

PD Dual

Dual Flow Pumps



DIN Mounting Flange, Flange, 4 Bolt

DIN Mounting Flange,
High Pressure Bent Axis Piston Pumps. CW and CCW Rotation Options.
Displacement Range starting at; 53/53-R, 53/53-L, 70/70-R, 70/70-L, 40/40-R, 40/40-L
High Rotational Speed, High Pressure, Slim Design, High Efficiency.

Twin Flow Bent Axis Piston Pumps

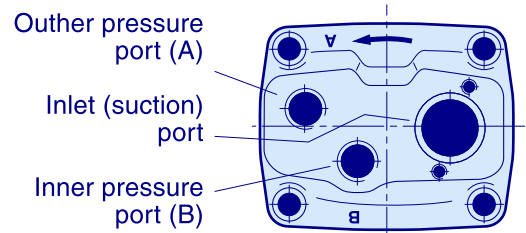
(fixed displacement)

Specifications

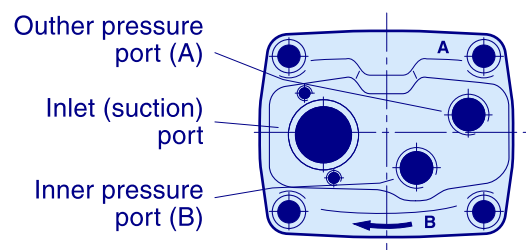
Frame size	53/53	70/35
Displacement [cm ³ /rev]		
Port A	54	69
Port B	52	36
Max operating pressure [bar]	350	350
Max shaft speed [rpm]		
(unloaded pump; low pressure)	2550	2550
Max selfpriming speed [rpm]		
Ports A ¹⁾²⁾ and B ¹⁾²⁾ pressurized	1800	1800
Port A ²⁾ unloaded, pressure in port B	2100	2100
Input power [kW]		
Max intermittent ³⁾	110	110
Max continuous	88	88
Weight [kg]	19	19

- 1) Valid with 2 1/2" inlet (suction) line; with 2" inlet line: max 1400 rpm.
- 2) Measured at 1.0 bar abs. inlet pressure.
Please note: A lower inlet pressure affects pump performance.
- 3) Max 6 seconds in any one minute.

'Left hand' and 'right hand' end caps



End cap for right hand rotating pump



End cap for left hand rotating pump

Flow vs. shaft speed (theoretical)

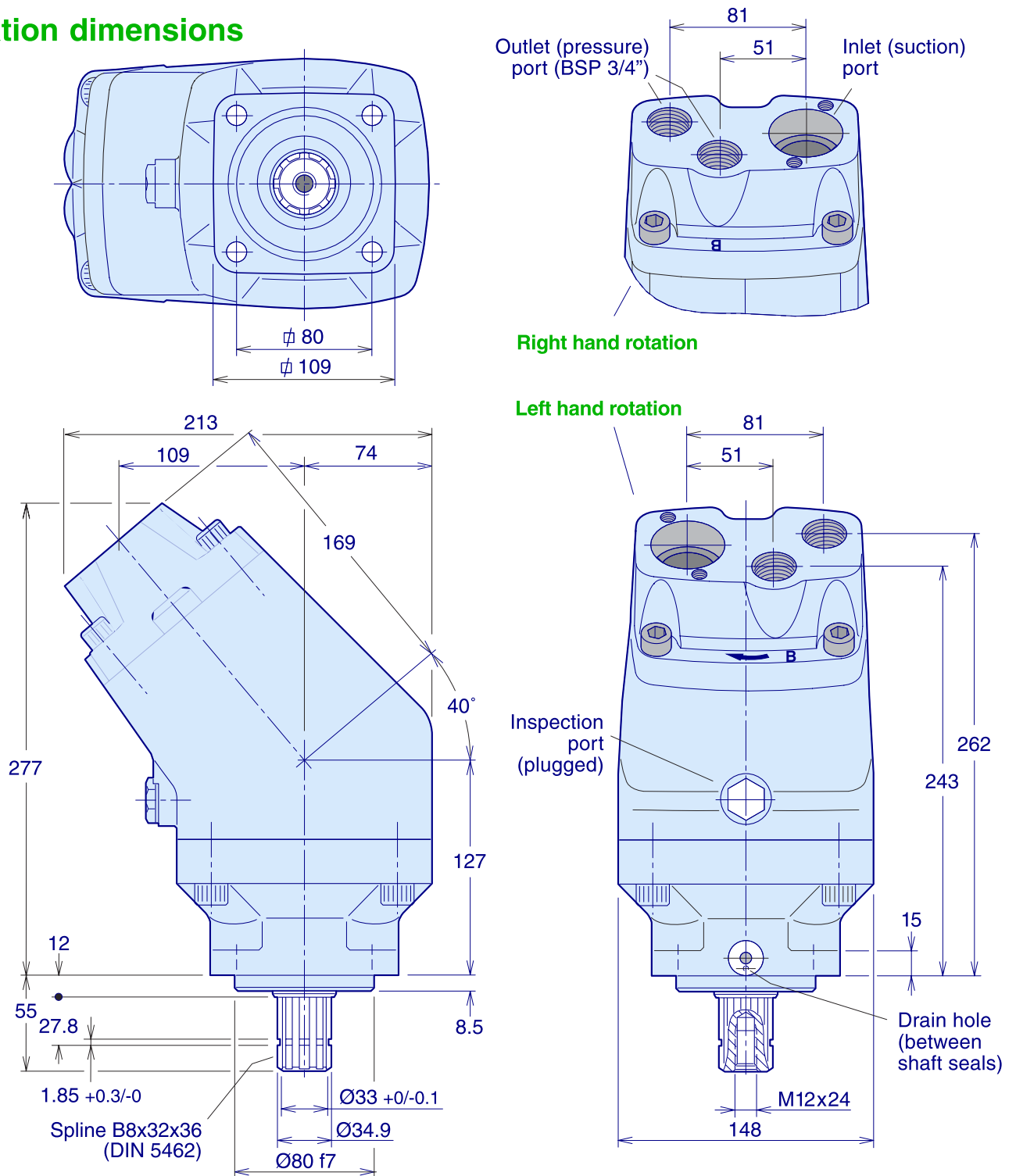
Pump speed [rpm]	800	1000	1200	1400	1600	1800	1900	2000	2100
53/53 flow [l/min]									
Port A	43	54	65	76	86	97	-	-	-
Port B	42	52	62	73	83	94	99	104	109
Total (ports A + B)	85	106	127	149	169	191	-	-	-
70/35 flow [l/min]									
Port A	55	69	83	97	110	124	-	-	-
Port B	29	36	43	50	58	65	68	72	76
Total (ports A + B)	84	105	126	147	168	189	-	-	-

Shaft torque vs. pressure (theoretical)

Pressure [bar]	150	200	250	300	350
53/53 torque [Nm]					
Port A	126	168	210	252	294
Port B	124	165	206	248	289
Total (ports A and B)	250	333	416	500	583
70/35 torque [Nm]					
Port A	164	219	274	329	383
Port B	86	114	143	171	200
Total (ports A and B)	250	333	417	500	583

Twin Flow Bent Axis Piston Pumps (fixed displacement)

Installation dimensions



Ordering code

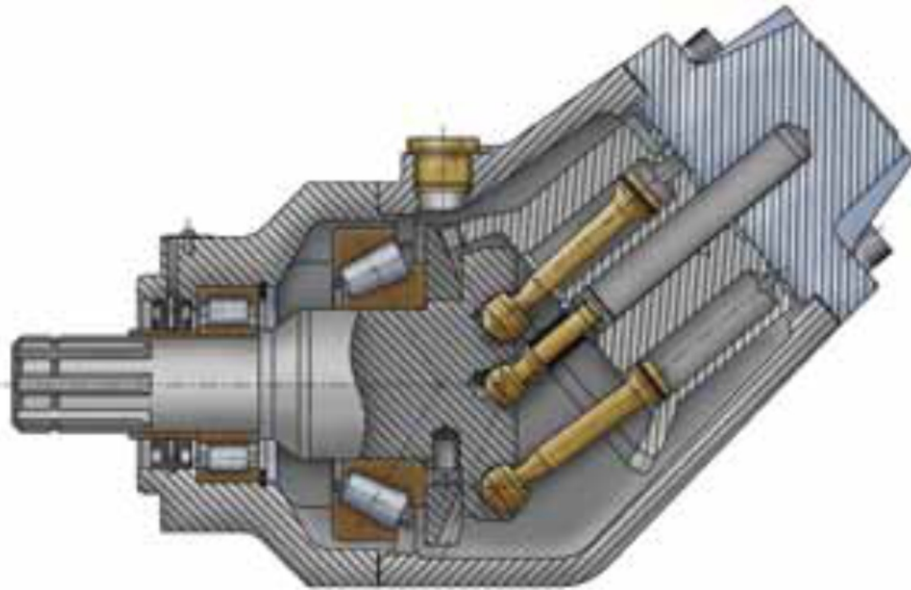
53/53 - L	53/53 - R	Rotation
70/35 - L	70/35 - R	L : Left
76/76 - L	76/76 - R	R : Right
64/32 - L	64/32 - R	
46/46 - L	46/46 - R	CW : Right
56/26 - L	56/26 - R	CCW : Left
35/35 - L	35/35 - R	
40/40 - L	40/40 - R	
40/20 - L	40/20 - R	W : Bi-Direct.
28/28 - L	28/28 - R	
20/20 - L	20/20 - R	

NOTE:

- Before start-up, tighten the inspection port plug to 70–100 Nm.
- To change the direction of rotation, the end cap must be replaced.

NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See chapter 9.

Twin Flow Bent Axis Piston Pumps (fixed displacement)



Benefits/Features

- Two separate outlet flows with a single inlet
- Operating pressures to 6000 PSI (413.7 BAR) intermittent
- Higher overall efficiency
- Increased reliability
- Low noise level
- Compact package that only weighs 42 lbs (19.1 kg).

Twin Flow Bent Axis Piston Pumps

(fixed displacement)



Fixed Displacement Piston Pumps are widely used on truck applications with operating pressure up to 5000 PSI (350 BAR). These twin flow pumps provide two independent output flows with a single inlet in a compact package. These lightweight, efficient pumps were designed specifically for truck applications including cargo cranes, hook loaders, forest cranes and concrete mixer.

Pump Performance Data

Model Series	Max. Displacement in ³ /rev (cc/rev)	Outlet Pressure PSI (BAR)	Drive Speed RPM	Flow** @ 1800 RPM		Max. Input Power HP (KW)
				Port A GPM (LPM)	Port B GPM (LPM)	
42/42	2.62/2.50 (43/41)	5000 (350)	1800	204 (77.2)	19.5 (73.8)	118 (88.0)
55/28	3.36/1.71 (55/28)	5000 (350)	1800	261 (98.6)	13.3 (50.3)	118 (88.0)
53/53	3.30/3.17 (54/52)	5000 (350)	1800	255 (96.5)	24.8 (93.9)	147 (109.8)
70/35	4.21/2.20 (69/36)	5000 (350)	1800	327 (123.8)	17.2 (65.1)	147 (109.8)
70/70	4.15/4.15 (68/68)	4350 (300)	1650	323 (122.3)	32.3 (122.3)	150 (111.9)

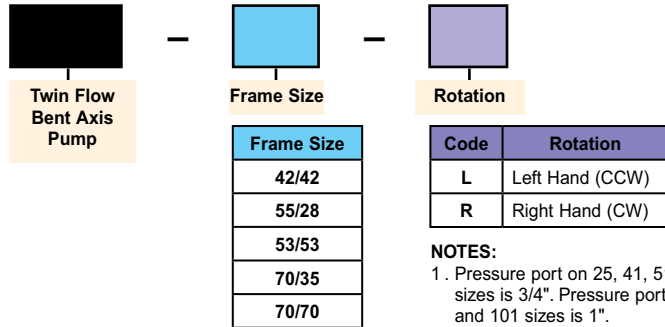
Markets

Applications

Forestry	Knuckle Boom Loader, Cranes, Mowers / Cutters
Construction	Off-Highway Trucks, Fan Drives
Mining	Dump Trucks
Material Handling	Truck Mounted Cranes, Lift Trucks
Recycling	Vaccum Truck Systems, Refuse Trucks - ASL, Rear Loaders
Military	

Twin Flow Bent Axis Piston Pumps (fixed displacement)

Piston Pumps Model Ordering Code



NOTES:

1. Pressure port on 25, 41, 51 and 61 sizes is 3/4". Pressure port on 81 and 101 sizes is 1".
2. Suction fitting must be ordered separately.
3. Use seven digit number when placing order.

Ordering Code	Ordering No.
42/42-R	9378 4042
42/42-L	9378 4043
55/28-R	9378 4128
55/28-L	9378 4129
53/53-R	9378 1453
53/53-L	9378 1454
70/35-R	9378 1470
70/35-L	9378 1471
70/70-R	9378 4070
70/70-L	9378 4071

Suction Fittings

A suction fitting consists of a straight, 45°, 90° or 135° suction fitting, 2 clamps, 2 cap screws and an O-ring.

Straight Suction Fittings

Ordering no.	A in. (mm)	B in. (mm)	C dia. in. (mm)
	0 (0)	3.35" (85)	1.5" (38)
	0.67" (17)	5.35" (136)	2.0" (50)
	0.98" (25)	5.71" (145)	2.5" (63)
	0.67" (17)	5.35" (136)	1.77" (45)
	0.67" (17)	5.35" (136)	1.77" (48)

45° Suction Fittings

Ordering no.	A in. (mm)	B in. (mm)	C dia. in. (mm)
	2.36" (60)	4.09" (104)	1.25" (32)
	2.36" (60)	4.09" (104)	1.5" (38)
	2.64" (67)	4.33" (110)	2" (50)
	2.95" (75)	4.61" (117)	2.5" (63)
	2.64" (67)	4.33" (110)	1.57" (40)
	2.64" (67)	4.33" (110)	1.77" (45)
	2.64" (67)	4.33" (110)	1.89" (48)

1) Suitable for frame size F1-25.

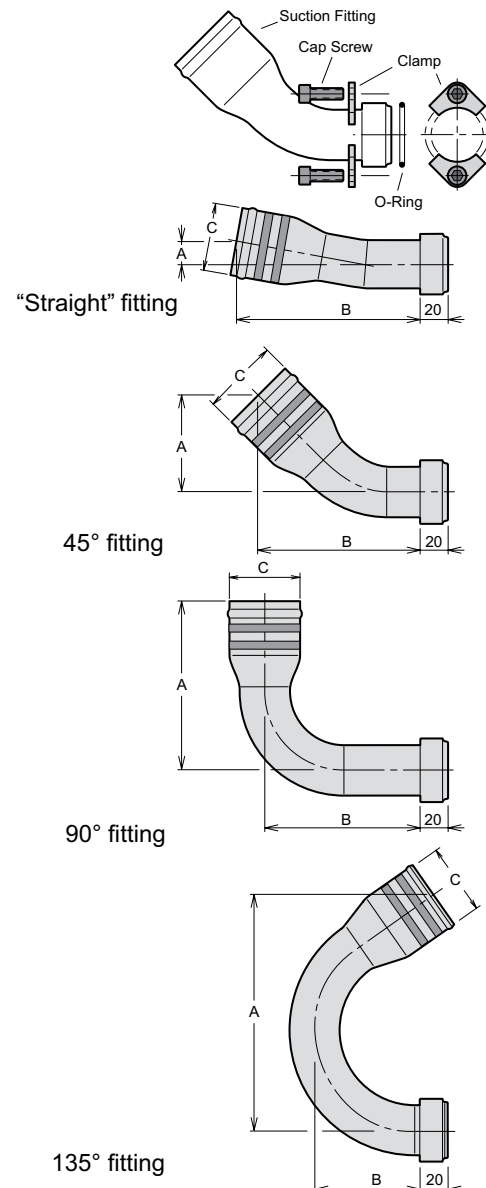
2) Suitable for pump sizes F1-41,-51,-61,-81 and -110.

90° Suction Fittings

Ordering no.	A in. (mm)	B in. (mm)	C dia. in. (mm)
	4.96" (126)	3.27" (83)	1.5" (38)
	5.31" (135)	3.27" (83)	2" (50)
	5.31" (135)	3.27" (83)	1.77"(45)
	5.31" (135)	3.27" (83)	1.89" (48)
	5.79" (147)	4.06" (103)	2.5" (63)

135° Suction Fitting

Ordering no.	A in. (mm)	B in. (mm)	C dia. in. (mm)
	6.54" (166)	2.87" (73)	2" (50)



SAFA

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PD-DIN
Bent Axis Pumps



MD-DIN
Bent Axis Motor



PA-SAE
Bent Axis Pumps



MA-SAE
Bent Axis Motor



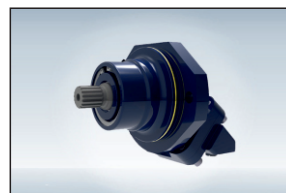
PS-ISO
Bent Axis Pumps



MS-ISO
Bent Axis Motor



PD Dual
Dual Flow Pumps



MF Fixed
Bent Axis Motor



PV
Variable Disp.
Piston Pumps

SAFA HYDRAULICS

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