

F1 Pump

F1-ISO



3

4

Contents	Page	Chapter
Pump and Line selection	11	2
F1-25 to -101, ISO	22	
Specifications and pump cross section	22	
Installation Dimensions, F1-25, -41, -51 and -61	23	
Ordering code and standard versions	23	
Installation Dimensions, F1-81 and -101	24	
Port size and standard versions	24	
F1-12 ISO with BSP port treads	25	
Specifications and pump cross section	25	
Installation Dimensions, F1-12 with BSP port treads	26	
Ordering code and standard versions	26	
Installation Dimensions, F1-25, to -101, all ports are BSP	27-28	
Ordering code and standard versions	27	
Suction fittings	50	10
Installation and start up	71	13

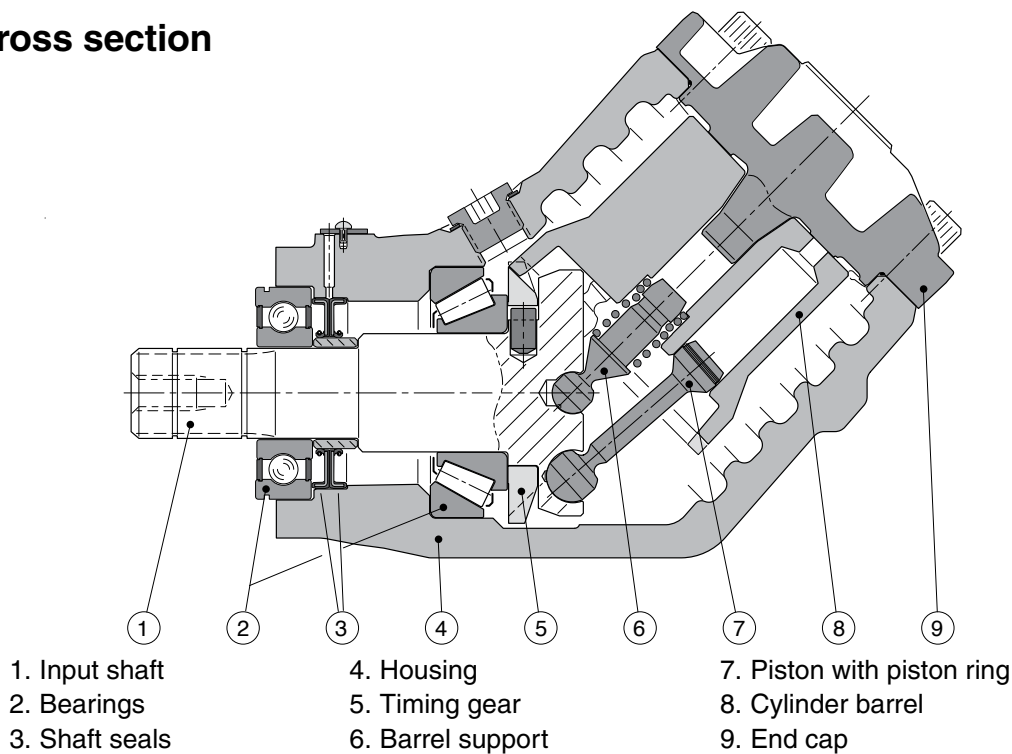
F1-25 to -101, ISO Specifications

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 flow ¹⁾ [l/min]						
at 350 bar	67	98	112	131	163 ³⁾	185 ³⁾
at 400 bar	56	86	97	113	143	160
Max operating pressure [bar]						
continuous	350	350	350	350	350	350
intermittent	400	400	400	400	400	400
Shaft speed [rpm]						
- short circuited pump (low press.)	2700	2700	2700	2700	2300	2300
- max speed at 350 bar ²⁾	2600	2400	2200	2200	2000 ³⁾	1800 ³⁾
at 400 bar ²⁾	2200	2100	1900	1900	1750	1550 ³⁾
Torque ¹⁾ [Nm]						
at 350 bar	142	227	284	331	453	572
at 400 bar	163	260	324	378	518	653
Input power [kW]						
- continuous	31	46	52	61	76	86
- intermittent ⁴⁾	39	57	66	76	95	108
Weight [kg]	8.5	8.5	8.5	8.5	12.5	12.5

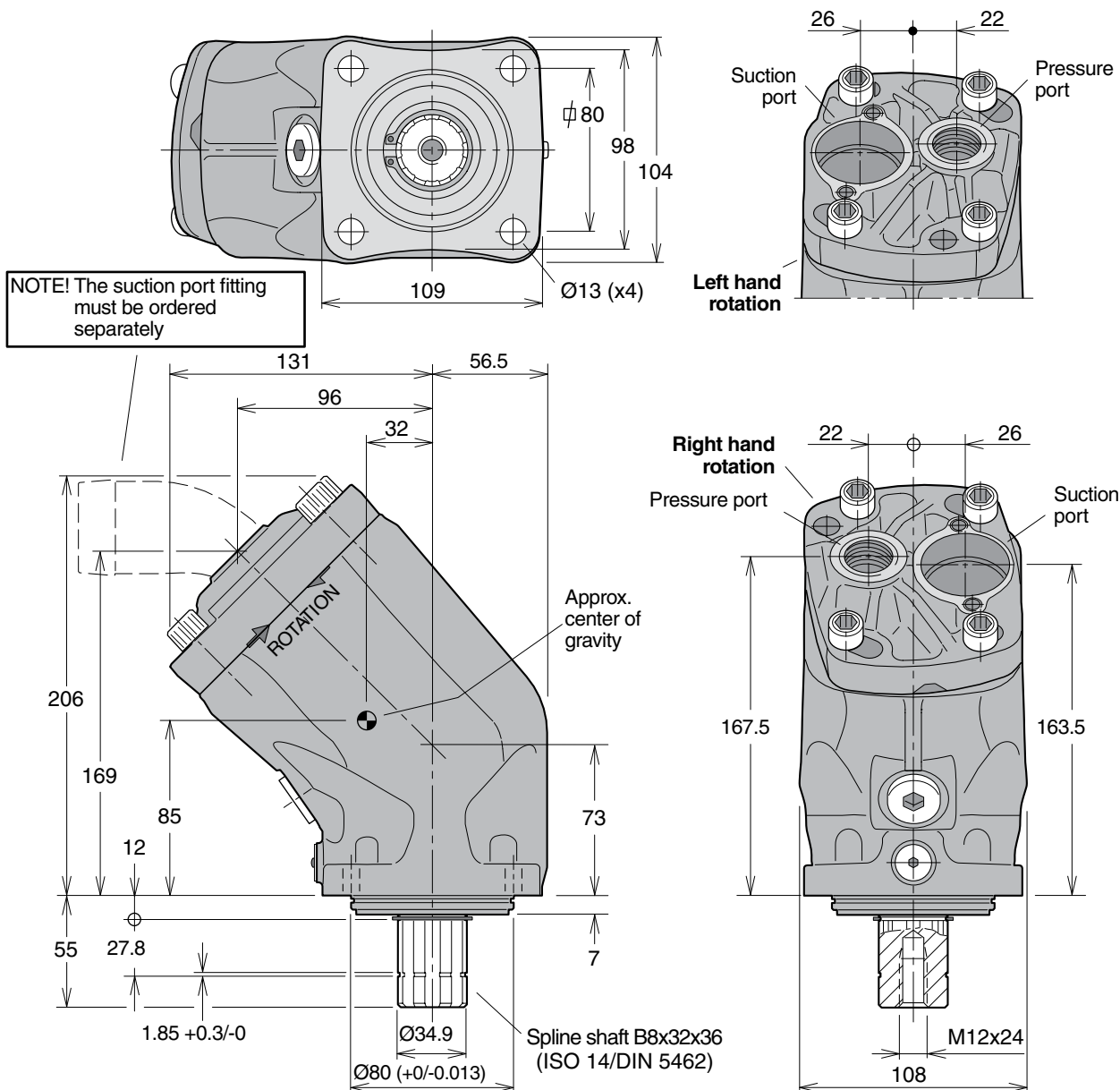
- 1) Theoretical values
- 2) Valid at an inlet pressure of 1.0 bar (abs.) when operating on mineral oil at a viscosity of 30 mm²/s (cSt).
- 3) Valid with 2 1/2" inlet (suction) line.
 With 2" suction line: F1-81 – max 1400 rpm (Q≈120 l/min);
 F1-101 – max 1000 rpm (Q≈120 l/min).
- 4) Max 6 seconds in any one minute.

NOTE: For noise level information, contact Parker Hannifin

Pump cross section



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



4

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 10.

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

F1-12 ISO with BSP port treads

Specifications

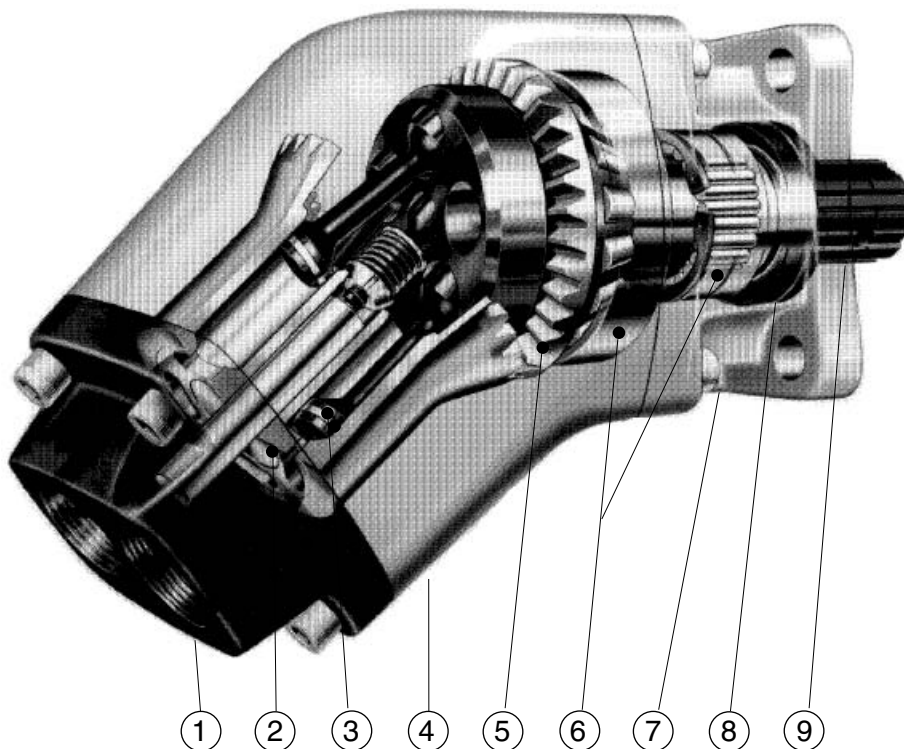
Frame size F1-	12
Displacement [cm ³ /rev]	12
Max flow ¹⁾ [l/min]	28
Max operating pressure [bar]	350
Shaft speed [rpm]	
- short circuited pump (low press.)	3100
- max selfpriming speed	2300
Torque ¹⁾ [Nm]	67
Input power [kW]	
- continuous	16.1
- intermittent ²⁾	21.7
Weight [kg]	6.7

1) Theoretical values

2) Max 6 seconds in any one minute.

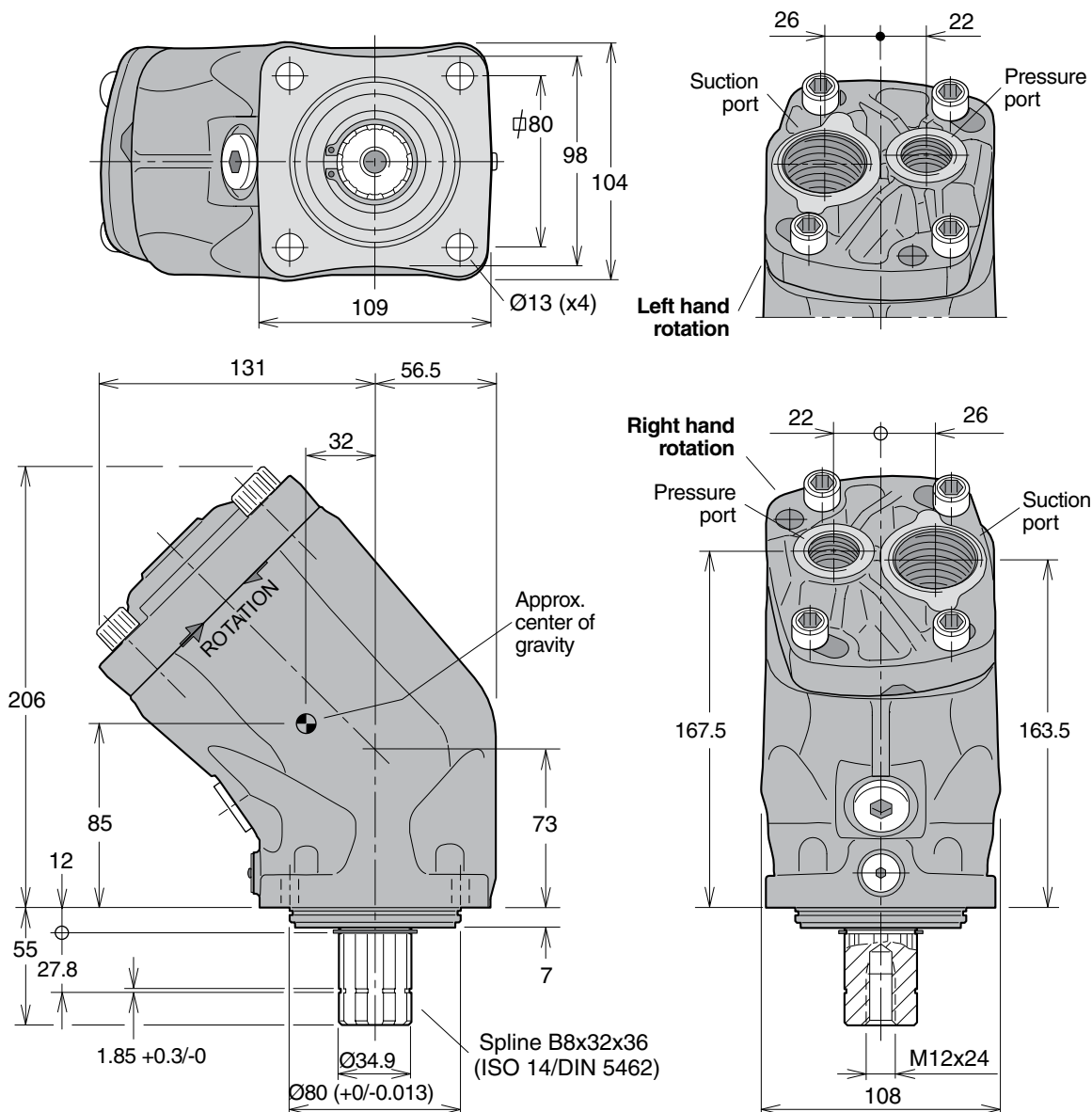
NOTE: For noise level information, contact Parker Hannifin

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 |

F1-25, -41, -51 and -61 with BSP port threads



Port size (all ports are BSP)

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

Ordering code

Example: **F1-61-RB**

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

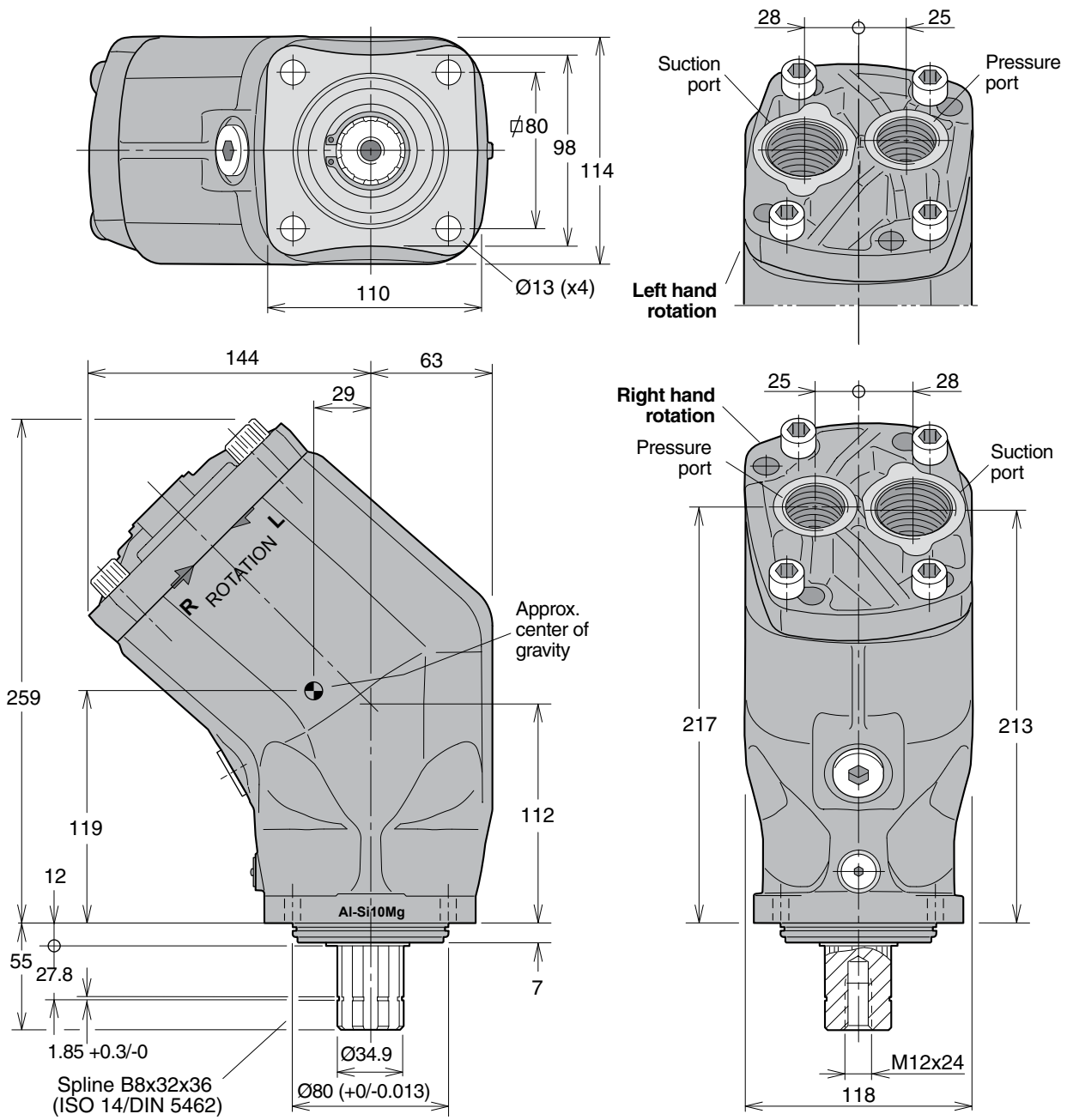
Shaft rotation/port threads:
RB Right hand/BSP
LB Left hand/BSP

Standard versions

Designation	Ordering no.
F1-25-RB	378 4024
F1-25-LB	378 4025
F1-41-RB	378 4040
F1-41-LB	378 4041
F1-51-RB	378 4050
F1-51-LB	378 4051
F1-61-RB	378 4060
F1-61-LB	378 4061

NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See chapter 10.

F1-81 and -101 with BSP port treads



Port size (all ports are BSP)

F1 frame size	Pressure port ¹⁾	Suction port
-81	1"	1 1/4"
-101	1"	1 1/4"

Ordering code

Example: **F1-81-RB**

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

Shaft rotation/port threads:
RB Right hand/BSP
LB Left hand/BSP

Standard versions

Designation	Ordering no.
F1-81-RB	378 4080
F1-81-LB	378 4081
F1-101-RB	378 4100
F1-101-LB	378 4101

NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See chapter 10.