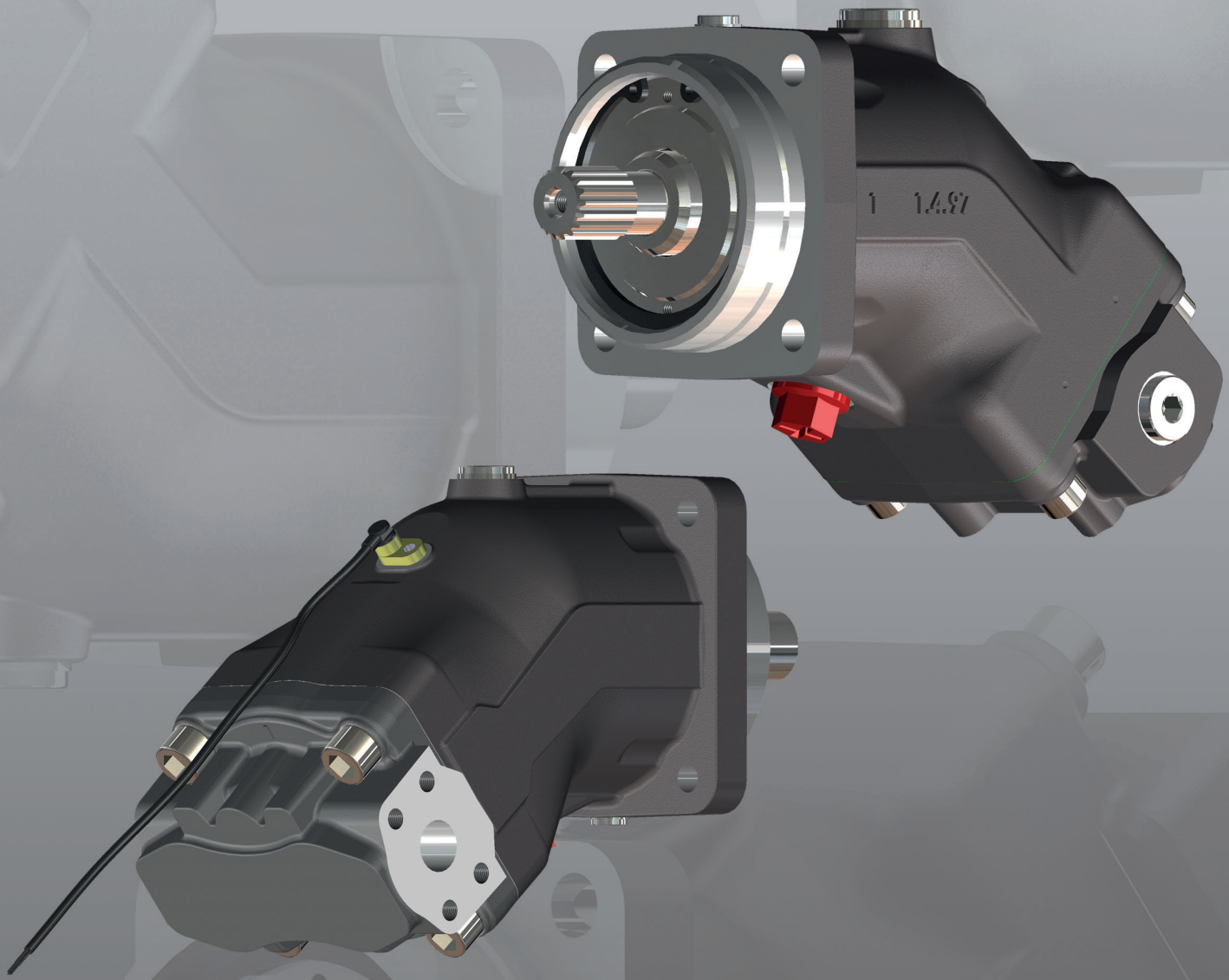
BENT AXIS PISTON MOTORS SERIES "HPM"

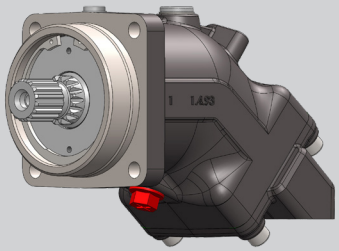
The birotational bent axis piston motors series HPM are suitable for any kind of hydraulic applications, which require high performances. These motors ensure low level noise in combination with compact size and robust design and are produced using the latest technology. The range includes sizes from 12 up to 130cc combined with different transmission shafts, coupling flanges and ports.



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HYDRAULIC POWER CONTROL

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FLANGE ISO 3019-2



TECHNICAL FEATURES																
Displacement		cm³/rev		12	17	20	25	34	40	47	55	64	80	91	108	130
Working pressure		bar	Max. intermittent	400												
			Max. continuous	350												
Rotation speed		rpm	Max. intermittent	6800					5500				4500			
			Max. continuous	6300					5000				4000			
			Min. continuous	100												
Theoretical power		kW	Max. intermittent	54	77	91	113	154	147	172	202	235	240	270	324	390
			Max. continuous	18	26	30	38	51	49	57	67	78	80	90	108	130
Theoretical Torque		Nm/bar		0,20	0,27	0,33	0,40	0,54	0,66	0,76	0,91	1,02	1,28	1,46	1,72	2,09
Mass inertial moment (x 10^{-4})		kg m^2		11,5			12,5		35,5				61			
Approx weight	HPM ISO	kg		9			11,5		19,5				29,5		38,5	
	HPM SAE B			10			12									
	HPM SAE C						14		20				29			

ATTENTION: in some cases Working Pressure is limited by shaft's torque trasmissible.
Check if there are restrictions and if it is necessary contact OMFB for information.

VERSIONS CODING:

1	2	3	4		
2 4 4	0 2 0	1 4	0 6 4	M 0 4	

Flange type

240 : Ø 80mm ISO 3019-2
242 : Ø 100mm ISO 3019-2
244 : Ø 125mm ISO 3019-2
246 : Ø 140mm ISO 3019-2
248 : Ø 160mm ISO 3019-2

Shaft

008 : W20x1,25x14x9g DIN 5480
011 : W25x1,25x18x9g DIN 5480
014 : W30x2x14x9g DIN 5480
017 : W32x2x14x9g DIN 5480
020 : W35x2x16x9g DIN 5480
023 : W40x2x18x9g DIN 5480
026 : W45x2x21x9g DIN 5480

041 : K20 - ø20 DIN 6885
044 : K25 - ø25 DIN 6885
047 : K30 - ø30 DIN 6885
050 : K35 - ø35 DIN 6885
053 : K40 - ø40 DIN 6885
056 : K45 - ø45 DIN 6885

Portings

01 : BSPP REAR 40°
03 : BSPP SIDE
04 : BSPP REAR 40° + SIDE
05 : UN REAR 40°
11 : SAE 6000 REAR 40° - M
13 : SAE 6000 REAR 90° - M
14 : SAE 6000 SIDE - M
15 : SAE 6000 SIDE - M + FLUSHING VALVE (MOUNTED)
17 : SAE 6000 REAR 10° - M
21 : SAE 6000 REAR 40° - U
25 : SAE 6000 SIDE - UNC + FLUSHING VALVE (MOUNTED)
32 : METRIC SIDE

Variants

P: Motor with speed sensor option

M--: Motor with selected speed sensor already mounted

- **M01**: speed sensor 2CH PWM L=18,4mm
- **M02**: speed sensor 1CH L=18,4mm
- **M03**: speed sensor 2CH (2 FREQ.) L=18,4mm
- **M04**: speed sensor 2CH (2 FREQ.) L=32mm
- **M05**: speed sensor 2CH (1F + 1D) L=18,4mm
- **M06**: speed sensor 2CH (1F + 1D) L=32mm

(see speed sensor section)

Displacement (cc)

012
017
020
025
034
040
047
055
064
080
091
108
130

VERSIONS AVAILABLE:

Flange	Diameter		Ø80			Ø100		Ø125				Ø140			Ø160	
	Code 1 →		240			242		244				246			248	
	Displacement 4 →		012	017	020	025	034	040	047	055	064	080	091		108	130
Shaft	Code 2 ↓															
	008	W20x1,25x14x9g DIN 5480	X	X												
	011	W25x1,25x18x9g DIN 5480	X	X		X	X									
	014	W30x2x14x9g DIN 5480				X	X	X	X	X	X					
	020	W35x2x16x9g DIN 5480						X	X	X	X	X	X			
	023	W40x2x18x9g DIN 5480										X	X		X	X
	026	W45x2x21x9g DIN 5480													X	X
	041	K20 - ø20 DIN 6885	X	X												
	044	K25 - ø25 DIN 6885	X	X	X	X	X									
	047	K30 - ø30 DIN 6885				X	X	X	X	X	X					
	050	K35 - ø35 DIN 6885						X	X	X	X	X	X			
	053	K40 - ø40 DIN 6885										X	X	X	X	X
	056	K45 - ø45 DIN 6885													X	X
Portings	Code 3 ↓															
	01	BSPP REAR 40°				X	X	X	X	X	X					
	03	BSPP SIDE				X	X									
	04	BSPP REAR 40° + SIDE	X	X	X											
	05	UN REAR 40°				X	X	X	X	X	X					
	11	SAE 6000 REAR 40° - M				X	X	X	X	X	X	X	X		X	X
	13	SAE 6000 REAR 90° - M				X	X	X	X	X	X	X	X	X	X	X
	14	SAE 6000 SIDE - M				X	X	X	X	X	X	X	X		X	X
	15	SAE 6000 SIDE - M + FLUSHING VALVE (MOUNTED)						X	X	X	X	X	X	X	X	X
	17	SAE 6000 REAR 10° - M				X	X					X		X		
	21	SAE 6000 REAR 40° - U						X	X	X	X					
	25	SAE 6000 SIDE - UNC + FLUSHING VALVE (MOUNTED)						X	X	X	X	X	X			
	32	METRIC SIDE								X						

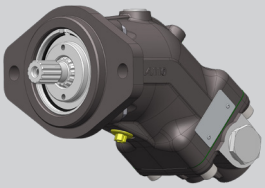
X = Available

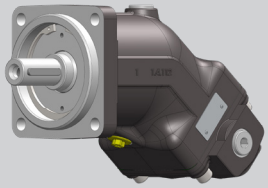


X This shaft may have torque limitations depending on the application.
For more information please contact OMFB

For further versions please contact our sales department.

FLANGE ISO 3019-1 - SAE B / SAE C





TECHNICAL FEATURES																
Displacement		cm³/rev		12	17	20	25	34	40	47	55	64	80	91	108	130
Working pressure		bar	Max. intermittent	400												
			Max. continuous	350												
Rotation speed		rpm	Max. intermittent	6800					5500				4500			
			Max. continuous	6300					5000				4000			
			Min. continuous	100												
Theoretical power		kW	Max. intermittent	54	77	91	113	154	147	172	202	235	240	270	324	390
			Max. continuous	18	26	30	38	51	49	57	67	78	80	90	108	130
Theoretical Torque		Nm/bar		0,20	0,27	0,33	0,40	0,54	0,66	0,76	0,91	1,02	1,28	1,46	1,72	2,09
Mass inertial moment (x 10^{-4})		kg m²		11,5			12,5		35,5				61			
Approx weight	HPM ISO	kg		9			11,5		19,5				29,5		38,5	
	HPM SAE B			10			12									
	HPM SAE C						14		20				29			

ATTENTION: in some cases Working Pressure is limited by shaft's torque trasmissible.
Check if there are restrictions and if it is necessary contact OMFB for information.

VERSIONS CODING:

1	2	3	4		
2 2 1	0 4 7	1 4	0 6 4	M 0	4

Flange type

221 : SAE B 2H ISO 3019-1
222 : SAE B 4H ISO 3019-1
224 : SAE C 4H ISO 3019-1

Shaft

047 : K30 - ø30 DIN 6885
050 : K35 - ø35 DIN 6885
074 : SAE B - 13T 16/32 - SAE J744
077 : SAE BB - 15T 16/32 - SAE J744
080 : SAE C - 14T 12/24 - SAE J744
081 : SAE CC - 17T 12/24 - SAE J744
083 : SAE CS - 21T 16/32 - SAE J744
091 : ø 25,4 (1") - SAE J744
094 : ø 31,7 (1,25") - SAE J744
095 : ø 38,1 (1,5") - SAE J744

Portings

01 : BSPP REAR 40°
03 : BSPP SIDE
04 : BSPP REAR 40° + SIDE
05 : UN REAR 40°
06 : UN 40° + SIDE
07 : UN SIDE
11 : SAE 6000 REAR 40° - M
13 : SAE 6000 REAR 90° - M
14 : SAE 6000 SIDE - M
15 : SAE 6000 - SIDE M + FLUSHING VALVE (MOUNTED)
17 : SAE 6000 REAR 10° - M
21 : SAE 6000 REAR 40° - U
23 : SAE 6000 REAR 90° - U
24 : SAE 6000 - SIDE U
25 : SAE 6000 - SIDE U + FLUSHING VALVE (MOUNTED)
32 : METRIC SIDE
41 : UNF 40° + SIDE

Variants

P: Motor with speed sensor option

M--: Motor with selected speed sensor already mounted

- **M01**: speed sensor 2CH PWM L=18,4mm
- **M02**: speed sensor 1CH L=18,4mm
- **M03**: speed sensor 2CH (2 FREQ.) L=18,4mm
- **M04**: speed sensor 2CH (2 FREQ.) L=32mm
- **M05**: speed sensor 2CH (1F + 1D) L=18,4mm
- **M06**: speed sensor 2CH (1F + 1D) L=32mm

(see speed sensor section)

Displacement (cc)

012
017
020
025
034
040
047
055
064
080
091
108
130

VERSIONS AVAILABLE:

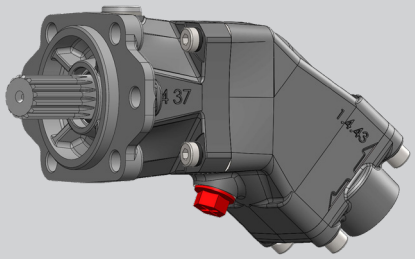
Flange	Type		SAE B 2H													
	Code 1 ➡		221													
	Type		SAE B 4H					SAE C 4H								
	Code 1 ➡		222					224								
	Displacement 4 ➡		012	017	020	025	034	025	034	040	047	055	064	080	091	108
Shaft	Code 2 ⬇															
	047	K30 - ø30 DIN 6885								X	X	X	X			
	050	K35 - ø35 DIN 6885								X	X	X	X			
	074	SAE B - 13T 16/32-SAE J744	X	X		X	X									
	077	SAE BB - 15T 16/32-SAE J744				X	X									
	080	SAE C - 14T 12/24-SAE J744						X	X	X	X	X	X	X	X	X
	081	SAE CC - 17T 12/24-SAE J744												X	X	X
	083	SAE CS - 21T 16/32-SAE J744								X	X	X	X	X	X	X
	091	ø 25,4 (1")-SAE J744	X	X	X	X	X									
	094	ø 31,7 (1,25")-SAE J744						X	X	X	X	X	X			
	095	ø 38,1 (1,5")-SAE J744												X	X	X
Portings	Code 3 ⬇															
	01	BSPP REAR 40°				X	X	X	X	X	X	X	X			
	03	BSPP SIDE				X	X	X	X	X	X	X	X			
	04	BSPP REAR 40° + SIDE	X	X	X											
	05	UN REAR 40°				X	X	X	X	X	X	X	X			
	06	UN 40° + SIDE	X	X	X											
	07	UN SIDE				X	X	X	X	X	X	X	X			
	11	SAE 6000 REAR 40° - M				X	X	X	X	X	X	X	X	X	X	X
	13	SAE 6000 REAR 90° - M				X	X	X	X	X	X	X	X	X	X	X
	14	SAE 6000 SIDE - M				X	X	X	X	X	X	X	X	X	X	X
	15	SAE 6000 - SIDE M + FLUSHING VALVE (MOUNTED)								X	X	X	X	X	X	X
	17	SAE 6000 REAR 10° - M				X	X	X	X	X	X	X	X	X	X	X
	21	SAE 6000 REAR 40° - U				X	X	X	X	X	X	X	X	X	X	X
	23	SAE 6000 REAR 90° - U				X	X	X	X	X	X	X	X	X	X	X
	24	SAE 6000 - SIDE U				X	X	X	X	X	X	X	X	X	X	X
	25	SAE 6000 - SIDE U + FLUSHING VALVE (MOUNTED)								X	X	X	X	X	X	
	32	METRIC SIDE								X	X	X	X			
	41	UNF 40° + SIDE	X	X	X											

X = Available

X This shaft may have torque limitations depending on the application.
For more information please contact OMFB.

For further versions please contact our sales department.

FLANGE SAE J-744 - SAE B2/4 - SAE C



TECHNICAL FEATURES									
Displacement	cm³/rev		40	47	55	64	84	108	130
Working pressure	bar	Max. intermittent	400	340	280	250	400		270
		Max. continuous	350				350		250
Rotation speed	rpm	Max. intermittent	2500				2000		
		Max. continuous	1900				1500		
		Min. continuous	100						
Theoretical power	kW	Max. intermittent	67	67	64	67	112	144	117
		Max. continuous	22	22	21	22	38	48	39
Theoretical Torque	Nm/bar		0,63	0,7	0,83	0,97	1,3	1,6	2
Mass inertial moment (x 10-4)	kg m²		35,5				61		
Approx weight	kg		14,2				21		

ATTENTION: in some cases Working Pressure is limited by shaft's torque trasmissible.
Check if there are restrictions and if it is necessary contact OMFB for information.

VERSIONS CODING:

1	2	3	4
213	080	01	064

Flange type
213 : SAE J744 SAE B 2H-4H
214 : SAE J744 SAE C - 4H

Shaft
074 : SAE B - 13T 16/32
077 : SAE BB - 15T 16/32
080 : SAE C - 14T 12/24
091 : ø 25,4 (1") - SAE J744
094 : ø 31,7 (1,25") - SAE J744

Displacement (cc)
040
047
055
064
084
108
130

Portings
01 : BSPP REAR 40°
05 : UN REAR 40°
13 : SAE 6000 REAR 90° - M

VERSIONS AVAILABLE:

Flange	Type		SAE B 2H - 4H				SAE C 4H						
	Code 1		213				214						
	Displacement 4		040	047	055	064	040	047	055	064	084	108	130
Shaft	Code 2												
	047	K30 - ø30 DIN 6885											
	050	K35 - ø35 DIN 6885											
	074	SAE B - 13T 16/32	X	X	X	X							
	077	SAE BB - 15T 16/32	X	X	X	X							
	080	SAE C - 14T 12/24					X	X	X	X	X	X	
	081	SAE CC - 17T 12/24											
	083	SAE C - 21T 16/32											
	091	ø 25,4 (1") - SAE J744	X	X									
	094	ø 31,7 (1,25") - SAE J744					X	X	X	X	X	X	X
	095	ø 38,1 (1,5") - SAE J744											
Portings	Code 3												
	01	BSPP REAR 40°	X	X	X	X	X	X	X	X	X	X	X
	03	BSPP SIDE											
	05	UN REAR 40°	X	X	X	X	X	X	X	X	X	X	X
	06	UN 40° + sSIDE											
	07	UN SIDE											
	11	SAE 6000 REAR 40° - M											
	13	SAE 6000 REAR 90° - M	X	X	X	X							
	14	SAE 6000 SIDE - M											
	21	SAE 6000 REAR 40° - U											
	24	SAE 6000 - SIDE U											
	25	SAE 6000 - SIDE U + FLUSHING VALVE											
	41	UNF 40° + SIDE											

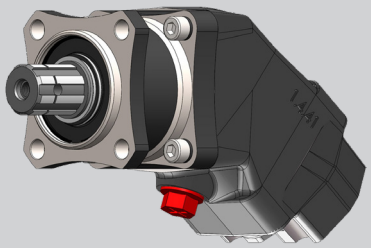
X = Available



X This shaft may have torque limitations depending on the application.
For more information please contact OMFB.

For further versions please contact our sales department.

FLANGE ISO 7653-D



TECHNICAL FEATURES												
Displacement	cm^3/rev		12	17	25	34	40	47	55	64	84	108	130
Working pressure	bar	Max. intermittent	400										270
		Max. continuous	350										250
Rotation speed	rpm	Max. intermittent	3000				2500				2000		
		Max. continuous	2300				1900				1500		
		Min. continuous	100										
Theoretical power	kW	Max. intermittent	24	34	50	68	67	78	92	107	112	144	117
		Max. continuous	8	11	17	23	22	26	31	36	38	48	39
Theoretical Torque	Nm/bar		0,20	0,27	0,40	0,54	0,66	0,76	0,91	1,02	1,34	1,72	2,09
Mass inertial moment (x 10^{-4})	$kg\ m^2$		11,5		12,5		35,5				61		
Approx weight	kg		8,8				13,2				18,2		

ATTENTION: in some cases Working Pressure is limited by shaft's torque trasmissible.
Check if there are restrictions and if it is necessary contact OMFB for information.

VERSIONS CODING:

2 0 1 0 0 1 0 1 0 6 4

Flange type

201 : ISO 7653-D

Shaft

001 : 8x32x36 (ISO 14) - DIN 5462

Displacement (cc)

012
017
025
034
040
047
055
064
084
108
130

Portings

01 : BSPP REAR 40°

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