500 series
Transit mixer drives

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

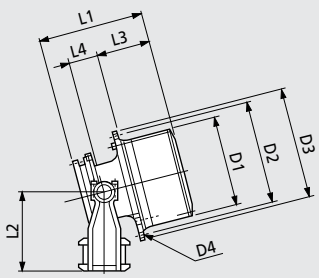
Type	Torque (Nm)
501	3000
564	12000
565	12000
567	20000
568	20000
575	50000
577	60000
580	75000

Overall dimensions and technical data

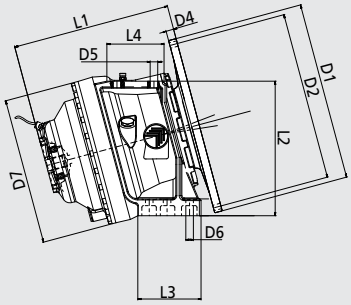
TYPE	RANGE OF RATIOS	HYDR. MOTOR DRIVE (1)	MAX. INPUT SPEED	DRUM CAPACITY (2)	WEIGHT	OIL QUANTITY	DESIGN	WATER PUMP P.T.O.	SPEED SENSOR
	1:		min^{-1}	m^3	kg	L			
501	17-23-29	LS	550	0.5 - 1	45	1.5	A	–	–
564	78-161	HS	2500	2 - 3	85	2	A	–	–
565	22	LS	550	2 - 3	70	1.5	A	–	–
567	76-90-115-128	HS	2500	4 - 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	•	•

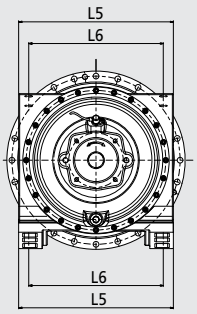
(1) **LS** = Low speed motor / **HS** = High speed motor
(2) General indication, application capacity depend on concrete slump
– = Not available
• = Available

DESIGN A



DESIGN B





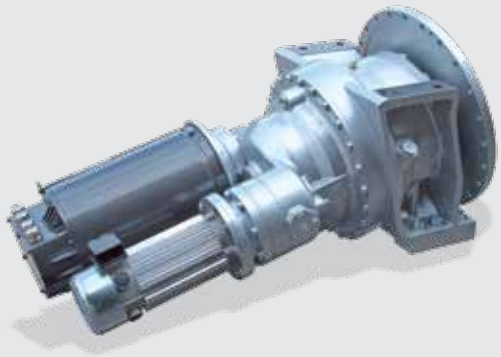
TYPE	D1	D2	D3	D4	D5	D6	D7	L1	L2	L3	L4	L5	L6
501	200	222	245	13 n°4	–	–	–	270	195	138	89	–	–
564	280	310	340	17 n°10	–	–	–	365	240	165	85	–	–
565	280	310	340	17 n°10	–	–	–	290	240	165	85	–	–
567	358	390	430	17 n°18	–	–	–	435	300	210	110	–	–
568	358	390	430	17 n°18	–	–	–	360	300	210	110	–	–
575	530	500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

500 series with electric motor
Drum drive with electric motor

This solution is designed for use with medium/large mixer trucks that have medium/long delivery distances to travel.

Drum rotation speed is between 15 and 22 rpm and capacity between 6 and 14 m^3.

Bonfiglioli innovative solution comprises a gearbox of Bonfiglioli's historical 500 Series coupled to an AC electric motor that provides 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 (for example by extending service intervals and making servicing simpler than on hydraulic drive solutions). Performance is improved too: rotation speed control is more accurate, operating noise levels are significantly lower (thanks to the electric motor and the helical tooth profile of the high speed gearbox stage).
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 (if the drum cannot rotate, the cement can solidify and put the mixer truck out of action).



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