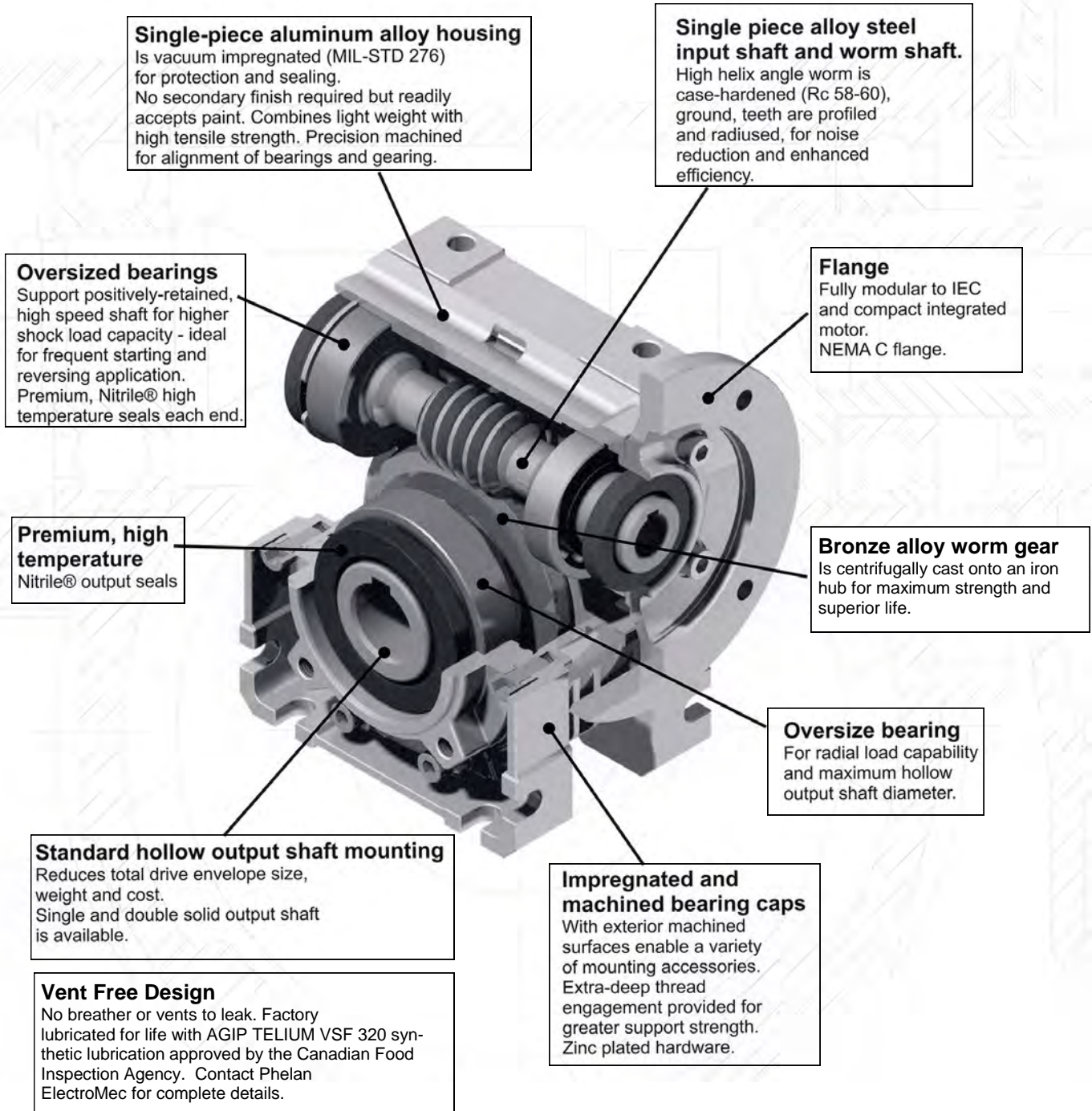


HYDROMEC “SQUARE” RIGHT ANGLE WORM REDUCERS - NEMA INPUT

DESIGN FEATURES



Single-piece aluminum alloy housing
Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

Single piece alloy steel input shaft and worm shaft.
High helix angle worm is case-hardened (Rc 58-60), ground, teeth are profiled and radiused, for noise reduction and enhanced efficiency.

Oversized bearings
Support positively-retained, high speed shaft for higher shock load capacity - ideal for frequent starting and reversing application. Premium, Nitrile® high temperature seals each end.

Flange
Fully modular to IEC and compact integrated motor. NEMA C flange.

Premium, high temperature
Nitrile® output seals

Bronze alloy worm gear
Is centrifugally cast onto an iron hub for maximum strength and superior life.

Oversize bearing
For radial load capability and maximum hollow output shaft diameter.

Standard hollow output shaft mounting
Reduces total drive envelope size, weight and cost. Single and double solid output shaft is available.

Impregnated and machined bearing caps
With exterior machined surfaces enable a variety of mounting accessories. Extra-deep thread engagement provided for greater support strength. Zinc plated hardware.

Vent Free Design
No breather or vents to leak. Factory lubricated for life with AGIP TELIUM VSF 320 synthetic lubrication approved by the Canadian Food Inspection Agency. Contact Phelan ElectroMec for complete details.



BASE UNIT	Q45	Q50	Q63	Q85
INPUT FLANGE	56C	56C	143/145TC	182/184TC
INPUT BORE	0.625"	0.625"	0.875"	1.125"
OUTPUT BORE	0.75"	1.00"	1.125"	1.50"
AVAILABLE RATIOS (:1)	7, 10, 14, 21, 28, 37, 46, 60, 70, 102	7, 10, 14, 18, 26, 36, 43, 60, 68, 80, 100	7, 10, 15, 19, 24, 30, 36, 45, 67, 80, 94	7, 10, 14, 20, 28, 38, 52, 67, 96
LIST	\$424	\$502	\$702	\$1,092

ACCESSORIES										
UNIT SIZE	INPUT SHAFT	LIST	SINGLE SOLID OUTPUT SHAFT	LIST	REACTION ARM	LIST	OUTPUT FLANGE (FC)	LIST	OUTPUT FLANGE (FL)	LIST
Q45	KU045.5.006	\$44	KU045.5.028	\$61	KQ45.9.027	\$44	KQ45.9.010	\$29	KQ45.9.011	\$29
Q50	KU045.5.006	\$51	KU050.5.028	\$98	KQ50.9.027	\$56	KQ50.9.010	\$41	KQ50.9.011	\$41
Q63	KU063.5.006	\$55	KU063.5.028	\$104	KQ63.9.027	\$92	KQ63.9.010	\$53	Use KQ63.9.010 & Spacer K063.0.200	\$93
Q85	KU085.5.006	\$99	KU085.5.028	\$127	K085.9.027	\$116	K085.9.010	\$100	Use K085.9.010 & Spacer K085.0.201	\$160



REDUCTION BUSHINGS			
Input Bore Reduction Bushings for Converting to Smaller NEMA Motor Frame Size	KBRU56 143 7/8" to 5/8"	KBRU143 182 1 1/8" to 7/8"	KBRU56 182 1-1/8" to 5/8"
LIST	\$36	\$48	\$68



OPTIONS AVAILABLE BY SPECIAL ORDER				
ITEM	Q45	Q50	Q63	Q85
VITON INPUT SEALS	\$21	\$21	\$23	\$41
REINFORCED WORM BEARINGS	-	\$43	\$43	STANDARD
LIFE LUBRICATED INPUT BEARINGS	\$14	\$14	\$26	\$16
DOUBLE HOLLOW SHAFT SEALS	-	-	\$30	\$30
VITON OUTPUT SEALS	\$45	\$53	\$68	\$94
REINFORCED OUTPUT BEARINGS	-	\$116	\$184	\$360
LIFE LUBRICATED OUTPUT BEARINGS	\$20	\$26	\$36	\$56
REDUCED BACKLASH GEARS	\$131	\$131	\$150	\$225
OIL PLUG	\$19	\$19	\$23	\$30
VITON OUTPUT SEALS	\$45	\$53	\$68	\$94
STAINLESS STEEL FASTENERS	\$9	\$10	\$11	\$15
STAINLESS STEEL HOLLOW SHAFT	\$158	\$180	\$251	\$668

HYDROMECH "SQUARE" RIGHT ANGLE WORM GEARBOXES

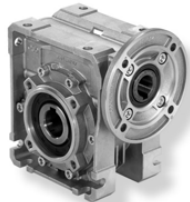
QUICK SELECTION TABLES - INPUT = 1750 RPM

**SIZE
Q45
345 lb/in**



Output RPM	Ratio	Input HP	Output Torque lb/in	Service Factor	Nominal Power	Nominal Torque lb/in	Available NEMA C Flanges		Efficiency %
250.0	7	1	202	2.1	1.29	257	56C	N/A	80
175.0	10	0.75	213	1.5	0.91	257			79
125.0	14	0.75	291	1.1	0.67	257			77
83.3	21	0.5	253	1.1	0.69	345			67
62.5	28	0.5	328	1.3	0.53	345			65
47.3	37	0.33	277	1.0	0.42	345			63
38.0	46	0.33	323	0.8	0.36	345			59
29.2	60	0.33	399	0.9	0.29	345			56
25.0	70	0.25	240	0.8	0.19	257			54
17.2	102	0.25*	450	<0.8	0.14	248			49

**SIZE
Q50
611 lb/in**



Output RPM	Ratio	Input HP	Output Torque lb/in	Service Factor	Nominal Power	Nominal Torque lb/in	Available NEMA C Flanges		Efficiency %
250.0	7	2	413	1.2	2.34	478	56C	N/A	82
175.0	10	1.5	432	1.2	1.84	522			80
125.0	14	1	398	1.4	1.46	575			79
97.2	18	1	486	1.1	1.09	522			75
67.3	26	0.75	485	1.2	0.87	558			69
48.6	36	0.5	447	1.4	0.69	611			69
40.7	43	0.5	511	1.1	0.57	575			66
29.2	60	0.33	414	1.3	0.42	522			58
25.7	68	0.33	461	1.1	0.35	487			57
21.9	80	0.25	389	1.2	0.31	478			54
17.5	100	0.25	450	1.0	0.24	434	50		

**SIZE
Q63
1230 lb/in**



Output RPM	Ratio	Input HP	Output Torque lb/in	Service Factor	Nominal Power	Nominal Torque lb/in	Available NEMA C Flanges		Efficiency %
250.0	7	3	628	1.7	5.10	1053	56C Supplied with bushing	140TC	83
175.0	10	3	875	1.36	3.93	1133			81
116.7	15	2	854	1.4	2.75	1159			79
92.1	19	2	1068	1.1	2.20	1159			78
72.9	24	1.5	972	1.2	1.87	1195			75
58.3	30	1.5	1199	1.0	1.56	1230			74
48.6	36	1	882	1.4	1.42	1239			68
38.9	45	1	1070	1.1	1.08	1142			66
26.1	67	0.5	724	1.4	0.73	1044			60
21.9	80	0.5	821	1.2	0.62	1000			57
18.6	94	0.5	880	1.1	0.58	1000	52		

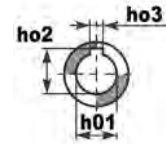
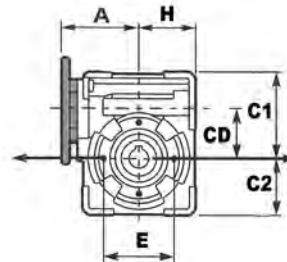
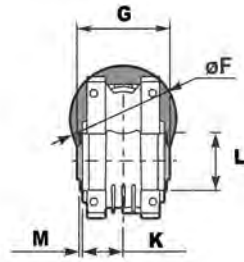
**SIZE
Q85
2921 lb/in**



Output RPM	Ratio	Input HP	Output Torque lb/in	Service Factor	Nominal Power	Nominal Torque lb/in	Available NEMA C Flanges		Efficiency %	
250.0	7	7.5	1664	1.3	9.90	2168	56C Supplied with bushing	140TC Supplied with bushing	180TC	88
175.0	10	5	1441	1.7	8.40	2390				80
125.0	14	5	1967	1.3	6.61	2567				78
87.5	20	3	1707	1.5	4.41	2478				79
62.5	28	3	2269	1.3	3.91	2921				75
46.1	38	2	1943	1.5	2.95	2832				71
33.7	52	1.5	1854	1.3	1.99	2434				66
26.1	67	1.5	2353	1.0	1.57	2434				65
18.2	96	1.1	2016	1.0	1.13	2036				53

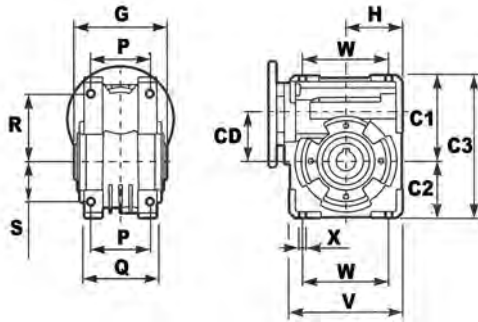
HYDROMECC "SQUARE" RIGHT ANGLE WORM DIMENSIONS

Basic Flange Input/Hollow Output



Standard Hollow Output Shaft

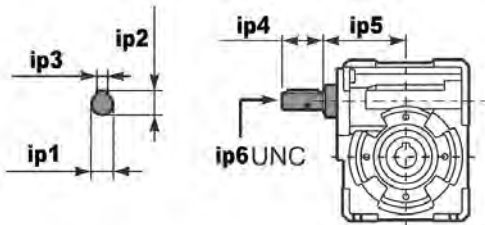
SIZE	A	C1	C2	CD	E	F	G	H	K	L	M	ho1	ho2	ho3
Q45	3.846	2.815	1.969	1.772	2.953	6.50	2.559	1.969	1.437	2.632	0.098	0.750	0.841	0.1875
Q50	4.004	3.307	2.362	1.969	3.346	6.50	3.189	2.362	1.713	2.756	0.098	1.00	1.114	0.250
Q63	4.291	4.331	2.854	2.480	4.016	6.50	4.724	2.854	2.087	2.953	0.118	1.250	1.370	0.250
Q85	4.823 (45/140TC) 5.528 (180TC)	5.728	3.937	3.346	5.118	6.5 (56/140TC) 8.88 (180TC)	5.315	3.937	2.520	4.331	0.138	1.50	1.670	0.375



Basic Flange Input/Hollow Output - Foot Dimensions

SIZE	C1	C2	C3	CD	G	H	P	Q	R	S	V	W	X
Q45	2.815	1.969	1.783	4.772	2.559	1.969	2.362	2.795	2.165	1.378	2.973	2.756	0.26
Q50	3.307	2.362	5.669	1.969	3.189	2.362	2.756	3.346	2.520	1.575	4.724	3.150	0.33
Q63	4.331	2.854	7.185	2.480	4.724	2.854	2.992	3.701	3.484	2.008	5.709	4.016	0.37
Q85	5.728	3.397	9.665	3.346	5.315	3.937	3.976	4.921	4.626	2.835	7.874	5.669	0.43

Solid Input Shaft Dimensions



SIZE	ip1	ip2	ip3	ip4	ip5	ip6
Q45	0.625	0.702	0.1875	1.415	2.913	1/4-20
Q50	0.625	0.702	0.1875	1.415	3.130	1/4-20
Q63	0.750	0.830	0.1875	1.969	3.661	1/4-20
Q85	0.875	0.944	0.1875	2.00	4.409	5/16-18

Solid Output Shaft Dimensions

SIZE	T	Z	W	op1	op2	op3	op4	op5
Q45	0.750	2.756	4.803	0.830	1/4-20	0.1875	1.929	2.047
Q50	1.00	3.405	5.693	1.11	5/16-18	0.25	2.130	2.287
Q63	1.125	4.992	7.429	1.23	5/16-18	0.25	2.240	2.437
Q85	1.50	5.551	9.153	1.658	3/8-16	0.375	3.406	3.602

