

Web Tech Assembly Solutions, LLC
1875 E. Main Street
Duncan, SC 29334

WebTech
SOLUTIONS PARTNER

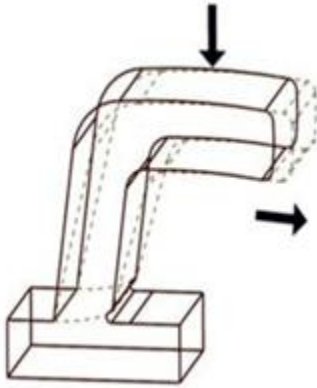
WebTech SOLUTIONS PARTNER

EcoStretchRoll

Owner's Manual and Maintenance Manual



Principle of operation of elements



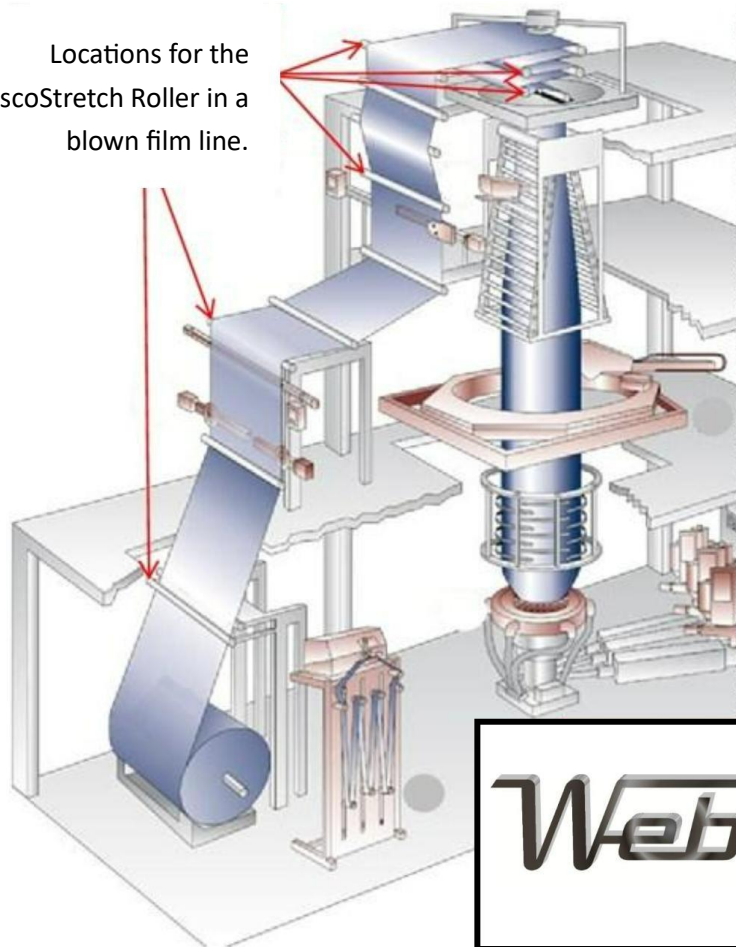
- Precision rubber rings consisting of 20, 30 or 40 individual expansion elements which work independently from one another.
- Each individual expansion element creates an active spreading force of 20-30gr. This spreading force shifts the contact surface to the outside thus creating the spreading effect.
- Due to the very low weight of 0.5gr per single expansion element the amount of force needed to engage each element is minimal.

Example number of spreading elements:

WOB 80/110 x 800 mm = 54 expansion rings

54 rings = 1200+ completely independent spreading active spreading elements.

Locations for the EscoStretch Roller in a blown film line.



Size offerings and principles of operation

ESR-ST (Sensitive Treatment)
 spreads all webs $>4 \mu\text{m}$ or $>8\text{gr}/\text{m}^2$



ESR-ST 40/60:
 outer diameter: 60 mm
 speed: up to 300 m/min



ESR-ST 80/110:
 outer diameter: 110 mm
 speed: up to 700 m/min



ESR-ST 100/130:
 outer diameter: 130 mm
 speed: up to 800 m/min



ESR-ST 120/150:
 outer diameter: 150 mm
 speed: up to 1000 m/min

Advantages of the ESR spreader rollers



Principle of operation
 1.400-2.800 independently
 operating individual spreader
 elements per meter roll length.



Contact surface
 Slightly curved, large contact
 surfaces ensure **marking-free**
 guidance without relative movement.



Wrap angle
 Full functionality at **8-180**
 degrees in both directions.



Web tension
 Between **10 und 750 N/mtr.**
 roll length.



Web thickness
 Spreads any material thickness
 $>4 \mu\text{m}$ and $>8\text{gr}/\text{m}^2$.



Multiple cutting
 Applicable for multiple cuttings.



Web speed
 The EcoStretchRoll can be used up
 to **1.000 m/min**. At the same time, it
 has vibration-damping effect and runs
 absolutely quietly.



Variants
 The EcoStretchRoll is available in four
 diameters (60, 110, 130, 150 mm) and
 can be produced to customer specifica-
 tions up to a maximum of 7.000 mm.



Material properties
 TPE: wear-free, temperatur- and
 ozon-resitant and FDA-approval.

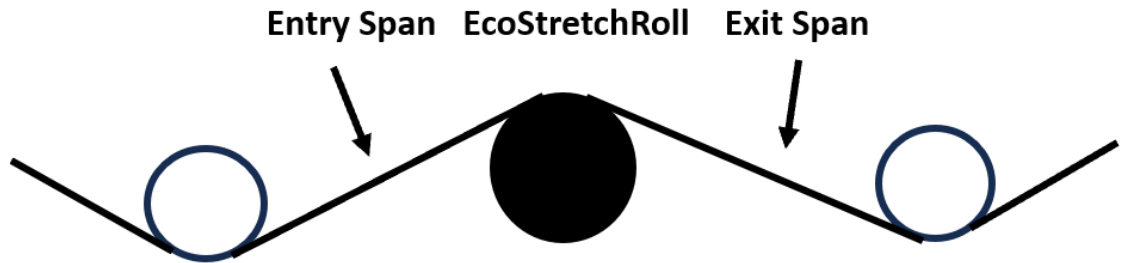


Roll body
 Smooth-running roller from
 DRECKSHAGE. Lightweight aluminium
 roll tubes with special geometry for high
 bending stiffness. Fast response due to
 low start-up weights an low inertia.



Assembly
 Each EcoStretchRoll is produced
 according to customer specifications and
 delivered ready for installation. It is ready
 for immediate use without external drive
 or adjustment.

Installation and Maintenance

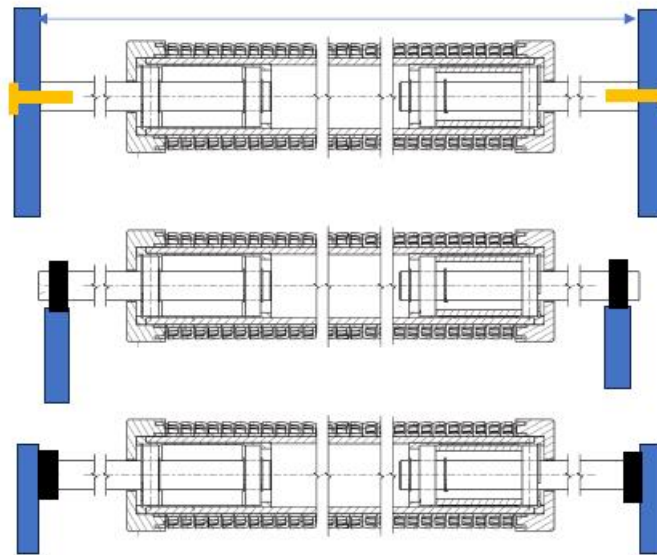


For best results, Roller requires
50% of web width as entry span

wrap angle
10 to 180°

Exit Span: 10-150%
of web width

Dimension for shaft to fit between



- Bolt through frame (possible to drill and tap for mounting between frames)
- Rollers are all dead shaft designs.
- We also have options for mounting with clamps either between frames or pillow block style.



Cleaning of roller

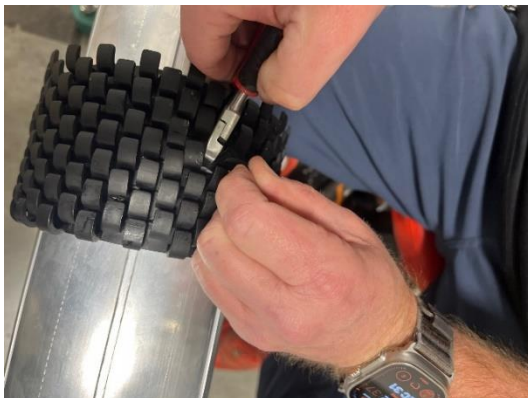
- Use mild detergents or, if needed use diluted Denatured or IPA Alcohol.
- Rinse off with water and dry as needed.
- Ensure that none of the fingers are stuck under one another and just align by hand.

Replacement of Rings and Roller Repair

If physical damage has occurred, you can remove the rings and replace them or send them in with RMA for repair.

Replacing rings

- Remove roller from production line.
- Use support for journals so roller body to suspended in air and a stop support at end for pushing new rings on.
- Remove endcap.
- Slide off or cut damaged rings.
- If replacing all rings it is best to start on one side to maintain center line.





- Line up new rings in groove and slide into place. This step is critical.
- Removal and installation of rings MUST use lubricant Kluberplus S 06-100.
- Dilute using 20% lubricant and 80% water.
- Use enough lubricant to slide rings on but do not soak or cleanup will take much longer.
- Lubricating the inside of ring and body help with sliding on new rings.



- Be sure to align the rings so the fingers are correctly orientated.
- Stretch rings over body.
- Be sure internal tabs are in the alignment grooves.



Correct alignment



incorrect alignment



Be sure to tighten so not to leave any gaps between the rings.

- Reinstall endcap.
- Clean off and overspray or residue from lubricant.
- Run hand over to align any fingers that may have tucked under one another.
- Reinstall roller on production line.

How replacement rings will arrive. Stacked in correct orientation for installation.



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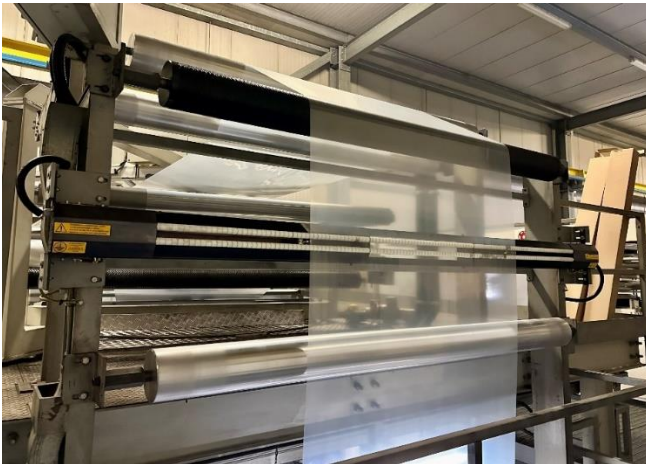
Journal damage

- Remove roller from production line.
- Use snap ring pliers to remove snap ring.
- Install new journal and replace snap ring.
- Replace bearings if necessary but, recommended when replacing journal.

For further information or to request an RMA please contact:

sales@webtechteam.com

Application examples



Results on films before EcoStretchRoll and after

