

# Products

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RELIABLE HIGH QUALITY PRODUCTS FOR IMPROVED PERFORMANCE





**High performance  
products.**

# Compact CA Motors

The optimal solution when size and weight is an issue.



## Power in a compact solution.

**The Compact CA is a compact hydraulic motor for applications where size and weight are significant issues.**

Hägglands developed the Compact CA motor for a very specific purpose: to provide a tough and powerful solution for heavy-duty applications where size and weight are significant issues. The result is a really compact hydraulic drive with the same durability, excellent performance and reliability as other Hägglands motors. With its small envelope size and lightweight, the Compact CA has an excellent power to weight ratio.

Popular features of the Compact CA motor are for example the numerous mounting options, the very useful through hole and the insensitivity to shock loads. When matched to your needs Compact CA provides real competitive advantages in your plant operations. The benefits of using a CA motor are many.



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Motor data, Compact CA

Motor-type*	Full displacement					Displacement shift				Ratio
	Displacement (cm <sup>3</sup> /rev)	Specific torque (Nm/bar)	Rated speed** (rev/min)	Max. speed (rev/min)	Max. pressure (bar)***	Displacement (cm <sup>3</sup> /rev)	Specific torque (Nm/bar)	Rated speed** (rev/min)	Max speed (rev/min)	
CA 50 20	1256	20	400	400	350					
CA 50 25	1570	25	350	400	350					
CA 50 32	2010	32	280	400	350					
CA 50 40	2512	40	230	350	350					
CA 50	3140	50	200	280	350	1570	25	200	280	1:2
CA 70 40	2512	40	270	400	350					
CA 70 50	3140	50	225	320	350	1570	25	225	320	1:2
CA 70 60	3771	60	195	275	350	1886	30	195	275	1:2
CA 70	4400	70	180	240	350	2200	35	180	240	1:2
CA 100 40	2512	40	390	400	350					
CA 100 50	3140	50	320	400	350					
CA 100 64	4020	64	260	390	350					
CA 100 80	5024	80	220	310	350	2512	40	220	310	1:2
CA 100	6280	100	190	270	350	3140	50	190	270	1:2
CA 140 80	5024	80	245	340	350					
CA 140 100	6280	100	205	275	350	3140	50	205	275	1:2
CA 140 120	7543	120	180	245	350	3771	60	180	245	1:2
CA 140	8800	140	170	220	350	4400	70	170	220	1:2
CA 210 160	10051	160	105	150	350	5026	80	105	150	1:2
CA 210 180	11314	180	100	135	350	5675	90	100	135	1:2
CA 210	13200	210	85	115	350	6600	105	85	115	1:2

\*) All motor types can be tandem mounted.

\*\*) Special considerations regarding charge pressure, cooling and choice of hydraulic system for speeds above rated.

\*\*\*) The motors are designed according to DNV-rules. Test pressure 420 bar/6000 psi. Peak/transient pressure 420 bar/6000 psi maximum, allowed to occur 10 000 times. More options with different torques and speeds are available. This data covers the main sizes of our Compact motors.

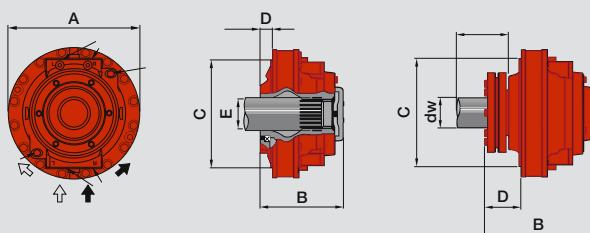
Dimensions, motors with splines

Motortype	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)	Main Conn.	Drain Conn.
CA50	464	312.5	390	46.5	N120x5x30x22x9H	175	SAE 1 1/4 "	BSP 3/4 "
CA 70	495	312.5	435	46.5	N120x5x30x22x9H	205	SAE 1 1/4 "	BSP 3/4 "
CA100	560	399.5	470	135.5	N140x5x30x26x9H	265	SAE 1 1/4 "	BSP 3/4 "
CA 140	600	399.5	510	135	N140x5x30x26x9H	305	SAE 1 1/4 "	BSP 3/4 "
CA 210	600	501	510	156.5	N150x5x30x28x9H	395	SAE 1 1/4 "	BSP 3/4 "

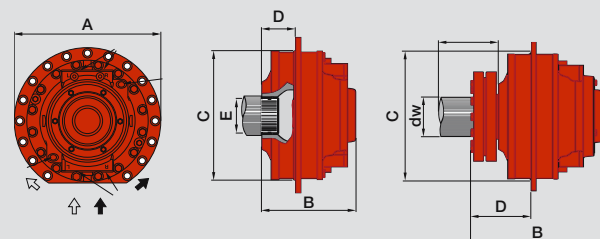
Dimensions, motors with shrink disc coupling

Motortype	A (mm)	B (mm)	C (mm)	D (mm)	DW (mm)	Weight (kg)	Main Conn.	Drain Conn.
CA50	464	404.5	390	138	120	203	SAE 1 1/4 "	BSP 3/4 "
CA 70	495	404.5	435	138	120	232	SAE 1 1/4 "	BSP 3/4 "
CA100	560	505	470	241	140	310	SAE 1 1/4 "	BSP 3/4 "
CA 140	600	505	510	241	140	347	SAE 1 1/4 "	BSP 3/4 "
CA 210	600	644.5	510	300	160	456	SAE 1 1/4 "	BSP 3/4 "

Compact CA 50, CA 70

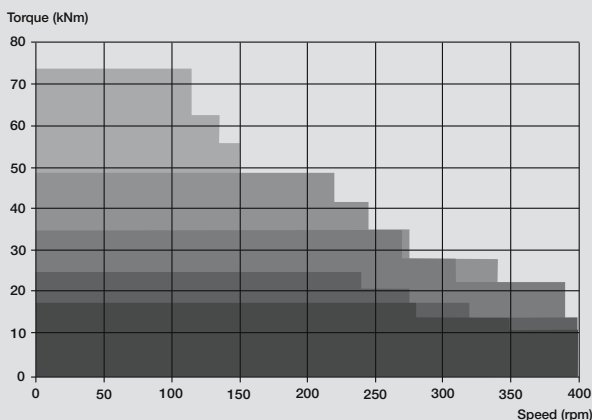


Compact CA 100, CA 140, CA 210



Wide operating range

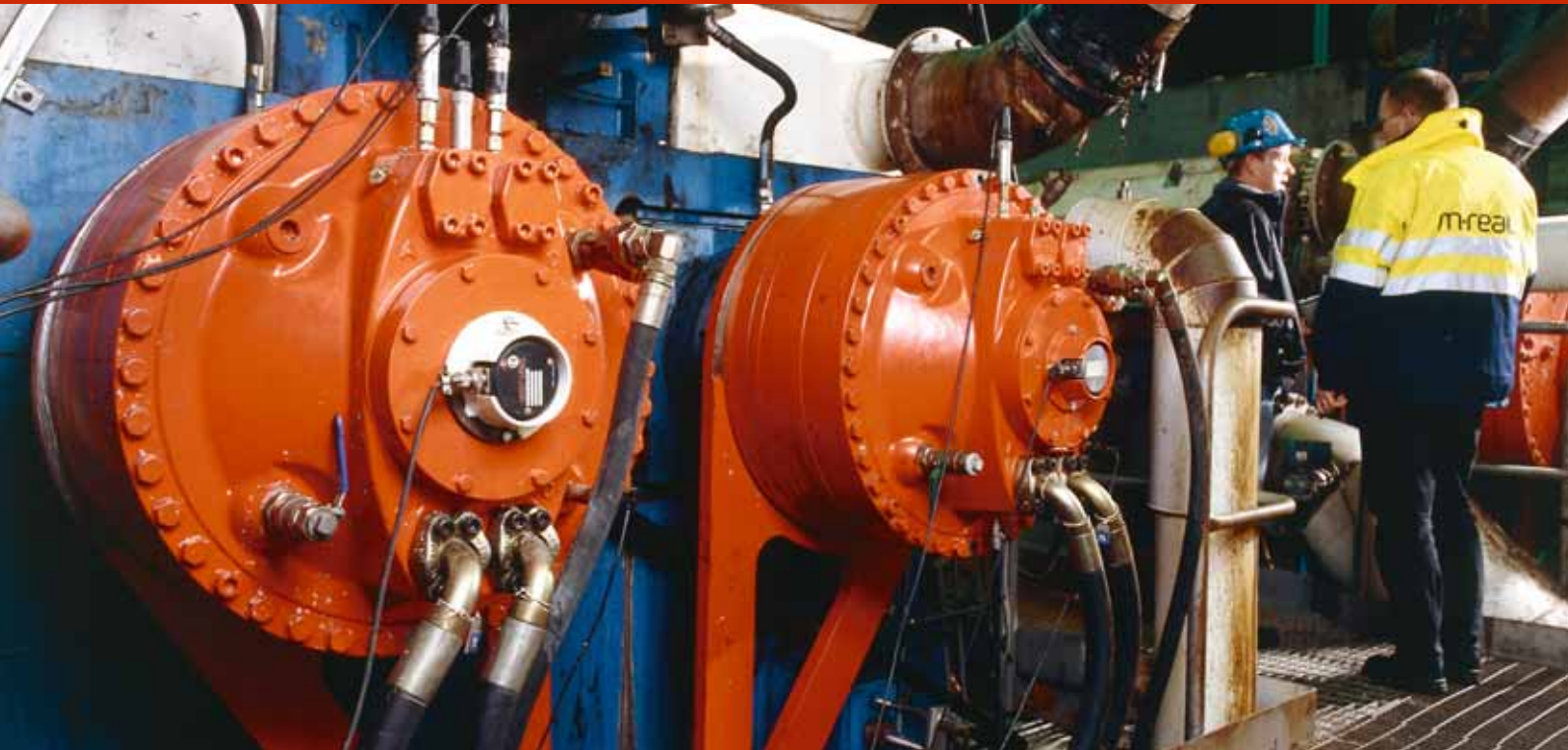
Max intermittent torque and speed.



For continuous duty please contact your nearest Häggulunds Drives representative.

# Compact CB Motors

More power built into a smaller package.



## More power – smaller package.

**More power built into a smaller package has resulted in a truly compact drive solution for a wide range of heavy-duty applications.**

The Compact CB range is suitable for many heavy-duty applications such as shredders, feeders and roll mills. Some of its many benefits are the space saving design and the versatile mounting possibilities.

The wide range of sizes and displacements enables optimisation of the drive system when selecting the motor and the hydraulic pump combinations. The hole through the motor is another advantage, which can be very useful in some applications, for instance in drilling and boring.

The motor reacts quickly and the heavy duty design can take shock loads and stop instantly when required. Compact CB is truly a tough, economical and reliable drive.

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Motor data, Compact CB

Motor-type	Displacement (cm <sup>3</sup> /rev)	Specific torque (Nm/bar)	Rated speed* (rev/min)	Max. speed (rev/min)	Max. pressure** (bar)	Max torque*** (kNm)
CB 280-240	15100	240	53	68	350	79
CB 280	17600	280	44	58	350	92
CB 400-240	15100	240	94	125	350	79
CB 400-280	17600	280	73	105	350	92
CB 400-320	20100	320	71	94	350	110
CB 400-360	22600	360	59	82	350	120
CB 400	25100	400	58	75	350	130
CB 560-440	27600	440	49	65	350	140
CB 560-480	30200	480	48	62	350	160
CB 560-520	32700	520	41	57	350	170
CB 560	35200	560	40	53	350	180
CB 840-600	37700	600	30	45	350	200
CB 840-640	40200	640	28	41	350	210
CB 840-680	42700	680	27	40	350	220
CB 840-720	45200	720	25	37	350	240
CB 840-760	47800	760	23	34	350	250
CB 840-800	50300	800	23	34	350	260
CB 840	52800	840	21	32	350	280
CB 1120-880	55 300	880	25	34	350	290
CB 1120-920	57 800	920	24	33	350	300
CB 1120-960	60 300	960	24	32	350	315
CB 1120-1000	62 800	1000	22	31	350	330
CB 1120-1040	65 300	1040	21	29	350	340
CB 1120-1080	67 900	1080	20	28	350	355
CB 1120	70 400	1120	20	27	350	370

\*) Special considerations regarding charge pressure, cooling and choice of hydraulic system for speed above rated.

\*\*) The motors are designed according to DNV-rules. Test pressure 420 bar/6000 psi. Peak/transient pressure 420 bar/6000 psi maximum, allowed to occur 10 000 times.

\*\*\*) Calculated as  $T = T_s \times (350-15) \times 0.98$ .

More options with different torques and speeds are available. This data covers the main sizes of our Compact motors.

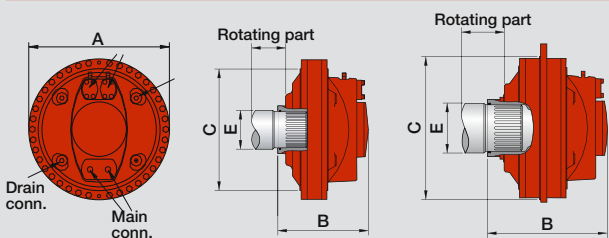
Dimensions, motors with splines

Motor type	A (mm)	B (mm)	C (mm)	E (mm)	Weight (kg)	Main Conn.	Drain Conn.
CB 280	782	501	680	N200x5x30x38x9H	705	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 400	782	619	680	N200x5x30x38x9H	1060	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 560	940	669	800	N260x5x30x50x9H	1115	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 840	940	787	800	N260x5x30x50x9H	1445	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 1120	940	904	800	N260x5x30x50x9H	1770	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"

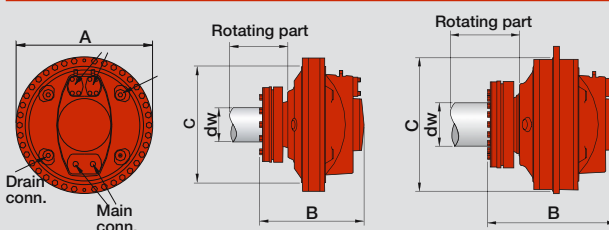
Dimensions, motors with hollow shaft, shrink disc coupling

Motor type	A (mm)	B (mm)	C (mm)	dw (mm)	Weight (kg)	Main Conn.	Drain Conn.
CB 280	782	612	680	180	800	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 400	782	740	680	200	1160	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 560	940	767	800	260	1290	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"
CB 840	940	885	800	260	1620	SAE 1 1/4" and 1 1/2"	BSP 1 1/4"

Compact CB Splines

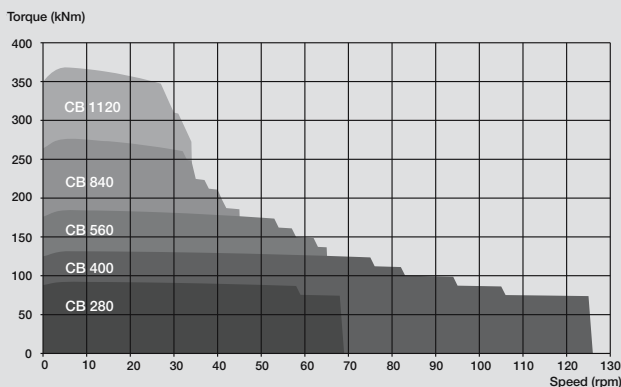


Compact CB Shrink disc coupling



Wide operating range

Max intermittent torque and speed.



Valid at high pressure 350 bar and charge pressure 15 bar. For continuous duty please contact your nearest Hägglunds Drives representative.

# Compact CBP Motors

Engineered for higher power and excellent performance



## Powerful opportunities

**The Compact CBP motor range is part of the Gemini drive system concept, bringing new possibilities and higher power.**

The Compact CBP motor series is a truly powerful motor range. It has all the attractive characteristics of the direct drive hydraulic motors for which Hägglunds has been renowned for more than 40 years. It is compact, with low weight and immensely powerful. In fact, the most powerful motor (power per kilo) that Hägglunds has ever made. This motor can operate continuously at high power. It can be flange-mounted\* or torque arm mounted and all of the motors are fitted with splines and have through-holes. The CBP motor range opens new opportunities for drive solutions in new applications, because this motor can drive at higher speeds with increased efficiency.

\* Not CBP 840



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Motor data, Compact CBP

Motor-type	Displacement	Specific torque (cm <sup>3</sup> /rev)	Rated speed (Nm/bar)	Max. speed (rev/min)	Max. pressure (rev/min)
CBP 140 80	5024	80	320	400	350
CBP 140 100	6280	100	270	390	350
CBP 140 120	7543	120	230	320	350
CBP 140	8800	140	210	275	350
CBP 280-160	10 100	160	170	170	350
CBP 280-200	12 600	200	170	170	350
CBP 280-240	15100	240	170	170	350
CBP 280	17600	280	150	170	350
CBP 400-240	15100	240	170	170	350
CBP 400-280	17600	280	170	170	350
CBP 400-320	20100	320	170	170	350
CBP 400-360	22600	360	170	170	350

Motor data, Compact CBP

Motor-type	Displacement	Specific torque (cm <sup>3</sup> /rev)	Rated speed (Nm/bar)	Max. speed (rev/min)	Max. pressure (rev/min)
CBP 400	25100	400	170	170	350
CBP 560-440	27600	440	135	135	350
CBP 560-480	30200	480	135	135	350
CBP 560-520	32700	520	135	135	350
CBP 560	35200	560	135	135	350
CBP 840-600	37700	600	110	135	350
CBP 840-640	40200	640	100	135	350
CBP 840-680	42700	680	100	135	350
CBP 840-720	45200	720	95	135	350
CBP 840-760	47800	760	90	125	350
CBP 840-800	50300	800	85	120	350
CBP 840	52800	840	80	115	350

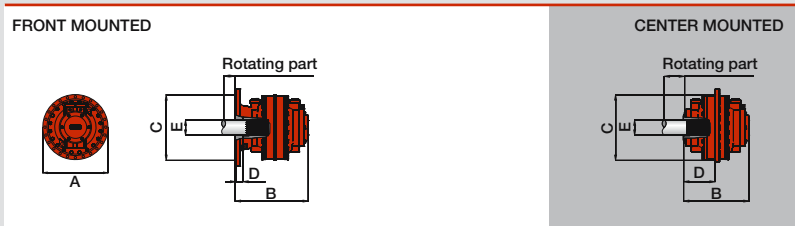
Dimensions, motors with splines for front mounting

Motortype	A (mm)	B (mm)	C (mm)	D (mm)	E
CBP 140	600	570	510	54	N120x5x30x22x9H
CBP 280	782	860	680	11,6	N200x5x30x38x9H
CBP 400	782	978	680	11,6	N200x5x30x38x9H
CBP 560	940	1037	800	65,5	N260x5x30x50x9H

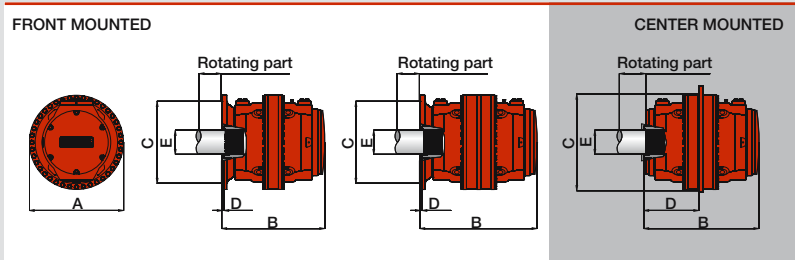
Dimensions, motors with splines for center mounting

Motortype	A (mm)	B (mm)	C (mm)	D (mm)	E
CBP 140	600	511	510	246	N120x5x30x22x9H
CBP 400	940	960	800	457	N200x5x30x38x9H
CBP 560	940	1037	800	534	N260x5x30x50x9H
CBP 840	940	1155	800	534	N260x5x30x50x9H

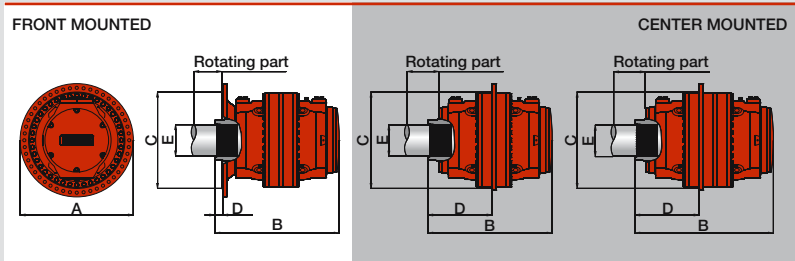
Compact CBP 140



Compact CBP 280, 400

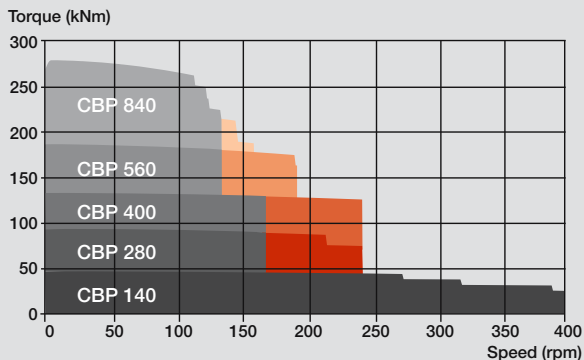


Compact CBP 560, 840



Wide operating range

Max intermittent torque and speed.



■ Shaft seal is limiting max continuous speed.  
Valid at high pressure 350 bar and charge pressure 15 bar.  
For continuous duty please contact your nearest Hågglunds Drives representative.

# Marathon Motors

Designed for tough high torque applications.



## Size really matters.

**The Marathon range is engineered for tough high torque applications and includes by far the largest hydraulic motors in the world.**

The heavy-duty motor design and the high reliability makes this motor suitable for severe working conditions. Excellent controllability and resistance to shock loads are other factors contributing to its success.

The Marathon motor has performed very well in all kinds of environments even in dusty, corrosive and explosive risk areas. In extreme heat or freezing cold, the Marathon is the obvious choice for tough, high-torque applications and provides many years of reliable service.



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Motor data, Marathon Motors

Motor-type	Displacement (cm <sup>3</sup> /rev)	Specific torque (Nm/bar)	Rated speed** (rev/min)	Max. speed (rev/min)	Max. pressure*** (bar)	Max torque**** (kNm)
MA 141	8890	141	56	80	350	46
MA 200	12575	200	45	55	350	65
MB 283	17768	283	40	50	350	92
MB 400	25145	400	28	35	350	130
MB 566	35561	566	28	35	350	184
MB 800-283*	17768	283	80	130	350	92
MB 800-400	25145	400	38	50	350	130
MB 800-400*	25145	400	56	95	350	130
MB 800-575*	36121	575	42	65	350	187
MB 800	50265	800	20	25	350	260
MB 800-800*	50265	800	28	45	350	260
MB 1150-400	25145	400	90	125	350	130
MB 1150-566	35561	566	70	110	350	184
MB 1150-683	42899	683	62	90	350	222
MB 1150-800	50258	800	55	75	350	260
MB 1150-975	61249	975	40	62	350	317
MB 1150	72241	1150	38	53	350	374
MB 1600-1375	86392	1375	30	43	350	447
MB 1600	100529	1600	29	38	350	520
MB 2400-1725	108383	1725	22	33	350	560
MB 2400-1950	122520	1950	22	30	350	634
MB 2400-2175	136657	2175	18	27	350	707
MB 2400	150794	2400	16	24	350	780
MB 3200	201059	3200	10	16	350	1040
MB 4000	251323	4000	8	12	350	1300

\*) Magnum port end

\*\*) Special considerations regarding charge pressure, cooling and choice of hydraulic system for speeds above rated.

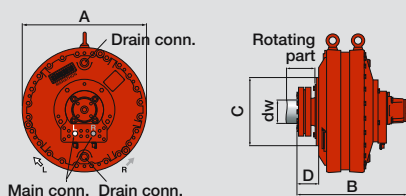
\*\*\*) The motors are designed according to DNV-rules. Test pressure 420 bar/6000 psi. Peak/transient pressure 420 bar/6000 psi maximum, allowed to occur 10 000 times.

\*\*\*\*) Calculated as  $T = T_s \times (350-15) \times 0.97$ .

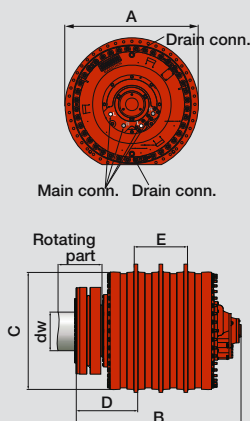
Dimensions, motors with hollow shaft, shrink disc coupling

Motor	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	dw	Weight (kg)	Main Conn.	Drain Conn.
MA 141	828	738	460	146		140	990	SAE 1 1/2"	BSP 1 1/4" (D1, D2) BSP 1" (D3)
MA 200	900	754	460	145		155	1130		
MB 283	958	765	530	165		180	1395		
MB 400	1044	784	530	172		200	1625		
MB 566	1168	836	700	198		260	2108		
MB 800	1288	856	700	198		260	2508	SAE 2"	BSP 1 1/4" (D1-4)
MB 1150	1460	1205	1288	567		340	4600		
MB 1600	1460	1205	1288	567		340	4600		
MB 2400	1460	1531	1288	620	313	360	6460		
MB 3200	1460	1822	1288	651	586	460	8930		
MB 4000	1460	2095	1288	651	859	460	10750		

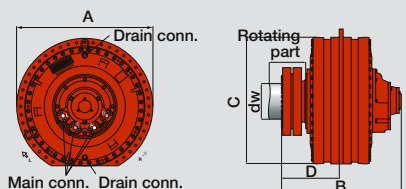
Marathon MA 141, 200, MB 283–MB 800



Marathon MB 3200, 4000

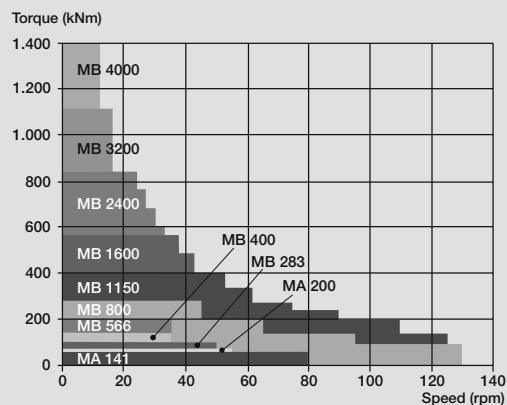


Marathon MB 1150, 1600, 2400



Wide operating range

Max intermittent torque and speed.



For continuous duty please contact your nearest Hägglunds Drives representative.



## Intelligent power.

**The Viking was originally engineered to bring unparalleled performance, reliability and control to marine applications.**

The Viking was the first hydraulic motor to leave the Hägglunds assembly line. It was originally designed to bring performance, reliability and control to marine applications. The same features have however have also proven valuable in the industrial field; e.g. Pulp & Paper and the Mining Industry.

In marine applications, particularly with tough winches, the Viking motor is known to provide the best available control of torque (line pull) regardless of speed. This reduces maintenance costs and increases productivity by reducing the risk of snagging or equipment breakdowns. True free-wheeling and a very low moment of inertia are some other features that has made the Viking so popular in even the most demanding environments. True to its name, the Viking is a genuinely tough motor.

Motor-type	Full displacement				Max. pressure (bar)**	Displacement shift				Ratio
	Displacement (cm <sup>3</sup> /rev)	Specific torque (Nm/bar)	Rated speed* (rev/min)	Max. speed (rev/min)		Displacement (cm <sup>3</sup> /rev)	Specific torque (Nm/bar)	Rated speed* (rev/min)	Max speed (rev/min)	
44-03300	3320	53	100	200	320	1660	26	100	200	1:2
44-04700	4710	75	100	200	320	2355	37	100	200	1:2
44-06800	6790	108	90	170	320	3395	54	90	170	1:2
44-09200	9240	147	80	145	320	4620	73	80	145	1:2
64-11100	11080	176	70	120	320	5540	88	70	120	1:2
64-13500	13500	215	60	110	250	6750	107	60	110	1:2
64-16300	16340	260	50	100	250	8170	130	50	100	1:2
84-14800	14840	236	55	90	320					
84-17900	17960	286	55	90	320					
84-21300	21380	340	55	80	320					
84-25100	25090	399	55	75	320					
84-38000	38000	605	40	60	250					
84-22300	22300	355	55	55	320	11150	177	60	85	1:2
84-33800	33780	538	35	35	250	16890	269	50	70	1:2
84-25100	25090	399	40	55	250	8363	133	45	75	1:3
84-38000	38000	605	25	35	250	12667	202	35	60	1:3
84-25100	25090	399	40	55	250	16727	266	45	75	2:3
84-38000	38000	605	25	35	250	25333	403	35	60	2:3

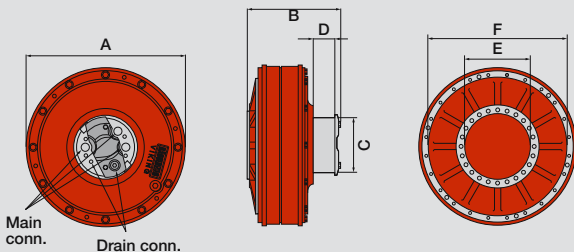
\*) Special considerations regarding charge pressure, cooling and choice of hydraulic systems for speed above rated.

\*\*) The motors are designed according to DNV-rules. Test pressure 70 bar/1000 psi above max. pressure. Peak/transient pressure 70 bar/1000 psi above max. pressure, allowed to occur 10 000 times.

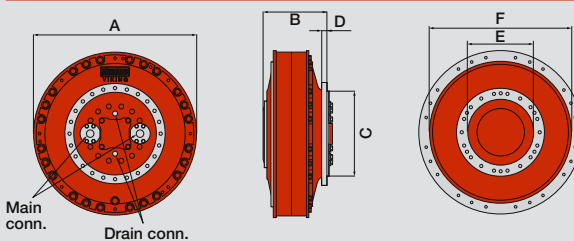
Dimensions

Motor	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kg)	Main Conn.	Drain Conn.	Mounting
44-series	770	438	260	100	320	676	520	BSP 1 1/4"	BSP 3/4"	Key joint
64-series	858	450	260	100	390	766	750	BSP 1 1/4"	BSP 3/4"	Key joint
84-series	1100	450	560	71	440	955	1550	SAE 2"	BSP 1"	Screw/Flange

Viking series 44 and 64

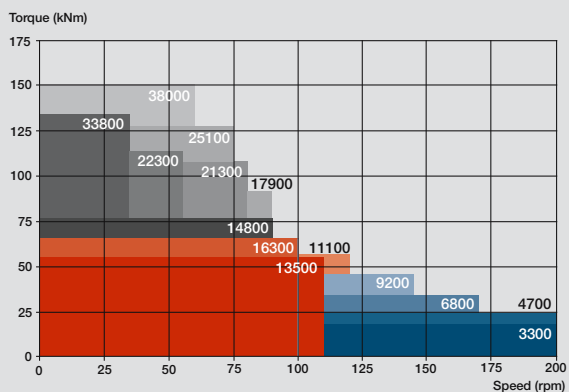


Viking series 84



Wide operating range

Max intermittent torque and speed.



Areas in grey = 84 series • Areas in red = 64 series • Areas in blue = 44 series

For continuous duty please contact your nearest Hägglunds Drives representative.

# Power Units

Few components - many combinations



## Few components – many combinations.

**Hagglunds wide power unit range is developed to match our motors in quality and performance, bringing total reliability to the drive system.**

All Hägglunds power units are easy to install and are fully function tested before delivery. Customisation is normal and our very economical monitoring and control system, Spider is, due to its unique qualities, often enclosed in the package bringing excellent controllability to the drive system.

Irrespective of which type of power unit is selected, all supplied units are built to function perfectly with our motors. Thereby giving you the same high quality throughout the entire drive system.



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## Data – PEC Power Unit

Type	Max. installed power (kW)	Max. oil flow* (l/min)	Max. pressure (bar)	Weight (kg)
PEC 102	90	175	350	1500
PEC 202	90	337	350	1500
PEC 103	90(2x90)	175	350	2300
PEC 203	180(2x90)	350(2x175)	350	2500
PEC 302	315	737	350	2900
PEC 402	355	737	350	2900
PEC 602	355	737	350	2900
PEC 303	400(2x200)	674(2x337)	350	3600
PEC 403	400(2x200)	674(2x337)	350	3700
PEC 603	630(2x315)	1474(2x737)	350	5100
PEC 702	500	1103	350	4500
PEC 702**	500	1257	350	4500
PEC 803	710(2x355)	1474(2x737)	350	5500
PEC 1003	710(2x355)	1474(2x737)	350	5500
PEC 1203	1000(2x500)	2206(2x1103)	350	8600
PEC 1203**	1000(2x500)	2514(2x1257)	350	8600

\*) 1470 rpm.

\*\*) Tandem.

## Features

- Modular system – many possible combinations of oil flow and installed power.
- Can be positioned close to the machine or in any convenient location.
- Can easily be equipped with any of Hägglunds advanced control systems.
- Low noise level.
- Small space required.
- Very easy to install and maintain.

## Data – HPU Power Unit

Type	Max. installed power (kW)	Max. oil flow* (l/min)	Max. pressure (bar)	Weight (kg)
HPU 0070	30	147	350	550
HPU 0170	55	220(2x110)	350	800
HPU 0170	90	264	350	1050
HPU 0350	200	264	350	1900
HPU 0350	200	328(2x264)	350	2050

\*) 1470 rpm.

## Data – LPU Power Unit

Type	Max. installed power (kW)	Max. oil flow* (l/min)	Max. pressure (bar)	Weight (kg)
LPU 0100	22	0-50	350	492
LPU 0300	45	0-118	350	770

\*) 1470 rpm.

## Basic dimensions, PEC Power Unit

Cabinet size	1	2	3	4	5	6	7	6	7
Type*	PEC 102	PEC 103	PEC 302	PEC 303	PEC 803	PEC 702	PEC 1203	PEC 702**	PEC 1203**
Dim. mm	PEC 202	PEC 203	PEC 402	PEC 403	PEC 1003				
			PEC 602	PEC 603					
H	2320	2320	2600/2700	2600/2700	2600/2700/2800	2800/2900	2800/2900	3100/3200	3100/3200
			2800/2900	2800/2900	2900/3000	3000/3100	3000/3100	3300/3400	3300/3400
B	1500	2290	1670	2590	3100	1920	3600	1920	3600
A	1000	1000	1250	1250	1250	1850	1850	1850	1850

\*) Cabinet designations ending with a 2, represent a two-door cabinet.

Cabinet designations ending with a 3, represent a three-door cabinet.

\*\*) Cabinets suited for tandem mounting of pump.

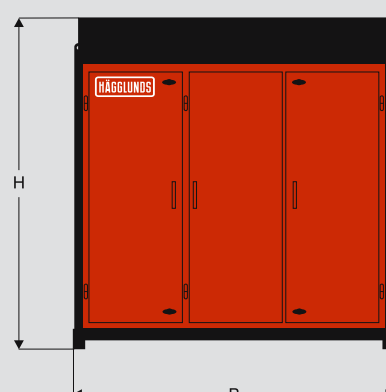
Power Unit cabinet with two doors



Power Unit cabinet from the side



Power Unit cabinet with three doors



## Data – PAC Power Unit

Type	Max. installed power (kW)	Max. oil flow* (l/min)	Max. pressure (bar)	Weight (kg)
PAC 202	93	409	350	2223
PAC 203	2x94	2x409**	350	2948
PAC 402	298	893	350	3403
PAC 602	447	2x620	350	5443
PAC 603	298	2x893	350	5103
PAC 803/1003	2x447	2x893	350	5500
PAC 1203	2x596.6	2x890	350	9072

\*) 1785 rpm.

\*\*) Only one set of electric motor/pump is permitted to operate. The other set serves as stand by.

## Data – PBC Power Unit

Type	Max. installed power (kW)	Max. oil flow* (l/min)	Max. pressure (bar)	Weight (kg)
PBC 202	112	409	350	1951
PBC 203	2x93	2x409**	350	2586
PBC 402	373	893	350	3039
PBC 603	2x373	2x893	350	3901

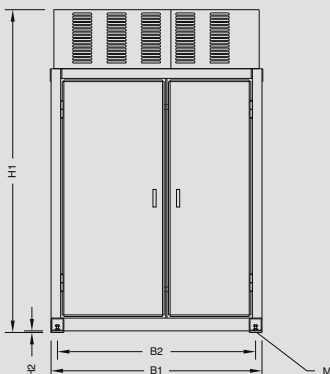
\*) 1785 rpm.

\*\*) Only one set of electric motor/pump is permitted to operate. The other set serves as stand by.

## Basic dimensions, PAC Power Unit

Cabinet size	1	2	3	4	5	6	7
Type	PAC 202	PAC 203	PAC 402	PAC 603	PAC 803	PAC 1203	PAC 602
Dim. mm					PAC 1003		
H1	2261/2362	2261	2565.4/3022.6	2565.4/3022.6	3073.4/3505.2	3073.5/3987.8	2997.2/3502.2
H2	13	13	19.05	19.05	19.05	19.05	19.05
B1	1400	2099	1676	2667	2667	3657.6	2095.5
B2	1299	1949	1575	2540	2540	3556	1994
A1	1000	1000	1353	1353	1353	1829	1829
A2	899	899	1251	1251	1251	1727.2	1727.2
M	M12x1.75	M12x1.75	M16x2	M16x2	M16x2	M16x2	M16x2

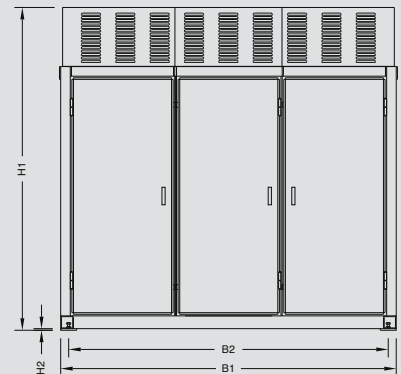
Power Unit cabinet with two doors



Power Unit cabinet from the side



Power Unit cabinet with three doors





# Complex controls made simple.

**The versatile and highly cost-effective Spider control system gives you excellent control of your drive system.**

The Spider is Hägglunds most advanced control system; easy to understand, install and use.

The Spider is highly customised and gives you extremely good control of your drive system. It presents the information you need on its convenient front mounted displays. You can easily set the configuration needed for each application, either by using the keypads or a standard PC. Thanks to its modularity, the Spider can quickly and easily be configured to control different types of drive systems.

The design is as all other Hägglunds equipment durable and compact. The control system is so compact in its design that the placement of the system is easy. You can place it inside, outside, fitted onto a panel or in an adjacent room. The Spider is a system for real customisation.

## Features

Compact size	<ul style="list-style-type: none"><li>• w 400 x h 300 x d 145</li></ul>
Robust design	<ul style="list-style-type: none"><li>• Stainless steel enclosure</li><li>• Protection class IP65</li></ul>
Optional mounting	<ul style="list-style-type: none"><li>• Flange for door or control desk</li><li>• Brackets for wall or inside power unit</li></ul>
Supply voltage	<ul style="list-style-type: none"><li>• 90-132, 180-264 VAC, 50-60 Hz or 24 VDC</li></ul>
Configuration	<ul style="list-style-type: none"><li>• Configured via front panel or via PC interface</li><li>• Password protected configuration</li></ul>
Control of one or two driven shafts	<ul style="list-style-type: none"><li>• Control of one to four pumps (PWM outputs max 2 A each- total max 5A)</li></ul>
Fieldbus interface	<ul style="list-style-type: none"><li>• Profibus or Modbus</li></ul>
Power Unit health monitoring	<ul style="list-style-type: none"><li>• Monitoring of power unit standard switches and analog signals</li><li>• Configurable monitoring inputs</li><li>• Text indication in selectable language on unit displays</li><li>• Output grouped to interlocking (alarm) and indication (warning) levels.</li></ul>
Closed loop speed feedback	<ul style="list-style-type: none"><li>• PID regulator</li><li>• Digital or analog speed encoder inputs</li></ul>



Electric motor power limitation	<ul style="list-style-type: none"><li>• Current transformer input</li><li>• Limitation by pump swash-angle control</li></ul>
Shredder control	<ul style="list-style-type: none"><li>• Machine overload detection by pressure switches, analog pressure or speed.</li><li>• Directional interval timer</li><li>• Reversal counter</li></ul>
Friction control	<ul style="list-style-type: none"><li>• Adjustable friction 0-300% for one or two slaves</li></ul>
Synchro control	<ul style="list-style-type: none"><li>• Position between two driven shafts</li><li>• Pulse counter inputs</li></ul>
Drive monitoring log	<ul style="list-style-type: none"><li>• Alarm and warning log</li><li>• Time counters</li><li>• 8 scaleable log channels</li><li>• Output for PC in Excel format</li></ul>

# Torque arm drive systems

When less is more – a space-saving turnkey solution



## When less is more – a space-saving turnkey solution.

**Torque Arm Drive Systems are a compact and versatile hydraulic drive system for applications with need of space saving solutions.**

The Torque Arm Drive System (TADS) is a turnkey direct drive system ideal for heavy-duty applications with the need of flexibility and versatility. The drive system offers a wide range of sizes and is a completely self-contained drive package that comes preassembled.

The hydraulic motor's case is utilized as the main reservoir, with only a few frame components. The drive provides fast and easy installation and commissioning. TADS come with either internal splines or a hollow shaft with a compression coupling that easily mounts directly to your machine. No need for foundations or couplings. TADS is a rugged, reliable and versatile drive solution for improved performance on demanding applications.

**HÄGGLUNDS**

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## Motor data, Marathon TADS

Motor-type	Max. installed power (kW)	Speed range* (rev/min)	Specific Torque (Nm/bar)	Max. Torque** (kNm)
TADS 141	44,8	0-10	141	46
TADS 200	44,8	0-7	200	65
TADS 283	55,9	0-5	283	92
TADS 400	55,9	0-3,5	400	130
TADS 566	93,2	0-5,5	566	184
TADS 800	93,2	0-4	800	260
TADS 1150	93,2	0-5,25	1150	378
TADS 1600	93,2	0-3,75	1600	520
TADS 2400	93,2	0-2,5	2400	780

\*) For speeds above this range, please contact Häggjunds Drives.

\*\*) Calculated as  $T = T_s \times (350-15) \times 0.98$  • Calculated as  $T = T_s \times (5000-140) \times 10^{-3}$

## Motor data, CB TADS

Motor-type	Max installed power (kW)	Speed range (rev/min)	Spec. torque (Nm/bar)	Max. torque (kNm)
TADS 280	55,9	0-10	280	92
TADS 400	55,9	0-7	400	130
TADS 560	74,6	0-5	560	180
TADS 840	74,6	0-3,5	840	280

More options with different torques and speeds are available. This data covers the main sizes of our TADS. Contact your nearest Häggjunds Drives representative for more information.

## Dimensions, Marathon TADS

Motortype	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)
TADS 141	1295	914.5	431.8	711.2	431.8	1769
TADS 200	1295	965.2	457.2	711.2	457.2	1905
TADS 283	1448	1067	482.6	711.2	482.6	2268
TADS 400	1448	1067	533.4	711.2	533.4	2540
TADS 566	1651	1194	584.2	1016	584.2	3538
TADS 800	1651	1194	660.4	1016	660.4	4037
TADS 1150	2540	1372	812.8	1016	812.8	6169
TADS 1600	2540	1372	812.8	1016	812.8	6169
TADS 2400	2997	1372	812.8	1016	812.8	8165

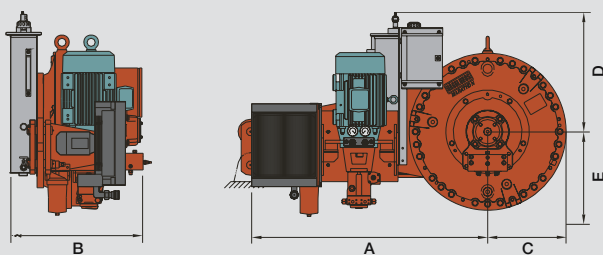
Dimensions for shrink disc coupling. \*) Shaft dimensions.

## Dimensions, CB TADS

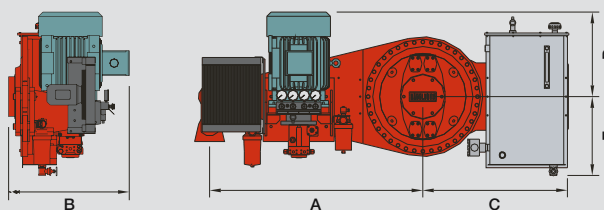
Motortype	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)
TADS 280	1448	939.8	990.6	609.6	533.4	1814
TADS 400	1448	939.8	990.6	609.6	533.4	2177
TADS 560	1651	1092	1067	609.6	533.4	2585
TADS 840	1651	1092	1067	609.6	533.4	2994

Dimensions for shrink disc coupling. \*) Shaft dimensions.

## Marathon TADS



## CB TADS





## Extended possibilities and high flexibility.

**Hägglands wide range of valves increases your options for functionality, flexibility and reliability.**

Hägglands has developed a wide range of valves to ease application and further improve the functionality of our drive systems. They can be used for a wide range of drive applications and needs reducing your design time and with added security.

The valves are all of a robust, reliable design and can withstand the toughest environments and many of the valves can also be used in combination. The valves are obviously well matched with our drive systems and provide a neat and efficient way to achieve the control and flexibility you need.

## Pressure limiting valves

Valve	Size	Short description	Designed for	Max. pressure (bar)	Flow capacity (lpm)	Weight (kgs)
COCA 300	20	Protects system main lines from damaging pressures	CA/CB	350	300	8
COCB 1000-1	40	Protects system main lines from damaging pressures	CA/CB	350	1000	30
COCB 1000-3	40	Protects system main lines from damaging pressures includes an integrated purge circuit	CA/CB	350	1000	33

## Load control valves

Valve	Size	Short description	Designed for	Max. pressure (bar)	Flow capacity (lpm)	Weight (kgs)
VCBCA 480	32	Controls over running loads provided by a counterbalance function	CA/CB	350	480	20
VCBCA 1000	50/40	Controls over running loads provided by a counterbalance function	CA/CB	350	1000	40
CTCA 1000	40/30	Controls winch rope load with a constant tension function	CA/CB	350	2000	34

## Motion control valves

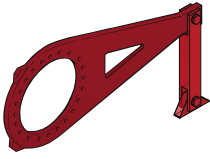
Valve	Size	Short description	Designed for	Max. pressure (bar)	Flow capacity (lpm)	Weight (kgs)
VTCA 600	30	Designed to shift displacement of a dual speed motor	CA/CB	350	600	30
VFCCA 1000	40	Designed to put the motor in free circulation mode with the pistons running against the cam ring.	CA/CB	350	1000	85
VFWCB 600	50	Designed to put the motor in free wheeling mode with the pistons retracted from the cam ring.	CA/CB	350	600	40
VFW	25	Designed to put a Viking motor in free wheeling mode with the pistons retracted from the cam ring.	VI	350	800	56
V4WCA 1000	40	A proportional directional control valve with in built counter balance function	CA/CB	350	1000	78

## Integrated valve solutions

Valve	Size	Short description	Designed for	Max. pressure (bar)	Flow capacity (lpm)	Weight (kgs)
V 46-O	25	A integrated winch valve for open hydraulic systems	VI	350	800	100
V 46-C	25	A integrated winch valve for closed hydraulic systems	VI	350	800	88

A compact and efficient design can be achieved by means of Häggglunds standard accessories programme. These illustrations show some of our accessories. Kits for harsh environment are for example also available.

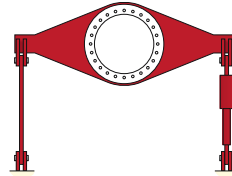
Torque arms and brackets.



Valves and manifolds for each series of motor.



Double ended torque arms.



Protective cover for Viking motors.



Parking lock unit for Viking motors.



Brakes for Compact motors.



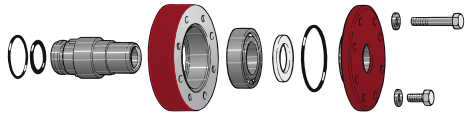
Bearing brackets for Viking motors.



Brake assemblies for Viking motors.



Through hole kits.



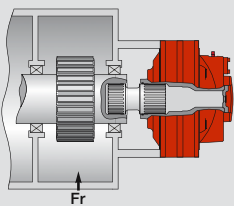
Speed encoders and attachments.



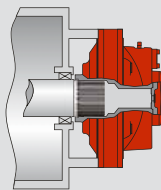
## Installation examples

Häggglunds tough hydraulic motors are weight and space saving and offers versatile mounting possibilities. See examples.

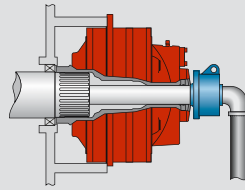
### Examples for Compact CB motors



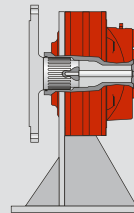
Flange mounted motor with splines and high radial load  $F_r$  on driven shaft.



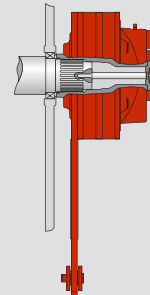
Flange mounted motor with splines and low radial load from driven shaft.



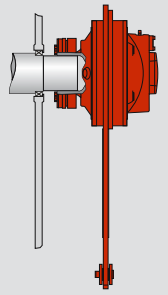
Flange mounted motor with splines and through hole for cooling of driven machine.



Bracket mounted motor with flange adapter.

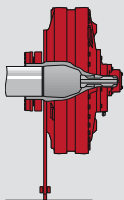


Torque arm mounted motor with splines.

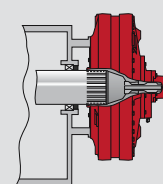


Torque arm mounted motor with shrink disc coupling.

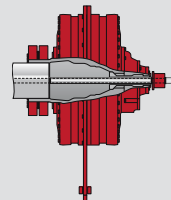
### Examples for Marathon motors



Shrink disc coupling and torque arm.



Flange mounted with splines.



Torque arm mounted motor with through hole for cooling of driven machine.

# More than an ordinary drive supplier.

## **Dustier. Dirtier. Harsher. Heavier.**

The worse it is, the better equipped we are. After more than four decades of supplying drive systems for heavy industrial applications, Hägglunds is accustomed to difficult demands. We provide what you need to get the toughest jobs done right – no matter how harsh the environment or how specialised the task.

## **Performance. Flexibility. Security.**

Hägglunds unique hydraulic drive systems – combined with our wealth of experience – provide advantages no other drive supplier can match. With Hägglunds drives on your equipment, you receive:

- Maximum torque from zero speed.
- High performance regardless of conditions.
- Precise control of infinitely variable speed.
- Standardised modules for design freedom.
- Smaller, lighter, more effective installations.
- Superior protection of equipment and processes.

## **Here. There. Everywhere.**

A global leader in industrial drive solutions, Hägglunds has offices in nearly twenty countries and distribution partners in many more. We are where you are – with short lead times and fast, comprehensive service that answers your needs.

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*Our policy of continuous development  
requires that we reserve the right to  
make changes without specific notice.*

**Our drive is your performance.**