

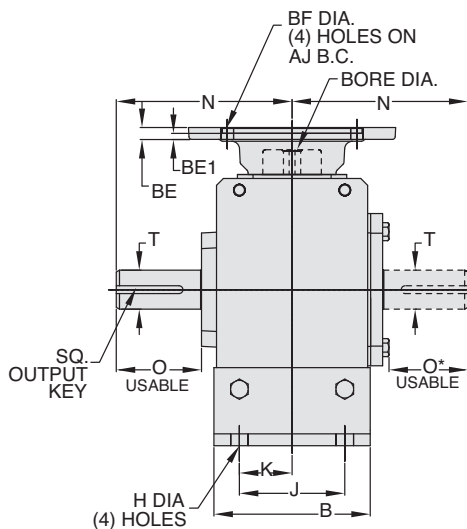
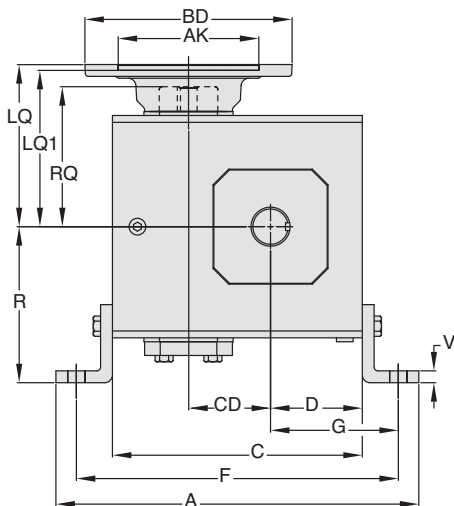


# GR Series Dimensions

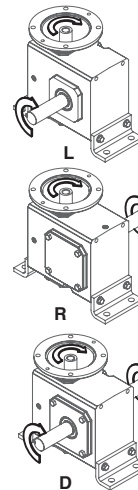
Styles: JMQ, JM, J

**CAST IRON**  
**GR SERIES**

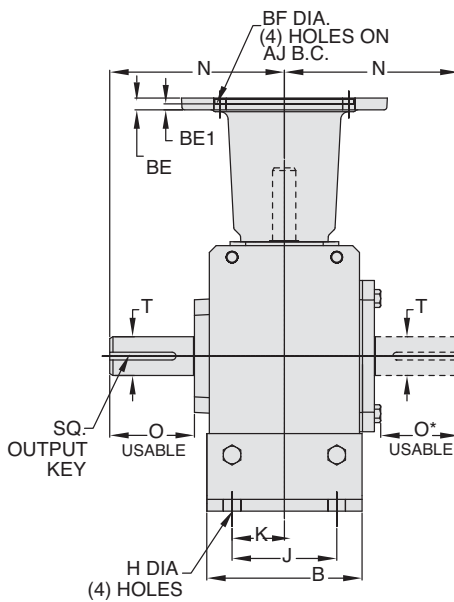
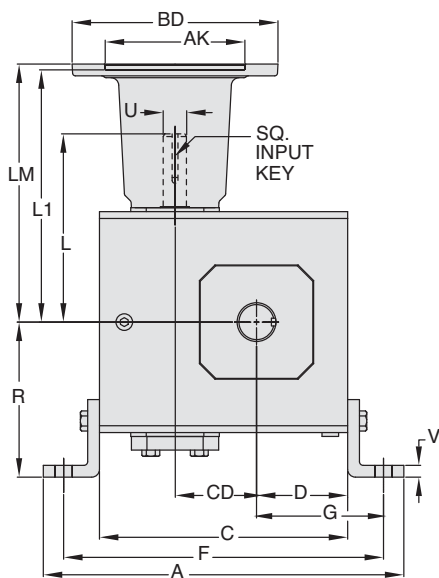
## Style JMQ



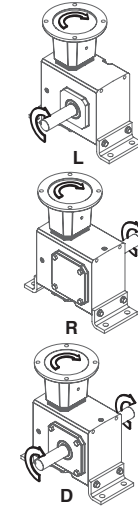
### ASSEMBLIES



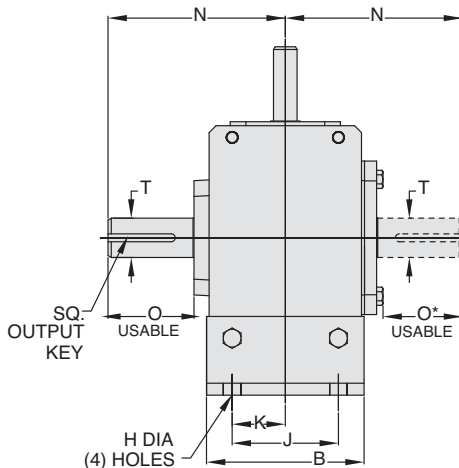
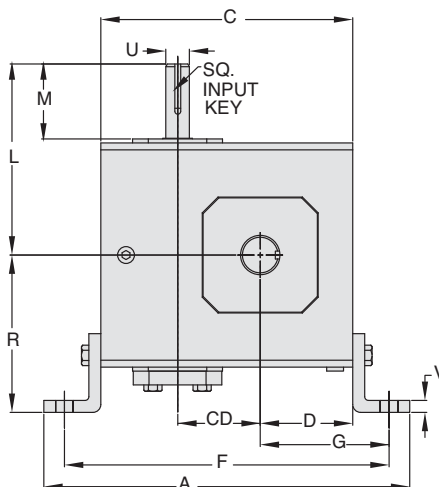
## Style JM



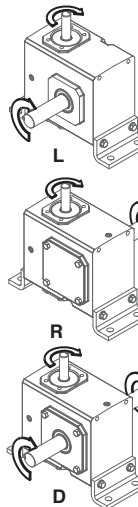
### ASSEMBLIES



## Style J



### ASSEMBLIES



REVERSE ALL ARROWS FOR OPPOSITE INPUT SHAFT ROTATION. CONTACT FACTORY FOR OTHER MOUNTINGS OR ASSEMBLY POSITIONS.

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities



**STYLE JMQ, JM, J DIMENSIONS (Inches)**

Size	A	B	C	D	CD	F	G	H	J	K	L	M	N	O	O*	R	V	T +0.000 -0.0015	U +0.000 -0.0015	Input Key*	Output Key
GR813	7.42	2.75	4.66	1.72	1.33	6.42	2.60	.38	2.00	1.00	3.82	1.76	4.00	2.16	1.94	2.94	0.25	.625	.500	1/8 X 1.00	3/16 X 1.50
GR815	8.14	3.50	5.38	1.91	1.54	7.08	2.76	.44	2.75	1.38	4.35	1.76	4.31	2.11	1.90	3.50	0.25	.750	.625	3/16 X 1.38	3/16 X 1.50
GR818	8.51	3.50	5.75	2.06	1.75	7.45 - 7.63	3.00	.44 slot	2.50 - 2.75	1.25 - 1.38	4.45	1.76	4.31	2.05	1.84	3.50	0.25	.875	.625	3/16 X 1.38	3/16 X 1.38
GR821	9.76	4.00	6.38	2.28	2.06	8.63	3.40	.56 slot	2.63 - 2.75	1.31-1.38	4.82	1.76	4.68	2.29	2.08	4.01	0.38	1.000	.625	3/16 X 1.38	1/4 X 1.44
GR824	10.31	4.00	6.94	2.50	2.38	9.19	3.63	.69	2.88	1.44	5.51	2.38	5.14	2.66	2.44	4.06	0.38	1.125	.750	3/16 X 1.63	1/4 X 1.75
GR826	11.62	5.00	8.00	2.94	2.63	10.38	4.13	.56	3.38	1.69	6.07	2.38	5.63	2.73	2.52	5.00	0.38	▲	.750	3/16 X 1.63	1/4 X 1.75
GR830	12.64	6.00	8.88	3.25	3.00	11.38	4.50	.56	3.88	1.94	6.57	2.38	6.75	3.60	3.36	5.62	0.38	1.250	.875	3/16 X 1.63	1/4 X 1.75
GR832	13.14	6.00	9.38	3.50	3.25	11.88	4.75	.56	3.88	1.94	6.76	2.38	7.06	3.66	3.42	5.63	0.38	▲	.875	3/16 X 1.63	3/8 X 2.25
GR842	16.38	7.00	11.38	4.44	4.25	14.88	6.19	.69	5.00	2.50	9.57	3.47	8.12	4.50	4.21	6.50	0.50	1.875	1.250	1/4 X 2.50	1/2 X 3.06
GR852	19.00	7.00	14.00	5.12	5.25	17.50	6.87	.69	5.81	2.91	10.88	3.38	9.06	4.78	4.53	7.75	0.50	2.000	1.250	1/4 X 3.00	1/2 X 3.50

▲ See feature comparison chart.

**FEATURE COMPARISON (821, 826, 832)**

Size	Output Shaft Diameter Needed?	Mounting Footprint Needed?	Output Key Needed	All Other Features	Grove Gear Flexaline Interchange	LEESON IRONMAN Interchange	Replace With Series Code Below:
821	Identical	Identical	Identical	Identical	✓	✓	GRG
							GRL
826	1.250"	Identical	Identical	Identical	✓	✓	GRG
	1.125"						GRL
832	1.500"	Identical	3/8 x 2.63	Identical	✓	✓	GRG
	1.375"		5/16 x 2.63				GRL

⊖ If Accessory kit is removed, dimensions will vary. NOTE: If reducer is used without the accessory mounted, select based mounting dimensions on pages 52-53 (B, BM, BMQ).

**Motor Mounting Dimensions**

**NEMA DIMENSIONS (Inches)**

Size	48CZ <sup>LM</sup>	56C/140TC	180TC/210TC	L1	250TC	LQ 48CZ/56C/140TC	180TC	LQ1 210TC	250TC	RQ 48CZ/56C/140TC	180TC
GR813	5.63	6.07	N/A	N/A	N/A	3.46	N/A	N/A	N/A	3.09	N/A
GR815	6.16	6.60	N/A	N/A	N/A	3.99	N/A	N/A	N/A	3.62	N/A
GR818	6.26	6.70	N/A	N/A	N/A	4.09	N/A	N/A	N/A	3.59	N/A
GR821*	6.63	7.07	N/A	N/A	N/A	4.46	N/A	N/A	N/A	4.06	N/A
GR824	N/A	7.76	8.76	N/A	N/A	4.63	5.06	N/A	N/A	4.09	4.56
GR826*	N/A	8.32	9.32	N/A	N/A	5.19	5.62	N/A	N/A	4.82	5.13
GR830	N/A	8.82	9.82	N/A	N/A	5.95	6.15	6.56	N/A	5.32	5.63
GR832*	N/A	9.01	10.01	N/A	N/A	6.14	6.34	6.75	N/A	5.51	5.81
GR842	N/A	11.81	12.90	13.46	13.46	6.45	7.21	7.21	7.77	6.04	6.68
GR852	N/A	13.21	14.30	14.86	14.86	7.85	8.61	8.61	9.17	7.35	7.98

**NEMA DIMENSIONS (Inches)**

Frame	AJ	AK	BD	BE	BE1	Bore Dia.	Keyway	BF
48CZ	3.75	3.00	4.36	0.38	N/A	0.500	1/8 X 1/16	0.28
56C	5.88	4.50	6.50	0.38	N/A	0.625	3/16 X 3/32	0.41
140TC	5.88	4.50	6.50	0.38	N/A	0.875	3/16 X 3/32	0.41
180TC	7.25	8.50	8.50	N/A	0.50	1.125	1/4 X 1/8	0.53
210TC	7.25	8.50	8.50	N/A	0.50	1.375	5/16 X 5/32	0.53
250TC	7.25	8.50	8.50	N/A	0.50	1.625	3/8 X 3/16	0.53

**IEC B5 & B3/B5 METRIC DIMENSIONS (Inches)**

Size	LQ1						RQ			
	D63D	D71D	D80D	D90D	D100LD/D112MD	D132D	D63D	D71D	D80D	D90D
GR813	2.62	2.65	2.89	N/A	N/A	N/A	2.45	2.47	2.71	N/A
GR815	3.15	3.18	3.42	N/A	N/A	N/A	2.98	3.00	3.24	N/A
GR818	3.25	3.28	3.52	N/A	N/A	N/A	2.95	2.97	3.21	N/A
GR821*	3.62	3.65	3.89	N/A	N/A	N/A	3.43	3.44	3.68	N/A
GR824	N/A	3.72	4.34	N/A	N/A	N/A	N/A	3.46	3.71	N/A
GR826*	N/A	4.28	4.90	4.90	5.30	N/A	N/A	4.09	4.72	4.72
GR830	N/A	4.78	5.41	5.41	5.88	N/A	N/A	4.59	5.22	5.22
GR832*	N/A	4.97	5.59	5.59	6.07	N/A	N/A	4.78	5.41	5.41
GR842	N/A	N/A	N/A	6.38	6.39	7.17	N/A	N/A	N/A	6.16
GR852	N/A	N/A	N/A	7.78	7.78	8.57	N/A	N/A	N/A	7.46

**IEC B5 & B3/B5 METRIC DIMENSIONS (MM)**

Frame	AJ	AK	BD	BE	Bore Dia.	Keyway	BF TAP	OD
D63D	115	95	117	10	11	4 X 2	M8 X 1.25	131
D71D	130	110	132	11	14	5 X 2.5	M8 X 1.25	146
D80D	165	130	165	15	19	6 X 3	M10 X 1.50	184
D90D	165	130	165	15	24	8 X 3.5	M10 X 1.50	184
D100LD/D112MD	215	180	216	18	28	8 X 3.5	M12 X 1.75	237
D132D	265	230	267	18	38	10 X 4	M12 X 1.75	290

- \* Applies to double output shaft
- \*\* Key not provided with gear reducer. Keyway dimension shown.
- ◆ Keyway width by depth
- ⊕ Mounting holes rotated 45 degrees from positions shown on Size GR860, Style JM with frame sizes 180TC-250TC.
- 48CZ not available
- 180TC not available

- ⊕ Metric IEC B5 input flange options are available only on quill input styles.
- \* Dimensions same for GRG and GRL Series
- ⊕ Style J and JM only.
- ▼ Sizes 860-8100 are supplied with a fan. Dimensions refer to fan guard location.
- WARNING** For safety, purchaser or user should provide protective guards over shaft extensions and any couplings, sheaves and belts, sprockets and chains, etc., mounted thereon.

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities



# Stock WASHGUARD® Gear Reducer Accessories



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
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Additional Capabilities

## WASHGUARD® STYLE T OR U HORIZONTAL BASE



Reducer Size	Accessory Kit Only Catalog No.	Weight (lbs)
GR813	G185045	2
GR815	G185180	3
GR818	G185046	3
GR821	G185047	4
GR824	G185048	4
GR826	G185049	6
GR830	G185181	6
GR832	G185182	9

Contact Factory for larger sizes

## WASHGUARD® STYLE J VERTICAL INPUT BASE



Reducer Size	Accessory Kit Only Catalog No.	Weight (lbs)
GR813	G185054	1
GR815	G185183	1
GR818	G185055	2
GR821	G185056	3
GR824	G185057	3
GR826	G185058	5
GR830	G185184	6
GR832	G185185	6

## WASHGUARD® HOLLOW SHAFT TIE ROD KIT



Reducer Size	Accessory Kit Only Catalog No.	Weight (lbs)
GR813-842	G185088	5
GR852-860	G185089	5

NOTE: Kit does not include Torque Arm Bracket that mounts to reducer. See "TORQUE ARM BRACKET" table.

## WASHGUARD® TORQUE ARM BRACKET



Reducer Size	Accessory Kit Only Catalog No. ▲
GR813	G185630
GR815	G185632
GR818	G185632
GR821	G185633
GR824	G185634
GR826	G185635
GR830	G185636
GR832	G185637

▲ Torque arm bracket mounts to hollow shaft reducer.

## WASHGUARD® STYLE BF OUTPUT FLANGE



Reducer Size	Accessory Kit Only Catalog No.	Weight (lbs)
GR813	G185081	2
GR818	G185082	2
GR821	G185083	3
GR824	G185084	4
GR826	G185085	6

Must designate L (left) or R (right).

## WASHGUARD® STYLE VL & VH VERTICAL OUTPUT BASE



Reducer Size	Accessory Kit Only Catalog No.	Weight (lbs)
GR813	G185063	2
GR815	G185186	3
GR818	G185064	3
GR821	G185065	7
GR824	G185066	7
GR826	G185067	9
GR830	G185187	10
GR832	G185188	13

\* Style VL and VH mountings use the same base with a different assembly position.

\*\* Must designate D or U.

## WASHGUARD® STYLE F OUTPUT FLANGE



Reducer Size	Accessory Kit Only Catalog No.	Weight (lbs)
GR813	G185307	1
GR815	G185308	1
GR818	G185309	2
GR821	G185310	3
GR824	G185311	3
GR826	G185312	4
GR830	G185313	10
GR832	G185314	10

Contact Factory for larger sizes

▼ Flange can only mount to "bolted cover side" of hollow reducer on sizes 813-852. Please specify correct mounting assembly with order. Refer to pages 64-65, for assembly positions. Must designate L (left) or R (right).

## WASHGUARD® HOLLOW OUTPUT SHAFT PROTECTIVE COVERS

Reducer Size	Accessory Kit Only Catalog No.
GR818	Contact Factory
GR821	
GR824	
GR826	



This protective cap mounts to integral output side of reducer and covers the unused output bore for single extension or hollow output shaft assemblies. Cover will not mount to bolted cover side of reducer. Check OSHA requirements and review installation manual to assure all safety requirements of gear reducer installation are met.