

PK 5000 Series Weighting Arms

For short staple roving frames



PK 5000 Series Weighting Arms

The standard draft system for short staple roving frames

Completely pneumatic draft system

The Series PK 5000 weighting arms are an innovative and future-oriented draft system for short staple roving frames, for the spinning of cotton, man-made fibres and combinations of these up to a fibre length of approx. 60 mm. With a completely pneumatic weighting system, they embody the latest technology for today's draft systems.

The weighting pressures on the top rollers are adjusted infinitely and centrally using a compressed air supply system. This ensures a constant loading at all spinning positions of the roving frame. The PK 5000 weighting arm offers an extremely practical method of centralised partial load, which is easy to fit and persuasively simple in its adjustability and operability.

The advantages of the pneumatic draft system at a glance:

- Completely pneumatic weighting system for short staple roving frames
- Constant load from spinning position to spinning position
- High technological flexibility
- Rapid assembly and setting
- Simple and easy to operate
- Centralised and infinite setting of the weighting pressures
- Comprehensive quality and reliability concept





Variants for 3-roller or 4-roller draft system

The PK 5000 series comprises the models PK 5025-1259 471 (top roller cot diameter 28 mm) and PK 5035-1259 473 (top roller cot diameter 35 mm) for 3-roller double-apron draft systems for spinning fibres according to the 3-clamping point process.

The 4-roller double apron draft system (models PK 5025-1259 472 and PK 5035-1259 474) has an additional

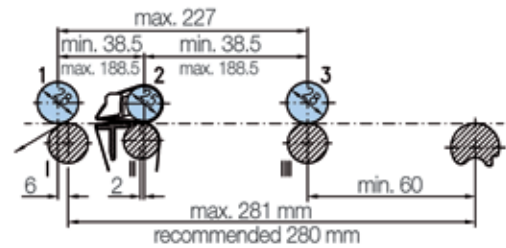
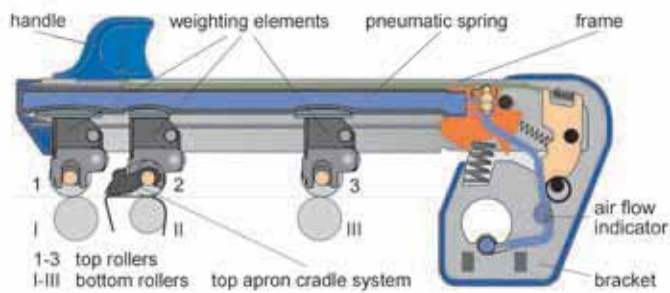
condensing zone between the roller pairs I/1 and II/2. By deliberately condensing the fibre material in this zone, a reduction of the spinning delta is achieved, thus improving the incorporation of the fibres into the roving. This results in the following important advantages:

- Reduced number of roving breaks (improved process reliability)
- Increased efficiency

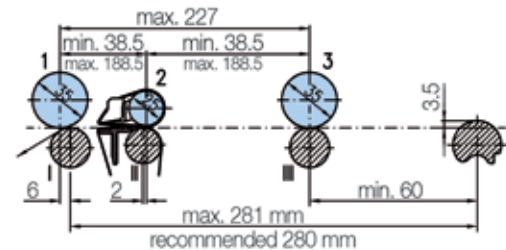
- Greater package density at roving frame bobbin thanks to the more compact roving

The 4-roller double apron draft system (weighting arms PK 5025-1260 632 and PK 5035-6010 014) has an additional draft zone between the roller pairs III/3 and IV/4.

PK 5025 for 3-roller draft systems

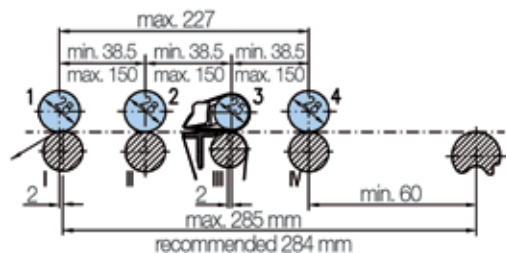
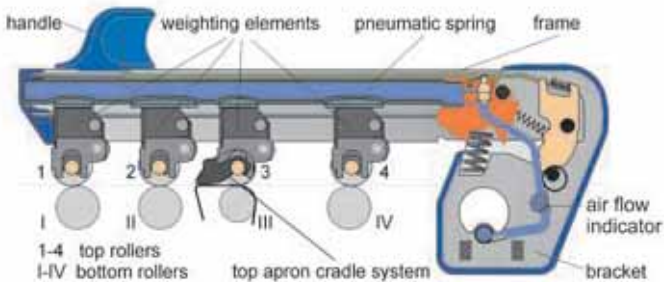


Draft arrangement PK 5025-1259 471

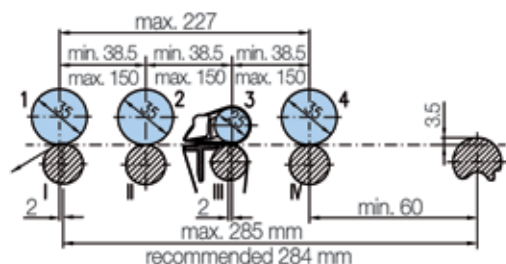


Draft arrangement PK 5035-1259 473

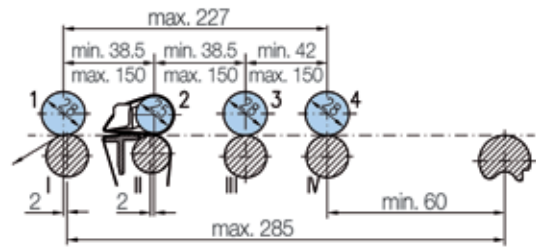
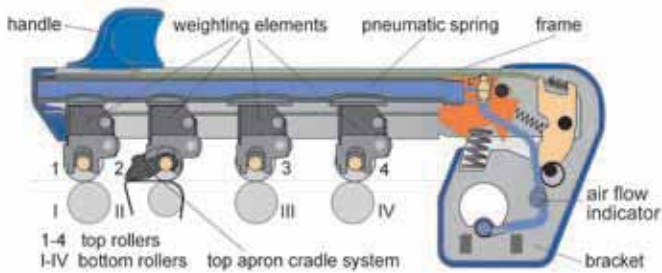
PK 5025 for 4-roller draft systems



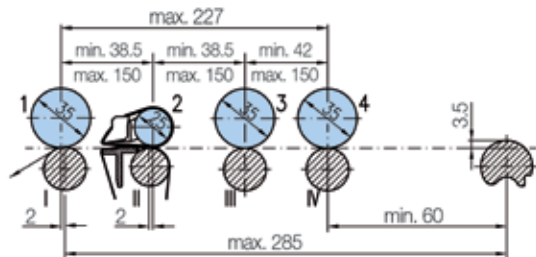
Draft arrangement PK 5025-1259 472



Draft arrangement PK 5035-1259 474



Draft arrangement PK 5025-1260 632



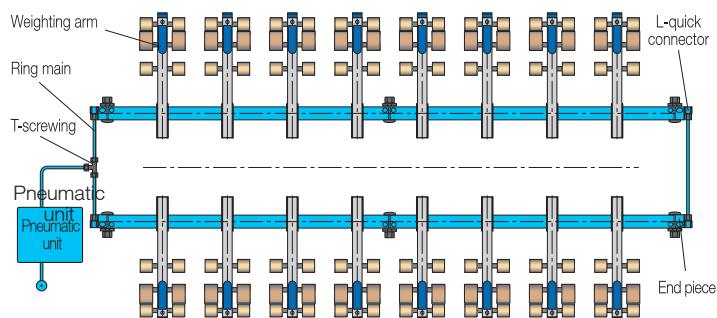
Draft arrangement PK 5035-6010 014

The Air Supply System

Forward-looking draft system technology

The weighting pressure at the PK 5000 series is generated pneumatically using a closed compressed air supply system. The individual weighting arms are linked by connecting pipes to each other and to the air supply system. Hence the same air pressure prevails in all arms. The pressure setting and system monitoring are performed centrally at the pneumatic unit installed in the machine control. Optionally a pressure monitor protects the running of the

machine at the power supply against shortfall of the working pressure and guarantees that the machine will be turned off as a precaution in case of heavy pressure loss (or even total pressure loss). Individual setting of each weighting arm, which is complex and bears the risk of incorrect settings, is now a thing of the past. In the event of a machine shutdown, the setting of the partial load is done centrally.

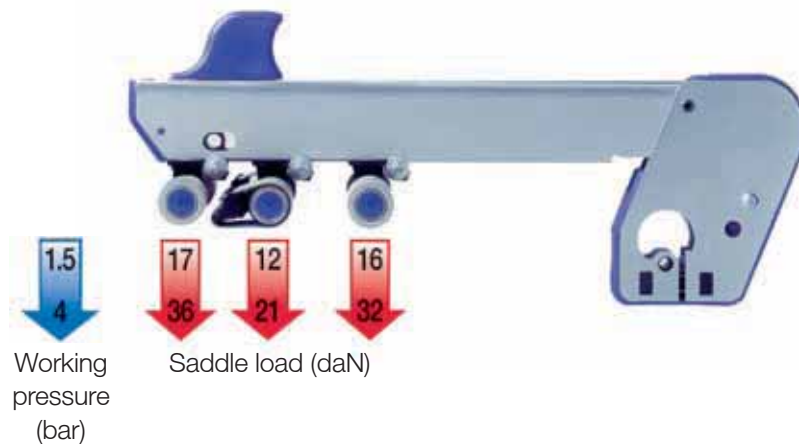


Constant loads from one spinning position to the next

- The closed compressed air supply system ensures the same load conditions in all arms and in all elements.
- The centralised pressure setting permits infinite and rapid adaptation to the technological requirements of the material to be spun. The possible pressure setting range goes far beyond previous setting possibilities.
- Thanks to the pneumatic application of the loading pressure, possible diameter differences due to subsequent grinding of the cots remain without negative effects on the pressure constancy, within predetermined ranges (3 mm of cot diameter).

The weighting pressures

PK 5000 for 3-roller draft systems



PK 5000 for 4-roller draft systems



A persuasive concept: Reliability in function and operation

The PK 5000 series offers a simplicity of assembly and user-friendliness previously unknown in roving frame draft systems:

- Simplified assembly thanks to easily accessible fastening elements
- Simple height adjustment
- Reduction in the operating forces
- Reduction of the operating and setting work
- Centralised and infinite pressure setting
- Practical and safe partial load
- High system dependability

System reliability

In the PK 5000 series great importance was attached to the reliability of both the individual components and of the system as a whole. All the components used have been individually approved

for tightness. High-quality materials are used exclusively for the mechanical components.

A comprehensive safety system ensures that possible leaks are dependably and rapidly pinpointed and eliminated. The integrated pneumatic unit monitors the closed compressed-air supply system and transmits a signal to the machinery control. An inadmissibly high air flow is displayed either by a visual signal or by immediate shutdown of the machine.

The individual flow indicator at each arm permits dependable checking and rapid location of possible leaks in the arm.

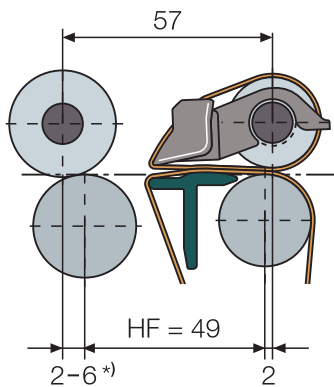


Proven draft system components

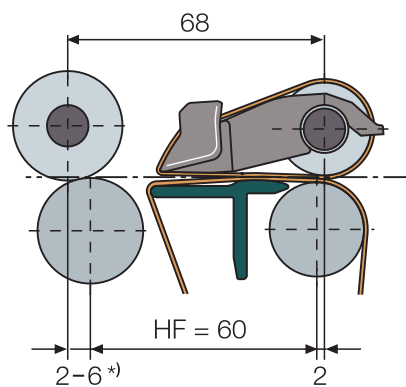
Top Apron Cradles OH

For the PK 5000 series weighting arms 3 top apron cradles with individual apron tensioning concept are available, ensuring perfect fibre guidance during the draft process.

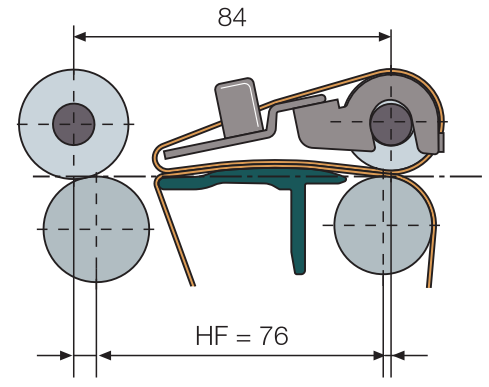
Depending on the fibre length, the following types of top apron cradle can be used:



Short staple: OH 5022



Medium staple: OH 5042



Long staple: OH 5245

* = depending on the type of main field condenser

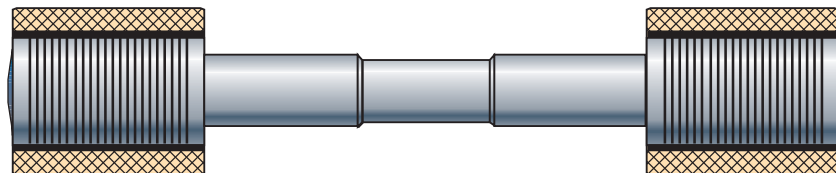
Top Rollers LP

The PK 5000 series weighting arms use the top roller LP 1015 as rear, front and apron top roller as standard for both the 3-roller and 4-roller draft system.

LP 1015 top roller is distinguished by:

- High loading capacity
- Long lifetime
- Precise concentricity
- Simple maintenance

The top rollers are supplied as standard without cot. If required, however, Texparts can also supply mounted and ground top rollers.



LP 1015

Top roller for use as rear, front and apron top roller.
Roller diameter 19 mm. Diameter above cot 25 / 28 / 35 mm.

Oerlikon Accotex Texparts GmbH

Maria-Merian-Strasse 8

70736 Fellbach

Germany

T +49 (0) 711 585 21 0

F +49 (0) 711 585 21 59

info-texparts@oerlikon.com

www.components.oerlikontextile.com