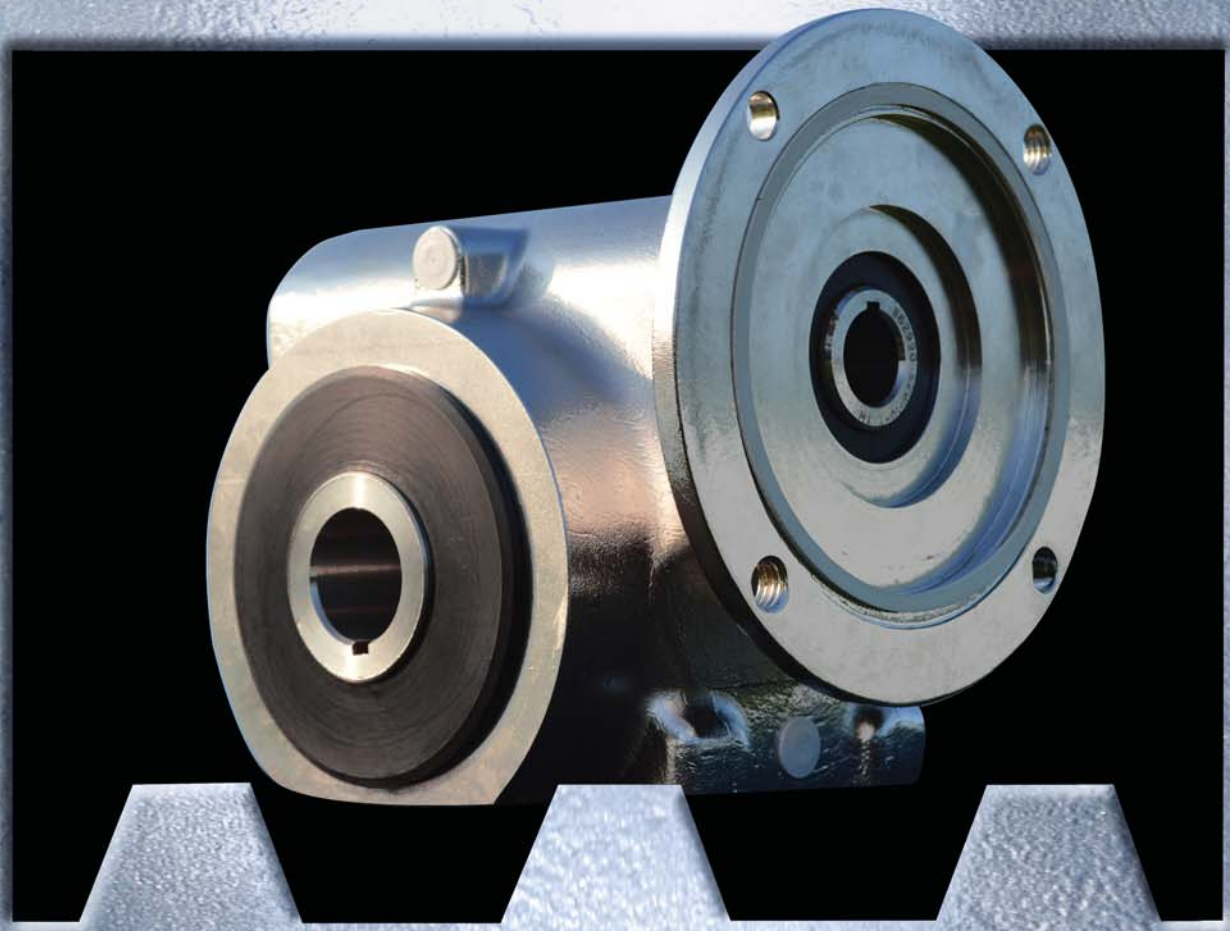
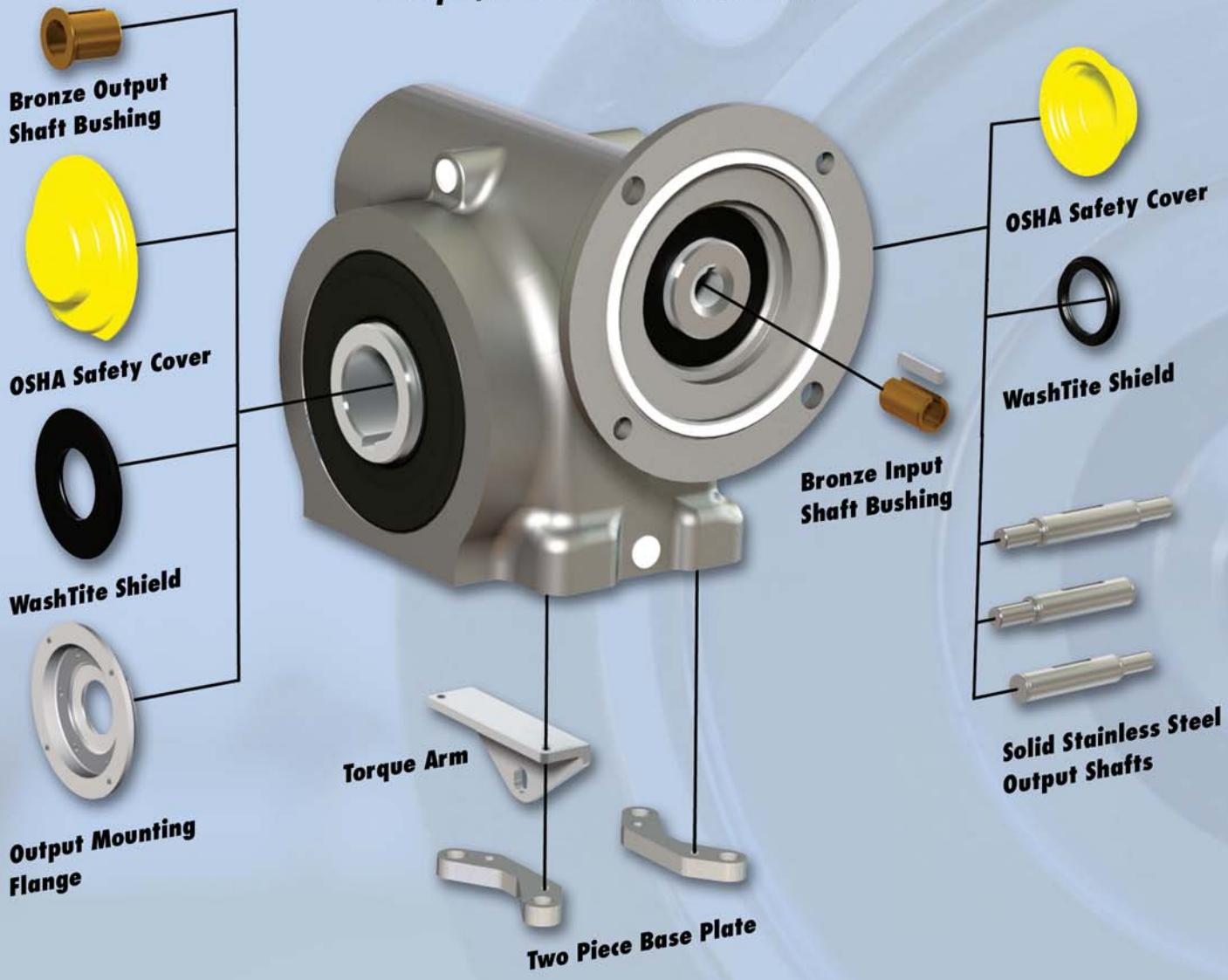
WINSMITH



STAINLESS CONVEYOR DRIVE

STAINLESS CONVEYOR DRIVE

Unique, Powerful Performance



MPSS - IP69K

MDSS - IP66

MPNS - IP69K

MDNS - IP66

MPRS - IP69K

MSRS - IP66

MDPS - IP69K

MDTS - IP66

MPTS - IP69K

MSTS - IP66

MSFS - IP69K

Winsmith's WashTite Shield System

- *IP69K Certified*
- *High pressure, high temperature wash down for equipment sanitation*

Premium Efficiency

- *Up to 96% efficient gearing design*
- *Mobile Glygoyle® PAG 460 Lubricant ♦ maximizes worm gear performance*

Food Grade Synthetic lubricant

- *Mobile Glygoyle® PAG 460*
- *NSF H1 certified for incidental food contact*
- *Outperforms mineral and other synthetic Lubricants*

Continuous Smooth Housing

- *One piece exterior housing*
- *No excess bolts or cavities*
- *High pressure tested caps*

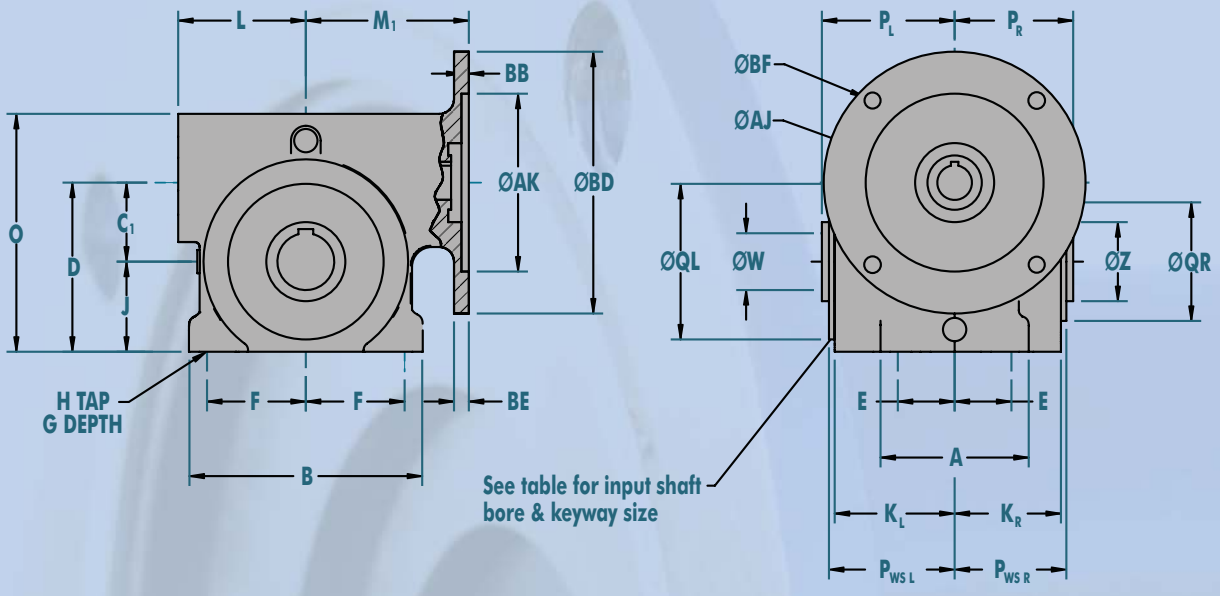
24 Hour Ship

- *Over 15,000 configurations available in 5 case sizes*

Industry Interchange

- *Competitively designed with common industry dimensions*

MPSS



SPEED REDUCER DIMENSIONS (IN.)

Size	A	B	C_1	D	E	F	G DEPTH	H TAP	J	K_L	K_R	L	M_1 56C-140TC	O	P_L	P_R
S17	2.88	5.25	1.750	3.81	1.38	2.09	0.52	5/16-18	2.06	2.88	2.50	2.70	4.19	5.25	3.19	2.81
S20	3.75	5.89	2.000	4.28	1.44	2.50	0.75	3/8-16	2.28	3.04	2.69	3.23	4.13	6.02	3.36	3.00
S24	3.75	6.25	2.375	4.88	1.44	2.50	0.63	3/8-16	2.50	3.14	2.78	3.89	5.38	6.75	3.45	3.11
S26	4.50	7.50	2.625	5.56	1.69	3.19	0.69	3/8-16	2.94	3.31	2.81	3.82	5.34	7.38	3.63	3.13
S30	5.13	8.58	3.000	6.50	2.00	3.75	0.69	7/16-14	3.50	3.63	3.00	4.15	5.54	8.69	4.00	3.38

SPEED REDUCER DIMENSIONS (IN.)

Size	$P_{WS\ L}$	$P_{WS\ R}$	R_L	R_R	Z	AJ	AK	BB	BD	BE	BF	Input Keyway
S17	3.02	2.64	3.63	2.19	1.50	5.88	4.50	0.19	6.63	0.34	0.406	3/16 X 3/32
S20	3.18	2.83	3.94	3.00	2.00							
S24	3.28	2.92	4.63	3.25	2.25							
S26	3.45	2.95	5.25	3.50	2.50							
S30	3.77	3.14	6.00	3.63	2.63							

INPUT SHAFT BORE SIZES

	Bore $^{+.001}/_{-.000}$
56C	0.625
140TC	0.875

HOLLOW OUTPUT SHAFT BORE SIZES (W)**

Size	1.000	1.188	1.250	1.438	1.500	1.688	1.938
S17	●						
S20	▲ ●	▲ ●	▲ ●	● *			
S24	▲ ●	▲	▲ ●	●	●		
S26	▲ ●		▲ ●	▲	▲ ●	●	
S30			▲ ●	▲			●
OUTPUT KEYWAY	1/4 x 1/8	1/4 x 1/8	1/4 x 1/8	3/8 x 3/16	3/8 x 3/16	3/8 x 3/16	1/2 x 3/16

● = Bored to size, ▲ = Bushing available

* Keyway is 3/8 X 1/8

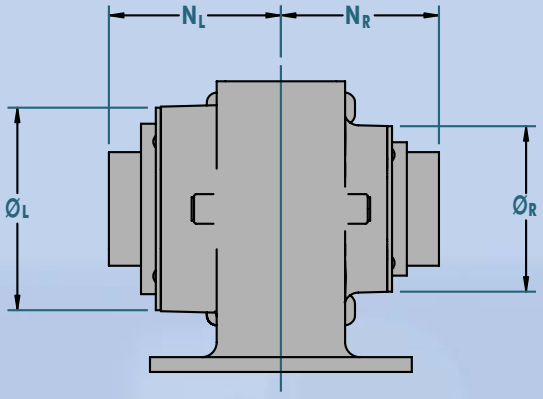
** Bore Tolerance $^{+.002}/_{.000}$

The input shaft may be driven in either direction.

QUILL INPUT SHAFT BUSHING KIT

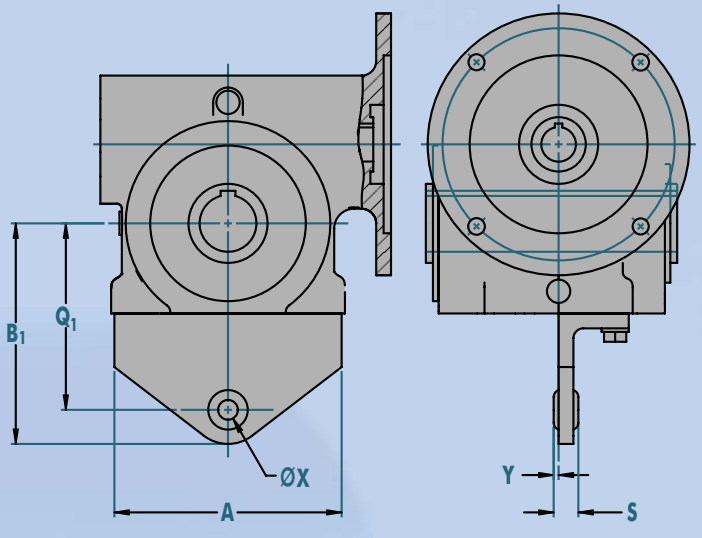
Motor Flange (Shaft Diameter)	Reducer Input Adaptor (Bore Size)	Bushing Length	Keyway Size	Kit #
56C (.625)	140TC (.875)	1.44	3/16 X 3/32	WK9810170

ACCESSORY KITS



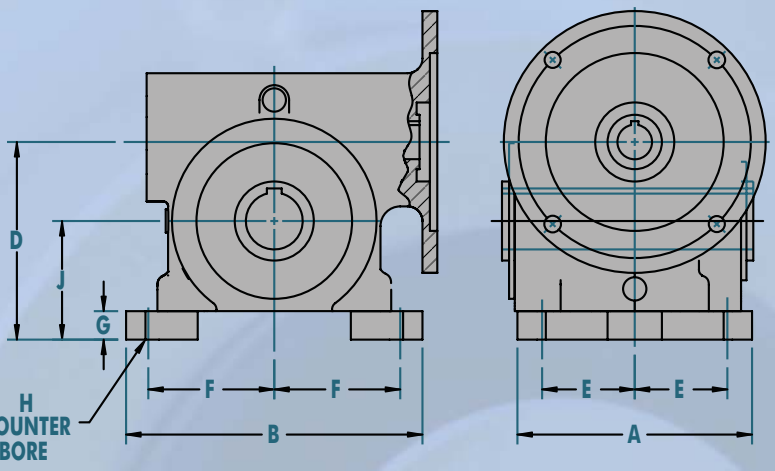
OSHA SLOW SPEED COVERS

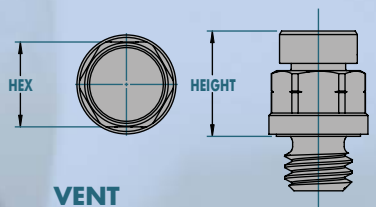
Size	N_L	N_R	$Ø_L$	$Ø_R$	Kit #
S17	4.13	3.75	4.63	3.50	CK9952710
S20	4.35	4.00	5.13	4.19	CK9952711
S24	4.45	4.09	5.75	4.44	CK9952712
S26	4.81	4.25	6.44	4.90	CK9952713
S30	5.19	4.56	7.46	5.28	CK9952714



TORQUE ARM BRACKETS

Size	A	B_1	Q_1	S	ØX	Y	Kit #
S17	5.13	5.36	4.50	0.63	0.50	0.13	TK9952720
S20	5.75	5.58	4.78				TK9952721
S24	6.00	5.80	4.94				TK9952722
S26	7.25	6.24	5.38				TK9952723
S30	7.63	6.80	5.78				TK9952724





VENT

Height	Hex	Kit #
0.59	0.50	52096

BASE PLATES

Size	A	B	D	E	F	G	H C'Bore	J	Kit #
S17	5.63	6.88	4.50	2.25	2.88	0.69	3/8 SHCS	2.75	BK9998140
S20	5.94	7.50	5.00	2.34	3.19	0.72		3.00	BK9998141
S24	6.13	8.29	5.63	2.44	3.53	0.75	7/16 SHCS	3.25	BK9998142
S26	6.65	9.40	6.31	2.63	4.00	0.75	1/2 SHCS	3.69	BK9998143
S30	7.63	11.00	7.38	3.06	4.75	0.88		4.38	BK9998144

SHAFT CLAMPING COLLARS

Bore	Width	O.D.	Kit #
1.000	0.50	1.75	CK52228
1.188		2.06	CK52230
1.250		2.06	CK52231
1.438	0.56	2.25	CK52233
1.500		2.38	CK52234
1.688	0.69	2.75	CK52235
1.938		3.00	CK52237

HOLLOW OUTPUT SHAFT BUSHINGS

Size	Bushing I.D.	Kit #	Size	Bushing I.D.	Kit #
S20	1.000	WKS850468	S26	1.000	WKS850627
	1.188	WKS850625		1.250	WKS850479
	1.250	WKS850469		1.438	WKS850472
S24	1.000	WKS850653		1.500	WKS850473
	1.188	WKS850662	S30	1.250	WKS850481
	1.250	WKS850470		1.438	WKS850474

** Bore Tolerance $^{+.002}/_{.000}$

(All Kits Include Mounting Hardware)

RATING SUMMARY

QUICK SELECT AT 1750 RPM INPUT AND 1.0 SERVICE FACTOR*

Output RPM	Ratio	Motot Input Horsepower							
		0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00
350	5	S17	S17	S17	S17	S17	S17	S17	S20
233	7.5	S17	S17	S17	S17	S17	S17	S17	S24
175	10	S17	S17	S17	S17	S17	S17	S20	S24
117	15	S17	S17	S17	S17	S17	S20	S24	S26
88	20	S17	S17	S17	S17	S20	S24	S24	S30
70	25	S17	S17	S17	S20	S20	S24	S26	S30
58	30	S17	S17	S17	S20	S24	S26	S30	
44	40	S17	S17	S17	S24	S24	S30	S30	
35	50	S17	S17	S20	S24	S26	S30		
29	60	S17	S20	S24	S26	S30			
22	80	S24	S24	S26					
18	100	S24	S26						

STAINLESS CONVEYOR DRIVE MECHANICAL RATINGS AT 1750 RPM INPUT AND 1.0 SERVICE FACTOR*

Size	Ratio	5	7.5	10	15	20	25	30	40	50	60	80	100
	Output RPM	350	233	175	117	88	70	58	44	35	29	22	18
S17	HP	2.69	2.06	1.64	1.15	0.94	0.70	0.66	0.52	0.41	0.27	0.16	0.11
	Torque	462	525	554	568	604	547	596	603	558	417	311	236
	Efficiency	95	94	94	91	89	87	84	80	76	72	64	59
S20	HP	3.70	2.84	2.24	1.59	1.24	1.01	0.86	0.68	0.56	0.41	0.22	0.16
	Torque	639	732	769	794	806	803	788	795	791	656	437	355
	Efficiency	96	95	95	92	90	88	85	82	79	74	67	61
S24	HP	5.89	4.54	3.67	2.71	2.11	1.61	1.45	1.11	0.92	0.70	0.38	0.27
	Torque	1017	1168	1249	1359	1383	1285	1360	1335	1329	1134	735	576
	Efficiency	96	95	95	93	91	88	87	83	80	75	66	59
S26	HP	7.70	5.93	4.82	3.42	2.64	2.17	1.80	1.42	1.18	0.92	0.49	0.34
	Torque	1334	1533	1650	1724	1745	1758	1712	1737	1748	1556	979	767
	Efficiency	96	96	95	93	92	90	88	85	82	78	70	63
S30	HP	10.87	8.59	7.11	5.07	3.95	3.24	2.67	2.08	1.72	1.34	0.71	0.48
	Torque	1886	2232	2448	2578	2645	2676	2586	2617	2643	2367	1478	1160
	Efficiency	96	96	96	94	93	92	90	87	85	82	73	67

* For continuous duty; thermal limitiations or RPMs below 1750, please contact Winsmith.

PRODUCT INFORMATION/CAUTIONS

CAUTIONS/WARNINGS
Winsmith products, and associated equipment and machinery, are intended for selection and use by trained and skilled persons capable of determining their suitability for the specific application or use. Proper selection, Installation, operation and maintenance, including implementation of adequate safety precautions, are the responsibility of the purchaser or user. The following safety precautions, as well as additional safety precautions that may be required for the specific application or use, are \he responsibility of the purchaser or user. FAILURE TO OBSERVE REQUIRED SAFETY PRECAUTIONS COULD RESULT IN SERIOUS INJURY TO PERSONS OR PROPERTY OR OTHER LOSS.

LOCK-OUT/TAG-OUT
It Is EXTREMELY IMPORTANT that all equipment or machinery does not unexpectedly start. To prevent this posslbili1y, an electrical or other Input power sources must be turned off, and properly locked out. Tag out procedures must be followed before working on or near the reducer or any associated equipment. Loads on the Input and output shafts should be disconnected prior to working on any reducer. Failure to observe these precautions may result in serious bodily Injury and/or property damage.

GROUNDING
Be sure the reducer and associated equipment are properly grounded and otherwise installed in accordance with all electrical code requirements.

PROTECTIVE GUARDING I LOOSE CLOTHING, ETC.
Always insure there Is proper protective guarding over all rotating or moving parts. Never allow loose clothing, hair, jewelry and the like to be worn in the vicinity of rotating or moving parts or machinery. The purchaser or user is responsible for complying with all applicable safety codes. Failure to do so may result in serious bodily Injury and/or damage to properly or other loss.

SELECTION & INSTALLATION
This speed reducer and associated equipment must be selected, installed, adjusted and maintained by qualified personnel who are knowledgeable regarding all equipment in the system and the potential hazards involved.

CONSULT CATALOG RATINGS
Load, torque and other requirements must not exceed the published railings in the current catalog and/or on the speed reducer nameplate. The reducer selected must be consistent with all service factors for the application. See Winsmith catalogs and www.WINSMITH.com.

BRAKE TORQUE LOADS
Whenever a brake or any other stopping force is Involved In an application, braking torque loads imposed on the speed reducer must not exceed the allowable load ratings.

NOT A BRAKE
Speed reducers should never be used to provide the function of a fall safe brake or an assured sell locking device. Speed reducers must never be used to replace a brake or a critical braking application function.

EXCESS OVERHUNG LOADS
Excessive overhung loads on the Input or output shafts of a speed reducer may cause premature fatigue failures of the bearings and/or shafts. Mount gears, pulleys and sprockets as close to the housing as possible to minimize such loads. Do not exceed catalog ratings.

EXCESS THRUST LOADS
Excessive thrust loads on the input or output shafts of a gear reducer may cause premature failure of bearings. Do not exceed catalog ratings.

ALIGNMENT
Properly align any Input and output power transfer elements connected to the speed reducer. Even slight misalignments in a rigid mounting system may cause binding, large vibration forces or excessive overhung loads, leading to premature bearing, shaft, or speed reducer failure. Use of flexible couplings that allow the reducer and connected transfer elements to self-align during operation will compensate for minor misalignments.

NOT A SUPPORT STRUCTURE
A speed reducer must never be used as an Integral component of a machine superstructure or support frame that would subject It to additional loads other than properly rated loads transmitted through the shafts.

MOUNTING POSITION
The speed reducer should be mounted in one of the mounting positions shown In the catalog. Different mounting positions should not be used without contacting Winsmith as this may result In improper lubrication.

OVERHEAD MOUNTING
Mounting of a speed reducer In overhead positions may be hazardous. Use of external support rails or structure Is strongly recommended for any overhead mounting.

LIFTING EYEBOLTS
Any lifting supports or eyebolts provided on the speed reducer are supplied with the purpose of vertically lifting only the speed reducer, without any other attachments or motors. Inspect such supports and bolts before each use.

PROPERLY SECURE MOUNTING BOLTS
Proper mounting bolts and proper torques must be applied and maintained to insure the speed reducer Is securely mounted to the desired machinery. Inspect regularly as machine vibration may loosen fasteners.

THREAD LOCKING COMPOUND
Proper thread locking compound should be appropriately applied to the cleaned threads of all mounting bolts connecting or securing the speed reducer to equipment and any drive, accessories, or brake components attached to the speed reducer. If, at any time after installation a factory supplied assembly or construction bolt Is removed, care must be taken to thoroughly clean off the old thread locking compound and 11 new appropriate thread locking compound must be applied. Failure to properly apply new thread locking compound on all mounting or reducer construction bolts may result In serious injury or death from falling mechanical components.

REDUCER SURFACE IS HOT
Operating speed reducers generate heat. Surface temperatures may become hot enough to cause severe & burns. Proper personal protective equipment should be used.

NOISE
Operating speed reducers may generate high noise levels. Use appropriate hearing protection and avoid extended exposure to high noise levels.

LUBRICANTS HOT AND UNDER PRESSURE
The temperature of lubricants inside a speed reducer may be very high. The reducer should be allowed to cool to ambient temperature before removal of any vent, drain, level, or fill plugs, and before removing seals or bearing covers. Speed reducers without a pressure vent may also be under great Internal pressure, Slowly loosen the lubricant fill plug above the lubricant level to vent any internal pressure before further disassembling.

LUBRICANT CONTACT
Contact with lubricants can present safety concerns. Proper personal protective equipment should be used whenever handling speed reducer lubricants.
Consult the lubricant MSDS sheet which Is often available on the lubrication manufacturer's website.

FDA, USDA, AND NSF APPLICATIONS
Factory supplied lubricants may not be suitable or safe for applications involving food, drugs and similar products. This includes applications subject to FDA, USDA, NSF or other regulatory jurisdiction. Consult the lubricant supplier or Winsmith for acceptable lubricants.

INSPECTION AND LUBRICATION
Ensure proper operation by regularly Inspecting the speed reducer and following all maintenance, operation and lubrication guidelines.

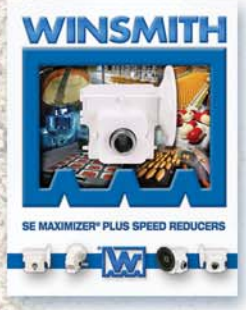
♦ Glygoyle is a registered trademark of Exxon Mobil Corporation or one of its subsidiaries.

WINSMITH

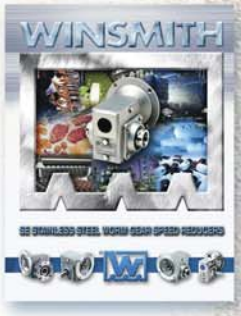
*Since **Peerless Winsmith, Inc.** was established in 1901, the company has been known and respected for its extremely powerful worm gear products, quality manufacturing techniques and innovations in gearing technology. **Peerless Winsmith** and its sister company, Perfection Gear, Inc., design and produce worm, planetary, differential planetary, planocentric, epicyclical, and helical gearing technologies for a wide range of markets and applications.*

Other Products from WINSMITH:

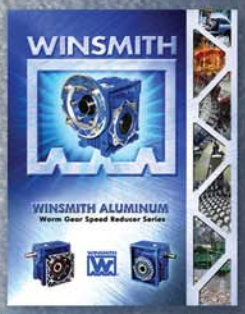
SE Encore Series
Unique, Powerful Performance



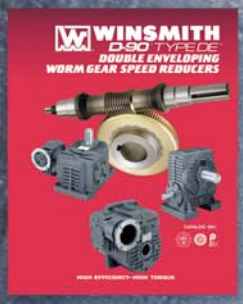
SE Maxmizer Series
Wash-down Duty Reducers Featuring the WinGuard Epoxy Coating System



SE Stainless Steel Series
The Solution for Severe Environmental Applications

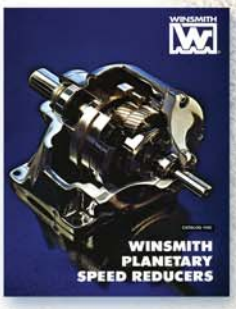


Winsmith Aluminum Worm Gear Series
Light Weight Performance

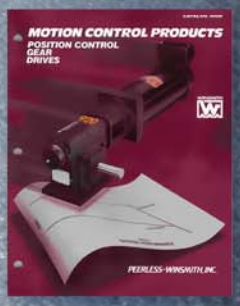


D-90 Type DE Products
Double Enveloping Gear Technology for High Power Density

SE Speed Reducers Series
Over 1 Million Configurations Available to Ship in 24 Hours



Winsmith Planetary Speed Reducers
Wide Ratio Range and High Load Capacity in Compact Package



Motion Control Products
Low Backlash Right Angle

DISTRIBUTED BY:

PEERLESS–WINSMITH, INC.

SUBSIDIARY OF HBD INDUSTRIES, INC.

172 EATON STREET, SPRINGVILLE, NY 14141-1197
PHONE: 716/592-9310 • FAX: 716/592-9546
WEBSITES: www.WINSMITH.com • www.hbdindustries.com

Printed in U.S.A.
PWS - 198979