

SM20 PROFILE PROJECTOR

The Baty Shadomaster SM20 with its 500mm screen and high specification presents the capability to make simple comparative measurements through to complex results storage and tolerancing with SPC capability.

The vertical light beam configuration is ideally suited for workpieces which are more readily mounted flat or horizontally.

Standard features

- 500mm screen with 90 degree crosslines and chart clips
- Angled screen for easy viewing
- Profile illumination with halogen lamp and green filter
- Single lens mounting
- Lens magnification choice: x5, x10, x20, x25, x50 and x100
- Helix adjustment of light source for accurate thread form projection
- 250mm x 125mm stage measuring range
- Digital angle measurement

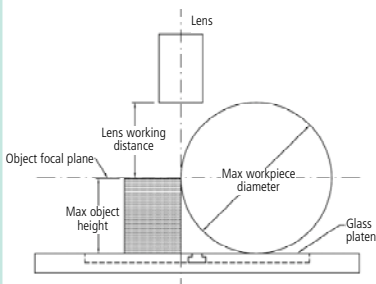
Optional features

- Screen hood and curtains with generous proportions for use in bright ambient light conditions
- Surface illumination through twin fibre optics for bright full colour surface inspection
- 3 position lens turret for easy lens changing
- Various electronic measurement systems to suit your individual requirements
- SPC to add to your quality control without the purchase of a separate system



GXL-GXL-E:
Shopfloor DRO
with feature view and full
reporting

Vertical stage systems



SM20 Lens Working Capacity mm / (inches)

Magnification	x10	x20	x25X	x25	x50	x100
Condenser	L	L	L	S	S	S
Field of view	50	25	20	20	10	5
Max diameter	200	200	200	200	180	85
Max focal pane height (profile lighting)	205	203	218	254	240	195
Max end mill height (surface lighting)	150	153	153	155	150	150



Basic Machine

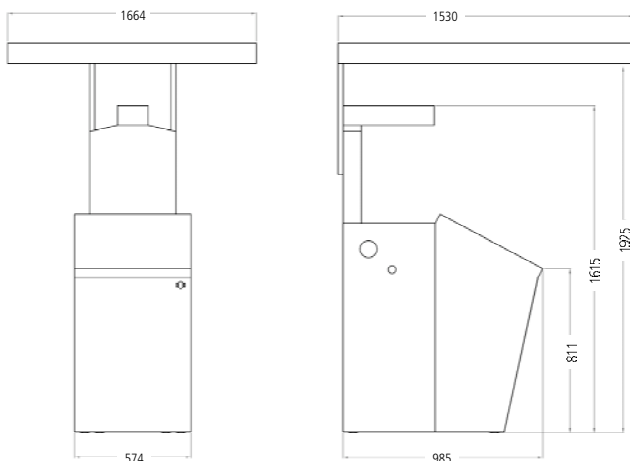
Type	Floor standing with vertical light path
Screen	Rotating 500mm diameter, inclined at 30° to the horizontal
Image	Inverted and reversed
Power supply	220 / 240 volt 50Hz or 110 volt 60Hz
Weight	150kg

The basic SM20 model consists of

- 500mm (20") diameter screen
- Digital angle measurement
- Profile illumination with fan cooled lamphouse
- Single lens mount
- Collimation lens for x10, x20, x25 magnification with swivel mount for x50, x100
- Manual focus system
- Green filter
- SA-2510 precision workstage with 250mm x 125mm measuring range, 0.0005mm

Optical System

Lens mount	Single lens mount, rotating turret to accommodate three lenses – optional
Lens magnification	x5 (not turret mounted) x10, x20, x25, x50, x100,
Magnification accuracy	Profile 0.05%. Surface 0.1%
Helix adjustment	± 7°
Light source	Profile illumination 12v 100w lamp (tungsten halogen) Surface illumination 12v 100w lamp (tungsten halogen)
Surface illumination	Twin adjustable fibre optic light guides



Measuring options

XLS: A simple 2 axis digital readout for X&Y measurement

GXL: Incorporates geometric functions for skew alignment, angle radii measurement, pitch circle diameter and construction of intersect points etc

GXL-E: As GXL with screen mounted automatic profile edge sensor. As an option the sensor can be fitted internally

Fusion 2: Fusion PC based measuring system produces dimensioned part drawing, includes geometric tolerancing, SPC, full reporting with pass / fail analysis, auto Excel™ link and auto sequence program

Fusion 2-E: As Fusion 2 with screen mounted automatic profile edge sensor. As an option the sensor can be mounted externally.

Accessories

See page 81.



Standard and high magnification collimation lenses are included in a rotary mounting.