PRECISION ROLL MASTER CATALOG





PRECISION ROLL MODELS

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Standard Aluminum Dead Shaft Idler Rolls



Lower inertia when compared to a steel idler Ideal for lower web tensions More corrosion resistant than steel Dynamically balanced for high speed operation Readily modified with custom coatings and surface treatments Low-friction bearings pre-installed Ultra low-friction, oil-lubricated bearings optional

Webex Dead Shaft Aluminum Idlers are some of the most versatile and hardworking idlers on the market today. Weighing nearly half as much as comparable steel rollers, aluminum idlers still provide exceptional performance across a broad range of applications. This reduced weight makes them ideal for applications requiring lower web tensions and minimal web wrap.

Standard Aluminum Idlers are dynamically balanced at speeds up to 2,000 FPM. Each one is precision machined to exacting tolerances. Only the smallest aluminum idlers (2 inch and 2-1/2 inch diameter models) have a 1/4 inch thick roll wall. All other standard aluminum idlers are made from 1/2 inch wall material.

ALUMINIUM DEAD SHAFT IDLER ROLL SPECIFICATIONS

Material	6061-T6 aluminum tubing machined for minimum stock removal
Bearings	Low-friction, grease-lubricated bearings installed in each end of the roller
Finish	32 Ra or better
Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length
Balanced	Dynamically balanced to standard specification or your specified line speed

ADDITIONAL OPTIONS

				Ordering is easy with
•	Steel inserts for elevated temperature and wear resistance Bearings recessed and flush with roll face Metric bearings Metric shafts	 Coatings Hardcoat Anodize Electroless Nickel Rubber Covering High Release Tungsten- Carbide (Plasma) Coatings 	Machined Surface Reverse Taper Chevron Groove Spiral "V" Groove Matte Finish Diamond Knurl Herringbone Groove Micro Groove 	Ordering is easy with Webex's simple model nomenclature. <u>A</u> -200 x 075 x 36" <u>36 inch roll face length</u> <u>2.00 inch nominal diameter</u> <u>Aluminum Dead Shaft Idlers</u>

A-200-075

2.0 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,000 FPM

Idler weight (lbs.) = 1.00 + (0.11 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 50 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

A-250-100

2.5 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,000 FPM

Idler weight (lbs.) = 1.12 + (0.14 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 60 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

A-300-100

3.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 1.12 + (0.35 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 75 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length





Also Available with Bearingsfor the Following Shaft Diameters0.75 inchA-250-075



Also Available with Bearingsfor the Following Shaft Diameters0.75 inchA-300-0751.25 inchA-300-125



A-350-125

3.5 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 3.40 + (0.42 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 84 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

A-400-150

4.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 4.00 + (0.49 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 96 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

A-450-150

4.5 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 4.45 + (0.56 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 100 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearingsfor the Following Shaft Diameters0.75 inchA-350-0751.25 inchA-350-125

1.50 inch



A-350-150

Also Available with Bearings for the Following Shaft Diameters

0.75 inch	A-400-075
1.00 inch	A-400-100
1.25 inch	A-400-125



Also Available with Bearings for the Following Shaft Diameters

A-500-150

5.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 5.17 + (0.63 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 120 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

A-600-150

6.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 6.90 + (0.77 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 130 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

A-800-200

8.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 13.38 + (1.05 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 150 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings for the Following Shaft Diameters				
0.75 inch	A-500-075			
1.00 inch	A-500-100			
1.25 inch	A-500-125			
2.00 inch	A-500-200			



Also Available with Bearings for the Following Shaft Diameters

0.75 inch	A-600-075
1.00 inch	A-600-100
1.25 inch	A-600-125
2.00 inch	A-600-200



Also Available with Bearings for the Following Shaft Diameters

0.75 inch	A-800-075
1.00 inch	A-800-100
1.25 inch	A-800-125
1.50 inch	A-800-150



LW Lightweight Aluminum Dead Shaft Idler Rolls



Ideal for low-inertia, low-tension applications Lower break-away torque Reduced web slippage Better tension control Greater sensitivity in transducer applications Reduced bearing side-thrust Same shaft and mount configuration as standard aluminum idlers Low-friction bearings installed Ultra low-friction, oil-lubricated bearings optional

When you need an idler lighter than the standard aluminum models, but stronger than an UltraLight[™], take a closer look at Webex Lightweight Aluminum Idlers. Webex Lightweight Aluminum Idlers offer you the same precision construction and design detail as our standard aluminum idlers – but with half the wall thickness and half the roll weight. Break-away torque is less and roll inertia is lowered. All this gives you a high-performance roll ideal for low tension applications.

In all other ways, Webex Lightweights are directly comparable to our standard aluminum idlers. Both are dead shaft designs using the same steel shafts and low-friction bearings. Both are precision balanced for maximum performance over a wide range of speeds. And both are available as Webex standards – offering you consistent, repeat performance roll to roll and order to order.

LIGHTWEIGHT ALUMINUM DEAD SHAFT IDLER ROLL SPECIFICATIONS

Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length Dynamically balanced to standard specification or your specified line speed	
Finish	32 Ra or better	
Bearings	Low-friction, grease-lubricated bearings installed in each end of the roller	
Material	6061-T6 aluminum tubing machined for minimum stock removal	

ADDITIONAL OPTIONS				Ordering is easy with Webex's simple model
•	Steel inserts for elevated temperature and wear resistance Bearings recessed and flush with roll face Metric bearings Metric shafts	 Coatings Hardcoat Anodize Electroless Nickel Rubber Covering High Release Tungsten Carbide (Plasma) Coatings Chrome Plating 	 Machined Surface Reverse Taper Chevron Groove Spiral "V" Groove Matte Finish Diamond Knurl Herringbone Groove Micro Groove 	LW -500 x 125 x 42" 42 inch roll face length 5.00 inch nominal diameter lightweight aluminum dead shaft idler

LW-300-100

3.0 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 1.42 + (0.17 x Face Length inches) w/o shaft

Generally available in Face Length up to 72 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

LW-350-100

3.5 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 1.81 + (0.20 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 84 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



3" NOM. DIA.

.75 inch	LW-300-075
.25 inch	LW-300-125

1.00

0

1



Also Available with Bearings for the Following Shaft Diameters

0.75 inch	LW-350-075
1.25 inch	LW-350-125
1.50 inch	LW-350-150

LW-400-150

4.0 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 4.45 + (0.23 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 90 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearingsfor the Following Shaft Diameters0.75 inch1.00 inchLW-400-100

	LW 400 100
inch	LW-400-125

1.25



LW-500-150

5.0 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 5.98 + (0.30 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 100 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

LW-600-150

6.0 inch nominal diameter

1/4 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 7.91 + (0.36 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 120 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings		
for the Following Shaft Diameters		
0.75 inch	LW-500-075	
1.00 inch	LW-500-100	
1.25 inch	LW-500-125	
2.00 inch	LW-500-200	



Also Available with Bearings for the Following Shaft Diameters

	ng onare Bramee
0.75 inch	LW-600-075
1.00 inch	LW-600-100
1.25 inch	LW-600-125
2.00 inch	LW-600-200

CUSTOM SIZES AND METRIC OPTIONS AVAILABLE Speak with a roll expert!

Call 1.920.729.6666 or email sales@webexinc.com

ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.

LW -500 x 125 x 42"

42 inch roll face length bearings to fit a 1.25" diameter shaft 5.00 inch nominal diameter lightweight aluminum dead shaft idler



UL UltraLight™ Aluminum Dead Shaft Idler Rolls



Low break-away torques ideal for low-wrap, low-tension applications Double bearings at each end keep stub-shafts true to roll Small diameter bearings for free running performance Dynamically balanced for high speeds

Much lighter than Standard Aluminum Idlers ... even lighter than our LightWeight Aluminum Idlers ... Webex UltraLights are the ultimate in low-weight, high-performance aluminum idlers. Thanks to precision engineering and machining, the Webex UltraLight[™] offers break-away torques as low as 0.2 oz-inch.

This low-inertia idler is ideal for low-wrap, low tension applications — in particular, wherever web slippage is unacceptable. UltraLights weigh as much as 60% less than Standard Aluminum Idlers — 25% less than Webex LightWeights. Each UltraLight[™] is made entirely of aluminum except for bearings and shafts.

ULTRALIGHT[™] ALUMINUM DEAD SHAFT IDLER ROLL SPECIFICATIONS

Material	6061-T6 aluminum tubing machined for minimum stock removal and bored for 1/8 inch retained wall thickness
Finish	32 Ra
Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length

ADDITIONAL OPTIONS

Coatings

- Hardcoat Anodize
- Electroless Nickel
- Rubber Covering
- High Release Tungsten Carbide (Plasma) Coatings

Machined Surface

- Reverse Taper
- Chevron Groove
- Spiral "V" Groove
- Matte Finish
- Herringbone Groove
- Micro Groove



ULTRALIGHT[™] ALUMINUM MODEL UL

UL-300-050

3.0 inch nominal diameter

Balanced at 1,500 FPM

Idler weight (lbs.) = 1.40 + (0.11 x Face Length inches) fully assembled

Generally available in Face Lengths up to 48 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

UL-450-063

4.5 inch nominal diameter

Balanced at 1,500 FPM

Idler weight (lbs.) = 3.00 + (0.17 x Face Length inches) fully assembled

Generally available in Face Lengths up to 72 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



FACE LENGTH

32

1/2" DIA

3" NOM. DIA.

UL-600-075

6.0 inch nominal diameter

Balanced at 2,000 FPM

Idler weight (lbs.) = 5.40 + (0.23 x Face Length inches) fully assembled

Generally available in Face Lengths up to 96 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



CUSTOM SIZES AND METRIC OPTIONS AVAILABLE Speak with a roll expert!

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ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.

<u>UL</u> -<u>300</u> x <u>050</u> x <u>36"</u>

36 inch roll face length bearings to fit an 0.50 inch diameter dead shaft 3.00 inch nominal diameter UltraLight Aluminum dead shaft idler



S Standard Steel Dead Shaft Idler Rolls



Easy to install High strength Resists nicks and deformation Dynamically balanced up to 2,000 FPM Readily modified with custom coatings and surface treatments Special low-friction bearings installed Ultra low-friction, oil-lubricated bearings optional Repeat performance, roll to roll and order to order

Webex Carbon Steel Idlers have the strength to withstand substantial loading from nips or web tension. They also perform well in elevated temperatures up to 350° F. The DOM tubing of our steel idlers resists nicks and deformation. And when compared to similar sized aluminum rolls, steel idlers are less expensive.

Economical

For economy, strength, and high performance, nothing beats a Webex standard dead shaft steel idler.

STANDARD STEEL DEAD SHAFT IDLER ROLL SPECIFICATIONS

Material	1026 carbon steel tubing machined for minimum stock removal
Bearings	Special low-friction, grease-lubricated bearings installed in each end of the roller
Finish	32 Ra or better
Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length
Balanced	Dynamically balanced to standard specification or your specified line speed

ADDITIONAL OPTIONS

•	Bearings recessed and flush with roll face Metric bearings Metric shafts	 Coatings Electroless Nickel Rubber Covering High Release Tungsten- Carbide (Plasma) Coatings Chrome Plating 	 Machined Surface Reverse Taper Chevron Groove Spiral "V" Groove Matte Finish Diamond Knurl Herringbone Groove Micro Groove 	Ordering is easy with Webex's simple model nomenclature. S -300 x 100 x 32" 32 inch roll face length bearings to fit a 1.00" diameter shaft 3.00 inch nominal diameter
			Micro Groove	3.00 inch nominal diameter carbon steel dead shaft idler

STANDARD STEEL MODEL

S-250-100

2.5 inch nominal diameter

1/4 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Balanced at 1,000 FPM

Idler weight (lbs.) = 1.10 + (0.45 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 60 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

S-300-100

3.0 inch nominal diameter

3/16 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 2.07 + (0.40 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 75 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

S-350-150

3.5 inch nominal diameter

3/16 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Balanced at 1.500 FPM

Idler weight (lbs.) = 3.62 + (0.47 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 84 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings for the Following Shaft Diameters С

). / 5 inch S-250-0 / 8	.75 inch	S-250-075
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Also Available with Bearings for the Following Shaft Diameters 0.75 inch S-300-075 1.3

25 inch S-300-125	
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Also Available with Bearings for the Following Shaft Diameters

0.75 inch	S-350-075
1.00 inch	S-350-100
1.25 inch	S-350-125

STANDARD STEEL MODEL

S-400-125

4.0 inch nominal diameter

1/4 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 4.66 + (0.75 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 84 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

S-500-200

5.0 inch nominal diameter

5/16 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 9.80 + (1.19 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 120 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings for the Following Shaft Diameters 0.75 inch S-400-075 1.00 inch S-400-100

1.50 inch



S-400-150

Also Available with Bearings for the Following Shaft Diameters

0.75 inch	S-500-075
1.00 inch	S-500-100
1.25 inch	S-500-125
1.50 inch	S-500-150

S-600-200

6.0 inch nominal diameter

3/8 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 11.36 + (1.74 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 130 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings for the Following Shaft Diameters

0.75 inch	S-600-075
1.00 inch	S-600-100
1.25 inch	S-600-125
1.50 inch	S-600-150



CR Stainless Steel Dead Shaft Idler Rolls



Corrosion resistant Easy to install High strength Readily modified with custom coatings and surface treatments Special low-friction bearings installed Ultra low-friction, oil-lubricated bearings optional Anti-contaminant bearing shields optional

Webex Standard Stainless Steel Idlers are ideal for use in aggressive environments where corrosive or abrasive elements can damage normal steel idlers. These Corrosion Resistant (CR) idlers are also specified frequently for clean room, food grade and medical applications, or wherever high moisture conditions exist.

Stainless Steel Idlers employ the same high-performance alloy steel bearings used in our Standard Steel Idlers. Consult the Webex customer support team for special bearing needs, including clean room bearing shields.

Like steel rolls, Stainless Steel Idlers also have the strength to withstand substantial loading from nips or web tension. They perform well in elevated temperatures up to 350°F. For greater wear-resistance, Stainless Steel Idlers can be readily plated with plasma coating, nickel or chrome.

To ensure maximum performance over a wide range of conditions, Webex Stainless Steel Dead Shaft Idlers are constructed with 304 stainless steel. Stainless steel shafts are also available. For more aggressive environments, other stainless steel grades are available.

STAINLESS STEEL DEAD SHAFT IDLER ROLL SPECIFICATIONS

Material	Type 304 stainless steel tubing machined for minimum stock removal
Bearings	Low-friction, grease-lubricated bearings installed in each end of the roller
Finish	32 Ra or better
Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length
Balanced	Dynamically balanced to standard specification or your specified line speed

ADDITIONAL OPTIONS

- Clean room bearing shields
- Stainless steel shafts
- Additional stainless steel grades available
- Stainless steel bearings
- Coatings
 - Electroless Nickel Rubber Covering
- High Release Tungsten-
- Carbide (Plasma) Coatings
- Chrome Plating

Machined Surface

- Reverse Taper
- Chevron Groove
- Spiral "V" Groove
- Matte Finish
 - Herringbone Groove
 - Micro Groove

Ordering is easy with Webex's simple model nomenclature.

CR -300 x 100 x 60"

3.00 inch nominal diameter

corrosion-resistant stainless steel dead shaft idler

60 inch roll face length

bearings to fit a 1.00" diameter shaft

STAINLESS STEEL MODEL CR

CR-300-100

3.0 inch nominal diameter

1/4 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 2.07 + (0.53 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 75 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

CR-400-125

4.0 inch nominal diameter

1/4 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Balanced at 1,500 FPM

Idler weight (lbs.) = 4.66 + (0.75 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 84 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length

CR-500-200

5.0 inch nominal diameter

1/4 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 9.80 + (0.95 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 120 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings for the Following Shaft Diameters 0.75 inch CR-300-075



Also Available with Bearings for the Following Shaft Diameters

0.75 inch	CR-400-075
1.00 inch	CR-400-100
1.50 inch	CR-400-150



Also Available with Bearings for the Following Shaft Diameters

CR-500-075
CR-500-100
CR-500-125
CR-500-150

STAINLESS STEEL MODEL CR

CR-600-200

6.0 inch nominal diameter

3/8 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Balanced at 2,000 FPM

Idler weight (lbs.) = 11.36 + (1.74 x Face Length inches) w/o shaft

Generally available in Face Lengths up to 130 inches

Face straightness and run-out to Bore within the greater of 0.002 inch or 0.0005 inch/foot of Face Length



Also Available with Bearings for the Following Shaft Diameters					
0.75 inch	CR-600-075				
1.00 inch	CR-600-100				
1.25 inch	CR-600-125				
1.50 inch	CR-600-150				

SEE SHAFTS AND MOUNTS TO COMPLEMENT YOUR ROLL

ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.

<u>CR -300 x 100 x 60"</u>

60 inch roll face length bearings to fit a 1.00" diameter shaft 3.00 inch nominal diameter corrosion-resistant stainless steel dead shaft idler

CUSTOM SIZES AND METRIC OPTIONS AVAILABLE Speak with a roll expert!

Call 1.920.729.6666 or email sales@webexinc.com





	32 V NOM. DIA.
DIA.	$\leftarrow \rightarrow$
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High strength and low weight Runs wider webs at higher critical speeds Higher load capacity than comparable aluminum idlers Lowest inertia ratings of any idler Non-corrosive Superior tension control Electrically conductive

Webex Carbon Composite Idlers are unmatched for their combined qualities of strength and low weight - only a third of the weight of a comparable standard aluminum idler with 1.2 times the load bearing capacity. These high performance idlers use carbon fiber composite tubing for the roll shell. A special steel stub-shaft and lightweight aluminum headers keep total roll weight to a minimum.

These remarkable idlers are ideal for running wider, lighter weight webs at higher critical speeds. Inertia ratings are the lowest of any roller on the market. Best of all, you can specify them now as a Webex standard - saving you the expense of a custom carbon composite idler.

FEATHERLIGHT[™] COMPOSITE DEAD SHAFT IDLER ROLL SPECIFICATIONS

Material	Carbon fiber/epoxy composite tubing machined for minimum stock removal
Finish	32 Ra
Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length

ADDITIONAL OPTIONS

Coatings

- Rubber Cover
- High Release Tungsten-Carbide and other Thermal Sprayed Coatings Available

Machined Surface

- Reverse Taper
- Chevron Groove
- Spiral "V" Groove
- Herringbone Groove
- Micro Groove

Ordering is easy with Webex's simple model nomenclature.

DSC -<u>300</u> x <u>050</u> x <u>74"</u>

74 inch roll face length bearings to fit an 0.50" diameter shaft 3.00 inch nominal diameter composite dead shaft idler

FEATHERLIGHT[™] COMPOSITE MODEL DSC

DSC-300-050

3.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Balanced at 3,000 FPM

Idler weight (lbs.) = 1.40 + (0.07 x Face Length inches)

Generally available in Face Lengths up to 64 inches

O.D. and Bore Run Out: Face Length to 64 inches within 0.003 inch





DSC-400-063

4.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Balanced at 3,000 FPM

Idler weight (lbs.) = 2.67 + (0.09 x Inch Face Length)

Generally available in Face Lengths up to 94 inches

O.D. and Bore Run Out: Face Length to 72 inches within 0.003 inch Face Length to 94 inches within 0.005 inch



FEATHERLIGHT[™] COMPOSITE MODEL DSC

DSC-500-063

5.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Balanced at 3,000 FPM

Idler weight (lbs.) = 3.33 + (0.11 x Inch Face Length)

Generally available in Face Lengths up to 124 inches

0.D. and Bore Run Out: Face Length to 72 inches within 0.003 inch Face Length to 124 inches within 0.005 inch





DSC-600-075

6.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Balanced at 3,000 FPM

Idler weight (lbs.) = 5.40 + (0.13 x Inch Face Length)

Generally available in Face Lengths up to 134 inches

O.D. and Bore Run Out: Face Length to 96 inches within 0.003 inch Face Length to 134 inches within 0.005 inch



FEATHERLIGHT[™] COMPOSITE MODEL DSC

DSC-800-075

8.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Balanced at 3,000 FPM

Idler weight (lbs.) = 7.20 + (0.18 x Inch Face Length)

Generally available in Face Lengths up to 144 inches

O.D. and Bore Run Out: Face Length to 96 inch within 0.003 inch Face Length to 144 inch within 0.005 inch





ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.



CUSTOM SIZES AND METRIC OPTIONS AVAILABLE

Speak with a roll expert!

Call 1.920.729.6666 or email sales@webexinc.com



Shafts and Mounts Dead Shaft Idler Rolls



Steel and Stainless Steel Shafts

Ready to install Faced and chamfered ends Drilled and tapped ends available Easy, single source ordering

Idler Mounts

Easy installation Fit all standard shafts Rugged enough to secure the largest dead shaft idler Quick between frame or adjustable to-frame mounting

Don't waste time shopping around for idler accessories. Complete your dead shaft idler order with Shafts and Mounts from Webex.

STEEL AND STAINLESS STEEL SHAFTS

Our bearing quality carbon steel shafts are offered faced and chamfered or drilled and tapped for mounting through a frame. There is a shaft option here to meet most applications and installations.

Our Stainless Steel Shafts are made from Bearing Quality Type 303/304 Annealed and Centerless Ground Stainless Steel. Typical diameter tolerances are 0.0005 inch to 0.002 inch under the specified size.

STEEL AND STAINLESS STEEL SHAFT SPECIFICATIONS

Shaft Weight

- 0.75 inch diameter = 0.125 lbs/inch
- 1.00 inch diameter = 0.233 lbs/inch
- 1.25 inch diameter = 0.348 lbs/inch
- 1.50 inch diameter = 0.501 lbs/inch
- 2.00 inch diameter = 0.890 lbs/inch

Standard Drilling and Tapping Specifications

- 0.75 inch diameter = 3/8-16 UNC x. 0.75 inch deep
- 1.00 inch diameter = 1/2-13 UNC x 1 inch deep
- 1.25 inch diameter = 1/2-13 UNC x 1 inch deep
- 1.50 inch diameter = 1/2-13 UNC x 1 inch deep
- 2.00 inch diameter = 3/4-10 UNC x 1 inch deep

SPECIAL SHAFT MATERIALS AVAILABLE Speak with a roll expert!

Call 1.920.729.6666 or email sales@webexinc.com

STANDARD IDLER MOUNTS

Webex gives you three simple solutions to mounting any Webex Dead Shaft Idler Roll quickly and conveniently.

Split Flange Mounts

Quickie Mounts

Rigid Mounts

Installation can be made easily to machine side-frames or to other machine framework. Webex Mounts are designed to hold and secure all standard Dead Shaft Idler Rolls.

Split Flange Mounts

Split flange mounts are available in sizes to fit a full range of shaft diameters. The split design allows mounting between frames and convenient replacement of idlers without disturbing alignment. Bottom half of closely dimensioned mount secures firmly to frame. Top of mount is fastened to bottom half with heavy steel bolts.



Shaft Nom. Diameter	Α	В	С	D	E +.001	F	G	н	I	J	Part No.
0.5″	0.502" 0.500"	4"	2"	0.75"	1.125"	1.5″	2.531"	1.5625″	3.125"	0.04375"	4891-000-B050
0.625″	0.627" 0.625"	4"	2"	0.75"	1.125"	1.5″	2.531"	1.5625"	3.125"	0.04375"	4891-000-B063
0.75″	0.752" 0.750"	4"	2"	0.75"	1.125"	1.5″	2.531"	1.5625"	3.125"	0.04375"	4891-000-B075
1″	1.002" 1.000"	4"	2"	0.75"	1.125"	1.5″	2.531"	1.5625"	3.125"	0.04375"	4891-000-B100
1.25″	1.252" 1.500"	4"	2"	0.75"	1.125"	1.5″	2.531"	1.5625"	3.125"	0.04375"	4891-000-B125
1.5″	1.502" 1.500"	5"	2.5″	1.25"	1.625"	2"	3.406"	1.875"	3.75″	0.5625"	4892-000-B150
2"	2.002" 2.000"	5"	2.5"	1.25"	1.625"	2"	3 .406"	1.875″	3.75"	0.5625"	4892-000-B200

STANDARD IDLER MOUNTS

Quickie Mounts

The quickie mount can accept minor misalignment and allows a great deal of flexibility for positioning, leveling and proper alignment. You can utilize these mounting blocks on unmachined structural steel framework.



Shaft Nom. Diameter	Α	В	C	D	E	F	G	н	I	J	Part No.
0.75″	1.1875″	4.5″	3.5″	1.375″	0.625"	0.4375″	0.5"	2.0625″	0.25" - 20	1.75"	007-002-6
1″	1.3125"	5"	3.75"	1.375″	0.625"	0.4375"	0.5"	2.3125"	0.25" - 20	2"	007-002-1
1.25″	1.4375"	5.5"	4.125"	1.375″	0.625"	0.4375"	0.5″	2.5625"	0.25" - 20	2.25"	007-002-2
1.5"	1.5625"	6.5″	4.75"	1.5″	0.875"	0.5625"	0.5″	2.8125"	0.375" - 16	2.5"	007-002-3
2"	1.8125"	6.5″	5"	1.5″	0.875"	0.5625"	0.625"	3.3125″	0.375" - 16	3"	007-002-5

ADDITIONAL SUPPORT AVAILABLE Speak with a roll expert!

Call 1.920.729.6666 or email sales@webexinc.com

STANDARD IDLER MOUNTS

Rigid Mounts

Rigid mounts are a split-housing type of shaft mount. Unlike the "Quickie Mount" rigid mounts do not allow for any self-alignment. They must be mounted on flat and parallel surfaces or shimmed accordingly.

Rigid mounts support the shaft ends rigidly, reducing natural shaft deflections and bearing side thrust. The top half of the mount can be removed to change rolls without disturbing alignment. These are excellent mounts for applications with heavy loads and rolls with long shafts.



Shaft Nom. Diameter	А	В	С	D	E	F	G	н	I	J	к	Part No.
0.5″	0.5625"	2.75″	2.125″	0.625"	0.3125"	0.375"	0.3125"	1.125″	0.25" - 20	1.4375″	1″	1460-000-A
0.625″	0.8125"	3.75″	2.875″	1″	0.5"	0.333"	0.5″	1.625″	0.25" - 20	2"	1.5″	1461-000-A
0.75″	0.8125"	3.75″	2.875"	1″	0.5"	0.3125″	0.5″	1.625"	0.25" - 20	2"	1.5″	1462-000-A
1″	1.125"	5"	3.75″	1.25"	0.625"	0.4375″	0.625"	2.25"	0.3125" - 18	2.5"	2"	1463-000-A
1.25″	1.375"	6″	4.5″	1.5″	0.75"	0.5625"	0.75″	2.75″	0.375" - 16	3"	2.5"	1464-000-A
1.5″	1.375"	6"	4.5"	1.5″	0.75"	0.5625"	0.75″	2.75″	0.375" - 16	3"	2.5"	1465-000-A





Standard Aluminum Live Shaft Idler Rolls



Lightweight alternative to Steel Idler Rolls Nominal diameters of 3, 4, 5 and 6 inches Face lengths up to 120 inches Custom designs available

When a steel live shaft idler isn't light enough, consider aluminum. Webex has simplified the ordering process by offering standard models with pre-engineered specifications. You determine the journal configuration, roll diameter and face length needed to meet your application. Live shaft idlers have several application advantages:

High Loads

Self-aligning pillow blocks and flange bearings used to mount live shaft idlers are capable of handling higher loads than comparable dead shaft idlers using rigid bearings.

Elevated Temperature*

Webex Aluminum Live Shaft Idlers can handle substantially elevated temperatures with proper venting. This makes Live Shafts ideal in ovens where an elevated temperature or solvent atmosphere would quickly destroy dead shaft roll bearings.

Harsh Environments

By positioning the roller bearings out of the immediate web path, exposure to process contaminates is minimized. That's why Live Shaft rolls are often ideal in applications where chemicals, dust or vapors commonly destroy dead shaft roll bearings.

Material	6061- T6 aluminum tubing machined for	r minimum stock removal
Finish		32 Ra
Straightness	Within the greater of 0.002 inch or 0	.0005 inch/foot of length
Journal Material		1018 carbon steel
ADDITIONAL OPTIONS		Ordering is easy with
Coatings Hardcoat Anodize Electroless Nickel Rubber Covering 	Machined Surface Reverse Taper Chevron Groove Spiral "V" Groove 	Webex's simple model nomenclature. LSA -300 x 30" 30 inch roll face length

ALUMINIUM LIVE SHAFT IDLER ROLL SPECIFICATIONS

High Release Tungsten-

Carbide (Plasma) Coatings

*Any idler intended for use in elevated temperatures must have proper venting to avoid explosion. Please be sure to identify such applications upon ordering.

- Matte Finish
- **Diamond Knurl**
- Herringbone Groove
- Micro Groove

3.00 inch nominal diameter

Live shaft aluminum idle

LSA-300

3.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Dynamically balanced at 1,500 FPM

Journal Runout to O.D. within:

Face Length to 48 inches within 0.002 inch Face Length to 72 inches within 0.004 inch



LSA-400

4.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Dynamically balanced at 1,500 FPM

Journal Runout to O.D. within:

Face Length to 48 inches within 0.002 inch Face Length to 80 inches within 0.004 inch



LSA-500

5.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Dynamically balanced at 2,000 FPM

Journal Runout to O.D. within:

Face Length to 48 inches within 0.002 inch Face Length to 80 inches within 0.004 inch Face Length to 106 inches within 0.005 inch



LSA-600

6.0 inch nominal diameter

1/2 inch wall, 6061-T6 aluminum tubing machined for minimum stock removal

Dynamically balanced at 2,000 FPM

Journal Runout to O.D. within:

Face Length to 48 inches within 0.002 inch Face Length to 80 inches within 0.004 inch Face Length to 106 inches within 0.005 inch



SPECIFICATION CHART

Additional information on journal length, journal diameter and line speed would ideally be filled in using this Specification Chart.

For single diameter journals
L1 = L2 and L3 = L4

D	
L1	
L2	
L3	
L4	
FACE	
OAL	
SPEED	

ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.



Live shaft aluminum idler



Standard Steel Live Shaft Idler Rolls



Nominal diameters of 3, 4, 5 and 6 inches Face lengths up to 120 inches Custom designs available

Live Shaft Steel Idlers are often ideal whenever the web or the environment challenges roll integrity or performance. Live Shaft Idlers have several application advantages:

High Loads

Self-aligning pillow blocks and flange bearings used to mount live shaft idlers are capable of handling higher loads than comparable dead shaft idlers using rigid bearings.

Elevated Temperature*

Webex Live Shaft Steel Idlers can handle substantially elevated temperatures with proper venting. This makes Live Shafts ideal in ovens where an elevated temperature or solvent atmosphere would quickly destroy dead shaft roll bearings.

Harsh Environments

By positioning the roller bearings out of the immediate web path, exposure to process contaminates is minimized. That's why Live Shaft rolls are often ideal in applications where chemicals, dust or vapors commonly destroy dead shaft roll bearings.

STANDARD STEEL LIVE SHAFT IDLER ROLL SPECIFICATIONS

Material	1026 carbon steel tubing machined for minimum stock removal	
Finish	32 Ra	
Runout and Straightness	Within the greater of 0.002 inch or 0.0005 inch/foot of length	
Journal Material	1018 carbon steel	

ADDITIONAL OPTIONS

Coatings

- Electroless Nickel
- Rubber Covering
- High Release Tungsten-Carbide (Plasma) Coatings
- Chrome

28

Machined Surface

- Reverse Taper
- Chevron Groove
- Spiral "V" Groove
- Matte Finish
- Diamond Knurl
- Herringbone Groove
- Micro Groove



LSS-300

3.0 inch nominal diameter

3/16 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Dynamically balanced at 1,000 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.002 inch face length to 72 inches within 0.004 inch



LSS-400

4.0 inch nominal diameter

1/4 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Dynamically balanced at 1,500 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.002 inch face length to 80 inches within 0.004 inch



LSS-500

5.0 inch nominal diameter

5/16 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Dynamically balanced at 2,000 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.002 inch face length to 80 inches within 0.004 inch face length to 106 inches within 0.005 inch



LSS-600

6.0 inch nominal diameter

3/8 inch wall, 1026 carbon steel tubing machined for minimum stock removal

Dynamically balanced at 2,000 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.002 inch face length to 80 inches within 0.004 inch face length to 106 inches within 0.005 inch



SPECIFICATION CHART

Additional information on journal length, journal diameter and line speed would ideally be filled in using this Specification Chart.

Estado districtori internale		
For single diameter journals, L1 = L2 and L3 = L4	D	
	L1	
	L2	
	L3	
	L4	
	FACE	
	OAL	
	SPEED	

ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.



30 inch roll face length 3.00 inch nominal diameter Live shaft carbon steel idler



Stainless Steel Live Shaft Idler Rolls



Nominal diameters of 3, 4, 5 and 6 inches Face lengths up to 120 inches Custom designs available

Live Shaft Steel Idlers are often ideal whenever the web or the environment challenges roll integrity or performance. Live shaft idlers have several application advantages:

Highly Corrosive Environments

High moisture environments can rust and corrode steel idlers. Webs made of PVC materials can form hydrochloric acid. Certain processes require the use of caustic solutions. All these can damage steel and impact the performance of standard steel idlers. For more aggressive environments, other stainless steel grades are available.

Elevated Temperature*

Webex Live Shaft Stainless Steel Idlers can handle substantially elevated temperatures with proper venting. This makes Live Shafts ideal in ovens where an elevated temperature or solvent atmosphere would quickly destroy dead shaft roll bearings.

Harsh Environments

By positioning the roller bearings out of the immediate web path, exposure to process contaminates is minimized. That's why Live Shaft rolls are often ideal in applications where chemicals, dust or vapors commonly destroy dead shaft roll bearings. For greater wear-resistance, Stainless Steel Idlers can be readily plated with plasma coating, nickel or chrome.

STAINLESS STEEL LIVE SHAFT IDLER ROLL SPECIFICATIONS

ADDITIONAL OPTIONS		Machined Surface	Webex's simple mode
			Ordering is easy with Webex's simple mode
	Journal Material	Ту	ype 300 series stainless steel
_	Runout and Straightness	Within the greater of 0.002 inch	or 0.0005 inch/foot of length
	Finish		32 Ra
_	Material	Type 304 stainless steel tubing machined	d for minimum stock removal

- . **Rubber Covering**
- High Release Tungsten-Carbide (Plasma) Coatings
- Chrome

Herringbone Groove Micro Groove

Matte Finish

Reverse Taper

Chevron Groove

Spiral "V" Groove

LIVE SHAFT IDLER ROLLS

*Any idler intended for use in elevated temperatures must have proper venting to avoid explosion. Be sure you identify such applications upon ordering.

LCR -300 x 60

60 inch roll face length

3.00 inch nominal diameter

Live shaft corrosion-resistant steel idler

STAINLESS STEEL MODEL LCR

LCR-300

3.0 inch nominal diameter

1/4 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Dynamically balanced at 1,500 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.002 inch face length to 72 inches within 0.005 inch



LCR-400

4.0 inch nominal diameter

1/4 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Dynamically balanced at 1,500 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.004 inch face length to 80 inches within 0.006 inch

LCR-500

5.0 inch nominal diameter

1/4 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Dynamically balanced at 2,000 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.004 inch face length to 80 inches within 0.006 inch face length to 96 inches within 0.008 inch



STAINLESS STEEL MODEL LCR

LSS-600

6.0 inch nominal diameter

3/8 inch wall, type 304 stainless steel tubing machined for minimum stock removal

Dynamically balanced at 2,000 FPM

Journal runout to roll O.D. within:

face length to 48 inches within 0.004 inch face length to 80 inches within 0.006 inch face length to 108 inches within 0.008 inch



SPECIFICATION CHART

Additional information on journal length, journal diameter and line speed would ideally be filled in using this Specification Chart.

For single diameter journals, L1 = L2 and L3 = L4

D	
L1	
L2	
L3	
L4	
FACE	
OAL	
SPEED	

ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.



60 inch roll face length 3.00 inch nominal diameter Live shaft corrosion-resistant steel idler



LSC FeatherLight™ Composite Live Shaft Idler Rolls



High strength and low weight Higher load capacity than comparable aluminum idlers Lowest inertia ratings of any idler

Non-corrosive

Electrically conductive

Webex Carbon Composite Idlers are unmatched for their combined qualities of strength and low weight - only a third of the weight of a comparable standard aluminum idler with 1.2 times the load bearing capacity. These high performance idlers use carbon fiber composite tubing for the roll shell. A special steel stub-shaft and lightweight aluminum headers keep total roll weight to a minimum.

These remarkable idlers are ideal for running wider, lighter weight webs at higher critical speeds. Inertia ratings are the lowest of any roller on the market. Best of all, you can specify them now as a Webex standard - saving you the expense of a custom carbon composite idler.

FEATHERLIGHT[™] COMPOSITE LIVE SHAFT IDLER ROLL SPECIFICATIONS

Material	Carbon fiber/epoxy composite tubing machined for minimum stock removal
Finish	32 Ra
Straightness	Over face width within 0.004 inch
Dynamically Balanced at	3,000 FPM
Journal Material	1018 carbon steel
Journal Diameter	1 inch
Journal Length	4 inches
Journal Runout to roll O.D. within	0.005 inches
	Ordering is easy with Webey's simple mode

ADDITIONAL OPTIONS

Coatings

- Rubber Cover
- High Release Tungsten-Carbide and other Thermal Sprayed Coatings Available

Machined Surface

- Reverse Taper
- Chevron Groove
- Spiral "V" Groove
- Herringbone Groove
- Micro Groove


FEATHERLIGHT[™] COMPOSITE MODEL LSC

The following standard models are provided for ease of ordering. Custom configurations are available.

Use the Specifying Graph (included below each standard model) to determine if your specifications fall within safe or acceptable parameters. The light blue bands identify the maximum safe operating speeds for given load and face widths.

If your criteria places you in the yellow band, if your specifications place you near band borders, or do not fit the parameters suggested in these graphs - call (920) 729-6666 to speak with a roll expert. Please have information ready on speed, web tension and wrap angles.

LSC-300-100

3 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Idler weight (lbs.) = 1.40 + (0.07 x Face Length inches)

LSC-400-100

4.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Idler weight (lbs.) = 2.67 + (0.09 x Inch Face Length)









FEATHERLIGHT[™] COMPOSITE MODEL LSC

LSC-500-100

5 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Idler weight (lbs.) = 3.33 + (0.11 x Inch Face Length)



LIVE SHAFT IDLER ROLLS

LSC-600-100

6.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Idler weight (lbs.) = 5.40 + (0.13 x Inch Face Length)

LSC-800-100

8.0 inch nominal diameter

0.125 inch wall, carbon fiber/epoxy composite tubing machined for minimum stock removal

Idler weight (lbs.) = 7.20 + (0.18 x Inch Face Length)



2000 FPM

FACE LENGTH (in)

134 124

3

2

0

3000 FPM

64 74 84 94 104 114





Machined Surfaces for Precision Rolls

Custom machined surfaces and modifications can tailor a standard idler to provide a more custom fit to your specific application. When determining which roll modifications are best, all options must be taken into consideration. For example, roll material, wall thickness, roll diameter, bearing type and shaft configuration all must work in conjunction with any surface treatment to maximize roll performance.

For de-wrinkling solutions using grooved rubber covered rolls, ask one of our Customer Support Specialists about our line of Rubber-Covered WebSpreaders







MACHINED SURFACES

Chevron Groove (CG)

- An industry favorite for wrinkle removal
- · Gentle spreading action

Spiral "V" Groove (SG)

- Industry standard for entrapped air removal
- · Ideal for light webs at high speeds
- · Aids in proper web tracking
- Minimizes web-to-roll slippage

Reverse Taper (RT)

- · Most cost effective wrinkle removal system
- Increasing diameters at the outer edges

Matte Finish (MF)

- · Blasted finish reduces surface contact
- Improved traction

Speak with a roll expert!

Call 1.920.729.6666 or email sales@webexinc.com



Coatings and Platings for Precision Rolls

Perhaps your web is abrasive enough to scratch the surface of steel idlers. Or maybe the caustic vapors of your coating operation likes to pit and corrode aluminum rolls. And it wouldn't be unusual if your coated web was causing some trouble by sticking just a little too much to certain rolls in the line.

These are typical challenges where custom roll coatings and platings are used successfully every day to improve web handling. The real challenges, however, are much more numerous. Likewise, the custom solutions Webex has to offer are quite varied and unique.

In this section of the Precision Roll Master Catalog, you'll find some of the more common coating and plating options used today to meet the challenge of unique environments, webs and converting processes. This overview is meant to provide an initial understanding of solutions that may work for you.

For professional assistance in selecting the best possible option, talk to our Customer Support Specialists. They have the experience and expertise to properly shape your decision.

For problems with air entrapment and/or wrinkling, be sure to look at Rubber-Covered WebSpreaders and Machined Surfaces.

TYPICAL CHALLENGES ADDRESSED BY COATINGS AND PLATINGS

Process

- vertical webs
- high speed
- spreading
- double-sided coatings
- low wrap
- high tension
- low tension
- wrap angle
- light load
- spreading and wrinkling
- stretching

Environment

- clean room
- dusty/dirty environment
- food grade
- high moisture
- corrosive environment
- limited space to fit idler
- elevated temperatures
- submersed web

Web Characteristics

- brittle
- fragile
- sensitive
- web coated
- abrasive
- contaminated
- lightweight
- low tensile strength

COMMON COATINGS AND PLATINGS

Hardcoat Anodize

- · Transforms aluminum surface to aluminum oxide
- Excellent wear resistance and toughness
- · As hard as chrome plated steel
- · Can be impregnated with Teflon® for improved release
- Does not chip, peel or crack
- FDA approved

Electroless Nickel

- Excellent corrosion protection
- · Does not require grinding after plating
- · Can be applied to both steel and aluminum
- FDA approved
- · Preferred coating for clean-room components
- Abrasion resistant at 50 60 Rockwell C
- · Can be plated on heat-transfer roll internal water passages

Chrome Plating

- An industry standard for steel
- Abrasion resistant at 60 70 Rockwell C
- Corrosion resistant
- · Preferred coating for fine grinding and superfinishing

High Release Tungsten Carbide (Plasma) Coatings

- As sprayed finish 200 500 Ra provides traction surface
- Superior release characteristics
- Abrasion resistant up to 72 Rockwell C
- · A favorite for tape and coated adhesive lines

Speak with a roll expert! Call 1.920.729.6666 or email sales@webexinc.com



GR Grooved Rubber-Covered Idler Rolls



A cost-effective solution for spreading, dewrinkling, tracking, non-slip and air elimination Various elastomers Precision machined with angled, outward spiraling grooves across the roll surface

These anti-wrinkle rolls can influence your web in various ways, including stretching it, spreading it or allowing the web to lay flat and simply not induce wrinkles in the first place.

Through a partnership with Valley Roller, these idlers are covered with a rubber elastomer and are precision machined with angled, outward spiraling grooves across the roll surface. There are different elastomers available for use, each with different physical properties such as solvent resistance, heat resistance and hardness. In addition, various groove patterns are available to meet your specific application needs. Our Customer Support Specialists can help you determine which elastomer and groove pattern is best for your specific application.

Groove Type	Paper	Film
Single Groove (1) LH (1) RH	≥ .003	≥ .007
Double Groove (2) LH (2) RH	≤ .003	≤ .007
Triple Groove (3) LH (3) RH	≤ .0015	≤ .002
Quad-X (4) LH (4) RH	≤ .001	< .001

RECOMMENDED WEBSPREADER GROOVE TYPES

Common Applications

••			
Quad X	Silicone Covered	PVC Nitrile	
 Ideal for thin film and paper This idler is machined with quadgrooves that run progressively deeper as they travel toward each end of the roll 	 Built to elevated temperatures Silicone rubber coverings are nonmarking and offer excellent web release properties 	 Economical and non-marking, capable of withstanding temperatures up to 250° F Offers superior abrasion resistance 	Ordering is easy with Webex's simple model nomenclature. GR -300 x 050 x 56" 56 inch roll face length bearings to fit an 0.75 inch diameter dead shaft rubber covered to 3.00 inch diameter grooved rubber-covered idler

GROOVED RUBBER-COVERED MODEL GR

GR-300-075

2.0 inch diameter aluminum core

Rubber covered to 3.0 inch diameter

Low-friction bearings installed for a 0.75 inch diameter dead shaft

Generally available in Face Lengths up to 50 inches

GR-400-100

2.75 inch diameter aluminum core

Rubber covered to 4.0 inch diameter

Low-friction bearings installed for a 1.0 inch diameter dead shaft

Generally available in Face Lengths up to 80 inches

GR-500-150

3.75 inch diameter aluminum core

Rubber covered to 5.0 inch diameter

Low-friction bearings installed for a 1.50 inch diameter dead shaft

Generally available in Face Lengths up to 96 inches

GR-600-150



GR-700-150

5.75 inch diameter aluminum core Rubber covered to 7.0 inch diameter Low-friction bearings installed for a 1.50 inch diameter dead shaft



NOM. DIA.



FACE LENGTH

Generally available in Face Lengths up to 120 inches

ELASTOMER SELECTION GUIDE: POLYMER PROPERTIES

RELATIVE RATING Excellent Above Average Average Fair Poor	NEOPRENE	NITRILE	CARBOXYLATED NITRILE	POLYURETHANE	SILICONE (STANDARD)	EPDM	HYPALON	VITON
Hardness Range	20-95	20-100	45-95	40-95	30-90	25-95	30-90	55-90
Tensile Strength		\bigcirc			0	lacksquare	\bullet	\bigcirc
Modulus					\bullet			\bigcirc
Elongation at Break		\bigcirc	\bigcirc		O	\bigcirc	\bigcirc	\bigcirc
Tear Strength		\bigcirc			0	\odot	\bigcirc	\bigcirc
Cut Resistance		•			0	\odot		\bigcirc
Resistance to Compression Set	\bigcirc	•	\odot	•		\bullet	•	\odot
Resistance to Permanent Set		•	•			•	•	\odot
Resilience		Ō	$\overline{\odot}$			•	Ō	$\overline{\bullet}$
Resilience to Heat Build-up	ŏ	Ŏ	Õ	ŏ	Ĭ	$\overline{\odot}$	$\overline{\odot}$	$\overline{\mathbf{O}}$
Resistance to Abrasion	Ō	Ō	Ŏ	ě	0	Ō	Ō	$\overline{\mathbf{O}}$
Ozone Besistance	ĕ	Õ	Ō	Ō		Ŏ	Ŏ	Ŏ
Hydrolytic Stability	ŏ	ŏ	ŏ	\odot		ě		
Dielectric Strength	Ō	0	Ō			0		$\overline{\odot}$
Belease Characteristics	\odot	$\overline{\bullet}$	$\overline{0}$	\odot		$\overline{\bullet}$		$\overline{\bullet}$
Maximum Service Temperature (° F)	250	250	275	212	500	350	300	500
Acids (Mineral) Nitric, Sulfuric Hydrochloric, Phosphoric (Organic) Acetic, Boric Caustics	•	0	0	0		•	•	•
Sodium Hydroxide, Calcium Hydroxide		•	\bigcirc	0				
Aliphatic Hydrocarbons Kerosene, Gasoline, Hexane, Naphtha, Mineral Spirits, Most Offset/Letterpress Printing Inks, Many lubricants and greases	•	•	•	۲	0	⊙	●	•
<u>Aromatic Hydrocarbons</u> Toluol or Toluene, Xylol or Xylene	0	●	●	0	igodot	0	0	
<u>Chlorinated Hydrocarbons</u> Methylene Chloride, 1, 1, 1- Trichloroethylene, Perchloroethylene	۲	۲	۲	0	0	۲	۲	•
<u>Esters</u> Ethyl Acetate, Dioctyl Phthalate, Tricresyl, Phosphate	●	۲	۲	0		•	•	
<u>Alcohols</u> Methanol, Ethanol, Isopropyl Alcohol	۲		•	•	•		•	\odot
Water	\bigcirc		•	\odot				•
Glycols								
Ethylene Glycol, Glycerine	•		•	٢	•		•	•
<u>Ketones</u> Methyl Ethyl Ketone (MEK), Methyl Isobutyl Ketone	•	0	0	0	•	•	•	•

HOW TO SPECIFY THE RIGHT ELASTOMER

Use this elastomer chart to help determine which rubber compound is best suited to your particular situation. If in doubt, call us. We'll help you determine the best possible covering based on the web handling parameters you have to share with us.

STANDARD GROOVED IDLER ROLLS USE THE FOLLOWING ELASTOMERS Silicone

PVC-Nitrile

OTHER (NONSTANDARD) ELASTOMERS AVAILABLE Neoprene

Carboxylated Nitrile Polyurethane EPDM Hypalon Viton

HOW TO SPECIFY THE RIGHT GROOVED RUBBER ROLL

This literature presents four different groove configurations for the standard rubber-covered idlers. Other options are also available, including additional groove variations and non-groove designs.

To specify the best possible groove or rubber roll design, call us. Chances are we've already designed a rubbercovered roll for an application similar to yours.

ELASTOMER SELECTION GUIDE

Any Webex roll can be Rubber-Covered to meet process needs. The appropriate selection of a rubber cover is important to the success of many process applications. The following is a summary guide to a few of the most popular choices of rubber elastomers used in the web converting industry.

NEOPRENE: Neoprene is considered a good choice for general purpose applications. It has good mechanical properties, good chemical resistance and high resilience. Neoprene is a workhorse in the industry. It is used on nip rolls, pull rolls, feed rolls and in flexo and gravure printing.

NITRILE: Also known as NBR or Buna-N, Nitrile is the most commonly used elastomer in the industry. It has good resistance to oils, chemicals and water. Nitrileis also a workhorse covering with applications as nip rolls, pull rolls and rolls in printing applications.

CARBOXILATED NITRILE: A modified Nitrile rubber, possessing most of the properties of Nitrile along with outstanding abrasion resistance and other physical characteristics, including tensile strength.

NITRILE/PVC BLENDS: Very popular in the web converting industry. The addition of PVC enhances the physical properties, abrasion resistance, strength, chemical and ozone resistance of Nitrile.

POLYURETHANE: Urethane rubber is available in two basic chemical types, polyester and polyether. Polyurethane is a tough elastomer with good chemical and solvent resistance while polyethers work better in applications that come in contact with water. Urethane is typically used in applications where toughness, wear resistance and cut resistance are desired. Urethane generally has high-friction characteristics making it a favorite for pull rolls.

SILICONE: Silicone rubber is known for two main attributes, high temperature (500° F) capability and improved release characteristics. Silicone is a more expensive covering but along with heat resistance and release it has good chemical resistance and excellent ozone resistance. Silicone has generally weak physical characteristics but is widely applied in situations where its temperature and release characteristics are needed.

EPDM: Sometimes called EPT, EPDM consists mostly of Ethylene and Propylene. It has excellent ozone resistance and chemical resistance, especially with polar solvents such as keytones. EPDM is also heat resistant to 350° F. It is typically used where its chemical and temperature capabilities are required such as coating applications.

HYPALON: Hypalon has good physical characteristics, good chemical resistance, excellent ozone resistance and good temperature (350° F) capability. Hypalon is ideal for many roller applications and is a favorite as a covering for nip rolls.

VITON: Viton is known for its excellent chemical resistance and high temperature (500° F) capability. Viton is very expensive so its applications are limited to extreme cases where other compounds fail and the high price can be justified.







Precision-engineered mounts and bearing housings simplify bowed roll installation and service
Bowed roll coverings are available; from abrasion and heat resistant to high-release or dielectric properties
Optional adjustable mounts let you rotate the roll apex while running at full line speeds to achieve optimal web engagement and control
Optional outer sleeves made of highly durable synthetic rubber compounds and specified to each application
Corded sleeves available for high operating speeds

Webex Bowed Rolls are built tough for years of continued use at all specified speeds. Available in permanent bow and adjustable bow models, they feature proven mounting solutions that ensure ease of installation and extended versatility in web control.

The even distribution of lateral tension and vibration-free operation provided by these rolls is ideal for the separation of slit webs, elimination of web wrinkles, slack edges and soft spots.

BOWED ROLL SPECIFICATIONS: ROLLER DIAMETER

Adjusta-Bow	Perma-Bow
3.5 inches	1.5 inches
4 inches	3.5 inches
4.25 inches	4 inches
4.5 inches	4.25 inches
5.25 inches	4.5 inches
5.5 inches	5.25 inches
6.25 inches	5.5 inches
6.5 inches	6.25 inches
	6.5 inches

ADDITIONAL OPTIONS

 Adjustable bearing mounts

Roll CoveringsAbrasion

- •
- Outer sleeves
- Corded sleeves
- Heat Resistent
- High Release
- Dielectric

WEBEX BOWED ROLL MOUNTING OPTIONS



RECOMMENDED WRAP AND BOW

APPLICATION	MATERIAL	WRAP ANGLE	BOW (% OF COVER LENGTH)
	Film	30° - 150°	0.5% - 0.75%
Slit Separation	Paper	30° - 150°	0.5% - 0.75%
	Film	30° - 90°	1% - 1.125%
Wrinkle Removal	Paper	20° - 90°	1.25% - 1.5%
	Textiles and Nonwovens	45° - 120°	2% - 2.5%
Increase Width	Textiles and Nonwovens	60° - 150°	5% - 7%

Speak with a roll expert! Call 1.920.729.6666 or email sales@webexinc.com



TX ThermEx Heat Transfer Rolls



Engineered for a wide variety of cooling or heating applications Proprietary computational analysis for guaranteed mechanical and thermal performance

Surface finishes and tolerances to meet your processing

requirements

Manufactured to stringent industry standards and safety

practices

For more than 40 years, Webex has been the industry's first choice in maintaining consistent and cost-effective temperature management with our Precision Engineered Heat Transfer Rolls. Webex Engineers rely upon industry experience and a proprietary analysis process to predict exactly what the heat transfer results will be prior to manufacturing. We also specialize in rolls with ultra-tight tolerances, special plating and finishing.

To meet your exact application parameters, every Webex Heat Transfer Roll is designed for optimal balance between heat transfer, minimal pressure drop inside the roll, correct fluid velocity and minimum temperature rise across the roll face. Whatever roll size or specification you need, Webex is the proven source for heat transfer roll performance.

HEAT TRANSFER ROLL SPECIFICATIONS

Optional Certifications Available	ISO 9001
Size Range Capabilities	Diameters from 2 - 48 inches Lengths up to 511 inches
Design Options	Single shell, double shell Double shell - spiral: gain pitch or straight pitch Fluid flow: mono-flow (standard) or duo-flow (optional) Guaranteed temperatures to within +/- 1 degree F across the face of the roll Unique gain-pitch spiral design controls cross product temperature differentials and overall heat transfer characteristics
Typical Tolerances	Diametrical within +/- 0.001 inch Concentricity and straightness within 0.001 inch Optional precision concentricity and straightness to < 0.0001 inch Optional flawless mirror and a wide range of matte finishing available
Finish	Chrome, Nickel Rubber, Plasma, Ceramic, Teflon Coating Surface Hardened or Weld Overlay
Base Materials	Carbon Steel, Alloy Steel, Stainless Steel Aluminum, Copper

THERMEX HEAT TRANSFER ROLLS **TX**

TX-800

Double wall internal spiral baffle design

8 inch rolls will have 1 inch NPT each end with 25 GPM flow rate

Balanced up to 1,500 FPM (unless otherwise specified)

32 Ra finish on roll face

Concentricity and straightness held within 0.002 inch (unless otherwise specified)

Actual diameter 7.875 inches ± 0.001 inch

TX-1250

Double wall internal spiral baffle design

12.5 inch rolls will have 1 inch NPT each end with 25 GPM flow rate

Balanced up to 1,500 FPM (unless otherwise specified)

32 Ra finish on roll face

Concentricity and straightness held within 0.002 inch (unless otherwise specified)

Actual diameter 12.500 inches ± 0.001 inch

TX-1800

Double wall internal spiral baffle design

18 inch rolls will have 1.25 inch NPT each end with 40 GPM flow rate

Balanced up to 1,500 FPM (unless otherwise specified)

32 Ra finish on roll face

Concentricity and straightness held within 0.002 inch (unless otherwise specified)

Actual diameter 17.625 inches ± 0.001 inch







THERMEX HEAT TRANSFER ROLLS **TX**

TX-2400

Double wall internal spiral baffle design

24 inch rolls will have 1.5 inch NPT each end with 60 GPM flow rate

Balanced up to 1,500 FPM (unless otherwise specified)

32 Ra finish on roll face

Concentricity and straightness held within 0.002 inch (unless otherwise specified)

Actual diameter 23.625 inches ± 0.001 inch

SPECIFICATION CHART

Additional information on journal length, journal diameter and line speed would ideally be filled in using this Specification Chart.

E an aim al a diamantan in uma la		
For single diameter journals, L1 = L2 and L3 = L4	D	 Strength Journal
	D1	 Bearing Diameter
	L1	
	L2	
	L3	
	L4	
	FACE	
	OAL	
	SPEED	



ORDERING IS EASY WITH WEBEX'S SIMPLE MODEL NOMENCLATURE.



TOTAL SATISFACTION GUARANTEE

Your Heat Transfer Roll must work to your satisfaction, or return it at our expense and we'll repair or replace it. To provide this guarantee, we need to know your specific performance and operating specifications. As long as these specifications or operating conditions don't change, the "Total Satisfaction Guarantee" will be enforced.

Application Information / Thermal Performance Analysis

For fast and helpful support, please gather the following details and call 1.920.729.6666 or email sales@webexinc.com.

Web Material
Mass Rate
Web Width
Web Thickness
Line Speed
Web Tension
Density (If known)
Specific Heat (If known)
Thermal Conductivity (If known)
Entering Temperature
Exiting Temperature
Allowable Temperature Differential (Crossweb)
Heat Transfer Fluid
Heat Transfer Fluid Temperature
Roll Diameter
Wrap Angle
Other Requirements or Limitations

CUSTOM SIZES AND METRIC OPTIONS AVAILABLE Speak with a roll expert! Call 1.920.729.6666 or email sales@webexinc.com



VAC Fixed and Adjustable Zone Vacuum Rolls



Most effective device for web tension control and web transportation Ideal for controlling coated materials and very delicate or sensitive materials Zoned vacuum area for defined wrap angles Adjustable deckle design allows the vacuum area to vary for different web widths Coatings applied and screens installed suitable for a variety of products Ultra-fine, seamless nickel screens applied for the most sensitive and delicate materials

Webex Vacuum Rolls provide the ideal tension isolation and control point for your product. By pulling the web into intimate contact with the roll, Vacuum Rolls increase friction forces that help prevent web slippage. Used ahead of flotation ovens or in coating lines where nipping or contacting both sides of the web is not possible or desired, Vacuum Rolls are the solution for controlling your web.

An ultra-fine, seamless nickel screen is available that provides consistent grip across the entire width of the web, without damaging even the most delicate coated materials. Applications include the production of ultra-thin coated films, pressure sensitive papers, decorative products, adhesive coated films and optical film for the aerospace, biomedical and pharmaceutical industries.

VACUUM ROLL SPECIFICATIONS

Nominal Roll Diameters (Standard Screens)	8, 10.38, 12.75, 16 inch NON-STANDARD DIAMETERS AVAILABLE (without screens)
Maximum Face Length	156 inches (depending on diameter)
Minimum Face Length	15 to 30 inches (depending on diameter)
Typical Tolerances	Diametrical within 0.005 inch Concentricity and straightness within 0.005 inch
Base Materials	Aluminum, Stainless Steel, Carbon Steel
ADDITIONAL OPTIONS	
 Fixed deckle or variable deckle Simply supported or cantilever Clean room decign 	 Finish Nickel Plating Pubber Plasma Coramia Taflen Coating

- Clean room design
- Custom vacuum connections
- Rubber, Plasma, Ceramic, Teflon Coating
- Stainless Steel Mesh Screens
- Seamless Nickel Screens

VACUUM ROLLS VAC



Common Placement of a Vacuum Roll



APPLICATION INFORMATION

For fast and helpful support, please gather the following details and call 1.920.729.6666 or email sales@webexinc.com.

Web Material
Wrap Angle
Minimum Web Width
Maximum Web Width
Web Thickness
Line Speed
Web Tension (Incoming and Outgoing)
Roll Diameter
Other Requirements or Limitations

CUSTOMIZABLE TO MEET YOUR REQUIREMENTS Speak with a roll expert! Call 1.920.729.6666 or email sales@webexinc.com



GLOSSARY

Balance Tolerance

The amount of imbalance which is allowed at the designated balance speed. Imbalance is expressed in ounce-inches (for example, 2 oz. in. is 1 ounce imbalance on a 2 inch radius, or 2 ounce imbalance on a 1 inch radius).

Critical Speed

The speed at which harmonic vibration occurs in a rotating body as a result of its center of gravity being slightly removed from the body's true center.

Dead Shaft Roll

A roll with internal bearings which allow it to rotate around a stationary shaft. Dead shaft rolls traditionally have less inertia than live shaft rolls.

Idler Roll

A web-driven roll whose primary purpose is to help carry, support or redirect the web as it moves.

Live Shaft Roll

A roll with journals which allow the roll to rotate on externally mounted bearings. Live shaft rolls are ideal for high temperature or high loading applications.

Nominal Diameter (abrv: Nom Dia)

Dimension that comes from the original diameter of stock tubing before it is machined. Machined tubing is always slightly less than the Nominal Diameter listed.

Resultant Load

The net load that the roll encounters, usually the result of web tension, web width and wrap angle.

GLOSSARY

Runout (Circular)

Full indicator movement as measured around the circumference of a roll at any given point along the length of the body.

Sealed Bearings

Bearings which are tightly enclosed with contacting seals between the inner and outer race to keep out contaminants. Resulting friction is usually greater than that of a shielded bearing.

Shielded Bearings

Bearings which are not sealed, but enclosed with non-contacting shields, resulting in a very low friction bearing.

Surface Finish

A number which designates the smothness of a surface in Ra (roughness average).

Straightness

A tolerance which controls the diameter variation of a roll, especially important when roll diameter tolerance is not tight.

T.I.R.

Total Indicator Reading.





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