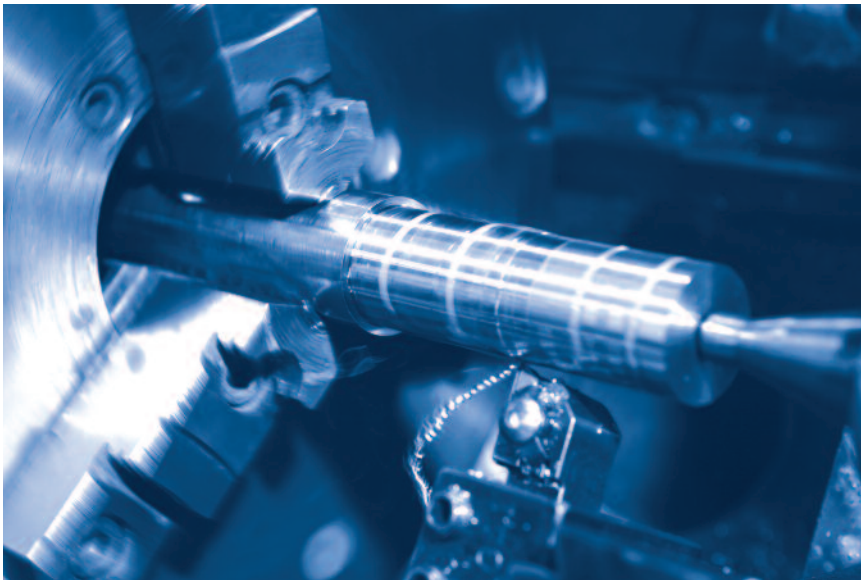


THE 1 SOURCE



conveyor component systems





CONVEYOR COMPONENT SYSTEMS

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BELT SCRUBBERS	22
BELT SCRAPERS	24

conveyor component systems



Conveyor Component Systems, LLC
10640 Dutchtown Road
Knoxville, TN 37932

Phone: 865.777.1096
Fax: 865.675.1618

www.ccsys.us

THE **1** SOURCE

Conveyor Component Systems is **The 1 Source** you need for high quality, high performance belt conveyor components at competitive prices.

Our company was founded to serve bulk material handling machinery manufacturers in a range of industries—from food processing to mining—as well as after market process industry needs.

CCS is located in a modern, 46,000 sq. ft. facility in Knoxville, Tennessee. Our engineering staff carefully evaluates applications and provides design assistance upon request.

Employing leading edge manufacturing and engineering techniques, CCS products are designed and produced to keep pace with today's rapidly growing technologies and the demanding needs of our customers.

Today, companies around the world turn to CCS to improve performance and efficiency of their material handling systems.

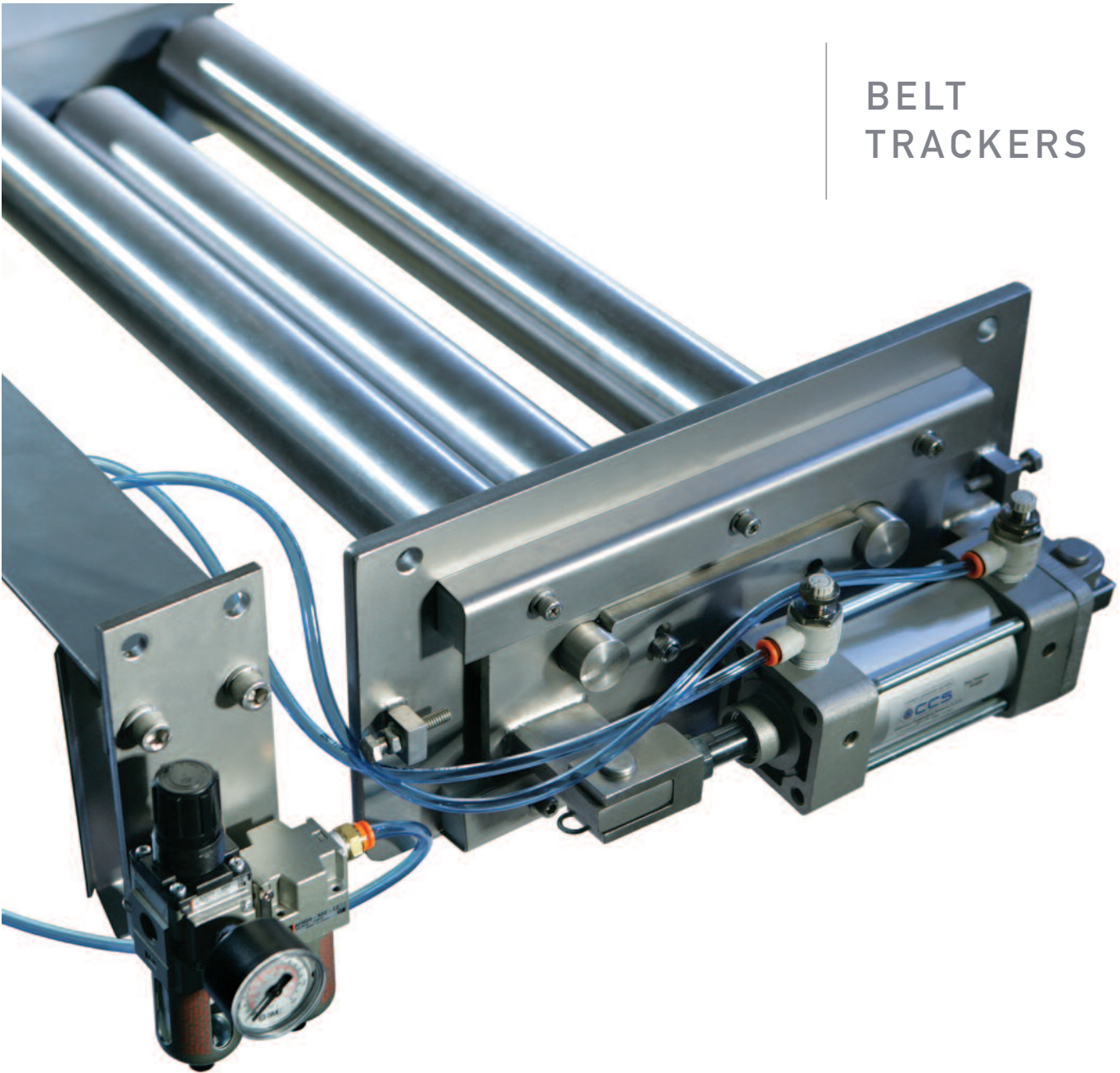
CCS is committed to providing customers with innovative solutions for all conveyor belting and component requirements.

Our goal is to be **The 1 Source** that offers superior service to supply our customers with the highest quality products, on time, at highly competitive prices, and backed by quality support and service.

We'll be happy to design any of our products to meet your specific needs. Contact a CCS Sales Representative by phone at (865)777-1096 or by e-mail at sales@ccsys.us



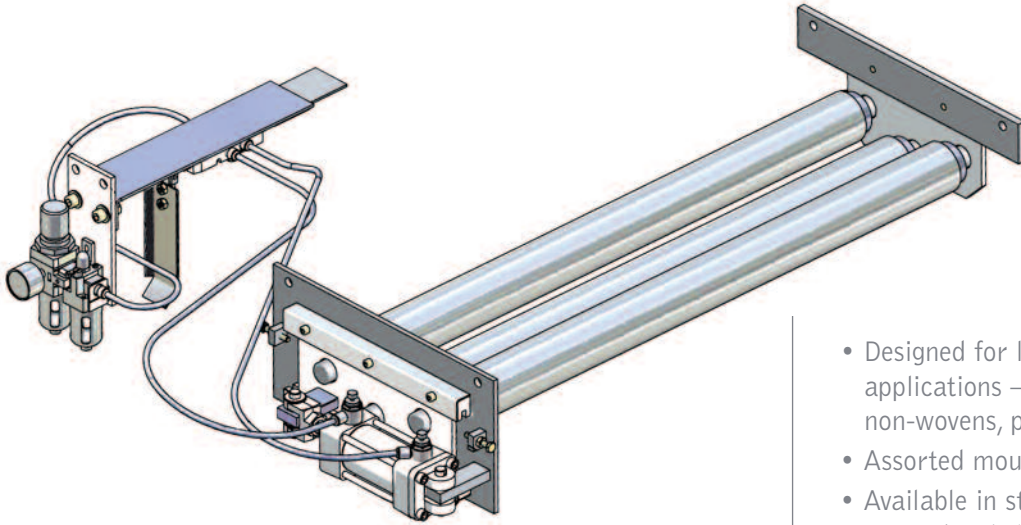
BELT TRACKERS



CCS Belt Trackers are continuous, self-correcting, mechanical systems

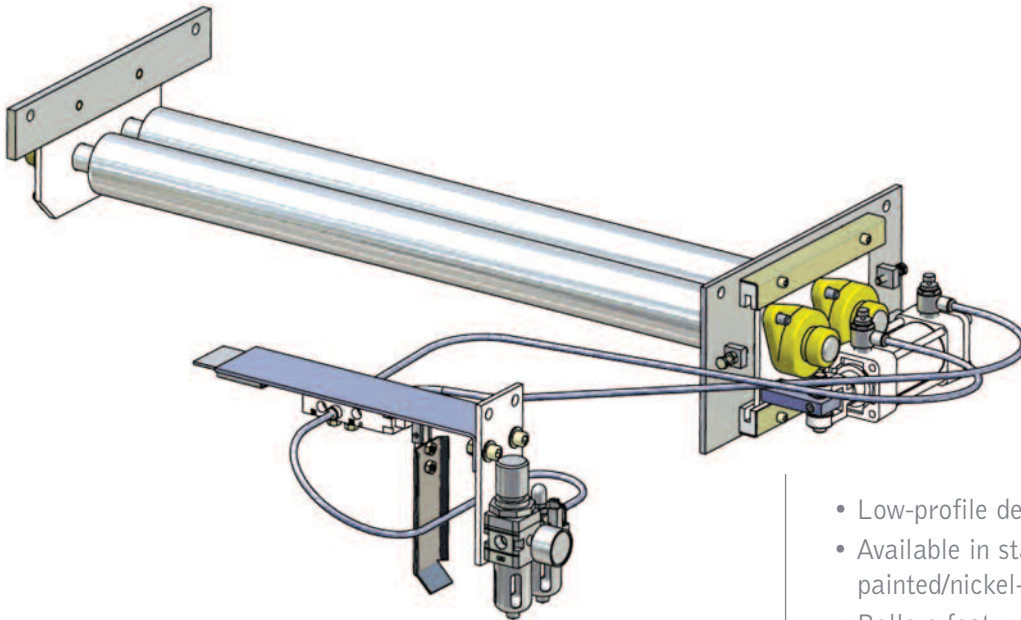
- Installed to dramatically increase productivity and profitability
 - Reduce drive load
 - Increase belt life
- Reduce maintenance and belt replacement costs
 - Reduce downtime
- Reduce product spillage or loss
- Robust design for durability
- Only requirement – 40 p.s.i. airline
 - No electrical wiring necessary
- Causes no damage to belt surface or lacing
- Electronic sensors available upon request
- Available in stainless steel, or painted/nickel plated carbon steel and in a variety of sizes, up to 200" belt widths
- Custom applications upon request

STANDARD 3-ROLL TRACKER



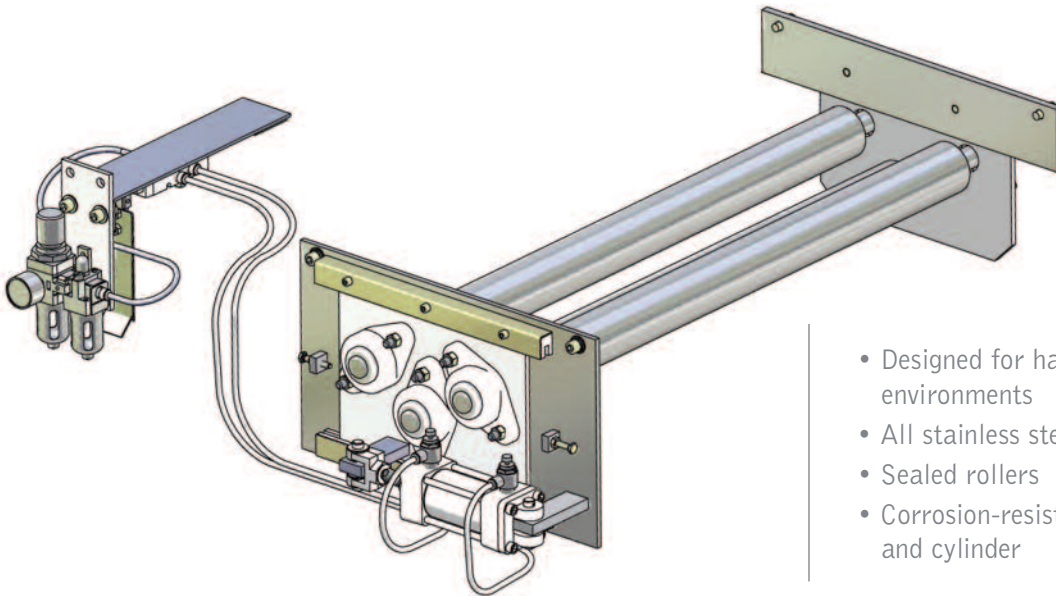
- Designed for light to medium applications – bakery, textiles, non-wovens, packaging, etc.
- Assorted mounting options
- Available in stainless steel or painted/nickel-plated carbon steel
- Rollers feature internal extended life bearings
- Electronic sensors available
- Quick & easy installation
- Reversing capabilities

LOW PROFILE 2-ROLL TRACKER



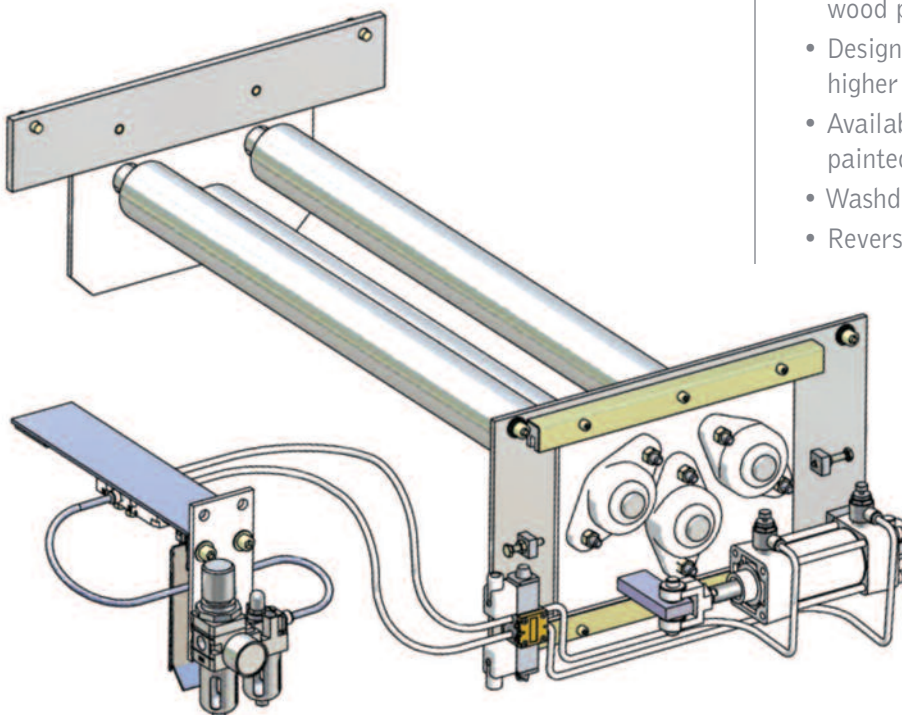
- Low-profile design
- Available in stainless steel or painted/nickel-plated carbon steel
- Rollers feature internal extended life bearings
- Beneficial for applications with limited space
- Designed for conveyors with limited tracking problems

WASHDOWN DUTY TRACKER



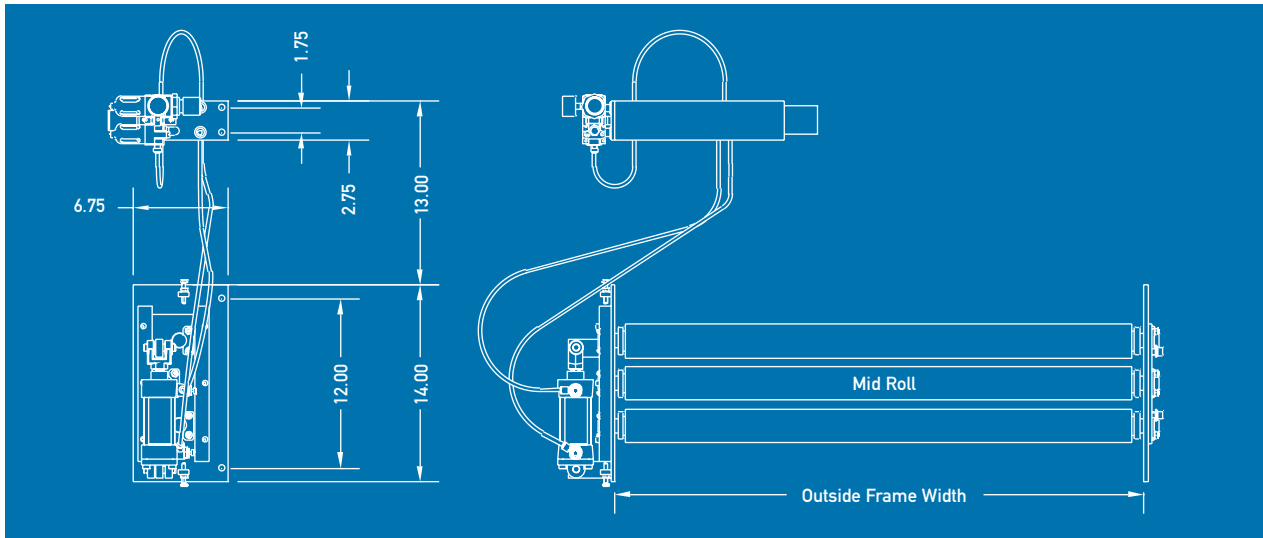
- Designed for harsh corrosive environments
- All stainless steel construction
- Sealed rollers
- Corrosion-resistant bearings and cylinder

HEAVY DUTY REVERSING BELT TRACKER



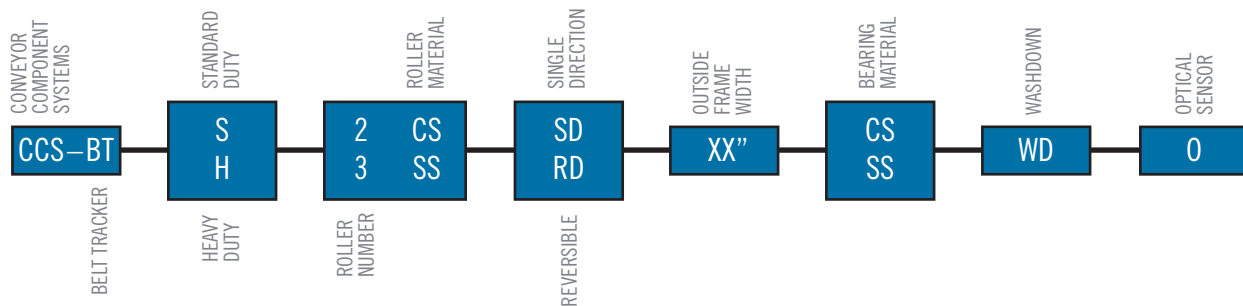
- Designed for heavy applications – large bulk material handling, wood products, mining, etc.
- Designed for wider belts with higher tension and greater loads
- Available in stainless steel or painted/nickel-plated carbon steel
- Washdown-type available
- Reversing capabilities

BELT TRACKER ENGINEERING INFORMATION



Belt Tracker should be mounted on return side of belt approximately 1.5x belt width from center of tail pulley to center of mid roll.
 Air Requirement = 40 P.S.I.

BELT TRACKER PART NUMBERING INFORMATION

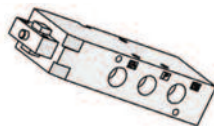


Example Model Number: CCS-S-3SS-SD-35-SS-WD

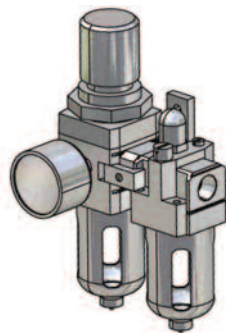
BELT TRACKER REPLACEMENT PARTS



BEARING
#03-0360



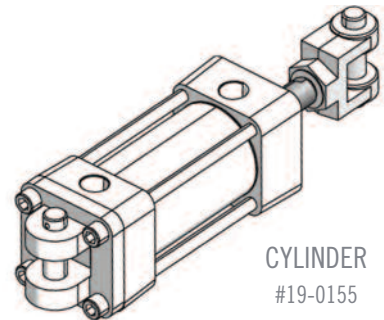
VALVE
Single Direction: #19-0154
Dual Direction: #19-0053



FILTER/REGULATOR
#19-0156



FLOW CONTROL
#19-0153



CYLINDER
#19-0155

TROUGHING IDLERS



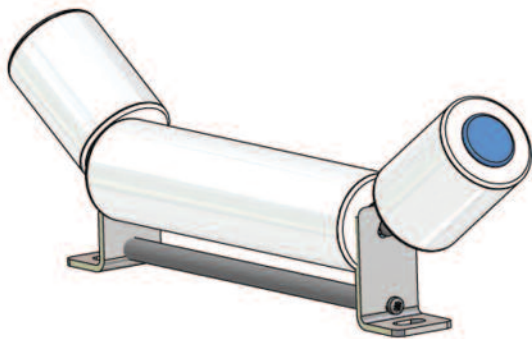
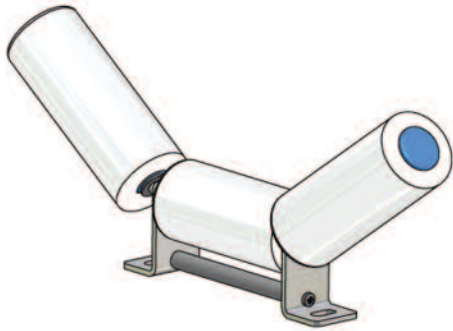
— CCS Troughing Idlers are ideal for conveyance of moderate loads at speeds up to 400 ft./min. —

- Easy to install, maintain and clean
- All base/frame material standard 304 stainless steel
- All idlers feature ABEC-1 rated precision ball bearings with rubber seals for maximum life & corrosion resistance
- Suitable for a variety of industries: Packaging, material handling, food processing, agricultural, etc.

Options Available:

- Idlers: For single or dual direction belts
 - Rollers: High-Impact PVC, carbon or stainless steel
 - Bearings: Carbon or stainless steel
- Variety of mounting options available (see page 12)
- Custom sizes available upon request

3-ROLL 35° TROUGHING IDLERS



STANDARD IDLER DIMENSIONS

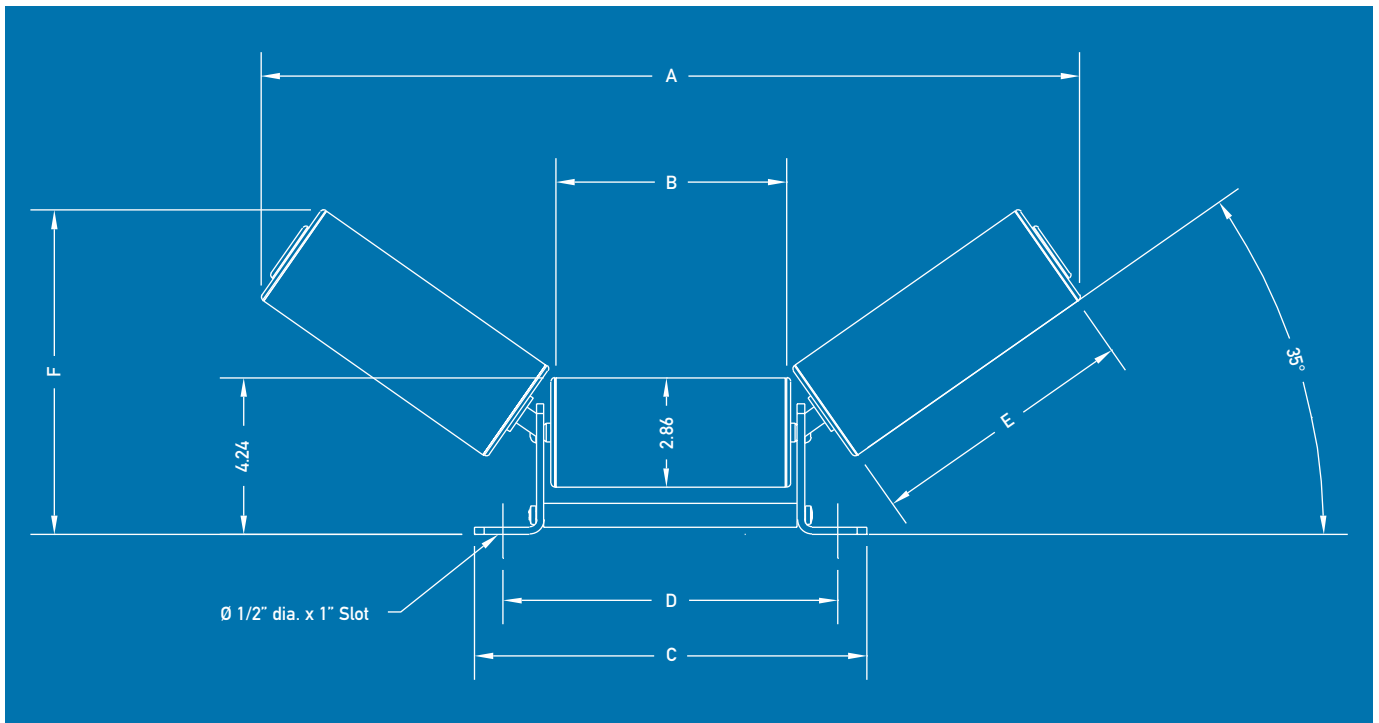
BELT WIDTH	A	B	C	D	E	F
18	21.75	6	10.00	8.75	7	8.63
24	27.75	12	16.00	14.75	7	8.63
30	33.75	18	22.00	20.75	7	8.63
36	39.75	24	28.00	26.75	7	8.63
42	45.75	30	34.00	32.75	7	8.63
48	51.75	36	40.00	38.75	7	8.63

Example Model Number:
CCS-TI-PVC3S-35-18-CSSD

LOW PROFILE IDLER DIMENSIONS

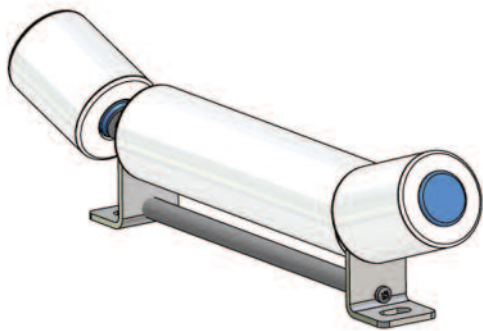
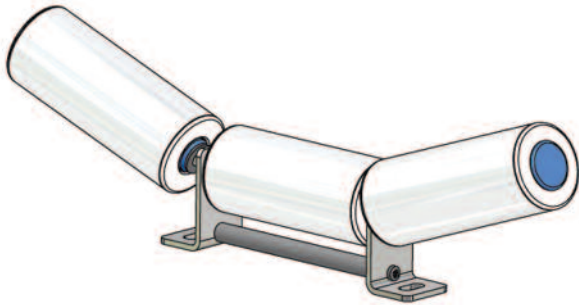
BELT WIDTH	A	B	C	D	E	F
18	21.25	11.25	15.00	13.88	3.75	6.75
24	27.25	17.25	21.00	19.88	3.75	6.75
30	33.25	23.25	27.00	25.88	3.75	6.75
36	39.25	29.25	33.00	31.88	3.75	6.75
42	45.25	35.25	39.00	37.88	3.75	6.75
48	51.25	41.25	45.00	43.88	3.75	6.75

Example Model Number:
CCS-TI-PVC3L-35-18-CSSD



Contact CCS for assistance in determining appropriate model and options at 865.777.1096 or sales@ccsys.us

3-ROLL 20° TROUGHING IDLERS



STANDARD IDLER DIMENSIONS

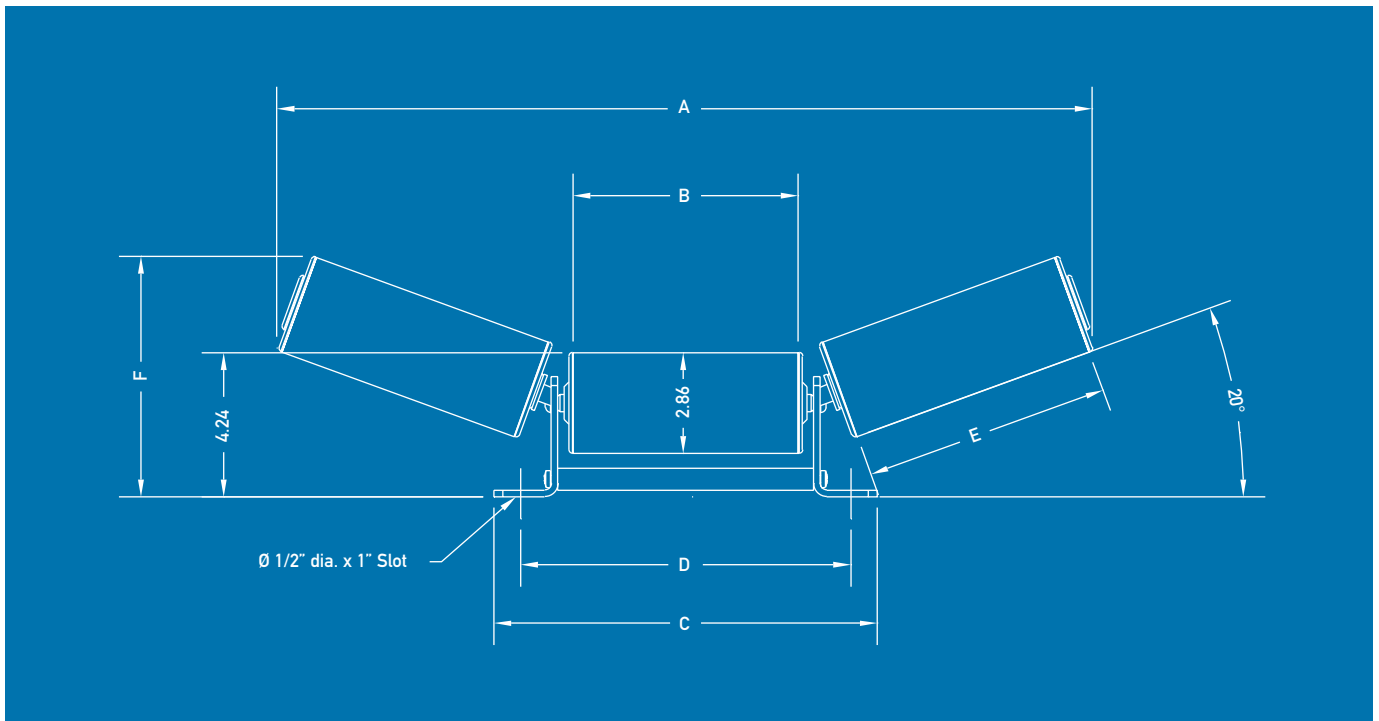
BELT WIDTH	A	B	C	D	E	F
18	23.18	6.38	10.00	8.75	7	6.98
24	29.18	12.38	16.00	14.75	7	6.98
30	35.18	18.38	22.00	20.75	7	6.98
36	41.18	24.38	28.00	26.75	7	6.98
42	47.18	30.38	34.00	32.75	7	6.98
48	53.18	36.38	40.00	38.75	7	6.98

Example Model Number:
CCS-TI-PVC3S-20-18-CSSD

LOW PROFILE IDLER DIMENSIONS

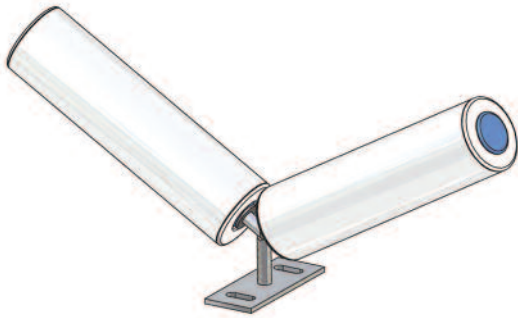
BELT WIDTH	A	B	C	D	E	F
18	20.75	11.00	15.00	13.88	3.50	5.75
24	26.75	17.00	21.00	19.88	3.50	5.75
30	32.75	23.00	27.00	25.88	3.50	5.75
36	38.75	29.00	33.00	31.88	3.50	5.75
42	44.75	35.00	39.00	37.88	3.50	5.75
48	50.75	41.00	45.00	43.88	3.50	5.75

Example Model Number:
CCS-TI-PVC3L-20-18-CSSD



Contact CCS for assistance in determining appropriate model and options at 865.777.1096 or sales@ccsys.us

2-ROLL 30° TROUGHING IDLERS

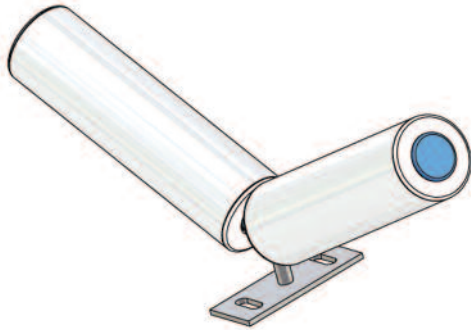


30° IDLER DIMENSIONS

BELT WIDTH	A	B	C	D
12	16.50	7.75	7.50	30
18	21.75	9.25	10.50	30
24	26.88	10.75	13.50	30
30	32.08	12.25	16.50	30

Example Model Number:
CCS-TI-PVC2A-30-18-CSSD

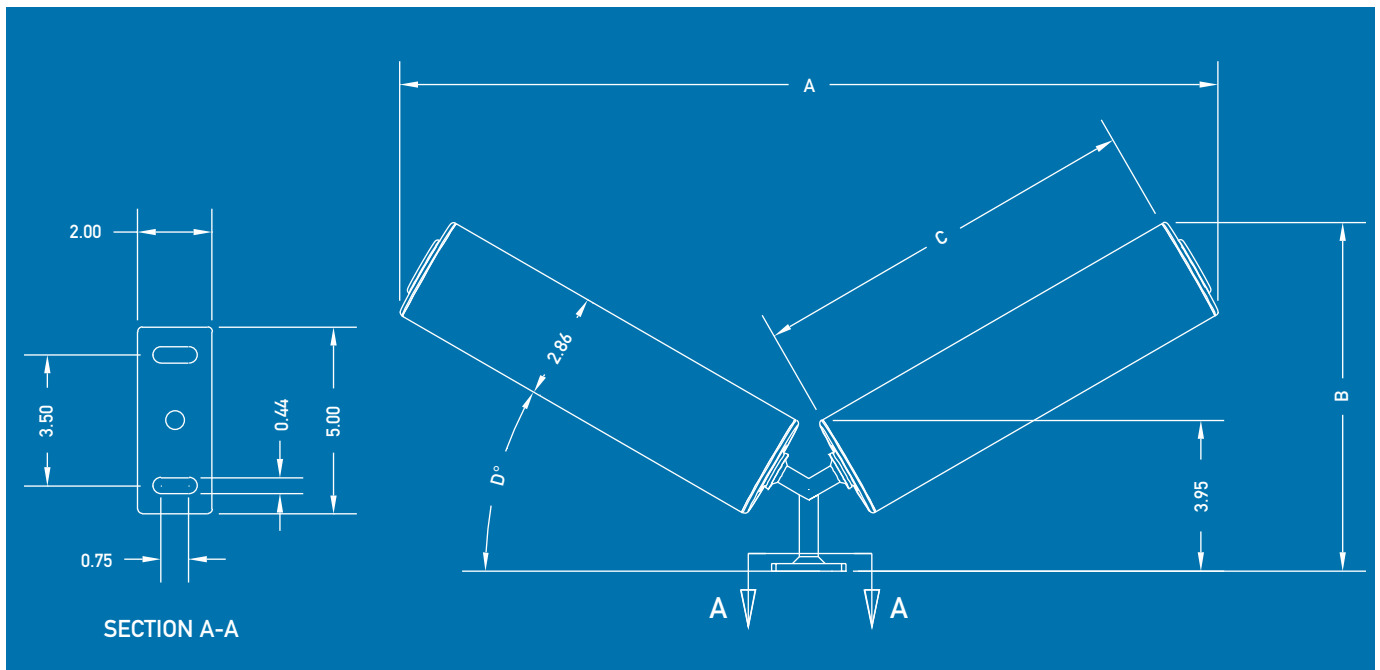
2-ROLL 25° TROUGHING IDLERS



25° IDLER DIMENSIONS

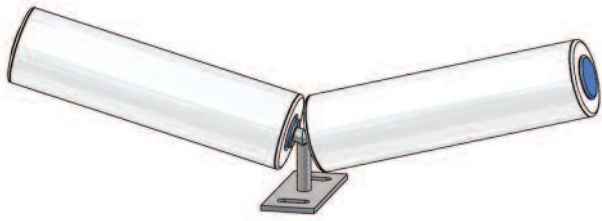
BELT WIDTH	A	B	C	D
12	17.13	7.18	7.50	25
18	22.50	8.44	10.50	25
24	27.94	9.68	13.50	25
30	33.38	10.94	16.50	25

Example Model Number:
CCS-TI-PVC2A-25-18-CSSD



Contact CCS for assistance in determining appropriate model and options at 865.777.1096 or sales@ccsys.us

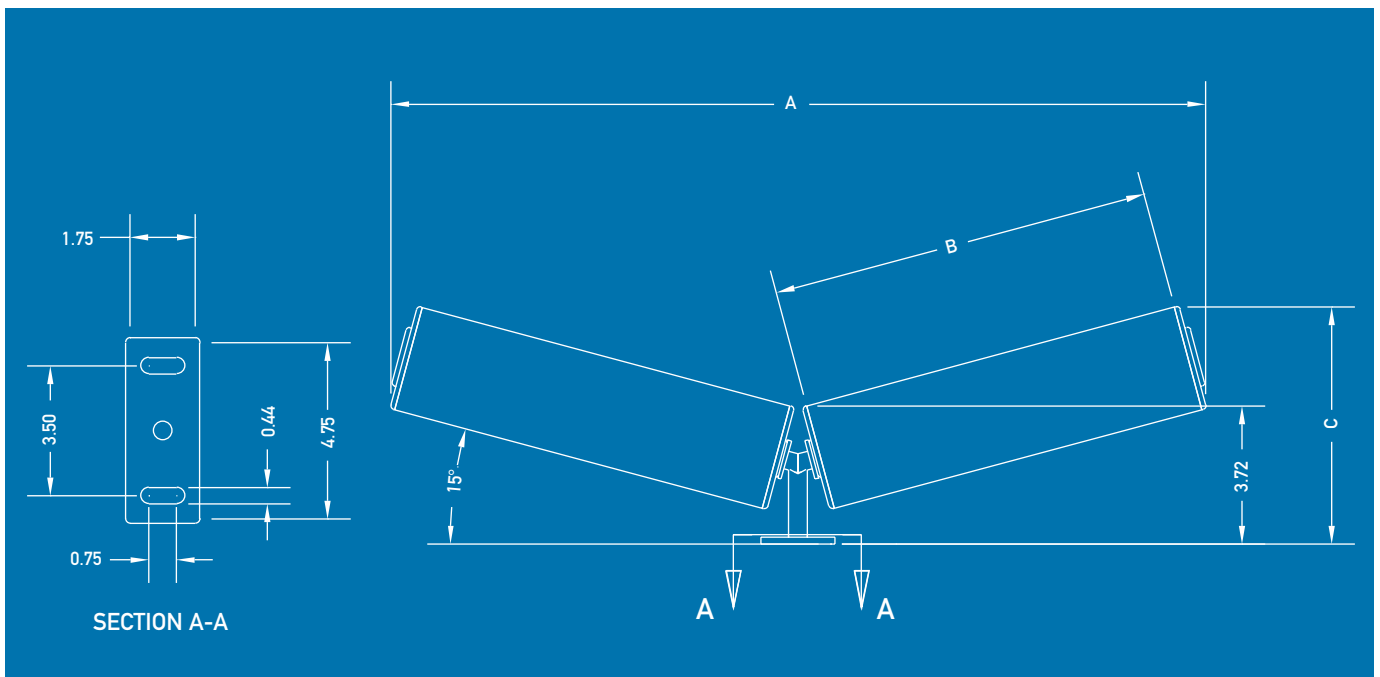
2-ROLL 15° TROUGHING IDLERS



15° IDLER DIMENSIONS

BELT WIDTH	A	B	C
12	17.75	7.50	5.88
18	23.50	10.50	6.63
24	29.31	13.50	7.38
30	35.13	16.50	8.19

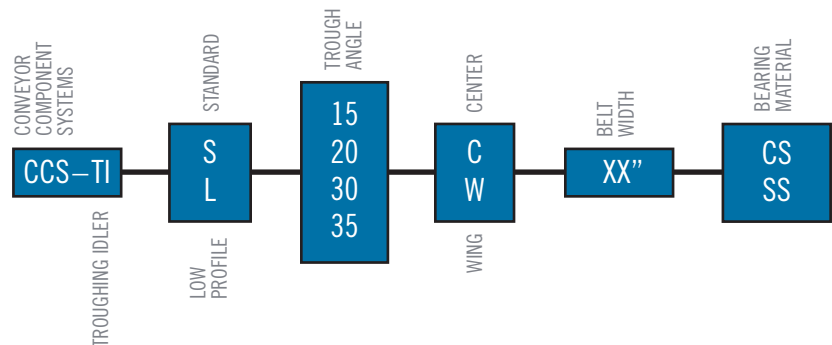
Example Model Number:
CCS-TI-PVC2A-15-18-CSSD



TROUGHING IDLER REPLACEMENT ROLLER ASSEMBLIES

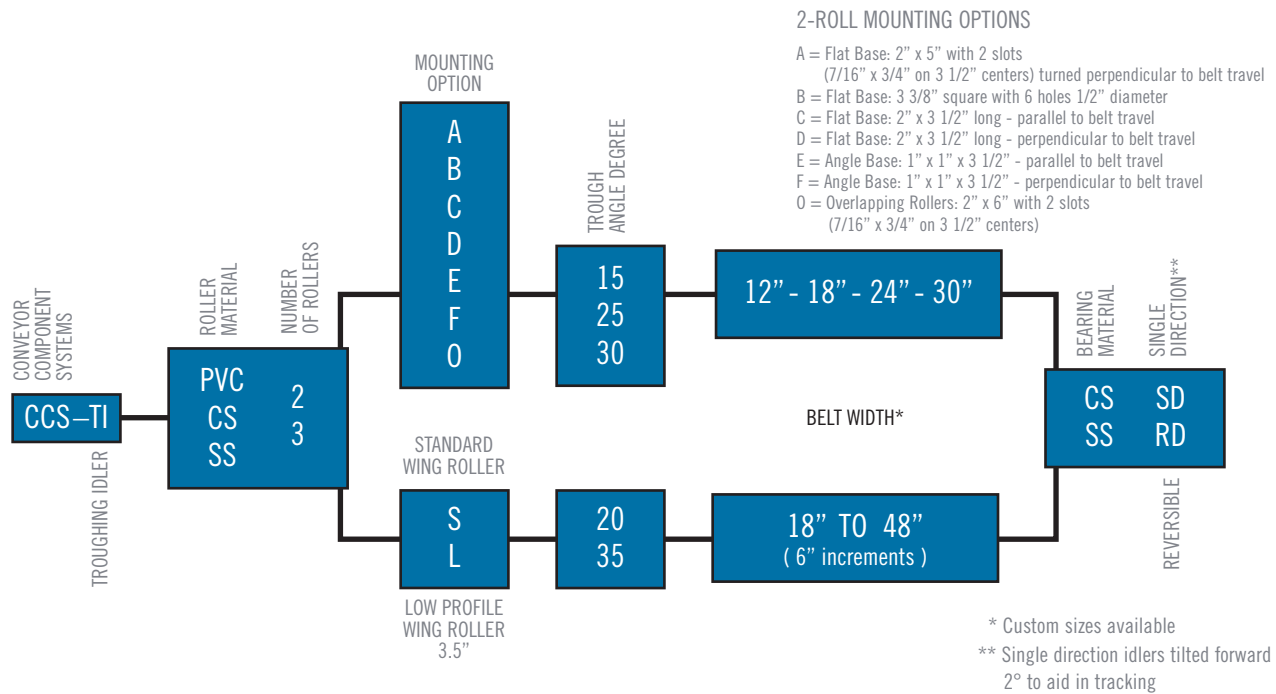


PART NUMBERING INFORMATION



Example Model Number: CCS-TI-S-35-C-24-CS

TROUGHING IDLER PART NUMBERING INFORMATION



Example Model Number: CCS-TI-PVC3S-35-18-CSSD

TROUGHING IDLER ENGINEERING INFORMATION

IDLER CUBIC FOOT CAPACITY PER LINEAL FOOT OF BELT						
BELT WIDTH	3 - ROLL 35 degree	3 - ROLL 20 degree	2 - ROLL 15 degree	2 - ROLL 25 degree	2 - ROLL 30 degree	MAXIMUM SPACING
12"	—	—	.05	.08	.09	48"
18"	.28	.14	.13	.19	.23	48"
24"	.39	.21	.23	.35	.41	48"
30"	.50	.29	.38	.56	.65	40"
36"	.61	.36	—	—	—	40"
42"	.72	.43	—	—	—	36"
48"	.83	.51	—	—	—	36"

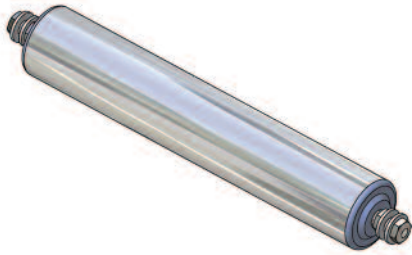
First 3-Roll Idler should be placed 1.5 x belt width from centerline of pulley.
 First 2-Roll Idler should be placed 1 x belt width from centerline of pulley.
 15 degree Idlers should be used first and last as transition for conveyors using 25 and 30 degree 2-Roll Idlers.

Idler Capacity = Product Rate (cubic feet per minute)/Belt Speed (feet per minute) x Safety Factor

Example: Product Rate = 5000 lbs. per hour Product weight per cubic foot = 30 lbs.
 Belt Speed = 60 feet/minute Safety Factor = 2

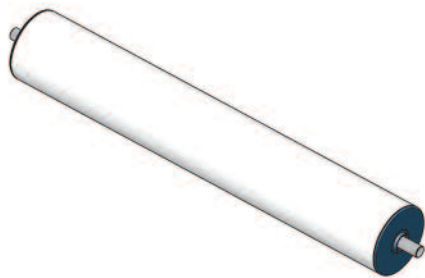
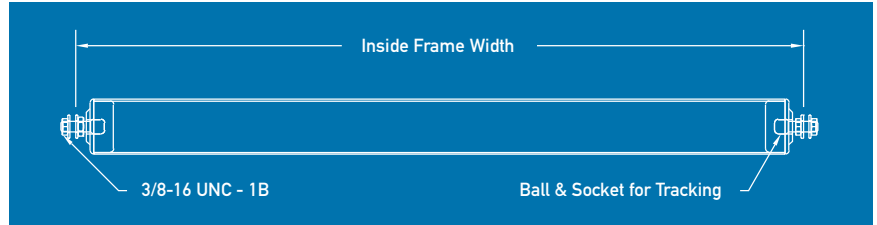
5000/30 = 167 cubic feet per hour/60 minutes=2.8 cubic feet per minute/60 FPM = .047 x SF(2) = .093 CuFt per Ft. of Belt
 (The minimum requirement for this application would be 12" wide 2-roll 30 degree troughing idlers)

RETURN IDLERS



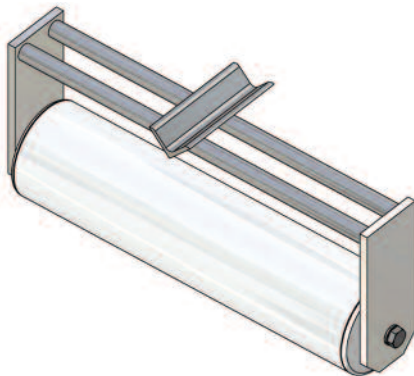
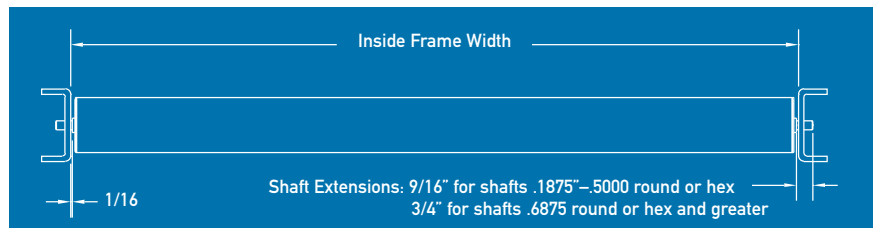
BALL & SOCKET

Provides aid in tracking return side of belt • Lateral adjustment along length of belt
 Available in plastic, carbon steel or stainless steel • End caps made of FDA approved delrin • Ball bolts 3/8-16 UNC



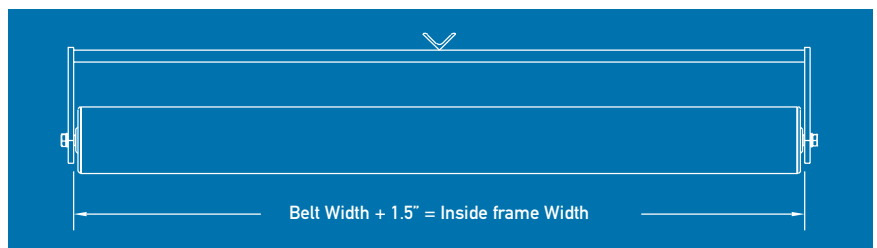
SPRING LOADED

Ideal for low to moderate belt speeds • Rated for maximum speed 1500 RPM
 May be used in temperatures ranging from -50°C to 100°C • Available in plastic, carbon steel or stainless steel • Custom sizes available upon request

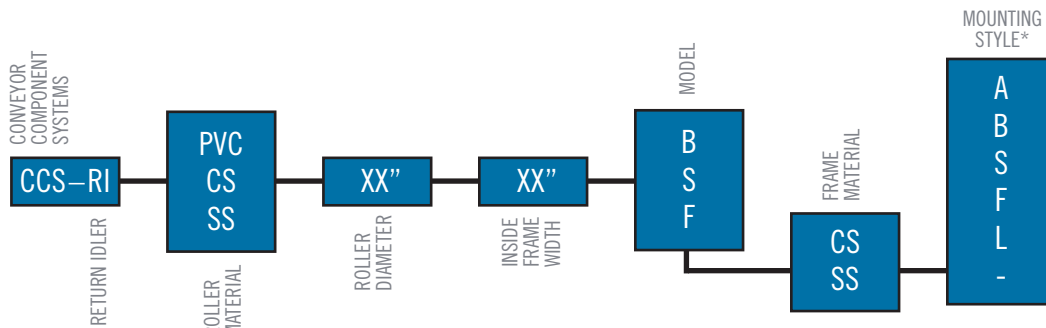


FRAME INCLUDED

Designed to match 2- & 3-roll troughing idlers • Available with mounting angle or plates
 Mounting options A, B & F compatible with 2-roll troughing idlers • Mounting options S & L compatible with 3-roll troughing idlers • Available in plastic, carbon steel or stainless steel



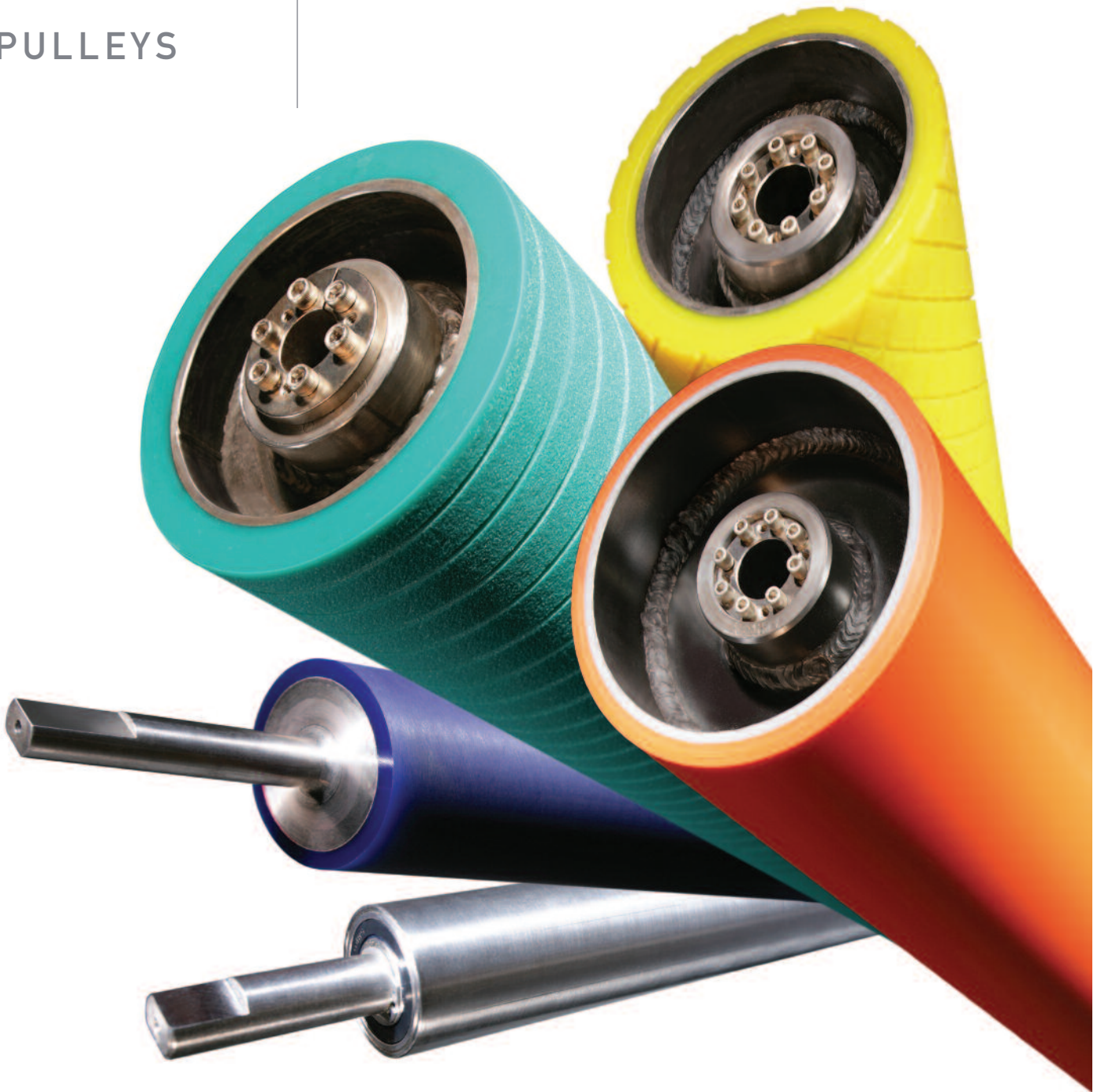
RETURN IDLER PART NUMBERING INFORMATION



Example Model Number: CCS-RI-SS-1.9-35-B

* Match to 2 & 3 roll troughing idler mounting plates listed on page 12. Leave blank for no mounting plates.

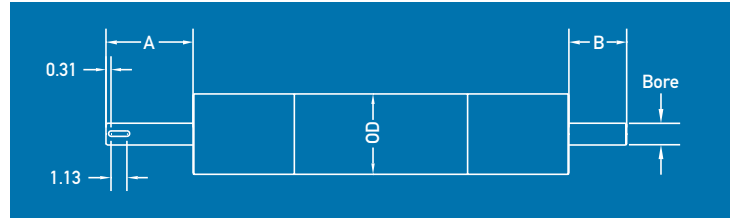
PULLEYS



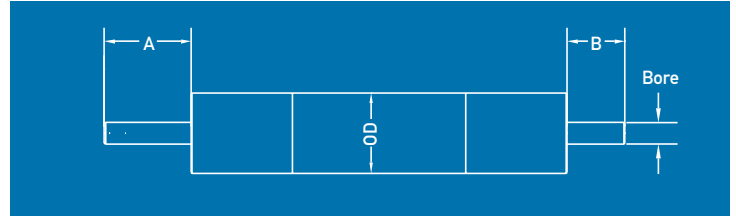
CCS Tube Pulleys are manufactured to ANSI Standards

- Wide range of sizes available – from small unit handling conveyors to mine-duty systems
- Available in a variety of materials including aluminum, carbon steel and stainless steel
- Flat, knurled or with machined trapezoidal or radial crowns
- Wide variety of lagging available to meet industry-specific needs – molded or vulcanized
- Machined to close tolerances to ensure accurate concentricity

TUBE PULLEY

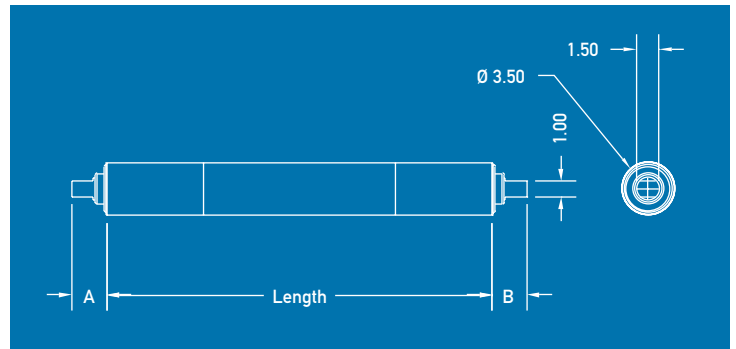


DRIVE PULLEY

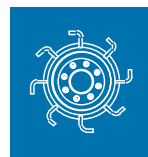
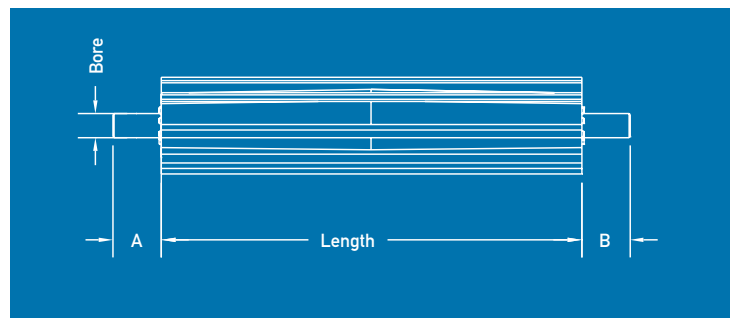
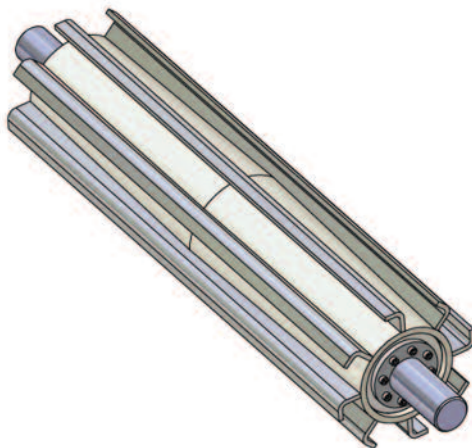


IDLE PULLEY

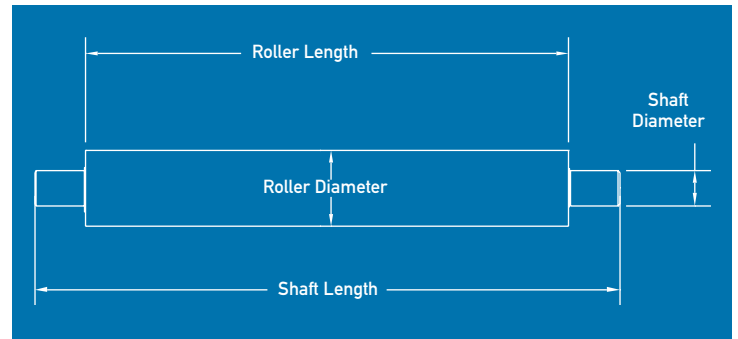
NOSE PULLEY



SELF-CLEANING PULLEY



INTEGRAL BEARING ROLLER



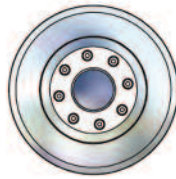
PULLEY HUB DESIGNS



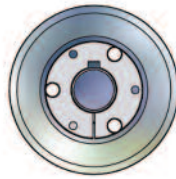
ITEM S
SOLID HUB
WELDED SHAFT



ITEM K
KEYED HUB
& SHAFT



ITEM L
KEYLESS LOCKING
ASSEMBLY



ITEM Q
QD BUSHING

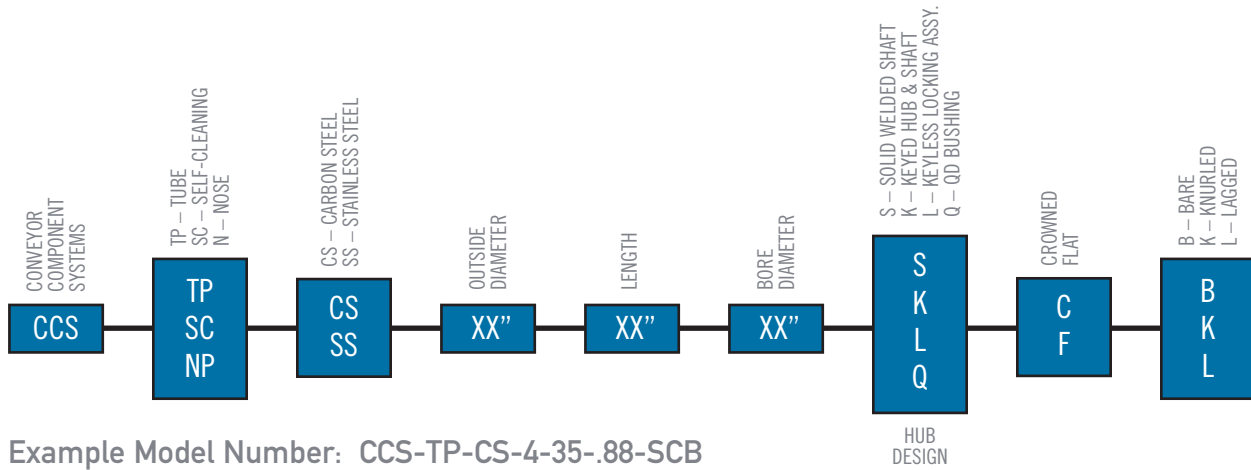
STANDARD KEYSEATS

BORE RANGE	KEYSEAT
5/8 - 7/8	3/16 x 3/32
15/16 - 1 1/4	1/4 x 1/8
1 5/16 - 1 3/8	5/16 x 5/32
1 7/16 - 1 3/4	3/8 x 3/16
1 13/16 - 2 1/4	1/2 x 1/4
2 5/16 - 2 3/4	5/8 x 5/16
2 13/16 - 3 1/4	3/4 x 3/8



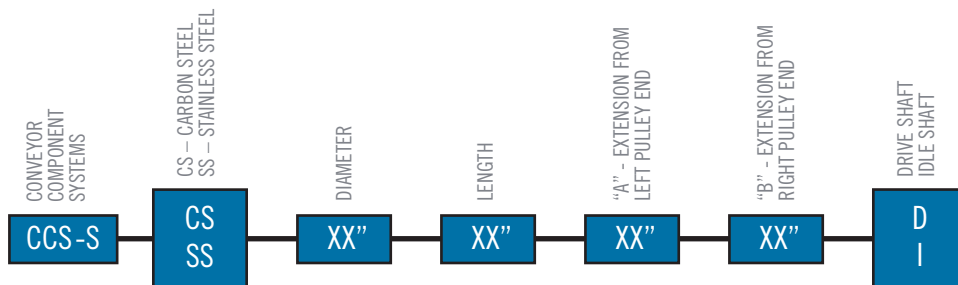
PULLEY PART NUMBERING INFORMATION

TUBE, NOSE & SELF-CLEANING PULLEYS



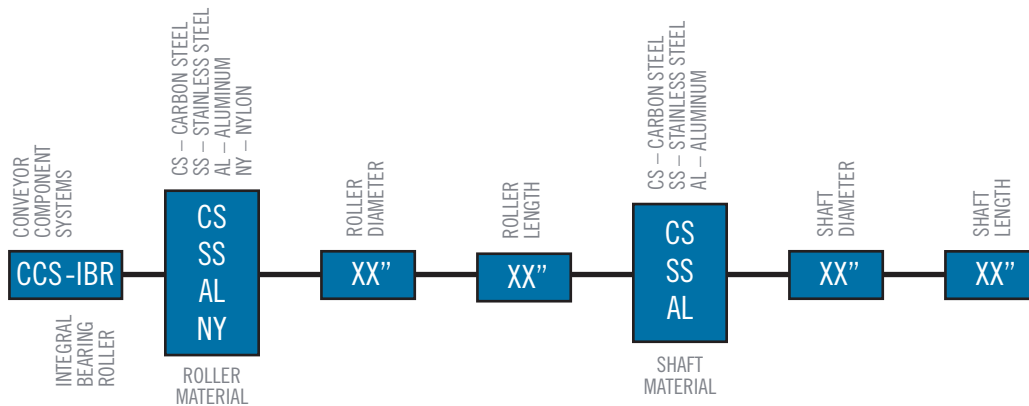
Example Model Number: CCS-TP-CS-4-35-.88-SCB

SHAFT



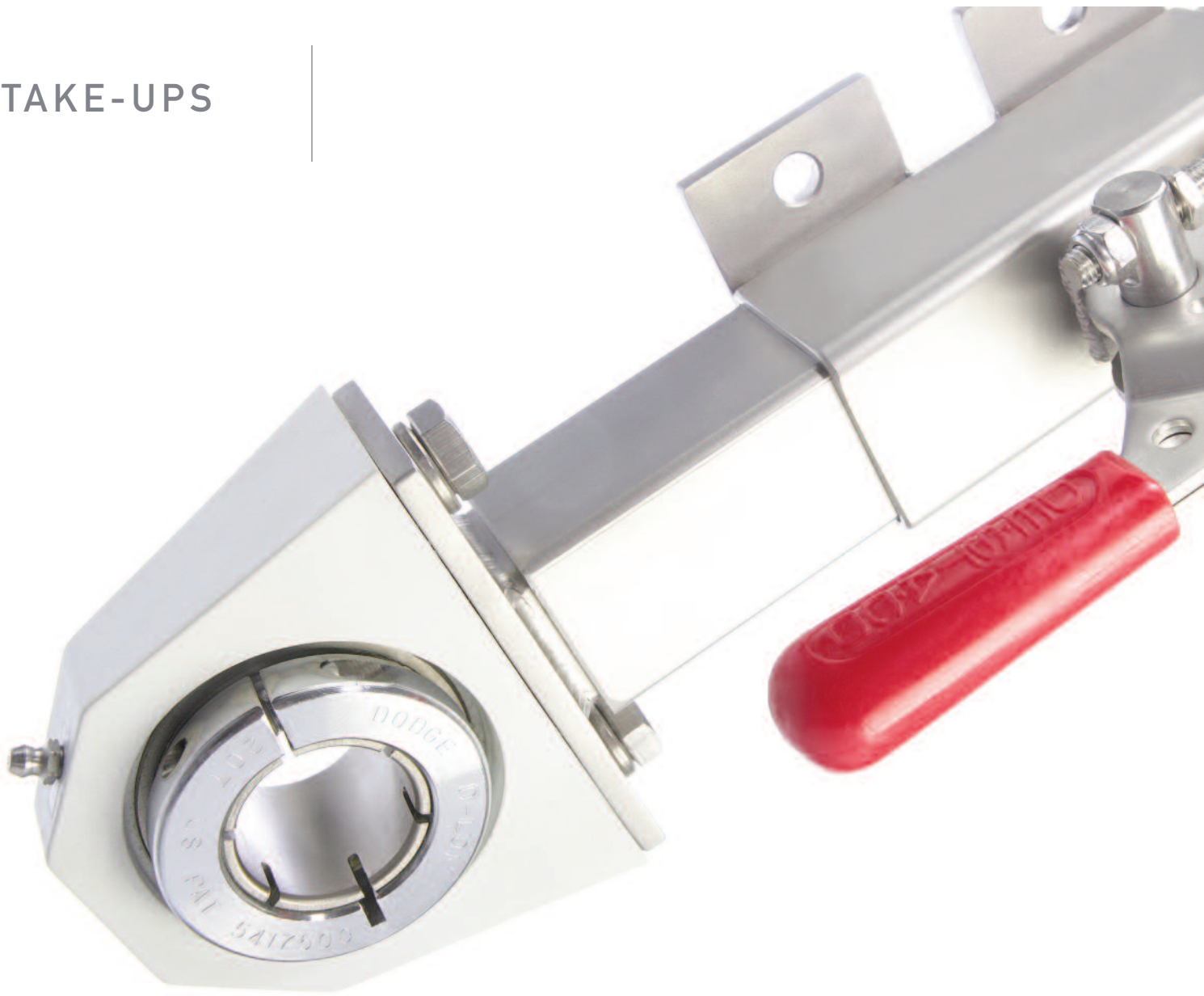
Example Model Number: CCS-CS-2-36-2-2-D

INTEGRAL BEARING ROLLER



Example Model Number: CCS-IBR-CS-2-36-CS-1-40

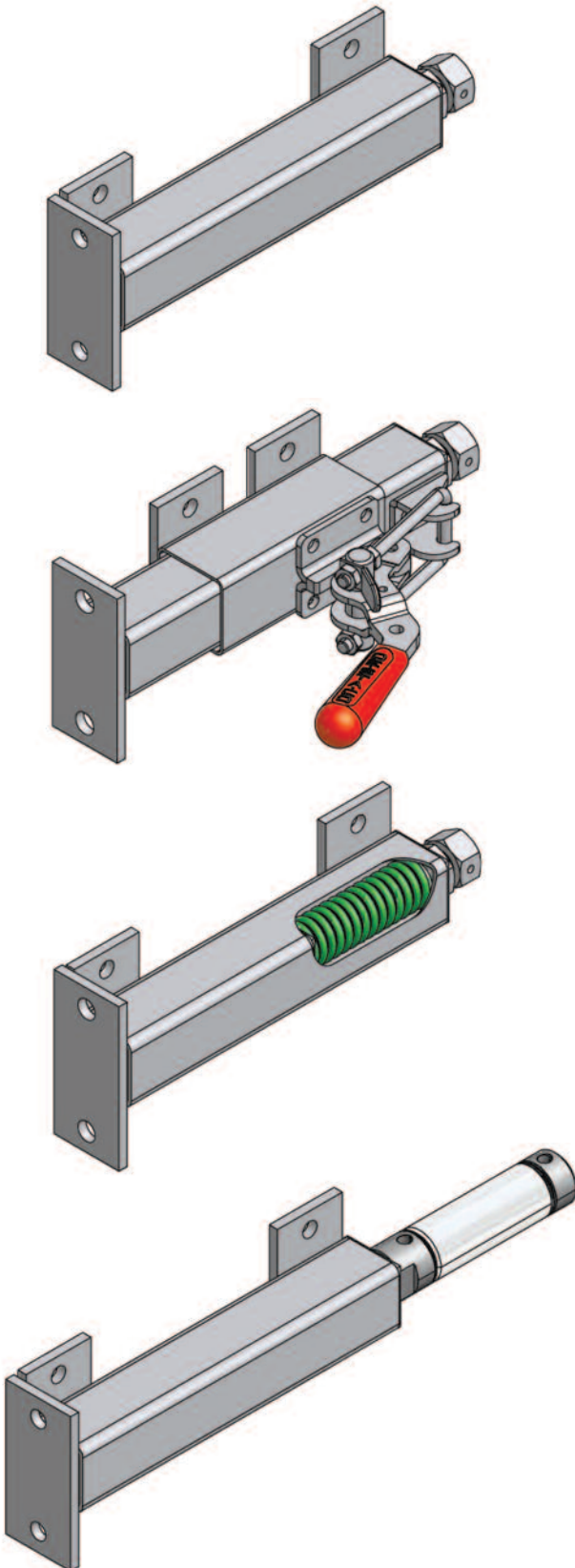
TAKE-UPS



CCS Belt Take-ups are fully-enclosed belt tensioning systems

- Robust design for durability in the harshest conditions
- ACME threaded rods standard on all units
- Available in painted carbon steel or stainless steel
- Wide range of sizes for all industries
- Several standard models available for immediate shipment
- Keep belts constantly tensioned and tracked
 - Easy to install
 - Low maintenance
 - Threaded rods offer easier adjustment, and extended unit life
- Totally enclosed construction for protection from contaminants

TAKE-UP STYLES



BASIC

The Basic Take-up unit is made up of two telescoping tubes that fully enclose a threaded adjustment rod. ACME thread and pinned hex nuts are standard on all units to provide faster, easier adjustment.

QUICK RELEASE

Quick Release Take-ups allow easy movement of the telescoping tubes for washdown purposes. As the clamp is released, the original take-up adjustments remain unchanged providing a time saving option.

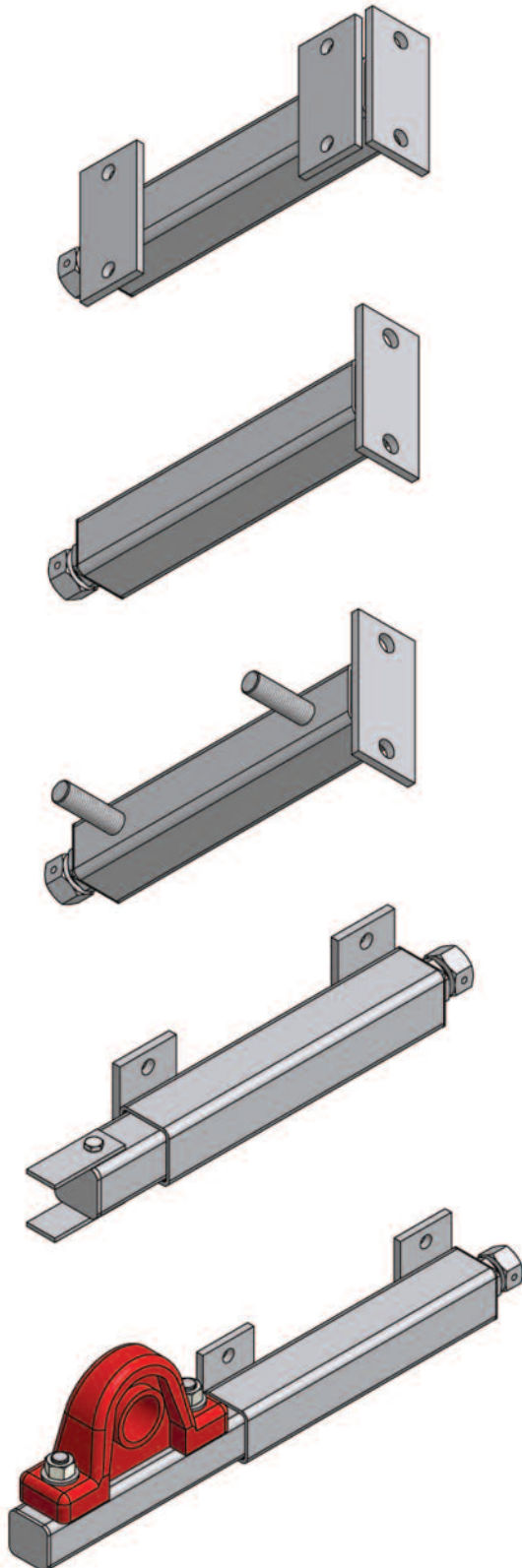
SPRING COMPRESSION

Spring Compression Take-ups provide constant belt tension reducing adjustment needs.

LINEAR ACTUATOR

Linear Actuator Take-ups feature either a hydraulic or pneumatic cylinder mounted to the rear. Hydraulic models are for heavy-duty use, while pneumatic models are for lighter applications. These take-ups are equipped to balance adjustment of both units simultaneously.

TAKE-UP MOUNTING OPTIONS



PLATES

Standard mounting consists of two mounting plates drilled for four bolt mounting. All CCS Take-ups include standard mounting plates unless otherwise specified.

WELDED

This option does not include any plates or studs. The unit is meant to be mounted directly to the conveyor frame.

STUDS

Studs are welded to the inside face of the units allowing quick and easy mounting. This style provides a smaller vertical profile.

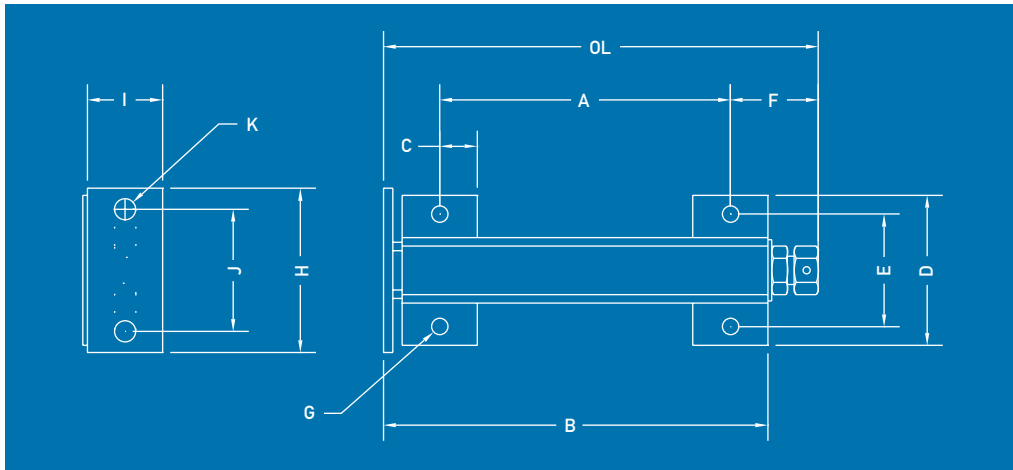
MOTORIZED PULLEY

The Motorized Pulley mount will accommodate all sizes of motorized pulleys. The take-up is specifically fabricated for each shaft size. Mounting is made easy with the bolt-on top plate.

TOP MOUNT

The Top Mount style is designed for a pillow block bearing mounted to the top of the inner tube. The inner tube is extended the length of the pillow block base to provide the same take-up ranges as the basic model.

TAKE-UP ENGINEERING INFORMATION



Dotted line denotes slot for pillow block style bearing plate.

STANDARD TAKE-UP DIMENSIONS

SERIES	BEARING BORE	STROKE	OL	A	B	C	D	E	F	G	
50	1/2" to 1"	3	6.88	3.56	5.56						
		6	10.38	7.06	9.06	0.75	3.69	2.63	1.84	0.50	
		9	14.38	11.06	13.06						
100	1 1/16" to 1 3/4"	3	8.50	4.38	6.88						
		6	11.50	7.38	9.88						
		9	14.50	10.38	12.88	1.00	4.00	3.00	2.25	0.50	
		12	17.50	13.38	15.88						
		18	23.50	19.38	21.88						
150	1 13/16" to 3"	6	16.00	10.00	12.00						
		9	19.00	13.00	16.00						
		12	22.00	16.00	19.00	1.25	5.75	4.50	3.50	0.63	
		18	28.00	22.00	25.00						
200	3 1/16" to 3 1/2"	24	34.00	28.00	31.00						
		12	27.75	20.00	24.00						
		18	33.75	26.00	30.00	1.75	7.50	5.50	4.25	0.75	
250	3 9/16" to 6"	24	39.75	32.00	36.00						
		18	41.38	31.00	36.50						
		24	47.38	37.00	42.50	2.50	11.50	9.00	6.50	1.00	
		36	63.38	49.00	54.50						

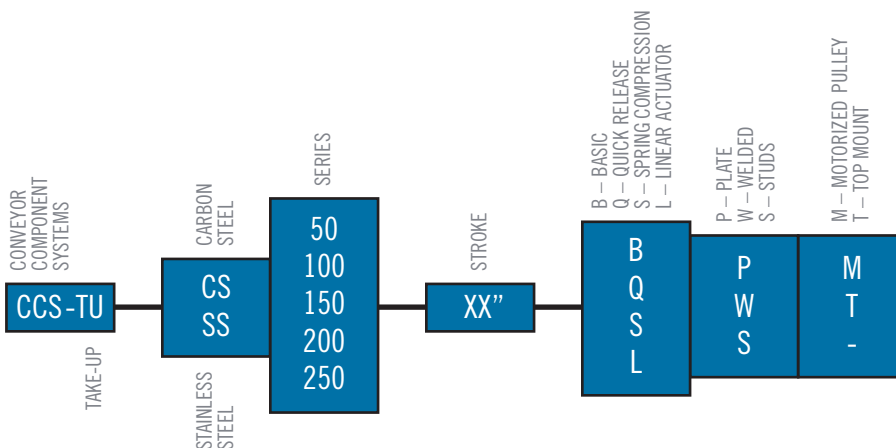
TAPPED BASE PILLOW BLOCK DIMENSIONS

BEARING BORE	H	I	J	K
1/2" to 1"	3.00	1.50	2.00	0.41
1 1/16" to 1 1/4"	4.25	2.00	3.00	0.47
1 7/16" to 1 3/4"	4.38	2.00	3.25	0.53
1 15/16" to 2"	5.50	2.50	4.00	0.66
2 3/16" to 2 7/16"	9.50	2.50	7.44	0.66
2 15/16"	11.75	3.00	8.81	0.78
3"	12.00	3.00	9.25	0.91
3 7/16" to 3 1/2"	14.00	3.50	11.13	0.91

PILLOW BLOCK DIMENSIONS

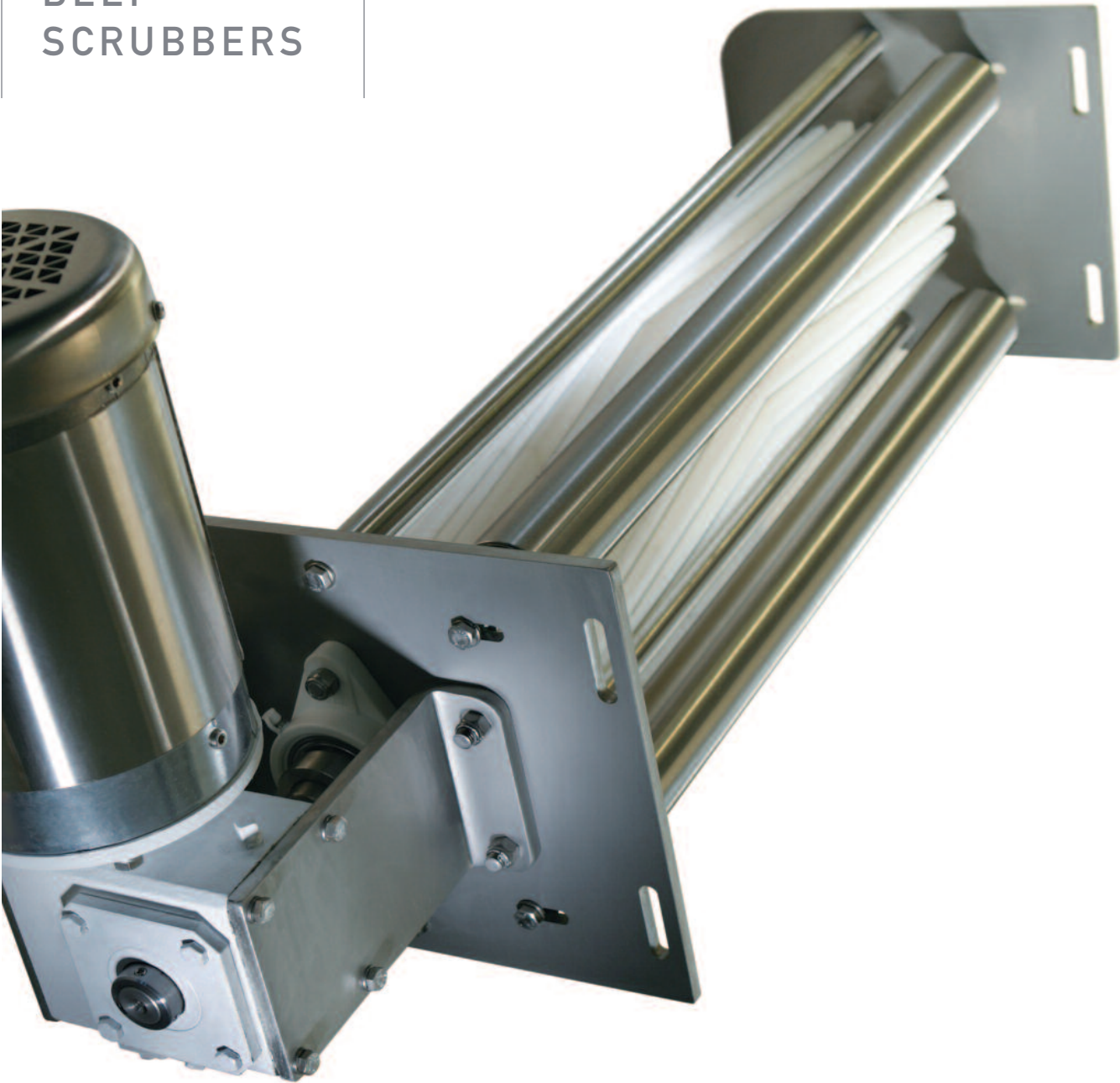
BEARING BORE	H	I	J	K
1/2" to 15/16"	5.25	1.50	3.63	0.41
1" to 1 3/4"	7.00	2.04	4.75	0.53
1 13/16" to 3"	10.00	3.00	7.13	0.66
3 1/16" to 3 1/2"	14.00	3.50	10.13	0.78

TAKE-UP PART NUMBERING INFORMATION



Example Model Number: CCS-TU-SS100-9-BPT

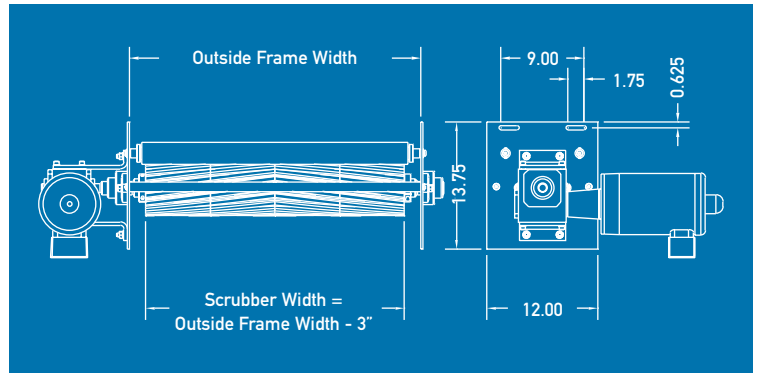
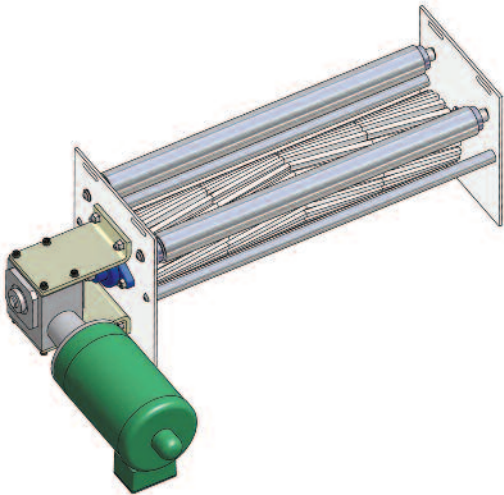
BELT SCRUBBERS



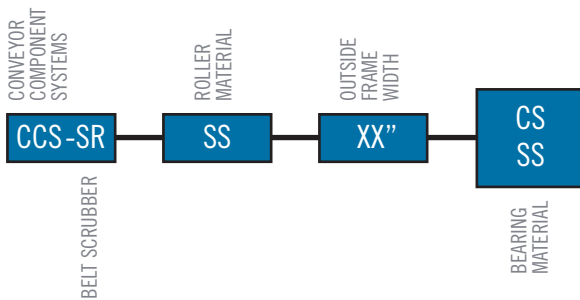
CCS Belt Scrubbers are automated, continuous cleaning systems

- Eliminate residue on belt, pulleys and idlers, easing maintenance & sanitation problems
 - Easy to install
 - No need to stop production to clean belt
 - May also be used as ice remover
- Applications in a variety of industries, from food processing to agriculture
- Available in stainless steel "wash-down" grade or painted carbon steel
 - Available with machined UHMW scrubber or conventional rotary brush

HEAVY DUTY BELT SCRUBBER

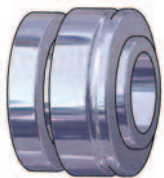


BELT SCRUBBER PART NUMBERING INFORMATION

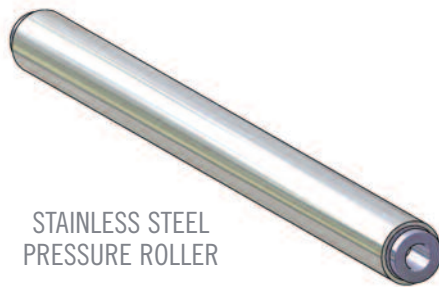


Example Model Number: CCS-SS-SR-36-SS

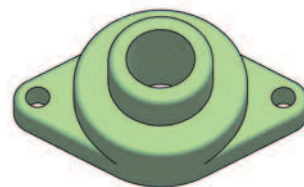
BELT SCRUBBER REPLACEMENT PARTS



PRESSURE ROLLER BEARING
 #03-0369



STAINLESS STEEL PRESSURE ROLLER



FLANGE BLOCK BEARING
 Stainless Steel: #03-0367
 Carbon Steel: #03-0370

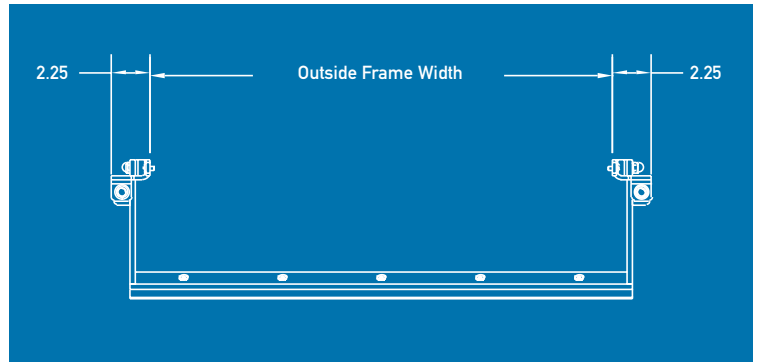
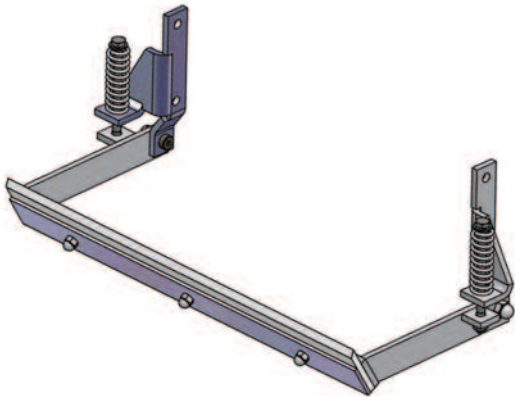
BELT SCRAPERS



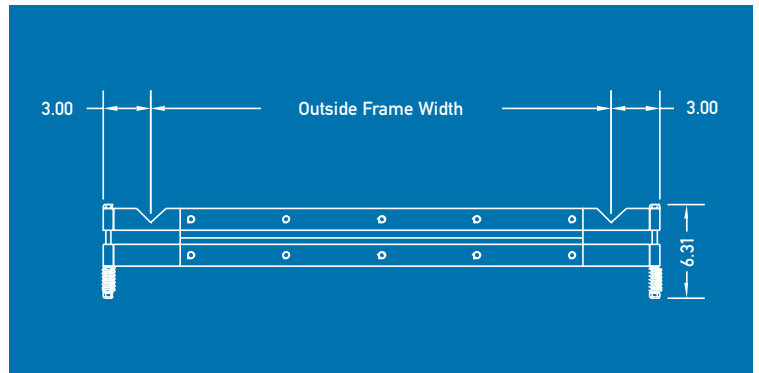
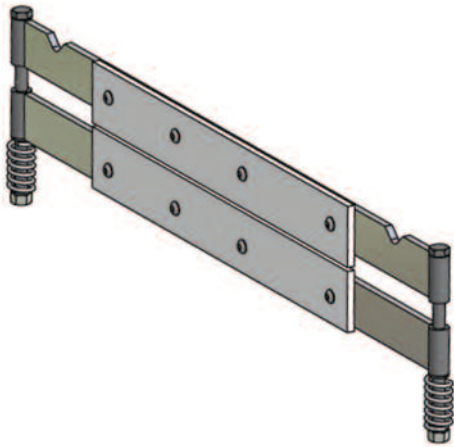
CCS Belt Scrapers are continuous belt cleaning systems

- Prevent product build-up on belt surfaces
- Extend belt life & productivity
- Available in stainless steel or painted carbon steel
- Blades available in UHMW or urethane
- May be custom-designed by CCS Engineering staff to meet specific applications

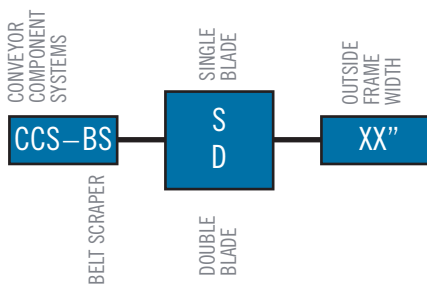
SINGLE SIDED BELT SCRAPER



DOUBLE SIDED BELT SCRAPER



BELT SCRAPER PART NUMBERING INFORMATION



Example Model Number: CCS-BS-S-36