

ECHOGRAPH

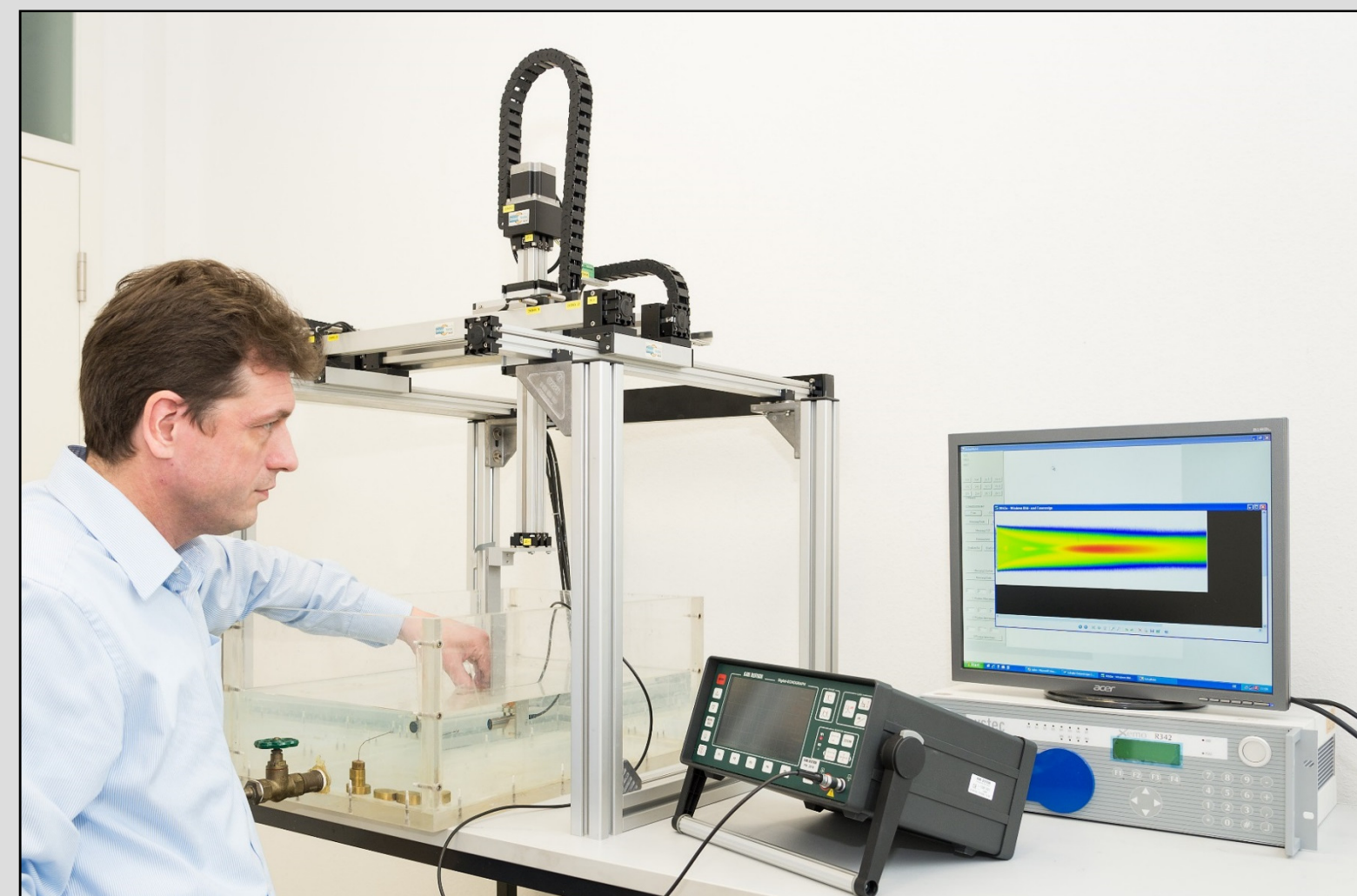
Produktion und Qualitätskontrolle



Prüfköpfe für viele Anwendungen

Probes for Various Applications

Production and Quality Control



Schallfeld-Messplatz

Setup for Sound Beam Measurement

Prüfkopf - Zertifikat / Probe Certificate

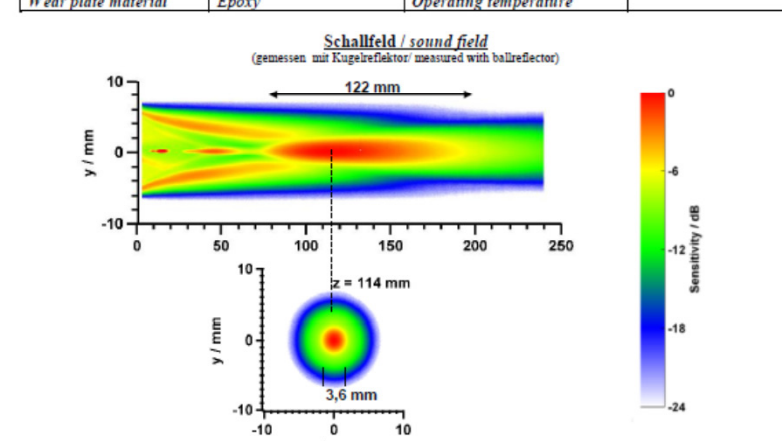
STS 12 WB 5 / 1598.722
(F.Nr. / Ser. No. : 343184, Komm. 1475800)

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Zert. EN1598.722 343184 STS12WB5.docx Si 18.02.15 1/1

Technische Daten / Technical data nach / according to EN 12668-2:2010

Mittelfrequenz f_0	5.09 MHz
Center frequency f_0	5.0 ± 0.3 MHz
Bandbreite (-6 dB)	2.65 MHz
Bandwidth (-6 dB)	2.5 ± 0.3 MHz
Impulsdauer	0.69 µs
Pulse duration	0.6 ± 0.15 µs
Echo-Empfindlichkeit	-30.2 dB
Echo sensitivity	-29 ± 1 dB
Divergenzwinkel θ_0 (Wasser)	0.91°
Divergence angle θ_0 (water)	0.7° ± 0.25°
Divergenzwinkel θ_0 (Stahl)	2.8° ± 0.5°
Divergence angle θ_0 (steel)	
Verzerrungsdurchmesser	< 0.5 mm
Beam cross offset	
Schallwinkel	6.88°
Beam angle	11.1°
Nahfeldlänge (Wasser)	114 mm
Nearfield length (water)	110 ± 20 mm
Nahfeldlänge (Stahl)	-
Nearfield length (steel)	-
Fokaldurchmesser	3.6 mm
Focal width	3.4 ± 0.2 mm
Länge Fokusbereich	122 mm
Focal length	120 ± 20 mm

Schwingermaterial	Piezokeramik	Schwinger Ø	12.6 ± 0.1 mm
Transducer material	Piezo-ceramic	Transducer dia.	
Schutzschichtmaterial	Kunststoff	Ambient temperature	0° ~ +50°C
Wear plate material	Epoxy	Operating temperature	



Gehäuse Ø / Kragen Ø	30 / 25 mm
Housing dia. / collar dia.	
Schalllänge	53 mm
Shaft length	
Anschlusshülse / Schalllänge	Trax 50 Ø - 2.0 m
Connection cable / cable length	
Anschlusstecker	Lemo 1
Male connector	
Gewicht ohne Kabel	156 g
Weight w/o cable	

Impulsform und Spektrum

Pulse shape and frequency spectrum

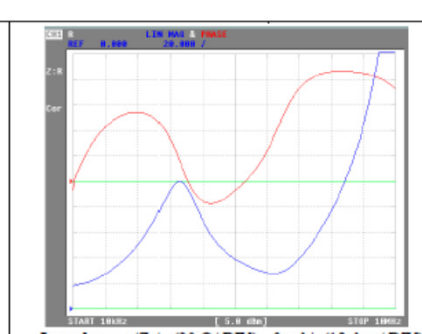
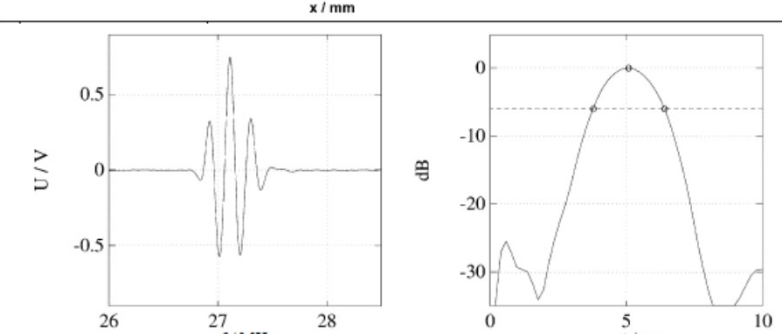
Oberflächenecho in Wasser, 20 mm Abstand

Surface echo in water, 20 mm distance

US-Gerät / UT Instrument : Echograph 1091

Bedienung / Damping : 50 dB

Sender / Transmitter : Leistung / Power



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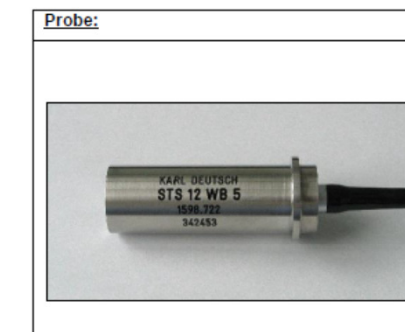
Zertifikat

DIN EN ISO 12668-2

Certificate

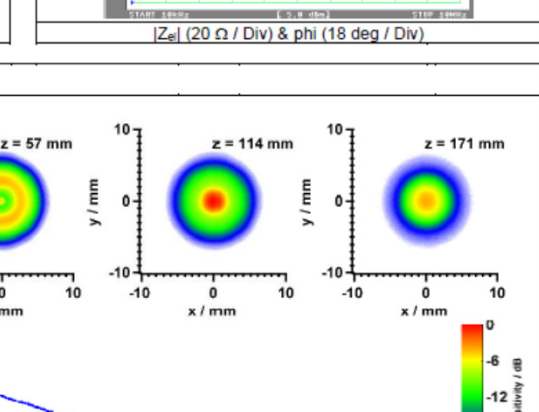
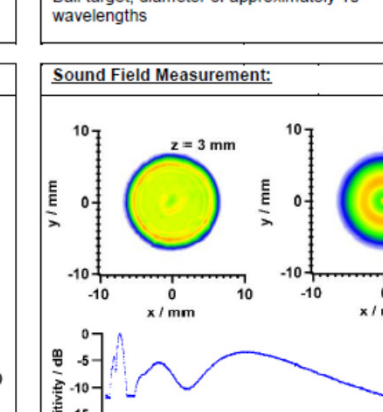
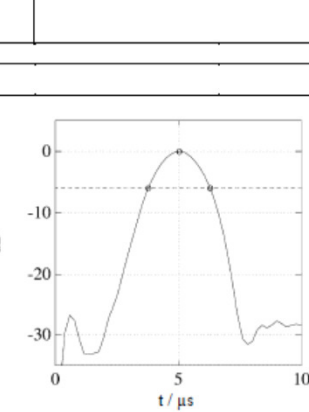
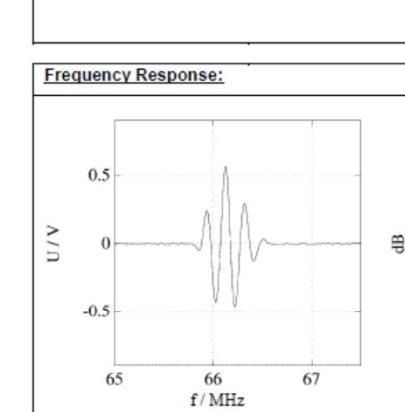
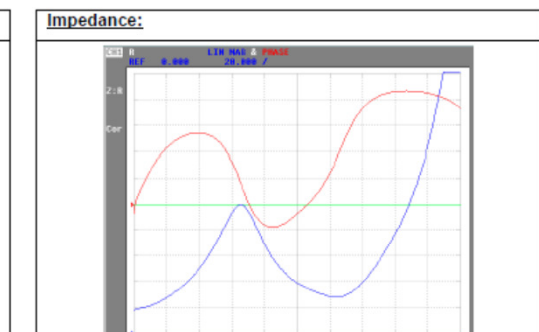
Characteristics of Ultrasonic Search Units according to ASTM E1065 - 14

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Nominal frequency	5 MHz
Transducer diameter	12.6 mm
Nominal focal length	-
Focus type	-
Housing diameter	20 mm
Collar diameter	25 mm
Shaft length	53 mm
Cable	Trax 50 Ø
Cable length	2 m
Male connector	Lemo 1

Frequency Response:	Shock excitation technique
UT Instrument:	Echograph 1091
Damping:	50 dB
Transmitter Power:	Surface echo in water, 50 mm distance
Glass block target:	Ball target (focused probe only)
Time Response:	Pulse duration measured at 20 dB below peak value
Sound Field Measurement:	Ball target, diameter of approximately 10 wavelengths



Lower frequency	3.77 MHz
Upper frequency	6.29 MHz
Peak frequency	5.03 MHz
Center frequency	5.03 MHz
Bandwidth	50.1 %
Relative Pulse-Echo Sensitivity:	-32.8 dB
Time Response:	
Pulse duration:	0.56 µs

Beam spread (2v):	1.82°
Aperture size:	11.6 mm
Near field length:	114 mm
Focal length:	-
Depth of field:	-
Diameter at focal point:	-

Included angle of soundfield between focal point and transducer element:	-
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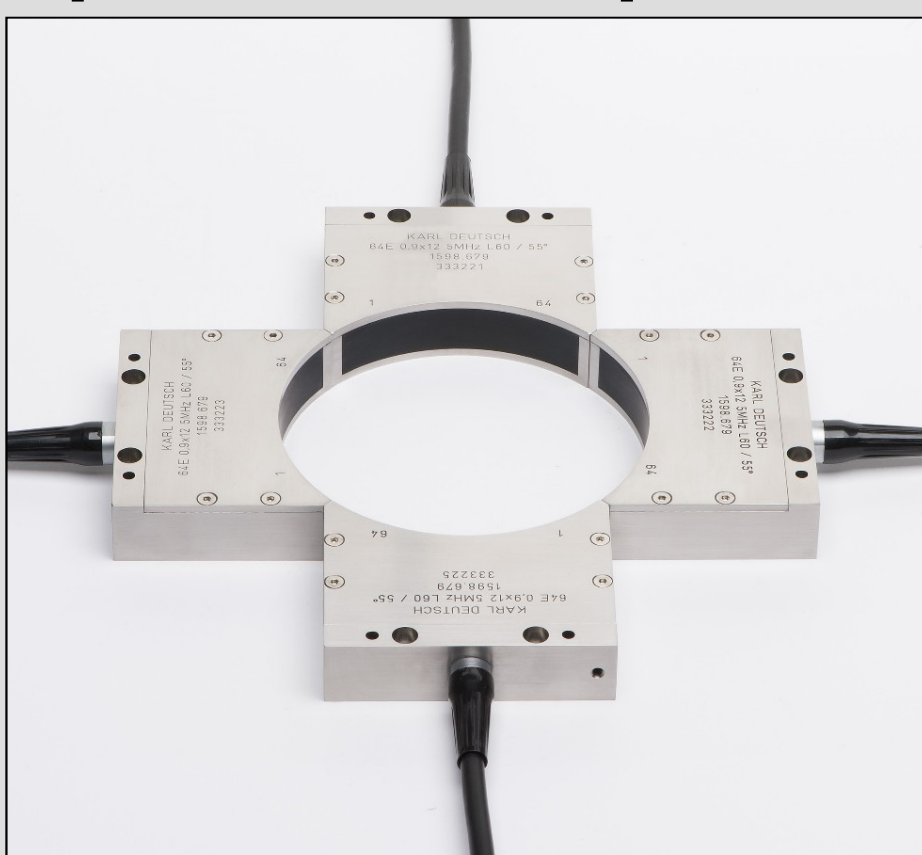
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Zertifikat

ASTM E1065-14

Certificate

Spezial-Prüfköpfe



Stangen-Prüfung

Phased Array Bar Test



Molch-Prüfköpfe (Pipeline-Prüfung)

Pig Probes



Phased Array Winkel-Prüfköpfe

PAUT Angle Probes