Biplane Transducer Type 8808
for BK Medical Ultrasound Systems

Product Data

USES
- Transrectal prostate imaging
- Transrectal puncture and biopsy of the prostate
- Transperineal puncture and biopsy of the prostate
- Spectral and CFM Doppler examinations

BENEFITS
- Superior resolution
- Simultaneous biplane visualization
- Built-in control buttons
- Transperineal puncture guide
- Water standoff facility for optimal positioning of the gland in the image
- Specially designed built-in transrectal puncture guide for easier biopsies
- Compatible with modern sterilization methods
- Sterile-packed single-use puncture guides available

Close-up of the 8808 biplane transducer assembled for transrectal puncture

General Description
Type 8808 is a biplane transducer designed for use with BK Medical's ultrasound systems. It has two convex arrays, one for transverse imaging and one for sagittal imaging.

Applications
The 8808 is designed for transrectal imaging. It has a dynamic focus extension of 5 to 50 mm in both planes and a sector angle of 127°.

The 8808 is particularly useful for transrectal puncture. The advantage of viewing both the sagittal and transverse planes is that the needle is visible throughout the puncture and biopsy procedures. The transducer includes a simultaneous biplane feature that enables both planes to be visualized live at the same time.

A water standoff sheath is available to improve contact and field of view.

A magnetic wheel mover is also available. This system-controlled positioner rotates the transducer to produce a series of images that are used as a basis for 3D imaging.

Interventional Procedures

Transrectal Biopsy
A specially designed puncture guide is available for transrectal biopsy. A small section of the transducer is removed and a biopsy channel bracket with needle guide is inserted in its place.

Needle guides are available for both 14-gauge and 17-gauge needles. 17-gauge needle guides are also available in extended versions. The needle guides come in both reusable versions and in sterile-packed single-use versions.

All needle guides for the UA1257 biopsy channel bracket are angled at 17.7° to the transducer's longitudinal axis.

Transperineal Biopsy
The UA1232 metal puncture attachment is designed for transperineal puncture and biopsy. It consists of a needle guide and a mounting ring with a lock screw.

The needle guide has nine parallel guide channels spaced 5 mm apart, each with an internal diameter of 2.1 mm (14-gauge). The guide channels are angled at 0° to the transducer's longitudinal axis and 90° to its transverse axis. The needle guide can be adjusted 70 mm lengthwise with respect to the mounting ring, using the adjustment screw.

Multifrequency Imaging
The transducer transmits at 10, 8, 6 and 5 MHz and can be used for tissue harmonic imaging.

Cleaning and Disinfection
The transducer can be disinfected by immersion in the solutions listed under Specifications or it can be processed with STERIS SYSTEM 1®* and STERIS SYSTEM 1E (when a watertight plug protection device is fitted).

All parts of the UA1232 puncture attachment and the reusable UA1257 biopsy guides can be disinfected by immersion and be autoclaved.

Sterile transducer covers are available.

Safety
The 8808 is designed and tested in accordance with EN60601-1 (IEC60601-1), "Medical Electrical Equipment, General Requirements for Safety." When used with BK Medical's ultrasound systems, Type B requirements are met.

* Use together with STERIS Quick Connect available from your STERIS representative.
STERIS SYSTEM 1 is not market cleared in the USA.

Specifications 8808

SAFETY:
When used with BK Medical's ultrasound systems, this transducer complies with Safety Standard EN60601-1 (IEC60601-1) Type B.

FREQUENCY RANGE:
10–5 MHz

OPERATIONAL FACILITIES:
Two built-in control buttons

ENVIRONMENTAL:
Operating pressure:
700-1060 hPa (normal atmospheric pressure)
Operating temperature:
+10 to +40 °C, (+50 to +104 °F)
Storage temperature:
-25 to +70 °C, (-13 to +158 °F)
Watertight immersion temperatures:
Max. +40 °C (+104 °F)
Watertight immersion time:
Max. 15 hours per 24 hours

STERILIZATION AND DISINFECTION
Complete details and procedures can be found in *Care, Cleaning & Safety*.

RESISTANCE TO CHEMICALS AND PROCESSES
Sterilization processing*
The 8808 can be processed using
- STERIS SYSTEM 1®** and STERIS SYSTEM 1E (only with STERIS Quick Connect QMC1733 and QMC1733E)

Immersion
For less than 10 minutes in each hour in:
- Chlorhexidine gluconate (5-20% in water)
- Ethanol (70% in water)

For less than 15 hours in each 24 hours in the following solutions:
- Glutaraldehyde (2-3.4% in water)

The following disinfectants can also be used (but not exceeding maximum watertight immersion time specified for this transducer):
- Korsolex® Basic
- Korsolex® Extra
- Cidex® OPA
- PeraSafe®
- Tristel®

Follow manufacturer's instructions for use.

POWER SUPPLY:
Internally from system

CABLE LENGTH:
2.2 m (7.2 ft)

MANUFACTURER
BK Medical ApS
Mileparken 34
DK-2730 Herlev
Denmark

TRADEMARKS:
- Korsolex is a registered trademark of Bode Chemie GmbH.
- Tristel is a registered trademark of Tristel Pharmaceutical.
- PeraSafe is a registered trademark of Antec International.
- STERIS SYSTEM 1 and STERIS SYSTEM 1E are registered trademarks of STERIS Corporation.
- Cidex OPA is a registered trademark of Advanced Sterilization Products (ASP), a Johnson & Johnson Company.

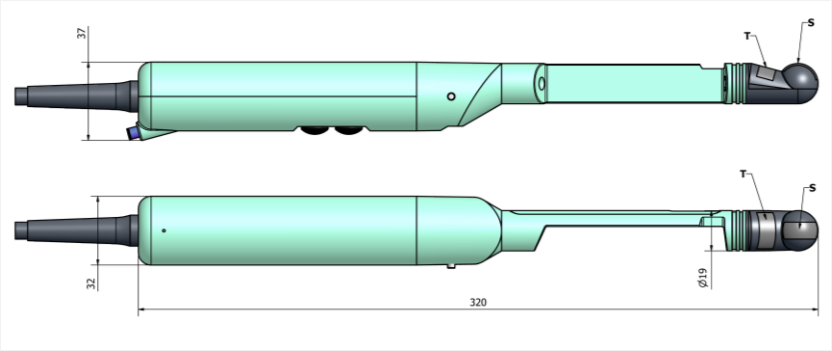
* Sterilization processes are harsh and can shorten the life of the product.
** STERIS SYSTEM 1 is not market cleared in the USA.

	Units	2202				1202			
Imaging Planes		Transverse and Sagittal							
B-Mode Frequency	MHz	10	8	6	5	10	8	6	5
Doppler Frequency	MHz	7.5 - 6 - 5				7.5 - 6 - 5			
Number of Elements		2 x 96							
Radius of Curvature	mm	9.7							
Transverse Plane Aperture	mm	5							
Transverse Focal Length (Typical)	mm	25							
Transverse Focal Beam Width (Typical)*	mm	1.4	1.4	1.4	1.6	-			
Image Plane Aperture	mm	7							
Image Plane Focal Length	mm	Variable							
Axial Resolution (Typical)*	mm	0.4	0.4	0.5	0.6	-			
Axial Resolution (Measured at 26 mm)**	mm	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6
Lateral Resolution (Measured at 25 mm)**	mm	1	1.1	1.1	1.3	0.9	1	1.2	1.3
Image Field		127°							
Basic Imaging Modes		B, M, Doppler, CFM, Tissue Harmonic Imaging							
Penetration Depth (Typical)	mm	68	68	76	83	-			
Penetration Depth**	mm	85	107	109	113	83	97	104	105
Focal Range	mm	3–58							
Frame Rate (Max)	Hz	>200							
Contact Surface (Acoustic)	mm	5 x 20							
Total Dimensions	mm	320 x 32							
Size of Handle	mm	135 x 32							
Weight (Approximate)	g	250							
Applications (Typical)		Transrectal							

* Values measured in water.
** Measurements according to IEC/TS 61390 and JIS T 1501. Penetration depth is measured in an ultrasound phantom and recalculated corresponding to a realistic tissue attenuation of 0.5 dB/cm/MHz.
For definitions of terms, refer to Acoustic Output Measurement Standard for Diagnostic Ultrasound Equipment, AIUM/NEMA, 2004.

Technical Drawings

All measurements are in mm.



Ordering Information 8808

ACCESSORIES INCLUDED
UA1272: Dummy Channel Bracket

ACCESSORIES AVAILABLE
KE4300: Carrying Case
QZ0040: Cleaning Brush for Needle Guide
UA1404: Leakage Testing Kit
UA0799: Rubber Water Standoff Sheath (pack of 100)
UA0210: Water Standoff O-Ring (pack of 100)
UA0513: Magnetic Wheel Mover for 3D imaging
UA0511: Mover Adaptor Ring for UA0513
UA0553: Variable Friction Support Arm for UA0513

Transrectal biopsy guides*
UA1257-R17: Reusable (bore diameter of 1.6 mm, suitable for 17-gauge needles)

UA1257R17E: Extended, reusable (bore diameter of 1.6 mm, suitable for 17-gauge needles)

UA1257-R14: Reusable (bore diameter of 2.1 mm, suitable for 14-gauge needles)

UA1257-S14: Single-use sterile-packed (bore diameter of 2.1mm, suitable for 14-gauge needles) (pack of 18)

UA1257S17E: Extended, single-use sterile-packed (bore diameter of 1.6 mm, suitable for 17-gauge needles) (pack of 18)

* All biopsy guides include needle guide. All needle guides for the UA1257 biopsy channel bracket are angled at 17.7° to the long axis of the transducer

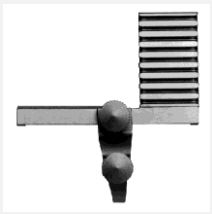
For transperineal biopsy
UA1232: Puncture Attachment (bore diameter of 2.2 mm; angle of insertion 0° to the long axis of the transducer)

TRANSDUCER COVERS
UA0008: CIV-Flex™ Sterile, latex-free (pack of 24)
UA0032: Non-Sterile Latex (pack of 24)
UA0069: Sterile Latex (pack of 24)

TRADEMARK
CIV-Flex is a trademark of CIVCO Medical Instruments Co., Inc.

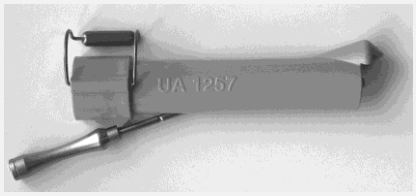
Puncture Attachment UA1332

- Weight: 107g
- Dimensions: 90 x 90 x 45 mm
- Material: stainless steel AISI303



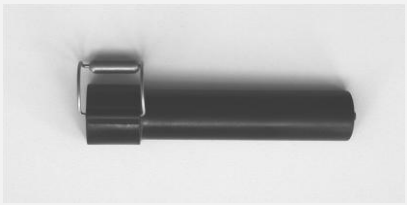
Biopsy Guide UA1257R17E

- Weight: 24g
- Dimensions: 134 x 50 x 28 mm
- Material: PEI (Ultem), stainless steel AISI304, AISI303 and XCR12Ni17.7



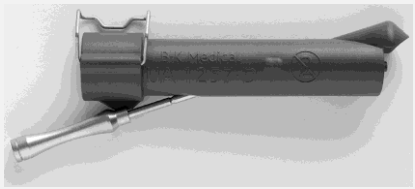
Dummy Channel Bracket UA1272

- Weight: 12g
- Dimensions: 110 x 24 x 28 mm
- Material: PEI (Ultem), stainless steel AISI303 and XCR12Ni17.7



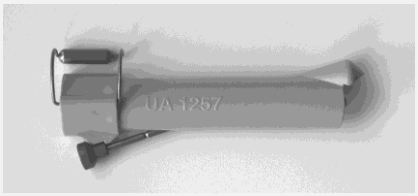
Biopsy Guide UA1257S17E

- Weight: 13g
- Dimensions: 134 x 50 x 28 mm
- Material: ABS (Terlux) and stainless steel AISI304 and XCR12Ni17.7



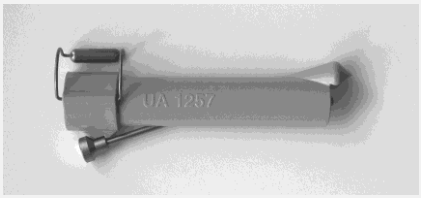
Biopsy Guide UA1257-R17

- Weight: 20g
- Dimensions: 110 x 40 x 28 mm
- Material: PEI (Ultem), stainless steel AISI304, AISI303 and XCR12Ni17.7



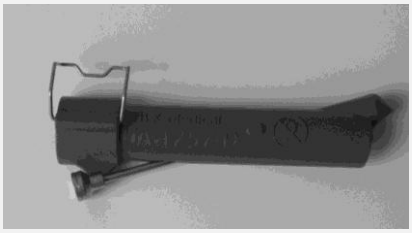
Biopsy Guide UA1257-R14

- Weight: 20g
- Dimensions: 110 x 40 x 28 mm
- Material: PEI (Ultem), stainless steel AISI304, AISI303 and XCR12Ni17.7



Biopsy Guide UA1257-S14

- Weight: 13.5g
- Dimensions: 110 x 40 x 28 mm
- Material: ABS (Terlux) and stainless steel AISI304 and XCR12Ni17.7



Headquarters USA · B-K Medical Systems, Inc. · 8 Centennial Drive, Peabody, MA 01960 · Tel: +1 800 876-7226 / +1 978 326-1300
Headquarters Europe and Rest of World · BK Medical · Mileparken 34, DK-2730 Herlev, Denmark · Tel.: +45 4452 8100
www.bkmed.com