





# **OUTSTANDING**

# ADVANTAGES High-Speed Spindles



#### **Increased Production**

Maximum speed up to 30 000 rpm

#### **Energy Saving**

Due to optimal power transmission of spindle driving elements and reduction of spindle bearings

# Industry Maximum operational lifetime

Thanks to effective multi-level damping system

### Reduced Maintenance

Long lubrication cycles Underwinding-free clamping crowns

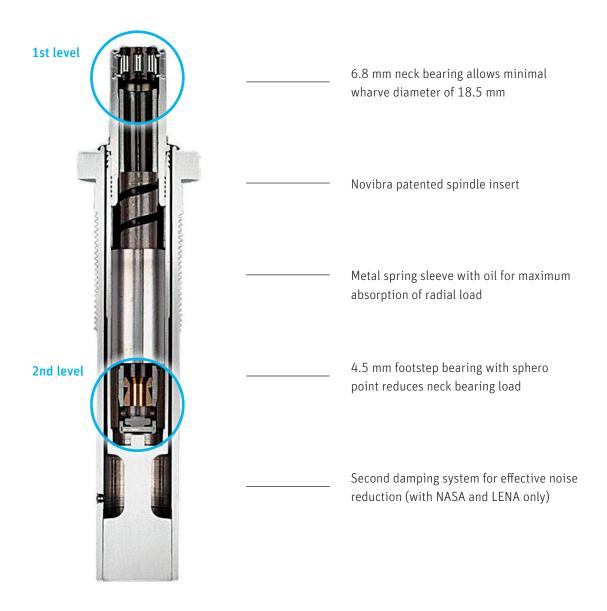
#### Flexible

Suitable to any ring spinning frame Can be supplied with new machine or as an upgrade to existing one Can be fitted with variaty of clamping and cutting crowns

## HPS Spindle Design

Revolutionary Novibra HPS design changed the classical ring spinning and opened new prospects for spinning at speeds of up to 30 000 rpm. This patented design has become the synonym for high-speed spindle technology.

The unique hydrodynamic two-level bearing system effectively absorbs imbalances occurring during spinning process which leads to industry maximum operational lifetime and long lubrication cycles. The wide range of spindles based on HPS design provides optimal answers to spinning mills both economic and quality requirements.



### HPS 68 and L HPS 68

#### **HPS 68**

HPS 68 has been a technical revolution in the switch from conical types to spindles with a flat tip. Its unrivalled spindle insert constitutes a base for all Novibra spindles.

- recommended speed up to 20 000 rpm, reflects the noise level requirement, however, can theoretically run up to 25 000 rpm
- minimum wharve diameter of 18.5 mm for highest spindle speeds at minimum speeds of driving elements
- for medium and finer counts of all standard materials

#### L HPS 68

Special spindle designed for coarser counts and larger tubes ensures harder damping due to lowered and prolonged damping sleeve.

- max speeds up to 20 000 rpm, in practice depends on yarn count i.e. usually up to 16 000 rpm
- for coarser counts all material
- the only spindle for coarse count with 18.5 mm wharve dia in the market



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#### NASA HPS 68 and LENA

#### NASA HPS 68

Spindle for highest speeds and noise level reduction assembled with Noise Absorbing System Assembly that ensures top performance and increased lifetime at high speeds.

- for speeds up to 30 000 rpm
- recommended for yarn count Ne20 and finer
- minimum wharve diameter of 18.5 mm for highest spindle speeds at minimum speeds of driving elements
- second damping system for maximum absorption of radial forces
- perceivable noise reduction
- smooth running at high speeds
- most used spindle in premium spinning machines

#### LENA

LENA has been designed for highest speeds with the main goal of achieving lower energy consumption. Spindle insert was modified to market unique 5.8 mm neck bearing and 3 mm footstep bearing diameters.

- for speeds up to 30 000 rpm
- for tube length up to 210 mm and yarn count Ne30 and finer
- minimum wharve diameter of 17.5 mm for highest spindle speeds at minimum speeds of driving elements
- second damping system for maximum absorption of radial forces
- perceivable noise reduction
- · smooth running at high speeds
- energy saving in the average of 4 to 6%



# The Right Crown for Every Spindle

The versatility of the Novibra portfolio is also reflected in the wide range of spindle crowns. Starting from catching and cutting crowns – based on the well-known 3-underwinding system – to modern clamping crowns, with the advantage of reduced maintenance and cleaning. Novibra offers various crown designs ranging from modern EASYdoff to sturdy steel crowns and from SERVOgrip to self-cleaning CROCOdoff.



CROCOdoff and CROCOdoff Forte: replaceable, genuine doffing without underwinding, self-cleaning, suitable for any machine type



 ${\sf EASYdoff: replaceable, modern \ design \ suitable \ for \ any \ machine \ type}$ 



SERVOgrip: replaceable, genuine doffing without underwinding, exclusively for Rieter ring spinning frames



Steel cutter: catching and cutting crown suitable for any machine type

