

# PJ-A3000



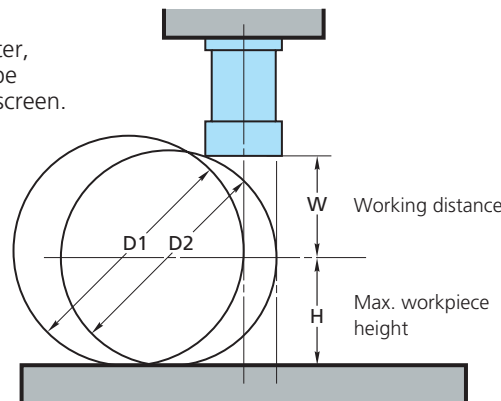
Measuring projector

# PJ-A3000 profile projector.

- A medium-sized measuring projector series having a particularly bright screen with diameter of 315 mm and a simple-to-operate XY measuring stage.
- Clearly legible digital displays (XY stage positions) are conveniently positioned next to the projection screen. A digital angle-measurement display makes complex angle calculations unnecessary.
- Rapid-release measuring stage enables faster, easier measurements.
- Output of XY coordinate data is possible using a serial interface. High-efficiency two-dimensional data processing is possible by connecting the QM-Data 200 (available as an optional extra).

## Measuring capability for cylindrical components

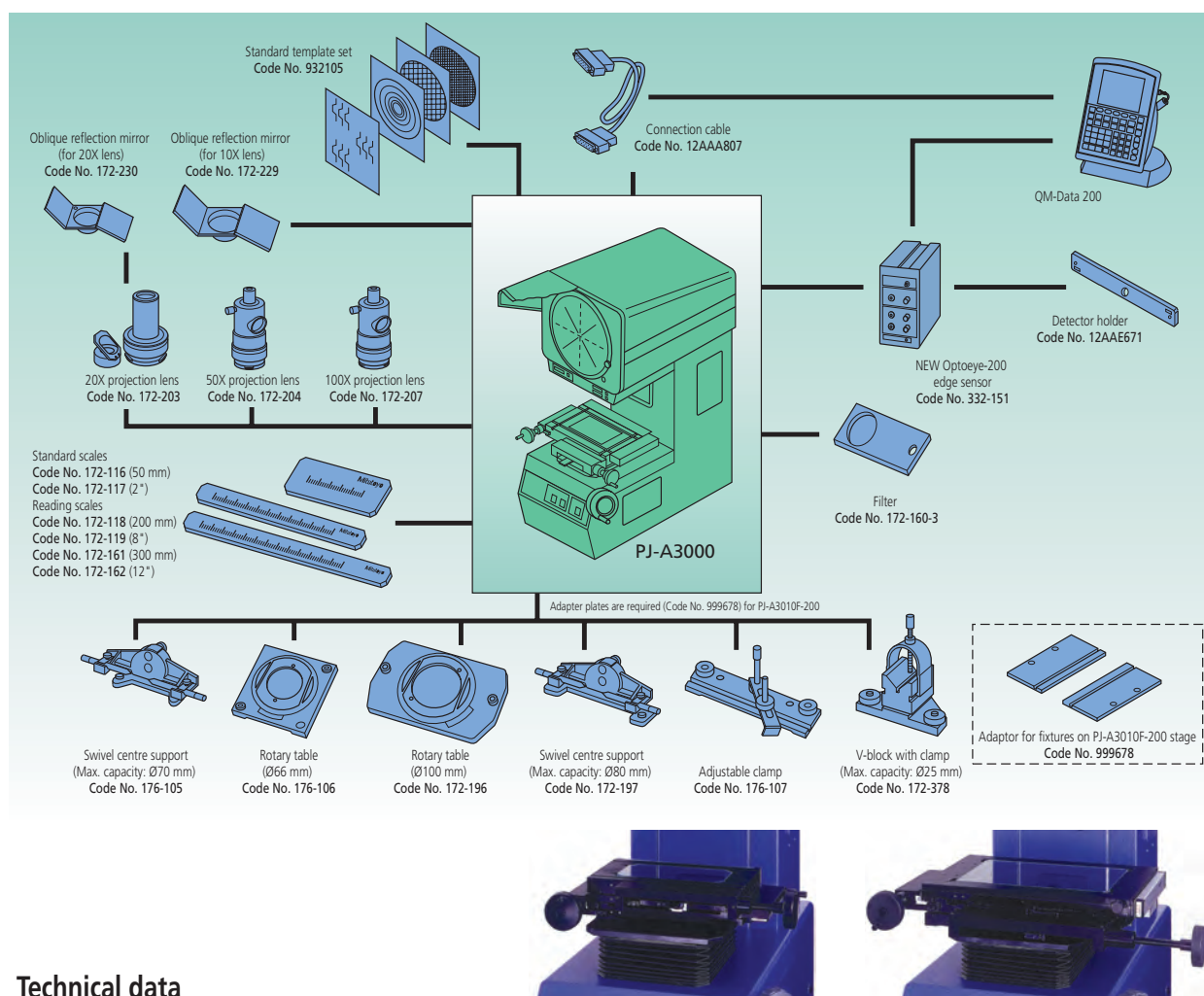
- D1: Maximum workpiece diameter, the edge line of which can be viewed in the centre of the screen.
- D2: Maximum workpiece diameter, the edge line of which can be viewed anywhere on the screen.



Unit: mm

Magnification	Transmitted light illumination				Incident light illumination			
	10X	20X	50X	100X	10X	20X	50X	100X
Diameter of image field	31.5	15.7	6.3	3.1	31.5	15.7	6.3	3.1
W	66	32.5	12.6	5	20	2	12.6	5
H								
PJ-A3010F-100	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
PJ-A3010F-200	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
D1								
PJ-A3010F-100	182	87	27	10	182	61	27	10
PJ-A3010F-200	185	87	27	10	185	61	27	10
D2								
PJ-A3010F-100	154	69	25	10	120	23	25	10
PJ-A3010F-200	154	69	25	10	120	23	25	10

# Modern technology.



## Technical data

Model	PJ-A3010F-100	PJ-A3010F-200
Code No.	302-713E	302-711E
XY travel range	100 x 100 mm	200 x 100 mm
Effective working area of measuring stage	142 x 142 mm	266 x 170 mm
Measuring system	Integrated linear scales	
Resolution	0.0001" / 0.001 mm	0.0001" / 0.001 mm
XY display	3	3
Angle display	3	3
Stage size	250 x 250 mm	380 x 250 mm
Maximum workpiece height	91 mm	92.5 mm

# Optional accessories.

## Projection lenses

10X: Code No. 172-202 (Standard equipment)

20X: Code No. 172-203

50X: Code No. 172-204

100X: Code No. 172-207

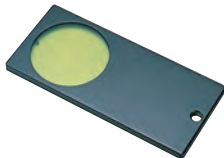
- All lenses are available with a half-silvered mirror (integrated into the 50X and 100X projection lenses).



10X 20X 50X 100X

## Green filter (Code No. 172-160-3)

- Increases image definition.



## Swivel centre support

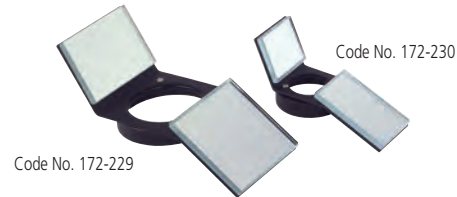


Code No. 172-197

- Suitable for holding cylinders, ball screws etc.

Code No.	172-197
Maximum workpiece diameter	80 mm
Maximum workpiece length	140 mm
Swivel range	$\pm 10^\circ$
Mass	2.5 kg

## Oblique reflecting mirrors



- Suitable for inspecting synthetic surfaces and other poorly reflecting materials.

Code No.	172-229	172-230
Use with	10X objective	20X objective

## Standard template set



Code No. 932105

- Makes inspection of projected images much easier and faster.
- A set consists of 12 different plates.

## Rotary table



Code No. 172-196

- Suitable for use with the adjustable clamp (Code No. 176-107).

Code No.	172-196
Effective diameter	100 mm
Angular resolution	2'
Height	20.5 mm
Mass	2.5 kg

### Adapter plates

- Required to secure work-holding devices, such as rotary tables and swivel centre supports, on the PJ-A3010F-200.
- Mass: 2 kg



Code No. 999678

### Horizontal V-block with clamp

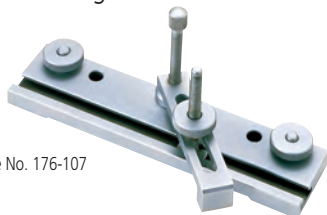
- Maximum workpiece height: 25 mm
- Mass: 0.8 kg



Code No. 172-378

### Adjustable clamp

- Maximum workpiece height: 35 mm
- Mass: 0.42 kg



Code No. 176-107

### Standard glass scale

- Used on the stage to project a calibrated image on to the screen that can then be measured to determine magnification accuracy.

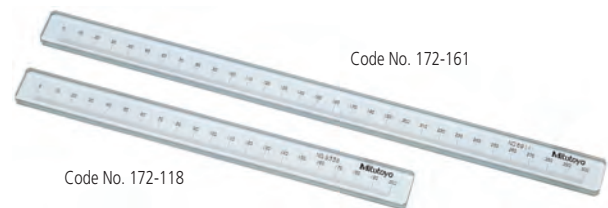


Code No. 172-116

Code No.	172-116
Range	50 mm
Scale increments	0.1 mm
Line width	3.25 $\mu$ m
Mass	15 g

### Reading scales

- For measuring the magnified image of a standard scale on the screen to determine magnification accuracy.



Code No. 172-161

Code No. 172-118

Code No.	172-118	172-161
Range	200 mm	300 mm
Scale increments	0.5 mm	0.5 mm
Line width	18 $\mu$ m	19.5 $\mu$ m
Mass	65 g	100 g

## OPTOEYE-200 Edge Sensor



- The Optoeye-200 Edge Sensor eliminates operator error by auto detecting component edges via a fibre optic link to the projector and connection to the QM-Data 200 data processing unit.
- A detector holder (Code No. 12AAE671) is required for measurement.

## QM-Data 200

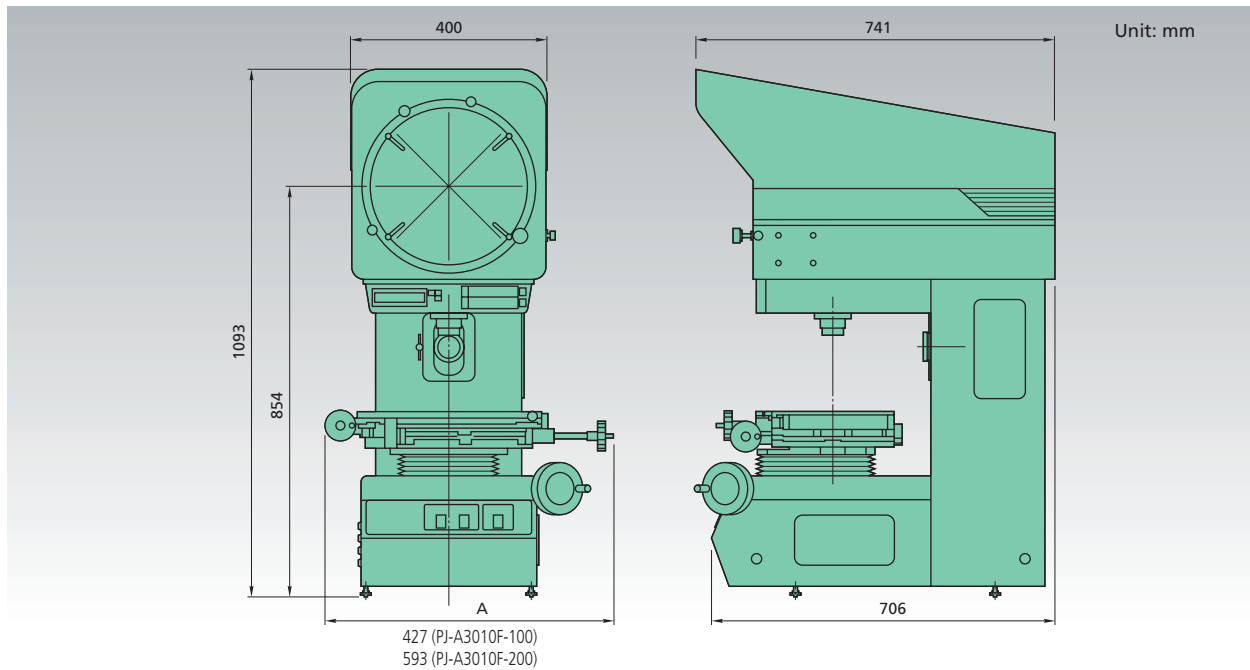


- The QM-Data 200 is a 2D data-processing unit for optical instruments. It enables powerful 2D coordinate measurements with simple keyboard input.
- The connection cable (Code No. 12AAA807) is required.



Code No. 264-141E version with securing arm

# Technical data.



<b>Projected image type</b>		Reversed
<b>Rotating screen</b>	Effective diameter	315 mm
	Screen material	Fine-ground glass
	Reference lines	Crosshair reticle
	Angle display (LED)	Resolution: 1' or 0.01° (switchable), measuring range: ±360° Functions: switching between ABSolute and incremental mode, reset
<b>Projection lenses</b>		10X (20X, 50X, 100X optional)
<b>Magnification accuracy</b>	Transmitted light illumination	±0.1% or less
	Incident light illumination	±0.15% or less
<b>Transmitted light</b>	Light source	Halogen bulb (24 V, 150 W)
	Illumination system	Telecentric
	Features	Switchable between two brightness levels, heat-absorbing filter
<b>Incident light</b>	Light source	Halogen bulb (24 V, 150 W)
	Illumination system	Vertical using a half-silvered mirror
<b>Features</b>		Adjustable condenser lens, suitable reflecting mirror (optional accessory for 10X and 20X projection lenses)
<b>Power supply</b>		100/110/120/220/230/240 VAC (switchable), 50/60 Hz
<b>Mass</b>		PJ-A3010F-100: 112 kg PJ-A3010F-200: 140 kg
<b>Standard equipment</b>		10X projection lens, anti-glare device, halogen bulb, fuse, earthing cable, hexagon socket-screw key, cover

- Coordinate Measuring Machines
- Vision Measuring Systems
- Surface-, Form- and Contour-Measurement
- Optical Measuring
- Sensor Systems
- Hardness Measuring
- Digital Scale and DRO Systems
- Small Tool Instruments and Data Management

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