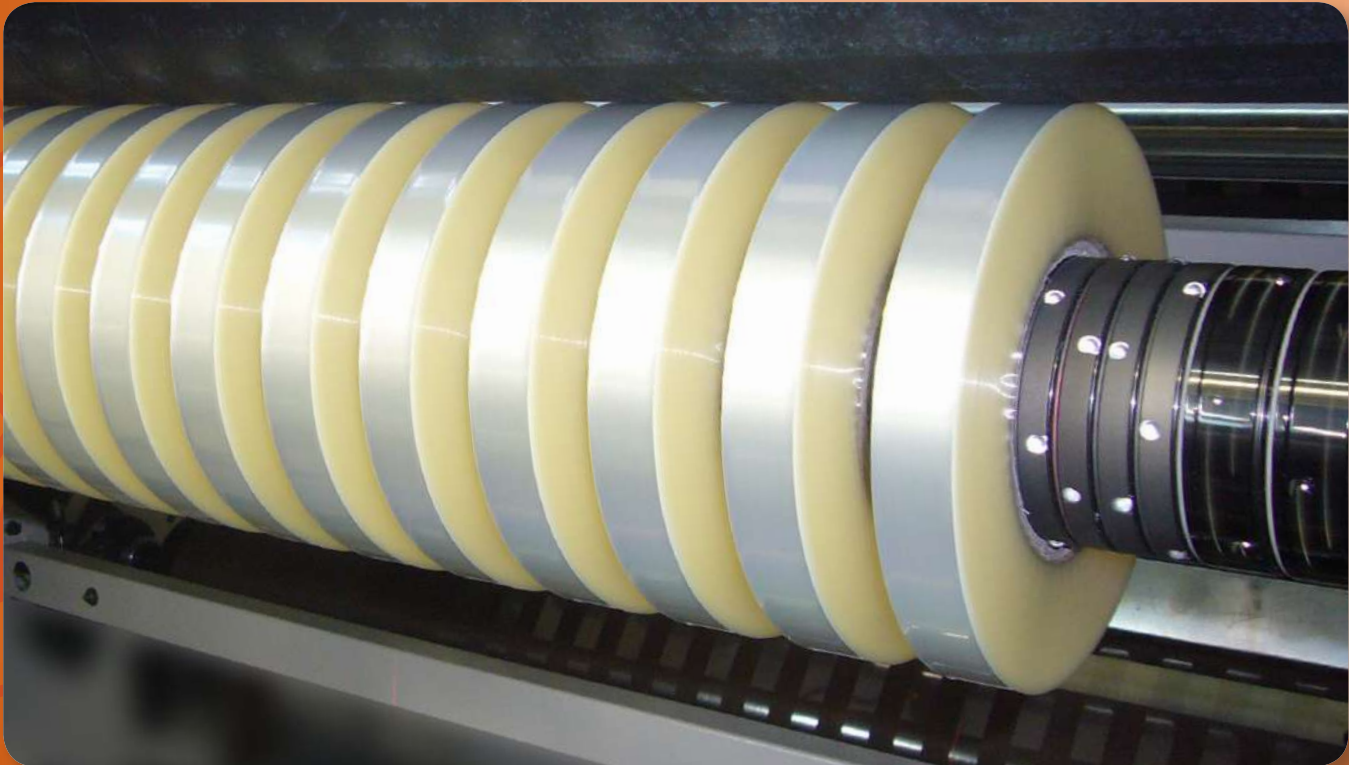


NEW DIFFERENTIAL REWIND SHAFTS MODEL FDS/3ALM DUAL



FEATURES

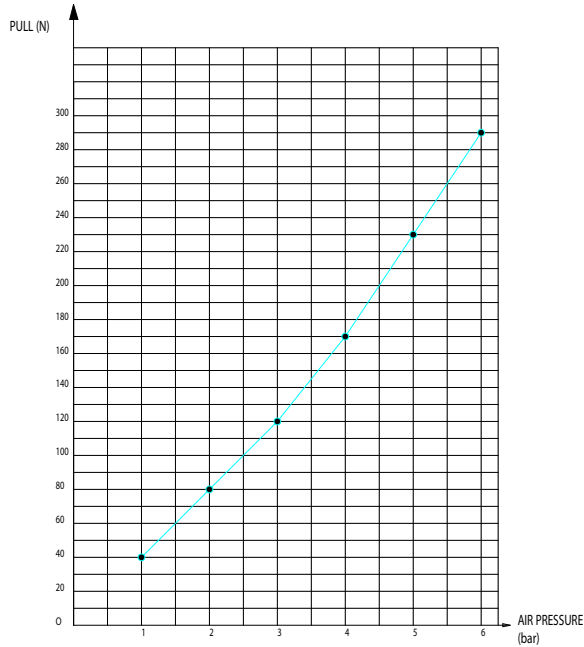
- New bidirectional ball locks (patented)
- Double rows of expanding balls always in contact with the cores
- Suitable for slitter rewinders with automatic roll unloading
- Increased expansion range
- Smaller ball lock outside diameter
- Lighter shaft weight
- Increased surface hardness
- Light and resistant expanding ball material
- Minimum air pressure of 0.2 bar

BENEFITS

- When changing winding direction bidirectional ball locks do not need to be reversed on the shafts, greatly reducing job setup times
- Cores are automatically clamped and centred
- Absolute certainty that all ball locks are engaged and clamping the cores across the full web width
- More accurate tension control
- Increased torque transfer
- Suitable for cardboard, plastic and steel cores
- Rolls can be automatically pushed off – it is no longer necessary to manually return ball locks to rest position
- Standard 3" ball locks can now clamp oversized core IDs up to 77.10mm. Optionally, core IDs up to 78mm can also be accommodated
- Easier loading of cores
- Easier unloading of rolls
- Reduced shaft weight allows for increased roll weights.
- Added durability and wear resistance for longer production life
- Reduced ball seat wear
- Increased friction sensitivity

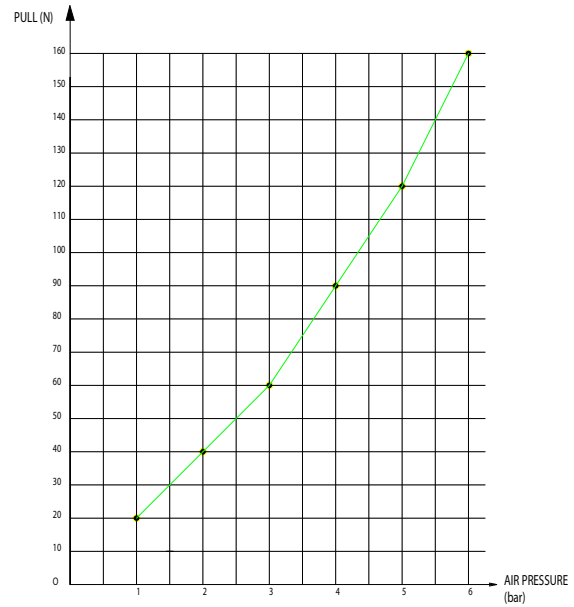
PATENTED

FRICION SHAFT TYPE FOR C.I.D. 3"

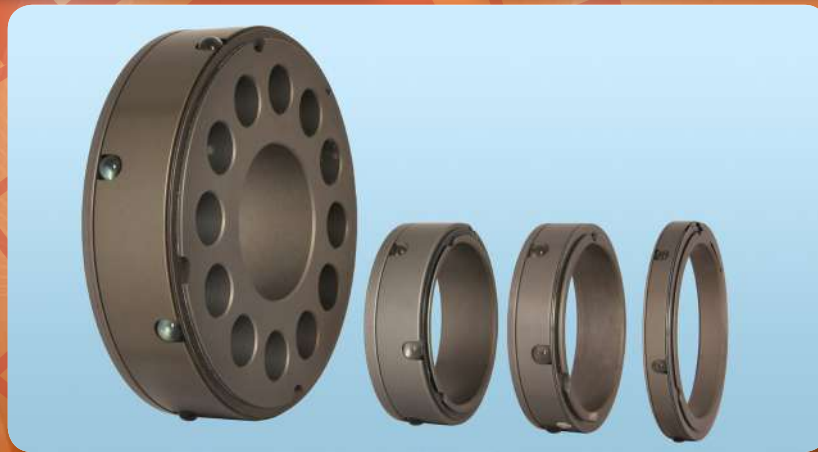


GRAPH PRESSURE (bar) / PULL (N)
FOR 10cm CORE LENGTH

FRICION SHAFT TYPE FOR C.I.D. 6"



GRAPH PRESSURE (bar) / PULL (N)
FOR 10cm CORE LENGTH



CORE INTERNAL DIAMETER	76.2-77				152-153.5		
EXTERNAL DIAMETER	75.3				151		
INTERNAL DIAMETER	60				60		
WIDTH	19	24	39	49	39	49	59
MINIMUM CUT REEL	20	25	40	50	40	50	60
COLLAPSED DIAMETER	75.3				151		
EXPANDED DIAMETER	79				155.9		
BALL DIAMETER	7.14				10		

Bidirectional model available for **70-76mm (3")** core IDs in ball lock widths from 20 to 60mm.
 Unidirectional model available for ball lock widths from 8 to 15mm.
 Bidirectional model available for **150mm (6")** core ID in ball lock widths from 40 to 60mm.
 Unidirectional model available for ball lock widths from 15 to 25mm.



I.E.S.

INTERNATIONAL EXPANDING SHAFTS S.R.L.

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INTERNATIONAL **E**XPANDING **S**HAFTS S.R.L.



BIDIRECTIONAL FRICTION SHAFT TYPE FDS5/3L BD WITH DOUBLE ROW OF EXPANSION BALLS PATENT PENDING

- Reverse the position of friction rings or shafts no longer necessary when change of winding direction
- Machine down-time is substantially reduced
- Minimum core width 15 mm. with double row of expansion balls in each core
- Suitable for cores in carton, PVC and steel
- Available for cores inside diameter 57, 70, 76, 95 and 152 mm, other dimensions on request
- Excellent friction sensitivity
- Axial or radial inflating
- Possibility of retrofitting on existing machines

**PRODUZIONE E COMMERCIO DI ALBERI ESPANSIBILI E AFFINI PER CARTIERE,
CARTOTECNICHE, INDUSTRIE TESSILI**

Sede Amministrativa e Stabilimento

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e-mail: ies.srl@tin.it - Web: www.ies-srl.net



I.E.S.

INTERNATIONAL EXPANDING SHAFTS S.R.L.

REVOLUTION IN REWINDING!

DIFFERENTIAL SHAFT FDS7/3L

FANTASTIC PERFORMANCES

- MORE EXPANSION RANGE
- LARGE CORE TOLERANCES PERMITTED
- MINIMUM CUT WIDTH 15 MM
- UNIDIRECTIONAL AND BIDIRECTIONAL VERSION
- AVAILABLE FOR 70 MM AND 3" NOMINAL CORE INSIDE DIAMETER

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NEW!!!



FRICION SHAFT FDS7/3L:

The I.E.S. friction shaft model FDS7/3L is the right solution whenever the need arises to rewind reels of material with differing thicknesses over the width of the web maintaining at the same time an equal tension as in the case of multiple slit reels. A simple turn of the cores on the friction elements provides a firm radial and axial grip eliminating the need for any spacers.

FEATURES

- AVAILABLE FOR 70 mm AND 3" NOMINAL CORE INSIDE DIAMETER
- SUITABLE FOR MINIMUM CUT WIDTH 15 mm
- AVAILABLE UP TO 2000 mm WEB WIDTH
- CARRIER SHAFT IN HIGH-RESISTANCE CHROMIUM PLATED STEEL
- DYNAMIC BALANCED
- UNIDIRECTIONAL AND BIDIRECTIONAL VERSION AVAILABLE

BENEFITS

- LARGE CORES DIAMETER PERMITTED
- EXCELLENT FRICTION SENSIVITY
- RECOMMENDED FOR THIN FILMS
- EASY CORE BLOCKING AND CORE REMOVAL
- SUITABLE FOR ANY CENTRE DRIVE SLITTER REWINDER
- SHORT DELIVERY
- EASY MAINTENANCE