



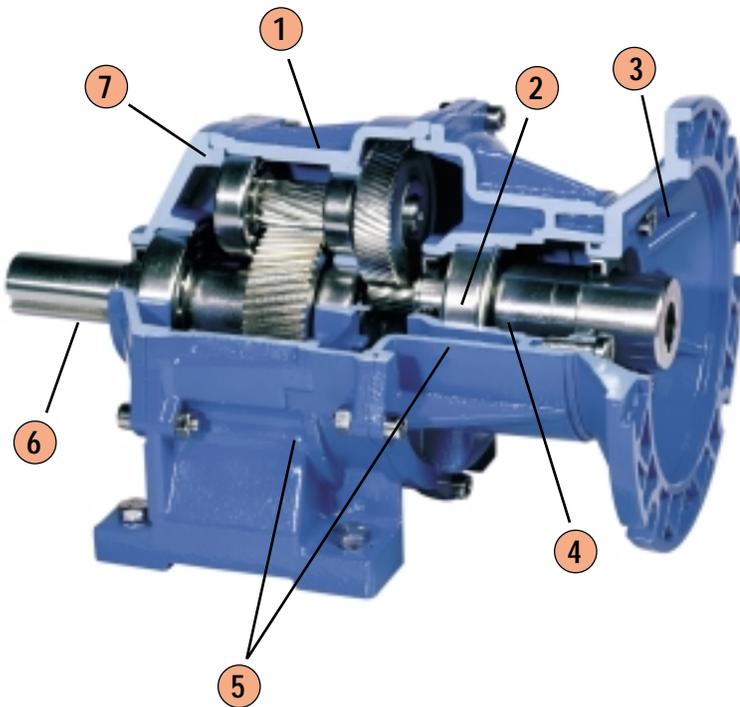
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MOTOVARIO
THE INNOVATIVE TEAM IN POWER TRANSMISSION

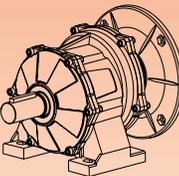
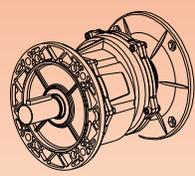
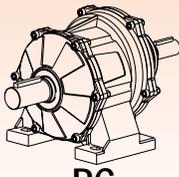
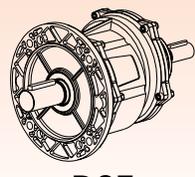


In-Line Helical Reducers



- 1 Smaller models have aluminum alloy housings, making them lighter, more heat-resistant and more easily mounted than traditional cast iron reducers.
- 2 High quality SKF bearings along the input shaft prevent leaks, contribute to flexibility in mounting and help increase reducer life.
- 3 NEMA and IEC motor inputs available for greater range of options.
- 4 Press-fit, keyless design on aluminum models allows higher torque in a compact housing, reduces backlash, prevents fretting corrosion and increases shock load capacity.
- 5 Polyester epoxy paint is applied on the inside and outside of the gearcase prior to machining. This baked-on paint provides a high level of protection against rust.
- 6 Motovario shafts and gearing are heat-treated in-house, allowing a higher level of control over the finished product and considerably reducing lead times in production and assembly. The result is high-quality gearing at competitive prices.
- 7 O-rings on the input flange and output cover prevent leaks more effectively than paper gaskets.
- 8 Automated manufacturing process from an ISO 9001 certified company assures quality, reliable gearing.
- 9 Aluminum units are pre-filled with synthetic oil; cast iron units are pre-filled with mineral oil.

Nomenclature

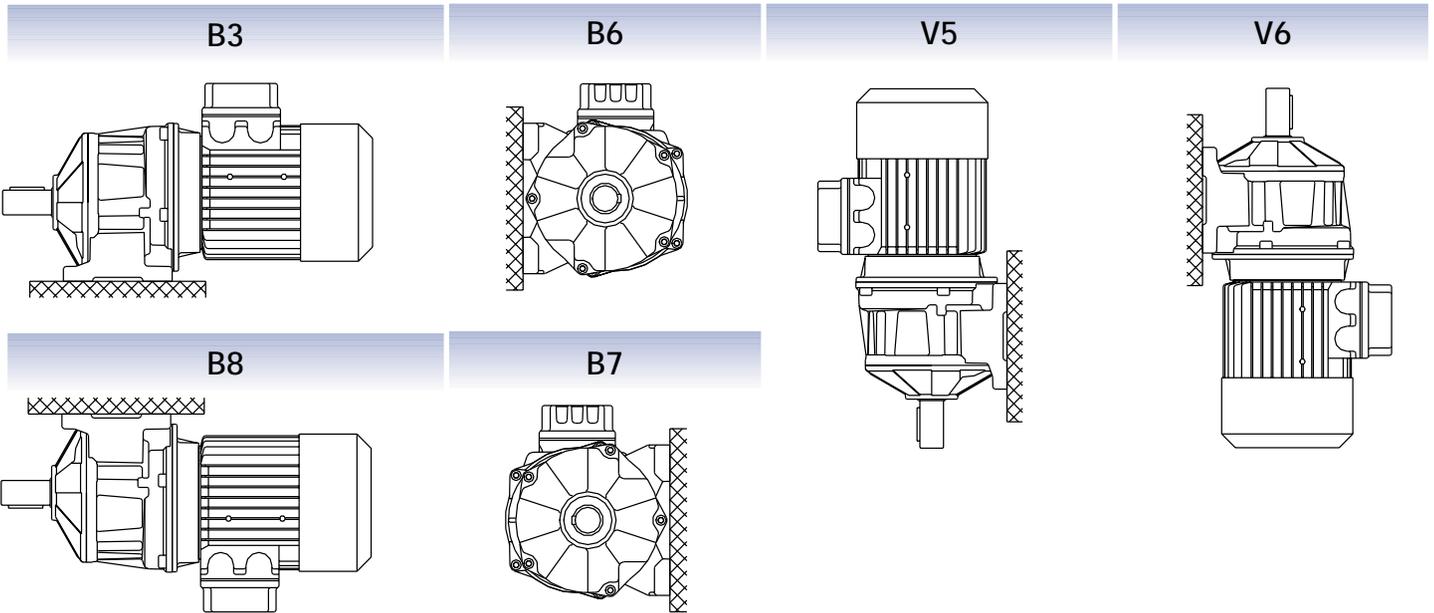
PRC	F	052	25.4	180TC	B3
Model	Output Design Flange Mounted	Size and Stages	Ratio	Input Size	Mounting Position
 PRC Motor Input Flange	 PRCF Motor Input Flange	Aluminum Housings 030 040 050 060 Cast Iron Housings 080 100 120 160 Double Reduction ...2 Triple Reduction ...3	Ratios vary depending on the reducer and the number of reduction stages	56C 140TC 180TC 210TC 250TC	B3 B6 B7 B8 V5 V6
 RC Input Shaft	 RCF Input Shaft				

In-Line Helical Reducers

Mounting Positions and Availability



Mounting Positions



NEMA Flange Availability

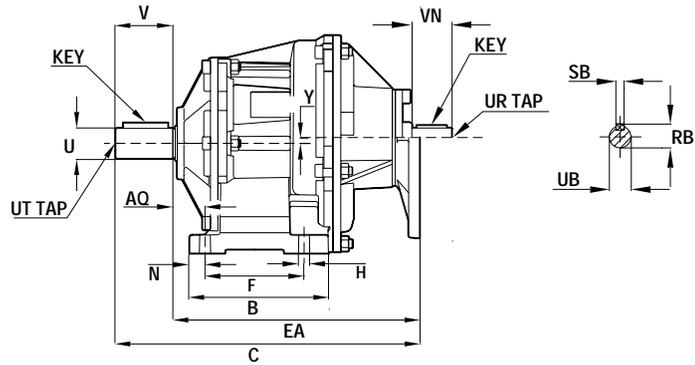
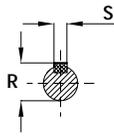
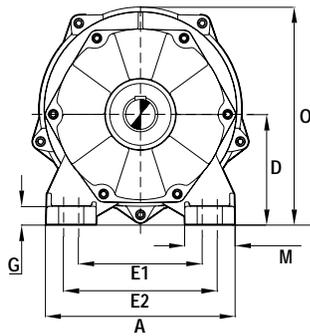
Model	Ratio	Available NEMA C Flanges					
		56C	140TC	180TC	210TC	250TC	280TC
PRC/RC 032	5.4 - 30.5	•	•				
	35.4 - 60.7	•					
PRC/RC 033	51.3 - 166.6	•					
	193.3 - 347.3	•					
PRC/RC 042	5.4 - 30.5	•	•				
	35.4 - 60.7	•					
PRC/RC 043	51.3 - 166.6	•					
	193.3 - 347.3	•					
PRC/RC 052	5.1 - 25.4	•	•	•			
	29.9 - 61.9	•	•				
PRC/RC 053	49.9 - 163.1	•	•				
	200.3 - 354	•					
PRC/RC 062	5.1 - 25.4	•	•	•			
	29.9 - 61.9	•	•				
PRC/RC 063	49.8 - 163.1	•	•				
	200.3 - 354	•					
PRC/RC 082	-	•	•	•	•		
PRC/RC 083	-	•	•	•			
PRC/RC 102	-			•	•	•	
PRC/RC 103	-	•	•	•	•		
PRC/RC 122	-			•	•	•	
PRC/RC 123	-			•	•	•	
PRC/RC 162	-					•	•
PRC/RC 163	-			•	•	•	



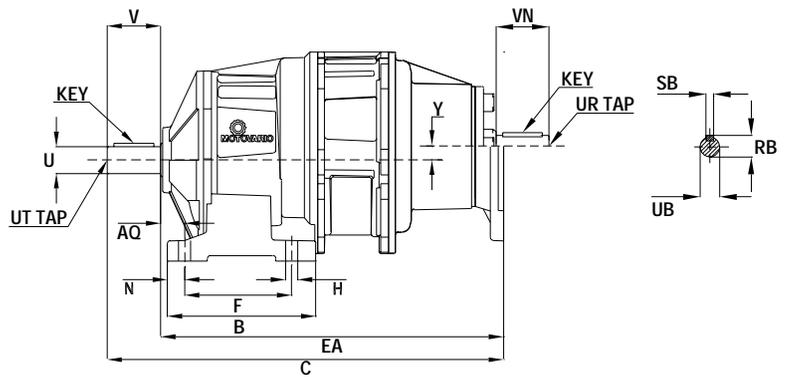
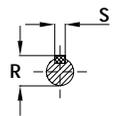
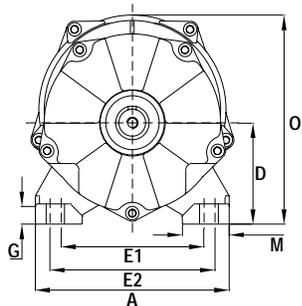
In-Line Helical Reducers

PRC and RC

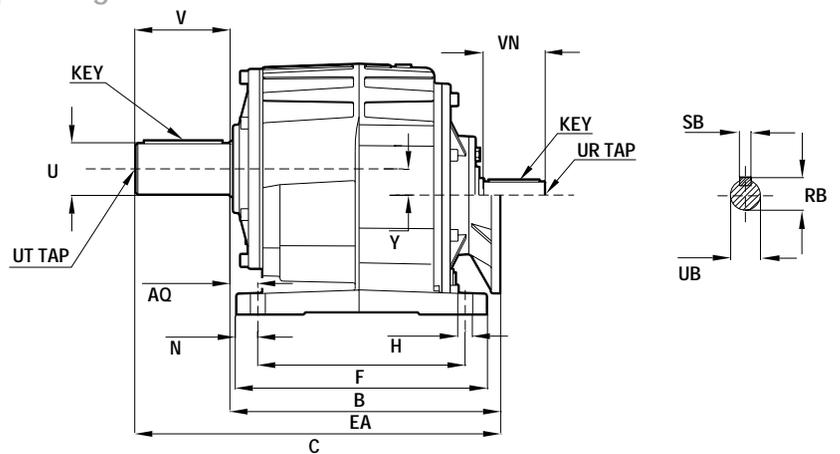
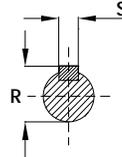
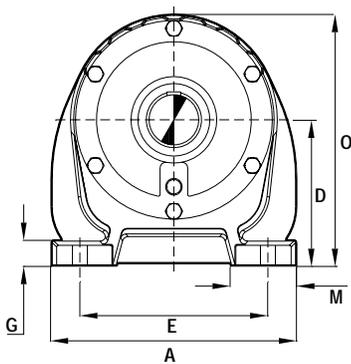
Double Stage



Triple Stage



Cast Iron Housings, Double and Triple Stages



In-Line Helical Reducers

Dimensions



	032	033	042	043	052	053	062	063	082	083	102	103	122	123	162	163
A	5.71	5.71	5.71	5.71	7.48	7.48	9.06	9.06	10.83	10.83	12.99	12.99	15.75	15.75	17.32	17.32
AQ	0.71	0.71	0.98	0.98	1.18	1.18	1.38	1.38	1.57	1.57	1.57	1.57	1.77	1.77	1.97	1.97
B	4.37	4.37	4.37	4.37	5.51	5.51	5.91	5.91	10.83	10.83	12.80	12.80	16.14	16.14	17.76	17.76
C	9.97	12.07	10.65	12.74	12.60	14.72	13.74	15.87	16.58	17.50	19.68	19.60	22.50	24.03	26.04	26.57
D	2.95	2.95	3.15	3.15	4.33	4.33	4.72	4.72	6.10	6.10	7.87	7.87	9.84	9.84	10.24	10.24
E	-	-	-	-	-	-	-	-	8.46	8.46	9.84	9.84	11.34	11.34	13.39	13.39
E1	4.33	4.33	4.33	4.33	5.31	5.31	6.69	6.69	-	-	-	-	-	-	-	-
E2	4.72	4.72	4.72	4.72	5.91	5.91	7.28	7.28	-	-	-	-	-	-	-	-
EA	8.39	10.49	8.68	10.77	10.24	12.36	10.59	12.72	12.64	13.56	14.96	14.88	16.99	18.52	19.35	19.88
F	3.15	3.15	3.35	3.35	3.94	3.94	4.33	4.33	8.86	8.86	10.63	10.63	13.39	13.39	14.76	14.76
G	0.59	0.59	0.59	0.59	0.71	0.71	0.79	0.79	0.98	0.98	1.18	1.18	1.38	1.38	1.38	1.38
H	0.35	0.35	0.35	0.35	0.43	0.43	0.55	0.55	0.71	0.71	0.87	0.87	1.06	1.06	1.06	1.06
M	1.38	1.38	1.38	1.38	1.97	1.97	2.17	2.17	2.78	2.78	3.62	3.62	4.53	4.53	4.57	4.57
N	0.51	0.51	0.51	0.51	0.61	0.61	0.79	0.79	0.98	0.98	1.08	1.08	1.38	1.38	1.50	1.50
O	6.10	6.10	6.30	6.30	8.56	8.56	9.35	9.35	10.59	10.59	13.39	13.39	16.42	16.42	17.60	17.60
R	0.83	0.83	1.11	1.11	1.36	1.36	1.79	1.79	2.22	2.22	2.65	2.65	3.20	3.20	4.01	4.01
RB	0.83	0.83	0.83	0.83	0.96	0.83	0.96	0.83	1.20	1.20	1.42	1.20	1.42	1.42	1.85	1.85
S	0.188	0.188	0.250	0.250	0.250	0.250	0.375	0.375	0.500	0.500	0.625	0.625	0.750	0.750	0.875	0.875
SB	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.313	0.313	0.375	0.313	0.375	0.375	0.500	0.500
U	0.750 ⁺⁰ _{-0.0005}	0.750 ⁺⁰ _{-0.0005}	1.000 ⁺⁰ _{-0.0005}	1.000 ⁺⁰ _{-0.0005}	1.250 ⁺⁰ _{-0.0005}	1.250 ⁺⁰ _{-0.0005}	1.625 ⁺⁰ _{-0.0005}	1.625 ⁺⁰ _{-0.0005}	2.000 ⁺⁰ _{-0.001}	2.000 ⁺⁰ _{-0.001}	2.375 ⁺⁰ _{-0.001}	2.375 ⁺⁰ _{-0.001}	2.875 ⁺⁰ _{-0.001}	2.875 ⁺⁰ _{-0.001}	3.625 ⁺⁰ _{-0.001}	3.625 ⁺⁰ _{-0.001}
UB	0.750 ⁺⁰ _{-0.0005}	0.750 ⁺⁰ _{-0.0005}	0.750 ⁺⁰ _{-0.0005}	0.750 ⁺⁰ _{-0.0005}	0.875 ⁺⁰ _{-0.0005}	0.750 ⁺⁰ _{-0.0005}	0.875 ⁺⁰ _{-0.0005}	0.750 ⁺⁰ _{-0.0005}	1.375 ⁺⁰ _{-0.0005}	1.375 ⁺⁰ _{-0.0005}	1.625 ⁺⁰ _{-0.0005}	1.375 ⁺⁰ _{-0.0005}	1.625 ⁺⁰ _{-0.0005}	1.625 ⁺⁰ _{-0.0005}	2.125 ⁺⁰ _{-0.001}	2.125 ⁺⁰ _{-0.001}
UR	1/4-20	1/4-20	1/4-20	1/4-20	1/4-20	1/4-20	1/4-20	1/4-20	1/2-13	1/2-13	5/8-11	1/2-13	5/8-11	5/8-11	5/8-11	5/8-11
UT	1/4-20	1/4-20	3/8-16	3/8-16	1/2-13	1/2-13	5/8-11	5/8-11	3/4-10	3/4-10	3/4-10	3/4-10	3/4-10	3/4-10	1-8	1-8
V	1.58	1.58	1.97	1.97	2.36	2.36	3.15	3.15	3.94	3.94	4.72	4.72	5.51	5.51	6.69	6.69
VN	1.58	1.58	1.58	1.58	1.97	1.58	1.97	1.58	3.15	3.15	4.33	3.15	4.33	4.33	4.33	4.33
Y	0.39	0.39	0.39	0.39	0.22	0.22	0.61	0.61	0.75	0.75	0.87	0.87	1.18	1.18	1.85	1.85
Input Key																
Length	1.125	1.125	1.125	1.125	1.500	1.500	1.500	1.500	2.500	2.500	3.375	2.500	3.375	3.375	3.375	3.375
Square	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.313	0.313	0.375	0.313	0.375	0.375	0.500	0.500
Output Key																
Length	1.125	1.125	1.500	1.500	1.875	1.875	2.500	2.500	3.125	3.125	3.750	3.750	4.000	4.000	5.000	5.000
Square	0.188	0.188	0.250	0.250	0.250	0.250	0.375	0.375	0.500	0.500	0.625	0.625	0.750	0.750	0.875	0.875
Weight (lbs)	12	14	13	16	23	26	29	34	99	106	168	161	276	282	419	430



In-Line Helical Gear Reducer Ratings and Selection Table

1750 RPM

Model	Ratio	RPM	Torque (in-lbs)	Max HP	Output OHL (lbs)
PRC 032 RC 032	5.4	324	708	3.8	220
	6.5	269	708	3.1	225
	8.1	216	664	2.4	254
	10.9	161	796	2.1	265
	13.3	132	708	1.5	302
	16.5	106	708	1.2	310
	20.3	86	796	1.1	348
	24.5	71	752	0.9	358
	30.5	57	708	0.7	405
	35.4	49	796	0.6	411
	44.1	40	796	0.5	450
	48.8	36	708	0.4	450
	60.7	29	841	0.4	450
PRC 033 RC 033	51.3	34	885	0.5	450
	59.7	29	885	0.4	450
	72.3	24	885	0.4	450
	89.9	19	885	0.3	450
	110.5	16	885	0.2	450
	133.9	13	885	0.2	450
	166.6	11	885	0.2	450
	193.3	9.1	885	0.1	450
	240.5	7.3	885	0.1	450
	279.1	6.3	885	0.1	450
347.3	5.0	885	0.1	450	
PRC 042 RC 042	5.4	324	1239	6.7	339
	6.5	269	1239	5.5	347
	8.1	216	1150	4.1	395
	10.9	161	1327	3.5	411
	13.3	132	1239	2.7	465
	16.5	106	1239	2.2	476
	20.3	86	1327	1.9	535
	24.5	71	1371	1.6	550
	30.5	57	1239	1.2	622
	35.4	49	1239	1.0	633
	44.1	40	1239	0.8	698
	48.8	36	1239	0.7	698
	60.7	29	1239	0.6	698
PRC 043 RC 043	51.3	34	1327	0.8	698
	59.7	29	1327	0.7	698
	72.3	24	1327	0.5	698
	89.9	19	1327	0.4	698
	110.5	16	1327	0.4	698
	133.9	13	1327	0.3	698
	166.6	11	1327	0.2	698
	193.3	9.1	1327	0.2	698
	240.5	7.3	1327	0.2	698
	279.1	6.3	1327	0.1	698
347.3	5.0	1327	0.1	698	

Model	Ratio	RPM	Torque (in-lbs)	Max HP	Output OHL (lbs)
PRC 052 RC 052	5.1	343	2124	11.9	485
	6.2	282	2124	9.9	497
	7.7	227	2124	7.9	566
	9.6	182	2654	8.0	584
	11.7	150	2477	6.1	659
	14.5	121	2477	4.9	678
	16.9	104	2654	4.5	749
	20.5	85	2566	3.6	774
	25.4	69	2477	2.8	874
	29.9	59	2654	2.6	897
	36.2	48	2654	2.1	1002
	45.0	39	2477	1.6	1027
	49.8	35	2654	1.5	1036
61.9	28	2566	1.2	1053	
PRC 053 RC 053	49.8	35	2654	1.6	1036
	60.2	29	2654	1.3	1052
	74.9	23	2654	1.0	1125
	88.0	20	2654	0.9	1125
	111.6	16	2654	0.7	1125
	138.7	13	2654	0.6	1125
	163.1	11	2654	0.5	1125
	200.3	8.7	2654	0.4	1125
	235.4	7.4	2654	0.3	1125
	284.8	6.1	2654	0.3	1125
354.0	4.9	2654	0.2	1125	
PRC 062 RC 062	5.1	343	3362	18.9	739
	6.2	282	3362	15.6	757
	7.7	227	3362	12.6	861
	9.6	182	4070	12.2	889
	11.7	150	3893	9.7	1004
	14.5	121	3716	7.4	1032
	16.9	104	4424	7.6	1048
	20.5	85	4070	5.8	1178
	25.4	69	3805	4.3	1214
	29.9	59	3982	3.9	1366
	36.2	48	4159	3.3	1399
	45.0	39	3893	2.5	1557
	49.8	35	3274	1.9	1559
61.9	28	3893	1.8	1562	
PRC 063 RC 063	49.8	35	4247	2.5	1562
	60.2	29	4247	2.1	1575
	74.9	23	4247	1.7	1575
	88.0	20	4247	1.4	1575
	111.6	16	4247	1.1	1575
	138.7	13	4247	0.9	1575
	163.1	11	4247	0.8	1575
	200.3	8.7	4247	0.6	1575
	235.4	7.4	4247	0.5	1575
	284.8	6.1	4247	0.4	1575
354.0	4.9	4247	0.4	1575	

In-Line Helical Gear Reducer Ratings and Selection Table

1750 RPM



Model	Ratio	RPM	Torque (in.-lbs)	Max HP	Output OHL (lbs)
PRC 082 RC 082	6.1	287	5751	27.1	1204
	7.4	236	5751	22.3	1358
	8.2	213	5751	20.4	1379
	9.9	177	7078	20.6	1417
	12.3	142	7078	16.7	1604
	15.5	113	7521	14.0	1650
	20.4	86	7078	10.0	1871
	26.1	67	7078	7.9	1934
	31.6	55	7521	6.9	2184
	35.7	49	7078	5.7	2218
	39.4	44	7078	5.2	2242
	44.6	39	6901	4.5	2480
PRC 083 RC 083	40.8	43	8317	6.0	2250
	49.6	35	8317	5.0	2501
	61.3	29	8317	4.0	2539
	77.6	23	8317	3.2	2700
	102.1	17	8317	2.4	2700
	130.4	13	8317	1.9	2700
	157.8	11	8317	1.6	2700
	178.5	9.8	7521	1.2	2700
	202.2	8.7	7078	1.0	2700
223.2	7.8	7078	0.9	2700	
PRC 102 RC 102	5.7	307	10618	53.5	1742
	7.2	243	10618	42.7	1967
	9.2	190	11502	36.0	2045
	11.6	151	12387	31.0	2101
	12.1	145	15042	36.0	2331
	15.1	116	15484	29.6	2397
	19.6	89	15927	23.5	2708
	24.7	71	15927	18.7	2799
	29.4	60	15484	15.2	3154
	33.0	53	15484	13.6	3202
	36.1	48	15042	12.0	3237
	45.8	38	14157	8.9	3620
PRC 103 RC 103	39.2	45	15927	12.0	3266
	47.6	37	15927	9.9	3637
	58.8	30	15927	8.0	3716
	74.5	23	16811	6.7	4050
	98.1	18	16811	5.1	4050
	125.2	14	16811	4.0	4050
	151.6	12	16811	3.3	4050
	168.6	10	16811	2.9	4050
	186.2	9.4	16811	2.7	4050
	236.1	7.4	15042	1.9	4050

Model	Ratio	RPM	Torque (in.-lbs)	Max HP	Output OHL (lbs)
PRC 122 RC 122	6.0	292	21235	102.4	2257
	7.7	227	21235	80.1	2561
	9.5	184	23890	72.6	2644
	12.5	140	27429	63.7	3015
	15.9	110	29199	53.1	3103
	19.6	89	30968	45.7	3488
	25.0	70	30968	35.8	3610
	30.3	58	28314	27.0	4072
	33.7	52	28314	24.3	4129
	37.2	47	28314	22.0	4177
	42.8	41	27429	18.5	4236
	47.2	37	27429	16.8	4690
PRC 123 RC 123	37.5	47	30968	24.4	4181
	47.1	37	30968	19.4	4689
	60.4	29	30968	15.1	4845
	75.7	23	31853	12.4	5400
	98.1	18	31853	9.6	5400
	123.3	14	31853	7.6	5400
	147.1	12	31853	6.4	5400
	164.9	11	31853	5.7	5400
	180.7	9.7	31853	5.2	5400
	229.2	7.6	28314	3.6	5400
PRC 162 RC 162	7.6	230	33623	127.5	3196
	9.7	180	33623	99.8	3308
	12.1	145	40701	97.3	3733
	15.5	113	40701	76.2	3850
	19.1	92	48664	73.8	4330
	24.3	72	48664	57.8	4465
	30.0	58	48664	46.9	4969
	34.6	51	48664	40.7	5056
	41.9	42	48664	33.6	5155
	46.4	38	48664	30.4	5677
PRC 163 RC 163	49.0	36	48664	29.3	5722
	56.1	31	48664	25.6	5823
	62.6	28	53088	25.0	5897
	77.3	23	53088	20.3	6525
	98.6	18	53088	15.9	6525
	121.7	14	53088	12.9	6525
	155.4	11	53088	10.1	6525
	188.1	9.3	53088	8.3	6525
	220.8	7.9	51319	6.9	6525
	268.2	6.5	51319	5.7	6525



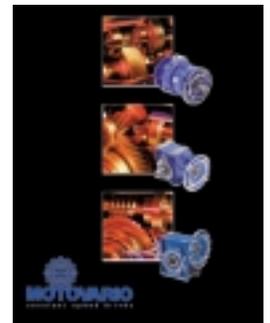
Motovario first began manufacturing power transmission components in 1965. The earliest products were mechanical variable speed drives for ceramic tile manufacturing machinery. Over the years Motovario has developed a vast range of products and has won acclaim in all areas of the industry. Continuous research has also led to the development of a complete range of other power transmission products. Motovario is now a global leader in the manufacture and sale of constant speed drives.

Motovario manufactures a complete line of IEC and NEMA type motors, worm, in-line helical and helical-bevel gear reducers and gearmotors. Motovario's innovative cast aluminum alloy gear reducer housings have revolutionized the power transmission industry. By dissipating heat generated by worm gear reducers, the aluminum alloy housing has aided in eliminating oil leaks. The housing also allows for universal mounting of Motovario gear reducers. The innovative Motovario design is an industry leader and has led many of our competitors to add aluminum alloy housed gearbox designs to their product lines.

Our manufacturing and heat treating plants in Spezzano, Italy and distribution centers in major marketing hubs in Great Britain, France, Germany, Denmark, Sweden and the United States offer a worldwide network for better customer service. Our Alpharetta, Georgia facility began operation in 1998 and is fully staffed with sales, marketing and assembly personnel and distribution facilities. Motovario has high speed, quality machinery that can completely assemble in-line helical and helical-bevel gear reducers in minutes for fast turn around of customer orders.

Motovario Corporation is dedicated to producing and distributing the industry's finest gear reducers, gearmotors, mechanical variable speed drives and related products and to providing the best and fastest customer service in the power transmission industry.

For more information about Motovario products, contact Motovario for a copy of our new Constant Speed Drives Catalog.



Catalog 9902



818 Curie Drive
Alpharetta, GA 30005
(888) 686-0911
FAX (770) 752-5562
motovario@bellsouth.net
www.motovario.com