



GEARBOXES

The product information and specifications within this catalogue should be viewed as a guide only and are subject to change without notice. Please refer to inside front cover for further details.



FAIRFIELD Torque-Hub® Wheel Drives

Torque-Hub® Wheel Drives are proven performers in many types of off-road, mobile vehicles and equipment. In these applications, wheel drives are often used to propel pneumatic tyres, tracks or rollers. They have also found a variety of uses in other industries such as on-road equipment, where Torque-Hub® units are applied in street sweepers and buses. In industrial and marine applications, wheel drives are used to power winches and hoists.



FAIRFIELD Torque-Hub® Shaft Output Drives

Torque-Hub® Shaft Output Drives can be applied to industrial applications such as conveyors, mixers and augers. Shaft output Torque-Hub® units also meet power requirements for mobile equipment such as swing drives on access platforms, cranes, elevators and logging equipment. Our largest Torque-Hub® unit, the S200A shaft output, has a continuous rating of more than two million inch-pounds. It is used to raise and lower legs of marine jack-up boats.

FAIRFIELD

ENGINEERED DRIVE SOLUTIONS

Fairfield Manufacturing Company Inc; headquartered in Lafayette, Indiana USA, is a world leader in gears, gear products, and power transmission drive solutions with more than 80 years experience.

Fairfield's Torque-Hub products produce more power in a smaller, lighter and efficient design. Torque-Hub final drives deliver torque output with high durability for industrial and mobile equipment. Driven by either hydraulic or electric motors, Torque-Hub drives offer an effective solution for a wide range of applications such as drive, swing and lift requirements.



Series	Model Code	TORQUE RATINGS (lbs in)		RATIOS (X:1)	
		Maximum Continuous	Maximum Intermittent	Wheel Drive	Shaft or Spindle Output
07	W07A	7,500	15,000	4	
	S07A	7,500	15,000		4
1	W1A	15,000	30,000	18, 24, 30, 35, 40, 47, 49, 58, 60, 68	
	W1B	15,000	30,000	18, 24, 30, 35, 40, 47, 49, 58, 60, 68	
	S1A	15,000	30,000		19, 25, 31, 36, 41, 50, 61, 69
	S1B	15,000	30,000		19, 25, 31, 36, 41, 50, 61, 69
	S1C	15,000	30,000		3, 4, 5
	S1E	15,000	30,000		4, 5
	2	W2B2	25,000	50,000	13, 20, 25, 28, 34, 37, 43, 49, 55, 68
S2A		25,000	50,000		14, 21, 26, 29, 35, 38, 44, 50
S2B		25,000	50,000		14, 21, 26, 29, 35, 38, 44, 50
3	W3B	37,500	75,000	18, 24, 30, 35, 43, 54, 73	
	W3C	37,500	75,000	18, 24, 30, 35, 43, 54, 73	
	S3A	37,500	75,000		19, 25, 31, 36, 38, 44, 51, 55, 74
	S3B	37,500	75,000		19, 25, 31, 36, 38, 44, 51, 55, 74
4	W4B	40,000	80,000	11, 12, 17, 21, 26, 30, 37	
	W4C	40,000	80,000	12, 17, 21, 26, 30, 37	
5	W5B	50,000	100,000	15, 17, 22, 25, 29, 35, 42, 49	
6	W6C1	60,000	120,000	13, 15, 19, 26, 32	
	S6A	60,000	120,000		13, 16, 19, 26, 32
	S6C	60,000	120,000		4, 5, 6
	S6B	60,000	120,000		13, 16, 19, 26, 32, 42
	L6B	60,000	120,000	35	
7	W7C	75,000	150,000	26, 44, 58, 72, 94	
	R7C2	75,000	150,000	26, 44, 58, 72, 94	
	S7A	75,000	150,000		27, 45, 59, 73, 95
	S7B	75,000	150,000		27, 45, 59, 73, 95
8	W8B1	79,659	159,318	16, 18, 50	
10	W10C2	125,000	250,000	44, 59, 70, 81, 99, 124	
	S10A	125,000	250,000		44, 59, 70, 81, 99, 124
	S10B	125,000	250,000		44, 59, 70, 81, 99, 124
11	R11C	125,000	250,000	46, 57	
12	W12C3	125,000	250,000	20, 29, 40	
	S12A	125,000	250,000		20, 29, 40
	S12B	125,000	250,000		20, 29, 40
20	W20D1	250,000	500,000	26, 36, 53, 61, 85, 115	
	S20A1	250,000	500,000		
	S20B1	250,000	500,000		27, 37, 54, 62, 86, 116
25	W25D4	200,000	400,000	19, 24, 25, 67, 88	
	S25A	200,000	400,000		19, 26, 36
	S25B4	200,000	400,000		19, 26, 36
50	W50D9	500,000	1,000,000	18, 20, 24	
	S50A	500,000	1,000,000		25, 30, 40, 94
	S50B	500,000	1,000,000		25, 40
90	W90	1,470,000	2,941,000	25, 95, 113, 118, 151	
	S90B1	900,000	1,800,000		26



FAIRFIELD Excel Series - 7000 Series

The new Torque-Hub® 7000 Series incorporates a family of compact, highly efficient wheel drives, specifically engineered for a wide range of mobile construction and off-highway equipment. Double and triple reduction ratios from 19:1 to 132:1 are available and output torque capability is 7,000 Nm (60,000 lb-in) maximum. The drive is available in three versions; SAE standard motor input with optional Torque-Lock bolt-on brake, SAE standard input with integrated spindle brake, or a cartridge motor input with integrated brake. All versions are equipped with a disengage feature for towing.

All 7000 Series products have a maximum intermittent torque rating of 7,000 Nm (60,000 lb-in) and a continuous torque rating of 3,500 Nm (30,000 lb-in).

Model Code	Description	Radial Load (lb)	Overall Length (in)	Double Ratios	Triple Ratios	Pilot Diameter (in)
7HBO	Standard SAE B Motor Mount	5,500	8.86 (D)	19:1 to	N/A	7.885
			10.34 (T)	57:1		
7HBA	SAE B Motor Mount with Integrated Brake	14,000	8.86 (D)	19:1 to	74:1 to	7.885
			10.34 (T)	57:1	132:1	
7HP	Cartridge Motor Mount with Integrated Brake	14,000	8.86 (D)	19:1 to	74:1 to	7.885
			10.34 (T)	57:1	132:1	



FAIRFIELD Excel Series - 11000 Series

The new Torque-Hub® 11000 Series incorporates a family of compact, highly efficient wheel drives, specifically engineered for a wide range of mobile construction and off-highway equipment. Double reduction ratios from 15:1 to 57:1 are available and output torque capability is 11,000 Nm (100,000 lb-in) maximum. The drive is available in five versions; SAE standard motor input with optional Torque-Lock bolt-on brake, SAE B or SAE C standard input with integrated spindle brake, Sauer L and K frame cartridge motor input with integrated brake or a Sauer 51 Series 60cc motor input with integrated brake. All versions can be equipped with a disengage feature for towing.

All 11000 Series products have a maximum intermittent torque rating of 11,000 Nm (100,000 lb-in) and a continuous torque rating of 5,500 Nm (50,000 lb-in).

Model Code	Description	Radial Load (lb)	Overall Length (in)	Double Ratios	Pilot Diameter (in)
11HBO	Standard SAE B Motor Mount	14,000	10.61	15:1 to	9.449
				57:1	
11HBA	SAE B Motor Mount with Integrated Brake	16,000	10.52	15:1 to	9.449
				57:1	
11HPA	Sauer L & K Frame Cartridge Motor Mount with Integrated Brake	16,000	10.76	15:1 to	9.449
				57:1	
11HPE	Sauer 51 Series 60cc Cartridge Motor Mount with Integrated Brake	16,000	10.76	15:1 to	9.449
				30:1	
11HCE	SAE C Motor Mount with Integrated Brake	16,000	10.76	15:1 to	9.449
				30:1	



FAIRFIELD **Excel Series - 18000 Series**

The new Torque-Hub® 18000 Series incorporates a family of compact, highly efficient wheel drives, specifically engineered for a wide range of mobile construction and off-highway equipment. Double and triple reduction ratios from 15:1 to 121:1 are available and output torque capability is 18,000 Nm (160,000 lb-in) maximum. The drive is available in two versions; SAE standard input with integrated spindle brake (SAE B or C), or a cartridge motor input with integrated brake (3 motor frame sizes). All versions are equipped with a disengage feature for towing.



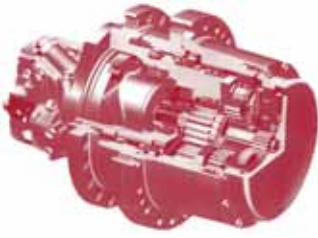
All 18000 Series products have a maximum intermittent torque rating of 18,000 Nm (160,000 lb-in) and a continuous torque rating of 9,000 Nm (80,000 lb-in).

Model Code	Description	Radial Load (lb)	Overall Length (in)	Double Ratios	Triple Ratios	Pilot Diameter (in)
18HB	SAE B Motor	18,000	10.79 (D)	15:1 to	79:1 to	11.00
	Mount with Integrated Brake		12.56 (T)	48:1	121:1	
18HC	SAE C Motor	18,000	10.79 (D)	15:1 to	N/A	11.00
	Mount with Integrated Brake			48:1		
18HPA1	Cartridge Motor	18,000	12.56 (T)	N/A	79:1 to	11.00
	Mount with Integrated Brake - Sauer LC/KC Input				121:1	
18HPA2	Cartridge Motor	18,000	10.79 (D)	15:1 to	79:1 to	11.00
	Mount with Integrated Brake - Sauer 51 Series 60cc		12.56 (T)	57:1	121:1	
18HPA4	Cartridge Motor	18,000	10.79 (D)	15:1 to	N/A	11.00
	Mount with Integrated Brake - Sauer 51 Series 80cc			57:1		



FAIRFIELD Torque Hub Planetary Final Drives - CT and CW Series

ENGINEERED DRIVE SOLUTIONS



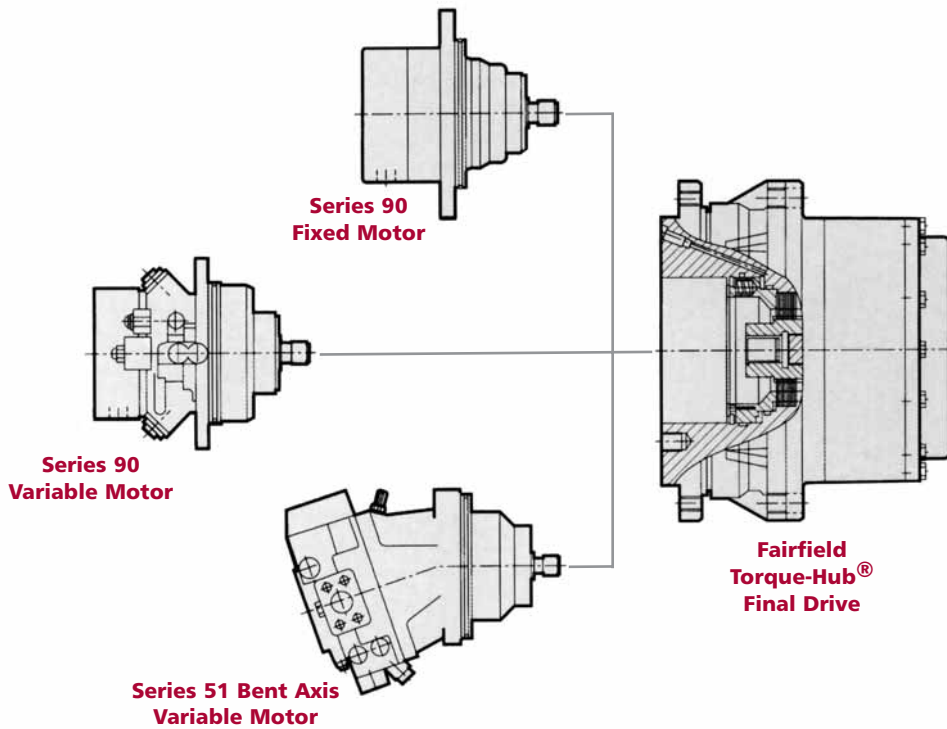
Fairfield CT and CW Series Torque-Hub final drives combine with cartridge-style motors to provide one of the shortest, most compact track, drum and wheel-drive systems available. These compact units feature double and triple stage reduction packages, as well as optional, integrated hydraulic parking brakes.

PERFORMANCE DATA:

Model Code	Max. Output Torque* Nm (lb-in)	Max. Dynamic Load Capacity Kg (lb)	Max. Output Speed** Min ⁻¹ (rpm)	Max. (Static) Brake Torque Nm (lb-in)	Ratios
Torque-Hub® Track Drives					
CT18	18,000 (160,000)	100 (22,480)	80	498 (4,410)	63 - 136:1
CT26	26,000 (230,000)	110 (24,730)	80	609 (5,390)	51 - 131:1
CT35	35,000 (310,000)	120 (26,980)	80	673 (5,964)	63 - 136:1
CT45	45,000 (400,000)	140 (31,470)	80	673 (5,964)	63 - 136:1
Torque-Hub® Wheel Drives					
CW12	12,000 (110,000)	80 (17,980)	200	609 (5,390)	18 - 51:1
CW18	18,000 (160,000)	80 (17,980)	180	609 (5,390)	18 - 51:1

* Continuous rating is 1/2 of maximum output torque rating.

** Determined by gearbox ratios and motor selection.



MOTOR COMBINATIONS:

	Series 40	Series 90	Series 90	Series 90	Series 90	Series 90	Series 51
Frame Size	046	042	055	055	075	075	080
Displacement cm³ (in³)	46.0 (2.80)	42.0 (2.56)	55.0 (3.35)	55.0 (3.35)	75.0 (4.57)	75.0 (4.57)	80.7 (4.92)
Weight Kg (lb)	20 (44)	17 (37)	22 (48)	40 (88)	26 (57)	46 (101)	32 (71)
Style*	V	F	F	V	F	V	V
Torque-Hub® Track Drives							
CT18	●	●	●				
CT26	●	●	●	●	●		●
CT35	●	●	●	●	●	●	●
CT45	●	●	●	●	●	●	●
Torque-Hub® Wheel Drives							
CW12	●	●	●	●	●		●
CW18	●	●	●	●	●		●

* F (Fixed Motor) or V (Variable Motor)

● Potential Combinations



TRASMITAL BONFIGLIOLI Multipurpose Gearbox - 300 Series

FEATURES:

- Modular construction, numerous configurations available in 14 frame sizes with torque capacity up to 450.000 Nm and power up to 450 kW
- Reduction ratios ranging from 3.4 to 5,000
- In line or right angle configurations with bevel or worm inputs (for high reduction ratios)
- Flanged, foot or shaft mounted output
- Output shafts:
 - with keyway
 - splined
 - splined hollow
 - hollow shaft with shrink disc
- Input shafts:
 - electric motors
 - hydraulic motors
- Optional hydraulically released failsafe brake, in combination with units operated by hydraulic motors
- Accessories for output shafts:
 - flanges
 - pinion gears
 - shrink discs
 - splined bars



TRASMITAL BONFIGLIOLI

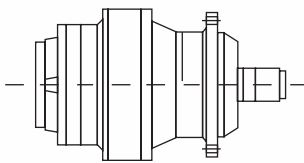
The Bonfiglioli Trasmital trademark has been synonymous with a vast offering of planetary gear motors in the power transmission market since 1976.

With a well-established name worldwide and the product diversification to match, Bonfiglioli Trasmital's extensive product range in planetary gear motors and gear units offer effective, reliable solutions in power transmission and motion control to both industrial and mobile industries around the globe.

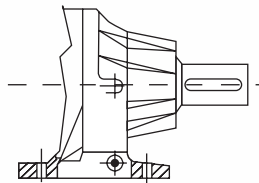


Model Code	Max. Torque Nm	Max. Power kW	Max. Input Speed RPM	RATIOS		Design
				Inline	Right Angle	
300	1000	20	3000	3.4 - 2700	7 - 700	A
301	1750	30	3000	3.4 - 2700	7 - 700	A
303	2500	40	3000	3.6 - 2800	9 - 800	A
305	5000	60	3000	3.6 - 2800	9 - 800	A
306	8500	75	2500	3.6 - 2900	9 - 800	A
307	12500	100	2500	3.4 - 2400	13 - 700	A
309	18500	130	2500	3.4 - 2400	13 - 700	B
310	25000	150	2000	4 - 2500	40 - 900	B
311	35000	180	2000	4 - 2100	18 - 800	B
313	50000	200	2000	4 - 2200	18 - 800	B
315	80000	250	1500	4 - 1800	70 - 900	B
316	105000	280	1800	4 - 1280	78 - 645	B
317	150000	300	1000	4 - 1900	70 - 900	B
318	200000	340	1800	4 - 1064	216 - 695	B
319	300000	380	500	4.8 - 1400	300 - 800	B
321	450000	450	300	4.4 - 1100	300 - 800	B

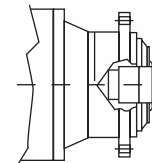
DESIGN A: 300 - 307



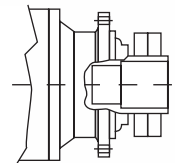
OUTPUT
VERSIONS HZ



OUTPUT
VERSIONS PC

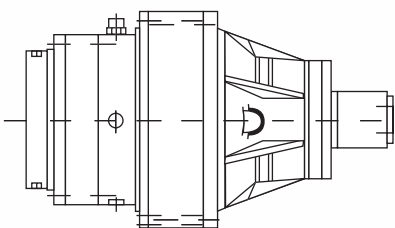


OUTPUT
VERSIONS FZ

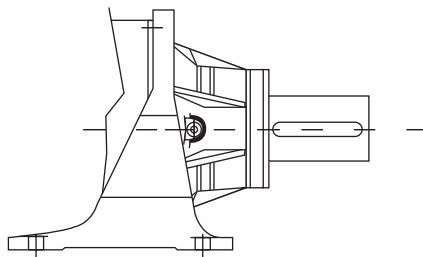


OUTPUT
VERSIONS FP

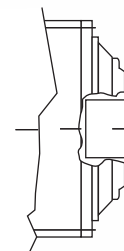
DESIGN B: 309 - 321



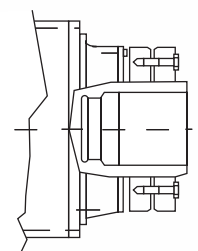
OUTPUT
VERSIONS HZ



OUTPUT
VERSIONS PC



OUTPUT
VERSIONS FZ



OUTPUT
VERSIONS FP