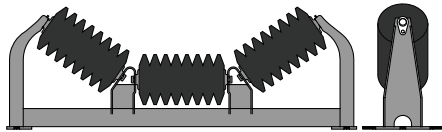
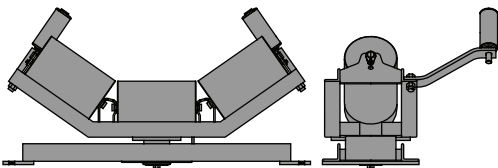


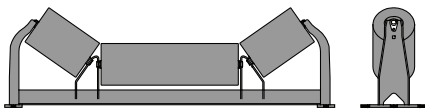
Equal Troughing Idlers support the belt and load in the transport section of the conveyor. Designed to meet or exceed the load limits established by the Conveyor Equipment Manufacturers Association (CEMA).



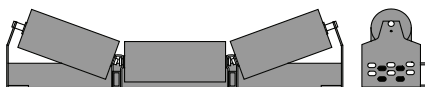
Impact Troughing Idlers are a special version of troughing idlers, providing a roll with cushioning rubber discs to lessen the belt damage due to impact from materials being loaded onto the belt. The frame is additionally reinforced to increase rigidity.



Self-Aligning Idlers, troughing, flat and return, assist in keeping the conveyor belt centered on the conveyor when temporary or transient conditions could result in belt misalignment.



Unequal Troughing (Picking) Idlers are used to reduce the height to aid in magnetic separation, picking, sorting, or manual separation. The inclined roll ends turn up the belt to minimize spillage. Rubber disc rolls are also available. The load ratings are greatly reduced from standard troughing idlers because most of the weight is on the long center roll.



Channel Inset Troughing Idlers are attached to a channel conveyor or other vertical surface by side mounting. They are used in tight clearance areas requiring a low profile. Rubber disc rolls are also available. Designed to interchange with other major brands.



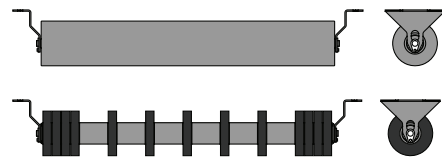
Flat Carrier Idler applications include picking, sorting, feeders, and package handling. Rubber disc rolls are also available. Load ratings are the same as return rolls and are greatly reduced from that of troughing idlers because of the long shaft length and having only two bearings.



Live Shaft Idlers with pillow block bearings provide an increased loading capacity. Available in solid and spaced rubber discs rolls and steel rolls.

**Return Idlers** support the belt during the return path and meet or exceed the CEMA load requirements.

**Return and flat idlers** (R, RRD, F, FRD, CIR, CIRRD, CIF, AND CIFRD types) in B, C, D, and E series should not be used in a snub pulley type application. Shafting, bearings, and brackets may be overloaded in such applications leading to premature failure.

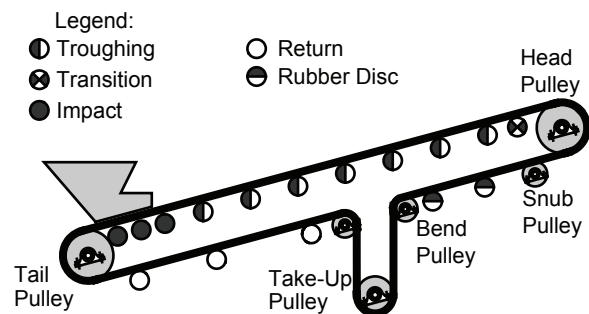


The following is a simplified conveyor used to illustrate basic belt conveyor components. Many variations of elevation, loading, discharge, idlers and idler spacing, pulleys, and accessories are possible.

**Steel Tube** Used where materials are not sticky, corrosive, or abrasive.

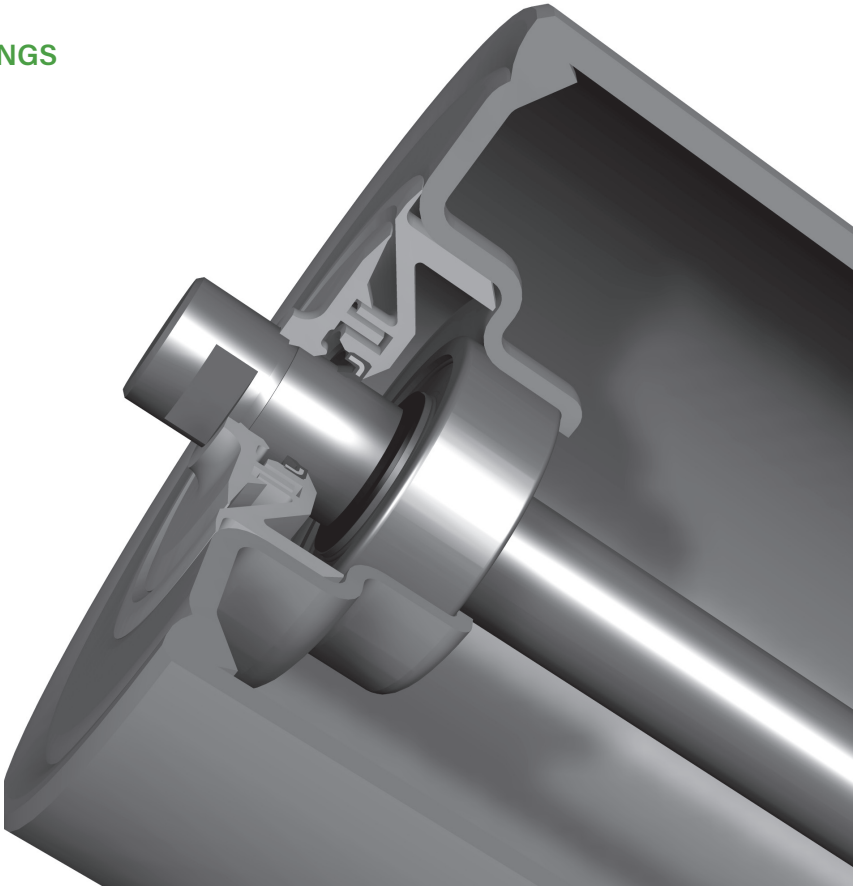
**Rubber Disc** Used where sticky, corrosive, or abrasive materials are present. Massed end discs are standard.

**Covered Rolls** Used where very sticky or abrasive materials are present.



**CEMA C CLASS IDLERS PRODUCT OFFERINGS**

- Equal Trougher
- Equal Impact Trougher
- Unequal Trougher
- Unequal Impact Trougher
- Flat Carrier
- Impact Flat Carrier
- Return Roller
- Return Rubber Disc
- Channel Inset Flat Carrier
- Channel Inset Flat Rubber Disc Carrier
- Channel Inset Trougher
- Channel Inset Return Roller
- Channel Inset Impact Trougher
- Channel Inset Impact Return Roller
- Self-Aligner Trougher
- Self-Aligner Return Roller
- Self-Aligner Flat Roller
- Additional configurations available

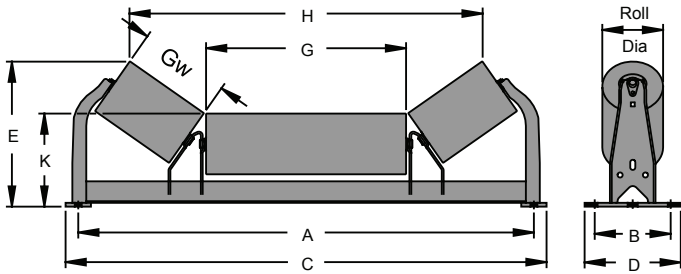


**CEMA C LOAD RATINGS**

BELT WIDTH	TROUGHING ANGLE			RETURN & FLAT	TWO-ROLL V-RETURNS	UNEQUAL (Picking)	LIVE SHAFT
	20°	35°	45°				
18	900	900	900	475	500	475	1200
24	900	900	900	325	500	475	1,200
30	900	900	900	250	500	475	1,200
36	900	837	810	200	500	325	1,200
42	850	791	765	150	500	250	1,100
48	800	744	720	125	500	200	1,000
54	750	698	675	CEMA D	500	150	875
60	700	650	630	CEMA D	500	125	780
66	-	-	-	CEMA D	500	-	-



# CEMA C UNEQUAL TROUGHER & FLAT CARRIER



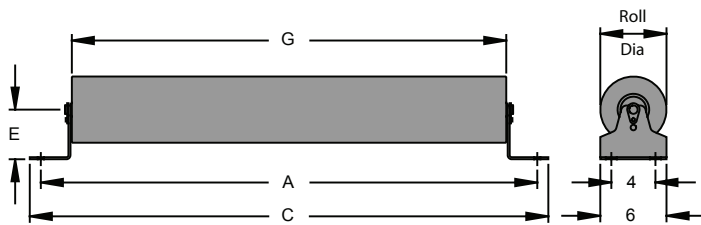
Belt Width	Standard Dimensions				Wide Base	
	A	B	C	D	Aw	Cw
24	33	6	35 1/2	8	39	41 1/2
30	39	6	41 1/2	9 1/2	45	47 1/2
36	45	6	47 1/2	9 1/2	51	53 1/2
42	51	7 1/2	53 1/2	9 1/2	57	59 1/2
48	57	7 1/2	59 1/2	9 1/2	63	65 1/2
54	63	9	65 1/2	10 15/16	69	71 1/2
60	69	9	71 1/2	11	75	77 1/2

## 20° UNEQUAL TROUGHER

Belt Width	4" Roll Diameter				5" Roll Diameter				6" Roll Diameter				G	Gw			
	Part Number	E	H	K	WT	Part Number	E	H	K	WT	Part Number	E			H	K	WT
24	C4-20TU-24SB	10 1/8	27 5/16	8 1/8	40	C5-20TU-24SB	10 5/8	27	8 5/8	46	C6-20TU-24SB	11 1/16	26 11/16	9 1/8	53	15 7/16	5 7/16
30	C4-20TU-30SB	10 1/8	33 1/4	8 1/8	47	C5-20TU-30SB	10 5/8	32 15/16	8 5/8	54	C6-20TU-30SB	11 1/16	32 9/16	9 1/8	62	21 3/8	5 7/16
36	C4-20TU-36SB	10 1/8	39 1/4	8 1/8	54	C5-20TU-36SB	10 5/8	38 7/8	8 5/8	62	C6-20TU-36SB	11 1/16	38 9/16	9 1/8	71	27 3/8	5 7/16
42	C4-20TU-42SB	10 9/16	45 1/4	8 1/2	69	C5-20TU-42SB	11	44 7/8	9	77	C6-20TU-42SB	11 7/16	44 9/16	9 1/2	87	33 3/8	5 7/16
48	C4-20TU-48SB	10 9/16	51 1/4	8 1/2	75	C5-20TU-48SB	11	50 7/8	9	84	C6-20TU-48SB	11 7/16	50 9/16	9 1/2	96	39 3/8	5 7/16
54	C4-20TU-54SB	10 9/16	57 1/4	8 1/2	83	C5-20TU-54SB	11	56 7/8	9	92	C6-20TU-54SB	11 7/16	56 9/16	9 1/2	105	45 3/8	5 7/16
60	C4-20TU-60SB	10 9/16	63 1/4	8 1/2	90	C5-20TU-60SB	11	62 7/8	9	100	C6-20TU-60SB	11 7/16	62 9/16	9 1/2	114	51 3/8	5 7/16

## 35° UNEQUAL TROUGHER

Belt Width	4" Roll Diameter				5" Roll Diameter				6" Roll Diameter				G	Gw			
	Part Number	E	H	K	WT	Part Number	E	H	K	WT	Part Number	E			H	K	WT
24	C4-35TU-24SB	12 3/8	25 7/8	8 1/8	42	C5-35TU-24SB	12 3/4	25 1/4	8 5/8	47	C6-35TU-24SB	13 3/16	24 3/4	9 1/8	55	13 1/4	6 3/4
30	C4-35TU-30SB	13 5/8	31 5/8	8 1/8	50	C5-35TU-30SB	14	31 1/16	8 5/8	56	C6-35TU-30SB	14 3/8	30 1/2	9 1/8	65	15 7/16	8 15/16
36	C4-35TU-36SB	13 1/2	35 15/16	8 1/8	56	C5-35TU-36SB	13 15/16	35 3/8	8 5/8	63	C6-35TU-36SB	14 5/16	34 7/8	9 1/8	72	19 3/4	8 15/16
42	C4-35TU-42SB	15 3/16	41 3/16	8 1/2	70	C5-35TU-42SB	15 9/16	40 5/8	9	78	C6-35TU-42SB	15 15/16	40 1/16	9 1/2	89	21 3/8	11 1/8
48	C4-35TU-48SB	15 3/16	47 3/16	8 1/2	77	C5-35TU-48SB	15 9/16	46 5/8	9	86	C6-35TU-48SB	15 15/16	46 1/16	9 1/2	97	27 3/8	11 1/8
54	C4-35TU-54SB	15 3/16	53 3/16	8 1/2	85	C5-35TU-54SB	15 9/16	52 5/8	9	94	C6-35TU-54SB	15 15/16	52 1/16	9 1/2	107	33 3/8	11 1/8
60	C4-35TU-60SB	15 3/16	59 3/16	8 1/2	91	C5-35TU-60SB	15 9/16	58 5/8	9	101	C6-35TU-60SB	15 15/16	58 1/16	9 1/2	115	39 3/8	11 1/8



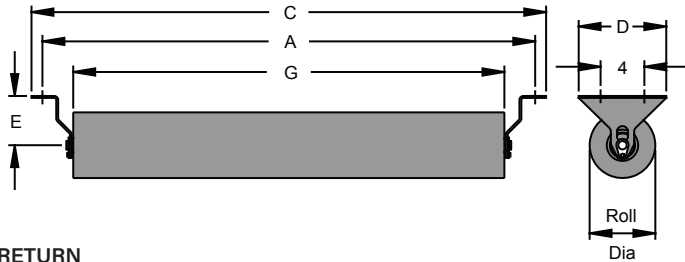
## FLAT CARRIER

Belt Width	4" Roll Diameter				5" Roll Diameter				6" Roll Diameter				Standard Dimensions		
	E=4 1/2"		E=1 1/2"		E=4 1/2"		E=1 1/2"		E=4 1/2"		E=1 1/2"		A	C	G
	Part Number	WT	Part Number	WT	Part Number	WT	Part Number	WT	Part Number	WT	Part Number	WT			
18	C4-F-18SB	22	C4-F-18SB-1	21	C5-F-18SB	26	C5-F-18SB-1	25	C6-F-18SB	31	C6-F-18SB-1	30	27	29	21 3/8
20	C4-F-20SB	24	C4-F-20SB-1	23	C5-F-20SB	27	C5-F-20SB-1	26	C6-F-20SB	32	C6-F-20SB-1	31	29	31	23 3/8
24	C4-F-24SB	26	C4-F-24SB-1	25	C5-F-24SB	31	C5-F-24SB-1	30	C6-F-24SB	36	C6-F-24SB-1	35	33	35	27 3/8
30	C4-F-30SB	30	C4-F-30SB-1	29	C5-F-30SB	35	C5-F-30SB-1	34	C6-F-30SB	42	C6-F-30SB-1	41	39	41	33 3/8
36	C4-F-36SB	34	C4-F-36SB-1	33	C5-F-36SB	39	C5-F-36SB-1	38	C6-F-36SB	48	C6-F-36SB-1	47	45	47	39 3/8
42	C4-F-42SB	37	C4-F-42SB-1	36	C5-F-42SB	44	C5-F-42SB-1	43	C6-F-42SB	53	C6-F-42SB-1	52	51	53	45 3/8
48	C4-F-48SB	41	C4-F-48SB-1	40	C5-F-48SB	49	C5-F-48SB-1	48	C6-F-48SB	59	C6-F-48SB-1	58	57	59	51 3/8
54*	C4-F-54SB	45	C4-F-54SB-1	44	C5-F-54SB	53	C5-F-54SB-1	52	C6-F-54SB	65	C6-F-54SB-1	64	63	65	57 3/8
60*	C4-F-60SB	49	C4-F-60SB-1	48	C5-F-60SB	58	C5-F-60SB-1	57	C6-F-60SB	70	C6-F-60SB-1	69	69	71	63 3/8

\*CEMA recommends D Idlers for 54" and 60" flat carrying idlers. Dimensions are for top position. There are four additional positions available.

# CEMA C RETURN & V-RETURN

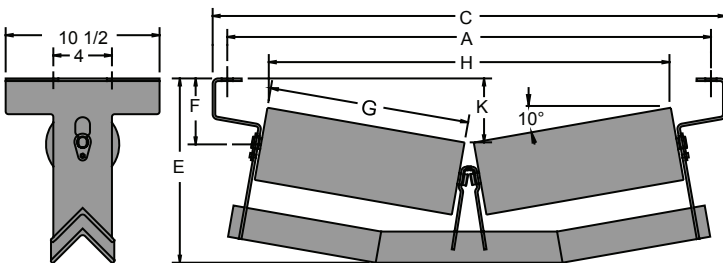
Belt Width	Standard Dimensions		
	A	C	G
18	27	29	21 3/8
20	29	31	23 3/8
24	33	35	27 3/8
30	39	41	33 3/8
36	45	47	39 3/8
42	51	53	45 3/8
48	57	59	51 3/8
54	63	65	57 3/8
60	69	71	63 3/8



## RETURN

Belt Width	4" Roll Diameter					5" Roll Diameter					6" Roll Diameter				
	Std E=4 1/2"		Opt E=1 1/2"		WT	Std E=4 1/2"		Opt E=1 1/2"		WT	Std E=4 1/2"		Opt E=1 1/2"		WT
	Part Number	D	Part Number	D		Part Number	D	Part Number	D		Part Number	D	Part Number	D	
18	C4-R-18SB	8	C4-R-18SB-1	6	20	C5-R-18SB	8	C5-R-18SB-1	6	23	C6-R-18SB	8	C6-R-18SB-1	6	28
20	C4-R-20SB	8	C4-R-20SB-1	6	21	C5-R-20SB	8	C5-R-20SB-1	6	25	C6-R-20SB	8	C6-R-20SB-1	6	30
24	C4-R-24SB	8	C4-R-24SB-1	6	23	C5-R-24SB	8	C5-R-24SB-1	6	28	C6-R-24SB	8	C6-R-24SB-1	6	34
30	C4-R-30SB	8	C4-R-30SB-1	6	27	C5-R-30SB	8	C5-R-30SB-1	6	32	C6-R-30SB	8	C6-R-30SB-1	6	39
36	C4-R-36SB	8	C4-R-36SB-1	6	31	C5-R-36SB	8	C5-R-36SB-1	6	37	C6-R-36SB	8	C6-R-36SB-1	6	45
42	C4-R-42SB	8	C4-R-42SB-1	6	35	C5-R-42SB	8	C5-R-42SB-1	6	41	C6-R-42SB	8	C6-R-42SB-1	6	51
48	C4-R-48SB	8	C4-R-48SB-1	6	38	C5-R-48SB	8	C5-R-48SB-1	6	46	C6-R-48SB	8	C6-R-48SB-1	6	56
54*	C4-R-54SB	8	C4-R-54SB-1	6	42	C5-R-54SB	8	C5-R-54SB-1	6	50	C6-R-54SB	8	C6-R-54SB-1	6	62
60*	C4-R-60SB	8	C4-R-60SB-1	6	46	C5-R-60SB	8	C5-R-60SB-1	6	55	C6-R-60SB	8	C6-R-60SB-1	6	68

Belt Width	Standard Dimensions		
	A	C	G
24	33	35	13 5/8
30	39	41	16 11/16
36	45	47	19 3/4
42	51	53	22 13/16
48	57	59	25 7/8
54	63	65	28 7/8
60	69	71	31 15/16

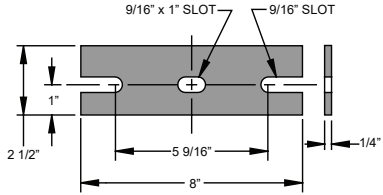
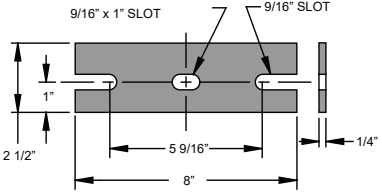
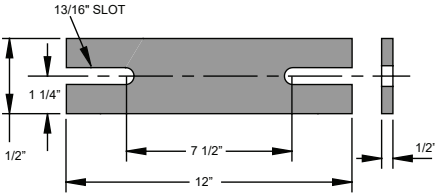
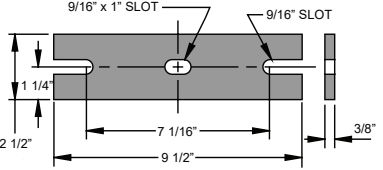
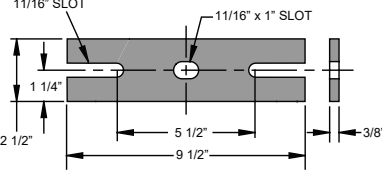
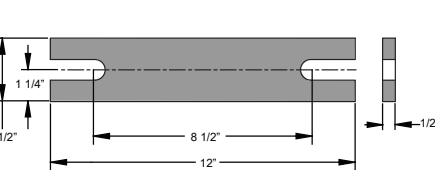
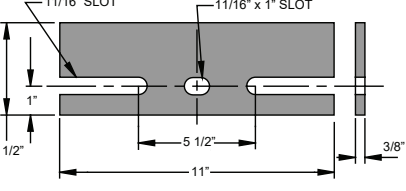
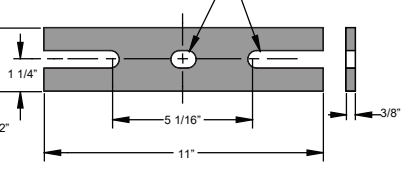
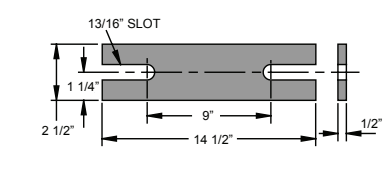
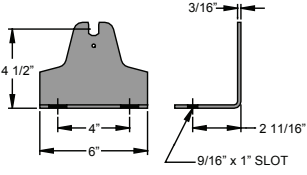
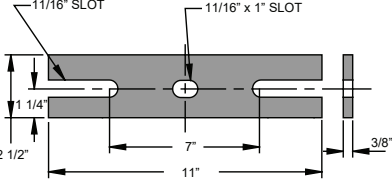
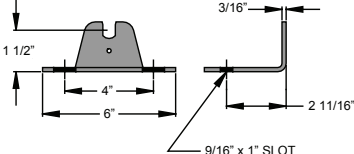
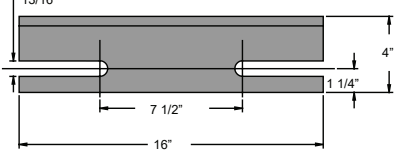
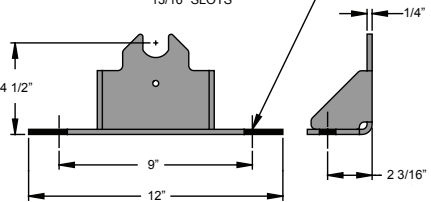


## V-RETURN IDLER (F = 4 1/2")

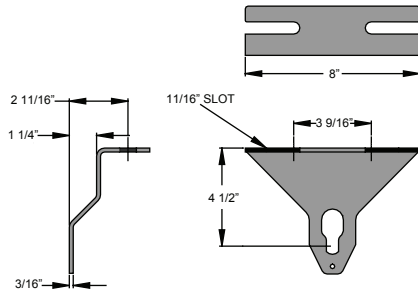
Belt Width	5" Roll Diameter					6" Roll Diameter				
	Part Number	E	H	K	WT	Part Number	E	H	K	WT
24	C5-10VR-24SB-4	13 1/8	27 1/2	4 1/2	48	C6-10VR-24SB-4	13 1/8	27 3/8	4	56
30	C5-10VR-30SB-4	13 5/8	33 1/2	5	55	C6-10VR-30SB-4	13 5/8	33 3/8	4 1/2	64
36	C5-10VR-36SB-4	14 3/16	39 1/2	5 9/16	61	C6-10VR-36SB-4	14 3/16	39 3/8	5 1/16	72
42	C5-10VR-42SB-4	14 11/16	45 9/16	6 1/8	68	C6-10VR-42SB-4	14 11/16	45 3/8	5 5/8	80
48	C5-10VR-48SB-4	15 1/4	51 1/2	6 5/8	75	C6-10VR-48SB-4	15 1/4	51 3/8	6 1/8	87
54	C5-10VR-54SB-4	15 3/4	57 1/2	7 3/16	81	C6-10VR-54SB-4	15 3/4	57 3/8	6 11/16	95
60	C5-10VR-60SB-4	16 1/4	63 1/2	7 11/16	88	C6-10VR-60SB-4	16 1/4	63 3/8	7 1/4	103

## V-RETURN IDLER (F = 7")

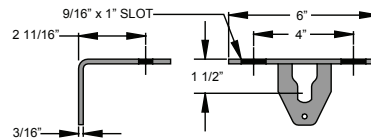
Belt Width	5" Roll Diameter					6" Roll Diameter				
	Part Number	E	H	K	WT	Part Number	E	H	K	WT
24	C5-10VR-24SB-7	15 5/8	27 1/2	7	51	C6-10VR-24SB-7	15 5/8	27 3/8	6 1/2	59
30	C5-10VR-30SB-7	16 1/8	33 1/2	7 1/2	58	C6-10VR-30SB-7	16 1/8	33 3/8	7	67
36	C5-10VR-36SB-7	16 11/16	39 1/2	8 1/16	64	C6-10VR-36SB-7	16 11/16	39 3/8	7 5/8	74
42	C5-10VR-42SB-7	17 3/16	45 9/16	8 5/8	71	C6-10VR-42SB-7	17 3/16	45 3/8	8 1/8	82
48	C5-10VR-48SB-7	17 3/4	51 1/2	9 1/8	77	C6-10VR-48SB-7	17 3/4	51 3/8	8 5/8	90
54	C5-10VR-54SB-7	18 1/4	57 1/2	9 5/8	84	C6-10VR-54SB-7	18 1/4	57 3/8	9 3/16	98
60	C5-10VR-60SB-7	18 3/4	63 1/2	10 1/4	90	C6-10VR-60SB-7	18 3/4	63 3/8	9 3/4	106

CEMA B Details	CEMA C/D Details	CEMA E Details
<p><b>Trougher 14-36 belts</b></p> 	<p><b>Trougher 18-24 belts</b></p> 	<p><b>Trougher 36-60 belts</b></p> 
<p><b>Trougher 42-48 belts</b></p> 	<p><b>Trougher 30-48 belts</b></p> 	<p><b>E 66\" to 78\" belts</b></p> 
<p><b>B,C,D TESA, FSA</b></p> 	<p><b>C 54\" and 60\" belts</b></p> 	<p><b>Trougher E 84-96 belts</b></p> 
<p><b>B,C,D 4 1/2\" Endstand (std) - #01990</b></p> 	<p><b>Trougher D 54 &amp; wider belts</b></p> 	<p><b>B,C,D 1 1/2\" Endstand (opt) - #15001</b></p> 
<p><b>E Self-Aligner</b></p> 	<p><b>4 1/2\" E - Endstand (std) - #42330</b></p> 	

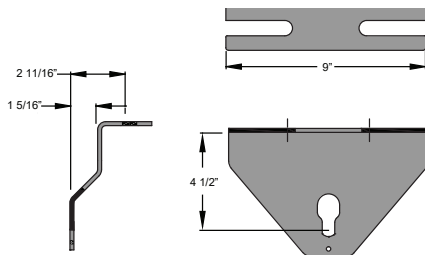
**B,C - 4½" Drop Bracket (std) - #14200**



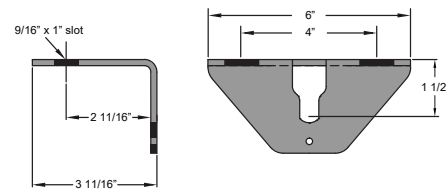
**B,C - 1½" Drop Bracket (opt) - #02200**



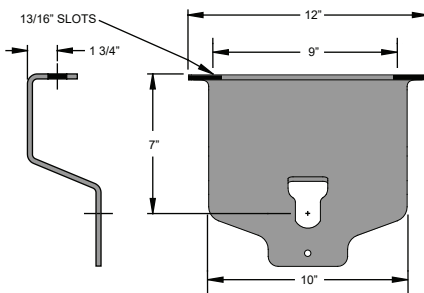
**D - 4½" Drop Bracket (std) - #14206**



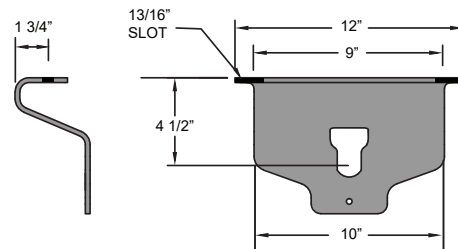
**D - 1½" Drop Bracket (opt) - #02201**



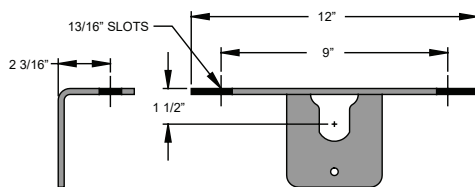
**7" E - Drop Bracket (std) - #41210**



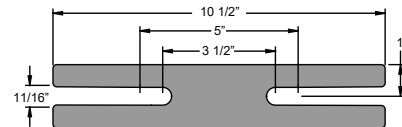
**4½" E Drop Bracket (opt) - #1213**



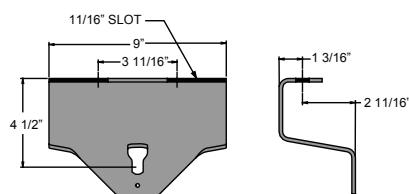
**1½" E - Drop Bracket (opt) - #41211**



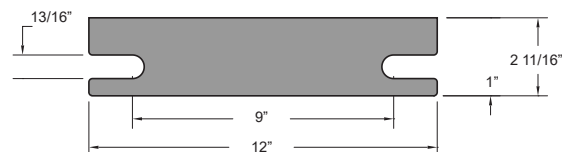
**C,D V-Return Foot Pad**



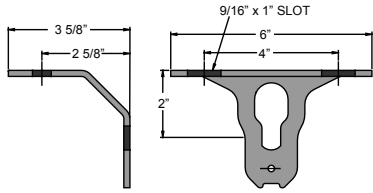
**B, C, D 4½" Belt Saver II Drop Bracket (opt) - #14207**



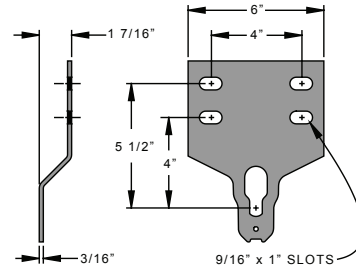
**E V-Return Foot Pad**



**2" CIT Drop Bracket (std) - #24390**

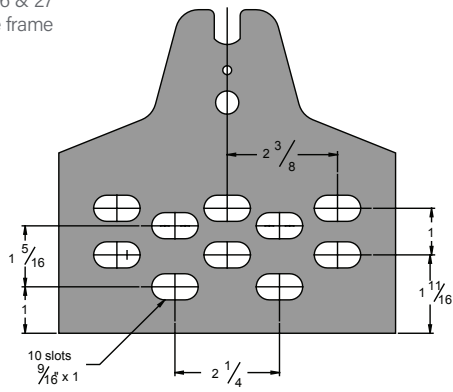


**4" CIT Web Drop Bracket (opt) - #30640**

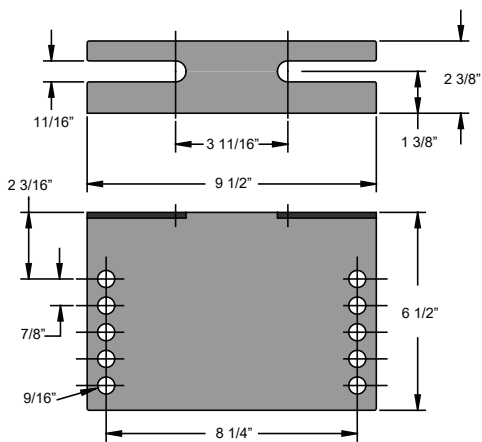


**CEMA C - CIT End Bracket (detail end view)**

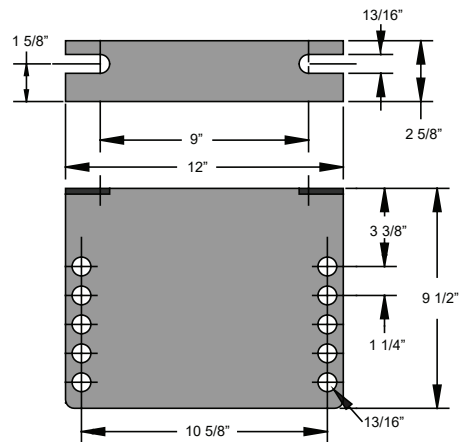
See pages 26 & 27  
for complete frame  
dimensions



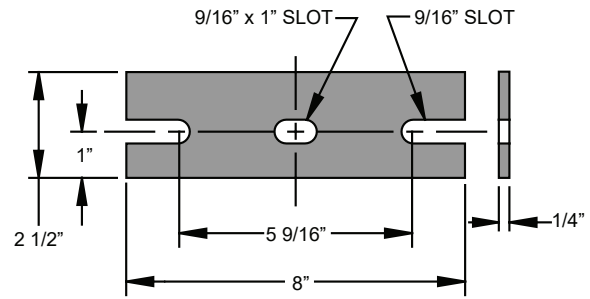
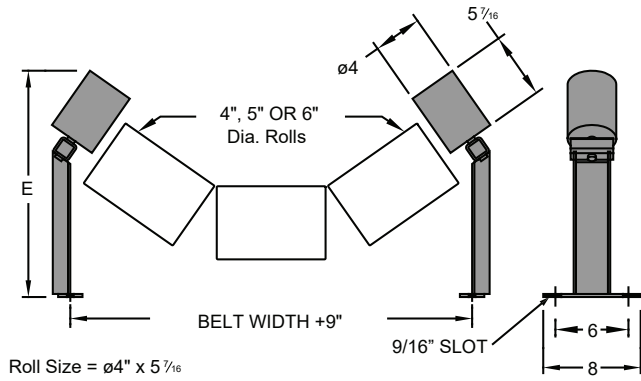
**4 1/2" C/D - IVR Drop Bracket**



**7" E - IVR Drop Bracket**



# GUIDE ROLLERS

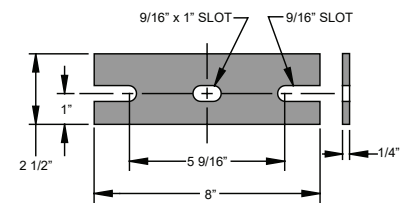
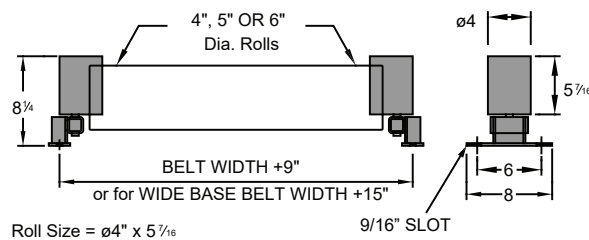


## GRT - GUIDE ROLLER TROUGHED BELT WITH MOUNTING BRACKET

Belt Width	20° Trough				35° Trough				45° Trough			
	Description	Part Number	Height "E"	WT	Description	Part Number	Height "E"	WT	Description	Part Number	Height "E"	WT
14	GRT-20-14	13911	11 13/16	7	GRT-35-14	14161	13 13/16	7	GRT-45-14	23390	14 13/16	8
16	GRT-20-16	13912	11 13/16	7	GRT-35-16	14162	13 13/16	7	GRT-45-16	23391	14 13/16	8
18	GRT-20-18	13900	13 11/16	7	GRT-35-18	14110	16 1/8	8	GRT-45-18	23392	17 1/8	9
20	GRT-20-20	13960	14	7	GRT-35-20	14170	16 5/8	8	GRT-45-20	23393	17 5/16	9
24	GRT-20-24	13910	14 7/16	7	GRT-35-24	14120	17 3/8	9	GRT-45-24	23394	18 11/16	10
30	GRT-20-30	13920	15 3/16	8	GRT-35-30	14130	18 5/8	9	GRT-45-30	23395	20 3/16	10
36	GRT-20-36	13930	15 15/16	8	GRT-35-36	14140	19 3/16	9	GRT-45-36	23396	22 1/16	14
42	GRT-20-42	13940	17 1/16	8	GRT-35-42	14150	21 1/2	10	GRT-45-42	24570	24 5/8	15
48	GRT-20-48	13950	17 13/16	9	GRT-35-48	14160	22 3/4	10	GRT-45-48	23397	25 1/16	16
54	GRT-20-54	28040	18 1/2	9	GRT-35-54	14163	23 15/16	14	GRT-45-54	23398	26 11/16	17
60	GRT-20-60	13913	19 1/8	9	GRT-35-60	14164	25 1/8	15	GRT-45-60	22740	28 1/8	18
72	GRT-20-72	13914	20 11/16	10	GRT-35-72	14165	27 9/16	17	GRT-45-72	23399	31 1/8	20

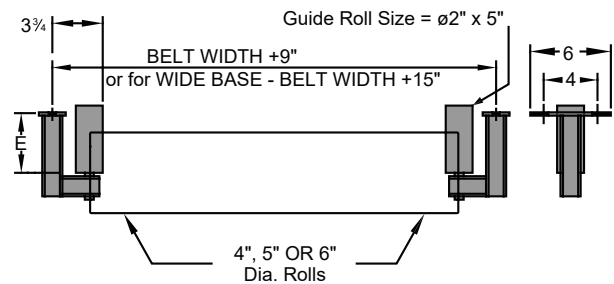
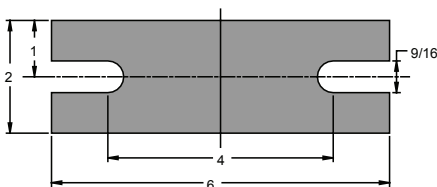
## GRF - GUIDE ROLLER FLAT BELT WITH MOUNTING BRACKET

Part Number	WT
GRF	6



## GRR - GUIDE ROLLER RETURN WITH MOUNTING BRACKET

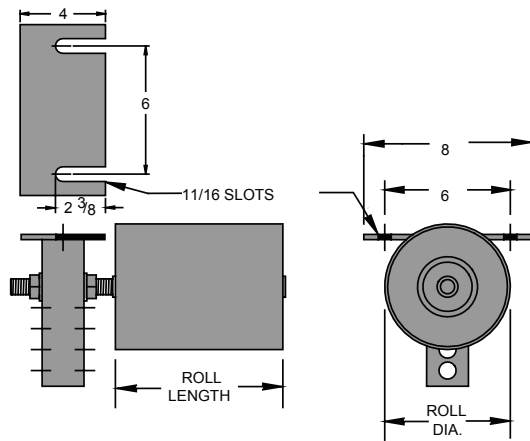
Part Number	Drop "E"	WT
GRR	4 1/2	6
GRR-1	1 1/2	5



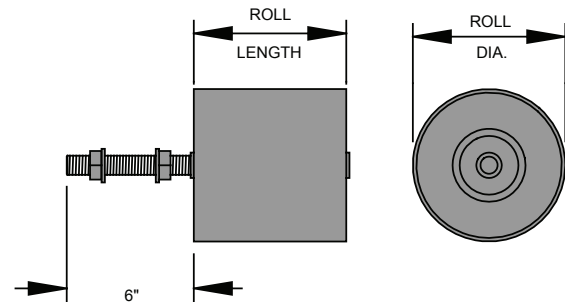
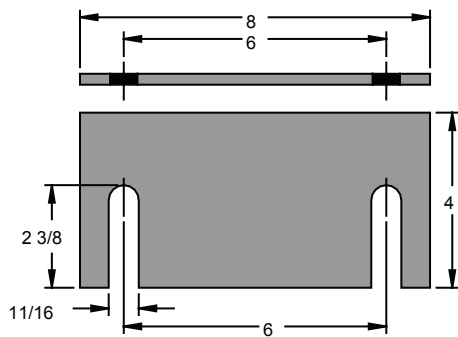
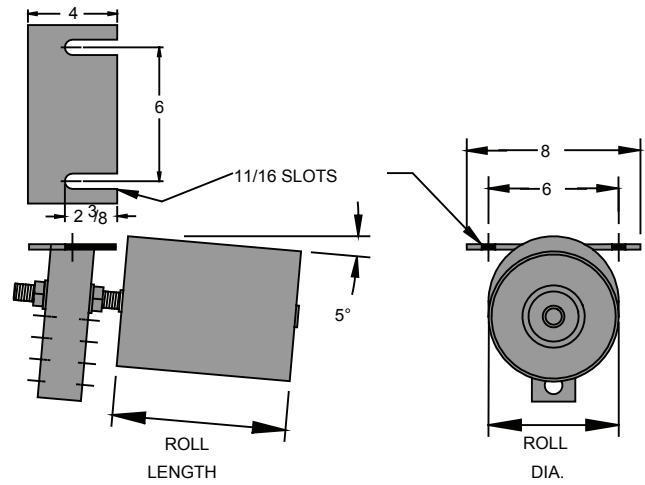
Guide rollers above are sold individually, not by the pair. Guide rollers to be set clear of the belt edges so as to restrain the belt only when it strays. Guide rollers are not intended for use as belt training devices. Constant roller contact with the belt could result in belt and roller damage.



0° STUB IDLER ASSEMBLY

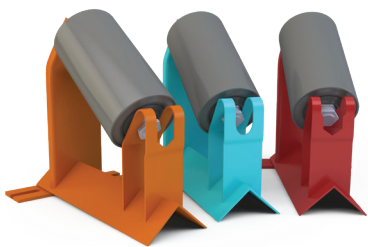


5° STUB IDLER ASSEMBLY

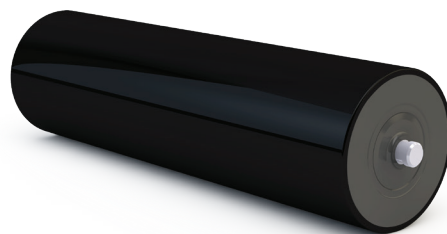


STUB IDLER PART NUMBERS						"SPECIAL" STUB IDLER PARTS			
Diameter	Roll Length	Shaft Diameter	Roll #	0° Assembly	5° Assembly	Diameter	Roll Length	Shaft Diameter	Roll #
4"	4 1/2"	3/4"	34570	34850	34860	Roll with 5" shaft extension			
	5"		34571	34851	34861	5"	5"	3/4"	29330
5"	4 1/2"	3/4"	34580	34852	34862	Rolls with 1" diameter shaft			
	5"		34581	34853	34863	5"	5"	1"	40891
	6"		34582	34854	34864		6"		40892
	7"		33796	34855	34865		7"		40893
	8"		32970	34856	34866		8"		40894
6"	6"	3/4"	34592	34857	34867	6"	6"	1"	40900
	7"		34593	34858	34868		7"		40901
	8"		34594	34859	34869		8"		40902
Mounting Bracket only				34600	34610				11"

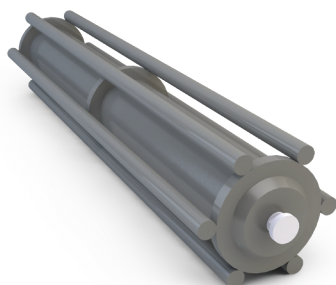
Note: Mounting Brackets for 3/4" diameter shafts have 5 positions on 1 inch centers. Roll # includes roll, shaft & nuts.



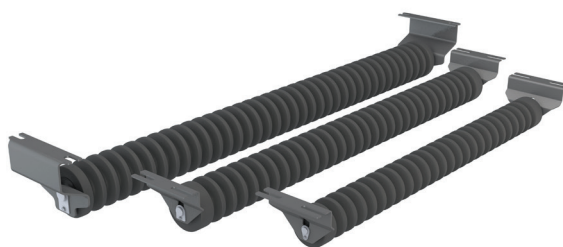
**RETRO ROLLS®** that fit different brands of CEMA B, C, D & E as well as ISO idlers.



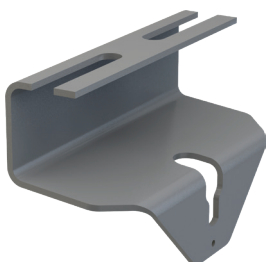
**ROLL COVERINGS** are available in Poly, SBR, Neoprene to extend the life of a PPI roll.



**BEATER BAR RETURN**  
PPI problem solver reduces material buildup



**RETURN RUBBER GROOVED**  
Rugged 1-piece construction for abusive situations

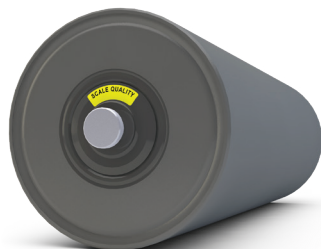


**BELTSAVER™ II**  
Protect your belt from rubbing, uses standard rolls

**SMART ROLL™**  
Belt speed indicator with sensor protection, overload protection, multifunction, maintenance-free



**SCALE QUALITY ROLLS**  
PPI produces scale quality rolls with TIR of .015" or less



**RETURN ROLL GUARD**  
Available in 1½ & 4½ drop, as well as heavy duty