

STM/GSM COMPANY PROFILE

INTRODUCTION

COMPANY PROFILE

OUR FULL PRODUCT RANGE FOR CONTROL AND POWER TRANSMISSION IS EXPRESSED THROUGH ONE SINGLE POLICY:

A unique great force is today facing the world of mechanical products. Young Powertech/STM / GSM team manufacture the widest and broadest range of gearboxes and geared-motors. Young Powertech/STM/GSM team provide forefront technical solutions in every field from light to heavy mechanical components according to specific customer requirements. It is an outstanding alliance allowing customers not just to rely upon HIGH-TECH products, but also on knowledge of the application themselves and the appropriate marketing strategies. Young Powertech/STM/GSM Team: UNITY IS STRENGTH. As from today it will mean the customer's total satisfaction, too.

SERVICES

OUR GLOBALITY OF SERVICE AVAILABLE FOR YOUR COMPLETE SATISFACTION

Young Powertech/STM/GSM team has always been designing and manufacturing products in the full respect of the highest quality standards. Together with a full technical documentation and a well-equipped warehouse these peculiarities represent full satisfaction of our most valuable richness: our CUSTOMERS. In addition, regular technical courses and training are the perfect key to carry out an advanced and flexible product design directed to SOLVE and IMPROVE each single application. More in detail, we will be pleased to offer our "Special Line" including products specifically engineered and addressed to each single application category.

ASSISTANCE

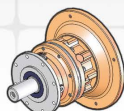
TWO COMPANIES, ONLY ONE MISSION:
CUSTOMER'S TOTAL SATISFACTION.

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

STM Planetary General Designation

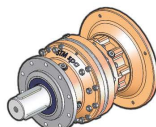
STM
SERIES

1 STAGE

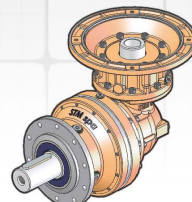


EX1

2 STAGES

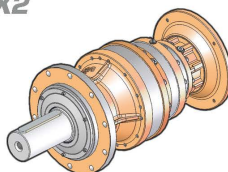


EX2

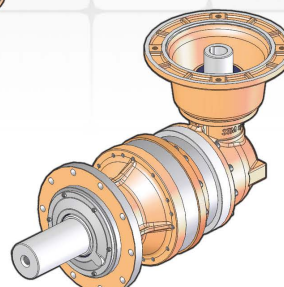


EXB2

3 STAGES

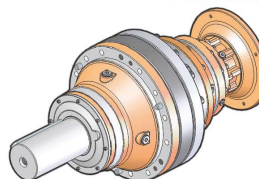


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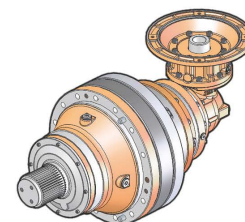


EXB3

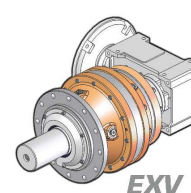
4 STAGES



EX4

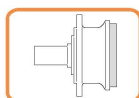


EXB4

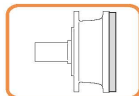


EXV

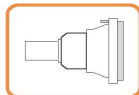
EX4



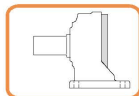
R = Standard male output



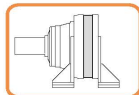
M = Reinforced output



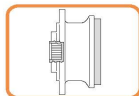
H = Large reducer male output



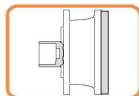
P = Cast foot mount



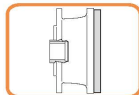
P = Bolted-on foot



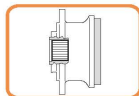
F = Female splined shaft with front flange



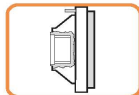
FU-HU-SU-TU = Shrink disc shaft with front flange



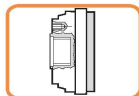
FC = Female keyed shaft with front flange



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

STM Planetary General Data

STM
SERIES

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	43.60 to 321.41	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
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
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

LARGER REDUCERS WITH TORQUE UP TO 60000 Nm - 440000 Lb-Ft AVAILABLE SOON

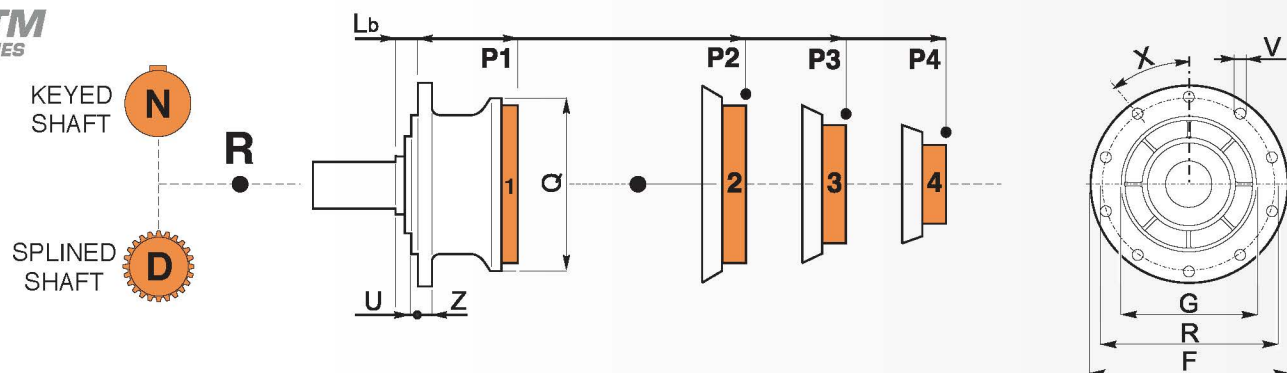
3

info@youngpowertech.com

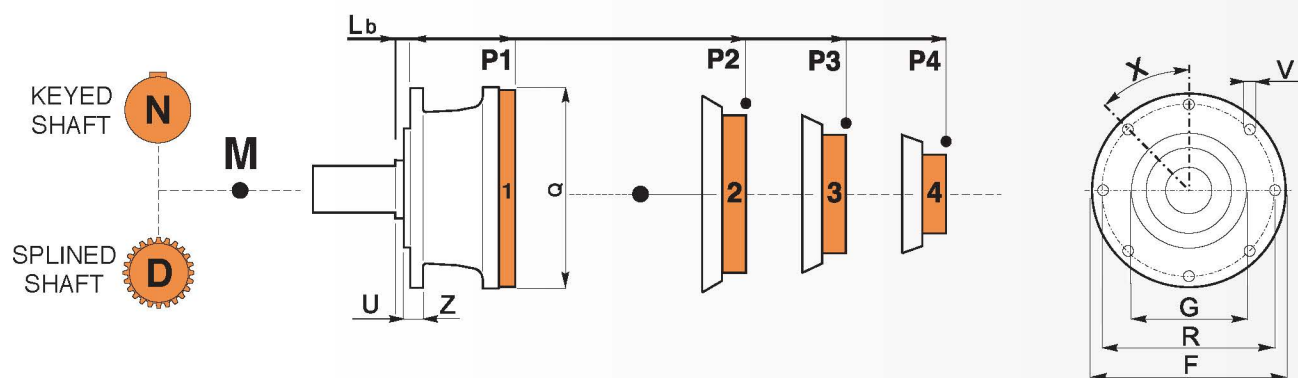


Male Output Shaft

STM
SERIES

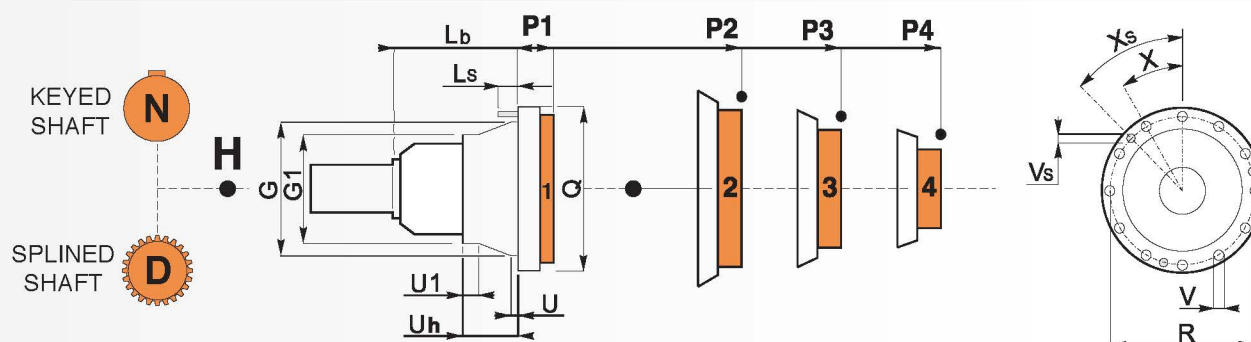


R													
	F	G	Lb	R	U	V	Z	X	P1	P2	P3	P4	Q
10	185	110	7	165	6	10.5	12	45°	94.5	138.5	182.5	226.5	186
20-25									106.5	150.5	194.5	238.5	
30									133	185.5	229.5	273.5	
40	222	150	15	195	8	12.5	16	36°	151	203.5	247.5	291.5	244
50-70									215.5	259.5	303.5	303.5	
80	280	200	40	250	10	15	18	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	430.5	
150-180	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



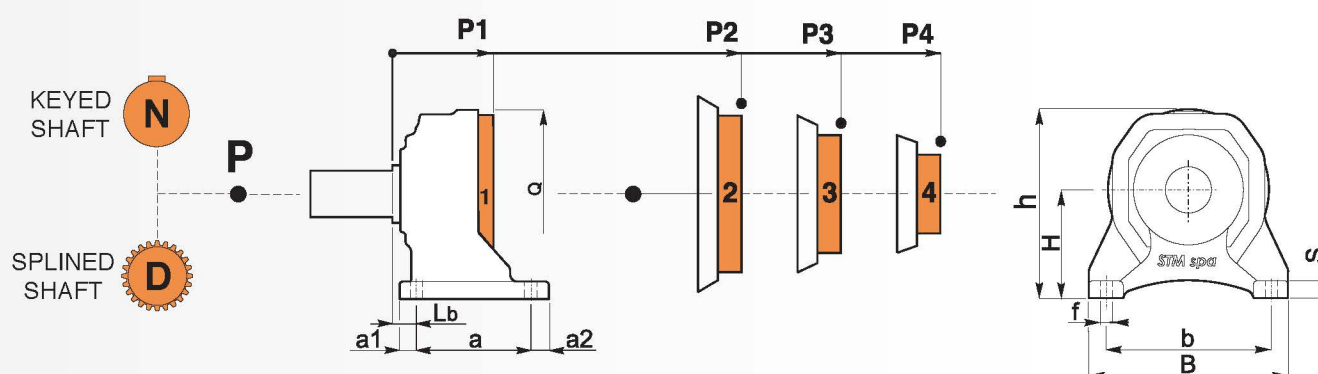
M													
	F	G (ø8)	Lb	R	U	V	Z	X	P1	P2	P3	P4	Q
10	220	150	15	195	7	12.5	15	36°	102	146	190	234	186
20-25									114	158	202	246	
30									137	189.5	233.5	277.5	
40	272	175	39	245	10	12.5	18	36°	155	207.5	251.5	295.5	244
50-70									219.5	263.5	307.5	307.5	
80	280	200	40	250	10	15	18	30°	185	252	304.5	348.5	295

Male Output Shaft



STM
SERIES

H																	
	G	G1	Lb	Ls	R	U	U1	Uh	V	Vs	X	Xs	P1	P2	P3	P4	Q
150-180	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
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

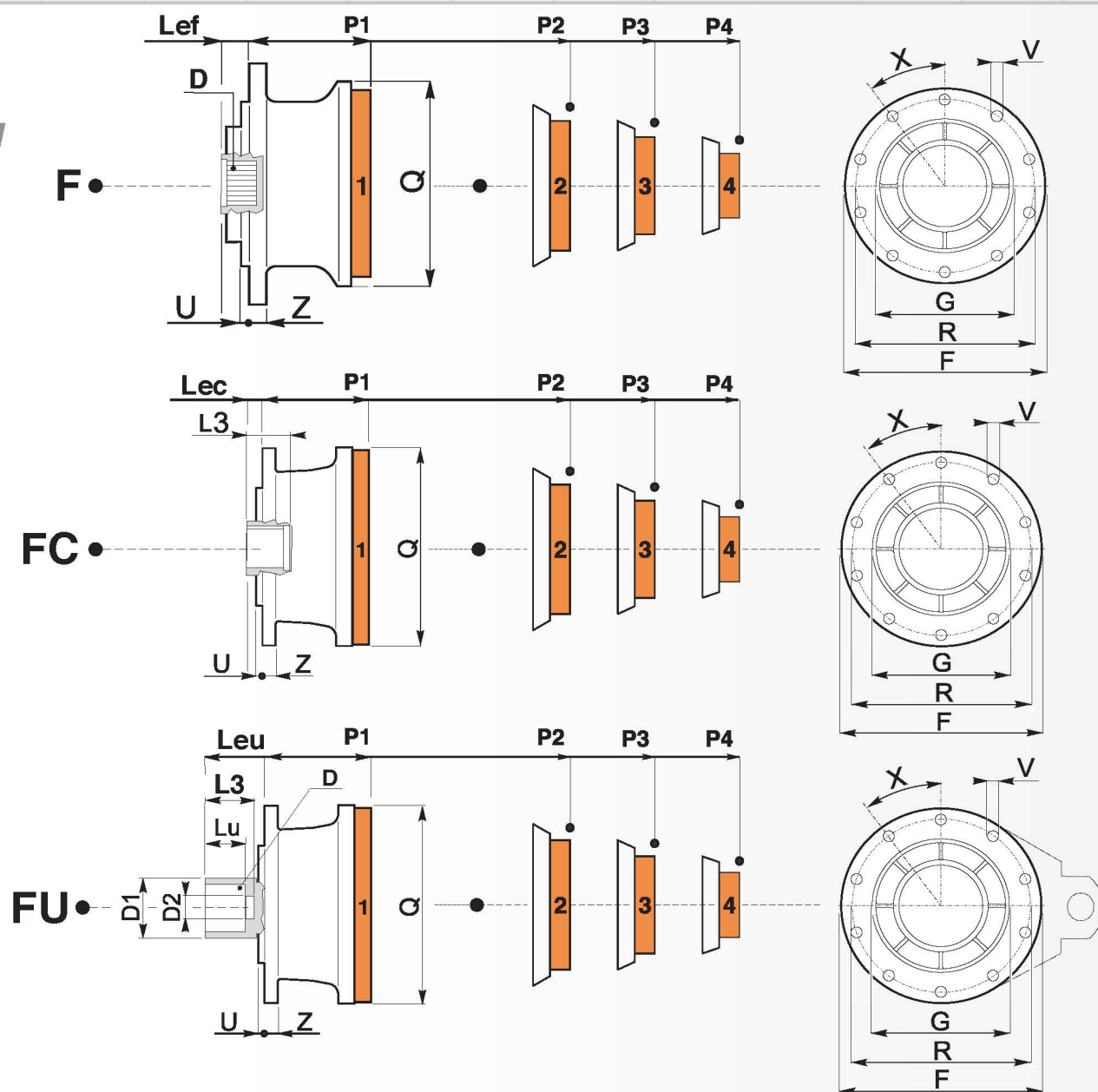


P															
	a1	a2	a	b	B	f	h	H	Lb	P1	P2	P3	P4	Q	S
10	20	20	132	190	230	14	218	125	20	101.5	145.5	189.5	233.5	186	20
20 - 25										113.5	157.5	201.5	245.5		
30										176	228.5	272.5	316.5		
40	28	28	180	250	310	22	282	160	29	194	246.5	290.5	334.5	244	30
50-70											258.5	302.5	346.5		
80	35	35	225	300	370	26	347.5	200	35	225	292	344.5	388.5	295	34
90	35	35	225	300	370	26	347.5	200	35	257.5	324.5	377	421	295	34
100											342.5	407	451		
150-180	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	-

5

Female Output Shaft

STM
SERIES

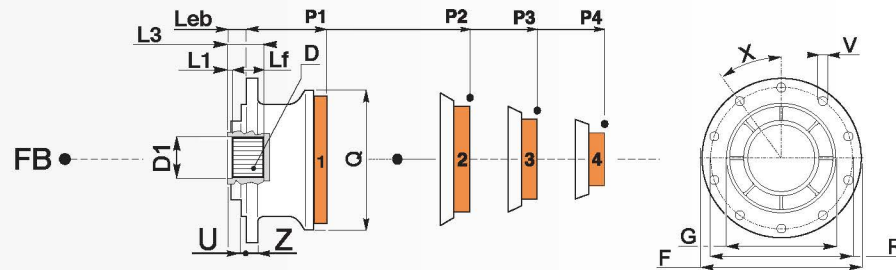


F - FU - FC

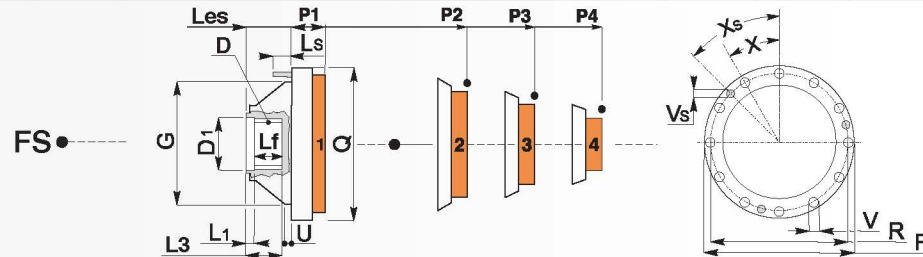
	F	G	R	U	V	Z	X	P1	P2	P3	P4	Q
10	185	110	165	6	10.5	12	45°	94.5	138.5	182.5	226.5	186
20-25								106.5	150.5	194.5	238.5	
30								133	185.5	229.5	273.5	
40	222	150	195	8	12.5	16	36°	151	203.5	247.5	291.5	244
50-70									215.5	259.5	303.5	
80									229.5	282	326	
90	325	230	295	15	17	22	36°	237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

Female Output Shaft

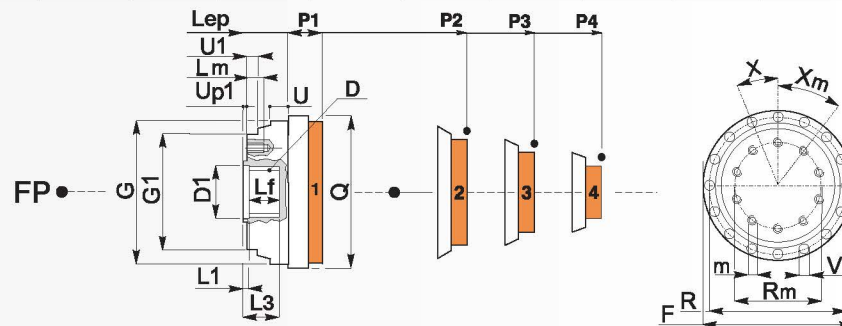
STM
SERIES



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										304	356.5	400.5	295
100	325	230	-	295	4	17	25	36°	237	322	386.5	430.5	295



FS													
	G e8	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	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	277.5	
150-180	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	341.5	
FS 300	340	23	370	20	17 n°15	16 n°3	24°	36°	94	222	307	371	409
FS 420	390	-	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

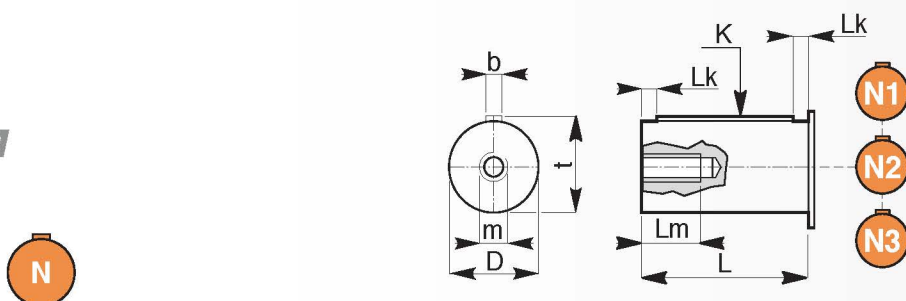


FP																	
	G	G1 e8	Lm	Rm	R	U	U1	Up1	m	V	X	Xm	P1	P2	P3	P4	Q
30	200	190	20	165	220	10	10	1.5	M 12	10.5	30°	36°	45	97.5	141.5	185.5	244
40	200	190	20	165	220	10	10	1.5	M 12	10.5	30°	36°	63	115.5	159.5	203.5	244
50-70														127.5	171.5	215.5	

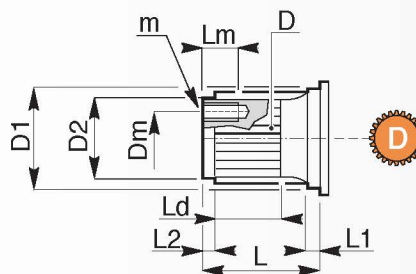
7

Shaft Options

STM
SERIES



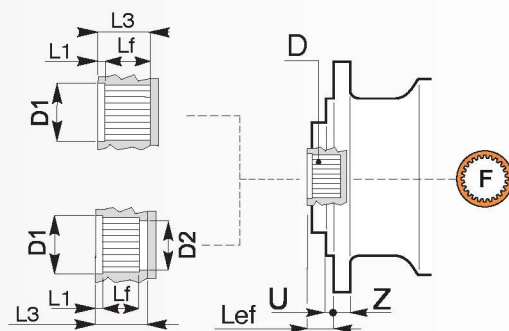
N			Albero uscita / Output shaft							
			b	D h7	L	Lm	Lk	m	K (UNI 6604)	t
10 20 25	R - P	N1	UNI 6604	38	58	24	4	M 12	10x8x50	UNI 6604
		N2		42	82	32	6	M 16	12x8x70	
		N3		50	82	32		M 16	14x9x70	
	M	N1		60	105	40	7.5	M 20	18x11x90	
		N2		65	105	40		M 20	18x11x90	
		N3		50	100	32		M 16	14x9x90	
30 40 50 70	R	N1		60	105	40	7.5	M 20	18x11x90	
		N2		65	105	40		M 20	18x11x90	
	M - P	N1		60	105	40		M 20	18x11x90	
		N2		65	105	40		M 20	18x11x90	
80	R	N1		80	130	40	10	M 20	22x14x110	
	M - P	N1		80	130	40		M 20	22x14x110	
90-100	R - P	N1		90	170	50	5	M 24	25x14x160	
150-180	R	N1		90	170	50	5	M 24	25x14x160	
	H	N2		100	210	50	5	M 24	28x16x200	
250-280	H	N1		110	210	50	5	M 24	28x16x200	
300		TN 1		120	210	64	5	M 24	28x16x200	127
420		SN 1		120	210	64	5	M 24	28x16x200	127
420		SN 2		140	220	64	10	M 24	28x16x200	148
650		SN 1		170	240	3 x 28	10	M 14	28x16x200	179



D		Albero uscita / Output shaft								
		D DIN 5482	D1 f7	D2 f7	Dm	L1	L	L2	Ld	Lm
10 - 20 - 25	R-P	B40x36	42	35	24	7	55	5	30	12
	M	B58x53	60	50	32	10	68	8	37	20
30 - 40	R	B58x53	60	50	32	10	68	8	37	20
	M-P	B58x53	60	50	32	7	80	8	50	20
80	R	B70x64	72	62	40	10	90	10	51	22
	M-P	B70x64	72	62	40	10	90	10	51	22
90-100	R-P	B80x74	85	70	40	10	90	10	50	25
150-180	R	B80x74	85	70	45	10	90	10	50	25
	H	B80x74	85	70	45	10	90	10	50	25
250-280	H	B100x94	105	85	52	13	110	12	65	30
300	T-H	W120x3x30x38 8f	120	100	70	12	125	10	85	32
420	S-B	W120x3x30x38 8f	124	90	50	10	136	15	95	32
650	SD	W150x5x30x38 8f	151	120	95	15	150	12	107	28
850	SD	W170x5x30x32 8f	171	140	112	15	170	15	115	28

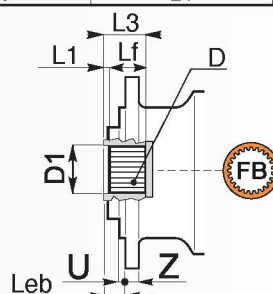
Shaft Options

STM
SERIES



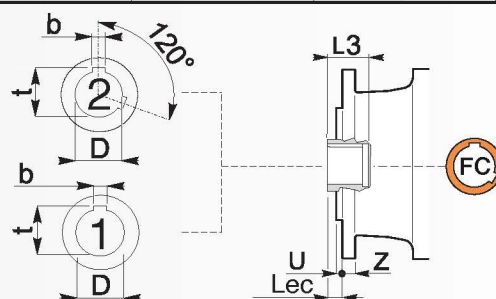
Albero uscita / Output shaft

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
50-70	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

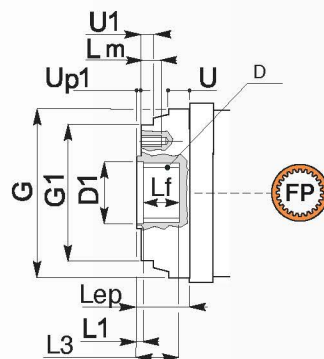


Albero uscita / Output shaft

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
90-100	20	75	150	79.9	94.5	2

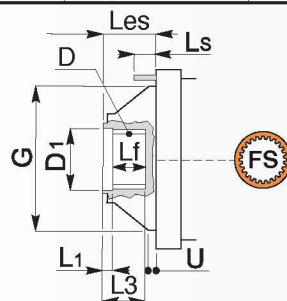
Shaft Options

STM
SERIES



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	D2 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	A80x74	88	-	13.5	65	82	80
250	A100x94	102	-	10	86	96	95
300	N120x5x30x22 7H	122	-	15	85	100	95
420	N120x3x30x39 9H	121.5	-	10	87.5	97.5	109
650	N150x5x30x28 9H	152	-	45	85	140	159.75
850	N170x5x30x32 9H	172	-	45	105	160	174



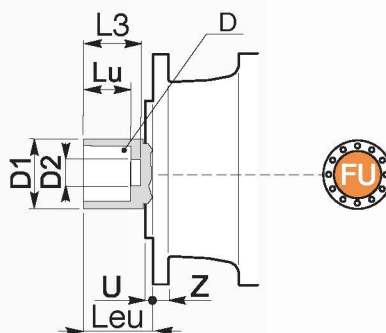
Albero uscita / Output shaft

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

10

Shaft Options

STM
SERIES



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	90	125	50	72	107	131
80	100	140	60	100	140	140

Albero uscita / Output shaft						
HU						
	D H7	D1 f7	D2 H7	Lu	L3	Leu
150-180	120	165	80	85	135	245
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
420	145	185	100	146	236	250
650	165	220	155	160	200	234.75
850	180	240	170	175	220	257

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

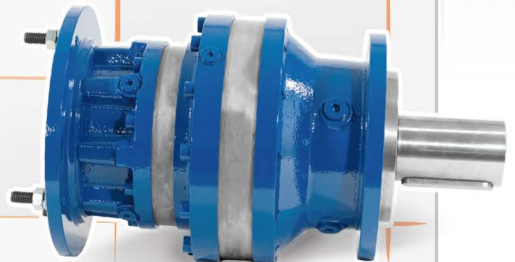
Industrial Speed Reducers



**ANGLE DRIVE
PLANETARY
FEMALE OUTPUT**



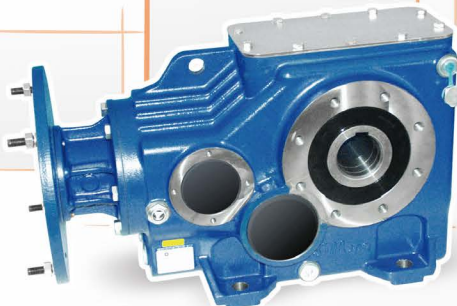
**ANGLE DRIVE
PLANETARY
MALE OUTPUT**



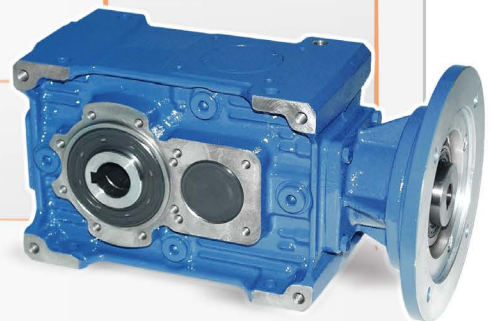
**IN-LINE
PLANETARY
MALE OUTPUT**



**IN-LINE
PLANETARY
FOOT MOUNT**

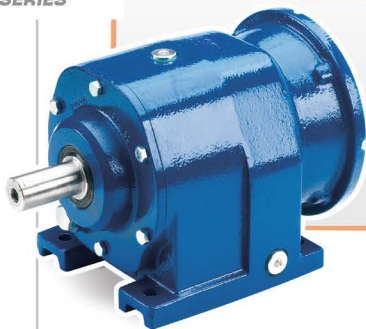


**HELICAL-BEVEL
REDUCERS**

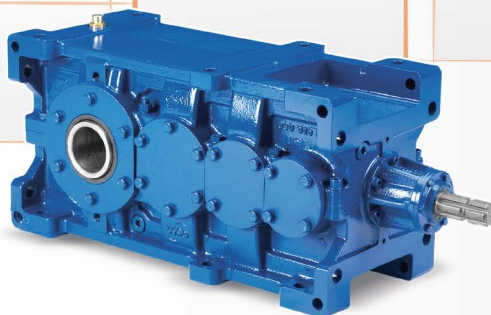


**SHAFT MOUNTED
REDUCERS**

**STM
SERIES**



**IN-LINE
HELICAL
REDUCERS**

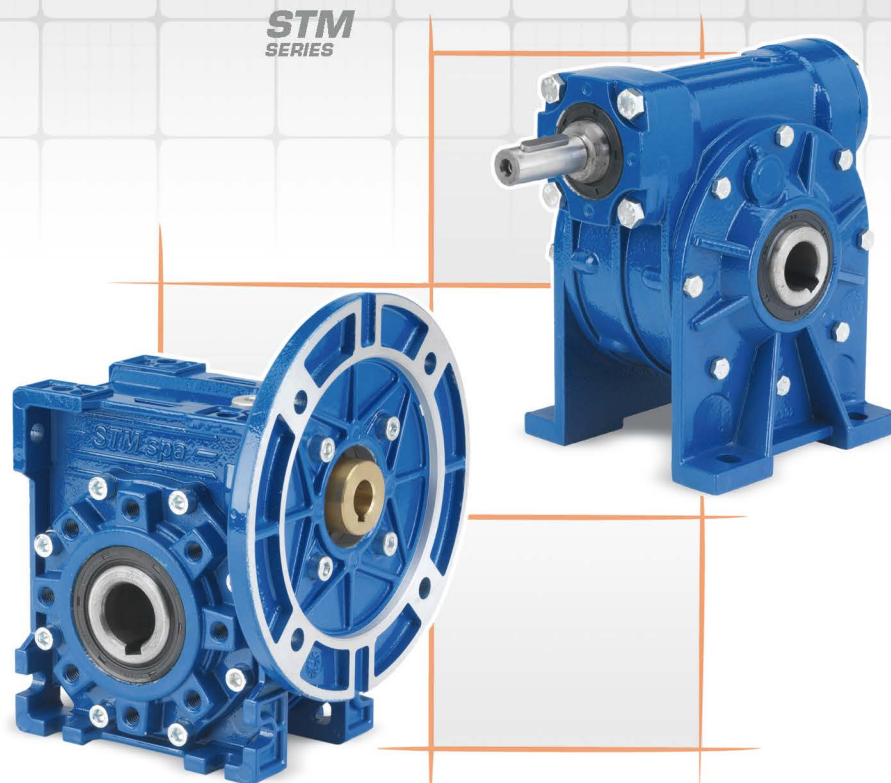


PARALLEL REDUCERS



**WORM GEAR
REDUCERS**

WORM GEAR SERIES



TECHNICAL SPECIFICATIONS

R classic design

Sizes: from 28 to 180
Ratio: Min 1/7 - Max 1/100
Torque (Nm): Min 10 - Max 2103
Power (Kw): Min 0.01 - Max 31.61

U universal design

Sizes: from 40 to 110
Ratio: Min 1/7 - Max 1/100
Torque (Nm): Min 26 - Max 638
Power (Kw): Min 0.04 - Max 10.01

CR helical worm

Sizes: from 40 to 110
Ratio: Min 1/43 - Max 1/618.2
Torque (Nm): Min 31 - Max 898
Power (Kw): Min 0.01 - Max 2.62

RR double worm

Sizes: from 28/28 to 130/180
Ratio: Min 1/140 - Max 1/10000
Torque (Nm): Min 12 - Max 4600
Power (Kw): Min 0.01 - Max 3.93

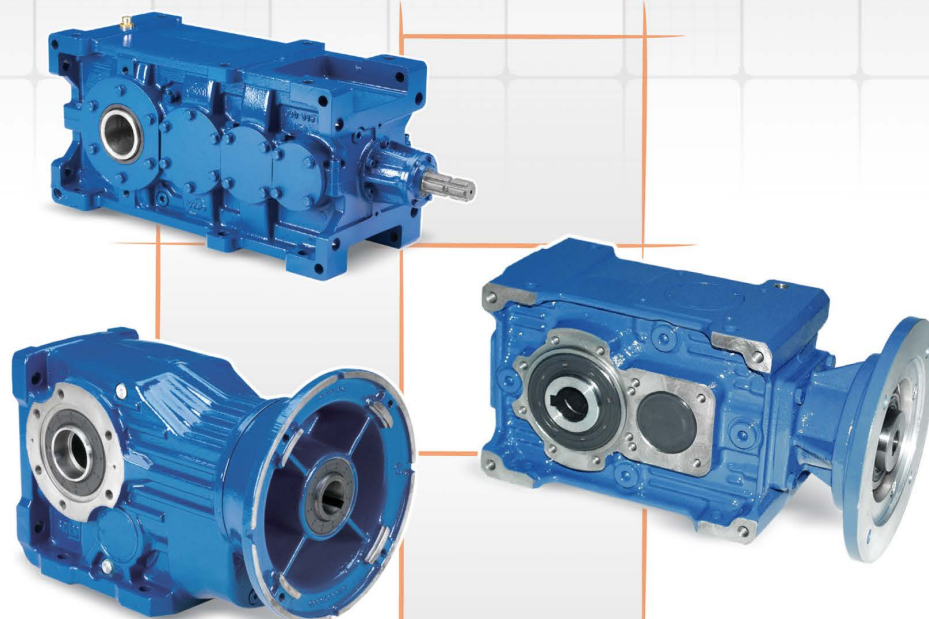
R big

Sizes: from 215 to 250
Ratio: Min 1/7 - Max 1/100
Torque (Nm): Min 1800 - Max 7100
Power (Kw): Min 6 - Max 75

Industrial Speed Reducers

HELICAL SERIES

STM
SERIES



TECHNICAL SPECIFICATIONS

SM aluminum skew axis

Sizes: from 25 to 45
Ratio: Min 1/8 - Max 1/148.8
Torque (Nm): Min 70 - Max 250
Power (Kw): Min 0.15 - Max 2.12

O compact

Sizes: from 63 to 190
Ratio: Min 1/5.2 - Max 1/390
Torque (Nm): Min 170 - Max 10500
Power (Kw): Min 84.2 - Max 0.12

RXO/700 light industrial

Sizes: from 704 to 720
Ratio: Min 1/5.2 - Max 1/569.4
Torque (Nm): Min 210 - Max 5000
Power (Kw): Min 0.2 - Max 151.6

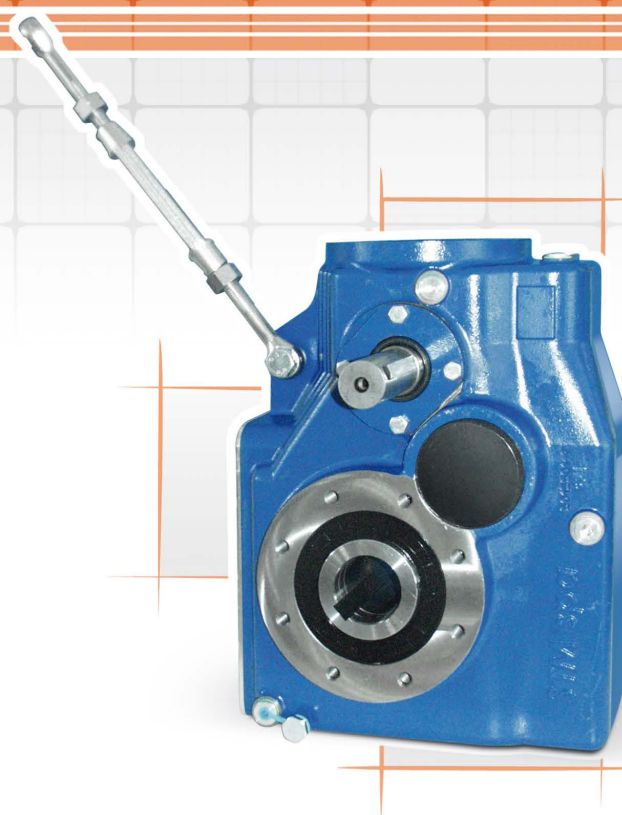
RXO/800 heavy industrial

Sizes: from 802 to 832
Ratio: Min 1/4.39 - Max 1/4839
Torque (Nm): Min 1100 - Max 692000
Power (Kw): Min 0.2 - Max 2312

Industrial Speed Reducers

STM
SERIES

SHAFT MOUNTED SERIES



TECHNICAL SPECIFICATIONS

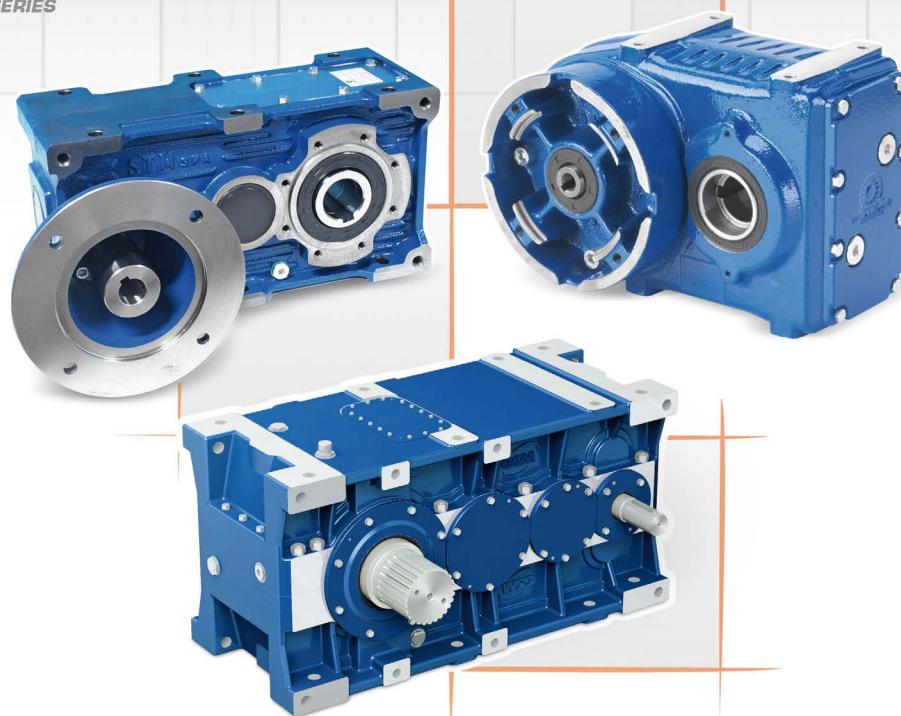
PT shaft mounted

Sizes: from 80 to 190
Ratio: Min 1/2.62 - Max 1/57.9
Torque (Nm): Min 366 - Max 9800
Power (Kw): Min 1.6 - Max 355

Industrial Speed Reducers

STM
SERIES

PARALLEL HELICAL BEVEL SERIES



TECHNICAL SPECIFICATIONS

P compact

Sizes: from 63 to 112
Ratio: Min 1/2.6 - Max 1/278.1
Torque (Nm): Min 80 - Max 1750
Power (Kw): Min 0.17 - Max 30.32

PL long center distance

Sizes: from 25 to 135
Ratio: Min 1/17.2 - Max 1/1101
Torque (Nm): Min 100 - Max 10500
Power (Kw): Min 0.01 - Max 73.6

RXP/700 light industrial

Sizes: from 704 to 720
Ratio: Min 1/3.3 - Max 1/434.3
Torque (Nm): Min 200 - Max 5000
Power (Kw): Min 0.31 - Max 184.1

RXP/800 heavy industrial

Sizes: from 802 to 832
Ratio: Min 1/1.11 - Max 1/801
Torque (Nm): Min 1400 - Max 692000
Power (Kw): Min 0.72 - Max 9308

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 come 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

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.