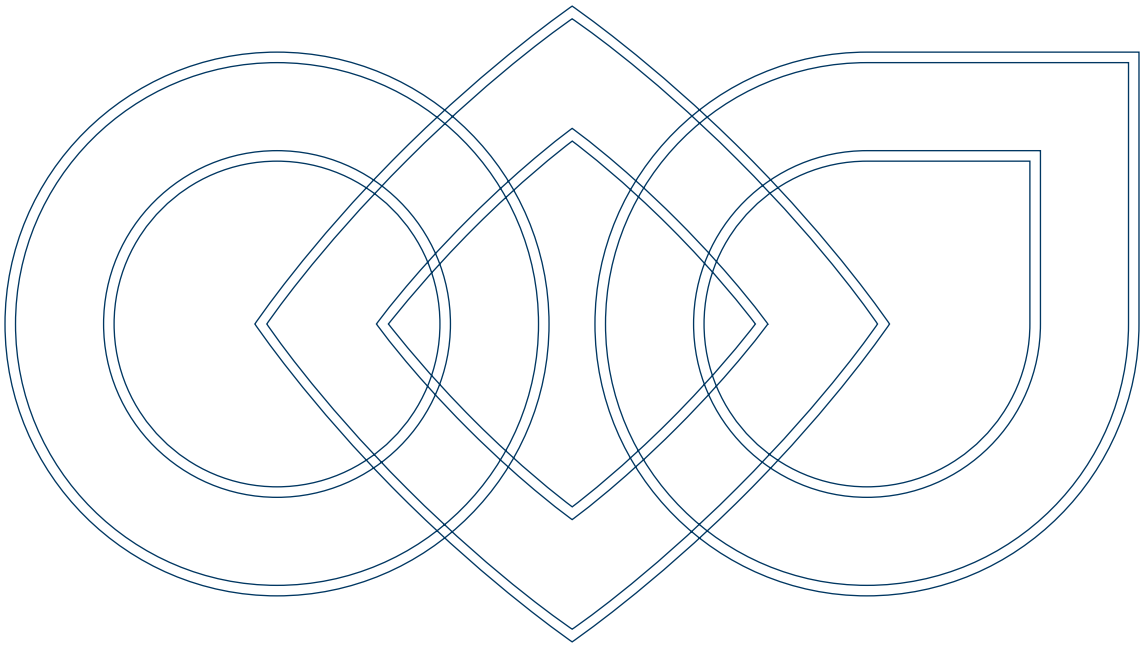
Bonfiglioli

Forever Forward

Mobile Solutions

PRODUCTS RANGE



A complete range of innovative products for mobile solutions.

Since 1975, Bonfiglioli has been a partner with the largest global producers of machinery for the earth-moving, building, construction and agricultural sectors.

Our wide range of planetary gearboxes - complete with hydraulic and electric motors for excavators, roadwork equipment and many other applications - are manufactured in a production process which is firmly focused on the specific needs of our customers.

These solutions are developed with the highest levels of customisation, which requires, right from the initial design phases, in-depth interaction between the customer and Bonfiglioli team, to ensure that all of the required specifications and variants are known, for a product which perfectly meets expectations.
This is why our pre-sales and after-sales teams, spread strategically over all continents, play such a crucial role, and why ensuring complete support is at the heart of our global success.

Today, Bonfiglioli also offers innovative electromobility solutions for mobile equipment in a huge range of contexts.
This choice is perfectly in line with the industrial philosophy of the future, which is increasingly placing electrical systems alongside traditional power transmission.

Bonfiglioli products portfolio

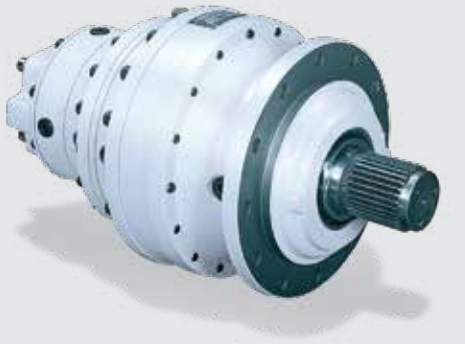
Product offer

Planetary drives
300 series

HYDRAULIC SOLUTIONS

The 300 series are compact and powerful. Their planetary drive train makes them the ideal choice for all the severe duty applications where shock loads and impacts are more the rule than the exception.

The product configuration is highly versatile, due to several options as far as the mounting, the gear layout, the output shaft and the motor interface. All the features are available for each of the 20 finely spaced frame sizes, spanning over the 1000 - 1100000 Nm torque range. Finding the perfect match to any drive problem is therefore more than a wish, it is something users can safely rely on - always.



Torque Range
1000 ... 1100000 Nm

Transmissible Mechanical Power
up to 1050 kW

Gear Ratios
3.4 ... 5000

Gear Unit Versions
In line
Right angle (with a spiral bevel gear set)

Output Configuration
Foot and flange mounted
Output shaft: solid with key, splined, splined hollow, hollow with shrink disc

Input Configurations
Flanged axial piston hydraulic motors
Hydraulic orbit motors
IEC and Nema motor adaptors
Solid input shaft

Hydraulic Brake
Hydraulically released parking brake on request

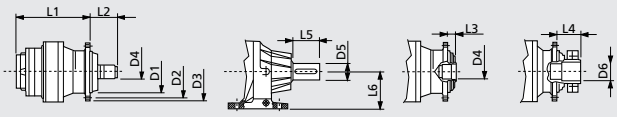
Electric Brake
DC and AC type

Type	Torque (Nm)
300	1000
301	1750
303	2500
304	3600
305	5000
306	8500
307	12500
309	18000
310	25000
311	40000
313	55000
314	80000
315	100000
316	135000
317	170000
318	250000
319	350000
321	500000
323	800000
325	1100000

Overall dimensions and technical data

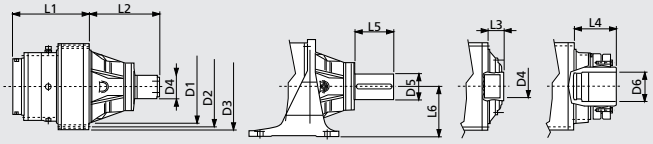
TYPE	MAX POWER	MAX INPUT SPEED				DESIGN
	kW	RPM	Inline	Right angle	Combined with worm gear	
300	20	3000	3.4 - 2700	7 - 700	400 - 2300	A
301	30	3000	3.4 - 2700	7 - 700	400 - 2300	A
303	40	3000	3.6 - 2800	9 - 800	400 - 2400	A
304	50	3000	3.6 - 2500	9 - 700	400 - 2400	A
305	60	3000	3.6 - 2800	9 - 800	400 - 2400	A
306	75	2500	3.6 - 2900	9 - 800	400 - 2600	A
307	100	2500	3.4 - 2400	13 - 700	400 - 2500	A
309	130	2500	3.4 - 2400	13 - 700	400 - 2500	B
310	150	2000	4 - 2500	40 - 900	400 - 5000	B
311	180	2000	4 - 2100	18 - 800	400 - 5000	B
313	200	2000	4 - 2200	18 - 800	400 - 5000	B
314	225	2000	4 - 1800	50 - 600	400 - 5000	B
315	250	1500	4 - 1800	70 - 900	400 - 5000	B
316	270	1500	4.4 - 1200	50 - 600	400 - 5000	B
317	300	1000	4 - 1900	70 - 900	400 - 5000	B
318	340	1000	4.4 - 1100	200 - 700	400 - 5000	B
319	380	500	4.8 - 1400	300 - 800	2500 - 5000	B
321	450	300	4.4 - 1100	300 - 800	1000 - 5000	B
323	850	300	4.6 - 1300	-	-	B
325	1050	300	4.6 - 1300	-	-	B

DESIGN A • 300 - 307



OUTPUT **HZ** | OUTPUT **PC** | OUTPUT **FZ** | OUTPUT **FP**

DESIGN B • 309 - 325



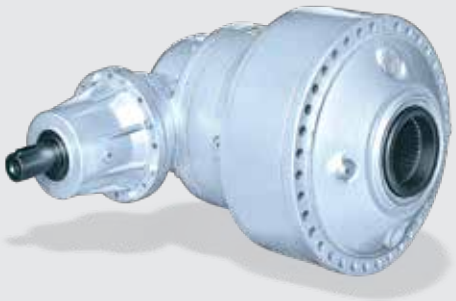
OUTPUT **HZ** | OUTPUT **PC** | OUTPUT **FZ** | OUTPUT **FP**

TYPE	D1	D2	D3	D4	D5	D6	L1 (2 stages)	L2	L3	L4	L5	L6
300	110	165	185	40x36 DIN 5482	38	42	168	61	14	50	58	100
301	110	165	185	40x36 DIN 5482	50	42	180	61	14	50	82	132
303	150	195	222	58x53 DIN 5482	60	75	200	83	15	85	105	160
304	150	195	222	58x53 DIN 5482	60	75	212	83	15	85	105	160
305	150	195	222	58x53 DIN 5482	60	75	230	83	15	85	105	160
306	200	250	280	70x64 DIN 5482	80	90	260	130	40	115	130	180
307	230	295	325	80x74 DIN 5482	90	100	300	162	36	120	170	200
309	278	314	348	80x74 DIN 5482	100	120	215	231	82	245	165	225
310	340	370	400	100x94 DIN 5482	110	130	245	290	95	290	210	250
311	358	390	428	100x94 DIN 5482	120	135	250	320	88	190	210	280
313	385	415	445	120x3 DIN 5480	140	145	310	357	81	235	200	280
314	460	503	542	150x5 DIN 5480	160	180	370	429	98	260	240	315
315	460	503	542	150x5 DIN 5480	160	180	390	429	98	260	240	315
316	580	625	670	170x5 DIN 5480	180	180	430	275	145	265	260	400
317	560	635	695	200x5 DIN 5480	200	260	470	352	152	318	260	415
318	700	750	800	220x5 DIN 5480	250	220	550	340	155	305	330	500
319	800	880	940	260x5 DIN 5480	280	350	570	470	210	440	380	550
321	940	1020	1100	300x8 DIN 5480	340	390	595	500	250	440	540	650
323	1100	1220	1300	400x8 DIN 5480	-	410	666	-	375	520	-	-
325	1260	1380	1460	450x8 DIN 5480	-	450	698	-	400	590	-	-

Planetary drives
300 series

ELECTRIC SOLUTIONS

The 300 series is compact and powerful: the ideal choice for all heavy duty applications where shock loads and impacts are more the rule than the exception.
The product configuration is highly versatile, due to several options concerning mounting, gear layout, output shaft and motor interface. All the features are available for each of the 20 finely-spaced frame sizes, spanning over the 1000 - 1100000 Nm torque range.



Torque Range
1000 ... 1100000 Nm

Transmissible Mechanical Power
up to 1050 kW

Gear Ratios
3.4 ... 5000

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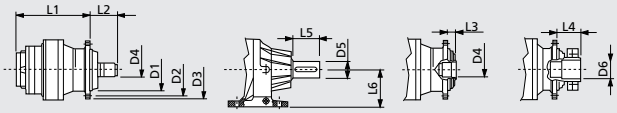
311	40000
313	55000
314	80000
315	100000
316	135000
317	170000
318	250000
319	350000
321	500000
323	800000
325	1100000

Overall dimensions and technical data

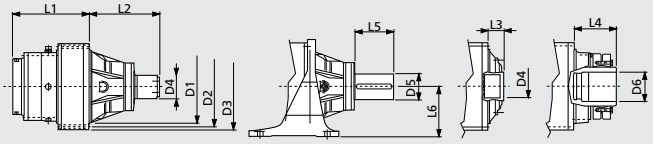
TYPE	MAX POWER	MAX INPUT SPEED				DESIGN
	kW	RPM	Inline	Right angle	Combined with worm gear	
300	20	3000	3.4 - 2700	7 - 700	400 - 2300	A
301	30	3000	3.4 - 2700	7 - 700	400 - 2300	A
303	40	3000	3.6 - 2800	9 - 800	400 - 2400	A
304	50	3000	3.6 - 2500	9 - 700	400 - 2400	A
305	60	3000	3.6 - 2800	9 - 800	400 - 2400	A
306	75	2500	3.6 - 2900	9 - 800	400 - 2600	A
307	100	2500	3.4 - 2400	13 - 700	400 - 2500	A
309	130	2500	3.4 - 2400	13 - 700	400 - 2500	B
310	150	2000	4 - 2500	40 - 900	400 - 5000	B
311	180	2000	4 - 2100	18 - 800	400 - 5000	B
313	200	2000	4 - 2200	18 - 800	400 - 5000	B
314	225	2000	4 - 1800	50 - 600	400 - 5000	B
315	250	1500	4 - 1800	70 - 900	400 - 5000	B
316	270	1500	4.4 - 1200	50 - 600	400 - 5000	B
317	300	1000	4 - 1900	70 - 900	400 - 5000	B
318	340	1000	4.4 - 1100	200 - 700	400 - 5000	B
319	380	500	4.8 - 1400	300 - 800	2500 - 5000	B
321	450	300	4.4 - 1100	300 - 800	1000 - 5000	B
323	850	300	4.6 - 1300	-	-	B
325	1050	300	4.6 - 1300	-	-	B

DESIGN A • 300 - 307



OUTPUT **HZ** | OUTPUT **PC** | OUTPUT **FZ** | OUTPUT **FP**

DESIGN B • 309 - 325



OUTPUT **HZ** | OUTPUT **PC** | OUTPUT **FZ** | OUTPUT **FP**

TYPE	D1	D2	D3	D4	D5	D6	L1 (2 stages)	L2	L3	L4	L5	L6
300	110	165	185	40x36 DIN 5482	38	42	168	61	14	50	58	100
301	110	165	185	40x36 DIN 5482	50	42	180	61	14	50	82	132
303	150	195	222	58x53 DIN 5482	60	75	200	83	15	85	105	160
304	150	195	222	58x53 DIN 5482	60	75	212	83	15	85	105	160
305	150	195	222	58x53 DIN 5482	60	75	230	83	15	85	105	160
306	200	250	280	70x64 DIN 5482	80	90	260	130	40	115	130	180
307	230	295	325	80x74 DIN 5482	90	100	300	162	36	120	170	200
309	278	314	348	80x74 DIN 5482	100	120	215	231	82	245	165	225
310	340	370	400	100x94 DIN 5482	110	130	245	290	95	290	210	250
311	358	390	428	100x94 DIN 5482	120	135	250	320	88	190	210	280
313	385	415	445	120x3 DIN 5480	140	145	310	357	81	235	200	280
314	460	503	542	150x5 DIN 5480	160	180	370	429	98	260	240	315
315	460	503	542	150x5 DIN 5480	160	180	390	429	98	260	240	315
316	580	625	670	170x5 DIN 5480	180	180	430	275	145	265	260	400
317	560	635	695	200x5 DIN 5480	200	260	470	352	152	318	260	415
318	700	750	800	220x5 DIN 5480	250	220	550	340	155	305	330	500
319	800	880	940	260x5 DIN 5480	280	350	570	470	210	440	380	550
321	940	1020	1100	300x8 DIN 5480	340	390	595	500	250	440	540	650
323	1100	1220	1300	400x8 DIN 5480	-	410	666	-	375	520	-	-
325	1260	1380	1460	450x8 DIN 5480	-	450	698	-	400	590	-	-

Transit mixer drives
500 series

HYDRAULIC SOLUTIONS

Absolute dependability, low maintenance, compactness and price effectiveness are the key features of the renovated 500 series, the unparalleled line of drives for transit mixers. Eight models available for mixing capacity ranging from 1 to 14 m^3.

Torque Range
3000 ... 90000 Nm

Truck mixer capacity
1 to 14 cubic meters

Gear Ratios
17 ... 161

Key Features
Rotating housing flange
Rugged design
High torque capacity
High load capacity
Tilting output flange, evenly in all directions
Mounting frame for water tank
Water pump P.T.O.
Speed sensor

Applicable hydraulic motors
Axial piston motors to SAE Standard
orbit motors

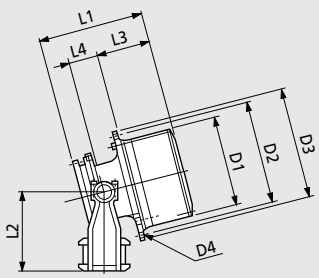
Type	Torque (Nm)
501	3000
564	12000
565	12000
567	20000
568	20000
575	50000
577	60000
580	75000

Overall dimensions and technical data

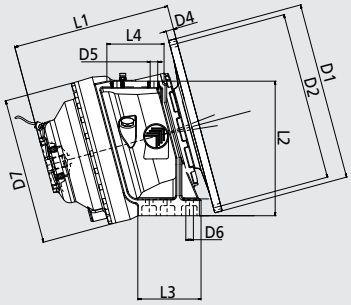
TYPE	RANGE OF RATIOS	HYDR. MOTOR DRIVE (1)	MAX. INPUT SPEED	DRUM CAPACITY (2)	WEIGHT	OIL QUANTITY	DESIGN	WATER PUMP P.T.O.	SPEED SENSOR
	1:		min^{-1}	m^3	kg	L			
501	17-23-29	LS	550	0.5 - 1	45	1.5	A	–	–
564	78-161	HS	2500	2 - 3	85	2	A	–	–
565	22	LS	550	2 - 3	70	1.5	A	–	–
567	76-90-115-128	HS	2500	4 - 5	140	3	A	–	–
568	18-21-27	LS	550	4 - 5	130	2.5	A	–	–
575	99.3-102-141	HS	3000	6 - 8	250	7	B	•	•
577	131	HS	3000	8 - 10	290	8.5	B	•	•
580	130-135-140	HS	3000	10 - 14	320	10	B	•	•

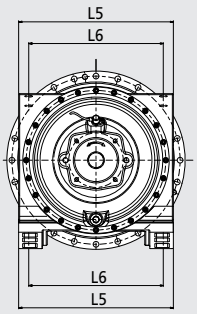
(1) **LS** = Low speed motor / **HS** = High speed motor
(2) General indication, application capacity depend on concrete slump
– = Not available
• = Available

DESIGN A



DESIGN B





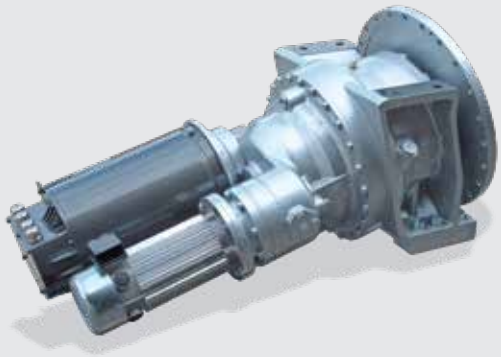
TYPE	D1	D2	D3	D4	D5	D6	D7	L1	L2	L3	L4	L5	L6
501	200	222	245	13 n°4	–	–	–	270	195	138	89	–	–
564	280	310	340	17 n°10	–	–	–	365	240	165	85	–	–
565	280	310	340	17 n°10	–	–	–	290	240	165	85	–	–
567	358	390	430	17 n°18	–	–	–	435	300	210	110	–	–
568	358	390	430	17 n°18	–	–	–	360	300	210	110	–	–
575	530	500	–	17 n°24	22 n°4	22 n°6	435	450	400	188	170	460	400
577	530	500	–	17 n°24	22 n°4	22 n°6	435	450	400	188	170	460	400
580	530	500	–	17 n°24	22 n°4	22 n°6	435	525	400	188	170	460	400

Drum drive with electric motor
500 series

ELECTRIC SOLUTIONS

This solution is designed for use with medium/large mixer trucks that have medium/long delivery distances to travel.
Bonfiglioli innovative solution comprises a Bonfiglioli's historical 500 Series gearbox coupled to an AC electric motor, providing normal power, and a DC electric motor for emergency use.

This solution not only guarantees greater energy efficiency and reduced fuel consumption, but also helps cut cement mixer truck operating costs. Performance is improved too: rotation speed control is more accurate, operating noise levels are significantly lower.
Finally, functionality remains higher in the event of a failure: the presence of a second backup DC motor gives reassuring redundancy and eliminates the risks and potentially hazardous situations caused by failures of the drum emptying system.



Main benefits

- Increased energy efficiency
- Reduced fuel consumption
- Service intervals less frequent and simplified vs the standard hydraulic solution
- Better drum rotation speed control
- Optimised gear design for maximum efficiency and minimum noise
- The emergency electric DC motor allows a higher availability in case of machine failure

Solution main features

Gearbox data

Ratio
Main: 1:220
Emergency: 1:2200

Max output torque
Main: 60000 Nm
Emergency: 10500 Nm

Max input speed
Main: 3500 rpm
Emergency: 2000 rpm

Oil quantity
8 lt

Dry weight
328 kg

Motor data

Type
Main: Induction AC
Emergency: PM DC motor

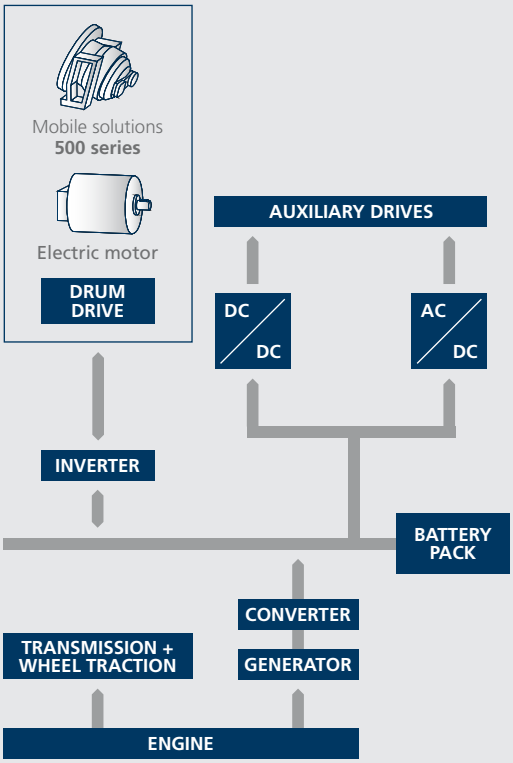
Rated Power
Main: 40 kW
Emergency: 2 kW

Voltage
Main: 170 Vac
Emergency: 24 Vdc

Protection degree
IP66

Cooling
Main: Liquid
Emergency: Air forced

Functional diagram



Wheel drives
600 series

HYDRAULIC SOLUTIONS

Bonfiglioli 600 series represent the best solution when you are designing a wheeled for harvester or construction machine. With a compact design, high torque and load capacities, a negative multidisc parking brake and, an optional disengagement device to tow the vehicle in an emergency, these solutions perfectly match the application requirements.

Torque Range
3000 ... 85000 Nm

Gear Ratios
4.3 ... 153

Key Features
Rotating housing flange with studs to fit wheels and drums
Rugged design
High torque capacity
High load capacity
Mechanical lifetime seals
Compact design
Optional mechanical gear disengagement on request

Applicable motors
Cartridge axial piston hydraulic motors
Flanged axial piston hydraulic motors
Hydraulic orbit motors
DC electric motors

Brake
Hydraulically released parking brake on request

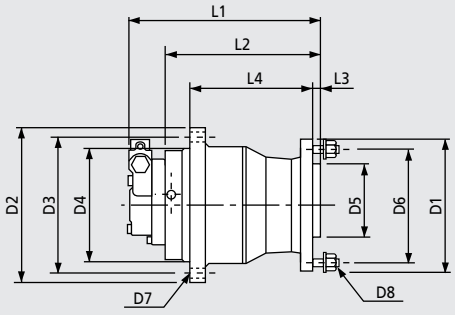
Type	Torque (Nm)
601 R1L	3000
603 W2..H	5000
603 W2V B	7000
605 W2V..	10000
606 W..V	17000
607 W2..B	22000
609 W2..B	30000
610 W..V	36000
610 X	40000
611 W..V	45000
613 W..V	60000
615 W..V	85000

Overall dimensions and technical data

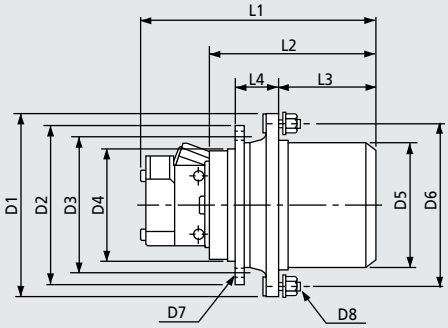
TYPE	RANGE OF RATIOS	MAX. INPUT SPEED	HYDRAULIC MOTOR DRIVE (1)	BRAKING TORQUE	MIN. OPENING PRESSURE	WEIGHT	DESIGN
	1:			Nm	bar	kg	
601 R1	4.26 - 5.77	1000	LS	450 - 600	15 - 20	35	A
603 W2V H	19.5 - 40.5	4000	HS	170 - 250	15 - 20	45	B
603 W2L H	14 - 40.5	4000	HS	170 - 250	15 - 20	45	A
603 W2V B	21.6 - 53	4000	HS	170 - 250	15 - 20	45	B
605 W2 H	22.2 - 53	3500	HS	220 - 310	15 - 20	65	B
605 W2 B	22.2 - 53	3500	HS	220 - 300	15 - 20	65	B
606 W2	19.7 - 43.8	3500	HS	400 - 500	15 - 20	110	B
606 W3	68 - 128.6	3500	HS	300 - 350	15 - 20	120	B
607 W2..B	55-120	3000	HS	300 - 600	15 - 20	140	B
609 W2..B	55-147	3000	HS	300 - 600	15 - 20	170	B
610 W..V	55-123	3000	HS	300 - 800	15 - 20	200	B
610 X2	22.5-51.4	3000	HS	800 - 1200	15 - 20	200	B
611 W..V	41-47	3000	HS	300 - 800	15 - 20	250	B
613 W..V	108	3000	HS	300 - 800	15 - 20	250	B
615 W..V	108	3000	HS	300 - 1000	15 - 20	350	B

(1) LS = Low speed motor / **HS** = High speed motor

DESIGN A



DESIGN B



TYPE	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L4
601 R1L	230	260	230	200 h8	152,4	203,2	Ø15 n°8	M14x1.5 n°8	Depend on motor type	245	10	195
603 W2V H	280	270	230	190 f7	200 h8	241,3	M16x2 n°8	M18x1.5 n°9		236	128	72
603 W2L H	237	270	230	190 f7	160	205	M16x2 n°8	M18x1.5 n°6		249.5	25	175
603 W2V B	275	240	210	178 h8	200 h8	241,3	M16x2 n°9	M16x1.5 n°9		249	108	106
605 W2 H	300	270	230	190 f7	220 h8	260	M16x2 n°8	M16x1.5 n°8		240	154	72
605 W2 B	310	260	230	190 f7	220 h8	275	M16x2 n°12	M20x1.5 n°8		218	136	72
606 W2	370	330	300	270 h8	280 h8	335	M16x2 n°18	M22x1.5 n°10		270	155	115
606 W3	370	330	300	270 h8	280 h8	335	M16x2 n°18	M22x1.5 n°10		315	200	115
607 W2..B	400	317	285	240	300	355	M20x2.5 n°20	M18x1.5 n°20		335	233	82
609 W2..B	435	375	340	300	350	400	M20x2.5 n°16	M22x1.5 n°16		350	243	91
610 W..V	435	375	340	300	350	400	M20x2.5 n°16	M22x1.5 n°16		350	243	91
610 X2	440	410	370	330	360	400	M20x2.5 n°20	M20x2.5 n°16		383	268	90
611 W..V	490	425	325	290	410	455	M20x2.5 n°24	M20x1.5 n°24		375	242	110
613 W..V	490	425	325	280	410	455	M20x2.5 n°24	3/4-16 UNF n°24		405	275	110
615 W..V	550	500	460	420	460	510	M20x2.5 n°24	M20x1.5 n°24		470	320	130

Wheel Drives with Integrated Service and Parking brakes.

600 series

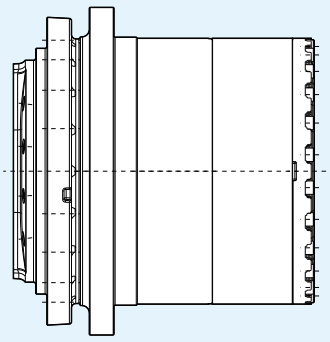
Wheel drives with integrated service and parking brakes

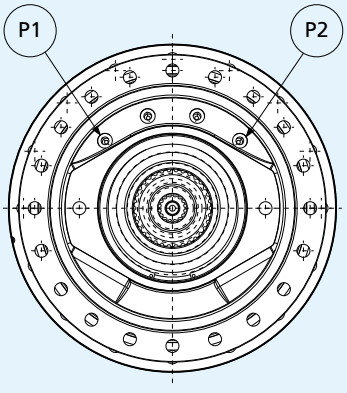
Typical applications

- Self-propelled sprayers
- Combine harvesters
- Potato, Carrot harvesters
- Forage harvesters

Features

- Compact and modular design
- Compliant with international regulations for service, emergency and parking braking
- Improved modularity of service brake actuation
- Integrated oil immersed brake disc package
- Dedicated piston return system for optimized thermal performance (patent pending)
- Heavy duty discs to maximize thermal capacity for best energy dissipation, even under extreme conditions

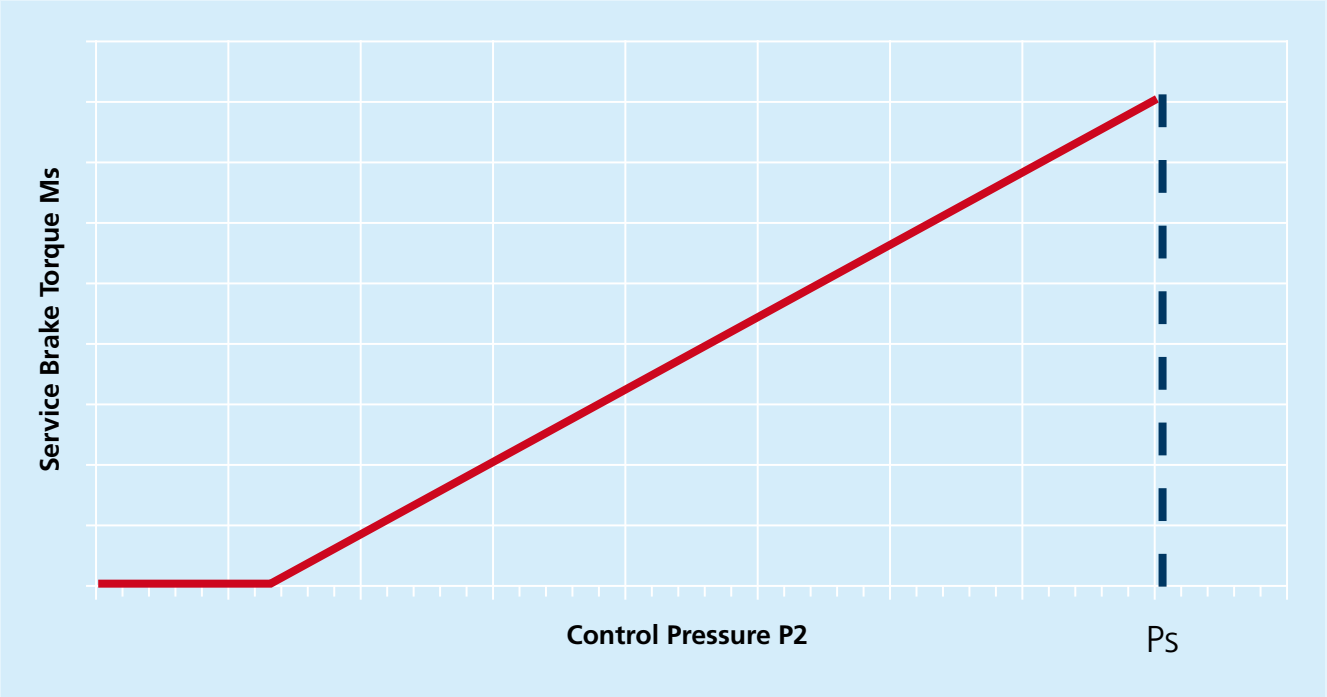




P1: static brake port
P2: service brake port

ACTION	P1 PORT	P2 PORT
Parking brake engaged	Not pressurized	Not pressurized
Travel	Pressurized	Not pressurized
Service braking	Pressurized	Pressurized (to modulate the braking torque)

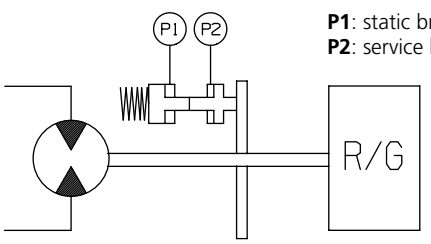
Service Brake Performance



GEARBOX MODEL	SERVICE BRAKE		PARKING BRAKE	
	Max torque (Ms)	Max operating pressure (Ps)	Max torque (Mp)	Min release pressure (Pr)
	Nm	bar	Nm	bar
605 W2	300	60	310	20
606 W2	350	90	650	20
607 W2	350	90	650	20
609 W2	450	90	800	20
610 X2	650	90	1200	20
611 W2	650	90	1200	20

The above data are for reference only. To be verified based on actual machine data.

HYDRAULIC DIAGRAM



P1: static brake port
P2: service brake port

Electric powertrains
600E series

ELECTRIC SOLUTIONS

Bonfiglioli's 600E planetary drives incorporate an integrated, maintenance-free electric motor and offer significant benefits in terms of compact dimensions, low noise and high efficiency. 600 Series drives are designed for use with all kinds of aerial platforms and other kinds of mobile machinery, for indoor and outdoor use.

This advanced powertrain solution uses a two or three stage gearbox offering reduction ratios of up to 1:145 to satisfy the widest possible range of needs. The gearbox is coupled to a low voltage induction motor (BT Series) specially developed for traction power and control applications.

Torque Range
900 ... 10000 Nm

Gear Ratios
20 ... 145

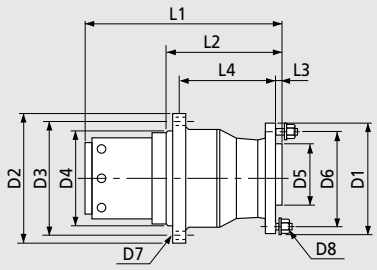
Key standard features
Two or three stage planetary drive with reduction ratios of up to 1:145
Optimised gear design for maximum efficiency and minimum noise
Integrated, low voltage, 3 phase induction motor with inverter
Integrated, high accuracy, KTY temperature sensor
Integrated, high resolution, Hall effect speed sensor

Optional features available on request
Speed sensor-bearing
Other types of temperature sensor
Mechanical disengagement for towing, with no need to remove the wheel and without oil drop
Parking brake (spring applied with hydraulic or electromagnetic release)

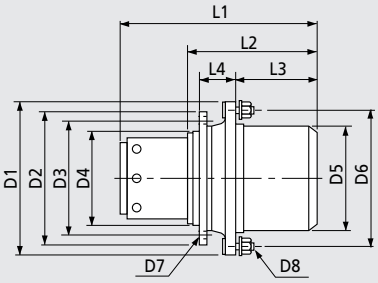
Type	Max deliverable torque (Nm)
600 WE	900
601 RE	3000
602 RE	3500
602 WE	4500
604 WE	7000
605 WE	10000

Overall dimensions and technical data

TYPE	RATIOS	MAX INPUT SPEED	WEIGHT	OIL QUANTITY	AC ELECTRIC MOTOR - SIZE				PARKING BRAKE		MACHINE TON CLASS
	1:	rpm	kg	L	BT135	BT150	BT170	BT200	Electromagnetic	Hydraulic	ton
600 WE	48- 58.7	6000	35	0.5	•	•			•		3
601 RE	20.1 - 51.8	4000	40	0.8		•	•		•	•	6
602 RE	20.3 - 30.6	6000	53	0.7		•	•		•	•	9
602 WE	20 - 145	6000	45	0.5		•	•		•	•	9
604 WE	22.2 -53	5000	65	1.1			•	•	•	•	13
605 WE	22.2 - 53	5000	65	1.1			•	•		•	16



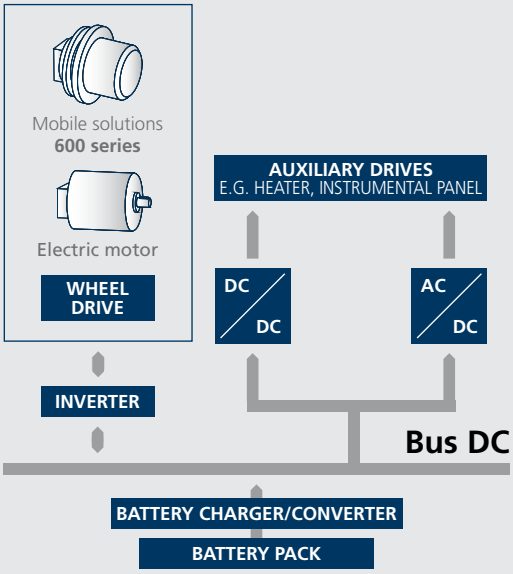
RE VERSION



WE VERSION

TYPE	BT 135-			BT 150-			BT 170-			BT 200-		
	50	100	150	50	100	150	50	100	150	50	100	150
P_n (S2 60') (kW)	0.9	1.6	2.3	1.5	2.5	3.4	2.4	4.3	5.4	3.1	6.2	9.1
T_n (Nm)	3	5.6	8.5	4.8	9.1	12.5	7.7	14	22	10	20	29.5
V_{batt} (V)	24	24	24	24	24	24	48	48	48	80	80	80
I_n (A)	55	95	128	80	130	175	67	110	143	53	98	137
n (rpm)	2930	2927	2632	2894	2617	2610	2945	2952	2357	2957	2963	2958
cosϕ	0.77	0,8	0.81	0.85	0.86	0.87	0.77	0.83	0.8	0.77	0.8	0.84
η (%)	86.9	89.5	90.0	85.5	88.7	89.2	88.3	89.6	91.3	88.8	91.6	92.5

Functional diagram



TYPE	L1												L2	L3	L4	D1	D2	D3	D4	D5	D6	D7	D8
600 WE	275	325	375	290	340	390							134	39	89	240	207.5	190.5	171.45	184.15	216	M8 n°6	M12 n°9
601 RE					453	503	412	462					247	12	200	189	265	245	225	110	160	Ø13 n°8	M14x1.5 n°8
602 RE						524	434	484	534				269	15	193	210	295	265	235	130	170	M16 n°8	M18 n°6
602 WE						455	375	425	475				210.5	104.5	88	260	271	248	220	200	230	Ø15 n°12	M14 n°9
604 WE								464	514	446	496		231	110	106	315	300	275	250	220	275	M16x2 n°12	M20x1.5 n°8
605 WE									524	456	506	556	241	154	72	315	300	275	250	220	275	M16x2 n°12	M20x1.5 n°8

TYPE	MACHINE WEIGHT (TON)																
	0.5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
600 WE	0.9 ... 2 kW																
601 RE			1.5 ... 3 kW														
602 RE					3 ... 4 kW												
602 WE					2 ... 4.5 kW												
604 WE										4.5 ... 6 kW							
605 WE														6 ... 9 kW			
Vertical booms																	
Height (m)	5	6.5	8	10													
Scissors lift																	
Height (m)	6.5	7.5	10	11.5	12.5	14	15	18									
Telescopic / Articulated booms																	
Height (m)						11	12	14	15	16	17.5	19	20	21	25	26	27

Electric powertrains
600W with BPD© electric motor

ELECTRIC SOLUTIONS

Bonfiglioli's 600W planetary wheel drives can be coupled to a high-power density electric motor, instead of a conventional hydraulic motor.
This complete mechatronic solution is designed for a high voltage hybrid powertrain system and was originally conceived for self-propelled crop sprayers.
Using this solution can deliver many advantages. and it assures interesting benefits both to the machine manufacturer and to the end user.

Applications
- Sprayers
- Self-propelled harvesters

Advantages for OEM
- Possibility of downsizing and downspeeding combustion engines
- Ease of installation: electric solution dimensions comparable to standard hydrostatics
- Higher system reliability: fewer mechanical parts
- Virtually maintenance-free electric motors
- From wheel bolt to electric wire with only one supplier

Advantages for final user
- Reduction of fuel consumption
- Increase of productivity
- Better machine manoeuvrability
- The electric solution is cleaner: lower risk of oil spills

Type	Output torque (Nm)
605 W..V..	10000
606 W..V	17000
607 W..V	22000
609 W..V	30000
610 W..V	36000
610 X	40000
611 W..V	45000
613 W..V	60000

Motor data

Technology
BPD© Hairpin Stator Winding

DC bus operating voltage
400 - 700 V_{DC}

Max power output
25 - 85 kW

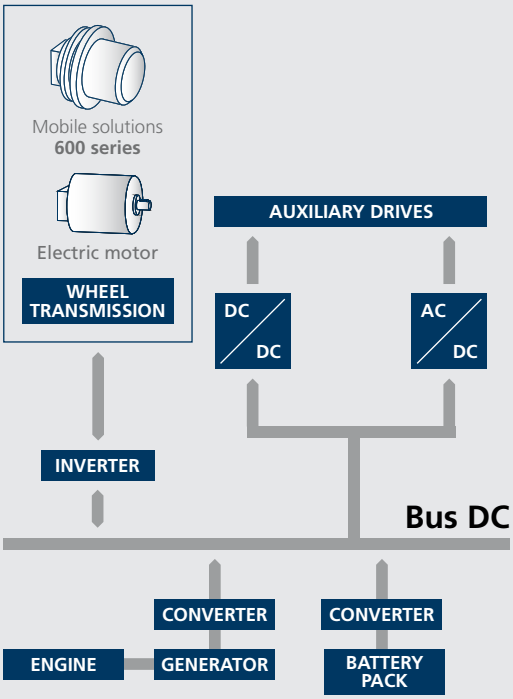
Max torque output
200 - 400 Nm

Max operating speed
8000 rpm

Max efficiency
95.6 %

Cooling
PGW 50/50 or oil

Functional diagram



Electric powertrains
600F series

ELECTRIC SOLUTIONS

Bonfiglioli supplies high-efficiency, low-noise planetary axles and drives with integrated high performance electric motors and low maintenance braking systems for Class 1 material handling vehicles. Typical applications include 3 and 4 wheel counterbalance lift trucks and ground support equipment.
Bonfiglioli electric powertrains are fully tested in the factory and guarantee reduced energy consumption. This, in turn, means longer battery operating times, extended service intervals and a lower cost of ownership.
Bonfiglioli's 600F Series drives are complemented by a range of idle steering systems based on axles or steering units, depending on the number of wheels on the vehicle.

Type	Max deliverable torque (Nm)
601 F	3000
602 F	5500
603 F	7000
605 W	18000

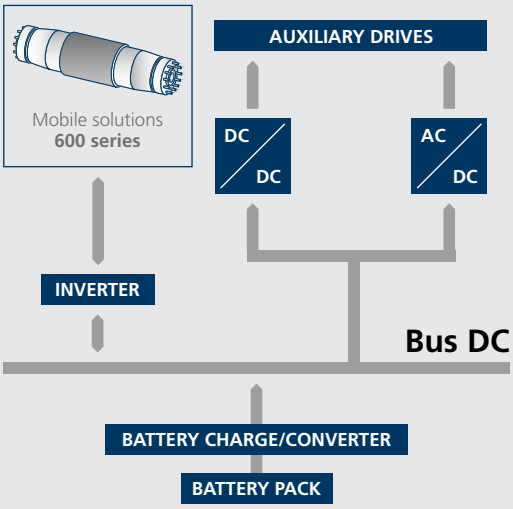
Applications
- Material handling vehicles (CB forklifts, articulated forklifts, airport equipment) for indoor and outdoor use.
- CB trucks with lift capacity from 1.6 to 9.0 tons
- GSE vehicles with draw bar pull from 6000 to 25000 kg

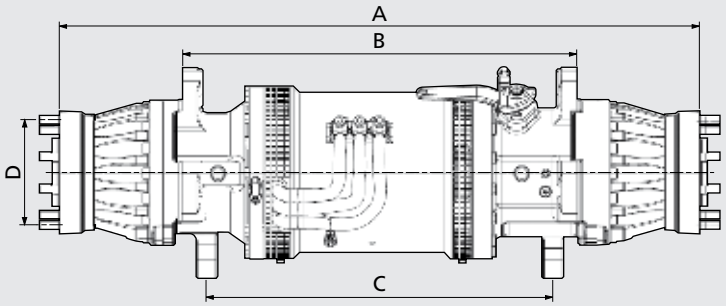
Standard features
- Dual planetary gearbox
- Optimised gear design for maximum efficiency and minimum noise
- Wet disc service brake with low displacement actuation
- Parking brake with mechanical lever actuation
- Integrated, customised mast support
- Integrated AC traction motor in IP20 or IP43 protection ratings
- Integrated, high accuracy, silicon based KTY temperature sensor
- Integrated, high resolution hall effect speed sensor

Optional features available on request
- Spring-applied hydraulic release parking brake
- Mechanical disengagement for towing, with no need to remove the wheel and without oil drop

TYPE	MAX INPUT SPEED	RATED MOTOR POWER	TYPICAL WHEEL SIZE	LIFT CAPACITY
	min^{-1}	kW, S2-60'	inches	KG
601 F	5500	2x4.5	18	2000
602 F	5500	18	23	3500
603 F	4500	26	28	5000
605 W	4500	2x14	35	9000

Functional diagram



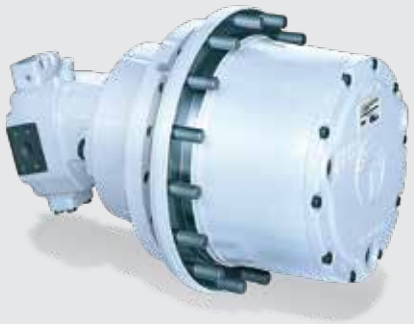


TYPE	A	B	C	D
	Flange to flange	Frame mounting	Mast mounting	Wheel stud PCD
601 F	1015	610	630	120
602 F	1090	640	600	170
603 F	1150	670	620	225
605 W	1440	1200	-	275

Wheel drives
600W2/3 series

HYDRAULIC SOLUTIONS

This gear shift final drive is specifically designed for wheeled and tracked machines featuring a significantly different travel/operating speed ratio.
The product is the ideal solution for road paving machines, construction equipment, as well as agricultural and forestry machines.



Torque Range
15000 ... 50000 Nm

Gear Ratios
LO speed: 71 87 85 104 141,3
HI speed: 20.5 20.5 24.5 24.5 24.5

Key Features
Dual gear ratio, hydraulic Lo-Hi speed shifting
Rotating housing
Rugged design
High torque capacity
High load capacity
Mechanical lifetime seals
Compact design
Hydraulically operated multidisc clutches, allowing both speed shifting and brake

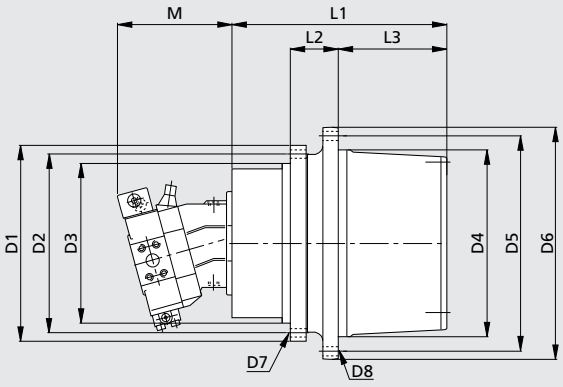
Applicable motors
Cartridge axial piston hydraulic motors

Brake
Hydraulically released multidisc type
Parking braking
Emergency braking

Type	Torque [Nm]
606W2/3	15000
610W2/3	40000
611W2/3	50000

Overall dimensions and technical data

TYPE	MAX. INPUT SPEED	MAX. OUTPUT SPEED	DYNAMIC & EMERGENCY BRAKING TORQUE	BRAKING TORQUE	BRAKE & CLUTCH RELEASE PRESSURE	WEIGHT	OIL QUANTITY
	rpm	rpm	Nm	Nm	bar	kg	L
606W2/3	3500	140	20000	400	20 ÷ 40	180	2.5
610W2/3	3000	120	30000	550	20 ÷ 40	200	3
611W2/3	3000	100	55000	600	20 ÷ 40	270	5



TYPE	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3
606W2/3	430	360	300	290	335	370	M16x2 n°16	M22x1.5 n°10	305	188	135
610W2/3	375	340	300	350	400	435	M20x2.5 n°16	M20x2.5 n°16	388	91	203
611W2/3	570	525	465	410	455	488	ø22 n°12	M22x1.5 n°20	366	113	219

Travel drives
700C series

HYDRAULIC SOLUTIONS

Bonfiglioli 700C series are perfectly suitable with any crawler and milling machines. Thanks to specific features such as its compact and rugged design, high torque and load capabilities and, the possibility to get a mechanical lifetime seals, these solutions represents the best possible option for the machine.

All units are available with a failsafe parking brake and for most cartridge type fixed or variable.

Torque Range
1000 ... 625000 Nm

Gear Ratios
5.3 ... 492

Key Features
Rotating housing
Rugged design
High torque capacity
High load capacity
Mechanical lifetime seals
Compact design

Applicable hydraulic motors
Cartridge axial piston motors
Flanged axial piston motors
Orbit motors

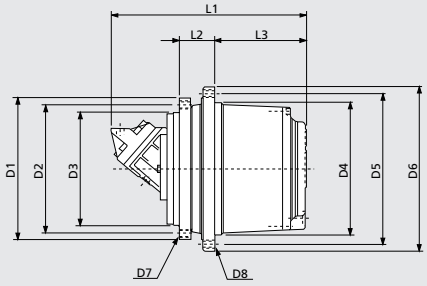
Brake
Hydraulically released parking brake on request

Type	Torque (Nm)
700 C1 H	1000
701 C1	2200
703 C2 H	4000
705 C2 H	10000
706 C3 B	18000
707 C3 B	26000
709 C3 B	30000
710 C3 B	36000
711 C3 B	45000
713 C3 B	60000
715 C3 B	85000
716 C3 B	100000
717 C3 H	130000
718 C3 H	180000
720 C3 H	220000
722 C3 H	330000
724 C4 H	450000
726 C4 H	625000

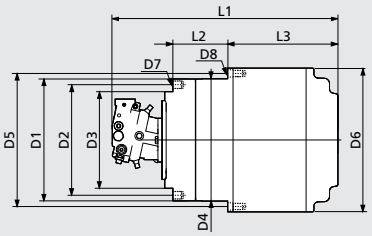
Overall dimensions and technical data

TYPE	RANGE OF RATIOS	MAX. INPUT SPEED	HYDRAULIC MOTOR DRIVE	BRAKING TORQUE	MIN. OPENING PRESSURE	WEIGHT
	1:	RPM	Inline	Right angle		
700 C1 H	5.25	1000	LS	140 - 250	15 - 25	20
701 C1	6.2	1000	LS	250 - 350	20 - 30	25
703 C2 H	19-40	3500	HS	210	18	42
705 C2 H	22-53	3500	HS	220 - 310	10 - 20	60
706 C3 B	68-173	3500	HS	250 - 500	10 - 20	95
707 C3 B	55-120	3500	HS	250 - 500	10 - 20	135
709 C3 B	55-147	3500	HS	250 - 600	10 - 20	180
710 C3 B	55-166	3500	HS	250 - 600	10 - 20	200
711 C3 B	71-163	3500	HS	400 - 800	10 - 20	270
713 C3 B	56-147	3000	HS	400 - 800	10 - 20	310
715 C3 B	62-156	3000	HS	600 - 1000	10 - 20	350
716 C3 B	83-174	3000	HS	800 - 1200	10 - 20	400
717 C3 H	92-211	3000	HS	800 - 1200	10 - 20	630
718 C3 H	87-263	3000	HS	800 - 1400	10 - 20	750
720 C3 H	175-287	3000	HS	800 - 1700	10 - 20	820
722 C3 H	296-492	3000	HS	1500 - 2500	15 - 30	1300
724 C4 H	350 - 428	3000	HS	1500 - 2500	15 - 30	1300
726 C4 H	248-282-330	3000	HS	2 x 1200	27	2800

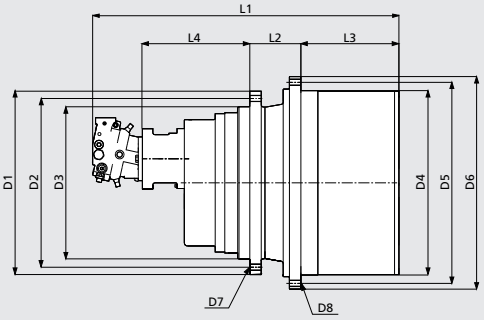
(1) LS = Low speed motor / **HS =** High speed motor



STANDARD VERSION - **S**



CRAWLER VERSION - **C**



STANDARD VERSION - **S** (726 C4 H SERIES)

TYPE	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L4	VERSION
700 C1 H	195	175	155	160	180	200	M10x1.5 n°8	M10x1.5 n°8	Depend on motor type	40	80	-	S
701 C1	230	200	180	190	210	230	M10x1.5 n°8	M10x1.5 n°8		40	105	-	S
703 C2 H	270	230	190	200	240	280	M16x2 n°8	M20x1.5 n°8		72	128	-	S
705 C2 H	270	230	190	220	260	300	M16x2 n°12	M16x2 n°16		72	158	-	S
706 C3 B	330	300	270	280	330	370	M16x2 n°18	M16x2 n°18		115	190	-	S
707 C3 B	317	285	240	300	340	370	M20x2.5 n°20	M16x2 n°20		82	233	-	S
709 C3 B	375	340	300	330	370	400	M20x2.5 n°16	M16x2 n°30		91	243	-	S
710 C3 B	375	340	300	350	400	435	M20x2.5 n°16	M20x2.5 n°16		91	243	-	S
711 C3 B	425	325	290	410	455	490	M20x2.5 n°24	M20x2.5 n°24		110	265	-	S
713 C3 B	425	325	290	410	455	490	M20x2.5 n°24	M20x2.5 n°24		110	280	-	S
715 C3 B	500	460	420	460	510	550	M20x2.5 n°24	M20x2.5 n°24		130	315	-	S
716 C3 B	500	460	420	460	500	550	M24x3 n°24	M18x1.5 n°36		165	308	-	S
717 C3 H	570	510	450	560	610	660	M30x3.5 n°20	M24x3 n°24		170	350	-	S
718 C3 H	570	510	450	576	626	670	M24x3 n°30	M24x3 n°20		170	350	-	S
720 C3 H	650	600	460	610	680	735	M30x3.5 n°30	M30x3.5 n°24		170	370	-	S; C
722 C3 H	735	680	580	660	730	785	M30x3.5 n°30	M30x3.5 n°30		188	430	-	S
724 C4 H	568	515	450	570	620	670	M36x1.5 n°29	M30x1.5 n°42		255	513	-	S; C
726 C4 H	880	810	730	885	965	1020	M30x2 n°41	M30x2 n°48		245	470	515	S; C

Track drive gearmotors
700CK series

HYDRAULIC SOLUTIONS

Extreme compactness, lightweight, efficiency and smooth operation are the key features of the 700CK series track drives, powered by integrated axial piston hydraulic motors, developed in cooperation with Kayaba.
Available for machines in the 1.5 to 120 tons class range.

Torque Range
1200 ... 220000 Nm

Machine weight
1.5 up 120 tons

Gear Ratios
20 ... 120

Key Features
Rotating output flange with large PCD suitable for sprocket
Rugged design
High torque capacity
High load capacity
Mechanical lifetime seals
Compact design

Hydraulic motors
Kayaba hydraulic motors, fixed and dual displacement, complete with counterbalance valve.

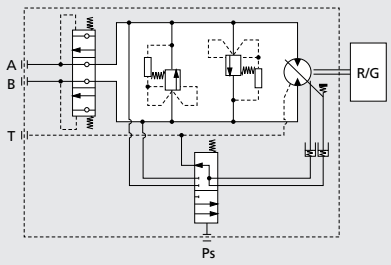
Motor options
Pressure relief valves, shockless type
Anticavitation valve

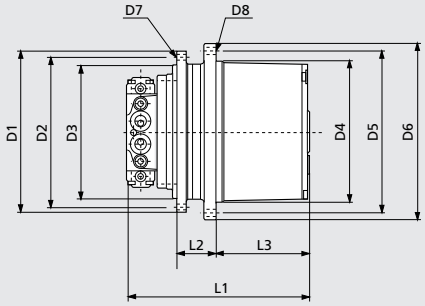
Brake
Hydraulically released failsafe parking brake automatically operated by main pressure

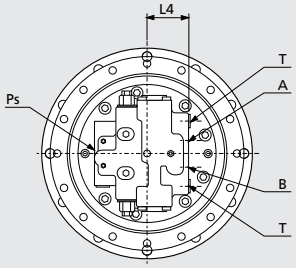
Type	Torque (Nm)
700 C2 K	1200
700-2C2 K	1900
701 C2 K	2500
702 C2 K	3500
704 C2 K	5000
705 C2 K	9000
706 C3 K	18000
707 C3 K	26000
709 C3 K	30000
710 C3 K	36000
713 C2 K	45000
713 C3 K	60000
715 C3 K	85000
716 C3 K	100000
718 C3 K	180000
720 C3 K	220000

Overall dimensions and technical data

TYPE	MOTOR DISPLACEMENT	MAX. PRESSURE	MAX. FLOW	2 SPEED CONTROL MIN. PRESSURE	PARKING BRAKE TORQUE	RANGE OF RATIOS	WEIGHT	APPROX. WEIGHT OF MACHINE
	max/min	bar	l/min	bar	Nm	1:	Kg	ton
700 C2 K	12-5.5	210	20	6	25	32-41	20	1.6
700-2C2 K	18-9	210	30	6	25	30-42	25	2
701 C2 K	18-11.6	250	35	6	25	30-53	25	3
702 C2 K	26.3-13.4	250	45	6	40	37-53	35	4
704 C2 K	33.8-19	250	60	6	40	45-53	60	5.5
705 C2 K	50.9-25.4	320	92	6	50	24-53	70	7
706 C3 K	50-25	300	75	6	50	68-128	80	8-10
707 C3 K	87-50	300	120	10	240	46-109	140	10-12
709 C3 K	87-50	300	160	10	400	53-123	225	13-20
710 C3 K	170-96	300	240	10	400	49-69	230	20-25
713 C2 K	170-96	300	230	10	400	55	280	25-29
713 C3 K	230-120	345	310	10	400	60-75	300	29-37
715 C3 K	230-340	345	370	10	400	62-82	380	37-50
716 C3 K	340	345	420	10	2000	75	500	50-60
718 C3 K	340	345	500	10	2000	85-106	850	60-80
720 C3 K	340	345	500	10	2000	120	1000	up to 120







TYPE	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L4	A-B	T	PS
700 C2 K	175	155	140	140	155	175	M10x1.5 n°8	M10x1.5 n°8	202	45	93	40	1/4"	1/4"	1/4"
700-2C2 K	190	170	150	160	180	200	M10x1.5 n°8	M10x1.5 n°8	223	40	108	39	3/8"	1/4"	1/4"
701 C2 K	215	192	165	190	215	240	M12x1.75 n°9	M12x1.75 n°9	300	50	125	45	1/2"	1/4"	1/4"
702 C2 K	215	192	165	204	232	255	M12x1.75 n°9	M12x1.75 n°9	285	70	115	45	1/2"	1/4"	1/4"
704 C2 K	264	240	200	230	262	286	M14x2 n°9	M14x2 n°9	345	68	167	46	1/2"	3/8"	1/4"
705 C2 K	268	244	210	230	260	286	M14x2 n°12	M14x2 n°12	340	75	144	50	1/2"	3/8"	1/4"
706 C3 K	308	280	246	280	330	370	M16x2 n°20	M16x2 n°12	412	100	193	50	1/2"	3/8"	1/4"
707 C3 K	350	320	280	300	340	370	M16x2 n°16	M16x2 n°20	440	91	210	84	3/4"	1/2"	1/4"
709 C3 K	375	340	300	330	370	400	M16x2 n°30	M16x2 n°30	470	99,5	246	84	3/4"	1/2"	1/4"
710 C3 K	375	340	300	350	400	435	M16x2 n°30	M16x2 n°30	455	91	243	84	3/4"	1/2"	1/4"
713 C2 K	450	410	360	410	455	490	M24x3 n°18	M20x2.5 n°22	500	106	265	84	3/4"	1/2"	1/4"
713 C3 K	480	440	380	410	455	490	M24x3 n°18	M20x2.5 n°24	570	100	287	90	1"	1/2"	1/4"
715 C3 K	500	460	420	460	510	550	M20x2.5 n°24	M20x2.5 n°24	605	130	315	90	1"	1/2"	1/4"
716 C3 K	500	460	420	460	500	548	M24x3 n°24	M18x1.5 n°36	663	165	308	118	1"	3/4"	1/4"
718 C3 K	570	510	450	576	626	670	M24x3 n°30	M24x3 n°30	730	170	350	118	1"	3/4"	1/4"
720 C3 K	650	600	480	610	680	735	M30x3.5 n°30	M24x3.5 n°24	800	170	370	118	1"	3/4"	1/4"

Track drive gearmotors
700CP series

HYDRAULIC SOLUTIONS

Extreme compactness, lightweight, efficiency and smooth operation are the key features of the 700CP series track drives, powered by integrated axial piston hydraulic motors, developed in cooperation with Poclain hydraulics.

Torque Range
1200 ... 5000 Nm

Machine weight
1 up to 6 tons

Gear Ratios
18.5 ... 57.5

Key Features
Rotating output flange with large PCD suitable for sprocket
Rugged design
High torque capacity
High load capacity
Mechanical lifetime seals
Compact design

Hydraulic motors
Fixed and dual displacement, complete with counterbalance valve.

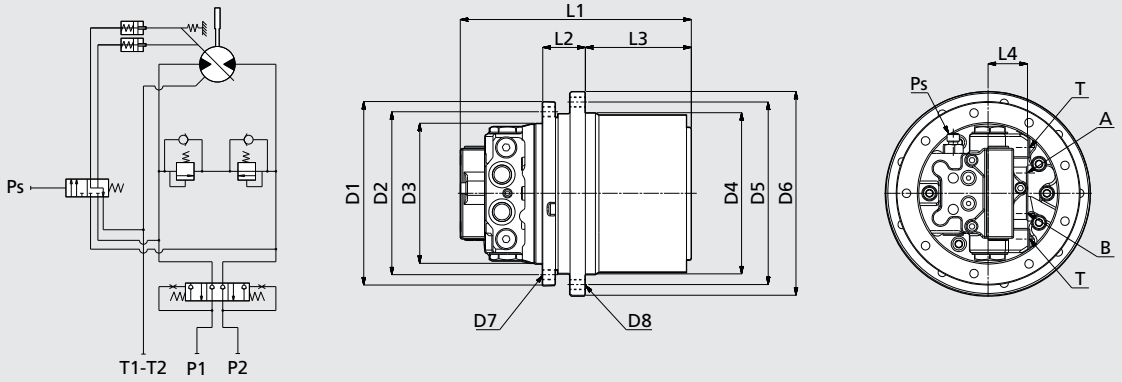
Motor options
Pressure relief valves, shockless type
Anticavitation valve

Brake
Hydraulically released failsafe parking brake automatically operated by main pressure

Type	Output torque (Nm)
700 C2 P	1200
700-2 C2 P	1900
701 C2 P	2500
702 C2 P	3500
704 C2 P	5000

Overall dimensions and technical data

TYPE	RATIOS	MOTOR DISPLACEMENT min/max	MAX. PRESSURE	MAX. OIL FLOW	WEIGHT	APPROX. WEIGHT OF MACHINE
	1:	cc/rev	bar	l/min	kg	ton
700 C2 P	18.5 - 26.5	14.7 / 7.7	215	25	18	up to 1.5
700-2 C2 P	18.9 - 36.8	17.85 / 7.7	230	30	24	1.5 ÷ 2
701 C2 P	31.1 - 57.5	17.85 / 7.8	250	35	36	2 ÷ 3
702 C2 P	31.1 - 57.5	29.0 / 11.8	275	50	41	3 ÷ 4
704 C2 P	30 - 55	36.4 / 16.7	275	65	60	4 ÷ 6



TYPE	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L4	A-B	T	Ps
700 C2 P	175	155	140	140	155	175	M10x1.5 no.8	M10x1.5 no. 9	220	45	138	*	*	*	*
700-2 C2 P	195	175	155	160	180	200	M10x1.5 no.8	M10x1.5 no.8	250	40	108	*	*	*	*
701 C2 P M	215	192	165	204	232	255	M12x1.75 no. 9	M12x1.75 no. 9	277	66	119	*	*	*	*
701 C2 P K	215	192	165	190	215	239	M12x1.75 no. 9	M12x1.75 no. 9	277	50	119	*	*	*	*
702 C2 P	215	192	165	204	232	255	M12x1.75 no. 9	M12x1.75 no. 9	304	70	119	*	*	*	*
704 C2 P	264	240	200	230	262	286	M14x1.75 no.12	M14x1.75 no.12	335	68	139	*	*	*	*

* Depend on motor version

Travel drive gearmotors
700CT series

HYDRAULIC SOLUTIONS

Extreme compactness, lightweight, efficiency and smooth operation are the key features of the 700CT series track drives, powered by integrated axial piston hydraulic motors.
Available for machines in the 2.5 to 9 Ton class range.

Torque Range
3500 ... 12500 Nm

Machine weight
2.5 up 9 Ton

Gear Ratios
15 ... 53

Key Features
Rotating output flange with large PCD suitable for sprocket
Rugged design
High torque capacity
High load capacity
Mechanical lifetime seals
Compact design

Hydraulic motors
Bonfiglioli Trasmital hydraulic motors, fixed OR dual displacement, with flushing valve circuit, suitable for closed loop applications.

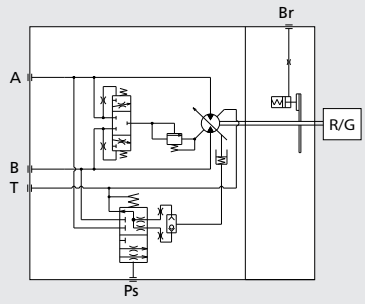
Motor options
Speed sensor mounting.

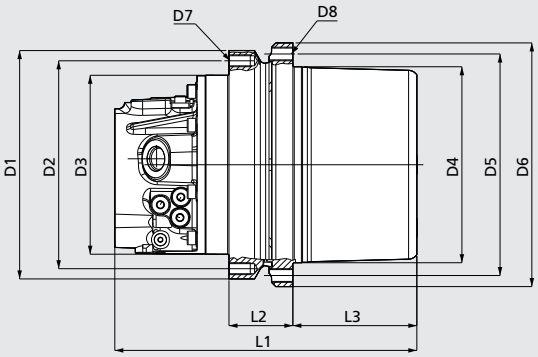
Brake
Hydraulically released spring applied parking brake, with external indipendent port.

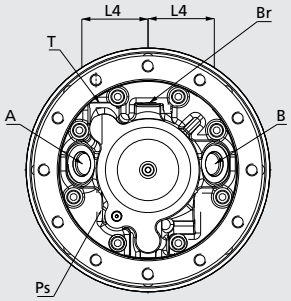
Type	Torque (Nm)
702 C2 T	3500
704 C2 T	5000
705 C2 T	9000
706 C2 T	12500

Overall dimensions and technical data

TYPE	WEIGHT	OUTPUT TORQUE	RATIOS	MOTOR TYPE
	tons	Nm	1:	
702 C2 T	2.5 - 3.5	3500	15 ÷ 22	high speed
704 C2 T	3.5 - 5	5000	18	high speed
705 C2 T	5 - 7	9000	25 ÷ 30	high speed
706 C2 T	7 - 9	12500	53	high speed







TYPE	D1	D2	D3	D4	D5	D6	D7	D8	L1	L2	L3	L4	A-B	T	PS
702 C2 T	270	240	210	210	245	275	M16x2 n°8	M16x2 n°12	340	153	70	77	1" 1/16-12 UNF	3/4"-16 UNF	9/16"-18 UNF
704 C2 T	268	244	210	230	260	286	M14x2 n°12	M16x2 n°8	355	75	146	77			
705 C2 T	268	244	210	230	260	286	M14x2 n°12	M14x2 n°12	355	75	144	77			
706 C2 T	308	280	246	275	305	331	M14x2 n°16	M14x2 n°16	390	100	156	77			

Drum drives
700C series

Dual stage planetary drive units with integrated pulley support designed for Cold Planers and Milling Machines from 15 to 55 tons with engine power from 200 to 550 kW and Rotor width from 1.0 to 2.5 m.
The offset input option ensures higher machine productivity due to the increased cutting depth.
The unique integrated cooling system allow greater performances, easier system maintenance and the highest level of reliability.

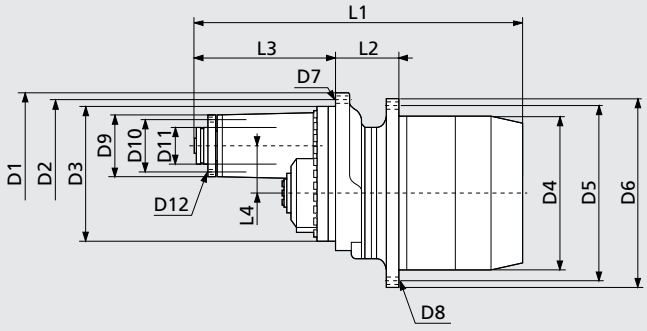
Planetary gearbox specifically designed for drum drive:

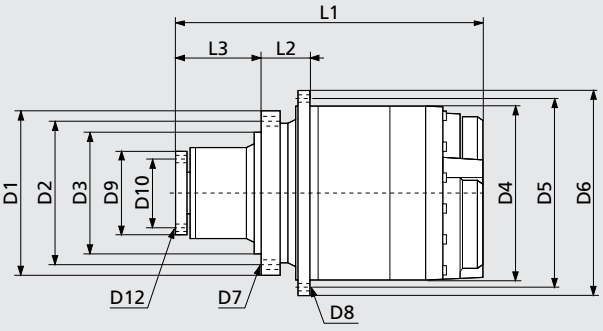
- Dual stage planetary reduction
- Integrated pulley support shaft with reinforced bearings
- Optimized housing design for improved lubrication performance
- Offset input available for increased cutting depth
- Integrated cooling system (optional)

Type	Torque (Nm)
710 C2 H	20000
713 C2 H	25000
716 C2 H	45000

Overall dimensions and technical data

TYPE	RATIOS	MAX CUTTING TORQUE	MAX INPUT POWER	BEARINGS LOAD RATINGS		VERSION
	1:	Nm	kW	C dyn. (kN)	C0 stat. (kN)	
710 C2 H	16	20000	200	360	760	Offset
713 C2 H	16.4 - 19 - 22.9	25000	220	473	950	Offset
716 C2 H	18.5 - 21.8	45000	380	484	1000	In line





TYPE	VERS.	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	L1	L2	L3	L4
710 C2 H	Offset	350	310	270	350	400	440	M20x2.5 n°24	Ø22 n°22	145	122	80	M12x1.75 n°8	811	195	265	95
713 C2 H	Offset	420	385	350	400	450	490	M20x2.5 n°23	Ø22 n°23	160	130	95	M12x1.75 n°8	834	160	325	120
716 C2 H	In line	435	381	323.85	460	500	540	M20x2.5 n°23	Ø22 n°24	240	160	-	M16x2 n°6	799	125	224.5	-

Slew drives
700T series

ELECTRIC SOLUTIONS HYDRAULIC SOLUTIONS

Bonfiglioli 700T series provide the safest and most effective solution for cranes, excavators and forestry machines.
Highly appreciated by all the major manufacturers, the 700T Series have long been established in the cranes, excavators and special equipment industries.

Torque Range
1000 ... 80000 Nm

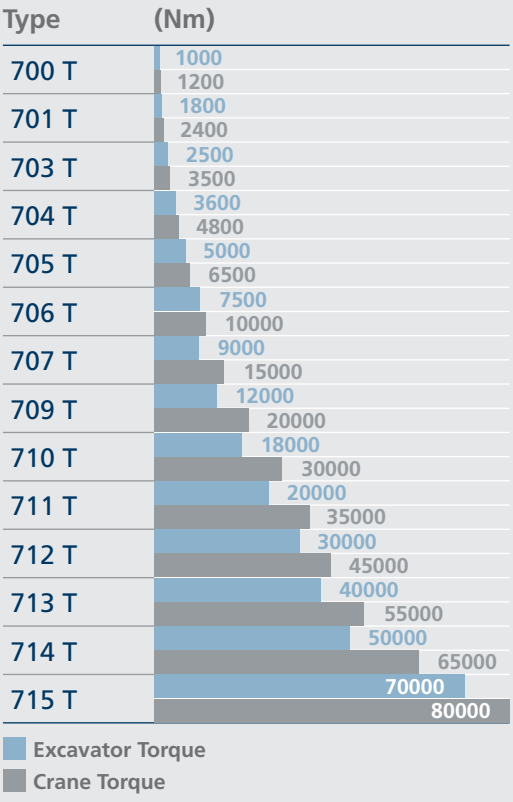
Gear Ratios
3.4 ... 2000

Key Features
Flange mounted
Output shaft: splined or with integral pinion
Rugged construction
High torque capacity
Output shafts supported by heavy duty capacity bearings

Hydraulic motor options
Pressure relief valve
Overcenter valve

Hydraulic Brake
Hydraulically released parking brake on request

Electric Brake
DC and AC type

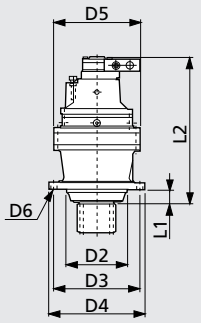


Overall dimensions and technical data

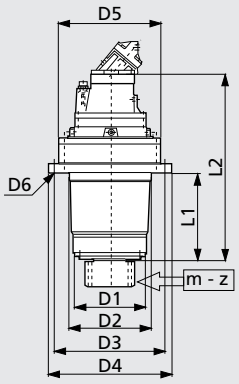
TYPE	RANGE OF RATIOS	MAX. INPUT SPEED	HYDRAULIC MOTOR DRIVE(1)	BRAKING TORQUE	MIN. OPENING PRESSURE	WEIGHT	DESIGN
	max/min	bar		Nm	bar	Kg	
700 T F	3.48-7.2	500	LS	50 - 400	10 - 30	22	A
701 T F	3.48-7.2	500	LS	50 - 400	10 - 30	27	A
703 T F	12-44	3000	HS	50 - 400	10 - 30	45	A
704 T F	12-44	3000	HS	50 - 400	10 - 30	50	A
705 T F	12-44	3000	HS	50 - 400	10 - 30	55	A
705 T L	12-44	3000	HS	50 - 400	10 - 30	80	B
706 T N	15-46	3000	HS	400 - 1000	20 - 30	95	B
707 T N	17-47	3000	HS	400 - 1000	20 - 30	140	B
709 T N	17-47	3000	HS	400 - 1000	20 - 30	165	B
710 T N	19-38	3000	HS	400 - 1000	20 - 30	250	B
711 T C	14-39	3000	HS	400 - 1000	20 - 30	300	B
711 T F	14-39	3000	HS	400 - 1000	20 - 30	160	A
712 T F	80-200	3000	HS	400 - 1000	20 - 30	450	A
712 T N	80-200	3000	HS	400 - 1000	20 - 30	450	B
713 T N	50-300	3000	HS	400 - 1000	20 - 30	500	B
714 T F	90-180	3000	HS	400 - 1000	20 - 30	160	A
715 T N	57-250	3000	HS	400 - 1000	20 - 30	650	B

(1) LS = Low speed motor / **HS** = High speed motor

DESIGN A



DESIGN B



TYPE	D1	D2	D3	D4	D5	D6	L1	L2	m z
700 T F	–	150	195	220	186	12.5	31	300	Module / number of teeth of pinion UPON REQUEST
701 T F	–	150	195	220	186	12.5	31	325	
703 T F	–	175	245	272	245	18	41	410	
704 T F	–	175	245	272	245	18	41	400	
705 T F	–	175	245	272	245	18	41	440	
705 T L	180	195	245	290	245	13	171	470	
706 T N	200	250	325	360	292	17	225	560	
707 T N	230	280	314	348	345	17	295	670	
709 T N	250	280	380	420	345	17	295	720	
710 T N	300	425	460	500	400	22	360	730	
711 T C	300	425	460	500	428	22	345	735	
711 T F	500	320	500	560	425	22	70	750	
712 T F	–	410	450	490	420	ø21 n°24	120	900	
712 T N	400	425	470	510	420	ø20 n°30	350	900	
713 T N	340	400	510	560	445	22	420	1030	
714 T F	–	420	490	530	490	ø22 n°24	160	1100	
715 T N	370	470	600	640	542	22	465	1250	

Slew drives
700TK series

HYDRAULIC SOLUTIONS

The 700TK series is the compact and powerful slew drive package for excavators from 1.5 up to 150 tons class.
The units are powered by integrated axial piston hydraulic motors, developed in cooperation with Kayaba and can be accommodated within the smallest space.

Torque Range
750 ... 30000 Nm

Excavator weight
1.5 to 150 Ton

Gear Ratios
7 ... 40

Key Features
Flange mounted
Output shaft with integral pinion
Rugged construction
High torque capacity
Output shafts supported by heavy duty bearings
Compact design

Hydraulic motors
Kayaba hydraulic motor fixed displacement complete with shockless type pressure relief valve

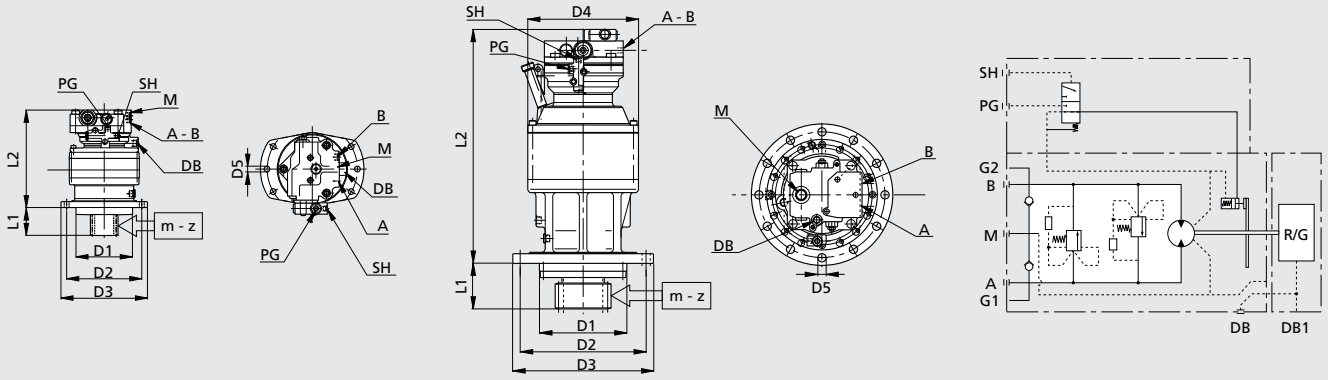
Motor options
Anti swing-back valve

Brake
Hydraulically released failsafe parking brake
Brake retarder valve on request

Type	Excavator Torque (Nm)
700 T1 K	750
701 T2 K	1200
703 T2 K	2500
705 T2 K	5000
706 T2 K	7500
707 T2 F	9000
709 T2 F	11000
710 T2 F	15000
711 T2 F	24000
713 T2 F	30000

Overall dimensions and technical data

TYPE	GEARBOX	MOTOR DISPLACEMENT	MAX. PRESSURE	MAX. FLOW	PARKING BRAKE		RANGE OF RATIO	APPROX. WEIGHT OF MACHINE
	nbr	cm	bar	l/min	Yes	No	1:	Ton
700 T1 K	1	27.4	210	18	•	•	8.2	1.5 - 2.5
701 T2 K	1	27.4	210	30	•	•	13.7-20.8	3 - 4
703 T2 K	1	27.4	250	50	•	•	14.8-35.6	5 - 6
705 T2 K	1	44.1	280	80	•		18-26.3	7 - 8
706 T2 K	1	87.3	320	160	•		15.3-33	9 - 13
707 T2 F	1	87.3	320	160	•		14.7-22.3	15 - 18
709 T2 F	1	130-160-180	270 ÷ 290	180 ÷ 240	•		19-25	21 - 26
710 T2 F	1	160-180	270 ÷ 290	250	•		22-26	26 - 30
711 T2 F	1	210	270 ÷ 290	290	•		21-25	30 - 35
709 T2 F	2	130-160-180	270 ÷ 290	180 ÷ 240	•		19-25	35 - 45
710 T2 F	2	160-180	270 ÷ 290	250	•		22-26	45 - 60
711 T2 F	2	210	270 ÷ 290	290	•		21-25	60 - 80
713 T2 F	2	160-180	270 ÷ 290	270	•		25-35	80 - 120



TYPE	D1	D2	D3	D4	D5	D6	A-B	DB	M	SH	PG	m	z
700 T1 K	–	228	260	186	ø 13 n°6	76	MAIN PORT	DRAIN PORT	ANTICAVITATION PORT	SPOOL OPERATING PORT	BRAKE RELEASE PORT	Module / number of teeth of pinion UPON REQUEST	
701 T2 K	175	228	260	186	ø 13 n°6	86							
703 T2 K	175	245	272	244	ø 18 n°10	120							
705 T2 K	230	245	272	244	ø 18 n°10	120							
706 T2 K	230	332	372	292	ø 22 n°10	150							
706 T2 K	270	332	372	292	ø 22 n°10	150							
707 T2 K	–	360	410	348	ø 22 n°12	160							
707 T2 F	–	360	410	348	ø 22 n°12	160							
709 T2 F	270	360	410	348	ø 22 n°12	160							
710 T2 F	390	460	510	400	ø 22 n°12	160							
711 T2 F	370	470	520	430	ø 22 n°12	160							
713 T2 F	550	600	660	445	ø 26 n°24	350							

Winch drives
800 series

ELECTRIC SOLUTIONS HYDRAULIC SOLUTIONS

The units of the 800 series are specifically designed for winch applications, and can be easily accommodated within the drum itself. Available in various gear ratios, units feature heavy duty bearings and an optional failsafe parking or emergency multidisc brake.

Torque Range
5000 ... 42000 Nm

Line rope range
35000 ... 170000 N

Gear Ratios
21 ... 108

Key Features
Rotating housing flange
Rugged construction
High torque capacity
High load capacity
Freewheel for antirun-back device, as an optional

Applicable hydraulic motors
Flanged axial piston motors
Orbit motors

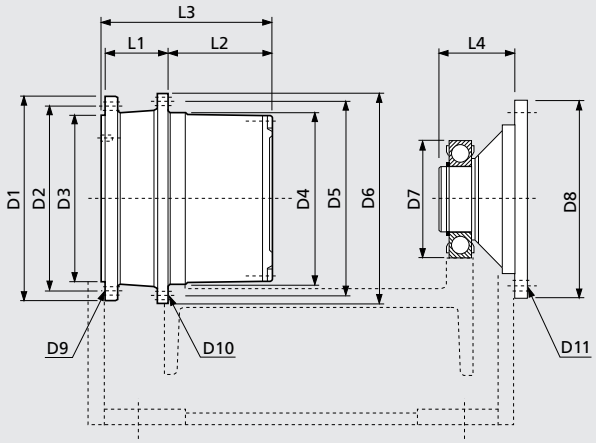
Brake
Hydraulically released parking brake on request

Type	Torque (Nm)
805 W2	5000
806 W2	10000
810 F2	17500
811 W2	27000
813 W3	42000

Type	Max. line rope (N)
805 W2	35000
806 W2	50000
810 F2	85000
811 W2	120000
813 W3	170000

Overall dimensions and technical data

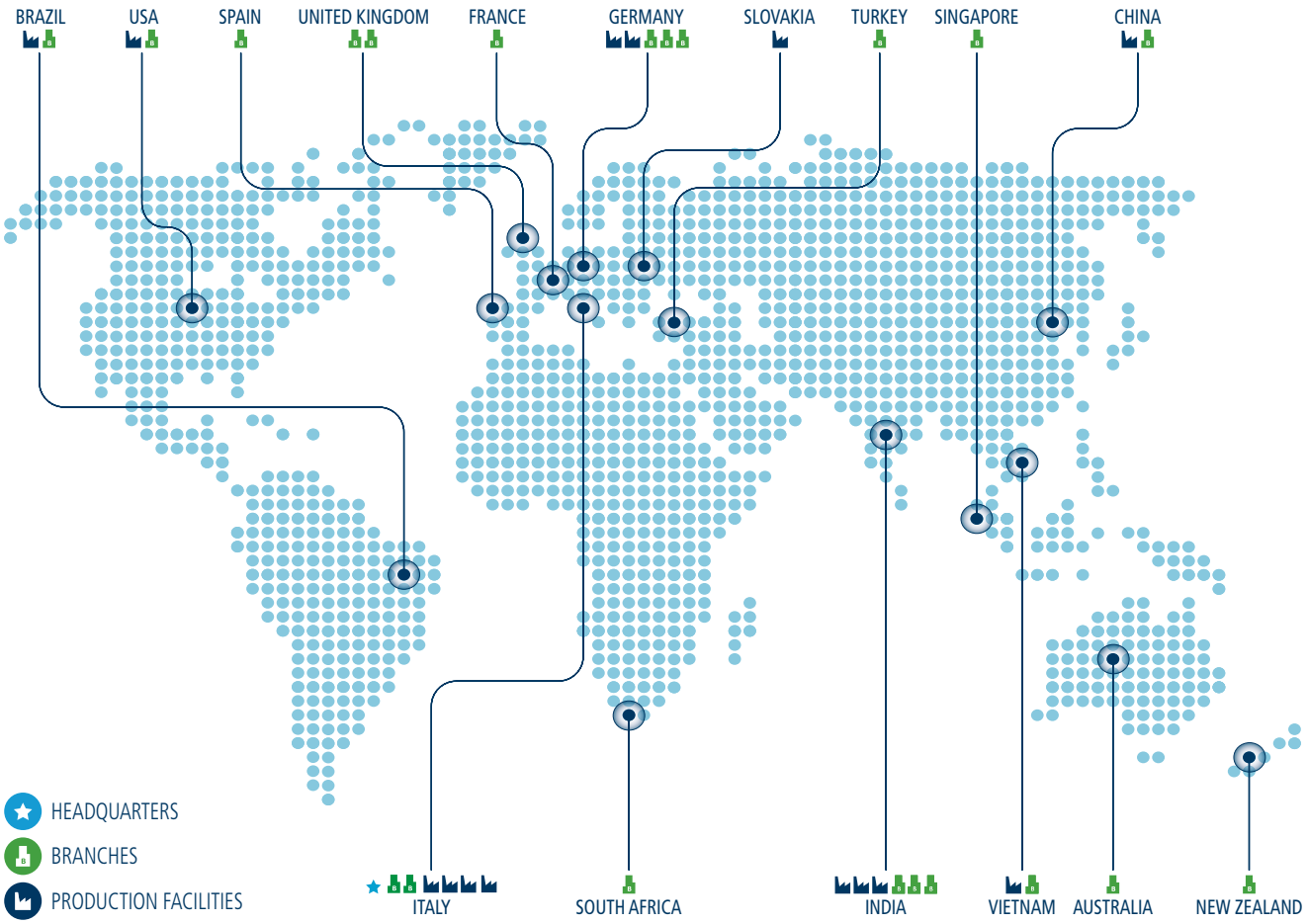
TYPE	RANGE OF RATIOS	MAX. INPUT SPEED	BRAKING TORQUE	MIN. OPENING PRESSURE	WEIGHT
	1:	min^{-1}	Nm	bar	Kg
805 W2	22 - 53	3000	500 - 750	15 - 25	70
806 W2	30 - 44	3000	700 - 1000	15 - 25	95
810 F2	21 - 46	3000	800 - 1200	15 - 25	160
811 W2	42	2500	900 - 1300	15 - 25	270
813 W3	60 - 108	2500	900 - 1300	15 - 25	310



TYPE	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	L1	D11	L1	L4
805 W2	265	240	215	225	250	270	140	210	M12x1.75 n°16	ø13 n°16	ø13 n°8	75	158	250	95
806 W2	330	300	270	280	315	340	140	210	M16x2 n°12	ø17 n°12	ø13 n°8	100	165	280	95
810 F2	270	240	215	350	375	410	190	320	M16x2 n°18	ø13 n°24	ø19 n°12	25	310	360	110
811 W2	420	325	280	410	455	490	190	320	M20x2.5 n°21	ø22 n°24	ø19 n°12	110	260	390	110
813 W3	420	325	280	410	455	490	190	320	M20x2.5 n°21	ø22 n°24	ø19 n°12	110	275	405	110

Bonfiglioli worldwide presence

Bonfiglioli is located in regions and countries around the world that enable us to provide faster sales and service to customers.
We are around the world, and around the corner.



LOCAL SUPPORT
Sales, Customer Service, Warranty, Tech support, Spare parts

21 BRANCH OFFICES IN 15 COUNTRIES

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Bonfiglioli
Forever Forward

We have a relentless commitment to excellence, innovation and sustainability. Our team creates, distributes and services world-class power transmission and drive solutions to keep the world in motion.

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