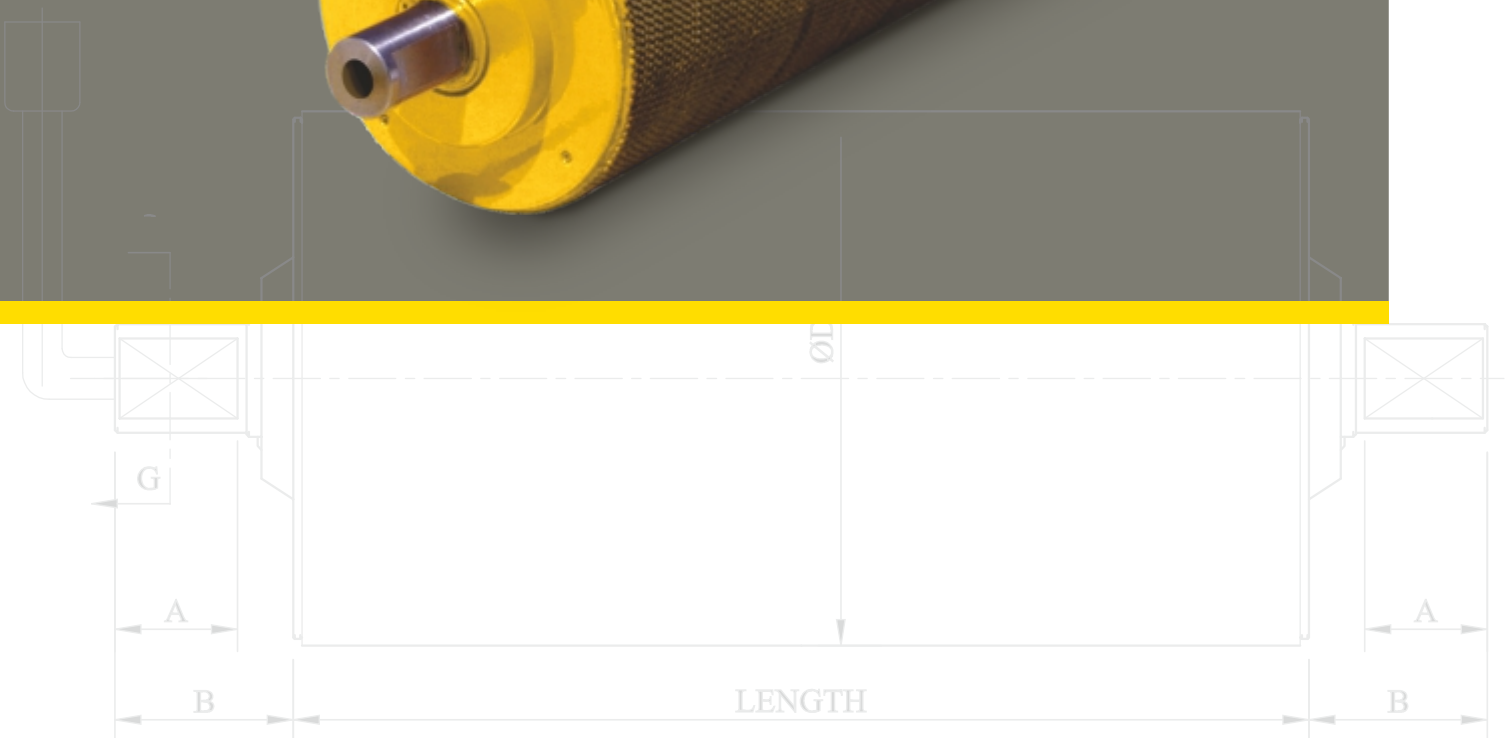


# DRUM MOTOR



## About CYCLO

Cyclo Transmissions Ltd has proven to be leaders in Power Transmission Products for last 32 years. Quality and trouble free performance of our products has been proved with their wide acceptance in the industries like Aluminum, Chemical, Cable Cars, Port Trusts, Steel Plants, Textile Machinery, Heavy Engineering, Power Plants, Cement Plants, Sugar Plants, Flour Mills, etc.

Sensing the Market requirements CYCLO has always responded with a rigid product and created a simply unmatched range of speed reducers. Our Product Range includes Cycloidal Drives, Planetary Drives, Torque Limiters, Shaft Mounted Drives, Winches, Track Drives, Slew Drives, Pump Drives, Drum Motors and Custom Built Drives to the specific requirement of the customer. The entire Product range is produced indigenously with zero import contents.

The power transmission products are designed and manufactured with our own technology and practical experience of highly qualified technocrats. Products are manufactured with strict adherence to highest quality standards. This made us easy to be the part of world market. We have exported more than 6000 gearboxes in last 10 years to developed countries

We offer the best possible solution to the customer for his power transmission requirement through our Research and Development.

With the customer orientation, in a very short span the small scale company grew to Public Limited Company with a capital outlay of Rs. 35 Million and having well equipped plant at Patkhal, (Dist. Satara, Maharashtra)

We received ISO-9001 quality certificate from DNV in April 2001 and maintained till date.

CYCLO has been honored with several awards and prizes for this achievement. But the single most important award we are proud of is the smiling face of our satisfied Customer. Customer satisfaction is our motivation and strength. So truly we are **The Power Transmission People.**



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We are producing drum motors for last 26 years since 1985. Till now we have installed more than 3500 drum motors. Some of our Major clients are

Rajshree Cement

Madras Cement

Gujarat Ambuja Cement

Aditya Birla Group

Girija

Tata Robbin

Eastern India

.....and Many more

## Features

Cyclo had designed and introduced Drum Motors with Planetary Gears to suit Indian conditions with the feedback from customers and practical experience. This drive system for belt conveyor consists of drum, gear box, electric motor, coupling and shaft where the gear box and motor are embedded in drum. This is a single body and offers rigid construction. The design with planetary gears allows uniform load distribution on gears and gives more factor of safety.

Cyclo Drum Motors are available in wide range from 0.18 kW to 75 kW and 400 mm to 1400 mm drum length. This range will meet the full requirements of the belt conveyors with the maximum interchangeability.

Various features of Cyclo Drum Motors are as follows:

- Single compact unit and Easy Installation
- High quality construction
- Full rated power at the belt.
- Sealed to IP65 as standard
- Stator and rotor insulated to class F
- Continuous duty i.e. 24 hrs
- Long maintenance free life
- Low noise level
- Superior performance
- Comprehensive range of power
- Speed reduction with planetary gears.
- Can be supplied with rubber lagging, shock absorber, backstop
- Shipped without lubricants
- Economical working
- Suitable for outdoor, dusty or damp atmosphere
- Designed for rough working conditions
- Designed for driving portable, mobile and stationary belt conveyors

### Construction

Cyclo Drum Motor design is unique. It consists of input shaft connected to the motor and motor is connected to output shaft through gearbox components and forming a single body. Power to the drum is given through rotating carrier.

Drum motor consist of mainly electrical motor, planetary gearbox, mounting shafts (both stationary). Rotating drum is mounted on the shaft with bearings and drum flange. The gear system is of a 2 stages or 3 stages planetary construction. Components of drum motor are manufactured to high quality standards and care is taken for standardization.

Drum shell is generally manufactured from seamless steel pipe with parallel faces. Drum shells can be provided with crowned faces to ensure correct belt tracking to belt manufacturer's recommendations.

Stator and rotor of motor are insulated to class F, terminal box and total drum motor is designed for IP- 65 protection. Drum flange is designed for optimum strength and rigidity. Shafts are manufactured from high carbon steels to resist bending and torsional stresses and maintain proper alignment of gears under critical load conditions.

Gears are manufactured from high alloy steel and properly heat treated for case hardening and tempering. Teeth are designed to give an optimum balance between bending strength, contact stress and maximum durability. Gears are finally lapped to give proper surface contact. Planets are carried on needle rollers and mounted on high alloy case hardened steel planet pin.

Plane carrier is manufactured from carbon steel or high strength casting and designed for optimum strength, rigidity and manufactured on CNC machining center.

We also manufacture special drum motors accordingly to the requirements of customers, such as with backstop, shock absorber, and special material drum, with rubber lagging etc.

### Selection

The range of sizes and power ratings of Cyclo Drum Motor covers many conveyor and elevator application. The following notes are to assist the customer in his preliminary selection of a Drum Motor to suit particular service application. Our technical staff will be pleased to amplify this information for each specific inquiry.

The sum of belt pretension and belt pull force acting on the Drum Motor does not change under load condition because of elasticity, belt tension on tight side increases and slack side reduces and difference remains equal to required belt pull. To reduce the pre belt tension and slipping of belt on the drum motor we suggest,

- ♦ Increase coefficient of friction by using rubber lagging on drum motor.
- ♦ Increase coefficient of friction by spraying rough metal layer on the drum motor diameter.
- ♦ Increase belt contact angle to maximum possible extends.
- ♦ Use higher size of drum motor.
- ♦ Reduce moist, oil or wet clay on the drum and belt if any.
- ♦ Increase belt width if possible.

## Technical Data

**Model :** : 110      **Power in Hp. :** 0.25  
**Rated Torque in Nm. :** 150      **Power in Kw. :** 0.19  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	41.1	15	269	269	269
13.3	108.3	37.4	16	295	295	295
14.8	97.1	33.6	18	329	329	329
16.3	88.5	30.6	20	361	361	361
20.1	71.7	24.8	24	445	445	445
22.0	65.3	22.6	27	489	489	489
24.6	58.6	20.3	30	545	545	545
27.5	52.4	18.1	34	610	610	610
30.7	46.9	16.2	37	680	680	680
42.1	34.2	11.8	51	934	934	934
46.3	31.1	10.8	56	1026	1026	1026
50.8	28.4	9.8	62	1126	1126	1126
51.6	27.9	9.6	63	1144	1144	1144
56.6	25.4	8.8	69	1256	1256	1256
62.2	23.2	8.0	76	1378	1378	1256
63.2	22.8	7.9	77	1400	1400	1256
69.3	20.8	7.2	85	1537	1537	1256
76.7	18.8	6.5	94	1701	1701	1256
84.2	17.1	5.9	103	1867	1867	1256
85.5	16.8	5.8	104	1897	1897	1256
93.9	15.3	5.3	115	2082	1897	1256
95.7	15.0	5.2	117	2122	1897	1256
104.7	13.8	4.8	128	2322	1897	1256
105.1	13.7	4.7	128	2329	1897	1256
106.7	13.5	4.7	130	2367	1897	1256
115.9	12.4	4.3	141	2569	1897	1256
117.2	12.3	4.2	143	2598	1897	1256
127.2	11.3	3.9	155	2598	1897	1256
141.8	10.2	3.5	173	2598	1897	1256
144.6	10.0	3.4	176	2598	1897	1256
158.7	9.1	3.1	194	2598	1897	1256
177.0	8.1	2.8	216	2598	1897	1256

**Model :** : 140      **Power in Hp. :** 0.25  
**Rated Torque in Nm. :** 250      **Power in Kw. :** 0.19  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	41.1	15	269	269	269
13.3	108.3	37.4	16	295	295	295
14.8	97.1	33.6	18	329	329	329
16.3	88.5	30.6	20	361	361	361
20.1	71.7	24.8	24	445	445	445
22.0	65.3	22.6	27	489	489	489
24.6	58.6	20.3	30	545	545	545
27.5	52.4	18.1	34	610	610	610
30.7	46.9	16.2	37	680	680	680
42.1	34.2	11.8	51	934	934	934
46.3	31.1	10.8	56	1026	1026	1026
50.8	28.4	9.8	62	1126	1126	1126
51.6	27.9	9.6	63	1144	1144	1144
56.6	25.4	8.8	69	1256	1256	1256
62.2	23.2	8.0	76	1378	1378	1256
63.2	22.8	7.9	77	1400	1400	1256
69.3	20.8	7.2	85	1537	1537	1256
76.7	18.8	6.5	94	1701	1701	1256
84.2	17.1	5.9	103	1867	1867	1256
85.5	16.8	5.8	104	1897	1897	1256
93.9	15.3	5.3	115	2082	1897	1256
95.7	15.0	5.2	117	2122	1897	1256
104.7	13.8	4.8	128	2322	1897	1256
105.1	13.7	4.7	128	2329	1897	1256
106.7	13.5	4.7	130	2367	1897	1256
115.9	12.4	4.3	141	2569	1897	1256
117.2	12.3	4.2	143	2598	1897	1256
127.2	11.3	3.9	155	2598	1897	1256
141.8	10.2	3.5	173	2598	1897	1256
144.6	10.0	3.4	176	2598	1897	1256
158.7	9.1	3.1	194	2598	1897	1256
177.0	8.1	2.8	216	2598	1897	1256

## Technical Data

**Model :** : 140      **Power in Hp. :** 0.33  
**Rated Torque in Nm. :** 250      **Power in Kw. :** 0.24  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2

12.1	118.9	52.3	19	278	278	278
13.3	108.3	47.7	21	306	306	306
14.8	97.1	42.7	24	341	341	341
16.3	88.5	38.9	26	374	374	374
20.1	71.7	31.6	32	462	462	462
22.0	65.3	28.7	35	507	507	507
24.6	58.6	25.8	40	565	565	565
27.5	52.4	23.0	44	632	632	632
30.7	46.9	20.7	49	705	705	705
42.1	34.2	15.0	68	969	969	969
46.3	31.1	13.7	74	1064	1064	1064
50.8	28.4	12.5	82	1168	1168	1168
51.6	27.9	12.3	83	1186	1186	1186
56.6	25.4	11.2	91	1302	1302	1302
62.2	23.2	10.2	100	1429	1429	1429
63.2	22.8	10.0	102	1452	1452	1452
69.3	20.8	9.1	112	1594	1594	1594
76.7	18.8	8.3	123	1764	1764	1764
84.2	17.1	7.5	136	1936	1936	1764
85.5	16.8	7.4	138	1967	1967	1764
93.9	15.3	6.7	151	2159	2159	1764
95.7	15.0	6.6	154	2201	2201	1764
104.7	13.8	6.1	169	2408	2408	1764
105.1	13.7	6.0	169	2416	2416	1764
106.7	13.5	5.9	172	2454	2416	1764
115.9	12.4	5.5	186	2664	2416	1764
117.2	12.3	5.4	189	2694	2416	1764
127.2	11.3	5.0	205	2924	2416	1764
141.8	10.2	4.5	228	3261	2416	1764
144.6	10.0	4.4	233	3324	2416	1764
158.7	9.1	4.0	255	3324	2416	1764
177.0	8.1	3.6	285	3324	2416	1764

**Model :** : 140      **Power in Hp. :** 0.5  
**Rated Torque in Nm. :** 250      **Power in Kw. :** 0.37  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2

12.1	118.9	52.3	30	422	422	422
13.3	108.3	47.7	32	463	463	463
14.8	97.1	42.7	36	517	517	517
16.3	88.5	38.9	40	567	567	567
20.1	71.7	31.6	49	700	700	700
22.0	65.3	28.7	54	768	768	768
24.6	58.6	25.8	60	856	856	856
27.5	52.4	23.0	67	958	958	958
30.7	46.9	20.7	75	1069	1069	1069
42.1	34.2	15.0	103	1468	1468	1468
46.3	31.1	13.7	113	1612	1612	1612
50.8	28.4	12.5	124	1769	1769	1769
51.6	27.9	12.3	126	1797	1797	1769
56.6	25.4	11.2	138	1973	1973	1769
62.2	23.2	10.2	152	2166	2166	1769
63.2	22.8	10.0	154	2200	2200	1769
69.3	20.8	9.1	169	2415	2415	1769
76.7	18.8	8.3	187	2672	2415	1769
84.2	17.1	7.5	205	2934	2415	1769
85.5	16.8	7.4	209	2980	2415	1769
93.9	15.3	6.7	229	3271	2415	1769
95.7	15.0	6.6	233	3335	2415	1769
104.7	13.8	6.1	255	3335	2415	1769
105.1	13.7	6.0	256	3335	2415	1769
106.7	13.5	5.9	260	3335	2415	1769
115.9	12.4	5.5	283	3335	2415	1769
117.2	12.3	5.4	286	3335	2415	1769
127.2	11.3	5.0	310	3335	2415	1769
141.8	10.2	4.5	346	3335	2415	1769
144.6	10.0	4.4	353	3335	2415	1769
158.7	9.1	4.0	387	3335	2415	1769
177.0	8.1	3.6	432	3335	2415	1769

## Technical Data

**Model :** : 165      **Power in Hp. :** 0.5  
**Rated Torque in Nm. :** 350      **Power in Kw. :** 0.37  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	61.7	30	358	358	358
13.3	108.3	56.2	32	393	393	393
14.8	97.1	50.4	36	438	438	438
16.3	88.5	45.9	40	481	481	481
20.1	71.7	37.2	49	594	594	594
22.0	65.3	33.9	54	652	652	652
24.6	58.6	30.4	60	727	727	727
27.5	52.4	27.1	67	813	813	813
30.7	46.9	24.3	75	907	907	907
42.1	34.2	17.7	103	1246	1246	1246
46.3	31.1	16.1	113	1368	1368	1368
50.8	28.4	14.7	124	1501	1501	1501
51.6	27.9	14.5	126	1525	1525	1525
56.6	25.4	13.2	138	1674	1674	1674
62.2	23.2	12.0	152	1838	1838	1838
63.2	22.8	11.8	154	1867	1867	1867
69.3	20.8	10.8	169	2049	2049	2049
76.7	18.8	9.7	187	2268	2268	2049
84.2	17.1	8.9	205	2489	2489	2049
85.5	16.8	8.7	209	2529	2529	2049
93.9	15.3	8.0	229	2776	2776	2049
95.7	15.0	7.8	233	2830	2830	2049
104.7	13.8	7.1	255	3095	2830	2049
105.1	13.7	7.1	256	3106	2830	2049
106.7	13.5	7.0	260	3155	2830	2049
115.9	12.4	6.4	283	3425	2830	2049
117.2	12.3	6.4	286	3464	2830	2049
127.2	11.3	5.9	310	3760	2830	2049
141.8	10.2	5.3	346	3760	2830	2049
144.6	10.0	5.2	353	3760	2830	2049
158.7	9.1	4.7	387	3760	2830	2049
177.0	8.1	4.2	432	3760	2830	2049

**Model :** : 165      **Power in Hp. :** 1  
**Rated Torque in Nm. :** 350      **Power in Kw. :** 0.74  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	61.7	59	716	716	716
13.3	108.3	56.2	65	786	786	786
14.8	97.1	50.4	72	877	877	877
16.3	88.5	45.9	79	962	962	962
20.1	71.7	37.2	98	1187	1187	1187
22.0	65.3	33.9	108	1303	1303	1303
24.6	58.6	30.4	120	1453	1453	1453
27.5	52.4	27.1	134	1626	1626	1626
30.7	46.9	24.3	150	1813	1813	1813
42.1	34.2	17.7	206	2492	2492	1813
46.3	31.1	16.1	226	2735	2735	1813
50.8	28.4	14.7	248	3002	2735	1813
51.6	27.9	14.5	252	3050	2735	1813
56.6	25.4	13.2	276	3348	2735	1813
62.2	23.2	12.0	303	3675	2735	1813
63.2	22.8	11.8	308	3734	2735	1813
69.3	20.8	10.8	338	4099	2735	1813
76.7	18.8	9.7	374	4099	2735	1813
84.2	17.1	8.9	411	4099	2735	1813
85.5	16.8	8.7	417	4099	2735	1813
93.9	15.3	8.0	458	4099	2735	1813
95.7	15.0	7.8	467	4099	2735	1813
104.7	13.8	7.1	511	4099	2735	1813
105.1	13.7	7.1	512	4099	2735	1813
106.7	13.5	7.0	521	4099	2735	1813
115.9	12.4	6.4	565	4099	2735	1813
117.2	12.3	6.4	572	4099	2735	1813
127.2	11.3	5.9	620	4099	2735	1813
141.8	10.2	5.3	692	4099	2735	1813
144.6	10.0	5.2	705	4099	2735	1813
158.7	9.1	4.7	774	4099	2735	1813
177.0	8.1	4.2	863	4099	2735	1813

## Technical Data

**Model :** : 215      **Power in Hp. :** 2  
**Rated Torque in Nm. :** 1500      **Power in Kw. :** 1.48  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	80.3	118	1099	1099	1099
13.3	108.3	73.2	130	1206	1206	1206
14.8	97.1	65.6	145	1345	1345	1345
16.3	88.5	59.8	159	1477	1477	1477
20.1	71.7	48.5	196	1822	1822	1822
22.0	65.3	44.1	215	2000	2000	2000
24.6	58.6	39.6	240	2231	2231	2231
27.5	52.4	35.4	268	2496	2496	2496
30.7	46.9	31.7	299	2783	2783	2783
42.1	34.2	23.1	411	3825	3825	3825
46.3	31.1	21.0	451	4198	4198	4198
50.8	28.4	19.2	495	4608	4608	4608
51.6	27.9	18.9	503	4682	4682	4682
56.6	25.4	17.2	552	5139	5139	5139
62.2	23.2	15.7	606	5641	5641	5641
63.2	22.8	15.4	616	5731	5731	5731
69.3	20.8	14.0	676	6291	6291	6291
76.7	18.8	12.7	748	6961	6961	6961
84.2	17.1	11.6	821	7641	7641	6961
85.5	16.8	11.4	834	7763	7763	6961
93.9	15.3	10.4	916	8521	8521	6961
95.7	15.0	10.2	934	8686	8686	6961
104.7	13.8	9.3	1022	9502	9502	6961
105.1	13.7	9.3	1025	9535	9535	6961
106.7	13.5	9.1	1041	9686	9686	6961
115.9	12.4	8.4	1130	10514	10514	6961
117.2	12.3	8.3	1143	10633	10633	6961
127.2	11.3	7.7	1241	11541	10633	6961
141.8	10.2	6.9	1384	12871	10633	6961
144.6	10.0	6.7	1410	12871	10633	6961
158.7	9.1	6.1	1548	12871	10633	6961
177.0	8.1	5.5	1727	12871	10633	6961

**Model :** : 215      **Power in Hp. :** 3  
**Rated Torque in Nm. :** 1500      **Power in Kw. :** 2.22  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	80.3	177	1649	1649	1649
13.3	108.3	73.2	195	1810	1810	1810
14.8	97.1	65.6	217	2018	2018	2018
16.3	88.5	59.8	238	2215	2215	2215
20.1	71.7	48.5	294	2733	2733	2733
22.0	65.3	44.1	323	3000	3000	3000
24.6	58.6	39.6	360	3346	3346	3346
27.5	52.4	35.4	402	3744	3744	3744
30.7	46.9	31.7	449	4175	4175	4175
42.1	34.2	23.1	617	5737	5737	5737
46.3	31.1	21.0	677	6297	6297	6297
50.8	28.4	19.2	743	6913	6913	6297
51.6	27.9	18.9	755	7023	7023	6297
56.6	25.4	17.2	829	7709	7709	6297
62.2	23.2	15.7	910	8462	8462	6297
63.2	22.8	15.4	924	8597	8597	6297
69.3	20.8	14.0	1014	9437	9437	6297
76.7	18.8	12.7	1122	10441	9437	6297
84.2	17.1	11.6	1232	11461	9437	6297
85.5	16.8	11.4	1252	11644	9437	6297
93.9	15.3	10.4	1374	12781	9437	6297
95.7	15.0	10.2	1401	13029	9437	6297
104.7	13.8	9.3	1532	13029	9437	6297
105.1	13.7	9.3	1537	13029	9437	6297
106.7	13.5	9.1	1562	13029	9437	6297
115.9	12.4	8.4	1695	13029	9437	6297
117.2	12.3	8.3	1715	13029	9437	6297
127.2	11.3	7.7	1861	13029	9437	6297
141.8	10.2	6.9	2075	13029	9437	6297
144.6	10.0	6.7	2116	13029	9437	6297
158.7	9.1	6.1	2322	13029	9437	6297
177.0	8.1	5.5	2590	13029	9437	6297

## Technical Data

**Model :** : 320      **Power in Hp. :** 5  
**Rated Torque in Nm. :** 4000      **Power in Kw. :** 3.7  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	119.6	295	1846	1846	1846
13.3	108.3	108.9	324	2026	2026	2026
14.8	97.1	97.7	362	2260	2260	2260
16.3	88.5	89.0	397	2481	2481	2481
20.1	71.7	72.1	490	3061	3061	3061
22.0	65.3	65.7	538	3360	3360	3360
24.6	58.6	58.9	599	3747	3747	3747
27.5	52.4	52.7	671	4192	4192	4192
30.7	46.9	47.2	748	4675	4675	4675
42.1	34.2	34.4	1028	6424	6424	6424
46.3	31.1	31.3	1128	7052	7052	7052
50.8	28.4	28.5	1238	7741	7741	7741
51.6	27.9	28.1	1258	7864	7864	7864
56.6	25.4	25.6	1381	8632	8632	8632
62.2	23.2	23.3	1516	9476	9476	9476
63.2	22.8	22.9	1540	9626	9626	9626
69.3	20.8	20.9	1691	10567	10567	10567
76.7	18.8	18.9	1871	11692	11692	11692
84.2	17.1	17.2	2053	12834	12834	11692
85.5	16.8	16.9	2086	13039	13039	11692
93.9	15.3	15.4	2290	14313	14313	11692
95.7	15.0	15.1	2334	14590	14590	11692
104.7	13.8	13.8	2554	15961	15961	11692
105.1	13.7	13.8	2562	16015	16015	11692
106.7	13.5	13.6	2603	16270	16270	11692
115.9	12.4	12.5	2826	17660	16270	11692
117.2	12.3	12.4	2858	17860	16270	11692
127.2	11.3	11.4	3102	19386	16270	11692
141.8	10.2	10.2	3459	21619	16270	11692
144.6	10.0	10.0	3526	22037	16270	11692
158.7	9.1	9.1	3870	22037	16270	11692
177.0	8.1	8.2	4316	22037	16270	11692

**Model :** : 320      **Power in Hp. :** 7.5  
**Rated Torque in Nm. :** 4000      **Power in Kw. :** 5.55  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	119.6	443	2769	2769	2769
13.3	108.3	108.9	486	3040	3040	3040
14.8	97.1	97.7	542	3390	3390	3390
16.3	88.5	89.0	595	3721	3721	3721
20.1	71.7	72.1	735	4591	4591	4591
22.0	65.3	65.7	806	5040	5040	5040
24.6	58.6	58.9	899	5620	5620	5620
27.5	52.4	52.7	1006	6289	6289	6289
30.7	46.9	47.2	1122	7013	7013	7013
42.1	34.2	34.4	1542	9636	9636	9636
46.3	31.1	31.3	1692	10577	10577	10577
50.8	28.4	28.5	1858	11611	11611	11611
51.6	27.9	28.1	1887	11796	11796	11611
56.6	25.4	25.6	2072	12948	12948	11611
62.2	23.2	23.3	2274	14213	14213	11611
63.2	22.8	22.9	2310	14440	14440	11611
69.3	20.8	20.9	2536	15851	15851	11611
76.7	18.8	18.9	2806	17538	15851	11611
84.2	17.1	17.2	3080	19251	15851	11611
85.5	16.8	16.9	3129	19558	15851	11611
93.9	15.3	15.4	3435	21469	15851	11611
95.7	15.0	15.1	3502	21884	15851	11611
104.7	13.8	13.8	3831	23942	15851	11611
105.1	13.7	13.8	3844	24023	15851	11611
106.7	13.5	13.6	3905	24023	15851	11611
115.9	12.4	12.5	4238	24023	15851	11611
117.2	12.3	12.4	4286	24023	15851	11611
127.2	11.3	11.4	4653	24023	15851	11611
141.8	10.2	10.2	5189	24023	15851	11611
144.6	10.0	10.0	5289	24023	15851	11611
158.7	9.1	9.1	5806	24023	15851	11611
177.0	8.1	8.2	6474	24023	15851	11611

## Technical Data

**Model :** : 320      **Power in Hp. :** 10  
**Rated Torque in Nm. :** 4000      **Power in Kw. :** 7.4  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2

12.1	118.9	119.6	591	3692	3692	3692
13.3	108.3	108.9	648	4053	4053	4053
14.8	97.1	97.7	723	4519	4519	4519
16.3	88.5	89.0	794	4961	4961	4961
20.1	71.7	72.1	979	6121	6121	6121
22.0	65.3	65.7	1075	6720	6720	6720
24.6	58.6	58.9	1199	7494	7494	7494
27.5	52.4	52.7	1342	8385	8385	8385
30.7	46.9	47.2	1496	9351	9351	9351
42.1	34.2	34.4	2056	12848	12848	9351
46.3	31.1	31.3	2257	14103	14103	9351
50.8	28.4	28.5	2477	15481	15481	9351
51.6	27.9	28.1	2516	15728	15728	9351
56.6	25.4	25.6	2762	17264	15728	9351
62.2	23.2	23.3	3032	18951	15728	9351
63.2	22.8	22.9	3080	19253	15728	9351
69.3	20.8	20.9	3381	21134	15728	9351
76.7	18.8	18.9	3741	23384	15728	9351
84.2	17.1	17.2	4107	23384	15728	9351
85.5	16.8	16.9	4172	23384	15728	9351
93.9	15.3	15.4	4580	23384	15728	9351
95.7	15.0	15.1	4669	23384	15728	9351
104.7	13.8	13.8	5108	23384	15728	9351
105.1	13.7	13.8	5125	23384	15728	9351
106.7	13.5	13.6	5206	23384	15728	9351
115.9	12.4	12.5	5651	23384	15728	9351
117.2	12.3	12.4	5715	23384	15728	9351
127.2	11.3	11.4	6203	23384	15728	9351
141.8	10.2	10.2	6918	23384	15728	9351
144.6	10.0	10.0	7052	23384	15728	9351
158.7	9.1	9.1	7741	23384	15728	9351
177.0	8.1	8.2	8633	23384	15728	9351

**Model :** : 400      **Power in Hp. :** 5  
**Rated Torque in Nm. :** 6000      **Power in Kw. :** 3.7  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2

12.1	118.9	119.6	591	3692	3692	3692
13.3	108.3	108.9	648	4053	4053	4053
14.8	97.1	97.7	723	4519	4519	4519
16.3	88.5	89.0	794	4961	4961	4961
20.1	71.7	72.1	979	6121	6121	6121
22.0	65.3	65.7	1075	6720	6720	6720
24.6	58.6	58.9	1199	7494	7494	7494
27.5	52.4	52.7	1342	8385	8385	8385
30.7	46.9	47.2	1496	9351	9351	9351
42.1	34.2	34.4	2056	12848	12848	9351
46.3	31.1	31.3	2257	14103	14103	9351
50.8	28.4	28.5	2477	15481	15481	9351
51.6	27.9	28.1	2516	15728	15728	9351
56.6	25.4	25.6	2762	17264	15728	9351
62.2	23.2	23.3	3032	18951	15728	9351
63.2	22.8	22.9	3080	19253	15728	9351
69.3	20.8	20.9	3381	21134	15728	9351
76.7	18.8	18.9	3741	23384	15728	9351
84.2	17.1	17.2	4107	23384	15728	9351
85.5	16.8	16.9	4172	23384	15728	9351
93.9	15.3	15.4	4580	23384	15728	9351
95.7	15.0	15.1	4669	23384	15728	9351
104.7	13.8	13.8	5108	23384	15728	9351
105.1	13.7	13.8	5125	23384	15728	9351
106.7	13.5	13.6	5206	23384	15728	9351
115.9	12.4	12.5	5651	23384	15728	9351
117.2	12.3	12.4	5715	23384	15728	9351
127.2	11.3	11.4	6203	23384	15728	9351
141.8	10.2	10.2	6918	23384	15728	9351
144.6	10.0	10.0	7052	23384	15728	9351
158.7	9.1	9.1	7741	23384	15728	9351
177.0	8.1	8.2	8633	23384	15728	9351

## Technical Data

**Model :** : 400      **Power in Hp. :** 7.5  
**Rated Torque in Nm. :** 6000      **Power in Kw. :** 5.55  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	149.5	443	2215	2215	2215
13.3	108.3	136.2	486	2432	2432	2432
14.8	97.1	122.1	542	2712	2712	2712
16.3	88.5	111.2	595	2977	2977	2977
20.1	71.7	90.2	735	3673	3673	3673
22.0	65.3	82.1	806	4032	4032	4032
24.6	58.6	73.6	899	4496	4496	4496
27.5	52.4	65.8	1006	5031	5031	5031
30.7	46.9	59.0	1122	5610	5610	5610
42.1	34.2	43.0	1542	7709	7709	7709
46.3	31.1	39.1	1692	8462	8462	8462
50.8	28.4	35.6	1858	9289	9289	9289
51.6	27.9	35.1	1887	9437	9437	9437
56.6	25.4	32.0	2072	10359	10359	10359
62.2	23.2	29.1	2274	11371	11371	11371
63.2	22.8	28.7	2310	11552	11552	11552
69.3	20.8	26.1	2536	12680	12680	12680
76.7	18.8	23.6	2806	14030	14030	12680
84.2	17.1	21.5	3080	15401	15401	12680
85.5	16.8	21.2	3129	15646	15646	12680
93.9	15.3	19.3	3435	17175	17175	12680
95.7	15.0	18.9	3502	17508	17508	12680
104.7	13.8	17.3	3831	19153	19153	12680
105.1	13.7	17.2	3844	19218	19218	12680
106.7	13.5	17.0	3905	19524	19524	12680
115.9	12.4	15.6	4238	21192	19524	12680
117.2	12.3	15.5	4286	21432	19524	12680
127.2	11.3	14.2	4653	23263	19524	12680
141.8	10.2	12.8	5189	25943	19524	12680
144.6	10.0	12.5	5289	26445	19524	12680
158.7	9.1	11.4	5806	26445	19524	12680
177.0	8.1	10.2	6474	26445	19524	12680

**Model :** : 400      **Power in Hp. :** 10  
**Rated Torque in Nm. :** 6000      **Power in Kw. :** 7.4  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	149.5	591	2954	2954	2954
13.3	108.3	136.2	648	3242	3242	3242
14.8	97.1	122.1	723	3616	3616	3616
16.3	88.5	111.2	794	3969	3969	3969
20.1	71.7	90.2	979	4897	4897	4897
22.0	65.3	82.1	1075	5376	5376	5376
24.6	58.6	73.6	1199	5995	5995	5995
27.5	52.4	65.8	1342	6708	6708	6708
30.7	46.9	59.0	1496	7481	7481	7481
42.1	34.2	43.0	2056	10278	10278	10278
46.3	31.1	39.1	2257	11283	11283	11283
50.8	28.4	35.6	2477	12385	12385	12385
51.6	27.9	35.1	2516	12582	12582	12582
56.6	25.4	32.0	2762	13812	13812	13812
62.2	23.2	29.1	3032	15161	15161	13812
63.2	22.8	28.7	3080	15402	15402	13812
69.3	20.8	26.1	3381	16907	16907	13812
76.7	18.8	23.6	3741	18707	18707	13812
84.2	17.1	21.5	4107	20535	20535	13812
85.5	16.8	21.2	4172	20862	20535	13812
93.9	15.3	19.3	4580	22900	20535	13812
95.7	15.0	18.9	4669	23343	20535	13812
104.7	13.8	17.3	5108	25538	20535	13812
105.1	13.7	17.2	5125	25624	20535	13812
106.7	13.5	17.0	5206	26032	20535	13812
115.9	12.4	15.6	5651	28257	20535	13812
117.2	12.3	15.5	5715	28257	20535	13812
127.2	11.3	14.2	6203	28257	20535	13812
141.8	10.2	12.8	6918	28257	20535	13812
144.6	10.0	12.5	7052	28257	20535	13812
158.7	9.1	11.4	7741	28257	20535	13812
177.0	8.1	10.2	8633	28257	20535	13812

## Technical Data

**Model :** : 400      **Power in Hp. :** 15  
**Rated Torque in Nm. :** 6000      **Power in Kw. :** 11.1  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	149.5	886	4430	4430	4430
13.3	108.3	136.2	973	4863	4863	4863
14.8	97.1	122.1	1085	5423	5423	5423
16.3	88.5	111.2	1191	5953	5953	5953
20.1	71.7	90.2	1469	7346	7346	7346
22.0	65.3	82.1	1613	8063	8063	8063
24.6	58.6	73.6	1798	8992	8992	8992
27.5	52.4	65.8	2012	10062	10062	10062
30.7	46.9	59.0	2244	11221	11221	11221
42.1	34.2	43.0	3084	15418	15418	11221
46.3	31.1	39.1	3385	16924	16924	11221
50.8	28.4	35.6	3715	18577	18577	11221
51.6	27.9	35.1	3775	18873	18873	11221
56.6	25.4	32.0	4143	20717	20717	11221
62.2	23.2	29.1	4548	22741	20717	11221
63.2	22.8	28.7	4621	23104	20717	11221
69.3	20.8	26.1	5072	25361	20717	11221
76.7	18.8	23.6	5612	28061	20717	11221
84.2	17.1	21.5	6160	28061	20717	11221
85.5	16.8	21.2	6259	28061	20717	11221
93.9	15.3	19.3	6870	28061	20717	11221
95.7	15.0	18.9	7003	28061	20717	11221
104.7	13.8	17.3	7661	28061	20717	11221
105.1	13.7	17.2	7687	28061	20717	11221
106.7	13.5	17.0	7810	28061	20717	11221
115.9	12.4	15.6	8477	28061	20717	11221
117.2	12.3	15.5	8573	28061	20717	11221
127.2	11.3	14.2	9305	28061	20717	11221
141.8	10.2	12.8	10377	28061	20717	11221
144.6	10.0	12.5	10578	28061	20717	11221
158.7	9.1	11.4	11611	28061	20717	11221
177.0	8.1	10.2	12949	28061	20717	11221

**Model :** : 400      **Power in Hp. :** 20  
**Rated Torque in Nm. :** 6000      **Power in Kw. :** 14.8  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	149.5	1181	5907	5907	5907
13.3	108.3	136.2	1297	6484	6484	6484
14.8	97.1	122.1	1446	7231	7231	7231
16.3	88.5	111.2	1588	7938	7938	7938
20.1	71.7	90.2	1959	9794	9794	9794
22.0	65.3	82.1	2150	10751	10751	10751
24.6	58.6	73.6	2398	11990	11990	11990
27.5	52.4	65.8	2683	13416	13416	13416
30.7	46.9	59.0	2992	14961	14961	13416
42.1	34.2	43.0	4111	20557	14961	13416
46.3	31.1	39.1	4513	22565	14961	13416
50.8	28.4	35.6	4954	24770	14961	13416
51.6	27.9	35.1	5033	25164	14961	13416
56.6	25.4	32.0	5525	27623	14961	13416
62.2	23.2	29.1	6064	27623	14961	13416
63.2	22.8	28.7	6161	27623	14961	13416
69.3	20.8	26.1	6763	27623	14961	13416
76.7	18.8	23.6	7483	27623	14961	13416
84.2	17.1	21.5	8214	27623	14961	13416
85.5	16.8	21.2	8345	27623	14961	13416
93.9	15.3	19.3	9160	27623	14961	13416
95.7	15.0	18.9	9337	27623	14961	13416
104.7	13.8	17.3	10215	27623	14961	13416
105.1	13.7	17.2	10250	27623	14961	13416
106.7	13.5	17.0	10413	27623	14961	13416
115.9	12.4	15.6	11303	27623	14961	13416
117.2	12.3	15.5	11430	27623	14961	13416
127.2	11.3	14.2	12407	27623	14961	13416
141.8	10.2	12.8	13836	27623	14961	13416
144.6	10.0	12.5	14104	27623	14961	13416
158.7	9.1	11.4	15482	27623	14961	13416
177.0	8.1	10.2	17265	27623	14961	13416

## Technical Data

**Model :** : 500      **Power in Hp. :** 20  
**Rated Torque in Nm. :** 12000      **Power in Kw. :** 14.8  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	186.8	1181	4726	4726	4726
13.3	108.3	170.2	1297	5187	5187	5187
14.8	97.1	152.6	1446	5785	5785	5785
16.3	88.5	139.1	1588	6350	6350	6350
20.1	71.7	112.7	1959	7835	7835	7835
22.0	65.3	102.7	2150	8601	8601	8601
24.6	58.6	92.1	2398	9592	9592	9592
27.5	52.4	82.3	2683	10733	10733	10733
30.7	46.9	73.8	2992	11969	11969	11969
42.1	34.2	53.7	4111	16446	16446	16446
46.3	31.1	48.9	4513	18052	18052	18052
50.8	28.4	44.6	4954	19816	19816	19816
51.6	27.9	43.9	5033	20132	20132	20132
56.6	25.4	40.0	5525	22098	22098	22098
62.2	23.2	36.4	6064	24257	24257	22098
63.2	22.8	35.8	6161	24644	24644	22098
69.3	20.8	32.6	6763	27052	27052	22098
76.7	18.8	29.5	7483	29931	29931	22098
84.2	17.1	26.9	8214	32856	32856	22098
85.5	16.8	26.5	8345	33379	32856	22098
93.9	15.3	24.1	9160	36640	32856	22098
95.7	15.0	23.6	9337	37349	32856	22098
104.7	13.8	21.6	10215	40861	32856	22098
105.1	13.7	21.5	10250	40999	32856	22098
106.7	13.5	21.2	10413	41652	32856	22098
115.9	12.4	19.5	11303	45211	32856	22098
117.2	12.3	19.3	11430	45211	32856	22098
127.2	11.3	17.8	12407	45211	32856	22098
141.8	10.2	16.0	13836	45211	32856	22098
144.6	10.0	15.7	14104	45211	32856	22098
158.7	9.1	14.3	15482	45211	32856	22098
177.0	8.1	12.8	17265	45211	32856	22098

**Model :** : 500      **Power in Hp. :** 30  
**Rated Torque in Nm. :** 12000      **Power in Kw. :** 22.2  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	186.8	1772	7089	7089	7089
13.3	108.3	170.2	1945	7781	7781	7781
14.8	97.1	152.6	2169	8677	8677	8677
16.3	88.5	139.1	2381	9525	9525	9525
20.1	71.7	112.7	2938	11753	11753	11753
22.0	65.3	102.7	3225	12901	12901	12901
24.6	58.6	92.1	3597	14388	14388	14388
27.5	52.4	82.3	4025	16099	16099	16099
30.7	46.9	73.8	4488	17953	17953	17953
42.1	34.2	53.7	6167	24668	24668	17953
46.3	31.1	48.9	6770	27078	27078	17953
50.8	28.4	44.6	7431	29724	29724	17953
51.6	27.9	43.9	7549	30197	30197	17953
56.6	25.4	40.0	8287	33148	33148	17953
62.2	23.2	36.4	9097	36386	33148	17953
63.2	22.8	35.8	9241	36966	33148	17953
69.3	20.8	32.6	10144	40577	33148	17953
76.7	18.8	29.5	11224	44897	33148	17953
84.2	17.1	26.9	12321	44897	33148	17953
85.5	16.8	26.5	12517	44897	33148	17953
93.9	15.3	24.1	13740	44897	33148	17953
95.7	15.0	23.6	14006	44897	33148	17953
104.7	13.8	21.6	15323	44897	33148	17953
105.1	13.7	21.5	15374	44897	33148	17953
106.7	13.5	21.2	15619	44897	33148	17953
115.9	12.4	19.5	16954	44897	33148	17953
117.2	12.3	19.3	17145	44897	33148	17953
127.2	11.3	17.8	18610	44897	33148	17953
141.8	10.2	16.0	20754	44897	33148	17953
144.6	10.0	15.7	21156	44897	33148	17953
158.7	9.1	14.3	23223	44897	33148	17953
177.0	8.1	12.8	25898	44897	33148	17953

## Technical Data

**Model :** : 500      **Power in Hp. :** 50  
**Rated Torque in Nm. :** 12000      **Power in Kw. :** 37  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	186.8	2954	11814	11814	11814
13.3	108.3	170.2	3242	12969	12969	12969
14.8	97.1	152.6	3616	14462	14462	14462
16.3	88.5	139.1	3969	15875	15875	15875
20.1	71.7	112.7	4897	19589	19589	19589
22.0	65.3	102.7	5376	21502	21502	21502
24.6	58.6	92.1	5995	23979	23979	21502
27.5	52.4	82.3	6708	26832	26832	21502
30.7	46.9	73.8	7481	29922	29922	21502
42.1	34.2	53.7	10278	41114	41114	21502
46.3	31.1	48.9	11283	45131	41114	21502
50.8	28.4	44.6	12385	45131	41114	21502
51.6	27.9	43.9	12582	45131	41114	21502
56.6	25.4	40.0	13812	45131	41114	21502
62.2	23.2	36.4	15161	45131	41114	21502
63.2	22.8	35.8	15402	45131	41114	21502
69.3	20.8	32.6	16907	45131	41114	21502
76.7	18.8	29.5	18707	45131	41114	21502
84.2	17.1	26.9	20535	45131	41114	21502
85.5	16.8	26.5	20862	45131	41114	21502
93.9	15.3	24.1	22900	45131	41114	21502
95.7	15.0	23.6	23343	45131	41114	21502
104.7	13.8	21.6	25538	45131	41114	21502
105.1	13.7	21.5	25624	45131	41114	21502
106.7	13.5	21.2	26032	45131	41114	21502
115.9	12.4	19.5	28257	45131	41114	21502
117.2	12.3	19.3	28576	45131	41114	21502
127.2	11.3	17.8	31017	45131	41114	21502
141.8	10.2	16.0	34590	45131	41114	21502
144.6	10.0	15.7	35260	45131	41114	21502
158.7	9.1	14.3	38704	45131	41114	21502
177.0	8.1	12.8	43163	45131	41114	21502

**Model :** : 800      **Power in Hp. :** 50  
**Rated Torque in Nm. :** 25000      **Power in Kw. :** 37  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	186.8	2954	7384	7384	7384
13.3	108.3	170.2	3242	8105	8105	8105
14.8	97.1	152.6	3616	9039	9039	9039
16.3	88.5	139.1	3969	9922	9922	9922
20.1	71.7	112.7	4897	12243	12243	12243
22.0	65.3	102.7	5376	13439	13439	13439
24.6	58.6	92.1	5995	14987	14987	14987
27.5	52.4	82.3	6708	16770	16770	16770
30.7	46.9	73.8	7481	18701	18701	18701
42.1	34.2	53.7	10278	25696	25696	25696
46.3	31.1	48.9	11283	28207	28207	28207
50.8	28.4	44.6	12385	30962	30962	28207
51.6	27.9	43.9	12582	31456	31456	28207
56.6	25.4	40.0	13812	34529	34529	28207
62.2	23.2	36.4	15161	37902	37902	28207
63.2	22.8	35.8	15402	38506	38506	28207
69.3	20.8	32.6	16907	42268	38506	28207
76.7	18.8	29.5	18707	46768	38506	28207
84.2	17.1	26.9	20535	51337	38506	28207
85.5	16.8	26.5	20862	52155	38506	28207
93.9	15.3	24.1	22900	57250	38506	28207
95.7	15.0	23.6	23343	58359	38506	28207
104.7	13.8	21.6	25538	58359	38506	28207
105.1	13.7	21.5	25624	58359	38506	28207
106.7	13.5	21.2	26032	58359	38506	28207
115.9	12.4	19.5	28257	58359	38506	28207
117.2	12.3	19.3	28576	58359	38506	28207
127.2	11.3	17.8	31017	58359	38506	28207
141.8	10.2	16.0	34590	58359	38506	28207
144.6	10.0	15.7	35260	58359	38506	28207
158.7	9.1	14.3	38704	58359	38506	28207
177.0	8.1	12.8	43163	58359	38506	28207

## Technical Data

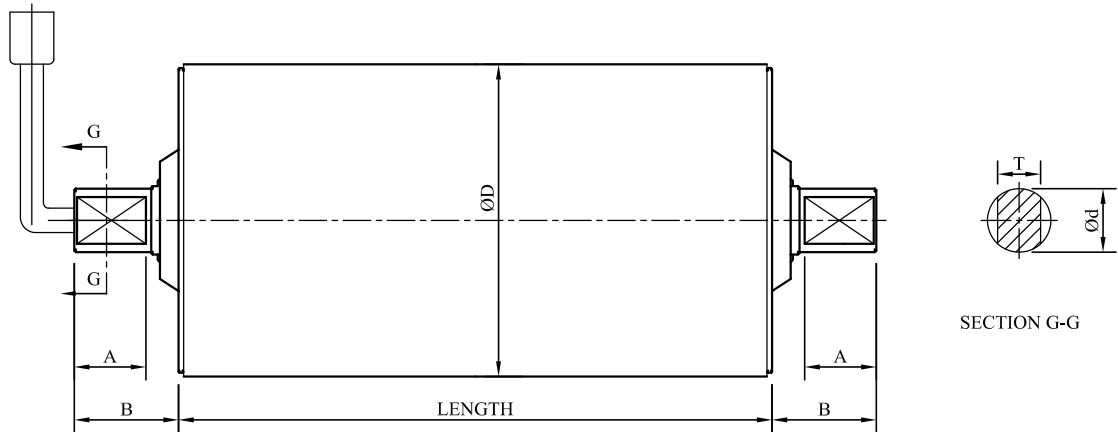
**Model :** : 800      **Power in Hp. :** 75  
**Rated Torque in Nm. :** 25000      **Power in Kw. :** 55.5  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	299.0	4430	11076	11076	11076
13.3	108.3	272.3	4863	12158	12158	12158
14.8	97.1	244.2	5423	13558	13558	13558
16.3	88.5	222.5	5953	14883	14883	14883
20.1	71.7	180.3	7346	18364	18364	18364
22.0	65.3	164.3	8063	20159	20159	20159
24.6	58.6	147.3	8992	22481	22481	22481
27.5	52.4	131.6	10062	25155	25155	25155
30.7	46.9	118.0	11221	28052	28052	28052
42.1	34.2	85.9	15418	38544	38544	28052
46.3	31.1	78.3	16924	42310	42310	28052
50.8	28.4	71.3	18577	46444	42310	28052
51.6	27.9	70.2	18873	47183	42310	28052
56.6	25.4	63.9	20717	51793	42310	28052
62.2	23.2	58.2	22741	56853	42310	28052
63.2	22.8	57.3	23104	57759	42310	28052
69.3	20.8	52.2	25361	57759	42310	28052
76.7	18.8	47.2	28061	57759	42310	28052
84.2	17.1	43.0	30802	57759	42310	28052
85.5	16.8	42.3	31293	57759	42310	28052
93.9	15.3	38.6	34350	57759	42310	28052
95.7	15.0	37.8	35015	57759	42310	28052
104.7	13.8	34.6	38307	57759	42310	28052
105.1	13.7	34.5	38436	57759	42310	28052
106.7	13.5	33.9	39048	57759	42310	28052
115.9	12.4	31.2	42385	57759	42310	28052
117.2	12.3	30.9	42863	57759	42310	28052
127.2	11.3	28.5	46526	57759	42310	28052
141.8	10.2	25.5	51885	57759	42310	28052
144.6	10.0	25.0	52889	57759	42310	28052
158.7	9.1	22.8	58057	57759	42310	28052
177.0	8.1	20.5	64744	57759	42310	28052

**Model :** : 800      **Power in Hp. :** 100  
**Rated Torque in Nm. :** 25000      **Power in Kw. :** 74  
**Input Speed in RPM :** 1440

Gear Ratio	Drum Speed		Avail. Torque in Nm.	Allowable Belt Pull in N		
	RPM	m/min.		Service Factor		
				1	1.4	2
12.1	118.9	299.0	5907	14768	14768	14768
13.3	108.3	272.3	6484	16211	16211	16211
14.8	97.1	244.2	7231	18078	18078	18078
16.3	88.5	222.5	7938	19844	19844	19844
20.1	71.7	180.3	9794	24486	24486	24486
22.0	65.3	164.3	10751	26878	26878	26878
24.6	58.6	147.3	11990	29974	29974	29974
27.5	52.4	131.6	13416	33539	33539	29974
30.7	46.9	118.0	14961	37403	37403	29974
42.1	34.2	85.9	20557	51392	37403	29974
46.3	31.1	78.3	22565	56413	37403	29974
50.8	28.4	71.3	24770	61925	37403	29974
51.6	27.9	70.2	25164	61925	37403	29974
56.6	25.4	63.9	27623	61925	37403	29974
62.2	23.2	58.2	30322	61925	37403	29974
63.2	22.8	57.3	30805	61925	37403	29974
69.3	20.8	52.2	33814	61925	37403	29974
76.7	18.8	47.2	37414	61925	37403	29974
84.2	17.1	43.0	41070	61925	37403	29974
85.5	16.8	42.3	41724	61925	37403	29974
93.9	15.3	38.6	45800	61925	37403	29974
95.7	15.0	37.8	46687	61925	37403	29974
104.7	13.8	34.6	51076	61925	37403	29974
105.1	13.7	34.5	51248	61925	37403	29974
106.7	13.5	33.9	52064	61925	37403	29974
115.9	12.4	31.2	56513	61925	37403	29974
117.2	12.3	30.9	57151	61925	37403	29974
127.2	11.3	28.5	62035	61925	37403	29974
141.8	10.2	25.5	69180	61925	37403	29974
144.6	10.0	25.0	70519	61925	37403	29974
158.7	9.1	22.8	77409	61925	37403	29974
177.0	8.1	20.5	86325	61925	37403	29974

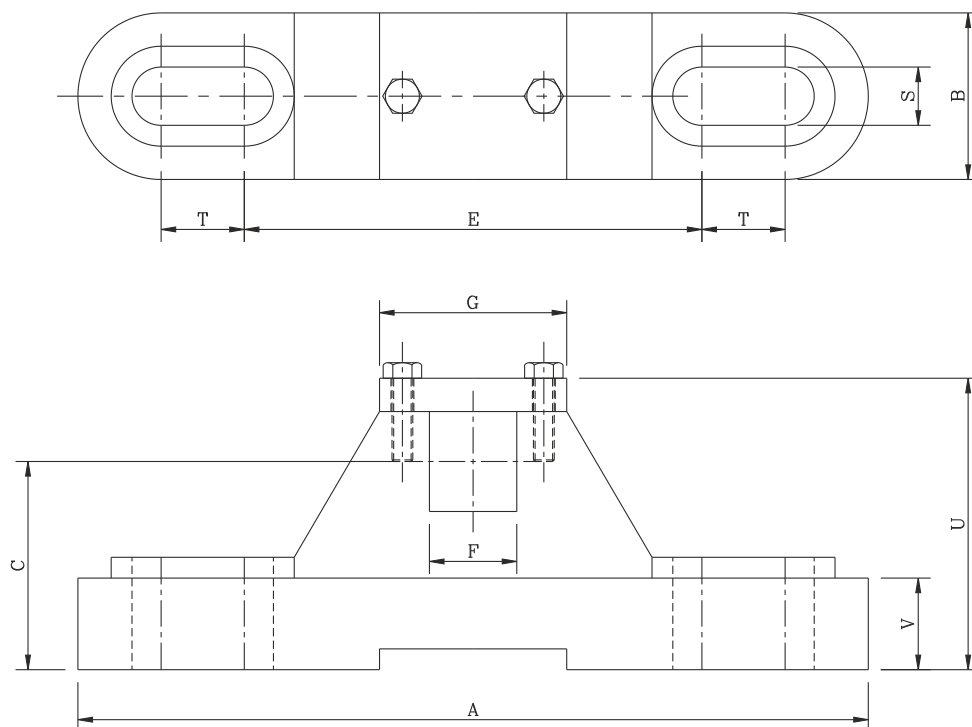
## Dimensional Details



Model	$\phi D$	$\phi d$	T	A	B	Length
110	110	32	21	22.5	20	400
110	110	32	21	22.5	20	450
110	110	32	21	22.5	20	500
140	140	30	20	40	53	500
140	140	30	20	40	53	550
140	140	30	20	40	53	600
165	165	55	45	65	92	500
165	165	55	45	65	92	550
165	165	55	45	65	92	600
165	165	55	45	65	92	650
165	165	55	45	65	92	700
165	165	55	45	65	92	750
215	215	55	45	65	92	500
215	215	55	45	65	92	550
215	215	55	45	65	92	600
215	215	55	45	65	92	650
215	215	55	45	65	92	700
215	215	55	45	65	92	750
320	320	65	55	75	109	750
320	320	65	55	75	109	800
320	320	65	55	75	109	850
320	320	65	55	75	109	900
320	320	65	55	75	109	950
400	400	65	55	75	109	950
400	400	65	55	75	109	1000
400	400	65	55	75	109	1050
400	400	65	55	75	109	1100
400	400	65	55	75	109	1150
500	500	99.5	80	180	225	1200
500	500	99.5	80	180	225	1300
500	500	99.5	80	180	225	1350
500	500	99.5	80	180	225	1400
800	800	99.5	80	180	225	1150
800	800	99.5	80	180	225	1200
800	800	99.5	80	180	225	1250
800	800	99.5	80	180	225	1300
800	800	99.5	80	180	225	1350
800	800	99.5	80	180	225	1400

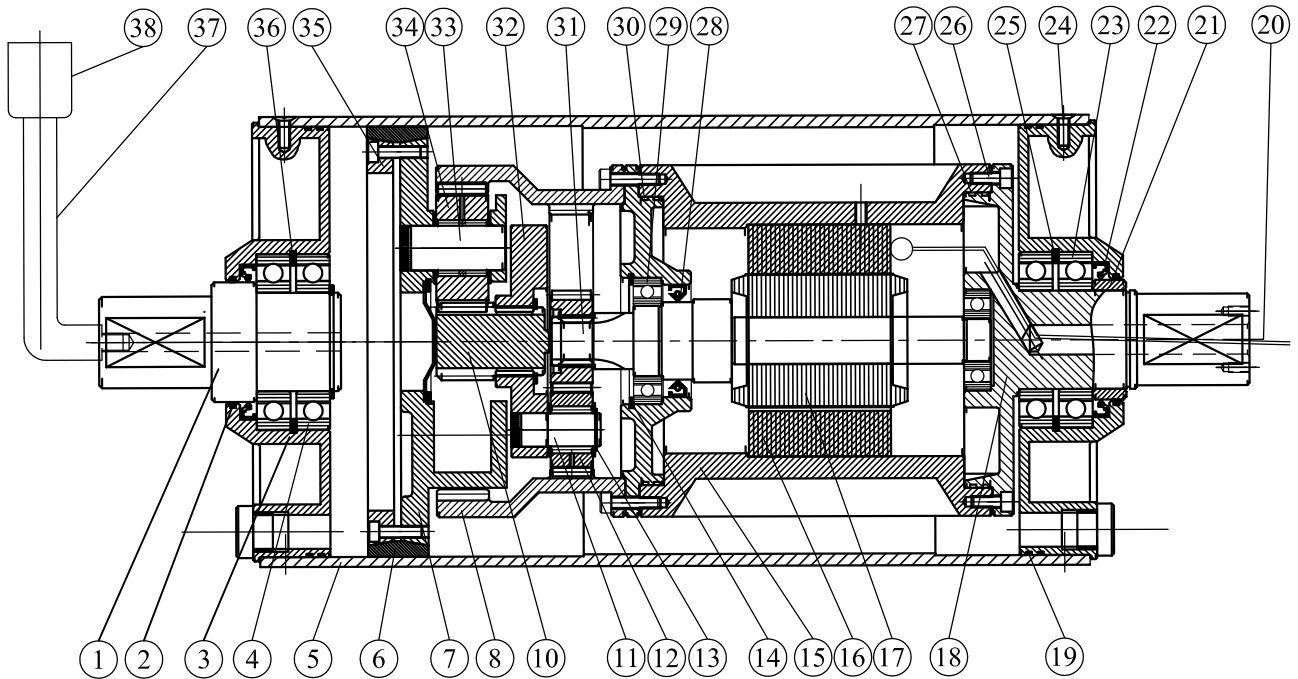
Note : For Rubber Lagging increase  $\phi D$  with twice thickness of rubber laggaing  
With Rubber Lagging Liner speed will change accordingly.

## Support Bracket



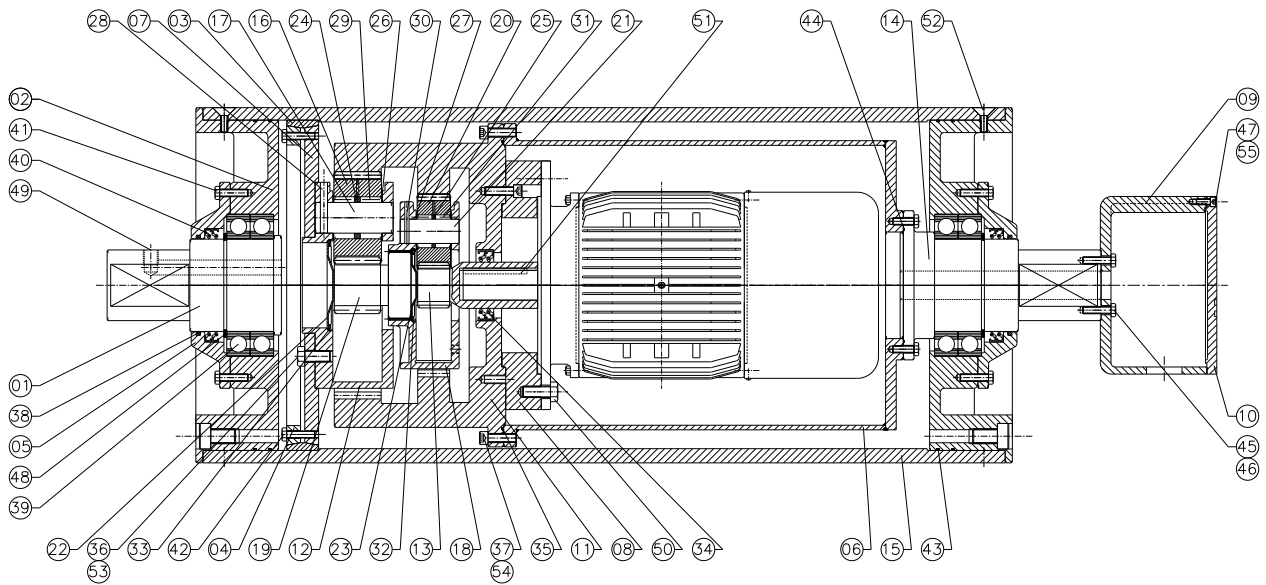
Model	A	B	C	D	E	F	G	U	S	T	V
110	190	40	50	25.0	110	21.0	45	70	14	20	22
140	190	40	50	25.0	110	20.0	45	70	14	20	22
165	190	40	50	25.0	110	20.0	45	70	14	20	22
215	270	60	70	55.0	150	45.0	60	116	18	30	30
320	270	60	70	55.0	150	45.0	60	116	18	30	30
400	330	70	95	65.0	190	55.0	80	148	22	35	35
500	330	70	95	65.0	190	55.0	80	148	22	35	35
800	410	100	115	99.5	295	80.5	100	165	25	25	20

## Component List



- |     |                  |     |                  |
|-----|------------------|-----|------------------|
| 1.  | Shaft (ND)       | 19. | O - Ring         |
| 2.  | Felt Seal        | 20. | Wire Gland       |
| 3.  | Drum Flange      | 21. | Spacer           |
| 4.  | Ball Bearing     | 22. | Oil Seal         |
| 5.  | Drum             | 23. | Ball Bearing     |
| 6.  | Expanding Ring   | 24. | CSK Screw        |
| 7.  | Output Carrier   | 25. | Circlip          |
| 8.  | Ring Gear        | 26. | Allen Screw      |
| 9.  | Output Planet    | 27. | O Ring           |
| 10. | Output Sun       | 28. | Oil Seal         |
| 11. | Input planet Pin | 29. | Ball Bearing     |
| 12. | Input Planet     | 30. | O Ring           |
| 13. | Planet Washer    | 31. | Motor Shaft      |
| 14. | Circlip          | 32. | Input Planet     |
| 15. | Motor Body       | 33. | Input Planet Pin |
| 16. | Stator           | 34. | Output Planet    |
| 17. | Rotor            | 35. | Flange           |
| 18. | Shaft End Drive  | 36. | Circlip          |

## Lubrication



1	ND Shaft	20	Planet	39	Ball Bearing
2	Drum Flange	21	Planet Pin	40	Oil Seal
3	Shrink Disc	22	Thrust Washer	41	Clamping Screw
4	Shrink Disc Flange	23	Thrust Washer	42	Clamping Screw
5	Bearing Cover	24	Cage Spacer	43	O Ring
6	Cover (Ele. Motor)	25	Cage Spacer	44	O Ring
7	SD Carrier Flange	26	Thrust Washer	45	Clamping Screw
8	Adaptor	27	Thrust Washer	46	Spring Washer
9	Terminal Box	28	Spring Dowel Pin	47	Clamping Screw
10	Terminal Plate	29	Roller	48	Circlip External
11	Ring Gear	30	Spring Dowel Pin	49	Socket Flange Plug (Flow)
12	Output Carrier	31	Roller	50	Clamping Screw
13	Sun Gear	32	Circlip Internal	51	Key
14	Input Shaft	33	Circlip Internal	52	Counter Sunk Screw
15	Drum	34	Oil Seal	53	Spring Washer
16	Planet	35	O Ring	54	Spring Washer
17	Planet Pin	36	Clamping Screw	55	Spring Washer
18	Carrier	37	Clamping Screw		
19	Int. Sun Gear	38	Felt Seal		

## Lubrication

Cyclo drum motors are shipped without initial lubricant packing, before switching on please fill SAE-150 oil.

The optimum amount of lubricant required for service must be determined in accordance with the table.

Drum Length	Model wise Quantity of Oil in Liters							
	110	140	165	215	320	400	500	800
400	0.8							
450	0.9							
500	1.2	2	2.9	5.5				
550		2.3	3.1	6.0				
600		2.6	3.3	6.5				
650			3.7	7.0				
700			4.1	7.5				
750			4.5	8.0	20.0			
800					21.0			
850					22.5			
900					24.0			
950					25.0	50.0		
1000						54.0		
1050						58.0		
1100						61.0		
1150						65.0	77.0	150
1200							81.5	155
1250							86.0	160
1300							90.5	165
1350							95.0	170
1400							100.0	175

### Oil Filling / Change

Before starting up, the drum motor unit must be checked up for level. Oil used must be of recommended specifications. Responsibility for the oil quality rests with the lubricant manufacturer respectively the equipment user has to ensure the satisfactory condition of the oil quality.

Generally, the first oil change should be carried out after 100/200 hrs. of working. In order to monitor the quality, sample should be taken and tested at yearly intervals. If the tested oil quality is unsatisfactory, immediate change of oil has to be carried out. When changing the oil, the gear unit should be refilled with the same grade used before. Do not mix oils of different grades or manufacturers. Do not mix oil with mineral oil. When changing the type or grade that will be used afterwards.

### Installation

Before starting the Drum Motor units check whether above instructions observed. Particular, that the drum motor unit is properly filled with the correct oil.

It must be designed to absorb misalignment due to distortion of conveyor frame in all direction. The mounting shafts must have sufficient clearance in the conveyor frame. This will avoid undue stresses developed in the drum motor. Also, it should be installed with proper shock absorption mountings for frequent start-stop and reversal loads. Mounting bracket and drum motor shafts should have clearance as shown.

Model	Clearance	
	Axial (mm)	Flat (mm)
110	1.0	0.5/0.6
140	1.0	0.5/0.6
165/215	1.0	0.5/0.6
320/400	1.5	0.6/0.8
500/800	2.0	0.8/1.0

# Lubrication

## Maintenance / Assembly

They are totally enclosed non-ventilated types, completely dust proof and hose proof to protection IP 65 in accordance with IEC publication 34 - 5/529. The actual belt speed under full load may vary up to  $\pm 5\%$  from the nominal values given in the table. Drum motors described in this catalogue are suitable for 420 V, 50 Hz three phase supply with voltage variation of  $\pm 5\%$ . All drum motors are manufactured with F class insulation according to IEC. This type of winding protects motor from high humidity, acidic vapors and severe topical conditions. Protections against insect are protected by the complete enclosure IP 65, provided incoming cable is metallicly covered.

## Maintenance and overhauling

Take off grub screws (20) from both end drum

flanges (03). Remove all locking pins (26) from drum flanges. Pull the shaft-DE (19). The gearbox along with motor will come out. Take clamping bolts from expanding ring (06) & remove the same.

## Assembly

Change the defective components. Complete the assembly of the gearbox and the motor outside the drum. Insert the assembly into drum with expansion ring subassembly. Tight the clamping bolts of expanding ring (06). Fix the drum flange (03) of shaft-DE (19) side with locking pins (26) and grubs (20). Add appropriate quantity of oil. Fix the drum flange (03) of shaft-ND (01) side with locking pins (26) and grubs (20).

## Maintenance / Assembly

### Enquiry Data Sheet Details

Complied by :  Date :

### Customer Details

Company Name :

Contact Person :

Designation :

Address :

Phone No. :

Fax No. :

Email Address :

### Technical Details

Quantity Reqd.	<input type="text"/>	Nos.	Input Power	<input type="text"/>	HP
No. of start/stop	<input type="text"/>	min.	No. of reversal	<input type="text"/>	/ min.
Max. Belt pull	<input type="text"/>	kg	Belt Speed	Max - <input type="text"/>	m/min
Operating voltage	<input type="text"/>	volt		Min - <input type="text"/>	m/min
Main Frequency	<input type="text" value="50 / 60 Hz"/>		Insulation class	<input type="text" value="B / F"/>	
Duty Cycle	<input type="text" value="S2 / S4"/>		Phase supply	<input type="text" value="Three / Single"/>	
Belt width	<input type="text"/>	mm.	Drum diameter	<input type="text"/>	mm.
Drum length	<input type="text"/>	mm.	Rubber Lagging	<input type="text"/>	mm

### Special requirements / Comments : (if any):

## Regional Sales Offices:

### Rotomotive Ahmedabad

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**Email:** info@cyplagear.com • www.cyplagear.com



Cyclo Products are marketed by Rotomotive Powerdrives India Ltd.