

# Measuring Projector PJ-A3000 Series

## Series 302

The PJ-A3000 Series profile projector is a medium-sized model that gives you excellent versatility and easy operation.

The PJ-A3000 offers you the following benefits:

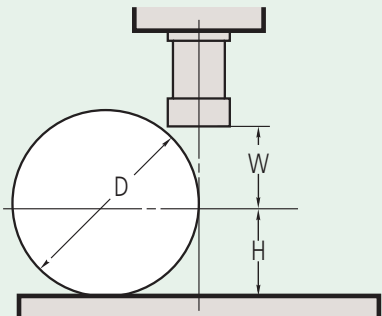
- The easy-to-read digital XY counter is located near the projection screen to minimize eye movement.
- You can measure angles easily with the digital readout protractor screen.

## Specifications

Projected image	Inverted
Projector screen	Effective diameter : 315 mm Screen material : Fine-ground glass Screen rotation : $\pm 360^\circ$ , fine feed and clamp Angle display : Digital counter (LED) Resolution : 1' or 0,01° (switchable) Range : $\pm 370^\circ$ ABS/INC mode switching, Zero Set Reference lines : Cross-hairs
Projection lens	10X (172-202) Optional : 20X, 50X, 100X
Magnification accuracy	Contour illumination : $\pm 0,1\%$ or better Surface illumination : $\pm 0,15\%$ or better
Contour illumination	Light source : Halogen bulb (24V, 150W) Optical system : Telecentric Functions : 2-step (High/Low) brightness switch, Heat-absorbing filter, Cooling fan
Surface illumination	Light source : Halogen bulb (24V, 150W) Optical system : Vertical illumination with adjustable condenser lens Functions : Heat-absorbing filter, Cooling fan
Focusing	Manual
Resolution	0,001 mm (0,001 mm : digital head)
Power supply	220 - 240V AC, 50/60Hz



302-701-1D



D : Max. workpiece diameter  
W : Working distance  
H : Max. workpiece height

	Magnification			
	10X	20X	50X	100X
View field	$\phi 31.5$	$\phi 15.7$	$\phi 6.3$	$\phi 3.1$
W	66 (20)	32.5 (2)	12.6	5
H	123.5	123.5	123.5	123.5
-50 models*	91	91	91	91
-100 models	103.5	103.5	103.5	103.5
200 models	92.5	92.5	92.5	92.5
D	224 (198)	87 (61)	27	10
-100 models	182	87 (61)	27	10
-150 models	207 (198)	87 (61)	27	10
200 models	185	87 (61)	27	10

( ) When using surface illumination



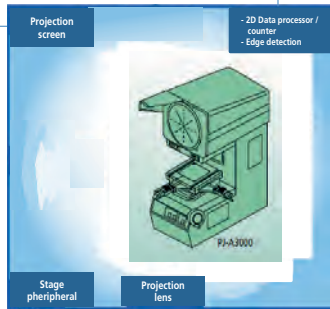
Refer to the PJ-A3000 brochure

- Standard scale 50 mm: 172-116
- Reading scale 200 mm: 172-118
- Reading scale 300 mm: 172-161
- Overlay chart, 12 sheet set: 12AAM027
- Green filter: 172-160-3

- Swivel Center support: 176-105
- Swivel Center Support: 172-197
- Rotary Table 100mm: 172-196
- Rotary Table 100mm (with fine adjustment): 172-198
- Rotary Table (PJ-A3005D-50): 176-106
- Holder with clamp: 176-107
- V Block and Clamp: 172-378

- Fixture mount adapter for PJ-A3010F-200: 999678D

- Detector mounting plate: 12AAE671
- Optoeye-200: 332-151
- QM-Data 200 Arm mount type: 264-156D
- QM-Data 200 Stand Type: 264-155D
- RS232 Cable 12AAA807D



- Projection lens 10X: 172-202  
Oblique illumination mirror: 172-229

- Projection lens 20X: 172-203  
Oblique illumination mirror: 172-230

- Projection lens 50X (With half reflecting mirror): 172-204

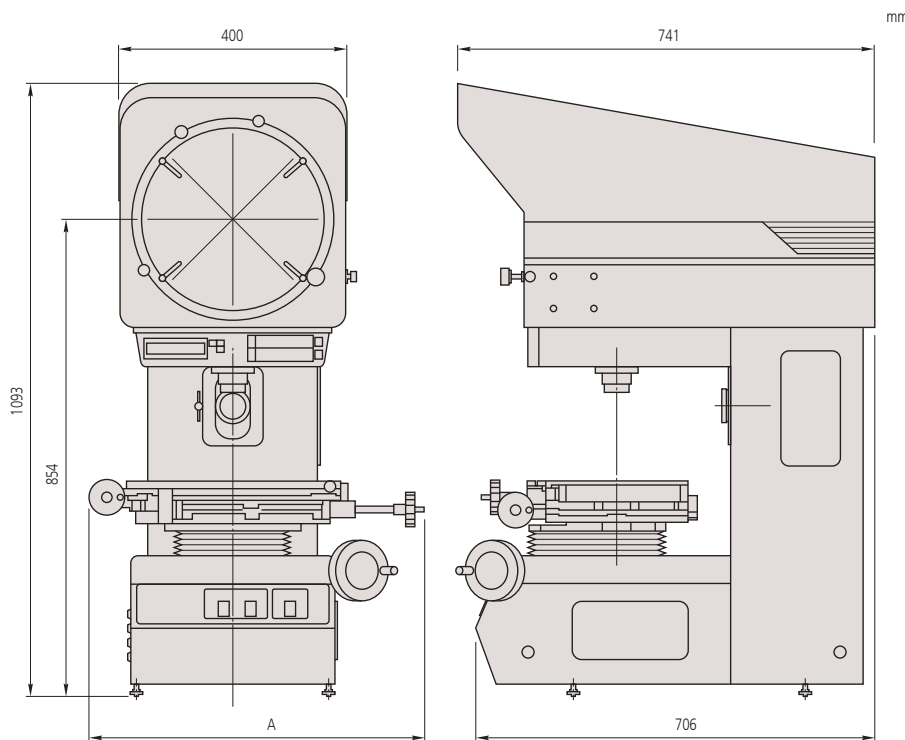
- Projection lens 100X (with half reflecting mirror): 172-207

Standard accessory

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## Series 302 - Metric model

Metric				
XY stage 50 x 50 or 150 x 50 or 100 x 100 or 200 x 100 mm				
Model	PJ-A3005D-50	PJ-A3005F-150	PJ-A3010F-100	PJ-A3010F-200
No.	302-704-1D	302-702-1D	302-703-1D	302-701-1D
XY stage [mm]	50 x 50	150 x 50	100 x 100	200 x 100
Measuring method	Digimatic micrometer head	Linear encoder	Linear encoder	Linear encoder
Quick-release mechanism	-	X and Y axes	X and Y axes	X and Y axes
XY stage table top size [mm]	152 x 152	280 x 152	250 x 250	380 x 250
XY stage effective area [mm]	82 x 82	185 x 84	142 x 142	266 x 170
Stage glass No.	380405	381349	12BAE041	382762
Swiveling function	-	-	-	±3°
Max stage loading [kg]	10	8	10	8
Mass kg	107	116	112	140



A = 593 mm : 302-701-1D, A = 446 mm : 302-702-1D  
A = 427 mm : 302-703-1D



## Standard accessories

No.	Description
172-202	Projection lens 10X
383876	Protective hood
512305	Halogen bulb (24V, 150W)

## Optional accessories

No.	Description
172-116	Standard scale 50 mm
172-160-3	Green filter
172-161	Reading scale 300 mm
172-197	Swivel centre support
172-203	Projection lens 20X
172-204	Projection lens 50X
172-207	Projection lens 100X
172-229	Oblique illumination mirror 10X Projection lens
172-230	Oblique illumination mirror 20X Projection lens
172-378	V-block with clamp (Max. workpiece ø25 mm)
176-107	Holder with clamp
172-118	Reading scale 200 mm
172-160-2	Green filter
176-105	Swivel centre support
999678D	Fixture mount adapter
512305	Halogen bulb (24V, 150W)
12AAE671	Detector mounting plate for ø250 to ø350 mm
332-151	Optoeye-200
176-106	Rotary table 66 mm
172-196	Rotary table 100 mm
172-198	Rotary table 100 mm with fine adjustment
264-155D	QM-Data 200 Stand type
264-156D	QM-Data 200 Arm mount type

176-106 : for stage 150 x 50 mm  
172-196 and 172-198 : for stage 100 x 100 and 200 x 100 mm

METRIC - (INCH/METRIC)		
302-7000 - (302-714E)	302-7010 - (302-711E)	
302-7040 - (302-718E)	302-7020 - (302-712E)	
302-7080 - (302-719E)	302-7030 - (302-713E)	
302-7090	302-7050	
	302-7060	
	302-7070	
176-106	X	-
172-196	-	X*
172-198	-	X*
176-105	X	X*
172-197	-	X*
176-107	X	X*
172-378	X	X*

\* Fixture mount adapter (999678) is required for 302-701-1D

