

F1-12 ISO with BSP port treads

Specifications

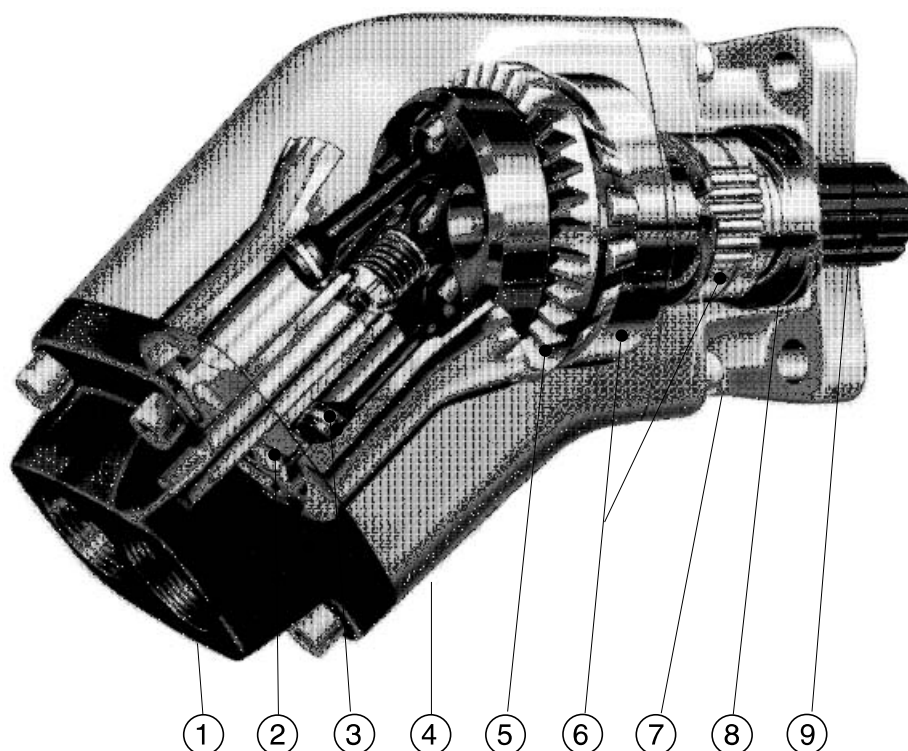
Frame size F1-	12
Displacement [cm ³ /rev]	12
Max flow ¹⁾ [l/min]	28
Max operating pressure [bar]	350
Shaft speed [rpm]	
- short circuited pump (low press.)	3100
- max selfpriming speed	2300
Torque ¹⁾ [Nm]	67
Input power [kW]	
- continuous	16.1
- intermittent ²⁾	21.7
Weight [kg]	6.7

1) Theoretical values

2) Max 6 seconds in any one minute.

NOTE: For noise level information, contact Parker Hannifin

Pump cross section



- | | | |
|---------------------------|-------------------|-------------------------------|
| 1 End cap | 4 Barrel housing | 7 Bearing housing with flange |
| 2 Cylinder barrel | 5 Timing gear | 8 Shaft seals |
| 3 Piston with piston ring | 6 Roller bearings | 9 Input shaft |

Pumps - Fixed Displacement

Axial Piston

F1



- Intermittent pressures up to 400 bar
- High power capability
- High shaft speed
- Low weight
- Bi-directional
- Volumetric efficiency 98 %
- Also SAE-B available sizes 25 up to 61



Frame size F1	25	41	51	61	81	101
Displacement (cm ³ /rev)	25.6	40.9	51.1	59.5	81.6	102.9
Max cont pressure (bar)	350	350	350	350	350	350
Max operating speed* (rpm)	2700	2700	2700	2700	2300	2300
Max operating speed** (rpm)	2600	2400	2200	2200	2000	1800
Input torque at 350 bar (Nm)	142	227	284	331	453	572
Max cont input power (kW)	31	46	52	61	76	86
Weight (kg)	8.5	8.5	8.5	8.5	12.5	12.5

* Unloaded pump (BPV)

** In service 350 bar

F2



- Twin Flow / Dual displacement
- High power capability
- High shaft speed
- Easy to install
- Smart System Solutions
- Proven reliability



Frame size F2	42/42	55/28	53/53	70/35	70/70
Displacement (cm ³ /rev)	43/41	54/52	55/28	69/36	68/68
Max cont pressure (bar)	350	350	350	350	300
Max operating speed* (rpm)	2550	2550	2550	2550	2550
Max operating speed** (rpm)	1800	1800	1800	1800	1650
Input torque at 350 bar (Nm)	467	461	589	583	648
Max cont input power (kW)	88	88	110	110	112
Weight (kg)	19	19	19	19	19

* Unloaded pump (BPV)

** In service 350 bar

T1



- Pressures up to 350 bar
- Shaft speed to 2300 rpm
- High overall efficiency
- Bi-directional
- Proven reliability



Frame size T1	51	81	121
Displacement (cm ³ /rev)	50.0	81.5	118.5
Max cont pressure (bar)	200	200	200
Max operating speed* (rpm)	2300	2300	2300
Max operating speed** (rpm)	2100	2000	1600
Input torque at 200 bar (Nm)	158	258	375
Max cont input power (kW)	27	54	71
Weight (kg)	7.2	8.5	12.5

* Unloaded pump (BPV)

** In service 350 bar

Pumps - Fixed Displacement

Axial Piston

F11



- Pressures up to 420 bar
- High overall efficiency (low losses)
- Accept high external shaft loads
- Good resistance to vibrations and temperature shocks
- Proven reliability
- Easy to service
- CETOP, ISO and SAE versions available



zp 21

Frame size F11	05	10	12	14	19
Displacement (cm ³ /rev)	4.9	9.8	12.5	14.3	19.0
Max cont pressure (bar)	350	350	350	350	350
Max operating speed (rpm)	4600	4200	4000	3900	3500
Weight (kg)	5	7.5	8.2	8.3	11

F12



- Pressures up to 480 bar
- Very high power capability
- High overall efficiency
- Small envelope size
- ISO, SAE and cartridge versions available
- Proven reliability
- Easy to service



zp 21

Frame size F12	30	40	60	80	90	110	125	150	250
Displacement (cm ³ /rev)	30.0	40.0	59.8	80.4	93.0	110.1	125	150.0	242.0
Max cont pressure (bar)	420	420	420	420	350	420	420	350	350
Max operating speed (rpm)	3150	2870	2500	2300	2300	2200	2100	1700	1500
Weight (kg)	12	16.5	21	26	26	36	36	70	77

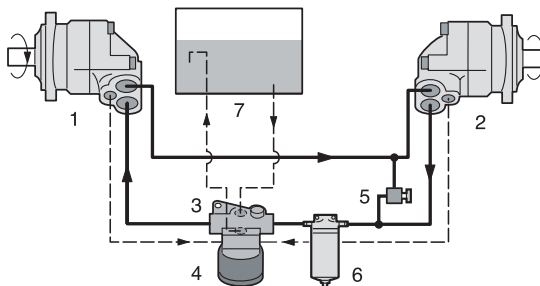
Boost Unit

BLA



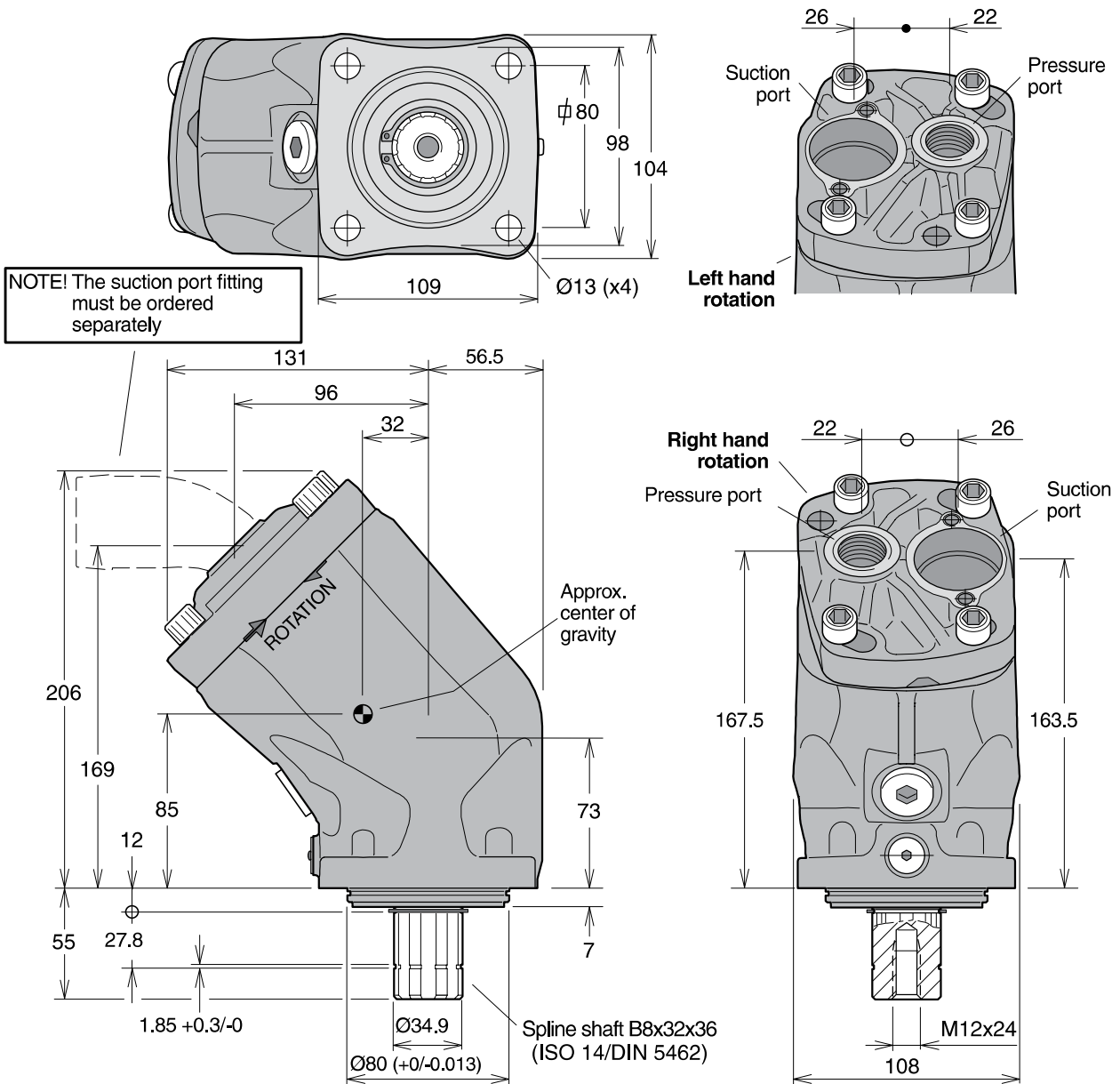
The boost unit provides filtration and make-up fluid to replace pump and motor volumetric losses, while maintaining sufficient pump inlet pressure to avoid cavitation. The semi-closed system could be built with a smaller and lighter reservoir at the same time as, the pump speed is possible to increase. The Boost Units BLA are available in two different sizes:

BLA 4 for flow 25–160 litres per minute,
BLA 6 for flow 150–400 litres per minute.



1. Pump
2. Motor
3. Boost unit (with injector and nozzle)
4. Filter cartridge
5. Pressure relief valve
6. Full-flow filter (when required)
7. Reservoir

F1-25, -41, -51 and -61



Ordering code

Example: **F1-81-R**

F1 frame size
25, 41, 51, 61, 81 or 101

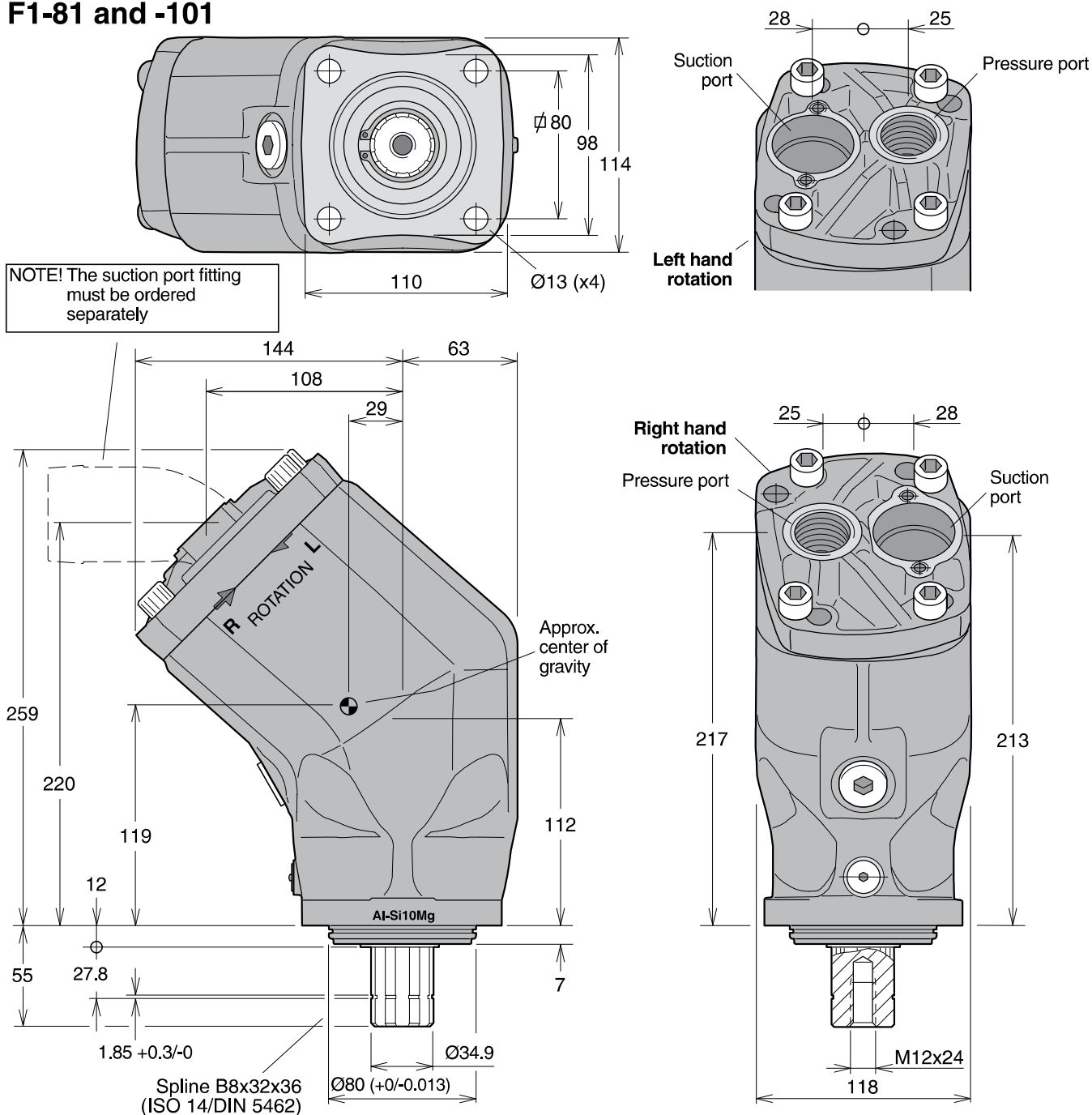
Shaft rotation
R Right hand
L Left hand

NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See chapter 11.

Standard versions

Designation	Ordering no.
F1-25-R	378 1024
F1-25-L	378 1025
F1-41-R	378 1040
F1-41-L	378 1041
F1-51-R	378 1050
F1-51-L	378 1051
F1-61-R	378 1060
F1-61-L	378 1061

F1-81 and -101



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Port size

F1 frame size	Pressure port ¹⁾
-25	3/4"
-41	3/4"
-51	3/4"
-61	3/4"
-81	1"
-101	1"

1) BSP thread (fitting not included)

Standard versions

Designation	Ordering no.
F1-81-R	378 1080
F1-81-L	378 1081
F1-101-R	378 1100
F1-101-L	378 1101

NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See chapter 11.