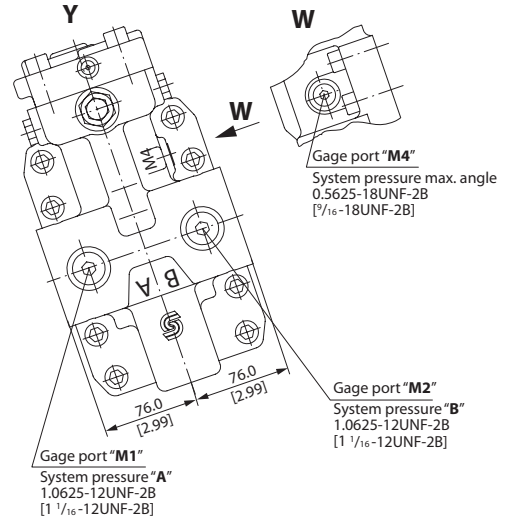
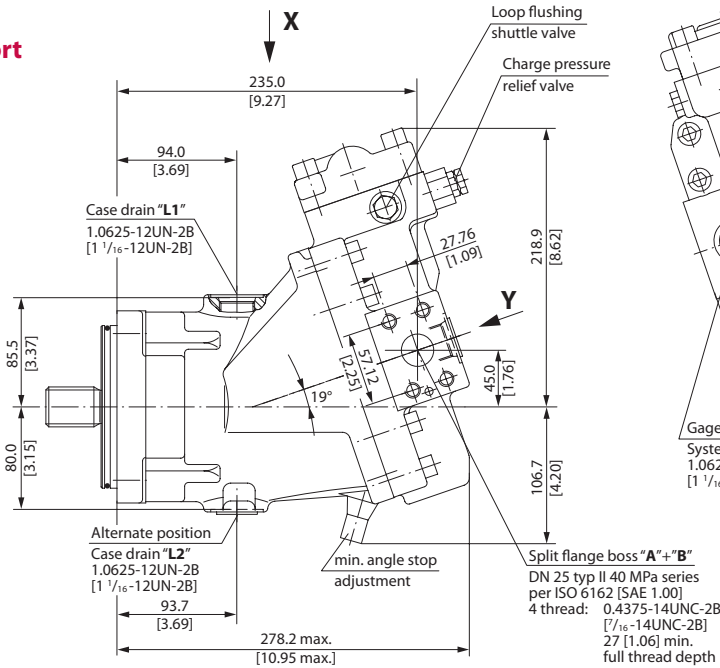


SAE Flange Design
per ISO 3019/1

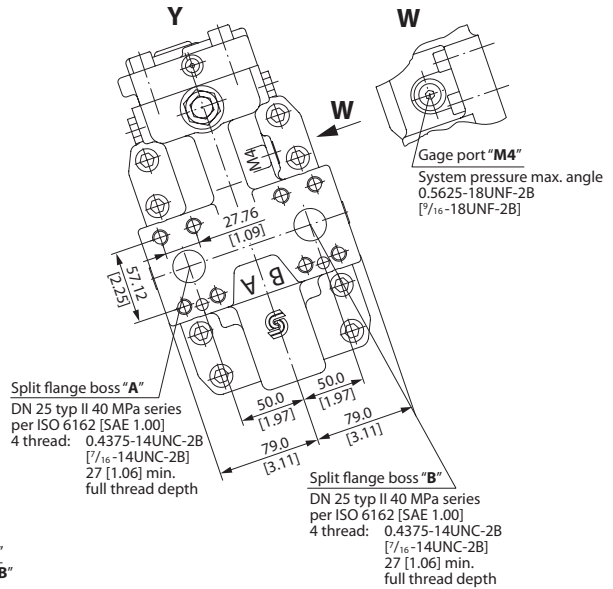
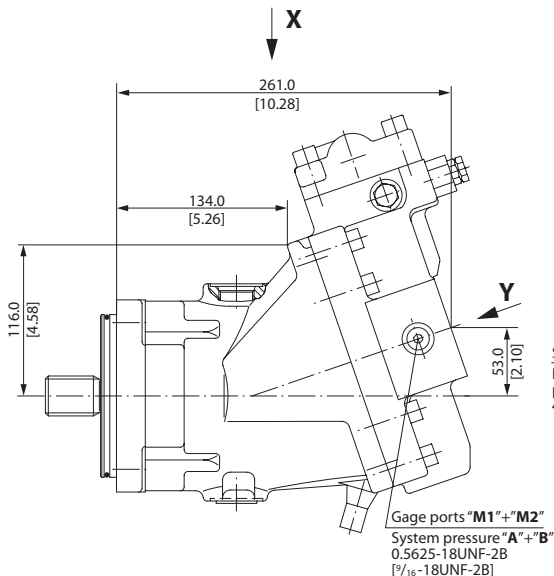
51V080-1 Two Position Control, N1NN

mm
[in]

Side Port



Axial Port



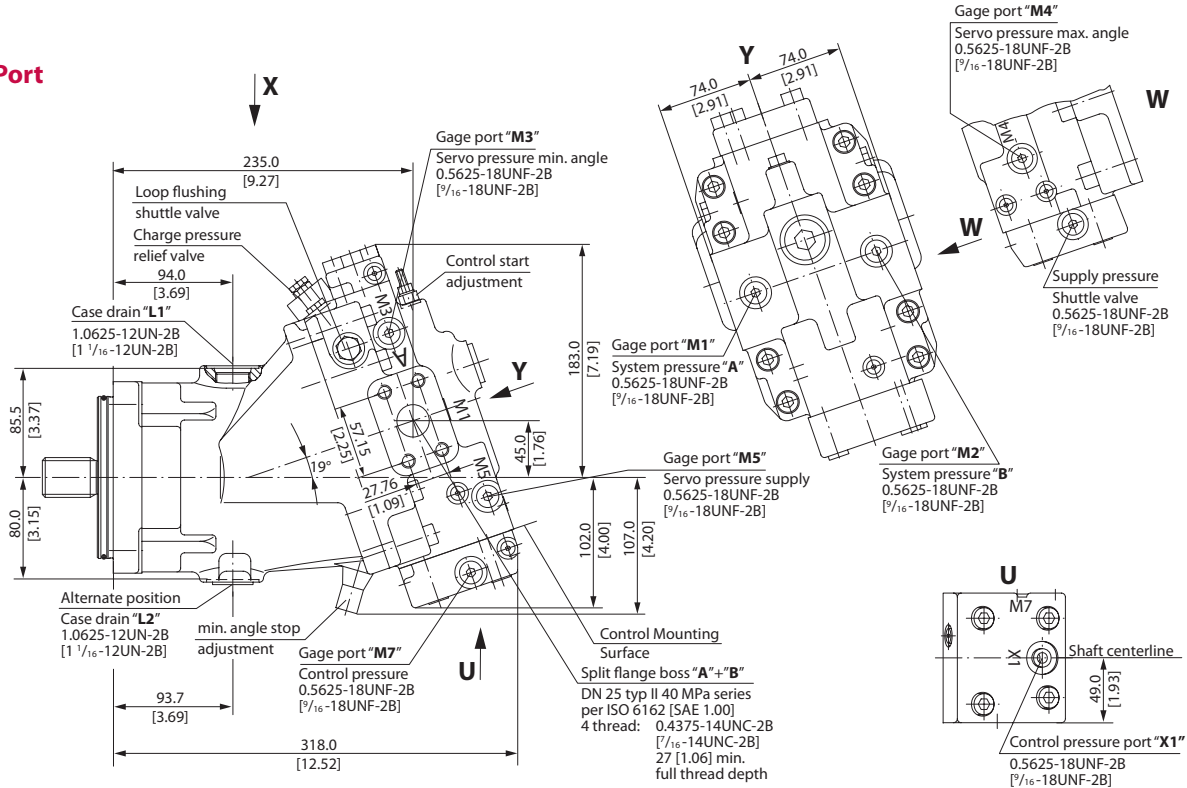
P001 793E

SAE Flange Design
 Per ISO 3019/1
 (continued)

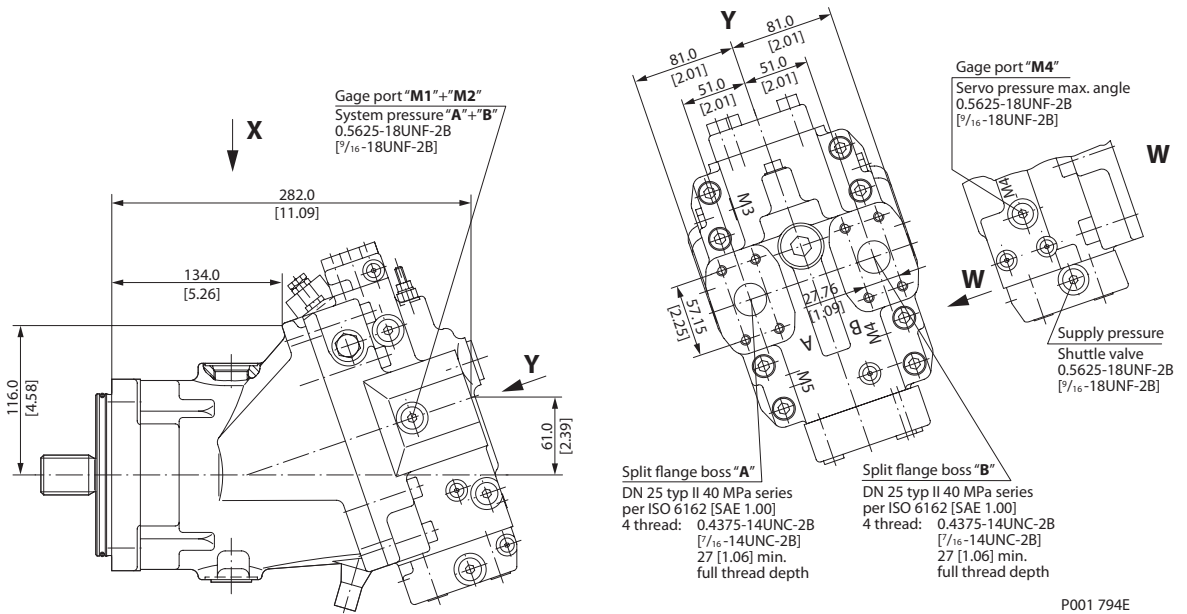
51V080 Proportional and Two-Position Control, HZB1

mm
 [in]

Side Port



Axial Port

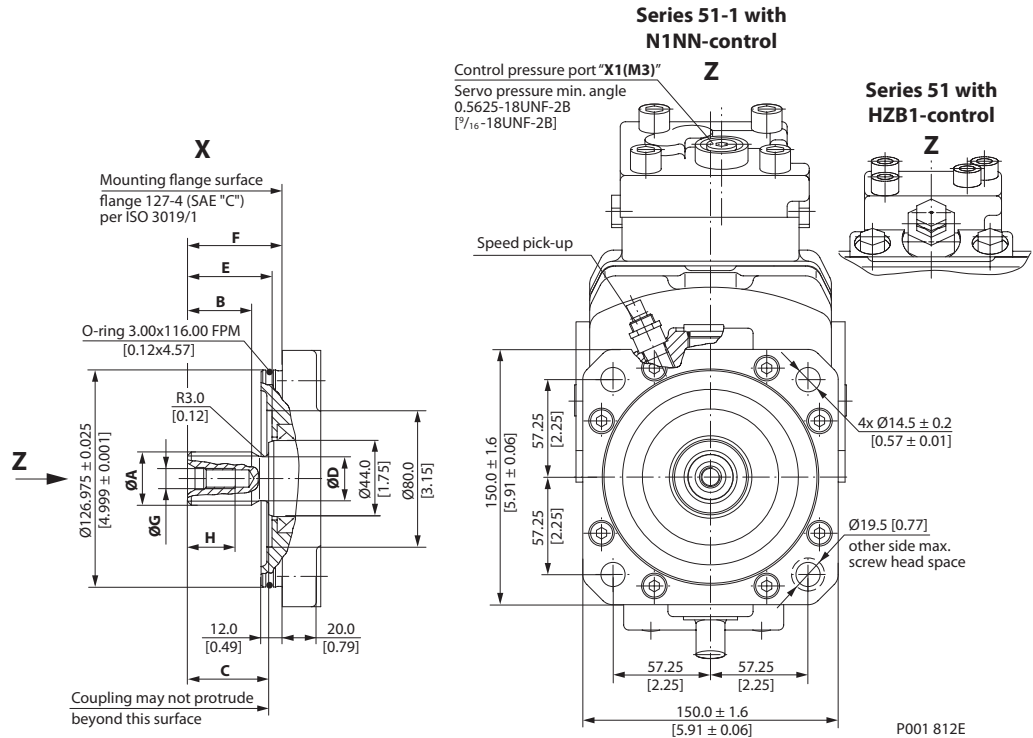


P001 794E

SAE Flange Design
 per ISO 3019/1
 (continued)

Shaft Options – 51V080-1 and 51V080

mm
 [in]



| Shaft Spline Data | | | |
|-------------------|--|---------|------------------|
| Shaft option | S1 | | C7 |
| Dimension | mm | [in] | mm [in] |
| Number of teeth | 14 | | 23 |
| Pitch | 12/24 | | 16/32 |
| Pressure angle | 30° | | |
| Spline | ANSI B92.1-1970 class 5 flat root side fit | | |
| Pitch dia | 29.633 | [1.167] | 36.513 [1.438] |
| A | 31.15 | [1.23] | 37.61 [1.48] |
| B | 37.50 | [1.48] | 37.50 [1.48] |
| C | 47.50±0.5 | [1.87] | 47.50±0.5 [1.87] |
| D | 25.80 | [1.02] | 32.00 [1.26] |
| E | 49.50±1.1 | [1.95] | 49.50±1.1 [1.95] |
| F | 55.50±0.7 | [2.19] | 55.50±0.7 [2.19] |
| G | 0.4375-14UNC-2B [7/16-14UNC-2B] allowed torque in thread max. 91 Nm [805 lbf·in] | | |
| H | 28.00 | [1.10] | 28.00 [1.10] |

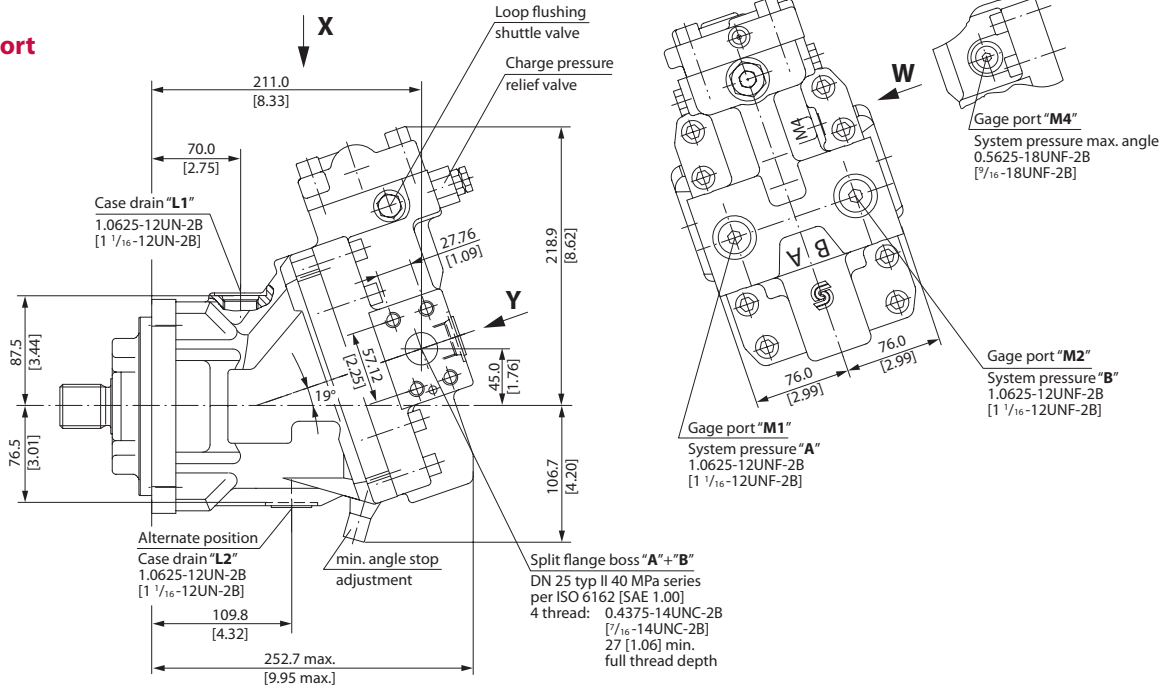
Flow into port **A** results in **CW** rotation of output shaft.
 Flow into port **B** results in **CCW** rotation of output shaft.
 Shaft rotation is determined by viewing from shaft end.
 Ports with O-ring seal and inch threads shall be in accordance with ISO 11926/1.
 Split flange boss A and B per ISO 6162 is identical with high pressure series SAE J518 code 62 (6000 psi).
 Contact your Sauer-Danfoss representative for specific installation drawings.

**DIN Flange Design
 per ISO 3019/2**

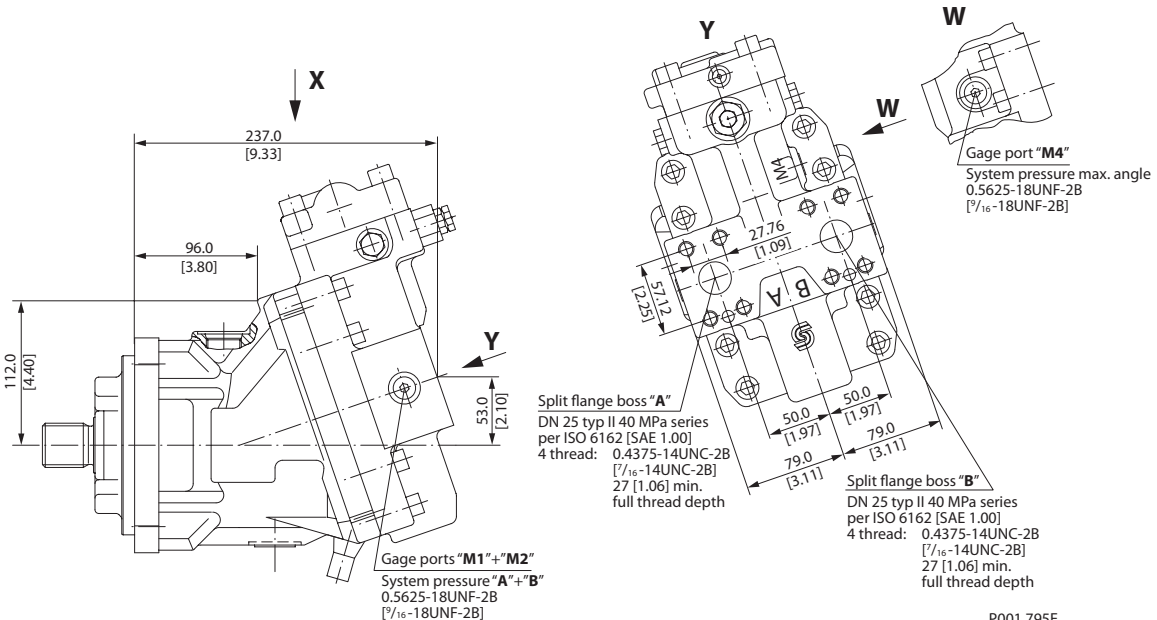
51D080-1 Two Position Control, N1NN

mm
 [in]

Side Port



Axial Port



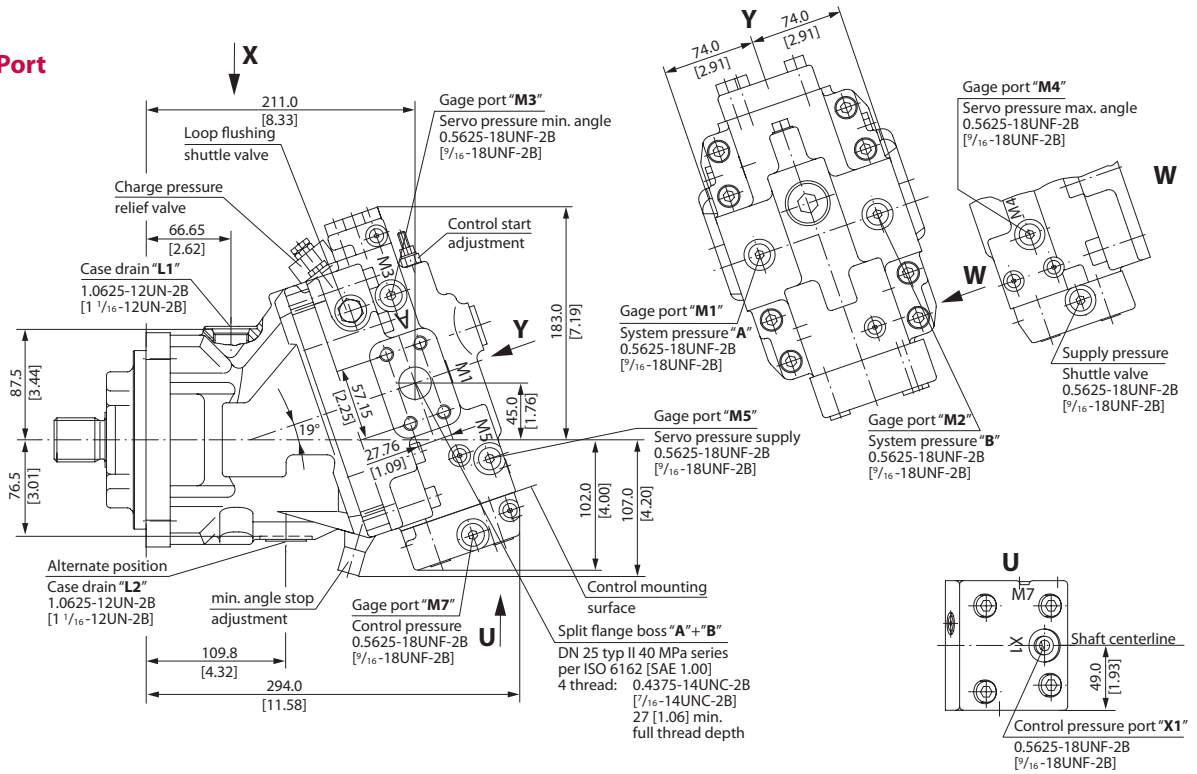
P001 795E

DIN Flange Design
 per ISO 3019/2
 (continued)

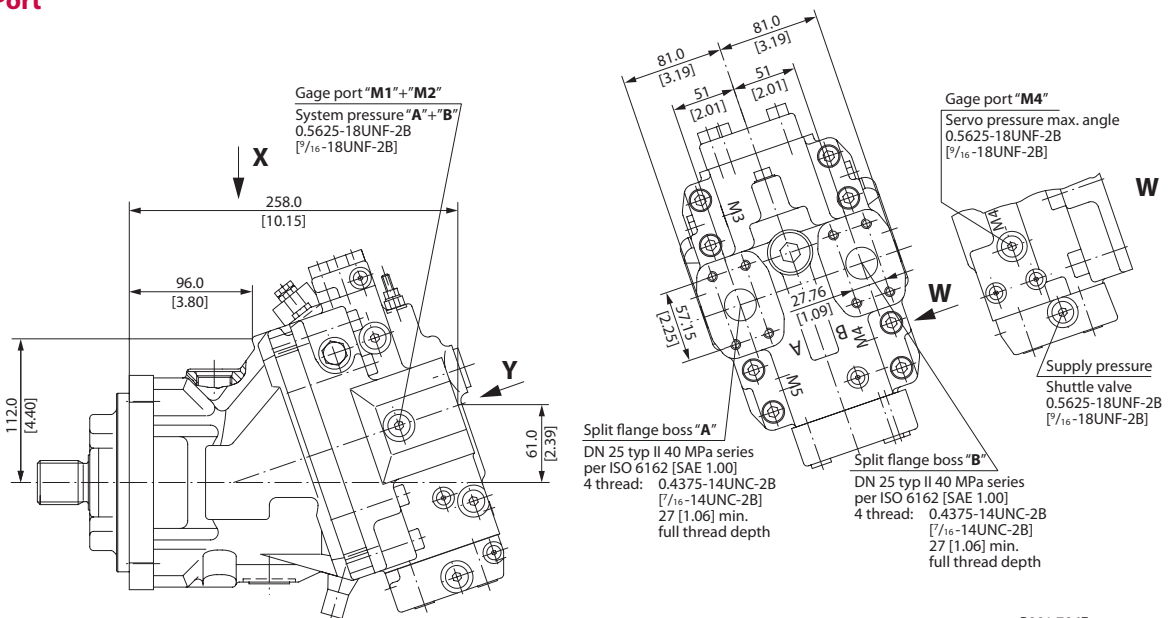
51D080 Proportional and Two-Position Control, HZB1

mm
 [in]

Side Port



Axial Port

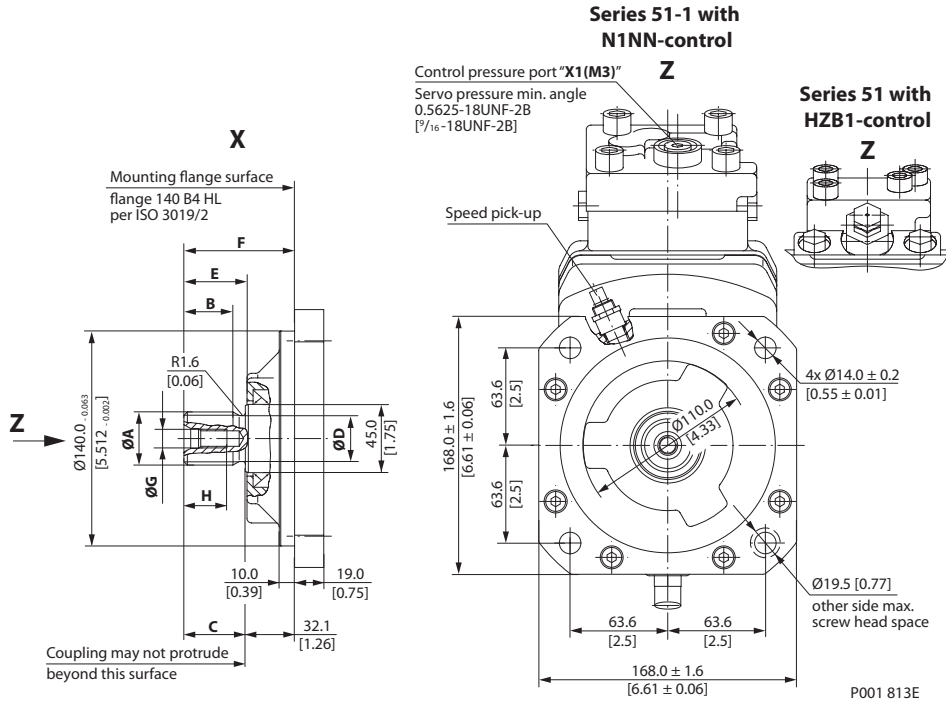


P001 796E

DIN Flange Design
 per ISO 3019/2
 (continued)

Shaft Options – 51D080-1 and 51D080

mm
 [in]



| Shaft Spline Data | | | |
|-------------------|---|---------|--|
| Shaft option | D2 | | D3 |
| Dimension | mm | [in] | mm [in] |
| Number of teeth | 16 | | 18 |
| Spline | W35x2x30x16x9g side fit DIN 5480 | | W40x2x30x18x9g side fit DIN 5480 |
| Pitch dia | 32.000 | [1.260] | 36.000 [1.417] |
| A | 34.60 | [1.36] | 39.60 [1.56] |
| B | 32.00 | [1.28] | 37.00 [1.46] |
| C | 40.00±0.5 | [1.58] | 45.00±0.5 [1.77] |
| D | 30.00 | [1.18] | 35.00 [1.38] |
| E | 41.10±1.1 | [1.62] | 45.10±1.1 [1.82] |
| F | 72.10±0.6 | [2.84] | 77.10±0.6 [3.04] |
| G | M10x1.5 allowed torque in thread max. 67 Nm [593 lbf·in] | | |
| H | 25.00 | [0.98] | 25.00 [0.98] |

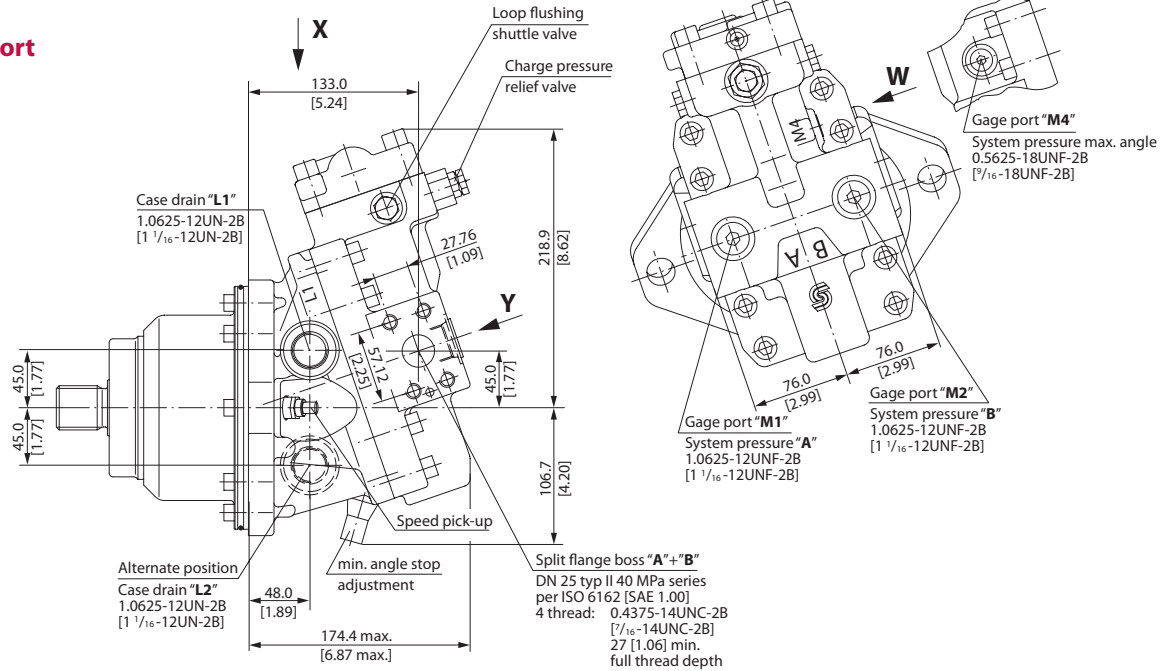
Flow into port **A** results in **CW** rotation of output shaft.
 Flow into port **B** results in **CCW** rotation of output shaft.
 Shaft rotation is determined by viewing from shaft end.
 Ports with O-ring seal and inch threads shall be in accordance with ISO 11926/1.
 Splite flange boss A and B per ISO 6162 is identical with high pressure series SAE J518 code 62 (6000 psi).
 Contact your Sauer-Danfoss representative for specific installation drawings.

Cartridge Flange

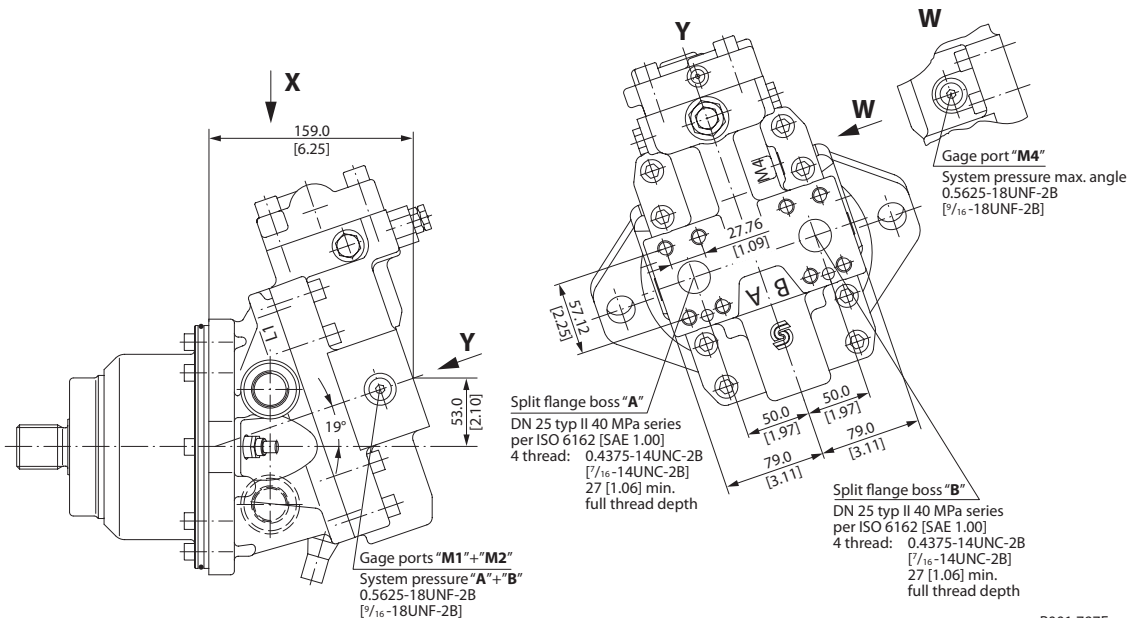
51C080-1 Two Position Control, N1NN

mm
[in]

Side Port



Axial Port



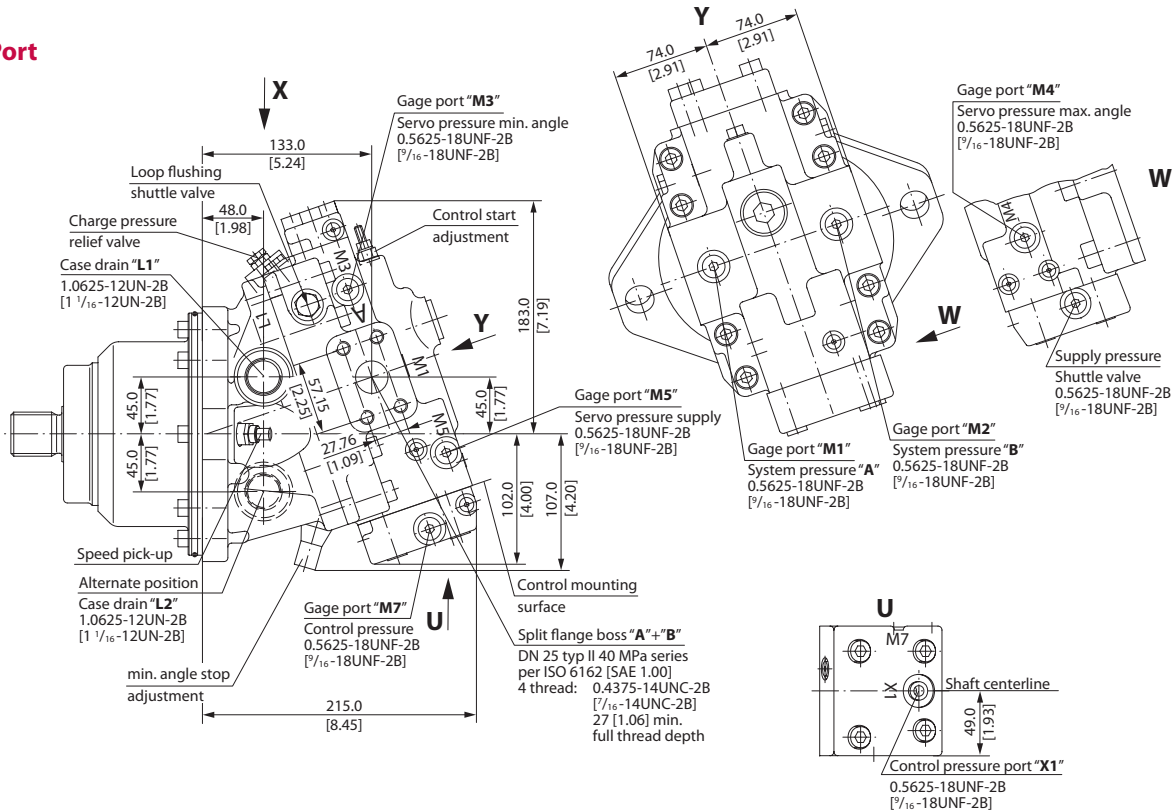
P001 797E

**Cartridge Flange
 (continued)**

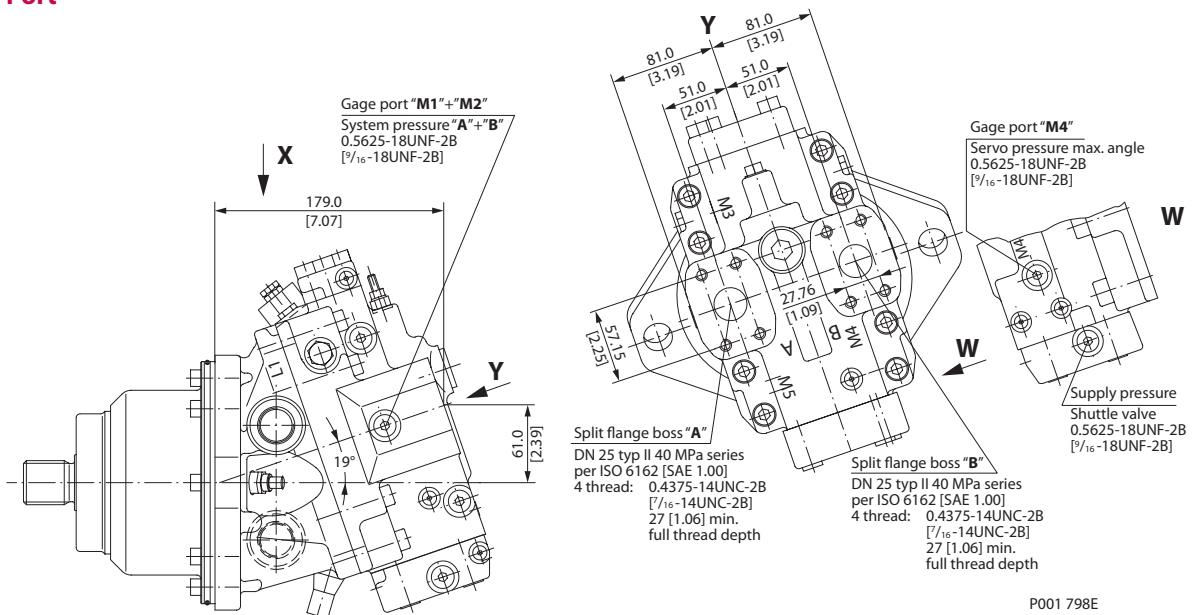
51C080 Proportional and Two-Position Control, HZB1

mm
 [in]

Side Port



Axial Port

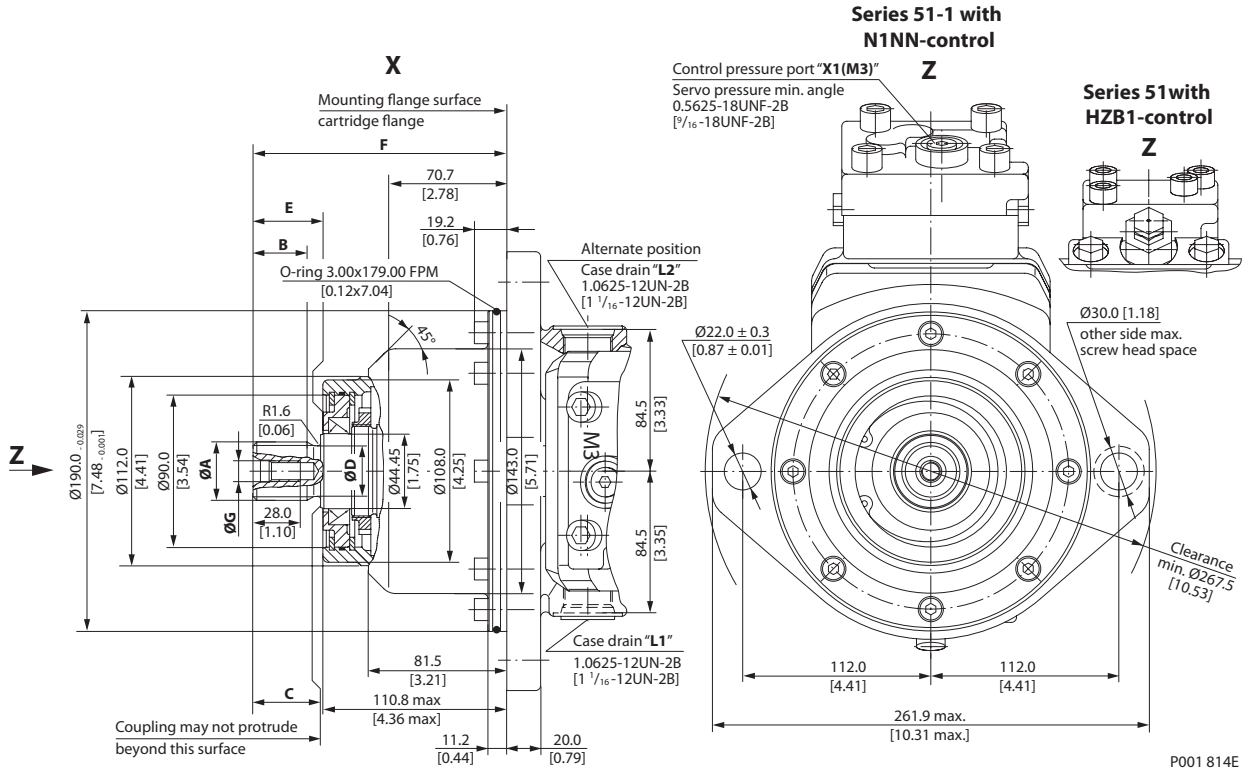


P001 798E

Cartridge Flange
 (continued)

Shaft Options – 51C080-1 and 51C080

mm
 [in]



| Shaft Spline Data | | | | |
|-------------------|---|---------|--|---------|
| Shaft option | D2 | | D3 | |
| Dimension | mm | [in] | mm | [in] |
| Number of teeth | 16 | | 18 | |
| Spline | W35x2x30x16x9g side fit DIN 5480 | | W40x2x30x18x9g side fit DIN 5480 | |
| Pitch dia | 32.000 | [1.260] | 36.000 | [1.417] |
| A | 34.60 | [1.36] | 39.60 | [1.56] |
| B | 32.00 | [1.28] | 37.00 | [1.46] |
| C | 40.00±0.5 | [1.58] | 45.00±0.5 | [1.77] |
| D | 30.00 | [1.18] | 35.00 | [1.38] |
| E | 41.55±1.4 | [1.64] | 46.55±1.4 | [1.83] |
| F | 150.40±0.6 | [5.92] | 155.40±0.6 | [6.12] |
| G | M10x1.5 allowed torque in thread max. 67 Nm [593 lbf·in] | | | |
| H | 25.00 | [0.98] | 25.00 | [0.98] |

Flow into port **A** results in **CW** rotation of output shaft.
 Flow into port **B** results in **CCW** rotation of output shaft.
 Shaft rotation is determined by viewing from shaft end.
 Ports with O-ring seal and inch threads shall be in accordance with ISO 11926/1.
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