



# Fixed Displacement Piston Rexroth A2F Pump / Motor

www.hydopump.com



Axial piston unit of bent axis design with fixed displacement, for use as either pump or motor in hydrostatic drives, in open or closed circuit.

If operated as a pump, the flow is proportional to the drive speed and displacement. If operated as a motor, the output speed is proportional to the swept volume and inversely proportional to displacement. The output torque increases with the pressure drop between the high and low pressure sides.

### Features:

- Equivalent with original Rexroth same model.
- High performance rotary group with well-proven spherical control area with the advantages, self-centering low peripheral speed, high efficiency.
- Robust rolling bearing endure long service life.
- Drive shaft capable of adopting radial loading

	A2F	55	R	2	P	1		
Fixed displacement Pump / Motor							Rear cover	
Displacement ( $V_{gmin} \sim V_{gmax}$ )							Port plate	1
6.0 cc/rev							Port plate	2
9.4 cc/rev							Port plate	3
11.6 cc/rev							Port plate	4
22.7 cc/rev							Port plate	5
28.1 cc/rev							Port plate	6
44.3 cc/rev							Port plate	7
54.8 cc/rev							Shaft end	
63.0 cc/rev							Keyed shaft GB1096-79	P
80.0 cc/rev							Splined shaft DIN 5480	Z
107 cc/rev							Splined shaf GB3478.1-83	S
125 cc/rev							Series	
160 cc/rev							Series: size 10~160	1
200 cc/rev							Series: size 10~160	2
225 cc/rev*							Series: size 10~160	3
250 cc/rev							Series: size 10~160	4
355 cc/rev							Series: size 200~500	5
500 cc/rev							Direction of rotation	
							Clockwise	R
							Anti-clockwise	L
							Alternation	W
							(not for pump in open circuit)	

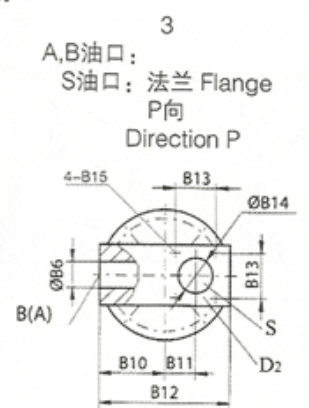
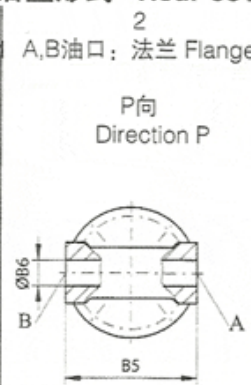
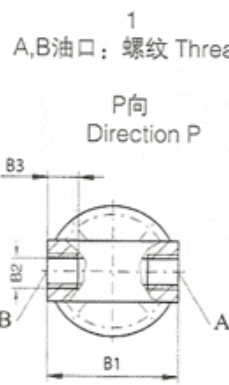
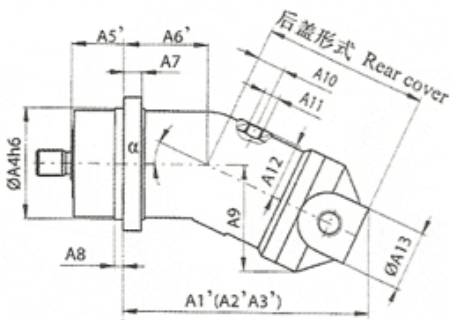
**Ordering code example:**  
**A2F 55 R 2 P1**  
**Fixed displacement pump A2F, size 55,**  
**clockwise rotation, series 2, keyed shaft, port plate 1.**



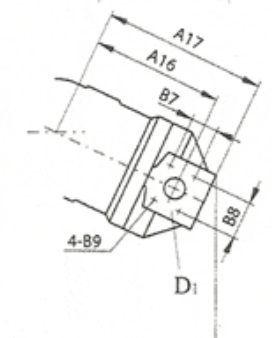
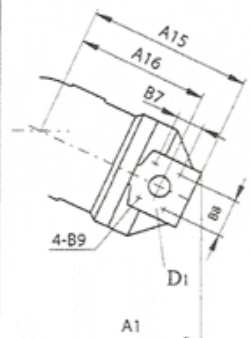
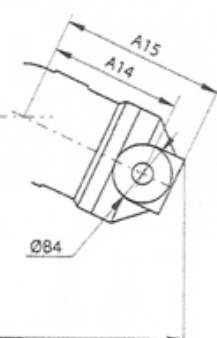
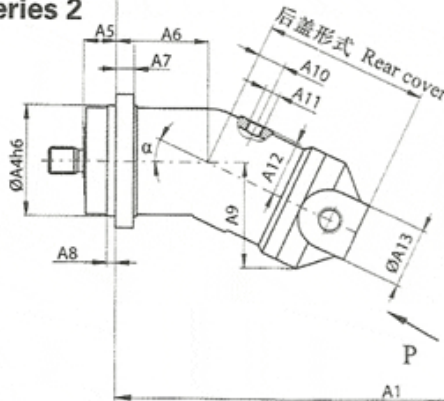
元件外形尺寸 系列1-4规格10-160 Unit Dimensions Series1-4 size 10-160

系列 Series 1,3,4

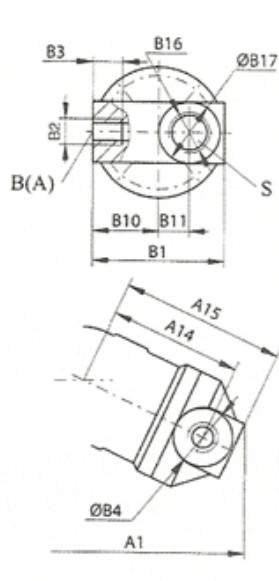
后盖形式 Rear cover



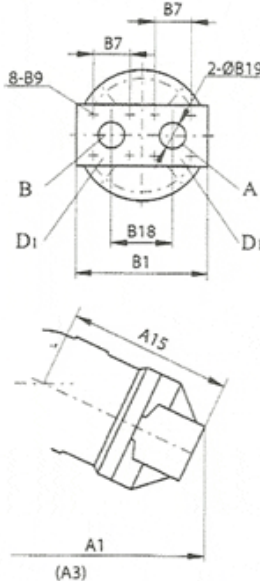
系列 Series 2



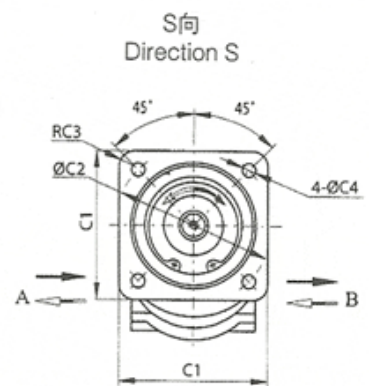
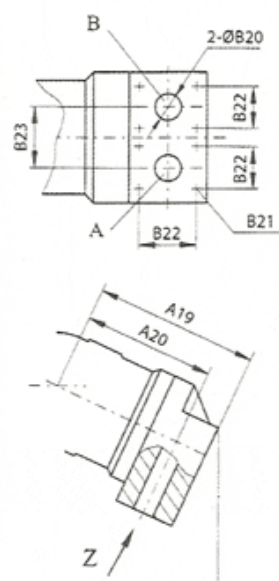
4  
A,B油口: 螺纹 Thread  
P向  
Direction P



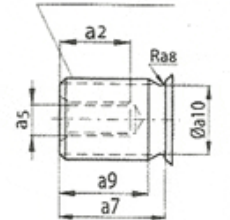
6  
A,B油口: 法兰 Flange  
P向  
Direction P



7  
A,B油口: 法兰 Flange  
Z向  
Direction Z



轴伸 Shaft  
花键 Splined DIN5480  
花键 Splined GB3478.1-83



注:

1.A1、A2和A3的尺寸只适用于系列2, 对系列1,3,4的对应值由下式求出:

$A1' = A1 - (A6 - A6')$ ;  $A2' = A2 - (A6 - A6')$ ;  $A3' = A3 - (A6 - A6')$ 。

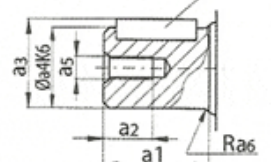
除上述结构形式外, 还可以根据用户特殊需要对现有产品进行改制。

Note:

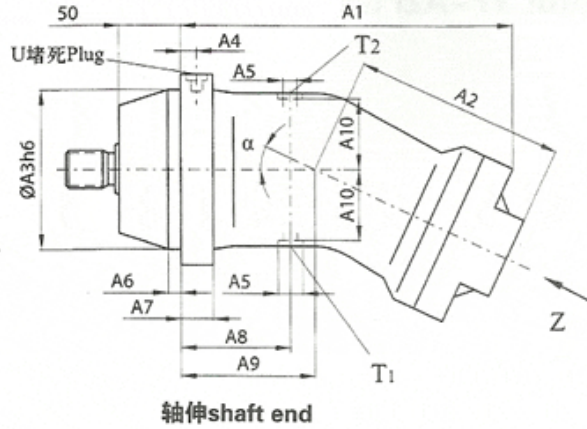
1.The dimensions of A1、A2、A3 are only valid for series 2.The parallel dimensions of the three above mentioned positions for series 1,3 and 4 can be calculated according to the follows formula: $A1' = A1 - (A6 - A6')$ ;  $A2' = A2 - (A6 - A6')$ ;  $A3' = A3 - (A6 - A6')$ 。

2.Besides above mentioned structures,we can adjust the design of the present product according to the customers' special needs.

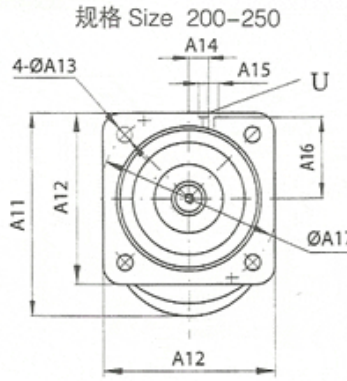
平键 Keyed shaft(GB1096-79)



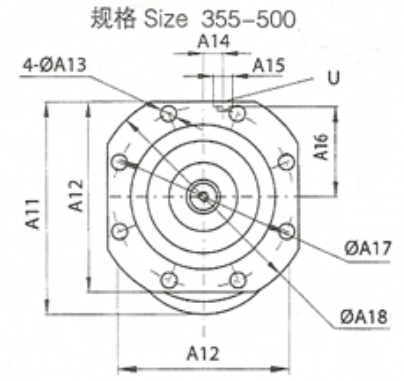
## 元件外形尺寸 Unit Dimensions Series 5



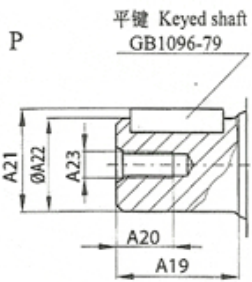
轴伸 shaft end



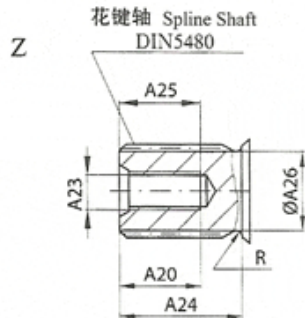
后盖 (Z向) End Plate(Direction Z)



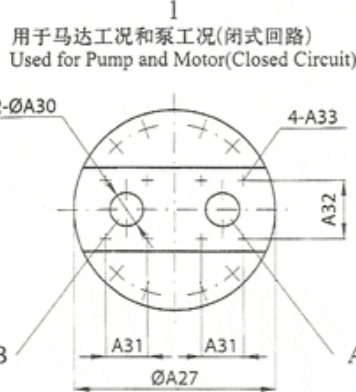
规格 Size 355-500



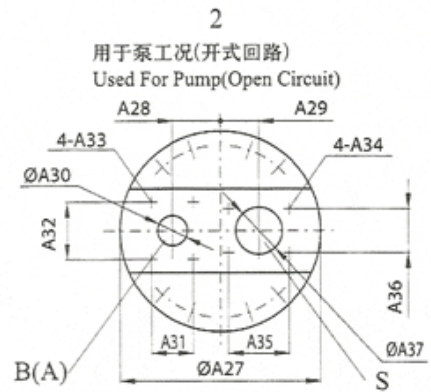
平键 Keyed shaft  
GB1096-79



花键轴 Spline Shaft  
DIN5480



1  
用于马达工况和泵工况(闭式回路)  
Used for Pump and Motor(Closed Circuit)



2  
用于泵工况(开式回路)  
Used For Pump(Open Circuit)

A,B油口: 法兰42MPa(见尺寸表A38)  
A,B Port: Flange 42MPa(See From A38)  
A,B 工作管 Operation  
S 吸油管 Suction  
T1 漏油口 Drain Port  
T2 泄油口 Drain Port  
U 冲油口 (轴承) Clear port(Bearing)

A,B油口: 法兰42MPa(见尺寸表A38)  
逆时针旋转时, 后盖2旋转180°  
S油口: 法兰42MPa(见尺寸表A39)  
规格200-355: 17.5MPa, 规格500: 14MPa.  
A,B Port: Flange 42MPa(See From A38)  
S Port: Flange 42MPa(See From A39)  
When rotation with anti-clockwise,  
The end plate will be rotary 180° .  
Size 200-355:17.5MPa, Size 500:14MPa.

## 系列5 规格200-500元件外形尺寸表 Series 5 Size 200-500 Table Of Unit Dimensions

规格 Size	$\alpha$	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15
200	21°	368	232	224	13	M22×1.5	9	25	120	134	107	300	252	22	70	M14×1.5
250	26.5°	370	232	224	13	M22×1.5	9	25	120	134	107	314	252	22	70	M14×1.5
355	26.5°	422	260	280	14	M33×2	15	28	142	160	128	380	335	18	35	M14×1.5
500	26.5°	462	283	315	15	M33×2	15	30	155	175	142	420	375	22	35	M18×1.5

规格 Size	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33
200	122	280	/	82	36	53.5	50k6	M16	58	47	45	216	55	45	32	31.8	66.7	M14
250	122	280	/	82	36	53.5	50k6	M16	58	47	45	216	55	45	32	31.8	66.7	M14
355	166	320	360	105	42	64	60m6	M20	82	69	55	245	60	50	40	36.6	79.4	M16
500	180	360	400	105	42	74.5	70m6	M20	82	67	62.5	270	65	55	40	36.6	79.4	M16

规格 Size	Deep	A34	Deep	R	A35	A36	A37	A38	A39	平键Paralled BG1096-79	花键Spline DIN5480	重量 Weight (kg)
200	22	M12	18	1.2	88.9	50.8	63	11/4"	2 1/2"	键Key14×80	W50×2×24×9g	88
250	22	M12	18	1.2	88.9	50.8	63	11/4"	2 1/2"	键Key14×80	W50×2×24×9g	138
355	24	M12	18	1.6	88.9	50.8	63	1 1/2"	2 1/2"	键Key18×100	W60×2×28×9g	185
500	24	M16	24	1.6	106.4	62	75	1 1/2"	3"	键Key20×100	W70×3×22×9g	

Uchida Rexroth Hydromatik A2F motor & A2F pump					
A2F10R4P4	A2F10L4P4	A2F10W4P4	A2F55R3P1	A2F55L3P1	A2F55W3P1
A2F10R4P1	A2F10L4P1	A2F10W4P1	A2F55R2P3	A2F55L2P3	A2F55W2P3
A2F10R2P1	A2F10L2P1	A2F10W2P1	A2F55R2Z1	A2F55L2Z1	A2F55W2Z1
A2F10R2Z1	A2F10L2Z1	A2F10W2Z1	A2F63R3Z4	A2F63L3Z4	A2F63W3Z4
A2F12R4P4	A2F12L4P4	A2F12W4P4	A2F63R2Z4	A2F63L2Z4	A2F63W2Z4
A2F12R4P1	A2F12L4P1	A2F12W4P1	A2F63R3P1	A2F63L3P1	A2F63W3P1
A2F12R2P1	A2F12L2P1	A2F12W2P1	A2F63R2Z1	A2F63L2Z1	A2F63W2Z1
A2F12R2Z1	A2F12L2Z1	A2F12W2Z1	A2F80R3Z4	A2F80L3Z4	A2F80W3Z4
A2F23R3Z4	A2F23L3Z4	A2F23W3Z4	A2F80R2Z4	A2F80L2Z4	A2F80W2Z4
A2F23R2Z4	A2F23L2Z4	A2F23W2Z4	A2F80R3P1	A2F80L3P1	A2F80W3P1
A2F23R3P1	A2F23L3P1	A2F23W3P1	A2F80R2Z1	A2F80L2Z1	A2F80W2Z1
A2F23R2Z1	A2F23L2Z1	A2F23W2Z1	A2F107R3Z4	A2F107L3Z4	A2F107W3Z4
A2F28R3Z4	A2F28L3Z4	A2F28W3Z4	A2F107R2Z4	A2F107L2Z4	A2F107W2Z4
A2F28R2Z4	A2F28L2Z4	A2F28W2Z4	A2F107R3P2	A2F107L3P2	A2F107W3P2
A2F28R3P1	A2F28L3P1	A2F28W3P1	A2F107R2Z1	A2F107L2Z1	A2F107W2Z1
A2F28R2Z1	A2F28L2Z1	A2F28W2Z1	A2F160R3P2	A2F160L3P2	A2F160W3P2
A2F45R3Z4	A2F45L3Z4	A2F45W3Z4	A2F160R2P3	A2F160L2P3	A2F160W2P3
A2F45R2Z4	A2F45L2Z4	A2F45W2Z4	A2F160R3P1	A2F160L3P1	A2F160W3P1
A2F45R3P1	A2F45L3P1	A2F45W3P1	A2F160R2Z1	A2F160L2Z1	A2F160W2Z1
A2F45R2Z1	A2F45L2Z1	A2F45W2Z1	A2F250R5P2	A2F250L5P2	A2F250W5P2
A2F55R3Z4	A2F55L3Z4	A2F55W3Z4	A2F250R5P1	A2F250L5P1	A2F250W5P1
A2F55R2Z4	A2F55L2Z4	A2F55W2Z4	A2F355R5P2	A2F355L5P2	A2F355W5P1
A2F107R2Z2	A2F107L2Z2	A2F107W2Z2	A2F500R5P2	A2F500L5P2	A2F500W5P1