



**TECHNICAL DATA SHEETS  
&  
RECOMMENDATIONS**

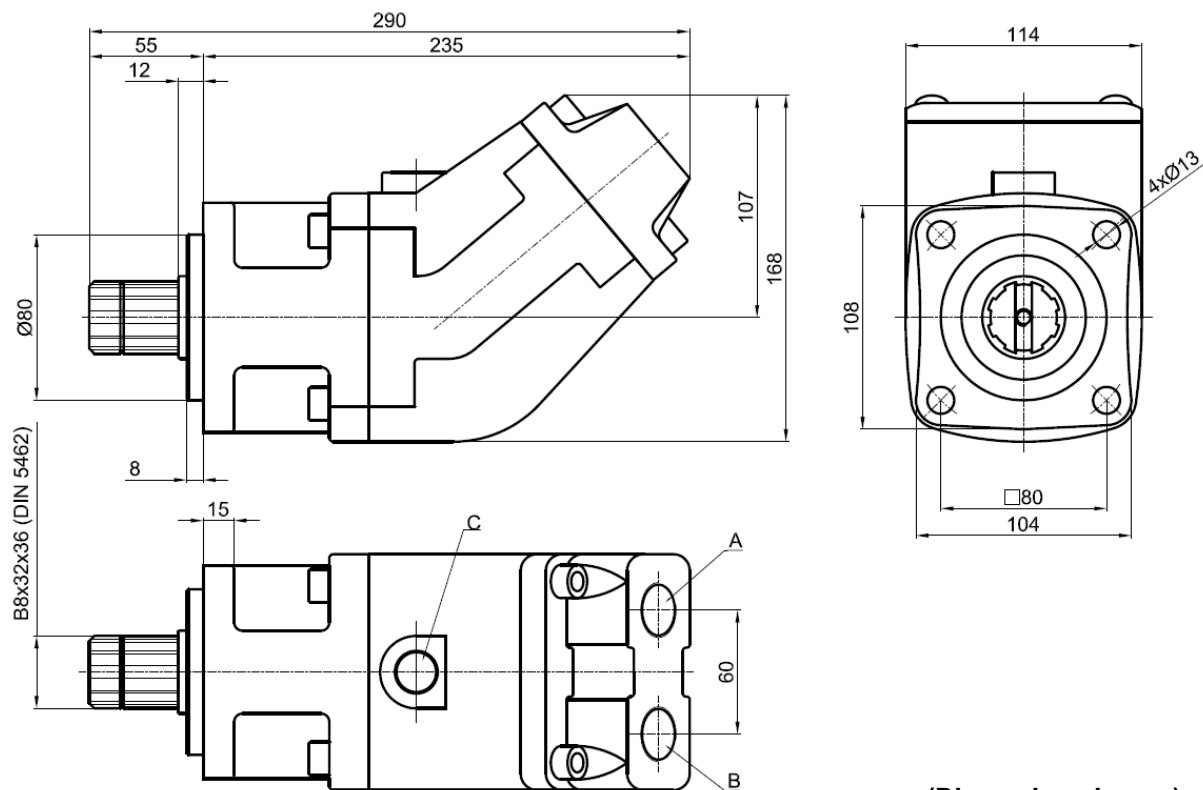
**HYDRAULIC  
MOTORS**



## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI M

### Main Dimensions



### Main Data

Motors MBI	30M	40M	50M
Cylinder capacity (cm <sup>3</sup> /rot.)	32	42	50
Rotation (rpm)			
max. intermittent	4000	3500	3000
max. continuous	3200	2800	2400
Pressure (bar)			
max. intermittent	400	400	400
max. continuous	350	350	350
Max torque – theoretical value (Nm)	190	250	315
Weight (kg)	10	10	10
Pistons quantity	5	5	5
A-Oil port (mm)	3/4" BSP	3/4" BSP	3/4" BSP
B-Oil port (mm)	3/4" BSP	3/4" BSP	3/4" BSP
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

### How to order:

**Example:** Motor 30cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 4000/3200; ref. MBI M    MBI30M

### Important notes:

-To install one of these motors, please consult and respect the instruction "BI motors recommendations before start-up".

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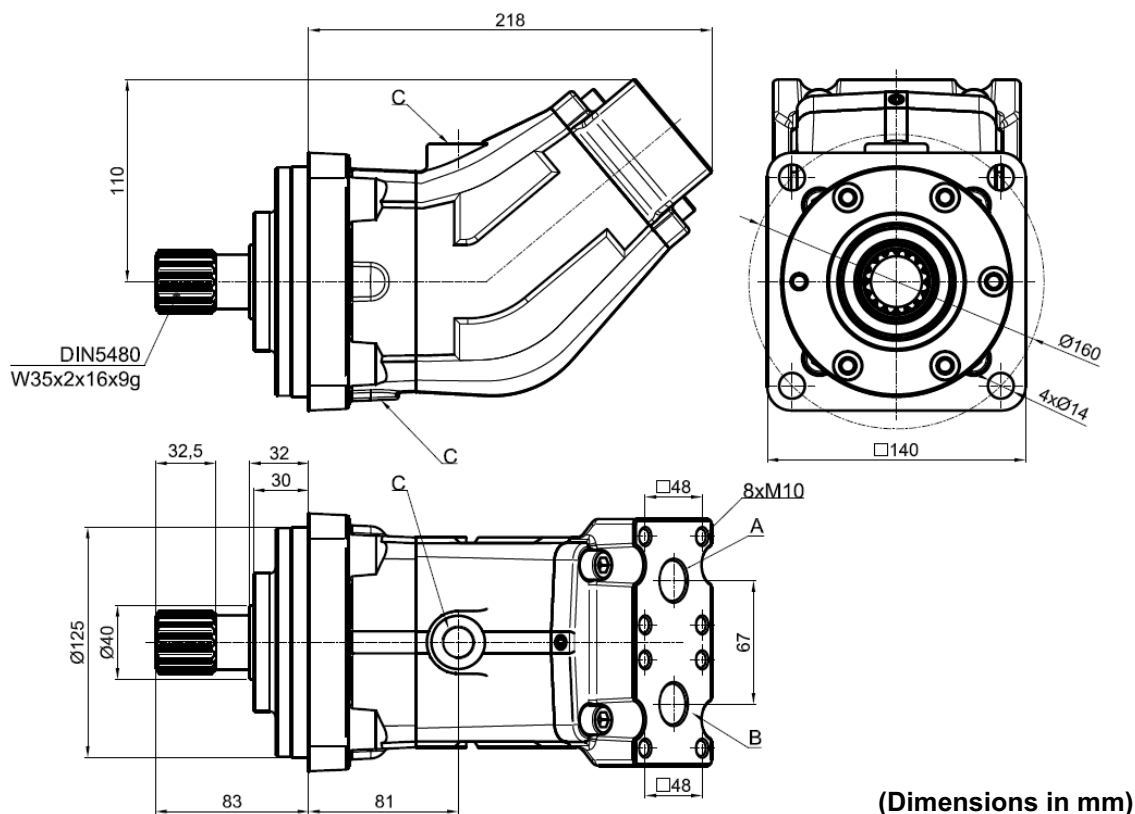
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## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI M IA1

### Main Dimensions



### Main Data

Motors MBI	50M5IA1	60M7IA1	80M7IA1
Cylinder capacity (cm <sup>3</sup> /rot.)	50	60	81
Rotation (rpm)			
max. intermittent	3000	3000	2750
max. continuous	2400	2400	2200
Pressure (bar)			
max. intermittent	400	400	350
max. continuous	350	350	300
Max torque – theoretical value (Nm)	315	380	450
Weight (kg)	12	12	12
Pistons quantity	5	7	7
A-Oil port (mm)	ø22	ø22	ø22
B-Oil port (mm)	ø22	ø22	ø22
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

#### How to order:

**Example:** Motor 60cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI M IA1    MBI60M7IA1

#### Important notes:

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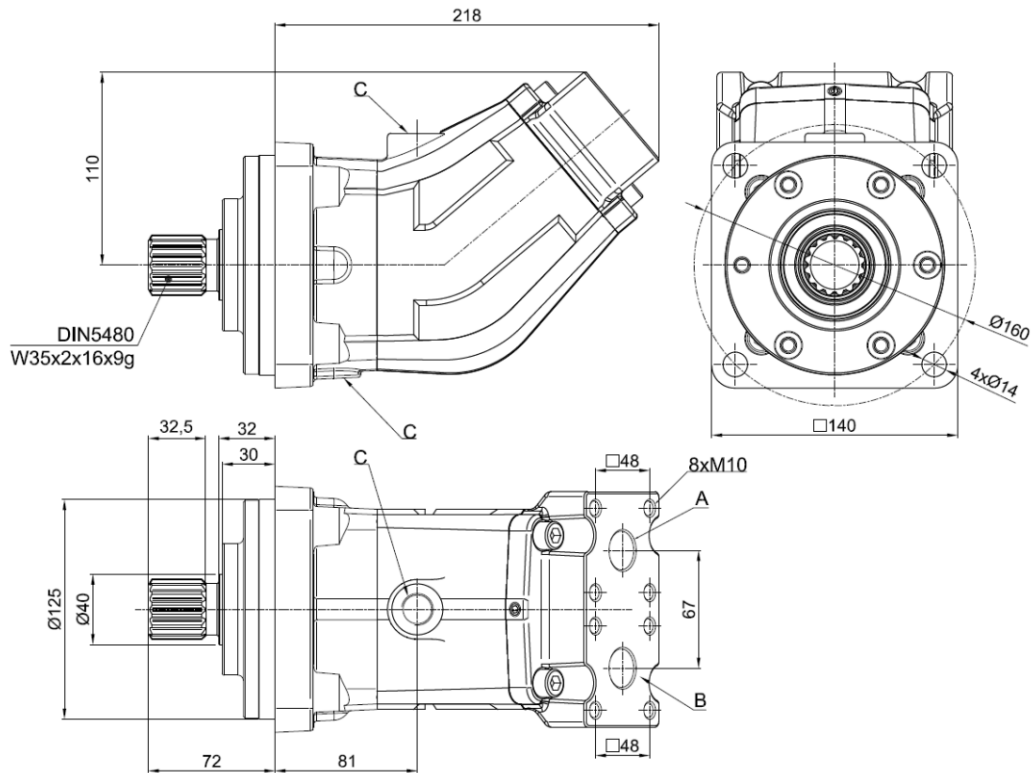
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# OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI M IE1

## Main Dimensions



(Dimensions in mm)

## Main Data

Motors MBI	50M5IE1	60M7IE1	80M7IE1
Cylinder capacity (cm <sup>3</sup> /rot.)	50	60	81
Rotation (rpm)			
max. intermittent	3000	3000	2750
max. continuous	2400	2400	2200
Pressure (bar)			
max. intermittent	400	400	350
max. continuous	350	350	300
Max torque – theoretical value (Nm)	315	380	450
Weight (kg)	12	12	12
Pistons quantity	5	7	7
A-Oil port (mm)	ø22	ø22	ø22
B-Oil port (mm)	ø22	ø22	ø22
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

### How to order:

**Example:** Motor 60cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI M IE1 → MBI60M7IE1

### Important notes:

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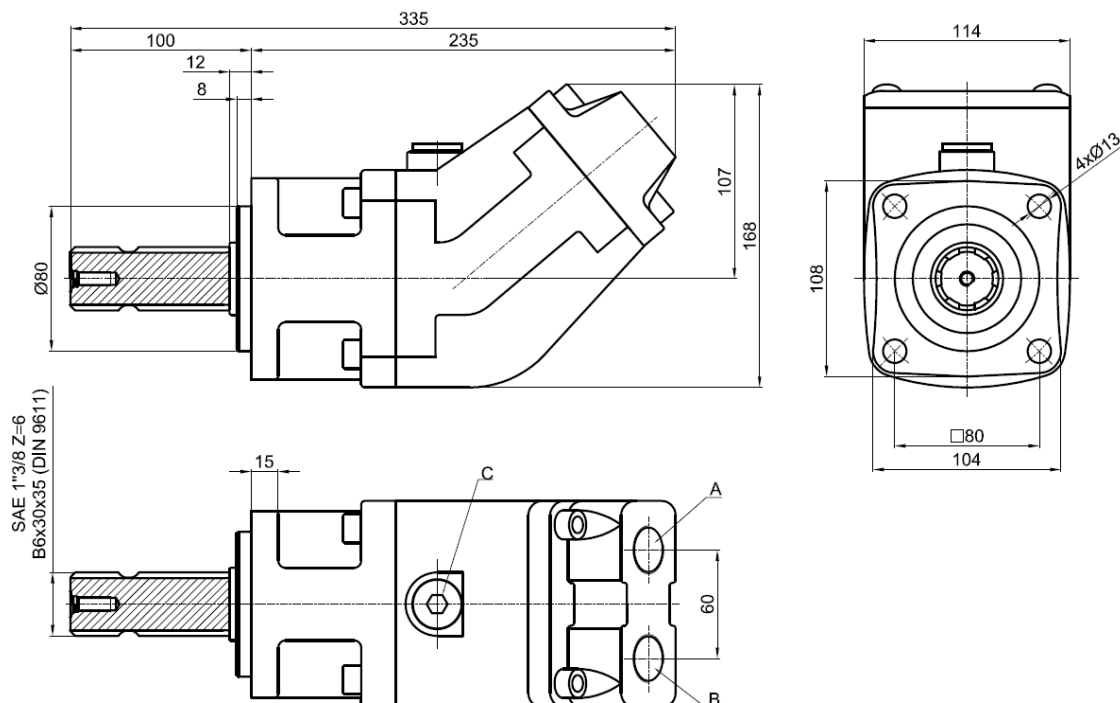
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# OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI\_MDA

## Main Dimensions



(Dimensions in mm)

## Main Data

Motors MBI		25MDA	30MDA	40MDA	50MDA
Displacement (cm <sup>3</sup> /rot.)		26	32	42	50
Rotation (rpm)	max. intermittent	4000	4000	3500	3000
	max. continuous	3200	3200	2800	2400
Pressure (bar)	max. intermittent	400	400	400	400
	max. continuous	350	350	350	350
Torque (N.m)	max. intermittent (theoretical value)	160	190	250	320
	max. continuous (theoretical value)	140	170	220	280
Approx. Weight (kg)		10	10	10.5	10.5
Pistons quantity		5	5	5	5
A-Oil port (mm)		3/4"BSP	3/4"BSP	3/4"BSP	3/4"BSP
B-Oil port (mm)		3/4"BSP	3/4"BSP	3/4"BSP	3/4"BSP
C-Drain hole		M22x1.5			

### How to order:

**Example:** Motor 40 cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI\_MDA

➔ MBI40MDA

### Important notes:

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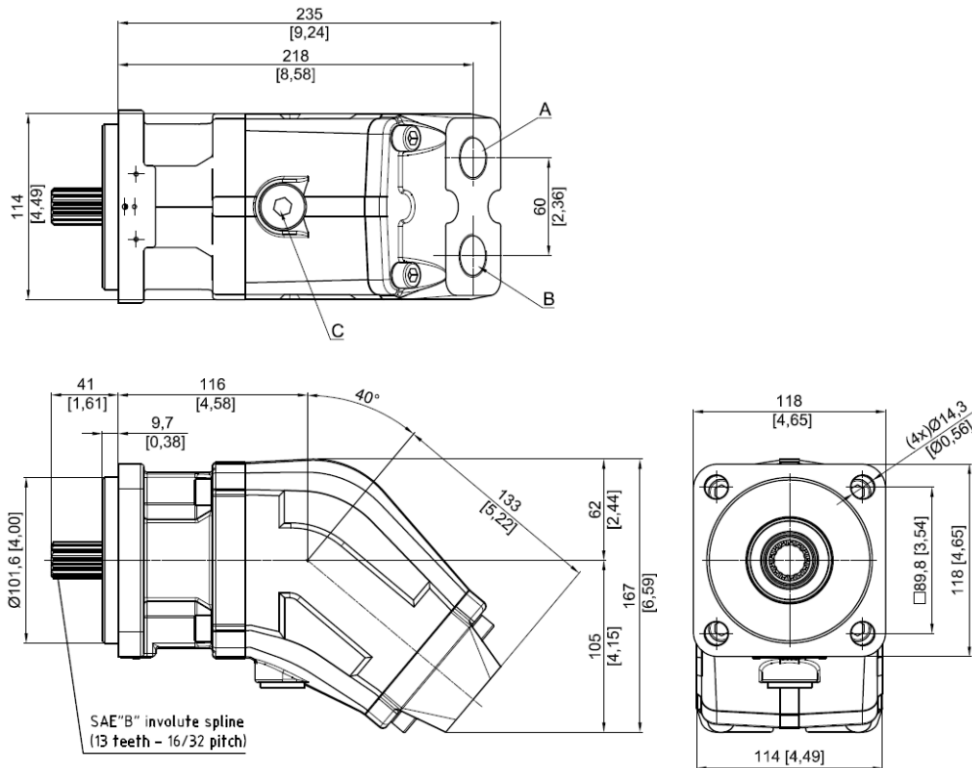
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# OIL - HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI M5B4

## Main Dimensions



(Dimensions in mm – [inch])

## Main Data

Motors MBI		30M5B4	40M5B4	50M5B4
Cylinder capacity (cm <sup>3</sup> /rot. – in <sup>3</sup> /rot.)		32 – 2,0	42 – 2,6	50 – 3,0
Rotation (rpm)	max. intermittent	4000	3500	3000
	max. continuous	3200	2800	2400
Pressure (bar - psi)	max. intermittent	400 - 5800	400 - 5800	400 - 5800
	max. continuous	350 - 5100	350 - 5100	350 - 5100
Max torque – theoretical value (Nm – lb.ft)		190 - 140	250 - 184	315 - 232
Weight (kg - lb)		10 – 22	10 – 22	10 – 22
Pistons quantity		5	5	5
A-Oil port (DIN ISO 228)		3/4" BSP	3/4" BSP	3/4" BSP
B-Oil port (DIN ISO 228)		3/4" BSP	3/4" BSP	3/4" BSP
C		Drain hole		

## How to order:

**Example:** Motor 30 – 2,0 (cm<sup>3</sup>/rot. - in<sup>3</sup>/rot.); pressures 400/350 – 5800/5100 (bar – psi); rotation 4000/3200; ref. MBI M5B4 → MBI30M5B4

## Important notes:

-To install one of these motors, please consult and respect the instruction "BI motors recommendations before start-up".

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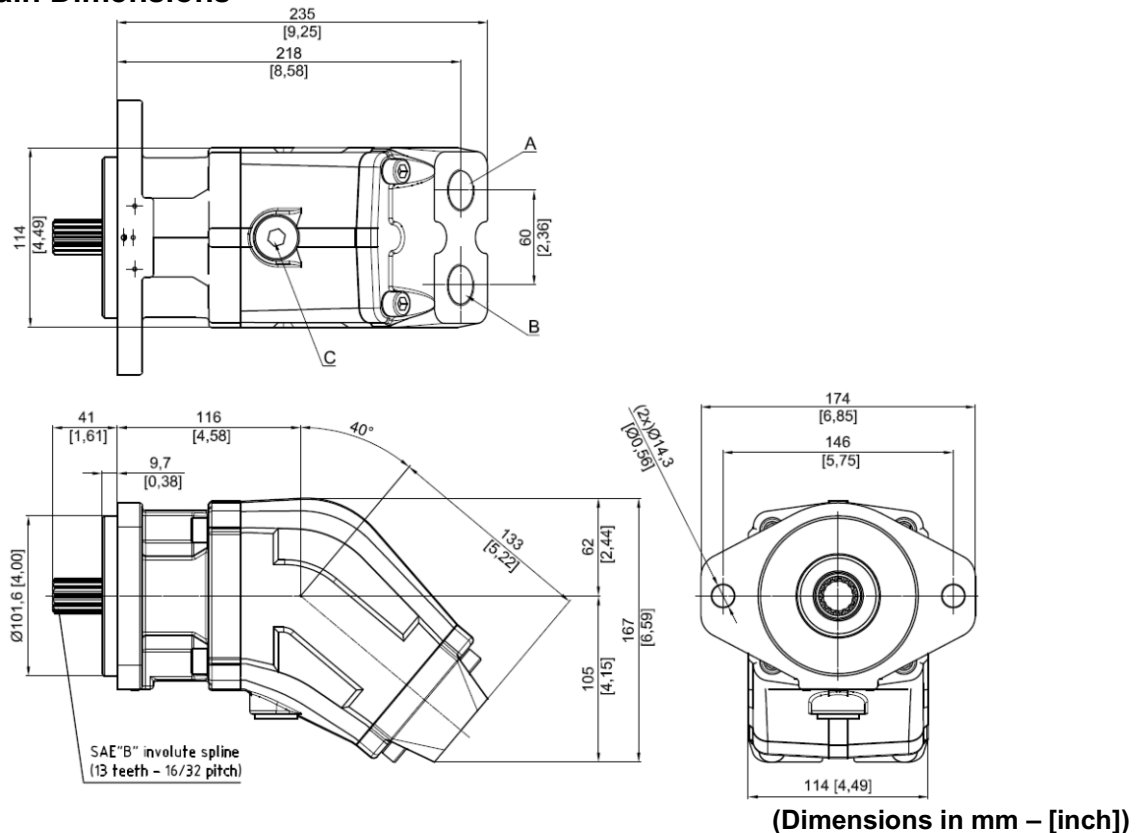
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## OIL - HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI M5B2

### Main Dimensions



### Main Data

Motors MBI		30M5B2	40M5B2	50M5B2
Cylinder capacity (cm <sup>3</sup> /rot. – in <sup>3</sup> /rot.)		32 – 2,0	42 – 2,6	50 – 3,0
Rotation (rpm)	max. intermittent	4000	3500	3000
	max. continuous	3200	2800	2400
Pressure (bar - psi)	max. intermittent	400 - 5800	400 - 5800	400 - 5800
	max. continuous	350 - 5100	350 - 5100	350 - 5100
Max torque – theoretical value (Nm – lb.ft)		190 - 140	250 - 184	315 - 232
Weight (kg - lb)		10 – 22	10 – 22	10 – 22
Pistons quantity		5	5	5
A-Oil port (DIN ISO 228)		3/4" BSP	3/4" BSP	3/4" BSP
B-Oil port (DIN ISO 228)		3/4" BSP	3/4" BSP	3/4" BSP
C		Drain hole		

### How to order:

**Example:** Motor 30 – 2,0 (cm<sup>3</sup>/rot. - in<sup>3</sup>/rot.); pressures 400/350 – 5800/5100 (bar – psi); rotation 4000/3200; ref. MBI M5B2 → MBI30M5B2

### Important notes:

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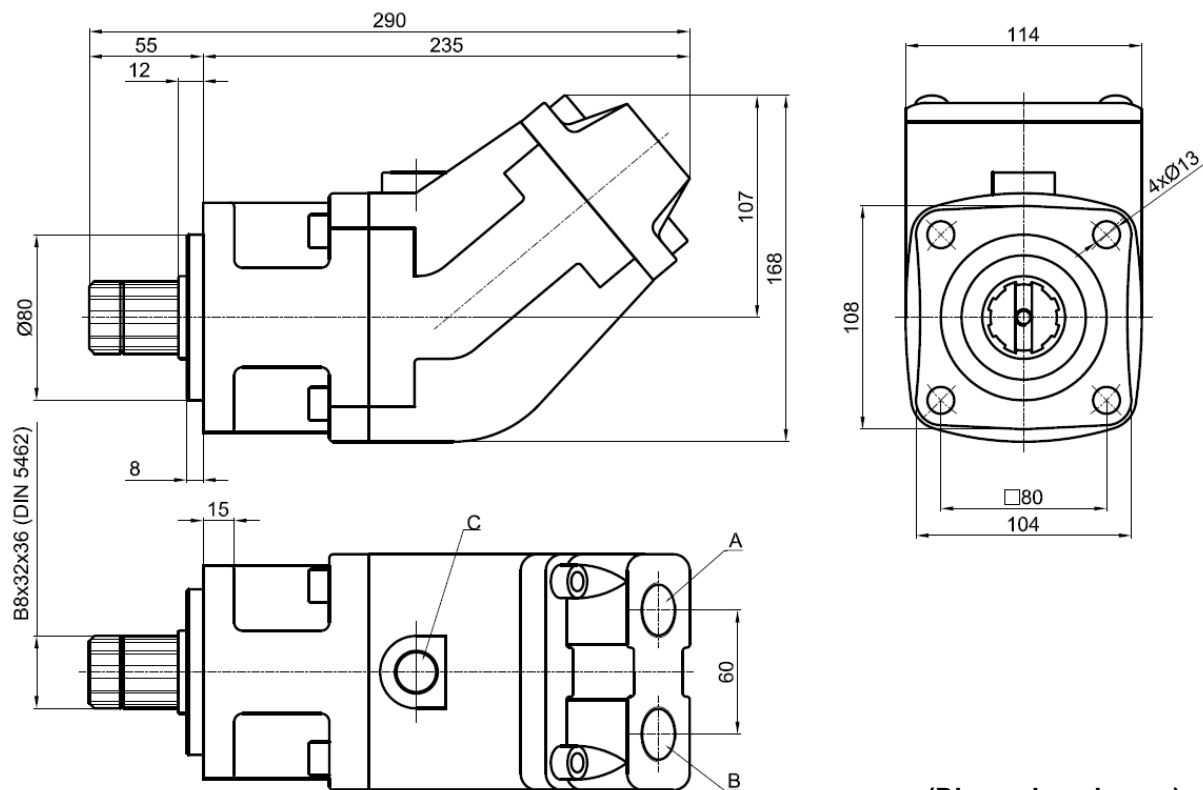
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## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI M7

### Main Dimensions



(Dimensions in mm)

### Main Data

Motors MBI	60M7	80M7
Cylinder capacity (cm <sup>3</sup> /rot.)	60	81
Rotation (rpm)		
max. intermittent	3000	2750
max. continuous	2400	2200
Pressure (bar)		
max. intermittent	400	350
max. continuous	350	300
Max torque – theoretical value (Nm)	380	450
Weight (kg)	10.5	10.5
Pistons quantity	7	7
A-Oil port (mm)	3/4"BSP	1"BSP
B-Oil port (mm)	3/4"BSP	1"BSP
C-Drain hole	M22x1.5	M22x1.5

### How to order:

**Example:** Motor 60cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI M7    MBI60M7

### Important notes:

-To install one of these motors, please consult and respect the instruction "BI motors recommendations before start-up".

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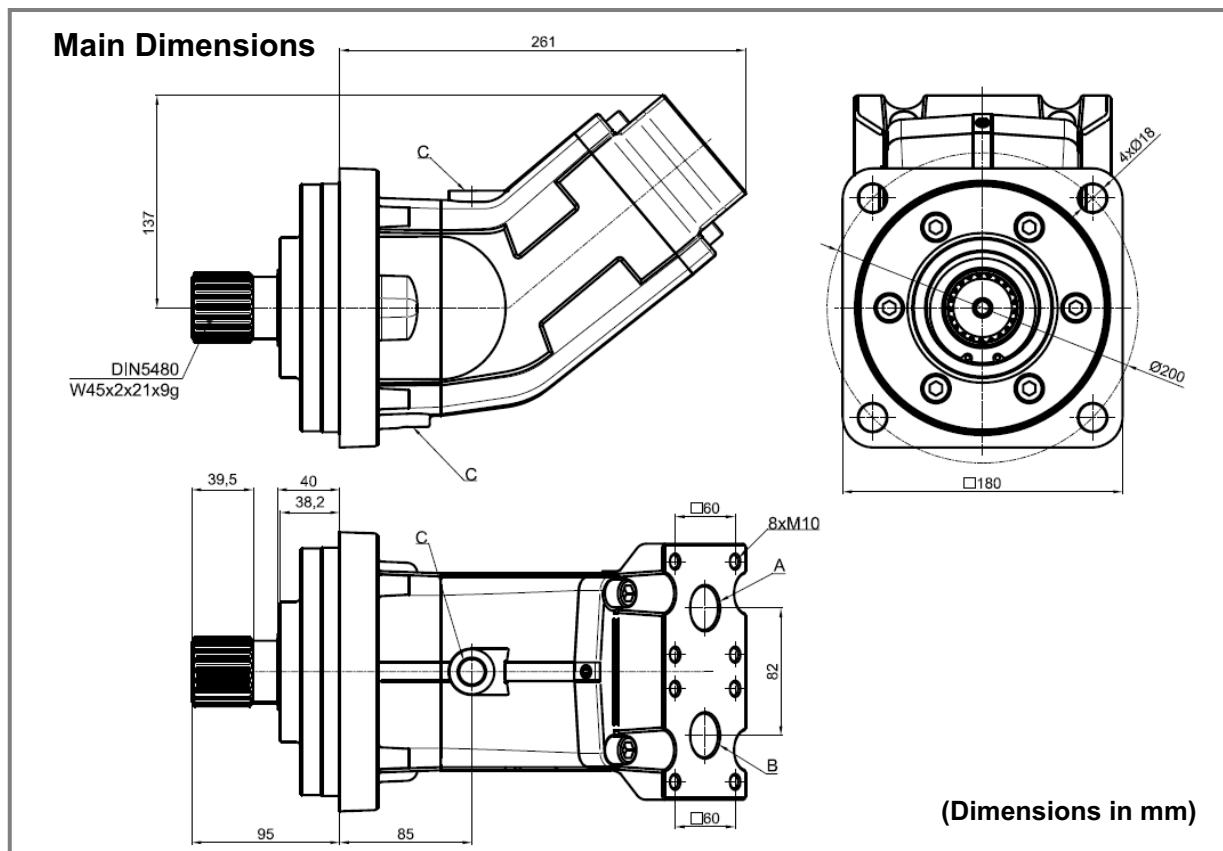
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## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI P IA1



Main Data			
Motors MBI		80P7IA1	110P7IA1
Cylinder capacity (cm <sup>3</sup> /rot.)		80	108
Rotation (rpm)	max. intermittent	3000	2800
	max. continuous	2400	2250
Pressure (bar)	max. intermittent	400	400
	max. continuous	350	350
Max torque – theoretical value (Nm)		505	685
Weight (kg)		14	14
Pistons quantity		7	7
A-Oil port (mm)		ø28	ø28
B-Oil port (mm)		ø28	ø28
C-Drain hole		M22x1.5	M22x1.5

### How to order:

**Example:** Motor 80cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI P IA1 MBI80P7IA1

**Important notes:**

-To install one of these motors, please consult and respect the instruction “BI motors recommendations before start-up”.

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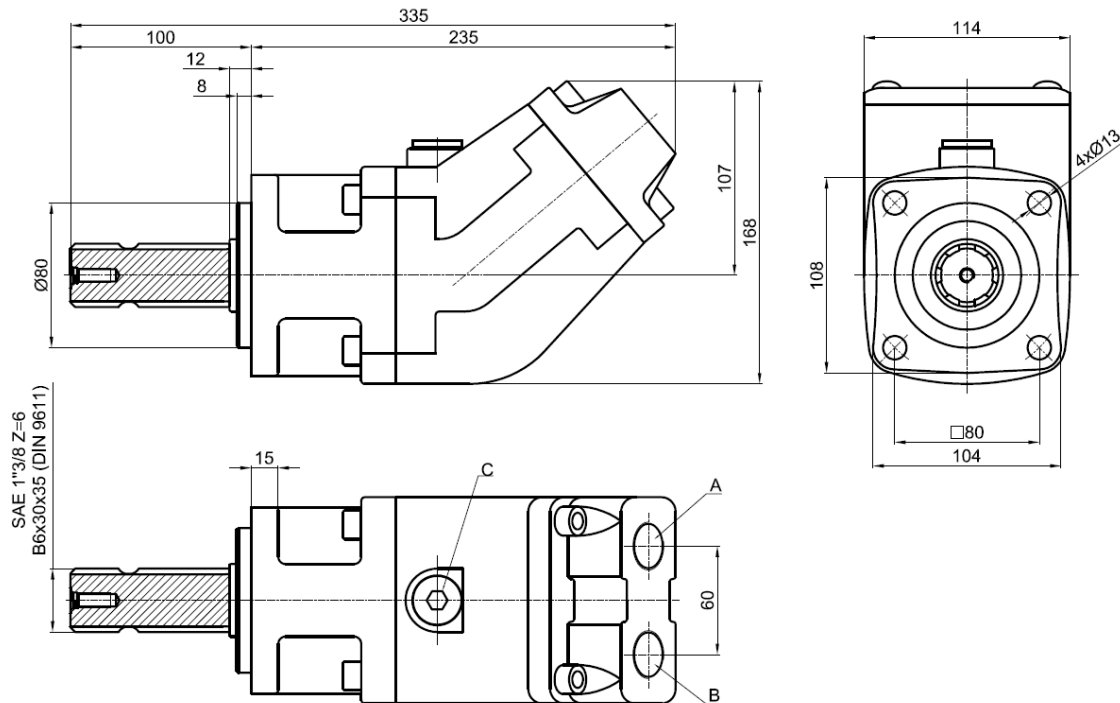
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# OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI\_M7DA

## Main Dimensions



(Dimensions in mm)

## Main Data

Motors MBI		60M7DA	80M7DA
Displacement (cm <sup>3</sup> /rot.)		60	81
Rotation (rpm)	max. intermittent	3000	2750
	max. continuous	2400	2200
Pressure (bar)	max. intermittent	400	350
	max. continuous	350	300
Torque (N.m)	max. intermittent (theoretical value)	380	445
	max. continuous (theoretical value)	335	380
Approx. Weight (kg)		11	11
Pistons quantity		7	7
A-Oil port (mm)		3/4"BSP	1"BSP
B-Oil port (mm)		3/4"BSP	1"BSP
C-Drain hole		M22x1.5	

### How to order:

**Example:** Motor 60 cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI\_M7DA

➔ MBI60M7DA

### Important notes:

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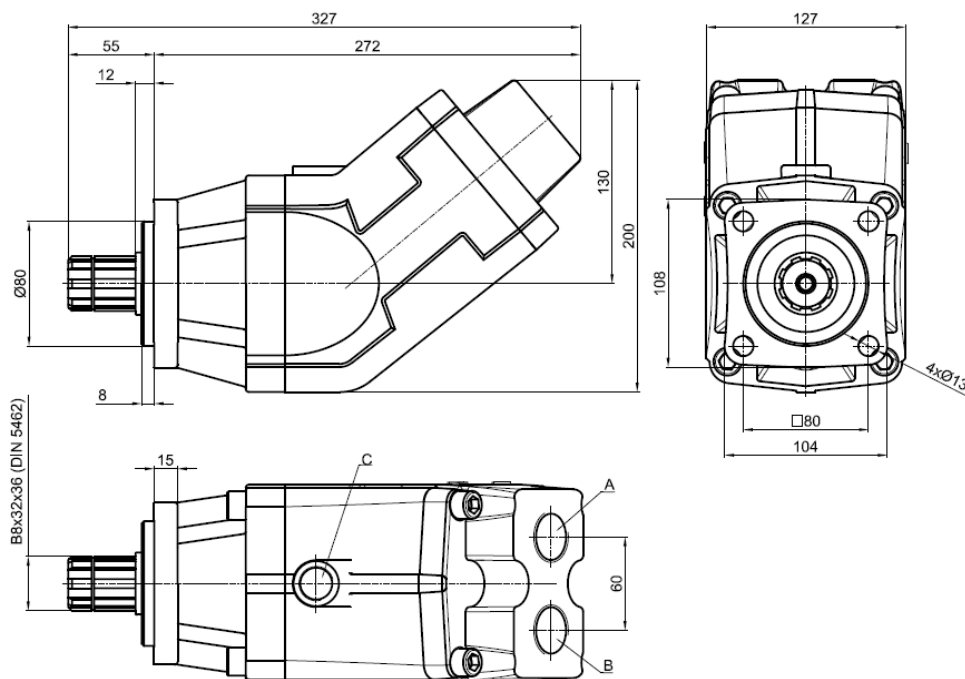
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## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI P7

### Main Dimensions



(Dimensions in mm)

Main Data			
Motors MBI	80P7	110P7	135P7
Cylinder capacity (cm <sup>3</sup> /rot.)	80	108	136
Rotation (rpm)			
max. intermittent	3000	2800	2500
max. continuous	2400	2250	2000
Pressure (bar)			
max. intermittent	400	400	300
max. continuous	350	350	250
Max torque – theoretical value (Nm)	505	685	645
Weight (kg)	13	13.4	13.8
Pistons quantity	7	7	7
A-Oil port (mm)	1" BSP	1" BSP	1" BSP
B-Oil port (mm)	1" BSP	1" BSP	1" BSP
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

#### How to order:

**Example:** Motor 80cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI P7    MBI80P7

#### Important notes:

-To install one of these motors, please consult and respect the instruction "BI motors recommendations before start-up".

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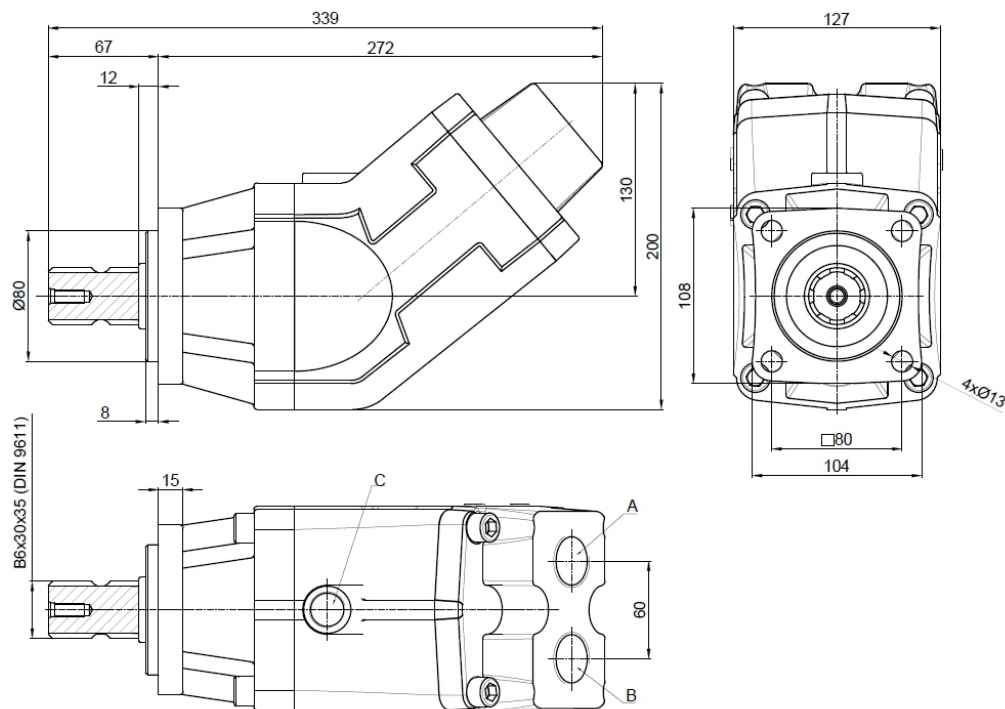
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## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI\_P7DA

### Main Dimensions



(Dimensions in mm)

### Main Data

Motors MBI	80P7DA	110P7DA	135P7DA
Cylinder capacity (cm <sup>3</sup> /rot.)	80	108	136
Rotation (rpm)			
max. intermittent	3000	2800	2500
max. continuous	2400	2250	2000
Pressure (bar)			
max. intermittent	400	400	300
max. continuous	350	350	250
Max torque – theoretical value (Nm)	505	685	645
Weight (kg)	13	13.4	13.8
Pistons quantity	7	7	7
A-Oil port (mm)	1" BSP	1" BSP	1" BSP
B-Oil port (mm)	1" BSP	1" BSP	1" BSP
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

#### How to order:

**Example:** Motor 80cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI\_P7DA → MBI80P7DA

#### Important notes:

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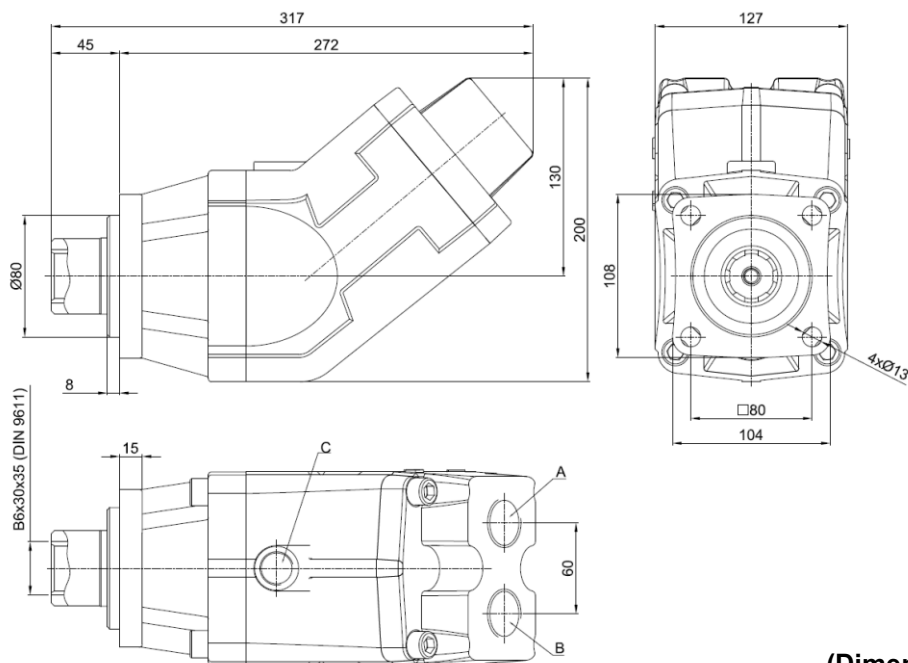
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# OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI P7DI

## Main Dimensions



(Dimensions in mm)

## Main Data

Motors MBI		80P7DI	110P7DI	125P7DI	135P7DI
Displacement (cm <sup>3</sup> /rot.)		80	108	126	136
Rotation (rpm)	max. intermittent	3000	2800	2500	2500
	max. continuous	2400	2250	2000	2000
Pressure (bar)	max. intermittent	400	400	350	300
	max. continuous	350	350	300	250
Max. torque - theoretical value (Nm)		505	685	700	645
Weight (approx.) (kg)		13.0	13.4	13.6	13.8
Pistons quantity		7			
A-Oil port (DIN ISO 228)		1" BSP	1" BSP	1" BSP	1" BSP
B-Oil port (DIN ISO 228)		1" BSP	1" BSP	1" BSP	1" BSP
C - Drain hole		M22x1.5			

## How to order:

**Example:** Motor 80cm<sup>3</sup>/rot, pressure 400/350 bar; rotation 3000/2400 ref. BI P7DI → BI80P7DI

Fluids	mineral oils type ISO HM or DIN 51524-2 HLP
Recommended viscosity range	20 to 40 cSt (mm <sup>2</sup> /s) at working temperature
Limits viscosity range	10 to 400 cSt (mm <sup>2</sup> /s)
Start-up viscosity range, without load	400 to 1500 cSt (mm <sup>2</sup> /s)
Filtration	10µm ISO4406 18/13

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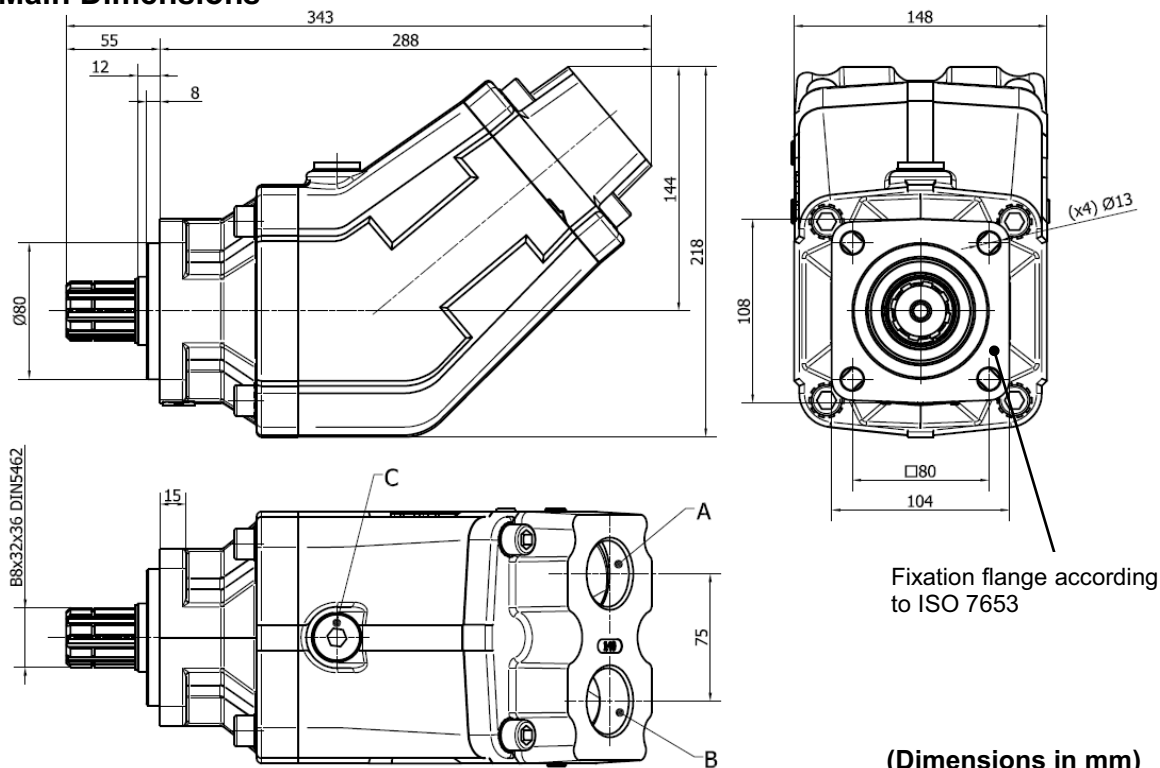
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## OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI H9

### Main Dimensions



### Main Data

Motors MBI	140H9	160H9	170H9
Displacement (cm <sup>3</sup> /rot.)	142	156	172
Rotation (rpm)			
max. intermittent	3000	3000	3000
max. continuous	2400	2400	2400
Pressure (bar)			
max. intermittent	400	400	350
max. continuous	350	350	300
Max torque – theoretical value (Nm)	900	990	955
Approx. Weight (kg)	19	19	19
Pistons quantity	9	9	9
A-Oil port (BSP)	1"1/4	1"1/4	1"1/4
B-Oil port (BSP)	1"1/4	1"1/4	1"1/4
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

### How to order:

**Example:** Motor 142cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI H9 → MBI140H9

### Important notes:

-To install one of these motors, please consult and respect the instruction "BI motors recommendations before start-up".

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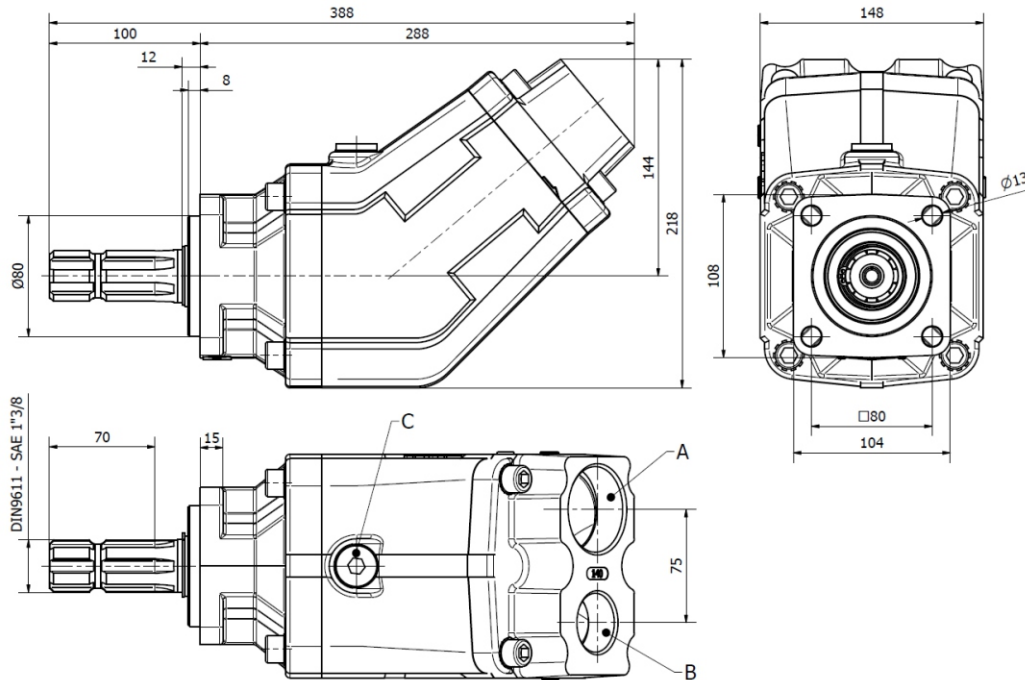
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# OIL-HYDRAULIC BENT MOTOR AXIAL PISTONS

Ref.  
MBI H9DA

## Main Dimensions



(Dimensions in mm)

Main Data			
Motors MBI	140H9DA	160H9DA	170H9DA
Displacement (cm <sup>3</sup> /rot.)	142	156	172
Rotation (rpm)	max. intermittent max. continuous	3000 2400	3000 2400
Pressure (bar)	max. intermittent max. continuous	400 350	350 300
Max torque – theoretical value (Nm)	900	990	955
Approx. Weight (kg)	19	19	19
Pistons quantity	9	9	9
A-Oil port (BSP)	1"1/4	1"1/4	1"1/4
B-Oil port (BSP)	1"1/4	1"1/4	1"1/4
C-Drain hole	M22x1.5	M22x1.5	M22x1.5

## How to order:

**Example:** Motor 142cm<sup>3</sup>/rot.; pressures 400/350 bar; rotation 3000/2400; ref. MBI H9DA→  
MBI140H9DA

## Important notes:

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