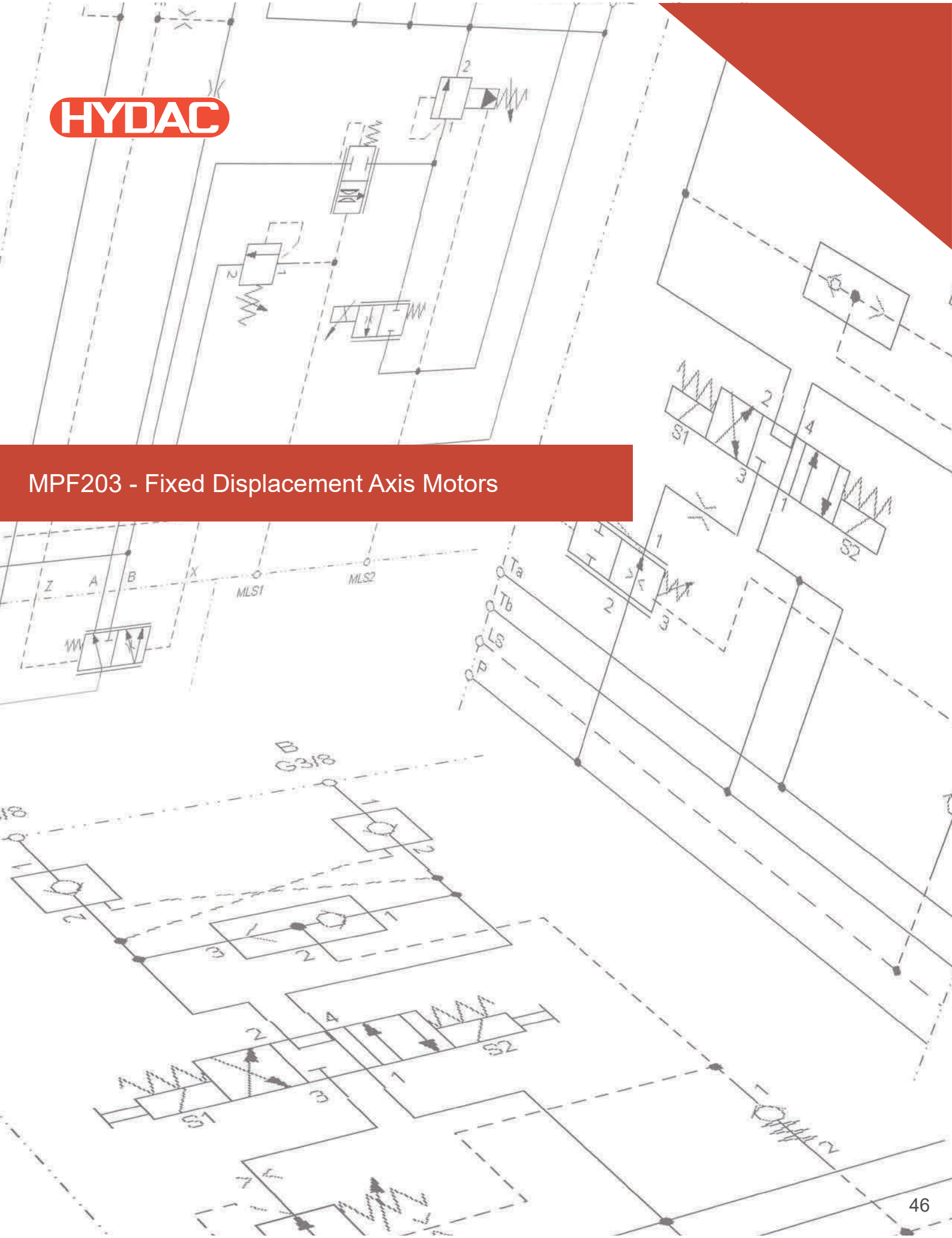

HYDAC
MPF203 - Fixed Displacement Axis Motors
MLS1
MLS2
Ta
Tb
LS
P
S1
S2

# MPF 203

| Motor MPF 203 (012-130 ISO) | | - - - | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Displacement | $cm^3/rev$ | 9.6 | 12.6 | 17.0 | 25.4 | 34.2 | 41.2 | 47.1 | 56.7 | 63.5 | 83.6 | 90.7 | 108.0 | 130.0 |
| Working pressure | | | | | | | | | | | | | | |
| *max intermittent* | bar | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | |
| *max continuous* | | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | |
| Revolutions | | | | | | | | | | | | | | |
| *max intermittent* | rpm | 8800 | 8800 | 8800 | 7000 | 7000 | 6300 | 6300 | 6300 | 6300 | 5200 | 5200 | 5200 | |
| *max continuous* | | 8000 | 8000 | 8000 | 6300 | 6300 | 5700 | 5700 | 5700 | 5700 | 4700 | 4700 | 4700 | |
| *min continuous* | | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | |
| Power | | | | | | | | | | | | | | |
| *max intermittent* | kW | 41 | 54 | 74 | 86 | 115 | 125 | 145 | 175 | 195 | 215 | 230 | 275 | |
| *max continuous* | | 15 | 20 | 25 | 40 | 55 | 60 | 65 | 80 | 90 | 100 | 110 | 130 | |
| Starting torque theoretical value | Nm/bar | 0.15 | 0.20 | 0.27 | 0.40 | 0.54 | 0.66 | 0.75 | 0.89 | 1.0 | 1.33 | 1.44 | 1.71 | 2.06 |
| Moment of inertia (x $10^{-3}$) | $kg\ m^2$ | 0.9 | 0.9 | 0.9 | 1.1 | 1.1 | 2.6 | 2.6 | 2.6 | 2.6 | 7.4 | 7.4 | 7.4 | 7.4 |
| Weight | kg | 8.5 | 8.5 | 8.5 | 9.5 | 9.5 | 16.5 | 16.5 | 16.5 | 16.5 | 28.0 | 28.0 | 30.5 | 30.5 |

1. Type

| | |
|---|---|
| MPF | Compact, bent-axis motor |

2. Displacement

| 010 | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

3. Direction of rotation

| | |
|---|---|
| W | Independent |

4. Sealing

| | |
|---|---|
| P | FPM, High Pressure, High Temperature |

For Low Temperature Applications, below -25°C, please consult HYDAC Engineering

5. Mounting flange

| SAE J-744 | | 010 | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SB2 | SAE B-2 hole | X | X | X | X | X | - | - | - | - | - | - | - | - |
| SB4 | SAE B-4 hole | X | X | X | X | X | - | - | - | - | - | - | - | - |
| SC4 | SAE C-4 hole | - | - | - | X | X | X | X | X | X | X | X | X | - |
| SD4 | SAE D-4 hole | - | - | - | - | - | - | - | - | - | X | X | X | X |

6. Shaft

| | | 010 | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Spline SAE J498b 30° Class 5 | | | | | | | | | | | | | | |
| B13 | 13T 16/32 | X | X | X | X | X | - | - | - | - | - | - | - | - |
| C14 | 14T 12/24* | - | - | - | X | X | X | X | X | X | X | O | O | - |
| C21 | 21T 16/32* | - | - | - | - | - | X | X | X | X | X | X | X | - |
| D13 | 13T 8/16** | - | - | - | - | - | - | - | - | - | X | X | X | X |
| Key SAE J744 | | | | | | | | | | | | | | |
| B25 | ø 25.4 | X | X | X | X | X | - | - | - | - | - | - | - | - |
| C32 | ø 31.7* | - | - | - | - | - | X | X | X | X | O | O | O | - |
| D44 | ø 44.45** | - | - | - | - | - | - | - | - | - | X | X | X | X |

* Only with SC4 mounting flange
** Only with SD4 mounting flange

X = Standard, preferred
O = Contact our Tech. Dept.

7. Connection cover

| | | 010 | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S1 | 40° Mount flange vertical * | - | - | - | - | - | - | - | - | - | X | X | X | X |
| S2 | 40° Mount flange horizontal * | - | - | - | - | - | X | X | X | X | - | - | - | - |
| S3 | 40° threaded connection | X | X | X | X | X | - | - | - | - | - | - | - | - |
| V1 | 90° Mount flange vertical * | - | - | - | - | - | - | - | - | - | X | X | X | X |
| V2 | 90° Mount flange horizontal * | - | - | - | X | X | X | X | X | X | X | X | X | X |
| R1 | Side connections, flanged * | - | - | - | X | X | X | X | X | X | X | X | X | X |
| K3 | Combicover 90° side conn. thread . | X | X | X | X | X | - | - | - | - | - | - | - | - |

* According to SAE J518 code 62

8. Connections

| | | 010 | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G | ISO G* | X | X | X | X | X | - | - | - | - | - | - | - | - |
| M | Metric ** | - | - | - | X | X | X | X | X | X | X | X | X | X |
| U | UN*** | X | X | X | X | X | X | X | X | X | X | X | X | X |

* Only threaded connections
** Only flanged connections
*** Only available for S covers

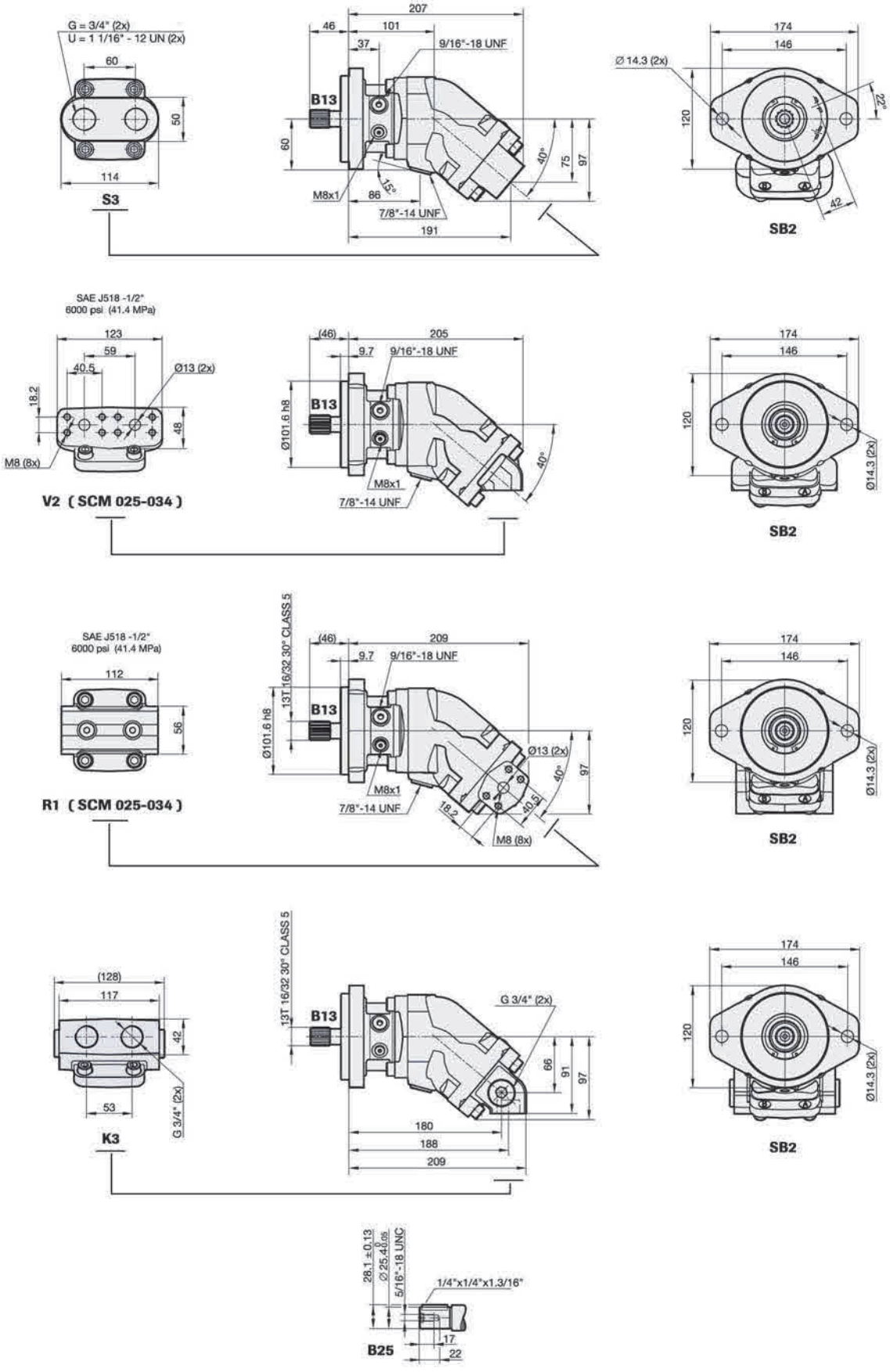
9. Additional

| | |
|---|---|
| 1 | External drainage |

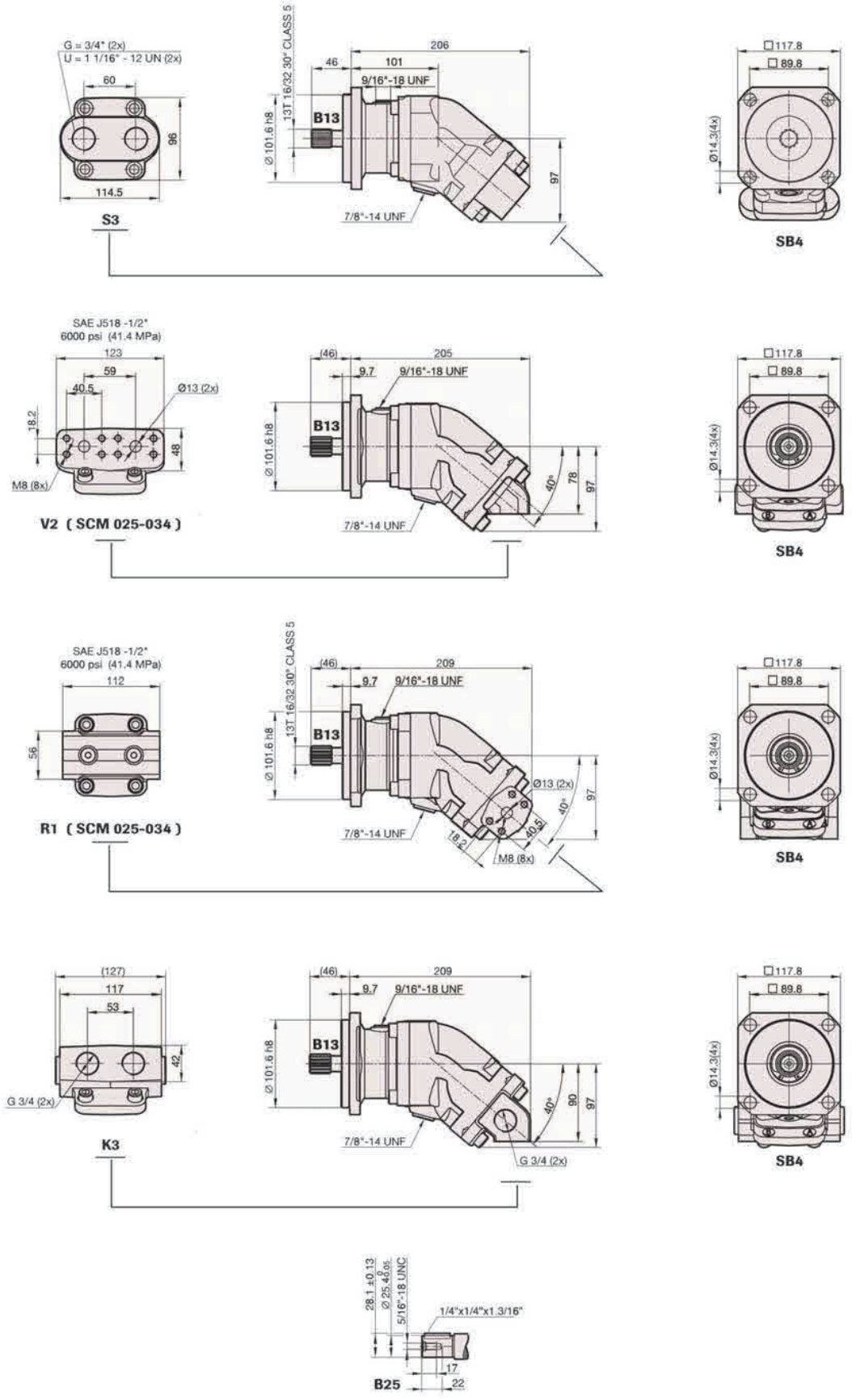
10. Speed sensor

| | | 010 | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 090 | 108 | 130 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 | No speed sensor | X | X | X | X | X | X | X | X | X | X | X | X | X |
| P1 | Prepared for speed sensor | X | X | X | X | X | X | X | X | X | X | X | X | X |
| S1 | Fitted speed sensor type PNP* | X | X | X | X | X | X | X | X | X | X | X | X | X |
| S2 | Fitted speed sensor type NPN* | X | X | X | X | X | X | X | X | X | X | X | X | X |

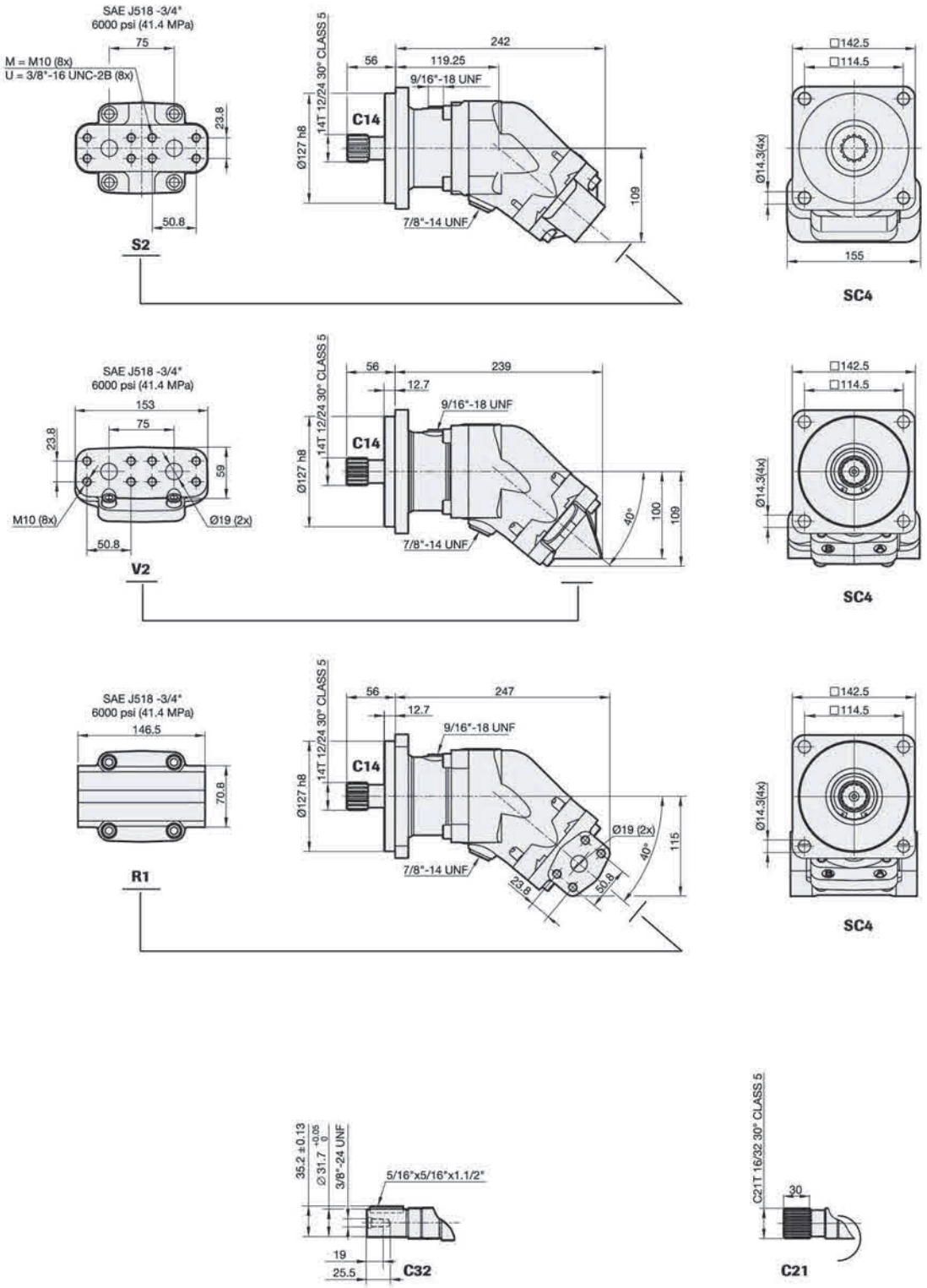
MPF203 (010-034) SAE B2



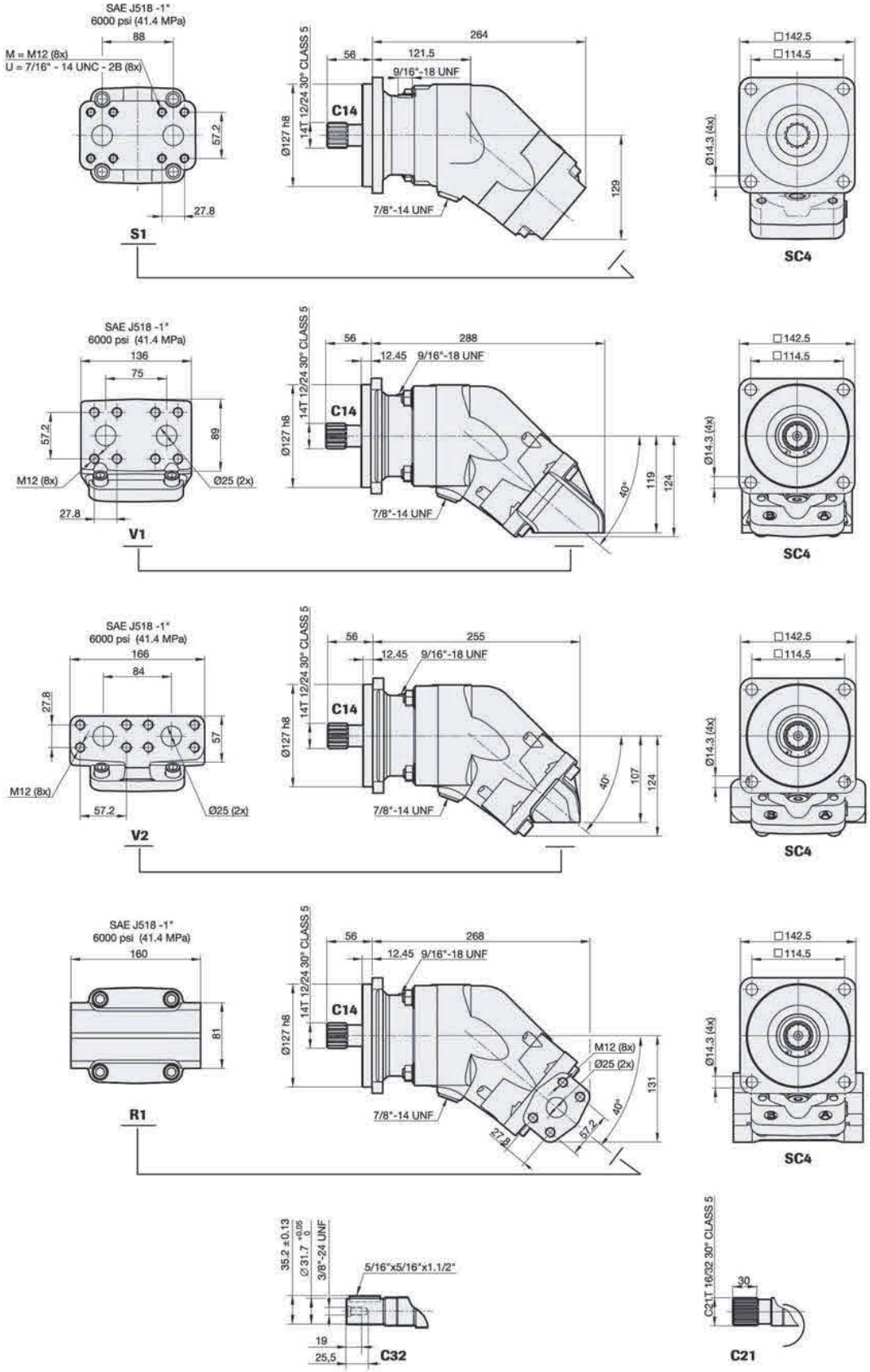
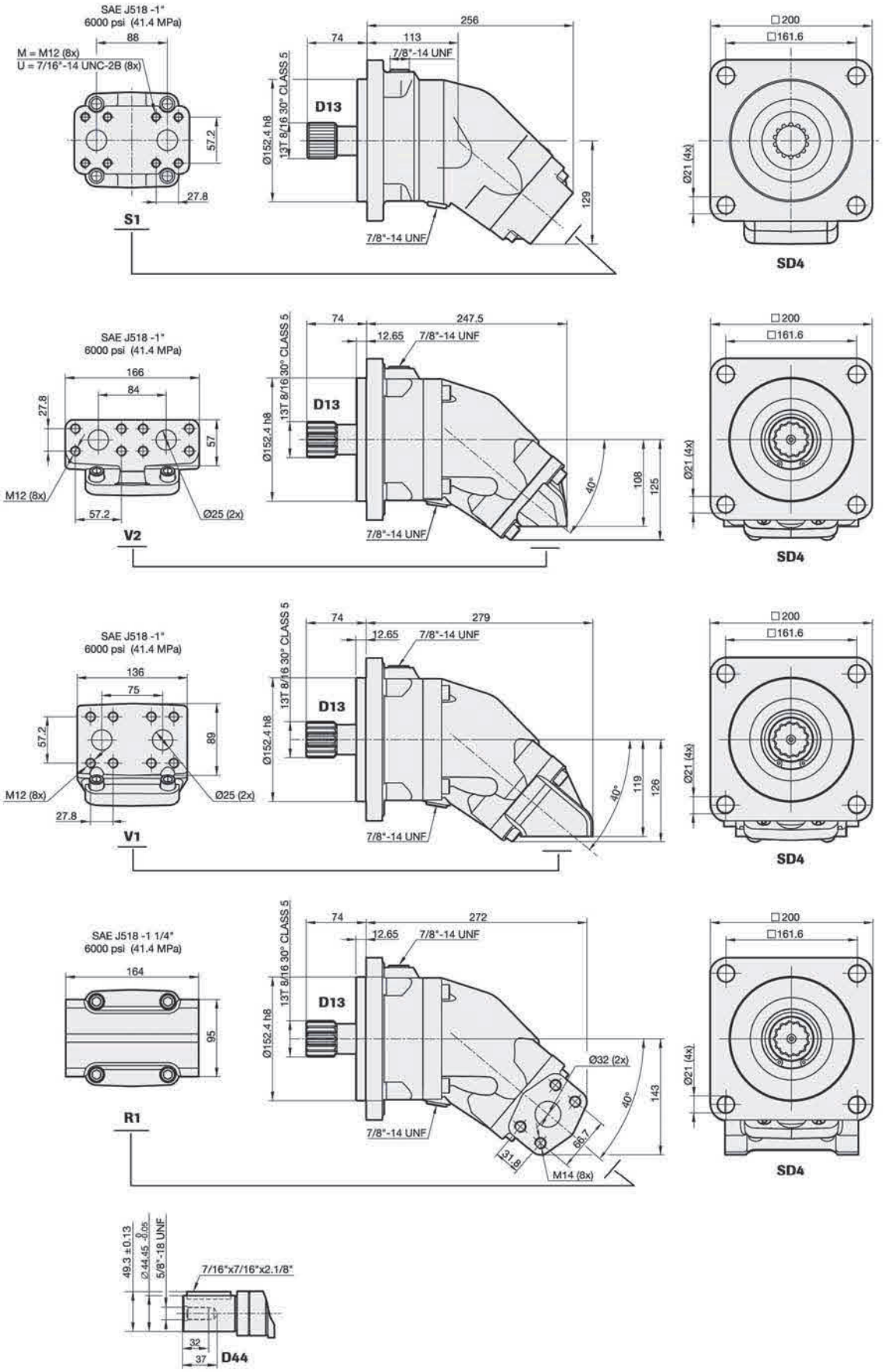
MPF203 (010-034) SAE B4



MPF203 (040-064) SAE C



MPF203 (084-108) SAE C



MPF203 (084-130) SAE D