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A.T.E. has recently acquired the textile machinery component business of SKF India Ltd. These precision components, encompassing spindles and spindle inserts, weighting arms, top rollers, and cradles are now manufactured by A.T.E. based on SKF technology in its state-of-the-art manufacturing facility at Ahmedabad and are marketed under the brand 'TeraSpin'.

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NEW! TeraSpin HF-100 Inserts

New TeraSpin HF-100 is the latest generation high performance, high speed insert. The HF 100 insert, with approx. 20% lower oil content, is designed to run at 25000 rpm. TeraSpin offers complete spindles with HF-100 inserts.

Features:
1. Reduced blade length to 100mm
2. High precision and low tolerance bearing design
3. Only two-point contact (at footstep & neck bearing)

Benefits:
1. High dimensional stability even at higher speeds
2. Very steady even at high spindle speeds, low oiliness and reduced end breakage
3. Spindle oil requirement reduced by approx. 20%

Variants:
160/170/180/190/210 mm lift with minimum 18.5mm wharf dia.

TeraSpin HF-100 Inserts

**Features**

**Benefits**

**Variants**

Manufactured based on SKF technology
## Spindles & Inserts

<table>
<thead>
<tr>
<th>Variants</th>
<th>Application</th>
<th>Benefits</th>
<th>Features</th>
</tr>
</thead>
</table>
| PK2035 for long staple man-made fibres | Cotton, man-made fibres, wool and blends | - Can readily replace existing metal cradles
- Cleaner surface for smooth rotation of top aprons
- Design ensures gentle nipping and effective fibre gripping of top apron & resistance to chemical reaction. | - Fixed radius ensures uniform distance between apron nip & front roller
- Minimum contact area between apron tips & front roller
- Accommodate variation in apron length & maintain uniform apron tension |

## Weighting Arms

<table>
<thead>
<tr>
<th>Variants</th>
<th>Speed Frames</th>
<th>Application</th>
<th>Benefits</th>
<th>Features</th>
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</table>
| LP302 / LP303 | PK1500-450S, PK1500-480S, PK1600-410 | Cotton, man-made fibres, wool and blends | - Reduced maintenance cost
- Improved and consistent quality of output
- Increased spindle speed and productivity
- Reduced power consumption |

## Top Rollers

<table>
<thead>
<tr>
<th>Variants</th>
<th>Specification</th>
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<th>Features</th>
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</table>
| OH 121 – long type | OH 554 – worsted spinning | Cotton, man-made fibres, wool and blends | - Extended machine life
- Advantages
- Increased spindle speed and productivity
- Reduced power consumption |

## Cradles

<table>
<thead>
<tr>
<th>Variants</th>
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<th>Features</th>
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</table>
| OH 62 | OH 121 – medium type | Cotton, man-made fibres, wool and blends | - Maximum contact area between apron tips & front roller
- Fixed radius ensures uniform distance between apron nip & front roller
- Accommodate variation in apron length & maintain uniform apron tension. | - Better yarn results
- Increased spindle speed and productivity
- Reduced power consumption |

## Up-gradation Kits

<table>
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<tbody>
<tr>
<td>PK1500, PK2035</td>
<td>PK2035 for speed frames PK2035 for ring frames</td>
<td>Cotton, man-made fibres, wool and blends</td>
<td>- Twin benefits of enhanced performance with low maintenance.</td>
<td></td>
</tr>
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</table>

## Grease TRG5

<table>
<thead>
<tr>
<th>Specification</th>
<th>Application</th>
<th>Benefits</th>
<th>Features</th>
</tr>
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</table>
| Barium based grease | Cotton, man-made fibres, wool and blends | - Excellent water resistant properties
- Excellent water resistant properties |

## Spinning Mill Efficiency

- Spinning industry demands special grease to keep drafting top rollers running with less re-lubrication intervals. Also micro dust, fluff humidity and temperature in the spinning section can seriously impair the performance of drafting systems. **TeraSpin** **upgradation kits** offer the twin benefits of enhanced performance with low maintenance.

**Spindles & Inserts**

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| PK2035 for long staple man-made fibres | Cotton, man-made fibres, wool and blends | - Maximum contact area between apron tips & front roller
- Fixed radius ensures uniform distance between apron nip & front roller
- Accommodate variation in apron length & maintain uniform apron tension. | - Better yarn results
- Increased spindle speed and productivity
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**Weighting Arms**

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- Improved and consistent quality of output
- Increased spindle speed and productivity
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**Top Rollers**

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| OH 62 | OH 121 – medium type | Cotton, man-made fibres, wool and blends | - Maximum contact area between apron tips & front roller
- Fixed radius ensures uniform distance between apron nip & front roller
- Accommodate variation in apron length & maintain uniform apron tension. | - Better yarn results
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**Cradles**

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| OH 121 | OH 62 - short type | Cotton, man-made fibres, wool and blends | - Maximum contact area between apron tips & front roller
- Fixed radius ensures uniform distance between apron nip & front roller
- Accommodate variation in apron length & maintain uniform apron tension. | - Better yarn results
- Increased spindle speed and productivity
- Reduced power consumption |

**Up-gradation Kits**

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**Grease TRG5**

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| Barium based grease | Cotton, man-made fibres, wool and blends | - Excellent water resistant properties
- Excellent water resistant properties |

**Spinning Mill Efficiency**

- Spinning industry demands special grease to keep drafting top rollers running with less re-lubrication intervals. Also micro dust, fluff humidity and temperature in the spinning section can seriously impair the performance of drafting systems. **TeraSpin** **upgradation kits** offer the twin benefits of enhanced performance with low maintenance.
TeraSpin high performance spindles and HF series spindle inserts are well proven in design and widely accepted by spinning mills and machinery manufacturers. Millions of spindles are in operation across the globe.

**Features**
- High spindle speed up to 25000 rpm.
- Compact robust bearing
- Spring support for axial load
- Well proven outer shell design
- Flexible chain drive

**Variants**
- HF-21 (upto 20000 rpm)
- HF-21C (upto 18000 rpm)
- HF-100 (upto 25000 rpm)
- HF-1 (upto 22000 rpm)

**Benefits**
- Low noise
- Low energy consumption
- Self centering ensures concentric running
- Ensures lower vibrations
- Extremely low friction co-efficient
- Spring support for axial load
- Compact neck bearing

Across the globe, TeraSpin high performance spindles and HF series spindle inserts are accepted by spinning mills and machinery manufacturers.

PK1500, 3/3 and 4/4 drafting system for speed frames & ring frames. Outdated mechanical and/or old pneumatic drafting systems can be replaced by the more efficient TeraSpin spring loaded weighting systems. These weighting systems do not need any compressed air or hydraulic pressure to achieve the necessary load on top rollers.

**Variants**
- PK1500, 3/3 and 4/4 drafting systems for speed frames
- PK232, PK323 drafting systems for ring frames

**Spindle zone**
- Driven by the spinning process, out of which spindles and the spindle drive consume almost 40%. A small saving here will directly reflect in the cost of the yarn. By optimizing parameter like spindle drive rotational speed and lift etc., the power consumption can be considerably reduced.

**Up-gradation Kits**
- Up-gradation of existing spinning machines with latest technology inserts improves productivity, quality and energy efficiency. TeraSpin upgradation kits offer the twin benefits of enhanced performance with low investment.

Spinning industries demand special grease to keep drafting top rollers running with lower re-lubrication intervals. Also micro dust, lint and humidity in the spinning zone can severely impair the lubricating properties of the grease, thus adversely affecting the performance. TeraSpin TRG4S is specifically formulated to meet these stringent working conditions. It is indispensable for bottom bearings.

**Features**
- Balanced grease
- High load carrying capacity
- Exceptional thermal stability
- Excellent water resistant properties
- Wide range of working temperature (–30°C to +140°C)

**Benefits**
- Longer lubrication interval – 30,000 hours
- High corrosion resistance
- Extended service life
- Reduced maintenance cost
**Spindles & Inserts**

TeraSpin high performance spindles and HF series spindle inserts are well proven in design and widely accepted by spinning mills and machinery manufacturers. Millions of spindles are in operation across the globe.

**Features**
- High spindle speed up to 25,000 rpm.
- Compact neck bearing.
- Spring support for axial load.
- Well-proven conical shaft design.
- Flexible centering device.

**Benefits**
- Permits higher spindle speed due to smaller wharve.
- Extremely low friction coefficient.
- Ensures lower vibrations.
- Lubricated with special grease TRG 5.
- High spindle speed up to 25,000 rpm.
- Manufacturers. Millions of spindles are in operation across the globe.

**Variants**
- HF-21 (upto 20,000 rpm)
- HF-21C (upto 18,000 rpm)
- HF-100 (upto 25,000 rpm)
- HF-1 (upto 22,000 rpm)

**Applications**
- Cotton, man-made fibres, wool and blends.
- Low noise.
- Low energy consumption.
- Consistent quality output.

**Features**
- Made from polyamide filled with fibre glass for dimensional stability.
- Lightweight design compared to sheet metal cradles.
- Design ensures gentle More effective fibre gripping and improved fibre control.
- Cleaner surface for smooth rotation of top aprons.
- Consistently replace existing metal cradles.
- Increased life of top aprons.
- Made of high wear-resistant materials.
- Able to replace existing chrome-plated brass apron rollers.
- Will offer the twin benefits of enhanced performance with low investment.

**Weights**
- Barium based grease.
- High load carrying capacity.
- Excellent resistance against dust, fluff, humidity and temperature in the spinning zone.
- Reduced power consumption.
- Reduced maintenance cost.

**Grease TRG5**

SPINNING INDUSTRY DEMANDS SPECIAL GREASE TO KEEP DRAFTING TOP ROLLERS RUNNING WITH LIMITED RE-LUBRICATION INTERVALS. ALSO MICRO DUST, ROLL BURN, DUST AND TEMPERATURE IN THE SPINNING ZONE CAN SERIOUSLY IMPACT THE LUBRICATION PROPERTIES OF THE GREASE, THEREFORE ADVERSELY AFFECTING THE PERFORMANCE. TERA SPIN TRGS IS SPECIALLY FORMULATED TO MEET THESE STRINGENT WORKING CONDITIONS. IT IS INVALUABLE FOR BOTH TOP ROLLERS.

**Benefits**
- Longer lubrication interval – 30,000 hours.
- High corrosion resistance.
- Extended service life.
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![Knowledge Expertise](image1.png)

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**NEW! TeraSpin HF-100**

- **Features**
  - Reduced blade length to 100mm
  - High precision and low tolerance bearing design
  - Only two point contact (at footstep & neck bearing)

- **Benefits**
  - High dimensional stability even at higher speeds
  - Very steady even at high spindle speed leads to low hairiness and reduced end breakage
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**Benefits**
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2. Very steady even at high spindle speed reduces throwout and reduced end breakage
3. Spindle oil requirement reduced by up to 20%

**Variants**
160/170/180/190/210 mm lift with minimum 18.5mm xwhare dia.

**Features**
- Knowledge
- Expertise
- Next generation
- High performance
- Durable
- Precise

**Benefits**
- High dimensional stability even at higher speeds
- Very steady even at high spindle speed reduces throwout and reduced end breakage
- Spindle oil requirement reduced by up to 20%

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