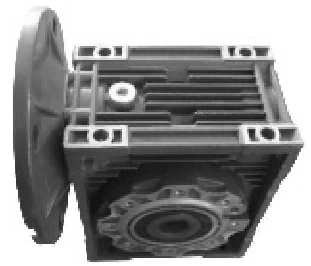
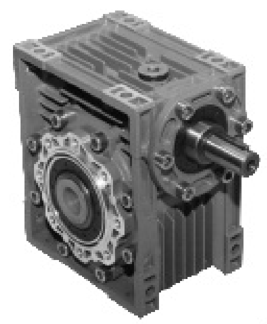
E1-RV Mounting and Availability



E1-RV
Motor Input Flange



E2-RV
Input Shaft

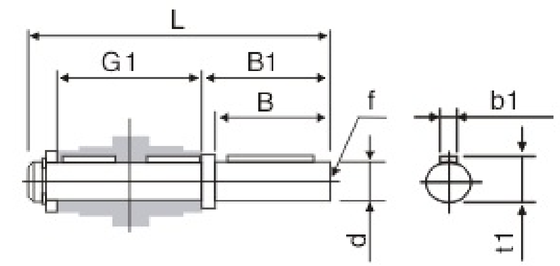
Type&Expressions

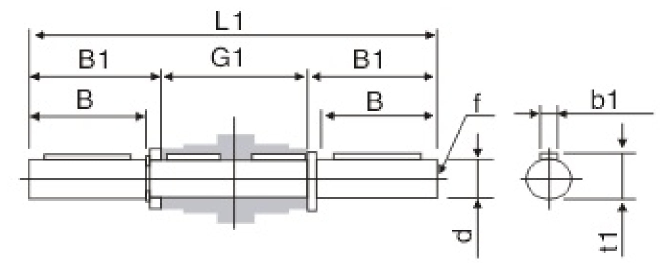
110	40	180TC	Foot Mount	B3	Protective Cover
Size	Ratio	Input Size	Output Design	Mounting Position	Accessories
Aluminum Housing 030 040 050 063 075 090 Cast Lron Housing 110 130 150	7.5 10 15 20 25 30 40 50 60 80 100	48C 56C 140TC 180TC 210TC 250TC	**Shaft Mounted** standard hollow output bore **Foot Mounted** optional single or double plug-in output shaft **Flange Mounted** optional F or FL mounting flange and hollowoutput bore	B3 B6 B7 B8 V5 V6	Torque Arm Accessories Torque Arm Double Extension Single Shaft Double Shaft Output Flange

Gearbox Size	Nema Flange	Input Bore Diameter	Available Ratios											
			5	7.5	10	15	20	25	30	40	50	60	80	100
E1-RV 030	48C	0.500	•	•	•	•	•	•	•	•	•	•	•	
E1-RV 040	56C	0.625	•	•	•	•	•	•	•	•	•	•	•	•
E1-RV 050	56C	0.625	•	•	•	•	•	•	•	•	•	•	•	•
E1-RV 063	56C	0.625					•	•	•	•	•	•	•	•
	140TC	0.875		•	•	•	•	•	•	•				
E1-RV 075	56C	0.625									•	•	•	•
	140TC	0.875				•	•	•	•	•	•			
	180TC	1.125		•	•	•								
E1-RV 090	56C	6.250											•	•
	140TC	0.875						•	•	•	•	•		
	180TC	1.125		•	•	•	•	•	•	•				
E1-RV 110	140TC	0.875									•	•	•	•
	180TC	1.125					•	•	•	•	•	•		
	210TC	1.375		•	•	•	•							
E1-RV 130	140TC	0.875											•	•
	180TC	1.125							•	•	•	•	•	
	210TC	1.375		•	•	•	•	•	•	•				
E1-RV 150	180TC	1.125							•	•	•	•	•	•
	210TC	1.375				•	•	•	•	•				
	250TC	1.625		•	•	•	•							

E1-RV Accessories

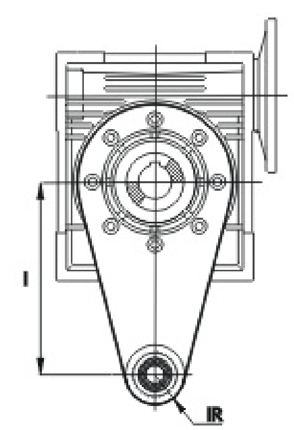
Output Shafts

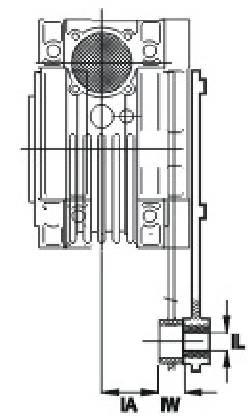




Gearbox Size	Output Shaft.NEMA									
	Type	d	B	B1	G1	L	L1	f	b1	t1
E1-RV 040	Single	0.750	1.40	1.50	3.07	4.8	N/A	N/A	0.19	0.83
	Double	0.750	1.40	1.50	3.07	N/A	6.07	N/A	0.19	0.83
E1-RV 050	Single	1.000	1.90	2.00	3.62	5.87	N/A	N/A	0.25	1.11
	Double	1.000	1.90	2.00	3.62	N/A	7.64	N/A	0.25	1.11
E1-RV 063	Single	1.125	2.36	2.50	4.40	7.22	N/A	M8	0.31	1.26
	Double	1.125	2.36	2.50	4.40	N/A	9.41	M8	0.31	1.26
E1-RV 075	Single	1.25	2.76	2.90	4.72	7.93	N/A	M10	0.31	1.38
	Double	1.25	2.76	2.90	4.72	N/A	10.51	M10	0.31	1.38
E1-RV 090	Single	1.375	3.15	3.30	5.50	9.23	N/A	M12	0.38	1.53
	Double	1.375	3.15	3.30	5.50	N/A	12.17	M12	0.38	1.53
E1-RV 110	Single	1.625	3.54	3.70	6.10	10.22	N/A	N/A	0.44	1.81
	Double	1.625	3.54	3.70	6.09	N/A	13.54	N/A	0.44	1.81

Torque Arm





GEARBOX SIZE	I	IA	IL	IR	IW
030	3.35	0.94	0.31	0.59	0.55
040	3.94	1.24	0.39	0.71	0.55
050	3.94	1.52	0.39	0.71	0.55
063	5.91	1.93	0.39	0.71	0.55
075	7.87	1.87	0.79	1.18	0.98
090	7.87	2.26	0.79	1.18	0.98
110	9.84	2.44	0.98	1.38	1.18
130	9.84	2.72	0.98	1.38	1.18
150	9.84	3.31	0.98	1.38	1.18

E1-RV Performance Parameter

Model	Ratio	RPM	Torque (in-lbs)	Max HP	OHL (lbs)
E1-RV 030 E2-RV 030	7.5	233	159	0.69	129
	10	175	159	0.54	142
	15	117	159	0.38	163
	20	88	159	0.30	179
	25	70	186	0.30	193
	30	58	177	0.25	205
	40	44	159	0.19	225
	50	35	150	0.15	243
	60	29	142	0.13	259
	80	22	115	0.09	284
E1-RV 040 E2-RV 040	7.5	233	354	1.51	253
	10	175	354	1.16	279
	15	117	354	0.80	319
	20	88	345	0.61	350
	25	70	336	0.50	378
	30	58	398	0.53	403
	40	44	363	0.39	441
	50	35	345	0.31	476
	60	29	319	0.25	507
	80	22	292	0.19	556
	100	18	257	0.15	595
E1-RV 050 E2-RV 050	7.5	233	628	2.64	369
	10	175	637	2.06	406
	15	117	655	1.48	464
	20	88	646	1.14	510
	25	70	619	0.90	551
	30	58	743	0.96	586
	40	44	672	0.70	643
	50	35	646	0.57	694
	60	29	602	0.47	739
	80	22	575	0.38	810
	100	18	487	0.28	866
E1-RV 063 E2-RV 063	7.5	233	1133	4.77	463
	10	175	1150	3.67	510
	15	117	1239	2.76	583
	20	88	1194	2.05	641
	25	70	1150	1.64	692
	30	58	1416	1.77	736
	40	44	1283	1.27	807
	50	35	1194	1.01	871
	60	29	1150	0.86	928
	80	22	1079	0.66	1017
	100	18	1044	0.57	1088
E1-RV 075 E2-RV 075	7.5	233	1637	6.81	549
	10	175	1725	5.45	604
	15	117	1770	3.86	691
	20	88	1858	3.15	759
	25	70	1770	2.46	820
	30	58	2035	2.48	873
	40	44	1947	1.88	957
	50	35	1858	1.50	1033
	60	29	1770	1.26	1099
	80	22	1681	0.97	1205
	100	18	1593	0.80	1289

Model	Ratio	RPM	Torque (in-lbs)	Max HP	OHL (lbs)
E1-RV 090 E2-RV 090	10	175	2743	8.56	694
	15	117	3185	6.86	794
	20	88	3141	5.19	873
	25	70	3008	4.08	942
	30	58	3628	4.31	1003
	40	44	3185	2.95	1100
	50	35	3008	2.32	1187
	60	29	2831	1.90	1264
	80	22	2522	1.39	1386
	100	18	2389	1.12	1482
E1-RV 110 E2-RV 110	7.5	233	4247	17.48	776
	10	175	4601	14.36	853
	15	117	5043	10.86	976
	20	88	4955	8.10	1073
	25	70	5220	6.90	1158
	30	58	5574	6.53	1233
	40	44	5397	4.81	1352
	50	35	5309	3.93	1459
	60	29	4955	3.19	1553
	80	22	4336	2.25	1703
	100	18	4070	1.79	1821
E1-RV 130 E2-RV 130	7.5	233	6636	27.01	1017
	10	175	7255	22.64	1119
	15	117	8140	17.33	1279
	20	88	8052	13.00	1407
	25	70	8229	10.88	1518
	30	58	9202	10.65	1616
	40	44	9290	8.27	1772
	50	35	8671	6.42	1913
	60	29	7963	5.12	2036
	80	22	7432	3.79	2233
	100	18	6548	2.84	2387
E1-RV 150 E2-RV 150	7.5	233	10618	43.22	1425
	10	175	10972	33.86	1568
	15	117	11060	23.27	1793
	20	88	11502	18.58	1971
	25	70	10618	14.04	2127
	30	58	10618	11.85	2265
	40	44	13715	12.21	2464
	50	35	12387	9.05	2660
	60	29	11149	7.07	2854
	80	22	10175	5.20	3129
	100	18	8848	3.84	3346

TRANSMISSION
NEMA Aluminium Worm Gear Reducer
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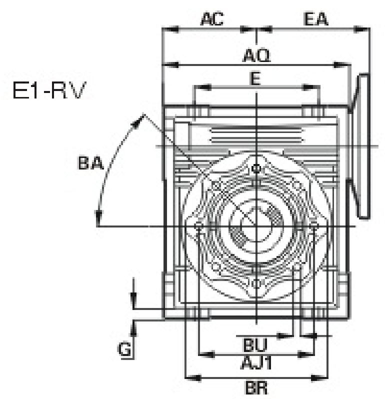
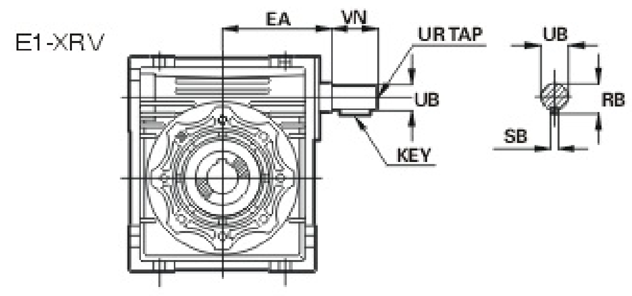
E1-RV Performance Parameter

Input HP	Input RPM	Output RPM	Output Torque RPM	Serviea Factor	Ratio	Gearbox Size
0.16	1750	350	25	12.9	5	E1-RV 040
		233	37	9.4	7.5	
		175	48	7.4	10	
		117	70	5.1	15	
		88	80	3.5	20	
		70	107	2.8	25	
		58	121	3.2	30	
		44	150	2.2	40	
		35	173	1.8	50	
		29	201	1.4	60	
		22	240	1.1	80	
		18	255	0.9	100	
		35	182	3.2	50	E1-RV 050
		29	208	2.6	60	
		22	249	1.9	80	
		18	283	1.6	100	
0.26	1750	350	40	8.2	5	E1-RV 040
		233	58	6	7.5	
		175	76	4.7	10	
		117	108	3.3	15	
		88	141	2.3	20	
		70	167	1.8	25	
		58	188	2.0	30	
		44	234	1.4	40	
		35	270	1.1	50	
		29	314	0.9	60	
		44	241	2.5	40	E1-RV 050
		35	284	2.0	50	
		29	324	1.7	60	
		22	389	1.2	80	
		18	442	1.0	100	
0.33	1750	350	52	6.2	5	E1-RV 040
		233	77	4.6	7.5	
		175	100	3.6	10	
		117	145	2.5	15	
		88	186	1.7	20	
		70	220	1.4	25	
		58	250	1.5	30	
		44	309	1.1	40	
		35	357	0.9	50	
		88	188	3.1	20	E1-RV 050
		70	226	2.5	25	
		59	257	2.7	30	
		44	319	1.9	40	
		35	375	1.5	50	
		29	428	1.3	60	
		22	514	0.9	80	
		18	583	0.6	100	
0.5	1750	350	79	4.1	5	E1-RV 040
		233	116	3.0	7.5	
		175	151	2.4	10	
		117	219	1.6	15	
		88	281	1.1	20	
		70	333	0.9	25	
		55	378	1	30	
		117	222	2.9	158	E1-RV 050
		88	285	2.0	20	
		70	342	1.6	25	
		58	389	1.8	30	
		44	483	1.3	40	
		35	588	1.0	50	
		29	649	0.8	60	
		70	351	3.1	25	E1-RV 083
		58	4.6	3.3	30	
		44	505	2.2	40	
		35	595	1.8	50	
		29	661	1.5	60	
		22	822	1.1	80	
		18	937	1.0	100	
		35	622	2.7	50	E1-RV 075
		29	714	2.3	60	
		22	855	1.7	80	
		18	1009	1.4	100	
0.75	1750	233	176	3.6	7.5	E1-RV 050
		175	230	2.8	10	
		117	333	2.0	15	
		88	427	1.3	20	
		70	514	1.1	25	
		58	554	1.2	30	
		44	724	0.8	40	
		88	438	2.5	20	E1-RV 083
		70	527	2.0	25	
		58	608	2.2	30	
		44	757	1.5	40	
		35	892	1.2	50	
		29	1022	1.0	60	
		22	1233	0.8	80	
		44	789	2.4	40	
		35	933	1.8	50	E1-RV 075
		29	1071	1.6	60	
		22	1295	1.2	80	
		18	1514	0.9	100	
		35	973	2.8	50	E1-RV 090
		29	1119	2.3	60	
		22	1384	1.7	80	
		19	1622	1.4	100	
1	1750	233	235	2.7	7.5	E1-RV 050
		175	308	2.1	10	
		117	443	1.5	15	
		88	570	1.0	20	
		70	680	0.8	25	
		58	779	0.9	30	

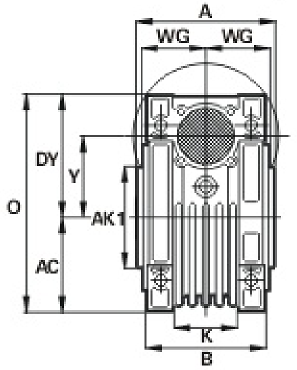
Input HP	Input RPM	Output RPM	Output Torque RPM	Serviea Factor	Ratio	Gearbox Size
1	1750	177	454	2.7	15	E1-RV 063
		88	584	1.9	20	
		70	703	1.5	25	
		58	811	1.8	30	
		44	1009	1.1	40	
		35	1189	0.9	50	
		70	721	2.2	25	E1-RV 075
		58	833	2.6	30	
		44	1053	1.8	40	
		35	1244	1.4	50	
		29	1427	1.2	6	
		22	1730	0.9	8	
		44	1096	2.9	40	E1-RV 090
		35	1298	2.2	50	
		29	1452	1.8	60	
		22	1845	1.3	80	
		18	2163	1.0	100	
		29	1579	2.9	6	E1-RV 110
		22	1961	2.1	80	
		18	2307	1.7	100	
2	1750	233	357	3.2	7.5	E1-RV 063
		175	485	2.5	1	
		117	681	1.8	15	
		88	879	1.2	2	
		70	1054	1.0	25	
		58	1217	1.1	30	
		117	681	2.9	15	E1-RV 075
		88	985	2.0	20	
		70	1051	1.5	25	
		58	1249	1.7	30	
		44	1579	1.2	40	
		35	1865	0.9	50	
		29	2141	0.8	60	
		70	1122	2.4	25	E1-RV 090
		58	1281	2.8	30	
		44	1644	2.0	40	
		35	1546	1.5	50	
		29	2238	1.2	60	
		22	2768	0.9	80	
		35	2055	2.5	50	E1-RV 110
		29	2368	1.9	60	
		22	2541	1.4	80	
		18	3460	1.1	100	
3	1750	233	476	2.4	7.5	E1-RV 063
		175	820	1.9	10	
		117	908	1.4	15	
		88	1188	0.9	20	
		70	1408	0.8	25	
		58	1622	0.8	30	
		177	908	2.2	15	E1-RV 075
		88	1197	1.5	20	
		70	1442	1.1	25	
		58	1665	1.3	30	
		44	2105	0.9	40	
		88	1211	2.5	20	E1-RV 090
		70	1496	1.8	25	
		58	1709	2.1	30	
		44	2192	1.5	40	
		35	2595	1.1	50	
		29	2984	0.9	60	
		58	1730	3.5	30	E1-RV 110
		44	2278	2.5	40	
		35	2739	1.9	50	
		29	3158	1.5	60	
		22	3922	1.1	80	
		18	4614	0.8	100	
5	1750	233	722	2.4	7.5	E1-RV 075
		175	941	2.0	10	
		117	1362	1.5	15	
		117	1395	2.3	15	E1-RV 090
		88	1817	1.7	20	
		70	2244	1.2	25	
		58	2583	1.4	30	
		88	1838	2.9	20	E1-RV 110
		70	2271	2.2	25	
		58	2595	2.3	30	
		44	3417	1.7	40	
		35	4109	1.3	50	
		29	4736	1.0	60	
		233	1203	1.5	7.5	E1-RV 075
		175	1588	1.2	10	
		117	2271	0.9	15	
		233	1217	2.1	7.5	E1-RV 090
		175	1586	1.8	10	
		117	2325	1.4	15	
		88	3028	1.0	20	
		70	3740	0.7	25	
		58	4271	0.9	30	
7.5	1750	117	2325	2.3	15	E1-RV 110
		88	3064	1.7	20	
		70	3785	1.3	25	
		58	4325	1.4	30	
		44	5695	1.0	40	
		35	6848	0.8	50	
		233	1804	2.5	7.5	E1-RV 110
		175	2379	2.1	10	
		117	3487	1.5	15	
		88	4596	1.1	20	
10	1750	233	2406	1.9	7.5	E1-RV 110
		175	3172	1.5	10	
		117	4650	1.2	15	
		88	6128	0.9	20	

E1-RV Outline Dimension Sheet

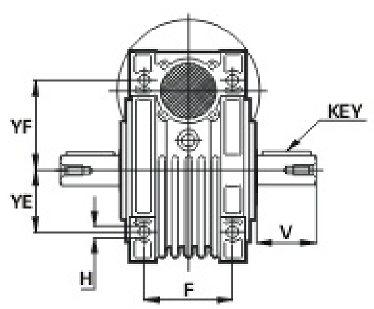




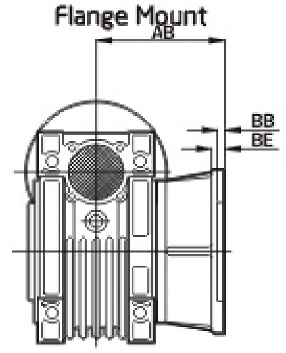
Shaft Mount



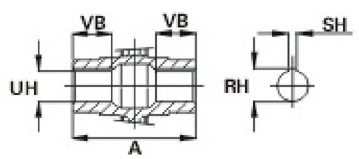
Foot Mount



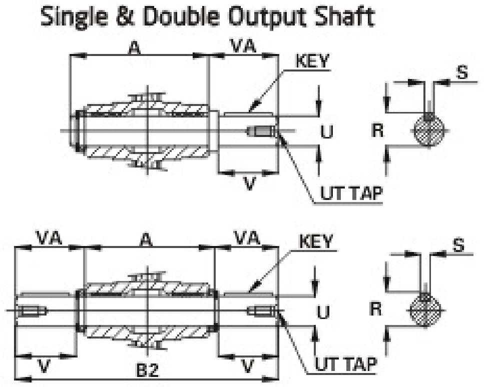
Flange Mount



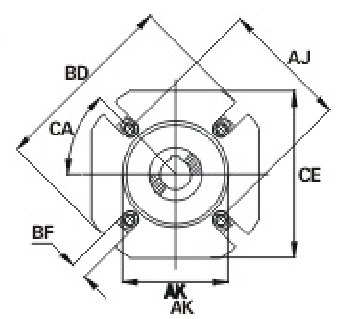
Hollow Output Bore



Single & Double Output Shaft



Output Flange



	030	040	050	063	075	090	110	130	150
A	2.48	3.07	3.62	4.41	4.72	5.51	6.10	6.69	7.87
AB	2.15	2.64(3.82)	3.54(4.72)	3.23(4.41)	4.37	4.37	5.16	5.51	6.10
AC	1.57	1.97	2.36	2.83	3.39	4.06	5.02	5.81	6.69
AJ	2.68	2.95(3.43)	3.35(3.54)	5.91(5.91)	6.49	6.89	9.06	10.03	10.03
AJ1	2.56	2.95	3.35	3.74	4.53	5.12	6.50	8.46	8.46
AK	$1.97^{0}_{-0.0007}$	$2.36^{0}_{-0.0007}$	$2.76^{0}_{-0.0007}$	$4.53^{0}_{-0.0009}$	$5.12^{0}_{-0.001}$	$5.98^{0}_{-0.001}$	$6.69^{0}_{-0.001}$	$7.09^{0}_{-0.001}$	$7.09^{0}_{-0.001}$
AK1	$2.17^{+0}_{-0.0018}$	$2.36^{0}_{-0.0018}$	$2.76^{+0}_{-0.0018}$	$3.15^{0}_{-0.0021}$	$3.74^{0}_{-0.0021}$	$4.33^{+0}_{-0.0021}$	$5.12^{0}_{-0.0025}$	$7.09^{0}_{-0.0025}$	$7.09^{0}_{-0.0025}$
AQ	3.15	3.94	4.72	5.67	6.77	8.11	9.94	11.52	13.39

E1-RV Outline Dimension Sheet

	030	040	050	063	075	090	110	130	150
B	2.20	2.80	3.35	4.06	4.41	5.12	5.67	6.10	7.28
B2	5.83	7.24	7.83	9.41	10.51	12.13	16.14	14.17	16.14
BA	0	45	45	45	45	45	45	45	45
BB	0.16	0.16	0.20	0.24	0.24	0.24	0.24	0.28	0.28
BD	3.15	4.33	4.92	7.09	7.87	8.27	11.02	12.60	12.60
BE	0.24	0.28	0.35	0.39	0.51	0.51	0.59	0.59	0.59
BF	.26,4 pl.	.35,4 pl.	.43,4 pl.	.43,4 pl.	.55,4 pl.	.55,4 pl.	.55,8 pl.	.63,8 pl.	.63,8 pl.
BR	2.95	3.43	3.94	4.33	5.51	6.30	7.87	9.84	9.84
BU	M6 Tap 0.43 deep,4 pl.	M6 Tap 0.32 deep,4 pl.	M8 Tap 0.39 deep,4 pl.	M8 Tap 0.55 deep,8 pl.	M8 Tap 0.55 deep,8 pl.	M10 Tap 0.71 deep,8 pl.	M10 Tap 0.71 deep,8 pl.	M12 Tap 0.83 deep,8 pl.	M12 Tap 0.83 deep,8 pl.
CA	45°	45°	45°	45°	45°	45°	45°	22.5°	22.5°
CE	2.76	3.74	4.33	5.60	6.69	7.87	10.24	11.42	11.42
DY	2.24	2.81	3.31	4.02	4.69	5.32	6.59	7.38	9.06
E	2.13	2.76	3.15	3.94	4.72	5.51	6.69	7.87	9.45
EA	2.64	3.15	3.54	4.13	4.96	5.63	6.81	7.60	8.27
F	1.73	2.36	2.76	3.35	3.54	3.94	4.53	4.72	5.71
G	0.22	0.26	0.28	0.32	0.39	0.43	0.57	0.61	0.71
H	0.26	0.26	0.34	0.33	0.45	0.51	0.55	0.63	0.71
K	1.26	1.69	1.93	2.64	2.83	2.91	–	–	–
O	3.82	4.78	5.67	6.85	8.07	9.37	11.61	13.19	15.75
R	0.70	0.83	1.11	1.23	1.36	1.51	1.79	1.92	2.50
RB	0.42	0.55	0.70	0.83	0.96	0.96	1.24	1.36	1.38
RH	0.71	0.84	1.12	1.24	1.37	1.52	1.80	1.93	2.20
S	0.188	0.188	0.250	0.250	0.250	0.313	0.375	0.375	0.500
SB	0.094	0.125	0.188	0.188	0.188	0.188	0.250	0.250	0.313
SH	0.188	0.188	0.250	0.250	0.250	0.313	0.375	0.375	0.710
U	$0.625^{+0}_{-.0005}$	$0.750^{+0}_{-.0005}$	$1.000^{+0}_{-.0005}$	$1.125^{+0}_{-.0005}$	$1.250^{+0}_{-.0005}$	$1.375^{+0}_{-.0005}$	$1.625^{+0}_{-.0005}$	$1.750^{+0}_{-.0005}$	$2.000^{+0}_{-.0005}$
UH	$0.625^{+.001}_{-0}$	$0.750^{+.001}_{-0}$	$1.000^{+.001}_{-0}$	$1.125^{+.001}_{-0}$	$1.250^{+.001}_{-0}$	$1.375^{+.001}_{-0}$	$1.625^{+.001}_{-0}$	$1.750^{+.001}_{-0}$	$2.000^{+.001}_{-0}$
UT	1/4–20	1/4–20	3/8–16	3/8–16	1/2–13	1/2–13	5/8–11	5/8–11	3/4–10
V	1.58	1.97	1.97	2.36	2.76	3.15	3.54	3.54	4.02
VA	1.67	2.09	2.11	2.50	2.89	3.33	4.13	3.74	4.57
VB	0.827	1.024	1.181	1.417	1.575	1..772	1.969	2.362	2.850
VN	1.18	1.18	1.58	1.97	2.36	2.36	2.76	3.15	3.15
WG	1.14	1.44	1.71	2.09	2.24	2.64	2.91	3.19	3.78
UB	$0.375^{+0}_{-.0005}$	$0.500^{+0}_{-.0005}$	$0.625^{+0}_{-.0005}$	$0.750^{+0}_{-.0005}$	$0.875^{+0}_{-.0005}$	$0.875^{+0}_{-.0005}$	$1.125^{+0}_{-.0005}$	$1.250^{+0}_{-.0005}$	$1.375^{+0}_{-.0005}$
UR	–	1/4–20	1/4–20	1/4–20	1/4–20	1/4–20	3/8–16	1/2–13	1/2–13
Y	1.18	1.58	1.97	2.48	2.95	3.54	4.33	5.12	5.91
YE	1.06	1.38	1.58	1.97	2.36	2.76	3.35	3.94	4.72
YF	1.73	2.17	2.52	3.15	3.66	4.02	4.92	5.51	7.09
Input Key									
Length	0.875	0.875	1.125	1.500	1.875	1.875	2.250	2.500	2.875
Square	0.094	0.125	0.188	0.188	0.188	0.188	0.250	0.250	0.315
Output Key									
Length	1.125	1.500	1.500	1.875	2.250	2.500	0.750	2.750	3.563
Square	0.188	1.188	0.250	0.250	0.250	0.313	0.375	0.375	0.500
Weight (lbs)	3	5	8	4	20	29	77	106	185