

VIKING PUMP

A Unit of IDEX Corporation

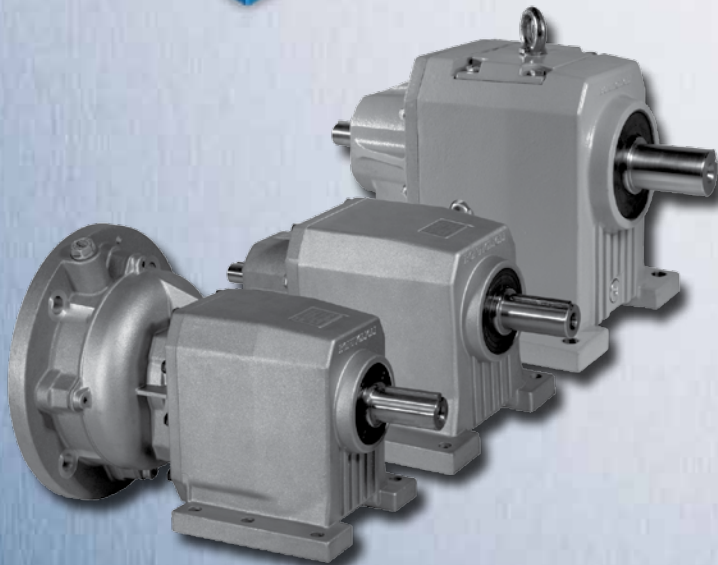
Viking® Offset and In-Line Reducers

Reliable Speed Reduction



OFFSET Gear Reducers:

- Available in three sizes, each size offering several gear ratios.
- All three reducers contain a hardened steel pinion and gear supported by precision ball bearings.
- All ratios are fully interchangeable in each gearbox.
- Flexible - can adapt to a range of input shaft center heights. Output shaft heights match Viking pumps.



IN-LINE Gear Reducers:

- Available in eleven sizes and a variety of ratios, all double reduction.
- Mounting Options
 - Solid input shaft
 - Hollow input shaft with NEMA C or IEC Flange Mount
- Compact inline design.
- High efficiency.
- Low noise levels.

IDEX
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Selection Detail | Selecting the Correct Viking® Offset or In-Line Gear Reducer

Key Points To Keep In Mind When Selecting Your Gear Reducer

1. Determine the actual horsepower requirements of the application from the pump curve or specifications for other driven equipment.
2. Determine the “equivalent horsepower” for the application by multiplying the actual horsepower to be transmitted by the appropriate service factor, which can be obtained from the Service Factor Table below. This service factor takes into account the length of service per day, the load classification (uniform, moderate shock, heavy shock), and the type of drive. A table of driven load classifications is included to help you determine the service factor to use.
3. Find the reducer from the Horsepower Tables on pages 3-5 which most closely matches your speed requirements. Make sure the equivalent horsepower (kW) for a given input speed and ratio is less than or equal to the maximum recommended horsepower (kW) shown in the chart.
4. Select the correct reducer bracket that most closely matches the driven load’s shaft height.
5. Check the Dimensions table to ensure that the shaft center height of your driver falls within the Input Shaft Center Height Min/Max range when using the standard Viking mounting bracket for the offset reducers.

Service Factor Table

Power Source ^{A,C}	Classification of Driven Load ^{B,C}	Intermittent Up to 3 Hours Per Day	8 - 10 Hours Per Day	24 Hours Per Day
Electric Motor, Steam Turbine, or Hydraulic Motor	Uniform	0.8	1.0	1.25
	Moderate Shock	1.0	1.25	1.5
	Heavy Shock	1.5	1.75	2.0
Multi-Cylinder Internal Combustion Engine	Uniform	1.0	1.25	1.5
	Moderate Shock	1.25	1.5	1.75
	Heavy Shock	1.75	2.0	2.25

- A. For applications driven by single cylinder engines, refer to factory for other service factors.
 B. Rotary Pump applications are classified as Uniform Loads.
 C. Use of belt or chain type drives to either reducer input or output shaft is not recommended.

Driven Load Classifications

(Excerpted from AGMA Information Sheet 922-A96 ©1996)

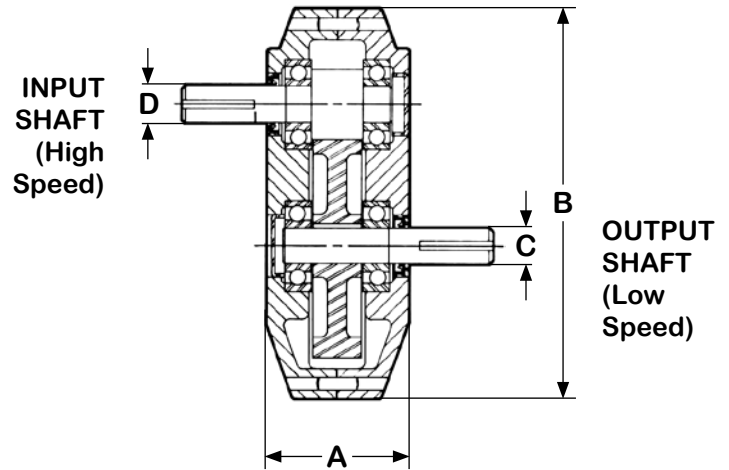
Key: U = Uniform Load; M = Moderate Shock; H = Heavy Shock

Application	Load Classification
Pumps, Rotary and Centrifugal	U
Pumps, Reciprocating	M
Agitators	U
Blowers	U
Compressors, Centrifugal & Lobe	U
Compressors, Reciprocating	M
Cranes and Hoists	M
Crushers, Ore and Stone	H
Elevators	M
Fans, Centrifugal, Forced Draft	U

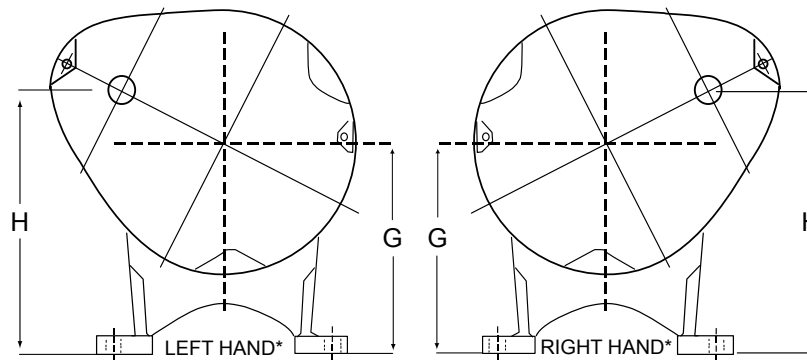
Application	Load Classification
Fans, Cooling Tower	M
Feeders, Apron, Belt, Screw	U
Feeders, Reciprocating	M
Generators	U
Hammer Mills	M
Machine Tools	M
Mills, Rotary	M
Mixers, Concrete, Drum Type	M
Printing Presses	U
Sewage Disposal Bar Screens	U

Specifications & Dimensions - Offset Reducers

	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
Size A	2.24:1	780	6.1	4.6	520	4.3	3.2
	2.76:1	640	4.9	3.7	420	3.4	2.5
	3.43:1	520	3.8	2.8	350	2.6	1.9
	4.17:1	420	3.1	2.3	280	2.2	1.6
Size B	1.87:1	950	19.0	14.2	640	16.5	12.3
	2.24:1	780	17.0	12.7	520	14.0	10.4
	2.76:1	640	15.0	11.2	420	11.6	8.7
	3.40:1	520	13.0	9.7	350	10.1	7.5
	4.19:1	420	11.0	8.2	280	8.5	6.3
	5.06:1	350	9.5	7.1	230	7.3	5.4
	6.27:1	280	7.6	5.7	190	5.3	4.0
7.65:1	230	6.4	4.8	155	4.4	3.3	
Size C	2.21:1	780	49.8	37.2	520	40.1	29.9
	2.80:1	640	43.5	32.5	420	30.0	22.4
	3.31:1	520	39.0	29.1	350	26.8	20.0
	4.21:1	420	32.4	24.2	280	22.2	16.6
	5.08:1	350	26.6	19.8	230	18.2	13.6
	6.24:1	280	19.7	14.7	190	13.8	10.3
7.95:1	220	18.0	13.4	145	12.6	9.4	



Reducer Size	A in (mm)	B in (mm)	C in (mm)	D in (mm)
A	6.50 (165.10)	7.94 (207.68)	.75 (19.05)	.75 (19.05)
B	10.50 (266.70)	10.24 (260.10)	1.00 (25.40)	1.25 (31.83)
C	13.00 (330.20)	14.50 (368.30)	1.37 (34.80)	1.37 (34.80)



*Viewed from input shaft end

G – Output shaft center height (Centerline of mounting bracket).

Sizes B and C have multiple mounting bracket options with different output shaft center heights.

H – Input shaft center height (adjustable by rotating reducer on slotted mounting bracket).

Size	Output Shaft Center Height in (mm)	Viking Pumps with Matching Shaft Height *	H		H	
			Left Hand		Right Hand	
			Input Shaft Center Height		Input Shaft Center Height	
			Max. in (mm)	Min. in (mm)	Max. in (mm)	Min. in (mm)
A	3.50 (88.9)	HD sizes H, HJ, HL	4.50 (114.3)	2.375 (60.3)	4.50 (114.3)	2.375 (60.3)
	4.625 (117.5)	GP sizes J, K, KK	6.125 (155.6)	2.625 (66.7)	6.625 (168.3)	3.125 (79.4)
B	5.50 (139.7)	HD sizes K, KK	7.125 (181)	3.625 (92.1)	7.375 (187.3)	3.875 (98.4)
	7.00 (177.8)	HD sizes L, LQ, LL, LS	9.375 (238.1)	6.00 (152.4)	8.00 (203.2)	4.625 (117.4)
C	7.75 (196.8)	GP sizes Q, QS	10.50 (266.7)	5.50 (139.7)	10.00 (254)	5.00 (127)
	9.50 (241.3)	GP sizes M, N; HD size N	12.125 (308)	7.25 (184.1)	11.75 (298.4)	6.75 (171.4)

* HD = Heavy Duty Series 125, 4125, 225, 4225, 335, 4335, 123, 4123, 333, 4333, 127, 4127, 337, 4337, 724, 4724, 124A, 4124A, 8124A, 126A, 4126A, 8126A, 123A, 4123A, 8123A, 127A, 4127A, 8127A, 827, 823, 825.

GP = General Purpose Series 32, 432, 34, 434.

Specifications - In-Line Reducers

Size 11	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.77:1	632	3.4	2.5	415	2.5	1.8
3.65:1	479	2.9	2.1	315	2.1	1.6	
4.87:1	359	2.5	1.8	236	1.8	1.3	
6.23:1	281	2.2	1.6	185	1.6	1.2	
6.87:1	255	2.0	1.5	167	1.5	1.1	
7.62:1	230	1.9	1.4	151	1.4	1.0	
9.06:1	193	1.7	1.3	127	1.3	.97	
10.10:1	174	1.6	1.2	114	1.2	.90	
12.10:1	145	1.4	1.0	95	1.0	.74	
13.40:1	131	1.4	1.0	86	.99	.74	
15.50:1	113	1.2	.89	74	.90	.67	
17.20:1	102	1.1	.82	67	.83	.62	
18.60:1	94	1.1	.82	62	.80	.60	
20.60:1	85	1.0	.75	56	.70	.52	
22.90:1	76	.96	.75	50	.70	.52	

MOTOR MOUNTS: NEMA: 56C, 145TC & 184TC IEC: 71, 90 & 112

Size 21	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.72:1	643	7.7	5.7	423	5.7	4.2
3.71:1	472	6.3	4.7	310	4.6	3.4	
4.77:1	367	5.4	4.0	241	3.6	2.7	
6.09:1	287	4.5	3.4	189	2.9	2.1	
6.38:1	274	5.1	3.8	180	3.7	2.7	
7.08:1	247	4.7	3.5	162	3.4	2.5	
8.68:1	202	4.2	3.1	132	3.1	2.3	
9.65:1	181	3.9	2.9	119	2.8	2.1	
11.20:1	157	3.6	2.7	103	2.6	1.9	
12.40:1	141	3.3	2.5	93	2.4	1.8	
14.30:1	122	3.1	2.3	80	2.2	1.6	
15.80:1	111	2.9	2.1	73	2.1	1.5	
18.00:1	97	2.7	2.0	64	1.8	1.3	
20.00:1	88	2.5	1.8	57	1.6	1.2	
21.90:1	80	2.4	1.8	52	1.5	1.1	

MOTOR MOUNTS: NEMA: 56C, 145TC & 184TC IEC: 71, 90 & 112

Size 31	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.88:1	608	11.6	8.6	399	8.4	6.2
3.74:1	468	10.5	7.8	307	6.8	5.0	
4.95:1	354	8.0	5.9	232	5.3	3.9	
6.26:1	280	6.4	4.7	184	4.6	3.4	
6.45:1	271	7.8	5.8	178	5.6	4.1	
7.16:1	244	7.2	5.4	161	5.3	3.9	
8.37:1	209	6.6	4.9	137	4.8	3.6	
9.30:1	188	6.1	4.5	124	4.5	3.3	
11.10:1	158	5.6	4.2	104	4.1	3.0	
12.30:1	142	5.2	3.8	93	3.8	2.8	
14.00:1	125	4.8	3.6	82	3.5	2.6	
15.60:1	112	4.5	3.3	74	3.1	2.3	
18.10:1	97	4.1	3.0	64	2.7	2.0	
20.10:1	87	3.8	2.8	57	2.4	1.8	
22.60:1	77	3.4	2.5	57	2.2	1.6	

MOTOR MOUNTS: NEMA: 145TC & 184TC IEC: 90 & 112

Size 35	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.69:1	651	16.2	12.1	427	11.4	8.5
3.49:1	501	13.7	10.2	330	9.3	6.9	
4.62:1	379	11.2	8.4	249	7.1	5.3	
5.85:1	299	8.9	6.6	197	5.6	4.1	
6.10:1	287	14.6	10.9	188	10.1	7.5	
6.78:1	258	13.5	10.0	170	9.1	6.7	
7.91:1	221	12.4	9.3	145	7.8	5.8	
8.80:1	199	11.2	8.3	131	7.0	5.2	
10.50:1	167	9.4	7.0	110	5.9	4.4	
11.70:1	150	8.4	6.3	98	5.3	3.9	
13.30:1	132	7.4	5.5	86	4.6	3.4	
14.80:1	118	6.6	4.9	78	4.2	3.1	
17.10:1	102	5.7	4.2	67	3.6	2.6	
19.00:1	92	5.2	3.8	60	3.2	2.3	

MOTOR MOUNTS: NEMA: 145TC, 184TC & 215TC IEC: 90, 112 & 132

Size 41	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.69:1	651	23.5	17.5	427	14.8	11.0
3.61:1	485	18.3	13.6	319	11.5	8.5	
4.66:1	375	14.3	10.6	247	9.0	6.7	
5.95:1	294	11.2	8.3	193	7.0	5.2	
6.36:1	275	13.9	10.3	181	10.0	7.4	
7.07:1	247	12.9	9.6	163	9.5	7.0	
8.64:1	202	11.6	8.6	133	8.4	6.2	
9.60:1	182	10.5	7.8	120	7.6	5.6	
11.20:1	157	9.7	7.2	103	7.1	5.3	
12.40:1	141	8.9	6.6	93	6.5	4.8	
14.20:1	123	8.1	6.0	81	5.7	4.2	
15.80:1	111	7.4	5.5	73	5.2	3.8	
17.80:1	98	7.0	5.2	65	4.6	3.4	
19.80:1	88	6.3	4.7	58	4.1	3.0	
22.60:1	77	5.7	4.2	51	3.6	2.6	
25.00:1	70	5.2	3.8	46	3.3	2.4	
28.30:1	62	4.6	3.4	41	2.9	2.1	
31.40:1	56	4.1	3.0	37	2.6	1.9	

MOTOR MOUNTS: NEMA: 145TC, 184TC & 215TC IEC: 90, 112 & 132

Size 51	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.63:1	665	39.8	29.7	437	25.0	18.6
3.31:1	529	32.9	24.5	347	20.7	15.4	
4.45:1	393	25.0	18.6	258	15.7	11.7	
5.63:1	311	20.1	15.0	204	12.6	9.4	
6.99:1	250	23.3	17.3	164	17.0	12.6	
7.75:1	222	21.2	15.8	148	15.4	11.4	
8.79:1	199	20.1	15.0	131	14.7	10.9	
9.75:1	179	18.1	13.5	118	13.3	9.9	
11.80:1	148	16.9	12.6	97	11.0	8.2	
13.10:1	134	14.8	11.0	88	9.9	7.3	
15.00:1	117	13.8	10.3	77	8.7	6.5	
16.00:1	105	12.4	9.2	69	7.8	5.8	
18.90:1	93	10.9	8.1	61	6.9	5.1	
21.00:1	83	9.8	7.3	55	6.2	4.6	
23.40:1	75	8.8	6.5	49	5.6	4.1	
25.90:1	68	7.9	5.9	44	5.0	3.7	
29.80:1	59	6.9	5.1	39	4.4	3.2	
33.00:1	53	6.2	4.6	35	3.9	2.9	

MOTOR MOUNTS: NEMA: 184TC, 215TC, 256TC & 286TC IEC: 112, 132, 160 & 180

NOTE:

Solid input shaft standard (requires flexible coupling and guard).
Close-coupled motor mounts available on sizes indicated.

Specifications - In-Line Reducers

Size 61	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	2.82:1	621	50.8	37.9	408	32.8	24.4
3.70:1	473	40.2	30.0	311	27.4	20.4	
4.56:1	384	33.7	25.1	252	23.5	17.5	
6.00:1	292	26.9	20.0	192	18.0	13.4	
6.74:1	260	43.6	32.5	171	33.6	25.0	
7.48:1	234	43.3	32.3	154	29.1	21.7	
8.84:1	198	36.9	27.5	130	24.8	18.5	
9.82:1	178	35.5	26.4	117	22.3	16.6	
10.90:1	161	31.9	23.8	106	20.1	15.0	
12.10:1	145	28.7	21.4	95	18.1	13.5	
14.30:1	122	24.3	18.1	80	15.3	11.4	
15.90:1	110	21.9	16.3	72	13.7	10.2	
17.70:1	99	19.6	14.6	65	12.4	9.2	
19.60:1	89	17.7	13.2	59	11.2	8.3	
22.40:1	78	15.5	11.5	51	9.8	7.3	
24.80:1	71	14.0	10.4	46	8.8	6.5	
27.40:1	64	12.7	9.4	42	8.0	5.9	
30.40:1	58	11.4	8.5	38	7.2	5.3	
34.20:1	51	9.2	6.8	34	6.0	4.4	
38.00:1	46	9.2	6.8	30	5.8	4.3	

MOTOR MOUNTS: NEMA: 184TC, 215TC, 256TC & 286TC IEC: 112, 132, 160 & 180

Size 90	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	5.17:1	338	214	159	222	153	114
5.60:1	312	203	151	205	147	110	
6.76:1	259	180	134	170	130	97.0	
7.32:1	239	172	128	157	124	92.5	
8.33:1	210	159	118	138	115	85.8	
9.02:1	194	149	111	127	108	80.5	
10.40:1	169	138	103	111	97.4	72.6	
11.20:1	156	130	97	103	93.7	69.9	
12.80:1	137	120	89	90	79.4	59.2	
13.90:1	126	112	83	83	76.7	57.2	
16.00:1	109	100	74	72	63.0	47.0	
17.30:1	101	97.1	72.4	66	61.6	45.9	
18.70:1	94	85.8	64.0	61	53.9	40.2	
20.20:1	87	84.5	63.0	57	53.1	39.6	
22.90:1	76	70.1	52.3	50	44.0	32.8	
24.80:1	71	68.8	51.3	46	43.3	32.3	
27.20:1	64	52.3	39.0	42	32.9	24.5	
29.40:1	60	51.9	38.7	39	32.6	24.3	
35.10:1	50	39.8	29.6	33	25.0	18.6	

Size 70	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	4.57:1	383	95.3	71.0	252	63.5	47.3
5.85:1	299	83.2	62.0	197	53.9	40.2	
6.25:1	280	80.3	59.9	184	54.2	40.4	
7.46:1	235	67.4	50.2	154	45.6	34.0	
8.00:1	219	68.0	50.7	144	42.7	31.8	
9.52:1	184	54.5	40.6	121	36.7	27.3	
10.20:1	171	53.3	39.8	113	33.5	25.0	
11.20:1	156	46.2	34.4	103	31.2	23.2	
13.00:1	135	41.8	31.1	88	26.3	19.6	
14.10:1	124	38.6	28.8	82	24.8	18.5	
15.30:1	114	35.5	26.4	75	22.3	16.6	
16.70:1	105	31.7	23.6	69	19.9	14.8	
19.30:1	91	28.2	21.0	60	17.7	13.2	
22.90:1	76	23.7	17.6	50	14.9	11.1	
27.70:1	63	19.6	14.6	42	12.3	9.1	
34.70:1	50	15.7	11.7	33	9.8	7.3	

Size 100	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	4.92:1	356	359	267	234	259	193
5.33:1	328	339	252	216	244	182	
6.52:1	268	300	223	176	215	160	
7.07:1	247	279	208	163	200	149	
8.35:1	210	253	188	138	181	135	
9.05:1	193	240	179	127	172	128	
10.10:1	173	220	167	114	161	120	
10.90:1	160	207	154	105	151	112	
12.50:1	140	194	144	92	139	103	
13.50:1	130	182	135	85	130	97.0	
15.20:1	115	170	126	76	115	85.8	
16.50:1	106	159	118	70	113	84.3	
18.70:1	94	138	103	61	94.8	70.7	
20.20:1	87	128	95.5	57	92.6	69.0	
22.20:1	79	107	79.8	52	72.2	53.8	
24.10:1	73	107	79.8	48	72.9	54.3	
29.60:1	59	74	55.2	39	50.0	37.3	

Size 80	Gear Ratio	1750 RPM Input			1150 RPM Input		
		Output RPM	Max HP	Max kW	Output RPM	Max HP	Max kW
	5.64:1	310	143	107	204	101	75.3
6.11:1	286	134	100	188	96.1	71.7	
7.04:1	249	124	92.5	163	81.4	60.7	
7.63:1	229	116	86.5	150	78.1	58.2	
8.86:1	197	102	76.1	130	64.0	47.7	
9.60:1	182	100	74.6	120	62.6	46.7	
11.10:1	158	81.6	61.8	104	51.3	38.2	
12.00:1	146	79.6	59.3	96	50.1	37.3	
13.80:1	127	65.7	49.0	83	41.3	30.8	
14.90:1	117	64.1	47.8	77	40.3	30.0	
16.70:1	105	54.3	40.5	68	34.1	25.4	
18.10:1	97	52.8	39.3	64	33.3	24.8	
20.50:1	85	44.8	33.4	56	28.1	21.0	
22.20:1	79	43.0	32.0	52	27.1	20.2	
24.00:1	73	38.2	28.5	48	24.0	17.9	
25.90:1	68	36.9	27.5	44	23.2	17.3	
31.30:1	56	30.5	22.7	37	19.2	14.3	

Motor Shaft Height Reference Tables

NEMA Motors		
Frame	In	mm
42	2.625	64.3
48	3	73.5
56	3.5	85.8
143/145T	3.5	85.8
182/184T	4.5	110.3
213/215T	5.25	128.6
254/256T	6.25	153.1
284/286T	7	171.5
324/326T	8	196.0
364/365T	9	220.5
404/405T	10	245.0
444/517/9T	11	269.5

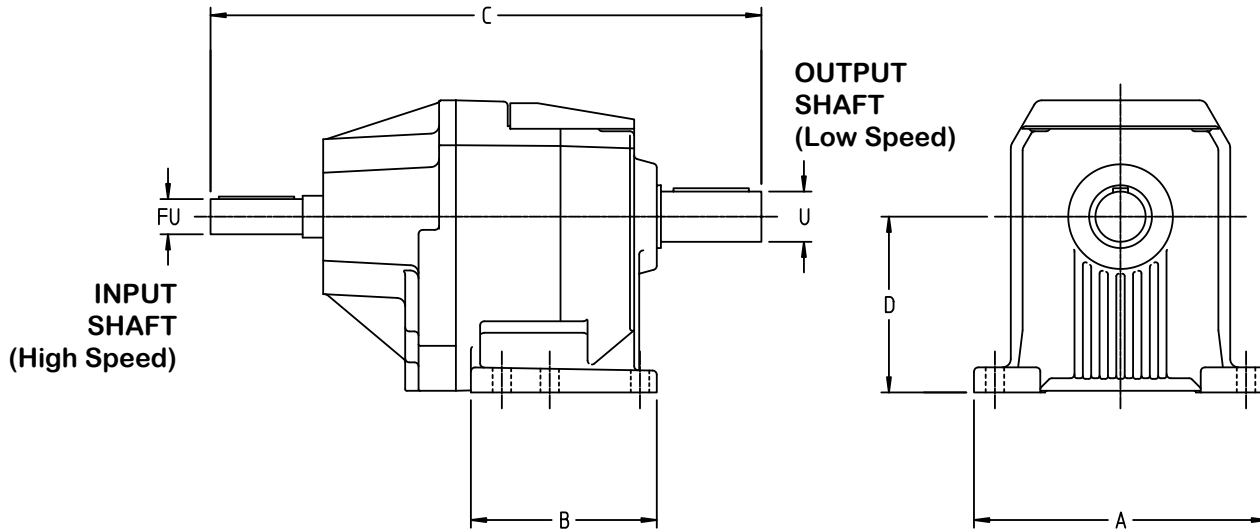
IEC Motors		
Frame	in	mm
63	2.480	63
71	2.800	71
80	3.150	80
90	3.543	90
100	3.937	100
112	4.409	112
132	5.197	132
160	6.299	160
180	7.087	180
200	7.874	200
225	8.858	225
250	9.843	250
280	11.025	280
315	12.400	315
355	13.980	355

NOTE:

Solid input shaft standard (requires flexible coupling and guard).
Close-coupled motor mounts available on sizes indicated.

Dimensions - In-Line Reducers - Solid Input Shaft

Dimensions are based on mm, estimated inches are provided for your reference.



Size		A	B	C	D
11	in	5.12	4.21	9.90	3.35
	mm	130	107	251	85
21	in	6.10	5.39	12.75	3.94
	mm	155	137	324	100
31	in	7.48	6.14	14.09	4.33
	mm	190	156	358	110
35	in	8.07	6.61	16.32	4.53
	mm	205	168	414.5	115
41	in	8.50	7.30	16.71	5.12
	mm	216	185.5	424.5	130
51	in	10.63	7.87	17.75	6.10
	mm	270	200	450.9	155
61	in	11.81	9.13	20.37	7.68
	mm	300	232	517	195
70	in	13.78	8.74	25.89	8.27
	mm	350	222	657.5	210
80	in	17.32	10.91	28.29	9.84
	mm	440	277	718.5	250
90	in	20.47	13.35	36.63	11.81
	mm	520	339	930.5	300
100	in	22.05	15.31	40.37	13.58
	mm	560	389	1025	345

Size		U	FU
11	in	3/4	5/8
21	in	1	3/4
31	in	1-1/8	3/4
35	in	1-3/8	1
41	in	1-3/8	1
51	in	1-9/16	1
61	in	2	1-1/8
70	in	2-3/8	1-5/8
80	in	3-1/8	1-5/8
90	in	3-5/8	2-1/8
100	in	4-3/8	2-1/8

NOTE:

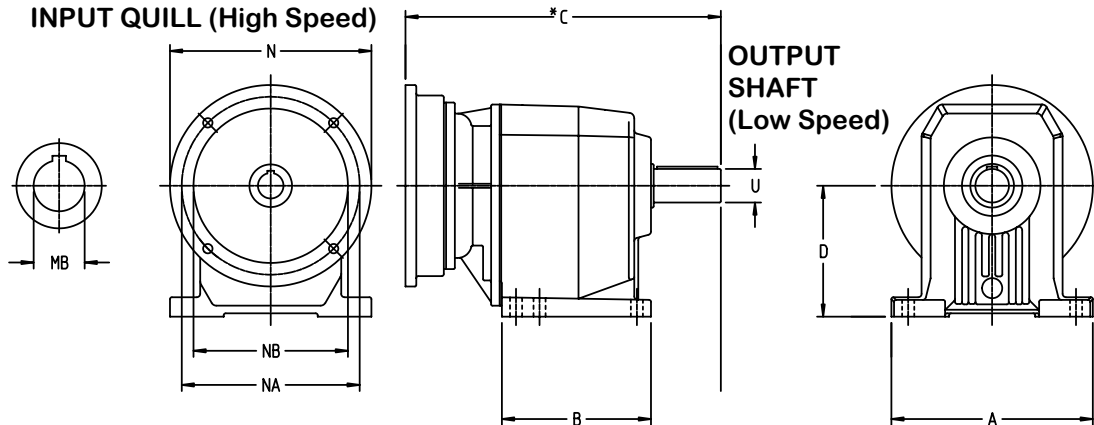
Sizes 11 - 41 come factory filled with synthetic lubricant and are "lubed for life."

Sizes 11, 21, and 31 with unpainted aluminum housings.

Sizes 35 - 100 with painted cast iron housings.

Dimensions - In-Line Reducers - Close-Coupled

Dimensions are based on mm, estimated inches are provided for your reference.



Size		A	B	D	U
11	in	5.12	4.21	3.35	0.750
	mm	130	107	85	n.a.
21	in	6.10	5.39	3.94	1.000
	mm	155	137	100	n.a.
31	in	7.48	6.14	4.33	1.125
	mm	190	156	110	n.a.
35	in	8.07	6.61	4.53	1.375
	mm	205	168	115	n.a.
41	in	8.50	7.30	5.12	1.375
	mm	216	185.5	130	n.a.
51	in	10.63	7.87	6.10	1.562
	mm	270	200	155	n.a.
61	in	11.81	9.13	7.68	2.000
	mm	300	232	195	n.a.

NEMA FRAME		N	NA	NB	MB
56C	in	6.496	5.875	4.50	.625
143TC, 145TC	in	6.496	5.875	4.50	.875
182TC, 184TC	in	8.996	7.250	8.50	1.125
213TC, 215TC	in	8.996	7.250	8.50	1.375
254TC, 256TC	in	13.780	7.250	8.500	1.625
284TC, 286TC	in	13.780	9.000	10.500	1.875

IEC FRAME		N	NA	NB	MB
63	mm	140	115	95	11
71	mm	160	130	110	14
80	mm	200	165	130	19
90	mm	200	165	130	24
100/112	mm	250	215	180	28
132	mm	300	265	230	38
160	mm	350	300	250	42
180	mm	350	300	250	48

"C" Dimension "NEMA C" Frame

Size		56C/ 143TC/ 145TC	182/ 184TC	213/ 215TC	254/ 256 TC	284/ 286 TC
11	in	10.41	10.95	n.a.	n.a.	n.a.
	mm	264.5	278			
21	in	11.57	12.10	n.a.	n.a.	n.a.
	mm	293.8	307.3			
31	in	12.89	13.39	n.a.	n.a.	n.a.
	mm	327.5	340			
35	in	13.62	14.15	n.a.	n.a.	n.a.
	mm	346	359.5			
41	in	14.04	14.57	16.02	n.a.	n.a.
	mm	356.5	370	407		
51	in	15.03	15.56	16.80	19.83	20.01
	mm	381.8	395.3	426.8	503.8	508.3
61	in	17.11	17.65	18.89	21.37	21.56
	mm	434.7	448.2	479.7	542.8	547.6

"C" Dimension IEC Frame

Size		63	71	80	90	100	112	132	160	180
11	in	9.63	9.63	10.39	10.39	10.79	10.79	n.a.	n.a.	n.a.
	mm	244.5	244.5	264	264	274	274			
21	in	10.75	10.75	11.52	11.52	11.91	11.91	n.a.	n.a.	n.a.
	mm	273	273	292.5	292.5	302.5	302.5			
31	in	12.11	12.11	12.88	12.88	13.27	13.27	n.a.	n.a.	n.a.
	mm	307.5	307.5	327	327	337	337			
35	in	12.84	12.84	13.60	13.60	14.00	14.00	n.a.	n.a.	n.a.
	mm	326	326	345.5	345.5	355.5	355.5			
41	in	n.a.	13.25	14.02	14.02	14.41	14.41	15.85	n.a.	n.a.
	mm		336.5	356	356	366	366	402.5		
51	in	n.a.	14.27	15.04	15.04	15.43	15.43	16.87	18.86	18.86
	mm		362.5	382	382	392	392	428.5	479	479
61	in	n.a.	n.a.	16.54	16.54	16.89	16.89	18.37	20.35	20.35
	mm			420	420	429	429	466.5	517	517



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Viking Pump has been a pump industry leader and innovator since its founding in 1911. We continue to build on our ever growing experience delivering innovative new pumping solutions, including custom designs, to thousands of customers who use Viking pumps in some of the world's toughest applications.

Broad Performance Range

Capacity:

0.5 to 360 M³/Hr (0.1 to 1,600 GPM)

Pressure:

0 to 172 Bar (0 to 2,500 PSI)

Temperature:

-84°C to 370°C (-120°F to 700°F)

Viscosity:

0.5 to 1,000,000 cSt (28 to 4,500,000 SSU)

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Viking's offering of packing, component mechanical seals, cartridge seals and sealless Mag Drive technology provides the best choices for sealing flexibility needed to provide your application a customized sealing solution every time - saving you money, time and unplanned downtime.

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Viking's dedicated iron and alloys foundries provide pump construction materials from cast iron to Alloy C. Application-specific materials of construction extend a pump's life significantly, while reducing maintenance and unplanned downtime, enabling increased production and a better bottom line.

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Viking has developed multiple positive displacement pump principles to protect shear-sensitive liquids, and low-shear options to prevent damage to fibers, polymers and solids. Full-jacketing options provide precise temperature control throughout the pump. The Viking Mag Drive[®] and other seal options prevent fluid contact with air, assuring liquid integrity.

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Custom Designed Solutions

Viking has provided custom designed pumps to end-users and OEMs since its first pump in 1911, when Viking invented the gear-within-a-gear pumping principle to remove water from a rock quarry. Today, enabled by Viking's engineering staff, extensive applications experience and in-house foundries, more than 20% of Viking's sales are new designs or pump designs derived from one of our 40,000 active configurations. Whether you are an end-user or an OEM, Viking can provide custom designed pumping solutions to meet your specific needs.



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