



2018 PRODUCT CATALOG





# MIZ-21C PROBE AND ACCESSORY GUIDE



## Recommended Probe Capability Matrix for Surfaces, Welds, Holes

Flaw Type / Probe Type (Model)	Surf-X (XPSC)	Pencil (DPT/DPTU)	Blade (BLD)	Slide (SLD)	Ring (RNG)	Spot (SPT)	Weld (WSPPP, WSPXP)	Conductivity (T/D)	Bond Tester (1) (SP3L)	Rotating (AFRTP, ARTP, CRTP, RTP)	Manual Bolt Hole / Countersink (MBHP, MCSP)
Crack detection and characterization	✓	✓	✓	✓	✓	✓	✓	—	—	✓	✓
Corrosion	✓	✓	✓	✓	✓	✓	✓	—	—	✓	✓
Pitting	✓	✓	✓	✓	✓	✓	✓	—	—	✓	✓
Ferrous Weld	✓	—	—	—	—	—	✓	—	—	—	—
Nonferrous Weld	✓	○	○	—	—	—	✓	—	—	—	—
C-Scan / 3D Resolution	✓	—	—	—	—	—	—	—	—	✓	✓
Countersinks	—	—	—	—	—	—	—	—	—	✓	✓
Paint Thickness	✓	○	○	—	—	○	○	✓	—	—	—
Conductivity	—	—	—	—	—	—	—	✓	—	—	—

(1) Bond tester probes currently supported only for MIZ-21SR already in the field.

-  Best method for speed and flaw characterization
-  The test method has proven results for the specific application
-  The test results obtained from the test method can be interpreted reasonably
-  Test method is not suitable or non-reliable in terms of repeatability

# Probe Connector Pictures



Microdot



Triax



3 Pin

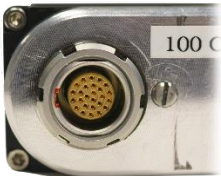
4 pin Amphenol



4 Pin LEMO



4 Pin Fischer



26 pin surface array

# Rotating scanner probe connectors



4 Pin Step LEMO



4 Pin Fischer

## Rotating scanner to MIZ-21C connectors

		
MIZ-21C 18Pin to Zetec 18Pin PN 111A810-00	MIZ-21C 18Pin to GE 12Pin PN 111A802-00	MIZ-21C 18Pin to Olympus 16Pin PN 111A803-00

## MIZ-21C Instrument Connectors



26 pin surface array

18Pin for Handheld and rotating scanners

## Probe Handles / Cables for MIZ-21C Array Surf-X Probe

Part Number	MIZ-21C Array connector	Cable Length	Probe Head / Scanner Connector
111A801-00	26-PIN	6ft (1.8m)	26-PIN_SURF-X_ARRAY_PROBES

## Probe Handles / Cables for MIZ-21C for Probe Heads

Part Number	MIZ-21C connector	Handle Length	Cable Length	Probe Head Connector
111A804-00	18-PIN	No Handle	6ft (1.8m)	MICRODOT
111A805-00	18-PIN	No Handle	6ft (1.8m)	TRIAx
111A806-00	18-PIN	2.5in (63mm)	6ft (1.8m)	3-PIN
111A807-00	18-PIN	No Handle	1ft (0.9m)	4-PIN FISCHER
111A814-00	18-PIN	No Handle	6ft (1.8m)	4-PIN FISCHER
111A815-00	18-PIN	No Handle	1ft (1.8m)	BNC
111A816-00	18-PIN	No Handle	1ft (0.9m)	4-PIN Amphenol
111A817-00	18-PIN	No Handle	6ft (1.8m)	5-Pin Cannon
111A820-00	18-PIN	No Handle	6ft (1.8m)	4-PIN Female LEMO (GE Probes)
111A822-00	18-PIN	No Handle	6ft (1.8m)	4 PIN MICROTECH

## Probe Cables for MIZ-21C for Rotating Scanners

Part Number	MIZ-21C connector	Cable Length	MIZ-21C to Scanner Connector
111A802-00	18-PIN	6ft (1.8m)	12-PIN GE SCANNER (MiniDrive)
111A803-00	18-PIN	6ft (1.8m)	16-PIN OLYMPUS SCANNER (MiniMite); 16-PIN OLYMPUS (SpitFire 2000); RA 2000
111A810-00	18-PIN	6ft (1.8m)	18-PIN ZETEC SCANNER
111A818-00	18-PIN	6ft (1.8m)	8-PIN LEMO For use with 2000-02-01 or 10013082 (Rotating Scanner); 2000-02-05 or (Indexing Scanner)
111A819-00	18-PIN	6ft (1.8m)	12-PIN LEMO For use with 2100-02-10 or 10015217 (ZS-4)
111A821-00 Not supported	18-PIN	6ft (1.8m)	16-PIN UniWest ECS-1; UniWest JF-15 (Keyed different than 111A803-00 and 24V)
111A823-00	18-PIN	6ft (1.8m)	8 PIN Rohmann

## Probe Handles / Cables for Other Zetec Instruments

Instrument	Cable Part Number	Handle Length	Cable Length	Instrument connector	Probe Head Connector
MIZ-21A/B/SR	10025251	2in (51mm)	6ft (1.8m)	4 pin Fischer	3 PIN
MIZ-20/22/40/50	10026386	2in (51mm)	6ft (1.8m)	4 pin Amphenol	3 PIN
MIZ-21 A/B	999A800-00	No Handle	6ft (1.8m)	4 pin Fischer	MICRODOT
MIZ-20/22/40/50	999A801-00	No Handle	6ft (1.8m)	4 pin Amphenol	MICRODOT
MIZ-21 A/B/SR	999A802-00	No Handle	1ft (1.8m)	4 pin Fischer	BNC
MIZ-21 A/B/SR		No Handle			(2) BNC
MIZ-20/22/40/50	999A803-00	No Handle	1ft (1.8m)	4 pin Amphenol	BNC
MIZ-21 A/B/SR	10003552-1	No Handle	6ft (1.8m)	4 pin Fischer	TRIAx
MIZ-20/22/40/50	999A805-00	No Handle	6ft (1.8m)	4 pin Amphenol	TRIAx
MIZ-27	10007562-1	No Handle		12P Bendix	TRIAx
MIZ-21 A/B/SR	999A806-00 10008165-1?	N/A	6ft (1.8m)	4 pin Fischer	4 PIN Fischer
MIZ-20/22/40/50	999A807-00	N/A	6ft (1.8m)	4 pin Amphenol	4 PIN Fischer
MIZ-21 A/B/SR	999A810-00	N/A	6ft (1.8m)	4 pin Fischer	5-Pin Cannon
MIZ-21 A/B/SR	999A811-00	N/A	6ft (1.8m)	4 pin Fischer	4 PIN LEMO (GE Probes)
MIZ-20/22/40/50	999A812-00	N/A	6ft (1.8m)	4 pin Amphenol	4 PIN MICROTECH

## Aerospace Probe Starter Kit



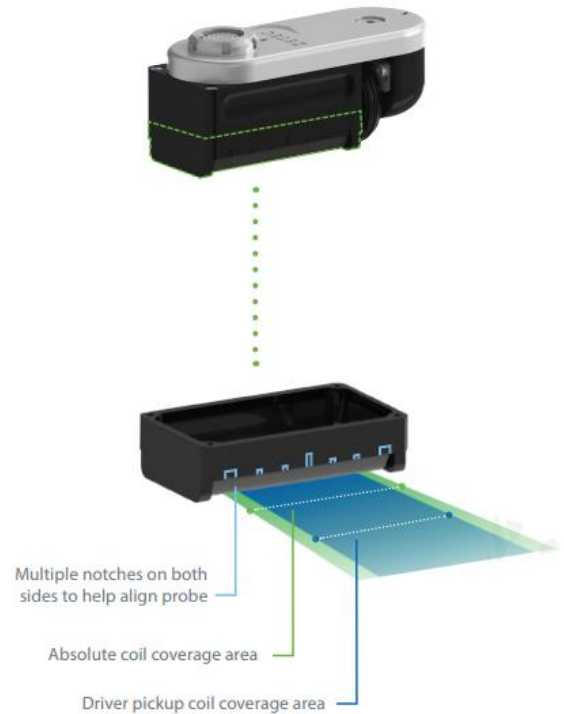
### Part Number: PROBEKIT-001

Part Number	Full Description
BLD-001	BLD = Detachable Blade Probe Straight (for Blade Probes, Probe Diameter is the blade thickness); Item Diameter: 0.060in (1.5mm); Coil: 250= 50-500 kHz; Length: 6in (152mm); Connector: 1 Pin Female Triaxial Connector Handheld
SLD-001	SLD = Detachable Sliding Probe with Reflection (Driver Pick-up Coils); Item Diameter: 0.500in (12.7mm); Coil: 0049= .3-10 kHz; Length: No cable; Connector: 1 Pin Female Triaxial Connector Handheld; MIZiD: No; Coil Diameters 0.500" (12.7mm)
SPT-001	SPT = Detachable Spot Probe with Reflection (Driver Pick-up Coils); Item Diameter: 0.400in (10.2mm); Coil: 049= 1-100 kHz; Length: No cable; Connector: 1 Pin Female Triaxial Connector Handheld; MIZiD: No; Coil Diameters 0.400" (10.2mm)
RNG-001	RNG = Detachable Ring Probe with Reflection (Driver Pick-up Coils); Item Diameter: 0.670in (17mm); Coil: 047= .1-100 kHz; Length: No cable; Connector: 1 Pin Female Triaxial Connector Handheld; MIZiD: No; Coil Diameters: 0.670" (25.5mm) Internal Diameter, 1.100" (17.0mm) outer diameter
DPT90-002	DTP90 = Detachable Pencil Tip Probe 90 Degree Shielded; Item Diameter: 0.125in (3.2mm); Coil: 250= 50-500 kHz; Length: 5in (127mm); Connector: 1 Pin Female Triaxial Connector Handheld; MIZiD: No; Drop is 0.5 inch (12.7mm)
DPT45-002	DTP45 = Detachable Pencil Tip Probe 45 Degree Shielded; Item Diameter: 0.125in (3mm); Coil: 250= 50-500 kHz; Length: 5in (127mm); Connector: 1 Pin Female Triaxial Connector Handheld; MIZiD: No; Drop is 0.5 inch (12.7mm)
DPT-002	DTP = Detachable Pencil Tip Probe Straight Shielded; Item Diameter: 0.125in (3mm); Coil: 250= 50-500 kHz; Length: 5in (127mm); Connector: 1 Pin Female Triaxial Connector Handheld
111A805-00	6ft MIZ-21C to Triax Probe Connector

# Eddy Current Surface Array Probes

Eddy current surface array probes allow for fast inspection of surfaces with varying materials and geometries utilizing the eddy current technique. Surface preparation is not necessary as compared to penetrant inspection methods. Additionally, there are no chemical usage or environmental concerns as compared to Magnetic Particle or penetrant inspection methods.

## XPSC Surf-X™ Non-Ferrous Array Probe



### Applications / Standard Features

- Quick and accurate inspections
- Patented X-Probe Coil Technology
- Rotatable Encoder comes standard
- Specially designed long wear surface
- Field replaceable components

Coverage width	Coils	Cable Length	Materials	Penetration Depth	Weld Crown	Part Number
Absolute 1.7" (43.2mm) Driver Pickup 1.5" (38.1mm)	2x16 (32)	6ft (1.8m)	Non-Ferrous  Ferrous (surface flaws)	Up to 0.25" (6.3mm)	Up to 0.25" (6.3mm)	XPSC-001
Other options available upon request						

## Supporting Instruments and Accessories

- MIZ-21C Array: The Most Advanced Handheld with Surface Array Capability (PN 111A903-00)
- Cable adapter: MIZ®-21C to array probe 6ft (1.8m) (PN 111A801-00)
- Replaceable wear surface assembly (PN 126A200-00)
- Replaceable encoder wheel (PN 126A300-00)
- Factory replaceable coil set assembly (PN 126A602-00)



## Pencil Probes

### DPT Detachable Tip Pencil Probe Straight Shielded

### DPTU Detachable Tip Pencil Probe Straight Unshielded



### DPT45 Detachable Tip Pencil Probe 45 degree Shielded

### DPT45U Detachable Tip Pencil Probe 45 degree Unshielded



### DPT90 Detachable Tip Pencil Probe 90 degree Shielded

### DPT90U Detachable Tip Pencil Probe 90 degree Unshielded



### Applications / Standard Features

- Designed for general crack detection.
- \*\*Shielded
- Drop is 0.5" (12.7mm). Other drops upon request.

Probe Shaft Diameter	Probe Coil Outside Diameter	Connector to tip length options	Frequencies Options	Connector Options
0.072" (1.8mm)	0.062" (1.6mm)	4" (mm)	*50-500kHz	Microdot
0.093" (2.4mm)		*5" (mm)	500kHz-1MHz	*Triax
*0.125" (3.2mm)		6" (mm)	**1-3MHz (0.125 shaft only)	
* most common		Custom options are available for all items		
** 1-3MHz uses unshielded models DPTU, DPT45U and DPT90U to provide a better response				

Pencil probes can detect indications down to approximately ½ the coils diameter.

## Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## DPTTAP Detachable Tip Pencil Probe Tapered Shielded

### Applications / Standard Features

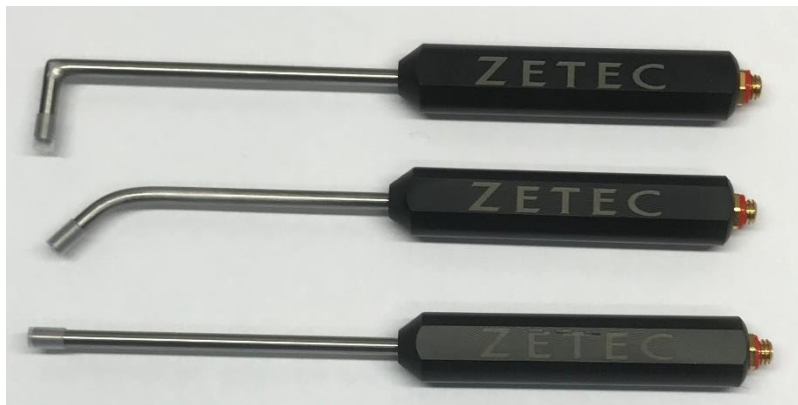
- Designed for general crack detection.

Probe Shaft Diameter	Probe Coil Outside Diameter	Connector to tip length options	Frequencies Options	Connector Options
N/A	0.062" (1.6mm)	4" (mm)	*50-500kHz 500kHz-1MHz **1-3MHz (0.125 shaft only)	Microdot Triax
* most common Custom options are available for all items				
** 1-3MHz uses unshielded models DPTU, DPT45U and DPT90U to provide a better response				

Pencil probes can detect indications down to approximately ½ the coils diameter.

## Pencil Probe Tip Covers

Protect the materials you are inspecting and the probe coils.



## Part Numbers

Part Number	Description	Probe Shaft Diameter	Wear surface thickness
*70000779-3	Pencil probe tip protective cover Diameter 0.125" (3.2mm)	0.072" (1.8mm)	0.008" to 0.10" (0.203mm to 0.254mm)
70000779-1	Pencil probe tip protective cover Diameter 0.072" (1.8mm)	0.093" (2.4mm)	
70000779-2	Pencil probe tip protective cover Diameter 0.093" (2.4mm)	*0.125" (3.2mm)	
* most common. Minimum order quantity of 10			

## Blade Probes

### BLD Detachable Tip Pencil Probe Straight Shielded



### BLD45 Detachable Tip Blade Probe 45 degree Shielded

### BLD60 Detachable Tip Blade Probe 60 degree Shielded

### BLD90 Detachable Tip Blade Probe 90 degree Shielded

#### Applications / Standard Features

- Designed for surface detection in narrow slots or gaps. Both sides of the probe will detect defects.
- \*\*Shielded
- Drop is 0.5" (12.7mm) for any angled probes. Other drops upon request.

Shaft Thickness (Width of the shaft)	Connector to tip length Options	Frequencies Options	Connector Options
0.030" (0.8mm) 0.045" (1.1mm) *0.060" (1.5mm) 0.090" (2.3mm)	6" (mm)	*50-500kHz **1-3MHz (0.125 coil only)	Triax
* most common Custom options are available for all items ** 1-2MHz uses unshielded models BLDU, BLD45U, BLD60U, BLD90U to provide a better response Note: Microdot connectors are not used because Triax provides a better response			

## Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## Slide Probes

### SLD Detachable Tip Sliding Probe with Reflection (Reflection / Driver Pick-up Coils)

For detection of near side to far side indications near fasteners. For faster inspections ask about Zetec's Surf-X probes.



Probe Coil outside diameter	Frequencies Options	Connector Options
Customer recommended coil diameter or coverage width	Provide Frequency	Triax
Custom options are available for all items		

Coil diameter should be sized to find flaws of interest.

#### Applications / Standard Features

- Inspecting rows of flush fasteners

### Example of commonly used probe

Part Number	Description	Probe Coil Outside Diameter	Coil operation	Frequencies	Connector
SLD-001	ZHHD-SLD-E00.500-0049-00Z0000	0.500" (12.7mm)	Reflection (Driver Pick-up)	0.3-10 kHz	Triax

## Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## Ring Probes

### RNG Detachable Tip Ring Probe with Reflection (Driver Pick-up Coils)

For examination the body surface of protruding fasteners



Probe Coil <b>inside</b> diameter	Frequencies Options	Connector Options
Customer recommended coil <b>inside</b> diameter or coverage width	Provide Frequency	Triax
Custom options are available for all items		

#### Applications / Standard Features

- Inspecting protruding fasteners for surface and subsurface cracks in the material or multilayer structure

#### Example of commonly used probe

Part Number	Description	Probe Coil Inside / Outside Diameter	Coil operation	Frequencies	Connector
RNG-001	ZHHD-RNG-E00.670-047-00Z0000	0.670" (17.0mm) / 1.100" (27.9mm)	Reflection (Driver Pick-up)	0.1-100 kHz	Triax

## Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## Spot Probes

### SPT Detachable Tip Spot Probe with Reflection (Driver Pick-up Coils)

### SPTU Detachable Tip Spot Probe with Reflection (Driver Pick-up Coils) Unshielded

Probe Coil outside diameter	Frequencies Options	Connector Options
Customer recommended coil diameter or coverage width	Provide Frequency	Triax
Custom options are available for all items		

#### Applications / Standard Features

- Inspecting deep and far side flaws

## Example of commonly used probe

Part Number	Description	Probe Coil Outside Diameter	Coil operation	Frequencies	Connector
SPT-001	ZHHD-SPT-E00.400-049-00Z0000	0.400" (10.2mm)	Reflection (Driver Pick-up)	1-100 kHz	Triax
SPTU-001	ZHHD-SPTU-E00.250-#-00Z0000	0.250" (6.4mm)	Reflection (Driver Pick-up)	100-500 kHz	Triax

Minimum outside coil diameter is 0.250"

## Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## Weld Probes

### WSPPP Weld Scan Probe with Differential Plus Point Coil



10025177

#### Applications / Standard Features

- Inspection of Raised Weld Beads
- Operating in Differential Mode

### WSPXP Weld Scan Probe with Driver Pickup Cross Point Coil



10025328

#### Applications / Standard Features

- Inspection of Flush Ground Welds (better for flat surfaces)
- Operating in Driver-Pickup Mode

Part Numbers	Coil Diameter Options	Probe Tip Diameter Options	Handle Length	Frequencies	Connector
WSPPP-001	0.245" (6.22mm)	0.312" (7.92mm)	5.0" (127mm)	30-300kHz +point	Triax
10025177			NA	30-300kHz +point	3 Pin
WSPXP-001			5.0" (127mm)	30-300kHz Xpoint	Triax
10025328			NA	30-300kHz Xpoint	3 Pin

Custom options are available for all items

## Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## T/D Conductivity Probe



Need updated picture

### Example of commonly used probe

Part Numbers	Description	Cable Length	Adapter MIZ-21C	Frequencies	Connector
10025934	ZHHP-T/D-375-SP-6-4PA	6ft	111A816-00	60kHz	4 pin Amphenol
10025171	ZHHD-T/D-375-SP-6-4PF	6ft	111A807-00	60kHz	4 pin Fischer

#### Applications / Standard Features

- Determining conductivity of metals and thickness of coatings

### Supporting Instruments

MIZ-21C (all Versions)

Cable adapters: Match connector to applicable adapter. [Quick Link](#)



## Probes for Rotating Scanners

### RTP Rotating Probe for Mini Scanners, Reflection D coils (Driver Pick-up)



Hole Size	Frequencies Options	Connector Options
Customer recommended hole diameter range	Provide Frequency Range	4 Pin Fischer (Zetec / GE Scanners) 4 Pin Step LEMO (Most Olympus Scanners)
Custom options are available for all items		

#### Applications / Standard Features

- Inspecting flaws on the ID of a fastener hole
- Reflection (Driver Pick-up D coils)

### Commonly used probes

Part Number	Hole Diameter Range	Working Length	Connector type	Frequency Range
RTP-013	0.125-0.156in (3.18-3.96mm)	1.75" (44mm)	4 Pin Fischer	100-2000 kHz
RTP-014	0.156-0.187in (3.96-4.75mm)	1.75" (44mm)	4 Pin Fischer	100-2000 kHz
RTP-001	0.187-0.218in (4.75-5.54mm)	1.75" (44mm)	4 Pin Fischer	100-2000 kHz
RTP-003	0.218-0.250in (5.54-6.35mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-004	0.250-0.281in (6.35-7.14mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-005	0.281-0.312in (7.14-7.92mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-006	0.312-0.375in (7.92-9.53mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-002	0.375-0.437in (9.53-11.1mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-007	0.437-0.500in (11.1-12.7mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-008	0.500-0.562in (12.7-14.27mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-009	0.562-0.625in (14.27-15.88mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-010	0.625-0.687in (15.88-17.45mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-011	0.687-0.750in (17.45-19.05mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
RTP-012	0.750-0.812in (19.05-20.62mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz

### Supporting Instruments

MIZ-21C (PN: 111A902-00) and MIZ21C Array (PN: 111A903-00)

Rotating Scanners: Zetec (PN: 169A901-00), GE or Olympus

Scanner Cable Adapters: Match scanner connector to applicable adapter. [Quick Link](#)

## ARTP Adjustable Rotating Probe for Mini Scanners, Reflection D coils (Driver Pick-up)



Hole Size	Frequencies Options	Connector Options
Customer recommended hole diameter range	Provide Frequency Range	4 Pin Fischer (Zetec / GE Scanners) 4 Pin Step LEMO (Most Olympus Scanners)
Custom options are available for all items		

### Applications / Standard Features

- Inspecting flaws on the ID of a fastener hole. Adjustable probe tips coverage a large range of diameters than non-adjustable probe tips.
- Reflection (Driver Pick-up D coils)

### Commonly used probes

Part Number	Hole Diameter Range	Working Length	Connector type	Frequency Range
ARTP-002	0.125-0.156in (3.18-3.96mm)	1.75" (44mm)	4 Pin Fischer	100-2000 kHz
ARTP-003	0.156-0.187in (3.96-4.75mm)	1.75" (44mm)	4 Pin Fischer	100-2000 kHz
ARTP-001	0.187-0.218in (4.75-5.54mm)	1.75" (44mm)	4 Pin Fischer	100-2000 kHz
ARTP-004	0.218-0.250in (5.54-6.35mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-005	0.250-0.281in (6.35-7.14mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-006	0.281-0.312in (7.14-7.92mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-007	0.312-0.375in (7.92-9.53mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-008	0.375-0.437in (9.53-11.1mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-009	0.437-0.500in (11.1-12.7mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-010	0.500-0.562in (12.7-14.27mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-011	0.562-0.625in (14.27-15.88mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz
ARTP-012	0.625-0.687in (15.88-17.45mm)	2.0" (51mm)	4 Pin Fischer	100-2000 kHz

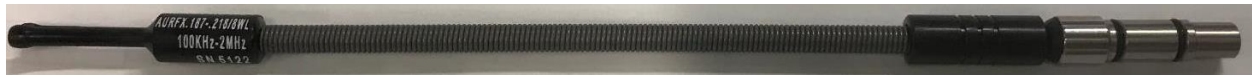
### Supporting Instruments

MIZ-21C (PN: 111A902-00) and MIZ21C Array (PN: 111A903-00)

Rotating Scanners: Zetec (PN: 169A901-00), GE or Olympus

Scanner Cable Adapters: Match scanner connector to applicable adapter. [Quick Link](#)

## AFRTP Adjustable Flexible Rotating Probe for Mini Scanners, Reflection D coils (Driver Pick-up)



Hole Size	Frequencies Options	Connector Options
Customer recommended hole diameter range	Provide Frequency Range	4 Pin Fischer (Zetec / GE Scanners) 4 Pin Step LEMO (Most Olympus Scanners)
Custom options are available for all items		

### Applications / Standard Features

- Inspecting flaws on the ID of a fastener hole where a slight bend occurs for entering the hole
- Reflection (Driver Pick-up D coils)

### Commonly used probes

Part Number	Hole Diameter Range	Working Length	Connector type	Frequency Range
AFRTP-001	0.187-0.250in (4.75-6.35mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-002	0.250-0.312in (6.35-7.92mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-003	0.312-0.375in (7.92-9.53mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-004	0.375-0.437in (9.53-11.1mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-005	0.437-0.500in (11.1-12.7mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-006	0.500-0.625in (12.7-15.88mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-007	0.625-0.687in (15.88-17.45mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-008	0.687-0.750in (17.45-19.05mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz
AFRTP-009	0.750-0.875in (19.05-22.23mm)	6.0" (152mm)	4 Pin Fischer	100-2000 kHz

### Supporting Instruments

MIZ-21C (PN: 111A902-00) and MIZ21C Array (PN: 111A903-00)

Rotating Scanners: Zetec (PN: 169A901-00), GE or Olympus

Scanner Cable Adapters: Match scanner connector to applicable adapter. [Quick Link](#)

## C RTP Counter Sink Rotating Probe for Mini Scanners, Reflection D coils (Driver Pick-up)



Hole Size	Frequencies Options	Connector Options
Customer recommended hole diameter range	Provide Frequency Range	4 Pin Fischer (Zetec / GE Scanners) 4 Pin Step LEMO (Most Olympus Scanners)
Custom options are available for all items		

### Applications / Standard Features

- Inspecting counter sinks
- Standard probes are for 100 degree counter sink.
- Reflection (Driver Pick-up D coils)

### Example of commonly used probe

Part Number	Hole Diameter	Countersink Angle	Connector type	Frequency Range
CRTP-003	0.156in (4mm)	100°	4 Pin Fischer	100-2000 kHz
CRTP-001	0.187in (5mm)	100°	4 Pin Fischer	100-2000 kHz
CRTP-002	0.250in (6mm)	100°	4 Pin Fischer	100-2000 kHz

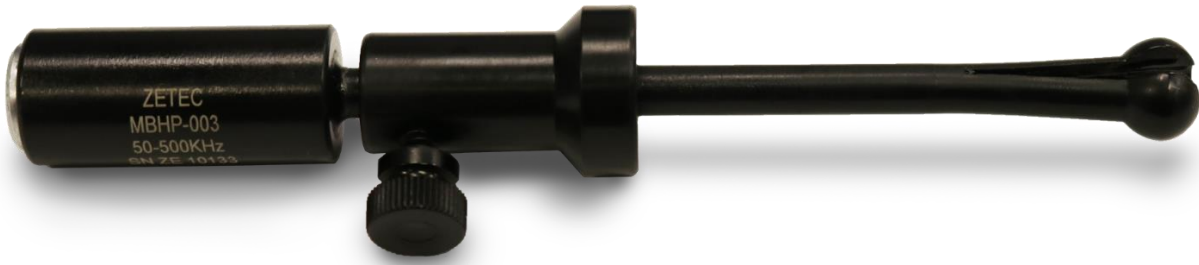
### Supporting Instruments

MIZ-21C (PN: 111A902-00) and MIZ21C Array (PN: 111A903-00)

Rotating Scanners: Zetec (PN: 169A901-00), GE or Olympus

Scanner Cable Adapters: Match scanner connector to applicable adapter. [Quick Link](#)

## MBHP Manual Bolt Hole Probe, Absolute Coils



### Applications / Standard Features

- Inspecting flaws on the ID of a fastener hole
- Absolute coils

### Frequency Selection

50kHz-500kHz for aluminum

500kHz-1MHz for steel

1MHz-3MHz for titanium

### Example of commonly used probe

Part Number	Hole Diameter Range	Working Length	Connector type	Frequency Range
MBHP-001	0.250-0.281in (6.35-7.14mm)	1.50" (38mm)	Triax	50-500 kHz
MBHP-002	0.281-0.312in (7.14-7.92mm)	1.50" (38mm)	Triax	50-500 kHz
MBHP-003	0.312-0.375in (7.92-9.53mm)	2.0" (51mm)	Triax	50-500 kHz

### Supporting Instruments

MIZ-21C

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

## MCSP Manual Counter Sink Probe, Absolute Coils



### Applications / Standard Features

- Inspecting counter sinks
- Standard probes are for 100 degree counter sink.

### Frequency Selection

50kHz-500kHz for aluminum

500kHz-1MHz for steel

1MHz-3MHz for titanium

### Example of commonly used probe

Part Number	Hole Diameter	Countersink Angle	Connector type	Frequency Range
MCSP-001	0.250in (6mm)	100°	Triax	50-500 kHz
MCSP-002	0.312in (8mm)	100°	Triax	50-500 kHz

### Supporting Instruments

MIZ-21C

Cable adapters: Match connector to applicable adapter. [Quick Link](#)

# Calibration Standards

## Navy Reference Kits

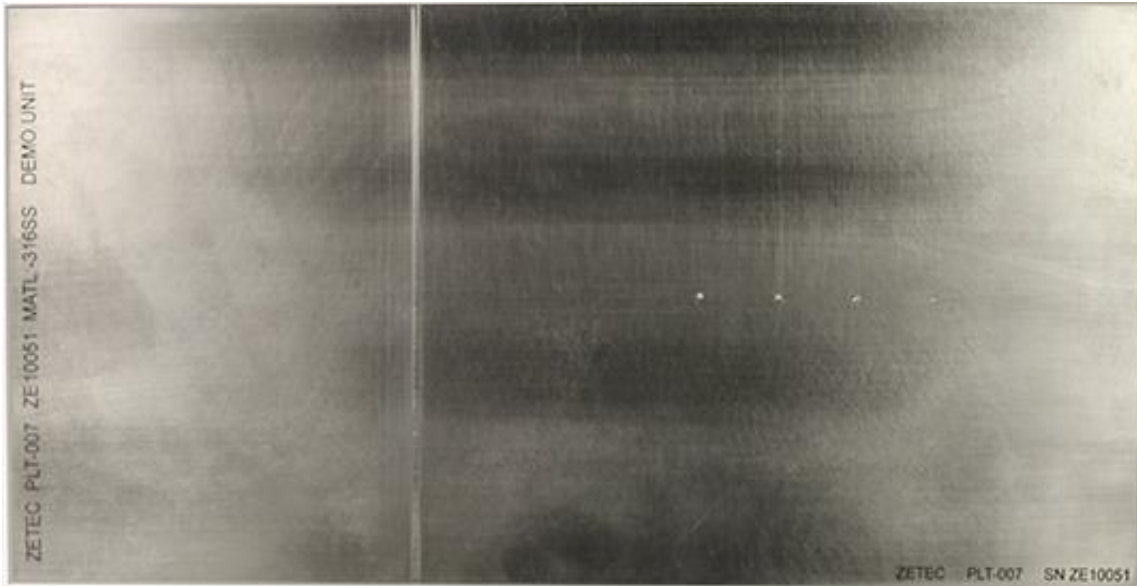


Price is material dependent

PN	Sales Note
NRK-001	Navy Eddy Current Reference Standard Kit. MATERIAL: 400 STAINLESS STEEL. CONTAINS 20 FASTENER HOLES (.156-.750) WITH A TOTAL OF 71 EDM NOTCHES. Includes Test Report and Certificate of Conformance.
NRK-002	Navy Eddy Current Reference Standard Kit. MATERIAL: 17-4PH STAINLESS STEEL. CONTAINS 20 FASTENER HOLES (.156-.750) WITH A TOTAL OF 71 EDM NOTCHES. Includes Test Report and Certificate of Conformance.
NRK-003	Navy Eddy Current Reference Standard Kit. MATERIAL: 17-7PH STAINLESS STEEL. CONTAINS 20 FASTENER HOLES (.156-.750) WITH A TOTAL OF 71 EDM NOTCHES. Includes Test Report and Certificate of Conformance.
NRK-004	Navy Eddy Current Reference Standard Kit. MATERIAL: 304 STAINLESS STEEL, CONTAINING 20 FASTENER HOLES (.156-.750) WITH A TOTAL OF 71 EDM NOTCHES. Includes Test Report and Certificate of Conformance.
NRK-005	Eddy Current Reference Standard Kit. MATERIAL: 6526 Nickel Cobalt Steel, CONTAINING 20 FASTENER HOLES (.156-.750) WITH A TOTAL OF 71 EDM NOTCHES. Includes Test Report and Certificate of Conformance.
NRK-006*	Eddy Current Reference Standard Kit. MATERIAL: 7075-T6 Aluminum, CONTAINING 20 FASTENER HOLES (.156-.750) WITH A TOTAL OF 71 EDM NOTCHES. Includes Test Report and Certificate of Conformance.

\* Most common

## Surf-X Calibration Plate



PN	Material	Plate Thickness
PLT-007	Stainless Steel 316	0.048"
PLT-009	ALUMINUM 7075-T6	0.050"

### Reference Plate for Surf-X Probe

Plate Size: 11.00" long x 6.00" wide

Calibration groove (6.00" +/- 0.050" long x 0.625" +/- .0050" wide x 40% deep)

4 EDM notches at varying depths 100%, 60%, 20%, 10% (all 0.100" +/- 0.015" long and 0.005" +/- 0.002" wide)

4 Round Bottom Holes at varying depths 100% x 0.067" (TWH), 60% x 0.109", 20% x (0.188"), 10% x (0.188")

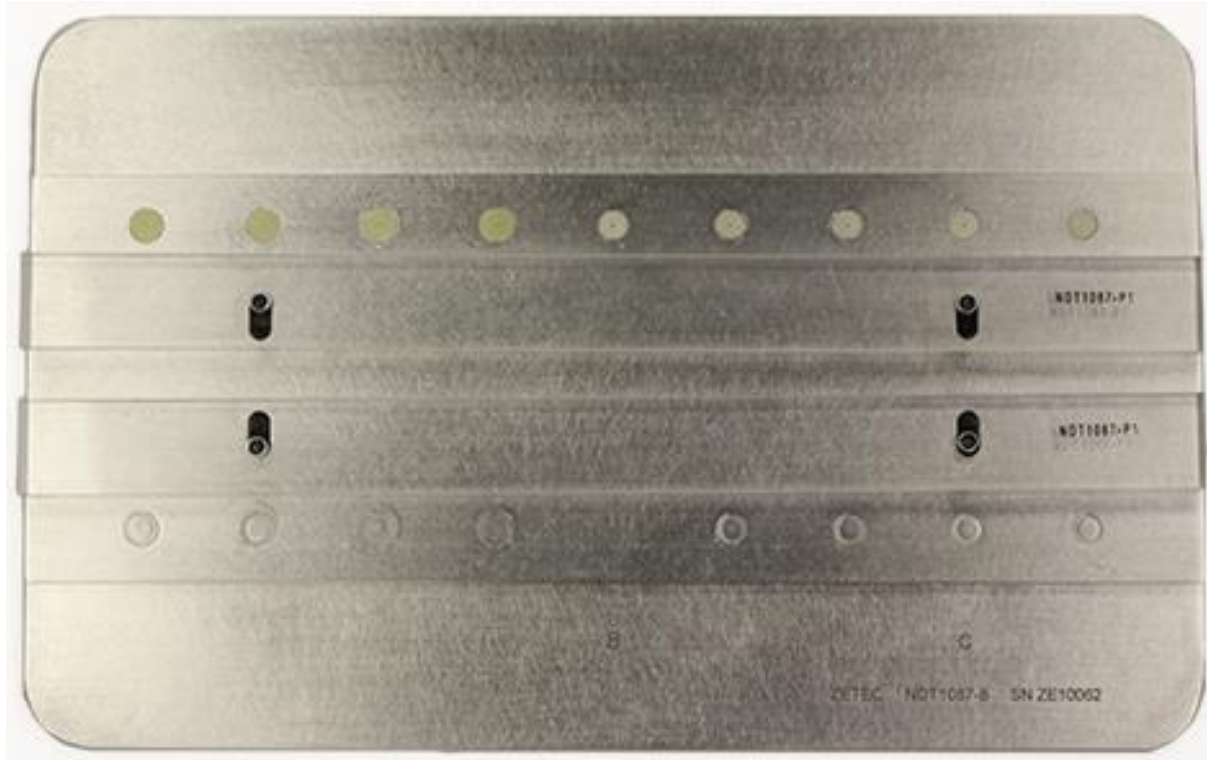
% depths have a tolerance of +/-0.003"



## Boeing Reference Standard (NDT1087-X)

“-X” are for varying plate thicknesses.

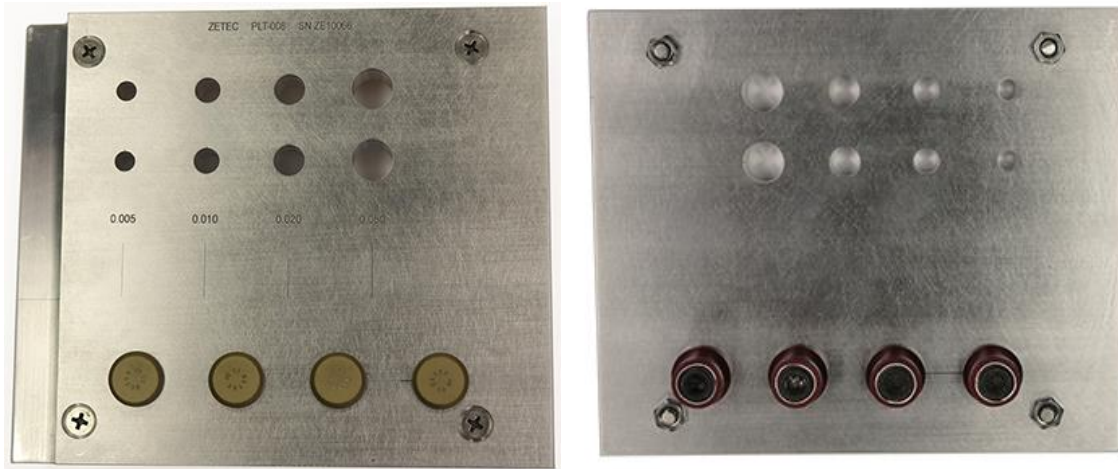
- BOEING REFERENCE STANDARD 737 PT 6 53-30-00 & 777 PT6 53-30-09
- FASTENER (NAS1097D6-6DM NAS1097D5-6D, ALL ALDORIZED) (BACR15GF6D7, BACRGF5D6, ALL ALODINED).
- Includes Test Report and Certificate of Conformance.



## Part Numbers

Part Number	Top Plate Thickness (inch)	Bottom Plate Thickness (inch)	EDM Notch Length (inch)
NDT1087-1	0.050	0.040	0.200
NDT1087-2	0.071	0.040	0.200
NDT1087-3	0.080	0.040	0.180
NDT1087-4	0.090	0.040	0.200
NDT1087-5	0.100	0.050	0.200
NDT1087-6	0.071	0.063	0.250
NDT1087-7	0.090	0.080	0.250
NDT1087-8	0.100	0.900	0.250
NDT1087-9	0.036	0.036	

## MIZ-21C Demo Reference Plate



5.5" x 6.5" ALUMINUM 7075-T6 MIZ-21C Demo Reference Plate  
 3/8" thick bottom plate, 3/16" thick top plate

4 EDM surface notches (pencil probes and spot probe) L = 0.650", W = 0.005", D = 0.005", 0.010", 0.020", 0.050"

8 through wall holes: 2x 0.250"; 2x 0.312"; 2x 0.375"; 2x 0.500" (rotating bolt hole probes)  
 4 of the through wall holes on the top plate have (2) 0.030" deep x 0.005" wide EDM notches at a 45 degree angle on the near and far side of the top plate and 180 degrees apart.  
 4 of the through wall holes on the bottom plate have (1) 100% EDM through bottom plate only 0.020" D x 0.005" W

4 through wall holes with 100 degree counter sinks (Counter sink rotating probe)  
 Counter sink holes contain titanium fasteners (Ring Probes)  
 1 of the counter sink holes has a 100% EDM notch L = 0.250", W = 0.010"

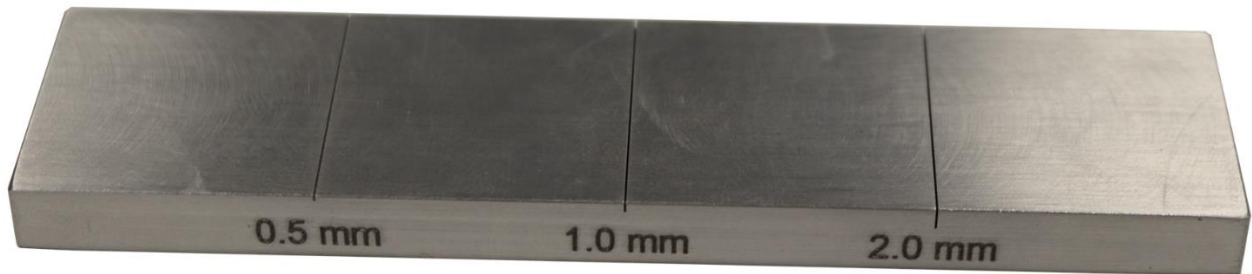
1 100% EDM notch on the surface of the bottom plate only between first 2 TWHs on 3rd row W = 0.010" (spot probe)

0.250" radiused edge with circumferential EDM notch 0.025" D x 0.005 W and length follows the entire contour and axial EDM notch that is 0.025" D x 0.005 W x 0.500" L  
 0.250" deep x 0.005" wide EDM axial and circumferential notch (+point weld probe).

Price is material dependent

PN	Sales Note
PLT-008	Zetec MIZ-21C Demo Kit Reference Plate ALUMINUM 7075-T6

## Crack Flaw Standards



Block Size: 4.0"(101.6mm)L x 1.0"(25.4mm)D x 0.25"(6.35mm)H.

Includes 3 EDM Flaws of the following sizes:

- 1.) (0.5mm)D x (0.25mm)W x (25mm)L
- 2.) (1.0mm)D x (0.25mm)W x (25mm)L
- 3.) (2.0mm)D x (0.25mm)W x (25mm)L

Includes Test Report and Certificate of Conformance.

Price is material dependent

PN	Sales Note
NDT-3025CS	Eddy Current 3 Crack Surface Standard 4340 Carbon Steel
NDT-3025INC	Eddy Current 3 Crack Surface Standard 718 Inconel
NDT-3025AL	Eddy Current 3 Crack Surface Standard 7075-T6 Aluminum

\* Most common

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