Produce consistently high-grade quality with the modular roughness and contour measuring systems W800. SHARING EXCELLENCE

Modern system concept for maximum flexibility

The Waveline W800 series has been designed to cover the maximum spectrum of customer demands. All measuring station configurations are designed on a modular basis and can therefore be easily extended at a later stage.

Industrial production processes are very varied, as are the requirements of metrology.

W800 measuring systems have been developed for roughness and contour measuring tasks associated with typically manual or semi-automatic measuring processes.

The systems are easy to operate and offer a great variety of analyses thanks to the performant measuring and evaluation software Evovis. The result is the highest standard of measuring accuracy in the shortest time.

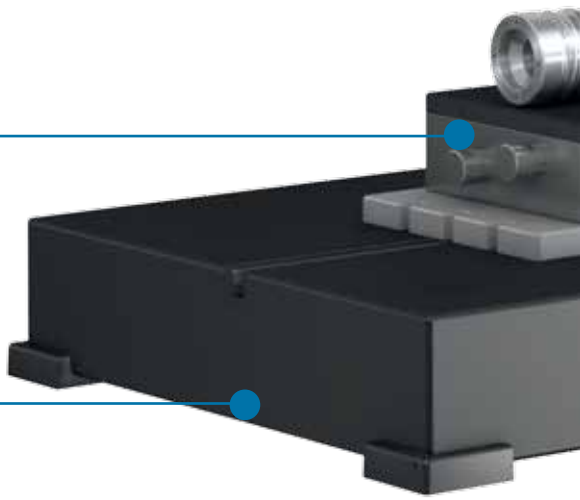
Probing systems for roughness and/or contour measurement with quick-change adapter for fast changing of the probing systems without tools

TKU400
Roughness measurement

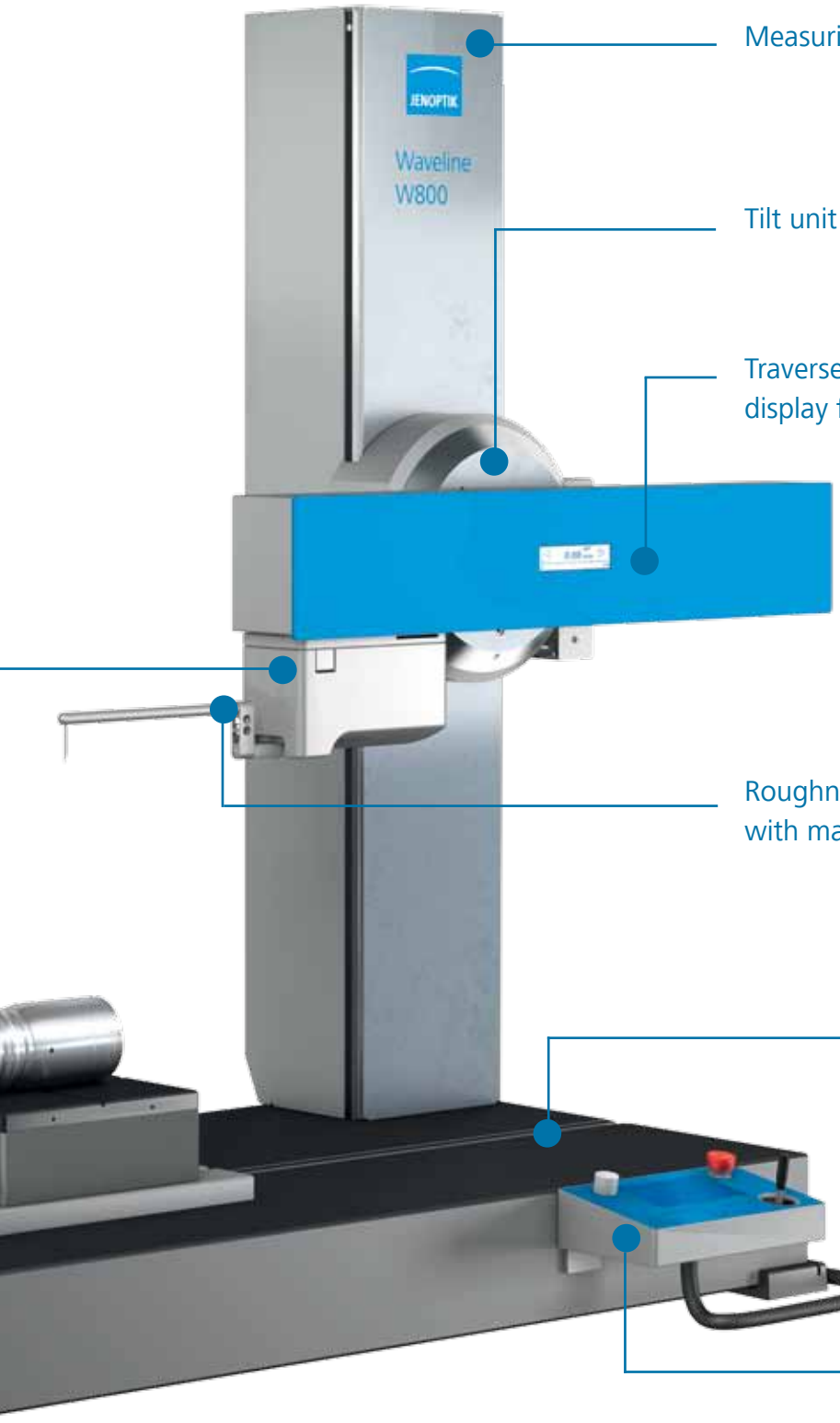
Digiscan
Contour measurement

Wide range of accessories for workpiece support

Tabletop, instrument table or measuring cabin



Modular in the equipment, consistent in quality



Measuring column 500 or 800 mm

Tilt unit ±45°

Traverse unit 120 or 200 mm with
display for status and position indication

Roughness or contour probe arms
with magnetic coupling

Granite plate with T groove
700 x 520 or
1000 x 520 mm

Control panel for easy operation of the measuring station

W800. For reliable results in the minimum amount of time

The measuring devices of the W800 series have been developed for complex professional roughness and contour measuring tasks in an industrial manufacturing process setting.

Waveline W812C Digiscan with 500 mm measuring column, 120 mm traverse unit, control panel and accessories

The quick-change adapter enables probing systems to be swapped over without having to use any tools. Probe arms and probing system are equipped with magnetic coupling making the exchange of probe arms easy and fast. This means you can take a flexible approach towards all of your measuring requirements.

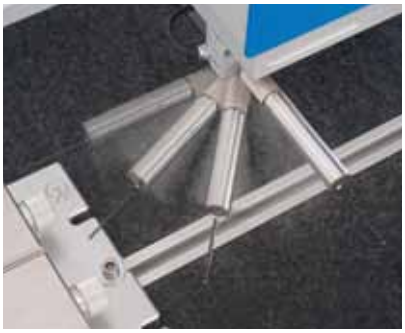
The system automatically detects the intelligent contour probe arms with RFID identification and adjusts the optimal measurement conditions. This means that operating errors and incorrect measurements can be practically eliminated.

W800

+ Individually configurable
+ Versatile application
+ Quick-change adapter for probing systems
+ Probe arms easy to change
+ Excellent measuring accuracy

Roughness measurement with TKU400 probing system

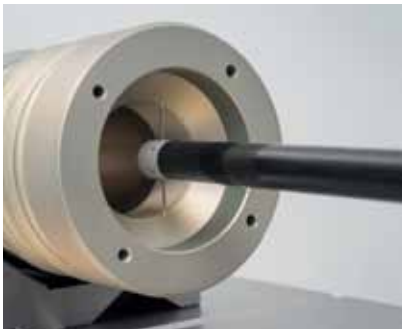
Probe arms TKU400 with magnetic coupling for fast and secure probe arm swapping



Swiveling of the roughness probe for transverse measurements

Easiest change of the probing systems thanks to the quick-change adapter

Contour measurement with Digiscan probing system



Dual-tip probe arms (optional) for automated top/bottom measurements

New calibration procedure with improved accuracy specification

Operation

Control panel Movecontrol for comfortable operation of the measuring systems

Instrument table

Depending on the intended purpose, our measuring systems are optionally available with either an instrument table or measuring cabin.

The instrument table, which has an innovative vibration damping system combined with a robust base frame, guarantees a reliable measurement operation regardless of the environment.

The measuring cabin (not shown) is suitable for direct connection to your production line and protects the measuring system from negative environmental influence.

Waveline W820R with instrument table, 800 mm measuring column, 200 mm traverse unit, control panel and accessories

Evovis. Software for easy and precise evaluation

Measuring station control

Wizard for selection of measuring conditions

Evovis measuring and evaluation software is easy to use and offers a standardized interface for roughness and contour measurement, regardless of the configuration of the device.

Simple icons, supported by comprehensive help functions, allow the operator to use the efficient measurement and evaluation tools according to their own requirements.

Probe arms, quick-change adapter and accessories

TKU400 probe arms for roughness measurement

Quick-change adapter for skidless probes

Quick-change adapter for skid probes

Digiscan contour probe arms with RFID identification

Measuring table PT120 (X, Y) 120 x 120 mm

Measuring table PT200 (X, Y, C) 200 x 200 mm

Technical data

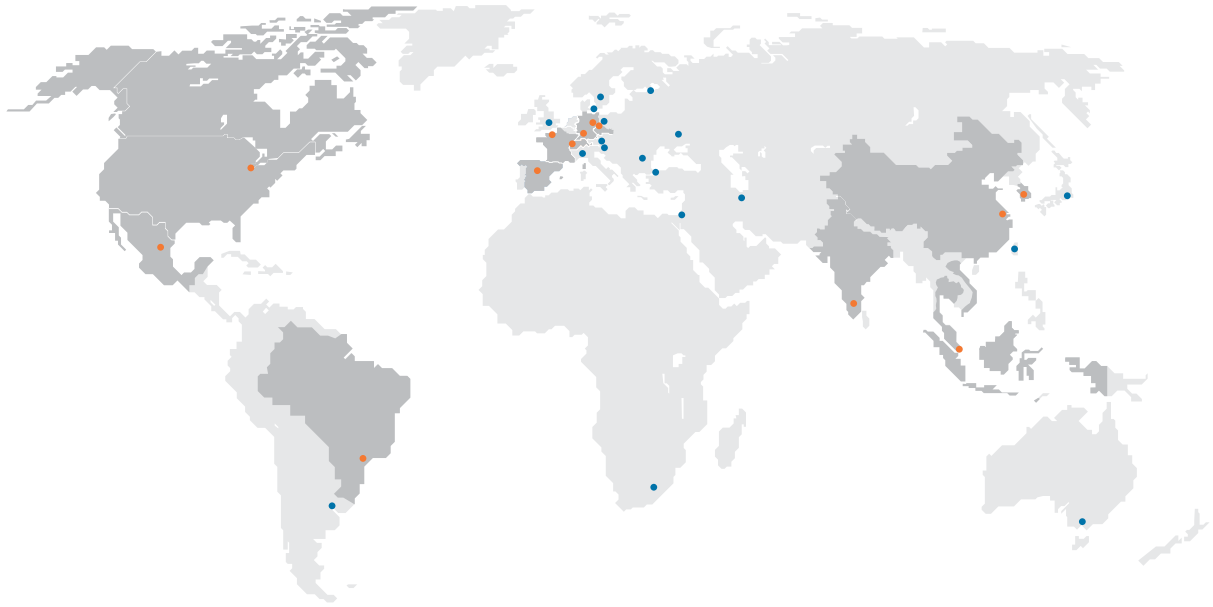
Waveline	W800
Traverse unit XM120 and XM200	
Straightness / 120 mm	0.4 µm
Straightness / 200 mm	0.6 µm
Positioning repeatability	<50 µm
Resolution X axis	0.1 µm
Max. positioning speed	20 mm/s
Max. basic disturbance Rz (0.2 mm/s)	<50 nm
Measuring column ZM500 and ZM800	
Positioning repeatability	<50 µm
Max. positioning speed	20 mm/s
Tilt unit	
Tilting range	± 45°
Fine adjustment (optional)	± 5°

Probing system	TKU400	Digiscan
Measurement of	Roughness	Contour
Measuring range/resolution (standard probe arm length)	± 400 µm/1 nm[1)]	60 mm/10 nm[1)]
Measuring range/resolution (2-fold probe arm length)	± 800 µm/2 nm[1)]	90 mm/15 nm[1)]
Top/bottom measurement	No	Optional
Measuring principle	Analog	Digital
Probe identification	Yes	Yes
Probe force setting	Fixed -0.8 mN	Electronic
Probe arm identification	No	Yes
Probe arm coupling	Magnetic	Magnetic

1) Resolution over the entire measuring range

System configurations

System configuration	Description
W800R	Roughness measuring station with TKU400 probing system
W800C Digiscan	Contour measuring station with Digiscan probing system
W800RC Digiscan	Roughness and contour measuring station with TKU400 and Digiscan probing systems
Options	Traverse unit 120 mm or 200 mm Measuring column 500 mm or 800 mm Granite plate 700 x 520 mm or 1000 x 520 mm Control panel Tabletop, instrument table, measuring cabin



Our qualified employees are available to assist you across the globe. We have subsidiaries and distribution partners in key industrial nations, meaning that we are always close by to offer you optimum support as a reliable partner.

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