

SHIPYARD SOLUTION

A piping solution created for measuring in limited accessibility/confined spaces

- MEASURE FLANGES AND HOLDERS
- CREATE PIPES ON THE FLY
- EXTREMELY EASY TO USE
- ENHANCED PORTABILITY
- PRE-CONNECTED AND READY-TO-USE SYSTEM
- SETUP IN UNDER 3 MINUTES
- IDEAL FOR NARROW SPACES

We have created the perfect solution for workers in the shipbuilding business. It is designed for use in narrow, and not easily accessible spaces, where not even a stable floor might be available.

The special packaging makes using the system safe and simple – the system comes pre-connected and the integrated setup allows the user to start measuring within minutes. Simply open the case, set up and connect the camera and start measuring. The lightweight transport case can be carried as a backpack, as well as rolled.

The system allows you to measure flanges and pipes quickly and easily. The measured data can be seamlessly transferred to the workshop as a CAD file or an automatically generated measurement report.

It is possible to reproduce any circular flange in under one minute with as little as 12 measurement points, but of course, other flange types can also be digitized.

As for pipe measurements, draw a virtual pipe in free space avoiding obstacles as needed, to generate a CAD template in 3D that is accurate to the tenth of a millimeter. Alternatively, measure an existing pipe and send the data directly to a bending machine or export a technical drawing for the shop floor.



WHAT IS INCLUDED:

- Metronor TeZetCAD SW + 1-year maintenance
- Metronor Camera (1 or 2, depending on system)
- SOLO Twin mounting plate (SOLO TWIN only)
- Camera mechanical clamp
- Camera magnetic clamp
- Pan/tilt head
- Lightpen with WiFi communication and re-chargeable Li-Ion battery
- Spare Li-Ion battery and battery charger
- Camera battery power set
- Standard probe kit and calibration tool
- Special 2 in 1 probe, 400mm carbon
- Laptop
- Interface unit
- Required system and power cables
- Watertight transportation case with RucPac system (backpack adapter)

For more information: www.metronor.com

Technical Specifications

METRONOR SOLO/SOLO TWIN

PERFORMANCE SPECIFICATIONS		SOLO	SOLO TWIN
Range	Distance From Sensors	1.5 to 10m (5 to 30')	same
Accuracy Small volume - 3D	±0.12 [mm]	Volume up to 1.5x1.5x1.5m ³	same
		Accuracy of 3D length	same
		2 sigma (U95)	same
Accuracy Casting volume - 3D	±0.20 [mm]	Volume up to 3.0x3.0x3.0m ³	same
		Accuracy of 3D length (typical)	same
Accuracy Profile Measurements	±0.16 [mm] (5m from camera)	600mm wide profile orthogonal to camera optical axis	same
	±0.21 [mm] (10m from camera)		
	±0.43 [mm] (20m from camera)	2 sigma (U95)	same
Accuracy Parallelism	±0.0033 [deg]	Parallelism between 2 planes, 1000mm size	same
		2 sigma (U95)	same
Accuracy Planarity	±0.06 [mm]	Planarity of single plane, size 2x2m ²	same
		2 sigma (U95)	same
Measurement frequency	60 Hz	Measurements per second	same
HARDWARE SPECIFICATIONS			
Environment	Operating Temperature	10 to 45°C (50 to 113°F)	same
	Storage Temperature	-25 to 65°C (-13 to 150°F)	same
	Operating Humidity	<95% relative humidity, non-condensing	same
	Pressure, Humidity, Temperature	No effect on measurement accuracy	same
	No Warm-up		
Electrical Power	Battery operation	Battery operation included, can also run on AC power	same
	Auto Switching	100-240V AC, 50-60Hz	same
Packaging	System Weight (excl. case)	11kg (24lbs)	12kg (26lbs)
	Shipping Weight	24kg (53lbs)	26kg (57lbs)
Computing Unit	Type	Laptop, Windows 11 Professional 64 bit	same
Sensor Units	Type	Solid-state digital camera (1 incl.)	(2 incl.)
	Optical Settings	Fixed aperture and focus, factory optimized	same
	Field of View	38°x32°	70°x32°
	Unit Net Weight	0.84kg (2 lbs)	1.6kg (4lbs)
Probing Unit	Type	Wireless, handheld, with quick-change styli	same
	Material	Carbon fiber with embedded active targets	same
	Styli Included	User-configurable set of 7 with titanium extensions/angles	same
	Styli Type	Ruby spheres (incl.), scribe tip (incl.), edge styli (opt.)	same
	Hidden-Point Capability	400mm (16") - longer with optional probes	same
	Unit Net Weight	0.67kg (1.5 lbs)	same