

# VL2 & VL3 AGITATOR MIXER & SHREDDER REDUCERS

## VL2 - SPREAD BEARING DESIGN

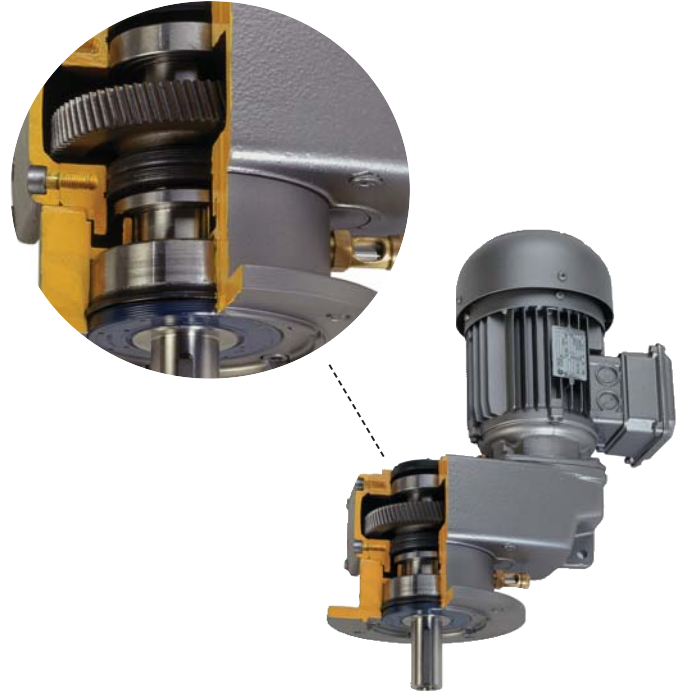
Increased bearing spreads with an oversized double row spherical bearing on the lower side. It is commonly used in shredders, mixers or applications requiring increased bearing load carrying capacities.

## VL3 - SPREAD BEARING DESIGN

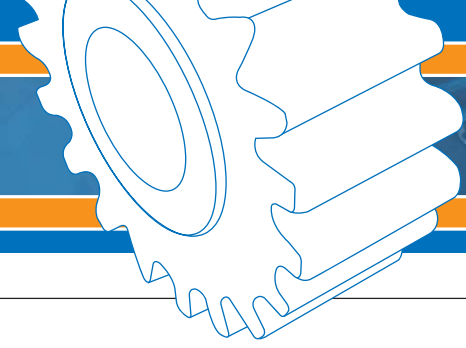
In addition to the VLII design an oil leakage control system is added. Our Dry Cavity System provides a very high degree of oil safety. The anti-leak QUADRILIP™ Oil Sealing System is enhanced with an oil collection cavity (just-in-case) and various ways to sense and remove the leakage from the cavity. Standard is a viewable oil sight indicator with an optional capacitive proximity switch and control available for electronic indication of a leak.

## OPTIONS TO BOTH DESIGNS

You may include a grease zerk to lubricate the lower bearing, and a removable plug to allow excess grease to purge from the bearing cavity.



Unit Size	B5 Flange Diameter		Solid Shaft Diameter		Hollow Shaft Diameter		Shrink Disc Diameter		Output Bearings		Bearing Spread	
	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	upper	lower	[in]	[mm]
<b>Offset Parallel (Clincher)</b>												
SK 1282	7.87	200	1.250	30	1.188	30	1.250	30	6009Z	22210E	4.91	125
SK 2282 or SK 2382	9.84	250	1.375	35	1.438	35	1.500	35	NUP210E	22212E	5.55	141
SK 3282 or SK 3382	11.81	300	1.875	45	1.625	40	1.625	40	NUP211E	22213E	6.58	167
SK 4282 or SK 4382	11.81	300	2.250	55	2.062	50	2.000	50	NUP214E	22216E	8.45	215
SK 5282 or SK 5382	13.78	350	2.500	65	2.438	60	2.500	60	NUP217E	22219E	9.92	252
SK 6282 or SK 6382	15.75	400	3.000	75	2.750	70	3.000	70	NUP220E	23222E	12.67	322
SK 7282 or SK 7382	17.72	450	3.500	90	3.188	80	3.188	80	NUP222E	23224E	14.08	358
SK 8282 or SK 8382	21.65	550	4.250	110	4.062	100	4.000	100	NUP226E	23228E	16.76	426
SK 9282 or SK 9382	25.98	660	5.250	140	4.750	120	4.750	125	NUP232E	23236E	19.04	484
SK 10282 or SK 10382	25.98	660	6.250	160	----	----	6.250	160	23044MB	22244MB	23.70	602
SK 11282 or SK 11382	25.98	660	7.000	180	----	----	7.000	180	23048MB	22244MB	24.29	617
SK 12382	25.98	660	7.000	180	----	----	7.000	180	23048MB	22244MB	24.29	617
<b>Helical-Bevel Speed Reducer</b>												
SK 9012.1 or SK 9013.1	7.87	200	1.250	30	1.375	35	1.375	35	6010Z	22210E	6.17	157
SK 9016.1 or SK 9017.1	7.87	200	1.375	35	1.500	40	1.500	40	6010Z	22210E	6.17	157
SK 9022.1 or SK 9023.1	9.84	250	1.375	35	1.500	40	1.500	40	6010Z	22210E	7.13	181
SK 9032.1 or SK 9033.1	11.81	300	1.750	45	2.000	50	2.000	50	6014 2RS	22214ES	8.17	207
SK 9042.1 or SK 9043.1	13.78	350	2.375	65	2.375	60	2.375	60	NUP216E	22219ES	10.47	266
SK 9052.1 or SK 9053.1	15.75	400	2.875	75	2.750	70	3.250	70	NUP220E	23222ES	13.28	337
SK 9072.1	17.72	450	3.625	90	3.250	80	3.250	80	NUP222E	23224ES	15.74	400
SK 9072.1/32	17.72	450	3.625	90	3.250	80	3.250	80	NUP222E	23224ES	15.74	400
SK 9072.1/42	17.72	450	3.625	90	3.250	80	3.250	80	NUP222E	23224ES	15.74	400
SK 9082.1	21.65	550	4.375	110	4.000	110	4.000	110	NUP228E	23228ES	18.61	473
SK 9082.1/42	21.65	550	4.375	110	4.000	110	4.000	110	NUP228E	23228ES	18.61	473
SK 9082.1/52	21.65	550	4.375	110	4.000	110	4.000	110	NUP228E	23228ES	18.61	473
SK 9086.1	25.98	660	4.750	120	4.750	120	4.750	125	22232E	23236ES	21.50	546
SK 9086.1/52	25.98	660	4.750	120	4.750	120	4.750	125	22232E	23236ES	21.50	546
SK 9092.1	25.98	660	5.500	140	----	----	5.500	150	23040E	23236ES	25.57	650
SK 9092.1/52	25.98	660	5.500	140	----	----	5.500	150	23040E	23236ES	25.57	650
SK 9096.1	25.98	660	7.500	190	----	----	----	----	23040E	23236ES	25.57	650
SK 9096.1/62	25.98	660	7.500	190	----	----	----	----	23040E	23236ES	25.57	650
SK 9096.1/63	25.98	660	7.500	190	----	----	----	----	23040E	23236ES	25.57	650



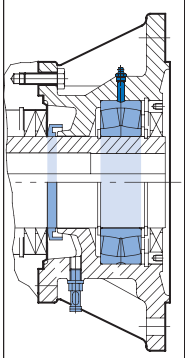
## RATIO & SPEED

### OFFSET PARALLEL CLINCHER

- Ratio range : 4.03:1 to 6616.79:1
- Speed range from 1750 rpm motor : 0.26 to 434 rpm
- 95.5% minimum standard efficiency

### 90 SERIES RIGHT ANGLE BEVEL

- Ratio range : 8.04:1 to 4916.63:1
- Speed range from 1750 rpm motor : 0.36 to 218 rpm
- 95.5% minimum standard efficiency



## STANDARD CONFIGURATION

- B5 flange housing style
- Output shaft types : Keyed solid shaft, Keyed hollow shaft, Keyless shrink disc connector
- VLII-spread bearing design has an Increased bearing spread, and a Large double row spherical bearing on lower side
- VLIII-dry cavity design : Includes the VLII features with added oil leakage control, Oil flinger, Oil accumulation cavity, sight glass to show if oil is present in the control cavity

## STANDARD CONFIGURATION OPTIONS

- Regreasable zerk lubricating nipple for lower bearing,
- Capacitive oil sensing switch, Capacitive oil switch



## SHAFT DATA

- AISI 4140 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
- Shrink disc size range [in] : 1.250 to 7.000
- Shrink disc size range [mm] : 30 to 180



## INTERNAL PARTS ASSEMBLY

- Heavy press fit assembly method
- Standard reversing duty
- Typical backlash range [arc minutes] : 6 to 13



## GEARING

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



## HOUSING

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



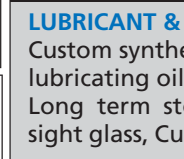
## BEARINGS

- ABEC-1 quality bearings
- Bearing spread is larger than standard unit by at least 50%
- Double row spherical lower output bearing
- Optional housing with grease zerk available for lower bearing regreasing
- NIGI 2EP lithium based lower bearing lubricant
- 50,000 + hours of L10 output bearing life



## LUBRICANT & SEALING COMPONENTS

- Factory filled ISO 220 mineral oil
- Standard AUTOVENT™ breather style
- QUADRILIP™ output seal system
- 3 double lip & 2 single lip output shaft oil seals
- Double lipped lower flange seal
- Nitrile rubber oil seals



## LUBRICANT & SEALING OPTIONS

Custom synthetic lubricating oil, High or low temperature lubricating oil, Fluid grease lubricant, Food grade lubricating oil, Long term storage preparation, Magnetic drain plug, Bullseye sight glass, Custom drain plug, Fluorinated rubber oil seal material



## ENVIRONMENTAL PROTECTION

- Exterior primer coverage : all metal exterior surfaces
- Paint type : Water Based Resin
- Paint additive : 316 stainless steel flakes
- USDA incidental contact exposure : H1

## ENVIRONMENTAL OPTIONS

Severe duty and washdown duty paint options, Custom paint, Top side shaft covers