

# 90 SERIES RIGHT ANGLE HELICAL-BEVEL SPEED REDUCERS/GEAR MOTORS



## PERFORMANCE SPECIFICATIONS

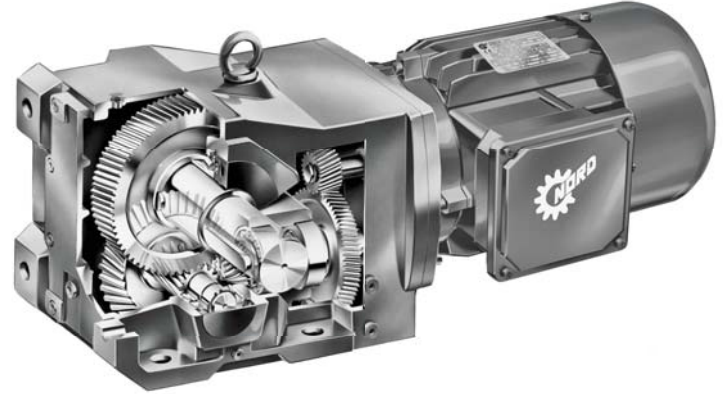
Configuration : right angle  
 Integral motor HP (min/ max) : 0.16 / 200  
 Integral motor kW (min/ max) : 0.12 / 160  
 Typical efficiency : 95.5%  
 Number of gear reductions : 3 to 6

## MOUNTING STYLES

Footed housing style : standard  
 B5 flange outside diameter range [in] : 7.87 to 25.98  
 B5 flange outside diameter range [mm] : 200 to 660  
 Shaft mount housing available  
 B14 flange outside diameter range [in] : 5.51 to 17.72  
 B14 flange outside diameter range [mm] : 140 to 450

## OPTIONS

NEMA C-face or IEC input adapter  
 Custom adapter flange  
 Flange pilot removed  
 Bolt-on torque arm with shock dampener  
 Effective drywell with flange

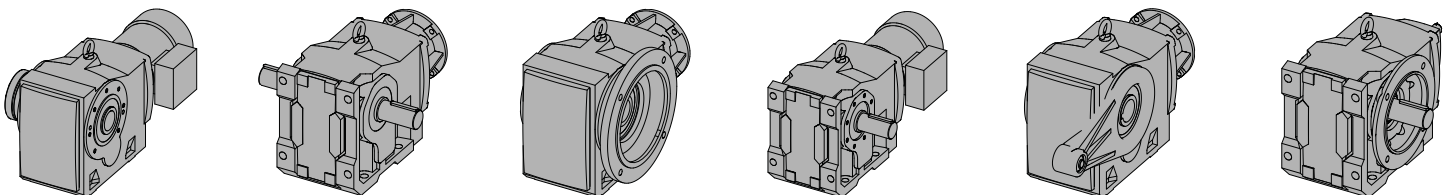


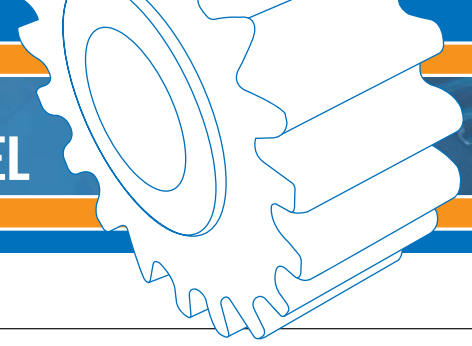
## RATIO AND SPEED

Minimum standard ratio : 8.04:1  
 Maximum standard ratio : 134:32.68  
 Minimum output speed from 1750 rpm motor : 0.13 rpm  
 Maximum output speed from 1750 rpm motor : 218 rpm

Unit Size	Torque Max *		Ratio Range Min-Max	Solid Shaft Dia.		Keyed Hollow Shaft Dia.				Shrink Disc Shaft Dia.	
	[lb-in]	[Nm]		[in]	[mm]	Std-[in]	Opt-[in]	Opt-[in]	[mm]	[in]	[mm]
SK 9012.1	3,540	400	8.09 - 332.37	1.250	30	1.375	1.438	1.250	35	1.375	35
SK 9013.1	3,540	400	141.29 - 1690.10	1.250	30	1.375	1.438	1.250	35	1.375	35
SK 9016.1	5,399	610	12.51 - 277.84	1.375	35	1.500	1.438	-	40	1.500	40
SK 9017.1	5,399	610	134.32 - 1412.69	1.375	35	1.500	1.438	-	40	1.500	40
SK 9022.1	7,611	860	8.78 - 276.86	1.375	35	1.500	1.438	-	40	1.500	40
SK 9023.1	7,611	860	228.47 - 1899.29	1.375	35	1.500	1.438	-	40	1.500	40
SK 9032.1	13,718	1,550	8.48 - 295.85	1.750	45	2.000	1.938	1.688	50	2.000	50
SK 9033.1	13,718	1,550	167.45 - 3635.95	1.750	45	2.000	1.938	1.688	50	2.000	50
SK 9042.1	24,780	2,800	8.83 - 329.69	2.375	60	2.375	1.438	1.188	60	2.375	60
SK 9043.1	24,780	2,800	172.08 - 4246.38	2.375	60	2.375	1.438	1.188	60	2.375	60
SK 9052.1	42,480	4,800	8.10 - 289.61	2.875	70	2.750	2.938	-	70	2.750	70
SK 9053.1	42,480	4,800	164.99 - 3735.92	2.875	70	2.750	2.938	-	70	2.750	70
SK 9072.1	75,225	8,200	9.16 - 245.76	3.625	90	3.250	2.938	-	80	3.250	80
SK 9072.1/32	75,225	8,200	311.10 - 4512.24	3.625	90	3.250	2.938	-	80	3.250	80
SK 9082.1	115,050	13,000	8.04 - 296.80	4.375	110	4.000	3.938	4.438	110	4.000	110
SK 9082.1/42	115,050	13,000	285.05 - 4671.14	4.375	110	4.000	3.938	4.438	110	4.000	110
SK 9086.1	177,000	20,000	8.04 - 230.64	4.750	120	4.750	-	-	120	4.750	120
SK 9086.1/52	177,000	20,000	144.80 - 4818.83	4.750	120	4.750	-	-	120	4.750	120
SK 9092.1	283,200	32,000	10.68 - 297.51	5.500	140	-	-	-	150	5.500	150
SK 9092.1/52	283,200	32,000	191.28 - 4916.63	5.500	140	-	-	-	150	5.500	150
SK 9096.1	442,500	50,000	16.78 - 200.57	7.500	190	-	-	-	155/160	6.00/6.25	155/160
SK 9096.1/62	442,500	50,000	208.95 - 1623.67	7.500	190	-	-	-	155/160	6.00/6.25	155/160
SK 9096.1/63	442,500	50,000	1774.21 - 13432.68	7.500	190	-	-	-	155/160	6.00/6.25	155/160

\* Torque may vary by ratio





### SHAFT DATA

- AISI 1045 or 4140 input and output shaft material
- Inch shaft key dimensions according to AISI B17
- Metric shaft key dimensions according to DIN 6885
- Standard output shaft drill and tap
- 2 hollow shaft keys
- Shrink disc size range [in] : 1.375 to 5.500
- Shrink disc size range [mm] : 35 to 150
- Minimum gripping safety factor range [h6 fit] : 2.6 to 6.3

### SHAFT DATA OPTIONS

Double solid output shaft, Shaft fixing element, Custom shaft diameters, Hollow spline per DIN 5480, Custom spline, Cross drilled holes, 304 stainless steel



### MOTOR MOUNTING

- Integral motor : 1/6 to 200 HP
- C-face adapter frame size range : 56C to 360TC
- IEC adapter [B5] frame size range : IEC 63 to IEC 315
- Sugar scoop motor availability : 56 to 365T
- Top mount platform motor availability : 56 to 405T

### MOTOR MOUNTING OPTIONS

Custom motor adapter, Custom coupling diameter



### GEARING

- Up to AGMA Class 13 gear quality rating
- 58 Rockwell C minimum gear hardness
- Ground or skive hobbed hard gear teeth finishing
- Standard drop forged gear blanks
- 275% momentary overload capacity
- Standard hunting tooth ratios



### HOUSING

- Class 35 gray iron housing material
- Single setup machining method
- UNICASE™ one piece housing design
- Seals directly contact main housing
- Exceptional housing torsional stiffness
- Thick housing wall section
- Castings are dip sealed



### BEARINGS

- ABEC-1 quality bearings
- Ball or tapered standard output bearing
- Tapered or spherical heavy-duty output bearing



### LUBRICANT & SEALING COMPONENTS

- Factory filled ISO 220 mineral oil
- Standard AUTOVENT™ breather style
- QUADRILIP™ output seal design
- 1 double lip & 1 single lip output shaft oil seals
- Nitrile rubber Oil seals

### LUBRICANT & SEALING OPTIONS

Custom synthetic lubricating oil, Custom temperature lubricating oil, Fluid grease lubricant, Food grade lubricating oil, Long term storage preparation, Magnetic drain plug, Bulls eye sight glass, Custom drain plug, Fluorinated rubber oil seal material, Custom oil seals



### INTERNAL PARTS ASSEMBLY

- Heavy press fit assembly method
- Standard reversing duty
- Typical backlash range [arc minutes] : 7 to 13

### INTERNAL PARTS ASSEMBLY OPTIONS

Internal backstop



### ENVIRONMENTAL PROTECTION

- Exterior primer coverage on all metal exterior surfaces
- Water Based Resin paint type
- 316 stainless steel flake paint additive
- H1 USDA incidental contact exposure

### ENVIRONMENTAL OPTIONS

Severe duty and washdown duty paint options, Custom paint, Shaft seal covers, High pressure washdown IP66 oil seals