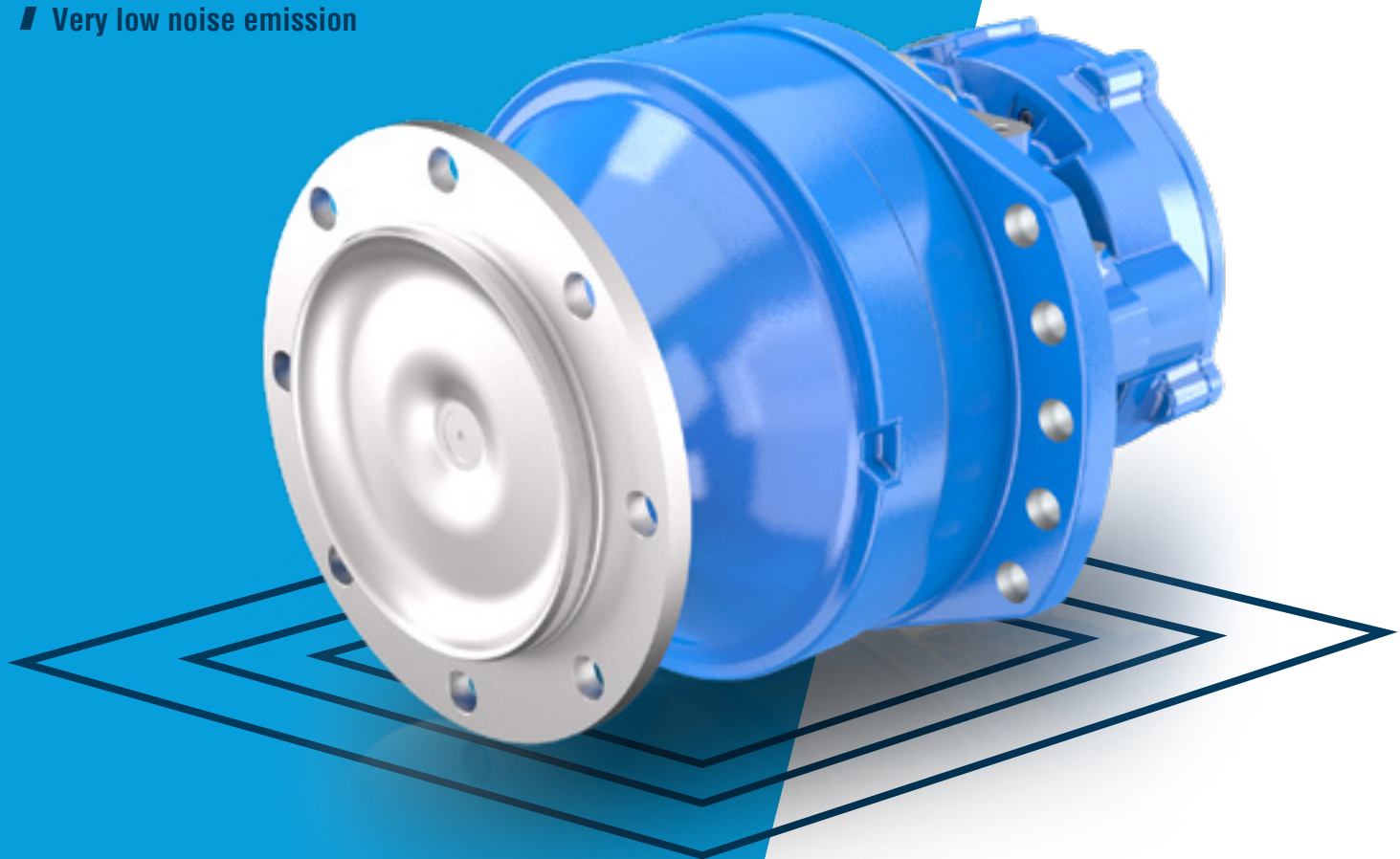
MODULARITY AND VERSATILITY
A SOLUTION FOR EVERY NEED

- Large range of motors
- Direct drive
- High radial and axial load capability
- Single or dual displacement
- With or without brake
- Very low noise emission

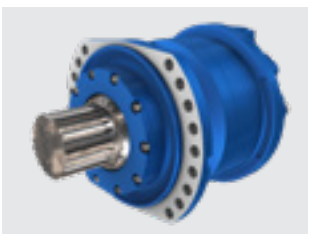


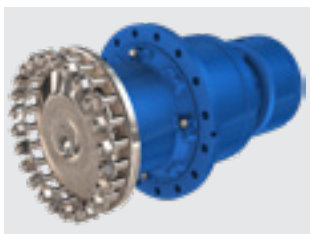
MS / MSE

MS/MSE02 ▪ MSE03 ▪ MS/MSE05
MS/MS08 ▪ MS/MSE11 ▪ MS/MSE18
MS25 ▪MS35 ▪ MS50 ▪ MS83 ▪ MS125

From 172 to 15 000 cm^3/rev. [10.5 to 915 cu.in/rev.]
Up to 77 000 N.m [56,792 lbf.ft]
Up to 450 bar [6,530 PSI]
Up to 900 rpm
Up to 240 kW [322 HP]



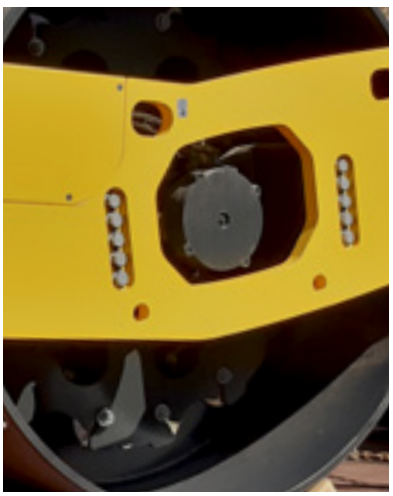














Performance MS Standard

		First displacement*				Second displacement**			
	Max. Pressure bar [PSI]	Displacement range cm³/rev [cu.in/rev]	Max. Torque*** N.m [lbf.ft]	Max. Speed RPM	Max. Power kW [HP]	Displacement range cm³/rev [cu.in/rev]	Max. Torque*** N.m [lbf.ft]	Max. Speed RPM	Max. Power kW [HP]
MS02	450 [6,527]	172 - 255 [10.5] - [15.6]	1 800 [1,227]	580	18 [24]	86 - 128 [5.2] - [7.8]	916 [676]	590	12 [16]
MSE02	400 [5,802]	332 - 398 [20.2] - [24.3]	2 500 [1,843]	265	22 [29.5]	166 - 199 [10.1] - [12.1]	1 260 [930]	340	16,5 [22]
MSE03	350 [5,076]	450 - 500 [27.4] - [30.5]	2 780 [2,050]	155	22 [30]	225 - 250 [13.7] - [15.2]	1 390 [1,025]	183	16,5 [22]
MS05	450 [6,527]	260 - 560 [15.9] - [34.2]	4 000 [2,950]	350	29 [39]	130 - 280 [7.9] - [17.1]	2 000 [1,475]	360	19 [25]
MSE05	400 [5,802]	503 - 750 [30.7] - [45.7]	4 770 [3,518]	250	29 [39]	252 - 375 [15.4] - [22.9]	2 390 [1,762]	300	19 [25]
MS08	450 [6,527]	467 - 934 [28.5] - [57.0]	6 690 [4,934]	235	41 [55]	234 - 467 [14.2] - [28.5]	3 345 [2,467]	250	27 [36]
MSE08	400 [5,802]	1 043 - 1 248 [63.6] - [76.1]	7 945 [5,859]	125	41 [55]	522 - 624 [31.8] - [38.1]	3 970 [2,928]	110	27 [36]
MS11	450 [6,527]	730 - 1 259 [44.5] - [76.8]	9 000 [6,638]	200	50 [67]	365 - 630 [22.3] - [38.4]	4 500 [3,319]	200	33 [44]
MSE11	400 [5,802]	1 263 - 1 687 [77.0] - [102.9]	10 700 [7,891]	170	50 [67]	632 - 844 [38.5] - [51.4]	5 370 [3,960]	190	33 [44]
MS18	450 [6,527]	1 091 - 2 099 [66.5] - [128]	15 000 [11,063]	170	70 [94]	546 - 1 050 [33.3] - [64]	7 520 [5,546]	170	47 [63]
MSE18	400 [5,802]	2 340 - 2 812 [142.8] - [171.6]	17 900 [13,202]	90	70 [94]	1 170 - 1 406 [71.4] - [85.8]	8 950 [6,601]	110	47 [63]
MS25	450 [6,527]	2 004- 3 006 [122.3] - [183.4]	21 500 [15,857]	145	90 [121]	1 002- 1 503 [61.1] - [91.7]	10 760 [7,936]	145	60 [80]
MS35	450 [6,527]	2 439 - 4 198 [148.8] - [256]	30 000 [22,126]	140	110 [148]	1 220 - 2 099 [74.4] - [128]	15 000 [11,063]	140	73 [98]
MS50	450 [6,527]	3 500 - 6 011 [213.5] - [366.6]	43 000 [31,715]	205	140 [188]	1 750 - 3 006 [106.7] - [183.3]	21 528 [15,878]	225	93 [125]
MS83	450 [6,527]	6 679 - 10 019 [407.4] - [611.1]	71 755 [52,924]	200	200 [268]	3 340 - 5 010 [203.7] - [305.5]	35 880 [26,464]	145	135 [181]
MS125	320 - 450 [4,641 - 6,527]	10 000 - 15 000 [69] - [915]	77 000 [56,792]	130	240 [322]	5 000 - 7 500 [305] - [457.4]	53 715 [39,618]	105	160 [215]

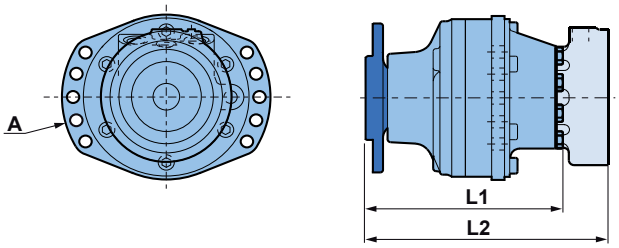
*Available for single or dual displacement motors
**Only available for dual displacement motors
***Max. theoretical torque (N.m) : 1/(20 π) x max. displacement (cm³/rev.) x max. pressure (bar)



Dimensions MS Standard

1C : Single displacement
2C : Dual displacement

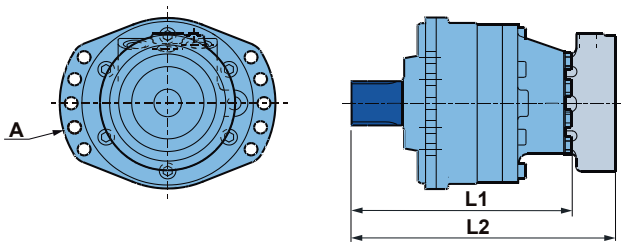
Wheel motors



			MS02 MSE02	MSE03	MS05 MSE05	MS08 MSE08	MS11 MSE11	MS18 MSE18	MS25	MS35	MS50	MS83	MS125
L1	1C	mm [in]	214,5 [8.44]	249,5 [9.82]	289,5 [11.40]	305,9 [12.04]	335,8 [13.22]	395 [15.55]	450,2 [17.72]	451,2 [17.76]	511 [20.11]	591 [23.26]	739 [29.09]
	2C	mm [in]	252,5 [9.94]	251,5 [9.90]	289,5 [11.40]	306,7 [12.07]	335,8 [13.22]	375 [14.76]	455 [17.91]	497 [19.56]	511 [20.11]	591 [23.26]	739 [29.09]
L2 max.*	1C	mm [in]	266 [10.47]	292 [11.50]	344 [13.54]	385 [15.15]	420,3 [16.54]	496 [19.52]	544 [21.41]	584 [22.99]	650 [25.59]	780 [30.71]	906 [35.67]
	2C	mm [in]	304 [11.97]	303 [11.93]	344 [13.54]	385,2 [15.16]	420,3 [16.54]	477 [18.78]	584 [22.99]	630 [24.80]	650 [25.59]	780 [30.71]	906 [35.67]
A dia. max.		mm [in]	235 [9.25]	235 [9.25]	300 [11.81]	335 [13.19]	375 [14.76]	425 [16.73]	485 [19.09]	485 [19.09]	485 [19.09]	555,5 [21.87]	565 [22.24]
Weight max.**		kg [lb]	34 [75]	35 [77]	55 [121]	79 [174]	110 [242]	160 [352]	280 [617]	269 [592]	325 [716]	546 [1,201]	563 [1,239]

* Wheel motor with the longest multidiscs brake.
** Full displacement wheel motor with multidiscs brake.

Shaft motors



			MS02 MSE02	MSE03	MS05 MSE05	MS08 MSE08	MS11 MSE11	MS18 MSE18	MS25	MS35	MS50	MS83	MS125
L1	1C	mm [in]	258,1 [10.16]	- -	312 [12.28]	332 [13.07]	380 [14.96]	432 [17.00]	520 [20.47]	560 [22.04]	678 [26.69]	822 [32.36]	822 [32.36]
	2C	mm [in]	289,5 [11.4]	- -	312 [12.28]	341 [13.42]	380 [14.96]	432 [17.00]	538 [21.18]	560 [22.04]	705 [27.75]	822 [32.36]	822 [32.36]
L2 max.*	1C	mm [in]	310,5 [12.22]	- -	370 [14.56]	403 [15.86]	458,5 [18.05]	532,3 [20.95]	652 [25.67]	660 [25.98]	817 [32.16]	955 [37.60]	962 [37.87]
	2C	mm [in]	338 [13.3]	- -	370 [14.56]	418 [16.45]	458,5 [18.05]	532,3 [20.95]	670 [26.37]	660 [25.98]	850 [33.46]	955 [37.60]	962 [37.87]
A dia. max.		mm [in]	235 [8.07]	- -	300 [11.81]	335 [13.19]	375 [14.76]	425 [16.73]	485 [19.09]	425 [16.73]	485 [19.09]	565 [22.24]	565 [22.24]
Weight max.**		kg [lb]	36 [79]	- -	55 [121]	85 [187]	114 [251]	147 [324]	255 [561]	269 [592]	353 [778]	527 [1,159]	573 [1,261]

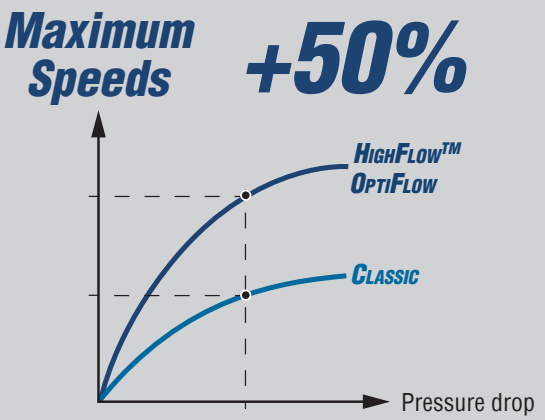
* Shaft motor with the longest multidiscs brake.
** Full displacement shaft motor with multidiscs brake.

HighFlow™ and OptiFlow

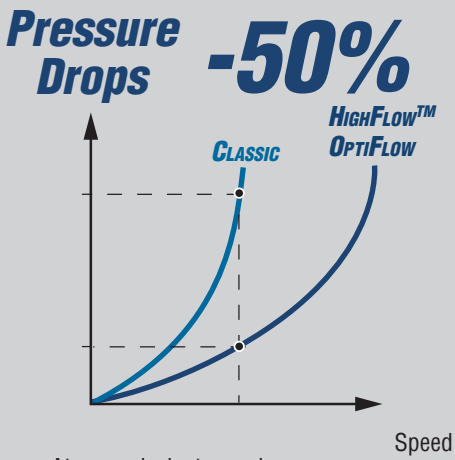
Maximum productivity with a minimum consumption

The MS HighFlow™ and OptiFlow motor range has all the successful qualities of the MS Classic range.
They are modular, robust and they offer additional performance in term of speed.

The MS OptiFlow motor keeps the same dimensions as the MS Classic motor.



At an equivalent pressure drop,
a HighFlow™ or OptiFlow motor can reach higher speeds.



At an equivalent speed,
a HighFlow™ or OptiFlow motor reduces pressure drops.

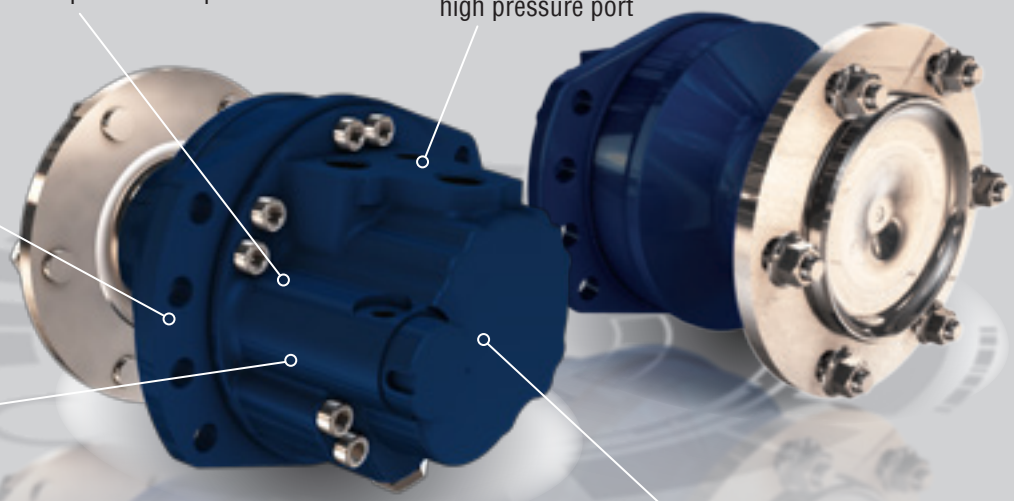
Performance MS HighFlow™ and OptiFlow

		First displacement*				Second displacement**			
	Max. Pressure bar [PSI]	Displacement range cm³/rev [cu.in/rev]	Max. Torque*** N.m [lbf.ft]	Max. Speed RPM	Max. Power kW [HP]	Displacement range cm³/rev [cu.in/rev]	Max. Torque*** N.m [lbf.ft]	Max. Speed RPM	Max. Power kW [HP]
MS02	450 [6,527]	172 - 255 [10.5] - [15.6]	1 800 [1,227]	850	18 [24]	86 - 128 [5.2] - [7.8]	916 [676]	900	12 [16]
MSE02	400 [5,802]	332 - 398 [20.2] - [24.3]	2 500 [1,843]	440	22 [29.5]	166 - 199 [10.1] - [12.1]	1 260 [930]	470	16,5 [22]
MS05	450 [6,527]	260 - 560 [15.9] - [34.2]	4 000 [2,950]	700	50 [67]	130 - 280 [7.9] - [17.1]	2 000 [1,475]	630	30 [40]
MSE05	400 [5,802]	503 - 750 [30.7] - [45.7]	4 770 [3,518]	380	50 [67]	252 - 375 [15.4] - [22.9]	2 390 [1,762]	370	30 [40]
MS08	450 [6,527]	467 - 934 [28.5] - [57.0]	6 690 [4,934]	450	41 [55]	234 - 467 [14.2] - [28.5]	3 345 [2,467]	450	27 [36]
MSE08	400 [5,802]	1 043 - 1 248 [63.6] - [76.1]	7 945 [5,859]	210	41 [55]	522 - 624 [31.8] - [38.1]	3 970 [2,928]	220	27 [36]

*Available for single or dual displacement motors
**Only available for dual displacement motors
***Max. theoretical torque (N.m) : 1/(20 π) x max. displacement (cm³/rev.) x max. pressure (bar)



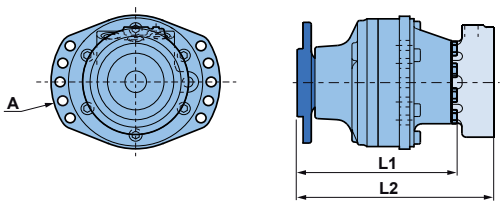
MS02
OptiFlow



Dimensions MS HighFlow™ and OptiFlow

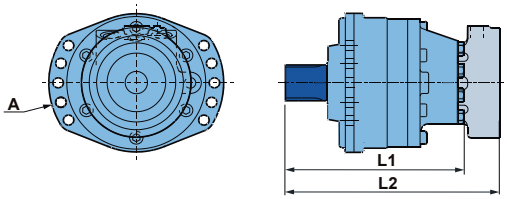
1C : One displacement
2C : Dual displacement

Wheel motors			HighFlow	OptiFlow	HighFlow	OptiFlow	HighFlow
			MS02 MSE02	MS02 MSE02	MS05 MSE05	MS05 MSE05	MS08 MSE08
L1	1C	mm [in]	247,9 [9.76]	226 [8.90]	312 [12.28]	278,7 [10.97]	295 [11.61]
	2C	mm [in]	256,6 [10.10]	-	332 [13.07]	-	336,8 [13.26]
L2 max.*	1C	mm [in]	310,4 [12.22]	-	380,5 [14.98]	-	383,2 [15.08]
	2C	mm [in]	318,2 [12.53]	-	400,5 [15.76]	-	425 [16.73]
A dia. max.		mm [in]	235 [9.25]	235 [9.25]	300 [11.81]	300 [11.81]	335 [13.19]
Weight max.**		kg [lb]	39,5 [87]	25 [55]	57,5 [127]	52 [114]	89,5 [197]



* Wheel motor with the longest multidiscs brake. ** Full displacement wheel motor with multidiscs brake.

Shaft motors			HighFlow	OptiFlow	HighFlow	OptiFlow	HighFlow
			MS02 MSE02	MS02 MSE02	MS05 MSE05	MS05 MSE05	MS08 MSE08
L1	1C	mm [in]	258,1 [10.16]	236,2 [9.29]	331,5 [13.05]	306,7 [12.07]	340 [13.38]
	2C	mm [in]	289,5 [11.4]	-	351,5 [13.84]	-	356 [14.02]
L2 max.*	1C	mm [in]	310,5 [12.22]	-	400 [15.75]	-	392 [15.43]
	2C	mm [in]	338 [13.3]	-	420 [16.53]	-	409 [16.10]
A dia. max.		mm [in]	235 [8.07]	235 [9.25]	300 [11.81]	300 [11.81]	335 [13.19]
Weight max.**		kg [lb]	41,5 [91]	27 [60]	60,5 [133]	55 [121]	90,5 [199]



* Shaft motor with the longest multidiscs brake. ** Full displacement shaft motor with multidiscs brake.

Bearing support types



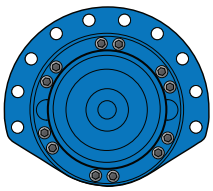





	Wheel flange	Male splined shaft	Keyed shaft	Female splined shaft	Shaft for shrink disc	Dual sprocket shaft
		NF E 22141 DIN 5480		DIN 5480		
MS02-E02	●	●	●			●
MSE03	●					
MS05-E05	●	●	●			●
MS08-E08	●	●	●			
MS11-E11	●	●				
MS18-E18	●	●	●		●	
MS25	●	●			●	
MS35	●	●			●	
MS50	●	●		●	●	
MS83	●	●		●	●	
MS125	●	●		●	●	

Chassis fixation types



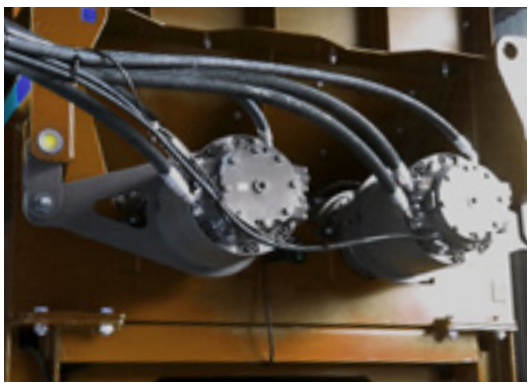
	On the valving cover Two lugs	On the bearing support Two lugs	On the bearing support Circular	Horse shoe
MS02-E02	●	●		
MSE03	●	●		
MS05-E05	●	●		●
MS08-E08	●	●		
MS11-E11	●	●		
MS18-E18	●	●		
MS25	●	●		
MS35	●	●	●	
MS50	●		●	
MS83	●		●	
MS125	●		●	

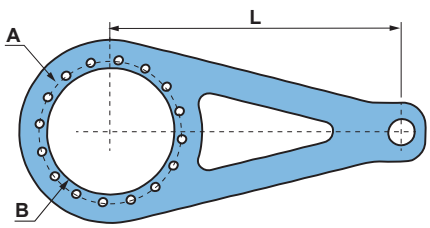




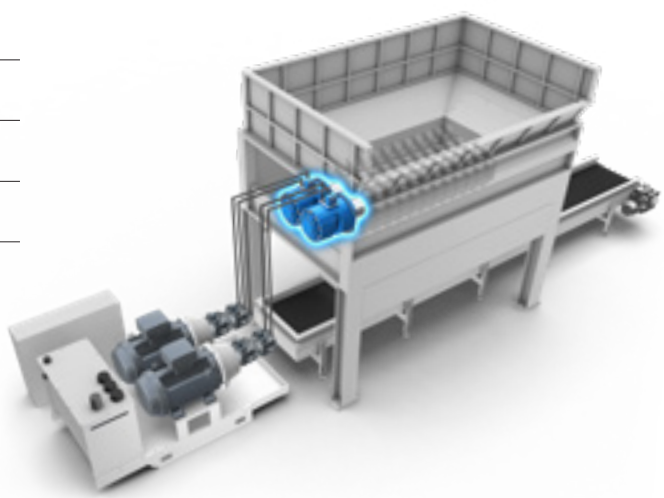
Torque arms and shrink discs

To ease the integration of our motors into your machines,
Poclain Hydraulics can supply motors with adapted torque arms and shrink discs.





	L min. mm [in]	A dia. mm [in]	B dia. mm [in]	Mounting	Thickness mm [in]
MS35	500 [19.68]	290 [11.42]	255 [10.04]	8 x M20	25 [0.98]
MS50	600 [23.62]	340 [13.39]	300 [11.81]	12 x M20	40 [1.57]
MS83	800 [31.5]	380 [14.96]	340 [13.38]	16 x M20	40 [1.57]
MS125	800 [31.5]	394 [15.51]	352 [13.85]	16 x M24	40 [1.57]



MS125 motor
with shrink discs



Brakes

Multidisc parking brake mounted at the rear of the motor

- T brake: brake with reinforced rear plate
- Parking brake release pressure: 12 to 30 bar [174 to 435 PSI]



MS05
with T04 brake

Max. parking braking torque

	N.m [lb.ft]	MS02 MSE02	MSE03	MS05 MSE05	MS08 MSE08	MS11 MSE11	MS18 MSE18	MS25	MS35	MS50	MS83	MS125
T03	2 500 [1,840]	●	●									
T04	4 220 [3,110]			●								
T09	9 000 [6,640]				●							
T14	11 840 [8,730]					●						
T20	19 000 [14,016]						●		●			
T30	30 000 [22,130]							●	●	●		
T83	42 000 [30,980]									●		
T80	72 000 [53,104]										●	●

Multidisc parking brake mounted in the bearing support

- Parking brake release pressure: 16 to 30 bar [232 to 435 PSI]
- Negative brake

MS08
with S08 and T09 brakes



Mini. parking braking torque

	N.m [lb.ft]	MS05/E05	MS11/E11	MS18/E18	MS35
P05	4 500 [3,320]	●			
P17	16 000 [11,801]		●		
P20	20 000 [14,751]			●	●
P27	19 800 [14,604]			●	●

MS18
with S20 or P20 brake



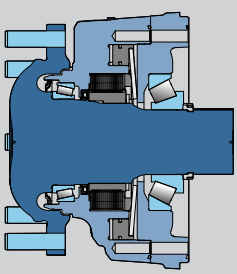
Multidisc service brake mounted in the bearing support

- Pressure to obtain max. service braking torque: 120 bar [1,740 PSI] for S17 and S20 and 140 bar [2,030 PSI] for S08
- Positive brake

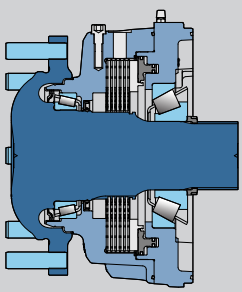
Average service braking torque

	N.m [lb.ft]	MS05/MSE05	MS08/MSE08	MS11/E11	MS18/E18	MS35
S08	13 000 [9,588]	●	●			
S17	22 000 [16,226]			●		
S20	25 000 [18,439]				●	●

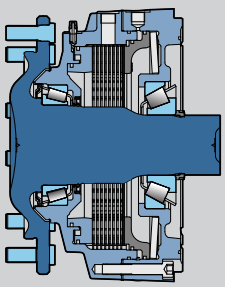
Parking brake
on the bearing support (P)



Service brake
on the bearing support (S)



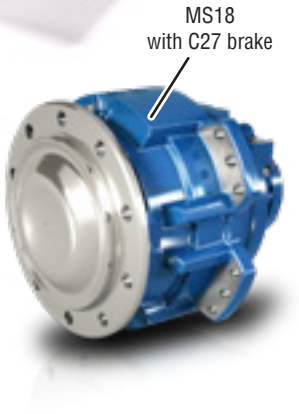
Combined parking & service brake
on the bearing support (C)



Multidisc parking and service brake mounted in the bearing support

- Parking brake release pressure: 12 to 30 bar [174 to 435 PSI] for C03 and 100 to 130 bar [1,450 to 1,885 PSI] for C27
- Negative brake
- Pressure to obtain max. service braking torque: 120 bar [1,740 PSI] for C03 and 70 bar [1,015 PSI] for C27
- Positive brake





Mini. parking and average service braking torque

		Parking	Service			
		N.m [lb.ft]	N.m [lb.ft]	MS02/E02	MS18/E18	MS35
C03	at the rear	2 645 [1,951]	1 580 [1,165]	●		
C27	in the bearing support	18 000 [13,276]	32 000 [23,602]		●	●

Caliper brake

Max. service braking torque

mm	N.m [lb.ft]	MS02 MSE02
Dia. 302	1 930 [1,423]	●



MS02
with caliper brake

BOOSTED BRAKE

More security for self-propelled machines

Improve the braking performance of self-propelled machines by using the entirely hydrostatic braking capacity of hydraulic motors. The technology - Boosted Brake - meets the braking requirements for machines running at 40 kph [24.8 mph].

On a self-propelled machine running at 40 kph [24.8 mph] the hydrostatic brake must be combined with a friction brake to meet European regulations of deceleration.
Poclain Hydraulics has developed a technology - Boosted Brake - to increase the hydrostatic braking capacity of self-propelled machines.

Motor sizes

- MS-MSE18
- MS35
- MHP11
- MHP13
- MHP17
- MHP20
- MHP27

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Optional features

Temperature control

	MS02-E02	MSE03	MS05-E05	MS08-E08	MS11-E11	MS18-E18	MS25	MS35	MS50	MS83	MS125
Exchange valve	●		●	●	●	●		●			
High efficiency (zero clearance pistons/ring)	●	●	●	●	●	●	●	●	●	●	●
Additional case flushing port	●	●	●	●	●	●	●	●	●	●	●

Speed

	MS02-E02	MSE03	MS05-E05	MS08-E08	MS11-E11	MS18-E18	MS25	MS35	MS50	MS83	MS125
High speed / Low pressure drop (Butterfly valving)	●	●	●	●	●	●	●	●	●	●	●
Speed sensor	●	●	●	●	●	●	●	●	●	●	●

Reinforcement

	MS02-E02	MSE03	MS05-E05	MS08-E08	MS11-E11	MS18-E18	MS25	MS35	MS50	MS83	MS125
Extra long life (Diamond™)	●	●	●	●	●	●	●	●	●	●	●
PEEK bushing (against high temperature)	●	●	●	●	●	●	●	●	●	●	●
Reinforced back plate	●	●	●	●	●	●	●	●	●	●	●
Monobloc cover			●	●							

High pressure connection

	MS02-E02	MSE03	MS05-E05	MS08-E08	MS11-E11	MS18-E18	MS25	MS35	MS50	MS83	MS125
SAE Flange			●	●	●	●	●	●	●	●	●
Metric	●		●	●	●	●		●			
UNF	●	●	●	●	●	●		●			
Manifold interface			●	●	●	●				●	●
GAS	●	●	●	●	●	●		●			●

Hollow shaft (only for splined shaft motor)

MS02-E02	MSE03	MS05-E05	MS08-E08	MS11-E11	MS18-E18	MS25	MS35	MS50	MS83	MS125
●		●	●	●	●	●	●	●	●	●

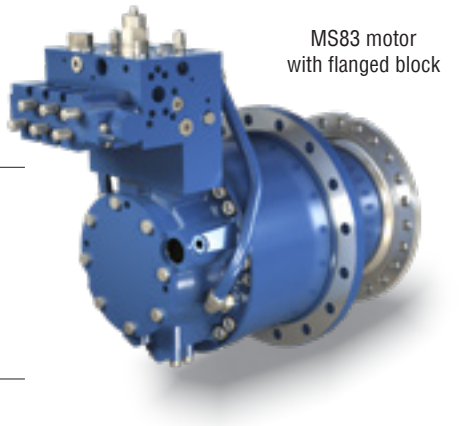


Flanged block for integrated power control unit

Single Poclain Hydraulics product: one part number, one source.

No hoses between the motor and the valve: less parts, les cost, less space, increased safety and better efficiency.

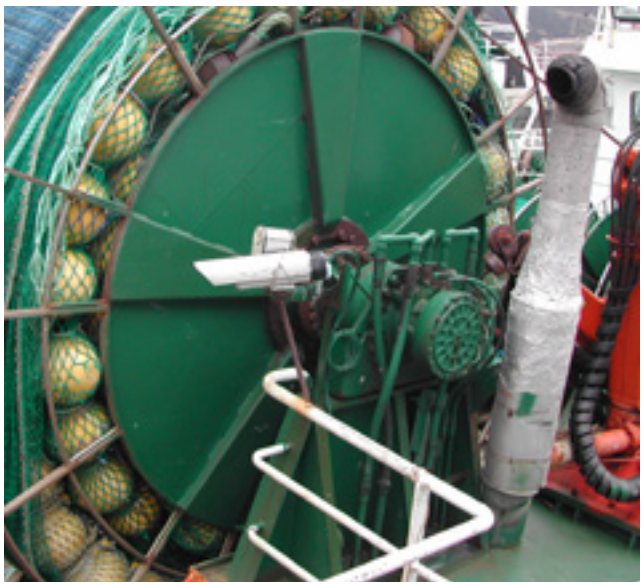
Modular design: all versions and options are available. Several functions in the same block



MS83 motor with flanged block

Available functions

- Anti-cavitation
- Cross-over relief
- Counter balance
- Free-wheeling
- Cold start
- Back pressure



TWIN-LOCK™ : FULLY HYDROSTATIC ANTI-SKID SOLUTION

Increase the off-road capability of your machines

Wheel adherence is a critical factor with off road vehicles. Lose adequate wheel contact with the ground and you can lose control of your machine, put it temporarily out of service, cause premature tire wear, dramatically increase fuel consumption or churn up the site. Poclain Hydraulics, a specialist in hydrostatic transmission, has designed and developed Twin-Lock™ to increase the performance of its hydrostatic drive systems on difficult ground conditions and steep gradients.

Motor sizes

- MS-MSE02
- MSE03
- MS-MSE05
- MS-MSE08
- MS-MSE11
- MS-MSE18
- MS35
- MS50



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