

SE Encore Multimount Worm Gear Speed Reducers

AVAILABLE IN 24 HOURS!

- WinGuard™ Black Epoxy Coating System
- Quill Input Adaptor
- Solid Output Shaft(s) (Standard Diameter)
- Hollow Output Shafts (Max Standard Bore)
- Bushing Kits
- Base Kits
- Bracket Kits
- Helical or Worm Gear Ratio Multiplier



MULTIMOUNT PRODUCT NOMENCLATURE OVERVIEW

SIZE (Center Distance)	MODEL	RATIO	ASSEMBLY DESIGNATION	QUILL INPUT ADAPTOR	STANDARD HOLLOW OUTPUT SHAFT BORE SIZES
E13 – 1.333"	MDNS	5	Solid Output Shaft	56C	E13 - NA
E17 – 1.750"	MDSS	10	R - Right	140TC	E17 - 1.000"
E20 – 2.000"		15	L - Left	180TC	E20 - 1.438"
E24 – 2.375"		20	LR - Left & Right	210TC	E24 - 1.500"
E26 – 2.625"		25			E26 - 1.688"
E30 – 3.000"		30	Hollow Output Shaft		E30 - 1.938"
E35 – 3.500"		40	DLR - Left & Right		E35 - 2.188"
E43 – 4.250"		50			E43 - 2.750"
		60			

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SE ENCORE MULTIMOUNT WORM GEAR SPEED REDUCERS

SE Encore Multimount worm gear speed reducers are supplied as a component system consisting of a hollow or solid output shaft *universal mount* reducer and one or more *accessory kits* (if needed). The combination creates a quickly and easily configurable set of product offerings and reduction combinations. SE Encore Multimount worm gear speed reducers are available in most common ratios with quill input adaptors. Also available are Multimount Worm and Helical Gear Ratio Multipliers. These reducers can function as "stand alone" products or when used in combination with a universal mount reducer, they dramatically expand the torque and reduction capabilities of the SE Encore Multimount product line.

All SE Encore Multimount worm gear speed reducers are filled to a single lubricant level, designed such that the speed reducer can be successfully operated in any mounting position *without* adjusting the lubricant level. Additionally, the SE Encore Multimount worm gear speed reducer can be sealed during operation in many intermittent applications, but each is also supplied with an easy optional open-close vent kit for heavy or continuous duty applications.* All SE Encore Multimount speed reducers can be shipped from Winsmith within 24 hours.

* See "Appendix" section of this catalog for more details.



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SE Encore Multimount Worm Gear Speed Reducers

MULTIMOUNT CONFIGURATION PROCEDURE SIZE

Identify the three digit nomenclature for size appearing in the selection pages of this catalog section.

Example: 1HP input, 30:1 gear reduction, 1750 RPM, 1.25 service factor yields a 2.375" center distance speed reducer. The nomenclature for the size of this reducer is "E24."

MODEL

Identify one of two *universal mount* speed reducer models that are available as part of the Multimount component system: Each is identified in the table below and at the top of the corresponding dimension page in this section by a complete description and by the four letter (e.g. MDNS) model nomenclature.

MODEL	MODEL DESCRIPTION
MDNS	Quill input adaptor, solid output shaft
MDSS	Quill input adaptor, hollow output shaft
MDDS	Worm Gear Ratio Multiplier Quill input adaptor, flanged with solid output shaft
MHDS	Helical Gear Ratio Multiplier Quill input flange, flanged with solid output shaft

RATIO

Identify the required ratio in full format (i.e. 30:1), or in brief format (i.e. 30).

ASSEMBLY

Identify the relative position of the input shaft and the output shaft for a Multimount reducer. The dimension pages of this section contain the possible selections for each speed reducer size. **Example:** The nomenclature for an MDNS with right-hand and left-hand standard output shaft extensions is "LR."

QUILL INPUT ADAPTOR

SE Encore Multimount products are assembled with NEMA 56C, 140TC, 180TC, or 210TC compatible input

MULTIMOUNT PRODUCT NOMENCLATURE EXAMPLES

SIZE	MODEL	RATIO	ASSEMBLY	QUILL INPUT ADAPTOR	HOLLOW OUTPUT SHAFT BORE SIZE	ACCESSORY KIT	COMPLETE NOMENCLATURE
E20	MDNS	50	L	56C		Vertical Input Bracket Mount	E20 MDNS 50 L 56C JK9998029
E24	MDSS	60	DLR	56C	1.500"	Output Bushing Kit for 1.000" Bore	E24 MDSS 60 DLR 56C 1.500" Output Bushing for 1.000" Output Bore
E26	MDNS	10	R	140TC		Horizontal Output, Bracket Mount	E26 MDNS 10:1 R 140TC Horizontal Output Bracket
E30	MDSS	5	DLR	180TC	1.938"	Worm on Top, Base Mount	E30 MDSS 5 DLR 180TC 1.938" Base Kit
E20	MDNS	30	L	56C		206, 5:1 Helical	E20 MDNS 30 L 56C with Helical 206, 5:1 Multiplier

*See "venting" section of this catalog for more details.

**For some 56C and 180TC assemblies, an input adaptor bushing may be supplied to accommodate the correct motor shaft requirement.

adaptors.** The dimension pages in this section contain the possible selections for each speed reducer size.

HOLLOW OUTPUT SHAFT BORE SIZE

Identify the hollow output shaft bore size of an MDSS using the tables on page 15 of this section. Express the bore size as a decimal (Example = 1.438"). Specify a Hollow Output Shaft Bushing Kit (page 16) to accommodate a wide variety of output shaft requirements. These kits are shipped with the Multimount speed reducer and require assembly.

WORM AND HELICAL GEAR RATIO MULTIPLIERS

Worm and Helical Gear Ratio Multipliers offer an expedient method of easily creating multiple stage ratio reductions by using them in combination with any *universal mount* reducer. Both have a machined register output adaptor that is machined to a NEMA tolerance of 0.003 inches providing a precision interface with the driven equipment. This can be very useful especially in motion control applications. The Worm Gear Ratio Multiplier is available in standard reductions of 5:1 to 60:1 and is configurable as either a left (L) or a right (R) assembly. The Helical Worm Gear Multiplier is available in 5:1 and 6:1 reductions. Both are equipped with a quill input adaptor and a solid output shaft. See page 25 for nomenclature information.

ACCESSORY KITS

The available *accessory kits* described in the Multimount section of the catalog (see "Kits" starting on page 16) can be combined with a *universal mount* reducer. These add-on items are identified either as a description or by a kit part number. An *accessory kit* specification should follow the *universal mount* reducer specifications. When adding a Multimount Worm Gear Ratio Multiplier or a Helical Gear Ratio Multiplier, specify these as an *accessory kit*. **Example:** To include a kit on an E20 MDNS that allows vertical mounting of the input shaft, the specification would be, "vertical input, bracket mount kit" (also known as "J" mount), or the kit number JK9998029.

Ratings Summary[▲]

INPUT MOTOR HORSEPOWER AND TORQUE RATINGS (lbf-in.) AT 1750 RPM INPUT

1.00 SERVICE FACTOR*

REDUCER SIZE	RATIO ¹		5	10	15	20	25	30	40	50	60
	OUTPUT RPM		350	175	117	88	70	58	44	35	29
	RATINGS AT 1750 RPM INPUT ²										
E13	Page # 160-161	HP	1.39	0.86	0.62	0.42	0.41	0.35	0.27	0.17	0.15
		Torque	238	284	295	257	304	293	276	213	202
E17	Page # 162-163	HP	2.69	1.64	1.15	0.94	0.70	0.66	0.52	0.41	0.27
		Torque	462	554	568	604	547	596	603	558	417
E20	Page # 164-165	HP	3.70	2.24	1.59	1.24	1.01	0.86	0.68	0.56	0.41
		Torque	639	769	794	806	803	788	795	791	656
E24	Page # 166-167	HP	5.89	3.67	2.71	2.11	1.61	1.45	1.11	0.92	0.70
		Torque	1017	1249	1359	1383	1285	1360	1335	1329	1134
E26	Page # 168-169	HP	7.70	4.82	3.42	2.64	2.17	1.80	1.42	1.18	0.92
		Torque	1334	1650	1724	1745	1758	1712	1737	1748	1556
E30	Page # 170-171	HP	10.87	7.11	5.07	3.95	3.24	2.67	2.08	1.72	1.34
		Torque	1886	2448	2578	2645	2676	2586	2617	2643	2367
E35	Page # 172-173	HP	15.82	10.27	7.51	5.73	4.71	4.07	3.04	2.44	2.00
		Torque	2738	3515	3804	3821	3884	3943	3837	3753	3573
E43	Page # 174-175	HP	25.16	15.84	11.63	9.16	7.50	6.40	4.94	3.96	3.23
		Torque	4382	5400	5819	6007	5981	6013	6005	5852	5566

INPUT HORSEPOWER AND TORQUE RATINGS (lbf-in.) AT 1160 RPM INPUT

1.00 SERVICE FACTOR*

REDUCER SIZE	RATIO ¹		5	10	15	20	25	30	40	50	60
	OUTPUT RPM		232	116	77	58	46	39	29	23	19
	RATINGS AT 1160 RPM INPUT ²										
E13	Page # 160-161	HP	1.06	0.65	0.48	0.30	0.31	0.27	0.18	0.13	0.11
		Torque	276	320	342	271	345	341	291	237	224
E17	Page # 162-163	HP	2.16	1.24	0.78	0.67	0.47	0.48	0.39	0.28	0.19
		Torque	562	632	571	645	554	660	676	564	435
E20	Page # 164-165	HP	2.85	1.68	1.06	0.91	0.73	0.66	0.51	0.41	0.27
		Torque	743	863	788	891	865	920	920	882	660
E24	Page # 166-167	HP	4.81	2.55	1.81	1.60	1.05	0.94	0.73	0.63	0.46
		Torque	1263	1321	1376	1611	1280	1350	1333	1421	1138
E26	Page # 168-169	HP	5.96	3.41	2.41	1.76	1.43	1.28	1.06	0.84	0.60
		Torque	1567	1770	1847	1764	1762	1864	2028	1932	1562
E30	Page # 170-171	HP	8.75	5.31	3.35	2.70	2.19	1.95	1.59	1.29	0.88
		Torque	2303	2768	2580	2745	2749	2891	3101	3057	2381
E35	Page # 172-173	HP	12.97	8.51	6.21	4.79	3.87	3.33	2.51	1.97	1.41
		Torque	3395	4413	4771	4868	4871	4939	4871	4695	3863
E43	Page # 174-175	HP	21.19	13.06	9.66	7.69	6.24	5.32	4.09	3.27	2.58
		Torque	5541	6666	7211	7511	7402	7467	7515	7345	6742

Note: For ratings of 1.25 service factors and 1.50 service factors, please refer to page 160 of the Ratings section.

* For thermal limit ratings of 1.25 service factors and 1.50 service factors, please contact Winsmith.

1. Exact ratio

2. If input speed is below 1160 RPM, please specify speed and mounting position to ensure proper lubrication.

▢ Mechanical ratings shaded above exceed speed reducer thermal limitations under continuous duty conditions. Refer to Appendix (page 229) for Continuous Duty Thermal Limit Ratings.

▲ See Ratings Summary (page 160) for additional ratios.



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Selection By Input Horsepower



REDUCER SIZE AND TORQUE (lbf·in.) AT 1750 RPM INPUT ²

1.00 SERVICE FACTOR

OUTPUT RPM	RATIO ¹	HP	INPUT HORSEPOWER										
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00
350	5	SIZE			E13	E13	E13	E17	E17	E20	E24	E26	E43
		TORQUE			86	128	171	258	343	518	863	1299	1742
175	10	SIZE		E13	E13	E13	E17	E17	E20	E24	E30	E35	E43
		TORQUE		109	165	248	338	507	687	1021	1722	2567	3409
117	15	SIZE		E13	E13	E17	E17	E20	E24	E26	E30	E35	E43
		TORQUE		157	238	370	494	749	1003	1512	2542	3799	5003
88	20	SIZE	E13	E13	E17	E17	E20	E24	E24	E30	E35	E43	
		TORQUE	153	202	321	483	650	983	1311	2009	3334	4918	
70	25	SIZE	E13	E13	E17	E20	E20	E24	E26	E30	E43	E43	
		TORQUE	185	245	391	596	795	1197	1620	2478	3987	5981	
58	30	SIZE	E13	E13	E17	E20	E24	E26	E30	E35	E43		
		TORQUE	209	276	452	687	938	1427	1937	2906	4698		
44	40	SIZE	E13	E17	E17	E24	E24	E30	E30	E35			
		TORQUE	256	383	580	902	1203	1887	2516	3787			
35	50	SIZE	E17	E17	E20	E24	E26	E30	E35	E43			
		TORQUE	340	449	706	1083	1481	2305	3076	4433			
29	60	SIZE	E17	E20	E24	E26	E30	E35	E35	E43			
		TORQUE	386	525	810	1268	1766	2680	3573	5170			

REDUCER SIZE AND TORQUE (lbf·in.) AT 1750 RPM INPUT ²

1.25 SERVICE FACTOR

OUTPUT RPM	RATIO ¹	HP	INPUT HORSEPOWER										
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00
350	5	SIZE			E13	E13	E13	E17	E17	E20	E26	E30	E43
		TORQUE			86	128	171	258	343	518	866	1301	1712
175	10	SIZE		E13	E13	E17	E17	E20	E24	E26	E30	E35	E43
		TORQUE		109	165	253	338	515	680	1026	1722	2567	3410
117	15	SIZE		E13	E13	E17	E20	E24	E24	E30	E35	E43	
		TORQUE		157	238	370	500	751	1003	1524	2532	3753	
88	20	SIZE	E13	E13	E17	E17	E20	E24	E26	E30	E43		
		TORQUE	153	202	321	483	650	983	1322	2009	3279		
70	25	SIZE	E13	E13	E17	E20	E24	E26	E30	E35	E43		
		TORQUE	185	245	391	596	798	1215	1653	2472	3987		
58	30	SIZE	E13	E17	E17	E24	E24	E30	E30	E35	E43		
		TORQUE	209	298	452	703	938	1450	1937	2906	4698		
44	40	SIZE	E17	E17	E20	E24	E26	E30	E35	E43			
		TORQUE	290	383	585	902	1223	1887	2524	3647			
35	50	SIZE	E17	E17	E24	E24	E30	E35	E35	E43			
		TORQUE	340	449	722	1083	1537	2307	3076	4433			
29	60	SIZE	E20	E20	E24	E26	E30	E35	E43				
		TORQUE	400	525	810	1268	1766	2680	3446				

1. Exact ratio

2. If input speed is below 1160 RPM, please specify speed and mounting position to ensure proper lubrication.

☐ Mechanical ratings shaded above exceed speed reducer thermal limitations under continuous duty conditions.

Refer to Appendix (page 229) for Continuous Duty Thermal Limit Ratings.

Multimount



Selection By Input Horsepower

REDUCER SIZE AND TORQUE (lbf·in.) AT 1750 RPM INPUT ²

1.50 SERVICE FACTOR

OUTPUT RPM	RATIO ¹	HP	INPUT HORSEPOWER										
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00
350	5	SIZE			E13	E13	E17	E17	E20	E24	E26	E35	E43
		TORQUE			86	128	171	258	345	518	866	1298	1712
175	10	SIZE		E13	E13	E17	E17	E20	E24	E26	E35	E43	E43
		TORQUE		109	165	253	338	515	680	1026	1711	2557	3410
117	15	SIZE		E13	E17	E17	E20	E24	E26	E30	E35	E43	
		TORQUE		157	247	370	500	751	1008	1524	2532	3753	
88	20	SIZE	E13	E17	E17	E20	E24	E26	E30	E35	E43		
		TORQUE	153	212	321	488	655	991	1339	2001	3279		
70	25	SIZE	E13	E17	E20	E24	E24	E26	E30	E35	E43		
		TORQUE	185	258	398	599	798	1215	1653	2472	3987		
58	30	SIZE	E17	E17	E20	E24	E24	E30	E35	E43			
		TORQUE	226	298	458	703	938	1450	1938	2819			
44	40	SIZE	E17	E17	E24	E24	E26	E35	E35	E43			
		TORQUE	290	383	601	902	1223	1893	2524	3647			
35	50	SIZE	E17	E20	E24	E26	E30	E35	E43				
		TORQUE	340	466	722	1111	1537	2307	2956				
29	60	SIZE	E20	E24	E26	E30	E35	E43	E43				
		TORQUE	400	535	846	1325	1787	2585	3446				

1. Exact ratio

2. If input speed is below 1160 RPM, please specify speed and mounting position to ensure proper lubrication.

MODEL	QUILL INPUT ADAPTOR SIZES	ADDITIONAL STANDARD RATIOS
E13	56C, 140TC	4; 7.5
E17	56C, 140TC	4; 7.5; 80; 100
E20	56C, 140TC	4; 7.5; 80; 100
E24	56C, 140TC, 180TC	4; 7.5; 80; 100
E26	56C, 140TC, 180TC	4; 7.5; 80; 100
E30	56C, 140TC, 180TC	4; 7.5; 80; 100
E35	56C, 140TC, 180TC	4; 7.5; 80; 100
E43	56C, 140TC, 180TC, 210TC	4; 7.5; 80; 100

For additional standard ratios see rating page 160.

Multimount

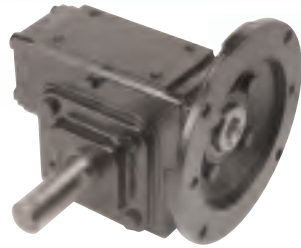


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MDNS Model Information

Universal Quill Input Adaptor Solid Output Shaft Housing Mount



L Assembly

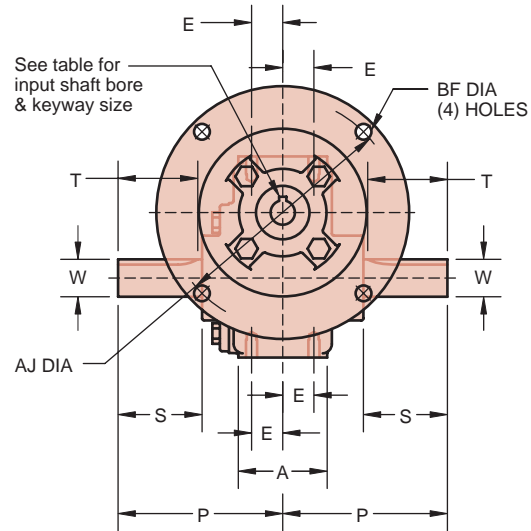
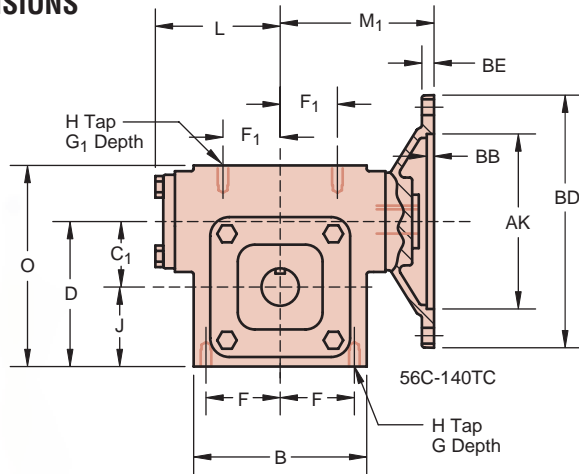


LR Assembly



R Assembly

DIMENSIONS



INPUT ADAPTOR DIMENSIONS (in.)

INPUT ADAPT. DIM.	56C	140TC	180TC	210TC
AJ	5.88	5.88	7.25	7.25
AK	4.50	4.50	8.50	8.50
BB	.19	.19	.19	.19
BD	6.50	6.50	9.00	9.00
BE	.31	.31	.38	.38
BF	.406	.406	.531	.531
KEYWAY	3/16 X 3/32		1/4 X 1/8	5/16 X 5/32
BORE ^{+0.001} / _{-.000}	.6255	.8755	1.1255	1.3755

SPEED REDUCER DIMENSIONS (in.)

Size	A	B	C ₁	D	E	F	F ₁	G DEPTH	G ₁ DEPTH	H TAP	J	L	M ₁ 56C 140TC	M ₁ 180TC	M ₁ 210TC	O	P	OUTPUT SHAFT				lb.*
																		W*	S	T	KEYWAY	
E13	2.00	3.88	1.333	3.08	.69	1.56	1.19	.56	.56	5/16-18	1.75	2.83	3.63*	NA	NA	4.33	4.00	.750	2.06	1.88	3/16 X 3/32	18
E17	2.38	4.63	1.750	3.88	.88	1.94	1.69	.63	.56	3/8-16	2.13	3.44	4.06	NA	NA	5.38	4.75	1.000	2.56	2.31	1/4 X 1/8	23
E20	2.38	5.25	2.000	4.13	.88	2.19	1.69	.63	.56	3/8-16	2.13	3.44	4.06	NA	NA	5.63	4.75	1.000	2.56	2.31	1/4 X 1/8	26
E24	3.13	5.38	2.375	5.25	1.13	2.19	2.19	.63	.57	1/2-13	2.88	4.50	5.38	5.38	NA	7.25	5.50	1.250	2.81	2.63	1/4 X 1/8	44
E26	3.13	5.88	2.625	5.75	1.13	2.44	2.44	.69	.69	1/2-13	3.13	4.50	5.38	5.38	NA	7.88	5.50	1.250	2.81	2.63	1/4 X 1/8	46
E30	3.50	6.62	3.000	6.50	1.31	2.75	2.75	.75	.75	1/2-13	3.50	4.63	5.56	5.56	NA	9.00	5.88	1.375	2.88	2.75	5/16 X 5/32	60
E35	3.75	7.69	3.500	7.50	1.31	3.25	3.25	1.00	1.00	5/8-11	4.00	5.46	5.81	5.81	NA	10.13	7.00	1.750	3.75	3.63	3/8 X 3/16	84
E43	4.38	8.75	4.250	8.63	1.63	3.75	3.75	1.00	1.00	5/8-11	4.38	6.28	6.63	6.63	6.63	11.50	8.00	2.000	4.38	4.19	1/2 X 1/4	155

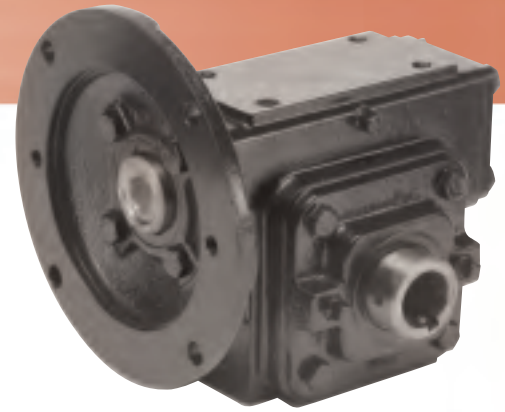
* Shaft diameter tolerances +.000 -.001 ▲ 56C adaptor only ■ Approximate shipping weights
Dimensions shown are for construction purposes only. Please contact Winsmith for certified dimension sheets.



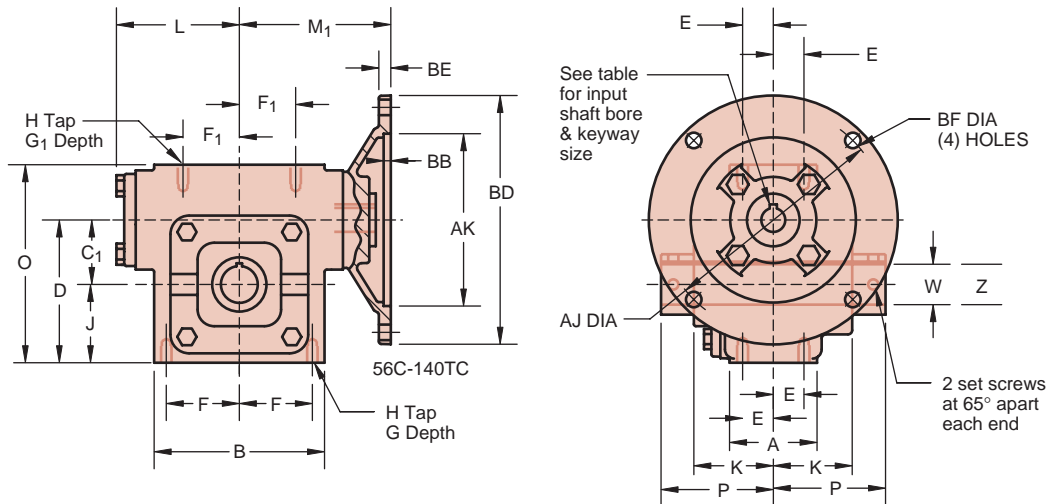
MDSS Model Information

Universal Quill Input Adaptor Hollow Output Shaft Housing Mount

DLR Assembly



DIMENSIONS



INPUT ADAPTOR DIMENSIONS (in.)

INPUT ADAPT. DIM.	56C	140TC	180TC	210TC
AJ	5.88	5.88	7.25	7.25
AK	4.50	4.50	8.50	8.50
BB	.19	.19	.19	.19
BD	6.50	6.50	9.00	9.00
BE	.31	.31	.38	.38
BF	.406	.406	.531	.531
KEYWAY	3/16 X 3/32		1/4 X 1/8	5/16 X 5/32
BORE ⁺⁰⁰¹ / _{-.000}	.6255	.8755	1.1255	1.3755

HOLLOW OUTPUT SHAFT BORES (S) STANDARD BORE (B) BUSHING

W**	KEYWAY	E17	E20	E24	E26	E30	E35	E43
.625	5/8	3/16 X 3/32	B					
.750	3/4	3/16 X 3/32	B					
.875	7/8	3/16 X 3/32	B					
1.000	1	1/4 X 1/8	S	B	B			
1.125	1-1/8	1/4 X 1/8		B	B	B		
1.188	1-3/16	1/4 X 1/8		B	B	B		
1.250	1-1/4	1/4 X 1/8		B	B	B	B	B
1.375	1-3/8	5/16 X 5/32			B	B	B	
*1.438	1-7/16	3/8 X 3/16		S	B	B	B	B
1.500	1-1/2	3/8 X 3/16			S	B	B	B
1.625	1-5/8	3/8 X 3/16						
1.688	1-11/16	3/8 X 3/16				S	B	
1.750	1-3/4	3/8 X 3/16					B	B
1.875	1-7/8	1/2 X 1/4						B
*1.938	1-15/16	1/2 X 1/4					S	B
2.000	2	1/2 X 1/4						B
*2.188	2-3/16	1/2 X 1/4						S
2.250	2-1/4	1/2 X 1/4						B
2.438	2-7/16	5/8 X 5/16						B
2.750	2-3/4	5/8 X 5/16						S

**Bore tolerances +.000+.002
Two puller slots opposed on all hollow output shafts
* Bore size 1438 on size E20: keyway is 3/8 x 1/8
* Bore size 1938 on size E30: keyway is 1/2 x 3/16
* Bore size 2188 on size E35: keyway is 1/2 x 1/8

SPEED REDUCER DIMENSIONS (in.)

Size	A	B	C ₁	D	E	F	F ₁	G DEPTH	G ₁ DEPTH	H TAP	J	K	L	M ₁ 56C 140TC	M ₁ 180TC	M ₁ 210TC	O	P	Z	lb.*
E17	2.38	4.63	1.750	3.88	.88	1.94	1.69	.63	.56	3/8-16	2.13	2.44	3.44	4.06	NA	NA	5.38	3.13	1.49	25
E20	2.38	5.25	2.000	4.13	.88	2.19	1.69	.63	.56	3/8-16	2.13	2.63	3.44	4.06	NA	NA	5.63	3.31	2.00	30
E24	3.13	5.38	2.375	5.25	1.13	2.19	2.19	.63	.57	1/2-13	2.88	2.75	4.50	5.38	5.38	NA	7.25	3.44	2.25	47
E26	3.13	5.88	2.625	5.75	1.13	2.44	2.44	.69	.69	1/2-13	3.13	2.81	4.50	5.38	5.38	NA	7.88	3.50	2.50	52
E30	3.50	6.62	3.000	6.50	1.31	2.75	2.75	.75	.75	1/2-13	3.50	3.00	4.63	5.56	5.56	NA	9.00	3.69	2.63	68
E35	3.75	7.69	3.500	7.50	1.31	3.25	3.25	1.00	1.00	5/8-11	4.00	3.38	5.46	5.81	5.81	NA	10.13	4.13	2.87	90
E43	4.38	8.75	4.250	8.63	1.63	3.75	3.75	1.00	1.00	5/8-11	4.38	3.63	6.28	6.63	6.63	6.63	11.50	4.38	3.88	183

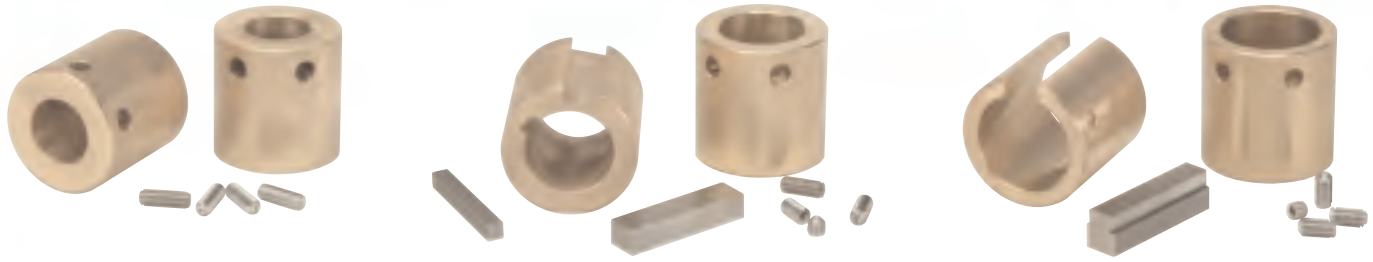
* Approximate shipping weights Dimensions shown are for construction purposes only. Please contact Winsmith for certified dimension sheets.



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Hollow Output Shaft Bushing Kits



Cast Bore Bushing Kit

TYPE (C)
(2) Cast Bore Bushings

Keyed Bushing Kit

TYPE (K)
(1) Keyed Bushing
(1) Plain Bushing
(2) Drive Keys

Slotted Bushing Kit

TYPE (S)
(1) Slotted Bushing
(1) Plain Bushing
(1) Drive Key

HOLLOW SHAFT BUSHING CHART

SIZE	BUSHING I.D.	DRIVEN SHAFT O.D.	BUSHING LENGTH	DRIVEN SHAFT KEYWAY	KIT TYPE	KIT#		
E17	0.625	5/8	1.50	3/16 X 3/32	S*	WKE850578		
	0.750	3/4		3/16 X 3/32	S*	WKE850579		
1.000 STANDARD BORE - NO BUSHING REQUIRED**								
E20	0.630*		1.75	*	C	WKE850483		
	0.750	3/4		3/16 X 3/32	K	WKE850638		
	0.875	7/8		3/16 X 3/32	K	WKE850659		
	1.000	1		1/4 X 1/8	K	WKE850468		
	1.125	1-1/8		1/4 X 1/8	S*	WKE850660		
	1.188	1-3/16		1/4 X 1/8	S*	WKE850625		
	1.250	1-1/4		1/4 X 1/8	S*	WKE850469		
1.438 STANDARD BORE - NO BUSHING REQUIRED**								
E24	0.750*		1.75	*	C	WKE850484		
	1.000	1		1/4 X 1/8	S*	WKE850653		
	1.125	1-1/8		1/4 X 1/8	S*	WKE850661		
	1.188	1-3/16		1/4 X 1/8	S*	WKE850662		
	1.250	1-1/4		1/4 X 1/8	S*	WKE850470		
	1.375	1-3/8		5/16 X 5/32	S*	WKE850663		
	1.438	1-7/16		3/8 X 3/16	S	WKE850471		
1.500 STANDARD BORE - NO BUSHING REQUIRED**								
E26	0.880*		1.75	*	C	WKE850485		
	1.000	1		1/4 X 1/8	K	WKE850627		
	1.125	1-1/8		1/4 X 1/8	K	WKE877792		
	1.188	1-3/16		1/4 X 1/8	S*	WKE850634		
	1.438	1-7/16		3/8 X 3/16	S	WKE850472		
	1.250	1-1/4		1/4 X 1/8	S*	WKE850479		
	1.375	1-3/8		5/16 X 5/32	S*	WKE850664		
	1.500	1-1/2		3/8 X 3/16	S	WKE850473		
	1.688 STANDARD BORE - NO BUSHING REQUIRED**							

SIZE	BUSHING I.D.	DRIVEN SHAFT O.D.	BUSHING LENGTH	DRIVEN SHAFT KEYWAY	KIT TYPE	KIT#
E30	1.000*		2.00	*	C	WKE850486
	1.250	1-1/4		1/4 X 1/8	K	WKE850481
	1.375	1-3/8		5/16 X 5/32	S*	WKE850665
	1.438	1-7/16		3/8 X 3/16	S	WKE850474
	1.500	1-1/2		3/8 X 3/16	S*	WKE850637
	1.688	1-11/16		3/8 X 3/16	S*	WKE850475
	1.750	1-3/4		3/8 X 3/16	S*	WKE850666
1.938 STANDARD BORE - NO BUSHING REQUIRED**						
E35	1.000*		2.19	*	C	WKE850487
	1.250	1-1/4		1/4 X 1/8	K	WKE850582
	1.438	1-7/16		3/8 X 3/16	S*	WKE850482
	1.500	1-1/2		3/8 X 3/16	S*	WKE850639
	1.750	1-3/4		3/8 X 3/16	S*	WKE850656
	1.938	1-15/16		1/2 X 1/4	S	WKE850476
2.000	2	1/2 X 1/4	S	WKE850477		
2.188 STANDARD BORE - NO BUSHING REQUIRED**						
E43	1.500*		2.75	*	C	WKE850562
	1.500	1-1/2		3/8 X 3/16	K	WKE850654
	1.750	1-3/4		3/8 X 3/16	S*	WKE850667
	1.875	1-7/8		1/2 X 1/4	S*	WKE850668
	1.938	1-15/16		1/2 X 1/4	S	WKE878017
	2.000	2		5/8 X 5/16	K	WKE850593
	2.188	2-3/16		1/2 X 1/4	S*	WKE850560
	2.250	2-1/4		1/2 X 1/4	S*	WKE850669
	2.438	2-7/16		5/8 X 5/16	S	WKE850561
	2.500	2-1/2		5/8 X 5/16	S	WKE878080
	2.750 STANDARD BORE - NO BUSHING REQUIRED**					

S* = Bushing uses a step key
 * Rough bore size, bushing to be customer bored and keyed
 ** Bore tolerances +.000 +.002

Multimount

Quill Input Shaft Bushing Kits



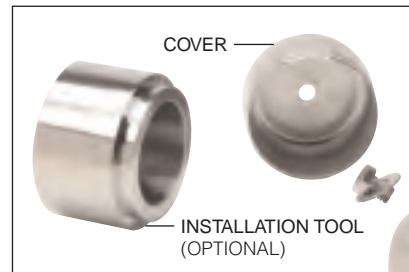
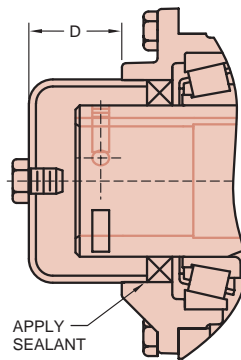
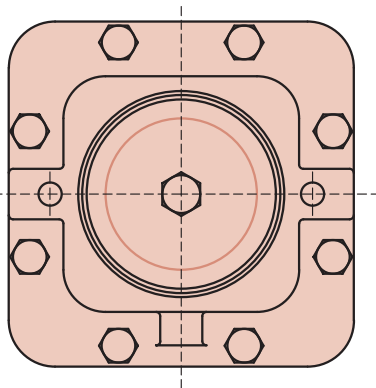
1 Piece Bushing



2 Piece Bushing

MOTOR FLANGE (SHAFT DIAMETER)	REDUCER INPUT ADAPTOR (BORE SIZE)	BUSHING LENGTH	KEYWAY SIZE	TYPE	KIT #
56C (0.625)	140TC (0.875)	1.44	3/16 X 3/32	1 PIECE	WK9810170
140TC (0.875)	180TC (1.125)	2.00	3/16 X 3/32	2 PIECE	WK9810174

Hollow Shaft Cover



SE Encore shaft covers provide an economical method for protecting the rotating shaft and isolating the seal from outside contaminants. All shaft covers are made from corrosion resistant stainless steel and fit over either shaft end while allowing at least one half inch of clearance for a driven shaft keeper plate.

DIMENSIONS

SIZE	D
E17	1.31
E20	1.25
E24	1.31
E26	1.38
E30	1.56
E35	1.56
E43	1.25

Parts Included in Cover Kit:

- Cover
- Bolt and Washer
- Installation Instructions

KIT PART NUMBERS

SIZE	COVER	INSTALLATION TOOL *
E17	CKIT917	CTKIT917
E20	CKIT920	CTKIT920
E24	CKIT924	CTKIT924
E26	CKIT926	CTKIT926
E30	CKIT930	CTKIT930
E35	CKIT935	CTKIT935
E43	CKIT943	CTKIT943

*Optional—available separately

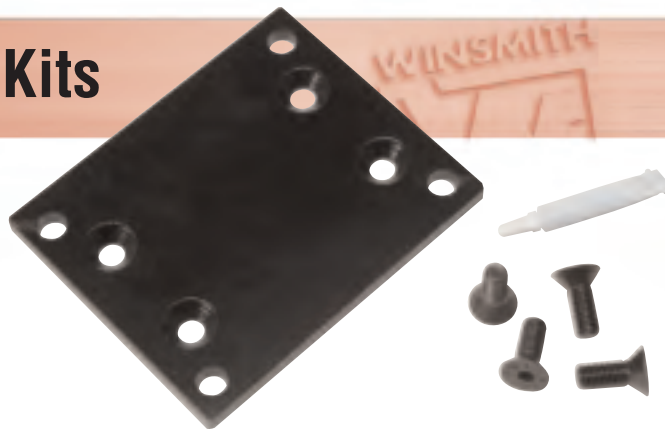


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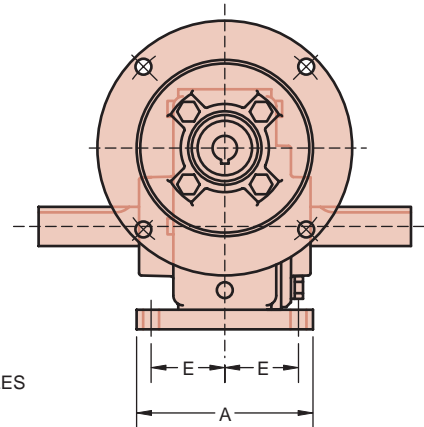
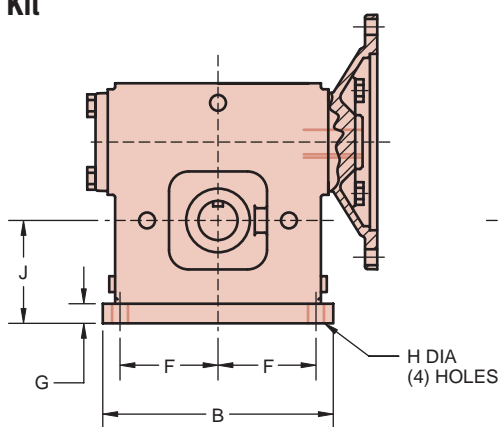
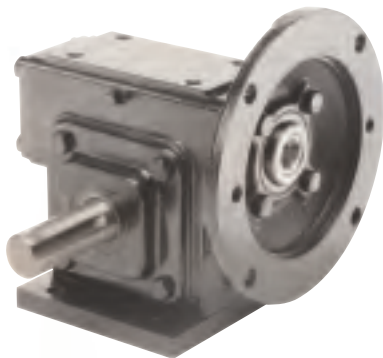


Worm on Top Mounting Kits

Worm on Top (T)
Quill Input Adaptor
Solid & Hollow Output Shafts
Base Mount

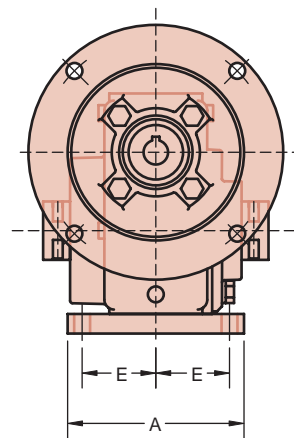
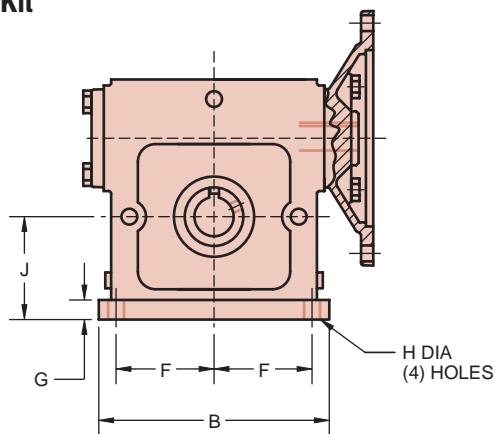
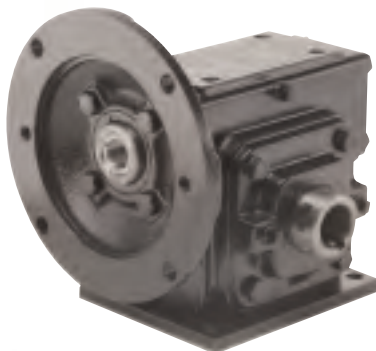


MDNS Shown With Mounted (T) Base Kit Solid Output Shaft



◆ Base Supplied Separately

MDSS Shown With Mounted (T) Base Kit Hollow Output Shaft



◆ Base Supplied Separately

SPEED REDUCER DIMENSIONS (in.)

Size	A	B	E	F	G	H	J	Kit #	Kit lb.*
E13*	4.00	5.00	1.63	2.13	.25	.281	2.00	BK9998005	2
E17	4.50	5.50	1.75	2.31	.31	.406	2.44	BK9998001	3
E20	4.50	5.88	1.88	2.50	.50	.406	2.63	BK9998008	4
E24	4.50	7.00	1.88	3.13	.38	.406	3.25	BK9998012	4
E26	4.50	7.50	1.88	3.25	.38	.406	3.50	BK9998016	4
E30	6.00	8.00	2.38	3.50	.50	.563	4.00	BK9998018	7
E35	6.50	10.00	2.63	4.13	.50	.563	4.50	BK9998034	10
E43	7.00	11.00	2.88	4.88	.63	.563	5.00	BK9998109	14

* Not available in MDSS hollow output ■ Approximate shipping weights

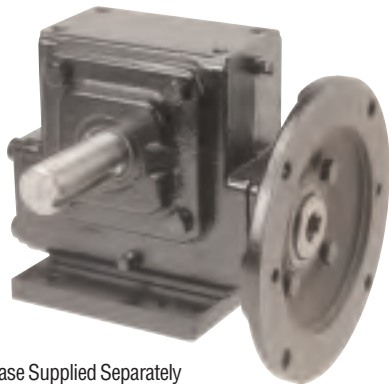


Worm on Bottom Mounting Kits

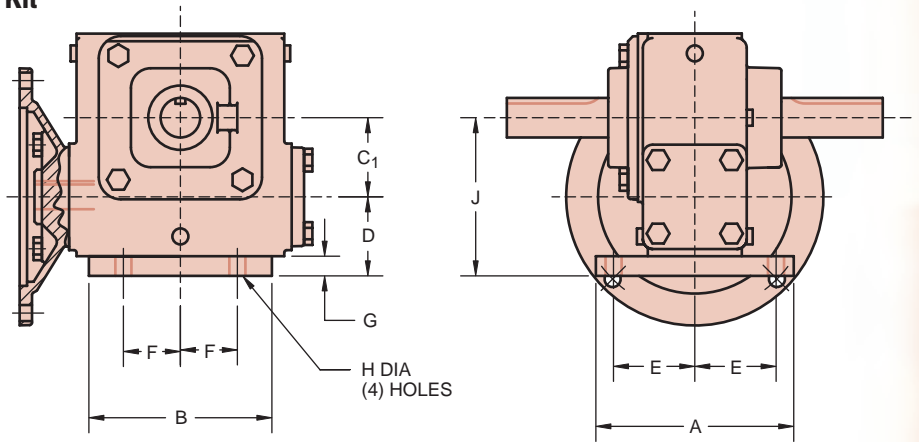
**Worm on Bottom (B)
Quill Input Adaptor
Solid & Hollow Output Shafts
Base Mount**



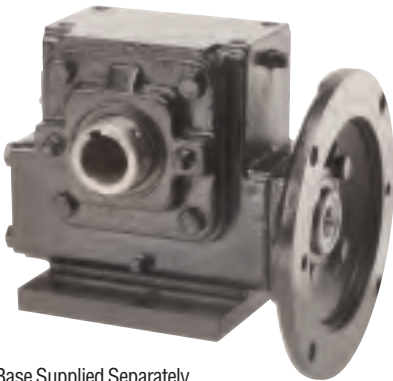
**MDNS Shown With Mounted (B) Base Kit
Solid Output Shaft**



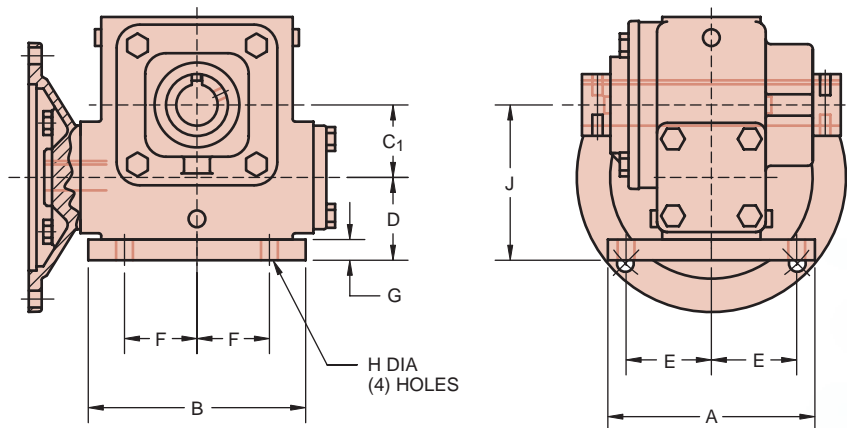
◆ Base Supplied Separately



**MDSS Shown With Mounted (B) Base Kit
Hollow Output Shaft**



◆ Base Supplied Separately



SPEED REDUCER DIMENSIONS (in.)

Size	A	B	C ₁	D	E	F	G	H	J	Kit #	Kit lb.*
E13*	3.50	5.00	1.333	1.63	1.38	2.13	.38	.281	2.96	BK9998004	2
E17	5.00	4.63	1.750	2.00	2.06	1.44	.50	.406	3.75	BK9998000	3
E20	5.00	4.63	2.000	2.00	2.06	1.44	.50	.406	4.00	BK9998000	3
E24	5.00	7.00	2.375	2.38	2.00	3.00	.38	.406	4.75	BK9998011	3
E26	4.75	7.00	2.625	2.50	2.00	3.00	.38	.406	5.13	BK9998015	3
E30	6.00	8.00	3.000	3.00	2.38	3.50	.50	.563	6.00	BK9998018	7
E35	6.50	10.00	3.500	3.13	2.63	4.13	.50	.563	6.63	BK9998034	10
E43	7.00	11.00	4.250	3.50	2.88	4.88	.63	.563	7.75	BK9998109	14

* Not available in MDSS hollow output. ■ Approximate shipping weights



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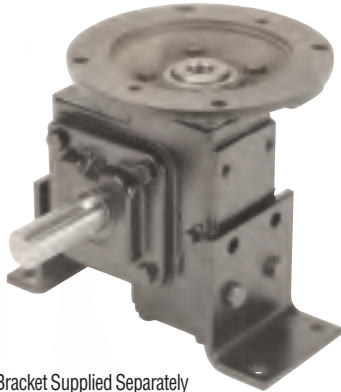


Vertical Input Mounting Kits

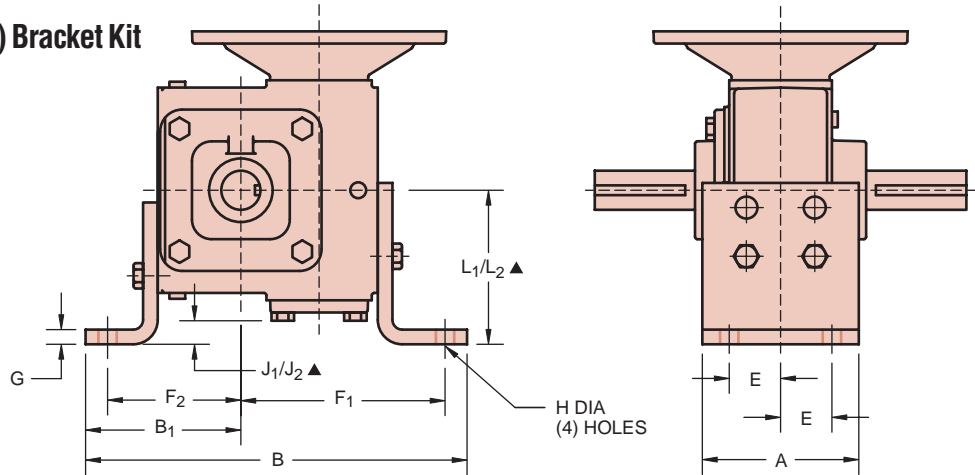
**Vertical (J)
Quill Input Adaptor
Solid & Hollow Output Shafts
Bracket Mount**



**MDNS Shown With Mounted (J) Bracket Kit
Solid Output Shaft**



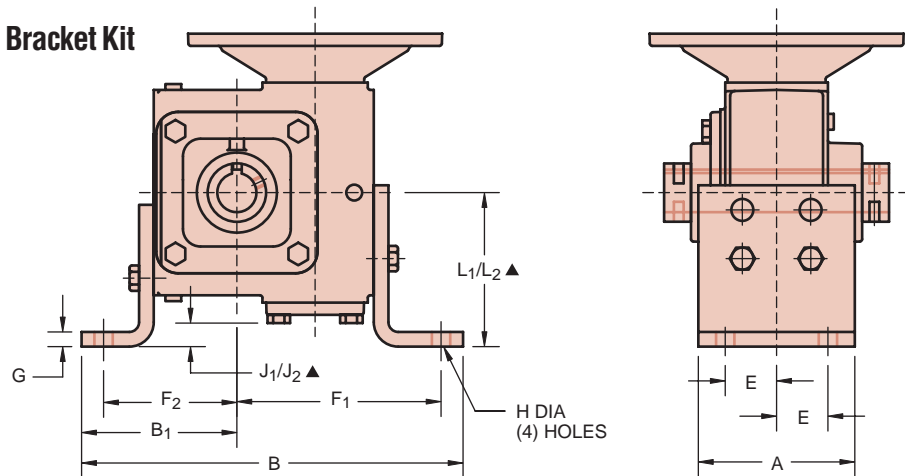
◆ Bracket Supplied Separately



**MDSS Shown With Mounted (J) Bracket Kit
Hollow Output Shaft**



◆ Bracket Supplied Separately



SPEED REDUCER DIMENSIONS (in.)

Size	A	B	B ₁	E	F ₁	F ₂	G	H DIA.	L ₁	J ₁	L ₂ [▲]	J ₂ [▲]	Kit #	Kit lb.*
E13*	3.00	7.43	3.10	1.00	3.82	2.60	.25	.344	2.94	.11	4.32	1.49	JK9998028	3
E17	3.50	8.63	3.50	1.25	4.63	3.00	.25	.406	3.50	.06	4.79	1.35	JK9998027	3
E20	4.00	9.75	3.97	1.31	5.22	3.41	.38	.469	3.94	.50	5.32	1.88	JK9998029	5
E24	4.00	10.75	4.63	1.44	5.56	4.06	.38	.469	4.63	.13	6.50	2.00	JK9998030	6
E26	4.50	11.63	4.75	1.56	6.25	4.13	.38	.531	4.75	.25	6.50	2.00	JK9998031	6
E30	5.50	12.50	5.25	2.00	6.63	4.63	.38	.531	4.75	.12	7.00	2.38	JK9998032	8
E35	5.50	14.50	6.19	2.00	7.56	5.19	.38	.531	5.69	.23	8.13	2.67	JK9998035	9
E43	6.50	15.88	6.56	2.50	8.56	5.81	.38	.656	6.50	.22	8.88	2.60	JK9998086	11

* Not available in MDSS hollow output ▲ Approximate shipping weights ▲ L₂ and J₂ dimensions apply when using top (2) mounting holes on bracket

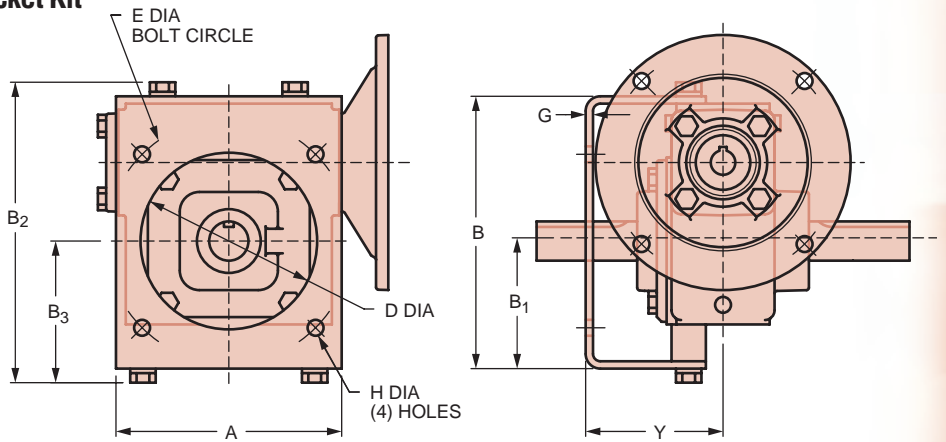
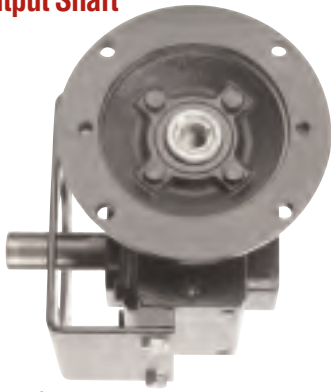


Flange Output Mounting Kits

Flange (U)
Quill Input Adaptor
Solid & Hollow Output Shafts
Bracket Mount

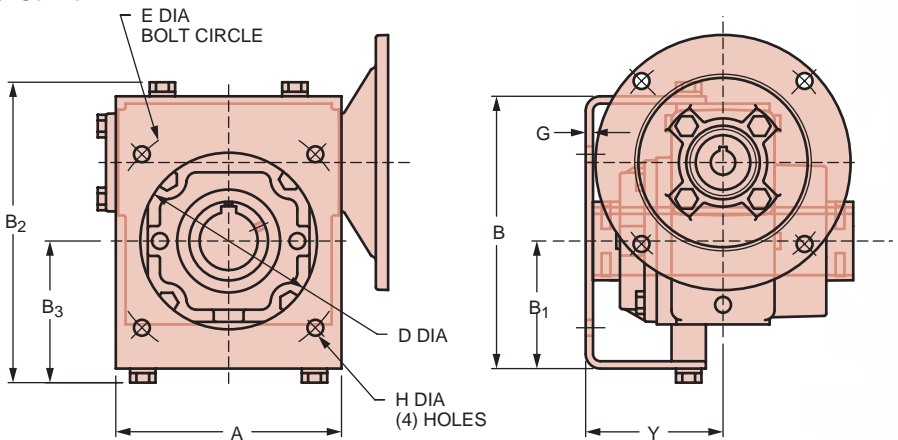
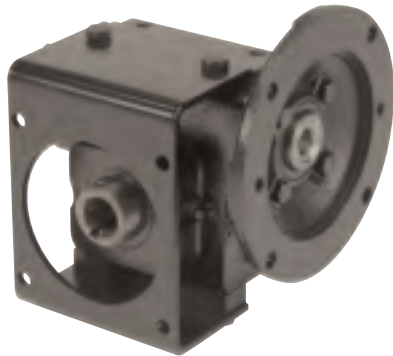


MDNS Shown With Mounted (U) Bracket Kit Solid Output Shaft



◆ Bracket Supplied Separately

MDSS Shown With Mounted (U) Bracket Kit Hollow Output Shaft



◆ Bracket Supplied Separately

SPEED REDUCER DIMENSIONS (in.)

Size	A	B	B ₁	B ₂	B ₃	D	E	G	H	Y	Kit #	Kit lb.*
E17	4.81	6.25	2.81	7.02	3.20	4.06	5.875	.19	.344	3.50	BK9998094	4
E20	5.75	6.94	3.25	7.71	3.64	4.50	6.500	.19	.406	3.50	BK9998095	4
E24	6.13	8.00	3.44	9.03	3.96	5.00	7.500	.19	.406	3.69	BK9998096	6
E26	7.19	8.63	3.63	9.66	4.14	6.00	8.000	.25	.406	3.82	BK9998097	7
E30	8.50	10.19	4.44	11.22	4.95	7.00	9.250	.25	.563	5.00	BK9998098	10
E35	8.50	11.00	4.63	12.27	5.26	7.00	10.000	.25	.563	5.06	BK9998099	11
E43	10.00	13.00	5.50	14.27	6.13	8.00	11.500	.38	.688	5.75	BK9998073	21

* Approximate shipping weights



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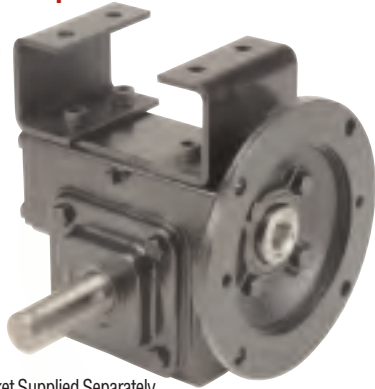


Hanger Mounting Kits

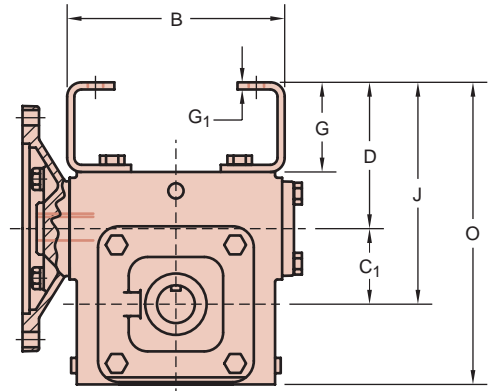
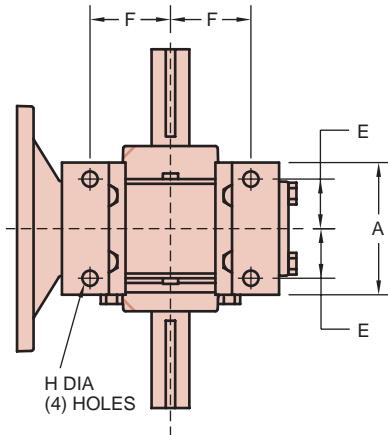
Hanger (H)
Quill Input Adaptor
Solid & Hollow Output Shafts
Bracket Mount



MDNS Shown With Mounted (H) Bracket Kit
Solid Output Shaft



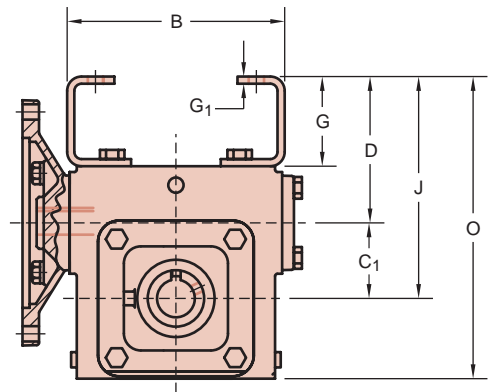
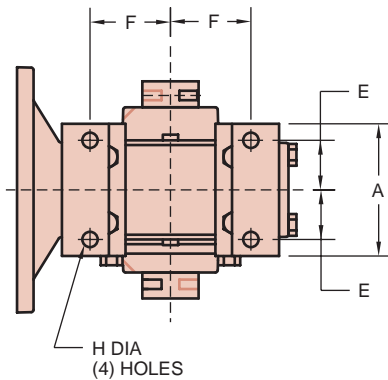
◆ Bracket Supplied Separately



MDSS Shown With Mounted (H) Bracket Kit
Hollow Output Shaft



◆ Bracket Supplied Separately



SPEED REDUCER DIMENSIONS (in.)

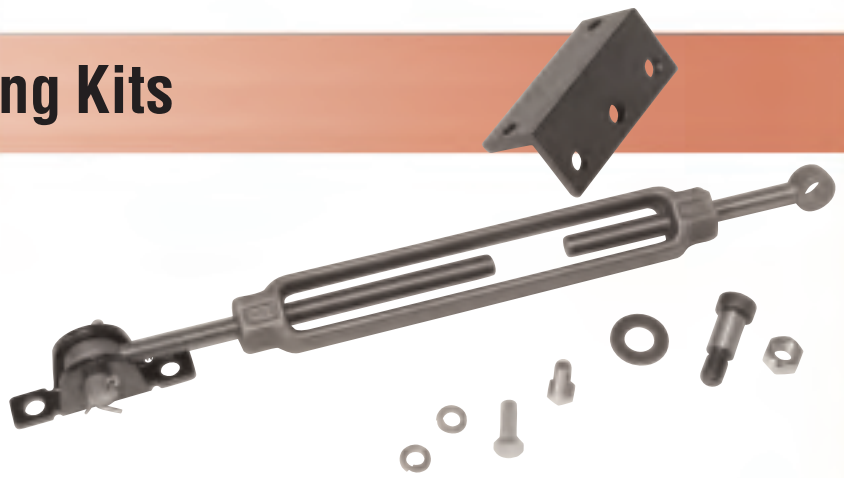
Size	A	B	C ₁	D	E	F	G	G ₁	H	J	O	Kit #	Kit lb.*
E17	3.38	5.75	1.750	3.88	.88	1.94	2.38	.19	.390	5.63	7.75	BK9998115	3
E20	3.50	5.88	2.000	3.88	.88	2.19	2.38	.19	.390	5.88	8.00	BK9998116	5
E24	4.13	7.75	2.375	4.50	1.13	2.19	2.50	.25	.515	6.88	9.75	BK9998117	6
E26	4.13	8.25	2.625	4.63	1.13	2.44	2.50	.25	.515	7.25	10.38	BK9998117	6
E30	5.50	8.88	3.000	5.50	2.19	3.31	3.00	.25	.531	8.50	12.00	BK9998124	8
E35	5.02	9.25	3.500	5.00	1.31	3.25	2.38	.31	.656	8.50	12.50	BK9998125	9

* Approximate shipping weights

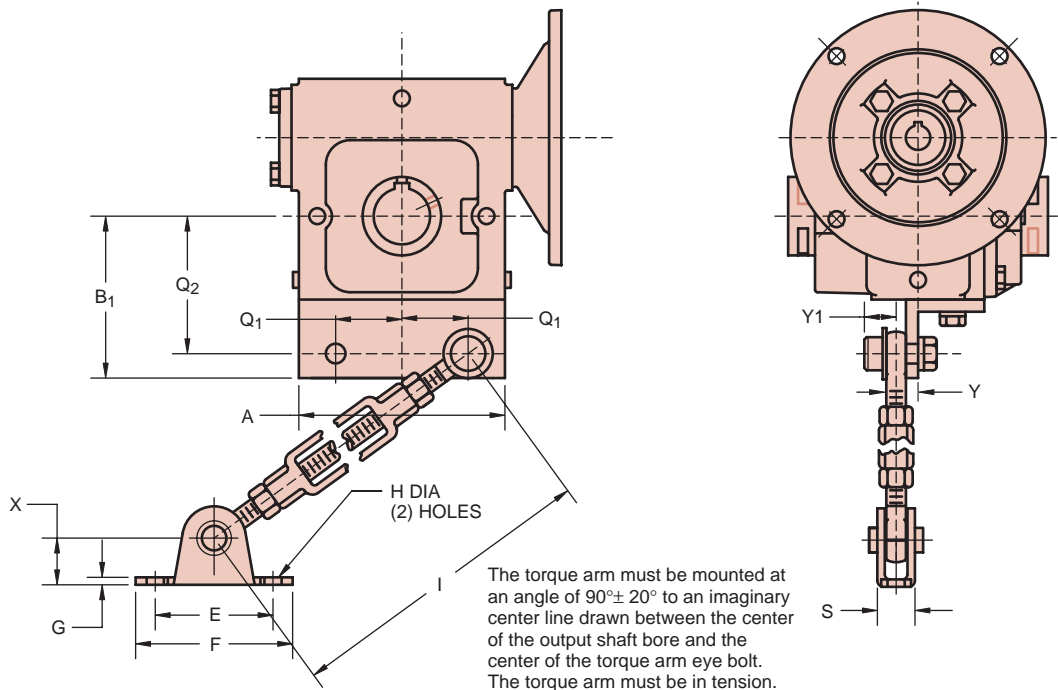


Torque Arm Mounting Kits

Torque Arm (R)
 Quill Input Adaptor
 Hollow Output Shaft
 Bracket Mount



MDSS Shown With Mounted (R) Bracket Kit
 Hollow Output Shaft



◆ Bracket Supplied Separately

SPEED REDUCER DIMENSIONS (in.)

Size	A	B ₁	E	F	G	H	I MIN	I MAX	Q ₁	Q ₂	S	Y	Y ₁	X	Kit#	Kit lb. [▪]
E17	4.63	4.13	3.00	4.00	.19	.44	15.00	24.00	1.69	3.50	.75	.63	.81	1.19	TQ9952574	7
E20	5.25	4.13	3.00	4.00	.19	.44	15.00	24.00	1.69	3.50	.75	.63	.81	1.19	TQ9952442	7
E24	5.38	4.88	3.00	4.00	.19	.44	15.00	24.00	2.13	4.25	.75	.31	.81	1.19	TQ9952443	7
E26	5.88	5.13	3.00	4.00	.19	.44	15.00	24.00	2.31	4.50	.75	.44	.81	1.19	TQ9952444	7
E30	6.50	5.50	3.00	4.00	.19	.44	15.00	24.00	2.56	4.88	.75	.44	.81	1.19	TQ9952445	7
E35	7.75	6.50	3.50	4.75	.56	.53	21.00	29.00	3.00	5.63	2.13	.88	1.09	1.63	TQ9952446	13
E43	8.75	6.88	3.50	4.75	.56	.53	21.00	29.00	3.50	6.00	2.13	.56	1.09	1.63	TQ9952575	13

▪ Approximate shipping weights

Multimount



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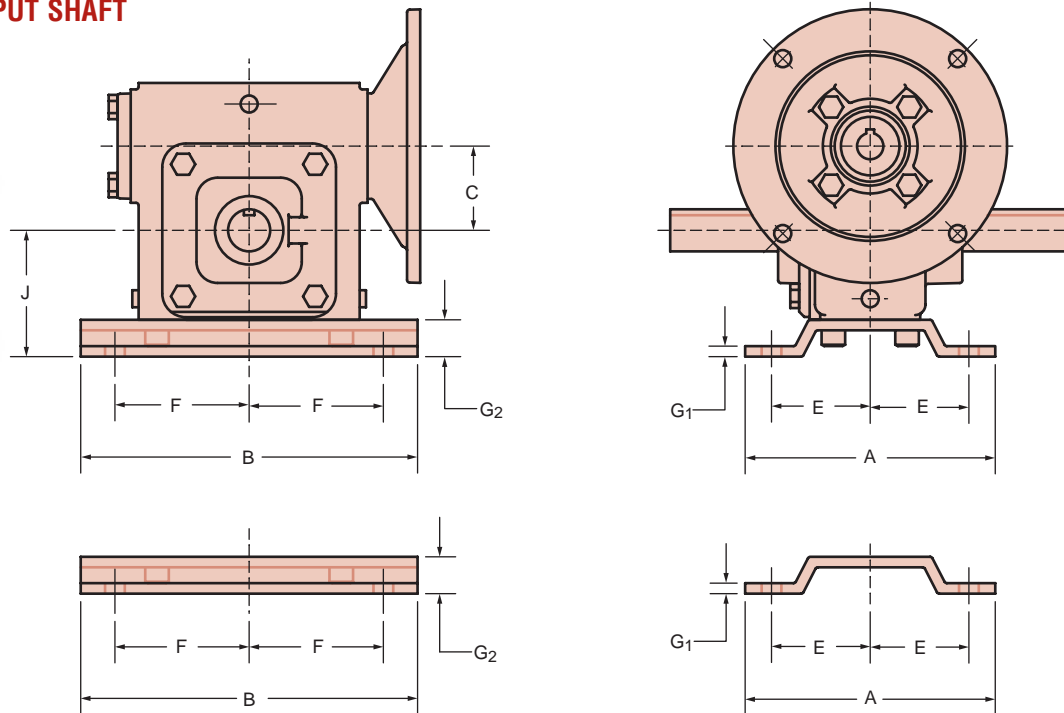
Industry Interchange Base Plate

Interchange (C) Quill Input Adaptor Solid and Hollow Output Shafts Base Mount

The industry interchange base mount adapts the SE Encore series to the mounting of many other industrial speed reducers. Industry interchange base mounts are either flat (most E17 and all E24) or formed (E13, E17, E26 – E43). All Industry Interchange Base Mount Kits include attachment bolts.



MDNS SHOWN WITH INTERCHANGE (C) BASE MOUNT KIT SOLID OUTPUT SHAFT



* Interchange Plate Supplied Separately

WINSMITH SIZE	WINSMITH CENTER DISTANCE	CENTER DISTANCE INTERCHANGE	OUTPUT SHAFT HEIGHT	BOLT MOUNTING PATTERN		BASE PLATE DIMENSIONS				BASE MOUNT KIT PART NUMBER
		C	J	E + E	F + F	A	B	G ₁	G ₂	
E13	1.333"	1.33"	2.25"	3.31"	4.38"	4.19"	5.50"	.25"	.50"	BK9998042
E17	1.750"	1.50"	2.50"	4.31"	5.25"	5.50"	6.44"	.375"	.375"	BK9998043
E17	1.750"	1.75"	2.75"	4.50"	5.75"	5.69"	7.00"	.25"	.625"	BK9998044
E20	2.000"	2.00"	3.00"	4.69"	6.38"	5.94"	8.00"	.313"	.875"	BK9998045
E20	2.000"	2.06"	3.00"	4.69"	6.38"	5.94"	8.00"	.313"	.875"	BK9998045
E24	2.375"	2.38"	3.25"	4.88"	7.06"	6.00"	8.50"	.375"	.375"	BK9998046
E26	2.625"	2.62"	3.69"	5.25"	8.00"	6.50"	9.63"	.25"	.562"	BK9998047
E30	3.000"	3.25"	4.38"	6.13"	9.50"	7.50"	11.19"	.375"	.875"	BK9998048
E30	3.000"	3.50"	4.38"	6.13"	9.50"	7.50"	11.19"	.375"	.875"	BK9998048
E35	3.500"	3.75"	4.81"	7.00"	10.38"	9.00"	12.00"	.375"	.813"	BK9998049



Worm Gear Ratio Multiplier

The Worm Gear Ratio Multiplier features a quill input adaptor along with a machined register output flange and shaft that duplicate NEMA C face flange/shaft dimensions. The following combinations are available:

- Sizes E13 and E17 are available with NEMA 56C output flange/shaft dimensions and NEMA 56C or 140TC input adaptor dimensions.*
- Sizes E17, E20, E24, and E26 are available with NEMA 140TC output flange/shaft dimensions and NEMA 56C, 140TC, or 180TC input adaptor dimensions.*
- Register diameter is machined to a NEMA tolerance of 0.003 inches, providing a precision interface with the driven equipment, which can be very useful especially in motion control applications.

- Available in 5, 10, 15, 20, 25, 30, 40, 50, and 60 ratios and configurable as either a left (L) or a right (R) assembly.
- Completely self-contained ratio multiplier and includes an open-close vent, Mobil Glygoyle 460 lubricant, and the WinGuard Epoxy Coating System.

Coupling the Worm Gear Ratio Multiplier to the input of another NEMA C face reducer provides additional reduction. It also offers an easy method of creating a double reduction reducer on location or when mounting to another piece of NEMA C face equipment such as a brake or a clutch. Various assemblies can be created by mounting it in any one of four positions.

MULTIMOUNT WORM GEAR RATIO MULTIPLIER NOMENCLATURE OVERVIEW

SIZE (Center Distance)	MODEL	RATIO	ASSEMBLY DESIGNATION	QUILL INPUT ADAPTOR	OUTPUT FLANGE
E13 – 1.333"	MDDS	5	Solid Output Shaft R - Right L - Left	56C	56C
E17 – 1.750"		10		140TC	140TC
E20 – 2.000"		15		180TC	180TC
E24 – 2.375"		20			
E26 – 2.625"		25			
		30			
		40			
	50				
	60				

* For 42C and 48C input adaptor, please contact Winsmith.



Selection By Input Horsepower

REDUCER SIZE AND TORQUE (lbf·in.) AT 1750 RPM INPUT ²

1.00 SERVICE FACTOR

OUTPUT RPM	RATIO ¹	HP	INPUT HORSEPOWER								
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00
350	5	SIZE			E13	E13	E13	E17	E17	E20	E24
		TORQUE			128	128	171	258	343	518	863
175	10	SIZE		E13	E13	E13	E17	E17	E20	E24	
		TORQUE		109	165	248	338	507	687	1021	
117	15	SIZE		E13	E13	E17	E17	E20	E24	E26	
		TORQUE		157	238	370	494	749	1003	1512	
88	20	SIZE	E13	E13	E17	E17	E20	E24	E24		
		TORQUE	153	202	321	483	650	983	1311		
70	25	SIZE	E13	E13	E17	E20	E20	E24	E26		
		TORQUE	185	245	391	596	795	1197	1620		
58	30	SIZE	E13	E13	E17	E20	E24	E26			
		TORQUE	209	276	452	687	938	1427			
44	40	SIZE	E13	E17	E17	E24	E24				
		TORQUE	256	383	580	902	1203				
35	50	SIZE	E17	E17	E20	E24	E26				
		TORQUE	340	449	706	1083	1481				
29	60	SIZE	E17	E20	E24	E26					
		TORQUE	386	525	810	1268					

REDUCER SIZE AND TORQUE (lbf·in.) AT 1750 RPM INPUT ²

1.25 SERVICE FACTOR

OUTPUT RPM	RATIO ¹	HP	INPUT HORSEPOWER								
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00
350	5	SIZE			E13	E13	E13	E17	E17	E20	E26
		TORQUE			128	128	171	258	343	518	866
175	10	SIZE		E13	E13	E17	E17	E20	E24	E26	
		TORQUE		109	165	253	338	515	680	1026	
117	15	SIZE		E13	E13	E17	E20	E24	E24		
		TORQUE		157	238	370	500	751	1003		
88	20	SIZE	E13	E13	E17	E17	E20	E24	E26		
		TORQUE	153	202	321	483	650	983	1322		
70	25	SIZE	E13	E13	E17	E20	E24	E26			
		TORQUE	185	243	391	596	798	1215			
58	30	SIZE	E13	E17	E17	E24	E24				
		TORQUE	209	298	452	703	938				
44	40	SIZE	E17	E17	E20	E24	E26				
		TORQUE	290	383	585	902	1223				
35	50	SIZE	E17	E17	E24	E24					
		TORQUE	340	449	722	1083					
29	60	SIZE	E20	E20	E24	E26					
		TORQUE	400	525	810	1268					

1. Exact ratio

2. If input speed is below 1160 RPM, please specify speed and mounting position to ensure proper lubrication.

MDDS Model Worm Gear Ratio Multiplier

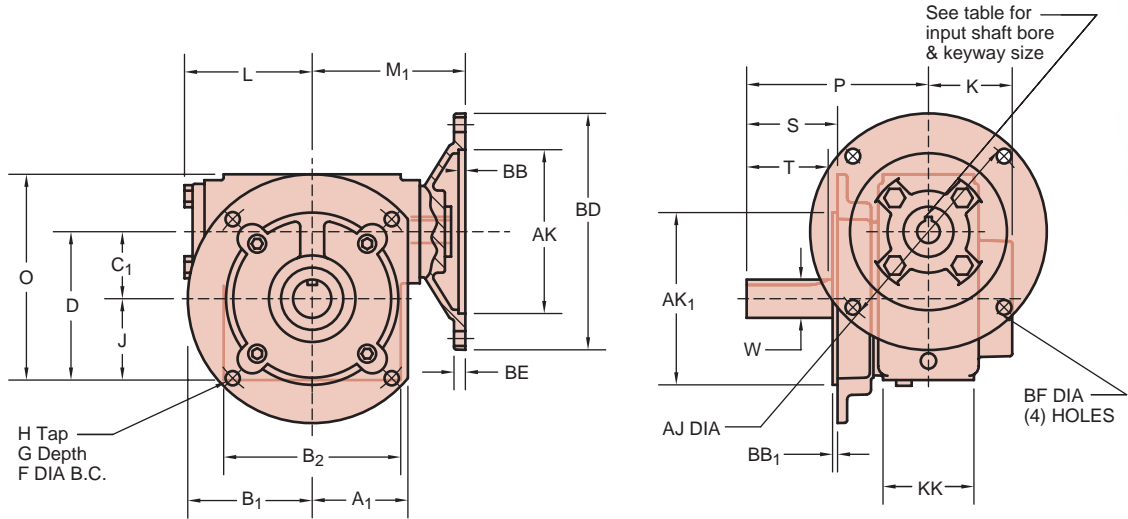
**Quill Input Adaptor
Solid Output Shaft
Flange Mount – NEMA**

4.50 inch diameter register *



Assembly R shown, Assembly L available

DIMENSIONS



RATIO MULTIPLIER DIMENSIONS (in.)

Size	Output Frame	A ₁	AK ₁ **	B ₁	B ₂	BB ₁	C ₁	D	F DIA.	G DEPTH	H TAP	J	K	KK	L	M ₁	O	P	W*	S	T	KEYWAY	lb.*
E13	56C	2.38	4.50	3.25	3.88	.13	1.333	3.08	5.88	.75	3/8-16	1.75	1.94	2.00	2.83	3.63	4.33	4.56	.625	2.06	1.81	3/16 X 3/32	21
E17	56C	2.50	4.50	3.25	4.63	.13	1.750	3.88	5.88	.88	3/8-16	2.13	2.19	2.38	3.44	4.06	5.38	4.44	.625*	2.06	1.81	3/16 X 3/32	23
E17	140TC	2.50	4.50	3.25	4.63	.13	1.750	3.88	5.88	.88	3/8-16	2.13	2.19	2.38	3.44	4.06	5.38	4.50	.875	2.13	2.00	3/16 X 3/32	23
E20	140TC	2.50	4.50	3.25	5.25	.13	2.000	4.13	5.88	.88	3/8-16	2.13	2.19	2.38	3.44	4.06	5.63	4.75	.875	2.13	2.00	3/16 X 3/32	29
E24	140TC	3.25	4.50	3.25	5.38	.13	2.375	5.25	5.88	.75	3/8-16	2.88	2.69	3.13	4.50	5.38	7.25	5.50	.875	2.13	2.25	3/16 X 3/32	48
E26	140TC	3.25	4.50	3.25	5.88	.13	2.625	5.75	5.88	.75	3/8-16	3.13	2.69	3.13	4.50	5.38	7.88	5.50	.875*	2.13	2.25	3/16 X 3/32	52

* Shaft diameter tolerances +.000-.001 Dimensions shown are for construction purposes only. Please contact Winsmith for certified dimension sheets.

▪ Approximate shipping weights ** Register diameter tolerances +.000-.003

* Catalog output torque limited to 575 lbf-in. • Catalog output torque limited to 1578 lbf-in.

INPUT ADAPTOR DIMENSIONS (in.)

INPUT ADAPT. DIM.	56C	140TC	180TC
AJ	5.88	5.88	7.25
AK	4.50	4.50	8.50
BB	.19	.19	.19
BD	6.50	6.50	9.00
BD ₁	6.63	6.63	9.00
BE	.31	.31	.38
BF	.406	.406	.531
KEYWAY	3/16 X 3/32		1/4 X 1/8
BORE ^{+0.001} / _{-.000}	.6255	.8755	1.1255

* See pages 140-141 for an 8.500 inch diameter register of the Worm Gear Ratio Multiplier.



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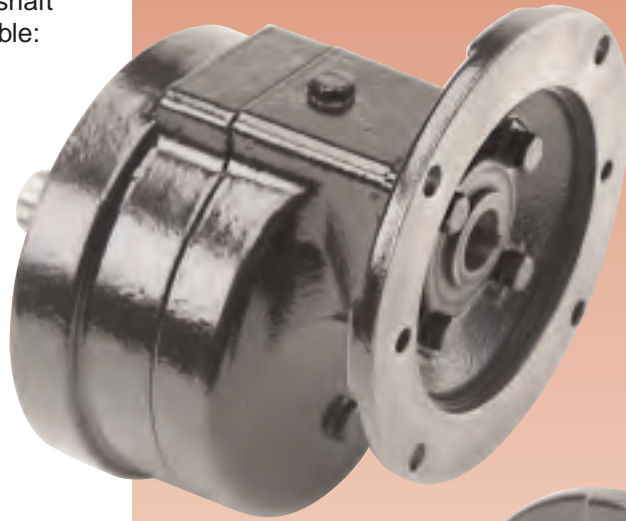


Helical Gear Ratio Multiplier

The Helical Gear Ratio Multiplier features a quill input flange along with a machined register output flange and shaft that duplicate NEMA C face flange and shaft dimensions. The following combinations are available:

- Size 206 is available with a NEMA 140TC input flange and a 4.500 inch, registered (140TC) output flange and shaft.
- Size 320 is available with a NEMA 180TC input flange and an 8.500 inch (180TC) output flange and shaft.
- Register diameter is machined to a NEMA tolerance of 0.003 inches, providing a precision interface with the driven equipment, which can be very useful especially in motion control applications.
- Available with 5.07 and 6.08 ratios.
- Completely self-contained ratio multiplier and includes an open-close vent, Mobilgear 600 XP 220 Oil and the WinGuard Epoxy Coating System.

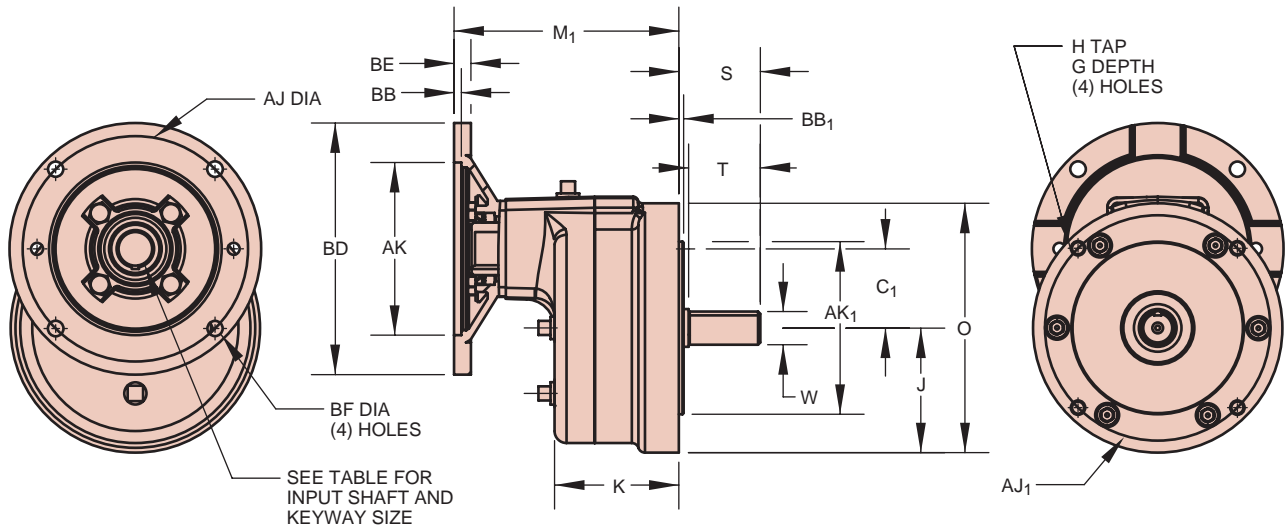
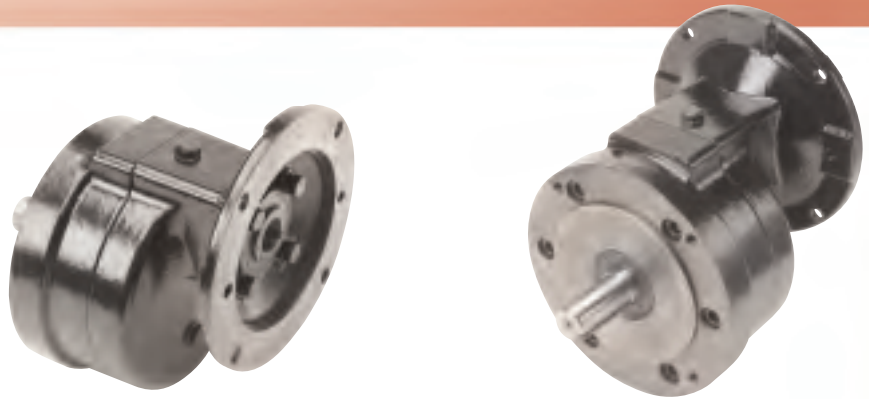
Coupling the Helical Gear Ratio Multiplier to the input of another NEMA C face reducer provides additional reduction. It also offers an easy method of creating a double reduction reducer on location or when mounting to another piece of NEMA C face equipment such as a brake or a clutch.



MHDS Model Helical Gear Ratio Multiplier

Quill Input Flange Solid Output Shaft Flange Mount – NEMA

4.50 inch diameter register *



RATIO MULTIPLIER DIMENSIONS (in.)

Size	C ₁	H	G DEPTH	J	K	M ₁ 56C 140TC	M ₁ 180TC	O	OUTPUT ADAPTOR							
									W*	S	T	KEYWAY	AJ ₁	AK ₁	B ₁	lb.*
206	2.062	3/8-16	.75	3.25	3.25	5.75	NA	6.50	.875	2.13	1.88	3/16 X 3/32	5.875	4.50	.125	25
320	3.200	1/2-13	1.00	4.50	4.35	7.13	7.31	9.00	1.125	2.88	2.50	1/4 X 1/8	7.250	8.50	.250	48

* Shaft diameter tolerances +.000 -.001

▪ Approximate shipping weights

RATIO MULTIPLIER RATINGS

RATIO (NOMINAL)	INPUT RPM	CENTER DISTANCE			
		2.06		3.20	
		INPUT HP	OUTPUT TORQUE	INPUT HP	OUTPUT TORQUE
5	1750	3.22	579	11.59	2082
	1160	2.21	601	8.06	2182
6	1750	2.67	575	9.47	1991
	1160	1.83	597	6.57	2085

INPUT FLANGE DIMENSIONS (in.)

INPUT FLANGE DIM.	56C	140TC	180TC
AJ	5.88	5.88	7.25
AK	4.50	4.50	8.50
BB	.19	.19	.19
BD	6.50	6.50	9.00
BE	.31	.31	.56
BF	.406	.406	.531
KEYWAY	3/16 X 3/32		1/4 X 1/8
BORE +.001 -.000	.6255	.8755	1.1255



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