

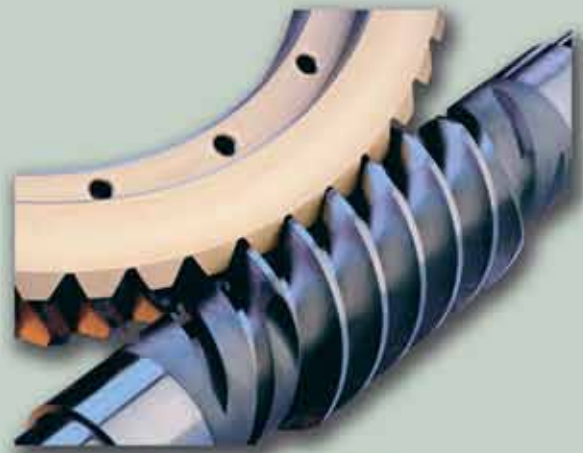
SHAFT MOUNT &  
SCREW CONVEYOR REDUCERS

# Cleveland



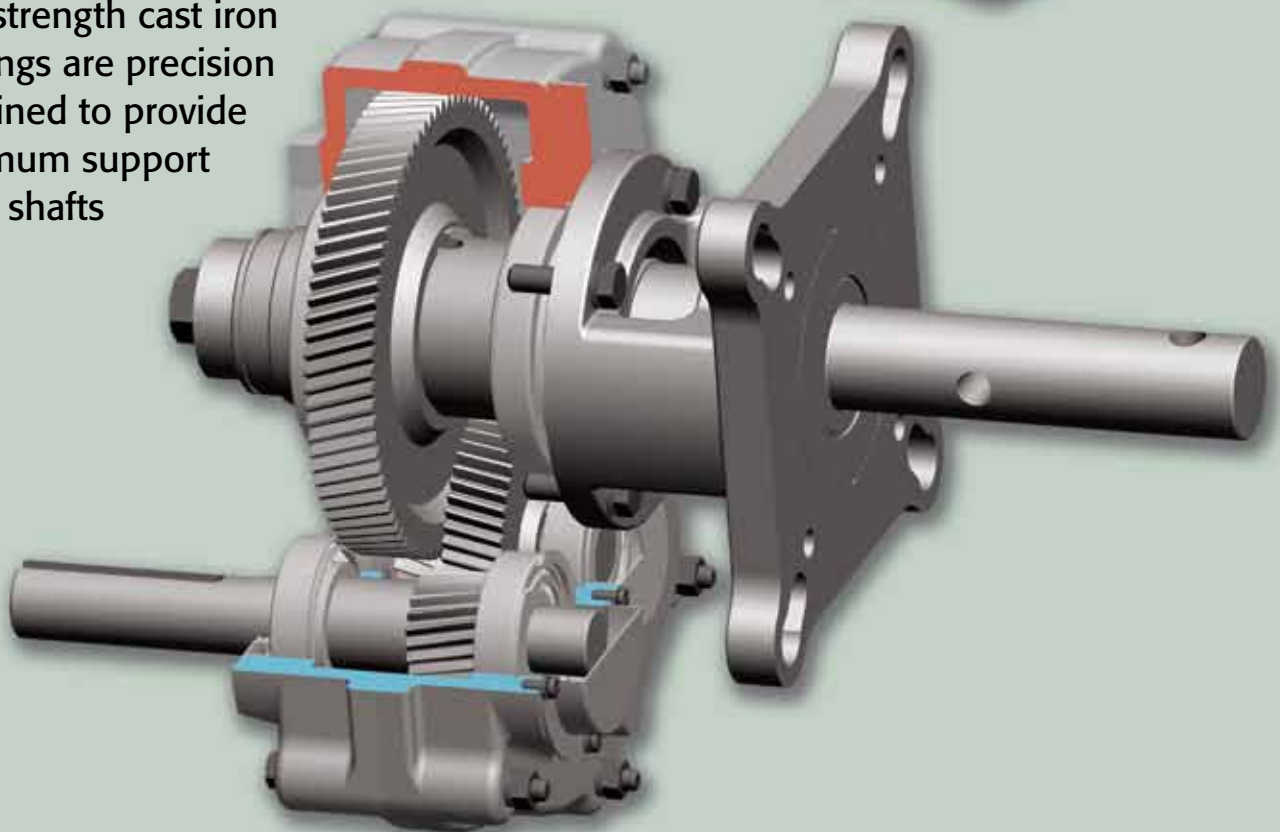
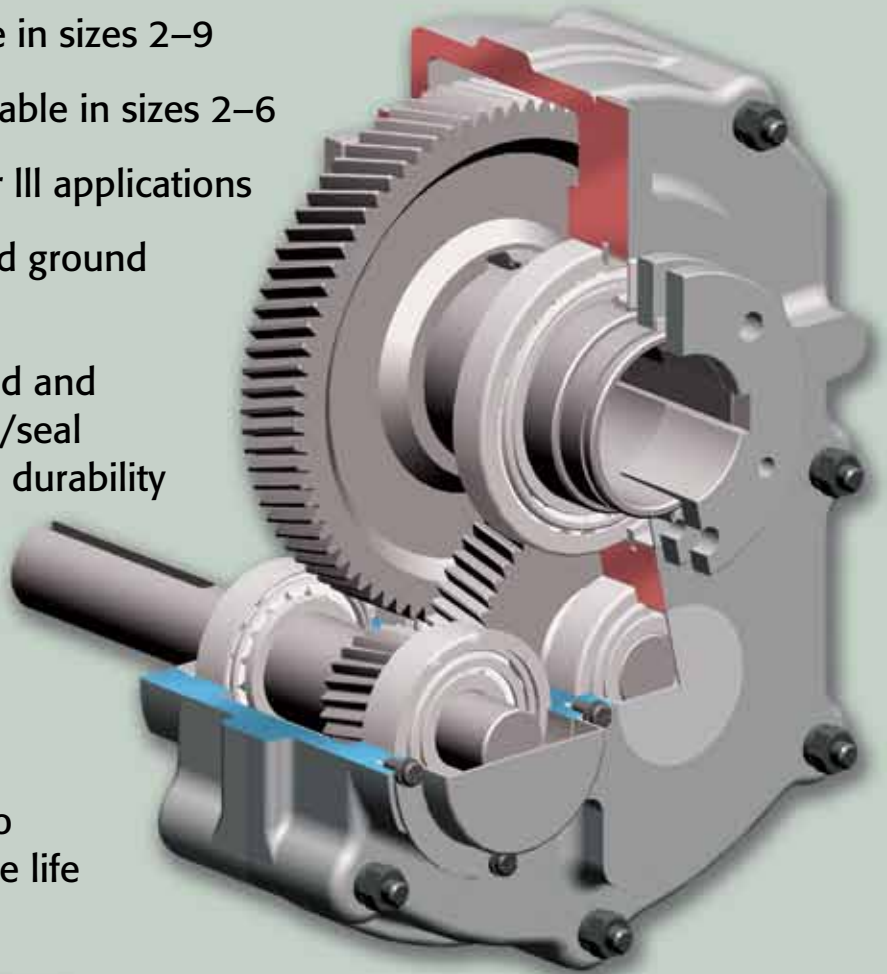
## **CLEVELAND GEAR COMPANY**

Over our 100 years of designing and producing open worm gearing and enclosed drives, Cleveland Gear has provided solutions for a wide variety of critical industrial power transmission problems. The material handling industry has benefited from many of these solutions. With the addition of its Screw Conveyor Reducers, Cleveland Gear again expands its product offerings to meet industry's needs. Cleveland Gear is confident that these drives will continue to provide the same highly reliable service for many different material handling applications. Cleveland Gear has earned its reputation as first in gears, first in excellence. We are committed to the continuous improvement of our product offerings for our existing and soon to be serviced customers.

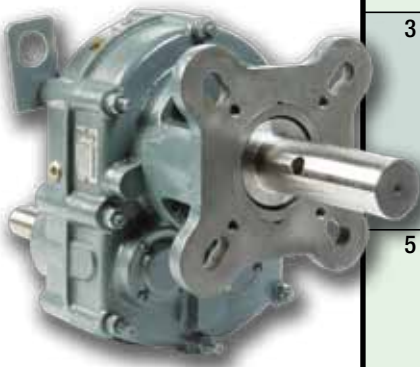
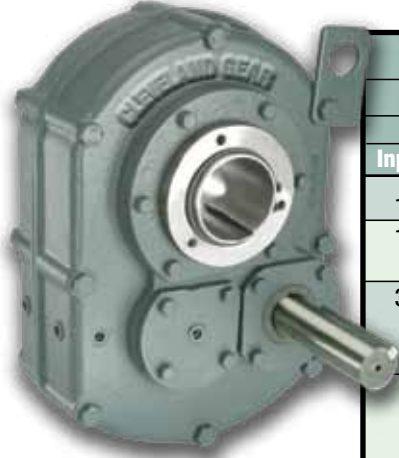


## SCREW CONVEYOR & SHAFT MOUNT REDUCER FEATURES

- Shaft Mount reducers available in sizes 2–9
- Screw Conveyor reducers available in sizes 2–6
- Suitable for AGMA Class I, II, or III applications
- Carburized, case hardened, and ground helical gearing
- Alloy steel shafts with hardened and ground gear seats and bearing/seal journals designed to maximize durability and operating life
- Double lip spring loaded shaft seals designed to prevent oil leakage in harsh operating environments
- Oversized bearings designed to ensure long and reliable service life in severe duty applications
- High strength cast iron housings are precision machined to provide maximum support for all shafts



# SHAFT MOUNT AND SCREW CONVEYOR REDUCERS SELECTION GUIDE

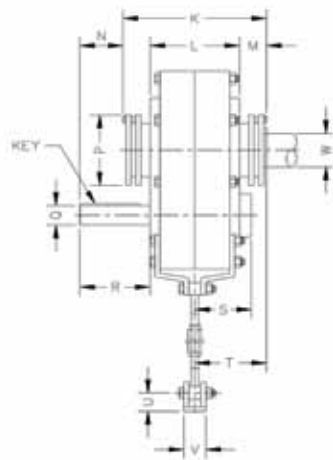
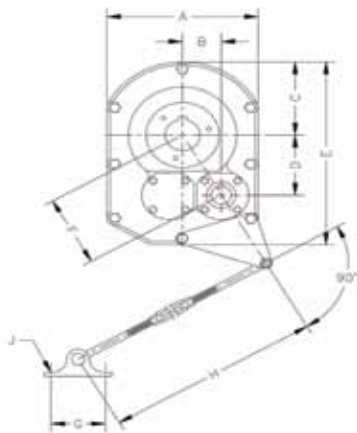


Unit	Reducer Weight
CGUSM2	58 lbs.
CGUSM3	98 lbs.
CGUSM4	139 lbs.
CGUSM5	207 lbs.
CGUSM6	285 lbs.
CGSM7	462 lbs.
CGSM8	633 lbs.
CGSM9	760 lbs.

Selection Guide					
Class II Service @ 1750 RPM Input Speed					
Recommended Size/Ratio					
Input HP	Output RPM	Size	Ratio	Size	Ratio
1/3	4-6			2	25:1
1/2	4-5			3	25:1
	6-9			2	25:1
3/4	4-5			4	25:1
	6-8			3	25:1
	9-16			2	25:1
1	5-7			4	25:1
	8-11			3	25:1
	12-22			2	25:1
1-1/2	5-6			5	25:1
	7-11			4	25:1
	12-18			3	25:1
	19-34			2	15:1
2	4-5			6	25:1
	6-9			5	25:1
	10-14			4	25:1
	15-24	3	25:1	3	15:1
3	25-47	2	25:1	2	15:1
	4-5			7	25:1
	6-8			6	25:1
	9-14			5	25:1
5	15-22	4	25:1	4	15:1
	23-38	3	25:1	3	15:1
	39-70	2	25:1	2	15:1
	71-75	2	25:1	2	15:1
	4-6			8	25:1
	7-8			7	25:1
	9-14			6	25:1
7-1/2	15-24			5	25:1
	25-37	4	25:1	4	15:1
	38-69	3	25:1	3	15:1
	70-85	2	15:1	2	25:1
	86-135			2	15:1
	5			8	25:1
10	6-9			8	25:1
	10-13			7	25:1
	14-21			6	25:1
	22-38	5	25:1	5	15:1
	39-59	4	25:1	4	15:1
	60-70	3	25:1	3	15:1
	71-85	3	25:1	3	15:1
	86-110			3	15:1
	111-140			2	15:1
	6-7			9	25:1
10	8-12			8	15:1
	13-18			7	25:1
	19-29	6	25:1	6	15:1
	30-52	5	25:1	5	15:1
	53-70	4	25:1	4	15:1
	71-84	4	15:1	4	25:1
	85-140			3	15:1

Selection Guide					
Class II Service @ 1750 RPM Input Speed					
Recommended Size/Ratio					
Input HP	Output RPM	Size	Ratio	Size	Ratio
15	10-12			9	25:1
	13-19			8	25:1
	20-27			7	25:1
	28-47	6	25:1	6	15:1
	48-70	5	25:1	5	15:1
20	71-82	5	15:1	5	25:1
	83-140			4	15:1
	13-17			9	25:1
	18-26			8	25:1
	27-38	7	25:1	7	15:1
25	39-68	6	25:1	6	15:1
	69-80	5	15:1	5	25:1
	81-89			5	15:1
	90-117			5	15:1
	118-125			4	15:1
30	16-22			9	25:1
	23-33	8	25:1	8	15:1
	34-49	7	25:1	7	15:1
	50-80	6	15:1	6	25:1
	81-94			6	15:1
40	95-125			5	15:1
	20-27	9	25:1	9	15:1
	28-41	8	25:1	8	15:1
	42-60	7	25:1	7	15:1
	61-76	6	25:1	6	15:1
50	77-89			8	15:1
	90-125			6	15:1
	26-36	9	25:1	9	15:1
	37-56	8	25:1	8	15:1
	57-75	7	25:1	7	15:1
60	76-88			7	15:1
	89-120			6	15:1
	33-46	9	25:1	9	15:1
	47-70	8	25:1	8	15:1
	71-72	8	15:1	8	25:1
75	73-120			7	15:1
	40-56	9	25:1	9	15:1
	57-70	8	25:1	8	15:1
	71-75	8	15:1	8	25:1
	76-89	8		8	15:1
100	90-120			7	15:1
	50-73	9	25:1	9	15:1
	74-75	8	15:1	8	25:1
	76-120			8	15:1
	68-75	9	15:1	9	25:1
125	76-103			9	15:1
	104-120			8	15:1
86-120			9	15:1	

# SHAFT MOUNT AND SCREW CONVEYOR REDUCERS DIMENSIONS



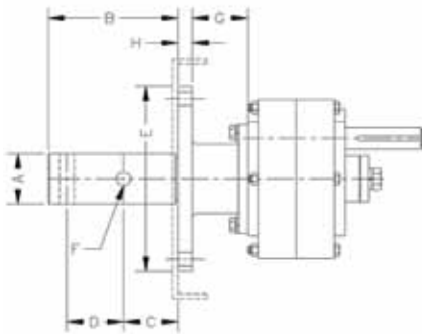
## Shaft Mount Reducer

MODEL	A	B	C	D	E	F	G	H Min/Max	J	K	L
CGUSM2	8.43	2.14	4.13	3.76	11.42	4.32	3.00	26.94 / 32.94	0.44	7.32	4.50
CGUSM3	9.25	2.33	4.84	4.17	12.88	4.78	3.00	26.94 / 32.94	0.44	9.22	5.63
CGUSM4	10.51	2.76	5.51	4.79	15.24	5.53	4.00	29.19 / 35.19	0.50	9.98	6.14
CGUSM5	13.15	3.04	6.57	5.67	18.15	6.43	4.00	29.19 / 35.19	0.50	10.52	6.46
CGUSM6	15.43	4.09	7.72	6.73	21.65	7.88	4.75	29.19 / 35.19	0.63	11.53	7.28
CGSM7	18.75	5.11	9.38	8.30	25.94	9.74	4.75	29.44 / 35.44	0.63	12.85	7.75
CGSM8	20.25	6.03	10.13	9.50	28.25	11.25	7.00	30.00 / 36.00	0.75	14.03	8.37
CGSM9	22.63	6.59	11.31	10.81	31.69	12.66	7.00	30.00 / 36.00	0.75	14.12	8.42

MODEL	M	N	P	Q	R	S	T	KEY	U	V	W Max.
CGUSM2	0.65	3.01	4.09	1-1/8	3.59	2.91	3.66	1/4 SQ x 2.50	1.06	1.25	1-15/16
CGUSM3	0.81	3.22	4.39	1-1/4	4.34	3.25	3.75	1/4 SQ x 2.88	1.06	1.25	2-3/16
CGUSM4	0.85	4.31	4.8	1-7/16	5.57	3.37	3.92	3/8 SQ x 4.06	1.75	1.44	2-7/16
CGUSM5	0.93	4.34	5.63	1-15/16	5.75	4.14	4.41	1/2 SQ x 4.50	1.75	1.44	2-15/16
CGUSM6	0.98	4.69	6.10	2-3/16	6.08	4.57	5.28	1/2 SQ x 4.50	2.00	2.75	3-7/16
CGSM7	2.50	3.75	7.25	2-7/16	6.35	4.69	6.38	5/8 SQ x 4.75	2.00	2.75	3-15/16
CGSM8	2.88	4.31	7.25	2-7/16	7.11	5.85	7.04	5/8 SQ x 5.38	3.13	4.00	4-7/16
CGSM9	2.98	6.63	8.75	2-7/16	9.65	5.66	7.04	5/8 SQ x 7.75	3.13	4.00	4-15/16

## Screw Conveyor Reducer

CGUSM2									
Screw Dia.	A Shaft Dia.	B	C	D	E Square	F	G	H	
6"-9"	1.50	6.00	2.13	3.00	7.75	17/32	3.56	3/4"	
9"-12"	2.00	6.00	2.13	3.00	7.75	21/32	3.56	3/4"	
12"-14"	2.44	6.69	2.75	3.00	7.75	21/32	3.56	3/4"	
12"-20"	3.00	6.88	2.88	3.00	7.75	25/32	3.56	3/4"	
CGUSM3									
9"	1.50	6.00	2.13	3.00	8.63	17/32	3.69	3/4"	
9"-12"	2.00	6.00	2.13	3.00	8.63	21/32	3.69	3/4"	
12"-14"	2.44	6.69	2.75	3.00	8.63	21/32	3.69	3/4"	
12"-20"	3.00	6.88	2.88	3.00	8.63	25/32	3.69	3/4"	
CGUSM4									
9"	1.50	6.00	2.13	3.00	9.25	17/32	4.00	7/8"	
9"-12"	2.00	6.00	2.13	3.00	9.25	21/32	4.00	7/8"	
12"-14"	2.44	6.69	2.75	3.00	9.25	21/32	4.00	7/8"	
12"-20"	3.00	6.88	2.88	3.00	9.25	25/32	4.00	7/8"	
18"-24"	3.44	9.13	3.88	4.00	9.25	29/32	4.00	7/8"	
CGUSM5									
9"-12"	2.00	6.00	2.13	3.00	9.25	21/32	4.25	7/8"	
12"-14"	2.44	6.69	2.75	3.00	9.25	21/32	4.25	7/8"	
12"-20"	3.00	6.88	2.88	3.00	9.25	25/32	4.25	7/8"	
18"-24"	3.44	9.13	3.88	4.00	9.25	29/32	4.25	7/8"	
CGUSM6									
12"-14"	2.44	6.69	2.75	3.00	9.25	21/32	5.50	7/8"	
12"-20"	3.00	6.88	2.88	3.00	9.25	25/32	5.50	7/8"	
18"-24"	3.44	9.13	3.88	4.00	9.25	29/32	5.50	7/8"	



# SHAFT MOUNT REDUCERS ACCESSORIES

## Tapered Bushing Kits

Cleveland Gear twin tapered bushing kits are perfectly sized for CGUSM reducers (as well as other manufacturers' shaft mount drives). They assure you of fast and simple installation as well as reliable support on both sides of the reducer. All tapered bushing kits come complete with fastening bolts and a full-length key.



Reducer Bushing Kit	Taper Part No.	Taper Bushing
CGUSM2	1-5/16	2CGB-1-5/16
	1-3/8	2CGB-1-3/8
	1-7/16	2CGB-1-7/16
	1-1/2	2CGB-1-1/2
	1-5/8	2CGB-1-5/8
	1-11/16	2CGB-1-11/16
	1-3/4	2CGB-1-3/4
	1-15/16	2CGB-1-15/16
	CGUSM3	1-11/16
1-3/4		3CGB-1-3/4
1-7/8		3CGB-1-7/8
1-15/16		3CGB-1-15/16
2		3CGB-2
2-3/16		3CGB-2-3/16
CGUSM4	1-15/16	4CGB-1-15/16
	2	4CGB-2
	2-1/8	4CGB-2-1/8
	2-3/16	4CGB-2-3/16
	2-1/4	4CGB-2-1/4
	2-7/16	4CGB-2-7/16
CGUSM5	2-3/16	5CGB-2-3/16
	2-1/4	5CGB-2-1/4
	2-7/16	5CGB-2-7/16
	2-1/2	5CGB-2-1/2
	2-11/16	5CGB-2-11/16
	2-15/16	5CGB-2-15/16

Reducer Bushing Kit	Taper Part No.	Taper Bushing
CGUSM6	2-1/2	6CGB-2-1/2
	2-11/16	6CGB-2-11/16
	2-7/8	6CGB-2-7/8
	2-15/16	6CGB-2-15/16
	3	6CGB-3
	3-7/16	6CGB-3-7/16
CGSM7	2-1/2	7CGB-2-1/2
	2-11/16	7CGB-2-11/16
	2-15/16	7CGB-2-15/16
	3	7CGB-3
	3-3/16	7CGB-3-3/16
	3-7/16	7CGB-3-7/16
CGSM8	2-15/16	8CGB-2-15/16
	3-7/16	8CGB-3-7/16
	3-15/16	8CGB-3-15/16
	4-3/16	8CGB-4-3/16
	4-7/16	8CGB-4-7/16
CGSM9	3-7/16	9CGB-3-7/16
	3-15/16	9CGB-3-15/16
	4-7/16	9CGB-4-7/16
	4-15/16	9CGB-4-15/16

## Belt Guards

The belt guard's hinged design provides for easy access to belts and sheaves. The slotted metal construction assembles to the reducer and motor mounting holes. They are sized to fit most common sheave diameters.



Reducer	Part Number
CGUSM2	2CGBG
CGUSM3	3CGBG
CGUSM4	4CGBG
CGUSM5	5CGBG
CGUSM6	6CGBG
CGSM7	7CGBG
CGSM8	8CGBG
CGSM9	9CGBG

## Motor Mounts

Manufactured from heavy gauge steel, motor mounts provide a solid platform for most NEMA frame motors. The adjustable top plate is used to produce the proper belt tensioning.



Reducer	Part Number
CGUSM2	2CGMM
CGUSM3	3CGMM
CGUSM4	4CGMM
CGUSM5	5CGMM
CGUSM6	6CGMM
CGSM7	7CGMM
CGSM8	8CGMM

## Backstop Assemblies

Backstop assemblies easily mount internally on the enclosed end of the high speed shaft. They allow smooth one directional operation preventing reverse rotation and slippage. They are dimensionally interchangeable with most other manufacturers' assemblies.



Reducer	Part Number
CGUSM2	2CGBS
CGUSM3	3CGBS
CGUSM4	4CGBS
CGUSM5	5CGBS
CGUSM6	6CGBS
CGSM7	7CGBS
CGSM8	8CGBS
CGSM9	9CGBS

# SCREW CONVEYOR REDUCERS ACCESSORIES

## Output Shafts

Solid output shafts are tapered to fit CGUSM hollow bore on the adaptor side of the housing. They are available in standard CEMA shaft diameters and configurations.



Output Shafts	Part Number	Screw Diameter	Shaft Diameter
<b>CGUSM2</b>	2SC0515	6"-9"	1.50"
	2SC0520	9"-12"	2.00"
	2SC0524	12"-14"	2.44"
	2SC0530	12"-20"	3.00"
<b>CGUSM3</b>	3SC0515	9"	1.50"
	3SC0520	9"-12"	2.00"
	3SC0524	12"-14"	2.44"
	3SC0530	12"-20"	3.00"
<b>CGUSM4</b>	4SC0515	9"	1.50"
	4SC0520	9"-12"	2.00"
	4SC0524	12"-14"	2.44"
	4SC0530	12"-20"	3.00"
	4SC0534	18"-24"	3.44"
<b>CGUSM5</b>	5SC0520	9"-12"	2.00"
	5SC0524	12"-14"	2.44"
	5SC0530	12"-20"	3.00"
	5SC0534	18"-24"	3.44"
<b>CGUSM6</b>	6SC0524	12"-14"	2.44"
	6SC0530	12"-20"	3.00"
	6SC0534	18"-24"	3.44"

## Screw Conveyor Adaptor Kits

An SCADK mounting adaptor kit provides all the components needed to prepare a CGUSM reducer for screw conveyor applications. Each kit consists of CEMA mounting adaptor, output shaft keeper plate, oil seal, key and mounting hardware.



Adaptor Kits	
Size	Part Number
2	2SCADK
3	3SCADK
4	4SCADK
5	5SCADK
6	6SCADK

# CLEVELAND GEAR'S LIBRARY OF INFORMATION

MUST HAVES FOR YOUR ENGINEERING DEPARTMENT



## 100th Anniversary Brochure –

Provides a pictorial history of Cleveland Gear's first 100 years designing and producing worm gearing, worm gear reducers, and the development of its design and production capabilities for helical gearing/custom drives.

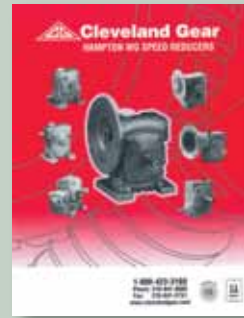
**Catalog #900 –**  
Open Gearing,  
Modular Reducers,  
Custom Drives  
Information on CGC  
history, current design  
services, production  
capabilities and products.



## Catalog #400 – "M" Series Modular Speed Reducers

Rating and dimensional data for the 1.33" - 4.25" center distance drives in solid, C-face quill worms, with solid and hollow shaft outputs. Part numbering and configuration data is provided.

**Catalog #800 –  
"WG" Series Speed  
Reducers**  
Metric center distances with worm over, worm under, and universal configurations in single and double reductions. Rating and dimensional data is provided for all types.



## Catalog #700 – Millennium Gear Drives

Recently redesigned drives from 5" to 12" center distances. Brochure provides data on ratings, dimensions, and design configurations.

**Catalog #500 –  
Fan-Cooled Speed  
Reducers**  
Selection and dimensional data for both the worm over and worm under designs in single reduction, helical worm, and double worm configurations.



## Catalog #600 – Cleveland Open Worm Gearing

Provides dimensional and rating data for a broad range of ratios in center distances from 3" through 30". Dimensions for both bolt on and composite type gears are shown.

**Catalog #208 –  
Speed Variators**  
Includes detailed data on features, applications and selection procedures for Cleveland's ball-type, mechanical, variable speed drives.



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