

# KNM 2X | 4X | 6X | 9X

Measuring machines for spur and helical gears, rotors, bevel gears, gear tools, shafts etc.



## KAPP NILES



Highly precise measurement  
of gears up to 1,250 mm  
in the lab or on the shop floor –  
no separate base required

## Highlights of the highly precise KNM 2X | 4X | 6X | 9X

- Machine structure with outstanding intrinsic accuracy and thermal stability - all linear axes made of granite with air bearings
- Air spring system to absorb vibrations - no separate, vibration-damping or separate bases needed
- State-of-the-art drive technology (linear motors) for X, Y and Z axes, placed close to the center of gravity
- Highly precise air bearing rotary table with direct drive
- "Smart" tailstock, motorised positionable (applies to 2X | 6X | 9X)
- "Smart" Quick Change Clamping System
- Flexible positioning of electrical cabinet
- State-of-the-art KNM C5 controller
- Temperature compensation for machine and workpiece
- Computer Aided Accuracy (CAA) technology for all linear axes



„Smart“ tailstock and Quick Change Clamping System at the KNM 2X

## Groundbreaking, easy to use Software

- Evaluation software for all kind of gears, gear tools, worms, worm gears, rotationally symmetrical components as well as dimensional, form and position measurements
- Waviness evaluation directly integrated into the measurement process for NVH assessment of gears (kngear-waviness)
- Enhanced KN rotor software package for compressor rotor measurements
- Clear operator guidance
- Plausibility check



Waviness evaluation for NVH assessment



Measurement of rotors at the KNM 4X

|               | max.<br>workpiece diameter<br>[mm] | max.<br>workpiece length<br>internal / external [mm] | counter support<br>L / D<br>[mm] | rotary table<br>diameter<br>[mm] | max.<br>workpiece weight<br>[kg] |
|---------------|------------------------------------|------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <b>KNM 2X</b> | 300                                | 450                                                  | 480 / 300                        | 200                              | 80                               |
| <b>KNM 4X</b> | 450                                | 400 / 650                                            | 850 / 450                        | 300                              | 500                              |
| <b>KNM 6X</b> | 750                                | 400 / 850                                            | 1,000 / 700                      | 300                              | 500                              |
| <b>KNM 9X</b> | 1,250                              | 400 / 1,020                                          | 1,200 / 1,000                    | 800                              | 1,500                            |