

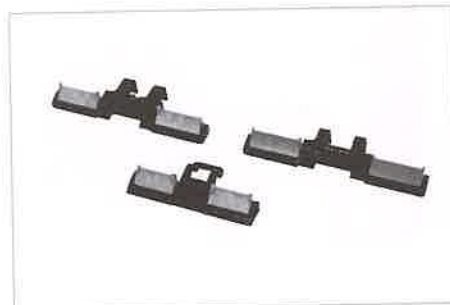
TeraSpin – a name to reckon with for precision spinning machinery components

The journey of TeraSpin began with A.T.E.'s takeover of the Textile Business Unit of SKF, India, in 2012. TeraSpin has successfully completed 7 years of journey. During this journey, through continuous R&D, TeraSpin has focused on product innovation and quality improvements, which has helped TeraSpin to establish itself as a renowned global brand.

TeraSpin had earlier developed and introduced Smart series of products like Smart cradles for roving and ring frames and Smart Yarn Catcher for ring frame spindles. Besides, they have introduced two more innovative products during ITMA 2019 at Barcelona, i.e., Premium spindles for ring frames and Flexi weighting arms for ring frame.

Smart cradles for roving frames and ring frames

TeraSpin has developed a new range of Smart cradles. The cradles discharge the important function of keeping the apron in position over the rotating apron top roller, so that fibres are effectively guided in the main draft zone. The new Smart cradles exercise better control over fibres in the front zone and hence give better roving and yarn quality. The fixed radius of these Smart cradles ensures uniform nip distance in the front zone (apron nip to front roller nip) and its unique profile reduces apron friction over cradle by approx. 20%. These result in fewer imperfections and faults in yarn.



Features

- ❖ Minimum contact area minimises friction during apron rotation
- ❖ Fixed radius ensures a uniform distance between apron nip and front roller nip
- ❖ Accommodates variation in apron length and maintains uniform apron tension

Benefits

- ❖ Reduced yarn imperfections
- ❖ Longer apron working life
- ❖ Easy apron removal and mounting during maintenance

Smart Yarn Catcher

Accumulation of residual yarn on ring frame spindles at the end of everyd off has been a perennial

Ring frame cradles	Roving frame cradles
OHS 168 (short polymer cradle, 70 mm gauge)	OHP 110 (short polymer cradle)
OHS 175 (short polymer cradle, 75 mm gauge)	OHP 310 (medium polymer cradle)

problem for the spinning industry. The accumulated residual yarn is not only a waste of material, but also needs to be manually cleaned, which involves many man-hours and affects the productivity of the ring frames.

TeraSpin

To overcome the above mentioned problem, Tera Spin has developed a Smart Yarn Catcher that is self-cleaning. The residual yarn left behind after every doff is expelled by centrifugal forces – putting an end to a major pain area in the operation of ring frames!

Features

- ❖ Automatic opening & closing of clamping faces with a change in spindle speed
 - ❖ Clamping faces open at 10500 rpm
 - ❖ Clamping faces close at 4000 rpm
- ❖ Firm grip of yarn between upper & lower clamping faces which can align
 - ❖ precisely with each other due to special springs
- ❖ Nylon cutter for yarn cutting

Benefits

- ❖ Minimum yarn used for clamping
- ❖ No accumulation of residual yarn – the flat annular clamping faces enable the clamped yarn to move out of device easily by centrifugal forces
- ❖ No cleaning of residual yarn – fewer labour hours
- ❖ Reduced start-up breaks
- ❖ Improved ring frame productivity
- ❖ Very long service life



Premium spindles

Energy consumption is the second major factor after raw material cost that eats away the margin of the spinning mills. Hence, every spinning mills looks for energy saving options.

Tera Spin Premium spindle, a newly added feather in TeraSpin's product range, has been developed especially to ensure significant energy savings over the standard spindles. In addition, it reduces spindle vibration and noise.

Features

- ❖ Minimum wharves dia. up to 17.8 mm
- ❖ Higher level of manufacturing precision for all spindle components
- ❖ Only two point contact (at footstep and neck bearing)
- ❖ High precision neck bearing with German components
- ❖ Optimised damping of spindle vibrations with improved design and German components

- ❖ Well proven conical foot step design manufactured with higher precision

Benefits

- ❖ Lower energy consumption
- ❖ Lower coefficient of friction
- ❖ Lower vibrations
- ❖ Lower noise level

Flexi weighting arms of PK S 3000 series for ring frames (Hexagonal)

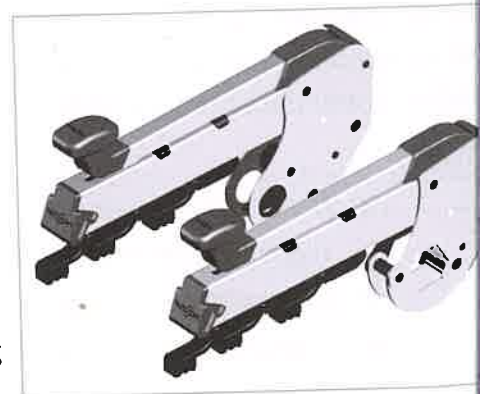
Globally, the spinning industry primarily uses two types of drafting systems on ring frames – pneumatic and mechanical (spring loaded). Unlike mechanical (spring loaded) drafting, pneumatic drafting needs an additional compressor to have compressed air for loading. Over a period of time the pneumatic loading system usually develops problems like leakage, variation in pressure, etc. This necessitates frequent checking and changing of parts, which adds to the maintenance time, cost and furthermore affects the yarn quality and working of the ring frames.

Hence, mechanical (spring loaded) drafting is more popular and more accepted in the spinning industry globally. Many spinning mills where the ring frames were originally equipped with pneumatic drafting prefer to switch over to mechanical (spring loaded) drafting. However, the replacement of the complete drafting system (weighting arm, top rollers and cradles) along with other auxiliaries is an expensive proposition. This is because the ring frames have several hundred drafting positions per machine and there are more number of ring frames in a spinning mill compared to any other machine.

To overcome the challenges faced by the spinning mills, TeraSpin has developed PK S 3000 series Flexi weighting arms for short staple ring frames. The PK S 3000 series of Flexi weighting arms offer maximum flexibility to use the existing drafting parts, compact systems and their fixing arrangement. Now, with TeraSpin PK S 3000 series of Flexi weighting arm, the spinning industry can get rid of the challenges with pneumatic drafting on ring frames with minimal investment – and derive long-term benefits of improved productivity and best yarn quality!

Features

- ❖ Higher front top roller load
- ❖ Options of 5 different loads on each top roller
- ❖ Adjustable front top roller off-set
- ❖ Suitable for hexagonal as well as round arm bar
- ❖ Can accommodate existing top rollers
- ❖ Easy height (pressure) setting
- ❖ Easily replaceable individual weighting elements for each top roller
- ❖ Suitable for compact systems



- ❖ Reliable loading through leveraged force of helical coil springs
- ❖ Corrosion resistant NiCr finish



Benefits

- ❖ Minimal investment
- ❖ Consistent & better yarn quality
- ❖ Improves working of ring frame
- ❖ Easy to install
- ❖ Longer service life
- ❖ Virtually maintenance free
- ❖ Suitable for wide variety of fibre & yarn counts
- ❖ Free from vagaries of pneumatic pressure loss or pressure variation
- ❖ No height gauge setting required after cot buffing within the specified range of the cot diameters

TeraSpin products now online

As a part of their continuous efforts to serve their customers better, TeraSpin has launched its E-commerce portal "A.T.E. Store". This enables customers to buy the TeraSpin products online, at the click of a button.

Through A.T.E. Store customers can now

- ❖ View all TeraSpin products available under a product family
- ❖ View the technical details of all TeraSpin products & select the right product
- ❖ View the price of the required TeraSpin products
- ❖ Generate quotation online
- ❖ Place the order for TeraSpin products directly from their own desktop/ laptop
- ❖ Avail of special prices for products purchased online!
- ❖ Make payment online
- ❖ Track the order status online

With continuous quality improvements, product innovations, customised solutions and strong after-sales service support, TeraSpin has spread its wings across 19 countries including China, Bangladesh, Nepal, Indonesia, Vietnam, Taiwan, Egypt, Argentina, Kenya, Thailand, Korea, Italy, Spain, Germany, Turkey, Uzbekistan, Mexico, Japan and Canada. TeraSpin is also supplying its components to a few major OEMs including Lakshmi Machine Works Ltd, India, Electro-Jet Machinery (P) Ltd, India, and Shanxi Best Machinery Manufacturing Co. Ltd, China.

TeraSpin has already emerged as a name to reckon with globally for the precision spinning machinery components. With their relentless focus on product development and quality improvements, TeraSpin has set its sight high to remain a preferred partner of the textile industry and OEMs globally.