

CUSTOMIZED GRINDING MACHINES FOR PRINTING & PACKAGING ROLLS

Solutions for different Roll types at:

- Offset printing
- Metal printing
- Plastic printing
- Packaging rotary dies
- Corrugated cardboard
- Battery separator foil

Benefits/Highlights:

- Convex shape: ± 0.001 mm per each 1000 mm
- Surface finish: $<Rz\ 2$
- Roundness up to $2\ \mu m$

CAPABILITIES: everything starts with a NEED, your NEED

Capabilities to machine all kind of rolls


Up to
10000 mm


Up to
1600 mm


Up to
15000 kg


Up to
100 m/s


Corundum or
CBN


Up to
Ø1250 mm


HVFO, Chrome,
Ceramics

Cylindrical

Cones

Convex

Non round

Faces

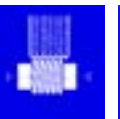
Chamfers /
Radii

Grooves

Threads

Deburring

Superfini-
shing



For the most demanding precision requirements

Cylindricity:

Up to 0.003 mm per each
3000 mm

Convex shape:

± 0.001 mm per each
1000 mm

Roundness:

<0.001 mm in bearing
journals

Surface finish:

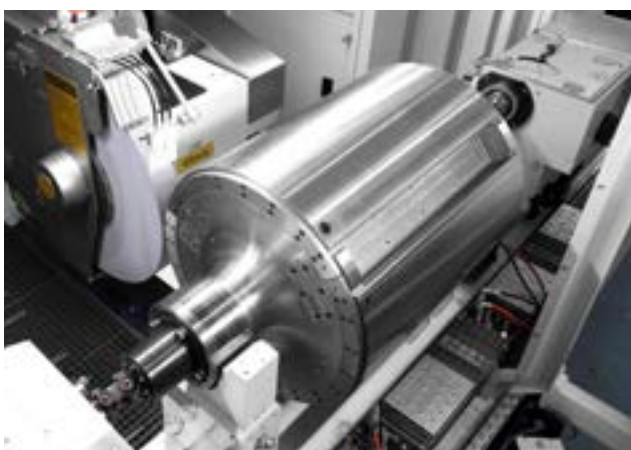
<Rz 2 along
all diameters

Run out:

0.002 mm in pressure area
regards to bearing journal

Parallelism:

0.002 mm per
each 1000 mm



Core technology



Tooling:

High precision steady rests at journals for obtaining best run-out results between roller and journals



Dressing:

Special dressing systems for HVOF or ceramic coating dedicated wheels



Sensing & measurement:

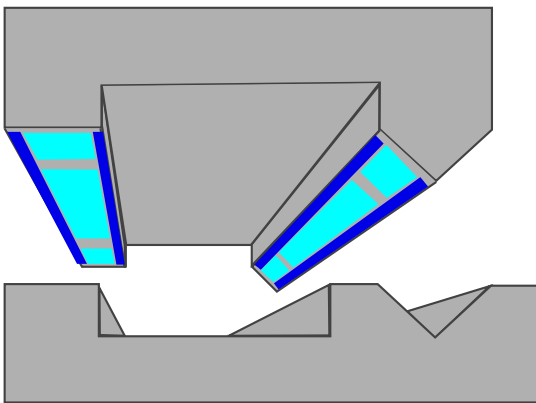
MDM –Multi Diameter Measuring system- special measuring cycles to analyse roundness harmonics



Software:

In-process measurements for assuring high precision roller convexities

Machine enhancements:



Hydrostatic guideways for grinding accuracy and machine dynamics



Workhead built in motor with option to hydrostatic technology for best run-out results

Grinding wheelheads configurations

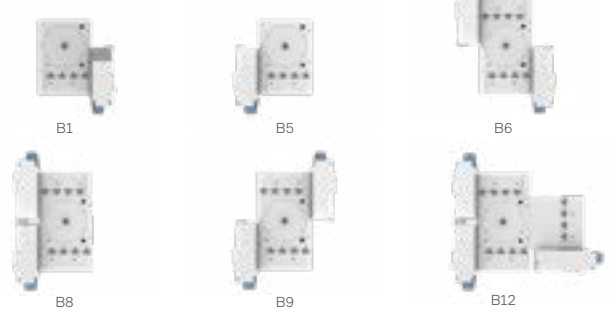
Straight



BL-axis
(B-axis with limited swivelling)

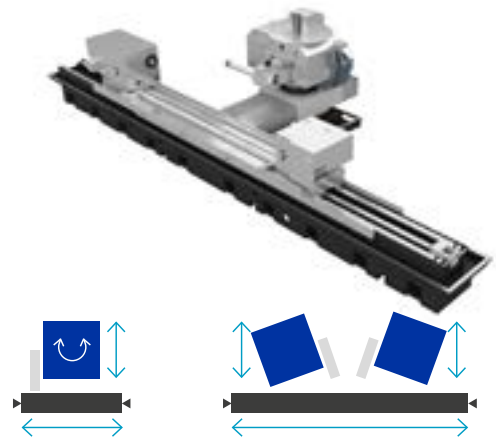


Swivelling B-axis



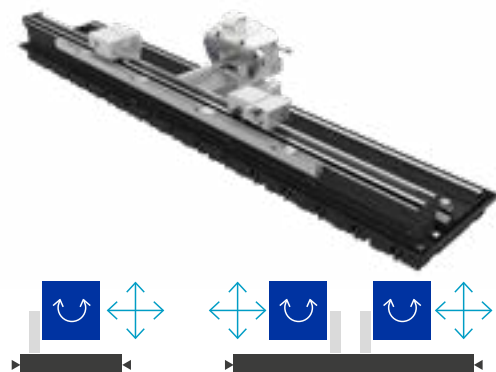
HG: moving table configuration

- Perfect solution for a small number of operations and big number of different rolls
- High precision and capability thanks to the MDM reliability
- Medium size and weight rollers
- Complex processes with in-process measuring, special dressing systems and custom enhancements have been developed accordingly
- The structure of independent axes is ideal for a single or double wheelhead, to optimise versatility with sequential grinding operations



WT: cross slides configuration

- High precision and capability thanks to the MDM reliability
- The cross-slide configuration keeps the heavy parts stable while also optimising the machine's footprint.
- The structure can be used for a single or double wheelhead to maximise productivity with simultaneous grinding operations
- Compact machine
- Ready for big swings and heavy parts



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