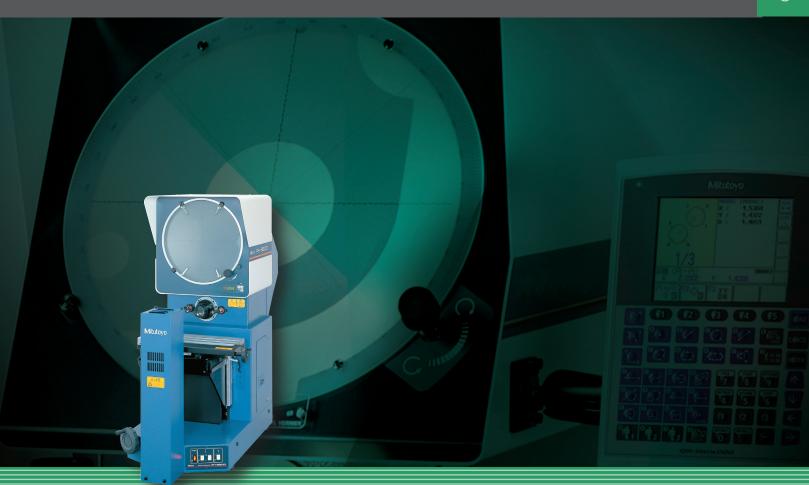




# PH-3515F PROFILE PROJECTOR

Heavy-Duty, Bench-Top Model with Horizontal Optical System





# Mitutoyo introduces the PH-3515F

Profile Projectors that will meet any optical measuring or inspection challenge your shop can offer!

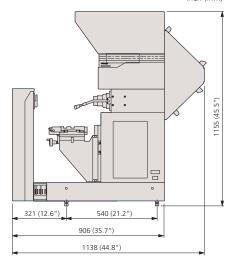
# **FEATURES**

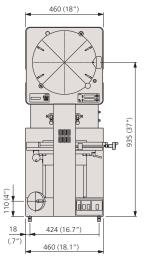
- Erect image on high brightness screen.
- 14" (353mm) dia. protractor screen with crosshairs and staggered lines for easy alignment.
- Digital angle measurement of 1' or 0.01° with built in angle counter.
- Floating-type workstage incorporates linear scales for fast, accurate measurement.
- Halogen contour illumination.
- Fiber-optic illumination cables and halogen included.
- Suitable for thread pitch measurements free from blurred or distorted images when the workpiece is angled.
- Wide range of accessories for varied applications.



# **DIMENSIONS**

Inch (mm)





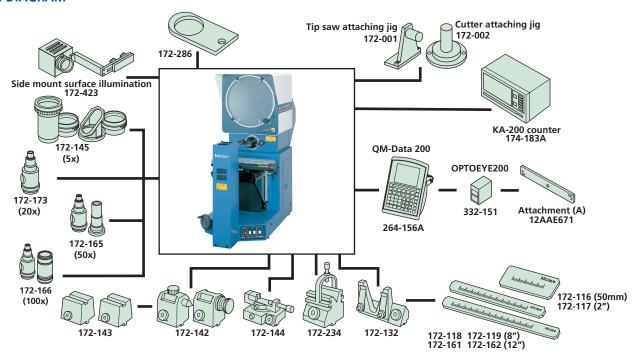
# **SPECIFICATIONS**

Model No.		PH-3515F		
Order No.		172-868A		
Projected Image		Erect image		
Protractor screen	Effective diameter	14" / 353mm		
	Screen material	Fine ground glass		
	Reference line	Cross hair line		
	Screen rotation	±360°, fine feed and clamp		
	Angle display(LED)	Resolution: 1' or 0.01°(switchable), Range: ±370°, Functions: Absolut incremental mode switching, Zero set		
Projection lens		Standard accessory: 10x(172-184), Optional accessories: 5X, 20X, 50X, 100X		
Magnification accuracy	Contour illumination	±0.1% or less		
	Surface illumination	±0.15% or less		
Contour illumination	light source	Halogen bulb (24V 150W)		
	Optical system	Telecentric system		
	Functions	2-step brightness switch, Heat-absorbing filter, Cooling fan		
Surface illumination (Optional accessories)	light source	Halogen bulb(24V 150W)		
	Functions	Adjustable condenser lens. Heat-absorbing filter, Cooling fan		
	Table travel (X-axis)	10" / 254mm		
	Table size (X, Z)	17.7"x5.7" / 450x146mm		
	Vertical travel (Y-axis)	6" / 152mm		
	Resolution	0.001mm/.00005"*		
	Measuring Unit	Built in Linear scale		
XY Stage	Max. workpiece width	See (L) on page I-10		
	Max. workpiece load	100lbs / 45kg		
Power supply		120V AC, 50/60Hz		
Mass		333lbs / 150kg		
Standard accessories		10x projection lens set, work stage, power cord, halogen bulb, tube fuse, grounding wire, allen wrench, Vinyl cover		

Counter not included



# **SYSTEM DIAGRAM**

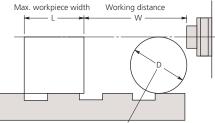


# **ACCESSORIES**

# **Projection Lenses**



# **Projection Capacity**



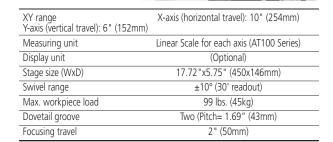
Max. workpiece diameter whose edge

**PH-3515F** Un

	Magnification						
	5X	10X	20X	50X	100X		
View field	70.6	35.3	17.65	7.06	3.5		
L	175	235	235	80	109		
W	160 (64)	93 (35)	40	14.6	9.5		
D	152.4	152.4	116	30.4	19		

<sup>( ):</sup> When using surface illumination

# Workstage





QM-Data200 2-D data processing unit. 264-155A: Stand mount type 264-156A: Arm mount type



**KA-200 Counter: 174-183A 64AAB149**: Counter stand

**332-151: Optoeye** Edge detection system for QM-Data 200 **12AAE671:** Detector attachment (A)



See page 4 for additional optional accessories

172-286: Green filter

**512305**: Halogen bulb (24V, 150W) (standard accessory)

# **Fixture and Stage accessories**

172-142: Center support 172-143: Center support riser 172-144: Rotary vise

(Max. workpiece dia.: 2.4" / 60mm)

172-234: V-block with clamp

(Max. workpiece dia.: 2" / 50mm)

172-132: Vertical holder

**64AAB176**: Machine stand 22 "W x 25" D x 26" H

# Stand

# 64AAB176

Locking door 22"W x 25"H x 29"D

**Center Support** 

172-142



# Reading Scales

**172-118** (200mm) Designed for checking **172-161** (300mm) the magnified image of a standard scale.



Clamps a cylindrical workpiece such as a screw Workpiece dia.: 120mm max

# Center Support Riser



Widens the damping capacity of the center support to a maximum diameter of 240mm

# **Rotary Vise**



Workpiece dia.: 60mm max

# **Vertical Holder**

172-132



Set up a thin workpiece easily

# **Standard Scales**

172-116 (50mm) 172-117 (2")



Used for checking magnifying accuracy.



Workpiece dia.: 50mm max

## **Green Filter**

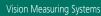


Increases the screen sharpness of the contour image.

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Sensor Systems



Form Measuremen

Optical Measurii





# Whatever your challenges are, Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top-quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis



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