






**RD GEARBOXES**

Build your gearbox. Select one option from each **category**. Highlighted in orange is an example: **FRD32 B3 31.5 N56 AU1.25**

Input Style	Type	Size		Mount Option	Ratio		Input Flange		Output Style	Output Size				
		A	B		A	B	NEMA	IEC		RD	(in.)	(mm)		
 Motorized	<b>RD</b> Helical Inline	02	03	 Foot Mount	2.5	40	<b>N56</b>	B5 Include Motor Frame size	 Solid Output	0	0.625	14		
		12	13		3.15	50	N140			1	0.75	(18) 19 (20)		
		22	23		4.0	63	N180			2	1.00	24 (25)		
		<b>32</b>	33		4.0	80	N210			3	1.125	25		
		42	43		5.0	100	B14 Include Motor Frame size			4	<b>1.25</b>	28 (30)		
		52	53		6.3	125				5	1.375	32 (35)		
62	63	8.0	160	6	1.625	42								
		10.0	200											
		12.5	250											
		16.0	315											
 Flange Input				 Flange Mount	20.0	400								
					25.0	500								
					<b>31.5</b>	630								
					40.0									
					50.0									
					63.0									

( ) Option available upon request

**BASIC SPECIFICATIONS**

- Power Ratings from 0.12 to 30HP
- Output Torque to 20,355 in-lbs
- Ratios from 2.5:1 through 630:1
- 7 Sizes available from stock

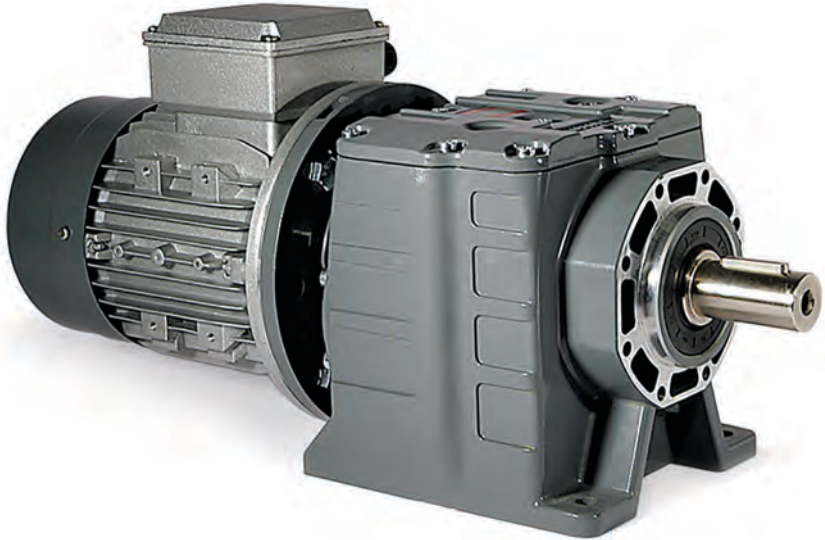


**TECHNICAL SELECTION CATALOG**

- A** RD - Helical Two Stage Gearboxes  
See Varvel RD Catalog
- B** RD - Helical Three Stage Gearboxes  
See Varvel RD Catalog

**STANDARD FEATURES**

- Vent free design, factory lubricated with premium synthetic long life gear lubricant with an operating temperature range of -4°F to 131°F (-20°C to 55°C)
- One-piece cast housing complete with inner support to accommodate 2 or 3 gear stages
- Size 0 to 4 aluminum; Size 5-6 cast iron
- Unparalleled flexibility: housings accept both NEMA and IEC input flanges and Imperial and Metric output shafts
- G-coupling mount (fretting corrosion eliminated)
- Helical gears in alloy steel, case hardened, tempered and shaved
- Oversized bearings for higher shock and radial load capacity
- Significant strains caused by the effects of torque and external loads do not deflect the monolithic ribwork of the housing

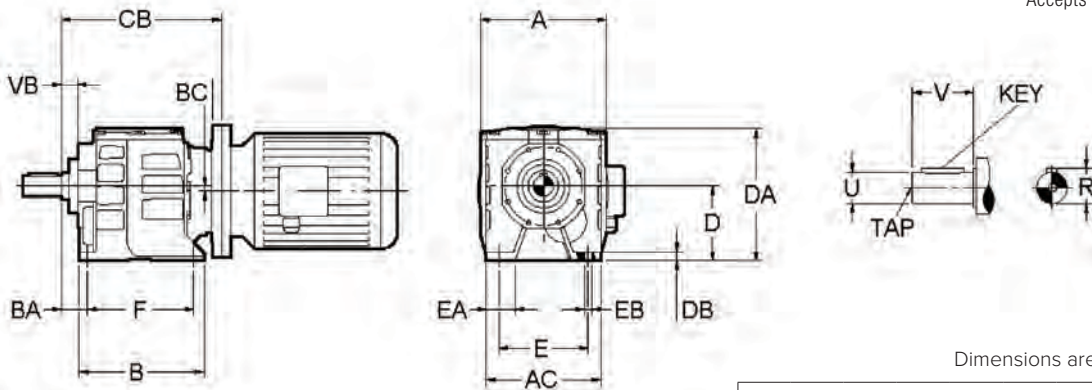


**GEARBOX PURCHASING DATA**

( ) Option available upon request

Type RD	MODEL	Stage List		Output Shaft Sizes		NEMA		IEC (B5/B14)	
		2 Stages	3 Stages	Inch	Metric	2-Stage	3-Stage	2-Stage	3-Stage
		RD0	\$716	\$934	0.625"	17 (20)	48/56	42/48	56/63/71/80
RD1	\$848	\$1,060	0.75"	20 (25)	56/140	56	56*63/71/80/90	56*63/71	
RD2	\$1,052	\$1,285	1.00"	25 (30)	56/140/180	56/140	71/80/90/100/112	63*71/80/90	
RD3	\$1,292	\$1,528	1.25"	30 (32) (35)	56/140/180	56/140	71/80/90/100/112	71/80/90	
RD4	\$1,551	\$1,886	1.375"	35 (40)	56/140/180		71/80/90/100/112	71/80/90/100	
RD5	\$2,756	\$2,979	2.125"	40 (50)	56/140/180/210/250		80*-112*/132/160/180*	80*90*100*112*	
RD6	\$5,444	\$5,955	2.375"	50 (60)	56/140/180/210/250		80*-112*/132/160/180*	80*-112*/132	

\*Accepts B5 input flange only



Dimensions are in inches / mm

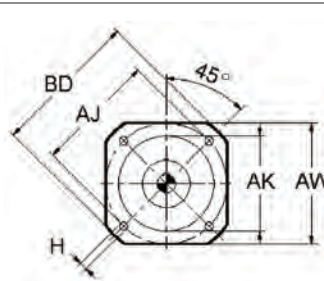
Type RD Dimensions	RD	General														Output Shaft								
																Imperial (inch)			Metric (mm)					
		A	AC	B	BA	BC	CB	D	DA	DB	E	EA	EB	F	VB	U	V	R	KEY	TAP	U	V	R	KEY
0	3.94 100	3.78 96	4.53 115	0.81 20.5	0.18 4.5	6.10 155	2.36 60	4.37 111	0.26 6.5	3.15 80	0.91 23	0.35 9	3.74 95	0.39 10	0.625	1.38	0.705	3/16* 3/16	1/4-20	17 (20)	35	19	5*5	M6
1	5.51 140	5.31 135	5.20 132	0.71 18	0.20 5	6.89 175	2.95 75	5.17 131	0.31 8	4.33 110	1.50 38	0.35 9	4.33 110	0.39 10	0.75	1.57	0.83	3/16* 3/16	1/4-20	20 (25)	40	22.5	6*6	M6
2	6.10 155	5.51 140	6.02 153	0.98 25	0.24 6	8.58 218	3.54 90	6.22 158	0.39 10	4.33 110	1.46 37	0.35 9	5.12 130	0.51 13	1.00	1.97	1.11	1/4* 1/4	3/8-16	25 (30)	50	28	8*7	M10
3	7.48 190	6.81 173	7.68 195	1.18 30	0.33 8.5	10.31 262	4.53 115	7.80 198	0.55 14	5.31 135	1.73 44	0.45 11.5	6.50 165	0.51 13	1.25	2.36	1.36	1/4* 1/4	1/2-13	30 (35)	60	33	8*7	M10
4	8.46 215	7.68 195	8.70 221	1.18 30	0.37 9.5	13.03 331	5.12 130	8.74 222	0.59 15	5.91 150	1.97 50	0.53 13.5	7.68 195	0.59 15	1.375	2.76	1.51	5/16* 5/16	1/2-13	35 (40)	70	38	10*8	M12
5	11.18 284	10.0 254	10.0 254	1.38 35	0 0	13.9 353	5.51 140	10.04 255	0.79 20	6.69 170	3.03 77	0.71 18	8.07 205	0.71 18	2.125	3.94	2.35	1/2* 1/2	3/4-10	40 (50)	80	43	12*8	M12
6	13.39 340	11.81 300	12.01 305	1.57 40	0 0	16.14 410	7.09 180	11.89 302	0.94 24	8.46 215	3.23 82	0.71 18	10.24 260	0.71 18	2.375	4.72	2.63	5/8* 5/8	3/4-10	50 (60)	100	53.5	14*9	M16

( ) Option available upon request

**ACCESSORIES PURCHASING DATA**

Dimensions are in mm

RD Accessories	MODEL	Output Flange		Size (mm)	DFU Dimensions				
		List Adder	Available Sizes (mm)		AJ	AK	AW	BD	H
		RD0	\$39		120/140/160	120	100	80	100
RD1	\$39	120/140/160	140	115	95	115	140	9	
RD2	\$52	140/160/200	160	130	110	130	160	9	
RD3	\$65	160/200/250	200	165	130	165	200	11	
RD4	\$99	200/250/300	250	215	180	215	250	13.5	
RD5	\$188	250/300/350	300	265	230	265	300	17.5	
RD6	\$188	250/300/350	350	300	250	300	350	17.5	



B5 Mounting Output Flange

**GEARBOX SELECTION TABLE**

1800 RPM input - S.F. 1.0																						Helical Inline RD					
Nominal		RD02			RD12			RD22			RD32			RD42			RD52			RD62							
Ratio	RPM	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb					
2.50	720	2.57	3.05*	266	2.53	4.19*	398	2.55	8.36 *	752	2.70	17.58	1682	2.49	29.67	2655	2.56	54.75	5576	2.62	117.34	11506					
3.15	571	3.28	2.63*	292	3.08	3.70*	398	3.13	7.33 *	797	3.32	15.39	1814	3.11	25.65	2832	3.24	48.31	6107	3.32	100.57	12391					
4	450	4.26	2.21*	319	4.01	3.08*	443	3.92	6.29 *	885	4.16	13.19	1947	3.96	23.80	3363	3.93	46.70	6638	4.02	97.22	14161					
5	360	5.28	1.89*	336	5.07	2.60*	487	5.01	5.23 *	929	5.33	10.98	2080	4.83	20.62	3540	4.84	43.16	7523	4.96	92.86	15931					
6.3	286	6.25	2.04	425	6.69	3.45*	797	6.72	6.92 *	1549	6.26	15.61	3275	6.29	25.48	5487	6.45	44.12	10267	6.57	78.45	17702					
8	225	7.98	1.63	434	8.13	2.87*	797	8.27	5.68 *	1593	7.72	12.79	3275	7.86	20.62	5487	8.19	35.11	10356	8.33	61.35	17702					
10	180	10.36	1.31	443	10.58	2.23*	797	10.33	4.59 *	1593	9.66	10.34	3319	10.00	16.43	5487	9.92	29.15	10444	10.10	53.14	18587					
12.5	144	12.84	1.04	443	13.38	1.78*	797	13.23	3.64 *	1593	12.38	8.16	3363	12.20	13.41	5487	12.22	23.83	10533	12.44	43.08	18587					
16	113	16.32	0.82	451	16.31	1.48	797	16.29	2.98 *	1637	16.45	6.24	3452	15.22	11.06	5753	15.45	19.00	10621	15.73	34.03	18587					
20	90	21.53	0.64	451	20.39	1.19	797	20.67	2.38 *	1682	19.36	5.35	3452	19.64	9.55	5753	20.30	14.65	10798	20.67	25.98	18587					
25	72	26.75	0.52	460	26.52	0.94	841	26.73	1.86	1682	25.26	4.16	3496	24.48	7.04	5753	25.99	11.59	10887	24.62	21.79	18587					
31.5	57	30.22	0.45	460	32.65	0.77	841	31.48	1.59	1682	33.21	2.82	3540	29.64	5.87	5753	31.43	9.66	10975	33.20	16.76	19649					
35.5	51	34.68	0.27	310	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
40	45	43.07	0.22	310	39.08	0.45	620	39.39	0.89	1239	38.57	1.84	2522	41.54	2.51	3983	40.48	5.15	7523	40.50	10.06	14161					
50	35	48.67	0.18	310	48.12	0.37	620	50.76	0.69	1239	50.73	1.42	2522	50.30	2.01	3983	53.33	3.86	7523	49.80	8.21	14161					
63	29	--	--	--	61.67	0.28	620	62.13	0.57	1239	63.33	1.16	2522	62.96	1.84	3983	66.67	3.06	7523	56.00	7.21	14161					
Nominal		RD03			RD13			RD23			RD33			RD43			RD53			RD63							
Ratio	RPM	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb	Ratio	HP	in-lb					
40	45	36.89	0.37	460	40.10	0.64	841	40.76	1.26	1770	38.06	2.82	3717	41.88	4.19	6196	39.33	8.05	11241	39.71	14.42	19472					
50	36	47.07	0.30	460	52.20	0.49	841	52.17	0.99	1770	48.77	2.23	3717	51.08	3.52	6196	47.98	6.60	11329	48.95	11.73	19472					
63	29	61.14	0.23	460	66.03	0.39	841	64.26	0.80	1770	64.84	1.69	3717	63.75	2.51	6196	59.88	5.48	11418	61.88	9.22	19472					
80	23	75.78	0.18	460	80.43	0.32	885	81.52	0.65	1770	76.31	1.46	3717	82.25	2.85	6196	77.26	4.19	11506	81.29	7.38	20357					
100	18	96.29	0.15	460	100.60	0.27	885	105.43	0.50	1770	99.54	1.12	3762	102.50	1.84	6196	96.28	3.38	11506	104.08	6.20	20357					
125	14	127.05	0.12	460	130.84	0.20	885	124.16	0.42	1770	130.90	0.85	3762	124.13	1.51	6196	129.80	2.58	11506	125.87	5.70	20357					
160	11	157.81	0.08	460	165.08	0.17	885	164.94	0.32	1770	167.80	0.67	3762	160.69	1.17	6196	157.14	2.09	11506	157.33	4.69	20357					
180	10	178.31	0.08	460	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
200	9	204.58	0.05	319	206.46	0.13	885	209.25	0.25	1770	197.50	0.57	3762	207.34	1.01	6196	195.82	1.77	11506	201.57	3.02	20357					
250	7	254.11	0.03	319	268.54	0.10	885	270.63	0.20	1770	257.60	0.44	3806	258.38	0.67	6196	264.00	1.29	11506	265.60	2.35	20357					
280	6	287.13	0.03	319	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
315	6	324.44	0.03	319	330.62	0.08	885	318.70	0.17	1770	307.21	0.37	3806	312.30	0.59	6196	332.31	0.72	7966	332.00	1.84	20357					
400	5	--	--	--	395.72	0.05	620	398.80	0.10	1239	393.43	0.18	2567	438.46	0.37	4071	402.42	0.56	7966	373.33	2.68	20357					
500	4	--	--	--	487.20	0.03	620	513.92	0.07	1239	517.42	0.15	2567	530.98	0.20	4071	503.70	0.48	7966	448.00	1.34	20357					
630	3	--	--	--	624.41	0.03	620	629.04	0.07	1239	646.00	0.12	2567	664.61	0.18	4071	629.63	0.40	7966	560.00	1.17	20357					
MODEL	RD02	RD03	RD12	RD13	RD22	RD23	RD32	RD33	RD42	RD43	RD52	RD53	RD62	RD63													
Weight (lbs.)	7	7	11	11	18	19	30	33	45	48	110	117	139	157													
Oil Vol. Horiz. (L)	0.20	0.30	0.50	0.50	0.80	0.80	1.30	1.60	2.20	2.20	4.50	4.50	7.0	7.0													
Oil Vol. Vert. (L)	0.28	0.38	0.70	0.85	1.00	1.25	1.80	2.10	3.00	3.40	5.50	6.50	9.00	11.0													

\*Recommended input in-line coupling drive