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# PRODUCT GUIDE

## *Chapter 4* *TeraSpin weighting arms*



1st edition 2015

Research and Development is a continuous process. Hence, some of the information provided in this PRODUCT GUIDE may have become obsolete with TeraSpin's new developments in technology.

TeraSpin is a business unit of A.T.E. Enterprises Private Limited, a company engaged in the service of the textile industry since 1939. TeraSpin came into existence in 2012 after A.T.E.'s takeover of SKF India's textile spinning component business. Since then it has been innovating and making continual improvements in quality and reliability in the service of spinning mills and machinery manufacturers around the world.

TeraSpin's product range consists of weighting arms, top rollers & cradles for roving frame and ring frame, spindle bearing units and complete spindles for ring frames and doubling frames. TeraSpin also offers customized upgrades for existing ring spinning and roving frames.

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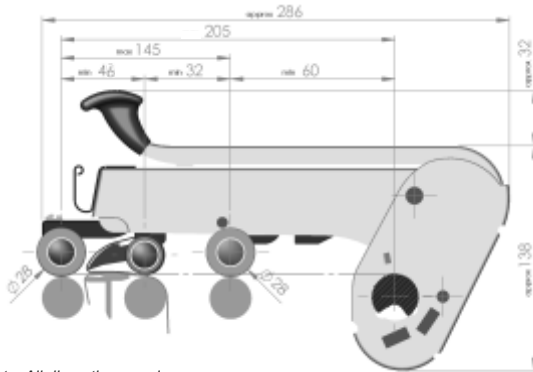
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Chapter 4  
TeraSpin weighting arms



**PK series of weighting arms for short staple ring frames  
PK 2025 - 1251331**



Note: All dimensions are in mm

**Combination of cardle and top rollers**

| Cradle        | Top roller at front and back position | Apron top roller           | Recommended top apron size (mm)@ | Fibre length (mm)      |
|---------------|---------------------------------------|----------------------------|----------------------------------|------------------------|
| OH 62-1275254 | LP 302-000684                         | LP S 3681<br>LP 303-000684 | 37 x 28 x 0.9 <sup>H</sup>       | Cotton<br>– Up to 45   |
| OH S 168      | LP 302-000684                         | LP S 3681<br>LP 303-000684 |                                  | Man-made<br>– Up to 40 |
| OH 62-1275267 | LP 302-000075                         | LP S 3751<br>LP 303-000075 |                                  |                        |

| Roller position     | Bottom roller ø (mm)# | Top roller  |             |    |    |
|---------------------|-----------------------|-------------|-------------|----|----|
|                     |                       | Cot ø (mm)^ | Load in daN |    |    |
| Front               | 25 - 27               | 28          | 6* and 10   | 14 | 18 |
| Middle (with apron) | 25 - 27               | 25          | 10          | 14 | –  |
| Rear                | 25 - 27               | 28          | 12          | 16 | –  |

# Dia. of bottom rollers depends on machine manufacturers

^ Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

@ Apron is not in the scope of supply

\* For partial load reduction please refer page no. IX-15 to IX-17

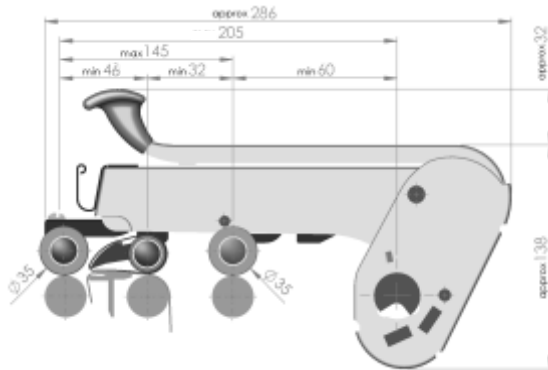
□ One can use apron of different thickness

**Application/s**

Machine/s : Short staple ring frame with 3-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Cotton, man-made fibres and their blends

**PK 2035 - 1251784**


Note: All dimensions are in mm

**Combination of cradle and top rollers**

| Cradle          | Top roller at front and back position | Apron top roller           | Recommended top apron size (mm)@ | Fibre length (mm) |
|-----------------|---------------------------------------|----------------------------|----------------------------------|-------------------|
| OH 131 -1275264 | LP 302-00068                          | LP S 3681<br>LP 303-000684 | 41.5 x 28 x 0.9 <sup>□</sup>     | 45- 54            |
| OH 121-000684   | LP 302-000684                         | LP S 3681<br>LP 303-000684 | 51.7 x 28 x 0.9 <sup>□</sup>     | 55 - 60           |

| Roller position     | Bottom roller ø (mm)# | Top roller  |             |    |    |
|---------------------|-----------------------|-------------|-------------|----|----|
|                     |                       | Cot ø (mm)^ | Load in daN |    |    |
| Front               | 27 - 30               | 35          | 6* and 10   | 14 | 18 |
| Middle (with apron) | 25 - 27               | 25          | 10          | 14 | –  |
| Rear                | 27 - 30               | 35          | 12          | 16 | –  |

# Dia. of bottom rollers depends on machine manufacturers

^ Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

@ Apron is not in the scope of supply

\* For partial load reduction please refer page no. IX-15 to IX-17

□ One can use apron of different thickness

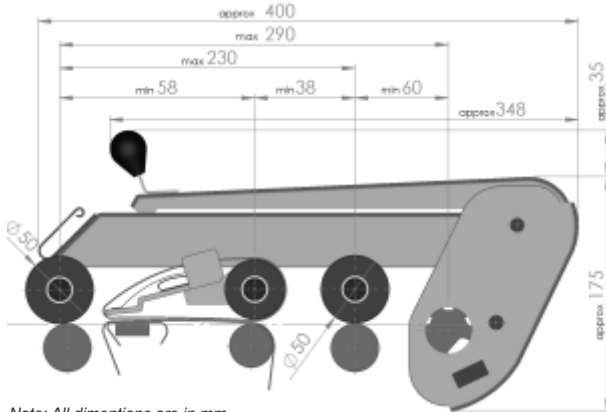
**Application/s**

Machine/s : Ring frame with 3-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Man-made fibres and their blends

**PK series of weighting arms for worsted ring frames  
PK 1601-01**



Note: All dimensions are in mm

**Combination of cradle and top rollers**

| Cradle         | Top roller at front and back position | Apron top roller | Recommended top apron size (mm)@ | Fibre length (mm) |
|----------------|---------------------------------------|------------------|----------------------------------|-------------------|
| OH 554 -000075 | LP 314-000075                         | LP 316-000075    | 84.1 x 32 x 1 <sup>a</sup>       | Upto 200          |

| Roller position     | Bottom roller $\phi$ (mm)# | Top roller       |             |       | Weighing element |        |
|---------------------|----------------------------|------------------|-------------|-------|------------------|--------|
|                     |                            | Cot $\phi$ (mm)^ | Load in daN |       |                  |        |
|                     |                            |                  | Black       | Green | Red              |        |
| Front               | 32-35                      | 50               | 20          | 27    | 35               | MD 5   |
| Middle (with apron) | 27-30                      | 48*              | 9           | 12    | 15               | XR 5-1 |
| Rear                | 32-35                      | 50               | 20          | 25    | 30               | ME 5   |

# Dia. of bottom rollers depends on machine manufacturers

^ Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

\* Top apron roller as recessed roller. For details please refer page no. IX-50 to IX-51

@ Apron is not in the scope of supply

□ One can use apron of different thickness

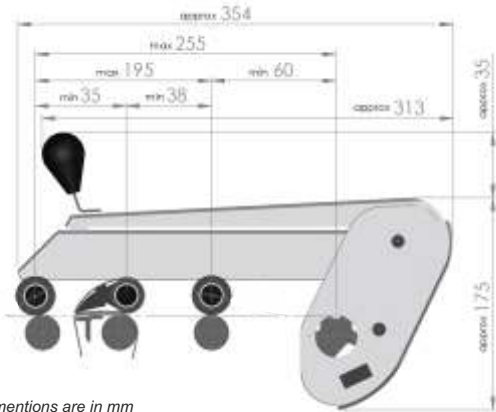
**Application/s**

Machine/s : Worsted ring frame with 3-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Wool and its blend with man-made fibres and dry-spun bast fibres

**PK series of weighting arms for roving frames**  
**PK 1500-0962604**



Note: All dimensions are in mm

**Combination of cardle and top rollers**

| Cradle         | Fibre length (mm) | Bottom roller ø (mm) # | Top cot ø (mm) ** | Recommended top apron size (mm)@ |
|----------------|-------------------|------------------------|-------------------|----------------------------------|
| OH 514-1275261 | Up to 44 max.     | 27 - 30                | 28/25*/28         | 37 X 40 X 0.9 <sup>#</sup>       |
| OH 534-1275268 | 45 - 54           | 30 - 32                | 35/33*/35         | 48 X 40 X 0.9 <sup>#</sup>       |
| OH 534-000110  |                   |                        |                   |                                  |
| OH 524-000110  | 55 - 60           | 30 - 32                | 35/33*/35         | 57.2 X 40 X 0.9 <sup>#</sup>     |

Polymer medium cradle OH 534-0001275268 and metal medium cradle OH 534-000110 are interchangeable

| Roller position     | Weighting element | Top roller load in daN |       |     |
|---------------------|-------------------|------------------------|-------|-----|
|                     |                   | Black                  | Green | Red |
| Front               | ME 5              | 20                     | 25    | 30  |
| Middle (with apron) | XM 5-1            | 10                     | 15    | 20  |
| Rear                | RG 5              | 15                     | 20    | 25  |

| Top roller at front and back position | Apron top roller |
|---------------------------------------|------------------|
| LP 315-000110                         | LP 317-000110    |

# Dia. of bottom rollers depends on machine manufacturers

\*\* Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

@ Apron in not in the scope of supply

\* It is recommended to keep the cot diameter on lower side (up to 0.3 mm less) to allow free rotation of aprons

# One can use apron of different thickness

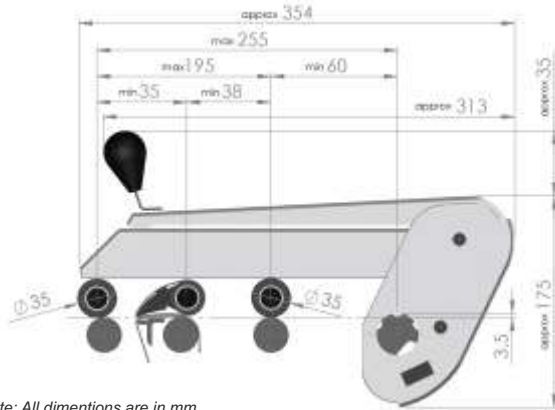
**Application/s**

Machine/s : Roving frame with 3-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Cotton, man-made fibres and their blends

**PK 1500-0962602**



Note: All dimensions are in mm

**Combination of cardle and top rollers**

| Cradle         | Fibre length (mm) | Bottom roller ø (mm) # | Top cot ø (mm) ** | Recommended top apron size (mm)@ |
|----------------|-------------------|------------------------|-------------------|----------------------------------|
| OH 514-1275261 | Up to 44 max.     | 30                     | 35/25*/35         | 37 X 40 X 0.9 <sup>#</sup>       |
| OH 534-1275268 | 45 - 54           | 30 - 32                | 35/25*/35         | 43.5 X 40 X 0.9 <sup>#</sup>     |
| OH 534-000110  |                   |                        |                   |                                  |
| OH 524-000110  | 55 - 60           | 30 - 32                | 35/25*/35         | 52.7 X 40 X 0.9 <sup>#</sup>     |

Polymer medium cradle OH 534-1275268 and metal medium cradle OH 534-000110, are interchangeable.

| Roller position     | Weighing element | Top roller load in daN |       |     |
|---------------------|------------------|------------------------|-------|-----|
|                     |                  | Black                  | Green | Red |
| Front               | ME 5             | 20                     | 25    | 30  |
| Middle (with apron) | XM 5-1           | 10                     | 15    | 20  |
| Rear                | RG 5             | 15                     | 20    | 25  |

| Top roller at front and back position | Apron top roller |
|---------------------------------------|------------------|
| LP 315-000110                         | LP 317-000110    |

# Dia. of bottom rollers depends on machine manufacturers

\*\* Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

@ Apron in not in the scope of supply

\* It is recommended to keep the cot diameter on lower side (up to 0.3 mm less) to allow free rotation of aprons

# One can use apron of different thickness

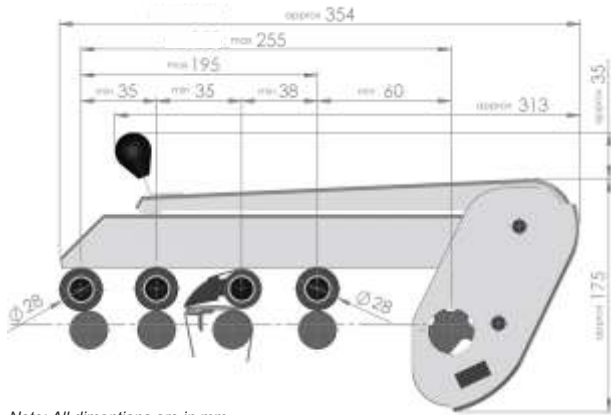
**Application/s**

Machine/s : Roving frame with 3-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Cotton, man-made fibres and their blends



**PK 1500-0001938**


Note: All dimensions are in mm

**Combination of cradle and top rollers**

| Cradle         | Fibre length (mm) | Bottom roller $\phi$ (mm) # | Top cot $\phi$ (mm) ** | Recommended top apron size (mm)@ |
|----------------|-------------------|-----------------------------|------------------------|----------------------------------|
| OH 514-1275261 | Up to 44 max.     | 27 - 30                     | 28/28/25*/28           | 37 X 40 X 0.9 <sup>#</sup>       |

| Roller position              | Weighing element | Top roller load in daN |       |     |
|------------------------------|------------------|------------------------|-------|-----|
|                              |                  | Black                  | Green | Red |
| Front                        | XR 5             | 9                      | 12    | 15  |
| 2 <sup>nd</sup>              | RG 5             | 15                     | 20    | 25  |
| 3 <sup>rd</sup> (with apron) | XM 5-1           | 10                     | 15    | 20  |
| Rear                         | XM 5             | 10                     | 15    | 20  |

| Top roller at front, 2 <sup>nd</sup> and back position | Apron top roller |
|--|------------------|
| LP 315-000110  | LP 317-000110    |

# Dia. of bottom rollers depends on machine manufacturers

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@ Apron in not in the scope of supply

\* It is recommended to keep the cot diameter on lower side (up to 0.3 mm less) to allow free rotation of aprons

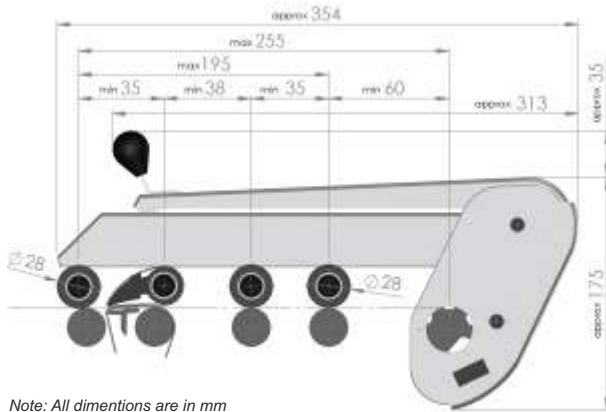
▫ One can use apron of different thickness

**Application/s**

Machine/s : Roving frame with 4-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Cotton, man-made fibres and their blends

**PK 1500-0001940**


Note: All dimensions are in mm

**Combination of cradle and top rollers**

| Cradle         | Fibre length (mm) | Bottom roller ø (mm) # | Top cot ø (mm) ** | Recommended top apron size (mm)@ |
|----------------|-------------------|------------------------|-------------------|----------------------------------|
| OH 514-1275261 | Up to 44 max.     | 27 - 30                | 28/25*/28/28      | 37 X 40 X 0.9                    |

| Roller position              | Weighing element | Top roller load in daN |       |     |
|------------------------------|------------------|------------------------|-------|-----|
|                              |                  | Black                  | Green | Red |
| Front                        | ME 5             | 20                     | 25    | 30  |
| 2 <sup>nd</sup> (with apron) | XM 5-1           | 10                     | 15    | 20  |
| 3 <sup>rd</sup>              | RG 5             | 15                     | 20    | 25  |
| Rear                         | RG 5             | 15                     | 20    | 25  |

| Top roller at front, 3 <sup>rd</sup> and back position | Apron top roller |
|--|------------------|
| LP 315-000110  | LP 317-000110    |

# Dia. of bottom rollers depends on machine manufacturers

\*\* Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

@ Apron in not in the scope of supply

\* It is recommended to keep the cot diameter on lower side (up to 0.3 mm less) to allow free rotation of aprons

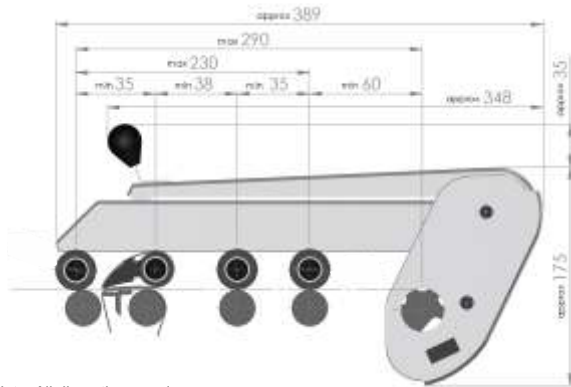
▫ One can use apron of different thickness

**Application/s**

Machine/s : Roving frame with 4-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Cotton, man-made fibres and their blends

**PK 1600-40**


Note: All dimensions are in mm

**Combination of cardle and top rollers**

| Cradle         | Fibre length (mm) | Bottom roller ø (mm) # | Top cot ø (mm) ** | Recommended top apron size (mm)@ |
|----------------|-------------------|------------------------|-------------------|----------------------------------|
| OH 514-1275261 | Up to 44 max.     |                        | 28/25*/28/28      | 37 X 40 X 0.9 <sup>□</sup>       |
| OH 534-1275268 | 45 - 54           | 27 - 32                | 35/33*/35/35      | 48 X 40 X 0.9 <sup>□</sup>       |
| OH 534-000110  |                   |                        |                   |                                  |
| OH 524-000110  | 55 - 60           |                        | 35/33*/35/35      | 57.2 X 40 X 0.9 <sup>□</sup>     |

| Roller position              | Weighing element | Top roller load in daN |       |     |
|------------------------------|------------------|------------------------|-------|-----|
|                              |                  | Black                  | Green | Red |
| Front                        | ME 5             | 20                     | 25    | 30  |
| 2 <sup>nd</sup> (with apron) | XM 5-1           | 10                     | 15    | 20  |
| 3 <sup>rd</sup>              | XM 5             | 10                     | 15    | 20  |
| Rear                         | XM 5             | 10                     | 15    | 20  |

| Top roller at front, 3 <sup>rd</sup> and back position | Apron top roller |
|--|------------------|
| LP 315-000110  | LP 317-000110    |

# Dia. of bottom rollers depends on machine manufacturers

\*\* Top roller cot dia. indicates the dia. of newly mounted cots and they are not in the scope of supply

@ Apron in not in the scope of supply

\* It is recommended to keep the cot diameter on lower side (up to 0.3 mm less) to allow free rotation of aprons

□ One can use apron of different thickness

**Application/s**

Machine/s : Roving frame with 4-roller-double apron drafting system

Process/s : Spinning

Raw material/s : Cotton, man-made fibres and their blends



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