

### Technical Information

### Technical Specification

#### TECHNICAL PARAMETERS

##### Design

Axial piston motor with fixed displacement

##### Type of mounting

SAE four bolt flanges.

##### Pipe connections

Main pressure ports: SAE split flange  
 Remaining ports: SAE O-ring boss

##### Direction of rotation and flow

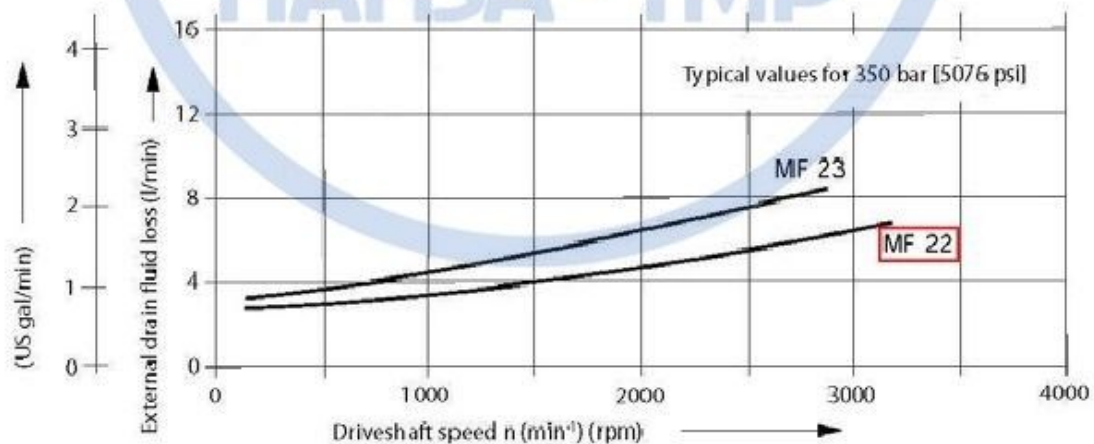
Clockwise or counterclockwise (viewing from the output shaft).

Direction of rotation	Port A	Port B
Clockwise (R)	Output	Input
Counterclockwise (L)	Input	Output

##### Installation position

Optional; motor housing must be always filled with hydraulic fluid.

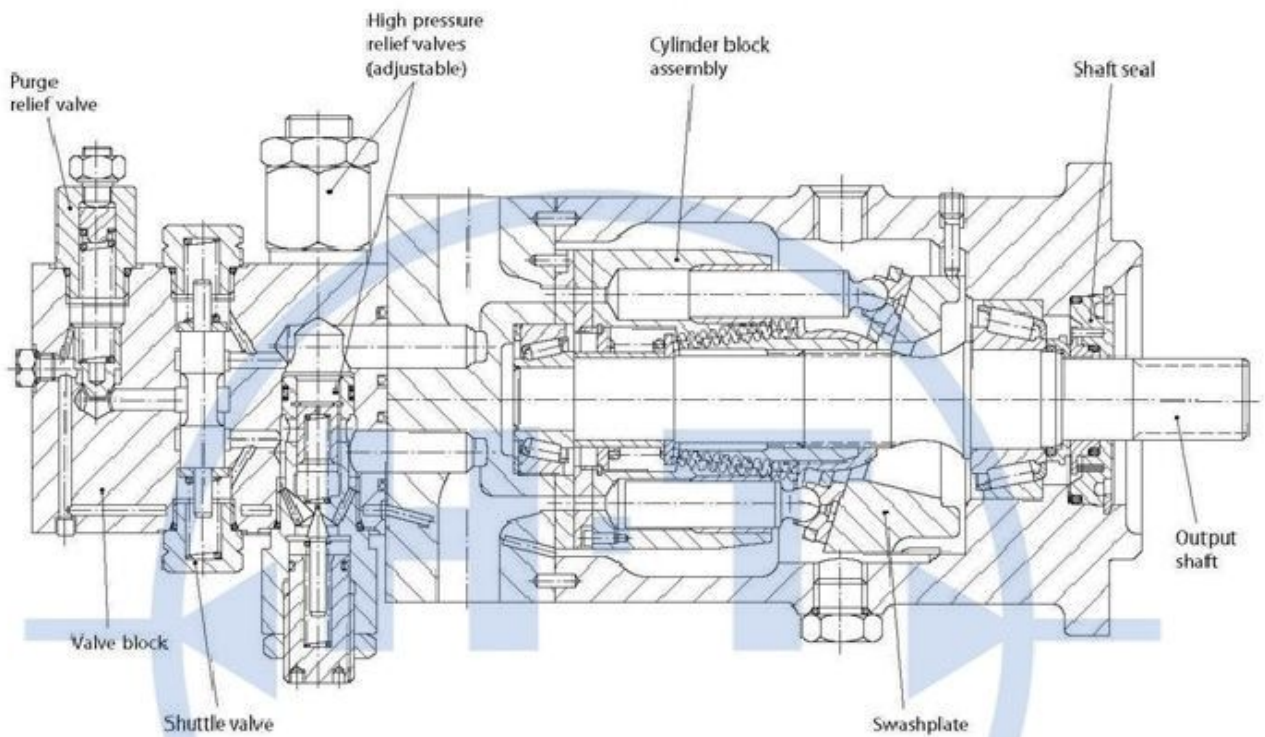
##### External drain fluid loss



### Technical Information

#### Sectional View

#### AXIAL PISTON FIXED DISPLACEMENT MOTOR

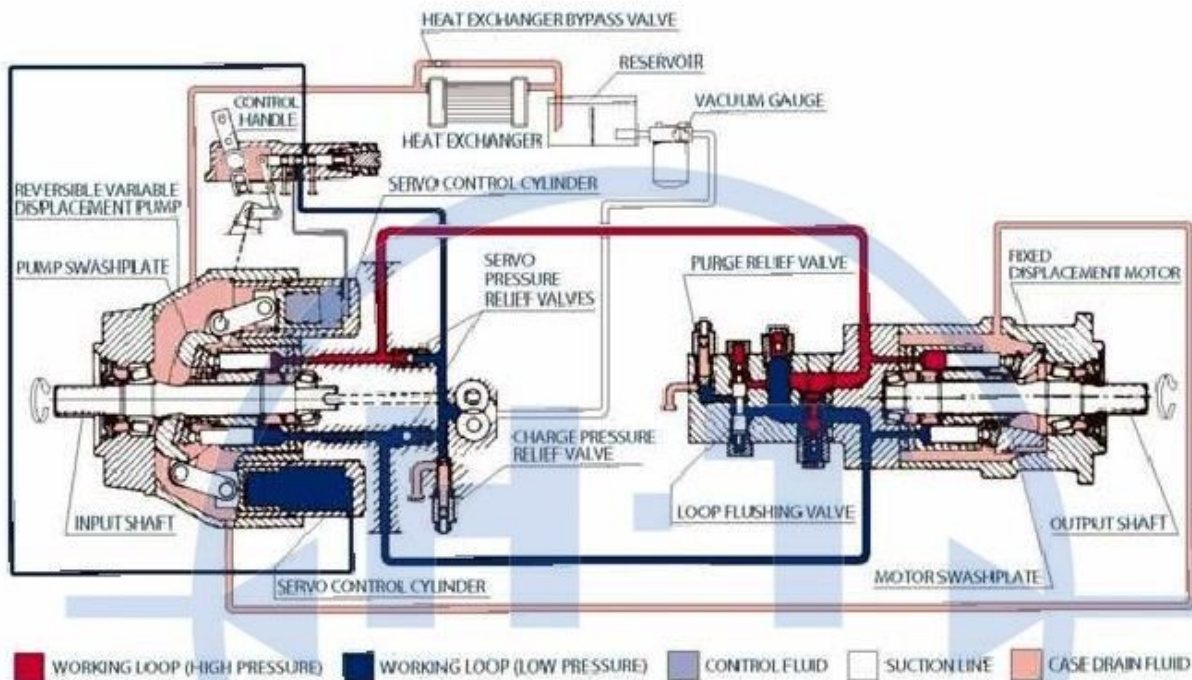


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#### Technical Information

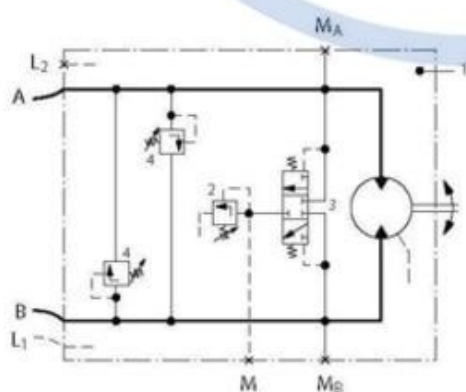
#### System Circuit Description

#### PUMP AND MOTOR CIRCUIT DESCRIPTION



Above figure shows schematically the function of a hydrostatic transmission using an axial piston variable displacement pump and a fixed displacement motor.

#### MOTOR CIRCUIT SCHEMATIC



#### Designation:

- 1 = Fixed displacement motor
- 2 = Purge relief valve
- 3 = Shuttle valve
- 4 = High pressure relief valve

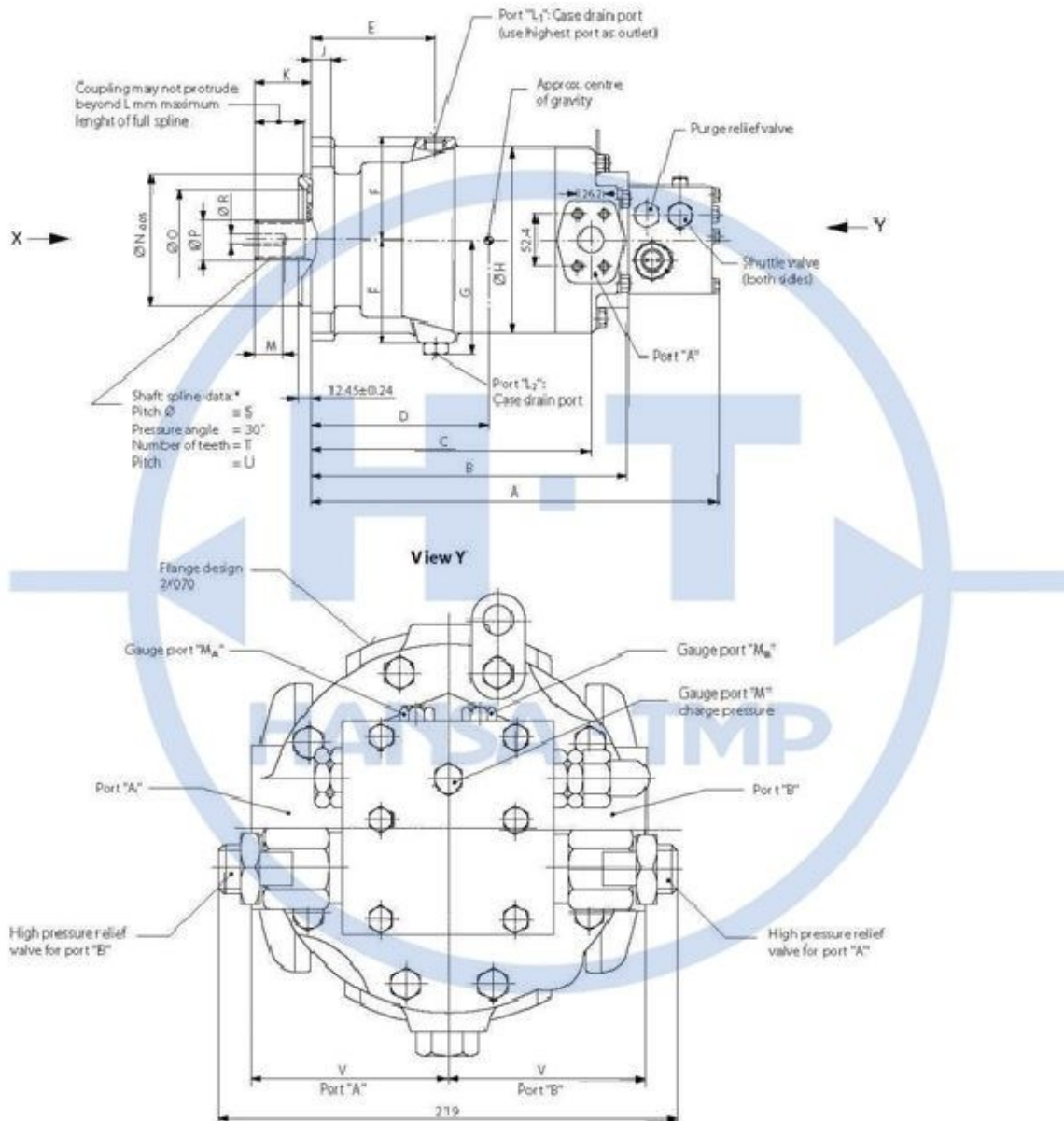
#### Ports:

- A, B = Main pressure ports (working loop)
- L<sub>1</sub>, L<sub>2</sub> = Drain ports
- M<sub>A</sub> = Gauge port for port A
- M<sub>B</sub> = Gauge port for port B
- M = Gauge port - charge pressure

### Technical Information

### Dimensions – Frame Size MF 22 - MF 23

#### OUTLINE DRAWING, CONFIGURATION MS



\* Shaft spline data: spline shaft with involute spline, according to SAE handbook, 1963, class 1, fillet root side fit.

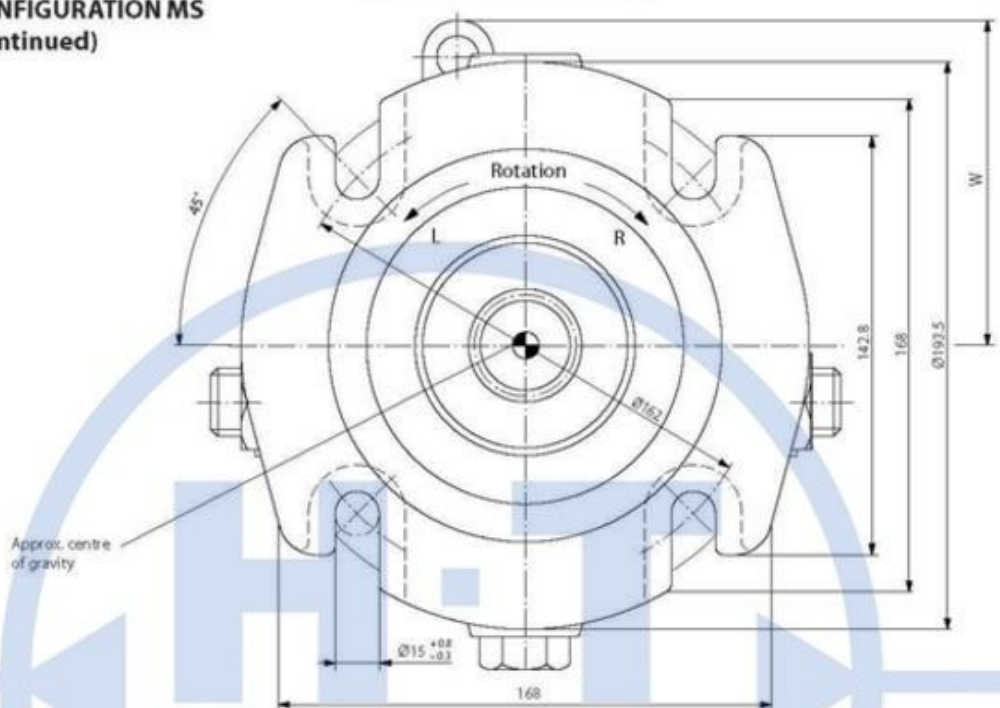
Frame size	Port A and B	Port L <sub>1</sub> and L <sub>2</sub>	Port M <sub>A</sub> and M <sub>B</sub>	Port M
MF 22	SAE flange, size 1 SAE split flange boss 5000 psi 4 threads	7/8-14 UNF-2B SAE straight thread O-ring boss	7/16-20 UNF-2B SAE straight thread O-ring boss	
MF 23	3/8-16 UNC-2B 18 deep			

### Technical Information

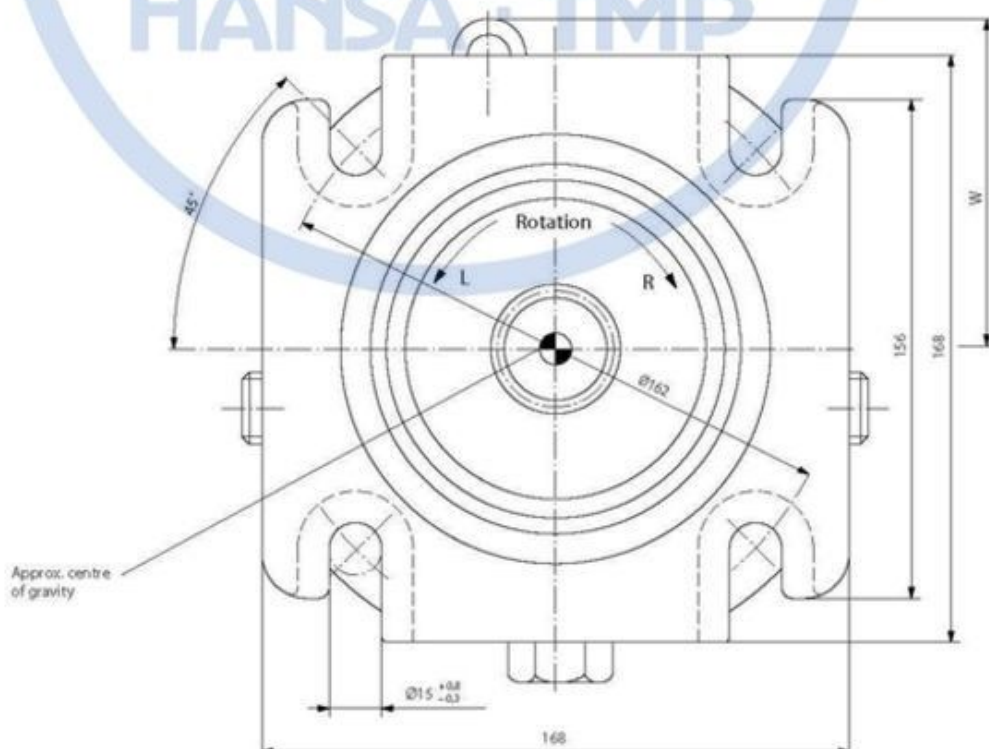
### Dimensions – Frame Size MF 22 - MF 23

OUTLINE DRAWING,  
CONFIGURATION MS  
(continued)

View X (for MF 22 only)



View X ( for MF 23 only )



### Technical Information

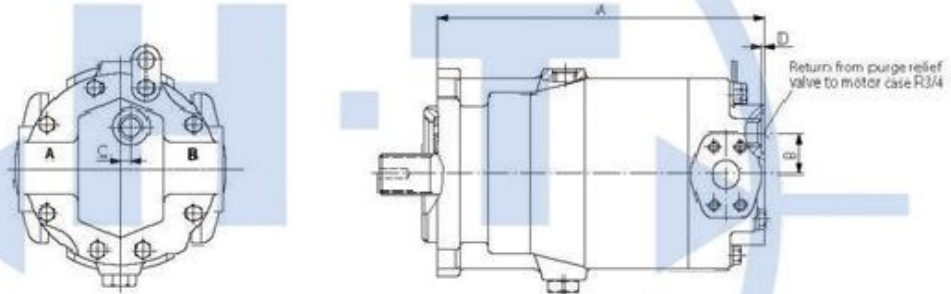
### Dimensions – Frame Size MF 22 - MF 23

#### OUTLINE DRAWING, CONFIGURATION MS (continued)

##### Dimensions

Frame size	A mm [in]	B mm [in]	C mm [in]	D mm [in]	E mm [in]	F mm [in]	G mm [in]	ØH mm [in]	J mm [in]	K mm [in]	L mm [in]	M mm [in]
MF 22	378 [14.882]	290 [11.417]	255 [10.039]	165 [6.496]	108 [4.252]	86.5 [3.406]	98 [3.858]	161 [6.339]	16 [0.630]	56 [2.205]	48 [1.890]	28.4 [1.118]
MF 23	395 [15.551]	307 [12.087]	273 [10.748]	170 [6.693]	118 [4.646]	96.0 [3.780]	107 [4.213]	181 [7.126]	18 [0.709]	56 [2.205]	48 [1.890]	28.4 [1.118]
Frame size	ØN mm [in]	ØO mm [in]	ØP mm [in]	ØR mm [in]	ØS mm [in]	T mm [in]	U mm [in]	V mm [in]	W mm [in]	Diameter for shaft coupling mm [in]	Weight kg [lb]	
MF 22	127 [5.000]	84 [3.307]	34.50 <sup>+0.17</sup> [1.358 <sup>+0.0067</sup> ]	8.5 [0.335]	33.338 [1.313]	21 [0.827]	16/32	85.8 [3.378]	101 [3.976]	31.75 <sup>+0.062</sup> [1.250 <sup>+0.0024</sup> ]	40 [88]	
MF 23	127 [5.000]	98 [3.858]	37.68 <sup>+0.17</sup> [1.483 <sup>+0.0067</sup> ]	8.5 [0.335]	36.513 [1.438]	23 [0.906]	16/32	95.2 [3.748]	114 [4.488]	34.95 <sup>+0.062</sup> [1.376 <sup>+0.0024</sup> ]	47 [104]	

#### OUTLINE DRAWING, BASIC MODEL

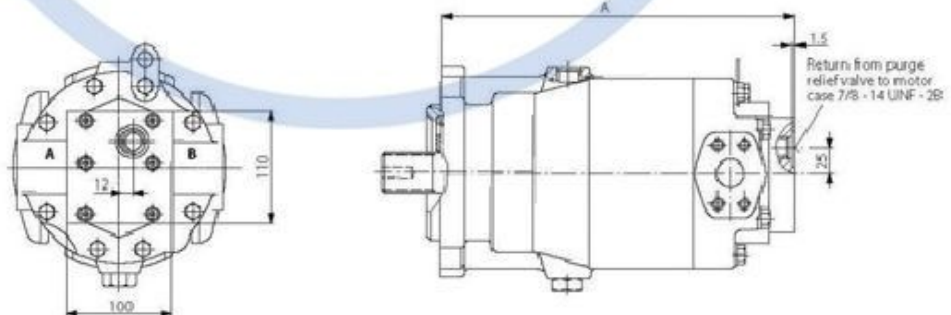


##### Dimensions

Frame size	A mm [in]	B mm [in]	C mm [in]	D mm [in]	Weight kg [lb]
MF 22	290 [11.417]	30 [1.181]	12 [0.472]	2 [0.079]	34 [75]
MF 23	307 [12.087]	44 [1.732]	6 [0.236]		41 [90]

For further dimensions see previous pages.

#### OUTLINE DRAWING, MOTOR CONFIGURATION AM 01000



##### Dimensions

Frame size	A mm [in]	Weight <sup>1</sup> kg [lb]
MF 22	315 [12.402]	36 [79]
MF 23	332 [13.071]	43 [95]

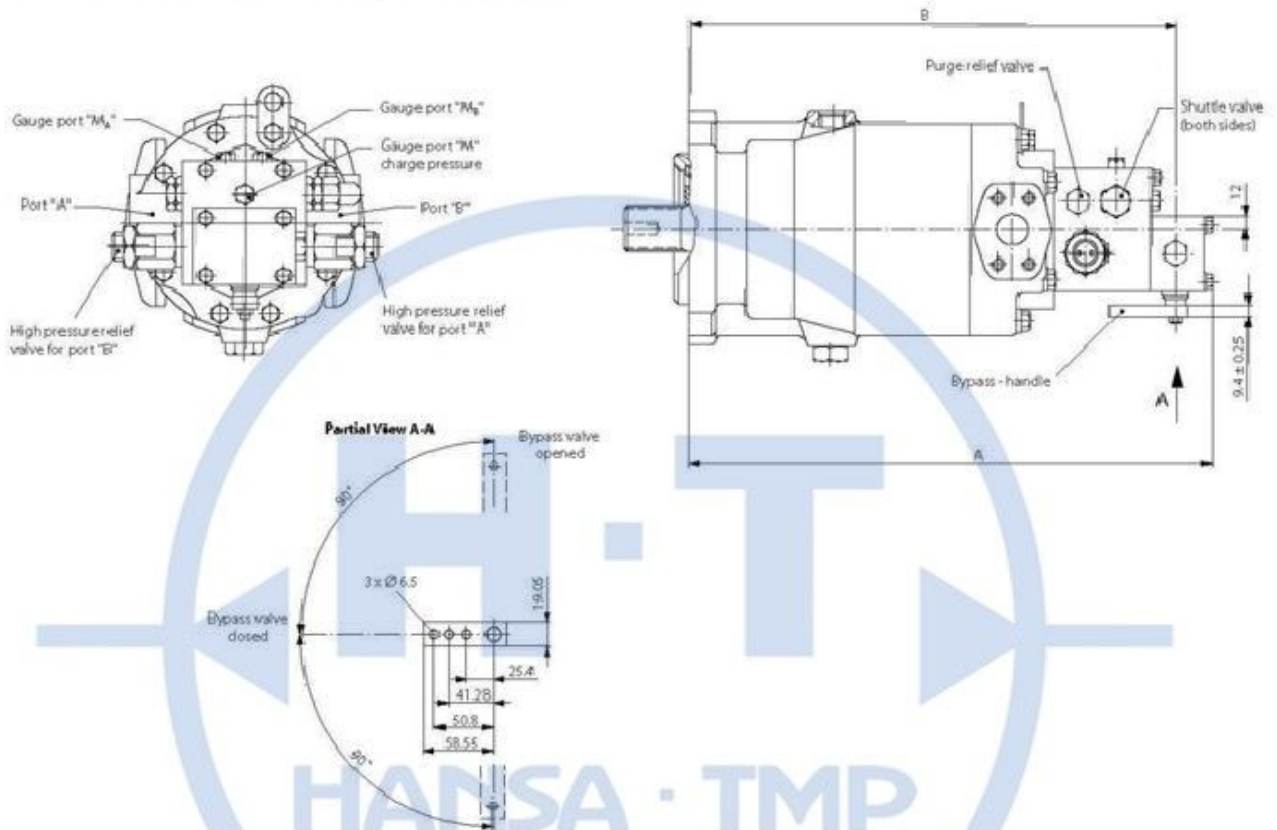
<sup>1</sup> Light weight and short options available on request

For further dimensions see previous pages.

## Technical Information

### Dimensions – Frame Size MF 22 - MF 23

#### OUTLINE DRAWING, MOTOR CONFIGURATION MR



#### Dimensions

Frame size	A mm [in]	B mm [in]	Weight kg [lb]	Port M <sub>A</sub> and M <sub>B</sub>	Port M
MF 22	426 [16.772]	391 [15.394]	42 [93]	7/16-20 UNF-2B SAE straight thread O-ring boss	
MF 23	443 [17.441]	408 [16.063]	49 [108]		

For further dimensions see previous pages.