	A	3	R			–							
1	2	3	4	5	6	7		8	9	10	11	12	13	14

Pipe tooth type

09													
PT (RC)	■	■	■	■	■	■	■	■	■	■	■	10	※
BSPP (G)	■	■	■	■	■	■	■	■	■	■	■	40	※
NPT	△	△	△	△	△	△	△	△	△	△	△	50	
UNF(SAE o-ring)	■	■	■	■	■	■	■	■	■	■	■	60	
M mould	△	△	△	△	△	△	△	△	△	△	△	70	

Pass shaft specification

10	
Single pump	
∅50.8 mm	C
∅82.55 mm	D
∅101.6 mm	E
∅127 mm	F
∅63 mm	I
∅80 mm	J
∅100 mm	K
∅125 mm	L

Special requirement

11	
Good merchantable quality	X
Low voltage mother machine for special use	X1
Air transfer pressure release type	Z

Connection type

12		
Only for V15, V18 can add A, other displacement only choose unmarked	No marked: Standard type	
	Amphithyrid	A

Grease seal

13		
Ding umbilical rubber		※
Fluorinerubber	V	

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Piston Pump

PVS TYPE

PVS	08	A	3	R	_	B	K	N	10	N	F	N	_	1001
1	2	3	4	5		6	7	8	9	10	11	12		13

Series

01	High-pressure axial sub-volume plunger pump	PVS

Displacement (maximum displacement)

02	04CC	04	※
	08CC	08	※
	10CC	10	※
	16CC	16	-
	22CC	22	-
	35CC	35	-
	42CC	42	-

Control type

03	No pressure control			N	△
	Pressure compensated control			A	※
	Pressure compensation + Remote control			G	△
	Load-induction-type control	Induction pressure		HL□	-
		A	Low pressure: 7KG		
		B	Medium pressure: 14KG		
		C	High pressure: 21KG		
	No segment variable speed, external oil pressure cylinder, flow can be arbitrary change control			B	-
	Two stages of pressure, two segments of flow control			C	-
	Two pressure, two flow + Remote control			CG	-
	Low-pressure unloading + Pressure control			D	-
	Low-pressure unloading + Pressure control + Remote control			DG	-
	Electric control of two-segment pressure control			E	-
	Electric control of two-segment pressure control + Remote control			EG	-
	Electric control two pressure + Two flow control			F	-
	Electric control two pressure + Two flow control + Remote control			FG	-
	Remote control regulator (including NG6 interface)			GM	-
	Remote control regulator + Proportional pressure			GJ	-
	Remote control regulator + Electronic control unloading			GR	-
	Remote control regulator + Electric control of two segments of pressure			GB	-
	Remote control regulator + Electronic control unloading + Two segments of pressure			GC	-
	Load induction regulator + Proportional flow rate + Overflow valve	Induction pressure		HQ□	-
		A	Low pressure: 7KG		
		B	Medium pressure: 14KG		
		C	High pressure: 21KG		
	Load induction regulator + Proportional pressure + Proportional flow	Induction pressure		HK□	-
		A	Low pressure: 7KG		
		B	Medium pressure: 14KG		
		C	High pressure: 21KG		

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Piston Pump

PVS TYPE

PVS	08	A	3	R	_	B	K	N	10	N	F	N	_	1001
1	2	3	4	5		6	7	8	9	10	11	12		13

Pressure adjustment range

04		
	No regulator (quantitative pump) (system protection)	N △
	20~35Bar(20.4~35.7kgf/cm²)	0 ※
	20~70Bar(20.4~71.4kgf/cm²)	1 ※
	30~140Bar(30.6~143kgf/cm²)	2 ※
	30~210Bar(30.6~214kgf/cm²)	3 ※
	30~245Bar(30.6~250kgf/cm²)	4 ※

Rotation direction

05		
	Forward turn (Clockwise)	R ※
	Reverse (Counterclockwise)	L ※

Pipe direction

06		
	Oil is produced on both sides of the pump	A ※
	Oil is pumped from the rear	B △
	Turn 90 degrees out (OOT)	C △
	The left and right sides of the oil, and the pressure control handle turns 90 degrees inward (IN) to turn left and right	D △

Input shaft

07		
	Flat key 15.875 (5 / 8 ")	K ※
	Flat key 19.05 (3 / 4 ")	G ※
	Flower teeth 9 teeth	S -

Voltage

08		
	No-voltage	N ※
	100V 50/60HZ	A -
	110V 60HZ	B -
	200V 50/60HZ	C -
	220V 60HZ	D -
	DC12V	E -
	DC24V	F -

Pipe tooth type

09		
	PT (RC) (Oil absorption PT1/2 Oil output PT1/2)	4 ※
	PT (RC) (Oil absorption PT3/4 Oil output PT1/2)	N △
	BSPP (G) (Oil absorption G1/2 Oil output G1/2)	N △
	BSPP (G) (Oil absorption G3/4 Oil output G1/2)	N △
	NPT	N △
	SAE (ISO 11926-1)	N △

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Piston Pump

PVS TYPE

PVS	08	A	3	R	_	B	K	N	10	N	F	N	_	1001
1	2	3	4	5		6	7	8	9	10	11	12		13

Through the axis

10			
	Single pump	N	※
	SAE AA 50.8mm	C	-
	SAE A 82.55mm	D	-
	SAE B 101.6mm	E	-
	SAE C 127mm	F	-
	Metric 63mm	I	-
	Metric 80mm	J	-
	Metric 100mm	K	-
	Metric 125mm	L	-

Connection specifications

11			
	Flange type	F	※
	Foot seat type	L	-

Grease seal

12			
	NBR	N	※
	VITON	V	△

Special code

13			
	No mark	N	※
	Special payment (foot type) PT tooth side advance (PT1/2) post-out (SAE-6)	5001	※
	Special payment (foot type) NPT tooth side advance (NPT1/2) post-out (SAE-6)	5002	※
	flange (reverse motor type) PT tooth side advance (PT1/2) post-out (SAE-6)	5003	※

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Regulators For Piston Pumps

Item	Model	Application Range	Application Field	Features
	H10VO45 Ed72	The A10V series displacement 18-100 variable piston pump applies	Construction machinery	Electricalproportional pressure control
	H10VO71 DFR DFR1 DRG	The A10V series displacement 18-100 variable piston pump applies	Industry,metallurgy, construction machinery, coal mine machinery etc	Pressure and flow control
	H10VO71 DR	The A10V series displacement 18-100 variable piston pump applies	Industry,metallurgy, construction machinery, coal mine machinery etc	Pressure control
	H10VO71 LR	The A10V series displacement 28-100 variable piston pump applies	Construction machinery	Power control
	H10VO71 LS	The A10V series displacement 28-100 variable piston pump applies	Construction machinery	Load-sensing
	H10VO140 DFRDFR1	A10V series displacement 140 variable piston pump and A4VSO series displacement 125-500 variable piston pump are applicable	Industry,metallurgy	Pressure and flow control
	H11VO75 LRDS	The A11V series displacement 40-75 variable piston pump applies	Construction machinery, coal mine machinery	Load sensing, pressure, and power control
	H11VO95 LRDS	The A11V series displacement 95-145 variable piston pump applies	Construction machinery, coal mine machinery	Load sensing, pressure, and power control

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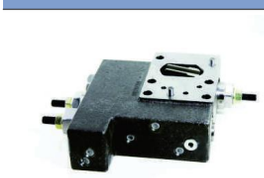
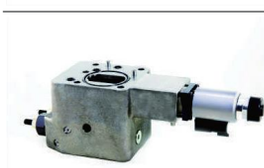
Regulators For Piston Pumps

Item	Model	Application Range	Application Field	Characteristics
	H11VO115 LRDS	The A11V series displacement 115 variable piston pump applies	Construction machinery	Load sensing, pressure, and power control
	H11VO130 LRDU2	The A11V series displacement 95-145 variable piston pump applies	Construction machinery	Electric scale control
	H11VO190 LE2S	The A11V series displacement 190,260 variable piston pump applies	Construction machinery	Electric proportional variable power control
	H11VO190 LRDS	The A11V series displacement 190,260 variable piston pump applies	Construction machinery, coal mine machinery	Load sensing, pressure, and power control
	H11VO190 LRDU2	The A11V series displacement 190,260 variable piston pump applies	Construction machinery	Electric scale control
LVS60	LVS60-G1/2	-	The slip loader	Leveling valve
Power Valve Pilot Valve Set	H11VO75/95/115/190	-	A11V series 75 / 95 / 115 / 190 variable piston pump power valve pilot valve set	-
	Oil Source Valve	-	6 / 8 / 10 tonnage excavator	-

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Vane Pump

DV10/DV20 TYPE

(F3) - DV10 - 1 P 5 S - 1 C 20 L

Viton seals
Omit if not required

Series designation

Installation
1-2-bolt flange

Inlet connections

Series	P	S	M
DV10	1"NPT	1.3125-12UNF-2B	M33×2-7H
DV20	1.25"NPT	1.625-12UNF-2B	M42×2-7H

Flow code
Flow(USgpm) at 1200rpm and 6.9 bar

Series	USgpm	ml/r(in3/r) Geometric displacement
DV10	1	3.3 (0.2)
	2	6.6(0.4)
	3	9.8 (0.6)
	4	13(0.79)
	5	16.5(1.01)
	6	19.5(1.19)
	7	23 (1.40)
DV20	6	19.5 (1.19)
	7	23 (1.40)
	8	26.5(1.62)
	9	29.7 (1.81)
	10	33.0 (2.0)
	11	36.4(2.22)
	12	39.0(2.38)
	13	42.5(2.60)

Outlet connections

Series	P	S	R	M
DV10	1/2"NPT	0.75-16UNF-2B		M20×1.5-7B
DV20	3/4"NPT	1.0625-12UNF-2B	1.1875-12UNF-2B	M27×2-7B

Shaft type

Model	Str key	Spline	Spline	Spline
DV10	1	11		
DV20	1	11	38	62

Rotation
(Viewed from shaft end of pump)
R = Right hand for clockwise,omit
L = Left hand for counterclockwise

Design number

Outlet positions
(Viewed from cover end of pump)
A = Opposite inlet port
B = 90 ℃CW from inlet
C = Inline with inlet
D = 90 ℃W from inlet

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Vane Pump

DV2010 TYPE

(F3) - DV2010 - 1 F 13 S 3 S - 1 CC 10 L

Viton seals
Omit if not required

Series designation

Installation
1-2-bolt flange
6-2-bolt flange

Inlet connections
F-4-bolt flange

Flow shaft end pump
Flow(USgpm) at 1200rpm and 6.9 bar

Series	USgpm	ml/r(in3/r) Geometric displacement
DV2010 DV2020	6 7 8 9 10 11 12 13	19.5 23 26.5 29.7 33.0 36.4 39.0 42.5

No.1 outlet
S-1.062-12UNF

Flow-cover end pump
Flow(USgpm) at 1200rpm and 6.9 bar

Series	USgpm	ml/r(in3/r) Geometric displacement
DV2010	1 2 3 4 5 6 7	3.3 6.6 9.8 13.0 16.5 19.5 23.0
DV2020	6 7 8 9 10 11 12 13	19.5 23 26.5 29.7 33.0 36.4 39.0 42.5

No.2 outlet
DV2010: 0.75-16UNF
DV2020: 1.062-12UNF

Shaft type
1-Key
11-Spline

Rotation
(Viewed from shaft end of pump)
R = Right hand for clockwise,omit
L = Left hand for counterclockwise

Design number

0utlet positions
Viewed from cover end pump

0utlet port positions		DV2010	DV2020
No.l outlet opposite inlet	AA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	AB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	AC	No.2 outlet 45° CW from inlet	No.2 outlet inlin with inlet
	AD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet
No.1 outlet 90°CCW from inlet	BA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	BB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	BC	No.2 outlet 45° CW from inlet	No.2 outlet inlin with inlet
	BD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet
No.1 outlet inlin with inlet	CA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	CB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	CC	No.2 outlet 45° CW from inlet	No.2 outlet inlin with inlet
	CD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet
No.l outlet 90°CW from inlet	DA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	DB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	DC	No.2 outlet 45° CW from inlet	No.2 outlet inlin with inlet
	DD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet

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DV Type

SINGLE PUMP

(F3-)	**V	**	A	(F)	*	*	22	*
	Displace-ment	US GPM	Port con -nections	Mounting	Shaft type	Outlet positions	Design	Rotation
Omit if not required	20V	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	A-SAE4 bolt flange	Omit flange mounting	-1 strkey	A-opposite intet pott port	22	R-CW
	25V	10, 12, 14, 15, 17, 19, 21, 25			-86 HDsyrkey	B-90° CCW from inlet		L- CCW
F3-Viton seals	35V	21, 25, 30, 32, 35, 38		F-Foot mounting (single shaft seal)	-11(151) Spline	C-the inlet on the same side		
	45V	35, 42, 45, 50, 57, 60, 66, 75				D-90° CW from inlet		

DOUBLE PUMP

(F3-)	****V	**	A	**	(F)	*	*	22	*
	Displace-ment	US GPM	Port con -nections	US GPM	Mounting	Shaft type	Outlet position	Design	Rotation
Omit if not required	2520V	10, 12, 14, 15, 17, 19, 21, 25	A-SAE4 bolt flange	10, 12, 14, 15, 17, 19, 21, 25	Omit flange mounting	-1 strkey	A-opposite intet pott port	22	R-CW
	3520V	21, 25, 30, 32, 35, 38		21, 25, 30, 32, 35, 38		-86 HDsyrkey	B-90° CCW from inlet		L- CCW
	4520V	35, 42, 45, 50, 57, 60, 66, 75		35, 42, 45, 50, 57, 60, 66, 75		-11(151) Spline	C-the inlet on the same side		
	3525V	21, 25, 30, 32, 35, 38		21, 25, 30, 32, 35, 38	F-Foot mounting (single shaft seal)		D-90° CW from inlet		
F3-Viton seals	4525V	35, 42, 45, 50, 57, 60, 66, 75		35, 42, 45, 50, 57, 60, 66, 75					
	4535V	35, 42, 45, 50, 57, 60, 66, 75		35, 42, 45, 50, 57, 60, 66, 75					

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DVQ Type

SINGLE PUMP

(F3-)	**VQ	**	A	(F)	*	*	22	*
	Displace-ment	US GPM	Port con -nections	Mounting	Shaft type	Outlet position	Design	Rotation
Omit if not required	20VQ	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	A-SAE4 bolt flange	Omit flange mounting	-1 strkey	A-opposite intet pott port	22	R-CW
	25VQ	10, 12, 14, 15, 17, 19, 21, 25		F-Foot mounting (single shaft seal)	-86 HDsyrkey	B-90° CCW from inlet		L- CCW
F3-Viton seals	35VQ	21, 25, 30, 32, 35, 38		S- Flange mounting (Double shaft seal)	-11(151) Spline	C-the inlet on the same side		
	45VQ	35, 42, 45, 50, 57, 60, 66, 75				D-90° CW from inlet		

DOUBLE PUMP

(F3-)	****VQ	**	A	**	(F)	*	*	22	*
	Displace-ment	US GPM	Port con -nections	US GPM	Mounting	Shaft type	Outlet position	Design	Rotation
Omit if not required	2520VQ	10, 12, 14, 15, 17, 19, 21, 25	A-SAE4 bolt flange	10, 12, 14, 15, 17, 19, 21, 25	Omit flange mounting	-1 strkey	A-opposite intet pott port	22	R-CW
	3520VQ	21, 25, 30, 32, 35, 38		21, 25, 30, 32, 35, 38					L- CCW
	4520VQ	35, 42, 45, 50, 57, 60, 66, 75		35, 42, 45, 50, 57, 60, 66, 75	F-Foot mounting (single shaft seal)	-86 HDsyrkey	B-90° CCW from inlet		
	3525VQ	21, 25, 30, 32, 35, 38		21, 25, 30, 32, 35, 38			C-the inlet on the same side		
F3-Viton seals	4525VQ	35, 42, 45, 50, 57, 60, 66, 75		35, 42, 45, 50, 57, 60, 66, 75	S- Flange mounting (Double shaft seal)	-11(151) Spline	D-90° CW from inlet		
	4535VQ	35, 42, 45, 50, 57, 60, 66, 75		35, 42, 45, 50, 57, 60, 66, 75					

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Vane Pump

VPT TYPE

VPT 20 B S 10

Model
VPT

Nominal output
L/min (1800rpm)
08 (4.5cc)
12 (6.7cc)
15 (8.3cc)
20 (11.1cc)
30 (16.7cc)
40 (22.2cc)

Pressure adjustment range
kgf/cm²
A = 10-20kgf/cm²
B = 15-35kgf/cm²
C = 30-55kgf/cm²
D = 50-70kgf/cm²

Design code
10

Core shaft number
Unmarked = Flat bond cordrel
S = Flower key core shaft
L = Clutch

VPT 40 B S 30

Model
VPT

Nominal output
L/min (1800rpm)
30 (16.7cc)
40 (22.2cc)

Pressure adjustment range
kgf/cm²
A = 10-20kgf/cm²
B = 15-35kgf/cm²
C = 30-55kgf/cm²
D = 50-70kgf/cm²

Design code
30

Core shaft number
Unmarked = Flat bond cordrel
SL = Flower key core shaft

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Vane Pump

VP TYPE

VP ___ - ___ - ___

Model Series
VP = Variable vane pump

Subsidiary Series
1, 2, 11, 22

Max. Outlet Flow
Displacement L/min
VP1 = 8,12, 15, 20
VP2 = 30, 40

Operating Pressure Range
35 = 0.8-3.5MPa
55 = 3.0-5.5MPa
70 = 5.0-7.0MPa

VP5 TYPE

VP5 - 40 - D - S - 20

Series number
SVPV5 series variable blade pump

Output flow rate / geometric displacement
Output flow rate at 3.5 bar, 1,800 r/min.
30 = Geometric displacement: 16 cm / rev
40 = Geometric displacement: 22 cm / rev
Note: Factory flow is set to Qmax

Design number

Pressure regulation range
A = 15-35bar
B = 20-70bar
C = 50-105bar
D = 70-140bar
Note: The factory pressure is set to Pmin

Selection
S = Sink shaft extensionThe semicircular key axis is omitted5.Design number

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Vane Pump

PV2R TYPE

PV2R ___ - ___ - ___ ___ ___ ___

Code of subsidiary series
1, 2, 3, 4, 21, 31, 22

Displacement of single or shaft end pump
Displacement ml/r

4	**6**	**8**	**10**	**12**	**14**	**17**	**19**	**23**	**25**
4.3	6.5	8.5	10.8	12.8	14.5	16.2	20.1	22.5	25.3
28	**31**	**26**	**33**	**41**	**57**	**53**	**59**	**65**	**70**
29.6	32.3	25.3	32.3	39.8	49.8	51.5	55.8	63.7	70.3
79	**85**	**52**	**60**	**66**	**76**	**94**	**116**	**125**	**136**
78.1	82.7	51.5	63.7	66.6	75.5	89.5	118	70.3	136

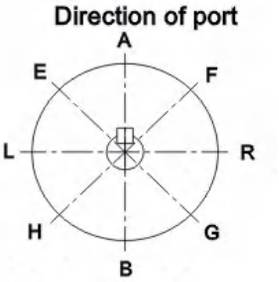
Displacement of cover end pump
Displacement ml/r

Direction of rotation (Viewed on shaft end)
R = Right (clockwise)
L = Left (anti-clockwise)

Shaft Diameter
F = Minor shaft (Omitted)
F1 = Major shaft

Port Position (Viewed from shaft end)
A, B, L, R = Inlet
A = Outlet of single or shaft end pump
A, B, E, F, G, H, L, R = Outlet of cover end pump

Direction of port



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Vane Pump

DT6C TYPE

DT6C - __ - __ __ __ - __ __

Volumetric Displacement

cm³ / rev (in³ / rev)

X03	X05	X06	X08	X10
10.8(0.66)	17.2(1.05)	21.3(1.30)	26.4(1.61)	34.1(2.08)

X12	X14	X15	X17	X20
37.1(2.26)	46.0(2.81)	50.5(3.08)	58. 3(3.56)	63.8(3.89)

X22	X25	X28	X31
70.3(4.29)	79.3(4.84)	88.8(5.42)	100.0(6.10)

X = 0(Uni-directional); B(Bi-directional); Y(Bi-directional for cold start)

Shaft

1 = keyed(SAE B)
2 = keyed(no SAE)
3 = splined (SAE B)
4 = splined (SAE BB)

Direction of rotation (Viewed on shaft end)

R = Clockwise
L = Counter-clockwise

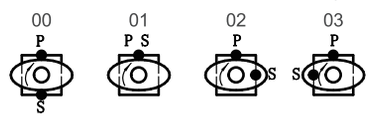
Seal class

1 = S1(for mineral oil)
4 = S4(for fire resistant fluids)
5= S5(for mineral oil and fire resistant fluids)

Design number

Seal class

00 = standard
S = Suction port
P = Pressure port



DT6D TYPE

DT6D - __ - __ __ __ - __ __

Volumetric Displacement

cm³ / rev (in³ / rev)

X14	X17	X20	X24	X28
47.6(2.90)	58.2(3.55)	66.0(4.03)	79.5(4.85)	89.7(5.47)

X31	X35	X38	X42	X45
98.3(6.00)	111.0(6.77)	120.3(7.34)	136.0(8.30)	145.7(8.89)

X50	X60
158.0(9.64)	190.5(11.62)

X = 0(Uni-directional); B(Bi-directional);

Shaft

1 = keyed(SAE C)
2 = keyed(no SAE)
3 = splined (SAE C)
4 = splined (no SAE)

Direction of rotation (Viewed on shaft end)

R = Right (clockwise)
L = Counter-clockwise

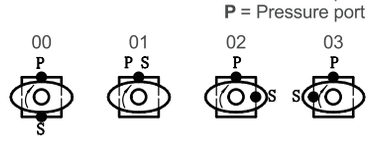
Seal class

1 = S1(for mineral oil)
4 = S4(for fire resistant fluids)
5= S5(for mineral oil and fire resistant fluids)

Design number

Seal class

00 = standard
S = Suction port
P = Pressure port



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Vane Pump

DT6E TYPE

DT6E - __ - __ __ __ - __ __

Volumetric Displacement

cm³ / rev (in³ / rev)

042	045	050	052	057
132.3(8.07)	142.4(8.69)	158.5(9.67)	164.8(10.06)	180.7(11.02)

062	066	072	085
196.7(12.00)	213.3(13.02)	227.1(13.86)	269.8(16.46)

Seal class

1 = S1(for mineral oil)
4 = S4(for fire resistant fluids)
5 = S5(for mineral oil and fire resistant fluids)

Shaft

1 = keyed(SAE CC)
2 = keyed(no SAE)
3 = splined (SAE C)
4 = splined (SAE CC)

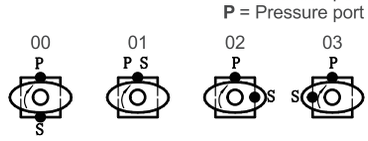
Design number

Direction of rotation (Viewed on shaft end)

R = Clockwise
L = Counter-clockwise

Seal class

00 = Standard
S = Suction port
P = Pressure port



DT7D TYPE

DT7D* or DT7DS - B42 - 1 R 00 - A 1 - M0 ..

DT7D series - 125 A2 HW

ISO 2 bolts 3019-2 mounting flange

DT7DS series - SAE C 2 bolts

I744 mounting flange
*Rear drive option available. please contact Parker

Modifications

Displacement

Volumetric displacement (ml/rev.)

B14 = 44,0 **B22** = 70,3 **B31** = 99,2 **B42** = 137,5
B17 = 55,0 **B24** = 81,1 **B35** = 113,4 **B45** = 145,7
B20 = 66,0 **B28** = 90,0 **B38** = 120,6 **B50** = 158,0

Mounting w/connection variables

4 bolts SAE flange J518

	P = 1.1/4" - S = 2"		
	Metric thread		UNC thread
X17	M0		
X17	M0	Y0[1)]	00

[1)] 250 bar max. int.

Type of shaft DT7D . DT7DS

5 = keyed (ISO 3019-2 - G32M)

Seal class

1 = S1 BUNA N - 0,7 bar max. (for mineral oil)
4 = S4 EPDM - 7 bar max. (for fire resistant fluids)
5 = S5 VITON® - 7 bar max. (for mineral oil and fire resistant fluids)

Type of shaft DT7DS

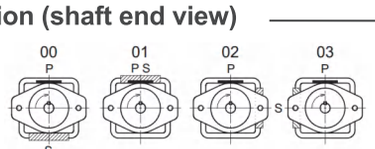
1 = keyed (SAE C) Ø 31,7 **3** = splined (SAE C) 14 teeth
2 = keyed (non SAE) **4** = splined (non SAE)

Design letter

Direction of rotation (shaft end view)

R = Clockwise
L = Counter-clockwise

P = Pressure port
S = Suction port



Porting combination

00 = standard

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SQP Type

SINGLE PUMP

(F3-)	SQP*	-**	*	*	(F)	18	*
	Series designation	US GPM	Shaft type	Outlet positions	Mountiing	Design number	Rotation
Omit if not required	SQP1	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	-1 strkey	A-opposite inlet port	Omit flange mounting	18	Viewed from shaft end of pump
	SQP2	10, 12, 14, 15, 17, 19, 21, 25	-86 HDsyrkey	B-90° CCW from inlet			R-CW
F3- Viton seals	SQP3	21, 25, 30, 32, 35, 38		C-inline with inlet	F- Foot mounting		
	SQP4	35, 42, 45, 50, 57, 60, 66, 75	-11(151) Spline	D-90° CW from inlet			L- CCW

DOUBLE PUMP

(F3-)	****V	**	A	**	(F)	-**	*	22	*
Omit if not required	Series designation	US GPM	Port con -nections	US GPM		Shaft type	Outlet position	Design number	Rotation
F3-Viton seals	SQP21	10, 12, 14, 15, 17, 19, 21, 25	A-SAE4 bolt flange	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	Mounting	-1 strkey	A-opposite inlet port	22	Viewed from shaft end of pump
	SQP31	21, 25, 30, 32, 35, 38		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	Omit flange mounting		B-90° CCW from inlet		R-CW
	SQP41	35, 42, 45, 50, 57, 60, 66, 75		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14		-86 HDsyrkey			
	SQP32	21, 25, 30, 32, 35, 38		10, 12, 14, 15, 17, 19, 21, 25	F-Foot mounting		C-Inline with inlet		
	SQP42	35, 42, 45, 50, 57, 60, 66, 75		10, 12, 14, 15, 17, 19, 21, 25					L- CCW
	SQP43	35, 42, 45, 50, 57, 60, 66, 75		21, 25, 30, 32, 35, 38		-11 Spline	D-90° CW from inlet		

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Piston Motor

DA2FM TYPE

DA2F M 16 / 6 1 R V - A B 06

Operating mode

O = Pump, open circuit
M = Motor

Displacement

Vg max, unit cm³ = 5, 10, 12, 16, 23, 28, 32, 45, 56, 63, 80, 90, 107, 125 160, 180, 200

Series 6

Index

1 = NG10 to 180
3 = NG200

Directions of rotation

R = clockwise
L = counter-clockwise
W = Bi-rotation(motor)

Seals

N = NBR (nitrile butadiene rubber), FKM rotary shaft seal (Viton)
V = FKM (Fluorocarbon)

Drive shafts

	5	10	12	16	23	28	32	45	56	63	80	90	107	125	160	180	200	
Splined shaft DIN 5480	–	●	●	●	●	●	●	–	●	●	●	●	●	●	●	●	●	A
	–	●	●	–	●	●	–	●	●	–	●	–	●	–	●	–	–	Z
Parallel keyed shaft DIN 6885	●	●	●	●	●	●	●	–	●	●	●	●	●	●	●	●	●	B
	–	●	●	–	●	●	–	●	●	–	●	–	●	–	●	–	–	P
Conical shaft [1]	●	–																C

1) Conical shaft with threaded pin and woodruff key (DIN 6888).
The torque must be transmitted via the tapered press fit.

Mounting flanges

	5 to 250	
ISO 3019-2 4-hole	●	B

Port plates for service lines [2]

	5	10 to 16	23 to 250	
SAE flange port A/B at side and SAE flange port S at rear	–	–	●	05
Threaded port A/B at side and threaded port S at rear	–	●	–	06
Threaded ports A/B and S at side	●	–	–	07

2) Fastening thread or threaded ports, metric.

● = Available ❍ = On request – = Not available = Preferred program

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Piston Motor

DMF TYPE

DMF 20 A B A 11 35 35 000

Displacement

20	21	22	23
33.3 (2.03)	51.6 (3.15)	69.8 (4.26)	89.0 (5.43)

24	25	26	27
118.7 (7.24)	165.8 (10.12)	227.3 (13.87)	333.7 (20.36)

Shaft

A = 14t, 12/24 Pitch, Ø31.20 (1.23”)
B = 19t, 16/32 Pitch, Ø31.75 (1.25”)
C = 21t, 16/32 Pitch, Ø34.50 (1.36”)
D = 23t, 16/32 Pitch, Ø37.68 (1.48”)
E = 27t, 16/32 Pitch, Ø44.03 (1.73”)
F = 40t, 16/32 Pitch, Ø64.66 (2.55”)
G = 3t, 8/16 Pitch, Ø43.71 (1.72”)
I = 20t, 16/32 Pitch, Ø32.91 (1.30”)
J = Cone 1:8, SAE J501, Ø41.27 (1.62”)
K = Cone 1:8, SAE J501, Ø31.75 (1.25”)
L = Parallel with Key, Ø34.925 (1.38”)
M = Parallel with Key, Ø34.925 (1.38”)
P = 15t, 16/32 Pitch, Ø25.40 (1.00”)
R = 13t, 16/32 Pitch, Ø21.80 (0.86”)

Ports

A = SAE J518c, Code 62, Size 1", 6000psi 7/16"-14UNC-2A
B = SAE J518c, Code 61, Size 1", 5000psi 3/8"-16UNC-2A
C = ISO 6162, DN25, Type II, 40 MPa M12
D = SAE J518c, Code 62, Size 3/4", 6000psi 3/8"-16UNC-2B
E = SAE J518c, Code 61, Size 3/4", 5000psi 3/8"-16UNC-2B
F = ISO 6162, DN19, Type II, 40 MPa M10

Design Code

000 = Standard
XXX = Special Production Number

Pressure Setting in Port B

11 = 11 MPa (1600)
14 = 14 MPa (2050)
35 = 35 MPa (5000)
40 = 40 MPa (5500)
42 = 42 MPa (6000)
00 = Without Pressure Valve

Pressure Setting in Port A

11 = 11 MPa (1600)
14 = 14 MPa (2050)
35 = 35 MPa (5000)
40 = 40 MPa (5500)
42 = 42 MPa (6000)
00 = Without Pressure Valve

Pressure Setting of Valve in Manifold Assembly

11 = 1.1 MPa (1.1±0.05 MPa at 3.8 dm³/min)
13 = 1.3 MPa (1.3±0.05 MPa at 3.8 dm³/min)
16 = 1.6 MPa (1.6±0.05 MPa at 3.8 dm³/min)
00 = WIthout Manifold Assembly

Manifold Assembly

A = Manifold Assembly with Bypass Valve
B = Manifold Assembly without Bypass Valve
C = Without Manifold Assembly with Cover Plate
N = Without Manifold Assembly

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Piston Motor

DA6VM TYPE

DIFFER HYDRAULICS

	DA6V	M					/	63	W		-	V						
1	2	3	4	5	6	7		8	9	10		11	12	13	14	15	16	17

Connector for solenoids

01		Mineral oil and HFD. HFD for sizes 250 to 1000 only in combination with long-life bearing "L" (without code)	
		HFB, HFC hydraulic fluid	Sizes 28 to 200 (without code)
	E		Sizes 250 to 1000 (only in combination with long-life bearing "L")

Axial piston unit

			28	55	80	107	140	160	200
02	DA6V	Bent-axis design, variable	●	●	●	●	●	●	●

Operation mode

03	M	Motor (plug-in-motor A6VE see RE 91606)

Size

04	≈ Displacement Vg max	in³ / rev	1.71	3.34	4.88	6.53	8.54	9.76	12.20
		in cm³ / rev	**28**	**55**	**80**	**107**	**140**	**160**	**200**

Control device

					28	55	80	107	140	160	200
05	HD1	Hydraulic control,pilot-pressure related		Δp = 145 psi (10 bar)	●	●	●	●	●	●	●
	HD2			Δp = 365 psi (25 bar)	●	●	●	●	●	●	●
	HD3			Δp = 510 psi (35 bar)	–	–	–	–	–	–	–
	HZ	Hydraulic two-point control			–	–	–	–	–	–	–
	HZ1				●	–	–	–	●	–	–
	HZ3				–	●	●	●	–	–	–
	EP1	Electric control, proportional		12V	●	●	●	●	●	●	●
	EP2			24V	●	●	●	●	●	●	●
	EZ1	Electric two-point control		12V	●	–	–	–	●	●	●
	EZ2			24V	●	–	–	–	●	●	●
	EZ3			12V	–	●	●	●	–	–	–
	EZ4			24V	–	●	●	●	–	–	–
	HA1	Automatic control, high-pressure related	Without pressure increase		●	●	●	●	●	●	●
	HA2		With pressure increase Δp = 1450 psi (100 bar)		●	●	●	●	●	●	●
	DA	Hydraulic control, speed related	pSt /pHD = 3/100,	Hydraulic travel direction valve 12V	–	–	–	–	–	–	–
	DA1		pSt /pHD = 5/100,	Hydraulic travel direction valve 24V	●	●	●	●	●	●	●
	DA2			Electric travel direction valve + el. Vg max contro 12V	●	●	●	●	●	●	●
	DA3			24V	●	●	●	●	●	●	●
	DA4		pSt /pHD = 8/100,	Hydraulic travel direction valve	●	●	●	●	●	●	●
	DA5			Electric travel direction valve + el. Vg max control 12V	●	●	●	●	●	●	●
	DA6			24V	●	●	●	●	●	●	●

Pressure control (only for HD, EP)

				28	55	80	107	140	160	200
06		Without pressure control (without code)		●	●	●	●	●	●	●
	D	Pressure control,	Direct	●	●	●	●	●	●	●
	E		Direct, with 2nd pressure setting	●	●	●	●	●	●	●
	G		Remote	–	–	–	–	–	–	–

Overriding HA control (for HA1, HA2 only)

				28	55	80	107	140	160	200
07		Without override (without code)		●	●	●	●	●	●	●
	T	Pressure control,		●	●	●	●	●	●	●
	U1	Electric override	12V	●	●	●	●	●	●	●
	U2		24V	●	●	●	●	●	●	●
	DA6V	Electric override + electric travel direction valve	12V/24V	●	●	●	●	●	●	●

Series

08	63	Series 6, index 3

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Piston Motor

DA6VM TYPE

ADIFFER HYDRAULICS

	DA6V	M					/	63	W		-	V						
1	2	3	4	5	6	7		8	9	10		11	12	13	14	15	16	17

Direction of rotation

09	W	Viewed from shaft end, alternating

Setting range for displacement

				28	55	80	107	140	160	200
10		Vg min = 0 to 0.7 Vg max (without code)		●	●	●	●	●	●	●
	1	Vg min = 0 to 0.4 Vg max	Vg max = Vg max to 0.8 Vg max	–	–	–	–	–	–	–
	2	Vg min > 0.4 Vg max to 0.8 Vg max	Vg max = Vg max to 0.8 Vg max	–	–	–	–	–	–	–

Seals

11	V	FKM (fluor-caoutchouc)

Shaft end

				28	55	80	107	140	160	200
12	S	Version SAE	Splined shaft ANSI B92.1a-1976	–	●	●	●	–	●	●
	A	Version ISO	Splined shaft DIN 5480	●	●	●	●	–	●	●
	Z			●	●	●	●	●	●	–

Mounting flange

					28	55	80	107	140	160	200
13	C	Version SAE	SAE J744 – 2-bolt		–	●	●	●	–	●	●
	D		SAE J744 – 4-bolt		●	–	–	–	–	–	–
	B	Version ISO	ISO 3019-2 – 4-hole		●	●	●	●	●	●	●

Service line port

					28	55	80	107	140	160	200
14	510	Version SAE (AA6VM)	SAE flange ports	51	–	●	●	●	–	●	●
	517		A/B, rear (UN threads)		–	●	●	●	–	●	●
	520		SAE flange ports	52	–	●	●	●	–	●	●
	527		A/B side, opposite (UN threads)		–	●	●	●	–	●	●
	370		Port plate with pressure-relief valves,	37	–	–	–	●	–	–	–
	380		For mounting a counterbalance valve	38	–	●	●	●	●	●	–
	010	Version ISO (A6VM)	SAE flange ports	01	●	●	●	●	●	●	●
	017		A/B, rear (metric threads)		●	●	●	●	●	●	●
	020	Electric two-point control	SAE flange ports	02	●	●	●	●	●	●	●
	027		A/B side, opposite (metrics threads)		●	●	●	●	●	●	●

Speed measurement

			28	55	80	107	140	160	200
15		Without speed measurement (without code)	●	●	●	●	●	●	●
	D	Prepared for speed measurement (ID)	●	●	●	●	●	●	●
	F	Prepared for speed measurement (HDD)	●	●	●	●	●	●	●

Connector for solenoids

			EP1/2	EZ1/2	EZ3/4	HA.U.	HA.R.	DA
16	P	DEUTSCH - molded connector, 2-pin – without suppressor diode	●	●	○	○	●	●
	Q	DEUTSCH - molded connector, 2-pin – with suppressor diode	○	–	–	–	–	○
	H	HIRSCHMANN - connector – without suppressor diode	▲	▲	▲	▲	▲	▲

Start of control

			28	55	80	107	140	160	200
17	A	At Vg min (standard for HA)	●	●	●	●	●	●	●
	B	At Vg max (standard for HD, HZ, EP, EZ, DA)	●	●	●	●	●	●	●

For more techinical relation queries please contact our sales team.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Travel Motor

MICRO TYPE

Product introduction

Travel motor: This product is a traveling device integrated with motor and reducer. It consists of a double displacement axial piston motor and a planetary reducer. There is a built-in anti-reverse valve, parking brake device and high and low shift device in the motor. Features: large transmission ratio, compact structure, high efficiency, high reliability, small size, stable operation and low noise.

Model	Max Working Pressure (Bar)	Max Output Speed (r/min)	Applicable Tonnage (T)
TM02	245	75	~ 1.5
TM03	245	70	~ 2.0
TM03A	245	50	~ 3.5
TM04	245	55	~ 4.5
TM06	275	55	~ 5.5

SMALL TYPE

Product introduction

Travel motor: This product is a traveling device integrated with motor and reducer. It consists of a double displacement axial piston motor and a planetary reducer. There is a built-in anti-reverse valve, parking brake device and high and low shift device in the motor. Features: large transmission ratio, compact structure, high efficiency, high reliability, small size, stable operation and low noise.

Model	Max Working Pressure (Bar)	Max Output Speed (r/min)	Applicable Tonnage (T)
TM07	315	50	~ 7
TM09	315	50	~ 9
TM10	275	50	~ 10
TM18	315	60	~ 12
TM22	315	55	~ 15
TM30	315	30	~ 18

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Travel Motor

MEDIUM TYPE

Product introduction

Travel motor: This product is a traveling device integrated with motor and reducer. It consists of a double displacement axial piston motor and a planetary reducer. There is a built-in anti-reverse valve, parking brake device and high and low shift device in the motor. Features: large transmission ratio, compact structure, high efficiency, high reliability, small size, stable operation and low noise.

Model	Max Working Pressure (Bar)	Max Output Speed (r/min)	Applicable Tonnage (T)
TM40	345	50	~ 25
TM60	345	50	~ 30

CLOSED SYSTEM TYPE

Product introduction

Closed system travel motor: This product is a hydraulic traveling device integrated with motor and reducer.
It consists of a double displacement axial piston motor and a planetary reducer. There is a built-in flush valve, high and low shift valve, external brake control valve in the motor.
Features: large transmission ratio, compact structure, high efficiency, high reliability, small size, stable operation and low noise.

Model	Max Working Pressure (Bar)	Max Output Speed (r/min)	Applicable Tonnage (T)
TM04VB	275	110	~ 3.5
TM07VB	275	70	~ 5
TM09VB	315	50	~ 7

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Swing Motor

MICRO TYPE

Product introduction

Swing motor: This product is a swing device driven by a swash plate type straight axis hydraulic motor.
There are built-in accessories like oil filling valve, rotary brake and relief valve to ensure stable and safe operation of the swing device.
Features: simple structure, small size and low noise.

Model	Max Working Pressure (Bar)	Max Output Speed (r/min)	Applicable Tonnage (T)
LSMN-10-10	216	60	~ 2.5
LSMN-16-21	216	90	~ 3.5
LSMN-24-21	216	100	~ 5
LSMN-34-23	216	60	~ 6

SMALL AND MEDIUM TYPE

Product introduction

Swing motor: This product is a swing device driven by a swash plate type straight axis hydraulic motor.
There are built-in accessories like oil filling valve, rotary brake and relief valve to ensure stable and safe operation of the swing device.
Features: simple structure, small size and low noise.

Model	Max Working Pressure (Bar)	Max Output Speed (r/min)	Applicable Tonnage (T)
LSME-33-19	250	102	6 ~ 8
LSME-43-19	250	102	6 ~ 8
LSMC-63-19	294	115	~ 12
LSMC-130-20	324	92	~ 20
LSMC-180-22	324	84	~ 25
LSMC-180-25	324	67	~ 30

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Swing Motor

LK MOTOR TYPE

Product introduction

LK series swashplate variable displacement piston motors are designed for aerial platform equipment, hydraulic underground drilling equipment, photovoltaic cleaning equipment, Logistic intelligent operation platform

Model	Maximum Displacement (cc/rev)	Minimum Displacement (cc/rev)	Direction of rotation	Max Output Speed(rpm)		Max Working Pressure (Bar)
				At maximum displacement	At maximum displacement	
LK25	25	Adjustable according to demand	two-way	3950	5000	40
LK30	30			4150	5150	40
LK38	38			4000	5200	40
LK45	45			3900	5050	40

For more techinical relation queries please contact our sales team.

Orbit Motor

BMM

Position Displacement
Displacement CC/R
8, 12.5, 20, 32, 40, 50

Flange and Pilot
M = 3-M6 Circle-flange, pilot φ31.5×5mm
U = 3-1/4-28UNF Circle-flange, pilot φ31.5x5mm
F = 2-φ9 Round- flange, pilot φ63×2mm

Shaft
A = Shaft φ16, parallel key 5x5×16
B = Shaft φ15.875, parallel key 4.8x4.8×19.05
C = Shaft φ16.5, involute B17x14, DIN5482

Oil Port
E = G3/8
U = 9/16-18UNF
1E = End port G3/8
1U = End port 9/16-18UNF

Special Function
Omit = Standard
= No case drain

Paint Color
A = Silver Paint
B = Blue
C = Black
D = No Paint

Rotation Direction
A = Standard
B = Opposite

Drain Port
E = G1/8
U = 3/8-24UNF
1E = G1/8
1U = 3/8-24UNF

BM1

Position Displacement
Displacement CC/R
25, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400

Flange and Pilot
A = 2 bolt Round-flange,pilot φ80×2.8mm
B = 2 bolt Round-flange,pilot φ82.55×2.8mm
C = 2 bolt Round-flange,pilot φ80×5mm
D = 2 bolt Round-flange,pilot φ82.55×5mm
E = 4 bolt Round-flange,pilot φ80X5mm
F = 4 bolt Round-flange,pilot φ82.55X5mm
G = 4 bolt Round-flange,pilot φ80×5mm
H = 4 bolt Square flange,pilot φ82.55×5mm
I = 4 bolt Square flange,pilot φ85×5mm
J = 4 bolt Square flange,pilot φ44.4×2.8mm
K = 6 bolt Round-flange,pilot φ80×5mm
L = 6 bolt Round-flange,pilot φ82.55×5mm

Shaft
1 = φ25 straight shaft,flat key 8x7×32
2 = φ25 straight shaft,flat key 6.35x6.3×32
3 = φ25.4 straight shaft,flat key 6.35×6.3×32
4 = φ20straight shaft,flat key 6x6x32
5 = Splined shaft 6D-25.4x21.5x6.25
6 = Splined shaft 6D-25×22×6

Rotation Direction
A = Standard
B = Opposite

Paint Color
A = Silver Paint
B = Blue
C = Black
D = No Paint

Drain Port
1 = None
2 = M14X1.5
3 = G1/4
4 = 7/16-20UNF

Oil Port
A = G1/2
B = M22×1.5
C = 1/2-14NPTF
D = ZG1½
E = M18X1.5
F = M20X1.5
G = 7/8-14UNF

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Orbit Motor

BM1H

Position Displacement
Displacement CC/R
25, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400

Flange and Pilot
H2 = 2-φ13.5 Diamond flange, pilot φ82.5x6
H4 = 4-3/8-16 UNC Square flange, pilot φ44.4x2.8
H5 = 4-M10 Square flange, pilot φ44.4x2.8

Shaft
1 = Straight shaft φ25, Lenght 40, flat key 8x7x32
2 = Rectangular spline shaft 6-25x20, Lenght 40
3 = Straight shaft φ25.4, Lenght 40, flat key 6.35x6.35x31.75 (M8)
4 = Straight shaft φ20, Lenght 40, flat key 6x6x32
5 = Rectangular spline shaft 6-25.32x21.47x6.25, Lenght 40
6 = Rectangular spline shaft 6-25x21x6, Lenght 40
A = Straight shaft φ25, Lenght 43.2, flat key 8x7x32
C = Straight shaft φ25.4, Lenght 43.2, flat key 6.35x6.35x31.75
E = Rectangular spline shaft 6-25.32x21.47x6.25, Lenght 43.2
F = Shaft diameter Φ 31.75, Length 46.15, Sine 14-DP12/24, 3/8-16 UNC
K = Straight shaft φ25.4, Lenght 40, Half-cle bond φ25.4x6.35
R = Straight shaft φ25.4, Lenght 40, flat key 6.35x6.35x31.75 (1/4-20UNF)
S = Rectangular spline shaft 25.32 axis, 6-6.25, 1/4-20UNC, Lenght 40
H = φ25.4 Shaft, Lenght 40, pin hole φ10.3
H1 = φ25.4 Shaft, Lenght 46, pin hole φ8

Special function
Omit = Standard
H = High finale seal

Paint Color
00 = No paint
Omit = Blue
B = Black
S = Aluminium paint

Rotation Direction
Omit = Standard
R = Opposite

Oil Port
G = G1/2, G1/4
S = 7/8-14UNF 'O'-ring, 7/16-20UNF
P = 1/2-14NPTF, 7/16-20UNF
P2 = 1/2-14NPTF, M14*1.5
T = 3/4-16UNF 'O'-ring, 7/16-20UNF
B4 = φ10, 7/16-20UNF, Plate-type 4-5/16-18UNC
B5 = φ10, G1/4, Plate-type 4-M8

BM1W

Position Displacement
Displacement CC/R
25, 40, 50, 80, 100, 125, 160, 200, 250, 315, 400

Flange and Pilot
Omit = Wheel flange, pilot φ80x7.5

Shaft
A = Straight shaft φ25, Lenght 43.2, flat key 8x7x32
C = Straight shaft φ25, Lenght 43.2, flat key 6.35x6.35x31.75
E = Rectangular spline shaft 6-25.32x21.47x6.25, Lenght 43.2
T = Cone shaft φ28.56, Taper 1:10, Cone lenght 24, flat key B5X5X14
T4 = Cone shaft φ25.4, Taper 1:8, Cone lenght 26, woodruff key φ15.87X4.76

Oil Port
G = G1/2, G1/4, Flange 4-M10
S = 7/8-14UNF 'O' -ring, 7/16-20UNF, Flange 4-3/8-16UNC
M = M22x1.5, M14x1.5, Flange 4-M10

Special Function
Omit = Standard
H = High finale seal

Paint Color
00 = No paint
Omit = Blue
B = Black
S = Aluminium paint

Rotation Direction
Omit = Standard
R = Opposite

For more techinical relation queries please contact our sales team.

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Orbit Motor

BM2

Position Displacement
Displacement CC/R
25, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500

Flange and Pilot
A = 2bolt Round-flange, pilot φ80×2.8mm
B = 2 bolt Round-flange, pilot φ82.55×2.8mm
C = 2 bolt Round-flange, pilot φ80×5mm
D = 2 bolt Round-flange, pilot φ82.55×5mm
E = 4 bolt Round-flange, pilot φ80×5mm
F = 4 bolt Round-flange, pilot φ82.55×5mm
G = 4 bolt Square-flange, pilot φ80×5mm
H = 4 bolt Square flange, pilot φ82.55×5mm
I = 4 bolt Square flange, pilot φ85×5mm
J = 4 bolt Square flange, pilot φ44.4×2.8mm
K = 6 bolt Round-flange, pilot φ80×5mm
L = 6 bolt Round-flange, pilot φ82.55×5mm

Shaft
1 = φ25 straight shaft, flat key 8x7×32
2 = φ25 straight shaft, flat key 6.35x6.3×32
3 = φ25.4 straight shaft, flat key 6.35×6.3×32
4 = φ20 straight shaft, flat key 6x6x32
5 = Splined shaft 6D-25.4x21.5x6.25
6 = Splined shaft 6D-25×22×6

Rotation Direction
A = Standard
B = Opposite

Paint Color
A = Silver Paint
B = Blue
C = Black
D = No Paint

Drain Port
1 = None
2 = M14X1.5
3 = G1/4
4 = 7/16-20UNF

Oil Port
A = G1/2
B = M22×1.5
C = 1/2-14NPTF
D = ZG1/2
E = M18X1.5
F = M20X1.5
G = 7/8-14UNF

BM2H

Position Displacement
Displacement CC/R
25, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500

Flange and Pilot
H2 = 2-φ13.5 Diamond flange, pilot φ82.5x6
H4 = 4-3/8-16 UNC Square flange, pilot φ44.4x2.8
H5 = 4-M10 Square flange, pilot φ44.4x2.8

Shaft
1 = Straight shaft φ25, flat key 8x7x32, Lenght 40, M8
2 = Rectangular spline shaft 6-25x20.2x5, Lenght 40, M8
3 = Straight shaft φ25.4, flat key 6.35x6.35x31.75 , Lenght 40, M8
4 = Straight shaft φ20, flat key 6x6x32, Lenght 40, M8
5 = Rectangular spline shaft 6-25.32x21.47x6.25, Lenght 40, M8
6 = Rectangular spline shaft 6-25x21x6, Lenght 40, M8
P2 = Straight shaft φ30, flat key 8x7x32, Lenght 43, M8
A = Straight shaft φ25, flat key 8x7x32, Lenght 43.2, M8
B = Straight shaft φ32, flat key 10x8x45, Lenght 56, M8
C = Straight shaft φ25.4, flat key 6.35x6.35x31.75, Lenght 43.2, M8
E = Rectangular spline shaft 6-25.32x21.47x6.25, Lenght 43.2, M8
F = Shaft diameter Φ31.75, Length 46.15, Sine 14-DP12/24, 3/8-16UNC
G = Straight shaft φ31.75, flat key 7.96x7.96x31.75, Lenght 46, 3/8-16UNC
K = Straight shaft φ25.4, woodruff key 25.4x6.35, Lenght 40, 1/4-20UNC
T3 = Cone shaft φ31.75, Taper 1:8, Cone lenght 35, flat key 7.96x7.96x31.75

Special Function
Omit = Standard
H = High finale seal

Paint Color
00 = No paint
Omit = Blue
B = Black
S = Aluminium paint

Rotation Direction
Omit = Standard
R = Opposite

Oil Port
G = G1/2, G1/4
S = 7/8-14UNF 'O'-ring, 7/16-20UNF
P = 1/2-14NPTF, 7/16-20UNF
T = 3/4-16UNF 'O'-ring, 7/16-20UNF
B4 = φ10, 7/16-20UNF, Plate-type 4-5/16-18UNC
B5 = φ10, G1/4, Plate-type 4-M8
M1 = M18x1.5, M10x1
R = ZG1/2, G1/4

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Orbit Motor

BM2WN

Position Displacement
Displacement CC/R
50, 80, 100, 125, 160, 200, 250, 315, 400, 500

Flange and Pilot
Omit = 4-φ13.5 Wheel-flange, pilot φ82.5×79.4mm

Shaft
T1 = Axis of a cone φ35, taper1:10, cone length36, flat key 6x6×20, parallel to the axis
T3 = Axis of a cone φ31.75, taper1:8, cone length35, flat key 7.96x7.96×31.75, Parallel to cone
B = Straight shaft φ32, length56, flat key 10×8×45
F = Involute spline shaft φ31.75, length46, 14-DP12/24
FD = Involute spline shaft φ31.75, length56, 14-DP12/245
G = Straight shaft φ31.75, length46, flat key 7.96×7.96×31.75

Ports and drain port
G = G1/2,G1/4
M = M22x1.5,M14x1.5
S = 7/8-14UNF 'O'-ring,7/16-20UNF4
P = 1/2-14NPTF,7/16-20UNF

Special Function
Omit = Standard
H = high-pressure shaft seal

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

BM2ZF

Position Displacement
Displacement CC/R
80, 100, 125, 160, 200, 250, 315, 400

Flange and Pilot
S2 = 2-φ13.5 Diamond-flange pilot φ82.5*6mm
S4 = 4-φ13.5 Diamond-flange pilot φ82.5*6mm

shaft
A = Straight shaft φ25, length43.2, flat key 8×7×32
B = Straight shaft φ32, length56, flat key 10×8×45
C = Straight shaft φ25.4, length43.2, flat key 6.35×6.35×31.75
C = Rectangular splined shaft 6-25.32×21.47×6.25, length43.2

The shaft extension type is the same as the BM2 shaft extension size

Oil port
A = G1/2
D = M22x1.5

Special Function
Omit = Standard

Paint Color
S = Silver Paint
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

For more techinical relation queries please contact our sales team.

Orbit Motor

BM2ZS

Position Displacement
Displacement CC/R
80, 100, 125, 160, 200, 250, 315, 400

Flange and Pilot
S2 = 2-φ13.5 Diamond-flange, pilot φ82.5×6mm
S4 = 4-φ13.5 Diamond-flange, pilot φ82.5×6mm
L1 = 4-φ11 Square-flange, pilot φ80×6mm

Shaft
A = Straight shaft φ25, length 43.2, flat key 8x7×32
B = Straight shaft φ32, length 56, flat key 10x8×56
C = Straight shaft φ25.4, length 43.2, flat key 6.35x6.35×31.75
E = Rectangular splined shaft 6-25.32x21.47x6.25, length 43.2

Ports and drain port
A = G1/2,G1/4, plate-type 4-M8
D = M22x1.5,M14x1.5, plate-type 4-M8

Special Function
Omit = Standard
H = high-pressure shaft seal

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

L, B series code (straight and inclined oil port) flange, stop shell, oil port surface without plate connection thread

BM2ZY

Position Displacement
Displacement CC/R
80, 100, 125, 160, 200, 250, 315, 400

Flange and Pilot
S2 = 2-φ13.5 Diamond-flange, pilot φ82.5×6mm
S4 = 4-φ13.5 Diamond-flange, pilot φ82.5×6mm
L1 = 4-φ11 Square-flange, pilot φ80×6mm

Shaft
A = Straight shaft φ25, length 43, flat key 8x7×32
B = Straight shaft φ32, length 56, flat key 10x8×45
C = Straight shaft φ25.4, length 43.2, flat key 6.35x6.35×31.75
E = Rectangular splined shaft 6-25.32x21.47x6.25, length 43.2

Ports and drain port
A = G1/2,G1/4, plate-type 4-M8
D = M22x1.5,M14x1.5, plate-type 4-M8

Special Function
Omit = Standard

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

L, B series code (straight and inclined oil port) flange, stop shell, oil port surface without plate connection thread

For more techinical relation queries please contact our sales team.

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Orbit Motor

BM3

Position Displacement
Displacement CC/R
100, 125, 160, 200, 250, 315, 400, 500

Flange and Pilot
A = 4-φ13 Square-flange, pilot φ100×7mm
B = 8-hole Square-flange, pilot φ85×7mm

Shaft
1 = Straight shaft φ25, length 41.5, M8, flat key 8x7×32
2 = Straight shaft φ30, length 41.5, M8, flat key 8x7×32
3 = Rectangular splined shaft 6-30x25.3x8, M14, length 41.5, trough of belt
4 = Rectangular splined shaft 6-30x25.3x8, M8, length 41.5, trough of belt
5 = Rectangular splined shaft 6-25x21.5x6, M8, length 39, trough of belt
6 = Straight shaft φ30, length 41.5, M8, flat key 10x8×32

Ports and drain port
M = M22x1.5,M14x1.5
MA = M18x1.5,M14x1.5
G = G1/2, G1/4

Special Function
Omit = Standard
O = No drain

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

BM4

Position Displacement
Displacement CC/R
195, 245, 310, 390, 490, 630

Flange and Pilot
A = 4-φ13 Square-flange, pilot φ100*7mm

Shaft
1 = Rectangular splined shaft 6-30x25.3x8, M8, length 44
2 = Rectangular splined shaft 6-30x24.8x6, M8, length 44
3 = Straight shaft φ32, length 44, M8, flat key 10x8×32
4 = Straight shaft φ30, length 44, M8, flat key 8x7×32
5 = Rectangular splined shaft 6-30x25.3x8, M14, length 44,
6 = Straight shaft φ30, length 44, M14, flat key 8x7×32

Ports and drain port
M = M22X1.5,M14X1.5
D = G1/2,G1/4

Special Function
Omit = Standard

Paint Color
S = Silver Paint
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

For more techinical relation queries please contact our sales team.

Orbit Motor

BMH

Position Displacement
Displacement CC/R
195, 245, 310, 390, 490, 630, 800, 985

Flange and Pilot
2 = 2-φ13.5 Diamond-flange, pilot φ82.5*6mm
4 = 4-φ13.5 Diamond-flange, pilot φ82.5*6mm
6 = 6-φ13.5 Diamond-flange, pilot φ82.5*6mm
H2 = 2-φ13.5 Diamond-flange, cross oil port, pilot φ82.5*2.8mm
H4 = 4-φ13.5 Diamond-flange, cross oil port, pilot φ82.5*2.8mm
H6 = 6-φ13.5 Diamond-flange, cross oil port, pilot φ82.5*2.8mm

Output shaft
B = Straight shaft φ32, length 56, M8, flat key 10x8×45
M = Straight shaft φ35, length 58, M8, flat key 10x8×32
G = Straight shaft φ31.75, length 46, flat key 7.96x7.96×31.75, 3/8-16UNC
G2 = Straight shaft φ31.75, length 44.8, flat key 8x7×32, thruSlot, 3/8-16UNC
G3 = Straight shaft φ31.75, length 56, flat key 7.96x7.96×31.75, 5/8-18UNC
S = Rectangular splined shaft6 -25.32x21.47x6.25, slotless, length 40,1/4-20UNC
S2 = Rectangular splined shaft6 -25.32x21.47x6.25, trough of belt, length 40,1/4-20UNC
F = Involute spline shaft φ31.75, length 46, 14-DP12/24, 3/8-16UNC
FD = Involute spline shaft φ31.75, length 56, 14-DP12/24, M8
XM = Straight shaft φ31.75, length 44.8, flat key 7.96x7.96×

Ports and drain port
D = G1/2, plate-type, 4-M8, G1/4
M = M22x1.5, plate-type, 4-M8, M14×1.5
S = 7/8-14UNF 'O'-ring, plate-type, 4-5/16-18UNC, 7/16-20UNFF
S1 = 7/8-14UNF 'O'-ring, plate-type, 4-M8, 7/16-20UNF
P = 1/2-14NPTF, plate-type, 4-5/16-18UNC, 7/16-20UNF
H = Cross oil port 7/8-14UNF 'O'-rin, Unjoined thread, 7/16-20UNF
H1 = Cross oil port G1/2, Unjoined thread,G1/4

Special Function
Omit = Standard
H = high-pressure shaft seal

Paint Color
S = Silver Paint
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

BMHD

Position Displacement
Displacement CC/R
630

Flange and Pilot
A = 4-φ12.5&2-φ8 Diagonal diamond flange, pilot φ80mm
B = 4-φ12.5&2-φ8 Regular diamond flange, pilot φ80mm
C = 8-φ13 bolt Rectangular-flange, pilot φ80mm

Shaft
A = Rectangular splined shaft 6-40x35x10, length 61, M12

Ports and drain port
D2 = G1/2, plate-type4-M8, M14X1.5

Special Function
Omit = Standard

Paint Color
S = Silver Paint
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

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Orbit Motor

BMS(OMS/2K)

Code
Omit

Position Displacement
Displacement CC/R
80, 100, 125, 160, 200, 250, 315, 400, 475

Install flange and stop
E2 = 2-Φ13.5 Round-flange Φ106.4, pilot Φ82.5x6.3
E4 = 4-Φ13.5 Round-flange Φ106.4, pilot Φ82.5x6.3
F6 = 6-Φ13.5 Round-flange Φ106.4, pilot Φ82.5x6.3
E2B = 2-Φ14.3 Round-flange Φ146.05, pilot Φ101.6x9.4
W = 4-Φ13.5 Wheel-flange Φ160, pilot Φ125x8
SP = 4-Φ11.5 Square-flange Φ106.4, pilot Φ82.5×6.3

Output Shaft
B = Shaft Φ32, parallel key 10x8x45
D = Shaft Φ25.4, parallel key 6.35×6.35×25.4
G = Shaft Φ31.75, parallel key 7.96x7.96x31.75
F = Shaft Φ31.75, splined key 14-DP12/24
FD = Long Shaft Φ31.75, splined key 14-DP12/24
SL = Shaft Φ34.85,Splined key 6-34.85×28.14×8.64
T1 = Cone-shaft Φ35, parallel key B6x6x20
T3 = Cone-shaft Φ31.75, parallel key 7.96x7.96x31.75
S1 = Shaft Φ25.4, splined key SAE 6B
I = Sub-shaft Φ22, splined key 13-DP16/32

Port and Drain Port
D = G1/2 Manifold Mount 2-M10, G1/4
M = M22x1.5 Manifold Mount 2-M10, M14×1.5
S = 7/8-14UNF O-ring manifold 2-3/8-16, 7/16-20UNF
P = 1/2-14NPTF manifold 2-3/8-16UNC, 7/16-20UNF

Special function
Omit = Standard
F = Free Running
LS = Standard

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. The informations of mounting flange, output shaft and frorts are the same as BMS serier. The SP flange afflies to shafts of T1, D, B, F, G. If the specification is not in the table or you have specific requirements, please contact us.

BMT/BMTS

Code

Position Displacement
Displacement CC/R
160, 200, 250, 315, 400, 500, 630, 800

Flange
BMT
4 = 4-Φ14 Square-flange Φ160, pilot Φ125×9
K6 = 4-Φ14.5 Square-flange Φ162, pilot Φ127×9
W = 4-Φ18 Wheel-flange Φ200, pilot Φ160×7
BMTS
D = 4-Φ14 Circle-flange Φ160, pilot Φ125×8
E = 4-Φ14.5 Square-flange Φ162, pilot Φ127×10

Output Shaft
BMT
M = Shaft Φ40, parallel key 12x 8x 70
G = Shaft Φ38.1, parallel key 9.52x 9.52 x 57.15
F = Shaft Φ38.1, splined tooth 17-DP12/24
FD = Shaft Φ38.1, splined tooth 17-DP12/24
T = Cone-shat 1:10 Φ45, parallel key B12×8×28
T1 = Cone-shaft 1:8 045, parallel key11.13×11.13×31.75
SL = Shaft Φ34.85, Splined key 6-34.85×28.14×8.64
G1 = Shaft Φ31.75, parallel key 7.96x7.96x40
F1 = Shaft Φ31.75, splined tooth 14-DP12/24
BMTS
Omit = Short shaft 16-DP12/24

Special function
Omit = Standard
F = Free Running
LS = Standard

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

Port and Drain Port
D = G3/4 Manifold Mount, 4-M10, G1/4
M = M27×2 Manifold Mount, 4-M10, M14×1.5
S = 1-1/16-12UN O-ing, 9/16-18UNF
S1 = 1-1/16-12UN O-ing, 7/16-20UNF
G = G3/4, G1/4
M3 = M27×2, M14×1.5

For more techinical relation queries please contact our sales team.

Orbit Motor

BMTZ

Position Displacement
Displacement CC/R
160, 200, 230, 315, 400, 500, 630, 800

Flange and Pilot
Z2 = 2-φ14 Rhomboid flange, φ140, pilot φ100X9
Z4 = 4-φ13 Square flange, φ160, pilot φ125X8
B2 = 4-φ13 Square flange(120X120), Threaded hole distance 90X90, pilot φ100X6

Shaft
B = Straight shaft φ32, Lenght 56, flat key 10X8X45, shaft thread M8
Y = Straight shaft φ40, Lenght 65, flat key 12X8X45, M12
B1 = Straight shaft φ32, Lenght 60, flat key 10X8X45, shaft thread M12
G = Straight shaft φ38.1, Lenght 82, flat key 9.525X9.525*57.15, 3/8-16UNC

Oil Port
ZD = G3/4, G1/4, Plate type 4-M10
ZM = M27X2, M14X1.5, Plate type 4-M10
ZS = 1-1/16-12UN 'O'-ring, 9/16-18UNF 'O'-ring
ZS1 = 1-1/16-12UN 'O'-ring, 7/16-20UNF 'O'-ring
ZG3 = G3/4, M10X1
ZM4 = M27X2, M10X1

Special function
Omit = Standard

Paint Color
00 = No paint
Omit = Blue
B = Black
S = Aluminium paint

Rotation Direction
Omit = Standard
R = Opposite

BMV

Position Displacement
Displacement CC/R
315, 400, 500, 630, 800, 1000

Flange and Pilot
4 = 4-φ18 Square-flange φ200, pilot φ160x11mm
W = 4-φ18 Wheel-flange φ224, pilot φ180x10mm

Shaft
A = Shaft φ50, parallel key 14x9×70
BD = Shaft φ53.975, splined key 16-DP8/16
B = Shaft φ53.975, splined key 16-DP8/16
C = Shaft φ57.15, parallel key 12.7x12.7×57.15
T = Cone shaft φ60, parallel key 16x10x32
T1 = Cone shaft φ57.2, parallel key 14.308x14.308x50.8
Q = Shaft φ45, splined key 17Z*2.5*30P*5e

Ports and drain port
D = G1 Manifold 4xM12, G1/4
M = M33x2 Manifold 4xM12, M14X1.5
S = 1-5/16 12UN, 9/16-18UNF
G = G1, G1/4
M5 = M33X2, M14X1.5
D1 = G3/4 mainfold 4xM12, G1/4

Special function
A = Standard

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

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Orbit Motor

BM5

Position Displacement
Displacement CC/R
80, 100, 125, 160, 200, 250, 315, 400, 500

Flange and Pilot
A = 2 bolt Round-flange, pilot φ70×6.4mm
B = 2 bolt Round-flange, pilot φ80x6.4mm
C = 2 bolt Round-flange, pilot φ82.55×6.4mm
D = 2 bolt Round-flange, pilot φ100x6.4mm
E = 4 bolt Square-flange, pilot φ80X6.4mm
F = 4 bolt Square-flange, pilot φ82.55X6.4mm
G = 4 bolt Square-flange, pilot φ85×6.4mm
H = 4 bolt Square flange, pilot φ100x7.5mm
I = 4 bolt Round- flange, pilot φ82.55x6.4mm
J = 4 bolt Square flange, pilot φ85x6.4mm
K = 4 bolt Square-flange, pilot φ107x6.4mm
L = 6 bolt Round-flange, pilot φ82.55x6.4mm

Shaft
1 = φ25 straight shaft, flat key 8x7×32
2 = φ30 straight shaft, flat key 7.96x7.96x40
3 = φ25 straight shaft, flat key 8x7x28
4 = φ30 straight shaft, flat key 8x7x28
5 = φ30 straight shaft, flat key 10x8x45
6 = φ32 straight shaft, flat key 10x8x40
7 = φ32 straight shaft, flat key 10x8x45
8 = φ25.4 straight shaft, flat key 6.35x6.3x28
9 = Splined shaft 6D-30x26x6
10 = Splined shaft 6D-30x26x8
11 = Splined shaft 12/24DP 14tooth

Rotation Direction
A = Standard
B = Opposite

Paint Color
A = Silver Paint
B = Blue
C = Black
D = No Paint

Drain Port
1 = None
2 = M14X1.5
3 = G1/4
4 = 7/16-20UNF
5 = ZG1/4

Oil Port
A = G1/2
B = M22×1.5
C = 1/2-14NPTF
D = ZG1½
E = M18X1.5
F = M20X1.5
G = 7/8-14UNF
H = φ13
I = M27x2
J = G3/4

2.5K

Position Displacement
Displacement CC/R
200, 250

Flange and Pilot
A = 4- φ13.5 Square flange, pilot φ110X9

Shaft
A = Shaft end gear: 11Zx4mx30Px5e, x=0.4, shaft extension 61.5

Oil Port
D = G1/2, G1/4

Overflow valve pressure
A = 110Bar

Special Function
Omit = Standard

Paint Color
00 = No paint
Omit = Blue
B = Black
S = Aluminium paint

Rotation Direction
Omit = Standard
R = Opposite

For more techinical relation queries please contact our sales team.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Orbit Motor

BM6

Position Displacement
Displacement CC/R
195, 245, 310, 395, 490, 625, 800, 985

Flange and Pilot
A = 4 bolt Square-flange, pilot φ125x13cm
B = 4 bolt Square-flange, pilot φ127x13.2cm
C = 4 bolt Square-flange, pilot φ160x8mm

Shaft
1 = φ32 straight shaft, flat key 10x8x36
2 = φ32 straight shaft,flat key 10x8x45
3 = φ40 straight shaft,flat key 12x8x45
4 = φ40 straight shaft,flat key 12x8x70
5 = φ40 straight shaft, flat key 12x8x50
6 = φ40 straight shaft, flat key 12x8x63
7 = φ50 straight shaft, flat key 14x9x70
8 = Splined shaft 8D-42x36x7
9 = Splined shaft 6D-40x35x10
10 = Splined shaft 12/24DP 17 tooth
11 = Splined shaft 2.5 17 tooth
12 = Splined shaft 2 16 tooth

Rotation Direction
A = Standard
B = Opposite

Paint Color
A = Silver Paint
B = Blue
C = Black
D = No Paint

Drain Port
1 = None
2 = M14X1.5
3 = G1/4
4 = 7/16-20UNF
5 = R1/4

Oil Port
A = G1
B = M22×1.5
C = φ14
D= ZG1/2
E = M18X1.5
F = M24X1.5
G = 1-5/16-12UNF
H = φ13
I = M27x2
J = G3/4
K = M33x2
L = 11/16

BMSY

Position Displacement
Displacement CC/R
80, 100, 125, 160, 200, 250, 315, 400, 500

Flange and Pilot
E2 = 2-φ13.5 Diamond-flange, pilot φ82.5x6.3mm
E4 = 4-φ13.5 Square-flange, pilot φ82.5x6.3mm
EB4 = 4-M14 Pitch-Circeφ108, Square-flange, pilot φ82.5x6.3mm
E6 = 4-φ13.5 Diamond-flange, pilot φ82.5x6.3mm
F6 = 6-φ13.5 Diamond-flange, pilot φ82.5x2.8mm
W = 4-φ13.5 Wheel-flangeφ160, pilot φ125x8mm
B2 = 4-φ13 Square-flangeφ127.7, pilot φ100x6mm

Shaft
A = Straight shaft φ25, Lenght 41.8, parallel key 8x7×32, M8
B = Straight shaft φ32, Lenght 56, parallel key 10x8×45, M8
D = Straight shaft φ25.4, Lenght 41.8, parallel key 6.35x6.35×25.4, 1/4-20UNC
F = Involute spline shaft φ31.75, Lenght 48, 14-DP12/24, 3/8-16UNC
FD = Involute spline shaft φ31.75, Lenght 56.2, 14-DP12/24, M8
K = Straight shaft φ25.4, Lenght 41.8, Woodruff key φ25.4x6.35, 1/4-20UNC
S1 = Rectangular splined shaft 6-25.32x21.47x6.25, Lenght 41.8, 1/4-20UNC
I = Involute spline shaft φ22, Lenght 33, 13-DP16/32
G = Straight shaft φ31.75, Lenght 48, parallel key 7.96x7.96×31.75, 3/8-16UNC
SL = Rectangular splined shaft 6-34.85x28.14x8.64, Lenght 100, M8
P = Straight shaft φ30, Lenght 48, parallel key 10x8×40, M8
J = Rectangular splined shaft 6-30x25.3x8, Lenght 48, M8
N = Rectangular splined shaft 6-30x24.8x6, Lenght 48, M8
Z = Rectangular splined shaft 6-32x26x6, Lenght 56.5, M8

Special function
A = Standard

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction
Omit = Standard
R = Opposite

Ports and drain port
D = G1/2,G1/4,2-M10
M = M22X1.5,M14X1.5,2-M10
S = 7/8-14UNF 'O'-ring,7/16-20UNF 'O'-ring,2-3/8-16UNC
S1 = 7/8-14UNF 'O'-ring,7/16-20UNF 'O'-ring,2-M10
P = 1/2-14NPT,7/16-20UNF 'O'-ring,2-3/8-16UNC
DB = G1/2,G1/4
DU = G1/2,7/16-20UNF 'O'-ring
SB = 7/8-14UNF 'O'-ring,G1/4
SU = 7/8-14UNF 'O'-ring,7/16-20UNF 'O'-ring
M4 = M22X1.5,M14X1.5
PB = 1/2-14NPT,G1/4
PU = 1/2-14NPT,7/16-20UNF 'O'-ring
G2 = G1/2,M10X1
M3 = M22X1.5,M10X1
S1 = 7/8-14UNF 'O'-ring,M10X1

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Orbit Motor

BMER2

Position Displacement

Displacement CC/R
125, 160, 200, 230, 250, 300, 350, 375, 400, 475, 540, 650, 750

Flange, stopper, oil port

WS = 4-φ13.5 Wheel-flange, pilot φ82.55x5mm,
WD = 4-φ13.5 Wheel-flange, pilot φ82.55x5mm, Oil port G1/2
WG = 4-φ13.5 Wheel-flange, pilot φ82.55x5mm, Oil port M22X1.5
WP = 4-φ13.5 Wheel-flange, pilot φ82.55x5mm, Oil port 1/2-14NPTF
MS = 4-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port 7/8-14UNF 'O'-ring
MP = 4-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port 1/2-14NPTF
MG = 4-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port M22X1.5
MD = 4-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port G1/2
FS = 6-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port 7/8-14UNF 'O'-ring
FP = 6-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port 1/2-14NPTF
FG = 6-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port M22X1.5
FD = 6-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port G1/2
FH = 6-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Plate port 1/2（φ12.7）, 4-5/16-18UNC
BS = 2-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port 7/8-14UNF 'O'-ring
BP = 2-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port 1/2-14NPTF
BG = 2-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port M22X1.5
BD = 2-φ13.5 Freedom-flange, pilot φ82.55x2.8mm, Oil port G1/2

Special function

A = Standard

Paint Color

S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction

Omit = Standard
R = Opposite

Shaft

G2 = Straight shaft φ31.75, Lenght 56, parallel key 7.96x7.96×40, End thread 5/8-18UNF
B1 = Straight shaft φ32, Lenght 56, parallel key 10x8×36, End thread M8
FD1 = Inch involute spline shaft φ31.75, Lenght 56, 14-DP12/24, End thread 5/8-18INF
RW = Straight shaft φ25.4, Lenght 44, parallel key 6.35x6.35×31.75, End thread 5/16-18UNC
AW = Straight shaft φ25, Lenght 50, parallel key 8x7×32, End thread M8
SW = Rectangular splined shaft 6-25.32x21.47x6.25, Lenght 44, End thread 5/16-18UNC
T4 = Axis of a cone φ31.75, Taper 1:8, Cone length 35, parallel key 7.96x7.96×25.4
B2 = Straight shaft φ35, Lenght 56, parallel key 10x8×452, End thread M8

BMER3

Position Displacement

Displacement CC/R
125, 160, 200, 230, 300, 350, 375, 400, 475, 540, 650, 750 ,

Flange, stopper, oil port

WS = 4-φ13.5 Wheel-flange, pilot φ82.55, Oil port 7/8-14UNF 'O'-ring
WD = 4-φ13.5 Wheel-flange, pilot φ82.55, Oil port G1/2
WG = 4-φ13.5 Wheel-flange, pilot φ82.55, Oil port M22X1.5
WP = 4-φ13.5 Wheel-flange, pilot φ82.55, Oil port 1/2-14NPTF
WA = 4-φ13.5 Wheel-flange, pilot φ82.55, Oil port 9/16-18UNF 'O'-ring

Shaft

M31 = Axle φ35, Lenght 57, parallel key 10x8×45, M8
T31 = Axis of a cone φ38.1, Taper 1:8, Cone length 44, parallel key 7.96x7.96×31.75, 1-1/8-18UNF
G31 = Straight shaft φ38.1, Lenght 73, parallel key 9.525x9.525×42, 3/8-16UNC

Special function

A = Standard

Paint Color

S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Rotation Direction

Omit = Standard
R = Opposite

For more techinical relation queries please contact our sales team.

Orbit Motor

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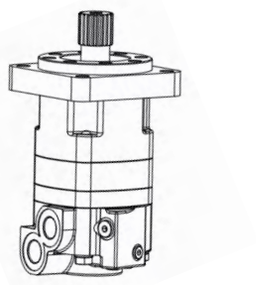
4K



Position Displacement
Displacement CC/R
110, 130, 160, 205, 245, 310, 400, 500, 625

Flange and Pilot
AB = 4-φ15(Slotting) Square-flange 120x120, pitch circle φ105, pilot φ101.5x9mm
AC = 4-φ14.5 Big square-flange 145x145, pitch circle φ162, pilot φ127x12.3mm
W = 4-φ14.3(φ147.6) Wheel-flange, Side148x148, pilot φ139.6x10mm

Shaft
A = Straight shaft φ31.75, Lenght 53, parallel key B7.96x7.96x40, 3/8-16UNC
B = Straight shaft φ40, Lenght 79, parallel key 12x8x70, M12
C = Involute spline shaft φ31.75, Lenght 56, 14-DP12/24, 3/8-16UNC
D = Involute spline shaft φ38.1, Lenght 51.6, 17-DP12/24, 3/8-16UNC
T = Axis of a cone φ41.25, Taper 1:8, Cone length 54, parallel key 11.13x11.13×31.75, 1-1/4-18UNF
T1 = Axis of a cone φ44.525, Taper 1:8, Cone length 54, parallel key 11.13x11.13×31.75, M33X2

Oil port
G = G3/4,G1/4
M = M27X2,M14X1.5
S = 1-1/16-12UN 'O'-ring,7/16-20UNF 'O'-ring

Rotation Direction
Omit = Standard
R = Opposite

Paint Color
S = Silver Gery
Omit = Blue
B = Black
00 = No Paint

Special function
Omit = Standard

BK10

Brake torque
1150

Shaft
T31 = Axis of a cone φ38, Taper 1:8, parallel key 7.96x7.96×31.75

Flange, stopper, oil port
S1 = 4X Ø13 Pitch circleφ177.8, Round-flange, pilot Ø101.6X12.7,
Brake oil port 7/16-20UNF 'O'-ring

Lubricating oil change port
Omit = 7/16-20UNF 'O'- ring

Paint Color
S = Silver Gery
Omit =Default (black)
B = Black
00 = No Paint

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Hydraulic Steering Units

10 TYPE

10 — — — — — — —

Code for Series
1 = 1st mounting type
2 = 2nd mounting type
3 = 3rd mounting type
9 = Mini SCU

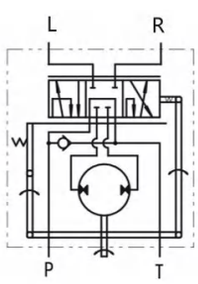
Code for integral valve
S = Integral Valve
Omit = Without Integral valve

Function Code
1 = Open center non-reaction
2 = Open center reaction
3 = Closed center non-reaction
4 = Closed center non-reaction
5 = Load sensing

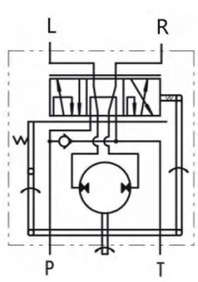
Displacement
50, 63, 80, 100, 125, 160, 200, 250, 280, 315, 400

Relief Valve Pressure Settings

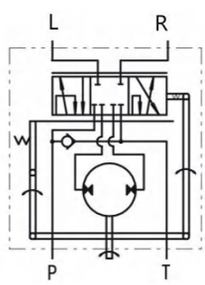
Ports Code
A, B, C, D, E, U, G, Q, M, F, I, N



101-1



101-2



101-3

Ports Code	Ports P, T, L, R	Column Mounting C	Valve Mounting V
A	M20×1.5	M10	M12
B	M20×1.5 O-ring	M10	M12
C	M18×1.5	M10	M12
D	M18×1.5 O-ring	M10	M12
E	G1/2	M10	M130x1
U	G1/2 O-ring	M10	M130x1
G	M22×1.5	M10	M12
Q	M22×1.5 O-ring	M10	M12
M	3/4-16 UNC O-ring	M10	M12
F	3/4-16 UNC O-ring	3/8-16 UNC	3/8-24 UNF
I	3/4-16 UNC O-ring	M10	M10
N	3/4-16 UNC O-ring	M10×1.25	M10

For more techinical relation queries please contact our sales team.

All original manufacturers'names,part numbers and description are for reference purposes only and it doesn't imply that any Part listed is the product of these manufacturers.

Hydraulic Steering Units

BZZ TYPE

BZZ ___ ___ ___ ___ ___

Function Code
1 = Open center non load reaction
2 = Open center load reaction
3 = Closed center non load reaction
5 = Load sensing

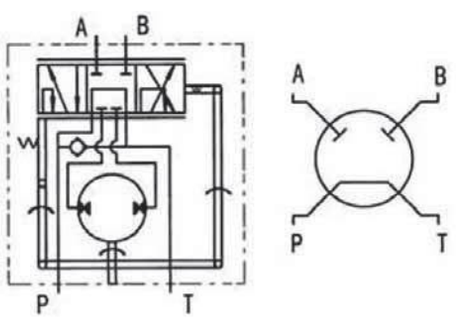
Pressure Grade
16 MPa/ 2320 PSI

Displacement ML/R
50, 63, 80, 100, 125, 160, 200, 250, 280, 315, 400

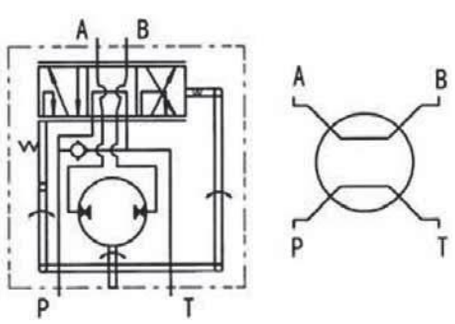
Design Code

Mounting Type
A = Long ringed boss, cross-block connection
B = Sae involute spline connection
C = Short ringed boss, cross-block connection

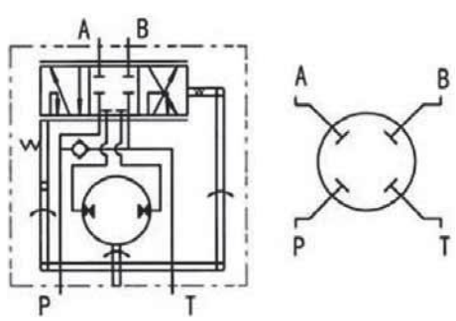
FUNCTION CODE



BZZ1 Open center non load reaction



BZZ2 Open center load reaction



BZZ3 Closed center non load reaction

For more techinical relation queries please contact our sales team.