



*empowering your ideas*

*for mobile, marine, mining and industrial applications*



**MECHANICAL PRODUCTS**

*Highest Quality Components*



## WHO WE ARE

YOUNG POWERTECH Inc. and YOUNG POWERTECH CANADA LTD. are manufacturers and distributors of Mechanical, Hydraulics, Electric and Electronic assemblies for Construction, Farming, Marine, Mining and Industrial equipment.

YOUNG POWERTECH Inc. and YOUNG POWERTECH CANADA LTD. were started by people with decades of experience in the field that have owned and operated similar companies with great success. They are dedicated to bringing a higher level of products and services to their customers. With offices and warehouses in the USA and CANADA, YOUNG POWERTECH Inc. is prepared to service any customer requirements in North America.

We have partnered with some of the largest and best known manufacturers of several product lines that will enable YOUNG POWERTECH to supply drives systems from fractional HP to several thousand HP and in every possible configuration to tit and improve most construction, farming, marine, mining, and industrial applications.

## OUR VISION

YOUNG POWERTECH seeks to become a preferred source for providing a complete, reliable engineering system from our product lines for our customers to reduce cost while improving system performance and customer satisfaction.

## OUR MISSION

Our mission is to provide long term value to our customers by delivering the best products and service while creating a mutually beneficial long term relationships with our stakeholders.



**EMPOWERING  
YOUR IDEAS**

## Introduction



### COMPANY PROFILE

YOUNG POWERTECH supplies a full product range for power transmission and control.

In today's rapidly changing business environment, successful companies must have the flexibility and resources to meet the current and future needs of its customers. In our industry, we have the ability to supply advanced systems that are capable of performing in the most severe conditions. Our extensive product line allows us to supply complete packages or systems to improve equipment performance while minimizing the number of different suppliers that provide parts.

YOUNG POWERTECH has the products and the technical capability to "POWER YOUR IDEAS" by supplying one of the most complete ranges of products for any application. Our application engineering services help to validate that the design will meet the requirements of the customer.

### SUPPORT

Our partners manufacture very high quality products. We offer pre-sale and post-sale support and assistance if the customer experiences any issues with our products. A qualified network of sales professionals and technicians are available 24 hours per day around the world. Our goal is to resolve any issues in the shortest time possible as well as in the most professional manner.

### SERVICE

YOUNG POWERTECH with its partners around the globe ensures complete and continuous service all over the world. Our service organization consists of technical personnel and service centers that can support our customers 24 hours a day regardless of location. Our service centers have the resources to diagnose and as well as make repairs.



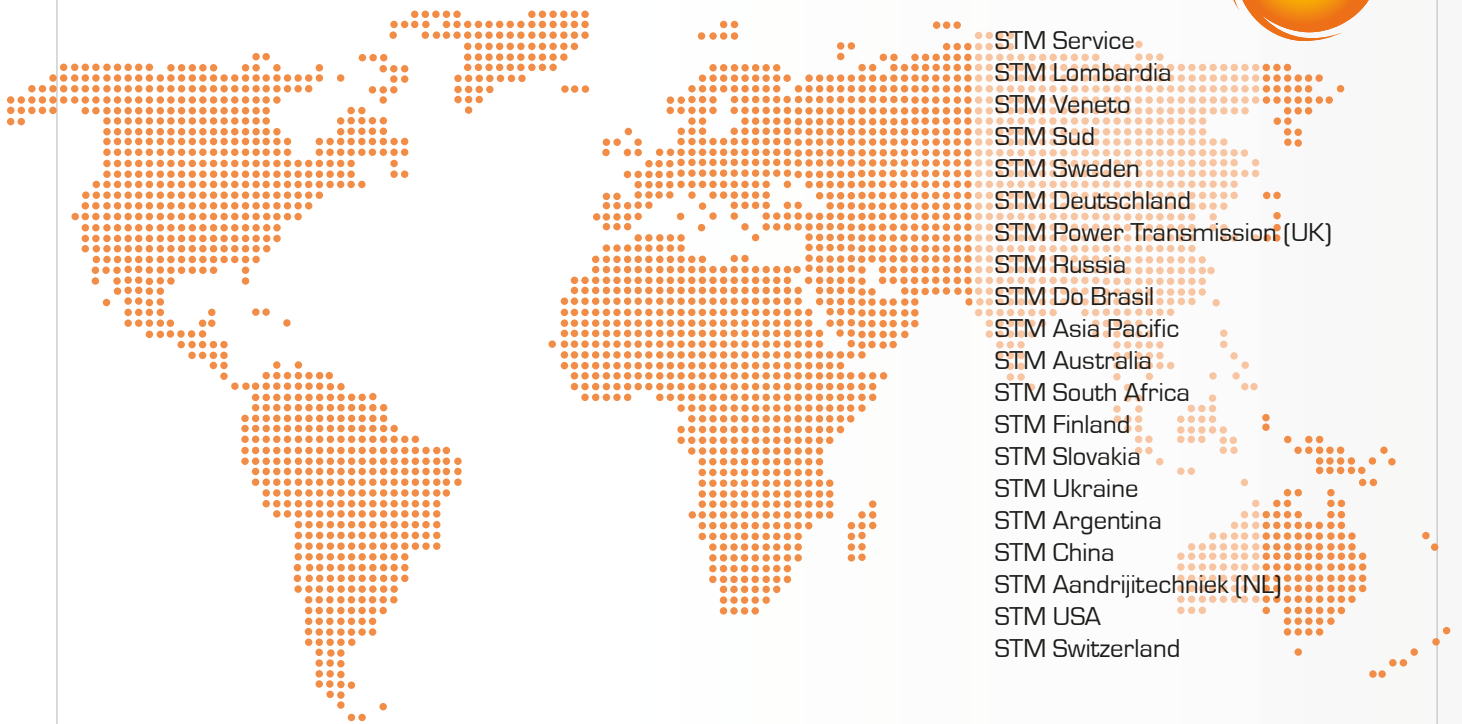
**OUR FULL PRODUCT RANGE FOR CONTROL AND POWER TRANSMISSION IS EXPRESSED THROUGH ONE SINGLE POLICY: HIGH TECHNOLOGY FOR SUCCESSFUL PRODUCTS.**

A unique great force is today facing the world of mechanics: STM team manufactures the widest and broadest range of gearboxes and geared motors. STM team provides forefront technical solutions in every field of light and heavy mechanics according to specific users requirements. It is an outstanding alliance allowing customers not just to rely upon high-tech products, but also on knowledge of the products themselves and the appropriate marketing strategies. STM team: unity is strength. As from today it will mean the customers total satisfaction, too.

## **OUR MISSION**

Designing and manufacturing innovative and reliable solutions for power transmission and control in the industrial sectors, promoting sustainable development shared worldwide. STM is Market Driven and strives to be a company "easy to work with" and with high customer orientation for creating long term partnerships.

# ASSISTANCE AND SERVICES



- STM Service
- STM Lombardia
- STM Veneto
- STM Sud
- STM Sweden
- STM Deutschland
- STM Power Transmission (UK)
- STM Russia
- STM Do Brasil
- STM Asia Pacific
- STM Australia
- STM South Africa
- STM Finland
- STM Slovakia
- STM Ukraine
- STM Argentina
- STM China
- STM Aandrijitechniek (NL)
- STM USA
- STM Switzerland

## ASSISTANCE

### TWO COMPANIES, ONLY ONE MISSION: CUSTOMER'S TOTAL SATISFACTION

STM team manufacture very high quality products but, should anything go wrong, a very detailed and efficient pre and after sales assistance is guaranteed 24 hours a day, all over the world. A qualified network of salesmen and technician is ready to solve any problem in the shortest time and in the best way.

## SERVICES

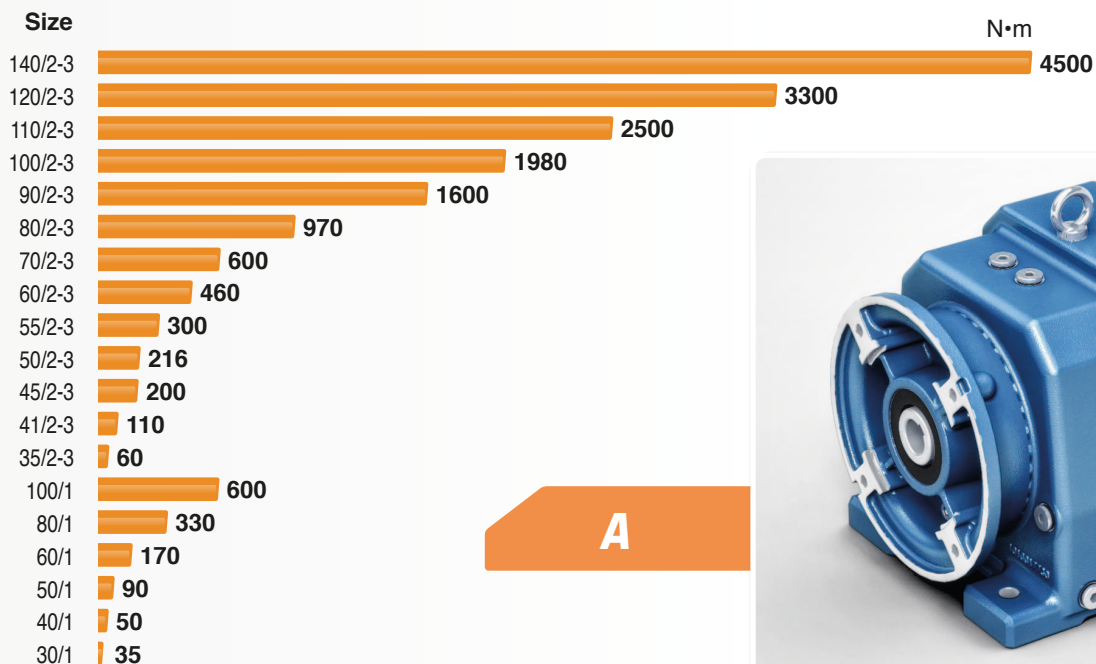
### OUR GLOBALITY OF SERVICE AVAILABLE FOR YOUR COMPLETE SATISFACTION

STM team always design and manufactures adhering to the highest quality standards, combined with complete documentation and an ever-stocked warehouse, this formula satisfies our most valuable assets: THE CUSTOMER

In addition, regular technical courses and training are the key to carry out an advanced and flexible products design directed to solve and improve each single application.

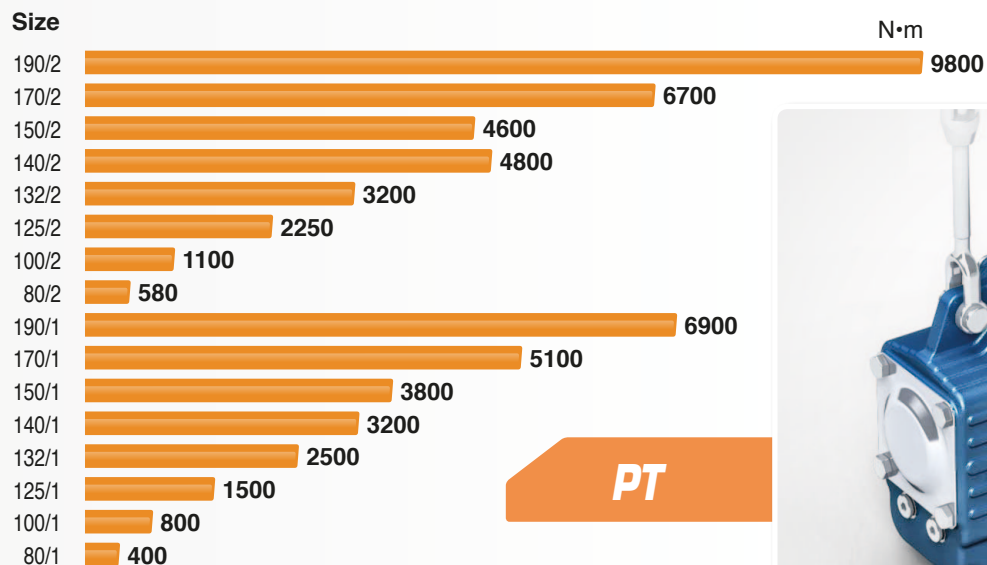
In particular we are also able to offer our "SPECIAL LINE" including products specifically engineered to particular applications.

## INLINE AND SINGLE STAGE GEARBOXES



The design of this range of gear units is based on one body piece casting giving increased rigidity. This allows the application of high loads without risks of deformation which might negatively affect technical performances. The particular internal shape of the body directs the oil flow in a way to reach all moving parts while reducing noise levels and improving sealing tightness. Another new feature is the modular output flange that allows a great versatility of application. Thanks to the well-established experience in the field of in-line gearboxes 2 and 3 stage, we realized the 1 stage: for industrial applications which require a high speed output shaft.

## SHAFT MOUNTING GEARBOXES

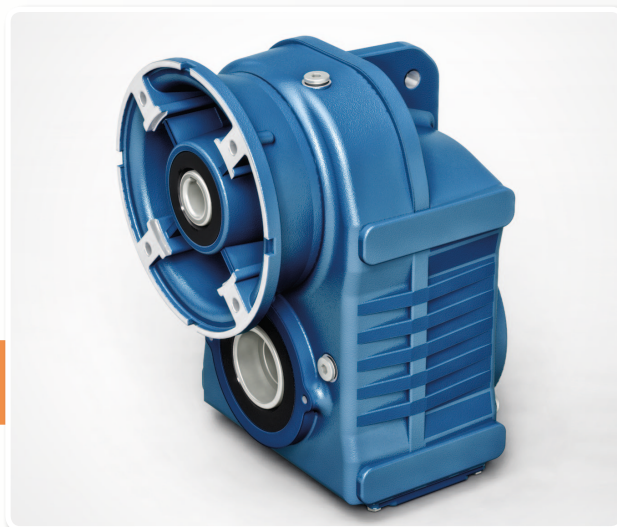
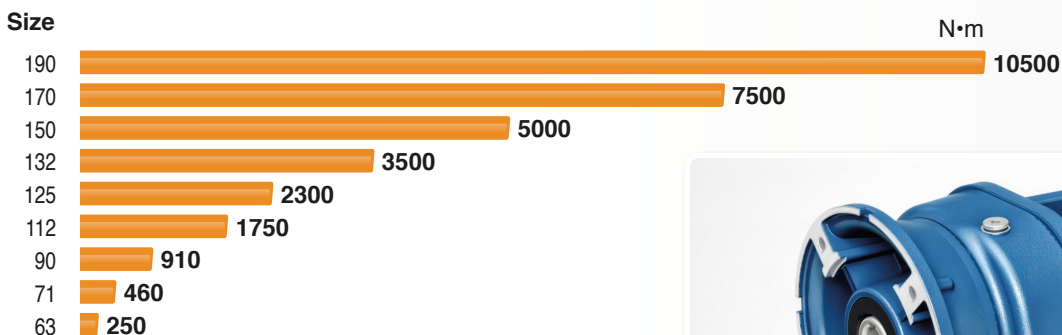


The sturdy PT series is ideal for the material handling industry especially for the quarry and mine applications where absolute reliability and low maintenance are key factors. An exclusive innovation is the monolithic casing with inspection cover!

Available options:

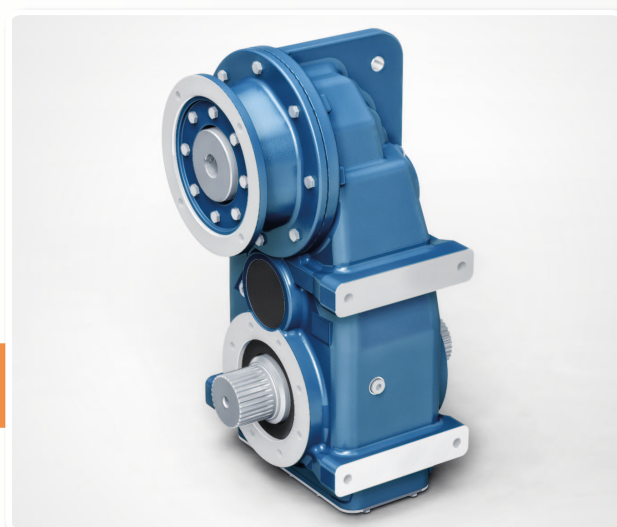
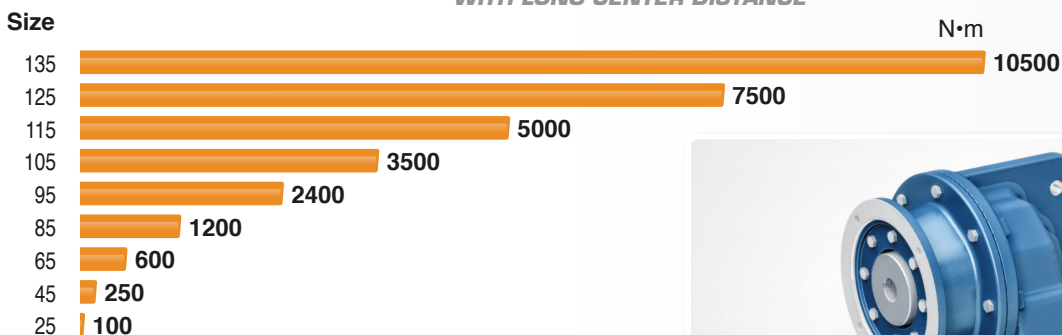
- the backstop device that prevents backdriving in case of inclined conveyors.
- the shrink disk for rigid and accurate mounting also with many start-up/hour.
- the taper bushing join interchangeable with easy dismounting.

## PARALLEL AND SHAFT MOUNTING GEARBOXES



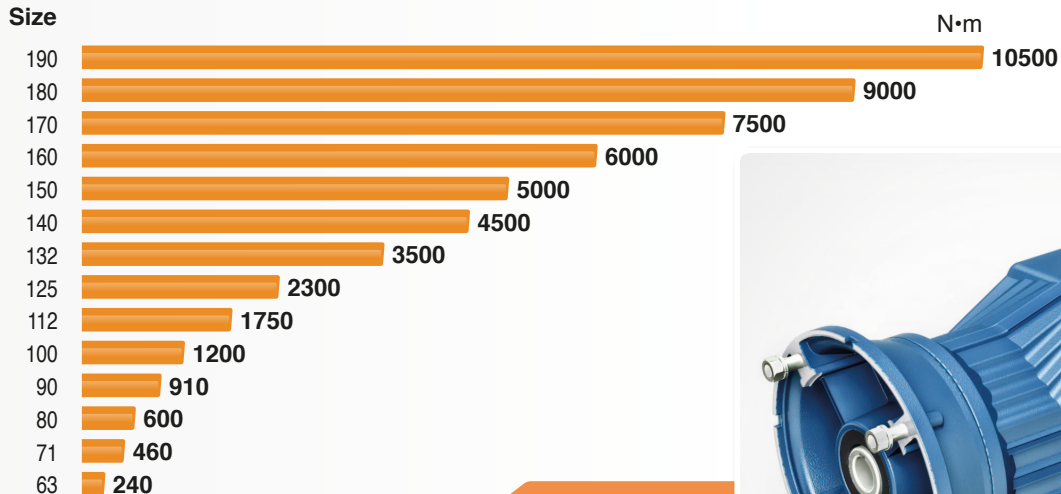
This range of products is extremely robust due to the single piece, cast housing, which, combined with the technical design of the compact PAM input, place the product at the high-end of the market in terms of quality and performance.

## PARALLEL AND SHAFT MOUNTING GEARBOXES WITH LONG CENTER DISTANCE



This extended center distance gearbox is specifically intended for customer who need to have the motor and the application on the same side: the result is a very flexible and easy to install unit particularly suitable for a wide range of applications such as screw conveyors, mixers and winch/drum lifting drives. The design of this range of gear units is based on one body piece casting giving increased rigidity. This allows the application of high loads without risk of deformation which might negatively affect technical performances.

## BEVEL HELICAL GEARBOXES



**0**



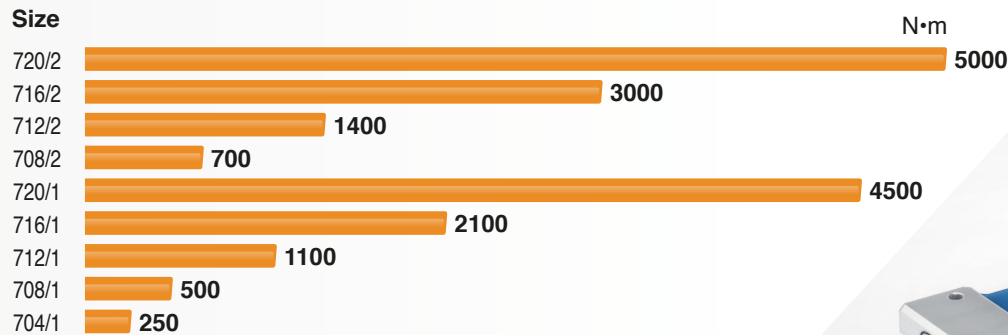
This range of products is extremely robust due to the single piece, cast housing, which, combined with the technical design to have 3 reduction stages, place the product at the high-end of the market in terms of quality and performance.

Available options:

- the backstop device that prevents backdriving in case of incline conveyors.
- the shrink disk for rigid and accurate mounting also with many start-up/hour.
- the taper bushing joint interchangeable with easy disassembling.



## UNIVERSAL BEVEL HELICAL GEARBOXES



**RX0/700**



Slightly after the market introduction of the gearboxes RX 800 line the bevel helical series RX 700 is now ready to be launched as a natural complementary range covering the low powers of a product line used as a market reference for longer than 40 years.

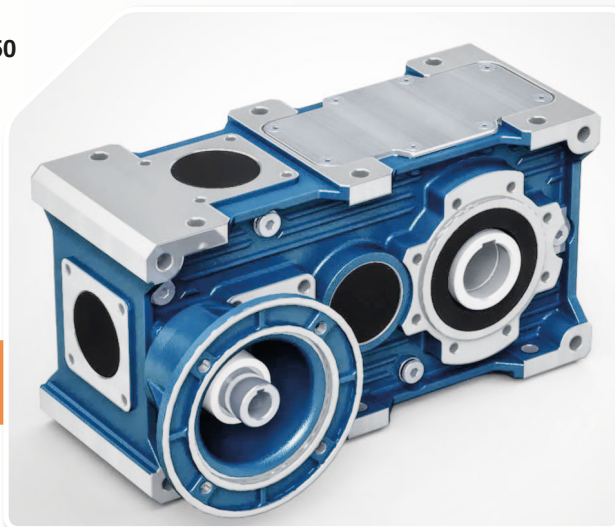
Sturdy monolithic housing with multiple fixing and connection positions, gears widely oversized and overrated as well as many accessories and optionals making it a strong and reliable product.



## UNIVERSAL PARALLEL GEARBOXES

Size	N•m
720/2-3	4800
716/2-3	2200
712/2-3	1100
708/2-3	550
720/1	3250
716/1	1600
712/1	800
708/1	400
704/1	200

### RXP/700



Slightly after the market introduction of the gearboxes RX 800 line the parallel axis series RX 700 is now ready to be launched as a natural complementary range covering the low powers of a product line used as a market reference for longer than 40 years.

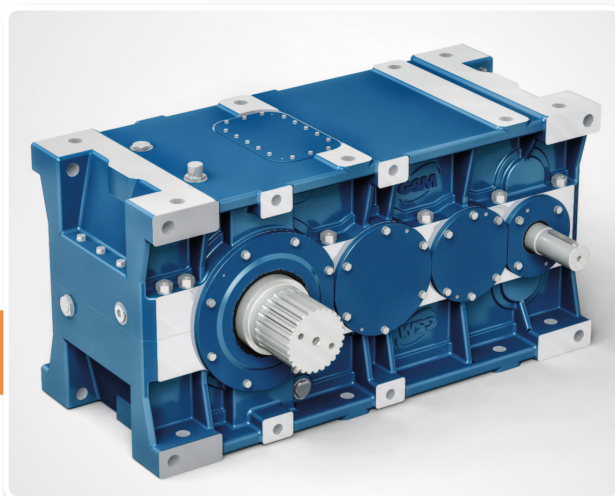
Sturdy monolithic housing with multiple fixing and connection positions, gears widely oversized and overrated as well as many accessories and options making it a strong and reliable product.



## HIGH TORQUE PARALLEL GEARBOXES WITH LONG CENTER DISTANCE

Size	N•m
832	692000
830	505000
828	342000
826	241000
824	177000
822	119000
820	86800
818	63200
816	42800
814	29900
812	21900
810	14800
808	10800
806	7600
804	5000
802	3500

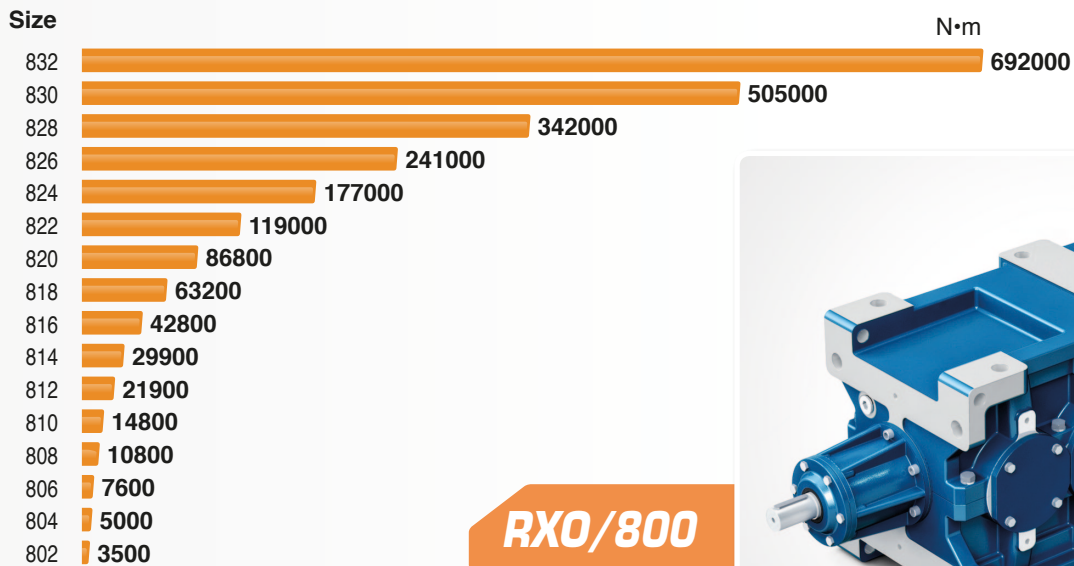
### RXP/800



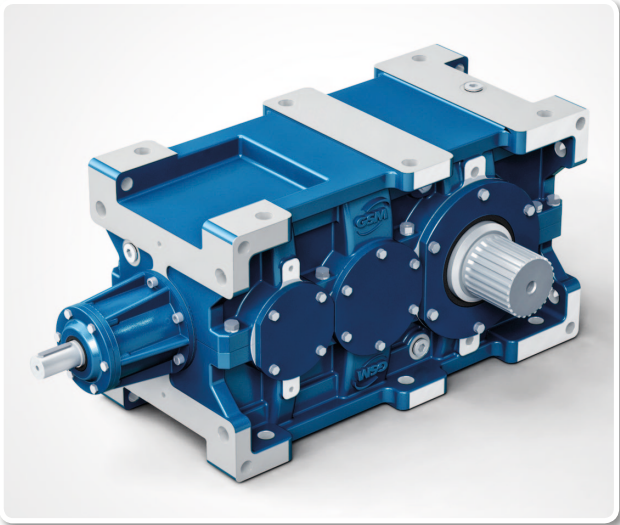
The new range of universal parallel shaft gearboxes sets a new standard in the market, having adequate sizing which ensures constant and optimum reliability in the toughest working conditions.

This range is an effective response to the power transmission needs of medium-heavy and heavy industry. To complete the range, we also load capacity of cylindrical gears and bearings has reduced the size of gearboxes in the market, reducing the shaft centre distance between input and output. With this new line of drives you are free to apply the electric motor and your application from the same side with out sacrificing the strength that sets them apart forever.

## HIGH TORQUE BEVEL HELICAL GEARBOXES



**RXO/800**



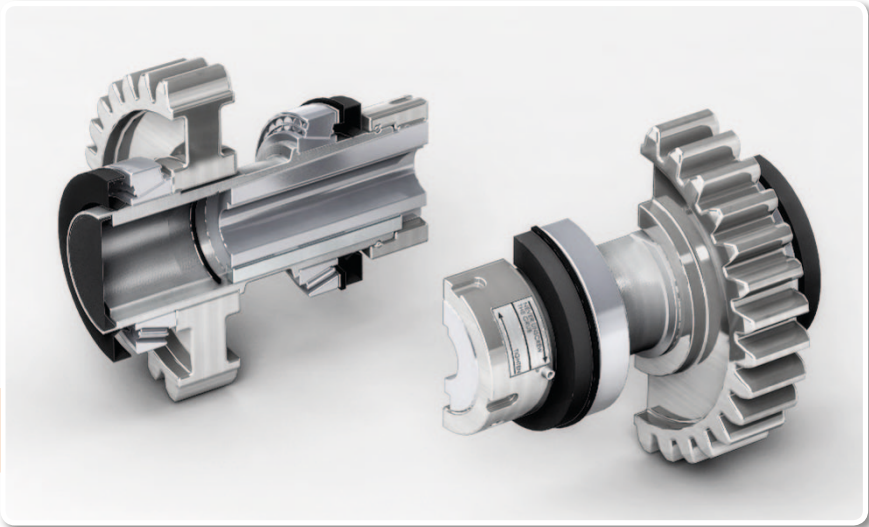
The new range of bevel helical gearboxes sets a new standard in the market, having adequate sizing which ensures constant and optimum reliability in the toughest working conditions. This range is an effective response to the power transmission needs of medium-heavy and heavy industry. To complete the range we also made the same gearboxes with very low ratios, leaving them free to be used in a wide range of applications.

### QUICK LOCKING



The Quick Locking solution for easy and versatile mounting on driven shaft machine. A wide range of bushing bore sizes are available for each type of reducer interchangeable with easy dismounting. The through hollow shafts protected by removable cap, preserves the driven shaft from the atmospheric agents. Perfect fit for today's harsh duty industries such as mining quarry and cement plant. Available on bevel helical parallel and shaft mounting gearboxes range. The best choice also for replacement or repair.

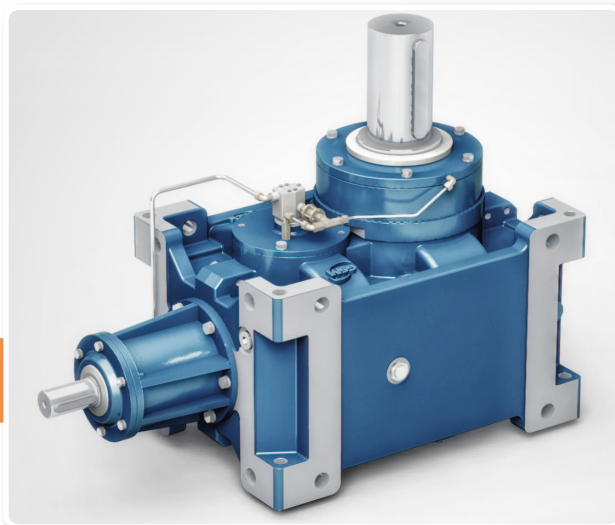
**QL**



## COOLING TOWER GEARBOXES

Size	N•m
824	103000
822	72400
820	53300
818	37100
816	25800
814	17800
812	12700
810	9100
808	6600
806	4600
804	3200
802	2200

### RXO/TR



These gearboxes series for cooling towers and/or pulp and paper mixers is especially built to grant reliability to customers. This is made possible through a generous upsizing of both gears and bearings as well as a balanced internal gear arrangement so to offer optimization of uniformity in balancing loads inside the gearbox. With the half casing the periodic inspection and maintenance purposes are facilitated especially in places that are not easy to access.

## BUCKET ELEVATOR GEARBOXES

Size	N•m
828	330000
826	235000
824	172000
822	116000
820	84200
818	61400
816	41500
814	29000
812	21000
810	14100
808	10400
806	7200
804	4800
802	3300

### RXO/O

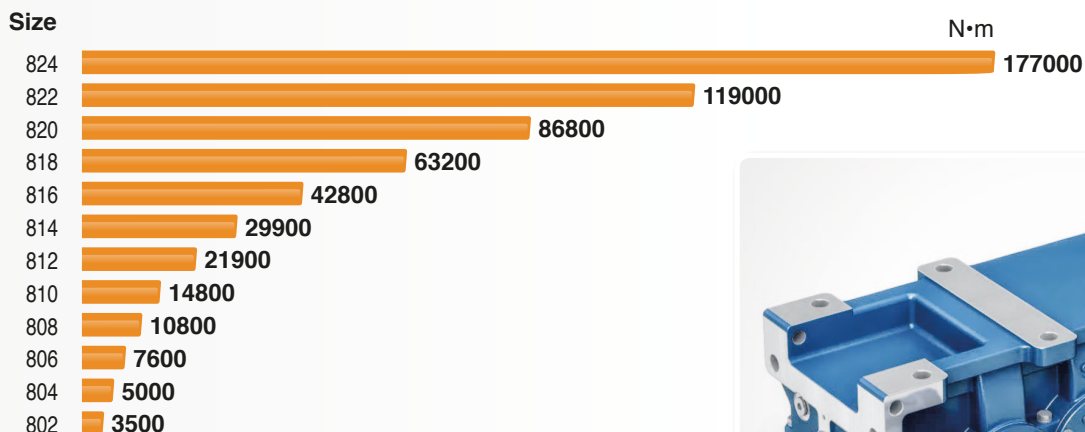


RXO-O series for bucket elevators takes origin from the standard RX to which a secondary auxiliary gearbox is added to modify the transmission speed. As a result the gearbox will perform a primary speed for the standard operations and a secondary speed (much slower) for the positioning.

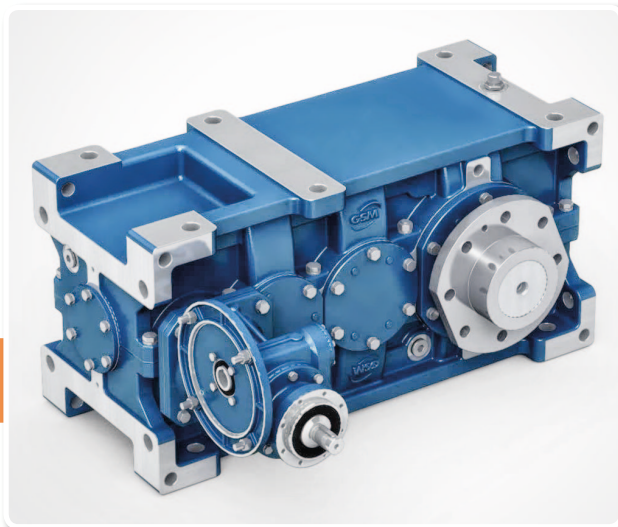
Also appreciated options are:

- the backstop device that prevents backdriving in case of incline conveyors.
- the shrink disk for rigid and accurate mounting also with a lot start-up/hour.

## LIFTING GEARBOXES

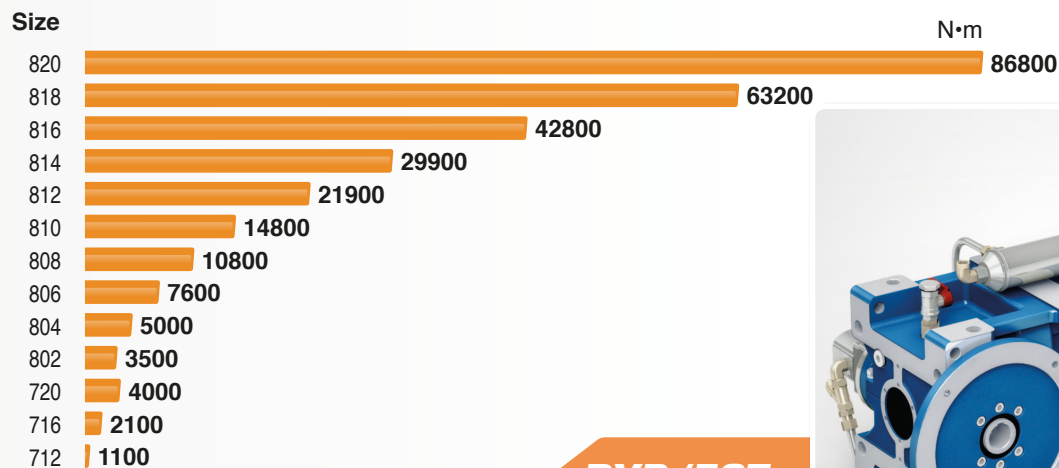


### RXP/E



RXP-E series for industrial lifting takes its origin from the standard RX to which has been given a secondary differential gearbox. These gearboxes have input and output shafts with wide dimensions in order to fulfil the expectations of heavy mechanical producers of lift systems, giving an optimum relationship between performances and weight. The planetary differential gearbox has a double input that can be found between the main motor and the lift gearbox, with the purpose to obtain two different speeds to the output low shaft. While one motor is working, the other one is constantly braking. The change of worm ratio inside the differential gearbox gives the opportunity of obtaining different output speeds, and so varying the relation between primary and secondary speeds.

## EXTRUDER GEARBOXES



### RXP/EST

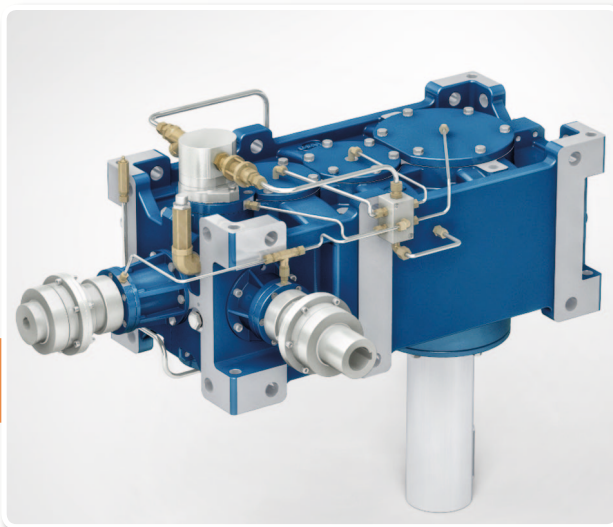


This new gearbox series for single screw extruder control, has consolidated the position of our company at the market top for transmittable moment torque. RXP/EST is a machine intended to be very innovative by having screw front extraction and thrust hold bearing on flanged mounting. In this way we can reach the highest integration between drive and extrusion leading to an unbeatable ratio quality/price. We can cover the extruder diameter screw from 30 mm to up 300 mm (from 220 mm on request). As this sector is constantly evolving, our company is constantly researching and developing new solutions for the customers.

## MIXER GEARBOXES

Size	N•m
824	103000
822	72400
820	53300
818	37100
816	25800
814	17800
812	12700
810	9100
808	6600
806	4600
804	3200
802	2200

**RXP/MX**



This gearbox series for mixers and/or aerators is especially intended to withstand high axial loads normally found in these types of machines through a couple of upsized taper roller bearings placed on a upsized support reducing the jolt of the application.

The cylindrical output shaft is available with key with flange connection and with shrink disk. Also appreciated options is the DRY-WELL device, to eliminate possible oil leaks.

## SKEW BEVEL HELICAL GEARBOXES

Size	N•m
45	250
35	170
25	100

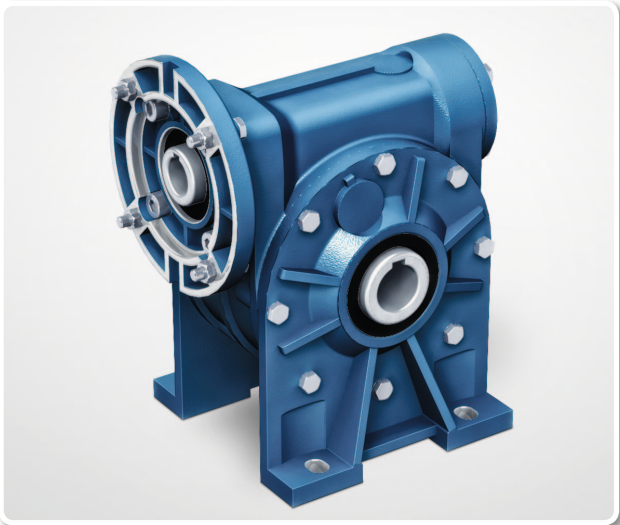
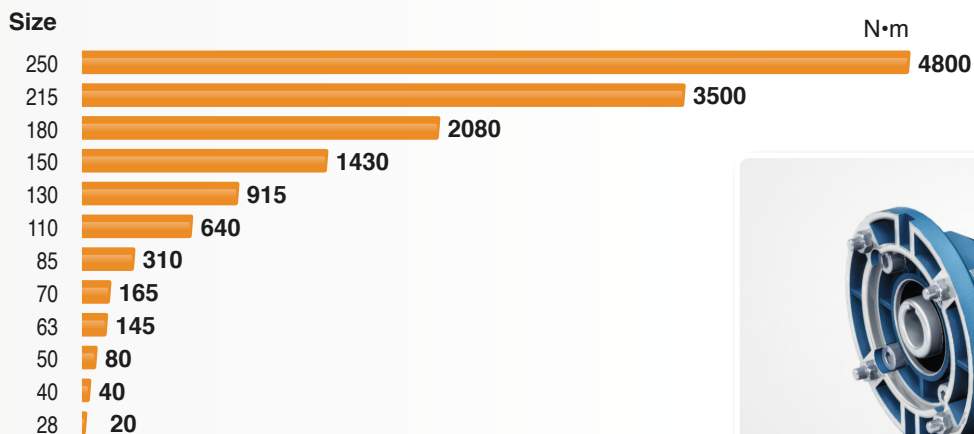
**SM**



The low power bevel helical gearbox range, which was unavailable until today, is now ready by means of a brand new type of gearbox for which mechanical system STM has been given the copyright.

This very new and innovative gearbox relies on helical gears with oblique shafts and puts together in a single conception the economical cost typical worm gearboxes and high efficiency typical of bevel helical gearboxes with right angle pair. The 3 sizes being planned cover a torque range ranging from 100 Nm to 250 Nm and will supply every application the best product to optimise ratio torque/cost.

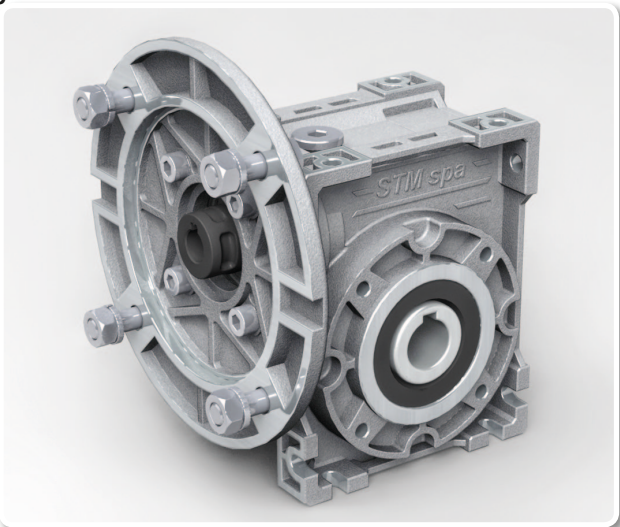
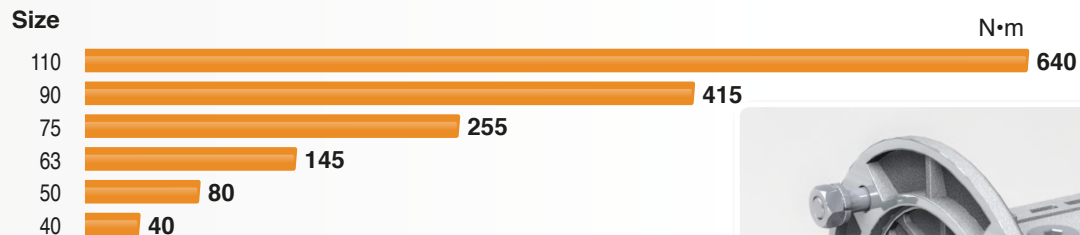
## WORM GEARBOXES AND TORQUE LIMITERS



The company has decided to update main product by adding three innovative principles: two technical and one commercial. All components in aluminium are die casted (from size 28 to size 70) to increase resistance to torsional and structure flexibility. ZI teething profile (section and involute) has been adopted to increase efficiency and silentness. Finally, a modular attachable output flange (FL) has been adopted to increase flexibility. New ideas to approach a bigger market together: first since 1987 the patent of the torque limiter built inside our standard gearbox.

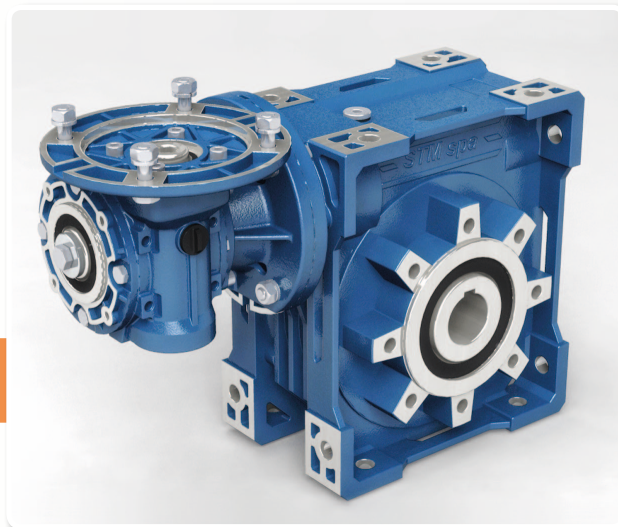
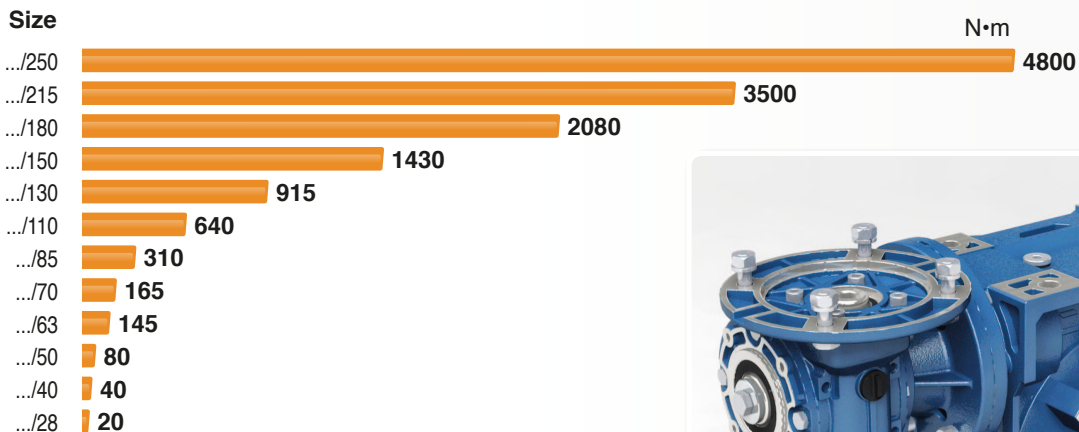


## UNIVERSAL WORM GEARBOXES



STM introduce a new range of cube shaped worm gearboxes. This execution is suitable for a wide variety of fixing possibilities and allows a better modularity of the components in stock. In fact, through an input coupling it is possible to connect all sizes IEC and brushless electric motors and enable a wide range of possible gearbox configurations as well as improving the overall quality by eliminating the fretting. The body has been designed in order to optimize the heat dissipation and to simplify the cleaning of it, even in the most difficult environmental conditions.

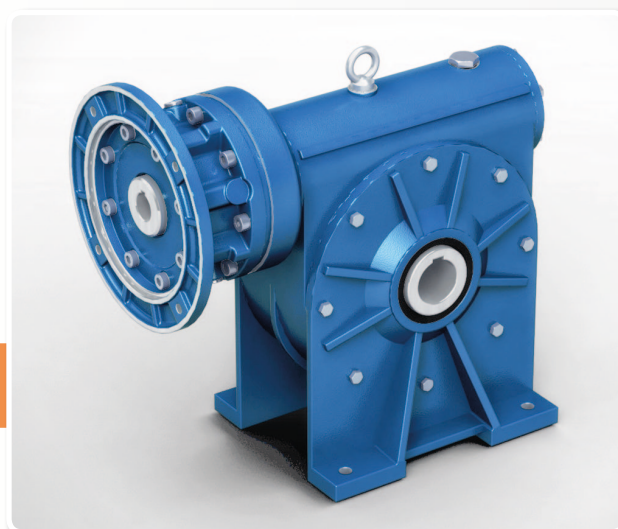
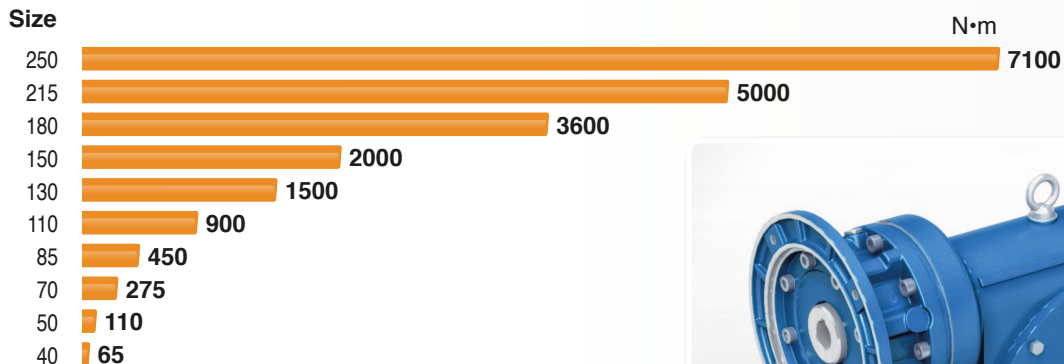
## DOUBLE WORM GEARBOXES



**RR**

Simply to connect two worm gear, we obtain this gearboxes series for applications with low ratios: less efficiency but high competitiveness and silentness. All accessories of the series R and U are available such as double extension input output taper bearing torque limiter output solid shaft and torque arm.

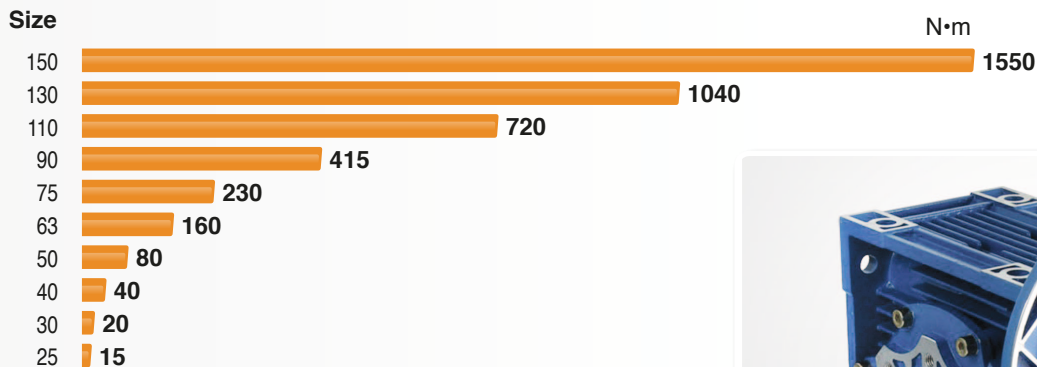
## HELICAL WORM GEARBOXES



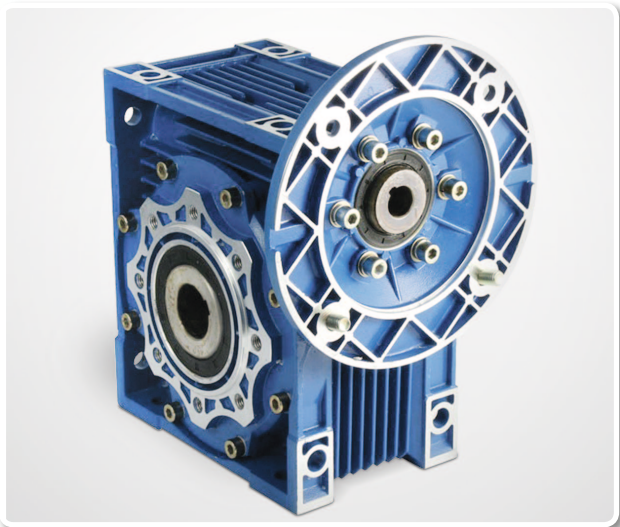
**CR**

When designing this range of gearbox, STM technicians decided to project one single body to include all gears. This solution allows an efficient heat dissipation as well as a high housing rigidity and application easiness. Efficiency will then be positively improved but also longevity and highest transmittable torque. The compromise cost/performance is particularly centered in the middle range reduction ratios.

## IMPORT UNIVERSAL WORM GEARBOXES



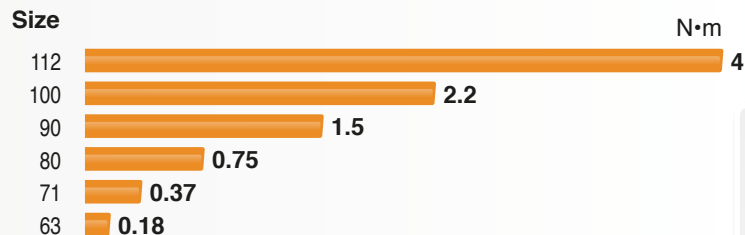
**W**



After 5 years from the first presentation, it's now available the new W worm gearboxes range. We introduce also the new sizes 25, 30, 130 and 150. The performances and the dimensions are the same to the old series but without Input coupling and all sizes painted.



## MECHANICAL SPEED VARIATOR



**WMF**



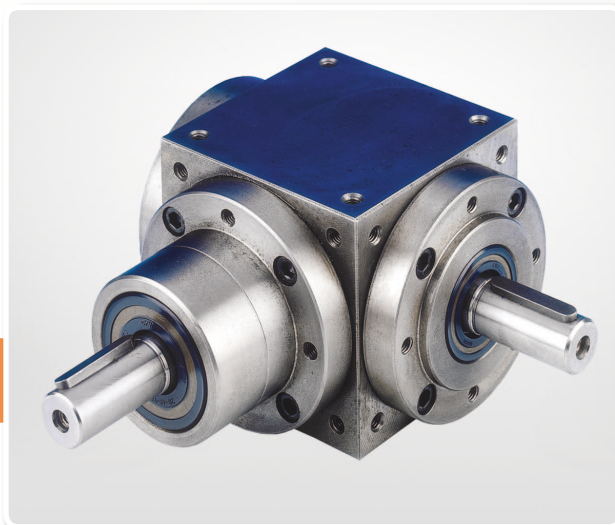
The main construction and functional features of this product, that increase its versatility, are the integral motor flange to the housing and the completely modular structure for the output flange and the feet: these features allow to reduce the dimensions and the stock warehouse improving and increasing the flexibility and overall economicity.



## RIGHT ANGLES

Size	N·m
75	75
55	55
42	42
38	38
32	32
24	24
19	19
12	12

### Z



Our right angle gears make the difference for the favourable relation between power/ dimension and for the possibility of a silent and regular functioning also at high speed.

One body piece in cast iron with all the external faces machined, the gears are Gleason and the bearings are overrated as well.

The modular construction of our Z right angle gears permits us to mount up to six input/output shafts (except ratio 1/1).

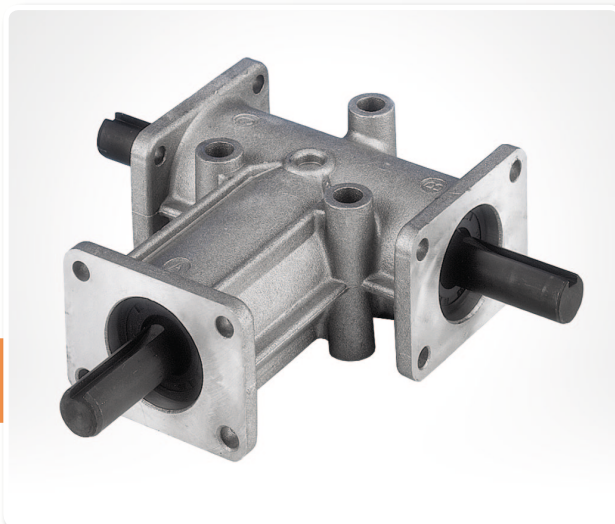
All these features place our products on top of this sector.



## ALUMINIUM RIGHT ANGLES

Size	N·m
434	24
433	19
432	14
334	25
333	20
332	15
331	8

### ZL



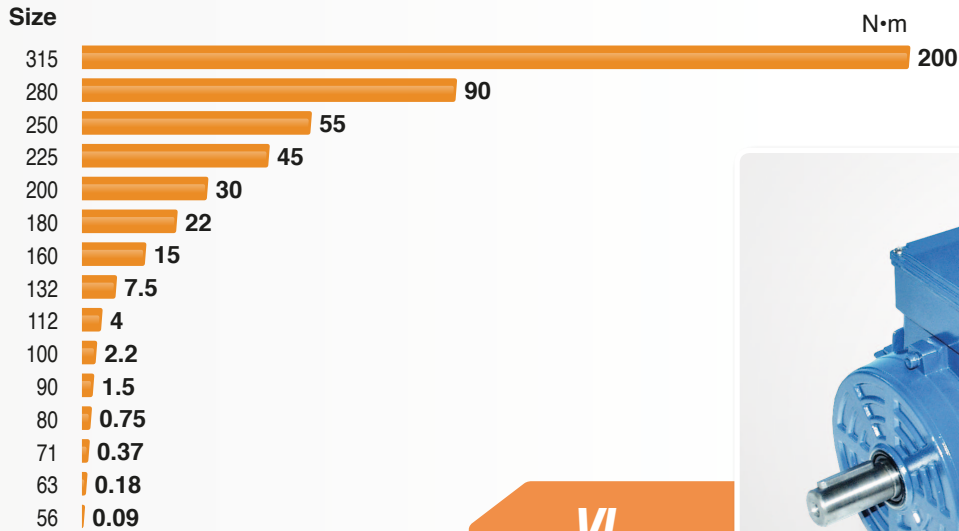
Our right angle gears ZL series are not heavy and are silent functioning.

The one body piece in aluminium is strong, the gears are Gleason and the bearings are overrated as well.

The backlash is 15' -30' and they are filled with lubricant for all the mounting positions.

These right angle gears are available with 3 fixing flange, 3 or 4 locking through holes on the body, 2 or 3 shaft and ratio 1-2-3.

## ELECTRIC MOTORS



**VL**



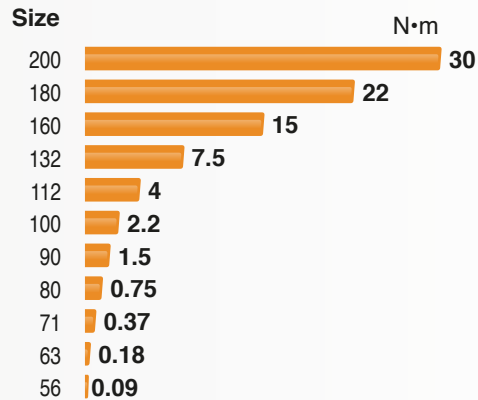
High quality and compactness are among the main characteristics you will enjoy when selecting our new three phase VELA electric motors.

The casing are in alluminium up to size 132 and in cast iron from size 160.

The mounting version are B3-B5-B14 and are inverter duty (with auto ventilation for low speed).

All the motors are available in IE1 and IE2 efficiency class.

## ELECTRIC MOTORS AND BRAKE ELECTRIC MOTORS



**T-M**



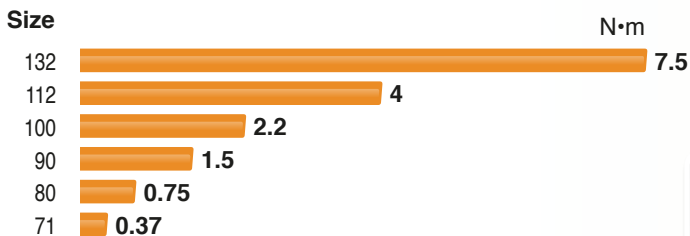
Our IEC normalized motors comply with all the applicable international standards, including the EMC and LV Directives.

The power supply would be three phase with IE1-IE2 efficiency class or single phase.

The motor have alluminium casing and they are available in the foot B3 and the flange B5 and B14 mounting version, single and dual pole version available and with negative brake options offered.

Finally, all motors are inverter duty (with auto ventilation for low speed).

## ELECTRONIC SPEED VARIATORS

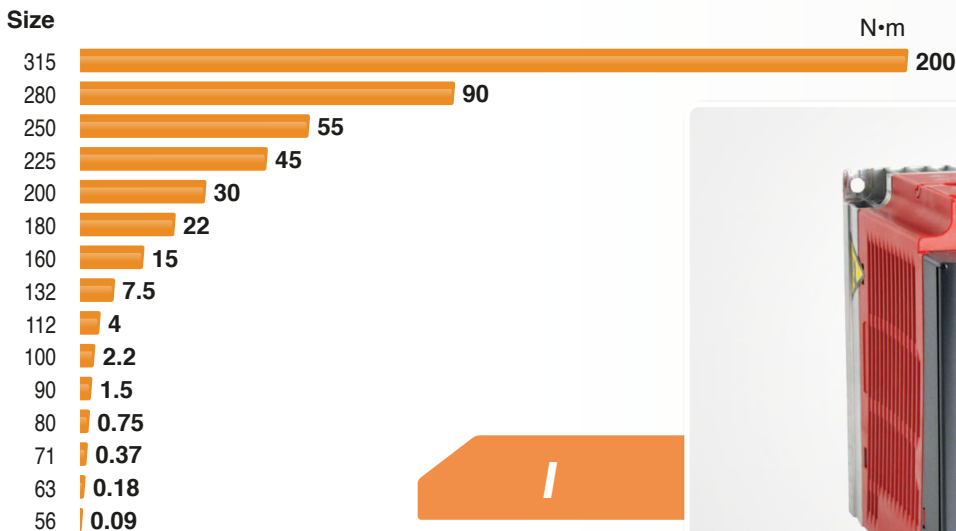


### ESV



After the presentation, several years ago, of the electronic speed variator "ESV" STM has turned back the concept of electronic variable speed motor in a motoinverter providing it easy to interface (electronic speed variator). This ESV version transformed the old concept of electrical motor variator in a true motoinverter. We have an easy interfascibility with control system like PLC or microprocessor controls thanks to the input and output system digital and analogical, the serial RS-485 interface with the complete keyboard, we can configure our ESV easily. Just plug the ESV in and, without any need to set up programmes, we will benefit of a speed variator without risk of oil leaking!

## INVERTERS



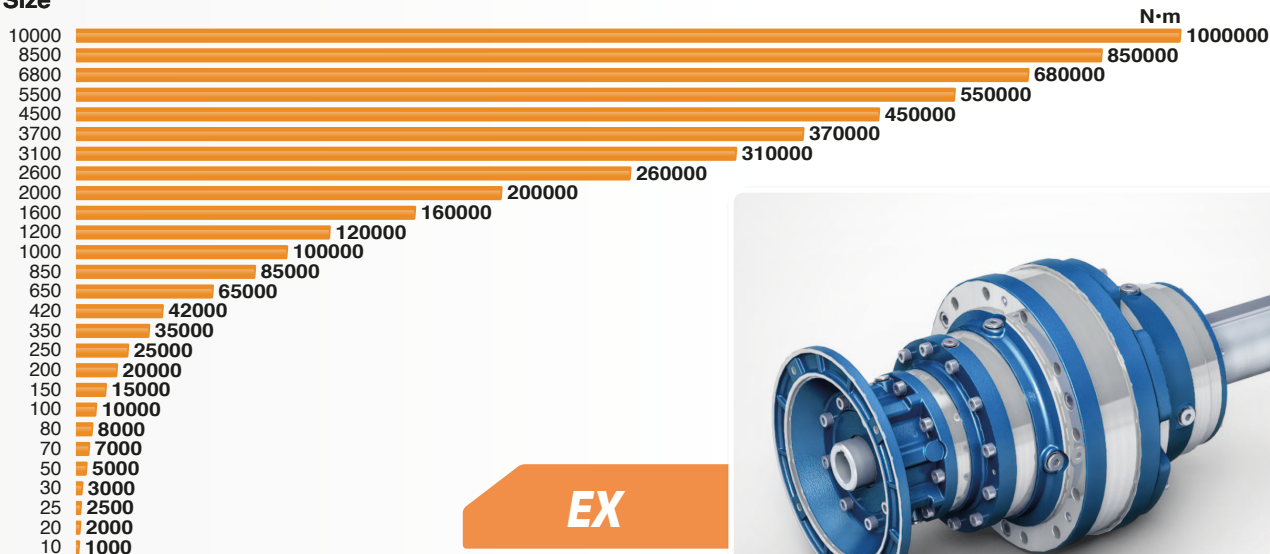
### I



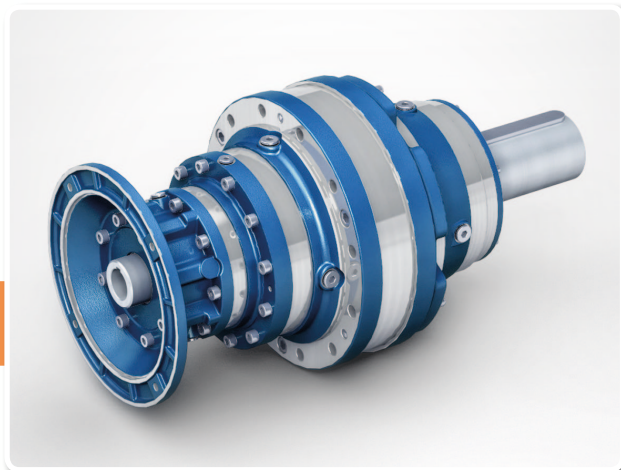
The new inverter series joins the best characteristic of economy, compactness and versatility actually available in the market. It's feature of simplicity and immediacy characteristics, make it utilisable for a large applicatory context. This inverter was designed with ZERO compromise on quality reliability or performance.

## PLANETARY GEARBOXES

### Size



**EX**



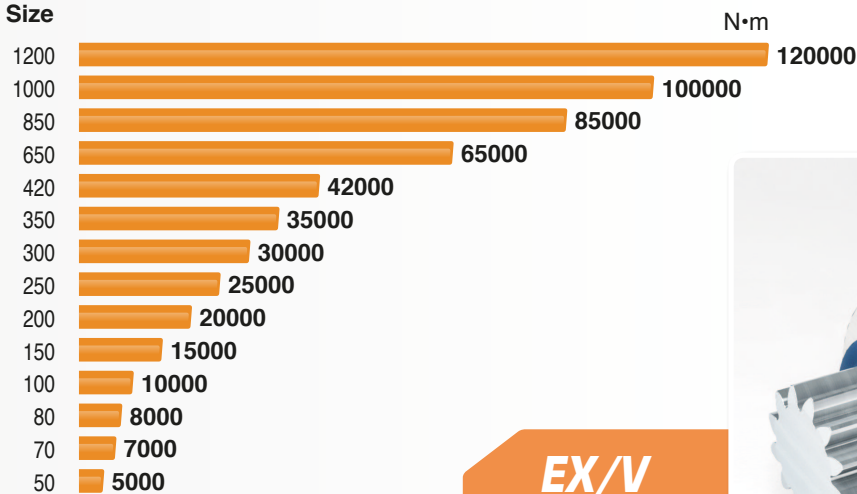
Compact, and yet extremely powerful, are the units of the EX series.

Their planetary drive train makes them the ideal choice for all the severe duty applications where shock loadings 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. Finding the perfect match to any drive problem is therefore more than a wish, it is something users can safely rely on, always.



## SLEWING PLANETARY GEARBOXES

### Size



**EX/V**



STM's slewing drives are an essential component in keeping weight and size to a minimum on equipment such as tower cranes, Pitch and Yaw drives for wind energy aerial platforms and mixers. Their planetary structure means that they can withstand very high torque values while maintaining reduced dimensions, reduced weight and high efficiency. The wide range of ratios available enables the selection of a motor size and type which best suits users requirements: hydraulic or electric. Bevel input and hydraulic brake are some of the options available for this series. Simple mounting, operating reliability and versatility make these units suitable for the most severe duties and environments.

# EX-EXB

1600 TO 10.000



DESIGNED AND  
MANUFACTURED  
IN ITALY  
  
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## LARGE SIZE PLANETARY GEARS

We have put our long experience in manufacturing large industrial gear reducers in the design and production of these large planetary gear reducers.

This series has been designed and is manufactured for HEAVY DUTY APPLICATION where very long life expectancy and performance are the most important factors.

These gear reducers are used in applications like steel mills, paper mills, sugar mills, mining and other application where downtime cannot be accepted and where production must not stop for any reason.

**Torque from 118.000 to 737.000 Lb-Ft**  
**SAE Hydraulic motor connection**

**Ratios from 4:1 to over 10.000 : 1**  
**NEMA electric motor connections**

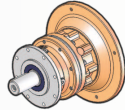
Brakes, angle drives and many other options available

# STM Planetary General Designation



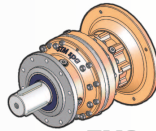
DESIGNED AND MANUFACTURED IN ITALY  
www.stmspa.com

1 STAGE



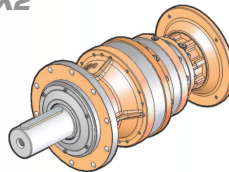
EX1

2 STAGES



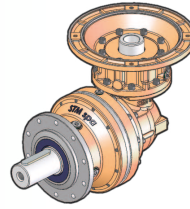
EX2

3 STAGES



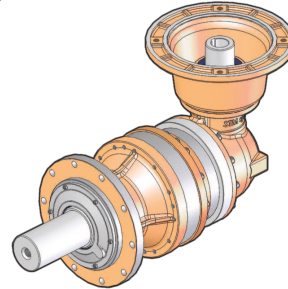
EX3

EXB2

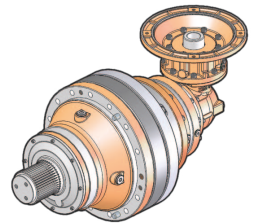


EXB2

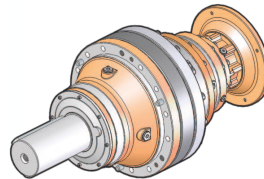
EXB3



EXB4

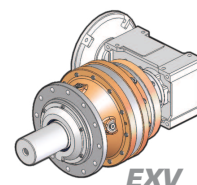


4 STAGES

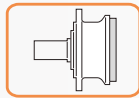


EX4

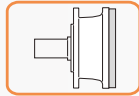
EX4



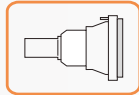
EXV



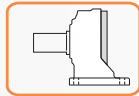
**R** = Standard male output



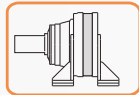
**M** = Reinforced output



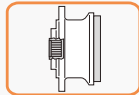
**H** = Large reducer male output



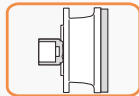
**P** = Cast foot mount



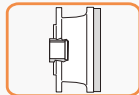
**P** = Bolted-on foot



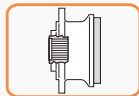
**F** = Female splined shaft with front flange



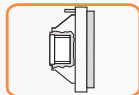
**FU-HU-SU-TU** = Shrink disc shaft with front flange



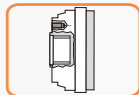
**FC** = Female keyed shaft with front flange



**FB** = Female splined with pilot



**FS** = Female splined with ring gear



**FP** = Female splined shaft with special mounting

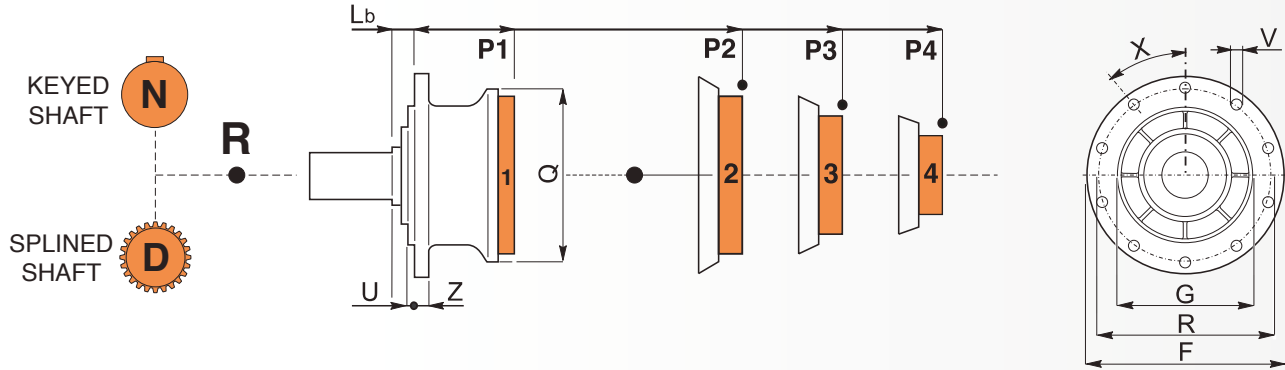
**N** = Male keyed shaft

**D** = Male splined shaft

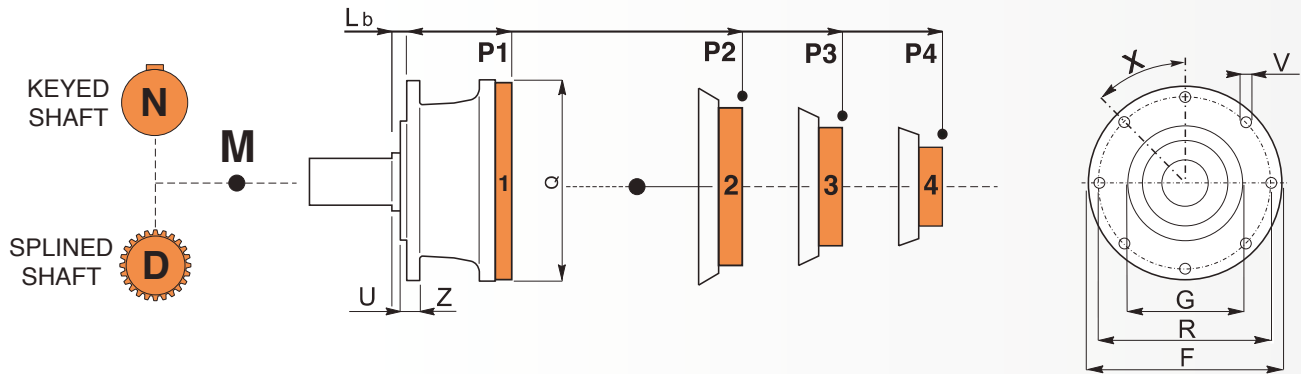


SIZE	RATIO				RATED	
	1 STAGE	2 STAGES	3 STAGES	4 STAGES	Nm T2 MAX	Lb/ft T2 MAX
10	3.48 to 7.20	12.11 to 51.84	51.63 to 299.08	220.10 to 1591.22	1700	1260
20	3.48 to 7.20	12.11 to 51.84	51.63 to 299.08	220.10 to 1591.22	3400	2500
25	4.26	14.84 to 30.69	51.63 to 221.00	220.10 to 1591.22	4000	2950
30	3.60 to 7.50	12.53 to 54.00	4w	219.42 to 1990.66	3900	2875
40	-	12.53 to 54.00	43.60 to 321.41	219.42 to 1990.66	7000	5150
50	3.60 to 7.50	12.53 to 54.00	43.60 to 321.41	219.42 to 1990.66	7000	5150
70	3.60 to 5.33	15.35 to 22.71	53.41 to 163.60	185.86 to 1177.94	9100	6700
80	3.50 to 7.25	12.60 to 54.30	51.70 to 324.00	180.10 to 2332.80	10800	7950
90	-	12.60 to 54.30	51.70 to 324.00	180.10 to 2332.80	15000	11050
100	3.50 to 7.25	12.60 to 54.30	51.70 to 324.00	180.10 to 2332.80	15000	11050
150	4.09 to 6.23	14.70 to 46.70	51.20 to 278.10	210.50 to 2041.10	26000	19160
180	-	14.70 to 22.40	62.78 to 95.60	218.40 to 688.50	26000	19160
200	4.00 to 5.25	15.84 to 28.00	67.53 to 119.37	235.00 to 859.45	35000	25800
250	4.00 to 6.25	14.00 to 45.30	50.40 to 339.80	207.00 to 2035.80	51500	38000
280	-	14.00 to 45.30	50.40 to 339.80	207.00 to 2035.80	51500	38000
300	4.00 to 4.71	14.00 to 34.10	50.40 to 255.80	206.30 to 1842.30	65000	47900
350	4.04 to 7.36	14.15 to 53.39	50.95 to 331.00	209.31 to 2882.86	75000	55275
420	4.18 to 6.00	17.10 to 37.30	61.50 to 280.30	214.30 to 2018.70	85000	62600
650	4.18 to 6.00	16.73 to 37.50	68.40 to 271.80	246.40 to 2039.00	120000	88400
850	4.18 to 6.00	16.73 to 28.26	68.94 to 204.89	248.10 to 1536.60	170000	125000
1200	4.18 to 6.00	16.91 to 44.18	59.18 to 320.32	249.08 to 2401.39	250000	84250

LARGER REDUCERS WITH TORQUE UP TO 1.000.000 Nm - 737.000 Lb-Ft AVAILABLE

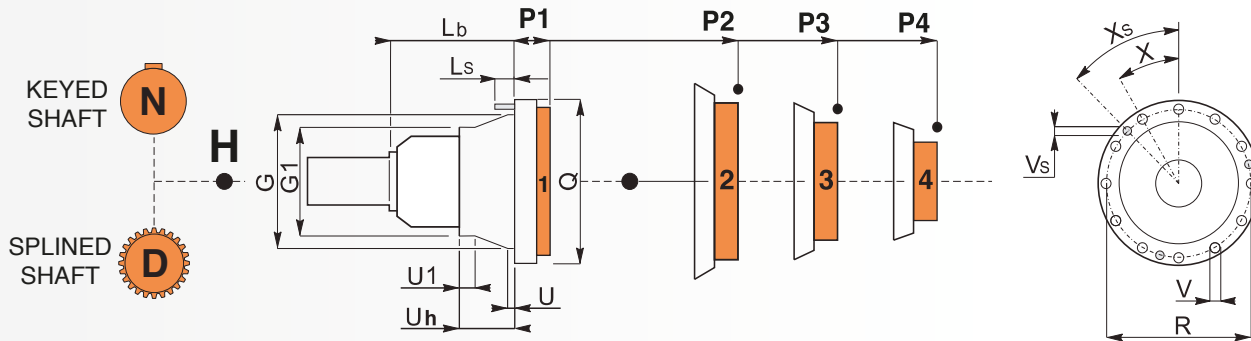


R													
	F	G	Lb	R	U	V	Z	X	P1	P2	P3	P4	Q
10	185	110	7	165	6	10.5	12	45°	94.5	138.5	182.5	226.5	186
20-25									106.5	150.5	194.5	238.5	
30									133	185.5	229.5	273.5	
40	222	150	15	195	8	12.5	16	36°	151	203.5	247.5	291.5	244
50-70									215.5	259.5	303.5		
80	280	200	40	250	10	15	18	30°	162.5	229.5	282	326	295
90	325	230	36	295	15	17	22	36°	237	304	356.5	400.5	295
100									322	386.5	430.5		
150-180-200	325	230	36	295	15	17	25	36°	240	332.75	397.25	441.25	350
T 250	450	350	-	400	-	17 N°10	25	36°	278	389	456	508.5	409
T280	450	350	-	400	-	17 N°10	25	36°	-	406	491	555.5	409

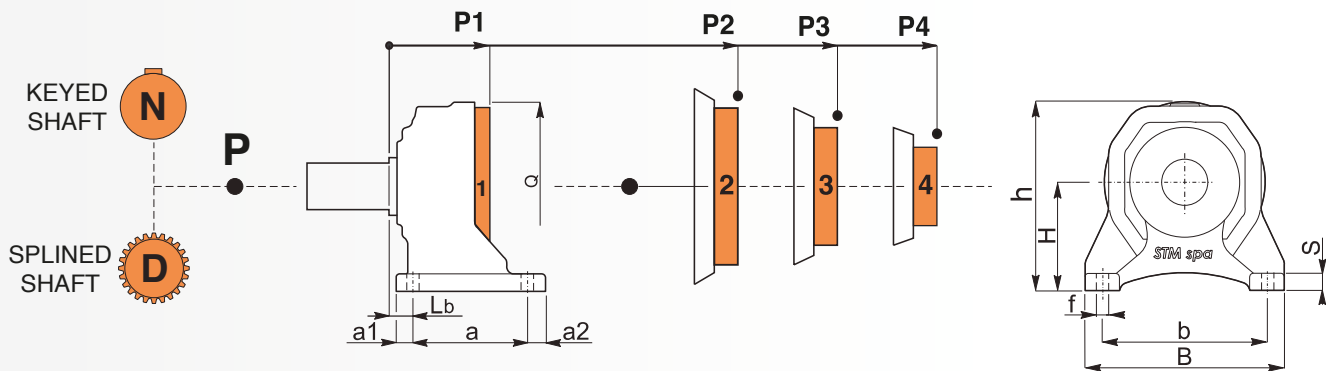


M													
	F	G (e8)	Lb	R	U	V	Z	X	P1	P2	P3	P4	Q
10	220	150	15	195	7	12.5	15	36°	102	146	190	234	186
20-25									114	158	202	246	
30									137	189.5	233.5	277.5	
40	272	175	39	245	10	12.5	18	36°	155	207.5	251.5	295.5	244
50-70									219.5	263.5	307.5		
80	280	200	40	250	10	15	18	30°	185	252	304.5	348.5	295

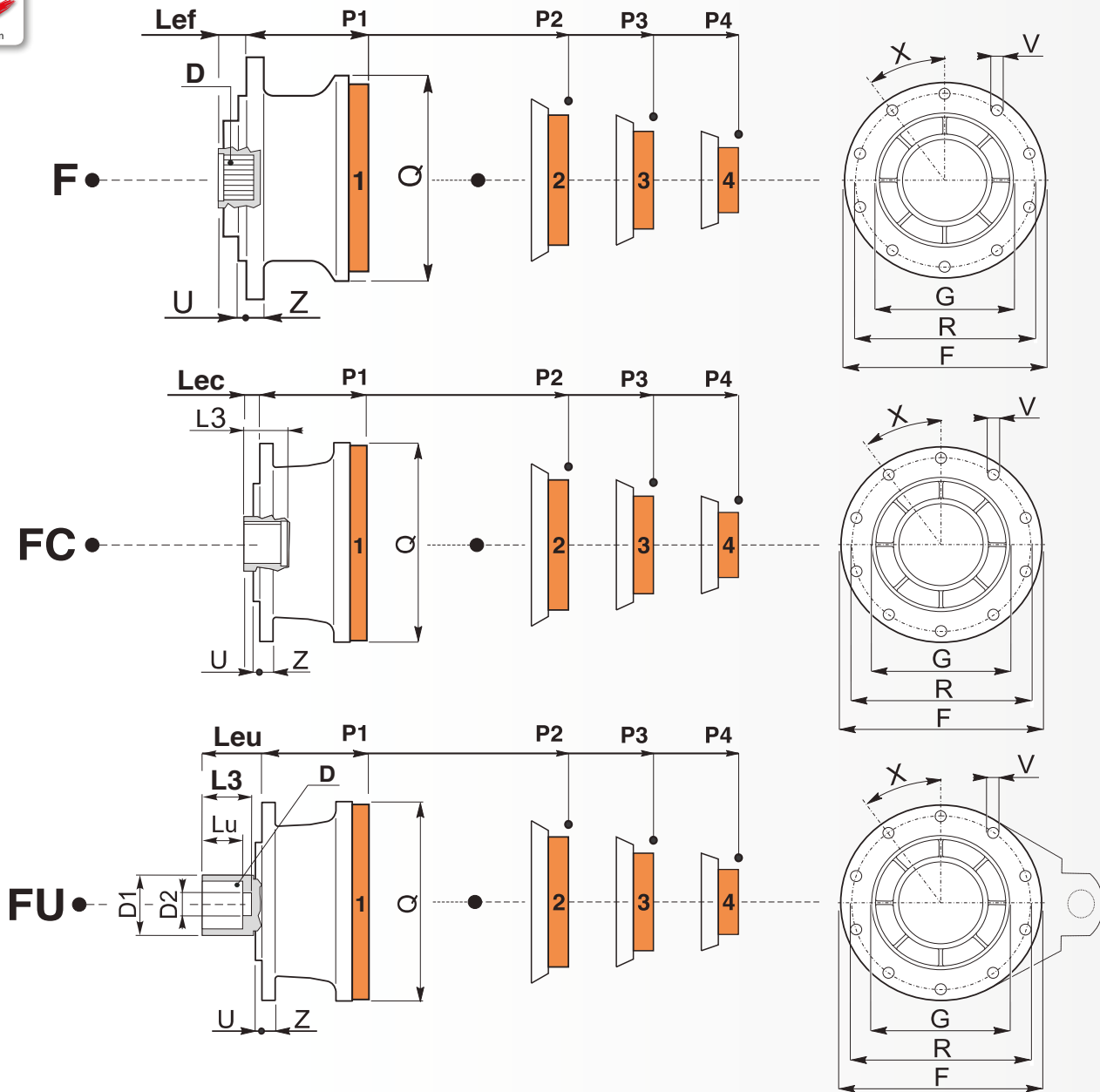




H																	
	G	G1	Lb	Ls	R	U	U1	Uh	V	Vs	X	Xs	P1	P2	P3	P4	Q
150-180-200	278	225	143	18	314	18	28	102	16.5 n°12	12 n°3	30°	45°	107	199.75	264.25	308.25	350
250	340	245	180	29	370	17	29	142	17 n°15	16 n°3	24°	36°	98	209	276	328.5	409
280														226	293	345.5	
H 300	340	245	-	19	370	17	29	175	17 n°15	-	24°	-	98	226	311	375.5	409
H 350	340	245	-	19	370	17	29	175	17 n°15	-	24°	-	98	226	311	375.5	409
S 420	390	-	-	-	424	15	-	-	17 n°18	-	20°	-	85	275.15	367.9	432.4	452
S 650	410	-	-	-	460	14	-	-	22 n°28	-	12.51°	-	120	351	462	529	510
S 850	460	-	-	-	510	15	-	-	26 n°28	-	12.51°	-	131	359	487	572	565
S 1200	460	-	-	-	510	15	-	-	26 n°28	-	12.51°	-	131	359	487	572	565



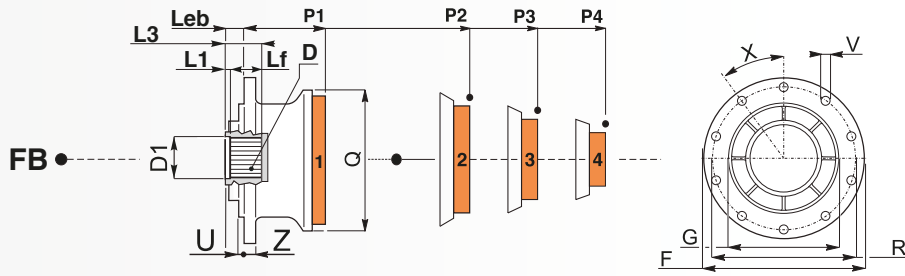
P																
	a1	a2	a	b	B	f	h	H	Lb	P1	P2	P3	P4	Q	S	
10	20	20	132	190	230	14	218	125	20	101.5	145.5	189.5	233.5	186	20	
20 - 25										113.5	157.5	201.5	245.5			
30										176	228.5	272.5	316.5			
40										194	246.5	290.5	334.5			
50-70	28	28	180	250	310	22	282	160	29	258.5	302.5	346.5	244	30		
80										225	292	344.5			388.5	295
90	35	35	225	300	370	26	347.5	200	35	225	324.5	377	421	295	34	
100											342.5	407	451			
150-180-200	32	32	300	356	400	25	400	225	59	250	342.75	407.25	451.25	350	30	
250	40.5	40.5	320	406	470	26	454.5	250	85.5	278	389	456	508.5	409	35	
280											406	473	525.5			
PH 300	40.5	40.5	320	406	470	26	454	250	108	300.5	428.5	513.5	578	409	-	
PS 420	48	48	334	457	530	33	506	280	-	-	384.15	476.9	541.4	452	-	
PSB 420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PS 650	40	40	385	508	590	33	570	315	31.75	271.75	502.75	613.75	680.75	510	-	
PS 850	51	51	375	430/630	700	33	643	360	53.5	-	522	650	735	565	-	



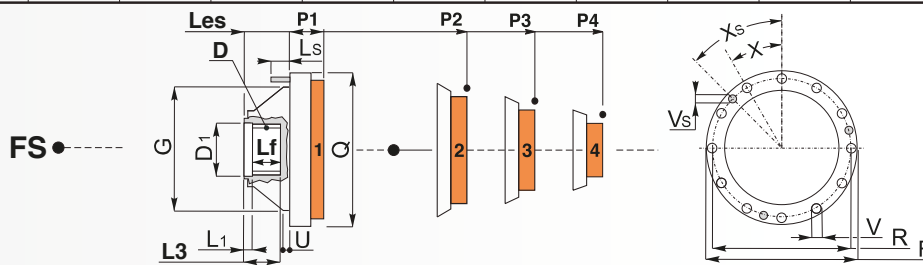
F - FU - FC												
	F	G	R	U	V	Z	X	P1	P2	P3	P4	Q
10								94.5	138.5	182.5	226.5	186
20-25	185	110	165	6	10.5	12	45°	106.5	150.5	194.5	238.5	
30								133	185.5	229.5	273.5	
40	222	150	195	8	12.5	16	36°	151	203.5	247.5	291.5	244
50-70									215.5	259.5	303.5	
80	280	200	250	10	15	18	30°	162.5	229.5	282	326	295
90	325	230	295	15	17	22	36°	237	304	356.5	400.5	295
100									322	386.5	430.5	
150-180-200	325	230	295	15	17	25	36°	240	332.75	397.25	441.25	350

# STM Planetary General Designation

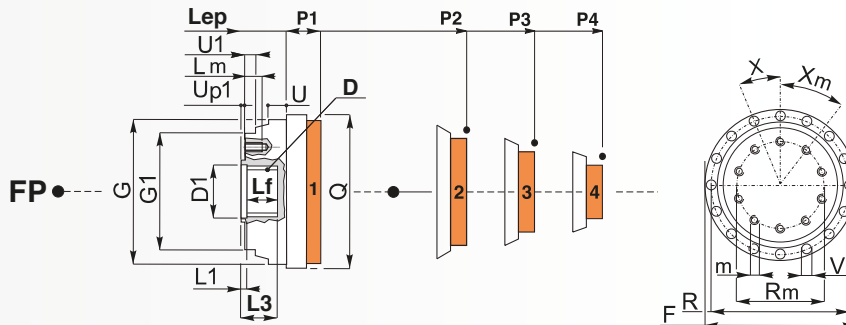
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FB													
	F	G	Lb	R	U	V	Z	X	P1	P2	P3	P4	Q
80	280	200	-	260	5	14	18	36°	162.5	229.5	282	326	295
90	325	230	-	295	4	17	25	36°	237	304	356.5	400.5	295
100										322	386.5	430.5	295



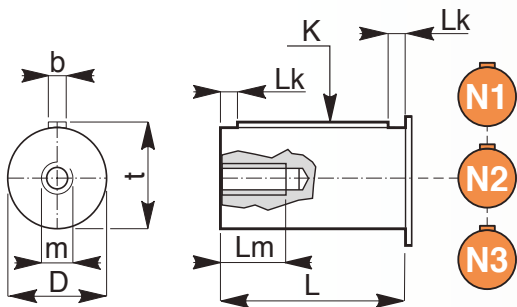
FS													
	Ge8	Ls	R	U	V	Vs	X	Xs	P1	P2	P3	P4	Q
10	150	-	165	9	10.5	-	45°	-	27.5	71.5	115.5	159.5	186
20-25									39.5	83.5	127.5	171.5	
30									33	85.5	129.5	173.5	
40	200	-	222	9	10.5	-	30°	-	51	103.5	147.5	191.5	244
50-70										115.5	159.5	203.5	
80	240	-	265	9	13	-	30°	-	67	134	186.5	230.5	295
90	240	-	265	10	13	13 n°3	30°	45°	84	151	203.5	247.5	295
100										169	233.5	277.5	
150-180-200	278	17.5	314	14	16.5	12 n°3	30°	45°	77.5	170.25	234.75	278.75	350
250	340	23	370	22	17	16 n°3	24°	45°	94	205	272	324.5	409
280										222	289	341.5	
FS 300	340	23	370	20	17 n°15	16 n°3	24°	36°	94	222	307	371	409
FS 350	340	23	370	20	17 n°15	16 n°3	24°	36°	94	222	307	371	409
FS 420	390	85	424	15	17 n°18	-	20°	-	85	275	367	432	452
FS 650	410	-	460	14	22 n°28	-	12.51°	-	120	351	462	529	510
FS 850	460	-	510	12	26 n°28	-	12.51°	-	131	359	487	572	565



FP																	
	G	G1 e8	Lm	Rm	R	U	U1	Up1	m	V	X	Xm	P1	P2	P3	P4	Q
30	200	190	20	165	220	10	10	1.5	M 12	10.5	30°	36°	45	97.5	141.5	185.5	244
40	200	190	20	165	220	10	10	1.5	M 12	10.5	30°	36°	63	115.5	159.5	203.5	244
50-70														127.5	171.5	215.5	

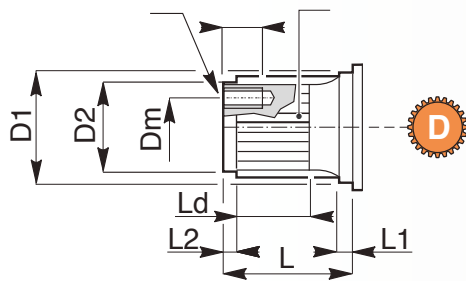


## N

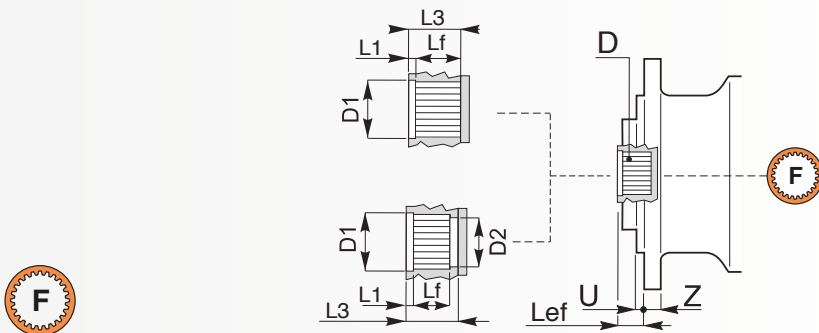


N		
10/20/25	RN1-PN1	1 x M12
30/40/50/70	RN2-RN3-RN4	1 x M16
	MN3	1 x M16
	PN2-PN3-PN4	1 x M16
	MN1-MN2	1 x M20
	RN1-RN2	1 x M20
	MN1-MN2	1 x M20
	TN1-TN2	1 x M20
80	PN1-PN2	1 x M20
	RN3-TN3	1 x M16
90/100	RN1-MN1-TN1-PN1	1 x M24
	RN2-TN2-PN2	1 x M24
150/180/200	RRN1-TN1-HN1-PN1-PHN1	1 x M24
250/280	TN1-HN1-PH1	1 x M24
300	TN1-HN1-PHN1	1 x M24
350	SN1-SBN1-PSN1-PSBN1	1 x M24
	SN2-SBN2-PSN2-PSBN2	1 x M24
420	SN1-SBN1-PSN1-PSBN1	1 x M24
650	SN1-PSN1	3 x M14
850	SN1-PSN1	3 x M14
1200	SN1	3 x M16

## D



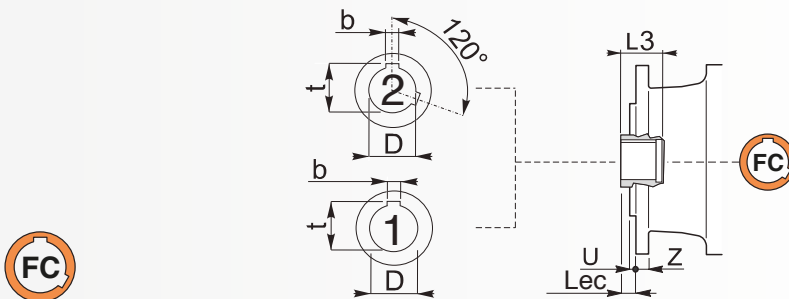
D		
10/20/25	RD-PD	3 x M6
	MD	3 x M10
30/40/50/70	RD-MD-TD-PD	3 x M10
80	RD-MD-TD-PD	3 x M10
90-100	RD-TD-PD	3 x M10
150/180/200	RD-TD-HD-PD-PHD-PXD	3 x M10
	XD-PXD	3 x M14
250/280	TD-HD-PHD	3 x M14
300/350/420	TD-HD-PHD	3 x M16
	SD-SBD-PSD-PSBD	3 x M16
650	SD-PSD	3 x M14
850	SD-PSD	3 x M14
1200	SD	3 x M16



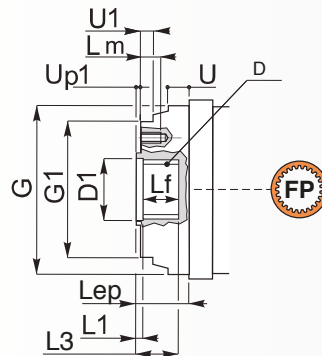
Albero uscita / Output shaft							
F							
	D DIN 5482	D1 H7	D2 H7	L1	LF	L3	Lef
10-20-25	A40x36	42	-	5	30	35	7
30-40	A58x53	60	50	15	21	54	15
80	A70x64	72	60	22	45	79	40
90-100	A80x74	85	70	24	50	87	36



Albero uscita / Output shaft							
FB							
	D DIN 5482	D1 H7	D2 H7	L1	LF	L3	Leb
80	A70x64	72	-	9	58	67	10.5
90-100	A70x64	72	-	5	70	75	5

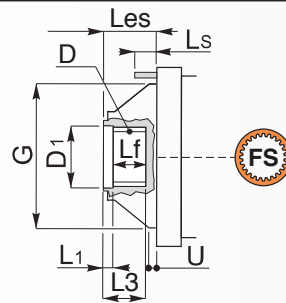


Albero uscita / Output shaft							
FC							
	b	D	L3	t	Lec	Shape	
10-20-25	10	35	75	38.3	50	1	
30-40	14	50	100	53.8	72	2	
50-70	18	65	120	69.4	96	2	
80	18	65	120	69.4	96	2	
90-100	20	75	150	79.9	94.5	2	



Albero uscita / Output shaft

FP							
	D DIN 5482	D1 H7	D2 H7	L1	LF	L3	Lep
30-40	A58x53	60	-	8	41	49	40.5
50-70							



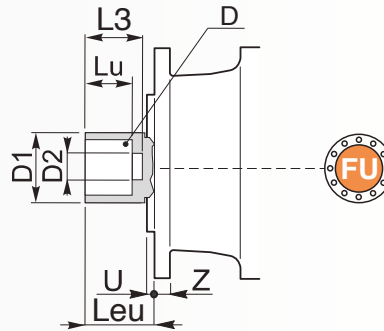
Albero uscita / Output shaft

FS						
	D DIN 5482	D1 H7	L1	LF	L3	Les
10-20-25	A40x36	42	6	39.5	45.5	45.5
30-40	A58x36	60	8	42	50	52.5
50-70						
80	A70x64	72	11.5	50	61.5	50
90-100	A80x74	85	10	58.5	68.5	57
150-180-200	A80x74	88	13.5	65	82	80
250-280	A100x94	102	10	86	96	95
300	N120x5x30x22 7H	122	15	85	100	95
350	N120x3x30x38 9H	121.5	10	75	97.5	109
420	N140x5x30x26 9H	142	15	90	126	140
650	N150x5x30x28 9H	152	45	85	140	159.75
850	N170x5x30x32 9H	172	45	105	160	174
1200	N200x5x30x38 9H	202	45	120	180	205



Albero uscita / Output shaft

FSB								
	D DIN 5482	D1 H7	D2 H7	L1	L2	L3	L4	Les
420	N140x5x30x26 9H	142	120	15	90	100	126	140



Albero uscita / Output shaft

	FU					
	D H7	D1 f7	D2 H7	Lu	L3	Leu
10-20-25	50	62	30	38	50	55
30-40	75	100	40	70	95	85
50-70	80	125	50	72	107	131
90-100	100	140	60	100	140	140

Albero uscita / Output shaft

	HU					
	D H7	D1 f7	D2 H7	Lu	L3	Leu
150-180-200	120	165	80	85	115	140
250-280	130	175	80	100	130	310
300	135	185	-	160	-	382.5

Albero uscita / Output shaft

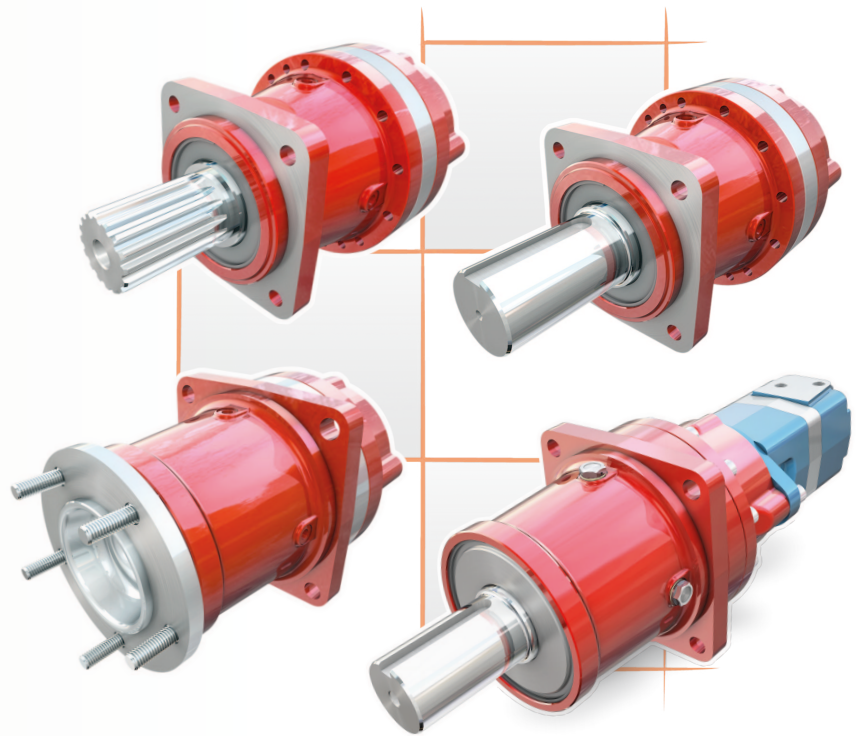
	SU					
	D H7	D1 f7	D2 H7	Lu	L3	Leu
350	145	185	100	146	-	250
420	145	185	100	146	236	250
650	165	220	155	160	200	234.75
850	180	240	170	175	220	257
1200	220	280	210	219	269	315

Albero uscita / Output shaft

	TU					
	D H7	D1 f7	D2 H7	Lu	L3	Leu
250-280	130	175	80	100	130	130
300	135	185	-	160	-	180

## 900 SERIES

- HECO 16
- AUBURN H
- FAIRFIELD S 1 C



### TECHNICAL SPECIFICATIONS

The 900 Series has been designed to be SUPERIOR in every aspect to the competitors with similar products. Our advanced design, and technical improvements can assure you a longer life and better performance. Available in a variety of motor connections, ratios, output shaft and flanges, it can be used in many applications very successfully.

#### We are better:

- 4 planet design for increase torque and life
- Hardened ring gear
- Larger bearings on output shaft
- Full complement bearing on planets

#### TECHNICAL DATA SERIES

**Ratios:** single stage **4.41:1 and 5.25:1**  
double stage **15.31 - 18.74 - 22.36 - 25.38 - 31.68 - 37.8**

**Max speed input: 2800 RPM**

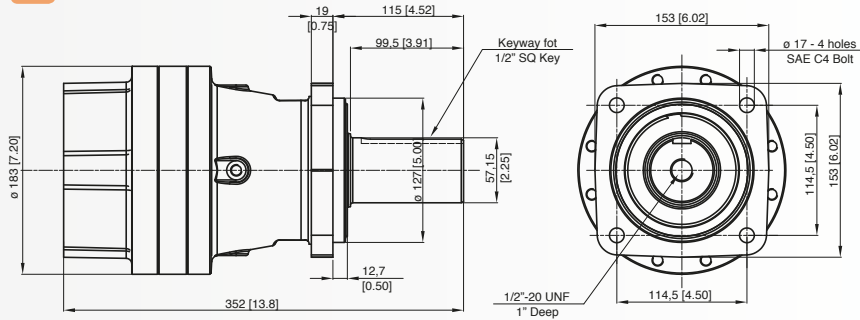
#### Torque ratings

Continuous	Intermittent	Peak
3400 Nm	4500 Nm	5000 Nm
30000 Lb-in	39780 Lb-in	49000 Lb-in
2500 Lb-ft	3315 Lb-ft	4083 Lb-ft

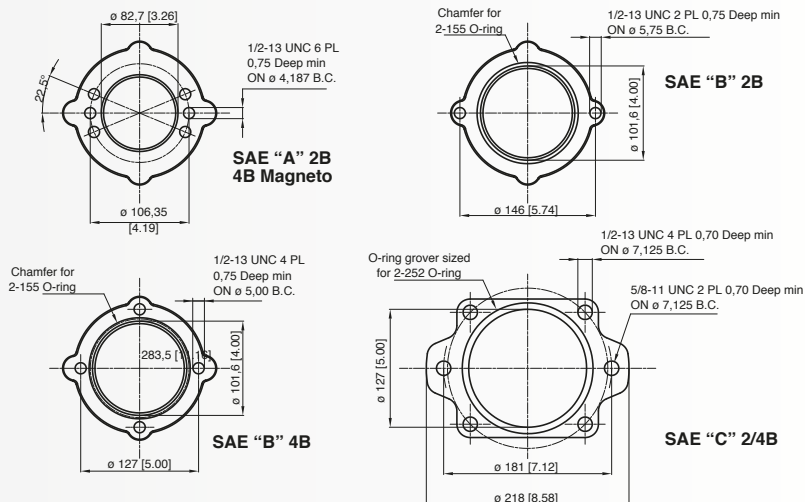
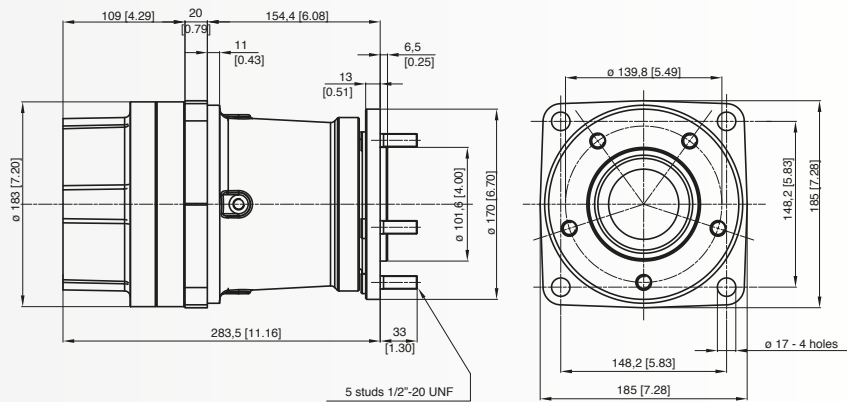


## TECHNICAL SPECIFICATIONS

### series 900 FF Type



### series 900 CF Type



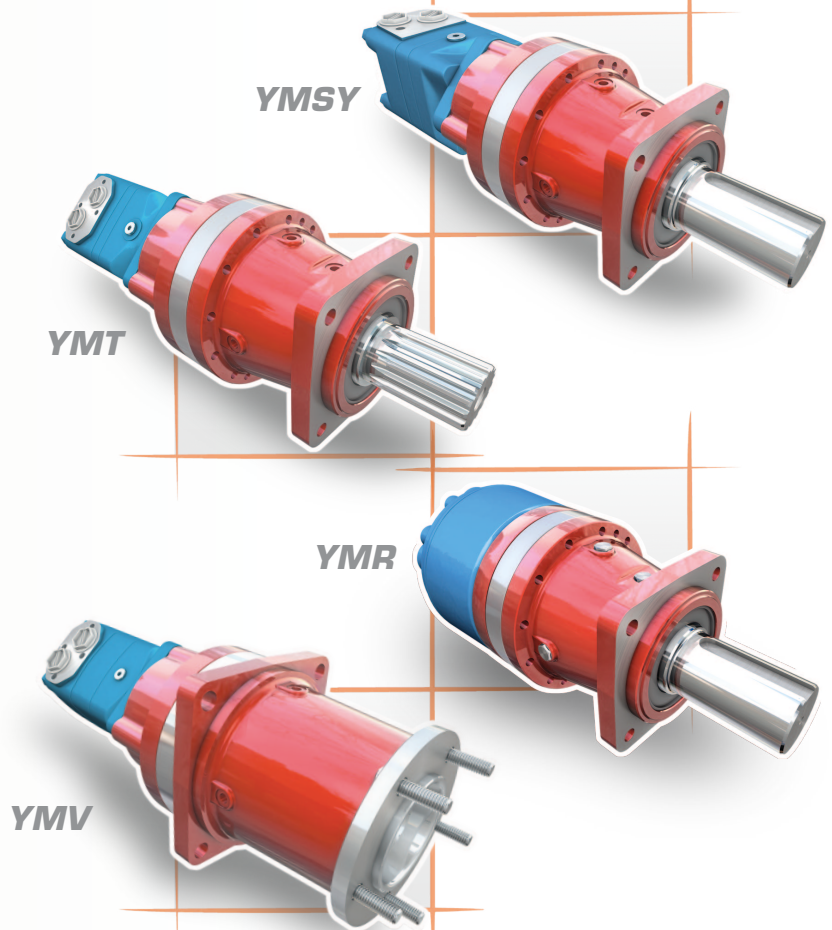
## Order Informations & Model Coding

CODE	ORDER DESCRIPTION
<b>Section 1 - Ratio &amp; Mounting Flanges</b>	
A-900.01	Front Flange Mount, 4.4:1 Ratio
A-900.02	Front Flange Mount, 5.25:1 Ratio
A-900.02	Center Flange Mount, 4.4:1 Ratio
A-900.04	Center Flange Mount, 5.25:1 Ratio
<b>Section 2 - Input flanges</b>	
B90	SAE "A" 2 Bolt
B91	SAE "A" 4 Bolt Square
B92	SAE "A" Magneto
B93	SAE "B" 2 Bolt
B94	SAE "B" 4 Bolt
B95	SAE "C" 2 Bolt
B96	SAE "C" 4 Bolt
BLM	Bearingless
<b>Section 3 - Input Shafts (Sun Gear)</b>	
B97	SAE 6B Splined
B98	SAE 12/14 DP 14T Splined, 1.25"
B99	SAE 16/32 DP 13T Splined, 7/8"
B910	SAE 16/32 DP 15T Splined, 1"
B911	1.25" Keyed
B912	Bearingless Drive Link, YMSS
B913	1" Keyed
B914	25mm Keyed
B915	32mm Keyed
B916	7/8" Keyed
<b>Section 4 - Output Shafts</b>	
E90	2" Keyed
E91	8/16 DP 16T splined
F91	2.25" Keyed
G91	4 Stud Wheel Flange
G92	5 Stud Wheel Flange

### SAMPLE MODEL CODE

section	1	2	3	4
code	A-900.02	B92	B98	F91

## 700 SERIES



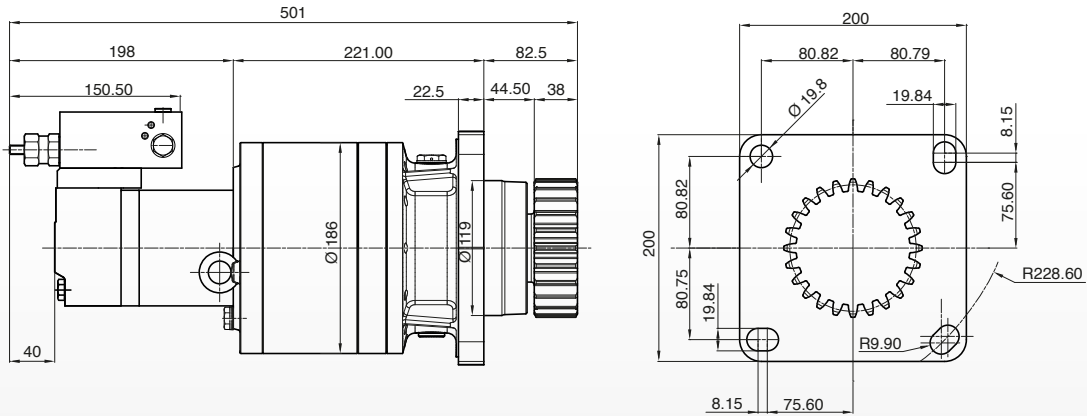
### TECHNICAL SPECIFICATIONS

The 700 series is a combination of the best quality hydraulic motors and gear reducers for smaller application where high value, low cost, interchangeability, flexibility and fast delivery is important.

Available with Orbital motors or Radial piston motor for higher efficiency, torque and speed, this series can power any possible application from **1000** to **120.000** Lb-Ft.

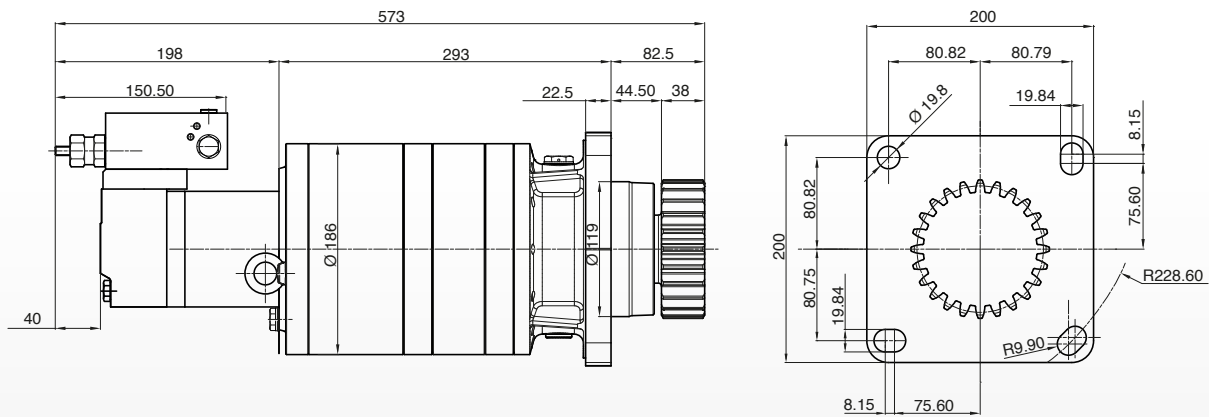
Also available with in-line or 90 degrees gear reducers, brakes, and other options to better fit your application.

## SINGLE STAGE SWING DRIVE



Pinion 4/5 - 16T or 5/7 - 24T

## DOUBLE STAGE SWING DRIVE



Pinion 4/5 - 16T or 5/7 - 24T

## YSMR SERIES



### TECHNICAL SPECIFICATIONS

#### 1 Twin Tapered Output Hub

A tapered bore in both sides of the reducer's output hub snugs up against a matching taper on the outer surface of the bushing. Bushing mounting screws pass through the bushing flange into a mounting collar on the hub. As the screws are tightened, the bushing moves inward, gripping the driven machine's input shaft tightly and evenly around every point on its circumference. It is easy-on, easy-off. All the Output Bushing Bore accord to ANSI standards. Also have ISO standard Straight Output Hub.

#### 2 Precision High Quality Gearing

Computer Designed Helical Gears, Strong Alloy Materials for High Load Capacity, Case Carburized for long life, Ground Profile Crown tooth Profile, In Conformance with ISO 1328-1997, 98% Efficiency for Per Stage, Smooth Quiet Operation with Several Teeth in Mesh.

#### 3 Maximum Capacity Housing Design

Close Grain Cast Iron Construction, Excellent Vibration Dampening & Shock Resistance Features, Precision Bored and Dowelled to Ensure Accurate In-Line Assembly.

#### 4 Strong Alloy Steel Shafts

Strong Alloy Steel, Hardened, Ground on Journals, Gear Seatings and Extensions, for Maximum Load and Maximum Torsional Loads. Generous Size Shaft Keys for Shock Loading.

#### 5 Use **adapter** for mount the torque arm, increase the strength of the gear case, the torque arm easy-on and easy-off and reliability, controls position of standard torque arm mounting within recommended limits.

#### 6 BackStops

Alternative Parts, anti-run back device, are available on all 15:1 and 25:1 ratio units.

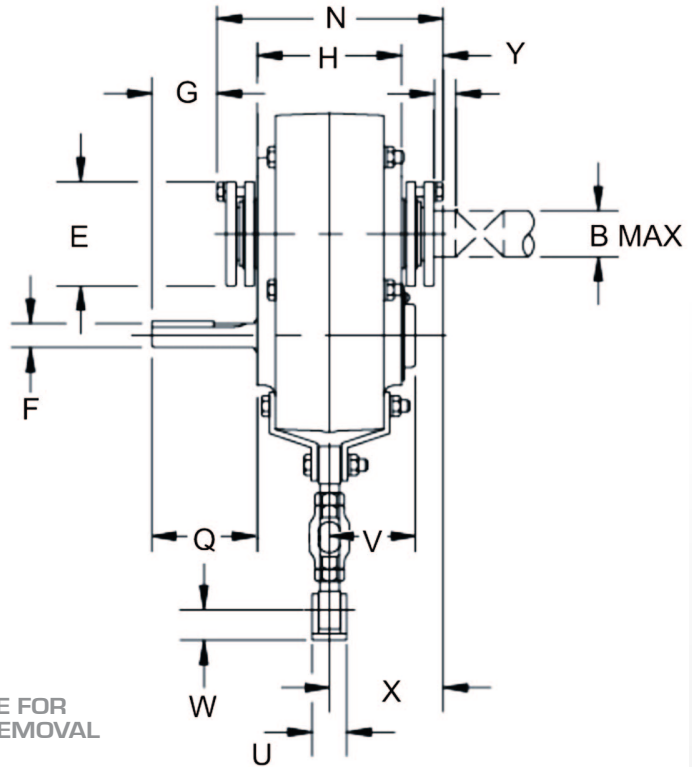
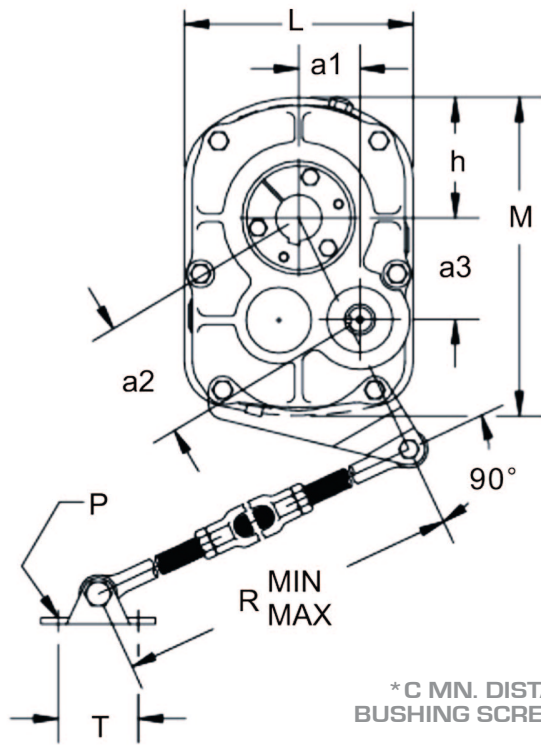
#### 7 Bearings and Oilseals

Bearings are all tapered roll bearings(Except SMRY-2), have long time service time. Oilseals are Double Lipped Garter Spring Type, Ensuring Effective Oil Sealing.

#### 8 Torque Arm Assembly

For Easy Adjustment of the Belt.

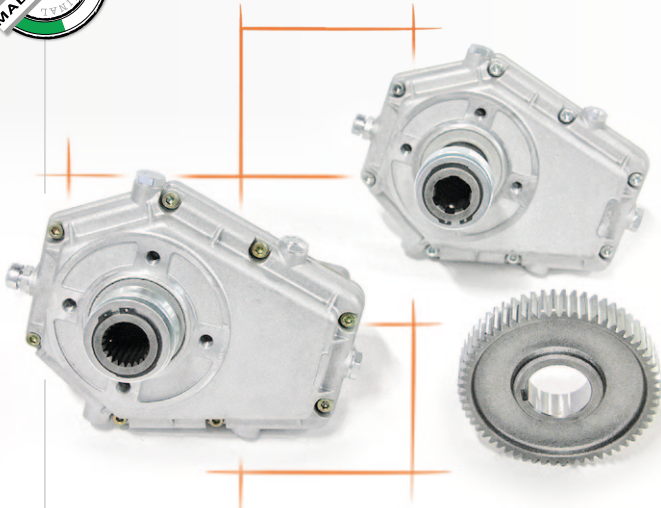
## YSMR SHAFT MOUNTED DIMENSIONS



\* C MN. DISTANCE FOR BUSHING SCREW REMOVAL

inch

Size	L	N	F	B max	C	E	W	X	Q	H	a <sup>1</sup>	a <sup>3</sup>	R <sub>min max</sub>	P
	M		Input Shaft Keyway			G	U	V	Y		a <sup>2</sup>	h		T
YSMR2	8.38	7.32	1.13	1-15/16"	1.25	4.06	1.06	3.68	3.59	4.56	2.14	3.75	26.94	0.44
	11.41		0.25*0.13*2.50			2.22	1.25	2.89	1.40		4.32	4.09		32.94
YSMR3	9.25	9.22	1.25	2-3/16"	1.5	4.38	1.06	4.52	4.34	5.63	2.33	4.17	26.94	0.44
	12.88		0.25*0.13*2.88			2.34	1.25	3.30	1.59		4.78	4.84		32.94
YSMR4	10.38	9.98	1.44	2-7/16"	1.75	4.81	1.75	4.79	5.57	6.13	2.76	4.79	29.19	0.50
	15.13		0.38*0.19*4.06			3.44	1.44	3.41	1.72		5.53	5.50		35.19
YSMR5	13.13	10.52	1.94	2-15/16"	1.81	5.63	1.75	5.05	5.74	6.31	3.04	5.67	29.19	0.50
	18.31		0.5*0.25*4.50			3.44	1.44	4.45	1.91		6.43	6.56		35.19
YSMR6	15.13	11.53	2.19	3-7/16"	1.81	6.13	2.00	5.73	6.08	6.88	4.09	6.73	29.19	0.63
	21.31		0.5*0.25*4.50			3.73	2.75	4.57	2.30		7.88	7.56		35.19
YSMR7	18.75	12.85	2.44	3-15/16"	2.06	7.25	2.00	6.38	6.35	7.75	5.11	8.30	29.44	0.63
	25.94		0.63*0.31*4.75			3.75	2.75	4.69	2.50		9.74	9.38		35.44
YSMR8	20.25	14.03	2.44	4-7/16"	2.06	7.75	3.13	7.04	7.11	8.37	6.03	9.50	30.00	0.75
	28.25		0.63*0.31*5.38			4.31	4.00	5.85	2.86		11.25	10.13		36.00
YSMR9	22.63	14.12	2.44	4-15/16"	2.44	8.75	3.13	7.04	9.65	8.12	6.59	10.81	30.00	0.75
	31.69		0.63*0.31*7.75			6.63	4.00	5.66	2.98		12.66	11.31		36.00



## ■ SPEED INCREASERS

Power from **5** to **72** kW  
Torque input from **750** to **9700** Lb-In  
Input speed **540** - **1000** RPM  
Output speed from **540** to **2600** RPM

## ■ GEAR REDUCERS

Power from **10** to **68** kW  
Torque input from **430** to **4000** Lb-In  
Input speed from **300** to **800** RPM  
Output speed varies with ratio



## ■ OVERHUNG LOAD ADAPTORS

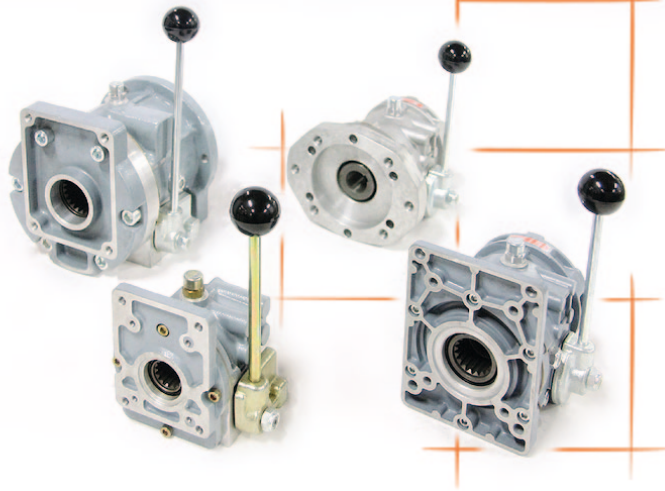
Radial load from **220** to **1500** Lbs  
Many inches and metric input/output options





## ELECTROMAGNETIC CLUTCHES

Static torque from **400 to 4400** Lb-In  
Dynamic torque from **80 to 3000** Lb-In  
Speed up to **5000** RPM  
Voltage **12 V - 24 V**  
For more information contact YPT  
Engineering

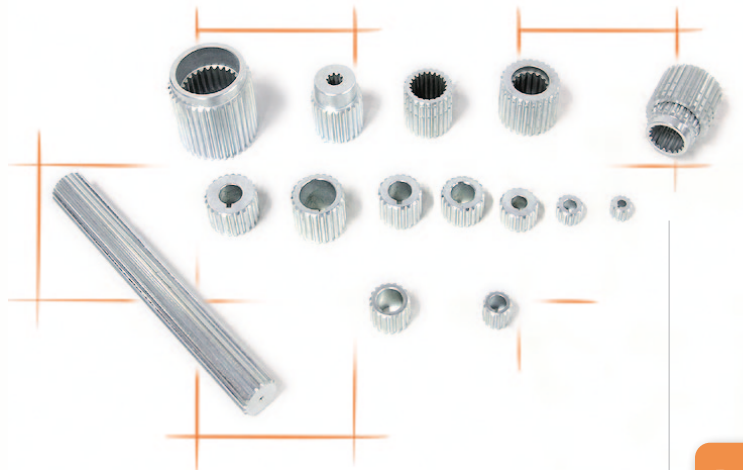


## MECHANICAL CLUTCHES

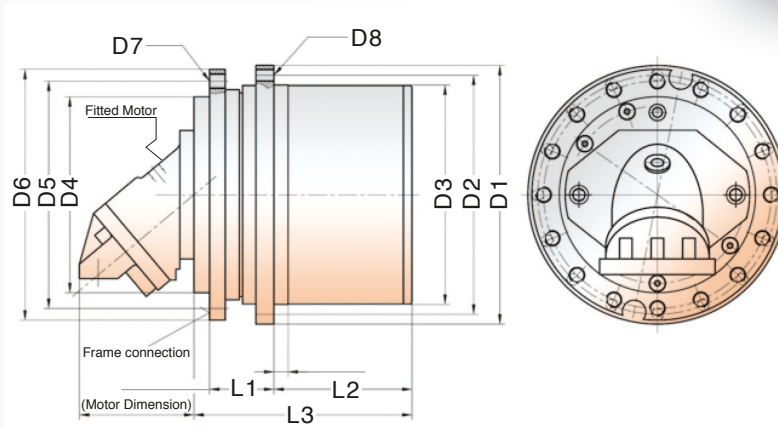
Static torque **800 - 1600 - 5100** Lb-In  
Transmissible power **30 - 40 - 60** kW  
Radial load **320 - 830 - 1400** Lbs  
Axial load **250 - 350 - 570** lbs  
Max input speed **2000 - 2700** RPM  
Several inches and metric input/output  
options

## ACCESSORIES AND CHAIN COUPLINGS

Couplings Internal/external spline combinations  
Couplings Internal/external key combinations  
Splined bars  
Special shaft



## YWTD SERIES



### TECHNICAL SPECIFICATIONS

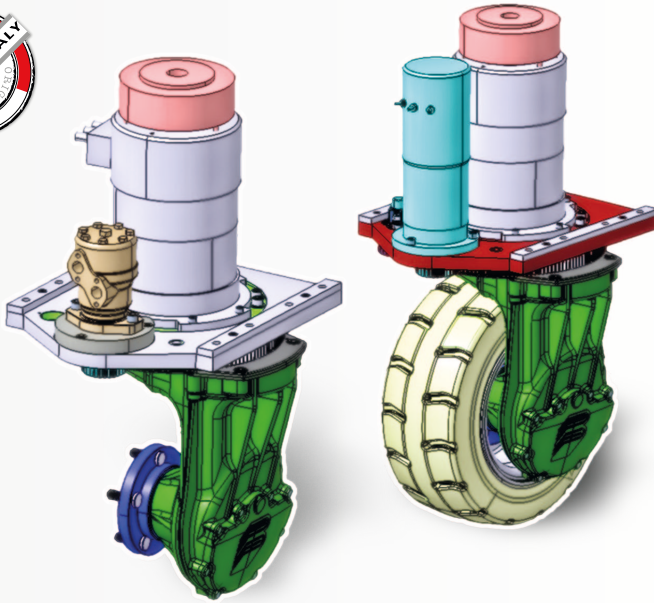
#### YWTD DRIVES

	D1 H8	D2	D3 H9	D4 H9	D5	D6	D7	D8	L1	L2	L3
YWTD 13	335	305	270	240	275	300	N.16 M16	N.16 M16	75	176	278
YWTD 17 T2	330	305	280	250	290	320	N.16 M20	N.16 M16	82	176	278
YWTD 17 T3	330	305	280	250	290	320	N.16 M20	N.16 M16	82	208	310
YWTD 36	380	350	320	270	310	350	N.16 M20	N.20 M16	90	251	371
YWTD 40	440	400	360	330	370	410	N.20 M20	N.16 M20	114	205	370.7
YWTD 60	450	410	370	330	370	410	N.20 M20*	N.20 M20	114	256	413
YWTD 80	520	480	430	380	430	480	N.20 M24	N.20 M24	148	296	467
YWTD 110	540	500	460	420	460	500	N.24 M24	N.36 M18	165	335	522
YWTD 160	650	600	535	450	510	560	N.30 M24	N.30 M24	168	335	533
YWTD 220-3	712	656	610	460	520	570	N.24 M30	N.34 M24	170	358	573
YWTD 220-4	-	-	-	-	-	-	-	-	-	448	663
YWTD 330A	780	730	660	580	680	730	N.30 M30	N.30 M30	188	459.5	687.5
YWTD 330B	785	730	660	868	930	990	N.30 D32	N.30 D32	162	475	733
YWTD 440	670	620	569	450	515	569	N.29 M36	N.42 M30	255	534	832
YWTD 550	900	850	800	670	720	770	N.36 M30	N.36 M30	165	567	752



**TECHNICAL SPECIFICATIONS**

YWTD WHEEL AND TRACK DRIVES					
Series	Ratios	Rated Torque	Rated Torque	Max Input	Brake Torque
		Lb-ft	Nm	RPM	Lb-In/Nm
<b>13</b>	21:1 to 38:1	114500	13000	4000	350/3100
<b>17 T2</b>	27:1 to 53:1	114000	13000	4000	350/3100
<b>17 T3</b>	63:1 to 209:1	150000	17000	4000	450/3950
<b>36</b>	67:1 to 181:1	318000	36000	4000	750/6600
<b>40</b>	31:1 to 45:1	353000	40000	4000	800/7000
<b>60</b>	86:1 to 171:1	530000	60000	4000	800/7000
<b>80</b>	76:1 to 211:1	707000	80000	4000	1100/9700
<b>110</b>	78:1 to 202:1	972000	110000	4000	1200/10000
<b>160</b>	98:1 to 251:1	1414000	160000	4000	1200/10000
<b>220</b>	188:1 to 695:1	1944000	220000	4000	1200/10000
<b>330A</b>	169:1 to 555	2917000	330000	4000	1200/10000
<b>330B</b>	88:1 to 555:1	2917000	330000	4000	1200/10000
<b>440</b>	275:1 to 353:1	3889000	440000	2000	2500/22000
<b>550</b>	129:1 to 175:1	4862	550000	2000	3600/31500



## VERTICAL DRIVES

In smaller vehicles, the steering is accomplished with either hydraulic or electric motor with pinions and ring.

Many options available.

Power from **2000 W** to **8000 W**

Torque from **1400** to **8000 Lb-In**

Load capacity from **2640** to **10000 Lbs**

Wheel size from **230 x 75** to **524 x 216**

## HORIZONTAL DRIVES

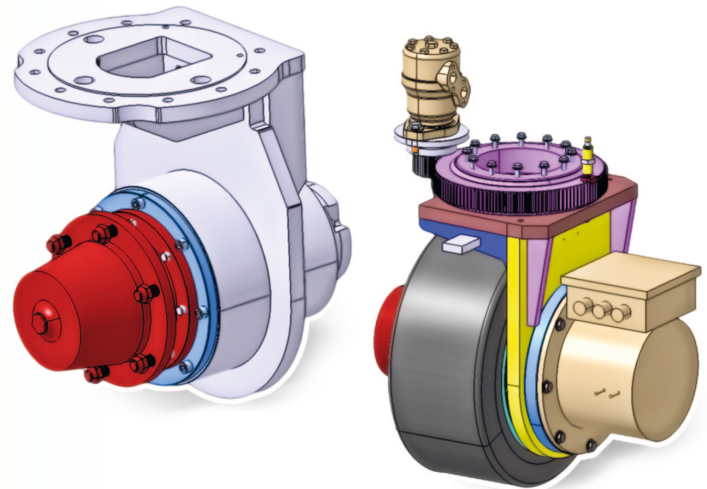
In smaller vehicle steering can be accomplished in several manners. In larger vehicles we can supply hydraulic or electric steering.

Power from **120 W** to **7500 W**

Power from **6 kW 80 V AC** to **24 kW**

Load capacity from **880** to **22000 LBS**

Wheel size from **186 x 50** to **716 x 299**



## NON-DRIVEN TWIN STEERING

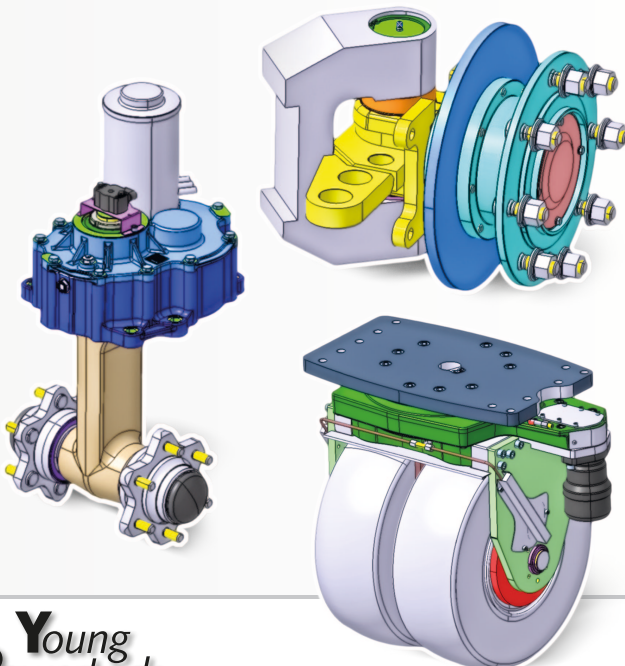
These axles are used in the rear part of the vehicle and the steering is accomplished by a cylinder or hydraulic or electric driven pinion-ring gear.

These are steering single and dual tire axles for 3 or 4 wheels drives vehicles and the steering is accomplished with electric or hydraulic motor with pinion and ring gear.

Various options available

Load rating from **2200** to **15000 lbs.**

Max steering angle **85-90** degree

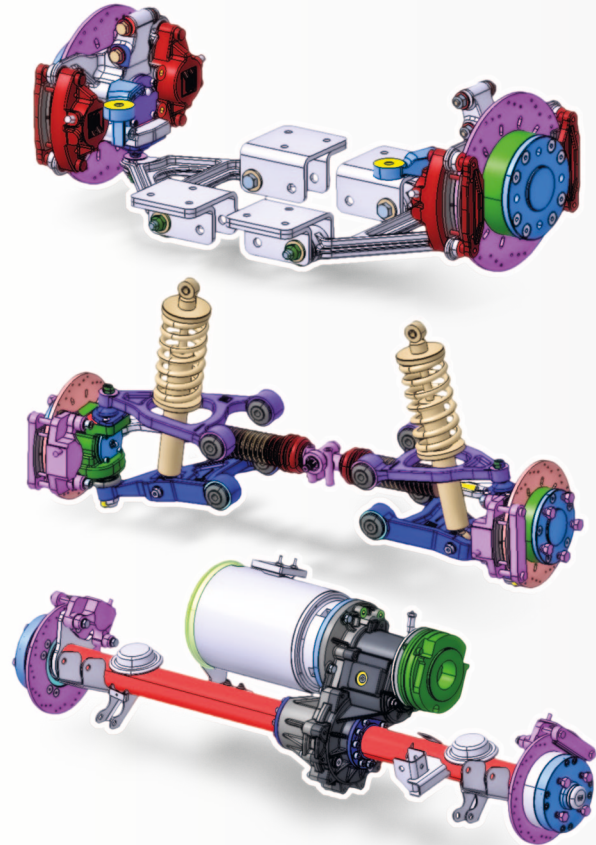




## DRIVING AXLES

These axles have integrated differential. They can be driven by electric or hydraulic motors. They are available with several ratios, and can be delivered with drum or disc brakes, many options and made to order also available.

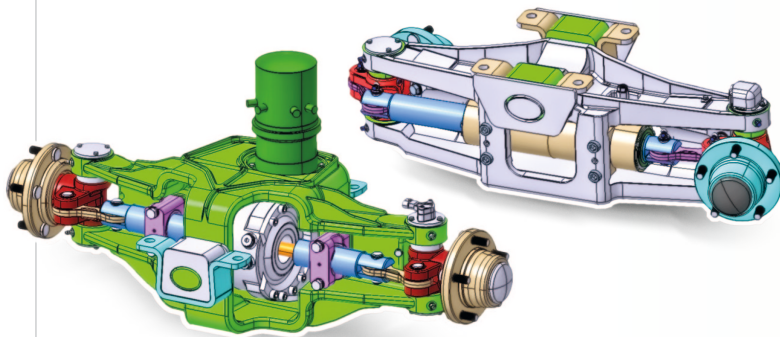
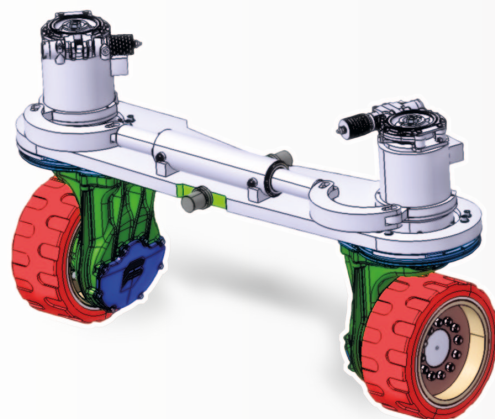
- Power from **1.2 kW** to **15 kW**
- Power type Ac and DC
- Torque output from **2210** to **17700 Lb-In**
- Speed input up to **7000 RPM**
- Ratios from **19.5** to **1** to **49:1**
- Single speed or dual speed
- Load capacity from **550** to **4400 Lbs**
- Drum brakes available
- Electromagnetic parking brake available



## FULL STEERING AXLES

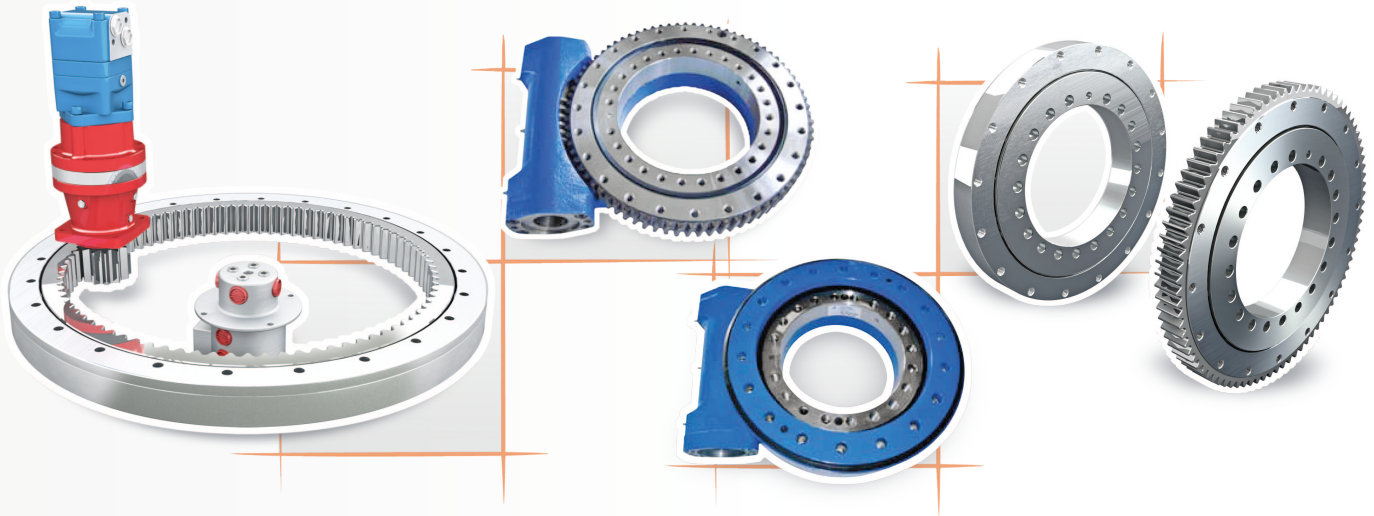
The special steering system permit steering angle above **100** degrees so that the steering circle follows the centerline of the vehicle to reduce the steering radius of the vehicle to a minimum.

Load from **2.3 T** to



## SPECIAL PRODUCTS

Our Engineering department is always at customer service to develop special products to meet special application needs. Our strength is in our capability to develop special products in very short time.



## INTRODUCTION

Slewing rings are manufactured in many versions. Single and double row balls, cross roller, 3 row roller and with internal, external gear or no gear to meet every possible requirement. Gear teeth hardening by induction is available for any type or size.

### Slewing Bearing Sizes

- Single and double row ball 300 to 5000 MM
- Cross roller 450 to 5000 MM
- Three roller row 1200 to 5000 MM
- Special design upon request

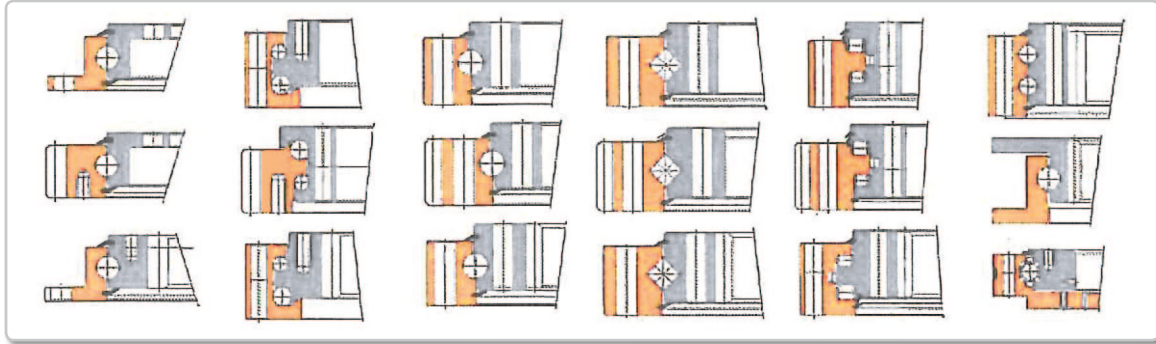
### Applications

Cranes, any type	Earthmoving equipment	Excavators
Shovel loaders	Stone crushing machines	Radar and antennas
Wind Turbines	Industrial robots	Switchover technology
Deck Equipment	Navigation systems	Recycling machines
Armored vehicles and tanks	Solar tracking systems	

### Inspections and Certifications

Upon Customer request, we can supply 3.1B certifications. For specific application a 3.1C certificate can be supplied and also Certifications from GL, LRS, BV, DNV, RINA and others can be supplied.

## TYPES OF SLEWING RINGS



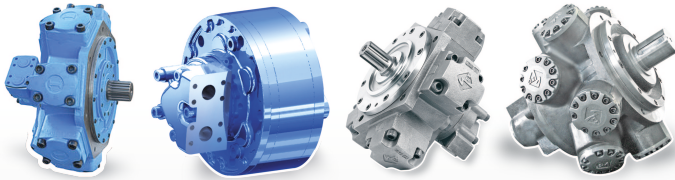
## SLEWING DRIVES

Model	Rated Torque	Holding Torque	Tilting Moment	Static Axial	Dynamic Axial	Static Radial	Dynamic Radial	Ratio Axial Rating	Tracking Precision	Self Locking	Weight
				Rating	Rating	Rating	Rating				
YSE 30	400 N/m	2000 N/m	1100 N/m	30 Kn	9.6 kN	16.6 kN	8.4 kN	62:1	0.2°	YES	12 Kg
	295 Lb-Ft	1475 Lb-Ft	811 Lb-Ft	6744 lbs	2158 lbs	3732 lbs	1888 lbs				26 Lbs
YVE 30	400 N/m	2000 N/m	500 N/m	30 Kn	9.6 kN	15 kN	8.4 kN	62:1	0.2°	YES	17 Kg
	295 Lb-Ft	1475 Lb-Ft	369 Lb-Ft	6744 lbs	2158 lbs	3372 lbs	1888 lbs				37 Lbs
YSDE 30	400 N/m	2000 N/m	500 N/m	30 Kn	9.6 kN	15 kN	8.4 kN	62:1	0.2°	YES	32 Kg
	295 Lb-Ft	1475 Lb-Ft	369 Lb-Ft	6744 lbs	2158 lbs	3372 lbs	1888 lbs				70 Lbs
YSE 50	600 N/m	5000 N/m	1800 N/m	76 Kn	13.8 kN	22.6 kN	11.8 kN	62:1	0.2°	YES	12 Kg
	443 Lb-Ft	3688 Lb-Ft	1328 Lb-Ft	17085 lbs	3102 lbs	5081 lbs	2653 lbs				26 Lbs
YSE 70	1000 N/m	10400 N/m	13500 N/m	133 Kn	32 kN	53 kN	28 kN	73:1	0.2°	YES	21 Kg
	738 Lb-Ft	7671 Lb-Ft	9957 Lb-Ft	29900 lbs	7194 lbs	11915 lbs	6295 lbs				46 Lbs
YVE 70	1000 N/m	10400 N/m	6000 N/m	133 Kn	32 kN	53 kN	28 kN	73:1	0.2°	YES	37 Kg
	738 Lb-Ft	7671 Lb-Ft	4425 Lb-Ft	29900 lbs	7194 lbs	11915 lbs	6295 lbs				81 Lbs
YSE 90	6.5KN/m	38.7KN/m	33.9KN/m	338 Kn	81 kN	135 kN	71 kN	61:1	0.17°	YES	49 Kg
	4794 Lb-Ft	29x103 Lb-Ft	25x103 Lb-Ft	76x103 lbs	18x103lbs	30x103 lbs	16x103 lbs				108 Lbs
YSE 120	7.5KN/m	43KN/m	54.3KN/m	475 Kn	114 Kn	190 Kn	100 Kn	78:1	0.17°	YES	61 Kg
	5532 Lb-Ft	32x103 Lb-Ft	40x103 Lb-Ft	107x103 Lb-Ft	26x103 Lb-Ft	43x103 Lb-Ft	23x103 Lb-Ft				134 Lbs
YVE 120	7.5KN/m	21.5KN/m	27.2KN/m	475 Kn	114 Kn	190 Kn	100 Kn	78:1	0.17°	YES	91 Kg
	5532 Lb-Ft	16x103 Lb-Ft	20x103 Lb-Ft	107x103 Lb-Ft	26x103 Lb-Ft	43x103 Lb-Ft	23x103 Lb-Ft				200 Lbs
YSE 140	8KN/m	48KN/m	67.8KN/m	555 Kn	133 Kn	222 Kn	117 Kn	85:1	0.17°	YES	64 Kg
	5900 Lb-Ft	35x103 Lb-Ft	50x103 Lb-Ft	125x103 Lb-Ft	30x103 Lb-Ft	50x103 Lb-Ft	26x103 Lb-Ft				141 Lbs
YSE 170	10KN/m	72.3KN/m	135.6KN/m	970 Kn	235 Kn	390 Kn	205 Kn	102:1	0.15°	YES	105 Kg
	7400 Lb-Ft	53x103 Lb-Ft	100x103 Lb-Ft	218x103 Lb-Ft	53x103 Lb-Ft	88x103 Lb-Ft	46x103 Lb-Ft				231 Lbs
YSE 210	15KN/m	105.8KN/m	203KN/m	1598 Kn	385 Kn	640 Kn	335 Kn	125:1	0.15°	YES	149 Kg
	11000 Lb-Ft	78x103 Lb-Ft	150x103 Lb-Ft	359x103 Lb-Ft	87x103 Lb-Ft	144x103 Lb-Ft	75x103 Lb-Ft				323 Lbs
YSE 250	18KN/m	158.3KN/m	271KN/m	2360 Kn	590 Kn	945 Kn	470 Kn	150:1	0.15°	YES	204 Kg
	13300 Lb-Ft	117x103 Lb-Ft	200x103 Lb-Ft	531x103 Lb-Ft	133x103 Lb-Ft	212x103 Lb-Ft	106x103 Lb-Ft				449 Lbs

## Orbital Motors



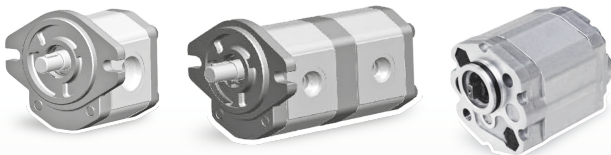
## Radial Piston Motors



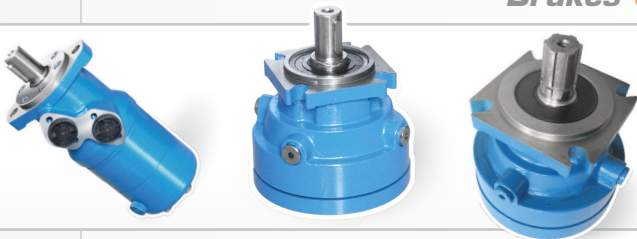
## Cam Ring Motors



## Gear Pumps and Motors



## Brakes



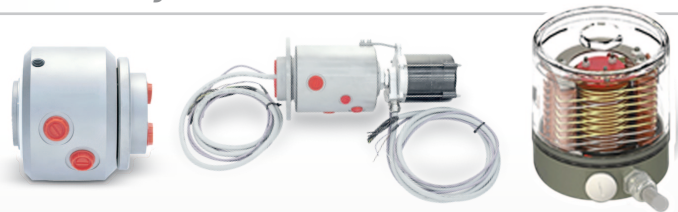
## Hydraulic Steerings and Control Units



## Rotary Actuators



## Rotary Manifolds



## Steerings Columns



## Flow Control Valves



## **LIMITED ONE YEAR WARRANTY**

If the products fails to function within one (1) year after the date of its original shipment, or invoice date whichever occurs first, due to a defect in the materials or workmanship, Young Powertech (YPT) will remedy the defect without charge to the consumer purchaser. The foregoing limited warranty does not cover failure to function caused by damage to the product while in your possession, improper installation, unreasonable use or abuse of the product, failure to provide or use of improper maintenance, failure to follow written installation and instructions.

THE REMEDIES PROVIDED IN THE ABOVE EXPRESS LIMITED WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES AVAILABLE TO YOU. NO OTHER EXPRESS WARRANTIES ARE MADE. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE LIMITED IN DURATION AS SET FORTH ABOVE. IN NO EVENT SHALL YPT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. The consumer-purchaser must maintain proof of purchase and shipment date of the product to prove the date of purchase and shipment in the unlikely event of a warranty claim.

In order to obtain a return authorization number you must contact Young Powertech Inc at **(610) 558-0760** prior to shipping. The customer will be required to ship only the defective parts, freight pre-paid to :

**Young Powertech Inc**

**3060 Plaza Drive • Garnet Valley PA 19060 • Fax: (610) 558-0762**

**e-mail: [info@youngpowertech.com](mailto:info@youngpowertech.com)**

Young Powertech Inc, will repair or replace any part found defective and return the unit prepaid by ground shipment to the customer.

In the event that the unit is not found to have a defect the customer will be charged an inspection fee and the unit will be returned freight collect to the customer.



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