

GAPMAN_{GEN3}

Gapman® Portable Electronic Feeler Gage

Gapman_{Gen3} is the latest generation high precision, non-contact, portable electronic gap measurement gage. Features include:

- A dual capacitive sensor for position-compensated measurement
- Easy insertion into very thin gaps down to 0.0075" (0.190 mm) in a wide range of parallel and roller gap applications
- Micro-controller based and application software driven
- Gapman records and stores data points for easy transfer to support Six Sigma and other quality programs



Gapman_{Gen3} shown with spring contact wand



Gapman_{Gen3} with flexible GPD-4.5-A-250

Applications

Aircraft assemblies: wings, fuselage

Composite structures: CFRP

PowerGen: rotor/stator, steam, gas, hydro

Coaters/extruders: slot die, extrusion dies

Roller gaps: photocopiers, high volume printers

Industrial machinery: set up tools, alignment

Benefits

- Dramatic improvement over feeler gages
- Eliminates operator to operator subjectivity
- Consistently meets or exceeds stringent Gage R&R qualification
- Speeds aircraft shimming operations by up to four times
- Measures gaps between all metal and CFRP surfaces
- Spring sensor wand configurations for non-conductive targets
- Compact, fully portable, light weight and rugged
- 22 hour battery life at full function output or USB power option
- Records 10,000+ data points for easy transfer via USB or wireless to data reader software
- Resolution: up to 0.01% full scale, repeatability: $\pm 0.05\%$ full scale, accuracy: $\pm 0.5\%$ full scale
- Overall design focus on simplicity

Applications



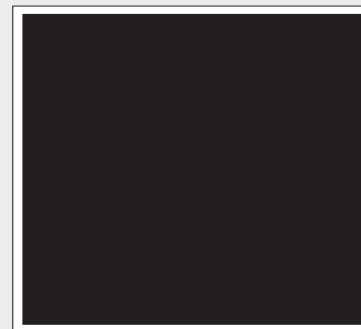
Aircraft assemblies - hidden



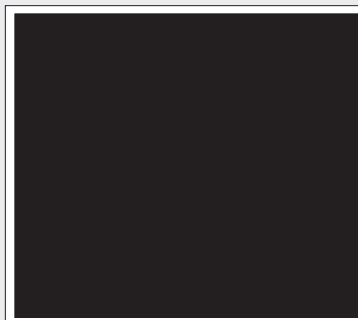
CFRP to metal gaps



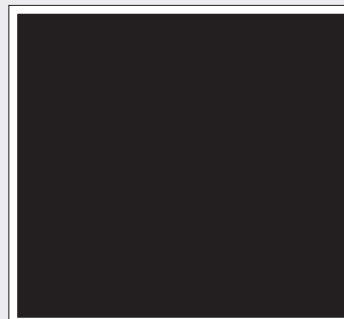
PowerGen - rotor to stator



Slot die coater gaps



Roller gaps



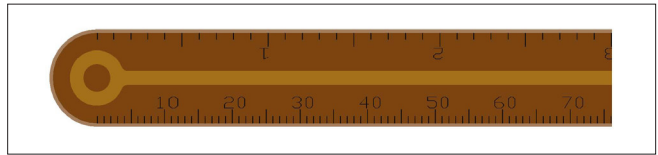
Printers, high volume photocopiers

Technical Specifications



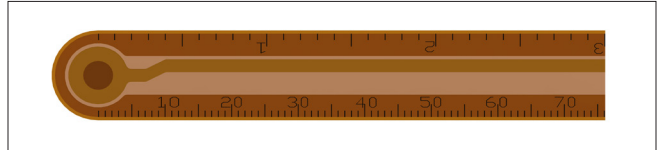
Gapman Core Unit

Size: 2.2"x 8.7"x 1.1" (56mm x 220 mm x 28 mm)



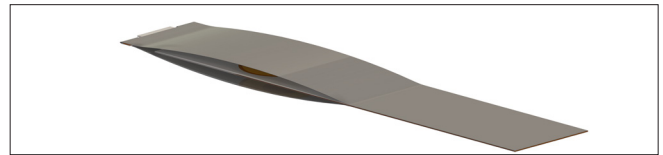
Thin sensor wand GPD 5F A 200

Size: 0.55"x 7.9"x 0.017" (14 mm x 200 mm x 0.43 mm)
Range: .017" to 0.118" (0.43mm to 3.00mm)



Thin sensor wand GPD-4.5(.0075)-A-250

Size: 0.55"x 9.8"x 0.0075" (14 mm x 250 mm x 0.190 mm)
Range: .0078" to 0.100" (0.20mm to 2.54mm)



Spring contact wand GPD-5(.022)-A-150

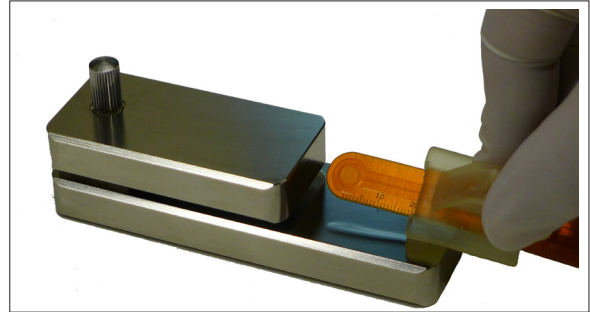
Size: 0.55"x 7.9"x 0.017" (14 mm x 200 mm x 0.43 mm)
Range: .025" to 0.140" (0.64mm to 3.56mm)

Target materials	Measures gaps between all earth grounded metal and composite (CFRP) surfaces	
Remote vs integral sensor wands	Remote sensor wand kit available	
Accuracy	± 0.5% FS	
Repeatability	± 0.05% FS	
Resolution	micron	0.00001" (0.254 microns)
	mm	.0001mm
	inches	.0001"
Calibration	Factory preset, traceable to NIST	
Thin gap sensor wands	Select from over 20 standard models, custom wands available	
Spring contact wand	Select from several standard models. For applications where one or both of the target surfaces are uneven or non conductive	
Control buttons	External buttons for units, set to standard, data, and delete with optional lockout	
Display	Bright blue alphanumeric active matrix OLED display, 128 x 64 pixel, 1.54" (39.12mm)	
Data output	USB	USB Type A locking to standard USB cable
	wireless	Blue Tooth v2.0 Class 1 10m standard, 30m optional with reciever
Internal power	3 AA batteries for battery life of 22 hours max, 1/3 less with wireless	
External power	USB Type A AC universal power adapter, or laptop PC	

4200GM-Gen3 Standard System



Standard Gapman measurement system



Optional calibration block and wand positioner

A standard GapmanGEN3 gap measurement system includes the following

- Gapman core unit for integral wands, and built in 10,000 point data logger
- GPD-5F-A-200 non-contact flexible sensor wand, 0.017" to 0.100" (0.43 mm - 2.54 mm) (Example wand)
- Grounding cable, with 90° banana plug to straight banana plug with gator clip (12 feet)
- USB power/data comm accessory kit, includes USB Type A AC universal power adapter and USB Type A locking to standard USB cable (6 feet)
- Flat metal to flat metal NIST traceable calibration w/data sheet
- Data reader software & cal data on flash drive
- Supervisor/calibration access level option
- 3-Point thin wand quick check block
- 2 sets of 3 long life "AA" batteries
- Rugged IP67grade carrying case



Mounting feature



USB I/O, Ground



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