







to get you started with industrial 3D measurement solutions.



### **TEACHING**

INDUSTRY ADVANCEMENTS WAIT FOR NO ONE— NOT EVEN IN EDUCATION

#### THE ACADEMIA TEACHING PACKAGE INCLUDES

- ACADEMIA professional-grade 3D scanner (multi-unit packages available)
- 5-year ACADEMIA Customer Care Plan
- Software suite with our reverse engineering and inspection software modules
- Self-training documentation on ACADEMIA 3D scanners

#### FEATURES YOUR TEACHING CURRICULUM CAN BENEFIT FROM

- Turnkey solution with all the necessary add-ons to enrich your syllabus
- The industry's most affordable professional-grade 3D scanner dedicated to teaching applications
- Software to use 3D scans in real-world engineering workflows
- Portable, fast, and easy-to-use 3D measurement solutions: become an expert in no time!



## RESEARCH

ADVANCE YOUR MOST DEMANDING RESEARCH PROJECTS USING 3D MEASUREMENT SOLUTIONS

#### THE ACADEMIA RESEARCH PACKAGE INCLUDES

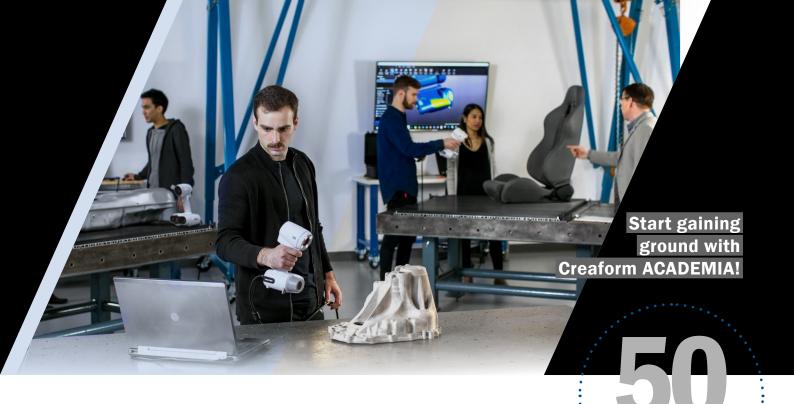
- Metrology-grade portable 3D scanner(s) and portable CMM
- 5-year ACADEMIA Customer Care Plan
- Software suite with our reverse engineering and inspection software modules

## FEATURES TO HELP YOU TOWARDS YOUR NEXT RESEARCH BREAKTHROUGH

- Turnkey solution designed to carry out complex projects
- Complete portfolio of metrology-grade 3D scanners and a portable CMM at a special pricing for researchers
- Portable, fast, and easy-to-use 3D measurement solutions







## FREE TEACHING KITS

#### **COMPLEMENTARY DIDACTIC MATERIAL<sup>(1)</sup>**

Ready-to-use material that is in line with today's industry requirements, all of which covers three main themes:

## FREE SOFTWARE

#### **CREAFORM ACADEMIA SOFTWARE PACKAGE**

Scanning is the first step. Powerful and fully integrated, our complementary 3D application software<sup>(2)</sup> suite provides the tools you need to tackle any type of conventional or ahead-of-the-curve engineering workflows.

FREE 50-SEATS
NETWORK LICENSE

**3D SCANNING** 



**3D MEASUREMENT SOFTWARE PLATFORM** VXelements™

**REVERSE ENGINEERING** 



SCAN-TO-CAD SOFTWARE MODULE VXmodel™

INSPECTION



**DIMENSIONAL INSPECTION SOFTWARE MODULE** VXinspect|Elite™

## Bring your classes to the next level with Creaform ACADEMIA

- Customizable teaching presentations
- Video tutorials and self learning documentation
- Pre-built lab exercises with sample datasets for real hands-on experience with 3D files

# THE ULTIMATE STARTER KIT FOR EASY INTEGRATION INTO ENGINEERING CLASSES



- (1) Creaform ACADEMIA documentation is available in English only.
- (2) With the purchase of a 3D measurement solution from Creaform.



#### **TECHNICAL SPECIFICATIONS**

		ACADEMIA™			Go!SCAN 3D™	HandySCAN 3D™(1)		MetraSCAN 3D™(1)	
		ACADEMIA 10™	ACADEMIA 50™	ACADEMIA 20™	Go!SCAN SPARK™	HandySCAN 307™	HandySCAN BLACK™ Elite	MetraSCAN 357™	MetraSCAN BLACK™ Elite
PART SIZE RANGE (recommended)		0.3-3 m		0.05-0.5 m	0.1-4 m	0.1-4 m	0.05-4 m	0.2-6 m	
ACCURACY		Up to 0.250 mm <sup>(2)</sup>		.1 mm <sup>(2)</sup>	Up to 0.050 mm (2)	Up to 0.040 mm <sup>(2)</sup>	0.025 mm <sup>(3)</sup>	Up to 0.040 mm <sup>(2)</sup> 0.025 mm <sup>(3)</sup>	
VOLUMETRIC ACCURACY (4) (based on working volume)	9.1 m³	N/A	N/A	N/A	N/A	N/A	N/A	0.086 mm	0.064 mm
	16.6 m <sup>3</sup>							0.122 mm	0.078 mm
VOLUMETRIC ACCURACY (based on part size)		0.500 mm/m <sup>(5)</sup> 0.300 mm/m <sup>(5)</sup>		0.050 mm + 0.150 mm/m <sup>(5)</sup>	0.020 mm + 0.100 mm/m (6)	0.020 mm + 0.040 mm/m <sup>(6)</sup>	N/A		
MEASUREMENT RESOLUTION		0.500 mm	0.250 mm	0.100 mm	0.100 mm	0.100 mm	0.025 mm	0.100 mm	0.025 mm
MESH RESOLUTION		0.50	0 mm	0.100 mm	0.200 mm	0.200 mm	0.100 mm	0.200 mm	0.100 mm
SCANNING AREA		380 x 380 mm		143 x 108 mm	390 x 390 mm	275 x 250 mm	310 x 350 mm	275 x 250 mm	310 x 350 mm
STAND-OFF DISTANCE		400 mm 380 mm		380 mm	400 mm	300 mm		300 mm	
DEPTH OF FIELD		250 mm		100 mm	300 mm	250 mm		200 mm	250 mm
LIGHT SOURCE		White light (LED)			White light (99 stripes)	7 red laser crosses	11 blue laser crosses (+ 1 extra line)	7 red laser crosses	15 blue laser crosses (+ 1 extra line)
LASER CLASS		N/A	24 bits		N/A	2M (eye safe)		2M (eye safe)	
TEXTURE RESOLUTION		IN/A	50 to 150 DPI	50 to 250 DPI	50 to 200 DPI	N/A		N/A	
POSITIONING METHODS		Geometry and/or targets	d/or Geometry and/or targets and/or texture		Geometry and/or targets and/or texture	Targets		Targets (optional)	
MEASUREMENT RATE		550,000 measurements/s		/s	1,500,000 measurements/s	480,000 measurements/s	1,300,000 measurements/s	480,000 measurements/s	1,800,000 measurements/s
WEIGHT		0.85 kg	0.9	5 kg	1.25 kg	0.85 kg	0.94 kg	Scanner: 1.38 kg C-Track: 5.7 kg	Scanner: 1.49 kg C-Track: 5.7 kg
DIMENSIONS (LxV	VxH)	96 x 140 x 258 mm	150 x 171 x 251 mm	154 x 178 x 235 mm	89 x 114 x 346 mm	77 x 122 x 294 mm	79 x 142 x 288 mm		235 x 296 mm 181 x 148 mm
OPERATING TEMPERATURE R	ANGE	5-40°C							
OPERATING HUM RANGE (non-cond		10-90%							
CERTIFICATIONS		EC Compliance (Electromagnetic Compatibility Directive, Low Voltage Directive), compatible with rechargeable batteries (when applicable), IP50, WEEE							

#### **FEATURE COMPARISON**

	ACQUISITION MODULES (7)	APPLICATION MODULES		
	VXscan™ / VXprobe™ / VXshot™	VXmodel™	VXinspect Elite™	
MULTIPLE MEASUREMENT MODE	•			
MESH EDITING		•		
ALIGNMENT	•	•	•	
GEOMETRIC ENTITIES	•	•	•	
NURBS SURFACE		•		
TRANSFER-TO-CAD SOFTWARE		•		
CAD IMPORT		•	•	
REPORTING			•	

- Other models of HandySCAN 3D and MetraSCAN 3D are also available.

- Other models of HarloySCAN 3D and interfactors a pare allos devalations. 
  Typical value for diameter measurement on a calibrated sphere artefact. 
  HandySCAN BLACK | Elite and MetraSCAN BLACK | Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Probing error performance is assessed with diameter measurements on traceable sphere artefacts. 
  MetraSCAN BLACK | Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Sphere-spacing error is assessed with traceable length artefacts by measuring these at different locations and orientations within the wateringstudy. working volume. MetraSCAN 357: Value for sphere spacing measurement on calibrated.
- With positioning targets or with an object presenting adequate geometry and/or color texture for positioning.
- HandySCAN BLACK/Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Sphere-spacing error is assessed with traceable length artefacts by measuring these at different locations and orientations within the working volume.
- HandySCAN 307: Value for spheres spacing measurement on a calibrated length artefact.

  (7) Acquisition modules are included with all Creaform technologies.



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