



Truck Hydraulics

Series GPA, GP1, F1, T1, F2, F3, VP1,
Fixed and Variable Displacement Pumps,
Motors and Accessories



parker.com/pmde



ENGINEERING YOUR SUCCESS.

F1 Pump

F1-ISO



Contents	Page	Chapter
Pump and Line selection	12	2
F1-25 to -101, ISO.....	23	
Specifications and pump cross section	23	
Installation Dimensions, F1-25, -41, -51 and -61.....	24	
Ordering code and standard versions	24	
Installation Dimensions F1-81 and -101	25	
Port size and standard versions	25	
F1-12 ISO with BSP port treads	26	
Specifications and pump cross section	26	
Installation Dimensions, F1-12 with BSP port treads	27	
Ordering code and standard versions	27	
Installation Dimensions, F1-25, to -101, all ports are BSP	28-29	
Ordering code.....	28	
Suction fittings	56	11
Installation and start up	75	14

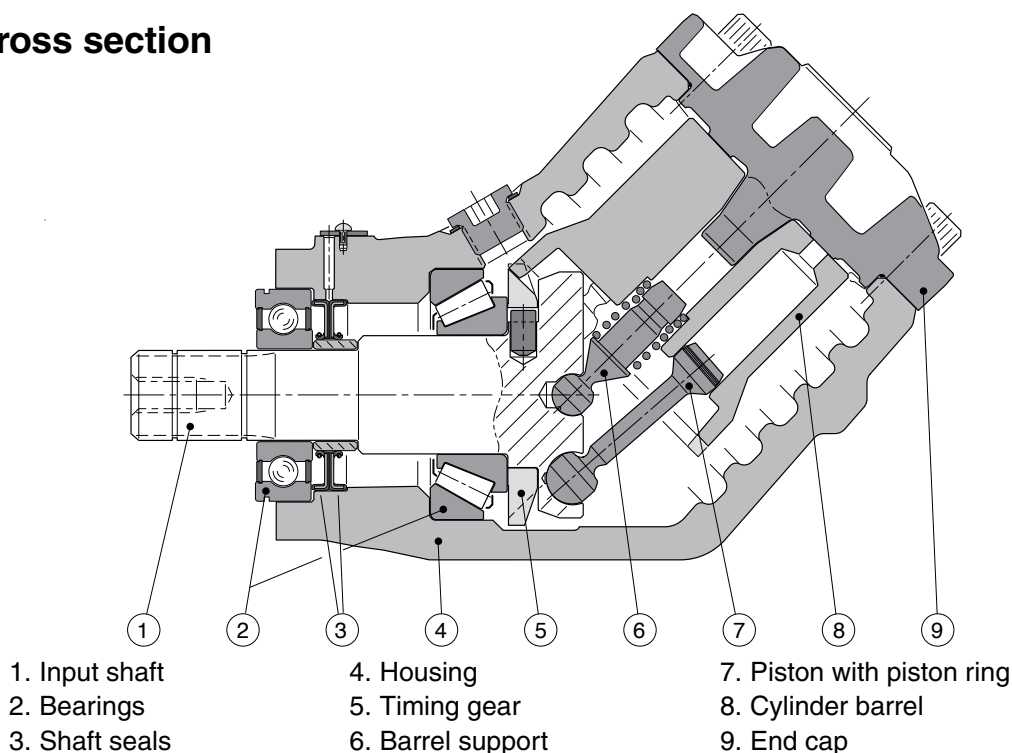
F1-25 to -101, ISO Specifications

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

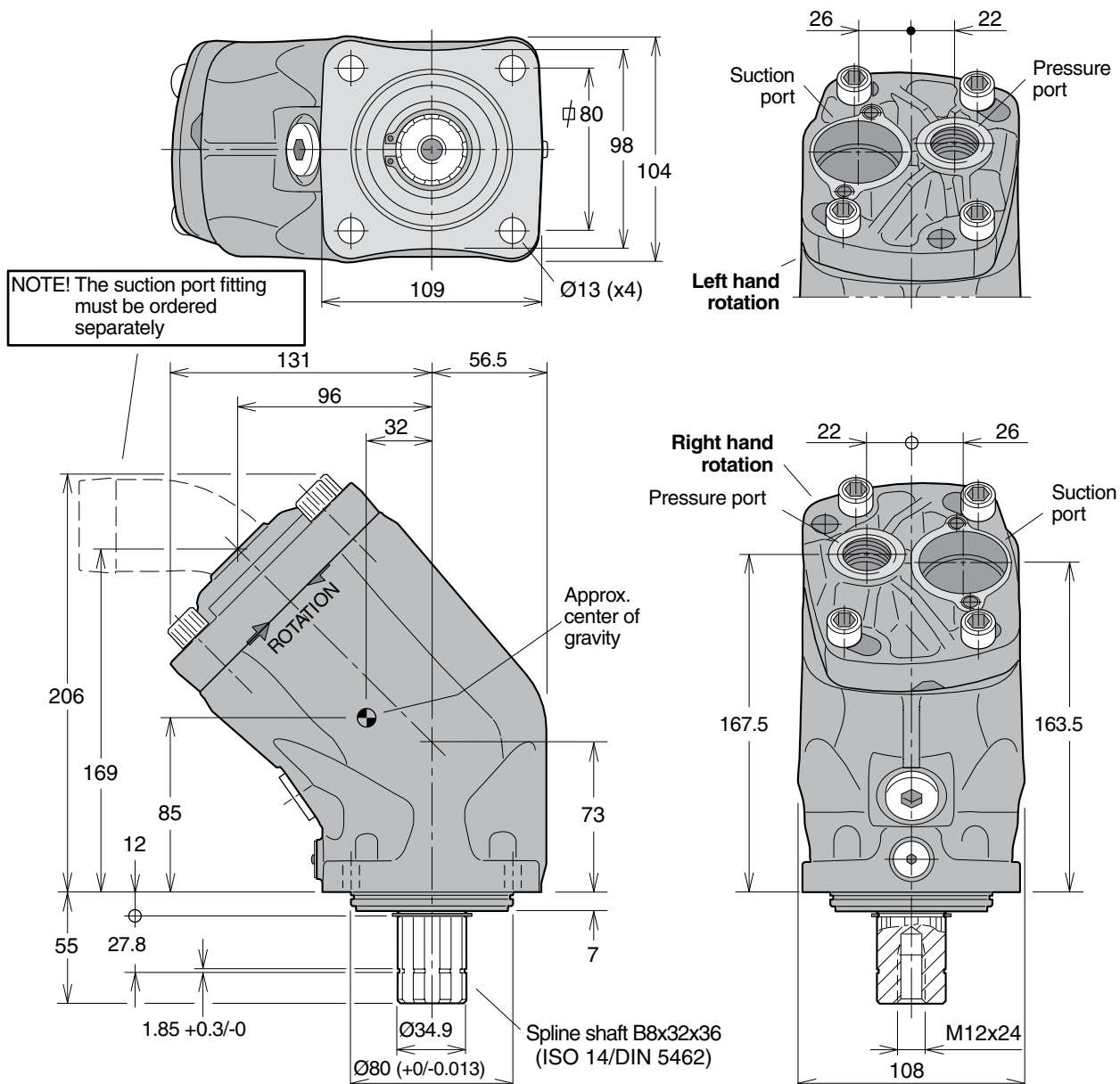
- 1) Theoretical values
- 2) Valid at an inlet pressure of 1.0 bar (abs.) when operating on mineral oil at a viscosity of 30 mm²/s (cSt).
- 3) Valid with 2 1/2" inlet (suction) line.
With 2" suction line: F1-81 – max 1400 rpm (Q≈120 l/min);
F1-101 – max 1000 rpm (Q≈120 l/min).
- 4) Max 6 seconds in any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

NOTE: For noise level information, contact Parker Hannifin

Pump cross section



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



Ordering code

Example: **F1- 81 - R**

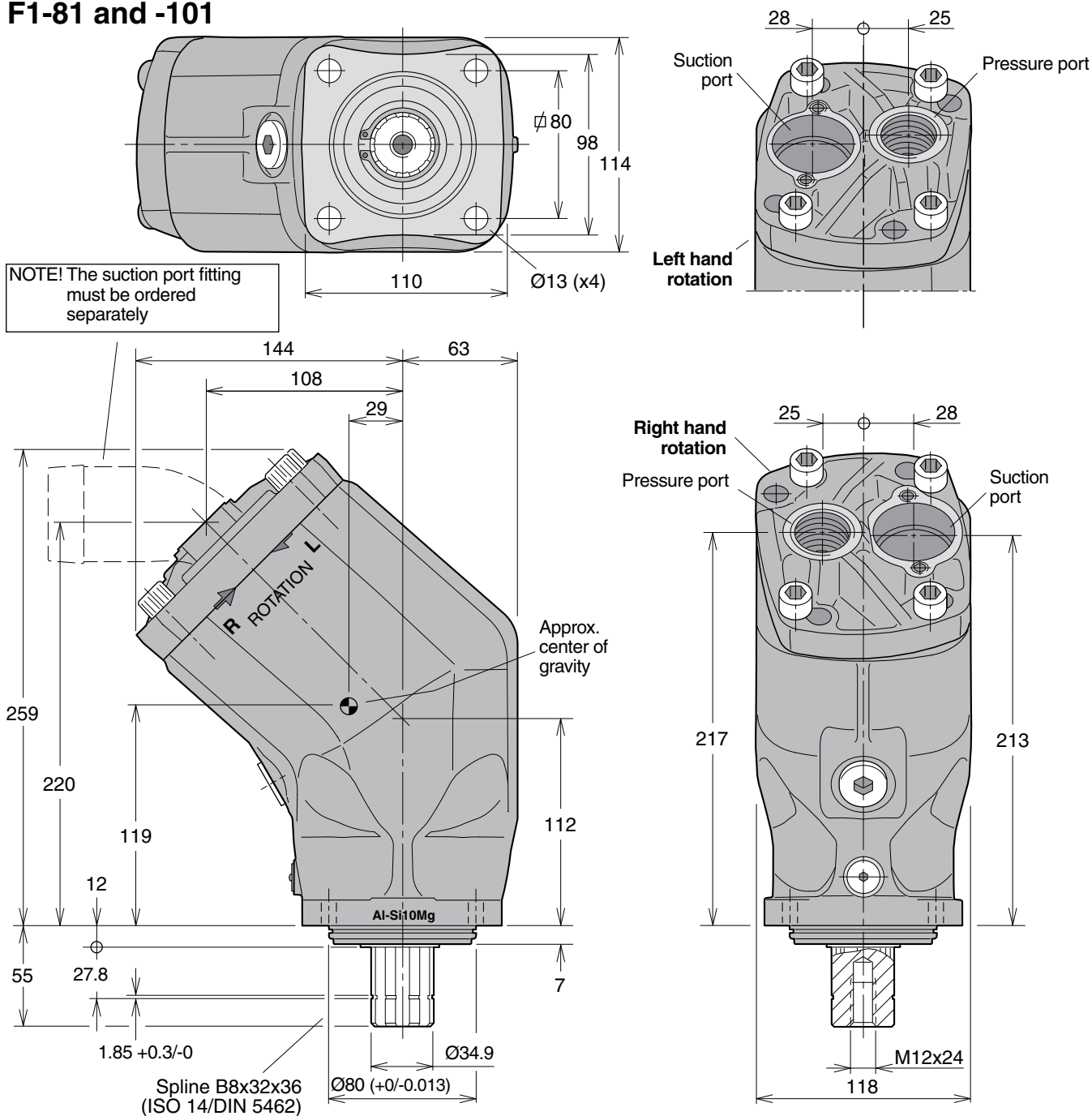
F1 frame size
25, 41, 51, 61, 81 or 101

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

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.

F1-12 ISO with BSP port treads

Specifications

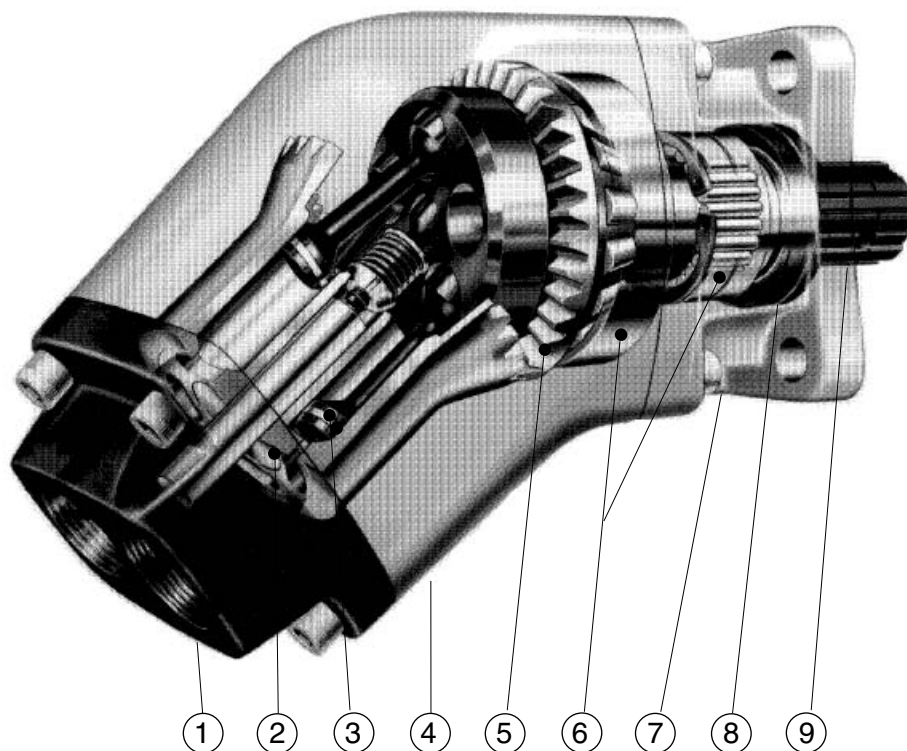
Frame size F1-	12
Displacement [cm ³ /rev]	12
Max flow ¹⁾ [l/min]	28
Max operating pressure [bar]	350
Shaft speed [rpm]	
- short circuited pump (low press.)	3100
- max selfpriming speed	2300
Torque ¹⁾ [Nm]	67
Input power [kW]	
- continuous	16.1
- intermittent ²⁾	21.7
Weight [kg]	6.7

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

2 Cylinder barrel

3 Piston with piston ring

4 Barrel housing

5 Timing gear

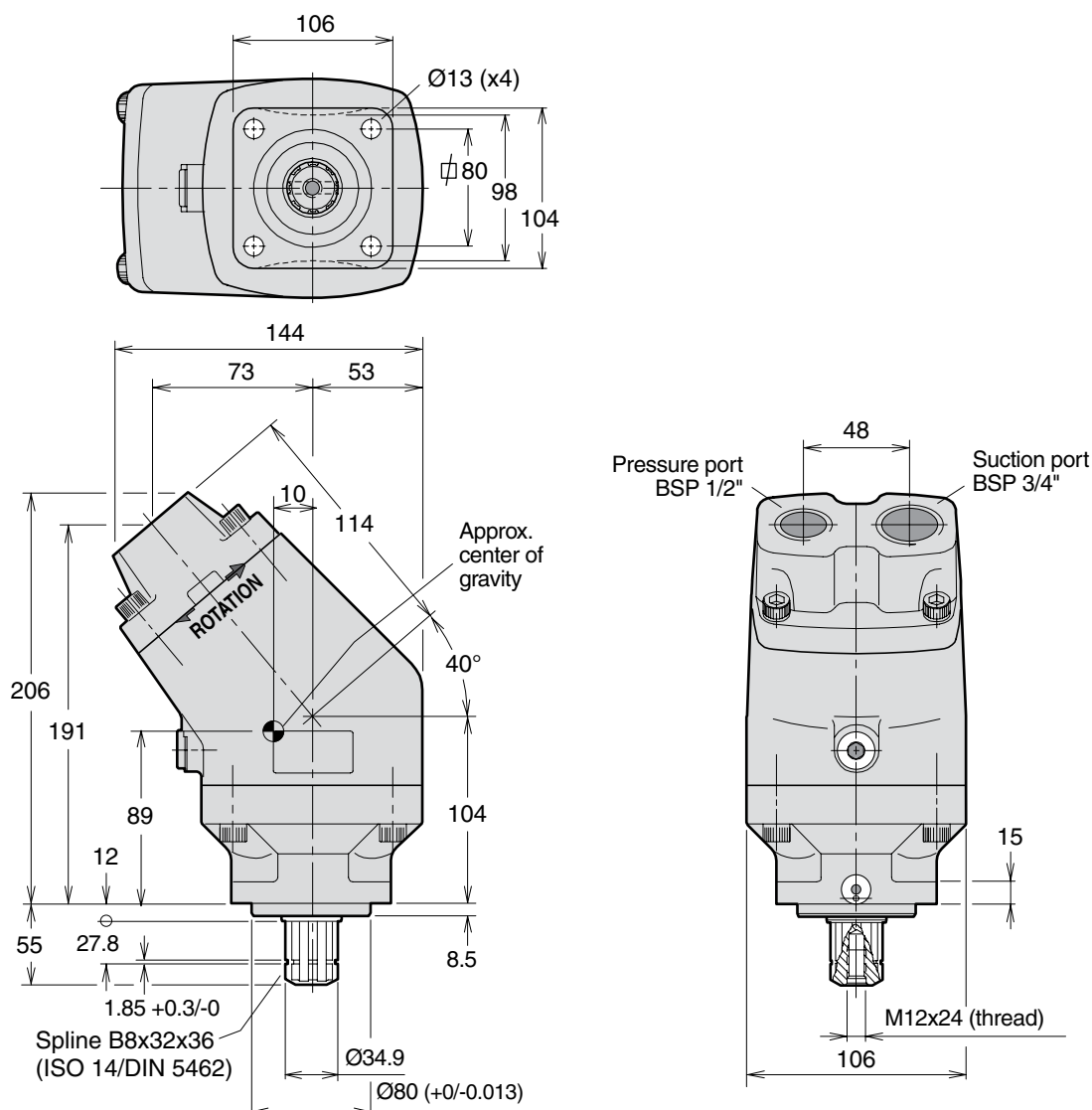
6 Roller bearings

7 Bearing housing with flange

8 Shaft seals

9 Input shaft

F1-12 with BSP port treads



Ordering code

Example: **F1- 12 - R**

F1 frame size **12**

Shaft rotation

R Right hand

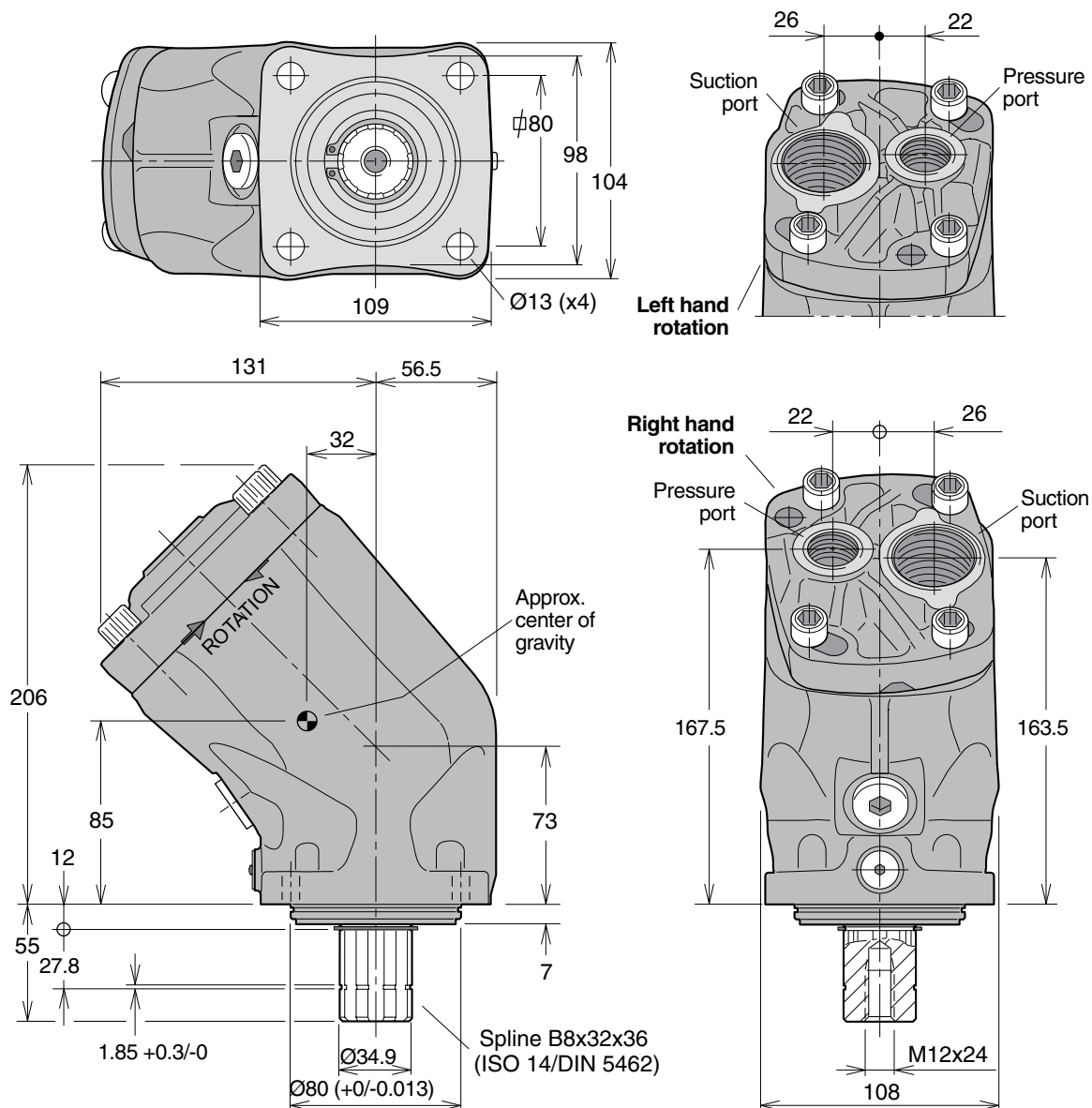
L Left hand

Standard versions

Designation	Ordering no.
F1-12-R	378 2212
F1-12-L	378 2211

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

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



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

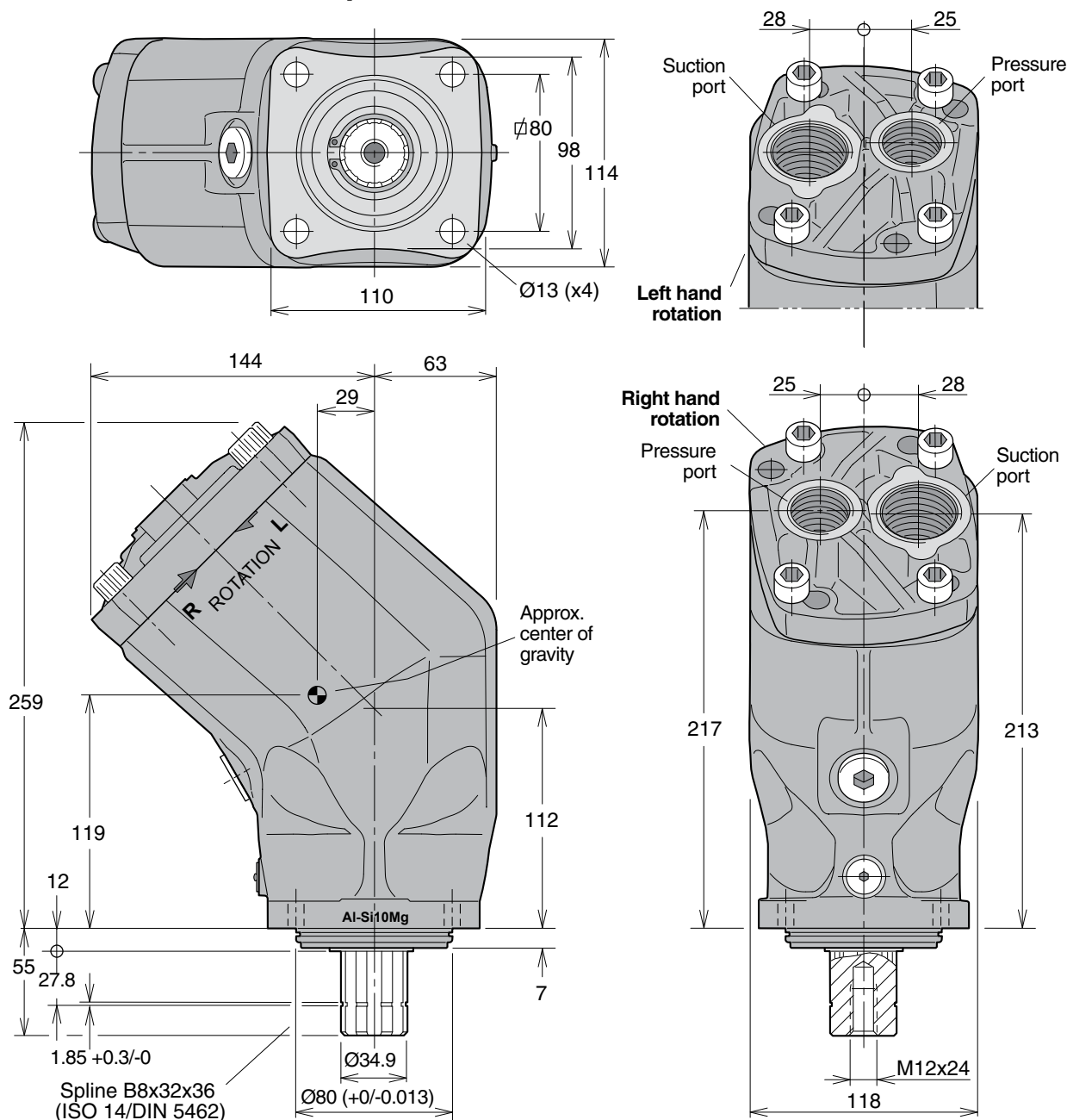
LB Left hand/BSP

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 11.

F1-81 and -101 with BSP port threads



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 11.