

Component Section

CONVEYOR SCREWS
CONVEYOR SCREW
COMPONENTS

SHAFTS

HANGERS

HANGER BEARINGS

HANGER POCKET

WEAR STRIPS

TROUGH ENDS

END BEARINGS

THRUST COLLAR

PNEUMATIC GATES

ROLLER THRUST
BEARING

SEALS

FLANGE GASKETS

END FLANGES

TROUGHS

SADDLES AND FEET

RACK AND PINION
GATES

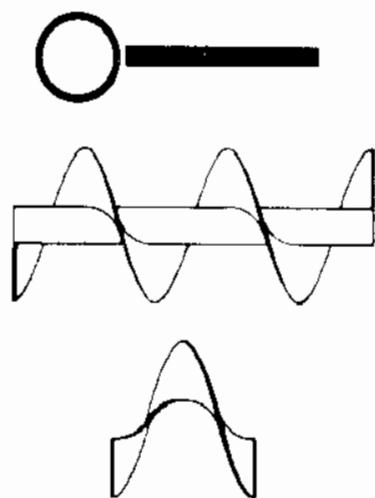
COVERS

INLETS

DISCHARGE SPOUTS

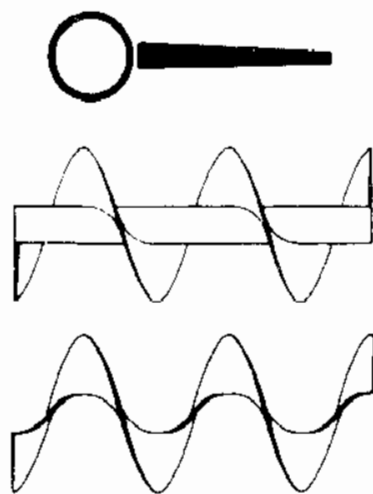
CONVEYOR SCREWS

SECTIONAL FLIGHT SCREW CONVEYORS



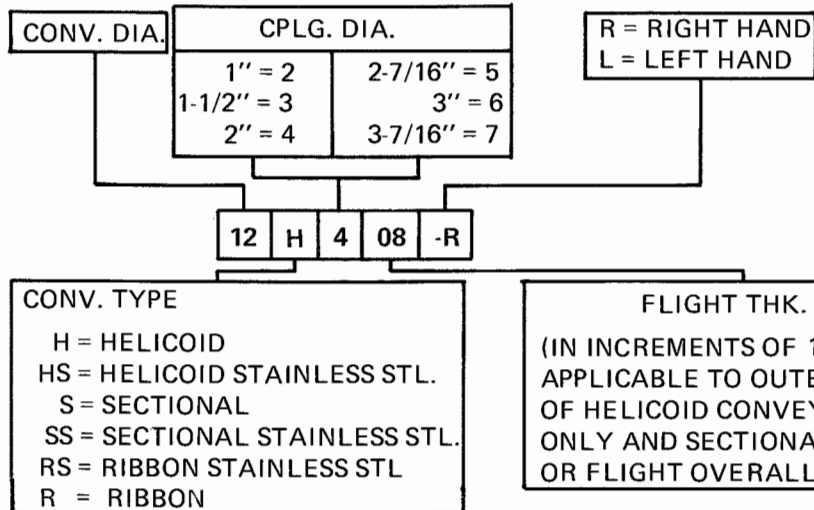
Each flight is blanked from a steel plate, formed into a helix and then butt welded together. Sectional flights are formed with a lead longer than their pitch to assure a tight gripping action along the pipe. The flights are then normally fastened to the pipe by intermittent welds and welded steel end lugs. They may be continuously welded on either one or both sides. The pipe has seamless internal collars in each end to accommodate the shafts. Sectional Flight screw conveyors are available in special diameters, thicknesses, pitches, and pipe sizes. They also can be obtained in stainless steel, Monel, brass, copper and other metals.

HELICOID SCREW CONVEYORS



Cold rolling of special analysis strip steel into a continuous helix produces a work-hardened, smoothly finished flying surface. Helicoid flying is of superior strength with its diameter, pitch and thickness closely controlled. The flying is then normally fastened to the pipe by intermittent welds and welded steel end lugs. Or they may be continuously welded on either one or both sides. The pipe has seamless internal collars inserted in both ends of the pipe to accommodate the shafts. Helicoid and Sectional flying of the same diameter and shaft size are interchangeable. Helicoid flying of special diameters and pipe sizes can be furnished upon request.

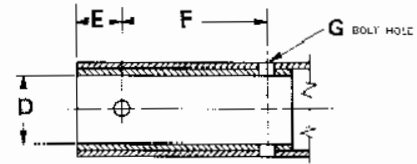
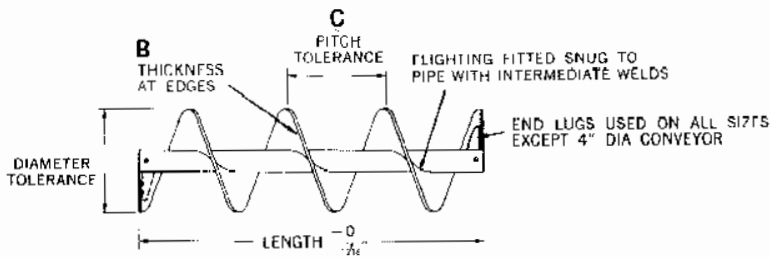
SCREWS



Screw Dia.	Coupling Size	Nominal Pipe Size *	HELICOID				SECTIONAL	
			Part Number	Former Designation	Flight Thickness		Part Number	Flight Thickness
					Root	Tip		
4	1	1-1/4	4H204	4 Std.	1/8	1/16	X	X
			4H206	4 x	3/16	3/32		
6	1-1/2	2	6H304	6 Std.	1/8	1/16	6S309 6S312	10 ga. 3/16
			6H308	6 x	1/4	1/8		
			6H312	6 xx	3/8	3/16		
9	1-1/2	2	9H306	9 Std.	3/16	3/32	9S309 9S312	10 ga. 3/16
			9H312	9 x	3/8	3/16		
	2	2-1/2	9H406	9 Spec.	3/16	3/32	9S409 9S412 9S416	10 ga. 3/16 1/4
			9H412	9 xx	3/8	3/16		
			9H414	9 xxx	7/16	7/32		
10	1-1/2	2	10H306	10 Std.	3/16	3/32	10S309	10 ga.
	2	2-1/2	10H412	10 xx	3/8	3/16	10S412	3/16
12	2	2-1/2	12H408	12 Std.	1/4	1/8	12S409 12S412	10 ga. 3/16
			12H412	12 x	3/8	3/16		
	2-7/16	3	12H508	12 Spec.	1/4	1/8	12S509 12S512 12S616	10 ga. 3/16 1/4
		3-1/2	12H512	12 xx	3/8	3/16		
			12H614	12 xxx	7/16	7/32		
14	2-7/16	3	14H508	14 Std.	1/4	1/8	14S509	10 ga.
	3	3-1/2	14H614	14 xx	7/16	7/32	14S616	1/4
16	3	3-1/2	16H610	16 Std.	5/16	5/32	16S609 16S616	10 ga. 1/4
			16H614 □	16 xxx	7/16	7/32		

* Schedule 40 Pipe □ 4" Nominal Pipe Size

STANDARDS FOR KWS HELICOID SCREW CONVEYORS



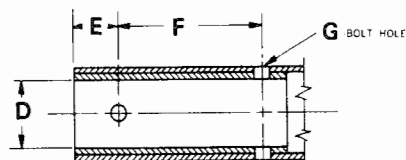
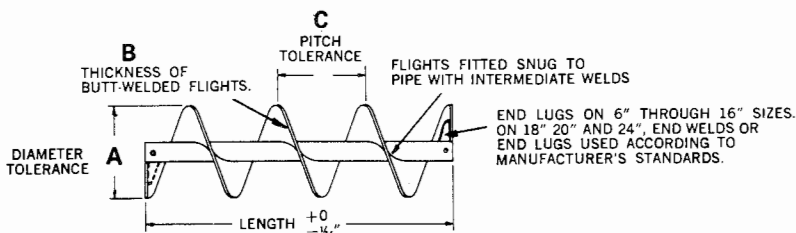
- R For Right Hand Flight
- L For Left Hand Flight
- Length
- SP Short Pitch (2/3)
- HP Half Pitch (1/2)
- LP Long Pitch (1-1/2)
- VP1 Variable Pitch (1/2 to Std.)
- VP2 Variable Pitch (2/3 to Std.)
- VP3 Variable Pitch (3/4 to Std.)
- CF Cut Flight
- CFD Cut & Folded Flight
- DF Double Flight
- CW1 Continuous Welded One Side
- CW2 Continuous Welded Both Sides
- P With Standard Paddles
- AR-235-BN Abrasion Resistant Sectional Flights
- AR-400-BN Abrasion Resistant Sectional Flights
- WS Detachable Wear Shoes
- TIX Taper From Full Dia. to 1/2 Dia.
- T2X Taper From Full Dia. to 2/3 Dia.
- HS Standard Hard Surface
- PAD4, 6, 9 etc. Standard Paddles
- 3H Standard (3) Bolt Drilling
- HDG Hot Dip Galvanizing
- 304, 304L, 316, etc., Stainless Steel Type
- 80, XX, 160, etc. Heavier than Standard Pipe which is SCH40
- QR Quick Release
- OK Quick Key
- * Thickness on Sectional Flights only. In 1/64 increments. Example: 9SF312-12 is 3/16" thick, 9" sectional flight for 2" standard pipe.

Example: 9H306-R-9' 10"-SP-CF-CW2-T2X5'-0"-304-80.
Standard 9" Flighting, R.H., 9'-10" Long, Short Pitch (6"). Cut Flight, Continuous Welded Both Sides. Taper From 9" Dia. to 6" Dia. in 5'-0". All Type 304 Stainless Steel Mounted On 2" Sch. 80 Pipe.

In Ordering: Specify per above code as much as possible. Specify length from end to end of pipe. If flight shorter than pipe, specify cut back from end of pipe.

Listed Screw Dia. and Pitch	Cplng. Dia.	Size Designa- tion	Pipe Size Schedule 40	Length Feet and Inches	A		B		C		D		E	F	G
					Diameter Tolerance		Thickness		Pitch Tolerance		Bushing Bore Inside Tolerance		Spacing 1st Bolt	Centers 2nd Bolt	Nominal Bolt Hole Size
					Plus	Minus	Inner Edge	Outer Edge	Plus	Minus	Min.	Max.			
4	1	4H204 *	1-1/4	9 10%	1/16	1/8	1/8	1/16	1/2	1/4	1.005	1.016	1/2	2	13/32
	1	4H206 *	1-1/4	9 10%	1/16	1/8	3/16	3/32	1/2	1/4	1.005	1.016	1/2	2	13/32
6	1-1/2	6H304 *	2	9-10	1/16	3/16	1/8	1/16	1/2	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	6H308 *	2	9-10	1/16	3/16	1/4	1/8	3/4	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	6H312 *	2	9-10	1/16	3/16	3/8	3/16	3/4	1/4	1.505	1.516	7/8	3	17/32
9	1-1/2	9H306 *	2	9-10	1/16	3/16	3/16	3/32	3/4	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	9H312 *	2	9-10	1/16	3/16	3/8	3/16	3/4	1/4	1.505	1.516	7/8	3	17/32
	2	9H406 *	2-1/2	9-10	1/16	3/16	3/16	3/32	3/4	1/4	2.005	2.016	1/8	3	21/32
	2	9H412 *	2-1/2	9-10	1/16	1/4	3/8	3/16	3/4	1/4	2.005	2.016	1/8	3	21/32
	2	9H414 *	2-1/2	9-10	1/16	1/4	7/16	7/32	3/4	1/4	2.005	2.016	7/8	3	21/32
10	1-1/2	10H306 *	2	9-10	1/16	3/16	3/16	3/32	3/4	1/4	1.505	1.516	7/8	3	17/32
	2	10H412 *	2-1/2	9-10	1/16	1/4	3/8	3/16	3/4	1/4	2.005	2.016	7/8	3	21/32
12	2	12H408 *	2-1/2	11-10	1/8	5/16	1/4	1/8	1	1/4	2.005	2.016	7/8	3	21/32
	2	12H412 *	2-1/2	11-10	1/8	5/16	3/8	3/16	1	1/4	2.005	2.016	7/8	3	21/32
	2-7/16	12H508 *	3	11-9	1/8	5/16	1/4	1/8	1	1/4	2.443	2.458	15/16	3	21/32
	2-7/16	12H512 *	3	11-9	1/8	5/16	3/8	3/16	1	1/4	2.443	2.458	15/16	3	21/32
	3	12H614 *	3-1/2	11-9	1/8	3/8	7/16	7/32	1	1/4	3.005	3.025	1	3	25/32
14	2-7/16	14H508 *	3	11-9	1/8	5/16	1/4	1/8	1	1/4	2.443	2.458	15/16	3	21/32
	3	14H614 *	3-1/2	11-9	1/8	3/8	7/16	7/32	1	1/4	3.005	3.025	1	3	25/32
16	3	16H610 *	3-1/2	11-9	1/8	3/8	5/16	5/32	1-1/2	1/4	3.005	3.025	1	3	25/32
	3	16H614 *	4	11-9	1/8	3/8	7/16	7/32	1-1/2	1/4	3.005	3.025	1	3	25/32

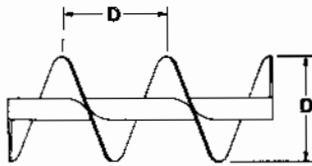
STANDARDS FOR KWS SECTIONAL SCREW CONVEYORS



Listed Screw Dia. And Pitch	Cplng. Dia.	Size Designa- tion	Pipe Size Schedule 40	Length Feet And Inches	A		B	C		D		E	F	G
					Diameter Tolerance			Pitch Tolerance	Bushing Bore Inside Diameter					
					Plus	Minus	Plus		Minus	Min.	Max.			
6	1-1/2	6S307	2	9-10	1/16	3/16	12 Ga.	3/8	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	6S309	2	9-10	1/16	3/16	10	3/8	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	6S312	2	9-10	1/16	3/16	3/16	3/8	1/4	1.505	1.516	7/8	3	17/32
9	1-1/2	9S307	2	9-10	1/16	3/16	12	1/2	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	9S309	2	9-10	1/16	3/16	10	1/2	1/4	1.505	1.516	7/8	3	17/32
	1-1/2	9S312	2	9-10	1/16	3/16	3/16	1/2	1/4	1.505	1.516	7/8	3	17/32
	2	9S407	2-1/2	9-10	1/16	3/16	12	1/2	1/4	2.005	2.016	7/8	3	21/32
	2	9S409	2-1/2	9-10	1/16	3/16	10	1/2	1/4	2.005	2.016	7/8	3	21/32
	2	9S412	2-1/2	9-10	1/16	3/16	3/16	1/2	1/4	2.005	2.016	7/8	3	21/32
	2	9S414	2-1/2	9-10	1/16	1/4	1/4	1/2	1/4	2.005	2.016	7/8	3	21/32
10	1-1/2	10S309	2	9-10	1/16	3/16	10	1/2	1/4	1.505	1.516	7/8	3	17/32
	2	10S412	2-1/2	9-10	1/16	3/16	3/16	1/2	1/4	2.006	2.016	7/8	3	21/32
12	2	12S409	2-1/2	11-10	1/8	5/16	10	3/4	1/4	2.005	2.016	7/8	3	21/32
	2	12S412	2-1/2	11-10	1/8	5/16	3/16	3/4	1/4	2.005	2.016	7/8	3	21/32
	2-7/16	12S509	3	11-9	1/8	5/16	10	3/4	1/4	2.443	2.458	15/16	3	21/32
	2-7/16	12S512	3	11-9	1/8	5/16	3/16	3/4	1/4	2.443	2.458	15/16	3	21/32
	2-7/16	12S516	3	11-9	1/8	5/16	1/4	3/4	1/4	2.443	2.458	15/16	3	21/32
	3	12S616	3-1/2	11-9	1/8	5/16	1/4	3/4	1/4	3.005	3.025	1	3	25/32
	3	12S624	3-1/2	11-9	1/8	3/8	3/8	3/4	1/4	3.005	3.025	1	3	25/32
14	2-7/16	14S509	3	11-9	1/8	5/16	10	3/4	1/4	2.443	2.458	15/16	3	21/32
	2-7/16	14S512	3	11-9	1/8	5/16	3/16	3/4	1/4	2.443	2.458	15/16	3	21/32
	3	14S616	3-1/2	11-9	1/8	5/16	1/4	3/4	1/4	3.005	3.025	1	3	25/32
	3	14S624	3-1/2	11-9	1/8	3/8	3/8	3/4	1/4	3.005	3.025	1	3	25/32
16	3	16S609	3-1/2	11-9	1/8	3/8	10	3/4	1/4	3.005	3.025	1	3	25/32
	3	16S612	3-1/2	11-9	1/8	3/8	3/16	3/4	1/4	3.005	3.025	1	3	25/32
	3	16S616	3-1/2	11-9	1/8	3/8	1/4	3/4	1/4	3.005	3.025	1	3	25/32
	3	16S624	3-1/2	11-9	1/8	3/8	3/8	3/4	1/4	3.005	3.025	1	3	25/32
	3	16S632	3-1/2	11-9	1/8	1/2	1/2	3/4	1/4	3.005	3.025	1	3	25/32
18	3	18S612	3-1/2	11-9	3/16	3/8	3/16	3/4	1/2	3.005	3.025	1	3	25/32
	3	18S616	3-1/2	11-9	3/16	3/8	1/4	3/4	1/2	3.005	3.025	1	3	25/32
	3	18S624	3-1/2	11-9	3/16	3/8	3/8	3/4	1/2	3.005	3.025	1	3	25/32
	3	18S632	3-1/2	11-9	3/16	1/2	1/2	3/4	1/2	3.005	3.025	1	3	25/32
	3-7/16	18S716	4	11-8	3/16	3/8	1/4	3/4	1/2	3.443	3.467	1-1/2	4	29/32
	3-7/16	18S724	4	11-8	3/16	3/8	3/8	3/4	1/2	3.443	3.467	1-1/2	4	29/32
3-7/16	18S732	4	11-8	3/16	1/2	1/2	3/4	1/2	3.443	3.467	1-1/2	4	29/32	
20	3	20S612	3-1/2	11-9	3/16	3/8	3/16	7/8	1/2	3.005	3.025	1	3	25/32
	3	20S616	3-1/2	11-9	3/16	3/8	1/4	7/8	1/2	3.005	3.025	1	3	25/32
	3	20S624	3-1/2	11-9	3/16	3/8	3/8	7/8	1/2	3.005	3.025	1	3	25/32
	3-7/16	20S716	4	11-8	3/16	3/8	1/4	7/8	1/2	3.443	3.467	1-1/2	4	29/32
	3-7/16	20S724	4	11-8	3/16	3/8	3/8	7/8	1/2	3.443	3.467	1-1/2	4	29/32
	3-7/16	20S732	4	11-8	3/16	1/2	1/2	7/8	1/2	3.443	3.467	1-1/2	4	29/32
24	3-7/16	24S716	4	11-8	3/16	3/8	1/4	7/8	1/2	3.443	3.467	1-1/2	4	29/32
	3-7/16	24S724	4	11-8	3/16	3/8	3/8	7/8	1/2	3.443	3.467	1-1/2	4	29/32
	3-7/16	24S732	4	11-8	3/16	1/2	1/2	7/8	1/2	3.443	3.467	1-1/2	4	29/32

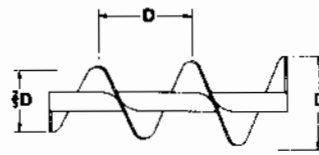
BASIC CONVEYOR FLIGHT AND PITCH TYPES

STANDARD PITCH, SINGLE FLIGHT



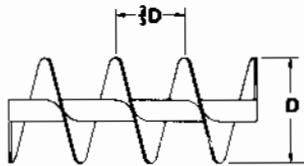
Conveyor screws with pitch equal to screw diameter are considered standard. They are suitable for a wide range of materials in most conventional applications.

TAPERED, STANDARD PITCH, SINGLE FLIGHT



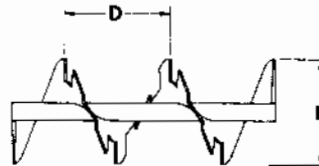
Screw flights increase from $\frac{1}{3}$ to full diameter. Used in screw feeders to provide uniform withdrawal of lumpy materials. Generally equivalent to and more economical than variable pitch.

SHORT PITCH, SINGLE FLIGHT



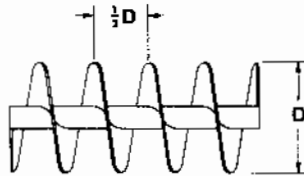
Flight pitch is reduced to $\frac{3}{4}$ diameter. Recommended for inclined or vertical applications. Used in screw feeders. Shorter pitch retards flushing of materials which fluidize.

SINGLE CUT-FLIGHT, STANDARD PITCH



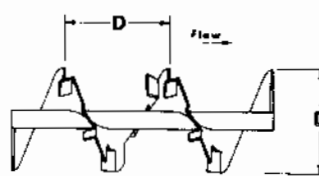
Screws are notched at regular intervals at outer edge. Affords mixing action and agitation of material in transit. Useful for moving materials which tend to pack.

HALF PITCH, SINGLE FLIGHT



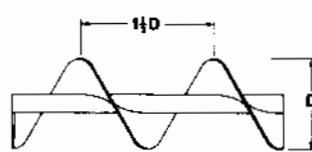
Similar to short pitch, except pitch is reduced to $\frac{1}{2}$ standard pitch. Useful for vertical or inclined applications, for screw feeders and for handling extremely fluid materials.

CUT & FOLDED FLIGHT, STANDARD PITCH



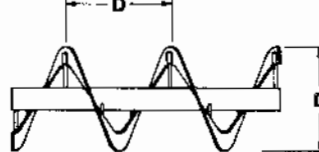
Folded flight segments lift and spill the material. Partially retarded flow provides thorough mixing action. Excellent for heating, cooling or aerating light substances.

LONG PITCH, SINGLE FLIGHT



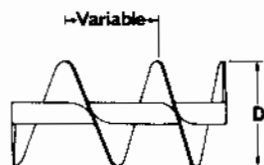
Pitch is equal to $1\frac{1}{2}$ diameters. Useful for agitating fluid materials or for rapid movement of very free-flowing materials.

SINGLE FLIGHT RIBBON



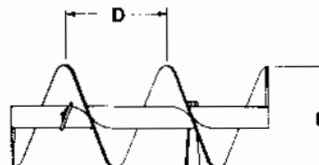
Excellent for conveying sticky or viscous materials. Open space between flighting and pipe eliminates collection and build-up of the material.

VARIABLE PITCH, SINGLE FLIGHT



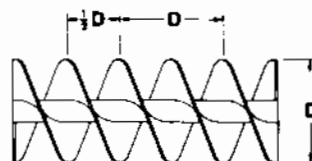
Flights have increasing pitch and are used in screw feeders to provide uniform withdrawal of fine, free-flowing materials over the full length of the inlet opening.

STANDARD PITCH WITH PADDLES



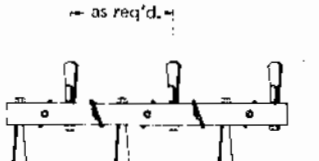
Adjustable paddles positioned between screw flights oppose flow to provide gentle but thorough mixing action.

DOUBLE FLIGHT, STANDARD PITCH

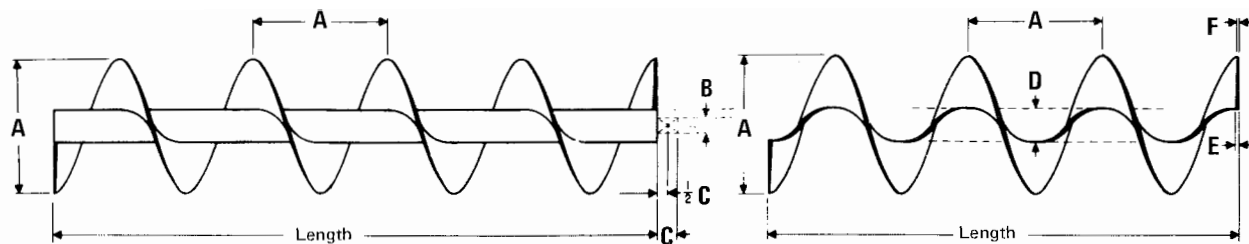


Double flight, standard pitch screws provide smooth, regular material flow and uniform movement of certain types of materials.

PADDLE



Adjustable paddles provide complete mixing action, and controlled material flow.



Helicoid Conveyor Screw

Flighting

A Dia. & Pitch	B Cplg. Dia.	Part Number	Flight Thickness		Pipe Size		C Bearing Length	G Coupling Bolts	Average Weight				
			E Root	F Tip	Inside	D Outside			Complete screw			Flight Only	
									Std.Lgth. Ft.-In.	Std. Lgth.	Per Ft.	Std. Lgth.	Per Ft.
4	1	4H204 * 4H206 *	1/8 3/16	1/16 3/32	1-1/4	1-5/8	1-1/2	3/8x2-1/16	9-10½	31 40	3 4	11 16	1.1 2.0
6	1-1/2	6H304 * 6H308 * 6H312 *	1/8 1/4 3/8	1/16 1/8 3/16	2	2-3/8	2	1/2x3	9-10	52 62 72	5 6 7	14 28 42	1.4 2.8 4.3
9	1-1/2	9H306 * 9H312 *	3/16 3/8	3/32 3/16	2	2-3/8	2	1/2x3	9-10	70 101	7 10	31 65	3.2 6.6
	2	9H406 *	3/16	3/32	2-1/2	2-7/8	2	5/8x3-5/8	9-10	91	9	30	3.0
		9H412 *	3/8	3/16						121	12	60	6.1
		9H414 *	7/16	7/32						131	13	71	7.1
10	1-1/2 2	10H306 * 10H412 *	3/16 3/8	3/32 3/16	2 2-1/2	2-3/8 2-7/8	2 2	1/2x3 5/8x3-5/8	9-10	81 130	8 13	48 76	4.9 7.7
12	2	12H408 * 12H412 *	1/4 3/8	1/8 3/16	2-1/2	2-7/8	2	5/8x3-5/8	11-10	140 180	12 15	67 102	5.7 8.6
	2-7/16	12H508 * 12H512 *	1/4 3/8	1/8 3/16	3	3-1/2	3	5/8x4-3/8	11-9	168 198	14 17	64 96	5.4 8.2
		3	12H614 *	7/16	7/32	3-1/2	4	3	3/4x5	11-9	220	19	105
14	2-7/16 3	14H508 * 14H614 *	1/4 7/16	1/8 7/32	3 3-1/2	3-1/2 4	3	5/8x4-3/8 3/4x5	11-9	170 254	14 22	84 132	7.1 11.2
16	3	16H610 * 16H614 *	5/16 7/16	5/32 7/32	3-1/2 4	4 4-1/2	3	3/4x5 3/4x5-1/2	11-9	228 285	19 24	120 154	10.2 13.0

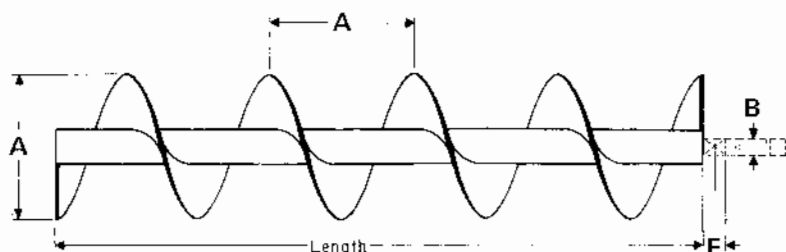
NOTE: When ordering stainless steel, add suffix "S" to first letter in part number (ref. part no, assignments system, pg. 47. The above screws are available in a (Q.R.) Quick Release on either end of screw (preferred location is on drive end).

* R - Right Hand Flight

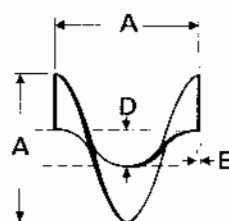
L - Left Hand Flight

For flighting only, add suffix "F" to first letter in part number.

For special screw conveyor weld finishes see page 48



SECTIONAL

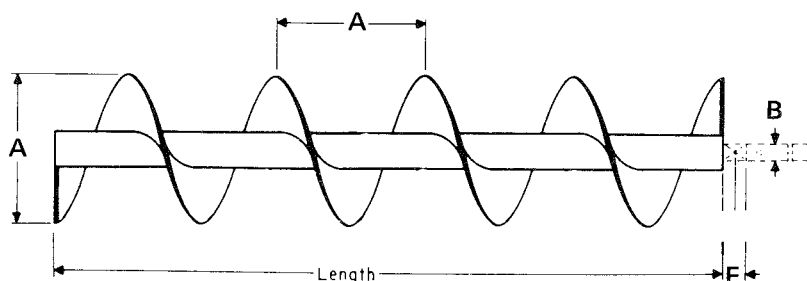


FLIGHTING

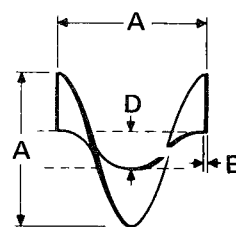
A Screw Diam.	B Coupling Diam.	Size Part No. Mounted Conveyor	Size Part No. Flighting Only	Pipe Size		E Flight Thick- ness	F Cplng. Bearing Length	Std. Length Ft.-In.	Average Weight			Approx. Flights per Ft.
				C Inside	D Outside				Std. Length	per Ft.	Flight Each	
6	1-1/2	6S307-*	6SF307-*	2	2-3/8	12 Ga.	2	9-10	62	6.0	1.0	2.0
	1-1/2	6S309-*	6SF309-*	2	2-3/8	10 Ga.	2	9-10	65	6.5	1.3	2.0
	1-1/2	6S312-*	6SF312-*	2	2-3/8	3/16	2	9-10	75	7.5	1.7	2.0
	1-1/2	6S316-*	6SF316-*	2	2-3/8	1/4	2	9-10	87.6	8.9	2.4	2.0
9	1-1/2	9S307-*	9SF307-*	2	2-3/8	12 Ga.	2	9-10	73	7.5	2.5	1.33
	1-1/2	9S309-*	9SF309-*	2	2-3/8	10 Ga.	2	9-10	80	8.0	3.3	1.33
	1-1/2	9S312-*	9SF312-*	2	3-3/8	3/16	2	9-10	95	9.5	4.3	1.33
	1-1/2	9S316-*	9SF316-*	2	2-3/8	1/4	2	9-10	116	11.8	5.5	1.33
	1-1/2	9S324-*	9SF324-*	2	2-3/8	3/8	2	9-10	155	15.9	8.8	1.33
	2	9S407-*	9SF407-*	2-1/2	2-7/8	12 Ga.	2	9-10	90	9.0	2.5	1.33
	2	9S409-*	9SF409-*	2-1/2	2-7/8	10 Ga.	2	9-10	100	10.0	3.3	1.33
	2	9S412-*	9SF412-*	2-1/2	2-7/8	3/16	2	9-10	115	11.5	4.3	1.33
	2	9S416-*	9SF416-*	2-1/2	2-7/8	1/4	2	9-10	130	13.0	5.5	1.33
	2	9S424-*	9SF424-*	2-1/2	2-7/8	3/8	2	9-10	177	18.0	8.8	1.33
10	1-1/2	10S309-*	10SF309-*	2	2-3/8	10 Ga.	2	9-10	85	8.5	3.9	1.2
	1-1/2	10S312-*	10SF312-*	2	2-3/8	3/16	2	9-10	108	11.0	5.0	1.2
	1-1/2	10S316-*	10SF316-*	2	2-3/8	1/4	2	9-10	132	13.4	7.7	1.2
	1-1/2	10S324-*	10SF324-*	2	2-3/8	3/8	2	9-10	178	18.1	11.6	1.2
	2	10S409-*	10SF409-*	2-1/2	2-7/8	10 Ga.	2	9-10	107	11.0	3.9	1.2
	2	10S412-*	10SF412-*	2-1/2	2-7/8	3/16	2	9-10	120	12.0	5.0	1.2
	2	10S416-*	10SF416-*	2-1/2	2-7/8	1/4	2	9-10	153	15.7	7.7	1.2
	2	10S424-*	10SF424-*	2-1/2	2-7/8	3/8	2	9-10	199	21.2	11.6	1.2
12	2	12S409-*	12SF409-*	2-1/2	2-7/8	10 Ga.	2	11-10	140	12.0	5.7	1.0
	2	12S412-*	12SF412-*	2-1/2	2-7/8	3/16	2	11-10	156	13.0	7.2	1.0
	2	12S416-*	12SF416-*	2-1/2	2-7/8	1/4	2	11-10	232	19.6	13.3	1.0
	2	12S424-*	12SF424-*	2-1/2	2-7/8	3/8	2	11-10	306	25.8	19.5	1.0
	2-7/16	12S509-*	12SF509-*	3	3-1/2	10 Ga.	3	11-9	160	14.0	5.7	1.0
	2-7/16	12S512-*	12SF512-*	3	3-1/2	3/16	3	11-9	178	14.8	7.2	1.0
	2-7/16	12S516-*	12SF516-*	3	3-1/2	1/4	3	11-9	210	17.5	9.7	1.0
	2-7/16	12S524-*	12SF524-*	3	3-1/2	3/8	3	11-9	265	22.4	14.6	1.0
	3	12S612-*	12SF612-*	3-1/2	4	3/16	3	11-9	184	15.4	7.2	1.0
	3	12S616-*	12SF616-*	3-1/2	4	1/4	3	11-9	216	21.4	9.7	1.0
	3	12S624-*	12SF624-*	3-1/2	4	3/8	3	11-9	280	26.7	12.7	1.0

NOTE: When ordering stainless steel, add suffix "S" to first letter in part number (ref. part no. assignments system, pg.34). The above screws are available in a (Q.R.) Quick Release on either end of screw (preferred location is on drive end).

* R - Right Hand Flight
L - Left Hand Flight



SECTIONAL



FLIGHTING

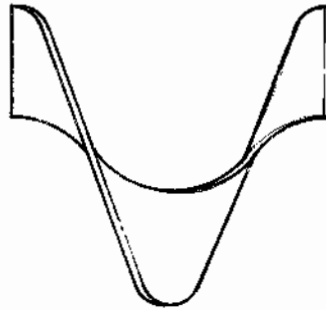
A Screw Diam.	B Coupling Diam.	Size Part No. Mounted Conveyor	Size Part No. Flighting Only	Pipe Size		E Flight Thick- ness	F Cplng. Bearing Length	Std. Length Ft.-In.	Average Weight			Approx. Flights per Ft.
				C Inside	D Outside				Std. Length	per Ft.	Flight Each	
14	2-7/16	14S509-*	14SF509-*	3	3-1/2	10 Ga.	3	11-9	185	16	7.1	.86
	2-7/16	14S512-*	14SF512-*	3	3-1/2	3/16	3	11-9	216	18.0	9.9	.86
	2-7/16	14S516-*	14SF516-*	3	3-1/2	1/4	3	11-9	250	21.3	13.2	.86
	2-7/16	14S524-*	14SF524-*	3	3-1/2	3/8	3	11-9	334	28.4	19.8	.86
	3	14S612-*	14SF612-*	3-1/2	4	3/16	3	11-9	231	19.6	10.9	.86
	3	14S616-*	14SF616-*	3-1/2	4	1/4	3	11-9	246	20.5	13.2	.86
	3	14S614-*	14SF624-*	3-1/2	4	3/8	3	11-9	342	28.5	19.8	.86
16	3	16S609-*	16SF609-*	3-1/2	4	10 Ga.	3	11-9	210	18	10	.75
	3	16S612-*	16SF612-*	3-1/2	4	3/16	3	11-9	234	19.5	14.0	.75
	3	16S616-*	16SF616-*	3-1/2	4	1/4	3	11-9	282	24	18.0	.75
	3	16S624-*	16SF624-*	3-1/2	4	3/8	3	11-9	365	30.4	25.5	.75
	3	16S632-*	16SF632-*	3-1/2	4	1/2	3	11-9	420	36	34.5	.75
18	3	18S612-*	18SF612-*	3-1/2	4	3/16	3	11-9	246	20.5	18.0	.67
	3	18S616-*	18SF616-*	3-1/2	4	1/4	3	11-9	294	24.5	24.0	.67
	3	18S624-*	18SF624-*	3-1/2	4	3/8	3	11-9	425	35.5	34.5	.67
	3	18S632-*	18SF632-*	3-1/2	4	1/2	3	11-9	530	44	46.0	.67
	3-7/16	18S712-*	18SF712-*	4	4-1/2	3/16	4	11-8	293	24.4	18.0	.67
	3-7/16	18S716-*	18SF716-*	4	4-1/2	1/4	4	11-8	345	28.8	24.0	.67
	3-7/16	18S724-*	18SF724-*	4	4-1/2	3/8	4	11-8	470	39.2	34.5	.67
	3-7/16	18S732-*	18SF732-*	4	4-1/2	1/2	4	11-8	570	47.5	46.0	.67
20	3	20S612-*	20SF612-*	3-1/2	4	3/16	3	11-9	300	25.0	20.0	.60
	3	20S616-*	20SF616-*	3-1/2	4	1/4	3	11-9	360	30.0	28.0	.60
	3	20S624-*	20SF624-*	3-1/2	4	3/8	3	11-9	410	33.4	40.0	.60
	3	20S632-*	20SF632-*	3-1/2	4	1/2	3	11-9	506	42.2	56	.60
	3-7/16	20S712-*	20SF712-*	4	4-1/2	3/16	4	11-8	346	28.8	20.0	.60
	3-7/16	20S716-*	20SF716-*	4	4-1/2	1/4	4	11-8	410	34.2	28.0	.60
	3-7/16	20S724-*	20SF724-*	4	4-1/2	3/8	4	11-8	455	37.9	40.0	.60
	3-7/16	20S732-*	20SF732-*	4	4-1/2	1/2	4	11-8	550	45.9	56	.60
24	3-7/16	24S712-*	24SF712-*	4	4-1/2	3/16	4	11-8	440	37	38.0	.50
	3-7/16	24S716-*	24SF716-*	4	4-1/2	1/4	4	11-8	510	43	42.0	.50
	3-7/16	24S724-*	24SF724-*	4	4-1/2	3/8	4	11-8	595	50	63.0	.50
	3-7/16	24S732-*	24SF732-*	4	4-1/2	1/2	4	11-8	690	60	84	.50

NOTE: When ordering stainless steel, add suffix "S" to first letter in part number (ref. part no, assignments system, pg. 47). The above screws are available in a (Q.R.) Quick Release on either end of screw (preferred location is on drive end).

* R - Right Hand Flight

L - Left Hand Flight

HEAVY DUTY SECTIONAL FLIGHTS



RIGHT HAND SHOWN

Available in right hand or left hand.

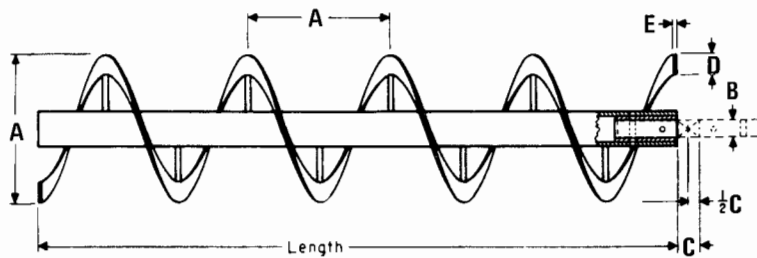
Heavy-duty flighting is cold formed from steel up to two inch thick in a special process to obtain uniform stresses to assure long life, accuracy in diameter and

pitch. Conveyor flighting is based on 24" pitch - other flight pitches are available or can be fabricated on special order.

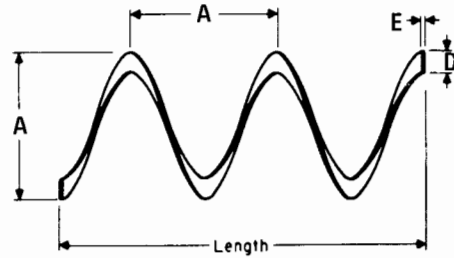
DIMENSIONS AND WEIGHTS

Outside Dia. Of Flights *	PLATE THICKNESS - WEIGHT					
	1/4"	3/8"	1/2"	5/8"	3/4"	1"
24"	41 lbs.	61 lbs.	82 lbs.	102 lbs.	122 lbs.	164 lbs.
30"	64	96	127	159	191	255
32"	72	109	145	181	217	290
36"	92	138	184	229	275	366
38"	102	154	205	256	307	409
40"	113	170	226	283	340	453
42"	124	188	250	313	374	500
44"	137	205	274	342	410	549
46"	150	225	300	374	450	600
48"	163	245	326	408	490	652
50"	176	264	352	440	532	707
52"	191	287	383	481	576	766
54"	207	310	413	517	621	828
56"	222	333	444	555	666	888
58"	238	357	510	640	764	1020
62"	272	408	544	681	816	1088
64"	290	435	581	724	870	1162
66"	308	463	616	770	924	1232
68"	327	491	656	821	979	1307
70"	347	521	694	869	1043	1388
72"	367	551	732	918	1104	1470

* Other flight sizes are available up to 240" outside diameter.



Ribbon Conveyor Screw



Flighting

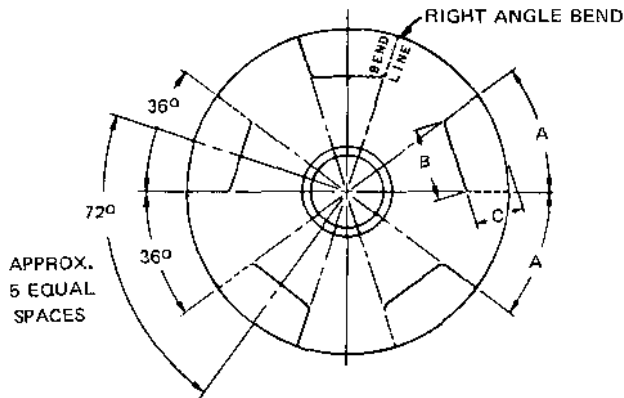
A Dia. & Pitch	B Cplg. Dia.	Part Number	Flight		Pipe Size		C Bearing Length	F Coupling Bolts	Std. Lgth. Ft.-In.	Average Weight			
			D Width	E Thick.	Inside	Outside				Complete Screw		Flight Only	
										Std. Lgth.	Per Ft.	Std. Lgth.	Per Ft.
6	1-1/2	6R312	1	3/16	2	2-3/8	2	1/2x3	9'-10"	65	6.5	25	2.5
9	1-1/2	9R316	1-1/2	1/4	2	2-3/8	2	1/2x3	9'-10"	100	10	50	5.1
10	1-1/2	10R316	1-1/2	1/4	2	2-3/8	2	1/2x3	9'-10"	110	11	60	6.1
12	2	12R416 12R424	2 2-1/2	1/4 3/8	2-1/2	2-7/8	2	5/8x3-5/8	11'-10"	180 216	15 18	71 120	6.0 10.2
	2-7/16	12R524	2-1/2	3/8	3	3-1/2	3	5/8x4-3/8	11'-9"	240	20	120	10.2
14	2-7/16	14R524	2-1/2	3/8	3	3-1/2	3	5/8x4-3/8	11'-9"	264	22	120	10.2
	3	14R624	2-1/2	3/8	3-1/2	4	3	3/4 x 5	11'-9"	288	25	120	10.2
16	3	16R616 16R624	2-1/2 2-1/2	1/4 3/8	3-1/2	4	3	3/4x5	11'-9"	276 324	24 28	96 132	8.2 11.2
18	3	18R624	3	3/8	3-1/2	4	3	3/4x5	11'-9"	384	33	156	13.3
20	3-7/16	20R724	3	3/8	4	4-1/2	4	7/8x5-1/2	11'-8"	408	35	168	14.4
24	3-7/16	24R724	3	3/8	4	4-1/2	4	7/8x5-1/2	11'-8"	424	36	180	15.4

NOTE: When ordering stainless steel, add suffix "S" to first letter in part number (ref. part no, assignments system, pg. . The above screws are available in a (Q.R.) Quick Release on either end of screw (preferred location is on drive end).

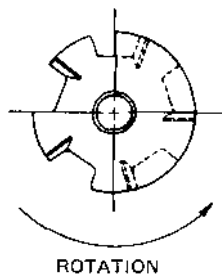
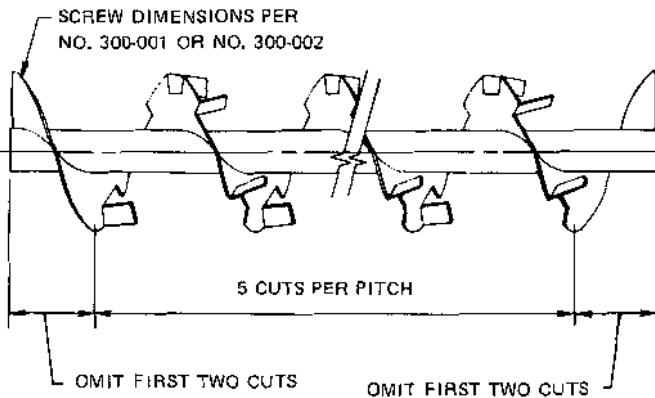
* R - Right Hand Flight

L - Left Hand Flight

CONVEYOR SCREW WITH CUT AND FOLDED FLIGHTS

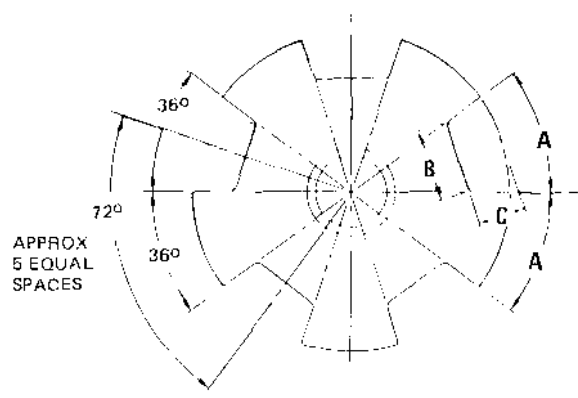


DEPTH OF CUT "C" IS ONE HALF THE FLIGHT WIDTH FOR NORMAL MAXIMUM PIPE SIZE. LENGTHS "A" & "B" ARE CALCULATED FROM THE DEVELOPED O. D. FOR A STANDARD PITCH.

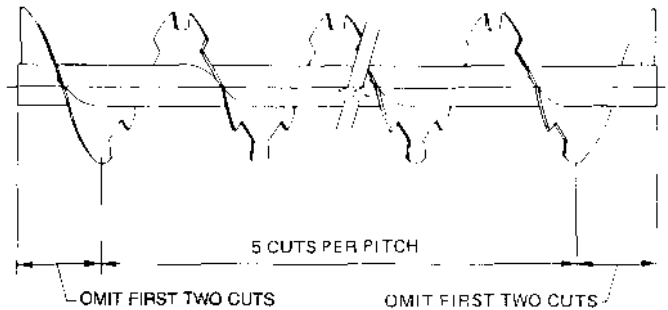


Screw dia. and pitch	A	B	C
Inches			
6	2	1-1/2	7/8
9	3	2-1/8	1-1/2
10	3-3/8	2-1/4	1-3/4
12	4	2-3/4	2
14	4-5/8	3-1/8	2-1/2
16	5-1/4	3-1/2	3
18	6	3-7/8	3-3/8
20	6-5/8	4-1/4	3-7/8
24	7-7/8	4-7/8	4-7/8

CONVEYOR SCREW WITH CUT FLIGHTS



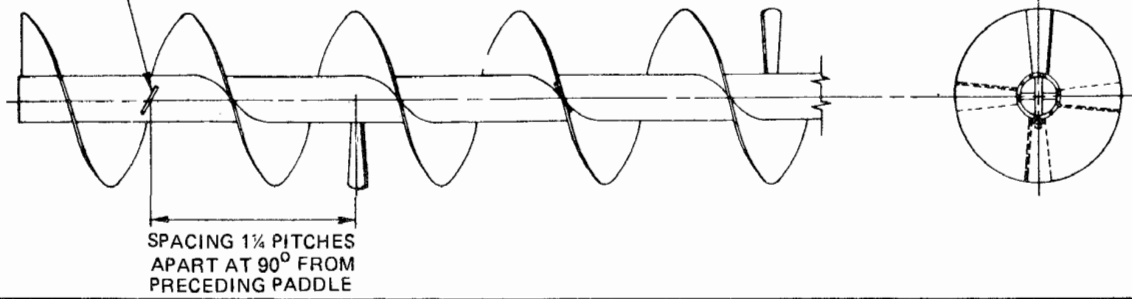
DEPTH OF CUT "C" IS ONE HALF THE FLIGHT WIDTH FOR NORMAL MAXIMUM PIPE SIZE. LENGTHS "A" & "B" ARE CALCULATED FROM THE DEVELOPED O.D. FOR A STANDARD PITCH.



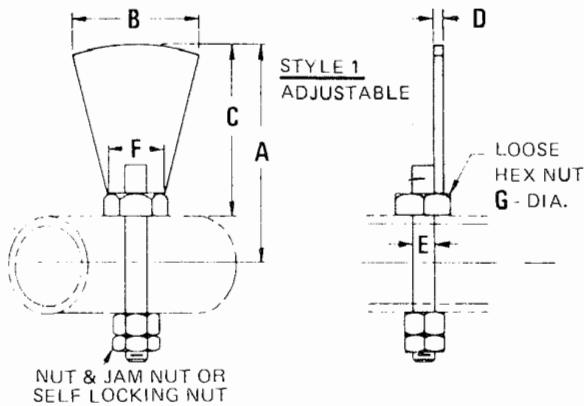
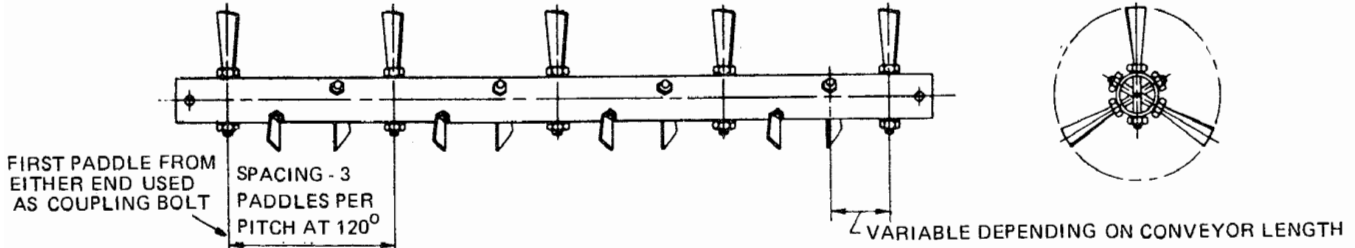
Screw dia. and pitch	A	B	C
Inches			
6	2	1-1/2	7/8
9	3	2-1/8	1-1/2
10	3-3/8	2-1/4	1-3/4
12	4	2-3/4	2
14	4-5/8	3-1/8	2-1/2
16	5-1/4	3-1/2	3
18	6	3-7/8	3-3/8
20	6-5/8	4-1/4	3-7/8
24	7-7/8	4-7/8	4-7/8

CONVEYOR SCREW WITH PADDLES

PADDLES TO BE MOUNTED OPPOSITE HAND OF FLIGHTING

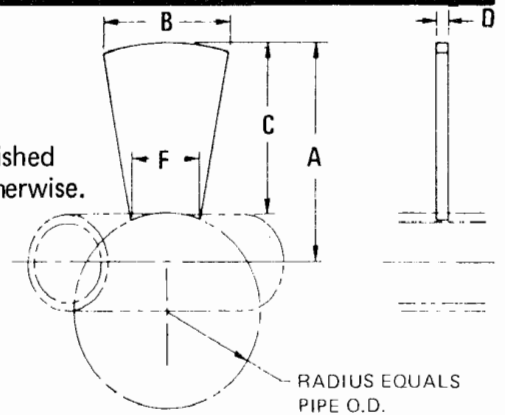


PADDLE CONVEYOR SCREW



PADDLES

Note: Style 2 furnished unless specified otherwise.



Screw Dia.	Part Number		Cplng. Dia.	Pipe Size		A	B	C	D	E	F	G	Wt. Each
	Carbon Steel	Stainless Steel		Inside	Outside								
4	PAD42-*	PAD42S-*	1	1-1/4	1-5/8	2	1-1/2	1-3/16	3/16	3/8	7/8	1/2	.25
6	PAD63-*	PAD63S-*	1-1/2	2	2-3/8	3	2-1/16	1-13/16	1/4	1/2	1-7/16	5/8	.50
9	PAD93-*	PAD93S-*	1-1/2	2	2-3/8	4-1/2	2-3/4	3-5/16		1/2	1-1/2	5/8	.50
	PAD94-*	PAD94S-*	2	2-1/2	2-7/8			3-1/16	1/4	5/8	1-5/8	3/4	.75
10	PAD103-*	PAD103S-*	1-1/2	2	2-3/8	5		3-13/16	1/4	1/2	1-1/2	5/8	.75
	PAD104-*	PAD104S-*	2	2-1/2	2-7/8		3-1/8	3-9/16		5/8	1-5/8	3/4	1.00
12	PAD124-*	PAD124S-*	2	2-1/2	2-7/8	6		4-9/16		5/8	1-3/4	3/4	1.50
	PAD125-*	PAD125S-*	2-7/16	3	3-1/2		3-11/16	4-1/4	3/8	5/8	1-7/8	3/4	1.75
	PAD126-*	PAD126S-*	3	3-1/2	4			4		3/4	2	7/8	2.00
14	PAD145-*	PAD145S-*	2-7/16	3	3-1/2	7		5-1/4	3/8	5/8	2	3/4	2.25
	PAD146-*	PAD146S-*	3	3-1/2	4		4-1/4	5		3/4	2-1/8	7/8	2.50
16	PAD166-*	PAD166S-*	3	3-1/2	4		4-15/16	6	3/8	3/4	2-1/4	7/8	3.25
	PAD166X-*	PAD166XS-*	3	4	4-1/2	8		5-3/4		7/8	2-3/8	1	3.50
18	PAD186-*	PAD186S-*	3	3-1/2	4			7	3/8	3/4	2-1/8	7/8	4.00
	PAD187-*	PAD187S-*	3-7/16	4	4-1/2	9	5-3/8	6-3/4		7/8	2-1/4	1	4.25
20	PAD206-*	PAD206S-*	3	3-1/2	4	10		8		3/4	2-7/16	7/8	4.75
	PAD207-*	PAD207S-*	3-7/16	4	4-1/2		6-1/8	7-3/4	3/8	7/8	2-9/16	1	5.00
24	PAD247-*	PAD247S-*	3-7/16	4	4-1/2	12	7-3/8	9-3/4	1/2	7/8	2-11/16	1	6.75

-*1 = style 1 -*2 = style 2 ("X" IN PAD166X-* MEANS 4" SCH 40 PIPE)

KWS QUICK-KEY

QUICK DISCONNECT FOR ALL SCREW CONVEYORS

Our Quick-Key option now allows you to quickly perform conveyor screw repairs or replacement without the inconvenience and time-consuming task of dismantling your entire conveyor. Available on all of our conveyor screw models, the Quick-Key is usually supplied on one end only; however, screw sections with Quick-Key on both ends can be provided when specific applications require them.

The Quick-Key is bolted to the end of the screw pipe with coupling bolts. A complete screw section may be disconnected by unbolting the clamping key and hanger, allowing the section to be lifted out without disturbing the rest of the conveyor.

To replace the section simply bolt the Quick-Key and hanger into place and you're back in business . . . with minimum down-time and loss of production. You also eliminate the need for removing the conveyor drive unit with a Quick-Key on the screw pipe attached to the drive . . . saving even more of your valuable time.

To order a screw conveyor with the Quick-Key disconnect add the suffix "QK1" or "QK2." For example:

For a Helicoid Conveyor Screw with a diameter and pitch of 9"; a flight thickness of $\frac{3}{16}$ " tapered to $\frac{3}{32}$ "; a right hand flight and a standard 9'10" length; the number is

9H306-R-9-10 (see page 51)

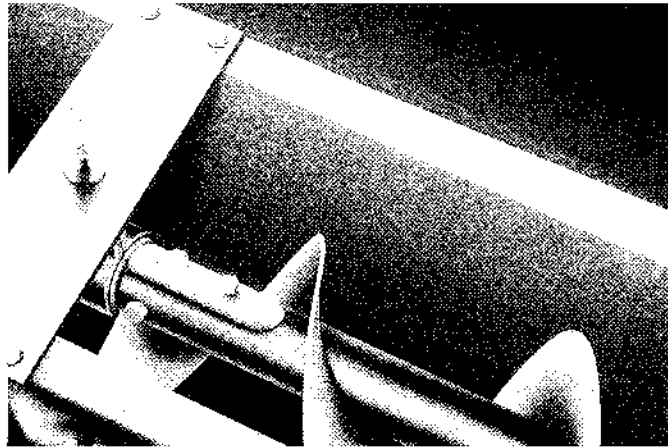
To indicate Quick-Key option for one end of screw only, the number would be:

9H306-R-9-10-QK1

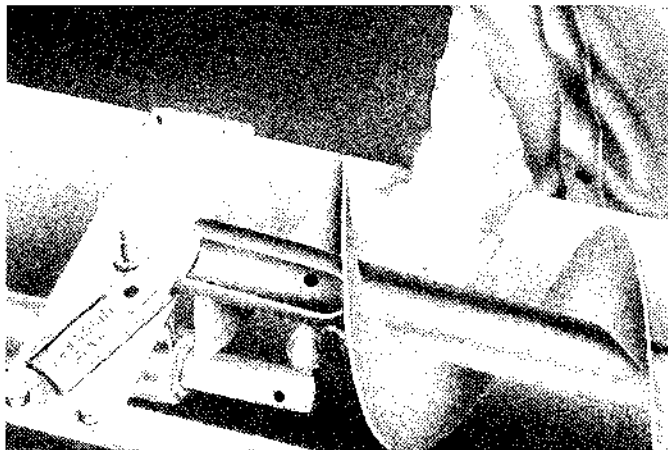
When ordering "QK1" the Quick-Key will be on the Drive End (Discharge End) of the screw unless specified otherwise.

To indicate Quick-Key disconnectors for both ends of the screw, the number would be:

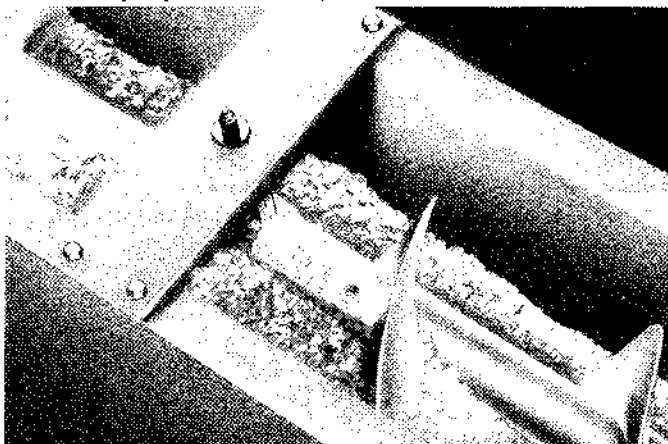
9H306-R-9-10-QK2



Remove coupling bolts . . .



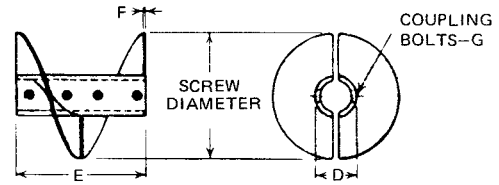
Lift conveyor screw out to perform necessary repairs or to replace . . .



Replace the conveyor screw and bolt the Quick-Key in place.

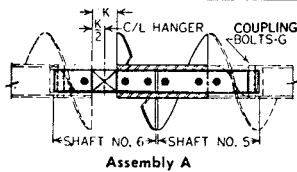
SPLIT FLIGHT COUPLINGS AND SHAFTS

Split flight couplings consist of a pipe or tubing of appropriate inside and outside diameters, split longitudinally and jig-drilled for coupling bolts, with a half flight of heavy gauge material continuously welded on both sides of each half. Use of split flight couplings permits installation or removal of individual conveyor screws without disturbing adjoining sections or hangers. Quick-removable conveyor screws also permit the removal of individual conveyor screw sections without disturbing other sections. Regular couplings and coupling bolts are used with these screws.

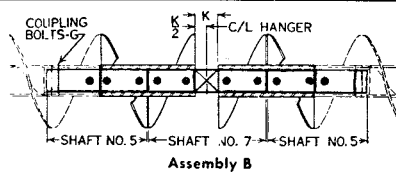


SPLIT FLIGHT COUPLING

Screw Diameter Inches	Coupling Diameter, Inches	Split Flight Coupling Number		Weight, Pounds	D	E	F	G
		Right Hand	Left Hand					
4	1	SFC41R	SFC41L	3	1-5/8	4-11/16	10 Ga.	3/8
6	1-1/2	SFC6112R	SFC6112L	9	2-3/8	6-11/16	1/4 IN.	1/2
9	1-1/2	SFC9112R	SFC9112L	14	2-3/8	9-11/16	3/16 IN.	1/2
	2	SFC92R	SFC92L	17	2-7/8	9-11/16	1/4 IN.	5/8
10	1-1/2	SFC10112R	SFC10112L	16	2-3/8	10-11/16	10 Ga.	1/2
	2	SFC102R	SFC102L	21	2-7/8	10-11/16	1/4 IN.	5/8
	2	SFC122R	SFC122L	29	2-7/8	12-11/16	1/4 IN.	5/8
12	2-7/16	SFC122716R	SFC122716L	31	3-1/2	12-11/16	3/16 IN.	5/8
	3	SFC123R	SFC123L	40	4	12-11/16	3/8 IN.	3/4
14	2-7/16	SFC142716R	SFC142716L	45	3-1/2	14-3/4	3/16 IN.	5/8
	3	SFC143R	SFC143L	51	4	14-3/4	3/8 IN.	3/4
16	3	SFC163R	SFC163L	61	4	16-3/4	3/8 IN.	3/4
	3	SFC183R	SFC183L	75	4	18-3/4	3/8 IN.	3/4
18	3-7/16	SFC183716R	SFC183716L	76	4-1/2	18-3/4	3/8 IN.	7/8
	3	SFC203R	SFC203L	75	4	20-3/4	1/4 IN.	3/4
20	3-7/16	SFC203726R	SFC203716L	81	4-1/2	20-7/8	3/8 IN.	7/8
24	3-7/16	SFC243716R	SFC243716L	114	4-1/2	24-7/8	3/8 IN.	7/8



Assembly A



Assembly B

SPLIT FLIGHT COUPLING SHAFTS

Split Flight Coupling Shafts are used to transmit rotation and to position accurately and support the split flight couplings. Shafts are jig-drilled to assure proper alignment of adjacent flights.

SPLIT FLIGHT COUPLING SHAFTS

Screw Dia., Inches	Coupling Dia., Inches	Split Flight Coupling Shaft Number			Weight, Pounds			Length, Inches			G	K
		* Shaft No. 5	Shaft No. 6	Shaft No. 7	Shaft No. 5	Shaft No. 6	Shaft No. 7	Shaft No. 5	Shaft No. 6	Shaft No. 7		
4	1	SFC41-5S	SFC41-6S	SFC41-7S	1	2	2	5-1/4	6-3/4	6	3/8	1-1/2
6	1-1/2	SFC6112-5S	SFC6112-6S	SFC6112-7S	4	5	4	8	10	8-1/2	1/2	2
9	1-1/2	SFC9112-5S	SFC9112-6S	SFC9112-7S	5	6	6	9-1/2	11-1/2	11-1/2	1/2	2
	2	SFC92-5S	SFC92-6S	SFC92-7S	9	10	10	9-1/2	11-1/2	11-1/2	5/8	2
10	1-1/2	SFC10112-5S	SFC10112-6S	SFC10112-7S	5	6	6	10	12	12-1/2	1/2	2
	2	SFC102-5S	SFC102-6S	SFC102-7S	9	11	11	10	12	12-1/2	5/8	2
	2	SFC122-5S	SFC122-6S	SFC122-7S	10	12	13	11	13	14-1/2	5/8	2
12	2-7/16	SFC122716-5S	SFC122716-6S	SFC122716-7S	15	19	21	11-1/8	14-1/8	15-1/2	5/8	3
	3	SFC123-5S	SFC123-6S	SFC123-7S	23	29	31	11-1/4	14-1/4	15-1/2	3/4	3
14	2-7/16	SFC122716-5S	SFC142716-6S	SFC142716-7S	16	20	23	12-1/8	15-1/8	17-1/2	5/8	3
	3	SFC143-5S	SFC143-6S	SFC143-7S	25	21	35	12-1/4	15-1/4	17-1/2	3/4	3
16	3	SFC163-5S	SFC163-6S	SFC163-7S	27	33	39	13-1/4	16-1/4	19-1/2	3/4	3
	3	SFC183-5S	SFC183-6S	SFC183-7S	29	35	43	14-1/4	17-1/4	21-1/2	3/4	3
18	3-7/16	SFC183716-5S	SFC183716-6S	SFC183716-7S	41	50	56	16-1/4	20-1/4	22-1/2	7/8	4
	3	SFC203-5S	SFC203-6S	SFC203-7S	31	37	47	15-1/4	18-1/4	23-1/2	3/4	3
20	3-7/16	SFC203716-5S	SFC203716-6S	SFC203716-7S	45	56	65	17-1/4	21-1/4	24-1/2	7/8	4
24	3-7/16	SFC243716-5S	SFC243716-6S	SFC243716-7S	51	62	75	19-1/4	23-1/4	28-1/2	7/8	4

Have dimensions certified for installation purposes. Coupling bolt are not included. Coupling shafts No. 6 and No. 7 can be furnished with bearing length K hardened.

Shaft No. 5 drilled standard for conveyor screw coupling bolts or

one end only. Holes for the split flight coupling bolts on other end must be drilled in assembly to insure alignment of flight.

Orders covering split flight couplings with conveyor screws and assembled shafts, for Shaft No. 5, use the drilled price.

Add Suffix "D" to part No. if Drilled. Example: SFC41-5SD.

KWS HARD-SURFACED SCREW CONVEYORS

KWS hard-surfaced screw conveyors are designed to eliminate excessive wear on flights while handling abrasive materials. An alloy is permanently fused to the carrying side (of a width in relation to the cross-sectional load, see chart) of the flighting face.

ADDITIONAL TYPES OF ABRASION RESISTANT SCREW CONVEYORS AND ACCESSORIES

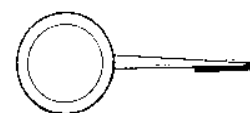
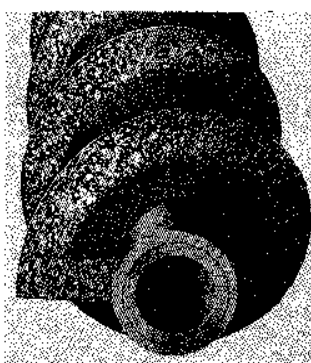
If desired, screw conveyors may be furnished in abrasion resistant metals, such as 40/50 carbon, T-1, nickel steel, A.R. Plate from 210 to 460 Brinell or may be coated with Stellite, Hardex, Airco, etc.

When handling abrasive materials, consideration should be given to protecting screw conveyor accessories. Hardened couplings, outboard bearings, trough ends and hangers with white iron or hardened surface bearings can be furnished. Troughs of heavy abrasion resistant metals are also available.

Notes: Other hard surfaces available upon request.
Consult KWS Manufacturing Co., Inc.

WIDTH OF APPLICATION CHART

Screw Diameter	Width of Application
6	1
9	1-1/2
10	1-1/2
12	2
14	2
16	2-1/2
18	2-1/2
20	3
24	3



Helicoid



Sectional

CONVEYOR SCREWS – SPECIAL

WEAR SHOES

High carbon steels capable of heat treatment, or abrasion resistant alloys are used to an ever increasing extent as materials for flights. CONSULT FACTORY FOR DETAILS.

CORROSION-RESISTANT CONVEYOR SCREWS

Corrosion is manifested in so many different ways that no one choice of material will suit all requirements. To withstand the effects of corrosion encountered in many fields of industry, conveyor screws are fabricated of stainless steel, copper, brass, bronze, nickel, monel, corten, aluminum, and other materials.

Galvanizing, tinning, chrome plating and other coating methods have proved effective under mildly corrosive conditions. Vulcanized or bonded rubber covering of the entire conveyor is frequently satisfactory for resistance to extremely corrosive action.

HEAT-RESISTANT CONVEYOR SCREWS

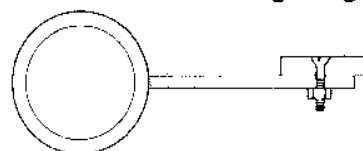
Conveyor screws for high temperature applications are made of many of the available heat-resistant alloys. Several of the stainless steels and other high-chrome alloys are particularly suitable for this service.

NON-SPARKING SCREW CONVEYORS

Screw conveyors are available for use in areas which

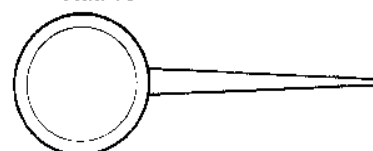
require a non-sparking composition. Metals, such as aluminum, brass, copper or bronze and certain stainless steel analyses are normally used for this application. Caution should be exercised in the selection of other components as well.

Detachable hardened flight segment



Detachable hardened flight segments, or wearing sunk bolts to the conveyor shoes, bolted with counter-flights are preferred in many applications for quick and easy replacement.

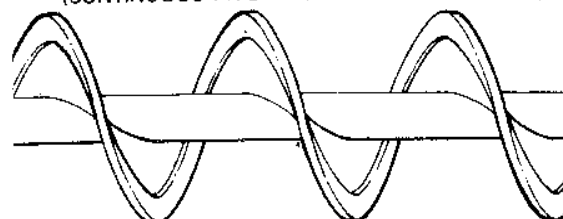
Rubber covered screw



Rubber covering with its inherent tough resilience, bonded or vulcanized to a conveyor screw, offers excellent abrasion-resistant properties.

WEAR STRIPS

(CONTINUOUS TYPE — BOLT ON CONSTRUCTION)



Conveyor Diameter	Part Number	A	B
6	WS6-*	6	7
9	WS9-*	9	10
10	WS10-*	10	11
12	WS12-*	12	13
14	WS14-*	14	15
16	WS16-*	16	17
18	WS18-*	18	19
20	WS20-*	20	21
24	WS24-*	24	25

*UHMWV or
T for Teflon

SPECIAL SCREW CONVEYOR WELD FINISHES

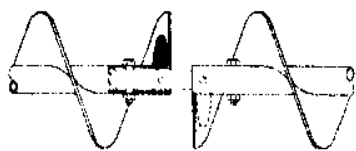
Specifications on screw conveyor occasionally include the term “grind smooth” when referring to the finish on welds. This specification is usually used for stainless steel, but occasionally it will appear in carbon steel specifications as well.

“Grind smooth” is a general term and subject to various interpretations. This section establishes K.W.S. recommended classes of finishes, which should be used to help you find the class required for an application.

- 1A — Weld Spatter and Slag removed (CEMA I)
- 1B — Weld Spatter and Slag removed and Sand Blasted
- 2A — Weld Spatter and Slag removed and rough grind welds to remove heavy weld ripple or unusual roughness (equivalent to a 40-50 grit finish) (CEMA II)
- 2B — Weld Spatter and Slag removed and rough grind welds to remove heavy weld ripple or unusual roughness (equivalent to a 40-50 grit finish) and sandblasted
- 3A — Weld Spatter and Slag removed and medium grind welds — leaving some pits and crevices (equivalent to a 80-100 grit finish) (CEMA III)
- 3B — Weld Spatter and Slag removed and medium grind welds — leaving some pits and crevices (equivalent to a 80-100 grit finish) and sandblasted
- 4 — Weld Spatter and Slag removed and fine grind welds — no pits or crevices permissible (equivalent to a 140-150 grit finish) (CEMA IV)
- 5 — Weld Spatter and Slag removed and fine grind weld — no pits or crevices permissible (equivalent to a 140-150 grit finish) and polish to a bright uniform finish (CEMA V)

CONVEYOR SCREW COMPONENTS

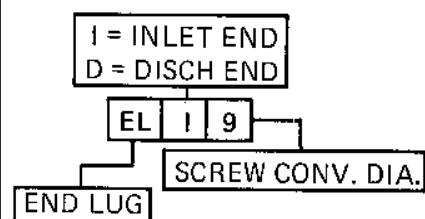
END LUGS



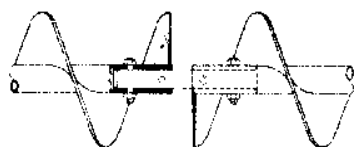
End lugs are manufactured of heavy-gauge steel. They are designed to provide maximum support with the least obstruction of material flow. They are welded securely to both flight and pipe. Manufactured for both right or left hand conveyors for intake or discharge ends of the conveyor.

Conveyor Diameter	Part Number		Weight Each Lbs.
	Intake End	Discharge End	
6	ELI6-*	ELD6-*	.06
9	ELI9-*	ELD9-*	.15
10	ELI10-*	ELD10-*	.15
12	ELI12-*	ELD12-*	.43
14	ELI14-*	ELD14-*	.43
16	ELI16-*	ELD16-*	.68
18	ELI18-*	ELD18-*	.68
20	ELI20-*	ELD20-*	.68
24	ELI24-*	ELD24-*	.68

*Specify hand of Conveyor R = Right Hand
L = Left Hand



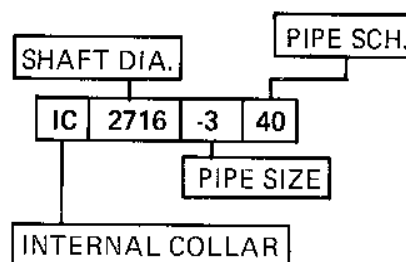
INTERNAL COLLARS



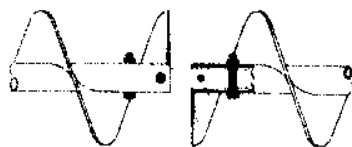
KWS internal collars are manufactured from special seamless tubing. Close-tolerance collars are pressure-inserted in the pipe end by means of a special fixture and plug-welded for maximum efficiency and service life. Coupling bolt holes are jig-drilled for perfect alignment. Replacement collars are furnished undrilled and should be drilled to match in the field.

Coupling	Pipe Size □	Part Number	Weight Each Lbs.
1	1-1/4	IC1-114-40	.7
1-1/2	2	IC112-2-40	2.2
2	2-1/2	IC2-212-40	2.4
2-7/16	3	IC2716-3-40	4.1
3	3-1/2	IC3-312-40	4.3
3	4	IC3-4-40	8.3
3-7/16	4	IC3716-4-40	7.3

□ Schedule 40 Pipe



STD. COUPLING BOLTS

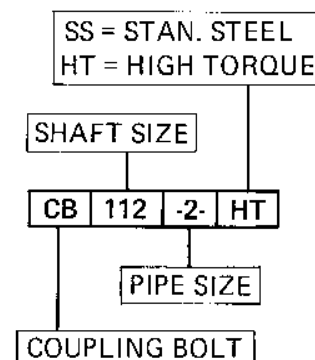


Coupling bolts are manufactured from special-analysis steels. Bolts have short thread length designed especially for use with conveyor screws. Each bolt is furnished with special type lock nut. Bolts are manufactured to close tolerances for perfect fit in coupling bolt holes. They are designed for maximum torque capacities and service life.

Coupling Dia.	Outside Pipe Dia.	Inside Pipe Dia. □	Bolt Size	Part Number	Weight Each Lbs.
1	1-5/8	1-1/4	3/8x2-1/16	CB1-114-*	.13
1-1/2	2-3/8	2	1/2x3	CB112-2-*	.25
2	2-7/8	2-1/2	5/8x3-5/8	CB2-212-*	.50
2-7/16	3-1/2	3	5/8x4-3/8	CB2716-3-*	.56
3	4	3-1/2	3/4x5	CB3-312-*	.75
3	4-1/2	4	3/4x5-1/2	CB3-4-*	.88
3-7/16	4-1/2	4	7/8x5-1/2	CB3716-4-*	1.25

□ Schedule 40 Pipe

* Add SS = For Stainless Steel
HT = For Hi-Torque

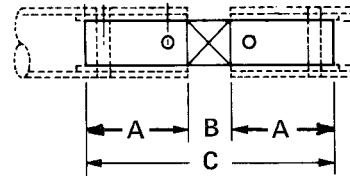
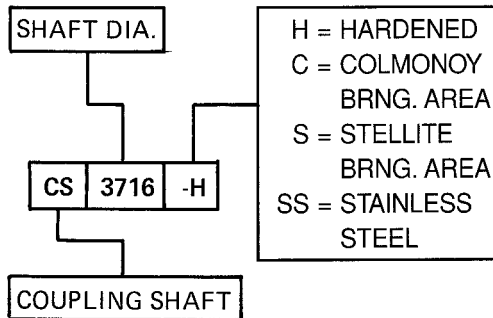


SHAFTS

Coupling shafts are designed to transmit rotation between individual conveyor screw sections and to provide intermediate radial support through hanger bearings. Two basic types are available: Standard shafts, for use with hanger bearings, and close-coupling shafts, designed for applications where the omission of hanger bearings is desirable. Cautions should be exercised in the use of close-

coupling shafts to prevent deflection. KWS coupling shafts are manufactured of cold-drawn C-1045 medium-carbon steel which has an average tensile strength of 112,000 psi. Stainless shafts with an average tensile strength of 100,000 psi., are available in several types, including 303 and 316. All coupling bolt holes are jig-drilled for perfect alignment.

COUPLING SHAFT



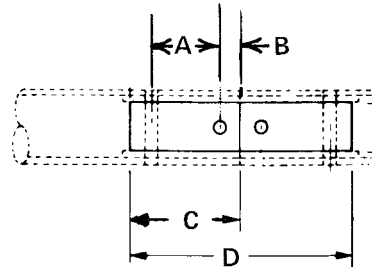
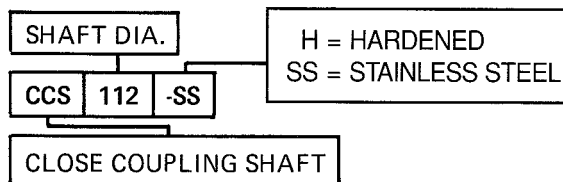
Shaft Dia.	Part Number	A	B	C
1	CS1-*	3	1-1/2	7-1/2
1-1/2	CS112-*	4-3/4	2	11-1/2
2	CS2-*	4-3/4	2	11-1/2
2-7/16	CS2716-*	4-7/8	3	12-3/4
3	CS3-*	5	3	13
3-7/16	CS3716-*	7	4	18

*Specify Shaft Material (no suffix required on std.)

(H) Hardened (C) Colmonoy Brng. Area

(S) Stellite Brng. Area (SS) Stainless Steel

CLOSE COUPLING SHAFT

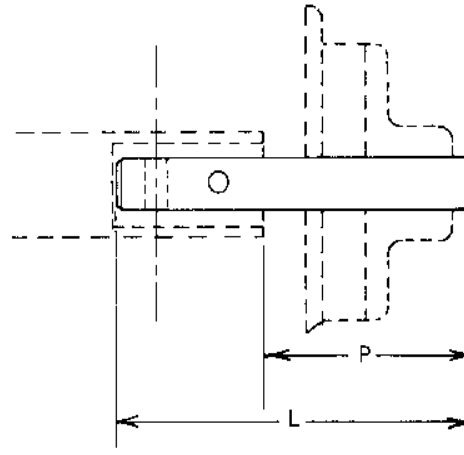
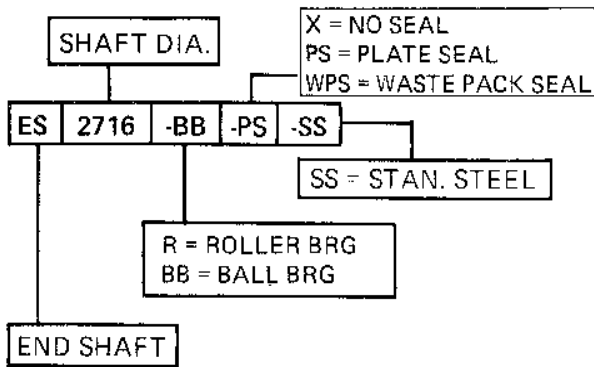


Shaft Dia.	Part Number	A	B	C	D
1	CCS1-*	2	1/2	3	6
1-1/2	CCS112-*	3	7/8	4-3/4	9-1/2
2	CCS2-*	3	7/8	4-3/4	9-1/2
2-7/16	CCS2716-*	3	15/16	4-7/8	9-3/4
3	CCS3-*	3	1	5	10
3-7/16	CCS3716-*	4	1-1/2	7	14

*Specify Shaft Material (no suffix required on std.)

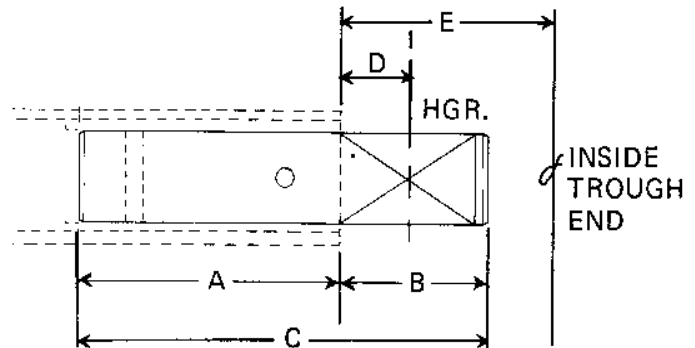
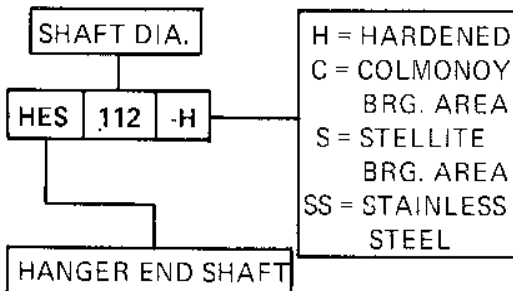
(SS) Stainless Steel (H) Hardened

END SHAFT



Shaft Dia. Part Number		For Std. Fig. Roller Brg.						Std. Fig. Ball Brg.						WT.
		L DIM.			P DIM.			L DIM.			P DIM.			
		X	PS	WPS	X	PS	WPS	X	PS	WPS	X	PS	WPS	
1	ES1-*	---	---	---	---	---	---	5-3/4	6-1/2	7-1/2	2-3/4	3-1/2	4-1/2	2
1-1/2	ES112*	10-1/4	11	12	5-1/2	6-1/4	7-1/4	8-3/4	9-1/2	10-1/4	4	4-3/4	5-1/2	6
2	ES2-*	10-5/8	11	12-3/8	5-7/8	6-1/4	7-5/8	9-3/8	10	11	4-5/8	5-1/4	6-1/4	11
2-7/16	ES2716*	12	12-5/8	13-1/2	7-1/8	7-3/4	8-5/8	10-3/8	11	12	5-1/2	6-1/8	7-1/8	18
3	ES3*	12-7/8	13-1/2	14-1/2	7-7/8	8-1/2	9-1/2	11-3/4	12-1/4	13-1/2	6-3/4	7-1/4	8-1/2	29
3-7/16	ES3716*	16-1/8	17	18-3/8	9-1/8	10	11-3/8	15	15-1/2	17	8	8-1/2	10	48

HANGER END SHAFT



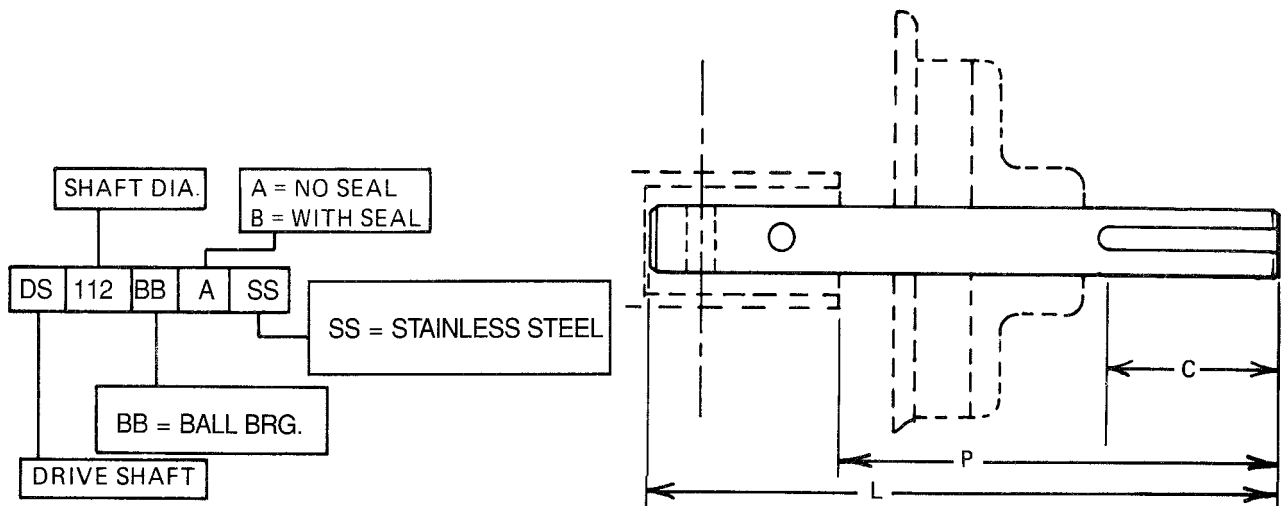
Shaft Dia.	Part Number	A	B	C	D	E	WT
1	HES1-*	3	1-5/8	4-5/8	3/4	2-3/8	1
1-1/2	HES112-*	4-3/4	2-1/8	6-7/8	1	3-1/8	3.5
2	HES2-*	4-3/4	2-1/8	6-7/8	1	3-1/8	6
2-7/16	HES2716-*	4-7/8	3-1/4	8-1/8	1-1/2	4-3/4	11
3	HES3-*	5	3-1/4	8-1/4	1-1/2	4-3/4	16.5
3-7/16	HES3716-*	7	4-1/4	11-1/4	2	6-1/4	30

*Specify Shaft Material (no suffix required on std.)

(H) Hardened (C) Colmonoy Brng. Area

(S) Stellite Brng. Area (SS) Stainless Steel

DRIVE SHAFT



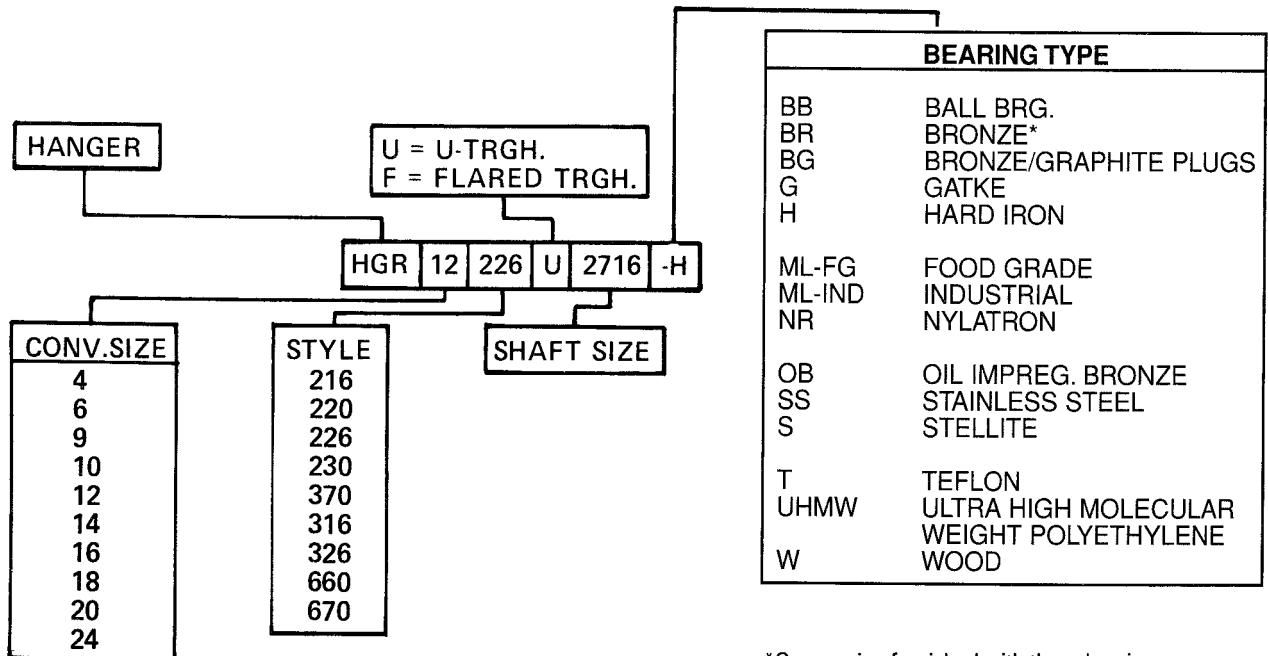
Shaft Dia.	Part Number	L DIM.		P DIM.		L DIM.		P DIM.		C	Weight in lbs
		Babbitt Bearing		Babbitt Bearing		Ball Bearing		Ball Bearing			
		W/Seal B-B	Without Seal B-A	W/Seal B-B	Without Seal B-A	W/Seal BB-B	Without Seal BB-A	W/Seal BB-B	Without Seal BB-A		
1	DS1*†	11-1/4	9-1/2	8-1/4	6-1/2	10-5/8	8-7/8	7-5/8	5-7/8	2-1/4	2.5
1-1/2	DS112*†	14-3/4	13	10	8-1/4	13-3/4	12	9	7-1/4	2-3/4	7.4
2	DS2*†	16-3/4	15	12	10-1/4	15-1/8	13-3/8	10-3/8	8-5/8	3-1/4	17.2
2-7/16	DS2716*†	19-3/8	17-5/8	14-1/2	12-3/4	16-7/8	15-1/8	12	10-1/4	4-1/4	25.6
3	DS3*†	21-5/8	19-7/8	16-5/8	14-7/8	19-1/8	17-3/8	14-1/8	12-3/8	4-3/4	43.3
3-7/16	DS3716*†	26-5/8	24-3/8	19-5/8	17-3/8	23-5/8	21-3/8	16-5/8	14-3/8	5-3/4	70.0

*Specify bearing (B) Babbitt (BB) Ball Bearing †

† Specify (A) No Seal (B) With Seal

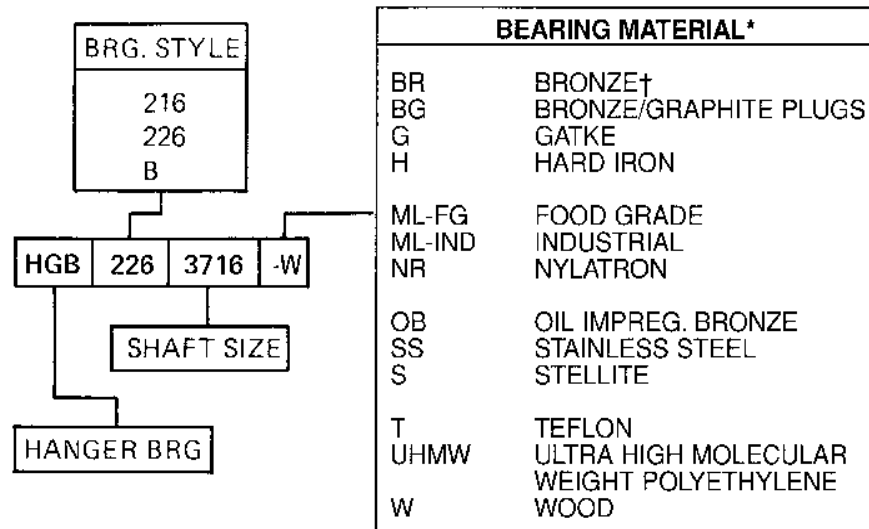
(SS) Stainless Steel (no suffix required on std.)

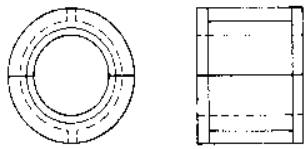
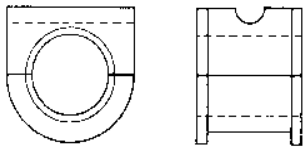
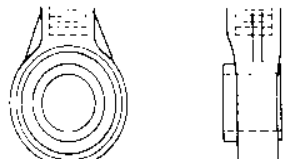
HANGERS



*Grease pipe furnished with these bearings.

HANGER BEARINGS



	Part Number	Bore	Bearing Materials*	Hanger
	HGB2261*	1	SEE LIST	220 226 326
	HGB226112*	1-1/2		
	HGB2262*	2		
	HGB2262716*	2-7/16		
	HGB2263*	3		
	HGB2263716*	3-7/16		
	HGB216112*	1-1/2	SEE LIST	216 230 316
	HGB2162*	2		
	HGB2162716*	2-7/16		
	HGB2163*	3		
	HGB2163716*	3-7/16		
	HGB21631516**	3-15/16		
	HGB2164716**	4-7/16		
	HGBB112	1-1/2	Ball †	370 660 670
	HGBB2	2		
	HGBB2716	2-7/16		
	HGBB3	3		
	HGBB3716	3-7/16		

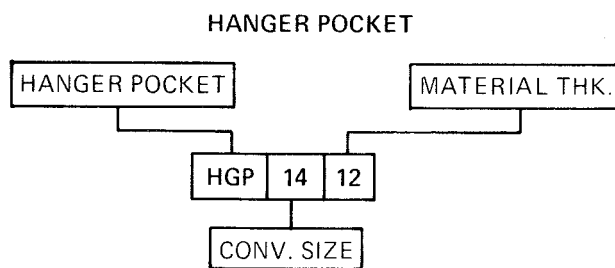
*NOT ALL MATERIALS ARE AVAILABLE FOR ALL STYLES AND SIZES.

**AVAILABLE IN HARD IRON AND BRONZE ONLY.

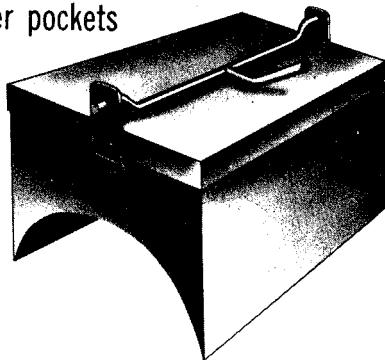
† THESE BEARINGS ARE DRILLED AND TAPPED FOR GREASE PIPE AS STANDARD.

HANGER POCKET

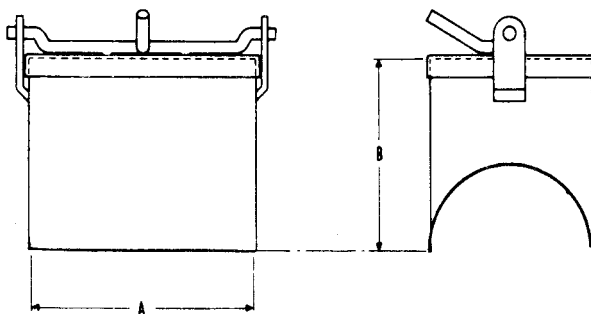
Hanger bearing support for conveyors with tubular housings is accomplished by means of a hanger pocket mounted on top of the housing at hanger bearing points. The hanger bolts to the straight sides of the pocket. Any standard hanger designed for inside mounting may be used. The pocket is sealed by a quick access cover with weather-proof, turned-down edges. It may be gasketed for dust-tight operation. Standard pockets are of the same gauge as the housings to which they are fitted.



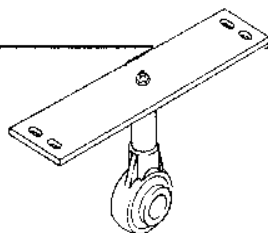
Hanger pockets



Screw	Part Number	A	B	Material Thickness	Wt.
4	HGP414	12	3-3/4	14	3
	HGP412			12	5
	HGP410			10	7
6	HGP614	12	5	14	5
	HGP612			12	7
	HGP610			10	9
9	HGP914	12	7-1/8	14	8
	HGP912			12	10
	HGP910			10	13
	HGP9316			3/16"	18
10	HGP1012	12	7-7/8	12	11
	HGP1010			10	14
	HGP10316			3/16"	19
12	HGP1212	18	8-7/8	12	15
	HGP1210			10	20
	HGP12316			3/16"	27
	HGP12250			1/4"	36
14	HGP1412	18	10-1/8	12	19
	HGP1410			10	24
	HGP14316			3/16"	33
	HGP14250			1/4"	44
16	HGP1612	18	11-1/8	12	23
	HGP1610			10	30
	HGP16316			3/16"	41
	HGP16250			1/4"	55
18	HGP1810	18	12-3/8	10	37
	HGP18316			3/16"	51
	HGP18250			1/4"	68
20	HGP2010	18	14	10	46
	HGP20316			3/16"	63
	HGP20250			1/4"	84
24	HGP2410	18	17	10	61
	HGP24316			3/16"	83
	HGP24250			1/4"	111

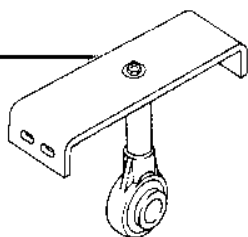


NO. 660



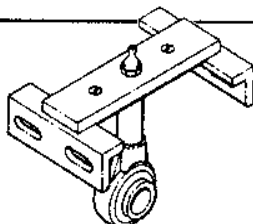
The No. 660 hanger is designed to mount on top flanged troughs. Supplied with a dust tight sealed ball bearing, this hanger has a 4° shaft alignment compensation and is operable in a temperature range up to 240°. This hanger is fitted with a lubrication fitting.

NO. 670



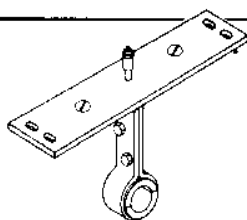
Basically the same hanger bearing design and availability as the No. 660, the 670 is used where flush mounting is necessary to permit dust proofing or weather sealing conveyor housings.

NO. 370



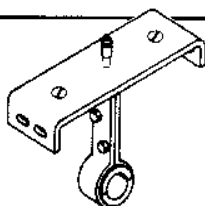
The No. 370 hanger also has the thermal expansion feature of the No. 316 hanger, but is supplied with a ball bearing assembly similar to the No. 660 and 670 hangers.

NO. 220



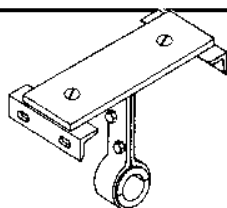
Designed for high capacity conveyors, the No. 220 hanger is a low profile hanger and bearing housing allowing minimum flow obstruction.

NO. 226



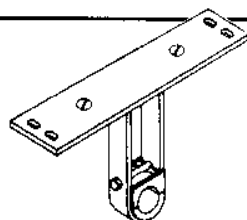
The No. 226 hanger incorporates all the advantages of the No. 220 but is designed for inside flush mounting with the trough top flange.

NO. 326



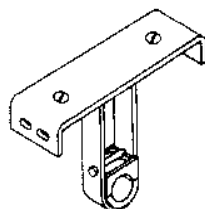
Designed for flush inside mounting, the No. 326 hanger has the same self adjusting assembly as the No. 316. Available only with hard iron or hard surfaced bearings. Hardened or hard surfaced shafts are required.

NO. 230



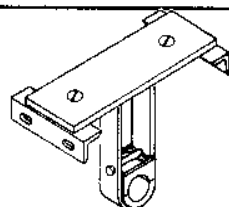
No. 230 hangers are designed for top mounting on trough flanges. The bearing and assembly frame are for heavy duty applications and are interchangeable with the No. 216 and 316 top frames.

NO. 216



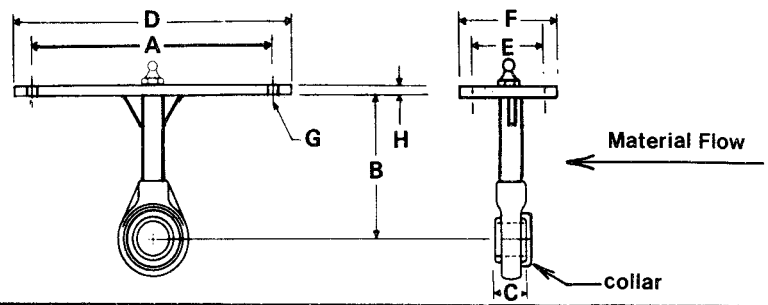
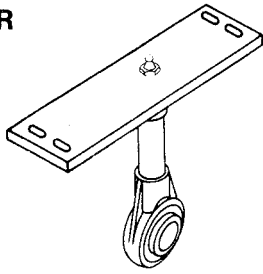
The No. 216 hanger is an inside flush mounted hanger recommended for use in heavy duty or high abrasion applications, especially where dust proofing is necessary.

NO. 316



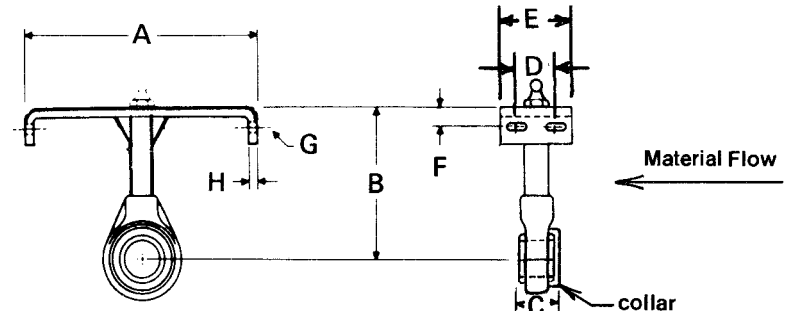
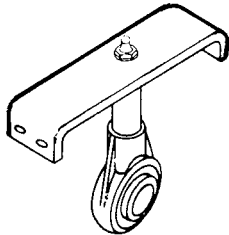
The No. 316 hanger provides the ruggedness of the No. 216 hanger bearings and the flexibility of the 326 hanger mounting brackets. The mounting bracket is self adjusting to compensate for thermal expansion of components in high heat situations.

660 HANGER U - TROUGH



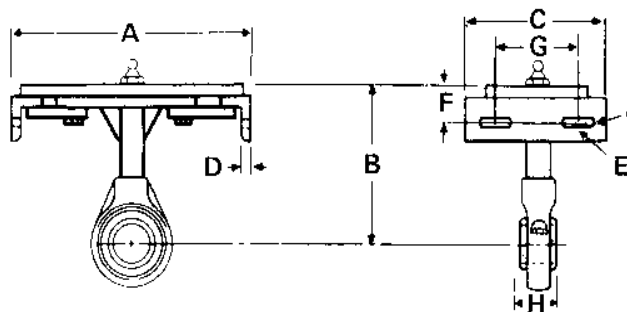
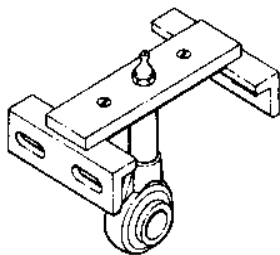
Screw Dia.	Shaft Dia.	Part Number	A	B	C	D	E	F	G Bolts	H	Wt.
6	1-1/2	HGR6660U112-BB	8-3/4	4-1/2	2	9-3/4	2-1/2	4	3/8	1/4	7
9	1-1/2 2	HGR9660U112-BB	12-1/4	6-1/8	2	13-1/2	2-1/2	4	3/8	1/4	8
		HGR9660U2-BB			2						9
10	1-1/2 2	HGR10660U112-BB	13-1/4	6-3/8	2	14-1/2	2-1/2	4	3/8	1/4	9
		HGR10660U2-BB			2						10
12	2	HGR12260U2-BB	15-3/4	7-3/4	2	17-1/2	2-1/2	4	1/2	1/2	12
	2-7/16	HGR12660U2716-BB			3						20
	3	HGR12660U3-BB			3						30
14	2-7/16 3	HGR14660U2716-BB	17-3/4	9-1/4	3	19-1/2	2-1/2	4	1/2	1/2	21
		HGR14660U3-BB			3						32
16	3	HGR16660U3-BB	19-3/4	10-5/8	3	21-1/2	2-1/2	4	1/2	1/2	35
18	3	HGR18660U3-BB	22-1/4	12-1/8	3	24-1/2	3-1/2	5	5/8	1/2	40
20	3	HGR20660U3-BB	24-1/2	13-1/2	3	26-1/2	3-1/2	5	5/8	1/2	45
24	3-7/16	HGR24660U3716-BB	28-1/4	16-1/2	4	30-1/2	3-1/2	5	5/8	1/2	69

670 HANGER U-TRGH



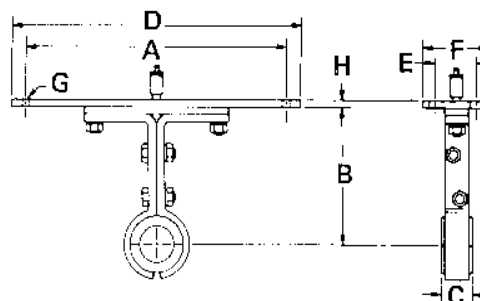
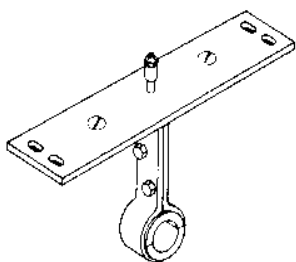
Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H	Wt.
6	1-1/2	HGR6670U112-BB	7	4-1/2	2	2-1/2	4	3/4	3/8	1/4	7
9	1-1/2 2	HGR9670U112-BB	10	6-1/8	2	2-1/2	4	1	3/8	1/4	8
		HGR9670U2-BB			2						9
10	1-1/2 2	HGR10670U112-BB	11	6-3/8	2	2-1/2	4	1	3/8	1/4	9
		HGR10670U2-BB			2						10
12	2	HGR12670U2-BB	13	7-3/4	2	2-1/2	4	1-1/4	1/2	3/8	12
	2-7/16	HGR12670U2716-BB			3						20
	3	HGR12670U3-BB			3						30
14	2-7/16 3	HGR14670U2716-BB	15	9-1/4	3	2-1/2	4	1-3/8	1/2	3/8	21
		HGR14670U3-BB			3						32
16	3	HGR16670U3-BB	17	10-5/8	3	2-1/2	4	1-3/8	1/2	3/8	35
18	3	HGR18670U3-BB	19	12-1/8	3	3-1/2	5	1-5/8	5/8	1/2	40
20	3	HGR20670U3-BB	21	13-1/2	3	3-1/2	5	1-5/8	5/8	1/2	45
24	3-7/16	HGR14670U2716-BB	25	16-1/2	4	3-1/2	5	1-3/4	5/8	1/2	70

370 HANGER U-TRGH



Conveyor Diameter	Shaft Dia.	Part Number *	A	B	C	D	E	F	G	H	J Slot
6	1-1/2	HGR6370U112-BB	7	4-1/2	6	1/8	3/8	3/4	1-1/2	2	7/16 x 7/8
9	1-1/2 2	HGR9370U112-BB	10	6-1/8	6	3/16	3/8	1	2-1/2	2	7/16 x 7/8
		HGR9370U2-BB								2	
10	1-1/2 2	HGR10370U112-BB	11	6-3/8	6	3/16	3/8	1	2-1/2	2	7/16 x 7/8
		HGR10370U2-BB								2	
12	2	HGR12370U2-BB	13	7-3/4	6-1/2	3/16	1/2	1-1/4	2-1/2	2	9/16 x 3/4
	2-7/16	HGR12370U2716-BB								3	
	3	HGR12370U3-BB								3	
14	2-7/16	HGR14370U2716-BB	15	9-1/4	6-1/2	1/4	1/2	1-3/8	2-1/2	3	9/16 x 3/4
	3	HGR14370U3-BB								3	
16	3	HGR16370U3-BB	17	10-5/8	6-1/2	1/4	1/2	1-3/8	2-1/2	3	9/16 x 3/4
18	3	HGR18370U3-BB	19	12-1/8	6-1/2	1/4	5/8	1-5/8	3-1/2	3	11/16 x 7/8
20	3	HGR20370U3-BB	21	13-1/2	6-1/2	1/4	5/8	1-5/8	3-1/2	3	11/16 x 7/8

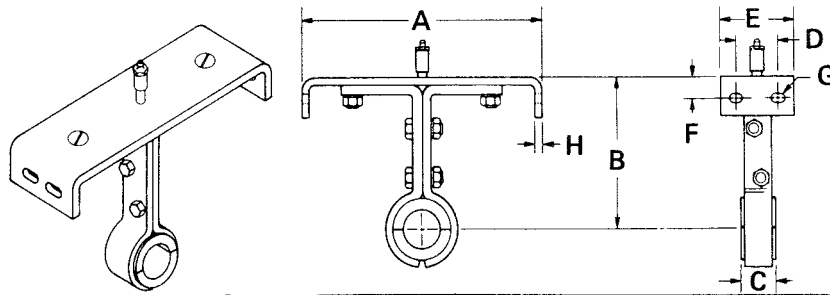
220 HANGER U-TRGH



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H	Wt.
4	1	HGR4220U1 *	6-1/4	3-5/8	1-1/2	7-1/4	2	4	1/4	1/4	5
6	1-1/2	HGR6220U112 *	8-3/4	4-1/2	2	9-3/4	2-1/2	4	3/8	1/4	7
9	1-1/2	HGR9220U112 *	12-1/4	6-1/8	2	13-1/2	2-1/2	4	3/8	1/4	9
	2	HGR9220U2 *			2						11
10	1-1/2	HGR10220U112 *	13-1/4	6-3/8	2	14-1/2	2-1/2	4	3/8	1/4	10
	2	HGR10220U2 *			2						12
12	2	HGR12220U2 *	15-3/4	7-3/4	2	17-1/2	2-1/2	5	1/2	3/8	16
	2-7/16	HGR12220U2716 *			3						21
	3	HGR12220U3 *			3						28
14	2-7/16	HGR14220U2716 *	17-3/4	9-1/4	*3	19-1/2	2-1/2	5	1/2	3/8	26
	3	HGR14220U3 *			3						33
16	3	HGR16220U3 *	19-3/4	10-5/8	3	21-1/2	2-1/2	5	1/2	3/8	39
18	3	HGR18220U3 *	22-1/4	12-1/8	3	24-1/2	3-1/2	5	5/8	1/2	41
	3-7/16	HGR18220U3716 *			4						49
20	3	HGR20220U3 *	24-1/2	13-1/2	3	26-1/2	3-1/2	5	5/8	1/2	43
	3-7/16	HGR20220U3716 *			4						51
24	3-7/16	HGR24220U3716 *	28-1/4	16-1/2	4	30-1/2	3-1/2	5	5/8	1/2	57

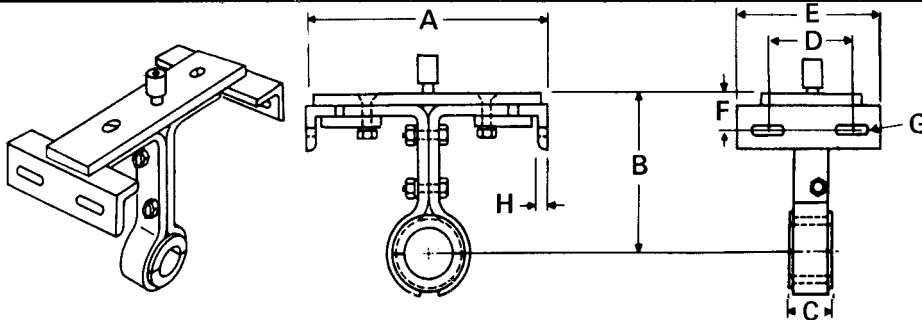
* See pages 69 and 70 for bearing selection.

**226 HANGER
U-TRGH**



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H	Wt.
4	1	HGR4226U1 *	5	3-5/8	1-1/2	2	4	5/8	1/4	1/4	4
6	1-1/2	HGR6226U112 *	7	4-1/2	2	2-1/2	4	3/4	3/8	1/4	6
9	2	HGR9226U112 *	10	6-1/8	2	2-1/2	4	1	3/8	1/4	8
		HGR9226U2 *			2						9
10	2	HGR10226U112 *	11	6-3/8	2	2-1/2	4	1	3/8	1/4	9
		HGR10226U2 *			2						11
12	2	HGR12226U2	13	7-3/4	2	2-1/2	5	1-1/4	1/2	3/8	13
	2-7/16	HGR12226U2716 *			3						18
	3	HGR12226U3 *			3						24
14	3	HGR14226U2716 *	15	9-1/4	3	2-1/2	5	1-3/8	1/2	3/8	22
		HGR14226U3 *			3						29
16	3	HGR16226U3 *	17	10-5/8	3	2-1/2	5	1-3/8	1/2	3/8	34
18	3	HGR18226U3 *	19	12-1/8	3	3-1/2	5	1-5/8	5/8	1/2	35
	3-7/16	HGR18226U3716 *			4						46
20	3	HGR20226U3 *	21	13-1/2	3	3-1/2	5	1-5/8	5/8	1/2	41
	3-7/16	HGR20226U3716 *			4						52
24	3-7/16	HGR24226U3716 *	25	16-1/2	4	3-1/2	5	1-3/4	5/8	1/2	63

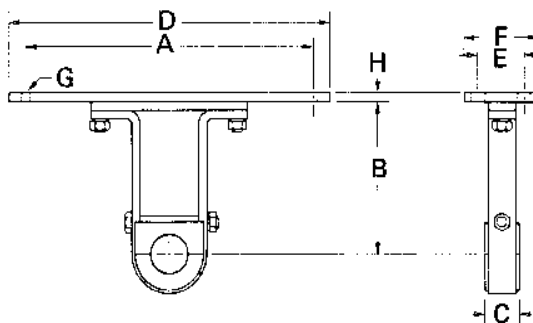
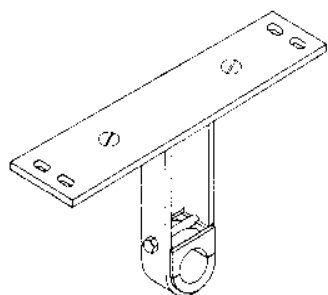
**326 HANGER
U-TRGH**



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H	Wt.
4	1	HGR4326U1 *	5	3-5/8	1-1/2	2	5	5/8	1/4	1/8	5
6	1-1/2	HGR6326U112 *	7	4-1/2	2	2-1/2	6	3/4	3/8	1/8	7
9	2	HGR9326U112 *	10	6-1/8	2	2-1/2	6	1	3/8	3/16	9
		HGR9326U2 *			2						10
10	2	HGR10326U112 *	11	6-3/8	2	2-1/2	6	1	3/8	3/16	10
		HGR10326U2 *			2						12
12	2	HGR12326U2 *	13	7-3/4	2	2-1/2	6-1/2	1-1/4	1/2	3/16	14
	2-7/16	HGR12326U2716 *			3						19
	3	HGR12326U3 *			3						25
14	3	HGR14326U2716 *	15	9-1/4	3	2-1/2	6-1/2	1-3/8	1/2	1/4	23
		HGR14326U3 *			3						31
16	3	HGR16326U3 *	17	10-5/8	3	2-1/2	6-1/2	1-3/8	1/2	1/4	36
18	3	HGR18326U3 *	19	12-1/8	3	3-1/2	6-1/2	1-5/8	5/8	1/4	36
	3-7/16	HGR18326U3716 *			4						48
20	3	HGR20326U3 *	21	13-1/2	3	3-1/2	6-1/2	1-5/8	5/8	1/4	38
	3-7/16	HGR20326U3716 *			4						51
24	3-7/16	HGR24326U3716 *	25	16-1/2	4	3-1/2	7	1-3/4	5/8	5/16	58

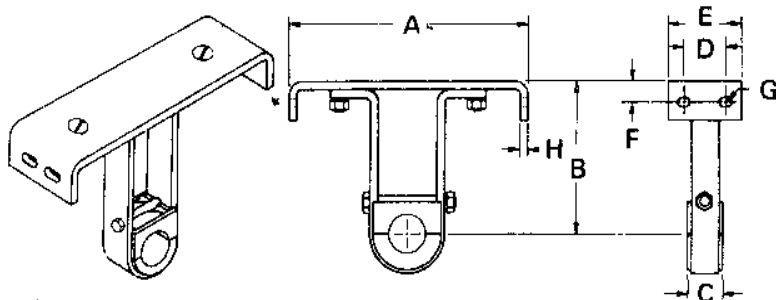
* See pages 69 and 70 for bearing selection.

**230 HANGER
U-TRGH**



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H	Wt.
6	1-1/2	HGR6230U112 *	8-3/4	4-1/2	2	9-3/4	2-1/2	4	3/8	1/4	7
9	1-1/2	HGR9230U112 *	12-1/4	6-1/8	2	13-1/2	2-1/2	4	3/8	1/4	9
	2	HGR9230U2 *			2						11
10	1-1/2	HGR10230U112 *	13-1/4	6-3/8	2	14-1/2	2-1/2	4	3/8	1/4	10
	2	HGR10230U2 *			2						12
12	2	HGR12230U2 *	15-3/4	7-3/4	2	17-1/2	2-1/2	5	1/2	3/8	16
	2-7/16	HGR12230U2716 *			3						21
	3	HGR12230U3 *			3						28
14	2-7/16	HGR14230U2716 *	17-3/4	9-1/4	3	19-1/2	2-1/2	5	1/2	3/8	26
	3	HGR14230U3 *			3						33
16	3	HGR16230U3 *	19-3/4	10-5/8	3	21-1/2	2-1/2	5	1/2	3/8	39
18	3	HGR18230U3 *	22-1/4	12-1/8	3	24-1/2	3-1/2	5	5/8	1/2	41
	3-7/16	HGR18230U3716 *			4						49
20	3	HGR20230U3 *	24-1/2	13-1/2	3	26-1/2	3-1/2	5	5/8	1/2	43
	3-7/16	HGR20230U3716 *			4						51
24	3-7/16	HGR24230U3716 *	28-1/4	16-1/2	4	30-1/2	3-1/2	5	5/8	1/2	57

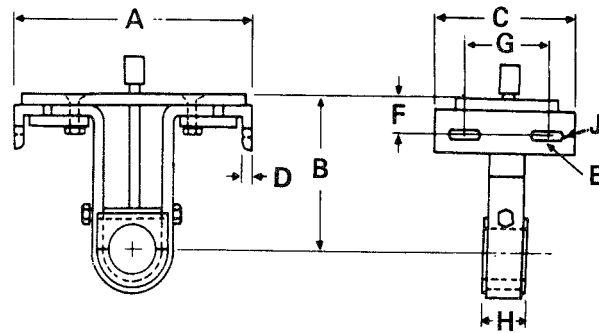
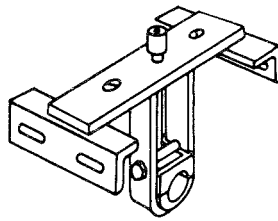
**216 HANGER
U-TRGH**



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H	Wt.
6	1-1/2	HGR6216U112 *	7	4-1/2	2	2-1/2	4	3/4	3/8	1/4	5
9	1-1/2	HGR9216U112 *	10	6-1/8	2	2-1/2	4	1	3/8	1/4	7
	2	HGR9216U2 *			2						9
10	1-1/2	HGR10216U112 *	11	6-3/8	2	2-1/2	4	1	3/8	1/4	8
	2	HGR10216U2 *			2						10
12	2	HGR12216U2 *	13	7-3/4	2	2-1/2	5	1-1/4	1/2	3/8	14
	2-7/16	HGR12216U2716 *			3						18
	3	HGR12216U3 *			3						21
14	2-7/16	HGR14216U2716 *	15	9-1/4	3	2-1/2	5	1-3/8	1/2	3/8	23
	3	HGR14216U3 *			3						25
16	3	HGR16216U3 *	17	10-5/8	3	2-1/2	5	1-3/8	1/2	3/8	28
18	3	HGR18216U3 *	19	12-1/8	3	3-1/2	5	1-5/8	5/8	1/2	34
	3-7/16	HGR18216U3716 *			4						44
20	3	HGR20216U3 *	21	13-1/2	3	3-1/2	5	1-5/8	5/8	1/2	36
	3-7/16	HGR20216U3716 *			4						47
24	3-7/16	HGR24216U3716 *	25	16-1/2	4	3-1/2	5	1-3/4	5/8	1/2	53

* See pages 69 and 70 for bearing selection.

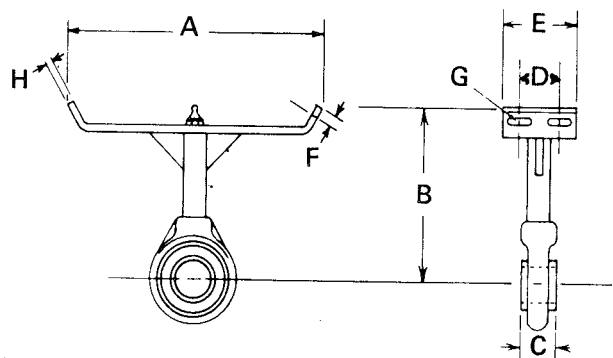
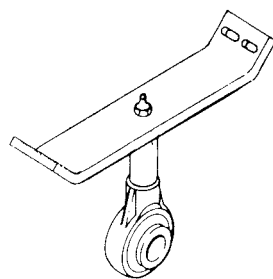
316 HANGER U-TRGH



Conveyor Diameter	Shaft Dia.	Part Number *	A	B	C	D	E	F	G	H	J Slot
6	1-1/2	HGR6316U112 *	7	4-1/2	6	1/8	3/8	3/4	2-1/2	2	7/16 x 7/8
9	1-1/2	HGR9316U112 *	10	6-1/8	6	3/16	3/8	1	2-1/2	2	7/16 x 7/8
	2	HGR9316U2 *									
10	1-1/2	HGR10316U112 *	11	6-3/8	6	3/16	3/8	1	2-1/2	2	7/16 x 7/8
	2	HGR10316U2 *									
12	2	HGR12316U2 *	13	7-3/4	6-1/2	3/16	1/2	1-1/4	2-1/2	2	9/16 x 3/4
	2-7/16	HGR12316U2716 *								3	
	3	HGR12316U3 *								3	
14	2-7/16	HGR14316U2716 *	15	9-1/4	6-1/2	1/4	1/2	1-3/8	2-1/2	3	9/16 x 3/4
	3	HGR14316U3 *								3	
16	3	HGR16316U3 *	17	10-5/8	6-1/2	1/4	1/2	1-3/8	2-1/2	3	9/16 x 3/4
18	3	HGR18316U3 *	19	12-1/8	6-1/2	1/4	5/8	1-5/8	3-1/2	3	11/16 x 7/8
	3-7/16	HGR18316U3716 *			7					4	
20	3	HGR20316U3 *	21	13-1/2	6-1/2	1/4	5/8	1-5/8	3-1/2	3	11/16 x 7/8
	3-7/16	HGR20316U3716 *			7					4	
24	3-7/16	HGR24316U3716 *	25	16-1/2	7	5/16	5/8	1-3/4	3-1/2	4	11/16 x 7/8

670 HANGER FLARED TRGH

14" DIA. AND ABOVE
TO HAVE TOP BAR
CONSTRUCTED
FROM CHANNEL

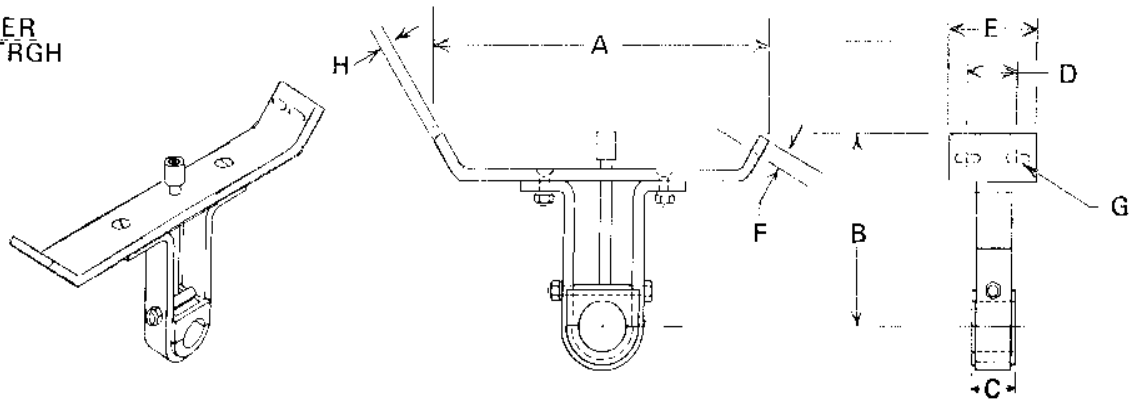


Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H
6	1-1/2	HGR6670F112-BB	14	7	2	2-1/2	4	3/4	3/8	1/4
9	1-1/2	HGR9670F112-BB	18	9	2	2-1/2	4	1"	3/8	1/4
	2	HGR9670F2-BB			2					
12	2	HGR12670F2-BB	22	10	2	2-1/2	5	1-1/4	1/2	3/8
	2-7/16	HGR12670F2716-BB			3					
	3	HGR12670F3-BB			3					
14	2-7/16	HGR14670F2716-BB	24	11	3	2-1/2	5	1-3/8	1/2	1/4
	3	HGR14670F3-BB			3					
16	3	HGR16670F3-BB	28	11-1/2	3	2-1/2	5	1-3/8	1/2	1/4
18	3	HGR18670F3-BB	31	12-1/8	3	3-1/2	6	1-5/8	5/8	3/8
20	3	HGR20670F3-BB	34	13-1/2	3	3-1/2	6	1-5/8	5/8	3/8
24	3-7/16	HGR12670F3716-BB	40	16-1/2	4	3-1/2	6	1-3/4	5/8	3/8

* See pages 68 and 69 for bearing selection.

14" DIA. AND ABOVE TO HAVE TOP BAR CONSTRUCTED FROM CHANNEL

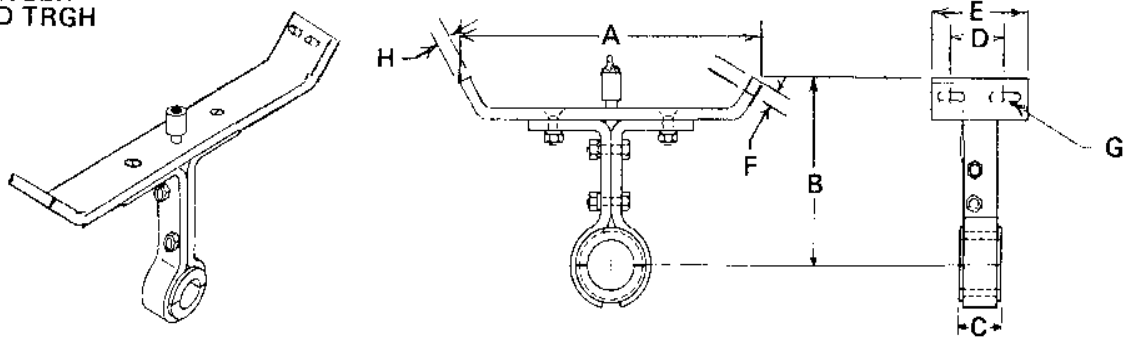
216 HANGER
FLARED TRGH



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H
6	1-1/2	HGR6216F112 *	14	7	2	2-1/2	4	3/4	3/8	1/4
9	1-1/2	HGR9216F112 *	18	9	2	2-1/2	4	1	3/8	1/4
	2	HGR9216F2 *			2					
12	2	HGR12216F2 *	22	10	2	2-1/2	5	1-1/4	1/2	3/8
	2-7/16	HGR12216F2716 *			3					
	3	HGR12216F3 *			3					
14	2-7/16	HGR14216F2716 *	24	11	3	2-1/2	5	1-3/8	1/2	1/4
	3	HGR14216F3 *			3					
16	3	HGR16216F3 *	28	11-1/2	3	2-1/2	5	1-3/8	1/2	1/4
18	3	HGR18216F3 *	31	12-1/8	3	3-1/2	6	1-5/8	5/8	3/8
	3-7/16	HGR18216F3716 *			4					
20	3	HGR20216F3 *	34	13-1/2	3	3-1/2	6	1-5/8	5/8	3/8
	3-7/16	HGR20216F3716 *			4					
24	3-7/16	HGR24216F3716 *	40	16-1/2	4	3-1/2	6	1-5/8	5/8	3/8

226 HANGER
FLARED TRGH

14" DIA. AND ABOVE TO HAVE TOP BAR
CONSTRUCTED FROM CHANNEL



Screw Dia.	Shaft Dia.	Part Number *	A	B	C	D	E	F	G Bolts	H
6	1-1/2	HGR6226F112 *	14	7	2	2-1/2	4	3/4	3/8	1/4
9	1-1/2	HGR9226F112 *	18	9	2	2-1/2	4	1	3/8	1/4
	2	HGR9226F2 *			2					
12	2	HGR12226F2 *	22	10	2	2-1/2	5	1-1/4	1/2	3/8
	2-7/16	HGR12226F2716 *			3					
	3	HGR12226F3 *			3					
14	2-7/16	HGR14226F2716 *	24	11	3	2-1/2	5	1-3/8	1/2	1/4
	3	HGR14226F3 *			3					
16	3	HGR16226F3 *	28	11-1/2	3	2-1/2	5	1-3/8	1/2	1/4
18	3	HGR18226F3 *	31	12-1/8	3	3-1/2	6	1-5/8	5/8	3/8
	3-7/16	HGR18226F3716 *			4					
20	3	HGR20226F3 *	34	13-1/2	3	3-1/2	6	1-5/8	5/8	3/8
	3-7/16	HGR20226F3716 *			4					
24	3-7/16	HGR24226F3716 *	40	16-1/2	4	3-1/2	6	1-5/8	5/8	3/8

* See pages 68 and 69 for bearing selection

TROUGH ENDS

All KWS trough ends are manufactured to very close tolerances from quality heavy gauge steel. All assembly and mounting holes are jig drilled to insure correct alignment with housing end flanges. Housings are also available in stainless steel.

Ball bearings are standard with trough ends, however, ends may also be ordered with roller or babbit bearings or without any bearings.

Standard trough ends are furnished in six basic types, most of which are available for U or flared trough and tubular or rectangular housings.

TROUGH ENDS WITHOUT FEET

Support is provided by separate flange foot or saddle.

TROUGH ENDS WITH FEET

End manufactured with an integral bottom flanged foot.

OUTBOARD BEARING ENDS

Components for bearing and seal or double bearing arrangements. An integral pedestal supports the pillow block bearing.

FLUSH DISCHARGE ENDS

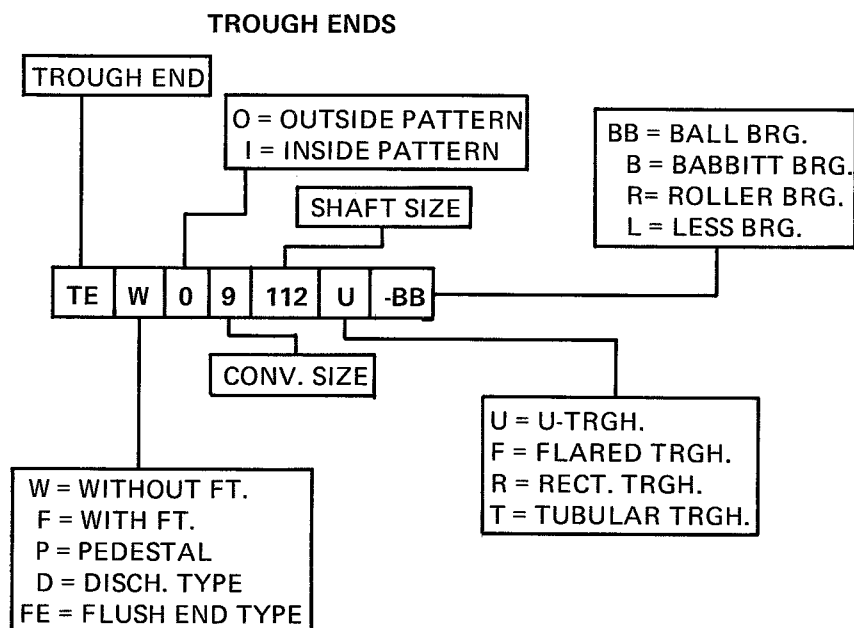
Primarily for use with flush end discharges, the bottom of ends are jig drilled for standard discharge flange pattern.

DISCHARGE ENDS

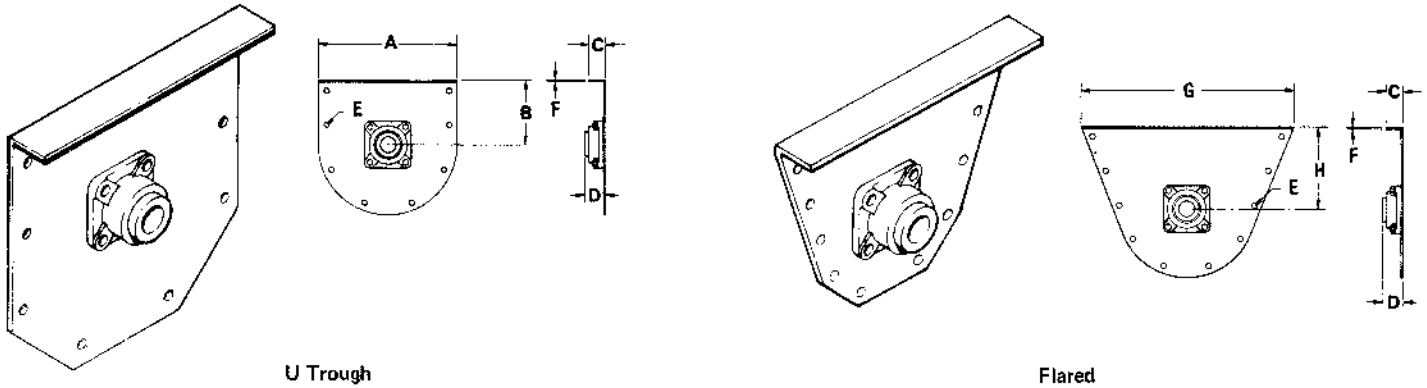
Designed to allow discharge directly from trough end.

INSIDE TROUGH END

Manufactured for inside assembly, this end supplies support, and the standard trough flanges must be omitted.



U TROUGH AND FLARED TROUGH ENDS WITHOUT FEET



Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		U-Trough	Flared	U-Trough	Flared
4	1	TEWO41U	X	5	X
6	1-1/2	TEWO6112U	TEWO6112F	10	13
9	1-1/2 2	TEWO9112U TEWO92U	TEWO9112F TEWO92F	15 18	19 24
10	1-1/2 2	TEWO10112U TEWO102U	X X	22 26	X X
12	2 2-7/16 3	TEWO122U TEWO122716U TEWO123U	TEWO122F TEWO122716F TEWO123F	29 31 43	36 37 49
14	2-7/16 3	TEWO142716U TEWO143U	TEWO142716F TEWO143F	36 48	43 55
16	3	TEWO163U	TEWO163F	62	72
18	3 3-7/16	TEWO183U TEWO183716U	TEWO183F TEWO183716F	74 84	83 89
20	3 3-7/16	TEWO203U TEWO203716U	TEWO203F TEWO203716F	96 102	103 109
24	3-7/16	TEWO243716U	TEWO243716F	128	132

Screw Dia.	Shaft Dia.	A	B	C	D†			E Bolts	F	G	H
					Ball	Roller†	Friction*				
4	1	7-3/4	3-5/8	1-7/16	1-5/8	x	2-3/16	3/8	3/16	x	x
6	1-1/2	9-3/4	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	3/8	3/16	16-5/8	7
9	1-1/2 2	13-3/4	6-1/8	1-5/8	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4	21-1/4	9
10	1-1/2 2	14-3/4	6-3/8	1-3/4	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4	x	x
12	2 2-7/16 3	17-1/4	7-3/4	2	2-5/8 3 3-3/4	3-7/8 4-1/2 5	4-1/4 5-1/4 6-1/4	1/2	1/4	26-3/8	10
14	2-7/16 3	19-1/4	9-1/4	2	3 3-3/4	4-1/2 5	5-5/16 6-5/16	1/2	5/16	28-3/8	11
16	3	21-1/4	10-5/8	2-1/2	3-7/8	5	6-5/16	5/8	5/16	32-1/2	11-1/2
18	3 3-7/16	24-1/4	12-1/8	2-1/2	3-7/8 4-3/8	5 5-5/8	6-3/8 7-3/8	5/8	3/8	36-1/2	12-1/8
20	3 3-7/16	26-1/4	13-1/2	2-1/2	3-7/8 4-3/8	5-1/8 5-5/8	6-3/8 7-3/8	5/8	3/8	39-1/2	13 1/2
24	3-7/16	30-1/4	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	5/8	3/8	45-1/2	16-1/2

NOTE: † Add seal thickness if PS or WPS seal is used.
* Specify babbitt or bronze.

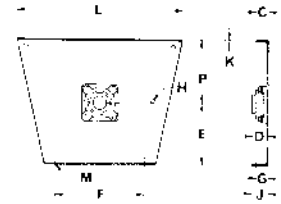
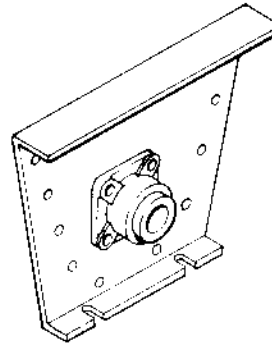
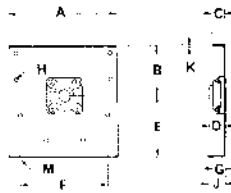
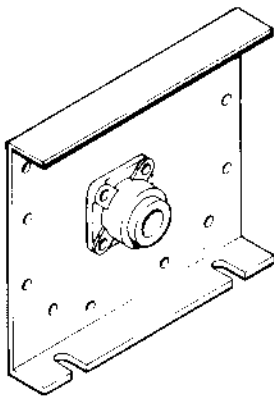
The image contains two sets of technical drawings for mounting brackets. The left set, labeled 'Tubular', shows a perspective view of a circular plate with a central tubular fitting and a side view with dimensions: A (plate diameter), A/2 (radius), E (flange thickness), F (flange height), and D (flange width). The right set, labeled 'Rectangular', shows a perspective view of a rectangular plate with a central rectangular fitting and a side view with dimensions: A (plate width), B (plate height), E (flange thickness), F (flange height), C (flange width), and D (flange depth).

Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		Tubular	Rectangular	Tubular	Rectangular
4	1	TEWO41T	X	4	X
6	1-1/2	TEWO6112T	TEWO6112R	9	11
9	1-1/2 2	TEWO9112T	TEWO9112R	12	16
		TEWO92T	TEWO92R	15	21
10	1-1/2 2	TEWO10112T	X	20	X
		TEWO102T		24	X
12	2	TEWO122T	TEWO122R	29	32
	2-7/16	TEWO122716T	TEWO122716R	24	33
	3	TEWO123T	TEWO123R	36	51
14	2-7/16 3	TEWO142716T	TEWO142716R	30	39
		TEWO143T	TEWO143R	42	57
16	3	TEWO163T	TEWO163R	52	72
18	3	TEWO183T	TEWO183R	63	79
	3-7/16	TEWO183716T	TEWO183716R	74	86
20	3	TEWO203T	TEWO203R	85	104
	3-7/16	TEWO203716T	TEWO203716R	97	110
24	3-7/16	TEWO243716T	TEWO243716R	116	138

Screw Dia.	Shaft Dia.	A	B	C	D†			E Bolts	F
					Ball	Roller	Friction*		
4	1	7-3/4	3-5/8	1-7/16	1-5/8	X	2-3/16	3/8	3/16
6	1-1/2	9-3/4	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	3/8	3/16
9	2-2/2 2	13-3/4	6-1/8	1-5/8	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4
10	1-1/2 2	14-3/4	6-3/8	1-3/4	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4
12	2 2-7/16 3	17-1/4	7-3/4	2	2-5/8 3 3-3/4	3-7/8 4-1/2 5	4-1/4 5-1/4 6-1/4	1/2	1/4
14	2-7/16 3	19-1/4	9-1/4	2	3 3-3/4	4-1/2 5	5-5/16 6-5/16	1/2	5/16
16	3	21-1/4	10-5/8	2-1/2	3-7/8	5	6-5/16	5/8	5/16
18	3 3-7/16	24-1/4	12-1/8	2-1/2	3-7/8 4-3/8	5 5-5/8	6-3/8 7-3/8	5/8	3/8
20	3 3-7/16	26-1/4	13-1/2	2-1/2	3-7/8 4-3/8	5-1/8 5-5/8	6-3/8 7-3/8	5/8	3/8
24	3-7/16	30-1/4	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	5/8	3/8

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U TROUGH AND FLARED TROUGH ENDS WITH FEET



U-Trough

Flared

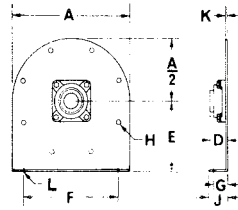
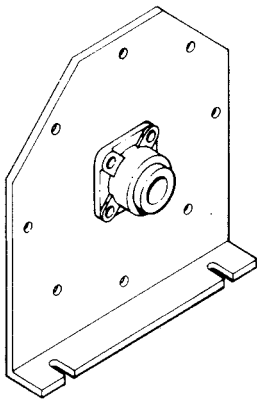
Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		U-Trough	Flared	U-Trough	Flared
4	1	TEF041U	X	7	X
6	1-1/2	TEF06112U	TEF06112F	12	15
9	1-1/2 2	TEF09112U TEF092U	TEF09112F TEF092F	18 21	22 27
10	1-1/2 2	TEF010112U TEF0102U	X	27 31	X X
12	2 2-7/16 3	TEF0122U TEF0122716U TEF0123U	TEF0122F TEF0122716F TEF0123F	36 38 50	43 44 56
14	2-7/16 3	TEF0142716U TEF0143U	TEF0142716F TEF0143F	45 57	52 64
16	3	TEF0163U	TEF0163F	75	85
18	3 3-7/16	TEF0183U TEF0183716U	TEF0183F TEF0183716F	89 99	98 104
20	3 3-7/16	TEF0203U TEF0203716U	TEF0203F TEF0203716F	126 132	133 139
24	3-7/16	TEF0243716U	TEF0243716F	169	173

Screw Dia.	Shaft Dia.	A	B	C	D†			E	F	G	H Bolts	J	K	L	M Bolts	P
					Ball	Roller	Friction*									
4	1	7-3/4	3-5/8	1-7/16	1-5/8	x	2-3/16	4-5/8	5-3/4	1	3/8	1-5/8	3/16	x	3/8	x
6	1-1/2	9-3/4	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	5-5/8	8-1/8	1	3/8	1-3/4	3/16	16-5/8	3/8	7
9	1-1/2 2	13-3/4	6-1/8	1-5/8	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	7-7/8	9-3/8	1-1/2	3/8	2-5/8	1/4	21-1/4	1/2	9
10	1-1/2 2	14-3/4	6-3/8	1-3/4	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	8-7/8	9-1/2	1-3/4	3/8	2-7/8	1/4	x	1/2	x
12	2 2-7/16 3	17-1/4	7-3/4	2	2-5/8 3 3-3/4	3-7/8 4-1/2 5	4-1/4 5-1/4 6-1/4	9-5/8	12-1/4	1-5/8	1/2	2-3/4	1/4	26-3/8	5/8	10
14	2-7/16 3	19-1/4	9-1/4	2	3 3-3/4	4-1/2 5	5-5/16 6-5/16	10-7/8	13-1/2	1-5/8	1/2	2-7/8	5/16	28-3/8	5/8	11
16	3	21-1/4	10-5/8	2-1/2	3-7/8	5	6-5/16	12	14-7/8	2	5/8	3-1/4	5/16	32-1/2	5/8	11-1/2
18	3 3-7/16	24-1/4	12-1/8	2-1/2	3-7/8 4-3/8	5 5-5/8	6-3/8 7-3/8	13-3/8	16	2	5/8	3-1/4	3/8	36-1/2	5/8	12-1/8
20	3 3-7/16	26-1/4	13-1/2	2-1/2	3-7/8 4-3/8	5-1/8 5-5/8	6-3/8 7-3/8	15	19-1/4	2-1/4	5/8	3-3/4	3/8	39-1/2	3/4	13-1/2
24	3-7/16	30-1/4	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	18-1/8	20	2-1/2	5/8	4-1/8	3/8	45-1/2	3/4	16-1/2

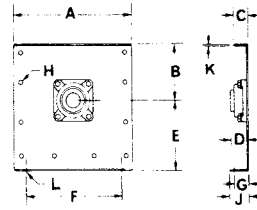
NOTE: † Add seal thickness if PS or WPS seal is used.

* Specify babbitt or bronze.

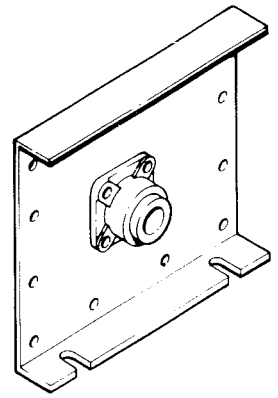
TUBULAR AND RECTANGULAR TROUGHS ENDS WITH FEET



Tubular



Rectangular

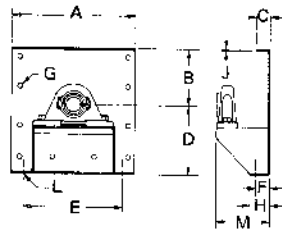
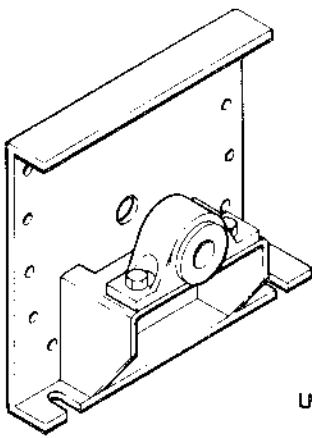


Screw Dia.	Shaft Dia.	Part Number		Weights	
		Tubular	Rectangular	Tubular	Rectangular
4	1	TEFO41T	X	6	X
6	1-1/2	TEFO6112T	TEFO6112R	11	13
9	1-1/2 2	TEFO9112T	TEFO9112R	15	19
		TEFO92T	TEFO92R	18	24
10	1-1/2 2	TEFO10112T	X	25	X
		TEFO102T		29	X
12	2	TEFO122T	TEFO122R	29	39
	2-7/16	TEFO122716T	TEFO122716R	31	40
	3	TEFO123T	TEFO123R	43	58
14	2-7/16	TEFO142716T	TEFO142716R	39	48
	3	TEFO143T	TEFO143R	51	66
16	3	TEFO163T	TEFO163R	65	85
18	3	TEFO183T	TEFO183R	78	94
	3-7/16	TEFO183716T	TEFO183716R	89	101
20	3	TEFO203T	TEFO203R	115	134
	3-7/16	TEFO203716T	TEFO203716R	127	140
24	3-7/16	TEFO243716T	TEFO243716R	157	179

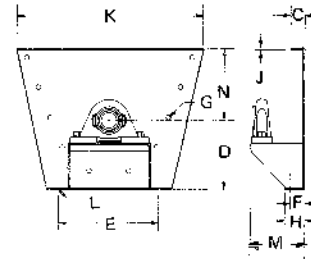
Screw Dia.	Shaft Dia.	A	B	C	D†			E	F	G	H Bolts	J	K	L Bolts
					Ball	Roller	Friction*							
4	1	7-3/4	3-5/8	1-7/16	1-5/8	X	2-3/16	4-5/8	5-3/4	1	3/8	1-5/8	3/16	3/8
6	1-1/2	9-3/4	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	5-5/8	8-1/8	1	3/8	1-3/4	3/16	3/8
9	1-1/2 2	13-3/4	6-1/8	1-5/8	2-1/4	3-3/4	3-1/4	7-7/8	9-3/8	1-1/2	3/8	2-5/8	1/4	1/2
					2-1/2	3-7/8	4-1/4							
10	1-1/2 2	14-3/4	6-3/8	1-3/4	2-1/4	3-3/4	3-1/4	8-7/8	9-1/2	1-3/4	3/8	2-7/8	1/4	1/2
					2-1/2	3-7/8	4-1/4							
12	2	17-1/4	7-3/4	2	2-5/8	3-7/8	4-1/4	9-5/8	12-1/4	1-5/8	1/2	2-3/4	1/4	5/8
	2-7/16				3	4-1/2	5-1/4							
	3				3-3/4	5	6-1/4							
14	2-7/16	19-1/4	9-1/4	2	3	4-1/2	5-5/16	10-7/8	13-1/2	1-5/8	1/2	2-7/8	5/16	5/8
	3				3-3/4	5	6-5/16							
16	3	21-1/4	10-5/8	2-1/2	3-7/8	5	6-5/16	12	14-7/8	2	5/8	3-1/4	5/16	5/8
18	3	24-1/4	12-1/8	2-1/2	3-7/8	5	6-3/8	13-3/8	16	2	5/8	3-1/4	3/8	5/8
	3-7/16				4-3/8	5-5/8	7-3/8							
20	3	26-1/4	13-1/2	2-1/2	3-7/8	5-1/8	6-3/8	15	19-1/4	2-1/4	5/8	3-3/4	3/8	3/4
	3-7/16				4-3/8	5-5/8	7-3/8							
24	3-7/16	30-1/4	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	18-1/8	20	2-1/2	5/8	4-1/8	3/8	3/4

NOTE: † Add seal thickness if PS or WPS seal is used
* Specify babbit or bronze

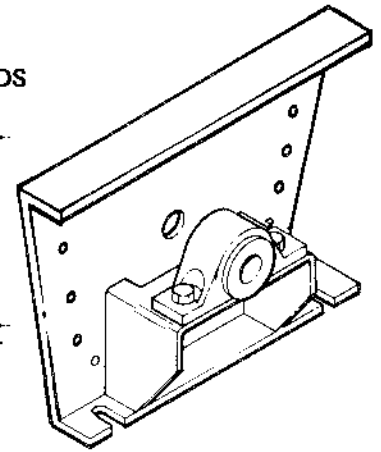
U TROUGH AND FLARED OUTBOARD PEDESTAL TROUGH ENDS



U TROUGH



FLARED

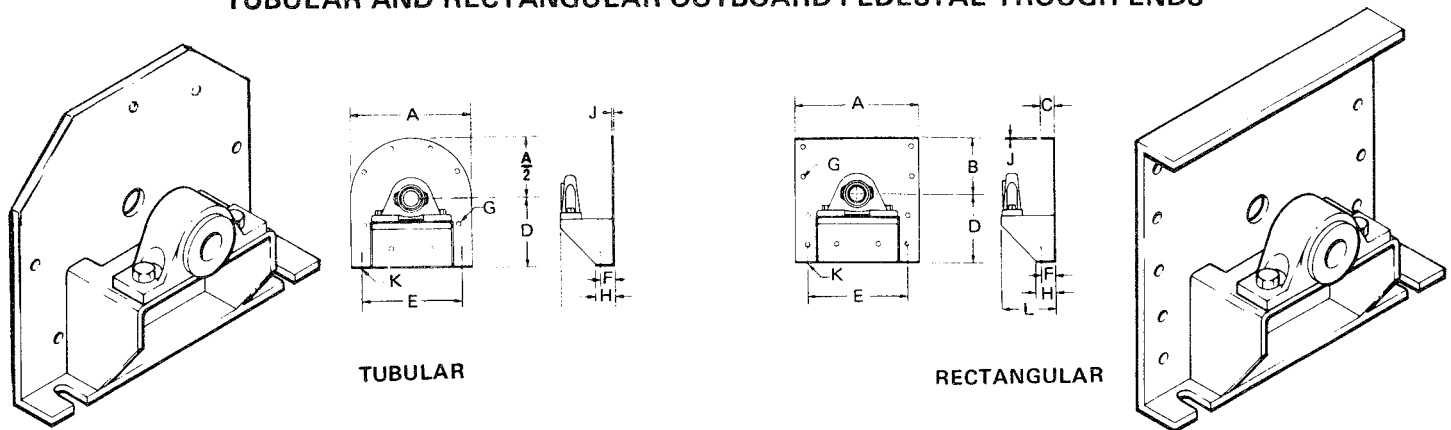


Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		U-Trough	Flared	U-Trough	Flared
4	1	TEPO41U	X	14	X
6	1-1/2	TEPO6112U	TEPO6112F	19	22
9	1-1/2	TEPO9112U	TEPO9112F	27	31
	2	TEPO92U	TEPO92F	30	36
10	1-1/2	TEPO10112U	X	37	X
	2	TEPO102U		41	X
12	2	TEPO122U	TEPO122F	56	63
	2-7/16	TEPO122716U	TEPO122716F	58	64
	3	TEPO123U	TEPO123F	70	76
14	2-7/16	TEPO142716U	TEPO142716F	68	75
	3	TEPO143U	TEPO143F	80	87
16	3	TEPO163U	TEPO163F	115	125
18	3	TEPO183U	TEPO183F	129	138
	3-7/16	TEPO183716U	TEPO183716F	139	144
20	3	TEPO203U	TEPO203F	189	196
	3-7/16	TEPO203716U	TEPO203716F	195	202
24	3-7/16	TEPO243716U	TEPO243716F	246	250

Screw Dia.	Shaft Dia.	A	B	C	D	E	F	G Bolts	H	J	K	L Bolts	M *	N
4	1	7-3/4	3-5/8	1-7/16	4-5/8	5-3/4	1	3/8	1-5/8	3/16	X	3/8	5	X
6	1-1/2	9-3/4	4-1/2	1-1/2	5-5/8	8-1/8	1	3/8	1-3/4	3/16	16-5/8	3/8	5-3/4	7
9	1-1/2	13-3/4	6-1/8	1-5/8	7-7/8	9-3/8	1-1/2	3/8	2-5/8	1/4	21-1/4	1/2	5-3/4	9
	2												6-1/4	
10	1-1/2	14-3/4	6-3/8	1-3/4	8-7/8	9-1/2	1-3/4	3/8	2-7/8	1/4	X	1/2	5-3/4	X
	2												6-1/4	
12	2	17-1/4	7-3/4	2	9-5/8	12-1/4	1-5/8	1/2	2-3/4	1/4	26-3/8	5/8	6-1/4	10
	2-7/16												8	
14	3	19-1/4	9-1/4	2	10-7/8	13-1/2	1-5/8	1/2	2-7/8	5/16	28-3/8	5/8	7-3/4	11
	2-7/16												8	
16	3	21-1/4	10-5/8	2-1/2	12	14-7/8	2	5/8	3-1/4	5/16	32-1/2	5/8	7-3/4	11-1/2
18	3	24-1/4	12-1/8	2-1/2	13-3/8	16	2	5/8	3-1/4	3/8	36-1/2	5/8	7-3/4	12-1/8
	3-7/16												9-1/2	
20	3	26-1/4	13-1/2	2-1/2	15	19-1/4	2-1/4	5/8	3-3/4	3/8	39-1/2	3/4	7-3/4	13-1/2
	3-7/16												9-1/2	
24	3-7/16	30-1/4	16-1/2	2-1/2	18-1/8	20	2-1/2	5/8	4-1/8	3/8	45-1/2	3/4	9-1/2	16-1/2

* Add 5" when using flanged gland seal

TUBULAR AND RECTANGULAR OUTBOARD PEDESTAL TROUGH ENDS



TUBULAR

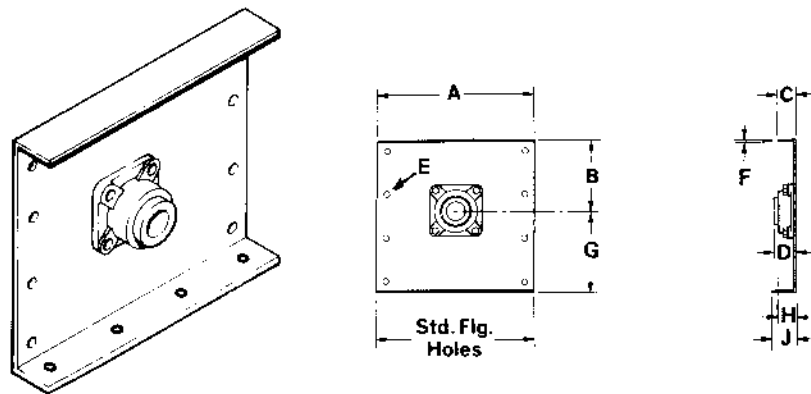
RECTANGULAR

Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		Tubular	Rectangular	Tubular	Rectangular
4	1	TEPO41T	X	13	X
6	1-1/2	TEPO6112T	TEPO6112R	18	20
9	1-1/2	TEPO9112T	TEPO9112R	24	28
	2	TEPO92T	TEPO92R	27	33
10	1-1/2	TEPO10112T	X	35	X
	2	TEPO102T		39	X
12	2	TEPO122T	TEPO122R	49	59
	2-7/16	TEPO122716T	TEPO122716R	51	60
	3	TEPO123T	TEPO123R	63	78
14	2-7/16	TEPO142716T	TEPO142716R	62	71
	3	TEPO143T	TEPO143R	74	89
16	3	TEPO163T	TEPO163R	105	125
18	3	TEPO183T	TEPO183R	118	134
	3-7/16	TEPO183716T	TEPO183716R	149	141
20	3	TEPO203T	TEPO203R	178	197
	3-7/16	TEPO203716T	TEPO203716R	190	203
24	3-7/16	TEPO243716T	TEPO243716R	234	256

Screw Dia.	Shaft Dia.	A	B	C	D	E	F	G Bolts	H	J	K Bolts	L *
4	1	7-3/4	X	X	4-5/8	5-3/4	1	3/8	1-5/8	3/16	3/8	5
6	1-1/2	9-3/4	4-1/2	1-1/2	5-5/8	8-1/8	1	3/8	1-3/4	3/16	3/8	5-3/4
9	1-1/2	13-3/4	6-1/8	1-5/8	7-7/8	9-3/8	1-1/2	3/8	2-5/8	1/4	1/2	5-3/4
	2											6-1/4
10	1-1/2	14-3/4	6-3/8	1-3/4	8-7/8	9-1/2	1-3/4	3/8	2-7/8	1/4	1/2	5-3/4
	2											6-1/4
12	2	17-1/4	7-3/4	2	9-5/8	12-1/4	1-5/8	1/2	2-3/4	1/4	5/8	6-1/4
	2-7/16											8
	3											7-3/4
14	2-7/16	19-1/4	9-1/4	2	10-7/8	13-1/2	1-5/8	1/2	2-7/8	5/16	5/8	8
	3											7-3/4
16	3	21-1/4	10-5/8	2-1/2	12	14-7/8	2	5/8	3-1/4	5/16	5/8	7-3/4
18	3	24-1/4	12-1/8	2-1/2	13-3/8	16	2	5/8	3-1/4	3/8	5/8	7-3/4
	3-7/16											9-1/2
20	3	26-1/4	13-1/2	2-1/2	15	19-1/4	2-1/4	5/8	3-3/4	3/8	3/4	7-3/4
	3-7/16											9-1/2
24	3-7/16	30-1/4	16-1/2	2-1/2	18-1/8	20	2-1/2	5/8	4-1/8	3/8	3/4	9-1/2

*Add 5" when using flanged gland seal

U TROUGH AND RECTANGULAR FLUSH END DISCHARGE TROUGH ENDS



U-TROUGH OR RECTANGULAR

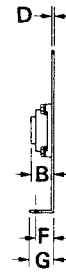
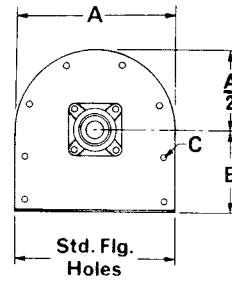
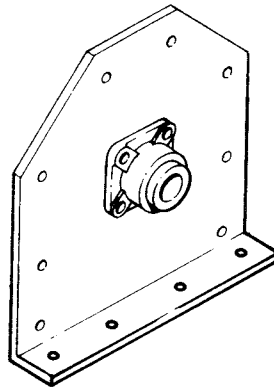
Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		U-Trough	Rectangular	U-Trough	Rectangular
4	1	TEFE041U	X	7	X
6	1-1/2	TEFE06112U	TEFE06112R	12	13
9	1-1/2	TEFE09112U	TEFE09112R	18	19
	2	TEFE092U	TEFE092R	21	24
10	1-1/2	TEFE010112U	X	27	X
	2	TEFE0102U		31	X
12	2	TEFE0122U	TEFE0122R	36	39
	2-7/16	TEFE0122716U	TEFE0122716R	38	40
	3	TEFE0123U	TEFE0123R	50	58
14	2-7/16	TEFE0142716U	TEFE0142716R	45	48
	3	TEFE0143U	TEFE0143R	57	66
16	3	TEFE0163U	TEFE0163R	75	85
18	3	TEFE0183U	TEFE0183R	89	94
	3-7/16	TEFE0183716U	TEFE0183716R	99	101
20	3	TEFE0203U	TEFE0203R	126	134
	3-7/16	TEFE0203716U	TEFE0203716R	132	140
24	3-7/16	TEFE0243716U	TEFE0243716R	169	179

Screw Dia.	Shaft Dia.	A	B	C	D †			E Bolts	F	G	H	J
					Ball	Roller	Friction*					
4	1	7-3/4	3-5/8	1-7/16	1-5/8	x	2-3/16	3/8	3/16	3-3/4	7/8	1-1/4
6	1-1/2	10	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	3/8	3/16	5	13/16	1-1/2
9	1-1/2	13-1/4	6-1/8	1-5/8	2-1/4	3-3/4	3-1/4	3/8	1/4	7-1/8	1	1-5/8
	2				2-1/2	3-7/8	4-1/4					
10	1-1/2	14-1/4	6-3/8	1-3/4	2-1/4	3-3/4	3-1/4	3/8	1/4	7-7/8	1	1-5/8
	2				2-1/2	3-7/8	4-1/4					
12	2	17-1/4	7-3/4	2	2-5/8	3-7/8	4-1/4	1/2	1/4	8-7/8	1-1/4	2-1/8
	2-7/16				3	4-1/2	5-1/4					
	3				3-3/4	5	6-1/4					
14	2-7/16	19-1/4	9-1/4	2	3	4-1/2	5-5/16	1/2	5/16	10-1/8	1 1/4	2-1/8
	3				3-3/4	5	6-5/16					
16	3	21-1/4	10-5/8	2-1/2	3-7/8	5	6-5/16	5/8	5/16	11-1/8	1-1/4	2-1/8
18	3	24-1/4	12-1/8	2-1/2	3-7/8	5	6-3/8	5/8	3/8	12-3/8	1-1/2	2-5/8
	3-7/16				4-3/8	5-5/8	7-3/8					
20	3	26-1/4	13-1/2	2-1/2	3-7/8	5-1/8	6-3/8	5/8	3/8	13-3/8	1-1/2	2-5/8
	3-7/16				4-3/8	5-5/8	7-3/8					
24	3-7/16	30-1/4	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	5/8	3/8	15-3/8	1-1/2	2-5/8

NOTE: † Add seal thickness if PS or WPS seal is used.

* Specify babbitt or bronze.

TUBULAR FLUSH END DISCHARGE TROUGH ENDS



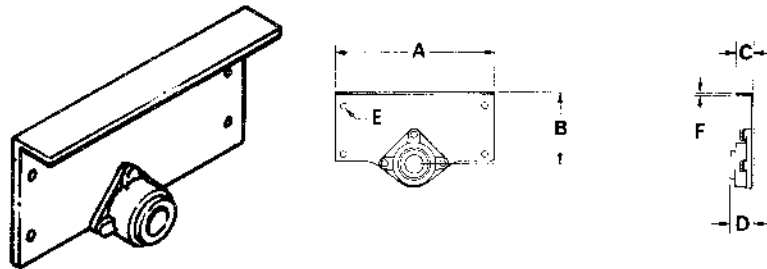
Screw Dia.	Shaft Dia.	Part Numbers	Weights
4	1	TEFE041T	6
6	1-1/2	TEFE06112T	11
9	1-1/2 2	TEFE09112T TEFE092T	15 18
10	1-1/2 2	TEFE010112T TEFE0102T	25 29
12	2 2-7/16 3	TEFE0122T TEFE0122716T TEFE0123T	29 31 43
14	2-7/16 3	TEFE0142716T TEFE0143T	39 51
16	3	TEFE0163T	65
18	3 3-7/16	TEFE0183T TEFE0183716T	78 89
20	3 3-7/16	TEFE0203T TEFE0203716T	115 127
24	3-7/16	TEFE0243716T	157

Screw Dia.	Shaft Dia.	A	B †			C Bolts	D	E	F	G
			Ball	Roller	Friction*					
4	1	7-3/4	1-5/8	X	2-3/16	3/8	3/16	3-3/4	7/8	1-1/4
6	1-1/2	10	2-1/4	3-3/4	3-3/16	3/8	3/16	5	13/16	1-1/2
9	1-1/2 2	13-3/4	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4	7-1/8	1	1-5/8
10	1-1/2 2	14-3/4	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4	7-7/8	1	1-5/8
12	2 2-7/16 3	17-1/4	2-5/8 3 3-3/4	3-7/8 4-1/2 5	4-1/4 5-1/4 6-1/4	1/2	1/4	8-7/8	1-1/4	2-1/8
14	2-7/16 3	19-1/4	3 3-3/4	4-1/2 5	5-5/16 6-5/16	1/2	5/16	10-1/8	1-1/4	2-1/8
16	3	21-1/4	3-7/8	5	6-5/16	5/8	5/16	11-1/8	1-1/4	2-1/8
18	3 3-7/16	24-1/4	3-7/8 4-3/8	5 5-5/8	6-3/8 7-3/8	5/8	3/8	12-3/8	1-1/2	2-5/8
20	3 3-7/16	26-1/4	3-7/8 4-3/8	5-1/8 5-5/8	6-3/8 7-3/8	5/8	3/8	13-3/8	1-1/2	2-5/8
24	3-7/16	30-1/4	4-3/8	5-5/8	7-3/8	5/8	3/8	15-3/8	1-1/2	2-5/8

NOTE: † Add seal thickness if PS or WPS seal is used

* Specify babbitt or bronze

U TROUGH AND RECTANGULAR DISCHARGE TROUGH ENDS

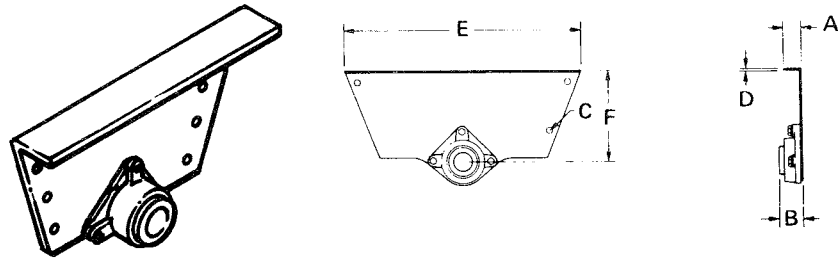


Screw Dia.	Shaft Dia.	Part Numbers		Weights	
		U-Trough	Rectangular	U-Trough	Rectangular
4	1	TEDO41U	X	4	X
6	1-1/2	TEDO6112U	TEDO6112R	8	8
9	1-1/2 2	TEDO9112U	TEDO9112R	11	11
		TEDO92U	TEDO92R	14	14
10	1-1/2 2	TEDO10112U	X	11	X
		TEDO102U		15	
12	2	TEDO122U	TEDO122R	21	21
	2-7/16	TEDO122716U	TEDO122716R	23	23
	3	TEDO123U	TEDO123R	34	34
14	3-7/16	TEDO142716U	TEDO142716R	26	26
	3	TEDO143U	TEDO143R	38	38
16	3	TEDO163U	TEDO163R	47	47
18	3	TEDO183U	TEDO183R	54	54
	3-7/16	TEDO183716U	TEDO183716R	65	65
20	3	TEDO203U	TEDO203R	77	77
	3-7/16	TEDO203716U	TEDO203716R	89	89
24	3-7/16	TEDO243716U	TEDO243716R	109	109

Screw Dia.	Shaft Dia.	A	B	C	D†			E Bolts	F
					Ball	Roller	Friction*		
4	1	7-3/4	3-5/8	1-7/16	1-5/8	X	2-3/16	3/8	3/16
6	1-1/2	9-3/4	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	3/8	3/16
9	1-1/2 2	13-3/4	6-1/8	1-5/8	2-1/4	3-3/4	3-1/4	3/8	1/4
					2-1/2	3-7/8	4-1/4		
10	1-1/2 2	14-3/4	6-3/8	1-3/4	2-1/4	3-3/4	3-1/4	3/8	1/4
					2-1/2	3-7/8	4-1/4		
12	2	17-1/4	7-3/4	2	2-5/8	3-7/8	4-1/4	1/2	1/4
	2-7/16				3	4-1/2	5-1/4		
	3				3-3/4	5	6-1/4		
14	2-7/16	19-1/4	9-1/4	2	3	4-1/2	5-5/16	1/2	5/16
	3				3-3/4	5	6-5/16		
16	3	21-1/4	10-5/8	2-1/2	3-7/8	5	6-5/16	5/8	5/16
18	3	24-1/4	12-1/8	2-1/2	3-7/8	5	6-3/8	5/8	3/8
	3-7/16				4-3/8	5-5/8	7-3/8		
20	3	26-1/4	13-1/2	2-1/2	3-7/8	5-1/8	6-3/8	5/8	3/8
	3-7/16				4-3/8	5-5/8	7-3/8		
24	3-7/16	30-1/4	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	5/8	3/8

NOTE: † Add seal thickness if PS or WPS seal is used.
* Specify babbitt or bronze

FLARED DISCHARGE TROUGH ENDS

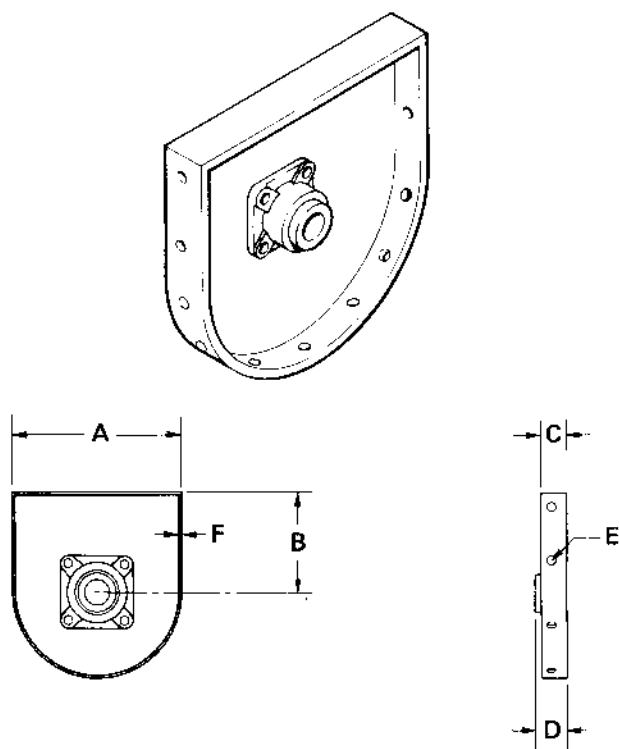


Screw Dia.	Shaft Dia.	Part Numbers	Weights
4	1	X	X
6	1-1/2	TEDO6112F	11
9	1-1/2 2	TEDO9112F TEDO92F	15 20
10	1-1/2 2	X	X
12	2 2-7/16 3	TEDO122F TEDO122716F TEDO123F	28 29 41
14	2-7/16 3	TEDO142716F TEDO143F	33 45
16	3	TEDO163F	56
18	3 3-7/16	TEDO183F TEDO183716F	63 69
20	3 3-7/16	TEDO203F TEDO203716F	75 81
24	3-7/16	TEDO243716F	96

Screw Dia.	Shaft Dia.	A	B†			C Bolts	D	E	F
			Ball	Roller	Friction*				
4	1	X	X	X	X	X	X	X	X
6	1-1/2	1-1/2	2-1/4	3-3/4	3-3/16	3/8	3/16	16-5/8	7
9	1-1/2 2	1-5/8	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4	21-1/4	9
10	1-1/2 2	X	X	X	X	X	X	X	X
12	2 2-7/16 3	2	2-5/8 3 3-3/4	3-7/8 4-1/2 5	4-1/4 5-1/4 6-1/4	1/2	1/4	26-3/8	10
14	2-7/16 3	2	3 3-3/4	4-1/2 5	5-5/16 6-5/16	1/2	5/16	28-3/8	11
16	3	2-1/2	3-7/8	5	6-5/16	5/8	5/16	32-1/2	11-1/2
18	3 3-7/16	2-1/2	3-7/8 4-3/8	5 5-5/8	6-3/8 7-3/8	5/8	3/8	36-1/2	12-1/8
20	3 3-7/16	2-1/2	3-7/8 4-3/8	5-1/8 5-5/8	6-3/8 7-3/8	5/8	3/8	39-1/2	13-1/2
24	3-7/16	2-1/2	4-3/8	5-5/8	7-3/8	5/8	3/8	45-1/2	16-1/2

NOTE: † Add seal thickness if PS or WPS seal is used.
* Specify babbitt or bronze.

INSIDE TROUGH ENDS



FOR U-TROUGH ONLY

Screw	Shaft	PART NUMBERS * U-Trough	WEIGHTS U-Trough
6	1-1/2	TEWI6112U	11
9	1-1/2 2	TEWI9112U TEWI92U	14 18
10	1-1/2 2	TEWI10112U TEWI102U	15 19
12	2 2-7/16 3	TEWI122U TEWI122716U TEWI123U	27 29 41
14	2-7/16 3	TEWI142716U TEWI143U	35 47
16	3	TEWI163U	59
18	3 3-7/16	TEWI183U TEWI183716U	68 80
20	3 3-7/16	TEWI203U TEWI203716U	103 115
24	3-7/16	TEWI243716U	145

* Suffix for bearing material

Screw Dia.	Shaft Dia.	A	B	C	D †			E Bolts	F
					Ball	Roller	Friction *		
6	1-1/2	7	4-1/2	1-1/2	2-1/4	3-3/4	3-3/16	3/8	3/16
9	1-1/2 2	10	6-1/8	1-5/8	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4
10	1-1/2 2	11	6-3/8	1-3/4	2-1/4 2-1/2	3-3/4 3-7/8	3-1/4 4-1/4	3/8	1/4
12	2 2-7/16 3	13	7-3/4	2	2-5/8 3 3-3/4	3-7/8 4-1/2 5	4-1/4 5-1/4 6-1/4	1/2	1/4
14	2-7/16 3	15	9-1/4	2	3 3-3/4	4-1/2 5	5-5/16 6-5/16	1/2	5/16
16	3	17	10-5/8	2-1/2	3-7/8	5	6-5/16	5/8	5/16
18	3 3-7/16	19	12-1/8	2-1/2	3-7/8 4-3/8	5 5-5/8	6-3/8 7-3/8	5/8	3/8
20	3 3-7/16	21	13-1/2	2-1/2	3-7/8 4-3/8	5-1/8 5-5/8	6-3/8 7-3/8	5/8	3/8
24	3-7/16	25	16-1/2	2-1/2	4-3/8	5-5/8	7-3/8	5/8	3/8

NOTE: † Add seal thickness if PS or WPS seal is used.

* Specify babbitt or bronze.