SAMPLE



PM 4

Portable 3D scanner · 0.9 kg · blue structured light

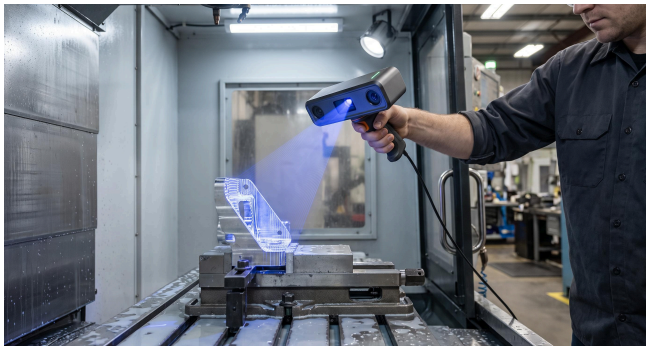
SHOP-FLOOR INSPECTION, AT THE MACHINE

See every dimension of your part, right at the machine, in under two minutes.

The PM 4 goes to the part, not the part to the QC room. Leave the part clamped in the vise, sweep it with a 0.9 kg handheld scanner, and a full first-article inspection takes under two minutes instead of an hour of calipers and a surface plate, with the inspection report out the other end.

Blue structured light captures the whole surface, every feature, every face, at 1.5 million points a second. PM Inspect lays the scan over your CAD and colors every millimetre by how far it sits from nominal.

<2 min Full first-article inspection, clamp to report	**25 µm** Volumetric accuracy, up to 0.025 mm; point 0.015 mm
1.5 M pts/s Scan rate; 0.040 mm point distance	**0.9 kg** Handheld, single USB-C cable, IP52



At the machine. The bracket stays in the vise. No fixturing, no trip to the CMM room, no queue.

HOW IT RUNS

Clamp to report in three moves

01 **Plug in and go** `< 60 s`

One USB-C cable to the shop laptop. Calibration-free day to day: no warm-up plate, no targets stuck to most parts.

02 **Sweep the part** `≈ 70 s`

Hold 300 to 1400 mm off the part and paint it with light, about 250 × 300 mm a pass. Coverage fills in live on screen.

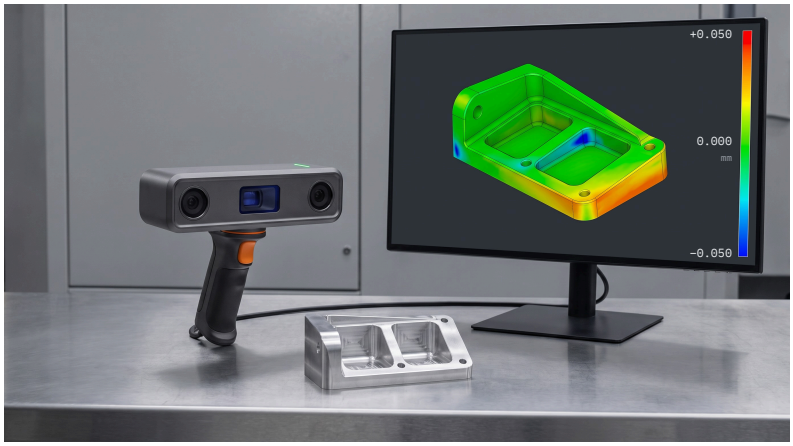
03 **Read the report** `≈ 30 s`

PM Inspect aligns to CAD, checks GD&T callouts and exports a first-article / AS9102 report with the color map.

SAMPLE

The report comes out the other end

PM INSPECT · DEVIATION COLOR MAP



Every surface, colored by how far it sits from nominal.

Green is on the drawing. Warm is proud of it, cool is shy of it. The bracket here reads in tolerance across the faces, with one pocket floor running low: the kind of fault a caliper never lands on.

+0.050 mm	over
+0.025	
0.000	nominal
−0.025	
−0.050 mm	under

Scale shown: ±0.050 mm. Range and tolerance bands are set per job in PM Inspect.

Specifications

SAMPLE VALUES · INVENTED FOR DEMONSTRATION

MEASUREMENT

Accuracy	**up to 0.025 mm** (25 µm) volumetric
Point accuracy	**0.015 mm**
Scan rate	**1.5 million** points/sec
Resolution / point distance	**0.040 mm**

WORKING VOLUME

Mode	Handheld
Standoff	**300–1400 mm**
Field per pass	~250 × 300 mm
Part size	Unlimited via dynamic referencing

LIGHT SOURCE

Projector	Blue LED structured light
Eye safety	Class-1 eye-safe
Targets	Targetless on most parts

SOFTWARE AND OUTPUT

Software	**PM Inspect**: live deviation color map, GD&T, first-article / AS9102 report export
Output formats	STL, OBJ, PLY, STEP, ASCII point cloud
Report	Inspection report PDF with color-map deviation

WEIGHT AND PORTABILITY

Weight	**0.9 kg** handheld
Connection	USB-C single cable; battery pack option
Environment	Shop-floor rated: **IP52**, 5–40 °C operating

SETUP

Time to first scan	**Under 60 seconds**
Calibration	Calibration-free day-to-day

Where it earns its place

FOUR JOBS, ONE SCANNER

01
First-article inspection
Prove the first part off a new setup matches the drawing, and hand QA an AS9102 report before the second part is cut.

02
Reverse engineering
Turn a worn or undocumented part into a STEP model when the drawing is lost or the original supplier is gone.

03
In-process check
Scan between operations while the part is still clamped, and correct the offset before the next pass instead of after the scrap.

04
Incoming inspection
Check supplier castings and forgings at the dock against CAD in minutes, so bad stock never reaches a spindle.

Bring the PM 4 to your hardest part. We will scan it at your machine.

PRAIRIE METROLOGY
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