EKOSCAN
INDUSTRIAL ULTRASOUND

NON-DESTRUCTIVE
TESTING

ULTRASONIC

PRODUCTS & EQUIPMENT

SYSTEMS, PROBES, WEDGES, BLOCKS & ACCESSORIES

QUALITY — RELIABILITY — REACTIVITY

NDT PRODUCTS

PROBES AND TRANSDUCERS

SYSTEMS

BLOCKS

ACCESSORIES

Find all our ranges of products on our website **www.ekoscan.fr**

EKOSCAN
INDUSTRIAL ULTRASOUND

THE STORY OF EKOSCAN IS ONE OF CONTINUITY AND EVOLUTION.

It has been constant since 1973, the date our founder and CEO put a probe in his hand for the first time. Continuity again in our daily efforts to match your expectations. We take great pride in helping you succeed in your business. EKOSCAN's story is also about evolving.
Innovation must be a priority to survive the drastic changes of our industry.

YOU CHANGE, WE ADAPT.

In order to serve you better and control all aspects of manufacturing, our products are conceived, made, and tested in France by our team of experts.

AB certification ISO 9001 : 2015

EKOSCAN est certifié
ISO 9001:2015

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CONTENTS

PROBES

CALIBRATION BLOCKS

ACCESSORIES

SERVICES

ACOUSTICAL PROPERTIES OF COMMON MATERIALS

MATERIAL	Ultrasonic Velocity				
	LONGITUDINAL WAVE		SHEAR WAVE		IMPEDANCE
	in / µs	mm / µs	in / µs	mm / µs	Z
METALS					
Aluminum 1100-0	0.248	6.229	0.121	3.073	17.1
Aluminum 2024-T4	0.251	6.375	0.124	3.150	17.6
Aluminum 6061-T6	0.248	6.299	0.124	3.150	17.0
Beryllium	0.507	12.878	0.350	8.890	23.5
Brass (70% Cu - 30% Zn)	0.172	4.369	0.083	2.108	37.1
Bronze (Phosphor 5%)	0.139	3.531	0.088	2.235	31.3
Copper (CP)	0.187	4.750	0.092	2.337	42.5
Gold	0.128	3.251	0.047	1.194	62.6
Hastelloy C	0.230	5.842	0.114	2.896	52.2
Hastelloy X	0.228	5.791	0.108	2.743	47.7
Inconel (Wrought)	0.308	7.823	0.119	3.023	64.5
Iron (Cast), Various Alloys	0.138-0.220	3.505-5.588	0.087-0.126	2.210-3.200	24.3-41.2
Lead (94Pb-6Sb)	0.085	2.159	0.032	0.813	23.5
Magnesium, Various Alloys	0.215-0.228	5.461-5.791	0.119-0.122	3.023-3.099	9.24-10.6
Monel	0.211	5.359	0.107	2.718	47.2
Nickel (CP)	0.222	5.639	0.117	2.972	50.0
Silver (0.99 Fine)	0.142	3.607	0.063	1.600	37.8
Steel 1020	0.232	5.893	0.128	3.251	45.4
Steel 4340	0.230	5.842	0.128	3.251	45.6
Steel , CRES 300 Series	0.221-0.226	5.613-5.740	0.120-.0123	3.048-3.124	44.6-45.4
Steel , CRES 400 Series	0.212-0.237	5.385-6.020	0.118-0.132	2.997-3.353	41.3-46.3
Titanium, 6Al-4V	0.243	6.172	0.130	3.302	27.3
Zircaloy	0.186	4.724	0.093	2.362	44.2
Zirconium	0.183	4.648	0.089	2.261	30.1
POLYMERS					
Acrylics	0.105-0.109	2.667-2.769	0.044-0.057	1.118-1.448	3.15-3.51
Cellulose Acetate	0.096	2.438	No Shear Component		3.19
Nylon	0.016	2.692	No Shear Component		-
Phenolic	0.056	1.422	No Shear Component		1.90
Polycarbonate	0.090	2.286	No Shear Component		2.71
Polyethylene	0.105	2.667	No Shear Component		2.94
Polystyrene	0.094	2.388	0.045	1.143	2.52
Rubber (natural)	0.061	1.549	No Shear Component		1.74
Rubber (Carbon Filter)	0.066	1.676	No Shear Component		-
Rubber (Silicone)	0.037	0.94	No Shear Component		1.40
Teflon	0.054	1.372	0.250	6.35	3.00

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ACOUSTICAL PROPERTIES OF COMMON MATERIALS					
MATERIAL	Ultrasonic Velocity				
	LONGITUDINAL WAVE		SHEAR WAVE		IMPEDANCE
	in / µs	mm / µs	in / µs	mm / µs	Z
MISCELLANEOUS SOLIDS					
Alumina (Al2O3)	0.427	10.846	No Shear Component		43.1
Concrete	0.167-0.207	4.242-5.258	0.135	3.429	12.4
Glass (Plate)	0.227	5.766	No Shear Component		14.5
Granite	0.156	3.962	0.076	1.93	10.9
Ice (-16 °C)	0.150	3.81	No Shear Component		3.60
Quartz, Natural	0.226	5.74	0.139	3.531	15.2
Quartz, Fused	0.219	5.563	0.302	7.671	14.5
Sapphire	0.469	11.913	0.157	3.988	47.2
Tungsten Carbide	0.262	6.655	No Shear Component		67.6
COMPOSITE MATERIALS					
Fiberglass (50 v/o)	0.124	3.15	0.068	1.727	6.04
Graphite/Epoxy (60 v/o)	0.117	2.972	0.077	1.956	4.65
Boron/Epoxy (50 v/o)	0.131	3.327	0.072	1.829	6.38
LIQUIDS					
Ethylene Glycol	0.064	1.626	No Shear Component		1.80
Glycerin	0.076	1.93	No Shear Component		2.42
Oil (SAE 20)	0.069	1.753	No Shear Component		1.51
Water (20 °C)	0.058	1.473	No Shear Component		1.48
LIQUIDS					
Air (20°C)	0.014	0.356	No Shear Component		0.00041
Nitrogen (20°C)	0.014	0.356	No Shear Component		0.00041
Oxygen (20°C)	0.013	0.33	No Shear Component		0.00043

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BEAM APERTURE ANGLE

$$\sin \alpha = 1{,}22 \frac{\lambda}{D}$$

FRESNEL ZONE

$$N = \frac{D^2}{4\lambda}$$

ACOUSTIC IMPEDANCE

$Z = \rho c$

ρ: material density
c: sound celerity in meter per second (m/s)

TRANSMISSION COEFFICIENT

Amplitude $\frac{Z_2 - Z_1}{Z_1 + Z_2}$

Energy $\frac{(Z_2 - Z_1)^2}{(Z_1 + Z_2)^2}$

REFLEXION COEFFICIENT

$\frac{2 Z_2}{Z_1 + Z_2}$

$\frac{4 Z_1 Z_2}{(Z_1 + Z_2)^2}$

TRANSDUCERS

Each of our transducer is delivered with its EN12668-2 certificate

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CONVENTIONAL TRANSDUCERS

Aeronautics

Railway

Contact

Immersion

TOFD

Specific

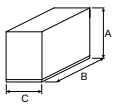
AMW SERIES

Standard angle beam probes

AERONAUTICS MINIATURE EDITION

AMW - 4x6

A	10.8 mm
B	10 mm
C	8 mm



Technical specifications

- Shear wave transducer
- Microdot back or top connector upon request
- Very small footprint
- High resolution, sensivity and repetability

Main applications

- Contact inspection
- Inspection of parts with complex geometry
- Parts up to 6 mm thick
- Aircraft component inspection
- Detection of flaws in profile changing surfaces

REFERENCE	REFRACTED ANGLE in °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
AMW38-2.25	38	2.25	4x6	Microdot
AMW45-2.25	45			
AMW60-2.25	60			
AMW70-2.25	70			
AMW38-5	38	5		
AMW45-5	45			
AMW60-5	60			
AMW70-5	70			
AMW38-7.5	38	7.5		
AMW45-7.5	45			
AMW60-7.5	60			
AMW70-7.5	70			
AMW38-10	38	10		
AMW45-10	45			
AMW60-10	60			
AMW70-10	70			

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SMW SERIES

SMW - 6x6

Standard angle beam probes

SUBMINIATURE EDITION

Technical specifications

- Shear wave transducer
- Wear resistant thermoplastic wedges
- Microdot back or top connector upon request
- High resolution, sensivity and repetability

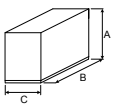
Main applications

- Contact inspection
- Inspection of parts with complex geometry
- Parts up to 8 mm thick
- Weld inspection
- Detection of flaws in profile changing surfaces

REFERENCE	REFRACTED ANGLE in °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
SMW35-5	35	5	6x6	Microdot
SMW38-5	38			
SMW45-5	45			
SMW60-5	60			
SMW70-5	70			
SMW35-7.5	35	7.5		
SMW38-7.5	38			
SMW45-7.5	45			
SMW60-7.5	60			
SMW70-7.5	70			
SMW35-10	35	10		
SMW38-10	38			
SMW45-10	45			
SMW60-10	60			
SMW70-10	70			

SMW60-10

A	16 mm
B	25 mm
C	12 mm



SMW45-5

LG SERIES

Delay Line Probes

Technical specifications

- Longitudinal wave transducer
- Microdot axial connector
- Contact or with a water film scanning
- Interchangeable protective wedges
- Shielding adapted to automated inspection
- Bandwidth ≥ 75%
- LG-10 probes are delivered with anti-wear rings

High temperature delay line upon request up to 250 °C

Main applications

- Inspection of composite parts, carbon or epoxy glass fiber
- Characterization of flaws in metal parts
- Flaws detection and sizing near surface at a 0.25 mm in-depth
- Density measurements

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	DELAY LINE LW 0°	CONNECTOR
LG10-3	10	3	S10 (10 mm)	Microdot
LG15-3	15			
LG3-6	3	6		
LG5-6	5			
LG8-6	8			
LG10-6	10			
LG15-6	15			
LG3-10	3	10	SG13 (13 mm)	
LG5-10	5			
LG8-10	8			
LG10-10	10			
LG3-13	3	13		
LG5-13	5			
LG10-13	10			
LG15-13	15			
LG3-15	3	15	SH13 (13 mm)	
LG5-15	5			
LG8-15	8			

S10 DELAY LINE

TPG Wedge

LP Wedge

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LG WEDGES SERIES

LG shear wave wedges

REFERENCE	REFRACTED ANGLE IN °	ADAPTABLE PROBES
INTERCHANGEABLE SCREWED WEDGES		
TS38	38	LG-3 / LG-6
TS45	45	
TS60	60	
TS70	70	
TSG38	38	LG-10 / LG-13
TSG45	45	
TSG60	60	
TSG70	70	
TSH38	38	LG-15
TSH45	45	
TSH60	60	
TSH70	70	
INTERCHANGEABLE SLOT IN WEDGES		
TP38	38	LG-3 / LG-6
TP45	45	
TP60	60	
TP70	70	
TPG38	38	LG-10 / LG-13
TPG45	45	
TPG60	60	
TPG70	70	
TPH38	38	LG-15
TPH45	45	
TPH60	60	
TPH70	70	

LG longitudinal wave wedges

REFERENCE	REFRACTED ANGLE IN °	ADAPTABLE PROBES
INTERCHANGEABLE SCREWED WEDGES		
LS38	38	LG-3 / LG-6
LS45	45	
LS60	60	
LS70	70	
LSG38	38	LG-10 / LG-13
LSG45	45	
LSG60	60	
LSG70	70	
LSH38	38	LG-15
LSH45	45	
LSH60	60	
LSH70	70	
INTERCHANGEABLE SLOT IN WEDGES		
LP38	38	LG-3 / LG-6
LP45	45	
LP60	60	
LP70	70	
LPG38	38	LG-10 / LG-13
LPG45	45	
LPG60	60	
LPG70	70	
LPH38	38	LG-15
LPH45	45	
LPH60	60	
LPH70	70	

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CONVENTIONAL TRANSDUCERS

Aeronautics

Railway

Contact

Immersion

TOFD

Specific

RAIL INSPECTION: PROBES AND TOOLS

Shear and longitudinal waves

TRIPLE MANUAL - TRIPLE STICK

SNCF APPROVED

"TRIPLE MANUAL" PROBE

The purpose of this probe is to ensure monitoring, evolution and characterization of flaws in manual mode. The probe is made up of 3 independent, commutable elements which can be switched with a 3 way-switch:

- Shear waves 38°, frequency 4 MHz
- Shear waves 68°, frequency 4 MHz
- Longitudinal waves 0°, frequency 4 MHz

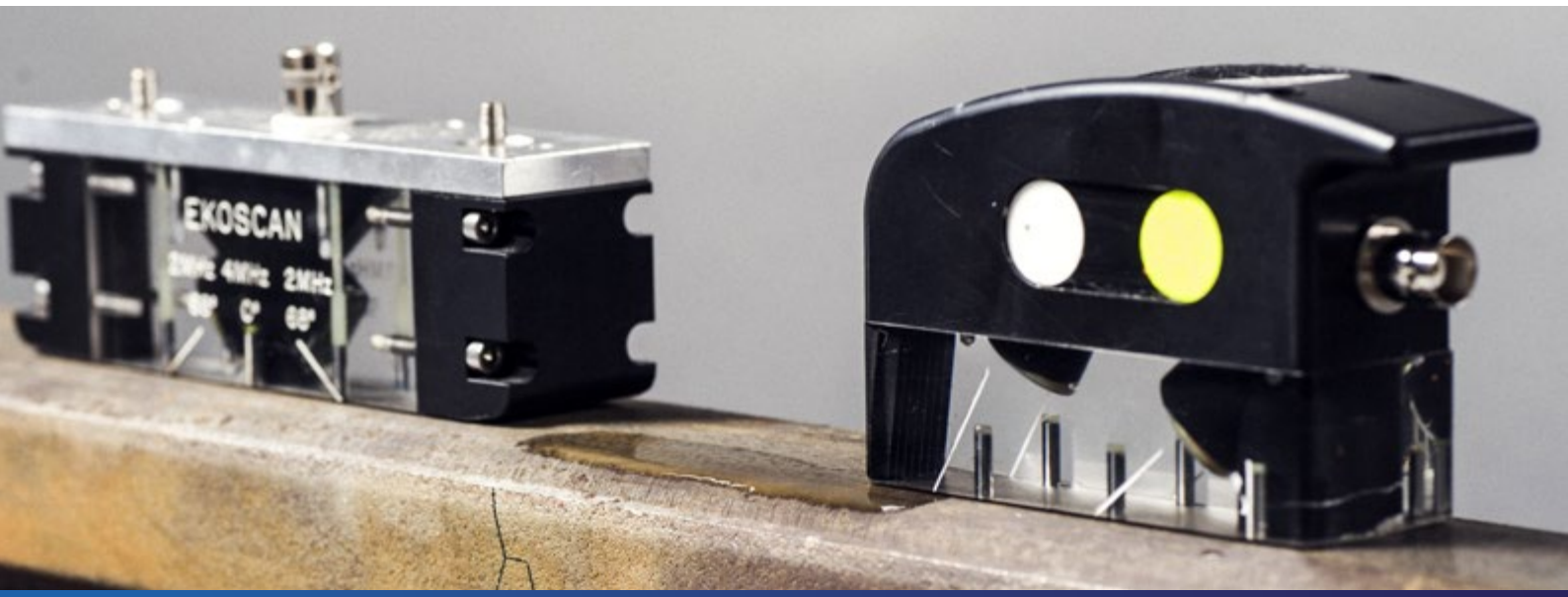
Ref:
- EKTM

"TRIPLE STICK" PROBE

A probe composed of three ceramic piezoelectric elements is used for the detection of transverse cracks and rail head detachment. The three piezoelectric elements are balanced in sensitivity to allow simplified calibration (amplification and sound circuit). This new generation "triple stick" transducer is equipped with an anti-wear pad in the front and back sides of the wedge. Triple stick probe is used with EKOSCAN inspection stick for a quick and comfortable inspection.

- Shear waves 68°, frequency 2 MHz
- Longitudinal wave 0°, frequency 4 MHz
- One unique connector for the 3 crystals

Ref:
- EKTC



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TRIPLE STICK PROBE
MOUNTED ON INSPECTION STICK

SNCF
APPROVED

RAIL INSPECTION: INSPECTION STICK

Inspection stick used in rail flaw detection

SNCF APPROVED

Magnetic testing stick with an adjusted telescopic handle. For more comfort at work this telescopic handle can be adjusted to the user's height.

An aluminum carriage equipped with 2 magnetic wheels prevents derailment of the stick. An adjustable water inlet minimizes water flow. This probe is maintained in place thanks to 2 retaining springs.

Ref:

- EKORAIL3
- SAC

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LOCOMOTIVE MOUNTED PROBES

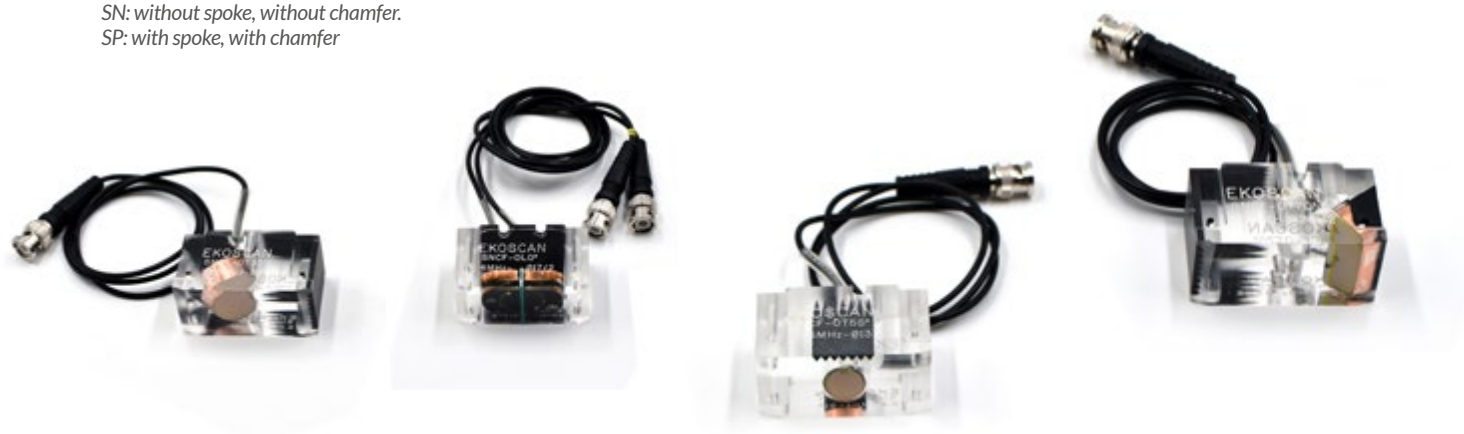
Shear and longitudinal waves

Probes are mounted on wagons for automated conventional or TOFD railway inspection

REFERENCE	REFRACTED ANGLE IN°	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
SHEAR WAVE TRANSDUCERS				
V6-ERC-OT35-2.25-D20-SN	35	2.25	Ø20	BNC
V6-ERC-OT35-2.25-D20-SP				
V6-ERC-OT55-2.25-D13-SN	55		Ø13	
V6-ERC-OT55-2.25-D13-SP				
V6-ERC-OT70-2.25-25X12-SN	70		25x12	
V6-ERC-OT70-2.25-25X12-SP				
V6-ERC-OT70/5D-2.25-20X15-SN			20x15	
V6-ERC-OT70/5D-2.25-20X15-SP				
V6-ERC-OT70/5G-2.25-20X15-SN				
V6-ERC-OT70/5G-2.25-20X15-SP				
LONGITUDINAL WAVE TRANSDUCERS				
V6-ERD-OL0-2.25-D17/2-SN	0	2.25	Ø17/2	BNC
V6-ERD-OL0-2.25-D17/2-SP				
V6-ERD-OL0-4-D17/2-SN		4		
V6-ERD-OL0-4-D17/2-SP				
V6-ERD-OL55/TOFD-2.25-4X20-SN	55	2.25	4x20	
V6-ERD-OL55/TOFD-2.25-4X20-SP				
SPI-ERC-OT70/5D-2.25-20X15-MA	70		20x15	
SPI-ERC-OT70/5G-2.25-20X15-MA				

REFERENCE	REFRACTED ANGLE IN°	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
SHEAR WAVE TRANSDUCERS				
V3-ERC-OT70D-2.25-15X20-SN	70	2.25	15x20	Lemo00 D
V3-ERC-OT70G-2.25-15X20-SN				Lemo00 G
LONGITUDINAL WAVE TRANSDUCERS				
V3-ERD-OL0-2.25-D17/2-SN	0	2.25	Ø17/2	Lemo00

SN: without spoke, without chamfer.
SP: with spoke, with chamfer



RAIL INSPECTION: EKORAIL4

EKORAIL4 has been designed to allow the simultaneous inspection of both rails. Pushed along the track by a qualified SNCF operator, this mechanical system uses two SNCF approved EKTC transducers, equipped with three active elements (68 °, 0 °, 68 °). It allows th detection of vertical and horizontal cracks. The information collected is displayed on one unique screen (right rail / left rail) for real-time visualization.

The EKOSCAN EKORAIL4 has been designed for easyf use on any type of tracks. Its maintenance is quick and simple. A smart system allows the EKORAIL4 to be folded for easy transportation. The EKORAIL4 is also compatible with metric lines and can fit in an utility vehicle.

The ultrasonic boards are protected by a holder from weather conditions (sun, rain...). The EKORAIL4 is supplied with two SNCF approved EKTC transducers. A wheel encoder allows the precise localization of anomalies detected along the tracks.

The EKORAIL4 is also available without any UT board holder but with a bluetooth connected device allowing an overall weight reduction of 3 kg.

Ref:

- EKORAIL4

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CONVENTIONAL TRANSDUCERS

Aeronautics

Railway

Contact

Immersion

TOFD

Specific

MW SERIES

MW - 8x9

Shear wave angle beam transducers

MINIATURE EDITION

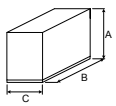
Technical specifications

- Shear wave transducer
- High-energy piezoelectric element
- Lemo00 axial or top output connectors upon request
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- AVG diagrams available upon request
- Wear resistant probes

Main applications

- Contact inspection
- Inspection of parts with complex geometry
- 8 mm to 50 mm thick parts
- Used for production and maintenance

REFERENCE	REFRACTED ANGLE in °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
SHEAR WAVE ANGLE BEAM TRANSDUCERS				
MW35-4	35	4	8x9	Lemo00-Axial
MW38-4	38			
MW45-4	45			
MW60-4	60			
MW70-4	70			
MW35-4 TC	35	4	8x9	Lemo00-Top connector
MW38-4 TC	38			
MW45-4 TC	45			
MW60-4 TC	60			
MW70-4 TC	70			
SURFACE WAVE TRANSDUCER				
MW90-4	90	4	8x9	Lemo00-Axial

A	22 mm	
B	28 mm	
C	16,7 mm	

MW45-4

MW60-4

MW70-4

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MW PC SERIES

MW PC - 8x9

Shear wave angle beam transducers

PIEZOCOMPOSITE MINIATURE EDITION

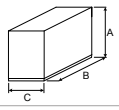
Technical specifications

- Shear wave transducer
- High-energy piezocomposite element
- Lemo00 axial or top output connectors upon request
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- AVG diagrams available upon request
- Wear resistant probes

Main applications

- Contact inspection
- Inspection of parts with complex geometry
- 8 mm to 50 mm thick parts
- Used for production and maintenance

REFERENCE	REFRACTED ANGLE in °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
MW35-2 PC	35	2	8x9	Lemo00-Axial
MW38-2 PC	38			
MW45-2 PC	45			
MW60-2 PC	60			
MW70-2 PC	70			
MW35-2 PC TC	35			Lemo00-Top connector
MW38-2 PC TC	38			
MW45-2 PC TC	45			
MW60-2 PC TC	60			
MW70-2 PC TC	70			

A	22 mm	
B	28 mm	
C	16,7 mm	

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MIW PC SERIES

Shear waves angle beam transducers

PIEZOCOMPOSITE MINIATURE EDITION

MIW PC

14x16 or 14x14

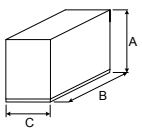
Technical specifications

- Shear wave transducer
- High-energy piezocomposite element
- Lemo00 axial or top outputconnectors upon request
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- AVG diagrams available upon request
- Wear resistant probes

Main applications

- Contact inspection
- Inspection of parts with complex geometry
- 8 mm to 50 mm thick parts
- Used for production and maintenance

REFERENCE	REFRACTED ANGLE iN °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
MIW35-2 14x14 PC	35	2	14x14	Lemo00-Axial
MIW38-2 14x14 PC	38			
MIW45-2 14x14 PC	45			
MIW60-2 14x14 PC	60			
MIW70-2 14x14 PC	70			
MIW35-4 14X14 PC	35	4		
MIW38-4 14X14 PC	38			
MIW45-4 14x14 PC	45			
MIW60-4 14x14 PC	60			
MIW70-4 14X14 PC	70			
MIW35-2 14X14 PC TC	35	2	14x14	Lemo00-Top connector
MIW38-2 14X14 PC TC	38			
MIW45-2 14X14 PC TC	45			
MIW60-2 14X14 PC TC	60			
MIW70-2 14X14 PC TC	70			
MIW35-4 14X14 PC TC	35	4		
MIW38-4 14X14 PC TC	38			
MIW45-4 14X14 PC TC	45			
MIW60-4 14X14 PC TC	60			
MIW70-4 14X14 PC TC	70			

MIW 14x16	A	30 mm	
	B	43 mm	
	C	21 mm	
MIW 14x14	A	30 mm	
	B	38 mm	
	C	20 mm	

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REFERENCE	REFRACTED ANGLE iN °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
MIW35-2 14x16 PC	35	2	14x16	Lemo00-Axial
MIW38-2 14x16 PC	38			
MIW45-2 14x16 PC	45			
MIW60-2 14x16 PC	60			
MIW70-2 14x16 PC	70			
MIW35-4 14X16 PC	35	4		
MIW38-4 14X16 PC	38			
MIW45-4 14x16 PC	45			
MIW60-4 14X16 PC	60			
MIW70-4 14X16 PC	70			
MIW35-2 14X16 PC TC	35	2	14x16	Lemo00-Top connector
MIW38-2 14X16 PC TC	38			
MIW45-2 14X16 PC TC	45			
MIW60-2 14X16 PC TC	60			
MIW70-2 14X16 PC TC	70			
MIW35-4 14X16 PC TC	35	4		
MIW38-4 14X16 PC TC	38			
MIW45-4 14X16 PC TC	45			
MIW60-4 14X16 PC TC	60			
MIW70-4 14X16 PC TC	70			

MIW SERIES

Shear waves angle beam transducers

MINIATURE EDITION

MIW
14x16 or 14x14

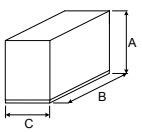
Technical specifications

- Shear wave transducer
- High-energy piezoelectric element
- Lemo00 axial or top output connectors upon request
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- AVG diagrams available upon request
- Wear resistant probes

Main applications

- Contact inspection
- Inspection of parts with complex geometry
- 8 mm to 50 mm thick parts
- Used for production and maintenance

REFERENCE	REFRACTED ANGLE iN °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
MIW35-4 14x14	35	4	14x14	Lemo00-Axial
MIW38-4 14x14	38			
MIW45-4 14x14	45			
MIW60-4 14x14	60			
MIW70-4 14x14	70			
MIW35-4 14X14 TC	35	4	14x14	Lemo00-Top connector
MIW38-4 14X14 TC	38			
MIW45-4 14X14 TC	45			
MIW60-4 14X14 TC	60			
MIW70-4 14X14 TC	70			
MIW35-4 14x16	35	4	14x16	Lemo00-Axial
MIW38-4 14x16	38			
MIW45-4 14x16	45			
MIW60-4 14x16	60			
MIW70-4 14x16	70			
MIW35-4 14X16 TC	35	4	14x16	Lemo00-Top connector
MIW38-4 14X16 TC	38			
MIW45-4 14X16 TC	45			
MIW60-4 14X16 TC	60			
MIW70-4 14X16 TC	70			

MIW 14x16	A	30 mm	
	B	43 mm	
	C	21 mm	
MIW 14x14	A	30 mm	
	B	38 mm	
	C	20 mm	

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W SERIES

W - 20x22

Shear waves angle beam transducers

STANDARD EDITION

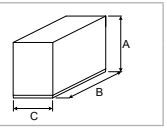
Technical specifications

- Shear wave transducer
- High-energy piezoelectric element
- Lemo1 back output connectors
- AVG diagrams upon request
- High resolution, sensivity and repetability
- AVG diagrams available upon request
- Wear resistant probes

Main applications

- Contact inspection
- Inspection of parts with complex geometry
- Parts above 50 mm thick
- Used for production and maintenance

A	45 mm
B	54 mm
C	32 mm



REFERENCE	REFRACTED ANGLE in °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
W35-1	35	1	20x22	Lemo01-Axial
W38-1	38			
W45-1	45			
W60-1	60			
W70-1	70			
W35-2	35	2		
W38-2	38			
W45-2	45			
W60-2	60			
W70-2	70			
W35-4	35	4		
W38-4	38			
W45-4	45			
W60-4	60			
W70-4	70			
W35-1 TC	35	1	20x22	Lemo01-Top connector
W38-1 TC	38			
W45-1 TC	45			
W60-1 TC	60			
W70-1 TC	70			
W35-2 TC	35	2		
W38-2 TC	38			
W45-2 TC	45			
W60-2 TC	60			
W70-2 TC	70			
W35-4 TC	35	4		
W38-4 TC	38			
W45-4 TC	45			
W60-4 TC	60			
W70-4 TC	70			

EK-H SERIES

Longitudinal waves 0°, hard wear plate

STANDARD OR MINIATURE EDITION

Technical specifications

- Longitudinal wave transducer
- High energy piezocomposite element
- Lateral output connector
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- AVG diagrams upon request
- Abrasion-resistant front part

Main applications

- Contact inspection of flat parts (sheet of metal)
- Inspection of rough or machined surfaces
- Used for production and maintenance
- Smooth or rough material
- Inspection of large forging parts

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
EK1H10	1	10	Lemo00
EK2H10	2		
EK4H10	4		
EK5H10	5		
EK1H20	1	20	
EK2H20	2		
EK4H20	4		
EK5H20	5		
EK1H24	1	24	Lemo01
EK2H24	2		
EK4H24	4		

EK4H24

EK4H24

EK4H10

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EK-M SERIES

Longitudinal waves 0°, membrane

STANDARD OR MINIATURE EDITION

Technical specifications

- Longitudinal wave transducer
- High energy piezocomposite element
- Lemo00 lateral output connector and Lemo01
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- AVG diagrams upon request
- Protection membrane available

Main applications

- Contact inspection of flat pieces (sheet of metal)
- Inspection of rough or machined surfaces
- Used for production and maintenance
- Smooth or rough material
- Inspection of large forging parts

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR	MEMBRANE
EK1M10	1	10	Lemo00	MEM10
EK2M10	2			
EK4M10	4			
EK5M10	5			
EK1M20	1	20		MEM20
EK2M20	2			
EK4M20	4			
EK5M20	5			
EK1M24	1	24	Lemo01	MEM24
EK2M24	2			
EK4M24	4			

EK4M10

EK4M24

MEM10

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EKD SERIES

Longitudinal waves - Dual crystal

STANDARD EDITION

Technical specifications

- Longitudinal wave transducers
- Dual element probes
- Semicircular or rectangular elements
- Low interference between emission and reception
- Lemo00 connector
- Shielding adapted to automated inspection
- High resolution, sensivity and repetability

Main applications

- Can be used for inspection according to EN 10160
- Detection of small or/and near surface flaws
- Corrosion detection on pipes
- Inspection of stainless steel cladding on ferritic steel
- Inspection of metal sheet and thin forged parts

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	FOCAL DEPTH mm	CONNECTOR
EKD1-21/2	1	Ø21/2	10	Lemo00
EKD2-7/18F15	2	7x18	15	
EKD2-7/18 0°			20	
EKD2-10		3.5x10	10	
EKD2-20		Ø20/2	20	
EKD4-6/20 F12	4	6x20	12	
EKD4-6/20 F25			25	
EKD4-10		3.5x10	10	
EKD4-20		Ø20/2	20	
EKD5-10	5	3.5x10	10	

EKD2-7/18F15

EKD4-10

SD-SMD SERIES

Longitudinal waves - Dual crystal

MINIATURE EDITION

Technical specifications

- Longitudinal wave transducers
- Dual element probes
- Semicircular or rectangular elements
- Low interference between emission and reception
- Microdot connectors
- Shielding adapted to automated inspection
- High resolution, sensivity and repetability

Main applications

- Can be used for inspection according to EN 10160
- Detection of small or/and near surface flaws
- Corrosion detection on pipes
- Inspection of stainless steel cladding on ferritic steel
- Inspection of metal sheet and thin forged parts

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	FOCAL DEPTH mm	CONNECTOR
SD-5	5	Ø5/2	6	Microdot
SD-10	10			
SMD4F8	4	Ø10/2	8	
SMD5F8	5	Ø5/2		
SMD5F3			3	
SMD10F3	10			

SD10

SMD10F3

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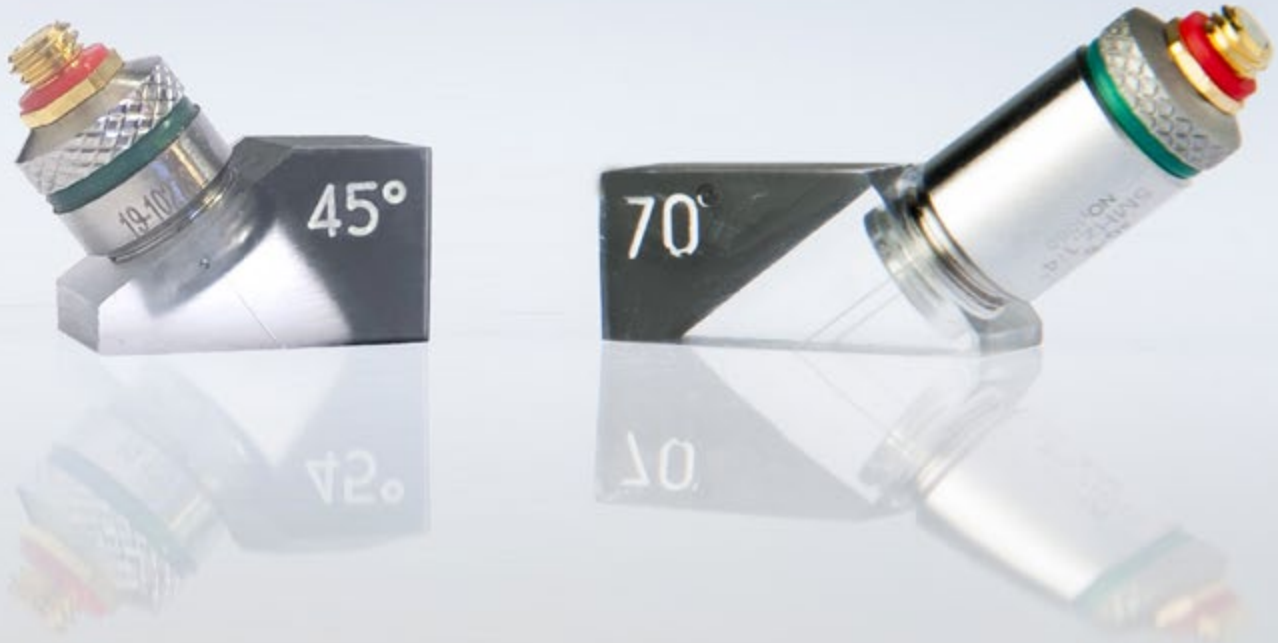

45°
70°

SWQ SERIES

Longitudinal waves transducers with interchangeable wedges

SUBMINIATURE EDITION

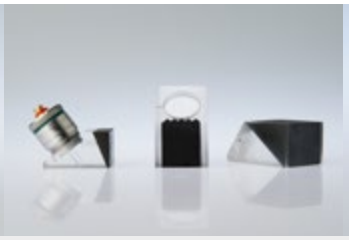
Technical specifications

- Longitudinal wave transducers
- Microdot axial connector
- Probes can be screwed on specific angle wedges to generate shear and longitudinal waves
- Custom made wedges available

Main applications

- Inspection of parts with complex geometry
- 6 mm to 15 mm thick parts

SWQ5-6 + EKT70



SWQ7.5-10 short + EKTG60

SWQ5-10

EKTH 45-60-70

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	WEDGE FOR SHEAR WAVES INSPECTION	WEDGE FOR LONGITUDINAL WAVES INSPECTION
SWQ2.25-6	2.25	6	EKT Series	EKL Series
SWQ3.5-6	3.5			
SWQ5-6	5			
SWQ7.5-6	7.5			
SWQ10-6	10			
SWQ2.25-10	2.25	10	EKTG Series	EKLG Series
SWQ3.5-10	3.5			
SWQ5-10	5			
SWQ7.5-10	7.5			
SWQ10-10	10			
SWQ2.25-13	2.25	13	EKTH Series	EKLH Series
SWQ3.5-13	3.5			
SWQ5-13	5			
SWQ7.5-13	7.5			
SWQ10-13	10			

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SWQ WEDGES SERIES

EKT

SERIES		REFERENCE	REFRACTED ANGLE IN °	ADAPTABLE PROBES
EKT	Standard	EKT35	35	Interchangeable wedges for SWQ-6
		EKT38	38	
		EKT45	45	
		EKT60	60	
		EKT70	70	
		EKT90	90	
	Court	EKT35-C	35	
		EKT38-C	38	
		EKT45-C	45	
		EKT60-C	60	
		EKT70-C	70	
		EKT90-C	90	
EKTG		EKTG35	35	Interchangeable wedges for SWQ-10
		EKTG38	38	
		EKTG45	45	
		EKTG60	60	
		EKTG70	70	
EKTH		EKTH35	35	Interchangeable wedges for SWQ-13
		EKTH38	38	
		EKTH45	45	
		EKTH60	60	
		EKTH70	70	

EKL

SERIES	REFERENCE	REFRACTED ANGLE IN °	ADAPTABLE PROBES
EKL	EKL35	35	Interchangeable wedges for SWQ-6
	EKL38	38	
	EKL45	45	
	EKL60	60	
	EKL70	70	
EKLG	EKLG35	35	Interchangeable wedges for SWQ-10
	EKLG38	38	
	EKLG45	45	
	EKLG60	60	
	EKLG70	70	
EKLG	EKLH35	35	Interchangeable wedges for SWQ-13
	EKLH38	38	
	EKLH45	45	
	EKLH60	60	
	EKLH70	70	


2MHz 3°
4MHz 3°
DVP4
DVP2

VP AND DVP SERIES

Variable angle transducers

STANDARD OR MINIATURE EDITION

Technical specifications

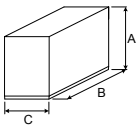
- Single or dual element probes
- Shear or longitudinal transducer depending on angle
- Ultrasonic beam angle can be modified manually
- High resolution, sensivity and repetability
- Interchangeable piezoelectric elements
- Probes which can be used up to 140 °C for uninterrupted operations
- Three faces of the probe can be used when inspecting
- Lemo00 connector

Main applications

- Contact control of variable profile parts (nozzles...)
- Standard inspections and expertise on welds during or after welding
- Austenitic steel inspections
- TOFD inspection of materials
- Inspections of surfaces using Lamb waves
- Development of ultrasonic inspection methods

EDITION	REFERENCE	TYPE	FREQUENCY MHz	CRYSTAL SIZE mm	ROOF ANGLE in °	CONNECTOR
MINIATURE	MVP1	Mono-element	1	8x9	-	Lemo00
	MVP2		2			
	MVP4		4			
	MDVP2-1	Bi-elements	2	3.5x10	1	
	MDVP2-3				3	
	MDVP4-1		4		1	
	MDVP4-3				3	
STANDARD	VP05	Mono-element	0.5	20x22	-	
	VP1		1			
	VP2		2			
	VP4		4			
	DVP2-3	Bi-elements	2	6x20	3	
	DVP4-3		4			

MVP/ MDVP	A	40 mm
	B	45 mm
	C	20 mm
DVP/VP	A	48 mm
	B	62 mm
	C	32 mm



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HIGH TEMPERATURE TRANSDUCER RANGE

Shear/Longitudinal wave transducers

HT EDITION

Technical characteristics

- High-energy piezoelectric element
- For temperatures up to **150 °C**
- Lemo00 output connectors
- Shielding adapted to automated control
- High resolution, sensivity and repetability
- Wear resistant probes

Main applications

- High temperature contact inspection
- Inspection of parts with complex geometry
- 8 mm to 50 mm thick parts
- Used for production and maintenance

REFERENCE	REFRACTED ANGLE in °	CRYSTAL SIZE mm	FREQUENCY MHz	CONNECTOR
SHEAR WAVE TRANSDUCERS				
MW45-4-HT	45	8x9	4	Lemo00
MW60-4-HT	60			
MW70-4-HT	70			
MIW45-4-HT 14x14	45	14x14		
MIW60-4-HT 14x14	60			
MIW70-4-HT 14x14	70			
MIW45-4-HT 14x16	45	14x16		
MIW60-4-HT 14x16	60			
MIW70-4-HT 14x16	70			
LONGITUDINAL WAVE TRANSDUCERS				
EKD4-10-HT	0	3.5x10	4	Lemo00
HT510			5	

Additional characteristics (high temperature applications, frequency, angle, piezo size, top connectors) upon request
Steel value, please contact us about other materials (aluminium, cast iron, stainless steel, plastic parts)

DL AND DLM SERIES

Longitudinal angle beam transducers

STANDARD OR MINIATURE EDITION

Technical specifications

- Longitudinal wave transducer
- Dual elementprobe
- Lemo00 back output connector
- Shielding adapted to automatic control
- High resolution, sensivity and repetability
- System of water irrigation upon request
- Wear resistant probes

Main applications

- Contact inspection
- Probes used for austenitic weld inspection in either automatic or manual mode
- Adapted or standard depth focusing
- Can be used up to 100 °C
- Creeping waves inspection

EDITION	REFERENCE	REFRACTED ANGLE IN °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
TRL TRANSDUCERS					
MINIATURE	DLM38-2 5x10	38	2	5x10	Lemo00
	DLM45-2 5x10	45			
	DLM60-2 5x10	60			
	DLM38-4 5x10	38	4		
	DLM45-4 5x10	45			
	DLM60-4 5x10	60			
	DLM38-2 6x13	38	2	6x13	
	DLM45-2 6x13	45			
	DLM60-2 6x13	60			
	DLM38-4 6x13	38	4		
	DLM45-4 6x13	45			
	DLM60-4 6x13	60			
STANDARD	DL38-2 10x22	38	2	10x22	
	DL45-2 10x22	45			
	DL60-2 10x22	60			
	DL38-2 15x25	38	2	15x25	
	DL45-2 15x25	45			
	DL60-2 15x25	60			
	DL38-4 15x25	38	4		
	DL45-4 15x25	45			
	DL60-4 15x25	60			
	DL38-2 20x34	38	2	20x34	
	DL45-2 20x34	45			
	DL60-2 20x34	60			
	DL38-4 20x34	38	4		
	DL45-4 20x34	45			
	DL60-4 20x34	60			

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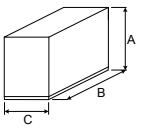
DL AND DLM SERIES

Creeping waves transducers

STANDARD OR MINIATURE EDITION

EDITION	REFERENCE	REFRACTED ANGLE in °	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
	CREEPING WAVE TRANSDUCERS				
MINIATURE	DLM70-2 5X10	70	2	5x10	Lemo00
	DLM80-2 5x10	80			
	DLM70-4 5x10	70	4		
	DLM80-4 5x10	80			
	DLM70-2 6x13	70	2	6x13	
	DLM80-2 6x13	80			
	DLM70-4 6x13	70	4		
	DLM80-4 6x13	80			
STANDARD	DL70-2 10x12	70	2	10x12	
	DL80-2 10x12	80			
	DL70-2 15x25	70	2	15x25	
	DL80-2 15x25	80			
	DL70-4 15x25	70	4		
	DL80-4 15x25	80			
	DL70-2 20x34	70	2	20x34	
	DL80-2 20x34	80			
	DL70-4 20x34	70	4		
	DL80-4 20x34	80			

DLM	A	30 mm	
	B	35 mm	
	C	20 mm	
DL	A	44 mm	
	B	55 mm	
	C	31 mm	

DL60-2 15x25

DLM60-2 5x10

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CONVENTIONAL TRANSDUCERS

Aeronautics

Railway

Contact

Immersion

TOFD

Specific

IM SERIES

Immersion transducers

Technical specifications

- Single probe
- Longitudinal wave transducer
- High energy piezocomposite element
- High resolution, sensivity and repetability
- Adapted to automated control
- Bandwidth ≥ 80%
- UHF connectors

Main applications

- Immersion control
- Inspection of rough or machined surfaces
- Inspection of a wide range of materials: forged or machined parts, composite etc.

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
IM-0.5-13	0.5	Ø13	UHF
IM-0.5-19		Ø19	
IM-0.5-25		Ø25	
IM-0.5-29		Ø29	
IM-0.5-38		Ø38	
IM-1-13	1	Ø13	
IM-1-19		Ø19	
IM-1-25		Ø25	
IM-1-29		Ø29	
IM-1-38		Ø38	
IM-2.25-6	2.25	Ø6	
IM-2.25-10		Ø10	
IM-2.25-13		Ø13	
IM-2.25-19		Ø19	
IM-2.25-25		Ø25	
IM-2.25-29		Ø29	
IM-2.25-38		Ø38	

REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	CONNECTOR
IM-3.5-6	3.5	Ø6	UHF
IM-3.5-10		Ø10	
IM-3.5-13		Ø13	
IM-3.5-19		Ø19	
IM-3.5-25		Ø25	
IM-5-6	5	Ø6	
IM-5-10		Ø10	
IM-5-13		Ø13	
IM-5-19		Ø19	
IM-5-25		Ø25	
IM-7.5-13	7.5	Ø13	
IM-7.5-19		Ø19	
IM-10-6	10	Ø6	
IM-10-10		Ø10	
IM-10-13		Ø13	
IM-15-6	15	Ø6	

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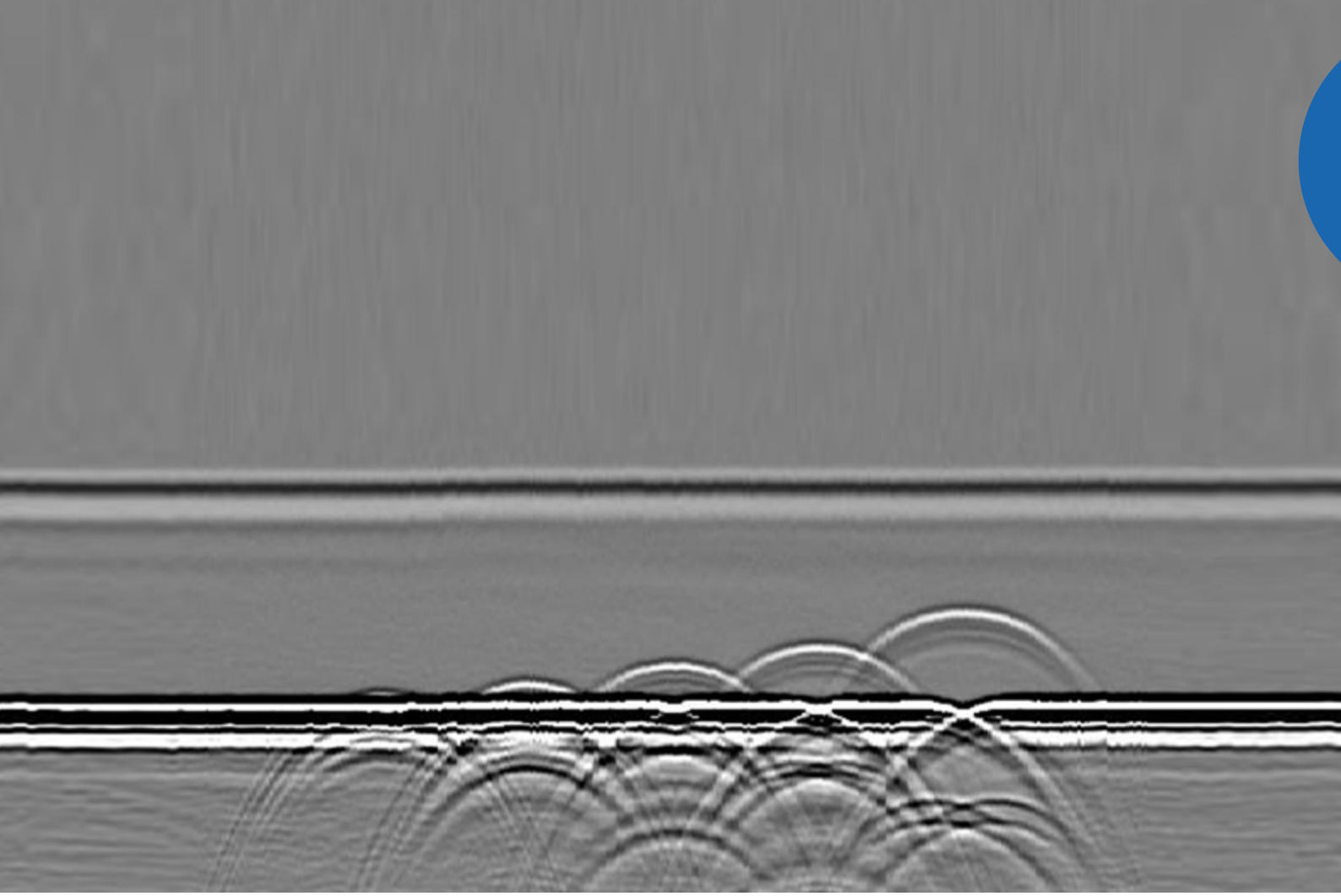

CONVENTIONAL TRANSDUCERS

Aeronautics

Railway

Contact

Immersion

TOFD

Specific

TOFD PROBES

TFDT edition

Technical characteristics

- Longitudinal wave transducers
- High-energy piezoelectric element
- High resolution thanks to a very short time pulse signal
- Lemo00 or Microdot using an upper output connector
- Bandwidth adapted to more than 80% TOFD inspections
- Wedges including 2 water inlets to allow good coupling

Main applications

- Weld inspections compliant to NF EN ISO 10863 (See the recommended b devices according to the nature of the material and to the part to be inspected)
- Probes and wedges compatible with every TOFD system

TFDT M10 & TFDT M12

COMPAS

TOFD KIT

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REFERENCE	FREQUENCY MHz	CRYSTAL SIZE mm	THREAD DIAMETER OF THE WEDGE mm	LONGITUDINAL WAVE WEDGES
TFDT5-3/M10	5	3	Ø 10	WT M10 WTI M10 WT M10 O
TFDT7.5-3/M10	7.5			
TFDT10-3/M10	10			
TFDT15-3/M10	15			
TFDT5-5/M10	5	5		
TFDT3.5-6/M10	3.5	6		
TFDT5-6/M10	5			
TFDT7.5-6/M10	7.5			
TFDT10-6/M10	10			
TFDT15-6/M10	15			
TFDT4-3/M12	4	3	Ø12	WT M12 WTI M12 WT M12 O
TFDT5-3/M12	5			
TFDT7.5-3/M12	7.5			
TFDT10-3/M12	10			
TFDT15-3/M12	15			
TFDT10-5/M12	10	5		
TFDT15-5/M12	15			
TFDT4-6/M12	4	6		
TFDT3.5-6/M12	3.5			
TFDT5-6/M12	5			
TFDT7.5-6/M12	7.5			
TFDT10-6/M12	10			
TFDT15-6/M12	15			
TFDT3.5-10/M12	3.5	10		
TFDT5-10/M12	5			
TFDT7.5-10/M12	7.5			
TFDT10-10/M12	10			
TFDT2.25-13/M20	2.25	13	Ø20	WT M20 WTI M20 WT M20 O
TFDT5-13/M20	5			
TFDT2.25-19/M25	2.25	19	Ø25	WT M25 WTI M25 WT M25 O
TFDT3.5-19/M25	3.5			
TFDT5-19/M25	5			

TOFD WEDGES WT SERIES

Technical characteristics

- Wedges suitable for TOFD welding control
- Wedges composed of two water inlets for an optimized coupling with the inspected piece

Main applications

- Compatible with TFDT probes
- Compatible with EKOSCAN scanners and compas

REFERENCE	REFRACTED ANGLE in °	ADAPTABLE PROBES	ADAPTABLE COMPAS
WT38/M10	38	TFDT/M10	COMPASM10
WT45/M10	45		
WT55/M10	55		
WT60/M10	60		
WT70/M10	70		
WT38/M12	38	TFDT/M12	COMPASM12
WT45/M12	45		
WT55/M12	55		
WT60/M12	60		
WT70/M12	70		
WT38/M20	38	TFDT/M20	-
WT45/M20	45		
WT55/M20	55		
WT60/M20	60		
WT70/M20	70		
WT38/M25	38	TFDT/M25	
WT45/M25	45		
WT55/M25	55		
WT60/M25	60		
WT70/M25	70		

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TOFD WEDGES WTI SERIES

Technical characteristics

- Stainless steel wedges suitable for TOFD welding control
- Wedges composed of two water inlets for an optimized coupling with the inspected piece

Main applications

- Compatible with TFDT probes
- Compatible with EKOSCAN scanners and compas

REFERENCE	REFRACTED ANGLE in °	ADAPTABLE PROBES	ADAPTABLE COMPAS
WTI35/M10	35	TFDT/M10	COMPASM10
WTI38/M10	38		
WTI45/M10	45		
WTI55/M10	55		
WTI60/M10	60		
WTI70/M10	70		
WTI35/M12	35	TFDT/M12	COMPASM12
WTI38/M12	38		
WTI45/M12	45		
WTI55/M12	55		
WTI60/M12	60		
WTI70/M12	70		

TOFD WEDGES WT/O SERIES

Technical characteristics

- Wedges suitable for TOFD welding control
- Wedges composed of two water inlets for an optimized coupling with the inspected piece

Main applications

- Compatible with TFDT probes
- Compatible with all scanners on the market.

REFERENCE	REFRACTED ANGLE in °	ADAPTABLE PROBES
WTI35/M10/O	35	TFDT/M10
WTI38/M10/O	38	
WTI45/M10/O	45	
WTI55/M10/O	55	
WTI60/M10/O	60	
WTI70/M10/O	70	
WTI35/M12/O	35	TFDT/M12
WTI38/M12/O	38	
WTI45/M12/O	45	
WTI55/M12/O	55	
WTI60/M12/O	60	
WTI70/M12/O	70	

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TOFD PROBES

F-SCAN edition

Technical characteristics

- Longitudinal wave transducers
- High-energy piezoelectric element
- High resolution due to a very short time pulse signal
- Bandwidth adapted to more than 80% TOFD inspections
- Welds thicker than 6 mm
- Wear resistant wedges
- Ceramic size is defined in order to maximize the beam aperture within the inspection plan

Main applications

Weld inspections compliant to NF EN ISO 10863 (See recommended devices according to the nature of the material and to the part to be inspected)

REFERENCE	FREQUENCY MHz	REFRACTED ANGLE in °	CRYSTAL SIZE mm	BANDWIDTH	CONNECTOR
F-SCAN4	4	55	4x8	>80%	Lemo00
F-SCAN5	5				
F-SCAN7.5	7.5			>100%	
F-SCAN10	10				

CONVENTIONAL TRANSDUCERS

Aeronautics

Railway

Contact

Immersion

TOFD

Specific

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SPECIFIC PROBES

In order to always fit your needs, EKOSCAN can manufacture all types of UT transducers, either conventional or Phased Array.

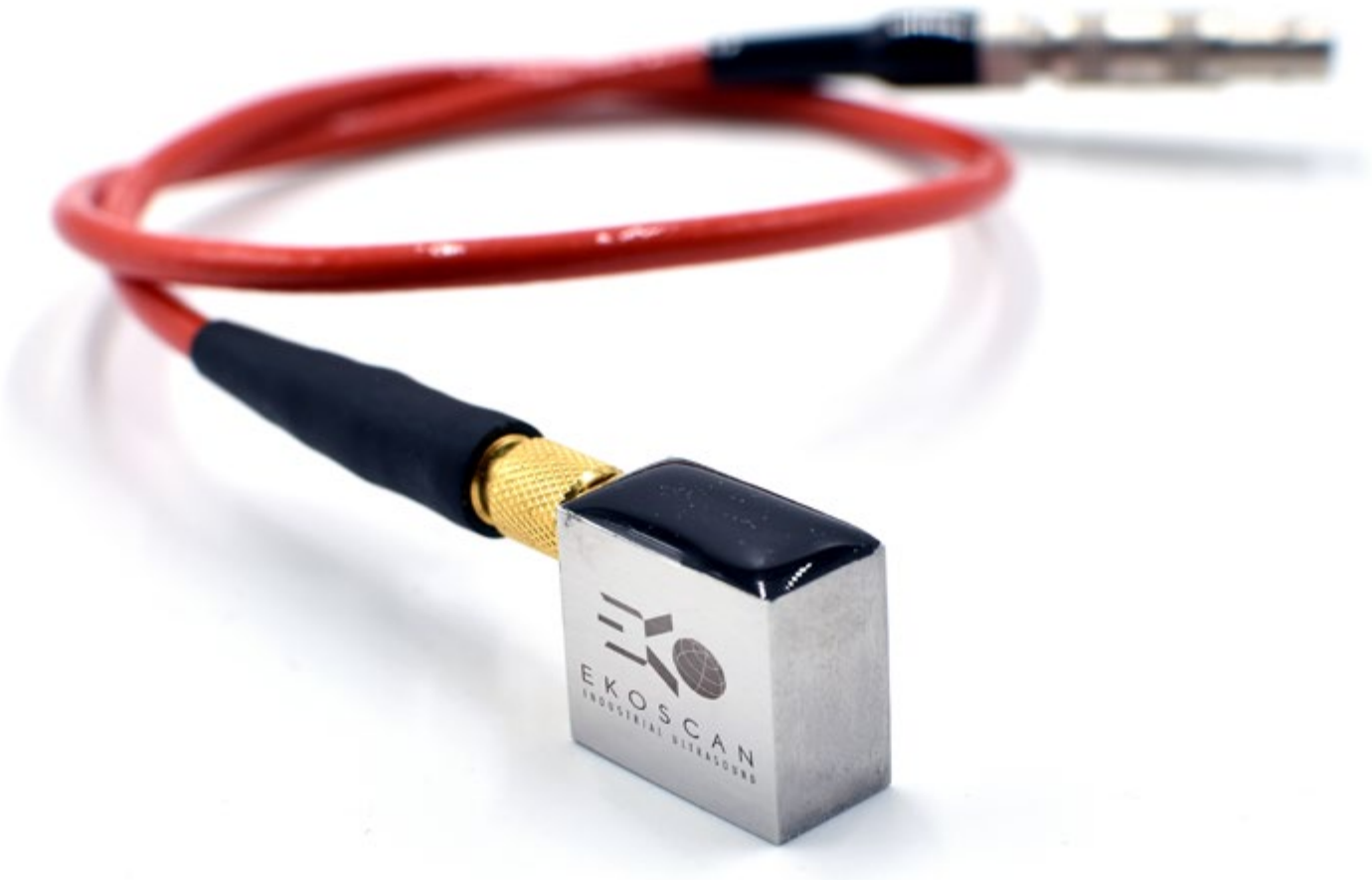
As an ISO 9001: 2015 certified company, EKOSCAN is extremely careful about material selection and manufacturing processes. Our probes guarantee our customers the benefits of the latest innovations regarding piezocomposite, backing, impedance adaptation layer, etc.

Specific probes for hostile environment: high temperature, high pressure, corrosive environment, etc.

Specific probes designed to fit your specific application: optimization of every parameter to guarantee you the best detection.

All our custom and specific probes are in compliance with EN 12 668-2 standards

You can now customize your Linear Phased Array Probes online. See instructions on page 127



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PROBES

EK10-11-12

DLA & DMA

EK FX

EK EX-NF

HP

Sapphire

EK10-11-12 & IDC

High temperature wedge

EK 10 - 11 - 12 - 13 PROBES

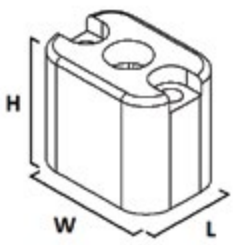
Description

- Probes are designed to have a low profile for area with restricted access
- Acoustic adaptation to water or Rexolite®
- Each probe is delivered with its EN 18563-2 certificate
- IPEX and HYPERTRONIX connectors are available with 3 m cable or any other length upon request

Typical applications

- Manual or automated inspection
- Detection of flaws and sizing

REFERENCE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm	EXTERNAL DIMENSIONS		
					L	W	H
LINEAR PROBES							
EK10-LA2.25/16	2.25	16	0.6	10	16	23	20
EK10-LA3.5/16	3.5		0.6	10			
EK10-LA5/16	5		0.6	10			
EK10-LA5/32	5	32	0.3	8			
EK10-LA7.5/32	7.5		0.3	7			
EK10-LA10/32	10		0.3	7			
EK11-LA2.25/32	2.25	32	0.6	10	25		
EK11-LA5/32	5		0.6	10			
EK11-LA5/64	5	64	0.3	8			
EK11-LA10/64	10		0.3	7			
EK11-LA15/64	15		0.3	8			
EK12-LA3.5/64	3.5	64	0.6	10	45		
EK12-LA5/64	5		0.6	10			
EK12-LA2.25/64	2.25		0.6	10			
EK12-LA7.5/64	7.5		0.5	9			
EK12-LA10/64	10		0.6	7			
EK13-LA5/128	5	128	0.6	10	82		
MATRIX PROBES							
EK10-M10/64	10	64	0.8	1.3	16	23	20
EK11-M5/64	5		1.4	0.35	25		
EK11-M7.5/64	7.5		1.3	1.8			
EK11-M10/64	10		0.35	7.5			



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DMA & DLA PROBES

Description

- Dual Matrix Array Probes for beam steering in 2 directions
- Each probe is delivered with its EN 18563-2 certificate

Typical applications

- High thickness weld inspection
- Austenitic weld inspection

REFERENCE	TYPE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm	EXTERNAL DIMENSIONS		
						L	W	H
DUAL MATRIX ARRAY (DMA) PROBES								
EK17-DMA1.5/56	DMA	1.5	2 x (7x 4)	2.7	3	16	34.7	20
EK17-DMA2.25/56		2.25						
EK17-DMA4/56		4						
EK27-DMA4/64		4	2 x (16x2)	1		29	10	
EK27-DMA7.5/64		7.5						
DUAL LINEAR ARRAY (DLA) PROBES								
EK28-DLA2.25/64	DLA	2.25	2 x 32	1	5	44	12	20
EK28-DLA4/64		4						
EK28-DLA7.5/64		7.5						
EK280-DLA5/128		5	2 x 64			78		
EK280-DLA7.5/128		7.5						

EK FX PROBES

Ekoflex

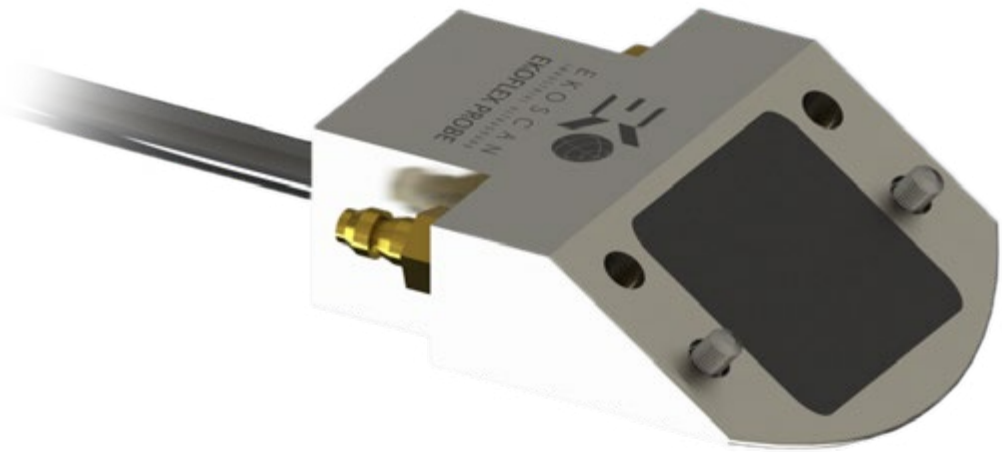
Description

- Miniature edition
- Low profile probes
- Shaped active elements for low thickness inspection
- Each probe is delivered with its EN 18563-2 certificate
- Design for EKOFLEX scanner use

Typical applications

- Small piping/tube inspection
- Low thickness weld

REFERENCE	TYPE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm	EXTERNAL DIMENSIONS		
						L	W	H
EKOFLEX PROBES								
EKFX-LA5/16	Linear Array with 35mm curved shaping in elevation direction	5	16	0.5	10	scanner compatible design EKOFLEX		
EKFX-LA7.5/16		7.5						
EKFX-LA7.5/32			32	0.25				
EKFX-LA10/32		10						



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EK EX-NF PIPE PROBES

Low Frequency and Nearfield Probes (NF)

Description

- Large aperture probes
- Highly damped probes
- Each probe is delivered with its EN 18563-2 certificate

Typical applications

- Corrosion mapping
- Composite inspection
- C-Scan

REFERENCE	TYPE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm	EXTERNAL DIMENSIONS		
						L	W	H
LOW FREQUENCY AND NEARFIELD (NF) PROBES								
EK EX-LA1/60	Linear nearfield	1	60	1.4	22	94	38	50
EK EX-LA15/64		15	64	0.3	6	25	23	20
EKNF1-3.5/64		3.5		1	7	66	19	25
EKNF1-5/64		5				130		
EKNF3-5/128			128					

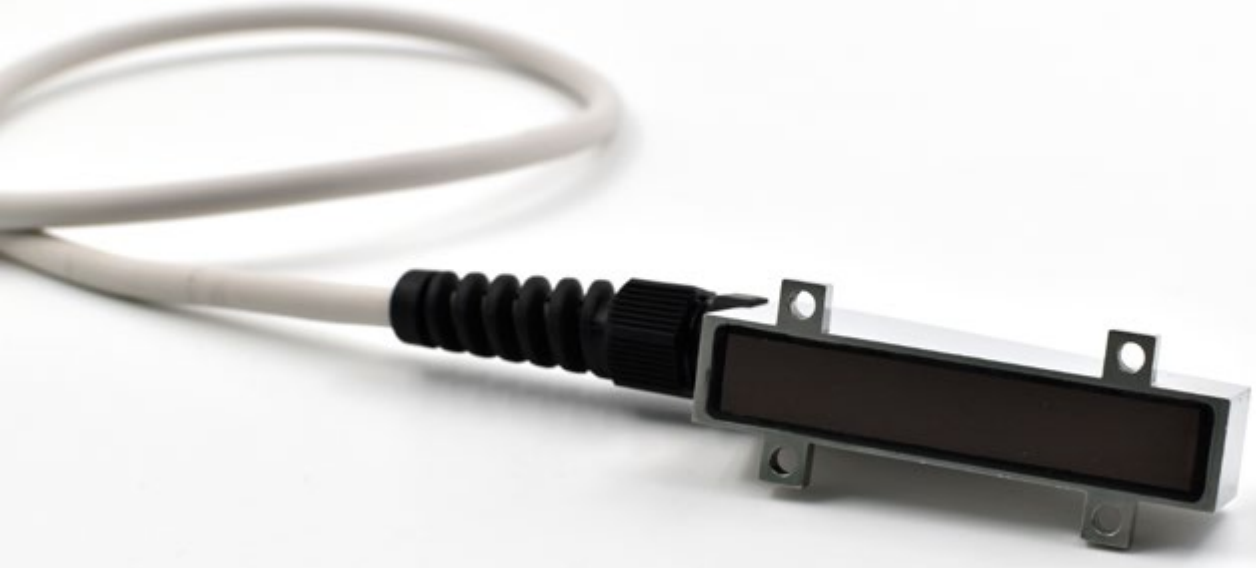
Description

- Large aperture probes
- Each probe is delivered with its EN 18563-2 certificate

Typical applications

- Pipe and tube inspection
- Weld inspection
- C-Scan

REFERENCE	TYPE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm	EXTERNAL DIMENSIONS		
						L	W	H
EKPIPE-2.25/60	Linear	2 ,25	60	1	10	68	26	30
EKPIPE-5/60		5						
EKPIPE-7.5/60		7.5						
EKPIPE-5/64		5	64	0.9				



HIGH PRESSURE PROBES

EKHP probes

Description

EKOSCAN proudly presents its new high pressure phased-array probe range: EKHP PROBES.
By encapsulating box technics, EKOSCAN succeeds in developing a High Pressure Phased-Array Probe that can operate under 2000 m depth.

Typical applications

- Corrosion and weld submarine inspections

REFERENCE	TYPE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm	EXTERNAL DIMENSIONS		
						L	W	H
EK HP 12 PROBES								
EKHP12-LA2.25/64	HP PROBE	2.25	64	0.6	10	56	24	50
EKHP12-LA3.5/64		3.5						
EKHP12-LA5/64		5						

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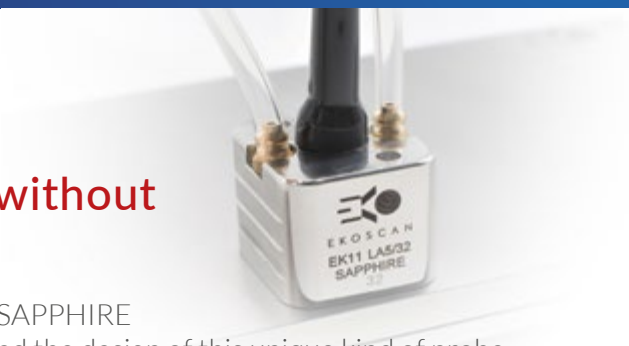
SAPPHIRE PROBES



New generation Phased Array probes without wedge

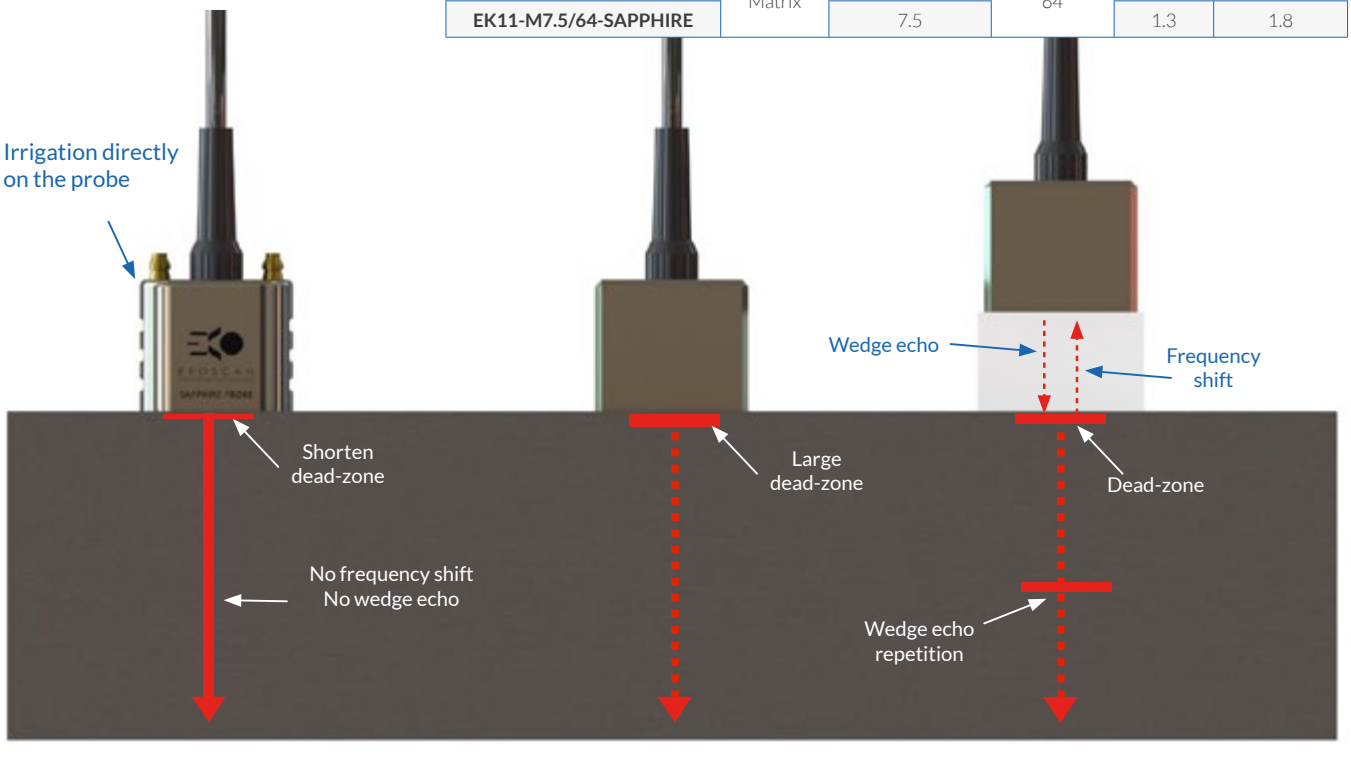
EKOSCAN proudly presents its new Phased-Array probe range: SAPPHIRE
After 2 years of R&D, testing and qualification, EKOSCAN finalized the design of this unique kind of probe.

Through a revolutionary piezocomposite crystal technology associated to highly performant and wear resistant hybrid front face, SAPPHIRE probes are the first contact phased-array probes in the world.

Ultrasonic waves transmission without wedge offers a lot of advantages:

- Reduced dead-zone
- Better signal to noise ratio
- Wedge echo suppression
- Frequency shift suppression (due to the wedge)

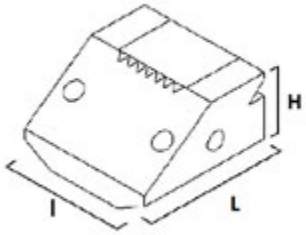
REFERENCE	TYPE	FREQUENCY MHz	NUMBER OF ELEMENTS	PITCH mm	ELEVATION mm
LINEAR PROBES					
EK10-LA3.5/16-SAPPHIRE	Linear	3.5	16	0.6	10
EK10-LA5/16- SAPPHIRE		5		0.6	10
EK10-LA7.5/32-SAPPHIRE		7.5	32	0.3	7
EK11-LA2.25/32-SAPPHIRE		2.25		0.6	10
EK11-LA5/32-SAPPHIRE		5		0.6	10
EK11-LA5/64-SAPPHIRE		5	64	0.35	8
EK11-LA10/64-SAPPHIRE		10		0.35	7
EK12-LA2.25/64-SAPPHIRE		2.25		0.6	10
EK12-LA3.5/64-SAPPHIRE		3.5		0.6	10
EK12-LA5/64-SAPPHIRE		5		0.6	10
EK12-LA7.5/64-SAPPHIRE		7.5		0.6	10
EK12-LA10/64-SAPPHIRE		10		0.6	7
MATRIX PROBES					
EK11-M5/64-SAPPHIRE	Matrix	5	64	1.4	2
EK11-M7.5/64-SAPPHIRE		7.5		1.3	1.8



EK 10 - 11 - 12 - 13 & IDC PROBES

Description

- All our wedges are made of Rexolite® to fit our phased-array probes
- Available for refracted angles of 0°, 55° and 60° in steel
- Wedges are designed to fit a manual inspection or an automated scan
- Our “L” wedges are designed for longitudinal waves and “S” wedges for shear waves



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REFERENCE	TYPE L/S	PROBE HOUSING	REFRACTED ANGLE in °	EXTERNAL DIMENSIONS		
				L	W	H
EK 10-11-12 WEDGES						
EK10-WL0	L	EK10	0°	25	23	20
EK10-WS45	S		45°	23	23	14
EK10-WS55	S		55°	23	23	14
EK10-WL60	L		60°	26	23	30
EK11-WL0	L	EK11	0°	35	23	23
EK11-WS45	S		45°	41	23	29
EK11-WS55	S		55°	41	23	29
EK11-WL60	L		60°	43	23	53
EK12-WL0	L	EK12	0°	62	23	20
EK12-WS45	S		45°	73	23	45
EK12-WS55	S		55°	73	23	45
EK12-WL60	L		60°	61	23	53
EK13-WL0	L	EK13	0°	105	24	20
EK13-WL0-I	L		0°	105	43	20
EK13-WS45	S		45°	127	24	70
EK13-WS55	S		55°	127	43	70
EK13-WL60	L		60°	X	X	X
EK13-WS55-I	S		55°	126,5	43	70
PIPE INSPECTION WEDGES						
EKPIPE-WS55	S	EKPIPE	55°	82	38	43
EKPIPE-WS70	S		70°	82	38	43
EKPIPE-WL60	L		60°	X	X	X
EKPIPE-WL80	L		80°	X	X	X
DLA & DMA WEDGES						
EK17-WL0-A0	L	EK17	0°			
EK17-WL0-A3	L		0°			
EK17-WL0-A5	L		0°			
EK17-WL60-A3	L		60°			
EK17-WL60-A5	L		60°			
EK17-WL80-A3	L		80°			
EK17-WL80-A5	L		80°			
EK27-WL0-A0	L	EK27	0°			
EK27-WL0-A3	L		0°			
EK27-WL0-A5	L		0°			
EK27-WL60-A3	L		60°			
EK27-WL60-A5	L		60°			
EK27-WL80-A3	L		80°			
EK27-WL80-A5	L		80°			
EK28-WL0-1	L	EK28	0°	44	37	9
EK28-WL0-3	L		0°	44	37	9
EK280-WL0-1	L	EK280	0°	78	37	8
EK280-WL0-3			0°	78	37	8
EKOFLEX WEDGES						
EKFX-WS60	S	EKFX	60°	18	22	12
EKFX-WL60	L	EKFX	60°	22	22	22
WATER SUPPLY						
IDC10	-	EK10	-	-	-	-
IDC11	-	EK11	-	-	-	-
IDC12	-	EK12	-	-	-	-

HIGH TEMPERATURE WEDGES

Typical applications

- Maximum temperature: 150 °C
- Maximum frequency: 7.5 MHz
- Maximum duration for continuous inspection: 12 minutes
- Frequency shift for a 5 MHz probe: 5 MHz -> 4 MHz
- Signal attenuation: -3 dB
- 4 times more resistant than a Rexolite® wedge

REFERENCE	TYPE L/S	PROBE HOUSING	REFRACTED ANGLE in °	EXTERNAL DIMENSIONS		
				L	W	H
EK 10-11-12 WEDGES						
EK10–WL0-HT	L	EK10	0°	25	23	20
EK10–WS55-HT	S		55°	23	23	14
EK10–WL60-HT	L		60°	26	23	30
EK11–WL0-HT	L	EK11	0°	33	40	18
EK11–WS55-HT	S		55°	41	23	29
EK11–WL60-HT	L		60°	43	23	53
EK12–WL0-HT	L	EK12	0°	62	40	20
EK12–WS55-HT	S		55°	73	23	45
EK12–WL60-HT	L		60°	61	23	53
PIPE INSPECTION WEDGES						
EKPIPE-WS55-HT	S	EKPIPE	55°	82	38	43
EKPIPE-WS70-HT	S	EKPIPE	70°	82	38	43
DLA & DMA WEDGES						
EK17-WL60-HT	L	EK17	60°	37	50	20
EK17-WL80-HT	L	EK17	80°	37	50	19

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EKOSCAN
EK11-WL60-HT
EKOSCAN
EK11-WL0-HT

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CALIBRATION BLOCKS

Conventional UT blocks

TOFD blocks

Phased Array blocks

Training blocks

Custom made blocks

"INTERNATIONAL" BLOCKS

Conventional UT blocks

BLOCK V1

Calibration blocks certified for ISO 2400. Can be used to determine probe exit point and beam angle.

The values are read straight on the block.

Ref :

- CAL1A: carbon steel
- CAL1I: stainless steel
- CAL1AL: aluminium

The block can be supplied with its rotative stand.

BLOCK V2

Calibration blocks certified for ISO 2400. Can be used to determine probe exit point and beam angle.

The values are read straight on the block.

Ref :

- CAL2A12: Carbon steel, Thickness 12 mm.
- CAL2A20: Carbon steel, Thickness 20 mm.
- CAL2AL12: Aluminium, Thickness 12 mm.
- CAL2AL20: Aluminium, Thickness 20 mm
- CAL2I12: Stainless steel, Thickness 12 mm.
- CAL2I20 : Stainless steel, Thickness 20 mm.

BLOCK V3

Calibration block including 3 radii to calibrate shear and longitudinal wave probes. Can be used to determine probe exit point and beam angle.

The values are read straight on the block.

Ref :

- CAL3 A: V3 in carbon steel

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AC BLOCKS

Conventional UT blocks in compliance with US 319-21

Calibration block in conformity with the recommendation IS.US-319.21, document A, Annex C. including a side-drilled hole and a 2x2 mm notch. Every block is supplied with its own material and metrological certificate. A US certificate can also be provided upon request.

AC 0 BLOCK

REFERENCE	SIDE DRILL HOLE DIAMETER mm	MATERIAL	DIMENSIONS LxIxe
AC0AØ1.5	1.5	STEEL	250x40x15 mm
AC0AØ2	2		
AC0AØ3	3		
AC0IØ1.5	1.5	STAINLESS STEEL	
AC0IØ2	2		
AC2IØ3	3		
AC0ALØ1.5	1.5	ALUMINIUM	
AC0ALØ2	2		
AC0ALØ3	3		

AC 1 BLOCK

REFERENCE	SIDE DRILL HOLE DIAMETER mm	MATERIAL	DIMENSIONS LxIxe
AC1AØ1.5	1.5	STEEL	250x40x25 mm
AC1AØ2	2		
AC1AØ3	3		
AC1IØ1.5	1.5	STAINLESS STEEL	
AC1IØ2	2		
AC1IØ3	3		
AC1ALØ1.5	1.5	ALUMINIUM	
AC1ALØ2	2		
AC1ALØ3	3		

AC 2 BLOCK

REFERENCE	SIDE DRILL HOLE DIAMETER mm	MATERIAL	DIMENSIONS LxIxe
AC2AØ1.5	1.5	STEEL	300x40x50 mm
AC2AØ2	2		
AC2AØ3	3		
AC2IØ1.5	1.5	STAINLESS STEEL	
AC2IØ2	2		
AC2IØ3	3		
AC2ALØ1.5	1.5	ALUMINIUM	
AC2ALØ2	2		
AC2ALØ3	3		

AC 3 BLOCK

REFERENCE	SIDE DRILL HOLE DIAMETER mm	MATERIAL	DIMENSIONS Lxlxe
AC3AØ1.5	1.5	STEEL	325x50x100 mm
AC3AØ2	2		
AC3AØ3	3		
AC3IØ1.5	1.5	STAINLESS STEEL	
AC3IØ2	2		
AC3IØ3	3		
AC3ALØ1.5	1.5	ALUMINIUM	
AC3ALØ2	2		
AC3ALØ3	3		

AC 4 BLOCK

REFERENCE	SIDE DRILL HOLE DIAMETER mm	MATERIAL	DIMENSIONS Lxlxe
AC4AØ1.5	1.5	STEEL	425x55x150 mm
AC4AØ2	2		
AC4AØ3	3		
AC4IØ1.5	1.5	STAINLESS STEEL	
AC4IØ2	2		
AC4IØ3	3		
AC4ALØ1.5	1.5	ALUMINIUM	
AC4ALØ2	2		
AC4ALØ3	3		

AC 5 BLOCK

REFERENCE	SIDE DRILL HOLE DIAMETER mm	MATERIAL	DIMENSIONS Lxlxe
AC5AØ1.5	1.5	STEEL	525x60x200 mm
AC5AØ2	2		
AC5AØ3	3		
AC5IØ1.5	1.5	STAINLESS STEEL	
AC5IØ2	2		
AC5IØ3	3		
AC5ALØ1.5	1.5	ALUMINIUM	
AC5ALØ2	2		
AC5ALØ3	3		

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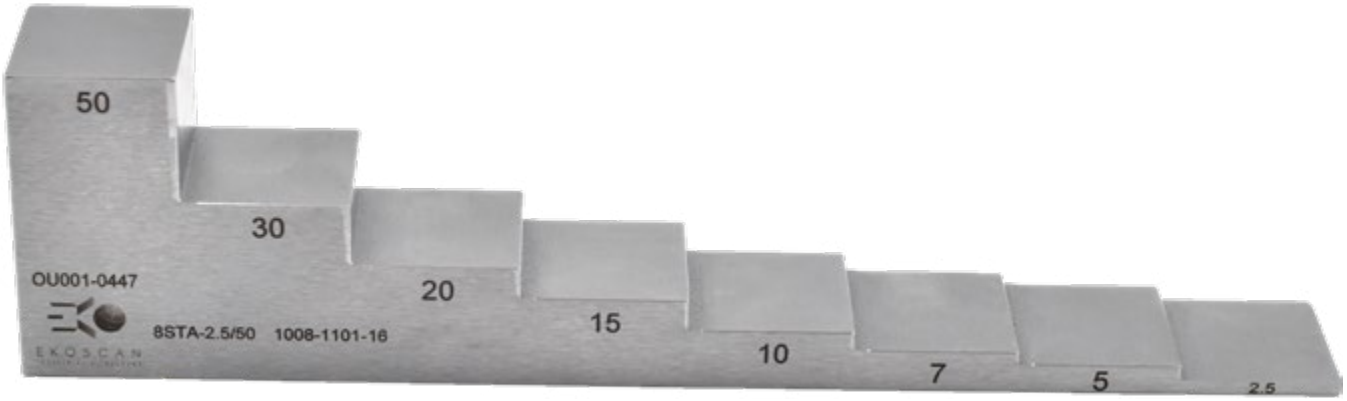
STEP BLOCKS

Step blocks for thickness gage calibration

Standard calibration blocks used for thickness gage calibration. Made out of with high quality selected raw material, entirely manufactured in France. Each block is supplied with its own metrological certificate, including 5 different velocity check per step.

REFERENCE	NUMBER OF STEPS	MATERIAL	THICKNESSES mm
5STA-2/10	5	Steel	2 to 10
5STI-2/10		Stainless steel	
5STA-5/25		Steel	5 to 25
5STI-5/25		Stainless steel	
7STA-1/10	7	Steel	1 to 10
7STI-1/10		Stainless steel	
7STA-2/25		Steel	2 to 25
7STI-2/25		Stainless steel	
7STA-5/50		Steel	5 to 50
7STI-5/50		Stainless steel	
8STA-2.5/50	8	Steel	2.5 to 50
8STI-2.5/50		Stainless steel	
8STA-6/65		Steel	6 to 65
8STI-6/65		Stainless steel	
10STA-1/10	10	Steel	1 to 10
10STI-1/10		Stainless steel	
10STA-2.5/25		Steel	2.5 to 25
10STI-2.5/25		Stainless steel	

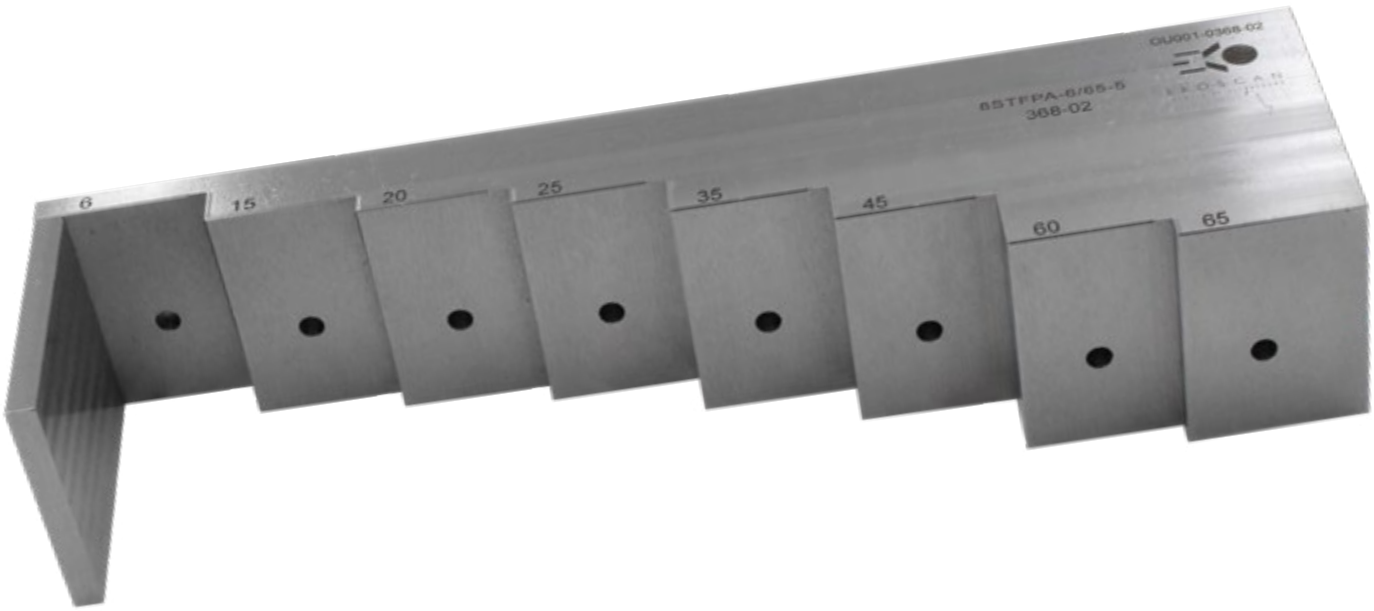


STEP BLOCKS EN 10160

Conventional UT blocks in compliance with EN10160

Standard calibration blocks in conformity with the recommendations of the EN 10160 standard for ultrasonic inspection of flat materials. Each block is supplied with its own certificate of compliance. Engraving can also be supplied upon request.

REFERENCE	FLAT BOTTOM HOLE DIAMETER mm	NUMBER OF STEPS	MATERIAL	THICKNESSES mm
8STFPA-6/65-1.5	1,5	8	Steel	6 to 65
8STFPI-6/65-1.5			Stainless steel	
8STFPA-6/65-2	2		Steel	
8STFPI-6/65-2			Stainless steel	
8STFPA-6/65-3	3		Steel	
8STFPI-6/65-3			Stainless steel	
8STFPA-6/65-5	5		Steel	
8STFPI-6/65-5			Stainless steel	
8STFPA-6/65-6	6		Steel	
8STFPI-6/65-6			Stainless steel	
8STFPA-6/65-8	8		Steel	
8STFPI-6/65-8			Stainless steel	
8STFPA-6/65-11	11		Steel	
8STFPI-6/65-11			Stainless steel	



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ASME BLOCKS

Conventional UT blocks in compliance with ASME V and VIII

Standard calibration blocks in conformity with the recommendations of ASME V and VIII standards for ultrasonic welding inspection. Each block is supplied with its own certificate of compliance. Engraving can also be supplied upon request.

Specification :

ASME Sec V Art. 4 Fig. T-434.2.1

REFERENCE	SIDE DRILLED HOLE DIAMETER mm	NOTCH DEPTH mm	THICKNESS mm
ASME-A-19	2,5	0,38	19
ASME-I-19	2,5	0,38	19
ASME-A-38	3	0,76	38
ASME-I-38	3	0,76	38
ASME-A-75	5	1,5	75
ASME-I-75	5	1,5	75

ASME 19

Description

Calibration block in carbon steel thickness 3/4" including 3 side-drilled holes located at 1/4, 1/2 and 3/4 of the thickness. Calibration block also contains 2 EDM notches in compliance with ASME Sec V Art. 4 Fig. T-434.2.1.

Ref:

- ASME-A-19 : Carbon steel
- ASME-I-19 : Stainless steel 304L

ASME 38

Description

Calibration block in carbon steel thickness 1,5" including 3 side-drilled holes located at 1/4, 1/2 and 3/4 of the thickness. Calibration block also contains 2 EE in compliance with ASME Sec V Art. 4 Fig. T-434.2.1.

Ref:

- ASME-A-38 : Carbon steel
- ASME-I-38 : Stainless steel 304L

ASME 75

Description

Calibration block in carbon steel thickness 3" including 3 side-drilled holes located at 1/4, 1/2 and 3/4 of the thickness. Calibration block also contains 2 EE in compliance with ASME Sec V Art. 4 Fig. T-434.2.1.

Ref:

- ASME-A-75 : Carbon steel
- ASME-I-75 : Stainless steel 304L

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PACS BLOCK

Description

Used to check refracted angles and exit points. Allows the calibration of sensitivity and DAC/TCG curves for thicknesses of up to 50 mm.
For the naval industry.

Options

- Carbon steel with anti-corrosion coating
- Stainless steel 304L

Ref:
- CALPACSA

DSC BLOCK (DISTANCE / SENSITIVITY CALIBRATION BLOCK)

Specification

ASTM E164-97 fig. A1.11

Description

Calibration block used for calibration of transverse and longitudinal wave transducers. Verification of exit point and refracted angles (from 45° to 70°) and adjustment in sensitivity. Carbon steel block with anti-corrosion coating.

Ref:
- CALDCSA

DC BLOCK (DISTANCE CALIBRATION BLOCK)

Specification

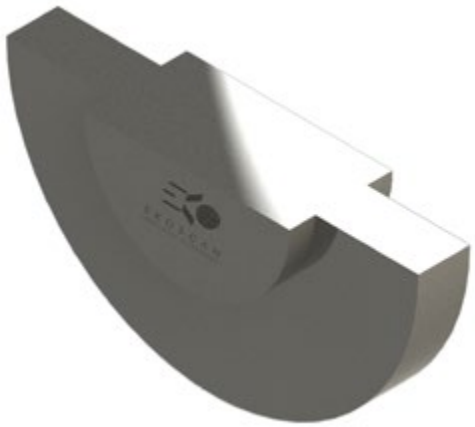
ASTM E164-97 Fig. 1.9

Description

Calibration block used for distance calibration and for verification of the exit point and refracted angles. Carbon steel block with anti-corrosion coating.

Ref:

- CALDCAA



DS BLOCK (SENSITIVITY AND DISTANCE BLOCK)

Specification

AWS D1.1

Description

Calibration block used to check horizontal linearity as well as to calibrate in distance and sensitivity with a normal incidence transducer.
Carbon steel block.

Ref:

- CALDSAA

RC BLOCK (CALIBRATION RESOLUTION BLOCK)

Specification

AWS D1.1

Description

Calibration block used to verify Angle Transducer resolution (45°, 60° and 70°).
Carbon steel block with anti-corrosion coating.

Ref:

- CALRCAA

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EKOCAL6 ®

Conventional UT, TOFD, Phased Array

The block includes

- 5 x Notches: for sensitivity calibration in TOFD or Phased Array (notches: 10 mm long, 3 mm high, 0.2 mm aperture)
- 5 x Flat Bottom Holes: to evaluate the reflectivity of volumetric flaws for TOFD or to draw a DAC for conventional UT (diameter: Ø3 mm or Ø5 mm
- 5 x Side-Drilled Holes: to characterize TOFD Lateral Wave or for sensitivity calibration in conventional UT or Phased Array (diameter Ø1.5 mm or Ø3 mm)
- 1 x Radius: for delay and angle calibration (radius 50 mm)

A certificate that includes a metrological report of the block is supplied on delivery (optional moldings of artificial flaws).

length: 475 mm, width: 50 mm, heigth: 52 mm

Each block is delivered with its material certificate and TOFD B-scan.

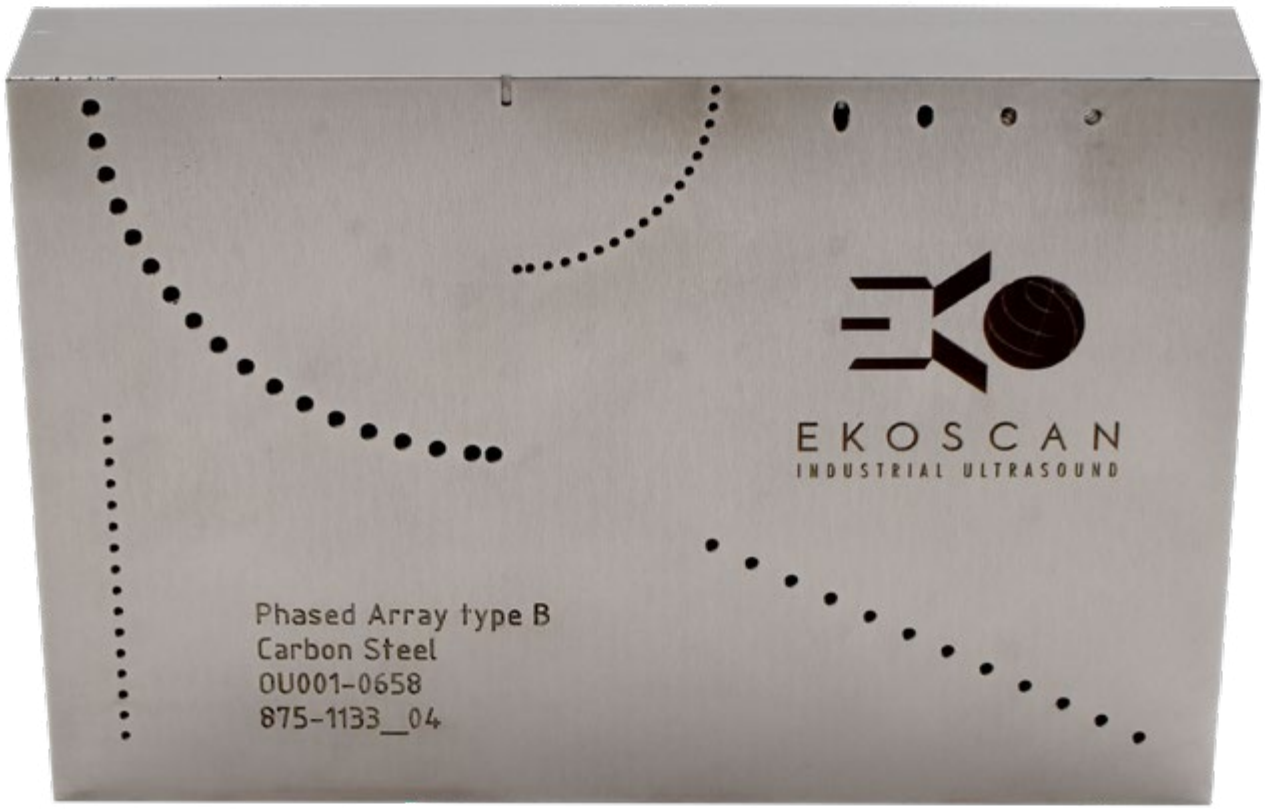
Ref:
- TOFDV6A
- TOFDV6I

PHASED ARRAY TYPE A & B BLOCKS

Reference block in carbon steel, stainless or aluminium for Phased Array application.

Control of refraction angles, delay and amplitude correction for parts up to a 50 mm thickness

REFERENCE	MATERIAL	DESCRIPTION
PATYPEAA	Steell	Block in accordance with ASME code (code cases 2541.2557.2558)
PATYPEAI	Stainless steel	
PATYPEAAL	Aluminium	
PATYPEBA	Steel	Block in accordance with ASTM E2491 code
PATYPEBI	Stainless steel	
PATYPEBAL	Aluminium	
PATYPE19675A	Steel	Block in accordance with ISO 19675
PATYPE19675I	Stainless steel	
PATYPE19675AL	Aluminium	



PATYPEBA

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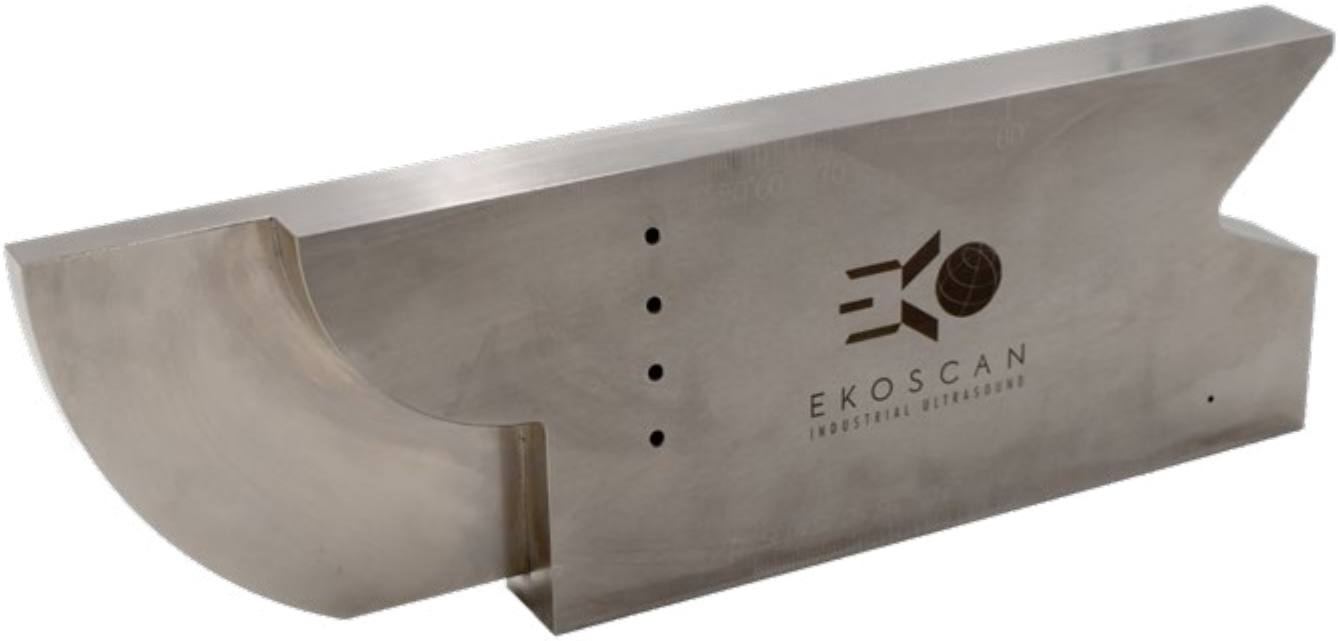


PATYPE19675

PATYPEAA

VAROUL VARIAL BLOCK

Used for NDT Ultrasonic training. This block helps to understand the reflectivity of volumetric and non-volumetric defects.

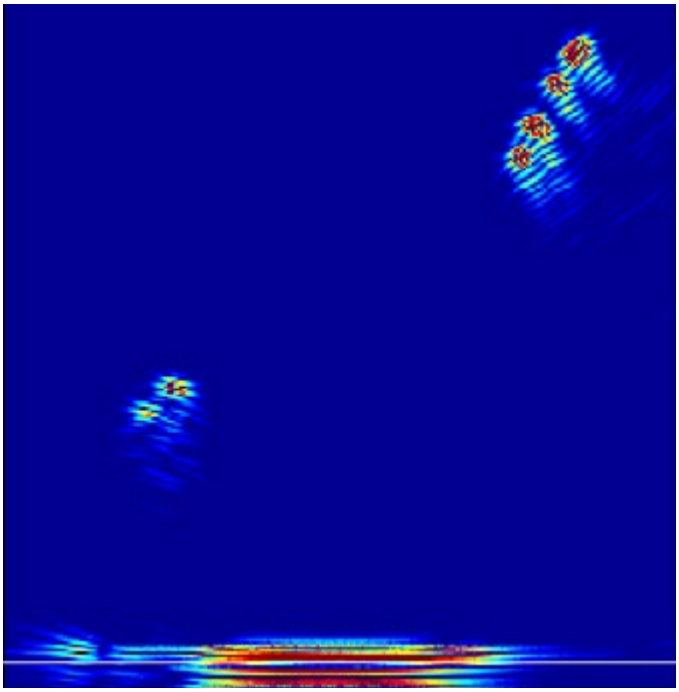
Notches, regular and multifaceted, are oriented at 30°. Waveforms obtained for this type of defects are VARIAL type, i.e., with a discontinued echodynamic.

The side-drilled holes are used to evaluate spatial resolution and the ability to discriminate close indications. Waveforms obtained for this type of defects are the VAROUL type, i.e., a bell-shaped echodynamic.

Block supplied with its material certificate.)

Ref:

- VVA-L



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HTHA BLOCKS

Made from P1, SA 516 GR 70 material

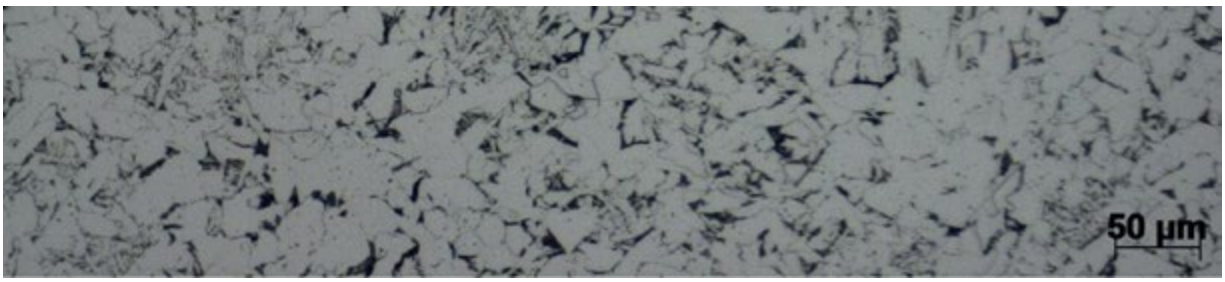
The blocks are first checked to verify the absence of any significant indications according to our internal procedure. An accelerated phenomenon of HTHA micro-cracking is then performed in the thickness of the material by injecting of a combination of hydrogen and carbon to obtain CH4 molecules.

HTHA cracks up to 20% of the block thickness.

Acoustic results are similar to those obtained for pressure vessels in the petrochemical industry.

Ref:

- CALHTHA-25 (thickness 25 mm)
- CALHTHA-50 (thickness 50 mm)



SPECIFIC BLOCKS

Conventional machining of blocks of maximum size L 600 x W 400 x H 400 mm and up to 40 kg.

- Working area for wire erosion : L 350 x l 500 x h 250 mm.
- Working area for electro-erosion by die sinking : L 400 x l 300 x h 250 mm.
- Opening notches 0.2 mm +-0.05 depth up to 15 mm (under conditions).
- Minimum generator diameters 0.18 mm.
- Material control carried out according to our internal procedure, more restrictive than the control standard for flat products (NF EN 10160) in order to ensure the absence of indications that could disrupt the use of the block.
- Specific block plan validated with the customer before machining.
- Mark check for defect shape.
- Provision of TQR plan (As Realized) on request with actual measured ratings.
- Custom laser engraving (on request).
- Each block is supplied with a control report including: dimensional survey, material certificate, average speed reading in OL and OT as well as the manufacturing plan of the block.
- Our measuring devices are connected COFRAC in accordance with ISO 9001.
- Certificates of conformity kept at our premises for ten years.

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CUSTOM MADE BLOCKS

EKOSCAN can manufacture custom blocks according to your needs upon request. As a French ISO 9001 certified manufacturer, we work rigorously on the selection of our raw materials. A preliminary control of the material's ultrasound speed and integrity is performed according to a very strict internal procedure. Our manufacturing and verification tools are also COFRAC certified.

Starting from your technical and functional specifications, EKOSCAN will design and manufacture the custom block that answers your problems.

Contact us for a feasibility study of your block.

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ACCESSORIES

Cables

Adapters

Wire encoder

TOFD accessories

UT gel

Profile comb

Pump TOFD

Compas

ACCESSORIES USED IN ULTRASONIC TESTING

Single and double wires

Technical specifications

- Cables for combined emission and reception or distinct emission and reception probes
- Lemo00, Lemo1, Microdot, BNC, UHF, Subvis, standard connections
- Standard length: 2 mm
- Standard impedance 50 Ω
- Operating temperature: ambient temperature

SINGLE WIRES	LEMO00	LEMO1	BNC
Lemo00	CBL00-00/2/M	-	-
Lemo01	CBL01-00/2/M	CBL01-01/2/M	-
BNC	CBLBNC-00/2/M	CBL01-BNC/2/M	CBLBNC-BNC/2/M
Microdot	CBL00-MIC/2/M	CBL01-MIC/2/M	CBLBNC-MIC/2/M
UHF	CBL00-UHF/2/M	CBL01-UHF/2/M	CBLBNC-UHF/2/M
Subvis	CBL00-SUB/2/M	CBL01-SUB/2/M	CBLBNC-SUB/2/M

DOUBLE WIRES	LEMO00	LEMO1	BNC
Lemo00	CBL00-00/2/D	-	-
Lemo01	CBL01-00/2/D	CBL01-01/2/D	-
BNC	CBLBNC-00/2/D	CBL01-BNC/2/D	CBLBNC-BNC/2/D
Microdot	CBL00-MIC/2/D	CBL01-MIC/2/D	CBLBNC-MIC/2/D
UHF	CBL00-UHF/2/D	CBL01-UHF/2/D	CBLBNC-UHF/2/D
Subvis	CBL00-SUB/2/D	CBL01-SUB/2/D	CBLBNC-SUB/2/D

For any specific request, please contact us indicating your reference as follows:

CBL''Connection1''-''Connection2''/''length in m''/''D for Dual or M for Mono''

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ACCESSORIES USED IN ULTRASONIC TESTING

Adapters

Lemo1M/BNCF ADAPTERS

Adapter station/probes for ultrasonic test. Impedance 50 Ω

Ref:

- ADP01M-BNCF

Lemo1F/BNCM ADAPTERS

Adapter station/probes for ultrasonic test. Impedance 50 Ω

Ref:

- ADP01F-BNCM

Lemo00F/BNCM ADAPTERS

Adapter station/probes for ultrasonic test. Impedance 50 Ω

Ref:

- ADP00F-BNCM

Lemo00M/BNCF ADAPTERS

Adapter station/probes for ultrasonic test. Impedance 50 Ω

Ref:

- ADP00M-BNCF

Lemo1F/Lemo00M ADAPTERS

Adapter station/probes for ultrasonic test. Impedance 50 Ω

Ref:

- ADP01F-00M

EKOSCAN/GEKKO ADAPTERS (LEMO10/MOLEX)

Adapter station/probes for ultrasonic test. Impedance 50Ω

Ref:

- ADPL10-MOLEX

MX1/MX2 ADAPTERS (LEMO16/SUB-D)

Adapter station/probes for ultrasonic test. Impedance 50Ω

Ref:

- ADPL16F-SUBDM

Other impedances and connectors upon request

ACCESSORIES USED IN ULTRASONIC TESTING

Wire encoder

EKOSCAN wire encoder, compatible with any UT board and probe.

- Encoded length: 1000 mm
- Encoding step: 0.1 mm
- Linearity: ± 0.20%
- Protection indication: IP50
- Fixing system: magnet

Ref:
- COD-F/1M

TOFD accessories

Preamplifier for TOFD method

- Lateral Lemo00 output
- 40 dB amplification
- Electronical protection to prevent in/out channel inversion
- Rugged casing against water flow and dust

Ref:
- PREAMP-1CH-40

2-channel preamplifier

Twin preamplifier for TOFD or dual probe operation

- Lem00 Eq. input
- Incl. Battery low indicator
- Amplification 40 dB other values on request
- Bandwidth <500 kHz - <25 MHz
- Measures approx. 60 x 125 x 35 mm
- Li-ion battery and charger
- Calibration certificate included
- One charge for over 30 hours of use

Ref:
- PREAMP-2CH-40

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ACCESSORIES USED IN ULTRASONIC TESTING

UT couplant

Standard UT gel type UCA2
PMUC certified
5L bucket or 250 mL pipette

Ref:

- EKOGEL2

Specific UT gel without bubble. Do not dry.
Can be used for probe/wedge or
probe/delay line coupling
90 mL pipette

Ref:

- CB90

High temperature couplant, heat-resistant up to 300°
High adherence capacity to be used for controlling
vertical parts/workpieces
Packaging : 400 grams

Ref:

- EKOGREASE-HT

ACCESSORIES USED IN ULTRASONIC TESTING

Profile Comb

Profiles combs length 150, 300 and 500 mm enabling to take quickly and precisely a complex profile or shape.

Aluminum core, stainless steel edges

Ref:

- EKOFORM150
- EKOFORM300
- EKOFORM500

TOFD pump

Irrigation water pump for TOFD control

Ref:

- POMPETOFD

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EKOSCAN
MW45-4 PC
4MHz 8x9 45°
N°2705


Gate
1
A %
100
PS µS
58,46
D mm
154,5
Z mm
59,2
GAIN
15,9 dB
Ref: 15,0 dB
Delta: -0,9 dB
EKOSCAN
PROBE FEATURES
PROBE ANGLE
PROBE DELAY
CONTROL FEATURES
AUTOMATIC CALIBRATION
MAPPING
MENU
SETUP - NONAME
5,91 us / Div

NDT EQUIPMENT CHECK

EKOSCAN is a company specialized in **ultrasonic NDT equipment** manufacturing. **ISO 9001 : 2015** certified. and based in **Saint Rémy, close to Chalon-sur-Saône** (71100).

EKOSCAN can check your equipment under **48 h** upon request:

VERIFICATION TYPES	DESCRIPTION		MAXIMUM DURATION
Conventional UT Board	Verification according to EN 12668-1		1 week
Phased Array	Phased Array Board 16: 32	according to EN 18563-1 + for free: conventional UT channels according to EN 12668-1	2 weeks
	Phased Array Board 16: 64		2 weeks
	Phased Array Board 16: 128		2 weeks
	Phased Array Board 32: 128		2 weeks
	Phased Array Board 64: 64		2 weeks
	Phased Array Board 64: 128		2 weeks
Thickness gage	Verification according to EN 15317		1 week
	Verification according to an internal procedure		1 week
	Verification according to an internal procedure (simplified)		1 week
UT transducer	Verification according to EN 12668-2		1 week
	Verification according to aeronautics procedures		1 week
Equipments • **Magnetic particles** • **Penetrant testing** • **Various**	Electro-magnet of any brand according to EN ISO 9934-3		1 week
	Portable generator and testing bench for magnetic particles testing of any brand according to EN 9934-3		1 week
	Tangential and persistent field measurer (3 probes maximum) according to EN ISO 9934-3 for any wave form and frequency		1 week
	Light meter verification according to EN 3059		1 week
	Ultraviolet radiometer verification according to EN 3059		1 week
	Light meter and radiometer combination verification according to EN 3059		1 week
	Thermometer verification (any probe type) according to FD X 07-028 and 029		1 week
	Calibration blocs verification for penetrant testing		1 week
	Hardness measurer verification according to ASTM D 2240		1 week
	Coating measurer (for ferromagnetic or amagnetic) verification according to ASTM D 6132		1 week
Eddy current board	Verification according to ISO 15548-1		1 week
Calibration blocks for any technique	Verification according to current standards		To be defined

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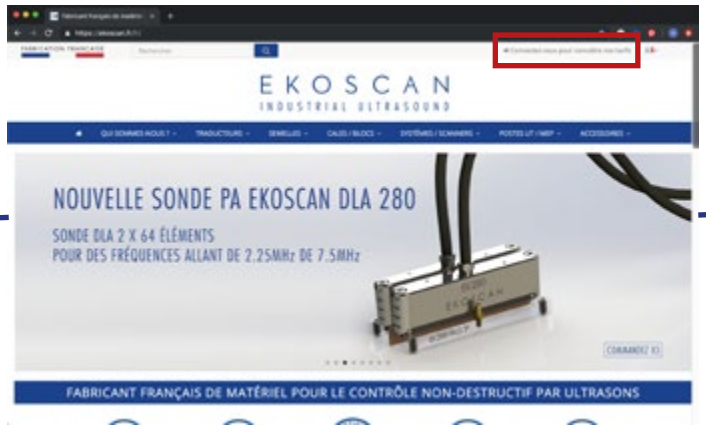

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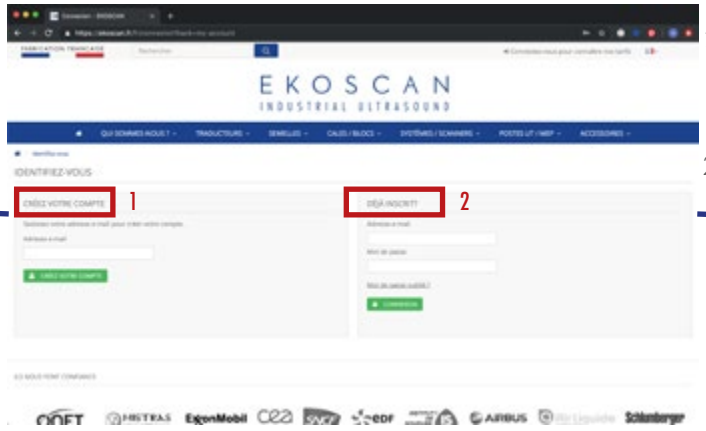
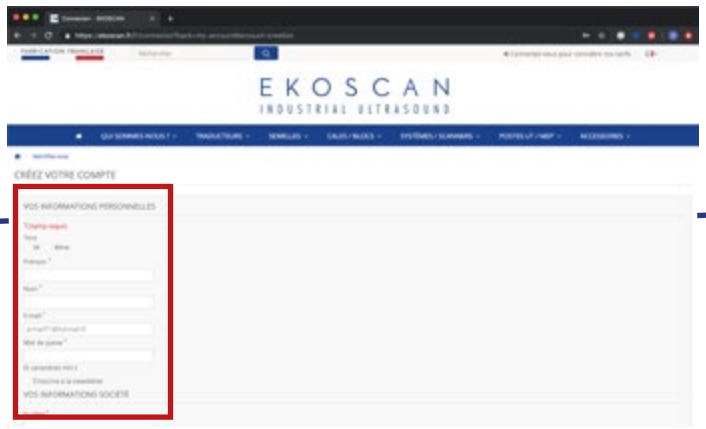


1 - Create your customer account using an email address
or
2 - Log in to your account

4



Enter all required fields.

5

Your account will be validated after receiving the confirmation email from the administrator

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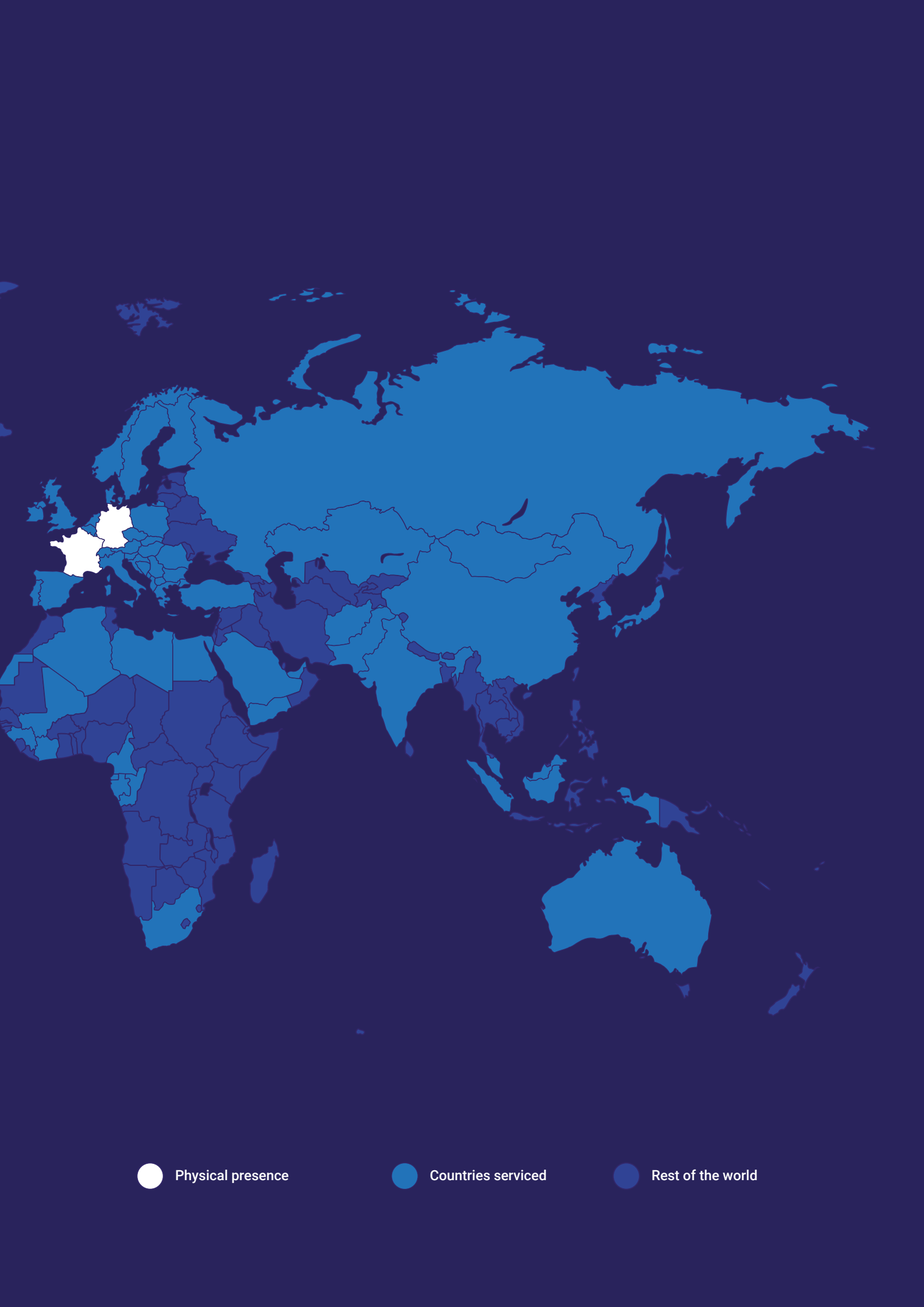
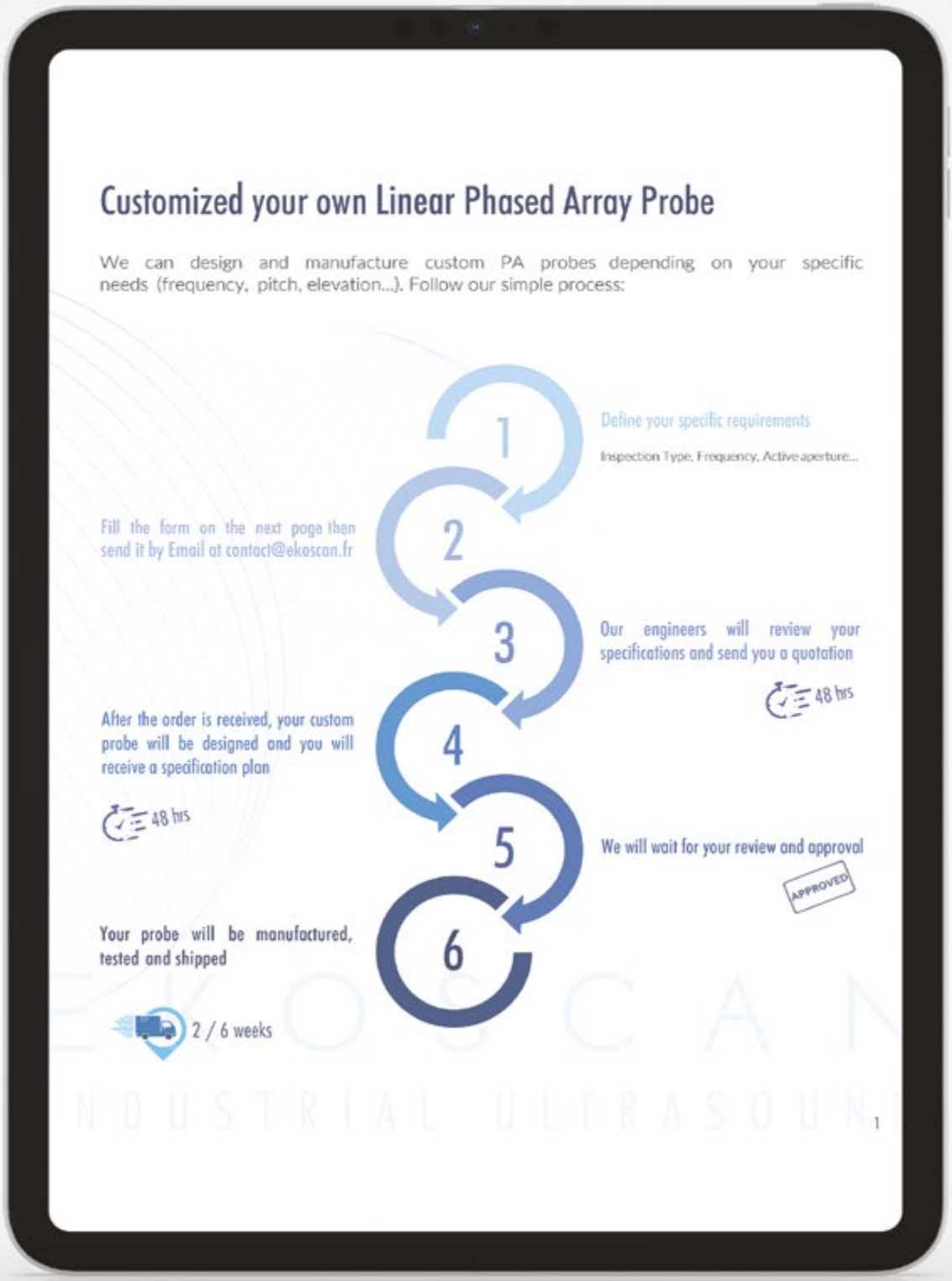
Canada


Physical presence
Countries serviced
Rest of the world

NOW YOU COULD CUSTOMIZED YOUR LINEAR ARRAY PROBE ON LINE



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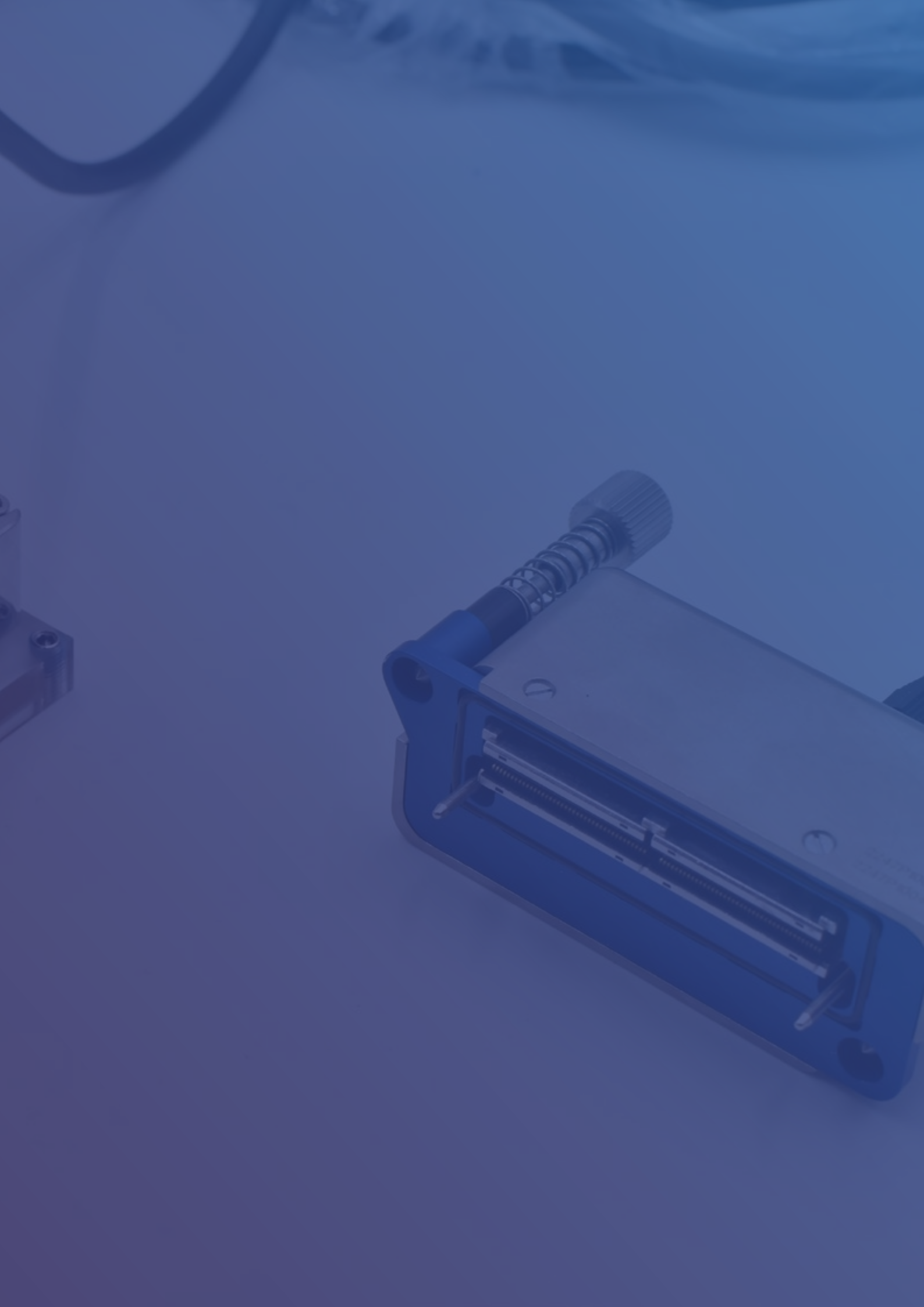
1

ENTER YOUR PROBE DESCRIPTION

2

ENTER YOUR WEDGE DESCRIPTION AND SEND THE PDF BY MAIL AT CONTACT@EKOSCAN.FR

THANK YOU FOR YOUR TRUST AND CONFIDENCE



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