



# **PORTABLE X-RAY SYSTEMS**

Digital Radiography Solutions for NDT Applications



#### X-RAY GENERATOR, DETECTOR, AND SOFTWARE IN ONE BUNDLE!

Discover our complete range of portable X-Ray systems for NDT inspections.

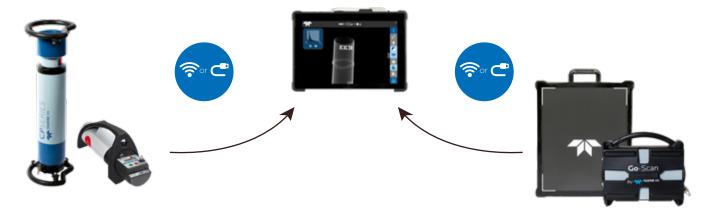
Fully developed in-house, these packages combine a detector, an X-Ray generator, and Sherlock NDT, a state-of-the-art and user-friendly NDT inspection software.

Paired with Teledyne ICM's X-Ray generators (**CP Series** or **CP Batteries**), the **GO-SCAN**'s detectors deliver a sharp, clear, and detailed image and can reveal a very large majority of defects such as cracks, corrosion and failing welds.

**Sherlock NDT**, Teledyne ICM's NDT inspection software is fully compatible with Teledyne ICM's complete range of portable X-Ray generators. It is the perfect tool for industrial radiography, allowing compliancy with most quality standards. The intuitive and user friendly touchscreen software produces high quality images, allows real-time (video) acquisition, and comes with many different enhancement features.

Make your own selection according to your inspection needs.

#### CONNECTIVITY





## X-RAY GENERATORS: SITEX CP BATTERY OR CP SERIES







100% DUTY CYCLE



CONSTANT POTENTIAL



WIDE INPUT POWER RANGE



**RUGGEDIZED** 

CP BATTERY	Unit	CP120B	CP160B	
Radiation geometry	-	Directional	Directional	
Power supply	-	Battery	Battery	
Output voltage range	kV	40 to 120	40 to 160	
Tube current range	mA	0.1 to 1.0	0.1 to 0.5	
Tube current at full output	mA	1.0	0.5	
Maximum power at the anode	W	120	80	
Constant power mode	-	Yes	Yes	
Working cycle at 30°C (*)	%	/	/	
Steel penetration (**)	mm/in	10 / 0.4	21 / 0.8	
Weight	Kg/lbs	7.0 / 15.4	9.2 / 20.3	
Overall dimensions	mm/in	Ø 124 x 476 / 4.9 x 18.7	Ø 124 x 520 / 4.9 x 20.5	
Leakage dose at 1 m at full output	mSv/h	< 2.0	< 2.0	
Optical focal spot according to EN 12543	mm/in	0.8 x 0.5 / 0.03 x 0.02	0.8 x 0.7 / 0.03 x 0.03	
Maximum useful angle	0	50 x 50	60 x 60	
Inherent filtration	mm/in	Equiv. 3.5 / 0.1 (AI)	Equiv. 3.5 / 0.1 (AI)	
Waterproof level	-	IP54	IP54	
Operating temperature	°C/F°	-25 to +50 / -13 to +140	-25 to +50 / -13 to +140	
Storage temperature	°C/F°	-40 to +80 / -40 to +176	-40 to +80 / -40 to +176	
Guard rings	-	/	/	



(\*\*) 700 mm FFD, 10 min , AA400, D=2 for CPD

CP SERIES BUILD-IN CARROUSEL 5 OUTPUT POSITIONS					
Lead shutter	3 mm Aluminium filter				
Customizable diaphragm	Laser pointer				
0.8 mm Beryll	lium window				

SITEX CP SERIES	Unit	SITEX CP160D	SITEX CP200D	SITEX CP200DS	SITEX CP225D	SITEX CP300DM	SITEX CP300DS
Radiation geometry	-	Directional	Directional	Directional	Directional	Directional	Directional
Power supply	-	Mains	Mains	Mains	Mains	Mains	Mains
Output voltage range	kV	10 to 160	10 to 200	10 to 200	10 to 225	30 to 300	30 to 300
Tube current range	mA	1 to 10	1 to 10	0.5 to 10	1 to 10	0.5 to 10	0.5 to 6
Tube current at full output	mA	5.6	4.5	3.7	4.0	3	3
Maximum power at the anode	W	900	900	750	900	900	900
Constant power mode	-	Yes	Yes	Yes	Yes	Yes	Yes
Working cycle at 30°C (*)	%	100	100	100	100	100	100
Steel penetration (**)	mm/in	29 / 1.14	42 / 1.65	40 / 1.57	47 / 1.9	66 / 2.6	66 / 2.6
Weight	Kg/lbs	14.7/30.86	14.7 / 30.86	15.9/35.05	14.7/30.86	29 / 63.93	29 / 63.93
Overall dimensions	mm/in	Ø 140 x 725 / 5.5 x 28.5	Ø 140 x 725 / 5.5 x 28.5	Ø 140 x 705 / 5.51 x 27.75	Ø 140 x 725 / 5.5 x 28.5	Ø 180 x 837 / 7.1 x 33	Ø 180 x 837 / 7.1 x 33
Leakage dose at 1 m at full output	mSv/h	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 5.0
Optical focal spot according to EN 12543	mm/in	3 / 0.12	3 / 0.12	1/0.04	3 / 0.12	3 / 0.12	1/0.04
Maximum useful angle	0	60 x 40 elliptical	60 x 40 elliptical	60 x 40 elliptical	60 x 40 elliptical	60 x 40 elliptical	60 x 30 elliptical
Inherent filtration	mm/in	0.8 / 0.03 (Be window)	0.8 / 0.03 (Be window)	0.8 / 0.03 (Be window)	0.8 / 0.03 (Be window)	0.8/ 0.03 (Be window)	0.8/ 0.03 (Be window)
Waterproof level	-	IP65	IP65	IP65	IP65	IP65	IP65
Operating temperature	°C/F°	-30 to +60 / -22 to +140	-30 to +60 / -22 to +140	-30 to +60 / -22 to +140	-30 to +60 / -22 to +140	-30 to +60 / -22 to +140	-30 to +60 / -22 to +140
Storage temperature	°C/F°	-40 to +70 / -40 to +158	-40 to +70 / -40 to +158	-40 to +70 / -40 to +158	-40 to +70 / -40 to +158	-40 to +70 / -40 to +158	-40 to +70 / -40 to +158
Guard rings	-	2	2	2	2	2	2

### X-RAY DETECTORS: GO-SCAN SERIES











USER-FRIENDLY ULTRA LIGHT

PLUG & PLAY FAST SET-UP

FULLY INTEGRATED

	Unit	GO-SCAN 1506	GO-SCAN 1510 HR	GO-SCAN 1510 XR	GO-SCAN 2329	GO-SCAN 3025	GO-SCAN 4335
GENERAL							
Technology	-	CMOS Active Pixel	CMOS Active Pixel	CMOS Active Pixel	CMOS Active Pixel	aSi	aSi
Pixel pitch	μm	49.5	99	49.5	49.5	120	154
Sensitivity settings	#	1	2	1	1	1	1
Active area	mm/in	57 x 146 / 2.2 x 5.7	102 x 153 / 4 x 6	114 x 145 / 4.5 x 5.7	230 x 290 / 9 x 11.4	300 x 250 / 11.8 x 9.8	434 x 355 / 16.9 x 13.8
Active resolution	pxl	1152 x 2940	1032 x 1548	2304 x 2940	4608 x 5890	2560x 2048	2816 x 2304
BANDWITH							
Data interface	-	GigE	GigE & Wi-Fi	GigE & Wi-Fi	GigE	GigE & Wi-Fi	GigE & Wi-Fi
ADC conversion	bits	14	14	14	14	16	16
Frame rate—1x1 (GigE)	fps	15	up to 30	up to 9	up to 2	0.3	0.3
POWER CONSUMPTION							
Power supply	-	Mains*	Battery / Mains*	Battery / Mains*	Mains*	Battery / Mains*	Battery/Mains*
Power consumption	W	40	15	15	15 to 40	17	20
Battery performance	-	-	Approx. 7 hours	Approx. 7 hours	-	Approx. 7 hours	Approx. 7 hours
INTEGRATION							
Dimension (without sleeve)	mm/in	206 x 78 x 31 / 8.1 x 3 x 1.2	238 x 154 x 25 / 9.4 x 6.0 x 1.0	238 x 154 x 25 / 9.4 x 6.0 x 1.0	331 x 331 x 23/ 13 x 13 x 0.9	339x 287 x 18.8 / 13.34x 11.29x 7.4	464 x 388 x 18.8 / 18.26 x 15.27 x 7.4
Overall dimension	mm/in	218 x 90 x 35 / 8.6 x 3.5 x 1.4	259 x 227.7 x 107.5/ 10.2 x 8.9 x 4.2	259 x 227.7 x 107.5 / 10.2 x 8.9 x 4.2	350 x 350 x 28.2/ 13.7 x 13.7 x 1.1	412.5 x 310 x 34.2/ 16.2 x 12.2 x 1.3	538.5 x 410 x 34.5 / 21.2 x 16.1 x 1.3
Weight (without sleeve)	Kg/lbs	0.9 / 1.9	1.6/3.5	1.6 / 3.5	8 / 17.6	3.5 / 6.6	5.9/13
ENVIRONMENTAL							
Operating temperature	°C/F°	0 to +50°C / +32 to +122°F	-20 to 50°C / -4 to +122°F	-20 to 50°C / -4 to +122°F	0 to +50°C/ +32 to +122°F	-20 to 50°C / -4 to +122°F	-20 to 50°C / -4 to 122°F
Storage temperature	°C/F°	-10 to +55°C / +14 to +131°F	-20 to 60°C / -4 to +140°F	-20 to 60°C / -4 to +140°F	-10 to +55°C/ +14 to +131°F	-20 to 60°C / -4 to +140°F	-20 to 60°C / -4 to 140°F
Humidity	% R.H.	20 to 80	20 to 80	20 to 80	20 to 80	30 to 75	30 to 75
X-ray energy range	kV	Up to 225	Up to 225	Up to 225	Up to 225	Up to 300	Up to 300

<sup>(\*)</sup> with Power/Com Cable accessory



#### **RUGGEDIZED TABLET** WITH SHERLOCK NDT SOFTWARE



TOUCHSCREEN SOFTWARE



PLUG AND PLAY



WIRELESS OR CABLE



**IMAGE EDITING** 



#### **SOFTWARE FEATURES**

All-in-one touchscreen software

Available in 20 languages

Add unlimited users

Library to store all inspections efficiently

Interconnected by cable or wireless

Fast image acquisition

Preset exposure configurations

#### **MULTIPLE IMAGE EDITING FEATURES**

Image editing

ADRC dynamic filter

Local contrast enhancement

Adjustable Teledyne filter

Automatic & manual histogram equalization

DICONDE Compliant

Emboss

Black & white

Pseudo-colours

Grey level input value

HDR

Smart measurement tool

SNR/SNRn

CNR/CNRn

SRb / iSRb / automatic IQI recognition

Wall thickness measurement

Annotation / Highlight

Timotation, mgmgn

Mirroring / Rotation

Pixel map edition

Real-time Image acquisition

Exposure time calculator

Stitching tool

Greyscale feature

Monitoring and modifying parameters during inspection

During the inspection, possibility to adapt parameters and apply filters

Superpower Zoom (up to 500%)

Drag&drop external images from Windows into the image editor

Automatic file export



Stitching of multiple images



iSRb calculation and automatic IQI recognition



Wall thickness measurement



With Teledyne Filter

Without Teledyne Filter

# PORTABLE X-RAY SYSTEMS Digital Radiography Solutions for NDT Applications

SAFETY WARNINGS. The Goods can cause death, x-ray radiation, so adequate safety precautions mucomply with all applicable regulations relating to p r property damage if they are used, operated, maintained, stored or disposed of improperly. In particular, the Goods may emit inimize exposure. At a minimum, Buyer should adhere to the ALARA (as low as reasonably achievable) principle and should

#### **TELEDYNE ICM**

Zoning Les Plenesses / Rue du Progrès 3 / B-4821 Andrimont (Dison) - Belgium +32 (0)87 44 01 50 / icm.sales@teledyne.com

