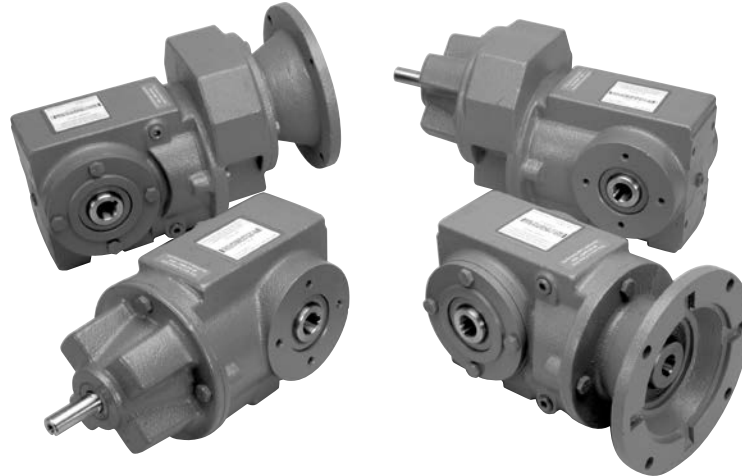


# 800 Series Right Angle Helical Worm Gear Drives



## Easy to Select, Easy to Apply, Easy to Obtain

The Boston Gear 800BR Series contains a broad selection of compact, heavy-duty helical gear drives, with long life performance features and simplified maintenance. Models include double and triple reduction units in flanged or foot mounted arrangements. You can choose from a wide range of reduction ratios to suit specific applications and a variety of input shaft configurations for maximum positioning flexibility. All units are adaptable to floor, sidewall or ceiling mounting.

## Two Available USDA Approved Finishes

- Durable non-absorbent, non-toxic white (BK) or stainless epoxy finish (SBK)
- Washable & Scrubbable
- Includes all the standard 800BR features



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## Section Contents

<b>Product Reference Guide</b> .....	<b>198</b>
<b>Interchange / How to Order</b> .....	<b>199-201</b>
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<b>Overhung Load / Weights</b> .....	<b>204</b>
<b>Lubrication / Mounting</b> .....	<b>205-206</b>
<b>Flanged Gear Drive Ratings</b> .....	<b>207-221</b>
<b>Non-Flanged Gear Drive Ratings</b> .....	<b>222-231</b>
<b>Flanged Gear Drive Dimensions</b> .....	<b>232-233</b>
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# Product Selection / Reference Guide

## 800 Series Helical Gear Drives

### SF800BR Series Right Angle Helical Worm Flanged



**Double Reduction  
Flange Input**  
Selection Pages 207-221  
Dimensions-Page 232



**Triple Reduction  
Flange Input**  
Selection Pages 207-221  
Dimensions-Page 233

### SF800BR Series Right Angle Helical Worm Non-Flanged



**Double Reduction**  
Selection Pages 207-221  
Dimensions-Page 234



**Triple Reduction**  
Selection Pages 207-221  
Dimensions-Page 235

### SF/S800BR Series Accessories and Options



**Output Flange Kits**  
Dimensions-Page 236



**Torque Arm Kits**  
Dimensions-Page 236



**Base Kits**  
Dimensions-Page 237



**Output Shaft Kits**  
Dimensions-Page 237

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# 800 Series Right Angle Helical Worm Gear Drives

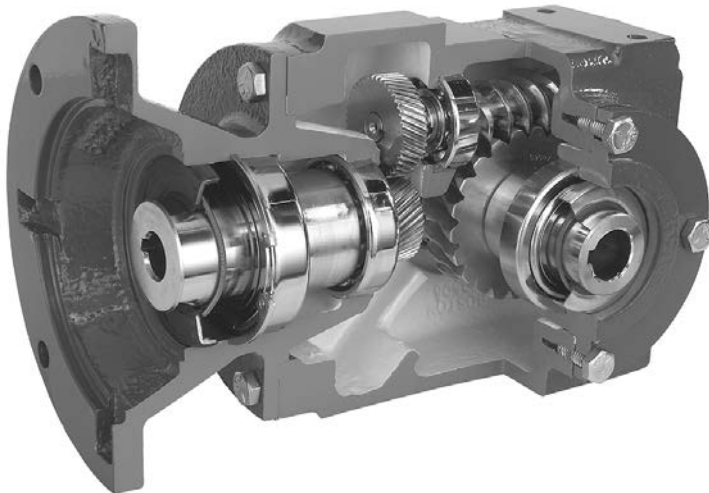
## The Inside Story

Available in USDA approved finish for washdown applications

Oil seal location provides easy, access for routine product maintenance. Additionally, all sizes can be double sealed on the high speed shaft for severe applications.

All units shipped prelubricated for your particular mounting position.

Available in both standard NEMA C-Face flanged and direct input non-flanged configurations. NEMA C-Face units allow for direct assembly of the reducer and motor.



Rugged housing of fine grained, gear quality cast iron provides maximum strength and durability.

The use of state of the art helical and worm gear combinations affords optimum performance fulfilling a wide variety of ratio requirements.

Available in both hollow and projecting output shaft styles.

Modular base allows dimensional interchangeability with major European manufacturers.

A wide range of available gear reduction ratios, from 8:1 to 900:1, allows the 800BR Series to fulfill a broad range of output speed requirements.

Super finished oil seal diameter on both input and output shafts provide extended life for double lipped seals.

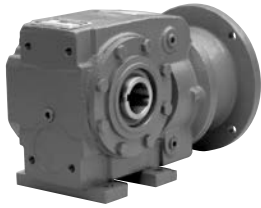
**REDUCER EXPRESS**  
**SAME DAY**  
**GUARANTEED**  
**SHIPMENT**

See page 356 for conditions.

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# 800 Series Right Angle Helical Worm Gear Drives

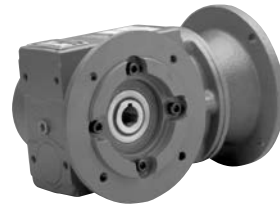
## Interchange Guide



**Base Mounted  
NEMA C-Face  
SF800BRB**



**Base Mounted  
S800BRB**



**Output Flange Mount  
NEMA C-Face  
SF800BRF**



**Output Flange Mount  
S800BRF**

Boston Gear 800BR Series Right Angle Helical-Worm Gear Drives are designed to be functionally interchangeable with these and many other manufacturer's drives. This chart is intended to be a guide only. Please see appropriate manufacturer's catalogs for exact details regarding ratings and dimensions.

Manufacturers	Size	Base Mounted* NEMA C-Face SF800BRB	Base Mounted* S800BRB	Output Flange Mount NEMA C-Face SF800BRF	Output Flange Mount S800BRF
Boston	830	SF832BRB/SF833BRB	S832BRB/S833BRB	SF832BRF/SF833BRF	S832BRF/S833BRF
SEW Eurodrive	32	SA32LP	SA32	SAF32LP	SAF32
Falk	03	UWCQ2(3)-A	UWCQ2(3)-N	UWCQ2(3)-A	UWCQ2(3)-N
David Brown	C03	C032(3)BAN	C032(3)BRN	C032(3)BAF	C032(3)BRF
Flender	NA	Not Available	Not Available	Not Available	Not Available
Stober	S102	S102VN-MR	S102VN-AW	S102AF-MR	S102AF-AW
Nord	N/A	Not Available	Not Available	Not Available	Not Available
Boston	840	SF842BRB/SF843BRB	S842BRB/S843BRB	SF842BRF/SF843BRF	S842BRF/S843BRF
SEW Eurodrive	42	SA42LP	SA42	SAF42LP	SAF42
Falk	04	UWCQ2(3)-A	UWCQ2(3)-N	UWCQ2(3)-A	UWCQ2(3)-N
David Brown	C04	C042(3)BAN	C042(3)BRN	C042(3)BAF	C042(3)BRF
Flender	21	CA21-(M,G, or A)	CA21A	CF21-(M, G or A)	CF21A
Stober	S200	S202/3VN-MR	S202/3VN-AW	S202/3AF-MR	S202/3AF-AW
Nord	SK04	SK02040A	SK02040A	SK02040AF	SK02040AF-W
Boston	850	SF852BRB/SF853BRB	S852BRB/S853BRB	SF852BRF/SF853BRF	S852BRF/S853BRF
SEW Eurodrive	52	SA52LP	SA52	SAF52LP	SAF52
Falk	05	UWCQ2(3)-A	UWCQ2(3)-N	UWCQ2(3)-A	UWCQ2(3)-N
David Brown	C05	C052(3)BAN	C052(3)BRN	C052(3)BAF	C052(3)BRF
Flender	41	CA41-(M, G, or A)	CA41A	CF41-(M, G or A)	CF41A
Stober	S300	S302/3VN-MR	S302/3VN-AW	S302/3AF-MR	S302/3AF-AW
Nord	SK05	SK02(13)050A	SK02(13)050A-W	SK02(13)050AF	SK02(13)050AF
Boston	860	SF862BRB/SF863BRB	S862BRB/S863BRB	SF862BRF/SF863BRF	S862BRF/S863BRF
SEW Eurodrive	62	SA62LP	SA62	SAF62LP	SAF62
Falk	06	UWCQ2(3)-A	UWCQ2(3)-N	UWCQ2(3)-A	UWCQ2(3)-N
David Brown	C06	C062(3)BAN	C062(3)BRN	C062(3)BAF	C062(3)BRF
Flender	61	CA61-(M, G, or A)	CA61A	CF61-(M, G or A)	CF61A
Stober	S400	S402/3VN-MR	S402/3VN-AW	S402/3AF-MR	S402/3AF-AW
Nord	SK06	SK12(3)063A	SK12(3)063A-W	SK23(3)063AF-W	SK23(3)063AF-W

\* Detachable base kit required. See page 237.

If you require assistance with an interchange, please contact our interchange hotline at 1-888-999-9860 ext 5335.

# 800 Series Right Angle Helical Worm Selection Tables

## Numbering System / How to Order

### 800 Series Right Angle Helical Worm Gear Drives

### Clutch/Brake

### Motor

**BK SF 8 3 2 BR F - 45 K T - B5 - G - M2 - CMBA56U-6 - HUTF5/8-IDB - 3**

**Series**  
800BR Series

**Frame Size**  
3  
4  
5  
6

**Base/Mounting Attachment**  
Blank - Foot Mounted  
B - Detachable Base  
F - Output Flange  
T - Torque Arm

**Input Oil Seal**  
Blank - Standard Seal  
T - Two Standard Seals

**Nominal Gear Ratio**  
(Rounded Value)  
Refer to Selection Tables For Available Ratios

**Input Shaft Style**  
S - Solid Projecting Input Shaft  
SF - Quill Style C-Face Motor Flange

**Reduction Type**  
2 - Double  
3 - Triple

**Lubrication**  
Blank - No Lubrication  
K - Klubersynth UH1 6-460  
W - Klubersynth GH6  
S - Mobil SHC 634  
X - Mobil 600W  
(Sizes 3 and 4 are non-vented)

**Reducer Material/Paint**  
Blank - Cast Iron, Std Gray Paint  
BK - Cast Iron, White BostKleen Paint  
SBK - Cast Iron, Stainless BostKleen Paint

**NEMA Motor Mounting**

BORE CODE	NEMA MOUNTING	INPUT BORE	KEYWAY
B5	56C	.625	3/16 x 3/32
B7	140TC/180C	.875	3/16 x 3/32
B9	180TC/210C	1.125	1/4 x 1/8
B11	210TC/250UC	1.375	5/16 x 5/32

Blank Solid Input Shaft (No Flange)

**Common C-Face Brake Installed**

115/230 VAC 60hz	Ft-Lb	Bore Code
CMBA56R-3	3	B5
CMBA56R-6	6	B5
CMBA140TR-6	6	B7

208-230/460 VAC 60hz	Ft-Lb	Bore Code
CMBA56U-3	3	B5
CMBA56U-6	6	B5
CMBA140TU-6	6	B7

Other sizes available. See catalog.

**Motor Conduit Box Orientation**  
(When looking at fan end of motor)

0 - 12 O'clock  
3 - 3 O'clock  
6 - 6 O'clock  
9 - 9 O'clock

**Common C-Face Motors Installed**

HP Rating	Bore Code	AC Voltage	
		115/208-230-1-60	208-230/460-3-60
1/4 HP	B5	DRTFB	DUTFB
1/3 HP	B5	ERTFB	EUTFB
1/2 HP	B5	FRTFB	FUTFB
	B5		FUT-SS
	B5		FUTF-IDB
3/4 HP	B5	GRTFB	GUTFB
	B5		GUT-SS
	B5		GUTF-IDB
1 HP	B5	HRTF-5/8B	HUTF5/8B
	B5		HUT5/8-SS
	B5		HUTF5/8-IDB
	B7	HUTFB	
	B7	HUT-SS	
	B7	HUTF-IDB	
1.5 HP	B7		JUTFB
	B7		JUTF-SS
	B7		JUTF-IDB
2 HP	B5		KUTF5/8B
	B7		KUTFB
	B7		KUTF-SS
	B7		KUTF-IDB
3 HP	B9		LUTFB
	B9		LUTF-SS
	B9		LUTF-IDB
5 HP	B9		MUTFB

Other motors available, please see catalog pages 333 to 342.

T - Totally enclosed non-ventilated  
TF - Totally enclosed fan cooled  
SS - Stainless  
IDB - Inverter Duty (10:1 turn down constant torque)  
B5 - 56C  
B7 - 140TC  
B9 - 180TC

### How to Order

#### EXAMPLE:

Required flange input, NEMA 56C, 3/4 HP, Class I, detachable base, 45:1 ratio, lubricated, with double output shaft and standard mounting position.

#### Order:

1 pc SF832BR-45K-B5  
or item code F01425

1 pc XS830BR-11K (Base Kit)  
or 5 digit item code 59610

1 pc XS830BR-3PBK (Output Shaft)  
or 5 digit item code 59609

If components are to be factory assembled specify as SF832BRB-45K B5 H.

**Output Shaft Projection**

Blank - Carbon Steel Hollow Shaft  
G - Carbon Steel Left Projection  
H - Carbon Steel Double Projection  
J - Carbon Steel Right Projection  
S - Stainless Hollow Shaft  
GS - Stainless Left Projection  
HS - Stainless Double Projection  
JS - Stainless Right Projection

**Mounting Positions**

Blank - No Lubrication  
M1 - M6 - Lubrication per Mounting Positions in Catalog



# 800 Series Right Angle Helical Worm Gear Drives

## Motorized Gear Drives

1. Determine application service factor from page 203 or from Application Classifications on page 348-349.
2. Determine output speed required.
3. Determine HP or output torque requirement.
4. Select based on output speed and horsepower requirement for given service class.
5. Check overhung load Ref. calculation.

## Example

Select a right angle motorized helical-worm shaft mounted gear drive and motor to drive a uniformly loaded line conveyor 24 hours/day requiring 2 HP at 35 RPM.

Power Requirement  
 230/460 volt  
 3 phase  
 60 hertz

1. Select Service Factor Class from page 203.  
Service Class = II
2. Output RPM = 35
3. 2 HP
4. Select a 2 HP drive that will satisfy min. of II service class.
5. Order: 1 - SF862BR-50K-B7 (F01613) Ref. Page 201  
1 - KUTF Motor

## Overhung Load (Not Required for Example)

If the output shaft of a gear drive is connected to the driven machine by other than a flexible coupling, an overhung load is imposed on the shaft. This load may be calculated as follows:

$$OHL = \frac{2 TK}{D}$$

- OHL = Overhung Load (LB.)
- T = Shaft Torque (LB.-INS.)
- D = PD of Sprocket, Pinion or Pulley (IN.)
- K = Load Connection Factor

## Load Connection Factor (K)

Sprocket or Timing Belt . . . . .	1.00
Pinion and Gear Drive . . . . .	1.25
Pulley and V-Belt Drive . . . . .	1.50
Pulley and Flat Belt Drive . . . . .	2.50

An overhung load greater than permissible load value may be reduced to an acceptable value by the use of a sprocket, pinion or pulley of a larger PD. Relocation of the load closer to the center of gear drive will also increase OHL capacity.

Permissible Overhung Loads and Output Shaft Thrust Loads are listed for each gear drive in the Tables on Page 204.

# 800 Series Right Angle Helical-Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
 ORDER BY CATALOG NUMBER OR ITEM CODE  
 FOR STANDARD MOUNTING POSITIONS

Approx. Output RPM	Nominal Ratio*	NON-FLANGED			FLANGED (GEARMOTORS)			
		GEAR Capacity		Catalog Number (Item Code)	Motor HP	Ratings Output Torque	Service Class**	Catalog Number (Item Code) Shaft Mounted
		Output Torque	HP Input					
35	50	3248	2.24	S852BR-50K (F01304)	2	2899	I	SF852BR-50K-B7 (F01547)
					1.5	2174	II	
		5930	3.79	S862BR-50K (F01349)	1	1499	III	SF852BR-50K-B5 (F01546)
					3	4692	I	SF862BR-50K-B9 (F01614)
				2	3128	II	SF862BR-50K-B7 (F01613)	
					1.5	2346	III	

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service Class III (S.F. = 2.00)  
 Overhung Load Ratings refer to Page 204.

# 800 Series Right Angle Helical Worm Gear Drives

To properly select a gear drive, the following application information should be known.

1. Service Factor or AGMA Service class.
2. Output Horsepower or Torque
3. Output RPM or Ratio  
(Maximum Input Speed 4500 RPM)

Consult Engineering for mounting positions: M2, M3, M4, and M6.

## Non-Motorized Gear Drives

1. Determine application service factor from the service factor chart on this page, or from Application Classifications on pages 348-349.
2. Determine design Horsepower or Torque.
  - Design HP = Application HP x S.F.
  - Design Torque = Application Torque x S.F.
3. Select a Gear drive that satisfies output RPM, service class and/or output torque requirement.
4. Overhung shaft load should be checked when belt or chain drives are used, to prevent premature shaft or bearing failure. Ref. page 204 for calculations.

## Example

Select a right angle 800BR Series Gear Drive for a continuous duty concrete mixer requiring 2800 lb-in. of torque at approx. 140 RPM, to operate up to 8 hrs/day. The Gear Drive will be driven at 1160 input RPM.

1. Application Service Factor = 1.25
2. Design Torque = 2800 x 1.25 = 3500
3. Select at speed and torque level of 3500 lb-ins. or greater.
4. Order 862BR-8K.

Order solid projecting shaft, output mounting flange or reaction torque arms from available kits reference pages 236 and 237.

**NOTE:** The use of an auxiliary drive between the gear drive and the driven machine reduces the torque required at the output shaft in direct proportion to the auxiliary drive ratio.

A 3:1 chain ratio would reduce the torque requirement at the output shaft of the gear drive to one-third, resulting in a smaller unit size selection.

## SERVICE FACTOR CHART

AGMA Class of Service	Service Factor	Operating Conditions
I	1	Moderate Shock-not more than 15 minutes in 2 hours Uniform Load-not more than 10 hours per day.
II	1.25	Moderate Shock-not more than 10 hours per day. Uniform Load-more than 10 hours per day.
	1.5	Heavy Shock-not more than 15 minutes in 2 hours. Moderate Shock-more than 10 hours per day.
III	1.75	Heavy Shock-not more than 10 hours per day.
	2.00	Heavy Shock-more than 10 hours per day.

For complete AGMA Service Factors and Load Classifications, see Engineering Pages 348-349.

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# 800 Series Right Angle Helical-Worm Ratings

## Non-Flanged; Input Speeds 1750, 1450 and 1160 RPM Service Factor 1.0

Catalog Number	Input Speed								
	1750 RPM			1450 RPM			1160 RPM		
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)
832BR-8K	218	689	2.65	181	717	2.30	145	751	1.95
842BR-8K	218	1100	4.39	181	1152	3.81	145	1209	3.23
852BR-8K	218	1678	6.66	181	1829	6.00	145	1991	5.28
862BR-8K	218	2910	11.40	181	3292	10.20	145	3607	8.98

# 800 Series Right Angle Helical Worm Gear Drives

## Overhung Loads (lbs) & Axial Thrusts (lbs)

### Overhung Loads & Axial Thrust Capacities on Output Shaft

Output RPM	832 / 833		842 / 843		852 / 853		862 / 863	
	OHL	Thrust	OHL	Thrust	OHL	Thrust	OHL	Thrust
180	440	1650	1770	2570	1670	3420	1730	3920
125	440	1840	1770	2830	1670	3720	1720	4220
80	440	2260	1770	3410	1670	4220	1700	4990
50	440	2740	1770	4160	1670	5220	1660	5850
32	440	3000	1770	4530	1670	5540	1640	6400
25	440	3000	1770	4670	1670	5860	1620	6550
10	430	3890	1770	6160	1670	7760	1570	8550
5	430	4620	1770	7090	1670	9000	1560	10500
1	430	4840	1770	7130	1660	8950	1560	10500

### Overhung Loads (LBS) on Input Shaft at 1750 RPM

Ratio	Size			
	832	842	852	862
8.0	290	270	255	300
14.0	300	280	260	315
20.0	300	285	265	320
32.0	305	290	265	320
50.0	310	290	270	320
71.0	310	295	265	315
112.0	310	305	280	320
160.0	320	305	280	335
250.0	320	310	290	345

Ratio	Size			
	833	843	853	863
100.0	315	310	295	280
180.0	315	315	300	285
280.0	315	315	305	285
400.0	315	315	305	290
560.0	320	315	305	295
900.0	320	315	305	300

### Approximate Weights (LBS)

NON-FLANGE Reducers		FLANGE Reducers				
		Size	NEMA Mounting			
Size	Lbs		56C B5	140TC B7	180TC B9	210TC B11
S832BR	24	SF832BR	26	26	—	—
S842BR	32	SF842BR	31	31	34	—
S852BR	39	SF852BR	—	35	38	—
S862BR	70	SF862BR	—	—	80	80
S833BR	32	SF833BR	33	—	—	—
S843BR	40	SF843BR	39	—	—	—
S853BR	47	SF853BR	43	—	—	—
S863BR	83	SF863BR	78	78	—	—



# 800 Series Right Angle Helical Worm Gear Drives

## Lubricant and Quantity

Klubersynth UH1 6-460 is recommended for the 800BR Series gear drives and at all times, the lubricant must remain free from contamination. Normal operating temperatures range between 150°F - 170°F. During the initial break-in of the gear drive, higher than normal operating temperatures may result.

All gear drives are supplied filled with UH1 6-460 synthetic oil and with the quantity listed below for standard mounting position M1 or to mounting specified at time of order.

- Sizes 832/833BR and 842/843BR do not require a vent plug.
- Sizes 852/853BR and 862/863BR will require an oil change after 20,000 hours of operation. More frequent changes may be required when operating in high temperature ranges or unusually contaminated environments.
- Satisfactory performance may be obtained in some applications with non-synthetic oils and will require more frequent changes.

Recommended Lubricant	ISO Viscosity Grade No.	Viscosity Range SUS @100°F	Boston Gear Item Code
			Quart
Klubersynth UH1 6-460	460	1950/2500	65159
Mobile SHC634	320 / 460	1950/2500	51493

Ambient temperature range of -20F to +125F is suitable for standard configured products and ratings. Contact technical support for operating conditions beyond this range.

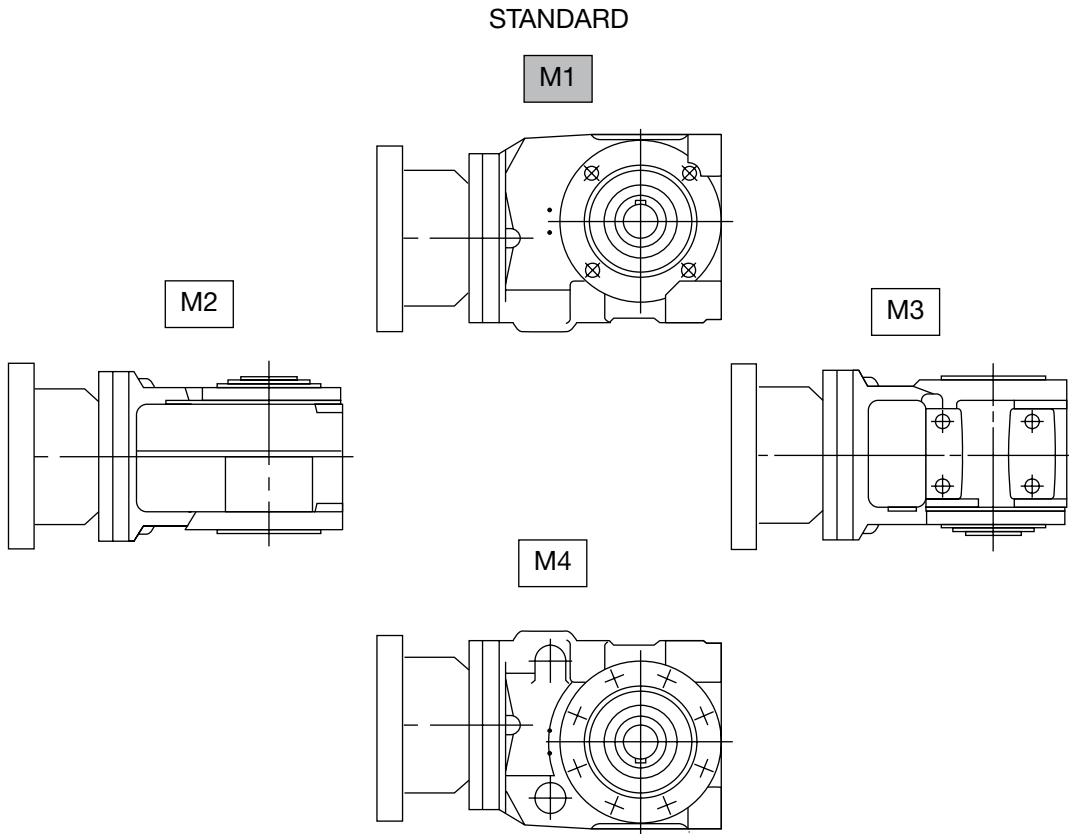
## Oil Capacities (PINTS)

Unit Size	Mounting Positions					
	M1	M2	M3	M4	M5	M6
832BR	.80	1.0	1.0	1.7	1.7	1.7
833BR	2.3	1.3	1.3	2.8	2.8	2.8
842BR	1.2	1.6	1.6	2.0	2.0	2.0
843BR	2.6	1.8	1.8	3.2	3.4	3.4
852BR	1.8	2.3	2.3	2.7	3.8	3.8
853BR	3.2	2.8	2.8	4.4	4.8	4.8
862BR	4.0	4.6	4.6	7.0	7.0	7.0
863BR	7.0	5.8	5.8	8.8	9.6	10.0

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# 800 Series Right Angle Helical Worm Mounting Positions

## Horizontal Mountings



## Vertical Mountings



- Position M1 is standard and will be supplied with oil for this position unless otherwise specified.

**CAUTION:** Mounting of gear drives in overhead positions may be hazardous. Use of external guides or supports is strongly recommended for overhead mounting. Avoiding those positions where the high speed oil seal is immersed in oil will provide greater security against high speed input seal wear.

**Note:** The above drawings will serve to represent both flanges and non-flanged styles.

# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
218	8	689	2.65	S832BR-8K-M1 (F01218)	2	519	I	SF832BR-8K-B7-M1 (F01432)
					1.5	389	II	SF832BR-8K-B5-M1 (F01431)
		1160	4.39	S842BR-8K-M1 (F01263)	3	751	II	SF842BR-8K-B9-M1 (F01491)
					2	500	III	SF842BR-8K-B7-M1 (F01490)
		1678	6.66	S852BR-8K-M1 (F01309)	5	1260	I	SF852BR-8K-B9-M1 (F01558)
					3	755	III	SF852BR-8K-B7-M1 (F01558)
		2940	11.40	S862BR-8K-M1 (F01354)	10	2578	I	SF862BR-8K-B11-M1 (F01622)
					7.5	1933	II	SF862BR-8K-B11-M1 (F01622)
			5	1289	III	SF862BR-8K-B9-M1 (F01623)		
159	11	742	2.14	S832BR-11K-M1 (F01195)	2	694	I	SF832BR-11K-B7-M1 (F01404)
					1.5	520	II	SF832BR-11K-B5-M1 (F01403)
		1194	3.57	S842BR-11K-M1 (F01240)	3	1003	I	SF842BR-11K-B9-M1 (F01453)
					2	668	II	SF842BR-11K-B7-M1 (F01452)
		1930	5.52	S852BR-11K-M1 (F01285)	1.5	501	III	SF842BR-11K-B7-M1 (F01452)
					5	1746	I	SF852BR-11K-B9-M1 (F01517)
		3480	9.38	S862BR-11K-M1 (F01331)	3	1048	II	SF852BR-11K-B9-M1 (F01517)
					2	666	III	SF852BR-11K-B7-M1 (F01516)
					7.5	2780	I	SF862BR-11K-B11-M1 (F01584)
					5	1853	II	SF862BR-11K-B9-M1 (F01585)
			3	1112	III	SF862BR-11K-B9-M1 (F01585)		
145 (CONT.)	12	787	1.95	S832BR-12K-M1 (F01197)	1.5	605	I	SF832BR-12K-B7-M1 (F01407)
					1	403	II	SF832BR-12K-B5-M1 (F01406)
		1264	3.25	S842BR-12K-M1 (F01242)	.75	302	III	SF832BR-12K-B5-M1 (F01406)
					3	1166	I	SF842BR-12K-B9-M1 (F01456)
					2	777	II	SF842BR-12K-B7-M1 (F01455)
			1.5	583	III	SF842BR-12K-B7-M1 (F01455)		

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Overhung Load Ratings refer to Page 204.  
 † For Base / Projecting Shaft / Output Flange see How to Order Page 201.



# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
 ORDER BY CATALOG NUMBER OR ITEM CODE  
 FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)					
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)		
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**			
145 (CONT)	12	2010	5.22	S852BR-12K-M1 (F01287)	5	1924	I	SF852BR-12K-B9-M1 (F01520)		
					3	1155	II	SF852BR-12K-B7-M1 (F01519)		
		3646	8.77	S862BR-12K-M1 (F01333)	2	770	III	SF862BR-12K-B11-M1 (F01587)		
					7.5	3117	I	SF862BR-12K-B9-M1 (F01588)		
125	14	790	1.79	S832BR-14K-M1 (F01199)	5	662	I	SF832BR-14K-B7-M1 (F01410)		
					1	441	II	SF832BR-14K-B5-M1 (F01409)		
		1288	2.99	S842BR-14K-M1 (F01244)	3	1288	I	SF842BR-14K-B9-M1 (F01459)		
					2	861	II	SF842BR-14K-B7-M1 (F01458)		
		2060	4.85	S852BR-14K-M1 (F01289)	1.5	646	III	SF852BR-14K-B9-M1 (F01523)		
					3	1274	II	SF852BR-14K-B7-M1 (F01522)		
		3827	8.20	S862BR-14K-M1 (F01335)	7.5	3498	I	SF862BR-14K-B11-M1 (F01591)		
					5	2332	II	SF862BR-14K-B9-M1 (F01592)		
		109	16	730	1.70	S832BR-16K-M1 (F01201)	3	1399	III	SF832BR-16K-B7-M1 (F01413)
							1	430	II	SF832BR-16K-B5-M1 (F01412)
1218	2.72			S842BR-16K-M1 (F01246)	2	895	I	SF842BR-16K-B7-M1 (F01462)		
					1.5	671	II	SF842BR-16K-B5-M1 (F01461)		
2710	5.92			S852BR-16K-M1 (F01291)	1	448	III	SF852BR-16K-B9-M1 (F01525)		
					5	2287	I	SF862BR-16K-B11-M1 (F01595)		
4199	9.03	S862BR-16K-M1 (F01337)	3	1372	III	SF862BR-16K-B9-M1 (F01596)				
			7.5	3054	I					

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Overhung Load Ratings refer to Page 204.  
 † For Base / Projecting Shaft / Output Flange see How to Order Page 201.

# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
97	18	864	1.50	S832BR-18K-M1 (F01202)	1.5	864	I	SF832BR-18K-B7-M1 (F01415)
					1 .75	576 432	II III	SF832BR-18K-B5-M1 (F01414)
		1388	2.50	S842BR-18K-M1 (F01247)	2 1.5	1110 832	I II	SF842BR-18K-B7-M1 (F01464)
					1	555	III	SF842BR-18K-B5-M1 (F01463)
		2162	4.21	S852BR-18K-M1 (F01292)	3	1540	I	SF852BR-18K-B9-M1 (F01527)
					2	1026	III	SF852BR-18K-B7-M1 (F01526)
4208	7.10	S862BR-18K-M1 (F01338)	5 3	2962 1777	I III	SF862BR-18K-B9-M1 (F01597)		
87	20	860	1.43	S832BR-20K-M1 (F01203)	1 .75	600 451	I III	SF832BR-20K-B5-M1 (F01416)
					2 1.5	1173 880	I II	SF842BR-20K-B7-M1 (F01466)
		1391	2.37	S842BR-20K-M1 (F01248)	1	586	III	SF842BR-20K-B5-M1 (F01465)
					3	1803	I	SF852BR-20K-B9-M1 (F01529)
		2345	3.90	S852BR-20K-M1 (F01294)	2 1.5	1202 902	II III	SF852BR-20K-B7-M1 (F01528)
5 3	3343 2006				I III	SF862BR-20K-B9-M1 (F01598)		
79	22	804	1.39	S832BR-22K-M1 (F01205)	1 .75 .50	578 434 289	I II III	SF832BR-22K-B5-M1 (F01418)
					2 1.5	1184 888	I II	SF842BR-22K-B7-M1 (F01470)
		1321	2.23	S842BR-22K-M1 (F01250)	1	592	III	SF842BR-22K-B5-M1 (F01468)
					5 3	3086 1889	I II	SF852BR-22K-B9-M1 (F01532)
		3086	4.90	S852BR-22K-M1 (F01296)	2	1259	III	SF852BR-22K-B7-M1 (F01531)
5 3	3226 1935				II III	SF862BR-22K-B9-M1 (F01601)		

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.

\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Overhung Load Ratings refer to Page 204.

† For Base / Projecting Shaft / Output Flange see How to Order Page 201.

H

# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
 ORDER BY CATALOG NUMBER OR ITEM CODE  
 FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
70	25	843	1.28	S832BR-25K-M1 (F01207)	1 .75 .50	658 494 329	I II III	SF832BR-25K-B5-M1 (F01420)
		1389	2.04	S842BR-25K-M1 (F01252)	2 1.5	1360 1020	I I	SF842BR-25K-B7-M1 (F01473)
					1	680	III	SF842BR-25K-B5-M1 (F01472)
		3177	4.62	S852BR-25K-M1 (F01298)	3	2062	II	SF852BR-25K-B9-M1 (F01535)
					2	1374	III	SF852BR-25K-B7-M1 (F01534)
5026	6.94	S862BR-25K-M1 (F01343)	5 3	3620 2172	I III	SF862BR-25K-B9-M1 (F01603)		
62	28	862	1.17	S832BR-28K-M1 (F01208)	1 .75 .50	736 552 368	I II III	SF832BR-28K-B5-M1 (F01421)
		1363	1.88	S842BR-28K-M1 (F01253)	1.5	1087	I	SF842BR-28K-B7-M1 (F01475)
					1 .75	725 543	II III	SF842BR-28K-B5-M1 (F01474)
		3200	4.24	S852BR-28K-M1 (F01299)	3	2263	I	SF852BR-28K-B9-M1 (F01537)
					2	1508	III	SF852BR-28K-B7-M1 (F01536)
5290	6.49	S862BR-28K-M1 (F01344)	5 3	4073 2444	I III	SF862BR-28K-B9-M1 (F01604)		
54	32	971	1.00	S832BR-32K-M1 (F01209)	1 .75 .50	971 728 485	I II III	SF832BR-32K-B5-M1 (F01422)
		1560	1.66	S842BR-32K-M1 (F01254)	1.5	1409	I	SF842BR-32K-B7-M1 (F01477)
					1 .75	940 705	II III	SF842BR-32K-B5-M1 (F01476)
		2813	2.98	S852BR-32K-M1 (F01300)	3	2813	I	SF852BR-32K-B9-M1 (F01539)
					2 1.5	1887 1415	II III	SF852BR-32K-B7-M1 (F01538)
5184	4.93	S862BR-32K-M1 (F01345)	3 2	3153 2102	II III	SF862BR-32K-B9-M1 (F01606) SF862BR-32K-B7-M1 (F01605)		

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service Class III (S.F. = 2.00)  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Overhung Load Ratings refer to Page 204.  
 † For Base / Projecting Shaft / Output Flange see How to Order Page 201.

# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)						
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)			
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**				
48	36	936	0.99	S832BR-36K-M1 (F01210)	1	936	I	SF832BR-36K-B5-M1 (F01423)			
					.75	709	I				
					.50	472	III				
		1525	1.59	S842BR-36K-M1 (F01255)	1.5	1438	I	SF842BR-36K-B7-M1 (F01479)			
					1	959	II	SF842BR-36K-B5-M1 (F01478)			
		.75	719	III	3	2722	I	SF852BR-36K-B9-M1 (F01541)			
						1816	II	SF852BR-36K-B7-M1 (F01540)			
		5768	5.65	S862BR-36K-M1 (F01346)	5	5102	I	SF862BR-36K-B9-M1 (F01608)			
3	3061				II	SF862BR-36K-B7-M1 (F01607)					
2	2040	III	.75	744	I	SF832BR-40K-B5-M1 (F01424)					
				.50	746	II					
43	40	933	0.94	S832BR-40K-M1 (F01211)	.33	330	III	SF832BR-40K-B5-M1 (F01424)			
					1.5	1516	I		SF842BR-40K-B7-M1 (F01481)		
					1	1010	II		SF842BR-40K-B5-M1 (F01480)		
		.75	758	III	3	3156	I	SF852BR-40K-B9-M1 (F01543)			
						2104	II	SF852BR-40K-B7-M1 (F01542)			
		1.5	1578	III	5	5754	I	SF862BR-40K-B9-M1 (F01610)			
						3453	II	SF862BR-40K-B7-M1 (F01609)			
		6045	5.25	S862BR-40K-M1 (F01347)	2	2302	III	SF862BR-40K-B7-M1 (F01609)			
1032	0.8				S832BR-45K-M1 (F01212)	.75	967	I	SF832BR-45K-B5-M1 (F01425)		
		.50	644	II							
		.33	430	III							
1669	1.34	S842BR-45K-M1 (F01257)	1	1244	I	SF842BR-45K-B5-M1 (F01482)					
			.75	933	II						
.50	622	III	38 (CONT.)	45	1032	0.8	S832BR-45K-M1 (F01212)	.75	967	I	SF832BR-45K-B5-M1 (F01425)
								.50	644	II	
.33	430	III	1669	1.34	S842BR-45K-M1 (F01257)	1	1244	I	SF842BR-45K-B5-M1 (F01482)		
.75	933	II									
.50	622	III	38 (CONT.)	45	1032	0.8	S832BR-45K-M1 (F01212)	.75	967	I	SF832BR-45K-B5-M1 (F01425)
.50	644	II									
.33	430	III	1669	1.34	S842BR-45K-M1 (F01257)	1	1244	I	SF842BR-45K-B5-M1 (F01482)		
.75	933	II									
.50	622	III	38 (CONT.)	45	1032	0.8	S832BR-45K-M1 (F01212)	.75	967	I	SF832BR-45K-B5-M1 (F01425)
.50	644	II									
.33	430	III	1669	1.34	S842BR-45K-M1 (F01257)	1	1244	I	SF842BR-45K-B5-M1 (F01482)		
.75	933	II									
.50	622	III	38 (CONT.)	45	1032	0.8	S832BR-45K-M1 (F01212)	.75	967	I	SF832BR-45K-B5-M1 (F01425)
.50	644	II									
.33	430	III	1669	1.34	S842BR-45K-M1 (F01257)	1	1244	I	SF842BR-45K-B5-M1 (F01482)		
.75	933	II									
.50	622	III	38 (CONT.)	45	1032	0.8	S832BR-45K-M1 (F01212)	.75	967	I	SF832BR-45K-B5-M1 (F01425)
.50	644	II									
.33	430	III	1669	1.34	S842BR-45K-M1 (F01257)	1	1244	I	SF842BR-45K-B5-M1 (F01482)		
.75	933	II									

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service Class III (S.F. = 2.00)  
Actual Output RPM = Input Speed ÷ Actual Ratio.  
For Overhung Load Ratings refer to Page 204.  
† For Base / Projecting Shaft / Output Flange see How to Order Page 201.



# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
 ORDER BY CATALOG NUMBER OR ITEM CODE  
 FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
38 (CONT.)	45	3165	2.37	S852BR-45K-M1 (F01303)	2	2669	I	SF852BR-45K-B7-M1 (F01545)
					1.5	1978	II	
		5810	3.95	S862BR-45K-M1 (F01348)	1	1335	III	SF852BR-45K-B5-M1 (F01544)
					3	4410	I	SF862BR-45K-B9-M1 (F01612)
35	50	1000	0.71	S832BR-50K-M1 (F01213)	.50	703	I	SF832BR-50K-B5-M1 (F01426)
					.33	469	III	
		1616	1.19	S842BR-50K-M1 (F01258)	1	1354	I	SF842BR-50K-B5-M1 (F01483)
					.75	1015	II	
		3248	2.24	S852BR-50K-M1 (F01304)	.50	677	III	
					2	2899	I	SF852BR-50K-B7-M1 (F01547)
		5930	3.79	S862BR-50K-M1 (F01349)	1.5	2174	II	SF852BR-50K-B5-M1 (F01546)
					3	4692	I	SF862BR-50K-B9-M1 (F01614)
					2	3128	II	SF862BR-50K-B7-M1 (F01613)
					1.5	2346	III	
31	56	1033	0.74	S832BR-56K-M1 (F01214)	.75	1033	I	SF832BR-56K-B5-M1 (F01427)
					.50	698	II	
		1670	1.18	S842BR-56K-M1 (F01259)	.33	465	III	
					1	1416	I	SF842BR-56K-B5-M1 (F01484)
		3813	2.63	S852BR-56K-M1 (F01305)	.75	1062	II	
					.50	708	III	
		6500	4.2	S862BR-56K-M1 (F01350)	2	2900	I	SF852BR-56K-B7-M1 (F01549)
					1.5	2174	II	SF852BR-56K-B5-M1 (F01548)
					1	1449	III	
					3	4633	I	SF862BR-56K-B9-M1 (F01616)
					2	3088	III	SF862BR-56K-B7-M1 (F01615)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Overhung Load Ratings refer to Page 204.  
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# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
27	63	1040	0.67	S832BR-63K-M1 (F01215)	.50 .33	775 517	I III	SF832BR-63K-B5-M1 (F01428)
		1710	1.07	S842BR-63K-M1 (F01260)	1 .75 .50	1597 1197 800	I II III	SF842BR-63K-B5-M1 (F01485)
		3899	2.39	S852BR-63K-M1 (F01306)	2 1.5	3261 2446	I II	SF852BR-63K-B7-M1 (F01552)
					1	1630	III	SF852BR-63K-B5-M1 (F01550)
		6720	3.76	S862BR-63K-M1 (F01351)	3	5360	I	SF862BR-63K-B9-M1 (F01618)
					2 1.5	3574 2680	II III	SF862BR-63K-B7-M1 (F01617)
24	71	1192	0.59	S832BR-71K-M1 (F01216)	.50 .33 .25	1009 673 505	I II III	SF832BR-71K-B5-M1 (F01429)
		1739	0.88	S842BR-71K-M1 (F01261)	.75 .50 .33	1482 950 658	I II III	SF842BR-71K-B5-M1 (F01487)
		3225	1.71	S852BR-71K-M1 (F01307)	1.5	2828	I	SF852BR-71K-B7-M1 (F01555)
					1 .75	1885 1414	II III	SF852BR-71K-B5-M1 (F01554)
		6645	2.94	S862BR-71K-M1 (F01352)	2 1.5	4520 3389	II III	SF862BR-71K-B7-M1 (F01619)
21	80	1250	0.54	S832BR-80K-M1 (F01217)	.50 .33 .25	1158 772 579	I II III	SF832BR-80K-B5-M1 (F01430)
		1619	0.74	S842BR-80K-M1 (F01262)	.75 .50 .33	1640 1093 729	I II III	SF842BR-80K-B5-M1 (F01488)
		3453	1.5	S852BR-80K-M1 (F01308)	1.5	3453	I	SF852BR-80K-B7-M1 (F01557)
					1 .75	2368 1776	II III	SF852BR-80K-B5-M1 (F01556)
		6783	2.77	S862BR-80K-M1 (F01353)	2 1.5	4895 3671	I II	SF862BR-80K-B7-M1 (F01621)
					1	2444	III	SF862BR-80K-B5-M1 (F01620)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
Actual Output RPM = Input Speed ÷ Actual Ratio.  
For Overhung Load Ratings refer to Page 204.  
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# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
 ORDER BY CATALOG NUMBER OR ITEM CODE  
 FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
19	90	1187	0.57	S832BR-90K-M1 (F01219)	0.5	1040	I	SF832BR-90K-B5-M1 (F01433)
					0.33	693	II	
					0.25	520	III	
		1934	0.91	S842BR-90K-M1 (F01264)	0.75	1593	I	SF842BR-90K-B5-M1 (F01492)
					0.5	1062	II	
		4178	1.82	S852BR-90K-M1 (F01310)	0.33	708	III	SF852BR-90K-B7-M1 (F01560)
1.5	3442				I			
7514	3.05	S862BR-90K-M1 (F01355)	1	2295	II	SF852BR-90K-B5-M1 (F01559)		
			0.75	1720	III			
			3	7388	I	SF862BR-90K-B9-M1 (F01625)		
			2	4925	II			
1.5	3694	III	SF862BR-90K-B7-M1 (F01624)					
17	100	1120	0.51	S832BR-100K-M1 (F01193)	0.5	1098	I	SF832BR-100K-B5-M1 (F01401)
					0.33	732	II	
					0.25	549	III	
		1302	0.47	S833BR-100K-M1 (F01220)	0.33	923	I	SF833BR-100K-B5-M1 (F01434)
					0.25	692	II	
		1835	0.81	S842BR-100K-M1 (F01238)	0.16	461	III	SF842BR-100K-B5-M1 (F01450)
					0.75	1697	I	
		1700	0.63	S843BR-100K-M1 (F01265)	0.5	1132	II	SF843BR-100K-B5-M1 (F01495)
					0.33	900	III	
					0.25	674	I	
4225	1.71	S852BR-100K-M1 (F01283)	1.5	3704	I	SF852BR-100K-B7-M1 (F01514)		
			1	2469	II	SF852BR-100K-B5-M1 (F01513)		
3477	1.22	S853BR-100K-M1 (F01311)	0.75	1852	III			
			0.5	1424	I	SF853BR-100K-B5-M1 (F01563)		
7539	2.87	S862BR-100K-M1 (F01329)	2	2849	II	SF862BR-100K-B7-M1 (F01581)		
			1.5	2136	III			
7173	2.34	S863BR-100K-M1 (F01356)	2	5252	I	SF863BR-100K-B7-M1 (F01627)		
			1.5	3939	II			
			1	6128	III	SF863BR-100K-B5-M1 (F01626)		
					4596			
					3064			

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Overhung Load Ratings refer to Page 204.  
 † For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 □ Indicates Triple Reduction

# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
15	112	1360	0.44	S832BR-112K-M1 (F01194)	.33	1029	I	SF832BR-112K-B5-M1 (F01402)
					.25	772	II	
					.16	514	III	
		1412	0.48	S842BR-112K-M1 (F01239)	.33	980	I	SF842BR-112K-B5-M1 (F01451)
.25	735				II			
3088	1.00	S852BR-112K-M1 (F01284)	.75	3088	I	SF852BR-112K-B5-M1 (F01515)		
			.50	2317	II			
6574	1.97	S862BR-112K-M1 (F01330)	1.5	5003	I	SF862BR-112K-B7-M1 (F01583)		
			.75	3366	II	SF862BR-112K-B5-M1 (F01582)		
14	118	1321	0.42	S833BR-118K-M1 (F01221)	.33	1048	I	SF833BR-118K-B5-M1 (F01435)
					.25	786	II	
					.16	524	III	
		1698	0.55	S843BR-118K-M1 (F01266)	.50	1543	I	SF843BR-118K-B5-M1 (F01496)
.33	1029				II			
3436	1.07	S853BR-118K-M1 (F01312)	.75	3210	I	SF853BR-118K-B5-M1 (F01564)		
			.50	2407	II			
7434	2.14	S863BR-118K-M1 (F01357)	2	6945	I	SF863BR-118K-B7-M1 (F01629)		
			1.5	5209	II	SF863BR-118K-B5-M1 (F01628)		
14	125	1311	0.36	S832BR-125K-M1 (F01196)	.33	1213	I	SF832BR-125K-B5-M1 (F01405)
					.25	910	II	
					.16	606	III	
		1248	0.36	S842BR-125K-M1 (F01241)	.33	1155	I	SF842BR-125K-B5-M1 (F01454)
.25	866				II			
2630	0.75	S852BR-125K-M1 (F01286)	.75	2630	I	SF852BR-125K-B5-M1 (F01518)		
			.50	1753	II			
4832	1.28	S862BR-125K-M1 (F01332)	.33	1167	III	SF862BR-125K-B5-M1 (F01586)		
			1	3773	I			
					.75	2830	II	
					.50	1886	III	

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
 \*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Overhung Load Ratings refer to Page 204.  
 † For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 □ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
13	132	1270	0.42	S833BR-132K-M1 (F01222)	.33 .25 .16	966 724 483	I II III	SF833BR-132K-B5-M1 (F01436)
		1953	0.66	S843BR-132K-M1 (F01267)	.50 .33	1478 986	I III	SF843BR-132K-B5-M1 (F01497)
		4596	1.42	S853BR-132K-M1 (F01313)	1 .75 .50	3235 2426 1617	I II III	SF853BR-132K-B5-M1 (F01565)
		7410	2.21	S863BR-132K-M1 (F01358)	2 1.5	6739 5054	I II	SF863BR-132K-B7-M1 (F01631)
					1	3370	III	SF863BR-132K-B5-M1 (F01630)
12	140	1310	0.4	S832BR-140K-M1 (F01198)	.33 .25 .16	1090 818 545	I II III	SF832BR-140K-B5-M1 (F01408)
		2117	0.64	S842BR-140K-M1 (F01243)	.50 .33 .25	1653 1102 826	I II III	SF842BR-140K-B5-M1 (F01457)
		4143	1.3	S852BR-140K-M1 (F01288)	1 .75 .50	3186 2389 1592	I II III	SF852BR-140K-B5-M1 (F01521)
		7520	2.02	S862BR-140K-M1 (F01334)	2 1.5	7448 5586	I I	SF862BR-140K-B7-M1 (F01590)
					1	3724	III	SF862BR-140K-B5-M1 (F01589)
11	150	1237	0.4	S833BR-150K-M1 (F01223)	.33 .25 .16	1030 773 515	I II III	SF833BR-150K-B5-M1 (F01437)
		1980	0.63	S843BR-150K-M1 (F01268)	.50 .33 .25	1570 1047 785	I II III	SF843BR-150K-B5-M1 (F01498)
		4604	1.35	S853BR-150K-M1 (F01314)	1 .75 .50	3409 2557 1705	I II III	SF853BR-150K-B5-M1 (F01566)
		7143	2.00	S863BR-150K-M1 (F01359)	2 1.5	7143 5382	I I	SF863BR-150K-B7-M1 (F01633)
					1	3571	III	SF863BR-150K-B5-M1 (F01632)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.

\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Overhung Load Ratings refer to Page 204.

† For Base / Projecting Shaft / Output Flange see How to Order Page 201.

☐ Indicates Triple Reduction

# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
10	160	1364	0.37	S832BR-160K-M1 (F01200)	.33 .25 .16	1228 921 614	I II III	SF832BR-160K-B5-M1 (F01411)
		2216	0.59	S842BR-160K-M1 (F01245)	.50 .33 .25	1877 1251 939	I II III	SF842BR-160K-B5-M1 (F01460)
		4738	1.19	S852BR-160K-M1 (F01290)	1 .75 .50	3978 2984 1989	I II III	SF852BR-160K-B5-M1 (F01524)
		7504	1.86	S862BR-160K-M1 (F01336)	1.5 1 .75	6049 4033 3024	I II III	SF862BR-160K-B7-M1 (F01594) SF862BR-160K-B5-M1 (F01593)
10	160	1320	0.33	S833BR-160K-M1 (F01224)	.33 .25 .16	1320 1030 687	I I II	SF833BR-160K-B5-M1 (F01438)
		1693	0.41	S843BR-160K-M1 (F01269)	.33 .25 .16	1376 1032 688	I II III	SF843BR-160K-B5-M1 (F01499)
		3406	0.79	S853BR-160K-M1 (F01315)	.75 .50 .33	3233 2792 1437	I II III	SF853BR-160K-B5-M1 (F01567)
		7431	1.51	S863BR-160K-M1 (F01360)	1.5 1 .75	7378 4919 3689	I II III	SF863BR-160K-B7-M1 (F01635) SF863BR-160K-B5-M1 (F01634)
9.1	180	1247	0.27	S833BR-180K-M1 (F01225)	.25 .16	1153 769	I II	SF833BR-180K-B5-M1 (F01439)
		1545	0.35	S843BR-180K-M1 (F01270)	.33 .25 .16	1471 1103 735	I I III	SF843BR-180K-B5-M1 (F01500)
		3161	0.68	S853BR-180K-M1 (F01316)	.50 .33	2323 1549	I III	SF853BR-180K-B5-M1 (F01568)
		7427	1.39	S863BR-180K-M1 (F01361)	1 .75 .50	5341 4006 2670	I II III	SF863BR-180K-B5-M1 (F01636)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
Actual Output RPM = Input Speed ÷ Actual Ratio.  
For Overhung Load Ratings refer to Page 204.  
† For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
□ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
 ORDER BY CATALOG NUMBER OR ITEM CODE  
 FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
8.8	200	1346	0.33	S833BR-200K-M1 (F01226)	.33	1346	I	SF833BR-200K-B5-M1 (F01440)
					.25	1085	I	
					.16	723	II	
		2267	0.5	S843BR-200K-M1 (F01271)	.50	2264	I	SF843BR-200K-B5-M1 (F01501)
.33	1510				I			
.25	1133				III			
5139	1.08	S853BR-200K-M1 (F01317)	1	4756	I	SF853BR-200K-B5-M1 (F01569)		
			.75	3567	II			
7443	1.49	S863BR-200K-M1 (F01362)	.50	2378	III	SF863BR-200K-B5-M1 (F01637)		
			1	4789	II			
8.2	212	1333	0.28	S832BR-212K-M1 (F01204)	.25	1190	I	SF832BR-212K-B5-M1 (F01417)
					.16	793	II	
					.33	1667	I	
		2352	0.47	S842BR-212K-M1 (F01249)	.25	1250	II	SF842BR-212K-B5-M1 (F01467)
.16	833				III			
5021	0.97	S852BR-212K-M1 (F01295)	.75	3880	I	SF852BR-212K-B5-M1 (F01530)		
			.50	2587	II			
7607	1.39	S862BR-212K-M1 (F01340)	1	5470	I	SF862BR-212K-B5-M1 (F01599)		
			.75	4103	II			
			.50	2735	III			
7.8	225	1311	0.27	S833BR-225K-M1 (F01227)	.25	1213	I	SF833BR-225K-B5-M1 (F01441)
					.16	809	II	
					.33	1700	I	
		2346	0.46	S843BR-225K-M1 (F01272)	.25	1274	II	SF843BR-225K-B5-M1 (F01502)
.16	850				III			
5260	0.97	S853BR-225K-M1 (F01318)	.75	4095	I	SF853BR-225K-B5-M1 (F01570)		
			.50	2803	II			
7405	1.32	S863BR-225K-M1 (F01363)	.33	1869	III	SF863BR-225K-B5-M1 (F01638)		
			1	5608	I			
					.75	4206	II	
					.50	2804	III	

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.

\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service Class III (S.F. = 2.00)

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Overhung Load Ratings refer to Page 204.

† For Base / Projecting Shaft / Output Flange see How to Order Page 201.

☐ Indicates Triple Reduction

# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
7.0	250	1382	0.25	S832BR-250K-M1 (F01206)	.25 .16	1382 920	I II	SF832BR-250K-B5-M1 (F01419)
		2050	0.36	S842BR-250K-M1 (F01251)	.33 .25 .16	1898 1423 949	I II III	SF842BR-250K-B5-M1 (F01471)
		4566	0.75	S852BR-250K-M1 (F01297)	.75 .50 .33	4566 3043 2197	I II III	SF852BR-250K-B5-M1 (F01533)
		7676	1.25	S862BR-250K-M1 (F01342)	1 .75 .50	6139 4604 3069	I II III	SF862BR-250K-B5-M1 (F01602)
6.6	265	1297	0.20	S833BR-265K-M1 (F01228)	.16	1150	I	SF833BR-265K-B5-M1 (F01442)
		1588	0.25	S843BR-265K-M1 (F01273)	.25 .16	1588 1058	I II	SF843BR-265K-B5-M1 (F01503)
		3351	0.49	S853BR-265K-M1 (F01319)	.33 .25 .16	2279 1709 1139	I II III	SF853BR-265K-B5-M1 (F01571)
		6895	0.98	S863BR-265K-M1 (F01364)	.75 .50 .33	5274 3516 2344	I II III	SF863BR-265K-B5-M1 (F01639)
6.2	280	1357	0.18	S833BR-280K-M1 (F01229)	.16	1256	I	SF833BR-280K-B5-M1 (F01443)
		1590	0.23	S843BR-280K-M1 (F01274)	.16	1151	I	SF843BR-280K-B5-M1 (F01504)
		3356	0.44	S853BR-280K-M1 (F01320)	.33 .25 .16	2541 1906 1270	I II III	SF853BR-280K-B5-M1 (F01572)
		7671	0.88	S863BR-280K-M1 (F01365)	.75 .50 .33	6535 4357 2904	I II III	SF863BR-280K-B5-M1 (F01640)
5.6 (CONT.)	315	1311	0.20	S833BR-315K-M1 (F01230)	.16	1092	I	SF833BR-315K-B5-M1 (F01444)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.

\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Overhung Load Ratings refer to Page 204.

† For Base / Projecting Shaft / Output Flange see How to Order Page 201.

□ Indicates Triple Reduction

H

# 800 Series Right Angle Helical Worm Selection Tables

## @ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
5.6 (CONT.)	315	2620	0.39	S843BR-315K-M1 (F01275)	.33 .25 .16	2238 1679 1119	I II III	SF843BR-315K-B5-M1 (F01505)
		5252	0.75	S853BR-315K-M1 (F01321)	.75 .50 .33	5252 3595 2397	I II III	SF853BR-315K-B5-M1 (F01573)
		7490	0.94	S863BR-315K-M1 (F01366)	.75 .50 .33	5973 3982 2655	I I II	SF863BR-315K-B5-M1 (F01641)
4.9	360	1177	0.18	S833BR-360K-M1 (F01231)	.16	1089	I	SF833BR-360K-B5-M1 (F01445)
		2496	0.35	S843BR-360K-M1 (F01276)	.33 .25 .16	2376 1782 1188	I I III	SF843BR-360K-B5-M1 (F01506)
		4862	0.63	S853BR-360K-M1 (F01322)	.50 .33 .25	3857 2571 1928	I II III	SF853BR-360K-B5-M1 (F01574)
		7382	0.87	S863BR-360K-M1 (F01367)	.75 .50 .33	6361 4240 2827	I II III	SF863BR-360K-B5-M1 (F01642)
4.4	400	1296	0.13	S833BR-400K-M1 (F01232)	.16	1296	I	SF833BR-400K-B5-M1 (F01446)
		1647	0.16	S843BR-400K-M1 (F01277)	.16	1647	I	SF843BR-400K-B5-M1 (F01507)
		3368	0.32	S853BR-400K-M1 (F01323)	.25 .16	2630 1753	I II	SF853BR-400K-B5-M1 (F01575)
		7686	0.67	S863BR-400K-M1 (F01368)	.50 .33	5733 3822	I III	SF863BR-400K-B5-M1 (F01643)
3.9	450	1279	0.11	S833BR-450K-M1 (F01233)	.16	1279	I	SF833BR-450K-B5-M1 (F01447)
		1572	0.14	S843BR-450K-M1 (F01278)	.16	1572	I	SF843BR-450K-B5-M1 (F01508)
		3305	0.28	S853BR-450K-M1 (F01324)	.25 .16	2950 1966	I II	SF853BR-450K-B5-M1 (F01576)
		7692	0.59	S863BR-450K-M1 (F01369)	.50 .33 .25	6516 4344 3258	I II III	SF863BR-450K-B5-M1 (F01644)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
Actual Output RPM = Input Speed ÷ Actual Ratio.  
For Overhung Load Ratings refer to Page 204.  
† For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
□ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 222-231.  
ORDER BY CATALOG NUMBER OR ITEM CODE  
FOR STANDARD MOUNTING POSITIONS†

Approx. Output RPM	Ratio*	Non-Flanged			Flanged (Gearmotors)			
		Gear Capacity		Catalog No. (Item Code)	Ratings			Catalog No. (Item Code)
		Output Torque (LB-IN.)	Input HP		Motor HP	Output Torque (LB-IN.)	Service Class**	
3.5	500	1354	0.13	S833BR-500K-M1 (F01234)	.16	1354	I	SF833BR-500K-B5-M1 (F01448)
		2647	0.25	S843BR-500K-M1 (F01279)	.25	2641	I	SF843BR-500K-B5-M1 (F01509)
		5146	0.46	S853BR-500K-M1 (F01325)	.33 .25 .16	3728 2796 1864	I I II	SF853BR-500K-B5-M1 (F01577)
		6913	0.62	S863BR-500K-M1 (F01370)	.50 .33 .25	5573 3715 2786	I II III	SF863BR-500K-B5-M1 (F01645)
3.1	560	1384	0.12	S833BR-560K-M1 (F01235)	.16	1384	I	SF833BR-560K-B5-M1 (F01449)
		2745	0.23	S843BR-560K-M1 (F01280)	.16	1988	I	SF843BR-560K-B5-M1 (F01510)
		5296	0.42	S853BR-560K-M1 (F01326)	.33 .25 .16	4201 3151 2100	I II III	SF853BR-560K-B5-M1 (F01578)
		7200	0.55	S863BR-560K-M1 (F01371)	.50 .33 .25	6543 4362 3272	I II III	SF863BR-560K-B5-M1 (F01646)
2.2	800	1274	0.08	S833BR-800K-M1 (F01236)	--	--	--	--
		2591	0.16	S843BR-800K-M1 (F01281)	.16	2591	I	SF843BR-800K-B5-M1 (F01511)
		5308	0.31	S853BR-800K-M1 (F01327)	.25 .16	4279 2852	I II	SF853BR-800K-B5-M1 (F01579)
		7734	0.43	S863BR-800K-M1 (F01372)	.33 .25 .16	5993 4495 2997	I II III	SF863BR-800K-B5-M1 (F01647)
1.9	900	1247	0.07	S833BR-900K-M1 (F01237)	--	--	--	--
		2494	0.14	S843BR-900K-M1 (F01282)	.16	2494	I	SF843BR-900K-B5-M1 (F01512)
		5099	0.27	S853BR-900K-M1 (F01328)	.25 .16	4719 3146	I II	SF853BR-900K-B5-M1 (F01580)
		7659	0.38	S863BR-900K-M1 (F01373)	.33 .25 .16	6715 5036 3358	I II III	SF863BR-900K-B5-M1 (F01648)

\* Gear Ratio is Approximate. For Actual Gear Ratio Reference Pages 222-231.  
\*\* Service Class I (S.F. = 1.00) Service Class II (S.F. = 1.50) Service III (S.F. = 2.00)  
Actual Output RPM = Input Speed ÷ Actual Ratio.  
For Overhung Load Ratings refer to Page 204.  
† For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
□ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Ratings

## Non-Flanged; Input Speeds 1750, 1450 and 1160 RPM

Service Factor 1.0\*

Catalog Number	Input Speed								
	1750 RPM			1450 RPM			1160 RPM		
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)
832BR-8K	218	689	2.65	181	717	2.30	145	751	1.95
842BR-8K	218	1100	4.39	181	1152	3.81	145	1209	3.23
852BR-8K	218	1678	6.66	181	1829	6.00	145	1991	5.28
862BR-8K	218	2910	11.40	181	3292	10.20	145	3607	8.98
832BR-11K	159	742	2.14	131	777	1.86	105	820	1.58
842BR-11K	159	1194	3.57	131	1258	3.10	105	1316	2.63
852BR-11K	159	1929	5.52	131	2090	4.95	105	2279	4.33
862BR-11K	159	3479	9.38	131	3781	8.39	105	4112	7.34
832BR-12K	145	787	1.95	120	816	1.70	96	865	1.44
842BR-12K	145	1264	3.25	120	1324	2.83	96	1382	2.39
852BR-12K	145	2010	5.22	120	2165	4.67	96	2351	4.09
862BR-12K	145	3646	8.77	120	3952	7.84	96	4292	6.85
832BR-14K	125	790	1.79	103	831	1.56	82	870	1.32
842BR-14K	125	1288	2.99	103	1344	2.60	82	1400	2.19
852BR-14K	125	2060	4.85	103	2212	4.33	82	2398	3.79
862BR-14K	125	3827	8.20	103	4118	7.32	82	4472	6.38
832BR-16K	109	737	1.70	90	768	1.49	72	808	1.27
842BR-16K	109	1218	2.72	90	1273	2.38	72	1343	2.03
852BR-16K	109	2710	5.92	90	2922	5.33	72	3162	4.68
862BR-16K	109	4191	9.03	90	4583	8.09	72	4990	7.10
832BR-18K	97	864	1.50	80	898	1.30	64	944	1.10
842BR-18K	97	1388	2.50	80	1445	2.17	64	1512	1.83
852BR-18K	97	2162	4.21	80	2319	3.75	64	2497	3.27
862BR-18K	97	4208	7.10	80	4502	6.33	64	4882	5.51
832BR-20K	87	860	1.43	72	895	1.24	58	941	1.05
842BR-20K	87	1391	2.37	72	1450	2.06	58	1514	1.74
852BR-20K	87	2345	3.90	72	2492	3.47	58	2688	3.02
862BR-20K	87	4400	6.58	72	4698	5.86	58	5077	5.10
832BR-22K	79	804	1.39	65	826	1.22	52	887	1.04
842BR-22K	79	1321	2.23	65	1383	1.95	52	1453	1.66
852BR-22K	79	3086	4.90	65	3265	4.34	52	3443	3.72
862BR-22K	79	4784	7.41	65	5142	6.64	52	5585	5.82
832BR-25K	70	843	1.28	58	883	1.12	46	929	0.95
842BR-25K	70	1389	2.04	58	1464	1.79	46	1328	1.52
852BR-25K	70	3177	4.62	58	3339	4.06	46	3516	3.47
862BR-25K	70	5022	6.94	58	5435	6.21	46	5873	5.45
832BR-28K	62	862	1.17	51	891	1.03	41	943	0.87
842BR-28K	62	1363	1.88	51	1430	1.65	41	1491	1.39
852BR-28K	62	3200	4.24	51	3339	3.72	41	3496	3.17
862BR-28K	62	5290	6.49	51	5359	5.81	41	6043	5.06

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349.  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 For Overhung Load Ratings refer to Page 204.

# 800 Series Right Angle Helical Worm Ratings

**Non-Flanged; Input Speeds 690 and 100 RPM**

**Service Factor 1.0\***

Catalog Number	Input Speed						Approx. Wt. (LB)	Actual Gear Ratio
	690 RPM			100 RPM				
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)		
832BR-8K	86	799	1.25	12	1056	.25	24	8.591
842BR-8K	86	1296	2.06	12	1403	.34	32	8.182
852BR-8K	86	2232	3.52	12	2683	.63	39	8.043
862BR-8K	86	4013	6.01	12	5265	1.18	70	8.232
832BR-11K	63	879	1.02	9.1	1200	.21	24	11.605
842BR-11K	63	1388	1.67	9.1	1541	.28	32	11.053
852BR-11K	63	2496	2.86	9.1	3511	.61	39	11.282
862BR-11K	63	4563	4.90	9.1	6820	1.10	70	11.573
832BR-12K	57	928	0.93	8.3	1310	.20	24	13.500
842BR-12K	57	1470	1.53	8.3	1580	.25	32	12.857
852BR-12K	57	2598	2.72	8.3	3491	.55	39	12.432
862BR-12K	57	4739	4.55	8.3	7019	1.01	70	12.972
832BR-14K	49	942	0.85	7.1	1306	.18	24	14.954
842BR-14K	49	1426	1.39	7.1	1610	.23	32	14.242
852BR-14K	49	2627	2.50	7.1	3388	.49	39	13.714
862BR-14K	49	4916	4.22	7.1	7254	.93	70	14.560
832BR-16K	43	865	0.82	6.2	1225	.18	24	16.364
842BR-16K	43	1437	1.31	6.2	1866	.27	32	16.364
852BR-16K	43	3408	3.04	6.2	4329	.61	39	16.087
862BR-16K	43	5625	4.82	6.2	7183	.98	70	15.932
832BR-18K	38	997	0.70	5.5	1419	.15	24	19.500
842BR-18K	38	1606	1.17	5.5	1622	.18	32	18.571
852BR-18K	38	2740	2.16	5.5	3174	.38	39	16.774
862BR-18K	38	5375	3.65	5.5	7537	.77	70	18.490
832BR-20K	34	996	0.67	5.0	1382	.14	24	20.610
842BR-20K	34	1619	1.12	5.0	1715	.18	32	19.630
852BR-20K	34	2927	1.98	5.0	3325	.34	39	19.643
862BR-20K	34	5542	3.35	5.0	7546	.68	70	20.962
832BR-22K	31	933	0.66	4.5	1268	.14	24	22.105
842BR-22K	31	1539	1.06	4.5	2115	.23	32	22.105
852BR-22K	31	3685	2.40	4.5	4642	.48	39	22.564
862BR-22K	31	6101	3.83	4.5	7423	.74	70	22.105
832BR-25K	28	989	0.61	4.0	1348	.13	24	25.714
842BR-25K	28	1634	0.98	4.0	2212	.21	32	25.714
852BR-25K	28	3702	2.25	4.0	4689	.44	39	24.865
862BR-25K	28	6332	3.54	4.0	7527	.67	70	25.106
832BR-28K	25	1023	0.57	3.6	1379	.12	24	28.485
842BR-28K	25	1630	0.90	3.6	2135	.19	32	27.428
852BR-28K	25	3611	2.03	3.6	4633	.40	39	27.428
862BR-28K	25	6402	3.23	3.6	7566	.60	70	28.182

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349.  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 For Overhung Load Ratings refer to Page 204.



# 800 Series Right Angle Helical Worm Ratings

## Non-Flanged; Input Speeds 1750, 1450 and 1160 RPM

Service Factor 1.0\*

Catalog Number	Input Speed								
	1750 RPM			1450 RPM			1160 RPM		
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)
832BR-32K	54	971	1.00	45	995	0.86	36	1056	0.73
842BR-32K	54	1560	1.66	45	1618	1.44	36	1702	1.22
852BR-32K	54	2813	2.98	45	2986	2.64	36	3214	2.29
862BR-32K	54	5184	4.93	45	5526	4.37	36	5913	3.78
832BR-36K	48	936	0.99	40	969	0.87	32	1030	0.74
842BR-36K	48	1525	1.59	40	1600	1.38	32	1653	1.17
852BR-36K	48	3262	3.59	40	3397	3.14	32	3553	2.67
862BR-36K	48	5768	5.65	40	6174	5.03	32	6491	4.24
832BR-40K	43	933	0.94	36	972	0.82	29	1015	0.70
842BR-40K	43	1527	1.51	36	1587	1.31	29	1672	1.12
852BR-40K	43	3453	3.28	36	3587	2.87	29	3734	2.43
862BR-40K	43	6045	5.25	36	6292	4.58	29	6569	3.87
832BR-45K	38	1032	0.80	32	1088	0.70	25	1157	0.60
842BR-45K	38	1669	1.34	32	1752	1.16	25	1767	0.95
852BR-45K	38	3165	2.37	32	3308	2.06	25	3297	1.65
862BR-45K	38	5810	3.95	32	6151	3.49	25	6555	3.00
832BR-50K	35	1000	0.71	29	1032	0.62	23	1118	0.54
842BR-50K	35	1612	1.19	29	1639	1.01	23	1618	0.81
852BR-50K	35	3248	2.24	29	3427	1.98	23	3492	1.63
862BR-50K	35	5930	3.79	29	6278	3.34	23	6696	2.87
832BR-56K	31	1033	0.74	25	1050	0.64	20	1125	0.55
842BR-56K	31	1670	1.18	25	1733	1.03	20	1806	0.87
852BR-56K	31	3820	2.63	25	3951	2.28	20	4129	1.93
862BR-56K	31	6500	4.20	25	6718	3.65	20	6992	3.08
832BR-63K	27	1040	0.67	23	1088	0.59	18	1151	0.50
842BR-63K	27	1716	1.07	23	1787	0.94	18	1898	0.80
852BR-63K	27	3899	2.39	23	4050	2.08	18	4193	1.75
862BR-63K	27	6720	3.76	23	6954	3.27	18	7217	2.77
832BR-71K	24	1192	0.59	20	1246	0.51	16	1353	0.44
842BR-71K	24	1739	0.88	20	1704	0.73	16	1799	0.58
852BR-71K	24	3225	1.71	20	3216	1.42	16	3275	1.13
862BR-71K	24	6645	2.94	20	6972	2.58	16	7420	2.20
832BR-80K	21	1250	0.54	18	1296	0.47	14	1368	0.40
842BR-80K	21	1619	0.74	18	1611	0.61	14	1596	0.49
852BR-80K	21	3453	1.50	18	3436	1.24	14	3494	0.99
862BR-80K	21	6783	2.77	18	7143	2.42	14	7483	2.05
832BR-90K	19	1187	0.57	16	1243	0.50	12	1285	0.42
842BR-90K	19	1934	0.91	16	1997	0.79	12	2113	0.68
852BR-90K	19	4178	1.82	16	4294	1.57	12	4455	1.33
862BR-90K	19	7514	3.05	16	7520	2.56	12	7555	2.08

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349.  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 For Overhung Load Ratings refer to Page 204.

# 800 Series Right Angle Helical Worm Ratings

Non-Flanged; Input Speeds 690 and 100 RPM

Service Factor 1.0\*

Catalog Number	Input Speed						Approx. Wt. (LB)	Actual Gear Ratio
	690 RPM			100 RPM				
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)		
832BR-32K	21	1129	.47	3.1	1360	.09	24	33.710
842BR-32K	21	1761	.76	3.1	1692	.11	32	32.105
852BR-32K	21	3496	1.50	3.1	3407	.22	39	31.500
862BR-32K	21	6446	2.48	3.1	7440	.43	70	33.480
832BR-36K	19	1107	.48	2.8	1327	.09	24	37.143
842BR-36K	19	1756	.75	2.8	2547	.17	32	37.143
852BR-36K	19	3751	1.70	2.8	4745	.34	39	33.548
862BR-36K	19	6469	2.57	2.8	7105	.45	70	35.790
832BR-40K	17	1081	.45	2.5	1381	.09	24	39.259
842BR-40K	17	1781	.72	2.5	2534	.16	32	39.259
852BR-40K	17	3949	1.55	2.5	4902	.30	39	39.286
862BR-40K	17	6928	2.46	2.5	7518	.42	70	40.571
832BR-45K	15	1312	.41	2.2	1360	.06	24	45.500
842BR-45K	15	1821	.59	2.2	1639	.08	32	43.333
852BR-45K	15	3346	1.01	2.2	3080	.14	39	45.333
862BR-45K	15	7018	2.03	2.2	7488	.31	70	47.316
832BR-50K	14	1271	.37	2.0	1366	.06	24	49.500
842BR-50K	14	1691	.51	2.0	1539	.07	32	47.143
852BR-50K	14	3556	1.00	2.0	3349	.14	39	49.286
862BR-50K	14	7481	1.93	2.0	7489	.29	70	50.518
832BR-56K	12	1287	.38	1.8	1296	.06	24	56.190
842BR-56K	12	2063	.60	1.8	2677	.12	32	56.190
852BR-56K	12	4645	1.31	1.8	5225	.23	39	55.454
862BR-56K	12	7514	2.14	1.8	7402	.31	70	55.714
832BR-63K	11	1296	.34	1.6	1481	.06	24	64.210
842BR-63K	11	2161	.55	1.6	2760	.11	32	64.210
852BR-63K	11	4765	1.20	1.6	5336	.21	39	63.000
862BR-63K	11	7526	1.87	1.6	7498	.27	70	64.800
832BR-71K	10	1378	.27	1.4	1353	.04	24	73.500
842BR-71K	10	1749	.36	1.4	1632	.05	32	70.000
852BR-71K	10	3264	.70	1.4	3135	.10	39	65.454
862BR-71K	10	7420	1.39	1.4	7454	.20	70	73.923
832BR-80K	9.0	1419	.25	1.2	1504	.04	24	82.833
842BR-80K	9.0	1621	.30	1.2	1815	.04	32	78.889
852BR-80K	9.0	3573	.61	1.2	3498	.09	39	82.222
862BR-80K	9.0	7511	1.27	1.2	7346	.18	70	80.944
832BR-90K	8.0	1360	.29	1.1	1360	.04	24	86.667
842BR-90K	8.0	2230	.46	1.1	2720	.08	32	86.667
852BR-90K	8.0	4730	.91	1.1	5110	.14	39	90.667
862BR-90K	8.0	7520	1.36	1.1	7520	.20	70	91.579

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349.  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 For Overhung Load Ratings refer to Page 204.



# 800 Series Right Angle Helical Worm Ratings

## Non-Flanged; Input Speeds 1750, 1450 and 1160 RPM

Service Factor 1.0\*

Catalog Number	Input Speed								
	1750 RPM			1450 RPM			1160 RPM		
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)
832BR-100K	17	1120	0.51	14	1188	0.44	11	1256	0.38
842BR-100K	17	1835	0.81	14	1926	0.71	11	1998	0.60
852BR-100K	17	4225	1.71	14	4365	1.47	11	4552	1.25
862BR-100K	17	7539	2.87	14	7518	2.41	11	7500	1.96
833BR-100K	17	1302	0.47	14	1346	0.40	11	1326	0.32
843BR-100K	17	1700	0.63	14	1667	0.52	11	1656	0.42
853BR-100K	17	3477	1.22	14	3452	1.01	11	3443	0.81
863BR-100K	17	7173	2.34	14	7455	2.02	11	7455	1.63
832BR-112K	15	1360	0.44	12	1342	0.36	10	1351	0.29
842BR-112K	15	1412	0.48	12	1427	0.40	10	1464	0.33
852BR-112K	15	3088	0.99	12	3076	0.83	10	3138	0.68
862BR-112K	15	6594	1.97	12	6533	1.63	10	6533	1.30
833BR-118K	14	1321	0.42	12	1334	0.35	9	1346	0.28
843BR-118K	14	1698	0.55	12	1666	0.46	9	1649	0.37
853BR-118K	14	3436	1.07	12	3446	0.88	9	3369	0.71
863BR-118K	14	7434	2.14	12	7450	1.79	9	7410	1.44
832BR-125K	14	1311	0.36	11	1299	0.31	9	1324	0.25
842BR-125K	14	1248	0.36	11	1237	0.31	9	1261	0.25
852BR-125K	14	2630	0.75	11	2636	0.63	9	2692	0.52
862BR-125K	14	4832	1.28	11	4829	1.06	9	4794	0.85
833BR-132K	13	1217	0.42	10	1300	0.37	8	1340	0.31
843BR-132K	13	1953	0.66	10	2088	0.58	8	2259	0.51
853BR-132K	13	4596	1.42	10	4856	1.26	8	5196	1.09
863BR-132K	13	7410	2.21	10	7520	1.87	8	7520	1.52
832BR-140K	12	1310	0.40	10	1338	0.35	8	1342	0.28
842BR-140K	12	2117	0.64	10	2191	0.56	8	2337	0.48
852BR-140K	12	4143	1.30	10	4321	1.13	8	4460	0.95
862BR-140K	12	7520	2.02	10	7525	1.69	8	7561	1.37
833BR-150K	11	1237	0.40	9	1313	0.35	7	1342	0.29
843BR-150K	11	1580	0.63	9	2151	0.56	7	2516	0.49
853BR-150K	11	4604	1.35	9	4888	1.20	7	5192	1.04
863BR-150K	11	7143	1.99	9	7161	1.66	7	7187	1.35
832BR-160K	10	1364	0.37	9	1372	0.32	7	1382	0.26
842BR-160K	10	2216	0.59	9	2264	0.52	7	2430	0.45
852BR-160K	10	4736	1.19	9	4925	1.03	7	5130	0.87
862BR-160K	10	7504	1.86	9	7489	1.56	7	7508	1.26
833BR-160K	10	1320	0.32	9	1316	0.26	7	1326	0.21
843BR-160K	10	1693	0.41	9	1647	0.34	7	1648	0.27
853BR-160K	10	3406	0.79	9	3368	0.66	7	3394	0.53
863BR-160K	10	7431	1.51	9	7290	1.26	7	7461	1.01

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349. Actual Output RPM = Input Speed ÷ Actual Ratio.

For Base / Projecting Shaft / Output Flange see How to Order Page 201.

For Overhung Load Ratings refer to Page 204.

□ Indicates Triple Reduction

# 800 Series Right Angle Helical Worm Ratings

**Non-Flanged; Input Speeds 690 and 100 RPM**

**Service Factor 1.0\***

Catalog Number	Input Speed						Approx. Wt. (LB)	Actual Gear Ratio
	690 RPM			100 RPM				
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)		
832BR-100K	6.9	1356	.25	1.0	1360	.04	24	94.286
842BR-100K	6.9	2260	.41	1.0	2496	.07	32	94.286
852BR-100K	6.9	5128	.85	1.0	5260	.13	39	98.571
862BR-100K	6.9	7588	1.28	1.0	7520	.18	70	97.778
833BR-100K	6.9	1377	.20	1.0	1386	.03	32	103.250
843BR-100K	6.9	1700	.26	1.0	1710	.04	40	98.333
853BR-100K	6.9	3597	.51	1.0	3283	.07	47	100.551
863BR-100K	6.9	7596	1.00	1.0	7157	.14	83	102.668
832BR-112K	6.2	1391	.18	.89	1360	.03	24	114.333
842BR-112K	6.2	1766	.23	.89	1710	.03	32	108.889
852BR-112K	6.2	3170	.42	.89	3370	.07	39	108.889
862BR-112K	6.2	6592	.80	.89	6160	.11	70	111.370
833BR-118K	5.8	1356	.17	.85	1360	.03	32	117.987
843BR-118K	5.8	1656	.22	.85	1530	.03	40	112.368
853BR-118K	5.8	3385	.43	.85	3370	.06	47	114.903
863BR-118K	5.8	7505	.89	.85	7390	.13	83	116.637
832BR-125K	5.5	1405	.16	.80	1360	.02	24	129.937
842BR-125K	5.5	1338	.16	.80	1410	.02	32	123.750
852BR-125K	5.5	2835	.33	.80	2990	.05	39	123.750
862BR-125K	5.5	4870	.52	.80	4470	.07	70	126.583
833BR-132K	5.2	1430	.20	.78	1360	.03	32	130.000
843BR-132K	5.2	2638	.36	.78	2670	.06	40	130.000
853BR-132K	5.2	5260	.72	.78	5260	.10	47	132.932
863BR-132K	5.2	7520	.99	.78	7520	.14	83	130.000
832BR-140K	4.9	1360	.18	.71	1360	.03	24	140.000
842BR-140K	4.9	2739	.34	.71	2603	.05	32	140.000
852BR-140K	4.9	4897	.63	.71	4604	.09	39	130.909
862BR-140K	4.9	7520	.89	.71	7520	.13	70	143.077
833BR-150K	4.6	1378	.18	.67	1380	.03	32	137.407
843BR-150K	4.6	2659	.34	.67	2660	.05	40	137.407
853BR-150K	4.6	5192	.59	.67	5260	.09	47	140.507
863BR-150K	4.6	7674	.87	.67	7550	.14	83	140.774
832BR-160K	4.3	1407	.16	.62	1360	.02	24	157.778
842BR-160K	4.3	2770	.31	.62	2470	.04	32	157.778
852BR-160K	4.3	5200	.58	.62	5690	.09	39	164.444
862BR-160K	4.3	7515	.82	.62	7520	.12	70	156.667
833BR-160K	4.3	1362	.13	.62	1360	.02	32	159.250
843BR-160K	4.3	1719	.17	.62	1720	.02	40	151.667
853BR-160K	4.3	3400	.32	.62	3470	.05	47	155.089
863BR-160K	4.3	7500	.62	.62	7500	.09	83	167.859

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349. Actual Output RPM = Input Speed ÷ Actual Ratio.

For Base / Projecting Shaft / Output Flange see How to Order Page 201.

For Overhung Load Ratings refer to Page 204.

□ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Ratings

## Non-Flanged; Input Speeds 1750, 1450 and 1160 RPM

Service Factor 1.0\*

Catalog Number	Input Speed								
	1750 RPM			1450 RPM			1160 RPM		
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)
833BR-180K	9.7	1247	0.27	8.1	1205	0.23	6.4	1205	0.18
843BR-180K	9.7	1554	0.35	8.1	1539	0.29	6.4	1599	0.23
853BR-180K	9.7	3161	0.68	8.1	3154	0.56	6.4	3200	0.45
863BR-180K	9.7	7427	1.39	8.1	7453	1.16	6.4	7455	0.93
833BR-200K	8.7	1346	0.31	7.2	1367	0.26	5.8	1367	0.21
843BR-200K	8.7	2267	0.50	7.2	2393	0.45	5.8	2584	0.39
853BR-200K	8.7	5139	1.08	7.2	5243	0.92	5.8	5248	0.75
863BR-200K	8.7	7443	1.49	7.2	7428	1.25	5.8	7428	1.01
832BR-212K	8.2	1333	0.28	6.8	1324	0.23	5.5	1371	0.19
842BR-212K	8.2	2352	0.47	6.8	2365	0.40	5.5	2421	0.33
852BR-212K	8.2	5021	0.97	6.8	5107	0.83	5.5	5230	0.68
862BR-212K	8.2	7607	1.39	6.8	7586	1.17	5.5	7666	0.95
833BR-225K	7.8	1311	0.27	6.4	1366	0.23	5.1	1319	0.18
843BR-225K	7.8	2346	0.46	6.4	2539	0.41	5.1	2725	0.36
853BR-225K	7.8	5298	0.97	6.4	5291	0.82	5.1	5295	0.66
863BR-225K	7.8	7405	1.32	6.4	7461	1.11	5.1	7506	0.90
832BR-250K	7.0	1382	0.25	5.8	1398	0.21	4.6	1398	0.17
842BR-250K	7.0	2050	0.36	5.8	2041	0.31	4.6	2080	0.25
852BR-250K	7.0	4566	0.75	5.8	4768	0.63	4.6	4800	0.52
862BR-250K	7.0	7676	1.25	5.8	7671	1.05	4.6	7625	0.85
833BR-265K	6.6	1297	0.20	5.5	1342	0.16	4.4	1308	0.13
843BR-265K	6.6	1588	0.25	5.5	1597	0.21	4.4	1629	0.17
853BR-265K	6.6	3351	0.49	5.5	3267	0.40	4.4	3267	0.32
863BR-265K	6.6	6895	0.98	5.5	6850	0.82	4.4	6866	0.66
833BR-280K	6.2	1357	0.18	5.2	1386	0.15	4.1	1360	0.12
843BR-280K	6.2	1590	0.23	5.2	1681	0.19	4.1	1680	0.15
853BR-280K	6.2	3356	0.44	5.2	3313	0.36	4.1	3392	0.29
863BR-280K	6.2	7671	0.88	5.2	7671	0.73	4.1	7710	0.59
833BR-315K	5.6	1311	0.20	4.6	1318	0.17	3.7	1360	0.14
843BR-315K	5.6	2620	0.39	4.6	2770	0.34	3.7	2770	0.27
853BR-315K	5.6	5252	0.73	4.6	5255	0.61	3.7	5309	0.50
863BR-315K	5.6	7490	0.94	4.6	7475	0.79	3.7	7474	0.64
833BR-360K	4.9	1177	0.18	4.0	1269	0.15	3.2	1269	0.12
843BR-360K	4.9	2496	0.35	4.0	2537	0.29	3.2	2537	0.23
853BR-360K	4.9	4862	0.63	4.0	4897	0.53	3.2	4900	0.43
863BR-360K	4.9	7382	0.87	4.0	7509	0.73	3.2	7512	0.59
833BR-400K	4.4	1296	0.13	3.6	1391	0.11	2.9	1391	0.09
843BR-400K	4.4	1647	0.16	3.6	1656	0.14	2.9	1653	0.11
853BR-400K	4.4	3368	0.32	3.6	3215	0.26	2.9	3290	0.21
863BR-400K	4.4	7686	0.67	3.6	7704	0.56	2.9	7718	0.44

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 354 & 355.  
 Actual Output RPM = Input Speed ÷ Actual Ratio.  
 For Base / Projecting Shaft / Output Flange see How to Order Page 201.  
 For Overhung Load Ratings refer to Page 204.  
 □ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Ratings

**Non-Flanged; Input Speeds 690 and 100 RPM**

**Service Factor 1.0\***

Catalog Number	Input Speed						Approx. Wt. (LB)	Actual Gear Ratio
	690 RPM			100 RPM				
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)		
833BR-180K	3.8	1205	.11	.55	1260	.70	32	173.250
843BR-180K	3.8	1600	.14	.55	1700	.71	40	165.000
853BR-180K	3.8	3400	.27	.55	3440	.73	47	168.723
863BR-180K	3.8	7500	.57	.55	7500	.78	83	182.494
833BR-200K	3.4	1360	.13	.50	1360	.57	32	196.667
843BR-200K	3.4	2620	.26	.50	2620	.58	40	196.667
853BR-200K	3.4	5555	.48	.50	5260	.60	47	201.103
863BR-200K	3.4	7520	.65	.50	7520	.63	83	198.712
832BR-212K	3.2	1432	.12	.47	1360	.57	24	217.778
842BR-212K	3.2	2548	.21	.47	2610	.58	32	217.778
852BR-212K	3.2	5602	.44	.47	5260	.60	39	217.778
862BR-212K	3.2	7700	.61	.47	7700	.63	70	215.555
833BR-225K	3.1	1355	.11	.44	1360	.57	32	224.737
843BR-225K	3.1	2880	.23	.44	2610	.58	40	224.737
853BR-225K	3.1	5554	.42	.44	5260	.60	47	229.806
863BR-225K	3.1	7520	.57	.44	7520	.63	83	225.750
832BR-250K	2.8	1360	.11	.40	1360	.57	24	247.500
842BR-250K	2.8	2206	.16	.40	2150	.58	32	247.500
852BR-250K	2.8	4800	.33	.40	4680	.60	39	247.500
862BR-250K	2.8	7770	.54	.40	7427	.62	70	245.000
833BR-265K	2.6	1335	.08	.38	1360	.70	32	257.250
843BR-265K	2.6	1589	.10	.38	1680	.70	40	245.000
853BR-265K	2.6	3387	.20	.38	3310	.72	47	250.526
863BR-265K	2.6	7080	.41	.38	7260	.76	83	242.367
833BR-280K	2.5	1360	.07	.36	1360	.01	32	289.917
843BR-280K	2.5	1712	.09	.36	1670	.01	40	276.111
853BR-280K	2.5	3382	.18	.36	3310	.02	47	282.339
863BR-280K	2.5	7710	.36	.36	7250	.05	83	304.445
833BR-315K	2.2	1446	.09	.32	1360	.01	32	303.333
843BR-315K	2.2	2782	.17	.32	2580	.02	40	303.333
853BR-315K	2.2	5445	.31	.32	5220	.05	47	310.175
863BR-315K	2.2	7520	.41	.32	7520	.06	83	324.889
833BR-360K	1.9	1270	.07	.28	1360	.01	32	330.000
843BR-360K	1.9	2537	.14	.28	2570	.02	40	330.000
853BR-360K	1.9	5079	.27	.28	5190	.04	47	337.444
863BR-360K	1.9	7520	.38	.28	7520	.05	83	353.214
833BR-400K	1.7	1391	.05	.25	1360	.01	32	400.167
843BR-400K	1.7	1730	.07	.25	1660	.01	40	381.111
853BR-400K	1.7	3378	.13	.25	3290	.02	47	389.708
863BR-400K	1.7	7798	.27	.25	7718	.04	83	403.190

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 354 & 355.

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Base / Projecting Shaft / Output Flange see How to Order Page 201.

For Overhung Load Ratings refer to Page 204.

□ Indicates Triple Reduction



# 800 Series Right Angle Helical Worm Ratings

## Non-Flanged; Input Speeds 1750, 1450 and 1160 RPM

Service Factor 1.0\*

Catalog Number	Input Speed								
	1750 RPM			1450 RPM			1160 RPM		
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)
833BR-450K	3.9	1279	0.11	3.2	1263	0.09	2.6	1403	0.08
843BR-450K	3.9	1572	0.14	3.2	1627	0.12	2.6	1671	0.10
853BR-450K	3.9	3303	0.28	3.2	3276	0.23	2.6	3380	0.19
863BR-450K	3.9	7692	0.59	3.2	7612	0.49	2.6	7612	0.39
833BR-500K	3.5	1354	0.13	2.9	1359	0.11	2.3	1390	0.09
843BR-500K	3.5	2647	0.25	2.9	2684	0.21	2.3	2690	0.17
853BR-500K	3.5	5146	0.46	2.9	5266	0.39	2.3	5266	0.31
863BR-500K	3.5	6913	0.62	2.9	6892	0.52	2.3	6892	0.42
833BR-560K	3.1	1384	0.12	2.6	1392	0.10	2.0	1392	0.08
843BR-560K	3.1	2745	0.23	2.6	2691	0.19	2.0	2691	0.15
853BR-560K	3.1	5296	0.42	2.6	5240	0.35	2.0	5240	0.28
863BR-560K	3.1	7200	0.55	2.6	7156	0.46	2.0	7200	0.37
833BR-800K	2.2	1274	0.08	1.8	1322	0.07	1.4	1416	0.06
843BR-800K	2.2	2591	0.16	1.8	2737	0.14	1.4	2740	0.11
853BR-800K	2.2	5308	0.31	1.8	5373	0.26	1.4	5376	0.21
863BR-800K	2.2	7734	0.43	1.8	7734	0.36	1.4	7774	0.29
833BR-900K	1.9	1247	0.07	1.6	1490	0.06	1.3	1490	0.05
843BR-900K	1.9	2494	0.14	1.6	2621	0.12	1.3	2630	0.10
853BR-900K	1.9	5099	0.27	1.6	5402	0.23	1.3	5420	0.18
863BR-900K	1.9	7659	0.38	1.6	7771	0.32	1.3	7775	0.26

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349.

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Base / Projecting Shaft / Output Flange see How to Order Page 201.

For Overhung Load Ratings refer to Page 204.

□ Indicates Triple Reduction

H

# 800 Series Right Angle Helical Worm Ratings

Non-Flanged; Input Speeds 690 and 100 RPM

Service Factor 1.0\*

Catalog Number	Input Speed						Approx. Wt. (LB)	Actual Gear Ratio
	690 RPM			100 RPM				
	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)		
833BR-450K	1.5	1454	.05	.22	1454	.01	32	454.781
843BR-450K	1.5	1662	.06	.22	1660	.01	40	433.125
853BR-450K	1.5	3360	.11	.22	3280	.02	47	442.895
863BR-450K	1.5	7612	.24	.22	7190	.03	83	458.217
833BR-500K	1.4	1390	.05	.20	1360	.01	32	490.000
843BR-500K	1.4	2650	.10	.20	2540	.01	40	490.000
853BR-500K	1.4	5270	.20	.20	5410	.03	47	501.053
863BR-500K	1.4	7288	.27	.20	7520	.04	83	469.091
833BR-560K	1.2	1412	.05	.18	1360	.01	32	552.222
843BR-560K	1.2	2700	.09	.18	2530	.01	40	552.222
853BR-560K	1.2	5260	.18	.18	5130	.02	47	564.678
863BR-560K	1.2	7520	.24	.18	7520	.03	83	589.250
833BR-800K	.86	1453	.03	.12	1360	.01	32	762.222
843BR-800K	.86	2778	.07	.12	2510	.01	40	762.222
853BR-800K	.86	5460	.13	.12	5080	.02	47	779.415
863BR-800K	.86	7734	.18	.12	7520	.03	83	780.370
833BR-900K	.78	1490	.03	.11	1360	.00	32	866.250
843BR-900K	.78	2630	.06	.11	2500	.01	40	866.250
853BR-900K	.78	5450	.11	.11	5060	.02	47	885.789
863BR-900K	.78	7775	.16	.11	7520	.02	83	886.875

\* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348 & 349.

Actual Output RPM = Input Speed ÷ Actual Ratio.

For Base / Projecting Shaft / Output Flange see How to Order Page 201.

For Overhung Load Ratings refer to Page 204.

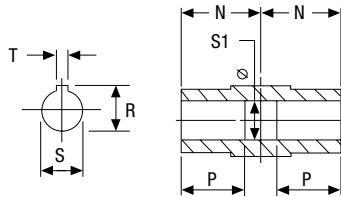
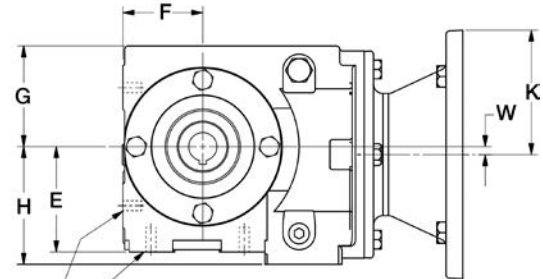
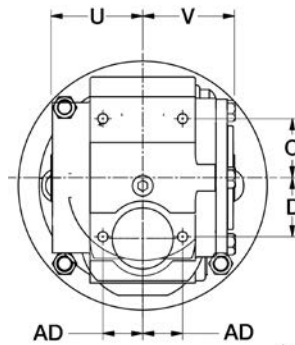
☐ Indicates Triple Reduction



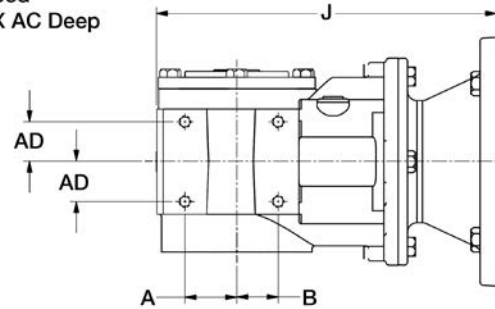
# 800 Series Right Angle Helical Worm Gear Drives

## SF800BR Series; NEMA C-Face Input; Double Reduction

### Basic Model



(8) Holes Tapped AB X AC Deep



Size	A	B	C	D	E	F	G	H	J				K			
									NEMA Mounting				NEMA Mounting			
									56C	140TC	180TC	210TC	56C	140TC	180TC	210TC
									B5	B7	B9	B11	B5	B7	B9	B11
SF832BR	1.38	1.10	1.57	1.57	2.80	2.13	2.68	3.13	9.04	9.04	—	—	3.31	3.31	—	—
SF842BR	1.38	1.77	2.09	2.56	3.39	2.52	2.95	3.66	9.79	9.79	10.61	—	3.31	3.31	4.63	—
SF852BR	1.77	2.17	2.56	3.03	3.78	2.68	3.46	4.36	10.57	10.57	11.40	—	3.31	3.31	4.63	—
SF862BR	2.20	2.60	2.99	3.78	4.72	3.54	3.94	5.49	12.29	12.29	14.65	14.65	3.31	3.31	4.63	4.63

Size	N	P	R	S +.001 -.000	S1	T	U	V	W	AB	AC	AD
SF832BR	2.44	1.25	.84	.7500	.76	.19	2.76	2.24	.21	5/16-18	.50	1.06
SF842BR	2.56	1.25	1.37	1.250	1.26	.25	2.93	2.56	.59	3/8-16	.56	1.10
SF852BR	2.76	1.38	1.53	1.375*	1.39	.31	2.76	2.76	.53	3/8-16	.75	1.34
SF862BR	3.54	3.00	1.67	1.500*	1.51	.38	3.54	3.17	.67	7/16-14	.75	1.57

Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction.

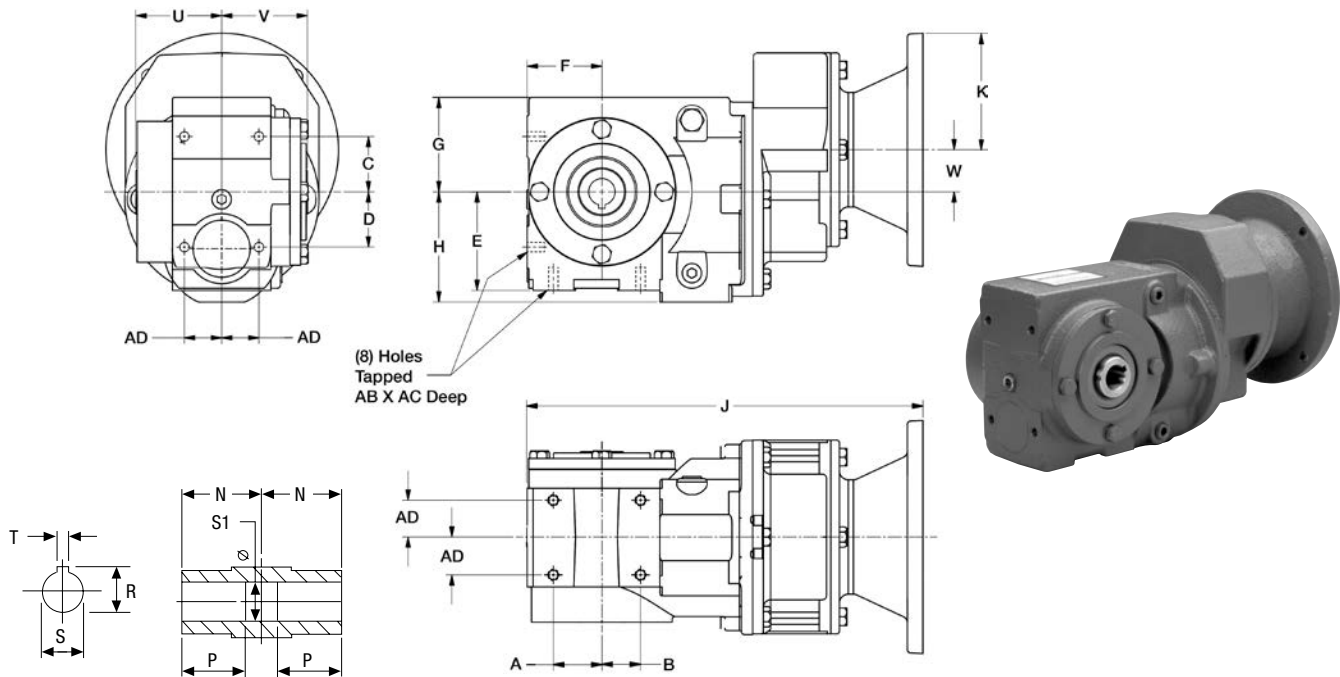
Option kit dimensions on pages 236 & 237.

\* Maximum bore size is 1.625, contact factory for availability.

# 800 Series Right Angle Helical Worm Gear Drives

## SF800BR Series; NEMA C-Face Input; Triple Reduction

### Basic Model



Size	A	B	C	D	E	F	G	H	J		K	
									NEMA Mounting		NEMA Mounting	
									56C	140TC	56C	140TC
									B5	B7	B5	B7
SF833BR	1.38	1.10	1.57	1.57	2.80	2.13	2.68	3.13	11.24	11.24	3.31	3.31
SF843BR	1.38	1.77	2.09	2.56	3.39	2.52	2.95	3.66	12.00	12.00	3.31	3.31
SF853BR	1.77	2.17	2.56	3.03	3.78	2.68	3.46	4.41	13.17	13.17	3.31	3.31
SF863BR	2.20	2.60	2.99	3.78	4.72	3.54	3.94	5.49	16.00	16.00	3.31	3.31

Size	N	P	R	S +.001 -.000	S1	T	U	V	W	AB	AC	AD
SF833BR	2.44	1.25	.84	.7500	.76	.19	2.76	2.24	1.20	5/16-18	.50	1.06
SF843BR	2.56	1.25	1.37	1.250	1.26	.25	2.93	2.56	.81	3/8-16	.56	1.10
SF853BR	2.76	1.35	1.47	1.375*	1.39	.31	2.76	2.76	.89	3/8-16	.75	1.34
SF863BR	3.54	3.00	1.62	1.500*	1.51	.38	3.54	3.17	1.16	7/16-14	.75	1.57

Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction.

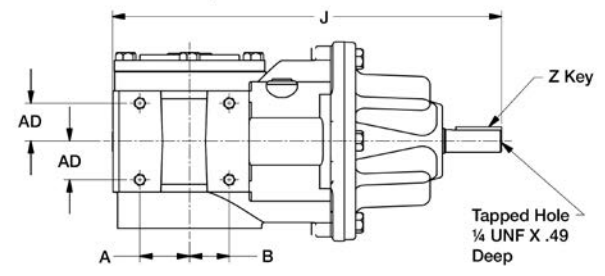
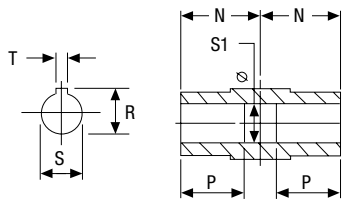
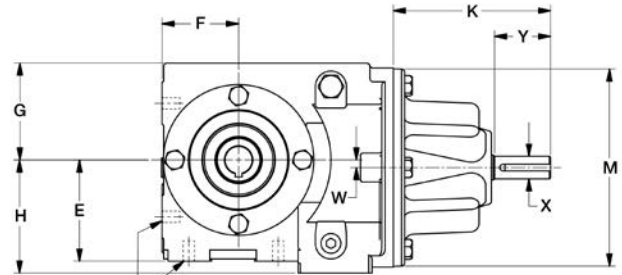
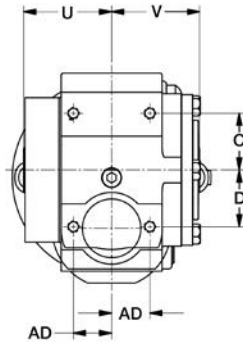
Option kit dimensions on pages 236 & 237.

\* Maximum bore size is 1.625, contact factory for availability.

# 800 Series Right Angle Helical Worm Gear Drives

## S800BR Series; Non-Flanged; Double Reduction

### Basic Model



Size	A	B	C	D	E	F	G	H	J	K	M	N	P
S832BR	1.38	1.10	1.57	1.57	2.80	2.13	2.68	3.13	10.79	4.37	5.51	2.44	1.25
S842BR	1.38	1.77	2.09	2.56	3.39	2.52	2.95	3.66	11.54	4.37	5.51	2.56	1.25
S852BR	1.77	2.17	2.56	3.03	3.78	2.68	3.46	4.36	12.32	4.37	5.51	2.76	1.38
S862BR	2.20	2.60	2.99	3.78	4.72	3.54	3.94	5.49	14.57	4.37	7.09	3.54	3.00

Size	R	S +.001 -.000	S1	T	U	V	W	X +.000 -.001	Y	Z - KEY		AB	AC	AD
										Sq.	Lgth.			
S832BR	.84	.7500	.76	.19	2.76	2.24	.21	.625	1.57	.19	1.28	5/16-18	.56	1.06
S842BR	1.37	1.250	1.26	.25	2.93	2.56	.59	.625	1.57	.19	1.28	3/8-16	.56	1.10
S852BR	1.53	1.375*	1.39	.31	2.76	2.76	.53	.625	1.57	.19	1.28	3/8-16	.75	1.34
S862BR	1.67	1.500*	1.51	.38	3.54	3.17	.67	.750	1.57	.19	1.28	7/16-14	.75	1.57

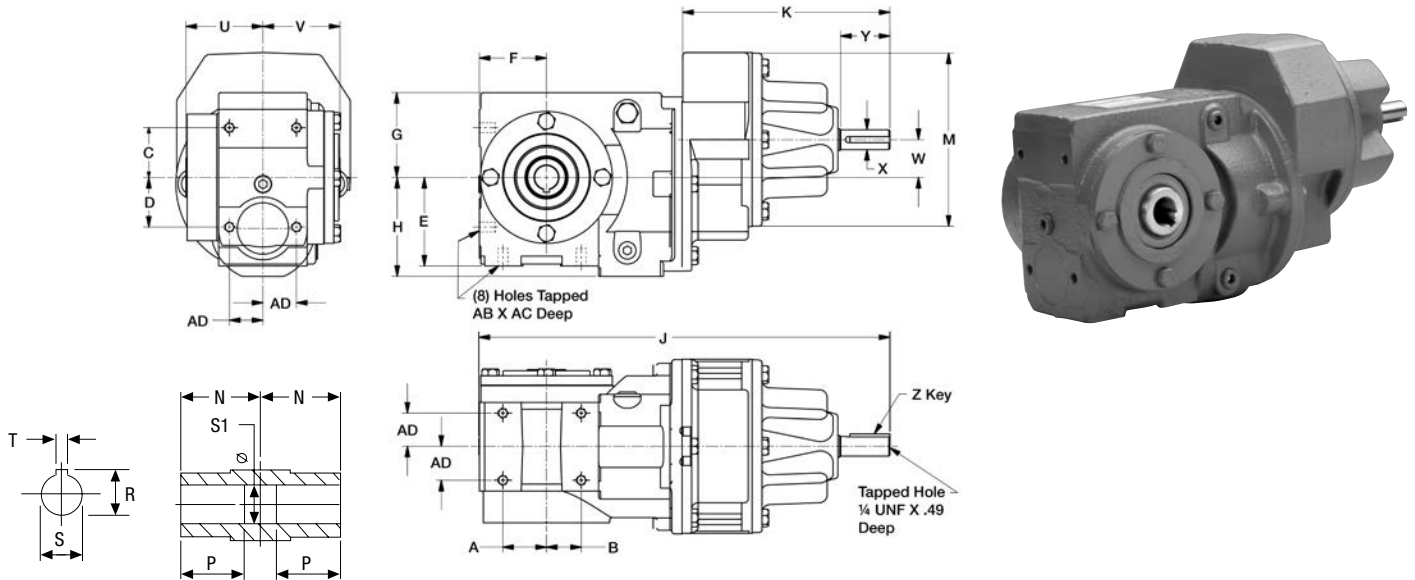
Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction.  
 Option kit dimensions on pages 236 & 237.  
 \* Maximum bore size is 1.625, contact factory for availability.



# 800 Series Right Angle Helical Worm Gear Drives

## S800BR Series; Non-Flanged; Triple Reduction

### Basic Model



Size	A	B	C	D	E	F	G	H	J	K	M	N	P
S833BR	1.38	1.10	1.57	1.57	2.80	2.13	2.68	3.13	12.99	6.57	5.51	2.44	1.25
S843BR	1.38	1.77	2.09	2.56	3.39	2.52	2.95	3.66	13.74	6.57	5.51	2.56	1.25
S853BR	1.77	2.17	2.56	3.03	3.78	2.68	3.46	4.36	14.53	6.57	5.51	2.76	1.38
S863BR	2.20	2.60	2.99	3.78	4.72	3.54	3.94	5.49	17.17	6.97	5.51	3.54	2.00

Size	R	S +.001 -.000	S1	T	U	V	W	X +.000 -.001	Y	Z - KEY		AB	AC	AD
										Sq.	Lgth.			
S833BR	.84	.7500	.76	.19	2.76	2.24	1.20	.625	1.57	.19	1.28	5/16-18	.59	1.06
S843BR	1.37	1.250	1.26	.25	2.93	2.56	.89	.625	1.57	.19	1.28	3/8-16	.79	1.10
S853BR	1.53	1.375*	1.39	.31	2.76	2.76	.89	.625	1.57	.19	1.28	3/8-16	.79	1.34
S863BR	1.67	1.500*	1.51	.38	3.54	3.17	1.16	.625	1.57	.19	1.28	7/16-14	.79	1.57

Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction.

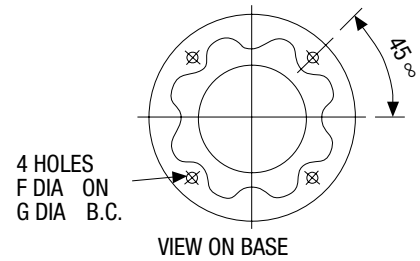
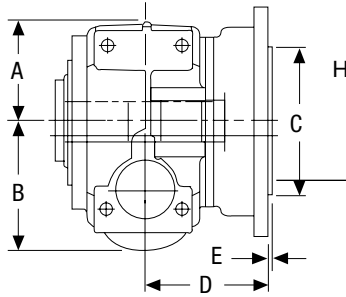
Option kit dimensions on pages 236 & 237.

\* Maximum bore size is 1.625, contact factory for availability.

# 800 Series Right Angle Helical Worm Gear Drives

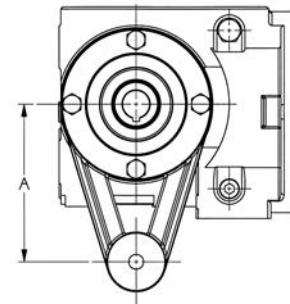
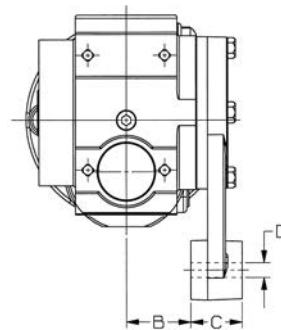
## Accessories

### Output Flange Kits



Size	A	B	C	D	E	F	G	H	Catalog No. (Item Code)
832BR	2.66	3.13	4.3312	2.95	.16	.35	5.12	6.30	XS830BR-11VK (59611)
833BR			4.3304						
842BR	2.95	3.36	4.3312	3.39	.16	.35	5.12	6.30	XS840BR-11VK (59523)
843BR			4.3304						
852BR	3.43	4.41	5.1187	4.21	.14	.43	6.50	7.88	XS850BR-11VK (59528)
853BR			5.1177						
862BR	4.04	5.49	5.1187	4.72	.14	.43	6.50	7.88	XS860BR-11VK (59533)
863BR			5.1177						

### Torque Arm Kits



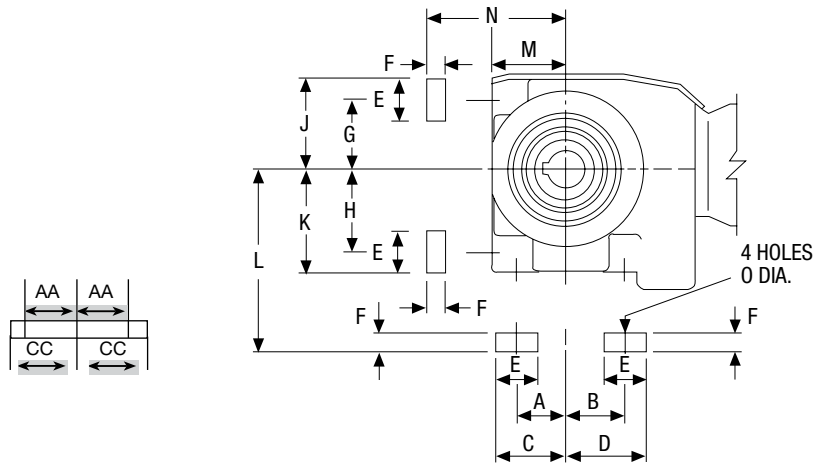
Size	A	B	C	D	Catalog No. (Item Code)
832BR	4.33	1.85	1.42	.41	XS830BR-76K (59612)
833BR					
842BR	5.12	2.05	1.42	.41	XS840BR-76K (59524)
843BR					
852BR	6.30	2.05	1.42	.41	XS850BR-76K (59529)
853BR					
862BR	7.87	2.81	1.73	.65	XS860BR-76K (59534)
863BR					

\*Available on carrier side only (left side when facing flange input).



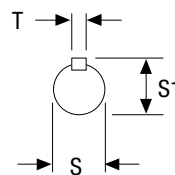
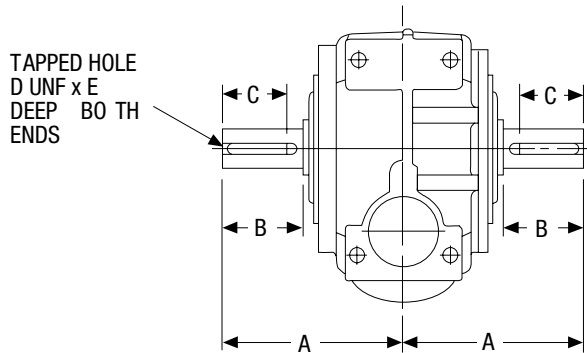
# 800 Series Right Angle Helical Worm Gear Drives

## Accessories Base Kits



Size	A	B	C	D	E	F	G	H	J	K	L	M	N	O	AA	CC	Catalog No. (Item Code)
832BR 833BR	1.38	1.10	1.85	1.61	.98	.35	1.57	1.57	2.07	2.07	3.15	2.13	2.48	.35	1.77	2.17	XS830BR-11K (59610)
842BR 843BR	1.38	1.77	2.09	2.44	1.38	.55	2.09	2.56	2.78	3.25	3.94	2.52	3.07	.43	1.97	2.44	XS840BR-11K (59522)
852BR 853BR	1.77	2.17	2.56	2.95	1.57	.63	2.56	3.03	3.35	3.82	4.41	2.68	3.31	.43	2.17	2.68	XS850BR-11K (59527)
862BR 863BR	2.36	2.76	3.19	3.58	1.97	.79	3.15	3.94	3.98	4.76	5.51	3.54	4.33	.55	2.56	3.15	XS860BR-11K (59532)

## Output Shaft Kits



Size	A	B	C	D	E	S +.000 -.001	S1	T	Catalog No. (Item Code)	
									Single Projection	Double Projection
832BR 833BR	3.94	1.38	1.28	1/4	.63	.750	.83	.19	XS830BR-3PAK (59608)	XS830BR-3PBK (59609)
842BR 843BR	4.53	1.81	1.69	1/4	.63	1.000	1.10	.25	XS840BR-3PAK (59520)	XS840BR-3PBK (59521)
852BR 853BR	5.28	2.36	2.12	3/4	.87	1.250	1.36	.25	XS850BR-3PAK (59525)	XS850BR-3PBK (59526)
862BR 863BR	6.30	2.48	2.34	1/2	1.12	1.375	1.51	.31	XS860BR-3PAK (59530)	XS860BR-3PBK (59531)

Single left / right or double projection shafts.