



Selection Criteria of Gear Unit

GEAR UNIT SELECTION CHECK POINTS:

- Model of Gear unit type suitable for Application
- Need reduction ration or output RPM of gear units
- Working operation period of the day
- Need details of driven machine, actual power in HP & speed in RPM
- Need details of peak and shock load with magnitude & duration
- Ambient operating condition i.e. location temperature, humidity and corrosion etc.
- Position of output shaft either horizontal or vertical
- Position of output shaft (right / left) respect to input shaft
- DA drawing of space where gear box will be installed

CLASSIFICATION OF LOADS & LOAD FACTORS

Type of Machine	Application	Load Factor
	Pure Liquid	U
Agitators & Mixers	Liquid & Solid	M
	Liquid with various density	M
Clay Processing Machinery	Brick Press	H
	Briquette Machine	H
	Plug Mill	M
Conveyers	Uniformly Loaded	U
	Non Uniformly Loaded	M
Cranes	Main Hoist	M
	Bridge Travel	M
Crusher	Ore, Stone	H
	Sugar	M
	Bucket Uniform Load	U
	Bucket Heavy Load	M
Elevators	Bucket Continuous Load	U
	Centrifugal Discharge	U
	Gravity Discharge	U
Food Industry	Beet Slicer	M
	Cereal Cooker	U
Laundry Machines	Washer	M
	Tumblers	M
Oil Industry	Chillers	M
	Rotary Kilns	M

Type of Machine	Application	Load Factor
	Bleacher Conveyor Press	M
Paper Mill	Winder	H
	Calendars	H
	Agitators	M
Rubber & Plastic Industry	Crackers	H
	Fixing Mills	H
	Laboratory Equipment	M
	Refiners, Extrudes	M
	Sheeters & Cutting	M
	Tubers & Strainers	M
Sugar	Warming Mills	M
	Cane Knivers	M
	Crusher	M
	Mill	H
	Batchers	M
Textile Industry	Dyeing Machinery	M
	Spinners, Batchers	M
	Washer, Calendars	M
	Winders	M
Wire Making Machinery	Drawing	M
	Flattening	M
	Winding	M
Oil Industry	Air Washing	U
	Rotary - Stone / Gravel	M

Prime Mover	Distribution of Service (Hours / Day)	Type of Load		
		Uniform U	Moderate Shock M	Heavy Shock H
Electric Motor	2	0.80	0.90	1.30
	8	0.90	1.10	1.50
	12	1.00	1.30	1.60
	24	1.30	1.50	1.80

Notes:

- Gear units are supplied without Oil, so ensure to fill oil before operation, It is recommended to use HP ENKLO 320 Oil or Equivalent.
- For changing the position of output shaft please transfer fan and fan cover at other end of input shaft without dismantling the gear unit.
- Worm shaft thread-right hand.



Input Horse Power Capacity

Worm Shaft (RPM)	Gear Ratio	Worm Wheel R.P.M	Size of Unit (Inch)							
			1.125	1.750	2.000	2.250	2.500	3.000	3.500	4.000
1500	5:1	300	0.58	1.48	2.90	3.40	3.91	8.32	10.2	16.3
1000		200	0.53	1.28	2.20	2.60	2.99	6.37	7.60	12.7
0750		150	0.44	1.10	1.90	2.20	2.53	5.17	6.30	10.7
0500		100	0.36	0.80	1.30	1.70	1.96	3.10	4.70	8.30
1500	7.5:1	200	0.51	1.27	2.40	3.00	3.45	6.38	9.20	11.9
1000		133	0.46	1.11	1.80	2.30	2.65	5.05	6.80	9.50
0750		100	0.38	0.90	1.50	1.90	2.19	4.30	5.50	8.10
0500		66.7	0.31	0.65	1.10	1.50	1.73	2.70	4.10	6.20
1500	10:1	150	0.45	1.06	1.90	2.40	2.76	5.13	8.0	9.70
1000		100	0.39	0.89	1.50	2.10	2.42	4.07	6.30	7.90
0750		75	0.33	0.80	1.30	1.70	1.96	3.37	5.20	6.50
0500		50	0.27	0.59	0.90	1.40	1.61	2.00	4.00	5.00
1500	15:1	100	0.36	0.87	1.60	2.00	2.30	4.40	5.70	7.00
1000		66.7	0.29	0.69	1.20	1.50	1.73	3.42	4.50	5.50
0750		50	0.25	0.60	1.00	1.30	1.50	2.82	3.70	4.70
0500		33.3	0.20	0.50	0.80	0.97	1.12	1.80	2.80	3.70
1500	20:1	75	0.31	0.70	1.10	1.50	1.73	3.25	4.50	6.50
1000		50	0.24	0.57	0.88	1.20	1.38	2.50	3.50	5.00
0750		37.5	0.21	0.50	0.85	1.00	1.15	2.02	3.00	4.20
0500		25	0.17	0.39	0.60	0.80	0.92	1.40	2.30	3.30
1500	25:1	60	0.27	0.68	1.00	1.40	1.61	2.77	4.00	4.90
1000		40	0.22	0.54	0.80	1.10	1.27	2.15	3.00	4.30
0750		30	0.19	0.46	0.72	0.95	1.09	1.80	2.50	3.70
0500		20	0.15	0.37	0.50	0.74	0.85	1.10	1.90	2.90
1500	30:1	50	0.21	0.60	0.95	1.20	1.38	2.55	3.60	4.40
1000		33.3	0.18	0.48	0.78	0.98	1.13	1.97	2.80	3.70
0750		25	0.16	0.42	0.67	0.82	0.94	1.61	2.30	3.10
0500		16.6	0.13	0.33	0.50	0.65	0.75	1.00	1.70	2.40
1500	40:1	37.5	0.19	0.50	0.77	1.10	1.27	2.02	3.10	3.70
1000		25	0.15	0.40	0.59	0.88	1.00	1.47	2.40	3.00
0750		18.7	0.13	0.35	0.62	0.72	0.83	1.25	2.00	2.50
0500		12.5	0.11	0.27	0.40	0.55	0.63	0.89	1.40	1.80
1500	50:1	30	0.16	0.40	0.60	0.94	1.08	1.65	2.80	3.00
1000		20	0.13	0.31	0.46	0.75	0.86	1.22	2.20	2.40
0750		15	0.11	0.28	0.40	0.60	0.69	1.01	1.70	2.00
0500		10	0.09	0.20	0.30	0.46	0.53	0.68	1.10	1.60
1500	60:1	25	0.10	0.33	0.51	0.81	0.93	1.27	2.50	2.70
1000		16.6	0.10	0.28	0.40	0.58	0.67	1.00	1.90	2.10
0750		12.5	0.08	0.24	0.37	0.46	0.53	0.84	1.50	1.70
0500		8.30	0.06	0.19	0.25	0.33	0.38	0.57	1.00	1.40
1500	70:1	21.4	0.10	0.30	0.47	0.61	0.70	1.22	1.80	2.50
1000		14.7	0.09	0.24	0.35	0.51	0.59	0.94	1.50	2.00
0750		10.7	0.07	0.21	0.30	0.40	0.46	0.77	1.20	1.70
0500		7.14	0.05	0.17	0.20	0.28	0.32	0.50	0.80	1.40

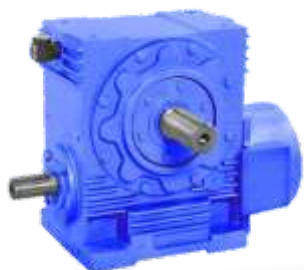


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Input Horse Power Capacity

Worm Shaft (RPM)	Gear Ratio	Worm Wheel R.P.M	Size of Unit (Inch)							
			5	6	7	8	9	10.5	12	14
1500	5:1	300	27.6	43.7	59.0	78.5	93.1	122	131	177
1000		200	21.3	31.0	44.4	57.2	72.8	84.4	98.9	128
0750		150	17.3	24.3	36.5	45.9	58.2	65.0	80.0	99.0
0500		100	13.1	17.5	26.4	32.2	42.7	42.7	59.4	67.9
1500	7.5:1	200	21.3	32.0	46.6	66.9	76.6	110	121	164
1000		133	17.1	24.3	34.4	50.7	60.1	78.6	90.8	119
0750		100	14.4	19.9	28.5	41.1	49.5	60.1	73.0	95.0
0500		66.7	11.1	14.7	21.3	30.1	37.8	39.8	53.5	63.1
1500	10:1	150	19.3	26.7	36.3	58.7	61.1	103	108	156
1000		100	15.0	20.7	29.9	43.5	49.5	70.8	80.9	116
0750		75	12.4	17.0	23.7	34.9	41.7	56.3	65.5	90.2
0500		50	9.40	12.9	17.8	25.7	33.0	35.9	48.5	64.0
1500	15:1	100	11.6	21.8	29.5	40.1	47.5	78.6	88.5	134
1000		66.7	9.00	16.7	22.9	29.8	37.8	56.3	64.8	94.1
0750		50	7.70	13.6	17.9	24.3	32.0	42.7	51.9	70.8
0500		33.3	5.90	11.1	13.0	18.2	24.8	29.1	38.3	48.5
1500	20:1	75	11.1	17.1	22.3	28.7	37.8	57.2	71.1	110
1000		50	8.30	13.1	17.4	23.4	30.1	44.6	52.4	80.5
0750		37.5	7.00	10.9	14.1	19.6	24.7	34.9	42.0	61.0
0500		25	5.30	8.20	10.5	14.5	19.8	25.2	30.7	41.7
1500	25:1	60	9.40	14.8	20.7	27.1	33.0	53.4	62.1	93.1
1000		40	6.80	11.3	15.9	20.8	26.6	38.8	46.5	67.9
0750		30	5.60	9.00	12.8	17.0	22.0	30.1	36.9	51.7
0500		20	4.40	6.60	9.40	12.0	16.7	20.4	26.7	34.9
1500	30:1	50	8.00	12.1	18.3	25.4	28.3	41.7	53.1	79.5
1000		33.3	5.90	9.70	13.6	20.0	24.1	34.9	39.8	56.3
0750		25	5.00	8.00	11.4	16.3	19.2	25.2	31.7	42.7
0500		16.6	3.90	6.10	8.40	11.4	14.5	18.0	23.6	30.1
1500	40:1	37.5	6.20	10.1	14.9	18.5	22.9	34.9	43.2	62.1
1000		25	4.80	7.70	11.1	14.3	17.8	26.2	31.8	46.6
0750		18.7	4.10	6.10	8.90	11.7	15.1	19.4	25.4	34.0
0500		12.5	3.10	4.90	6.60	8.90	11.5	13.7	18.6	24.3
1500	50:1	30	5.20	8.50	13.0	17.6	21.0	27.2	36.0	51.0
1000		20	4.00	6.50	10.0	12.8	15.7	23.3	26.8	37.8
0750		15	3.30	5.50	8.10	10.3	13.1	17.4	21.3	26.2
0500		10	2.60	4.20	5.70	7.60	9.80	11.3	15.6	19.0
1500	60:1	25	4.30	7.10	10.5	17.0	19.1	24.3	31.2	43.7
1000		16.6	3.30	5.30	8.20	12.6	14.5	17.8	22.8	32.0
0750		12.5	2.80	4.50	6.90	10.0	12.4	14.8	18.2	23.3
0500		8.30	2.10	3.40	5.30	7.20	9.70	10.3	13.6	17.0
1500	70:1	21.4	3.80	6.00	9.30	11.8	14.6	18.5	26.4	36.9
1000		14.7	2.80	4.60	7.30	9.30	11.6	14.7	19.9	28.1
0750		10.7	2.40	4.00	5.90	7.70	10.4	11.5	16.1	20.4
0500		7.14	1.90	3.00	4.50	5.90	8.40	8.10	12.2	14.7



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