

# APÉNDICE B

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Selección y tablas del extrusor

Tabla 1. Clasificación del material.

Major Class	Material Characteristics Included	Code Designation
Density	Bulk Density, Loose	Actual Lbs/PC
Size	Very Fine No. 200 Sieve (.0028") And Under No. 100 Sieve (.0059") And Under No. 40 Sieve (.018") And Under	A <sub>200</sub> A <sub>100</sub> A <sub>40</sub>
	Fine No. 6 Sieve (.132") And Under	B <sub>6</sub>
	Granular ½" And Under (6 Sieve to ½") 3" And Under (½ to 3") 7" And Under (3" to 7")	C <sub>½</sub> D <sub>3</sub> D <sub>7</sub>
	Lumpy 16" And Under (0" to 16") Over 16" To Be Specified X=Actual Maximum Size	D <sub>16</sub> D <sub>X</sub>
	Irregular Stringy, Fibrous, Cylindrical, Slabs, Etc.	E
Flowability	Very Free Flowing	1
	Free Flowing	2
	Average Flowability	3
	Sluggish	4
Abrasive	Mildly Abrasive	5
	Moderately Abrasive	6
	Extremely Abrasive	7
Miscellaneous Properties Or Hazards	Builds Up and Hardens Generates Static Electricity Decomposes — Deteriorates in Storage Flammability Becomes Plastic or Tends to Soften Very Dusty Aerates and Becomes a Fluid Explosiveness Stickiness — Adhesion Contaminable, Affecting Use Degradable, Affecting Use Gives Off Harmful or Toxic Gas or Fumes Highly Corrosive Mildly Corrosive Hygroscopic Interlocks, Mats or Agglomerates Oils Present Packs Under Pressure Very Light and Fluffy — May Be Windswept Elevated Temperature	F G H J K L M N O P Q R S T U V W X Y Z

Tabla 2. Códigos del material.

Material	Weight lbs. per cu. ft.	Material Code	Intermediate Bearing Selection	Component Series	MaFI Factor F <sub>a</sub>	Trough Loading
Charcoal, Lumps	18-28	D3-45Q	H	2	1.4	30A
Chocolate, Cake Pressed	40-45	D3-25	S	2	1.5	30A
Chrome Ore	125-140	D3-36	H	3	2.5	30B
Cinders, Blast Furnace	57	D3-36T	H	3	1.9	30B
Cinders, Coal	40	D3-36T	H	3	1.8	30B
Clay (See Bentonite, Diatomaceous Earth, Fuller's Earth, Kaolin & Marl)	—	—	—	—	—	—
Clay, Ceramic, Dry, Fines	60-80	A100-35P	L-S-B	1	1.5	30A
Clay, Calcined	80-100	B6-36	H	3	2.4	30B
Clay, Brick, Dry, Fines	100-120	C¼-36	H	3	2.0	30B
Clay, Dry, Lumpy	60-75	D3-35	H	2	1.8	30A
Clinker, Cement (See Cement Clinker)	—	—	—	—	—	—
Clover Seed	45-48	B6-25N	L-S-B	1	.4	45
Coal, Anthracite (River & Cullm)	55-61	B6-35TY	L-S	2	1.0	30A
Coal, Anthracite, Sized-¼"	49-61	C¼-25	L-S	2	1.0	45
Coal, Bituminous, Mined	40-60	D3-35LNXY	L-S	1	.9	30A
Coal, Bituminous, Mined, Stized	45-50	D3-35QIV	L-S	1	1.0	30A
Coal, Bituminous, Mined, Slack	43-50	C¼-45T	L-S	2	.9	30A
Coal, Lignite	37-45	D3-35T	H	2	1.0	30A
Cocoa Beans	30-45	C¼-25Q	L-S	1	.5	45
Cocoa, Nibs	35	C¼-25	H	2	.5	45
Cocoa, Powdered	30-35	A100-45XY	S	1	.9	30A
Cococanut, Shredded	20-22	E-45	S	2	1.5	30A
Coffee, Chaff	20	B6-25MY	L-S	1	1.0	45
Coffee, Green Bean	25-32	C¼-25PQ	L-S	1	.5	45
Coffee, Ground, Dry	25	A40-35P	L-S	1	.6	30A
Coffee, Ground, Wet	35-45	A40-45X	L-S	1	.6	30A
Coffee, Roasted Bean	20-30	C¼-25PQ	S	1	.4	45
Coffee, Soluble	19	A40-35PUY	S	1	.4	45
Coke, Breeze	25-35	C¼-37	H	3	1.2	15
Coke, Loose	23-35	D7-37	H	3	1.2	15
Coke, Petrol, Calcined	35-45	D7-37	H	3	1.3	15
Compost	30-50	D7-45TV	L-S	3	1.0	30A
Concrete, Pre-Mix Dry	85-120	C¼-36U	H	3	3.0	30B
Copper Ore	120-150	DX-36	H	3	4.0	30B
Copper Ore, Crushed	100-150	D3-36	H	3	4.0	30B
Copper Sulphate, (Bluestone)	75-95	C¼-35S	L-S	2	1.0	30A
Copperas (See Ferrous Sulphate)	—	—	—	—	—	—
Copra, Cake Ground	40-45	B6-45HW	L-S-B	1	.7	30A
Copra, Cake, Lumpy	25-30	D3-35HW	L-S-B	2	.8	30A
Copra, Lumpy	22	E-35HW	L-S-B	2	1.0	30A
Copra, Meal	40-45	B6-35HW	H	2	.7	30A
Cork, Fine Ground	5-15	B6-35JNY	L-S-B	1	.5	30A
Cork, Granulated	12-15	C¼-35JY	L-S-B	1	.5	30A
Corn, Cracked	40-50	B6-25P	L-S-B	1	.7	45
Corn Cobs, Ground	17	C¼-25Y	L-S-B	1	.6	45
Corn Cobs, Whole*	12-15	E-35	L-S	2		30A
Corn Ear*	56	E-35	L-S	2		30A
Corn Germ	21	B6-35PY	L-S-B	1	.4	30A
Corn Grits	40-45	B6-35P	L-S-B	1	.5	30A
Commeal	32-40	B6-35P	L-S	1	.5	30A
Corn Oil, Cake	25	D7-45HW	L-S	1	.6	30A
Corn Seed	45	C¼-25PQ	L-S-B	1	.4	45
Corn Shelled	45	C¼-25	L-S-B	1	.4	45
Corn Sugar	30-35	B6-35PU	S	1	1.0	30A
Cottonseed, Cake, Crushed	40-45	C¼-45HW	L-S	1	1.0	30A

Tabla 3. Factor de paso.

Special Conveyor Pitch Capacity Factor $CF_1$		
Pitch	Description	$CF_1$
Standard	Pitch = Diameter of Screw	1.00
Short	Pitch = $\frac{1}{2}$ Diameter of Screw	1.50
Half	Pitch = $\frac{1}{4}$ Diameter of Screw	2.00
Long	Pitch = $\frac{1}{8}$ Diameter of Screw	0.67

Tabla 4. Factor de capacidad de carga.

Special Conveyor Flight Capacity Factor $CF_2$			
Type of Flight	Conveyor Loading		
	15%	30%	45%
Cut Flight	1.95	1.57	1.43
Cut & Folded Flight	N.R.*	3.75	2.54
Ribbon Flight	1.04	1.37	1.62

\*Not recommended

\*If none of the above flight modifications are used:  $CF_2 = 1.0$ 

Tabla 5. Factor de hélices.

Special Conveyor Mixing Paddle Capacity $CF_3$					
Standard Paddles at 45° Reverse Pitch	Paddles Per Pitch				
	None	1	2	3	4
Factor $CF_3$	1.00	1.08	1.16	1.24	1.32

Tabla 6. Capacidades para diferentes tamaños de tornillos extrusores.

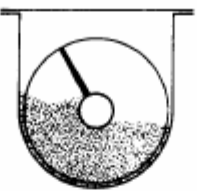
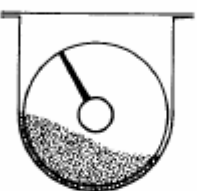
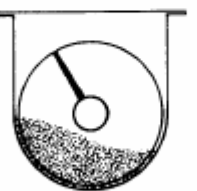
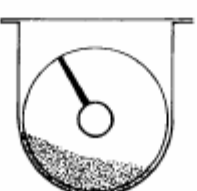
	Trough Loading	Screw Dia. Inch	Capacity Cubic Feet Per Hour (Full Pitch)		Max. RPM
			At One RPM	At Max RPM	
45%		4	0.62	114	184
		6	2.23	368	165
		9	6.20	1270	155
		10	11.40	1710	150
		12	19.40	2820	145
		14	31.20	4370	140
		16	46.70	6060	130
		18	67.60	8120	120
		20	93.70	10300	110
		24	164.00	16400	100
30	323.00	29070	90		
30% A		4	0.41	53	130
		6	1.49	180	120
		9	5.45	545	100
		10	7.57	720	95
		12	12.90	1160	90
		14	20.80	1770	85
		16	31.20	2500	80
		18	45.00	3380	75
		20	62.80	4370	70
		24	109.00	7100	65
30	216.00	12960	60		
30% B		4	0.41	29	72
		6	1.49	90	60
		9	5.45	300	55
		10	7.60	418	55
		12	12.90	645	50
		14	20.80	1040	50
		16	31.20	1400	45
		18	45.00	2025	45
		20	62.80	2500	40
		24	109.00	4360	40
30	216.00	7560	35		
15%		4	0.21	15	72
		6	0.75	45	60
		9	2.72	150	55
		10	3.80	210	55
		12	6.40	325	50
		14	10.40	520	50
		16	15.60	700	45
		18	22.50	1010	45
		20	31.20	1250	40
		24	54.60	2180	40
30	108.00	3780	35		

Tabla 7. Máximo porcentaje de piedra dura.

Maximum Lump Size Table					
Screw Diameter Inches	Pipe T.O.D. Inches	Radial Clearance Inches $\Delta$	Class I 10% Lumps Max. Lump, Inch	Class II 25% Lumps Max. Lump, Inch	Class III 95% Lumps Max. Lump, Inch
6	2 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
9	2 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$	$\frac{1}{2}$
9	2 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$	$\frac{1}{2}$
12	2 $\frac{1}{2}$	5 $\frac{1}{2}$	2 $\frac{1}{2}$	2	1
12	3 $\frac{1}{2}$	4 $\frac{1}{2}$	2 $\frac{1}{2}$	2	1
12	4	4 $\frac{1}{2}$	2 $\frac{1}{2}$	2	1
14	3 $\frac{1}{2}$	5 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$
14	4	5 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
16	4	6 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$
16	4 $\frac{1}{2}$	6 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{1}{2}$
18	4	7 $\frac{1}{2}$	4 $\frac{1}{2}$	3	1 $\frac{1}{2}$
18	4 $\frac{1}{2}$	7 $\frac{1}{2}$	4 $\frac{1}{2}$	3	1 $\frac{1}{2}$
20	4	8 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	2
20	4 $\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	2
24	4 $\frac{1}{2}$	10 $\frac{1}{2}$	6	3 $\frac{1}{2}$	2 $\frac{1}{2}$
30	4 $\frac{1}{2}$	13 $\frac{1}{2}$	8	5	3

\*For special pipe sizes, consult factory.

$\Delta$ Radial clearance is the distance between the bottom of the trough and the bottom of the conveyor pipe.

Tabla 8. Tipos de rodamientos.

Hanger Bearing Selection				
Bearing Component Groups	Bearing Types	Recommended Coupling Shaft Material $\Delta$	Max. Recommended Operating Temperature	F <sub>b</sub>
B	Ball	Standard	225° 270°*	1.0
L	Bronze	Standard	300°F	
S	<del>Metal</del> Bronze*	Standard	650°F	2.0
	Graphite Bronze	Standard	500°F	
	Oil Impreg. Bronze	Standard	200°F	
	Oil Impreg. Wood	Standard	160°F	
	Nylatron	Standard	250°F	
	Nylon	Standard	160°F	
	Teflon	Standard	250°F	
H	UHMW	Standard	225°F	3.4
	Melamine (MCB)	Standard	250°F	
	<del>Metal</del> Hard Iron*	Hardened	500°F	
	Hard Iron	Hardened	500°F	
H	Hard Surfaced	Hardened or Special	500°F	4.4
	Stellite	Special	500°F	

\*Sintered Metal. Self-lubricating.

$\Delta$  OTHER TYPES OF COUPLING SHAFT MATERIALS

Various alloys, stainless steel, and other types of shafting can be furnished as required.

Tabla 9. Componentes para el grupo 3.

Component Group 3					
Screw Diameter Inches	Coupling Diameter Inches	Screw Number		Thickness, U.S. Standard Gauge or Inches	
		Hollow Flights	Sectional Flights	Trough	Cover
6	1 $\frac{1}{2}$	6H312	6S312	10 Ga.	16 Ga.
9	1 $\frac{1}{2}$	9H312	9S312	$\frac{3}{8}$ In.	14 Ga.
9	2	9H414	9S416	$\frac{3}{8}$ In.	14 Ga.
12	2	12H412	12S412	$\frac{1}{2}$ In.	14 Ga.
12	2 $\frac{1}{2}$	12H512	12S512	$\frac{1}{2}$ In.	14 Ga.
12	3	12H614	12S616	$\frac{1}{2}$ In.	14 Ga.
14	3	—	14S624	$\frac{1}{2}$ In.	14 Ga.
16	3	—	16S624	$\frac{1}{2}$ In.	14 Ga.
18	3	—	18S624	$\frac{1}{2}$ In.	12 Ga.
20	3	—	20S624	$\frac{1}{2}$ In.	12 Ga.
24	3 $\frac{1}{2}$	—	24S724	$\frac{1}{2}$ In.	12 Ga.
30	3 $\frac{1}{2}$	—	30S724	$\frac{1}{2}$ In.	12 Ga.

Tabla 10. Torques admisibles en ejes.

Coupling	Pipe		Couplings		Bolt Dia. In.	Bolts				
	Sch. 40		Torque in Lbs. *			Bolts in Shear in Lbs. Δ		Bolts in Bearing in Lbs.		
	Shaft Dia. In.	Size In.	Torque In. Lbs.	AISC Std. (C-1018)		MILITARY Std. (C-1045)	No. of Bolts Used		No. of Bolts Used	
							2	3	2	3
1	1½	3,140	820	999	¾	1,380	2,070	1,970	2,955	
1½	2	7,500	3,070	3,727	¾	3,660	5,490	5,000	7,500	
2	2½	14,250	7,600	9,233	¾	7,600	11,400	7,860	11,790	
2½	3	23,100	15,090	18,247	¾	9,270	13,900	11,640	17,460	
3	3½	32,100	28,370	34,427	¾	16,400	24,600	15,540	23,310	
3	4	43,000	28,370	34,427	¾	16,400	24,600	25,000	37,500	
3½	4	43,300	42,550	51,568	¾	25,600	38,400	21,800	32,700	

Δ Values shown are for A307-64, Grade 2 Bolts. Values for Grade 5 Bolts are above × 2.5  
 \*Values are for unheated shafts.

Tabla 11. Tornillo extrusor seccional.  
 Sectional Screw Conveyors

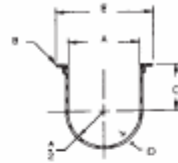
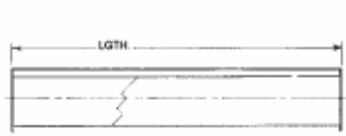


Listed Screw Diameter and Pitch	Cplg. Dia.	Siz Designation	Pipe Siz Schedule 40	Length Feet and Inches	A		B	C		D		F	G	H
					Diameter Tolerance			Pitch Tolerance	Bushing Bore Inside Diameter					
					Plus	Minus			Minimum	Maximum				
6	1½	6S312	2	9-10	¾	¾	¾	¾	¾	1.505	1.516	¾	3	¾
	1½	9S312	2	9-10	¾	¾	¾	¾	¾	1.505	1.516	¾	3	¾
9	2	9S412	2½	9-10	¾	¾	¾	¾	¾	2.005	2.016	¾	3	¾
	2	9S416	2½	9-10	¾	¾	¾	¾	¾	2.005	2.016	¾	3	¾
10	2	10S412	2½	9-10	¾	¾	¾	¾	¾	2.005	2.016	¾	3	¾
	2	12S412	2½	11-10	¾	¾	¾	¾	¾	2.005	2.016	¾	3	¾
12	2½	12S512	3	11-9	¾	¾	¾	¾	¾	2.443	2.458	¾	3	¾
	2½	12S516	3	11-9	¾	¾	¾	¾	¾	2.443	2.458	¾	3	¾
	3	12S616	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	12S624	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
14	2½	14S512	3	11-9	¾	¾	¾	¾	¾	2.443	2.458	¾	3	¾
	3	14S616	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	14S624	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
16	3	16S612	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	16S616	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	16S624	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	16S632	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
18	3	18S612	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	18S616	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	18S624	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
20	3	20S612	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	20S616	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
	3	20S624	3½	11-9	¾	¾	¾	¾	¾	3.005	3.025	1	3	¾
24	3¾	24S712	4	11-8	¾	¾	¾	¾	¾	3.443	3.467	1½	4	¾
	3¾	24S716	4	11-8	¾	¾	¾	¾	¾	3.443	3.467	1½	4	¾
	3¾	24S724	4	11-8	¾	¾	¾	¾	¾	3.443	3.467	1½	4	¾
	3¾	24S732	4	11-8	¾	¾	¾	¾	¾	3.443	3.467	1½	4	¾

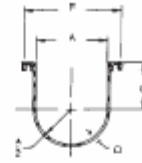
NOTE: All dimensions in inches.

Tabla 12. Canaleta.

Standard conveyor troughs have a U-shaped steel body with angle iron top flanges or formed top flanges and jig drilled end flanges.



Angle Flange



Formed Flange

Conveyor Diameter	D	Angle Flanged	Angle Flanged Trough				Formed Flanged Trough ▲				A	B	C	E	F	
			Weight		Weight		Part Number	Weight		Weight						
			10' Length	5' Length	12' Length	6' Length		10' Length	5' Length	12' Length						6' Length
4	□ 16 GA.	4CTA16	53	29	—	—	4CTF16	41	23	—	—	5	1	3%	7%	7%
4	14	4CTA14	60	33	—	—	4CTF14	50	28	—	—				7%	7%
4	12	4CTA12	78	42	—	—	4CTF12	70	38	—	—				7%	8
6	□ 16 GA.	6CTA16	67	44	—	—	6CTF16	55	32	—	—	7	1 1/4	4 1/2	9%	9%
6	14	6CTA14	78	49	—	—	6CTF14	67	38	—	—				9%	9%
6	12	6CTA12	101	60	—	—	6CTF12	91	50	—	—				9%	10
6	10	6CTA10	123	73	—	—	6CTF10	117	64	—	—				9%	10
6	7/8	6CTA7	164	86	—	—	6CTF7	150	79	—	—				9%	9%
9	□ 16 GA.	9CTA16	113	66	—	—	9CTF16	83	51	—	—	10	1 1/2	6 1/2	13%	13%
9	14	9CTA14	127	73	—	—	9CTF14	99	59	—	—				13%	13%
9	12	9CTA12	156	87	—	—	9CTF12	132	75	—	—				13%	13%
9	10	9CTA10	176	102	—	—	9CTF10	164	91	—	—				13%	13%
9	7/8	9CTA7	230	124	—	—	9CTF7	214	116	—	—				13%	13%
9	K	9CTA3	286	152	—	—	9CTF3	276	147	—	—				13%	13%
10	□ 16 GA.	10CTA16	118	69	—	—	10CTF16	88	54	—	—	11	1 1/2	6 1/2	14%	14%
10	14	10CTA14	133	76	—	—	10CTF14	105	62	—	—				14%	14%
10	12	10CTA12	164	92	—	—	10CTF12	140	80	—	—				14%	14%
10	10	10CTA10	178	102	—	—	10CTF10	167	91	—	—				14%	14%
10	7/8	10CTA7	233	131	—	—	10CTF7	217	123	—	—				14%	14%
10	K	10CTA3	306	163	—	—	10CTF3	296	158	—	—				14%	14%
12	□ 12 GA.	12CTA12	197	113	236	135	12CTF12	164	95	197	114	13	2	7%	17%	17%
12	10	12CTA10	234	133	281	160	12CTF10	187	117	224	140				17%	17%
12	7/8	12CTA7	294	164	353	197	12CTF7	272	150	326	180				17%	17%
12	K	12CTA3	372	203	446	244	12CTF3	357	194	428	233				17%	17%
14	□ 12 GA.	14CTA12	214	121	257	145	14CTF12	183	102	219	122	15	2	9%	19%	19%
14	10	14CTA10	258	143	309	172	14CTF10	207	127	248	152				19%	19%
14	7/8	14CTA7	328	180	394	216	14CTF7	304	168	365	202				19%	19%
14	K	14CTA3	418	224	501	269	14CTF3	403	215	483	258				19%	19%
16	□ 12 GA.	16CTA12	238	133	285	160	16CTF12	206	107	247	128	17	2	10%	21%	21%
16	10	16CTA10	288	159	345	191	16CTF10	234	144	281	173				21%	21%
16	7/8	16CTA7	368	200	442	240	16CTF7	345	188	414	226				21%	21%
16	K	16CTA3	471	243	565	291	16CTF3	455	228	546	273				21%	21%
18	□ 12 GA.	18CTA12	252	159	302	191	18CTF12	240	133	288	160	19	2 1/2	12%	24%	24%
18	10	18CTA10	353	170	423	204	18CTF10	269	165	323	196				24%	24%
18	7/8	18CTA7	444	243	533	291	18CTF7	394	217	473	260				24%	24%
18	K	18CTA3	559	298	671	368	18CTF3	520	275	624	330				24%	24%
20	□ 10 GA.	20CTA10	383	228	460	274	20CTF10	296	190	355	228	21	2 1/2	13%	26%	26%
20	7/8	20CTA7	484	271	581	325	20CTF7	434	247	521	296				26%	26%
20	K	20CTA3	612	334	734	401	20CTF3	573	315	687	378				26%	26%
24	□ 10 GA.	24CTA10	443	255	531	306	24CTF10	364	227	461	272	25	2 1/2	16%	30%	30%
24	7/8	24CTA7	563	319	676	383	24CTF7	514	293	617	352				30%	30%
24	K	24CTA3	717	363	860	435	24CTF3	678	339	813	406				30%	30%

□ Standard Gauge Bolt Patterns Page H-40

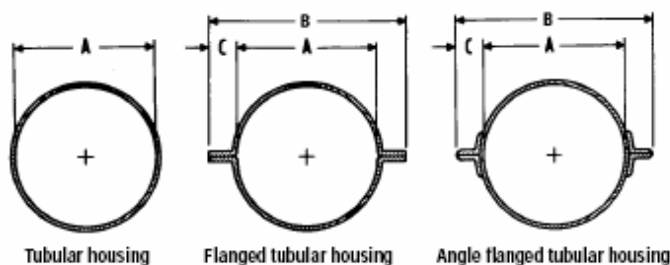
All troughs available in other materials such as stainless, aluminum, abrasion resistant, etc.

▲ Double formed flange standard on all sizes through 10 ga.



Tabla 13. Tubos de extrusión.

Tubular conveyor housings are inherently dust and weather-tight, and may be loaded to a full cross section. Conveyors with tubular housings are rigid and are highly suitable for conveying material on an incline. Three types shown are available.

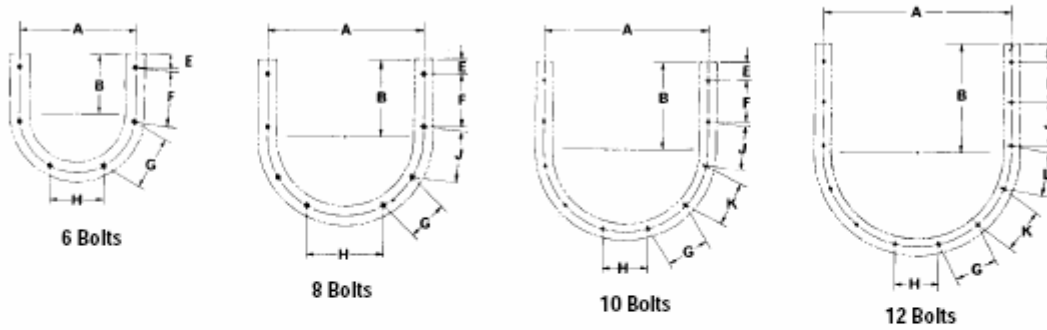


Conveyor Diameter	Trough Thickness	Tubular Housing		Formed Flange		Angle Flange		A	B	C	
		Part Number	Weight		Part Number	Weight 10'	Part Number				Weight 10'
			10' Length	5' Length							
4	□ 16 GA.	4CHT16			4CHT16-F	43	4CHT16-A	61	5	7 7/8	1
4	14	4CHT14	60	31	4CHT14-F	53	4CHT14-A	89			
4	12	4CHT12			4CHT12-F	74	4CHT12-A	106			
6	□ 16 GA.	6CHT16	50	27	6CHT16-F	60	6CHT16-A	110	7	9 9/16	1 1/2
6	14	6CHT14	62	33	6CHT14-F	75	6CHT14-A	122			
6	12	6CHT12	85	44	6CHT12-F	103	6CHT12-A	145			
6	10	6CHT10	109	56	6CHT10-F	133	6CHT10-A	167			
6	3/4	6CHT7	145	74	6CHT7-F	168	6CHT7-A	205			
9	16 GA.	9CHT16	72	39	9CHT16-F	84	9CHT16-A	131	10	12 1/2	1 1/2
9	□ 14	9CHT14	89	47	9CHT14-F	104	9CHT14-A	148			
9	12	9CHT12	122	64	9CHT12-F	143	9CHT12-A	181			
9	10	9CHT10	155	80	9CHT10-F	182	9CHT10-A	214			
9	3/4	9CHT7	208	107	9CHT7-F	245	9CHT7-A	267			
9	1/2	9CHT3	275	140	9CHT3-F	324	9CHT3-A	334			
10	16 GA.	10CHT16	79	42	10CHT16-F	91	10CHT16-A	138	11	13 1/8	1 1/2
10	□ 14	10CHT14	97	52	10CHT14-F	112	10CHT14-A	156			
10	12	10CHT12	133	70	10CHT12-F	154	10CHT12-A	192			
10	10	10CHT10	169	88	10CHT10-F	196	10CHT10-A	228			
10	3/4	10CHT7	227	117	10CHT7-F	264	10CHT7-A	286			
10	1/2	10CHT3	301	154	10CHT3-F	350	10CHT3-A	360			
12	□ 12 GA.	12CHT12	163	88	12CHT12-F	193	12CHT12-A	235	13	16 1/4	1 1/2
12	10	12CHT10	208	111	12CHT10-F	247	12CHT10-A	280			
12	3/4	12CHT7	275	144	12CHT7-F	328	12CHT7-A	347			
12	1/2	12CHT3	362	188	12CHT3-F	432	12CHT3-A	434			
14	□ 12 GA.	14CHT12	187	101	14CHT12-F	217	14CHT12-A	259	15	18 1/4	1 1/2
14	10	14CHT10	236	126	14CHT10-F	275	14CHT10-A	308			
14	3/4	14CHT7	316	166	14CHT7-F	369	14CHT7-A	388			
14	1/2	14CHT3	416	216	14CHT3-F	486	14CHT3-A	488			
16	□ 12 GA.	16CHT12	212	114	16CHT12-F	242	16CHT12-A	310	17	21 1/4	2
16	10	16CHT10	268	142	16CHT10-F	307	16CHT10-A	366			
16	3/4	16CHT7	358	187	16CHT7-F	411	16CHT7-A	456			
16	1/2	16CHT3	472	244	16CHT3-F	542	16CHT3-A	570			
18	□ 12 GA.	18CHT12	242	133	18CHT12-F	280	18CHT12-A	340	19	23 1/4	2
18	10	18CHT10	304	164	18CHT10-F	352	18CHT10-A	402			
18	3/4	18CHT7	405	214	18CHT7-F	471	18CHT7-A	503			
18	1/2	18CHT3	533	278	18CHT3-F	621	18CHT3-A	631			
20	□ 10 GA.	20CHT10	335	188	20CHT10-F	381	20CHT10-A	433	21	25 1/4	2
20	3/4	20CHT7	446	237	20CHT7-F	510	20CHT7-A	544			
20	1/2	20CHT3	586	307	20CHT3-F	671	20CHT3-A	684			
24	□ 10 GA.	24CHT10	399	215	24CHT10-F	445	24CHT10-A	497	25	29 1/4	2
24	3/4	24CHT7	531	281	24CHT7-F	594	24CHT7-A	629			
24	1/2	24CHT3	699	365	24CHT3-F	784	24CHT3-A	797			

□ Standard Gauge  
For Bolt Patterns See Page H-41

Tabla 14. Patrones en U de colocación de tornillos.

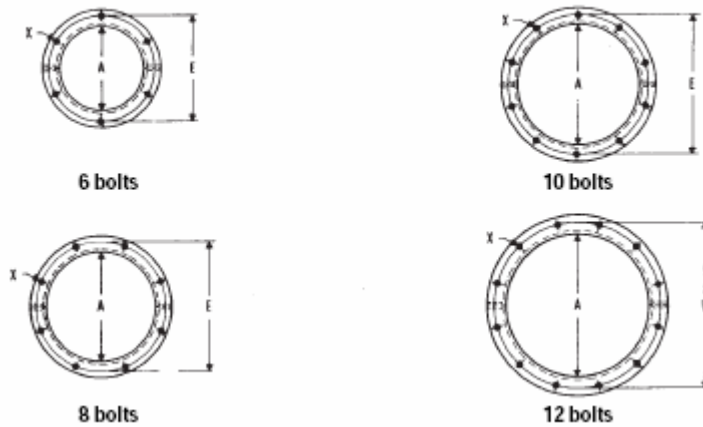
**U-Trough End Flanges**



Screw Diameter	Bolts		A	B	E	F	C	H	J	K	L
	Number	Diameter									
4	6	3/8"	7	3 1/2"	1 1/2"	3 1/2"	3 1/2"	3 1/2"	X	X	X
6	6	3/8"	8 1/2"	4 1/2"	1 1/2"	4 1/2"	4 1/2"	4 1/2"	X	X	X
9	8	3/8"	12 1/2"	6 1/2"	1 1/2"	4 1/2"	3"	5 1/2"	4 1/2"	X	X
10	8	3/8"	13 1/2"	6 1/2"	2 1/2"	3 1/2"	4 1/2"	5 1/2"	4 1/2"	X	X
12	8	1/2"	15 1/2"	7 1/2"	1 1/2"	5 1/2"	4 1/2"	7 1/2"	5 1/2"	X	X
14	8	1/2"	17 1/2"	9 1/2"	2 1/2"	5 1/2"	5 1/2"	6	5 1/2"	X	X
16	8	3/4"	20	10 1/2"	2 1/2"	6 1/2"	6 1/2"	7 1/2"	6 1/2"	X	X
18	10	3/4"	22	12 1/2"	2 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	X
20	10	3/4"	24 1/2"	13 1/2"	2 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"	X
24	12	3/4"	28 1/2"	16 1/2"	2 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"

Tabla 15. Patrones para tubos.

**Tubular Housing Flanges**



Screw Size	Flange Bolts		A	E	Q	R	S	T	U
	Tubular X	Discharge Y							
4	6-3/8"	12-3/8"	5	7	2 1/2"	—	2 1/2"	3/8"	7 1/2"
6	8-3/8"	12-3/8"	7	8 1/2"	2 3/4"	—	3	1/2"	10
9	8-3/8"	12-3/8"	10	11 1/2"	4	—	4	1/2"	13
10	8-3/8"	12-3/8"	11	13 1/2"	4 1/2"	—	4 1/2"	1/2"	14 1/2"
12	8-3/8"	12-3/8"	13	15	5 1/2"	—	5 1/2"	1/2"	17 1/2"
14	8-3/8"	20-3/8"	15	17	3 1/2"	3 1/2"	3 1/2"	1/2"	19 1/2"
16	8-3/8"	20-3/8"	17	19 1/2"	3 3/4"	4	4	1/2"	21 1/2"
18	10-3/8"	20-3/8"	19	22	4 1/2"	4 1/2"	4 1/2"	1 1/2"	24 1/2"
20	10-3/8"	20-3/8"	21	24 1/2"	4 3/4"	4 3/4"	4 3/4"	1 1/2"	26 1/2"
24	12-3/8"	20-3/8"	25	28 1/2"	5 1/2"	5 1/2"	5 1/2"	1 1/2"	30 1/2"

Tabla 16. Tornillos recomendados por el catálogo.

Part Name		Bolt Requirements Based on Conveyor Trough Sizes												
Notes		4	6	9	10	12	14	16	18	20	24			
Flange, Trough		6- $\frac{1}{2}$ x 1	6- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Flange, Tubular Housing		6- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Ends, Trough		6- $\frac{1}{2}$ x 3	6- $\frac{1}{2}$ x 3	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Inside Discharge		2- $\frac{1}{2}$ x 3	2- $\frac{1}{2}$ x 3	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	6- $\frac{1}{2}$ x 1			
Inside Rectangular		5- $\frac{1}{2}$ x 3	6- $\frac{1}{2}$ x 3	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	11- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Outside Type		6- $\frac{1}{2}$ x 1	6- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Outside Discharge		2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	6- $\frac{1}{2}$ x 1			
Ends, Tubular Housing		6- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Hanger, Trough														
Style 60			2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2	2- $\frac{1}{2}$ x 2			
Style 70			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Style 216			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Style 220			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Style 226			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Style 230			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Style 316			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Style 326			4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1	4- $\frac{1}{2}$ x 1			
Covers, Trough (Std. 10 ft.)		10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3	10- $\frac{1}{2}$ x 3			
Saddle — Feet		2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1			
Flanged Feet		2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1			
Saddle		2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1	2- $\frac{1}{2}$ x 1			
Spouts, Discharge		8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1	8- $\frac{1}{2}$ x 1			
Attaching Bolts		12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1	12- $\frac{1}{2}$ x 1			
Flange		10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1			
Flange w/Side		10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1	10- $\frac{1}{2}$ x 1			

All bolts hex head cap screws with hex nuts, and lock washers.

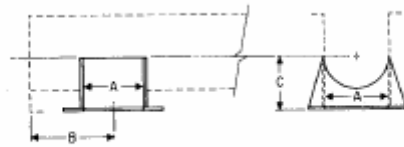
Tabla 16. (Continuación).

Part Name	Bolt Requirements Based on Subcoupling Size					
	1	1½	2	2½	3	3½
Bearings, End						
Discharge Bronze	3/4 x 1½	3/8 x 1½	3/8 x 1½	3/8 x 1½	3/8 x 2	3/8 x 2½
Discharge Ball	3/4 x 1½	3/8 x 1½	3/8 x 1½	3/8 x 1½	3/8 x 2	3/8 x 2½
Flanged Bronze	4/8 x 1½	4/8 x 1½	4/8 x 1½	4/8 x 1½	4/8 x 2	4/8 x 2½
Flanged Ball	4/8 x 1½	4/8 x 1½	4/8 x 2½	4/8 x 2½	4/8 x 2½	4/8 x 3½
Flanged Roller	2/8 x 1½	2/8 x 1½	2/8 x 2	2/8 x 2½	2/8 x 2½	2/8 x 3½
Pillow Block Bronze	2/8 x 1½	2/8 x 2½	2/8 x 2½	2/8 x 2½	2/8 x 3½	2/8 x 3½
Pillow Block Ball	2/8 x 1½	2/8 x 2½	2/8 x 2½	2/8 x 2½	2/8 x 3	2/8 x 3½
Pillow Block, Roller						
Bearings, Thrust						
Type "E" Roller		4/8 x 2½	4/8 x 2½	4/8 x 3½	4/8 x 3½	4/8 x 3½
Coupling Bolts	½ x 2½	½ x 3	¾ x 3½	¾ x 4½	¾ x 5 3/8" Pipe ¾ x 5 1/4" Pipe	¾ x 5½
Seals, Shafts						
Flanged Gland		4/8 x 1½	4/8 x 1½	4/8 x 1½	4/8 x 1½	4/8 x 1½
Plate w/Ball or Bronze		4/8 x 2	4/8 x 2½	4/8 x 2½	4/8 x 2½	4/8 x 3
Plate w/Roller		4/8 x 2½	4/8 x 2½	4/8 x 3	4/8 x 3½	4/8 x 3½
Split Gland		2/8 x 1½	2/8 x 1½	2/8 x 1½	2/8 x 1½	2/8 x 2½
Waste Peck, w/Ball or Bronze		4/8 x 3½	4/8 x 3½	4/8 x 3½	4/8 x 3½	4/8 x 3½
Waste Peck, w/Roller		4/8 x 3½	4/8 x 4	4/8 x 4	4/8 x 4	4/8 x 4½

\*See page H-79 for special coupling bolts.  
All other bolts have head cap screws with hex nuts, and lock washers.

Tabla 17. Soportes.

**Fixed Spout**



Fixed spouts are fabricated in proportion to size and thickness of trough.  
Can be furnished loose or welded to trough.

Screw Diameter	A	B	C	D	G	H	F
4	5	4 1/2	3 3/4	3/8	5 1/2	11	2 1/2
6	7	6	5	3/8	6 1/2	14	3 1/2
9	10	8	7 1/2	3/8	8	19	5
10	11	9	7 1/2	3/8	8 1/2	20	5 1/2
12	13	10 1/2	8 1/2	3/8	10 1/2	24	6 1/2
14	15	11 1/2	10 1/2	3/8	11 1/2	27	7 1/2
16	17	13 1/2	11 1/2	3/8	12 1/2	30	8 1/2
18	19	14 1/2	12 1/2	3/8	13 1/2	33	9 1/2
20	21	15 1/2	13 1/2	3/8	14 1/2	36	10 1/2
24	25	17 1/2	15 1/2	3/8	16 1/2	42	12 1/2

Screw Diameter	Trough Thickness Gauge	Spout and Gage Thickness Gauge	Part Number			Weight		
			Fixed Spout		Flash End Spout	Fixed Spout		Flash End Spout
			Plain	With Slide		Plain	Slide	
4	16-14	□ 16	4TSD16	4TSDS16	4TSDF16	2	6	1.5
4	12	□ 12	4TSD12	4TSDS12	4TSDF12	3	7	2.25
6	14-12	□ 16	6TSD14	6TSDS14	6TSDF16	4	11	3.0
6	3/8	□ 12	6TSD12	6TSDS12	6TSDF12	6	13	4.50
9	16-14-12-10	□ 14	9TSD14	9TSDS14	9TSDF14	8	18	6.0
9	3/8-K	□ 10	9TSD10	9TSDS10	9TSDF10	13	22	9.75
10	14-12-10	□ 14	10TSD14	10TSDS14	10TSDF14	10	21	7.5
10	3/8-K	□ 10	10TSD10	10TSDS10	10TSDF10	16	27	12.0
12	12-10	□ 12	12TSD12	12TSDS12	12TSDF12	17	36	12.75
12	3/8-K	□ 8	12TSD7	12TSDS7	12TSDF7	29	48	21.75
14	12-10	□ 12	14TSD12	14TSDS12	14TSDF12	22	46	16.50
14	3/8-K	□ 8	14TSD7	14TSDS7	14TSDF7	38	62	28.50
16	12-10	□ 12	16TSD12	16TSDS12	16TSDF12	21	49	15.75
16	3/8-K	□ 8	16TSD7	16TSDS7	16TSDF7	40	68	30.0
18	12-10	□ 12	18TSD12	18TSDS12	18TSDF12	32	69	24.0
18	3/8-K	□ 8	18TSD7	18TSDS7	18TSDF7	60	97	45.0
20	10	□ 12	20TSD12	20TSDS12	20TSDF12	40	91	30.0
20	3/8-K	□ 8	20TSD7	20TSDS7	20TSDF7	67	118	50.25
24	10	□ 12	24TSD12	24TSDS12	24TSDF12	52	116	39.0
24	3/8-K	□ 8	24TSD7	24TSDS7	24TSDF7	87	151	65.25

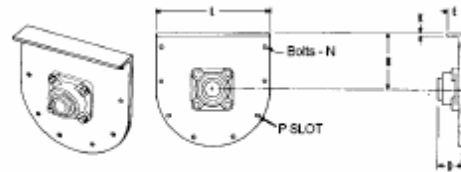
□ Standard Gauge  
For Bolt Patterns See Page H-41

Ⓢ Add -F for Fitted

Tabla 18. Tapa de extremos.

**Outside Less Feet**

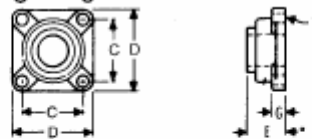
Outside trough ends less feet are used to support end bearing and cover when no trough support is required. Drilling for bronze bearing or flanged ball bearing is standard.



Conveyor Diameter	Shaft Diameter	▲ Part Number	B	D			E	K	L	N	Weight	P Slot
				Friction Bearing	Ball Bearing	Roller Bearing						
4	1	4TE2-*	3%	2%	1%		1%	1/2	8%	3/4	3	1/2 x 1/2
6	1 1/2	6TE3-*	4%	3%	2%	3%	1 1/2	1/2	10%	3/4	4	1/2 x 1/2
9	1 1/2	9TE3-*	6%	3%	2%	3%	1%	1/2	13%	3/4	9	1/2 x 1/2
	2	9TE4-*	6%	4%	2 1/2	3%	1%	1/2	13%	3/4	9	1/2 x 1/2
10	1 1/2	10TE3-*	6%	3%	2%	3%	1%	1/2	14%	3/4	11	1/2 x 1/2
	2	10TE4-*	6%	4%	2 1/2	3%	1%	1/2	14%	3/4	11	1/2 x 1/2
12	2	12TE4-*	7%	4%	2%	3%	2	1/2	17%	3/4	20	1/2 x 1/2
	2 1/4	12TE5-*	7%	5%	2 1/4	4%	2	1/2	17%	3/4	20	1/2 x 1/2
	3	12TE6-*	7%	6%	3%	4%	2	1/2	17%	3/4	20	1/2 x 1/2
14	2 1/2	14TE5-*	9%	5%	2%	4%	2	1/2	19%	3/4	35	1/2 x 1/2
	3	14TE6-*	9%	5%	3%	4%	2	1/2	19%	3/4	35	1/2 x 1/2
16	3	16TE6-*	10%	6%	3%	5	2 1/2	1/2	21%	3/4	42	1/2 x 1/2
18	3	18TE6-*	12%	6%	3%	5	2 1/2	1/2	24%	3/4	60	1/2 x 1/2
	3 1/4	18TE7-*	12%	7%	4%	5%	2 1/2	1/2	24%	3/4	60	1/2 x 1/2
20	3	20TE6-*	13%	6%	3%	5%	2 1/2	1/2	26%	3/4	90	1/2 x 1/2
	3 1/4	20TE7-*	13%	7%	4%	5%	2 1/2	1/2	26%	3/4	90	1/2 x 1/2
24	3 1/4	24TE7-*	16%	7%	4%	5%	2 1/2	1/2	30%	3/4	120	1/2 x 1/2

Tabla 19. Rodamientos.

**Ball Bearing Flange Unit**



Bore	Part Number	C	D	E	G	N
1	TEB2BB	2%	3%	1%	1/2	3/4
1 1/2	TEB3BB	4	5%	2	1/2	3/4
2	TEB4BB	5%	6%	2%	1/2	3/4
2 1/4	TEB5BB	5%	7	2 1/2	1/2	3/4
3	TEB6BB	6	7%	3%	1/2	3/4
3 1/4	TEB7BB	6%	8%	4	1	3/4

Tabla 20. Características del extrusor seccional.

Comparison Table - helicoid flight and sectional flight conveyor screws

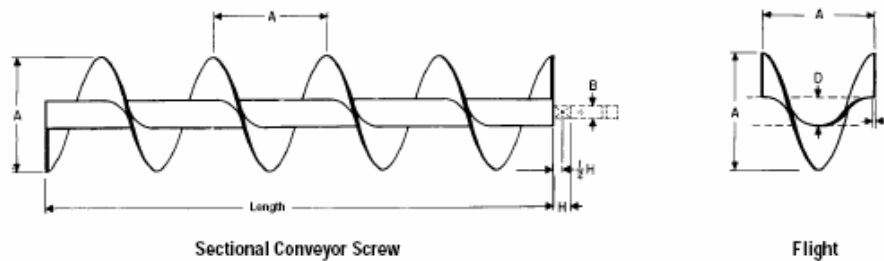
Screw Diameter, Inches	Helicoid Flight						Sectional Flight			
	Conveyor Screw Size Designation ▲	Former Designation	Coupling Diameter, Inches	Nominal Inside Diameter of Pipe, Inches	Thickness of Flight, Inches		Conveyor Screw Size Designation ▲	Coupling Diameter, Inches	Nominal Inside Diameter of Pipe, Inches	Thickness of Flight
					Inner Edge	Outer Edge				
4	4H206	4X	1	1½	¼	¼				
6	6H304	6 Standard	1½	2	¼	¼	6S309 6S312	1½	2	10 ga. ¼ in.
	6H308	6 X	1½	2	¼	¼				
	6H312	6 XX	1½	2	¼	¼				
9	9H306	9 Standard	1½	2	¼	¼	9S307 9S407 9S312 9S412 9S416	1½	2	12 ga. 12 ga. ¼ in. ¼ in. ¼ in.
	9H406	9 Special	2	2½	¼	¼				
	9H312	9 X	1½	2	¼	¼				
	9H412	9 XX	2	2½	¼	¼				
10	10H306	10 Standard	1½	2	¼	¼	10S309 10S412	1½	2	10 ga. ¼ in.
	10H412	10 XX	2	2½	¼	¼				
12	12H408	12 Standard	2	2½	¼	¼	12S409 12S509 12S412 12S512 12S516	2	2½	10 ga. 10 ga. ¼ in. ¼ in. ¼ in.
	12H508	12 Special	2½	3	¼	¼				
	12H412	12 X	2	2½	¼	¼				
	12H512	12 XX	2½	3	¼	¼				
	12H514	—	3	3½	¼	¼				
14	14H508	14 Standard	2½	3	¼	¼	14S509 14S516	2½	3	10 ga. ¼ in.
	14H514	14 XX	3	3½	¼	¼				
16	16H510	16 Standard	3	3½	¼	¼	16S509 16S516	3	3½	10 ga. ¼ in.
	16H514	—	3	4	¼	¼				

▲ Size designation: Examples: 12H412 and 12S412  
 12 = screw diameter in inches  
 H = helicoid flight  
 S = sectional flight  
 4 = 2 times 2" coupling diameter  
 12 = thickness of flight at periphery in increments of ¼"



Sectional Flight

Tabla 21. Características específicas del extrusor seccional.



Sectional Conveyor Screw

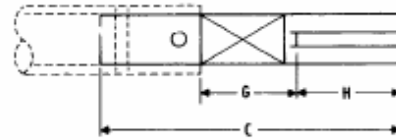
Flight

Screw Diameter	Coupling Diameter	Size Part No. Mixed Conveyor	Size Part No. Flighting only	Pipe Size		F	H	Standard Length Foot-Inches	Average Weight			Approx. Flights Per Foot
				Inside	D Outside				Standard Length	Per Foot	Flight Each	
6	1½	6S312-*	6SF312-*	2	2½	¼	2	9-10	75	7.5	1.7	2.0
	1½	6S316-*	6SF316-*	2	2	¼	2	9-10	90	8.0	2.2	2.0
9	1½	9S312-*	9SF312-*	2	2½	¼	2	9-10	95	9.5	4.3	1.33
		9S316-*	9SF316-*	2	2½	¼	2	9-10	130	13.0	5.5	1.33
		9S324-*	9SF324-*	2	2½	¼	2	9-10	160	16.0	7.9	1.33
	2	9S412-*	9SF412-*	2½	2½	¼	2	9-10	115	11.5	4.3	1.33
		9S416-*	9SF416-*	2½	2½	¼	2	9-10	130	13.0	5.5	1.33
		9S424-*	9SF424-*	2½	2½	¼	2	9-10	160	16.0	7.9	1.33
10	1½	10S312-*	10SF312-*	2	2½	¼	2	9-10	120	12.0	5.0	1.2
		10S316-*	10SF316-*	2	2½	¼	2	9-10	135	13.5	6.7	1.2
		10S324-*	10SF324-*	2	2½	¼	2	9-10	165	16.5	8.7	1.2
	2	10S412-*	10SF412-*	2½	2½	¼	2	9-10	120	12.0	5.0	1.2
		10S416-*	10SF416-*	2½	2½	¼	2	9-10	135	13.5	6.7	1.2
		10S424-*	10SF424-*	2½	2½	¼	2	9-10	165	16.5	8.7	1.2
12	2	12S412-*	12SF412-*	2½	2½	¼	2	11-10	156	13.0	7.2	1.0
		12S416-*	12SF416-*	2½	2½	¼	2	11-10	204	17.0	9.7	1.0
		12S424-*	12SF424-*	2½	2½	¼	2	11-10	268	22.3	12.7	1.0
	2½	12S509-*	12SF509-*	3	3½	10 Ga.	3	11-9	160	14.0	5.7	1.0
		12S512-*	12SF512-*	3	3½	¼	3	11-9	178	14.8	7.2	1.0
		12S516-*	12SF516-*	3	3½	¼	3	11-9	210	17.5	9.7	1.0
		12S524-*	12SF524-*	3	3½	¼	3	11-9	274	22.5	12.7	1.0
	3	12S612-*	12SF612-*	3½	4	¼	3	11-9	198	16.5	7.2	1.0
		12S616-*	12SF616-*	3½	4	¼	3	11-9	216	18.0	9.7	1.0
		12S624-*	12SF624-*	3½	4	¼	3	11-9	280	24.0	12.7	1.0

\* - R For Right Hand  
 \* - L For Left Hand

Tabla 22. Eje de conexión.

No. 1 drive shafts are normally used where standard end plates are furnished. Jig drilling allows for ease of installation.

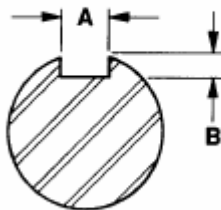


No. 1 Drive Shaft Used Without Seal*					
Bronze Bearing			Ball Bearing		
Shaft Diameter	Part Number	C	G	H	Weight
1	1CD2B	9%	3%	3	2.0
1½	1CD3B	12%	4%	3½	6.3
2	1CD4B	15	5%	4½	13.3
2½	1CD5B	17%	7	5½	21.0
3	1CD6B	19%	8%	6	37.0
3½	1CD7B	23	9	7½	60.4
Shaft Diameter	Part Number	C	G	H	Weight
1	1CD2BB	9	3	3	1.8
1½	1CD3BB	11½	3½	3½	5.6
2	1CD4BB	13½	3½	4½	11.5
2½	1CD5BB	15½	4½	5½	18.0
3	1CD6BB	16½	5½	6	32.0
3½	1CD7BB	20½	6½	7½	52.5

\*Consult Factory

Tabla 23. Cuñeros para ejes.

Drive Shaft Keyways

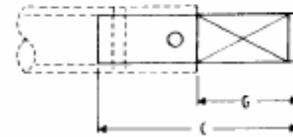


Shaft Diameter	A	B
1	¼	¼
1½	¾	¾
2	½	½
2½	¾	¾
3	¾	¾
3½	¾	¾



Tabla 24. Eje de conexión terminal.

End shafts serve only to support the end conveyor section and are therefore usually supplied in cold rolled steel. End shafts are jig drilled for ease of assembly and close diametrical tolerances are held for proper bearing operation.



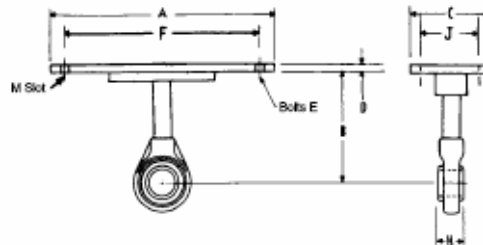
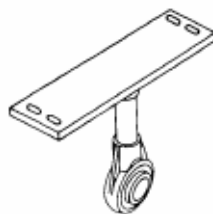
End Shaft Used Without Seal**									
Bronze Bearing					Ball Bearing				
Shaft Diameter	Part Number*	C	G	Weight	Shaft Diameter	Part Number*	C	G	Weight
1	CE2B	6½	3½	1.4	1	CE2BB	6	3	1.2
1½	CE3B	9½	4½	4.5	1½	CE3BB	8½	3½	3.8
2	CE4B	10½	5½	9.0	2	CE4BB	8½	3½	7.5
2½	CE5B	11½	7	15.4	2½	CE5BB	9½	4½	12.4
3	CE6B	13½	8½	25.6	3	CE6BB	10½	5½	20.8
3½	CE7B	15½	9½	42.4	3½	CE7BB	13½	6½	34.4

\*\*\*Consult Factory

Tabla 25. Rodamiento con base.

Style 60

No. 60 hangers are furnished with a heavy duty, permanently lubricated and sealed, self-aligning ball bearing which permits temperatures up to 245 degrees F. and will allow for up to 4 degrees shaft misalignment. This hanger is mounted on top of the trough flanges. Grease fitting can be furnished if specified.



Conveyor Diameter	Coupling Size	Part Number*	A	B	C	D	E	F	H	J	Weight Each	M Slot
6	1½	6CH603	9½	4½	4	¾	¾	8½	1½	2	7	¾ x 1½
9	1½	9CH603	13½	6½	4	¾	¾	12½	1½	2	8	¾ x 1½
	2	9CH604	13½	6½	4	¾	¾	12½	1½	2	9	¾ x 1½
10	1½	10CH603	14½	6½	4	¾	¾	13½	1½	2	9	¾ x 1½
	2	10CH604	14½	6½	4	¾	¾	13½	1½	2	10	¾ x 1½
12	2	12CH604	17½	7½	5	¾	¾	15½	1½	2½	12	¾ x 1½
	2½	12CH605	17½	7½	5	¾	¾	15½	1½	2½	20	¾ x 1½
	3	12CH606	17½	7½	5	¾	¾	15½	2½	2½	30	¾ x 1½
14	2½	14CH605	19½	9½	5	¾	¾	17½	1½	2½	21	¾ x 1½
	3	14CH606	19½	9½	5	¾	¾	17½	2½	2½	32	¾ x 1½
16	3	16CH606	21½	10½	5	¾	¾	19½	2½	2½	35	¾ x 1½
18	3	18CH606	24½	12½	6	¾	¾	22½	2½	3½	40	¾ x 1½
20	3	20CH606	26½	13½	6	¾	¾	24½	2½	3½	45	¾ x 1½
24	3½	24CH607	30½	16½	6	¾	¾	28½	2½	3½	58	¾ x 1½

\*For hangers with oil pipe add -O to part number