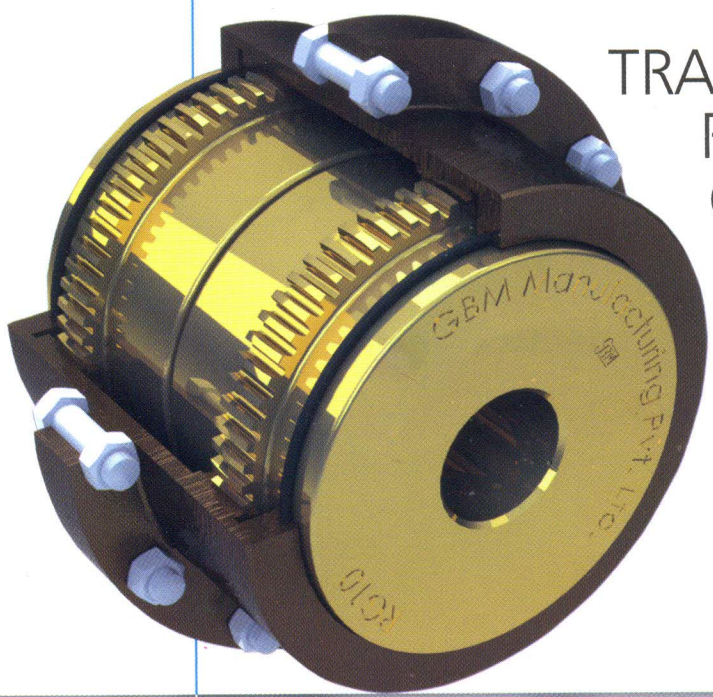
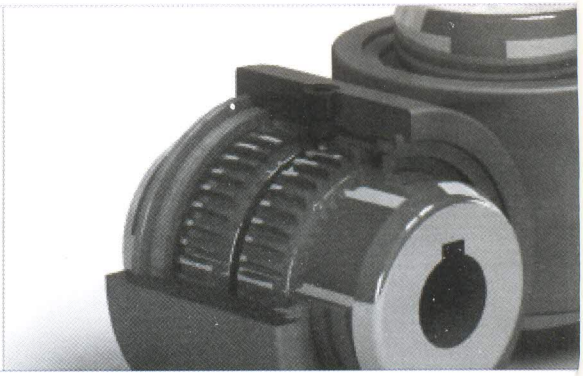
POWER TRANSMISSION ROTO GEAR COUPLINGS



Roto Gear
Flexible Gear Couplings



Roto Gear Curved Couplings are suitable for any conceivable mechanical power transmission drives in all industries, large/medium/small. It is compact and tighter and thus suitable for installation where space is a constraint.

Roto Gear Couplings mainly comprises two Hubs with external machine-cut teeth of specially designed configuration, two flanged sleevs with internal teeth to match the two Hubs and a set of machine finished fastners to both the two Flanged Sleeves when in installed position. Specially designed sealing arrangement is provided to prevent leakage of grease and ingress of outside dirt / water.

Roto Gear Couplings have its components manufactured out of properly treated steels of quality which are best suited for all industrial mechanical power-transmission systems. Teeth profile are of specially designed configuration to provide ample mechanical flexibility and compensation of parallel, angular and axial misalignment of the corrected shafts.

Roto Gear Couplings are available in following executions:

- Full Geared Flexble Type
- Half Geared Flexble Type
- Mill Motor Type
- Spacer Type
- Floating Shaft Type
- Brake Drum Type
- Vertical Type

Selection

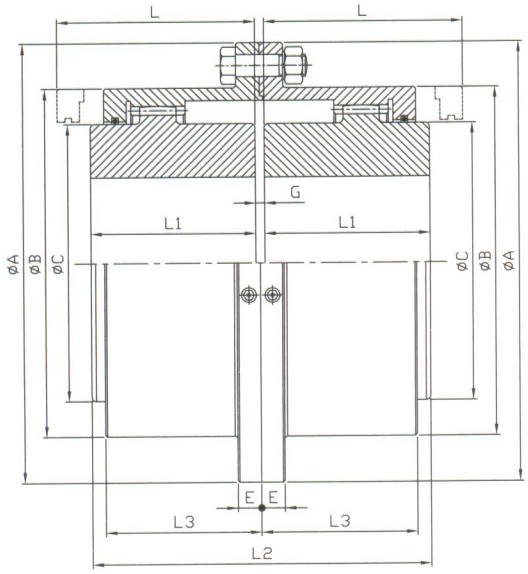
Select the Roto Gear Coupling of size that will accomomodate the diameter of the larger shaft of a drive.

To ensure above coupling so selected has the required rating capacity:

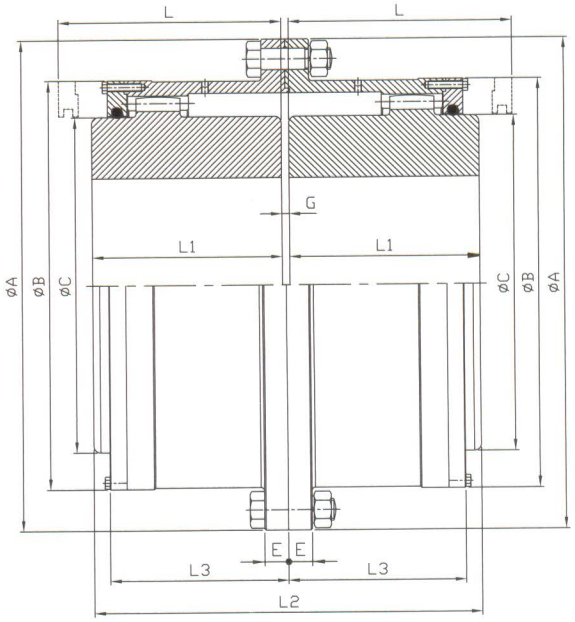
a) Check the Service Factor applicable to the drive from the service Factor Chart.

b) Find out the Rating HP/100 RPM of the drive as per the following formula:

$$\frac{\text{HP x Service Factor x 100}}{\text{RPM}} = \text{HP/100 RPM}$$



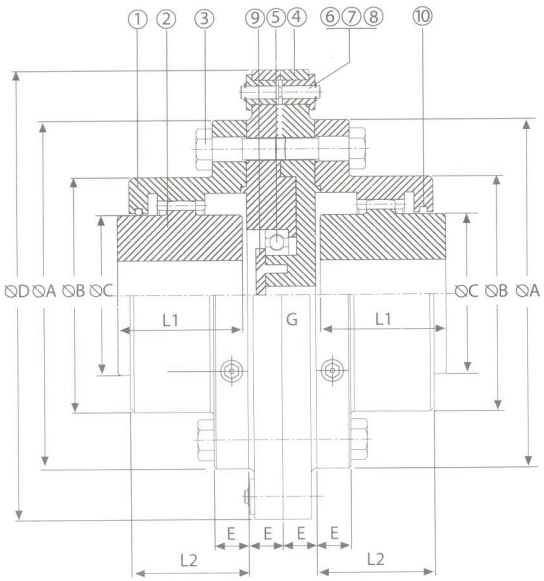
Model RG 01 to RG 10



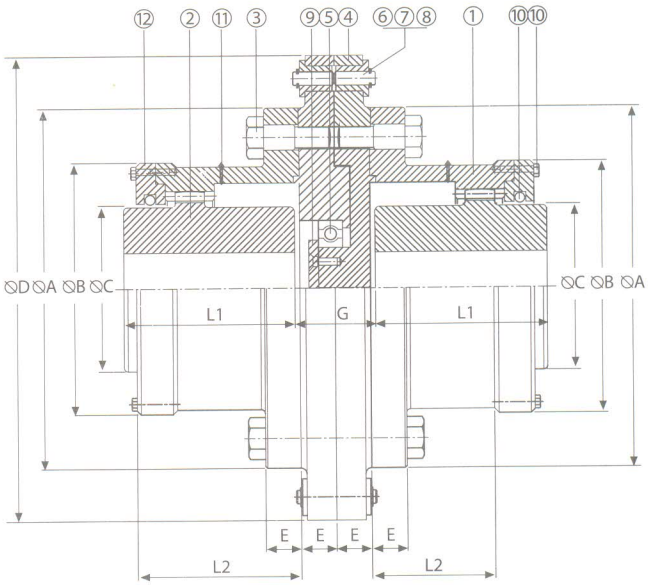
Model RG 01 to RG 19

Full Geared Coupling

Coupling Size	Rating HP/100	Rating Max Torque Kg M	Max Speed RPM	Bore		Approx Wt Kg	GD^2 Kg M^2	Dimentions (mm)								
				Pilot	Max			A	B	C	E	G	L	L1	L2	L3
RG 00	7	50	8000	10	35	4.2	0.03	120	75	50	15	3	50	45	93	40
RG 01	15	107	6350	15	50	11	0.140	172	110	65	18	5	60	56	117	50
RG 02	34	243	5100	20	60	16	0.206	186	125	85	18	5	85	66	137	62
RG 03	63	451	4050	30	75	27	0.484	222	150	105	21	5	110	87	179	80
RG 04	120	859	3300	35	90	41	0.943	251	175	130	21	5	130	106	217	97
RG 05	182	1303	2850	40	110	62	1.902	292	200	155	26	10	140	112	234	106
RG 06	279	1998	2575	45	125	86	3.055	318	230	175	26	10	160	126	262	118
RG 07	484	3465	2160	50	140	122	5.254	352	260	205	26	10	180	142	294	135
RG 08	628	4496	1980	60	160	181	8.523	382	290	230	26	10	192	156	322	147
RG 09	786	5628	1725	70	180	212	15.054	433	330	250	26	10	210	166	342	157
RG 10	1150	8234	1450	100	220	292	30.506	492	390	310	26	10	220	182	374	172
RG 11	1540	11026	1250	110	260	553	56.825	546	445	350	30	10	250	202	414	190
RG 12	2052	14692	1130	120	300	712	88.604	592	490	400	30	10	290	241	492	227
RG 13	2793	19998	980	140	330	982	138.802	681	555	440	35	10	320	263	536	240
RG 14	3992	28583	890	200	370	1323	291.308	732	610	500	35	10	340	280	570	262
RG 15	4854	34754	800	250	410	1703	353.108	782	660	540	35	15	385	321	657	302
RG 16	8380	60000	730	275	455	2551	690.706	902	755	625	45	20	425	352	724	333
RG 17	11916	85318	640	325	520	3622	1235.307	1003	855	720	45	20	490	403	826	385
RG 18	15781	112992	580	350	610	4862	1965.710	1102	950	810	55	20	535	452	924	428
RG 19	20840	148956	510	400	710	6383	3012.308	1252	1050	910	55	30	560	486	1002	456



RGSP 00 to RGSP 10



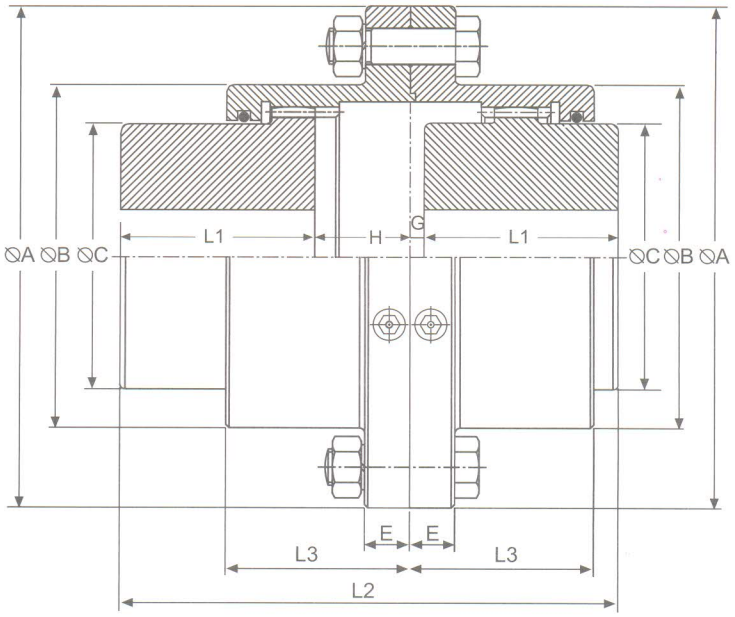
RGSP 11 to RGSP 15

Shear Pin Type Geared Coupling

Coupling No.	HP/ 100 RPM Rating	Torque Kg M^2	Max Speed RPM	Shear Torque Kg M	BORE		Dimentions (mm)							
					Pilot	Max	A	B	C	D	E	G	L1	L2
RGSP 00	7	50	8000	37	10	35	120	75	50	220	15	33	45	40
RGSP 01	15	107	6350	80	15	50	172	110	65	272	18	41	56	50
RGSP 02	34	243	5100	182	20	60	186	125	85	285	18	41	66	62
RGSP 03	63	451	4050	338	30	75	222	150	105	320	21	47	87	80
RGSP 04	120	859	3300	644	35	90	251	175	130	350	21	47	106	97
RGSP 05	182	1303	2850	977	40	110	292	200	155	390	26	62	112	106
RGSP 06	279	1998	2575	1498	45	125	318	230	175	420	26	62	126	118
RGSP 07	484	3465	2160	2599	50	140	352	260	205	480	26	62	142	135
RGSP 08	628	4496	1980	3372	60	160	382	290	230	510	26	62	156	147
RGSP 09	786	5628	1725	4221	70	180	433	330	250	565	26	62	166	157
RGSP 10	1150	8234	1450	6175	100	220	492	390	310	620	26	62	182	172
RGSP 11	1540	11026	1250	8270	110	260	546	445	350	680	30	70	202	190
RGSP 12	2052	14692	1130	11019	120	300	592	490	400	725	30	70	241	227
RGSP 13	2793	19998	980	14998	140	330	681	555	440	815	35	80	263	240
RGSP 14	3992	28583	890	21437	200	370	732	610	500	860	35	80	280	262
RGSP 15	4854	34754	800	26065	250	410	782	660	540	910	35	80	321	302

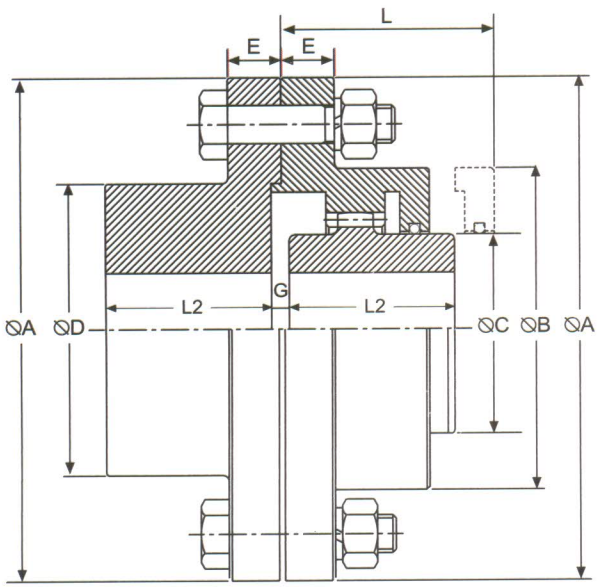
Sl No.	Descripton	Malt	Qty	Sl No.	Descripton	Malt	Qty
1	Geared Sleeve	CS IS:2707 Gr-1	2	7	Circle IP	Bought Out	-
2	Geared Hub	C 45 IS:1570	2	8	Bearing End Cover	MS IS:2062	1
3	Fastners	IS:1367 Gr-8.8	Lot	9	'O" Ring	SYN Rubber	2
4	Shear Pin Plate	MS IS:2062	2	10	Grease Nipple	Bought Out	2
5	Ball Bearing	Bought Out	1	11	End Cover	MS IS:2062	2
6	Shear Pin	En8 BS:970	-	12	Hex Bolt	Bought Out	Lot
7	Shear Pin Bush	C45 IS:1570	-	13			

RGM 00 to 10



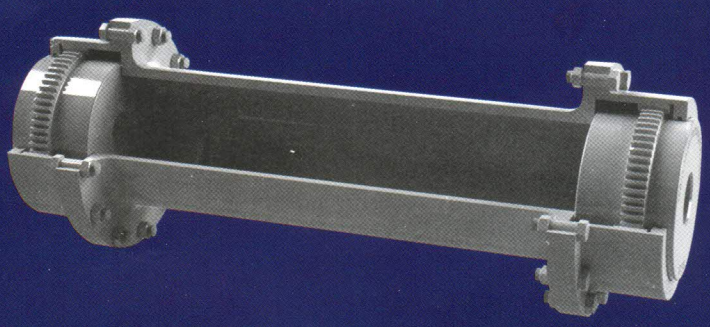
Mill Motor Type Geared Coupling

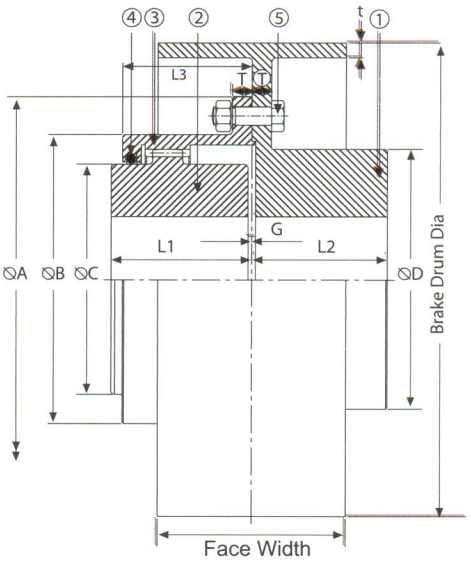
Coupling No.	HP/100 RPM Rating	Torque Kg M^2	Max Speed RPM	GD^2	Pilot Bore	Gear Max	Dimentions (mm)								
							A	B	C	L1	L2	L3	E	G	H
RGM 00	7	50	8000	0.03	10	35	120	75	50	45	101.5	40	15	1.5	10
RGM 01	15	107	6350	0.140	15	50	172	110	65	56	129.5	50	18	2.5	15
RGM 02	34	243	5100	0.206	20	60	186	125	85	66	159.5	62	18	2.5	25
RGM 03	63	451	4050	0.484	30	75	222	150	105	87	211.5	80	21	2.5	35
RGM 04	120	859	3300	0.943	35	90	251	175	130	106	259.5	97	21	2.5	45
RGM 05	182	1303	2850	1.902	40	110	292	200	155	112	284.0	106	26	5	55
RGM 06	279	1998	2575	3.055	45	125	318	230	175	126	317.0	118	26	5	60
RGM 07	484	3465	2160	5.254	50	140	352	260	205	142	359.0	135	26	5	70
RGM 08	628	4496	1980	8.523	60	160	382	290	230	156	397.0	147	26	5	80
RGM 09	786	5628	1725	15.054	70	180	433	330	250	166	422.0	157	26	5	85
RGM10	1150	8234	1450	30.506	100	220	492	390	310	182	464.0	172	26	5	90



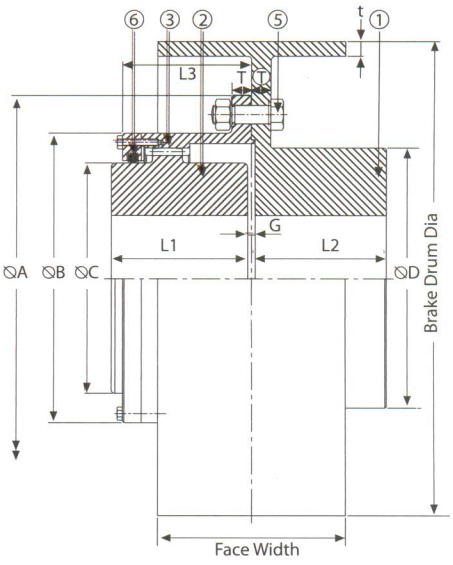
Half Gear & Half Rigid Coupling

Coupling No.	HP/ 100 RPM Rating	Torque Kg M^2	Max Speed RPM	Pilot Bore			Dimentions (mm)									
					Gear	Rigid	A	B	C	D	E	G	L	L1	L2	Wt. Kg
HGHR 00	7	50	8000	10	35	50	120	75	50	70	15	3	55	45	45	4.2
HGHR 01	15	107	6350	15	50	60	172	110	65	100	18	5	60	56	56	11
HGHR 02	34	243	5100	20	60	75	186	125	85	110	18	5	85	66	60	16
HGHR 03	63	451	4050	30	75	90	222	150	105	125	21	5	110	87	85	27
HGHR 04	120	859	3300	35	90	110	251	175	130	150	21	5	130	106	100	41
HGHR 05	182	1303	2850	40	110	125	292	200	155	175	26	10	140	112	110	62
HGHR 06	279	1998	2575	45	125	140	318	230	175	200	26	10	160	126	120	86
HGHR 07	484	3465	2160	50	140	160	352	260	205	230	26	10	180	142	140	122
HGHR 08	628	4496	1980	60	160	180	382	290	230	260	26	10	192	156	150	181
HGHR 09	786	5628	1725	70	180	200	433	330	250	290	26	10	210	166	160	212
HGHR10	1150	8234	1450	100	220	250	492	390	310	350	26	10	220	182	175	292





HGBD 150 to HGBD 550



HGBD 600

Half Gear Half Rigid with Brake Drum Coupling

Coupling No.	Brake Drum Dia	Face Width	HGBD 150 to HGBD 550						HP/ 100 RPM Rating					Pilot Bore	Max Bore		Torque Kg M
			A	B	C	D	L1	L2		L3	T	t	G		Gear	Rigid	
HGBD 150	150	85	120	75	50	70	45	45	7	40	15	10	3	10	35	50	50
HGBD 160	160	85	120	75	50	70	45	45	7	40	15	10	5	10	35	50	50
HGBD 180	180	90	120	75	50	70	45	45	7	40	15	10	5	10	35	50	50
HGBD 200	200	100	172	110	65	100	56	56	15	50	18	12	5	15	50	60	107
HGBD 225	225	125	186	125	85	110	66	60	34	62	18	12	5	20	60	75	243
HGBD 250	250	135	222	150	105	125	87	85	63	80	21	12	5	30	75	90	451
HGBD 300	300	165	251	175	130	150	106	100	120	97	21	12	5	35	90	110	859
HGBD 350	350	165	292	200	155	175	112	110	182	106	26	15	10	40	110	125	1303
HGBD 375	375	175	318	230	175	200	126	120	279	118	26	15	10	45	125	140	1998
HGBD 400	400	200	352	260	205	230	142	140	484	135	26	15	10	50	140	160	3465
HGBD 450	450	200	382	290	230	260	156	150	628	147	26	15	10	60	160	180	4496
HGBD 500	500	250	433	330	250	290	166	160	786	157	26	20	10	70	180	200	5628
HGBD 550	550	250	492	390	310	310	182	175	1150	172	26	20	10	100	220	250	8234
HGBD 600	600	250	546	445	350	350	202	175	1540	190	30	20	10	110	260	250	11026

Sl No.	Descripton	Matl.	Qty	Sl No.	Descripton	Matl.	Qty
1	Brake Drum Hub	CS IS:2707 Gr-1	1	4	'O" Ring	SYN Rubber	1
2	Geared Hub	C 45 IS:1570	1	5	Fastners	IS:1367 Gr-8.8	-
3	Geared Sleeve	CS IS:2707 Gr-1	1	6	End Cover	MS IS:2062	1

Information Required for Coupling Selection

- HP & RPM to be transmitted.
- Torque at transmitted RPM, both normal & maximum.
- Types of driving and driven machines.
- Normal diameters & length of shaft extension of both driving & driven machines.
- Usable shaft length, i.e. length of keys on both shafts.
- Dimensional details of finished bores & keyways, if required.
- Installation management-horizontal & vertical.
- Any other details as may be relevant to the selection of couplings.

Additional Information Required

Mill Motor

- Counter Bore dimensions.
- Spacer.
- Distance between ends of two shaft to be connected in installed position.

Limited End Float

- Amount of thrust on either or both shafts.
- Amount of end float required.

Other Types

Detailed required will be furnished on receipt of specific requests.

Lubrication

Indian Oil "Servogem 2", or any equivalent grease is recomended for use under normal working conditions.

Service Factors

Typical Service Factors Electric Motor Driven

The correct service factor to be applied to your application should be selected from experience with your equipment. The following chart may be used as a guide.

AGITATORS	
Pure Liquid	1.0
Liquid-Variable Density	1.0
BLOWERS	
Centrifugal	1.0
Lobe	1.2
Can Filling Machines	1.0
Car Dampers	2.0
Car Pullers, Intermittent Duty	1.5
COMPRESSORS	
Centrifugal	1.0
Reciprocating	2.2
Multy-Cylinder	2.0
single-Cylinder	2.0
CONVEYORS UNIFORMLY LOADED OR FED	
Assembly	1.2
Belt	1.2
Screw	1.2
CONVEYORS, HEAVY DUTY NOT UNIFORMLY FED	
Assembly	1.5
Belt	1.5
Oven	1.5
Reciprocating	2.0
Screw	1.5
Shaker	1.5
CRANES & HOIST	
Main Hoists	2.0
Reversing	2.0
Skip Hoists	2.0
Trolley Drive	2.0
Bridge Drive	2.0
CRUSHER	
Ores	3.0
Stone	3.0
Dredges	
Conveyors	2.0
Cutter Head Drives	2.0
Maneuvering Winches	2.0
Pumps	2.0
ELEVATORS	
Bucket	2.0
FANS	
Centrifugal	1.0
Cooling Towers Forced Draft	1.5
FEEDERS	
Screw	1.5
Generators, not welding	1.0
Welding	1.0
Hammer Mills	2.0
Laundry Washers Reversing	1.5
LAUNDRY INDUSTRY	
Barkers, Hydraulic Mecchanical	2.0
Edger Feed	2.0
Live Rolls	2.0
MACHINE TOOLS	
Bending Roll	2.0
Punch Press	2.0
Tapping Machines	2.0
Main Drives	1.5
Auxilliary Drives	1.5
METAL MILLS	
Draw Bench, Carriage	2.0
Draw Bench, Main Drive	2.0
Slitters	2.0
Non Reversing	2.0
Wire Drawing & Flattering Machine	2.0
Wire Winding Machine	2.0
MILLS, ROTARY TYPE	
Ball	2.5
Cement Kilns	2.5
Dryers & Coolers	2.5
Kilns	2.5
MIXERS	
Concrete Mixer, Continuous	1.5
Concrete Mixer, Intermittent	1. 5
Oil Industry	
Oil Well Pumping	2.0
Rotary kilns	2.0
PUMPS	
Centrifugal Reciprocating	1.0
Single Acting 3 or more Cyl	1.5
Double Acting 2 or more Cyl	2.0
Rotary, Gear Type, Lube Vane	1.5
PAPER MILLS	
Agitators, Mixers	1.5
Barker, Mechanical	2.0
Braking Drum Spur Gear Only	2.0
Beater & Pulper	2.0
Calenders	1.5
Calenders, Super	1.5
Converting Machines, Except	
Cutter, Platters	1.5
Conveyors	1.5
Dryers	1.5
Jordans	2.0
Log Haul	2.0
Presses	1.5
Reel	1.5
Winders	1.5
RUBBER INDUSTRY	
Mixing	2.0
Rubbers Calender	2.0
SCREENS	
Rotary Coal or Sand	1.5
Steering Gear	1.0
Stockers	1.0
TEXTILE INDUSTRY	
Dryers	1.5
Dyeing Machinery	1.5
WINDLASS	2.0

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