

Eddy Current Probes

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ECT Probe Introduction



Tubing Array Probes



Bobbin Probes



Rotating Probes



Handheld Probes



Calibration Standards



Adapters

Probe Solutions for all Industries

Since 1968, the experts at Zetec have designed over 10,000 probes to meet the constantly expanding technological needs of our NDT clients.

We offer a wide selection of eddy current and other electromagnetic probes.

Bobbin probes for non-ferromagnetic tube inspections



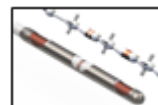
X-Probe and CXB multi-coil array probes to quickly detect and characterize all flaws, including circumferential cracks



Rotating (MRPC) probes to detect and characterize all flaws at expansion, in small radius U-bends, in tube plugs and in repair sleeves



Remote Field probes for inspection of high permeability tubing and pipe



Carter and TEO probes for inspection of mildly ferritic tubes such as Monel, SEA-CURE and 400 series stainless steel



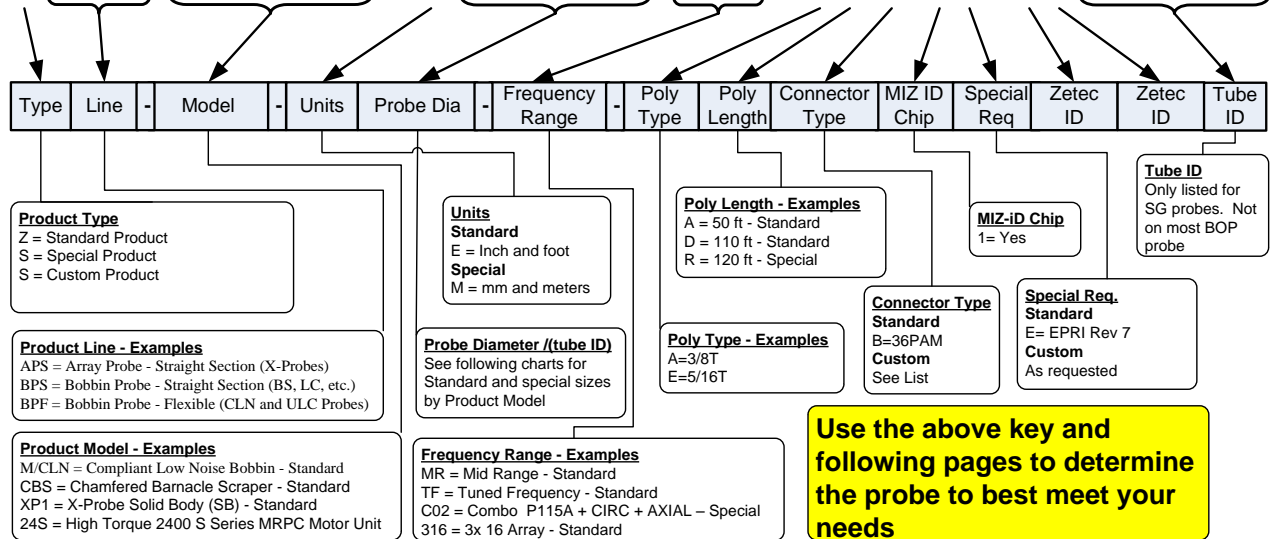
Handheld probes for inspecting turbine blades, welds and more



If you don't find the product you are looking for, do not hesitate to email Zetec Customer Service: customerservice@zetec.com to discuss your particular needs.

Probe Description Information

Zxxx-xxxxxx-Exx.xxx-xxx-xxB1x00-0.000



Example

ZAPF-XP2-E00.560-216MR-ADB1E01-0.608

The Above Probe is an X-probe with mag biased bobbin (XP2), in English Units (E), with a diameter of .560" (00.560); 2X16 array coils and a mid range frequency bobbin (216MR), with 3/8T poly type (A), 110 ft in length (D), a 36 pin connector (B), ID chip that stores and transmits probe data (1), tested to EPRI REV6 requirements (E); and is made for a tube with an ID of 0.608 inches.

The above figure demonstrates what each piece of information means in the probe description.

The following lists provide most of the available options for each of the above items.

Product Line

Z**xxx**-xxxxxx-Exx.xxx-xxx-xxB1x00

Product Line	Description
APS	Array Probe - Straight Section
APF	Array Probe - Flexible
BPS	Bobbin Probe - Straight Section
BPF	Bobbin Probe - Flexible
BPR	Bobbin Probe - Reference
CPS	Tight Bend (Combo) Bobbin Probe - Straight Section
CPF	Tight Bend (Combo) Bobbin Probe - Flexible
BPA	Bobbin Probe - Accessories
MUS	Motor Unit - Straight Section
RPS	Rotating Probe Head - Straight Section
RPF	Rotating Probe Head - Flexible
RES	Rotating Extension Shaft
TDS	Tube Drive Shaft
MPA	MRPC Probe - Accessories
HHP	Handheld Probe w/Cable
HHD	Handheld Detachable Probe w/o Cable
HHA	Handheld Probe Accessories
HHC	Handheld Probe Adaptor Cable
ES	Surface Array Probe
UT	Ultra-Sonic Probe

Model Information

Zxxx-**xxxxxx**-Exx.xxx-xxx-xxB1x00

Go to the specific probe catalog models to get model information

Diameter

Zxxx-xxxxxx-**Exx.xxx**-xxx-xxB1x00

Most probes have diameter offerings in .010” increments
 See Zetec’s Product Catalog for diameter offerings for specific models.
 Other sizes are available upon request

Coil Frequency Information

Zxxx-xxxxxx-Exx.xxx-**MR**-xxB1x00

Coil	Coil Description
NMR	Narrow Groove MR Coil Winding
NHF	Narrow Groove HF Coil Winding
NTF	Narrow Groove TF Coil Winding
LF	LF Coil Winding
ULF	ULF Coil Winding
MR	MR Coil Winding
HF	HF Coil Winding
UHF	UHF Coil Winding
TF	TF Coil Winding
SAX	French SAX Bobbin Winding
	Combo Coil Sets
C01	Combo P115A + PP11A + SP080B
C02	Combo P115A + AXIAL + CIRC
C03	Combo SP080A + AXIAL + CIRC
C04	Combo MP115A + MPP11A + MSP080B
C05	Combo P115A + PP11A
C06	Combo PP11C + PP16B
C07	Combo MPP11C + MPP16B
C08	Combo PP11A + SP080B
C09	Combo P115A + PP11A + P115E
C10	Combo SP080B + SP060B + SP040B
C11	Combo PP9A + PP14A

Coil	Coil Description
C12	Combo SP080A + PP11A
C13	Combo PP11A + PP9A
C14	Combo PP11A + PP16A
C15	Combo SP080E + SP060E + SP040B
C16	Combo SP080B + SP060F + SP040C
C17	Combo PP11A + SP060F + P115A
C18	Combo GAP SCAN
C19	Combo SP080A + PP11A + AXIAL
C20	Combo P115A + PP11A + Dummy Shoe
C21	Combo PP10C + Dummy Shoe
C22	Combo P115A + PP11K + Dummy Shoe
C23	Combo P080F + P100G
C24	Combo PP16A + P100D + SP080B
C25	Combo PP11A + Dummy Shoe
C26	Combo P116A + PP16A + SP080B
C27	Combo PP10A + Dummy Shoe
C28	Combo PP10E + Dummy Shoe
C29	Combo P115A + PP11G + SP080B
C30	Combo SP080B + PP11A + P115A
C31	Combo P115A + PP9A + SP080B
C32	Combo P116A + PP9A + SP080B
C33	Combo PP11A + PP9A + SP080B
C34	Combo PP11A + Circ Sensitive D/P Pancakes + Profiling pancake
C35	Combo MP115A + MPP11A, with magnets
C36	Combo PP9A + Point Coil with Magnet/P080A Pancake Coil
C37	Combo PP9A + Point Coil with Magnet/P080J Pancake Coil
C38	Combo PP11A, PP11A rotated 45° and P080A
	Pancake Coils
P035A	Pancake Coil 035A
P060A	Pancake Coil 060A
P077A	Pancake Coil 077A
P080A	Pancake Coil 080A
P091A/SD	Pancake Coil P091A receives driven by sheet drive
MP080A	Pancake Coil 080A, with magnet
C/P080A	CIRC Pancake Coil 080A
A/P080A	AXIAL Pancake Coil 080A
P080B	Pancake Coil 080B
MP080B	Pancake Coil 080B, with magnet
SP080A	Shielded Pancake Coil 080A

Coil	Coil Description
P080C	Pancake Coil 080C
C/P080G	CIRC Pancake Coil 080G
A/P080G	AXIAL Pancake Coil 080G
P084C	Pancake Coil 084C
P090E	Pancake Coil 090E
P090B	Pancake coil 090B
P110A	Pancake Coil 110A
P110B	Pancake Coil 110B
P110E	Pancake Coil 110E
P115A	Pancake Coil 115A
MP115A	Pancake Coil 115A, with magnet
P115E	Pancake Coil 115A
	+Point Coils
PP9A	+ Point Coil 9A - 300-1000 kHz
MPP9A	+ Point Coil 9A with magnet, 300-1000kHz
PP9B	+ Point Coil 9B - KHZ
PP9C	+ Point Coil 9C - KHZ
PP9G	+ Point Coil 9G - KHZ
PP9H	+ Point Coil 9H - KHZ
PP9J	+ Point Coil 9J - KHZ
PP10B	+Point Coil
PP11A	+ Point Coil PP11A
MPP11A	+ Point Coil PP11A Magnet
PP11C	+ Point Coil PP11C - KHZ
PP11E	+ Point Coil PP11E - 20-200 KHZ
PP11G	+ Point Coil PP11G - 10-200 KHZ (50kHz Peak)
PP11K	+ Point Coil PP11K - KHZ
PP14A	+ Point Coil 14A
MPP14A	+ Point Coil PP14A Magnet
PP16C	+ Point Coil 16C - KHZ
PP17A	+ Point Coil 17A - KHZ
PP19A	+ Point Coil 19A - KHZ
PP20A	+ Point Coil 20A - 30-300 KHZ
MPP20A	+ Point Coil 20A Magnet - 30-300 KHZ
PP21B	+ Point Coil 21B - KHZ
PP29B	+ Point Coil 29B - KHZ
	Block +Point Coils
PPB5A	Block + Point Coil 5A - 50-600 KHZ

Coil	Coil Description
	Dummy
DS	Dummy Shoe
	X-Probe Coils
112	1x 12 No Bobbin
112LF	1x 12 Array/Low Frequency Bobbin
112MR	1x 12 Array/Mid Frequency Bobbin
112TF	1x 12 Any custom bobbin coil winding
112HF	1x 12 Array/High Frequency Bobbin
114	1x 14 Array
114LF	1x 14 Array/Low Frequency Bobbin
114HF	1x 14 Array/High Frequency Bobbin
114MR	1x 14 Array/Mid Frequency Bobbin
114TF	1x 14 Array/Tuned Frequency Bobbin
116	1x 16 Array
116LF	1x 16 Array/Low Frequency Bobbin
116MR	1x 16 Array/Mid Frequency Bobbin
116HF	1x 16 Array/High Frequency Bobbin
119HF	1x 19 Array/High Frequency Bobbin
119MR	1x 19 Array/Mid Frequency Bobbin
119LF	1x 19 Array/Low Frequency Bobbin
124HF	1x 24 Array/High Frequency Bobbin
124MR	1x 24 Array/Mid Frequency Bobbin
127HF	1x 27 Array/High Frequency Bobbin
127MR	1x 27 Array/Mid Frequency Bobbin
202A	2x 2 Array Simulating X-Probe
208	2x 8 Array
208LF	2x 8 Array/LF Bobbin
212	2x 12 Array
212MR	2x 12 Array/Mid Frequency Bobbin
212TF	2x 12 Array/Tuned Frequency Bobbin
212HF	2x 12 Array/High Frequency Bobbin
214	2x 14 Array
214LF	2x 14 Array/Low Frequency Bobbin
214MR	2x 14 Array/Mid Frequency Bobbin
214TF	2x 14 Array/Tuned Frequency Bobbin
214HF	2x 14 Array/High Frequency Bobbin
216	2x 16 Array

Coil	Coil Description
216LF	2x 16 Array/Low Frequency Bobbin
216MR	2x 16 Array/Mid Frequency Bobbin
216TF	2x 16 Array/Tuned Frequency Bobbin
216SAX	2x 16 Array/SAX bobbin
216HF	2x 16 Array/High Frequency Bobbin
219	2x 19 Array
219MR	2x 19 Array/ Mid Frequency Bobbin
219TF	2x 19 Array/Tuned Frequency Bobbin
219HF	2x 19 Array/High Frequency Bobbin
219LF	2x 19 Array/Low Frequency Bobbin
219SAX	2x 19 Array/SAX Bobbin
308	3x 8 Array
308MR	3x 8 Array/Mid Frequency Bobbin
312	3x 12 Array
312MR	3x 12 Array/Mid Frequency Bobbin
312TF	3x 12 Array/Tuned Frequency Bobbin
316	3x 16 Array
316TF	3x 16 Array/Tuned Frequency Bobbin
	RG3-4 Coils
CC46E	Surface Transmit and Receive - 3 Coil
	RPS Coils
CC52F	Non-Surface Transmit and Receive - 3 Coil - 50-500 kHz
CC52H	Non-Surface Transmit and Receive - 3 Coil - 20-200 kHz
CC52G	Non-Surface Transmit and Receive - 3 Coil - 5-50 kHz
	Deep River Coils
CC5W	50–500 kHz with Carter1 magnet configuration
CC14R.	10-100 kHz with Carter1R radial field magnet configuration
CC14L	Carter1R radial field magnet configuration
CC14Y	Deep River Coil
CC14W	Deep River Coil
CC14AA	Deep River Coil
CC18D	Carter1P magnetic bobbin partial saturation configuration
CC22J	Carter1P magnetic bobbin partial saturation configuration
CC40S	49.1 uH Carter1 magnet configuration
CC40T	42 uH Carter1 magnet configuration
CC40W	Deep River Coil

Coil	Coil Description
CC40X	Deep River Coil
CC43X	50-500 kHz with A/CFI configuration
CC48B	Deep River Coil - Bobbin
CC52F	Deep River Coil - 4 Coil
CC52J	Deep River Coil - 3 Coil
CC58C	20-400 kHz with Carter1R radial field magnet configuration
CC58P	50-500 kHz with Carter1 reverse magnet configuration
CC58U	50-500 kHz with Carter1 reverse magnet configuration
CC62A	20-400 kHz with Carter2 magnet configuration
	TEO/TEG Coils
005	1-10 kHz
010	2-20 kHz
015	3-30 kHz
025	5-50 kHz
030	6-60 kHz
050	10-100 kHz
075	15-150 kHz
100	20-200 kHz
125	25-250 kHz
150	30-300 kHz
250	50-500kHz
300	60-600 kHz
500	100-1000 kHz
600	120-1200 kHz
	Surface Coils
SC062A	Split-Core Coil SC062A
SC067A	Split-Core Coil SC067A
SC106A	Split-Core Coil SC106A
SC115A	Split-Core Coil SC115A
SC260A	Split-Core Coil SC260A
SC260B	Split-Core Coil SC260B
CS01	Combo Conical Split Core Coil (CSC) CSC089A + CSC089B
DS119A	Diff Driver-Up Split Core Coil (D-DPUSC119A)
DPU	Driver Pick-up

Coil	Coil Description
	Analog Magnetic Sensors
AMS	Analog magnetic sensor
	RFT Coils
085	20 Hz to 200 Hz used for carbon steel thicker than 6mm
.3K	100 Hz to 1000 Hz used for carbon steel applications like SA214 or SA179
02K	1 kHz to 10 kHz used for thin or lower permeability carbon steel like A-556
15K	5 kHz to 30 kHz used for ferromagnetic stainless steel like SS439 (A-268) or SEA-Cure
	Array Coils and Configuration
02x016/P101B	2x16 coil array using P101B pancake coils

Poly Type

Zxxx-xxxxxx-Exx.xxx-xx-**A**xB1x00

Poly Type	Description
0	None
A	3/8T
B	3/8H
C	3/8HDPE-T
D	3/8HDPE-H
E	5/16T
F	5/16H
G	**OBS**5/16HDPE-T
H	5/16HDPE-H
I	1/2 BLK
J	11mm HDPE
K	1/4 Nylaflo LM
L	4mm Flat Wound Shaft
M	1/2 Tygon
N	7/16 Tygon
O	3/8 Tygon
P	3/8 Solid Shaft
Q	7mm Nylon
R	1/4T
S	1/8T
T	5/16 Nylaflo LM
U	320HDPE
V	3/8 Solid Shaft - LL
W	3/16T
X	13.85 mm HDPE
Y	3/16H
Z	3/8HS
#	Special

Poly Length – Probes and Motor Units

Zxxx-xxxxxx-Exx.xxx-xx-xAB1x00

Most models provide recommended standardized lengths. Nearly every length can be provided upon request

General	Probe and MU Poly Lengths	
0	No cable	<p>Note: M/ULC/Cx and ULC/Cx “tight bend probes” have different formatting for the probe lengths</p> <p>The D means: SCPF-ULC/C4-E00.480-MR-ADB1E00: 110ft poly, plus 4ft combo section: 114ft total</p> <p>The N means: ZCPF-M/ULC/C4-E00.610-TF-ANB1E00-0.664: 106 ft poly, plus 4ft combo section: 110ft total</p>
A	50ft (15m)	
B	83ft (25m)	
C	100ft (30.5m)	
D	110ft (33.5m)	
E	45ft (13.5m)	
F	40ft (12m)	
G	96ft (29m)	
H	65ft (20m)	
I	90ft (27.5m)	
J	105ft (32m)	
K	80ft (24.5m)	
L	98ft (30m)	
M	99ft (30m)	
N	106ft (32.5)	
O	107ft (32.5m)	
P	85ft (26m)	
Q	30ft (9m)	
R	120ft (36.5m)	
S	6ft (2m)	
T	25ft (7.5m)	
U	75ft (23m)	
V	60ft (18.5m)	
W	130ft (39.5m)	
X	125ft (38m)	
Y	70ft (21.5m)	
Z	35ft (10.5m)	
#	Special	
2	13ft(4m)	

Length – MRPC Probe Heads and Extension Shafts

Zxxx-xxxxxx-Exx.xxx-xx-xE B1x00

MRPC	Probe Lengths
0	No cable
A	72 in
B	108 in
C	156 in
D	180 in
E	18 in
F	24 in
G	36 in
H	48 in
I	60 in
J	90 in
K	96 in
L	50 in
M	12 in
N	72 in
O	4 in
P	6 in
Q	8 in
R	2.5 in
S	3.5 in
T	45 in
U	35 in
V	30 in
W	68 in
X	75 in
Y	53 in
Z	38 in
#	Special

Connectors – Probe and Motor Unit to Instrument

Zxxx-xxxxxx-Exx.xxx-xxx-xxA1x00

General	Probe / MU Connectors
0	N/A
A	4 Pin Amphenol
B	36 Pin Amphenol
C	2x BNC
D	6 Pin Amp/3 Pin Amp
E	6 Pin Amp/5 Pin Bendix
F	10 Pin Amp/5 Pin Amp
G	4 Pin Micro-Tech
H	5 Pin Lemo
I	10 Pin Amphenol
J	16 Pin Lemo
K	4 Pin Fischer
L	10 Pin Insert
M	26 Pin - Aero
N	1 Pin Lemo
O	2 Pin Lemo
P	36 Pin Amp/6 pin Jaeger
Q	4x BNC
R	3 each Twinax #12
S	19 Pin Amphenol
T	5 Pin Cannon
U	27 Pin Connector
V	6 Pin Jaeger
W	41 Pin IT Cannon
X	6 Pin Jaeger/ 41 Pin IT Cannon
Y	8 Pin ITT cannon
Z	2 MCX Connectors
2	64 pin MIZ-200
#	Special

Connectors – MRPC Probe Head to Motor Unit

Zxxx-xxxxxx-Exx.xxx-xxx-xxA1x00

MRPC	Probe Connectors
O	N/A
A	10 Pin Insert to 5/2 Pin Insert
B	64 Pin MIZ-200 Surface Array Connector
C	128 Pin MIZ-200 Surface Array Connector
D	
E	
F	
G	5/2 Pin Insert
H	3 Pin Insert
I	5/2 to 5/2 Pin Insert
J	5 Pin Lemo to 5/2 Pin Insert
K	5 Pin Lemo
L	5 Pin Insert
M	12 Pin Omnetic
N	5 Pin Omnetic
O	
P	
Q	4 Pin Lemo
R	7 Pin Lemo
S	4 Pin Micro-Tech
T	
U	
V	27 Pin Connector
W	
X	10 Pin Insert
Y	
Z	1 Pin Female Triaxial Connector
#	Special

MIZ-iD Technology

Zxxx-xxxxxx-Exx.xxx-xxx-xxx**1**x00

The "1" indicates the probe head has MIZ-iD technology. You can remotely get the probe part number, description and serial number if you are using Zetec software and instruments. The MIZ-iD technology also ensures the correct tuning parameters are used when setting up motor units.

Special Requirements

Zxxx-xxxxxx-Exx.xxx-xxx-xxxx**E**00

Special Testing	Description
0	Standard Manufacturing Quality Check
E	Meets the requirements of US detrimental materials and EPRI PWRSG Guidelines rev 7
F	Meets the requirements of French chemical PMUC and EPRI PWRSG Guidelines rev 7
K	Meets the requirements of French chemical PMUC
D	Meets the requirements of EPRI PWRSG Guidelines rev 7
N	Meets the requirements of US Navy detrimental materials and EPRI PWRSG Guidelines rev 7
#	Customer Specific Requirements

Motor Unit Tuning Parameters

Zxxx-xxxxxx-Exx.xxx-xxx-xxxx**AA**0

MU Tune	Model: Motor Position-Item #/Brushed
00	Motor tuning not defined
AA	9D: M1-101281/M2-101294/Y
AB	12Q: M1-101283/M2-101293/M3-101296/Y
AC	HT: M1-101285/M2-101296/Y
AE	24S: M1-105984-1/N
AF	24S: M1-107381/N
AG	9S: M1-109232/N
AH	3S: M1-101252/Y
AI	HT: M1-105107/M2-101294/Y
AJ	3S: M1-101250/Y
AK	16S: M1-10028927/Y
AL	TDSMUW: M1-105764/M2-101294/N

MU Tune	Model: Motor Position-Item #/Brushed
AM	3S: M1-101253/Y
AN	3S: M1-101258/Y
KA	9D: M1-101281/M2-101294/Y; Meets French PMUC materials
KB	12Q: M1-101283/M2-101293/M3-101296/Y; Meets French PMUC materials
KC	HT: M1-101285/M2-101296/Y; Meets French PMUC materials
KE	24S: M1-105984-1/N; Meets French PMUC materials
KF	24S: M1-107381/N; Meets French PMUC materials
KG	9S: M1-109232/N; Meets French PMUC materials
KH	3S: M1-101252/Y; Meets French PMUC materials
KI	HT: M1-105107/M2-101294/Y; Meets French PMUC materials
KJ	3S: M1-101250/Y; Meets French PMUC materials
KK	16S: M1-10028927/Y; Meets French PMUC materials
KL	TDSMUW: M1-105764/M2-101294/N; Meets French PMUC materials
KM	3S: M1-101253/Y; Meets French PMUC materials
KN	3S: M1-101258/Y; Meets French PMUC materials

Probe Selection Recommendations

Probe Model Selection

Review the catalog to determine the best model to meet your specific needs.

Array Probes

If circumferential cracks and speed are components of your inspection, use Zetec's industry leading array probes.

MRPC Probes and Motor Units

For detailed evaluation and flaw sizing in tubing, Zetec has the most complete line of rotating probes.

Bobbin Probes

Zetec's high quality bobbin probes allow for quick and accurate inspections in a wide range of tube sizes, materials, lengths and geometries (bends or fins).

Magnetic Permeability Variations (Non-magnetic Tubing)

If there are variations in the magnetic permeability of the tubing, select a magnetically biased probe. Mag biased probe options are available in nearly all bobbin and MRPC probe head options.

Tight Bends

Zetec makes a wide range of probes for tight bends in the tubing. Whether it's a bobbin, array or MRPC probe head with extension shafts, we have the probe that will allow inspection in every area of the tube.

Probe Motor Units and MRPC Probe Heads

If you have MIZ8X instruments, you should always select motor units with the 36 pin connector. These motor units have MIZiD memory chips. MIZiD chips allow the MIZ8X motor control settings to be tuned automatically. Incorrect MIZ8X motor control settings will cause poor motor performance and may cause the instrument to be damaged.

When selecting the probe head for the motor unit it is important to ensure the probe head connector matches the mating connector on the motor unit.

Probe Outside Diameter

Fill factor (probe outside diameter² / tube inside diameter²) is not a good method for determining the optimum probe diameter. Typically, you want a probe outside diameter 0.040" to 0.050" (1.016 to 1.27 mm) smaller than the tube inside diameter. Using the same fill factor across all sizes can lead to oversized probes for small tubing and undersized probes for larger tubing.

Probes used in tubing with impediments, dents, tight radius bends or ovalization may need to have a smaller outside diameter.

Probes are typically provided in 0.010" (0.25 mm) outside diameters increments. Standard outside diameter ranges are listed for each model in the catalog. Larger or smaller diameters are available upon request.

Probe Length

Standard lengths are listed in the catalog for each probe model. It is recommended to order the shortest standard length that will cover the required inspection distance. Custom lengths can be provided for all sizes.

Probe Push/Pull Poly

The push/pull tube (poly) is what pushes and pulls the probe coils through the tube. If the probe must navigate bends, you should select the most pliable poly that will not kink. Poly sizes are typically followed with a “T” (thin) or and “H” (heavy). The “H” is the thickest wall, and therefore the strongest poly. It should be used when significant push force is required. As the diameter of the poly increases, the strength increases, but it becomes more difficult to push around bends.

Standard poly options are listed in the catalog for various probe models. There are also dozens of custom options available.

Probe Connector

Choose the connector that works with the instrument you are using. Using adapters may lead to a decrease in the data quality. Zetec’s 36 pin connectors also provide MIZiD information. The probe part number, description and serial number information can be presented electronically via Zetec’s software. MIZiD also automatically sets the tuning parameters for motor units. Using an incorrect motor unit tuning parameter has led to damaged instruments.

Probe Coil / Frequency Selection

For best results choose a probe coil type that has a frequency range that is suitable for the thickness and electrical resistivity of the material being inspected. Contact Zetec to optimize the coil for your application.

Non-Magnetic Tube Inspection

Bobbin Probes

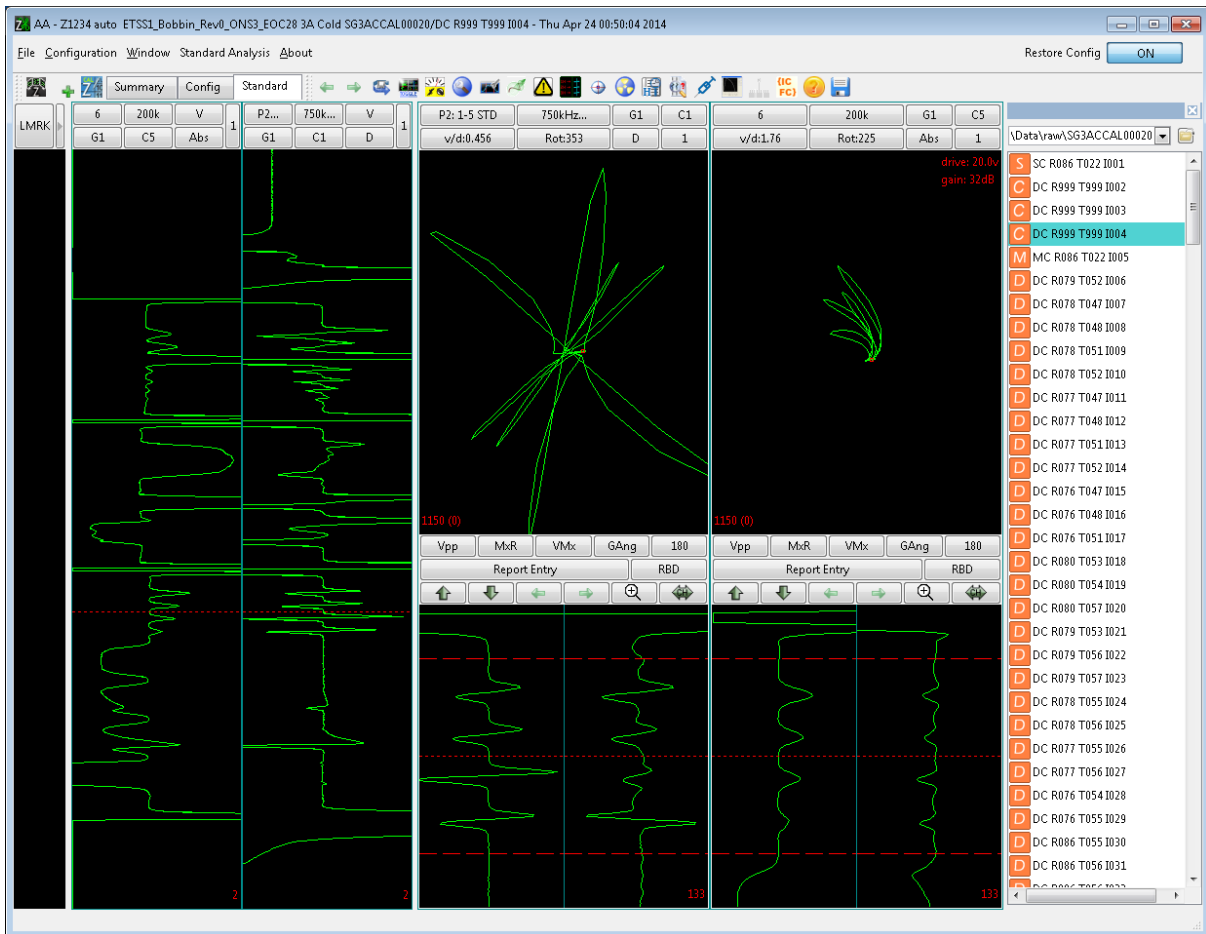


Thimble tube, M/ULC, Carter, TEO, RFT and BSP Bobbin Probes

The term “bobbin” is used to describe probes with a cylindrical form having coils wound around the circumference.

Most bobbin probes have two coils that are connected to an eddy current instrument differential input. When both coils are in flaw free or identical areas, there is no difference in what each coil senses and no differential signal produced. When one coil is near a flaw, dent, inclusion or other anomaly and the other is in normal material, a coil response is produced.

If the eddy current instrument can generate a reference signal or if a reference probe is used, an absolute flaw signal will also be produced by utilizing only one of the two coils. The absolute signal is used to detect more gradually occurring anomalies.



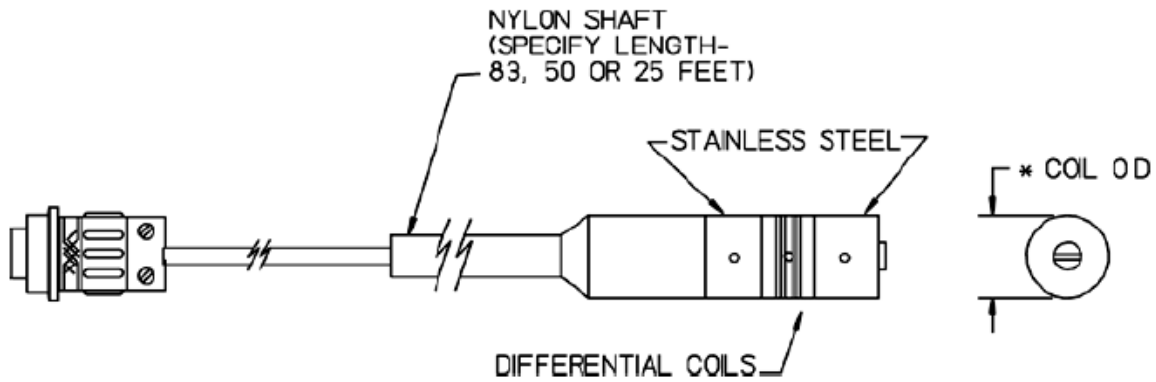
Bobbin Analysis with EddyNet Software

We set the standard for efficient and accurate inspection with our tubing bobbin probes. We apply advanced materials, design and production so that you acquire high signal to noise eddy current data that's consistent through the duration of the inspection, as well as for the life of the probe.

Our tubing bobbin probes are built for flexibility, allowing for optimal navigation through tubing u-bends, while maintaining high data quality. With our expertise in developing inspection solutions, and our extensive field experience, you can rely on our tubing bobbin probes to satisfy your tube inspection needs.

BS Barnacle Scraper Bobbin Probe

Barnacle Scraper (BS) Bobbin Probes are used in applications which require rugged probes for testing straight sections of tubing. Zetec’s BS probes are the industry standard for value, performance, and quality of eddy current signal.



Standard Features

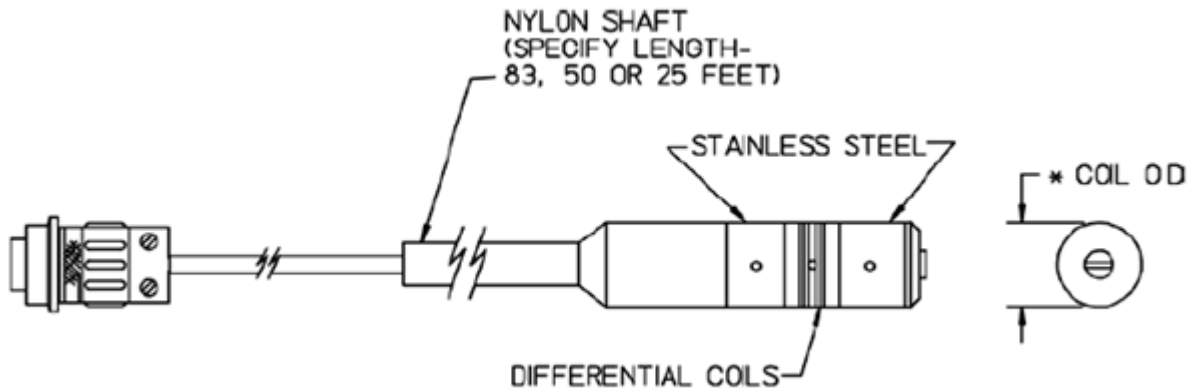
- Designed for inspection of non-ferrous, straight tubes
- Stainless steel front scraper minimizes probe damage from sharp tube deposits/crustacean shells
- Wear resistant coil coating
- Tapered back bearing alleviates catching on far tube end during retraction
- Internal stainless steel retention cable

Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.380" (9.65mm) to 1.250" (31.75mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m)	5/16T (Thin wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items				

CBS Chamfered Barnacle Scraper Bobbin Probe

The chamfered nose cone version of the BS probe is the most popular probe for basic tube inspections. The chamfered nose allows for the probe to pass through segments of tubing that have restrictions with less push effort.



Standard Features

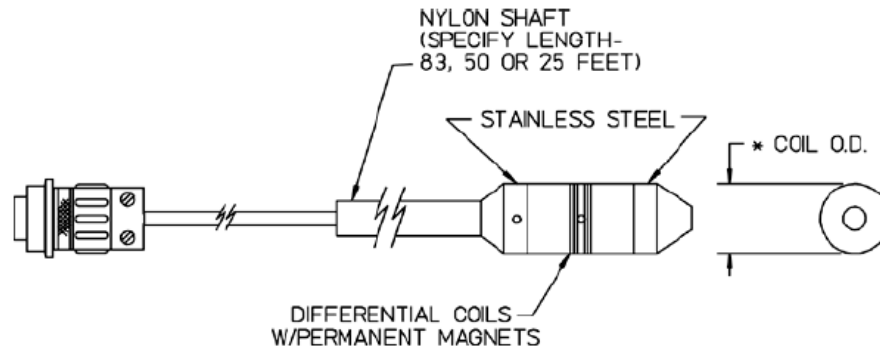
- Designed for inspection of non-ferrous, straight tubes
- Chamfered probe tip for ease of tube entry
- Stainless steel front scraper minimizes probe damage from sharp tube deposits/crustacean shells
- Wear resistant coil coating
- Tapered back bearing alleviates catching on far tube end during retraction
- Internal stainless steel retention cable

Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.380" (9.65mm) to 1.250" (31.75mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m)	5/16T (Thin wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items				

MCBS Mag Biased CBS Bobbin Probe

The magnetically biased chamfered barnacle scraper bobbin probe includes post magnets on both sides of the coils providing better signals when inspecting non-ferromagnetic tubes that may have some magnetic permeability anomalies.



Standard Features

- Designed for inspection of non-ferrous with some magnetic permeability, straight tubes
- Chamfered probe tip for ease of tube entry
- Stainless steel front scraper minimizes probe damage from sharp tube deposits/crustacean shells
- Wear resistant coil coating
- Tapered back bearing alleviates catching on far tube end during retraction
- Internal stainless steel retention cable

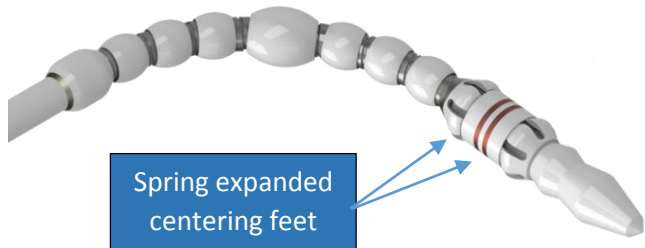
Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.380" (9.65mm) to 1.250" (31.75mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m)	5/16T (Thin wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items				

NEW! HS Flexible High Stability Bobbin Probe

Standard Features

- Designed for inspection of non-ferrous tubing
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~5" (127mm) depending on test conditions.
- **Low drift coax** for more stable data null point
- **Spring expanded centering feet** (petals) for improved probe centering
- **Longer wear centering foot** (petal)
- **Bead covered** stainless steel flex member
- Programmed identification, authentication device (Nuclear steam generator probes)

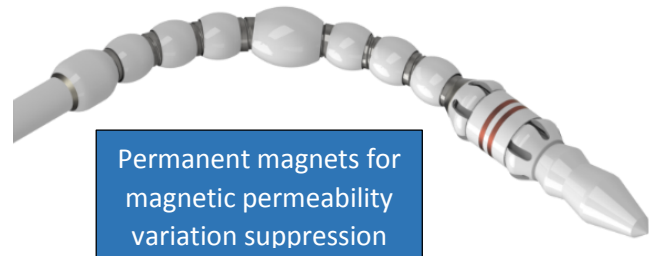


Spring expanded centering feet

NEW! M/HS Flexible Mag Biased High Stability Bobbin Probe

Standard Features

- Same basic design as HS bobbin probe
- With permanent magnets for suppression of tubing magnetic permeability variations



Permanent magnets for magnetic permeability variation suppression

Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.450" (11.43mm) to 0.900" (22.8mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items				

NEW! HS/XP Flexible High Stability Bobbin Probe Equivalent to X-Probe Bobbins

Standard Features

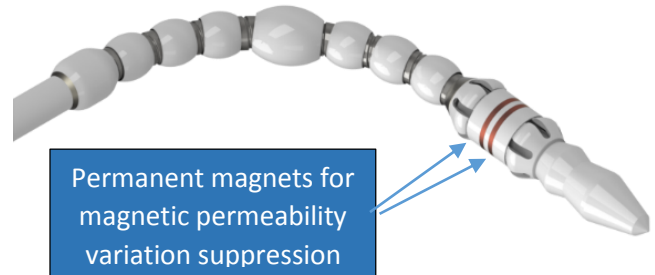
- Same basic design as HS bobbin probe
- X-Probe equivalent coaxial cable inside push tube.

- X-Probe matching coil windings
- Low drift coax for more stable data null point
- Spring expanded centering feet (petals) for improved probe centering and longer wear

NEW! M/HS/XP Flexible Mag Biased High Stability Bobbin Probe Equivalent to X-Probe Bobbins

Standard Features

- Same basic design as HS bobbin probe
- With additional X-Probe matching permanent magnets for suppression of tubing magnetic permeability variations



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.450" (11.43mm) to 0.900" (22.8mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items				

NEW! MHS/LL Flexible Bobbin Probe

Standard Features

- Designed for inspection of non-ferrous tubing
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~5" (127mm) depending on test conditions.
- **Co-extruded push tube (poly)**
- **Bead covered** stainless steel flex member
- LLMC probe equivalent coil windings
- Low drift coax for more stable data null point
- **Spring expanded centering feet (petals)** for improved probe centering
- **Longer wear centering foot (petal)**
- Permanent magnets for suppression of magnetic permeability variations

Standard Options

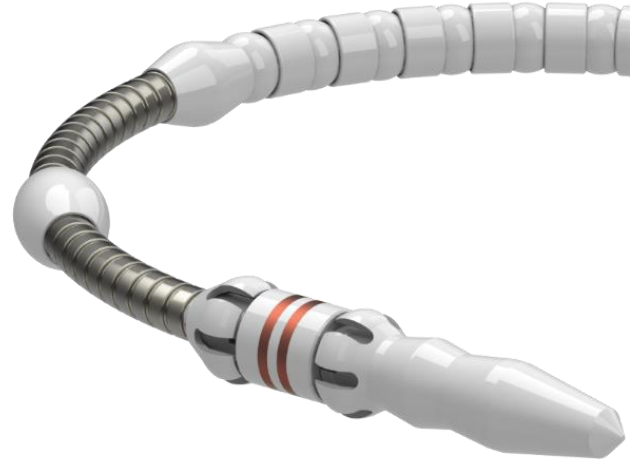
Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.560"	110' (33.52m)	3/8" Co-extruded	Equivalent to Long Life probes	36 pin
0.600"	110' (33.52m)			
0.610"	75' (22.86m)			
	110' (33.52m)			
0.720"	120' (36.57m)			
0.720"	110' (33.52m)			

Zetec ULC probes have been the industry standard for over 25 years

ULC Flexible Bobbin Probe

Standard Features

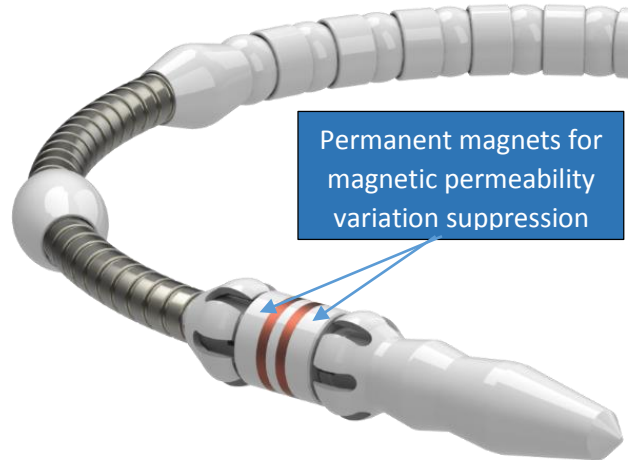
- Designed for inspection of non-ferrous tubing
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~5" (127mm) depending on test conditions.
- Programmed identification, authentication device (Nuclear steam generator probes)



M/ULC Flexible Mag Biased Bobbin Probe

Standard Features

- Same basic design as ULC bobbin probe
- With permanent magnets for suppression of tubing magnetic permeability variations



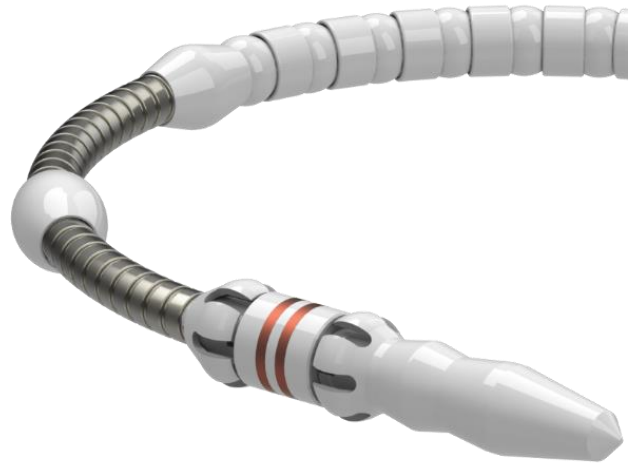
Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.450" (11.43mm) to 0.900" (22.8mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items				

ULC/XP Flexible Bobbin Probe Equivalent to the X-probe Bobbin

Standard Features

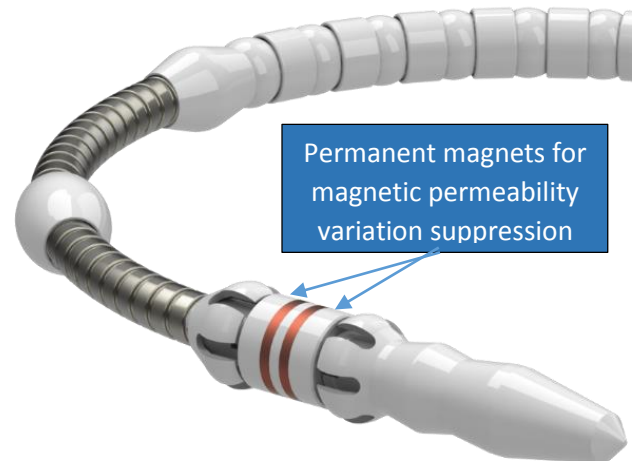
- Same basic design as ULC bobbin probe
- X-Probe equivalent coaxial cable inside push tube.
- X-Probe equivalent coil windings



M/ULC/XP Flexible Mag Biased Bobbin Probe Equivalent to the X- Probe Bobbin

Standard Features

- Same basic design as ULC bobbin probe
- With additional X-Probe equivalent permanent magnets for suppression of tubing magnetic permeability variations



Standard Options

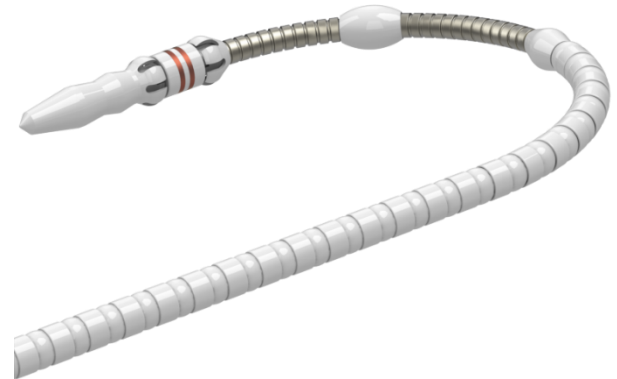
Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.450" (11.43mm) to 0.900" (22.8mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	36 pin
Custom options are available for all items				

ULC/C* Bobbin Probe for Tight Bends

Standard Features

- Same basic design as ULC bobbin probe
- With extra flexible beaded section behind the probe head.

* Specify length of beaded section.



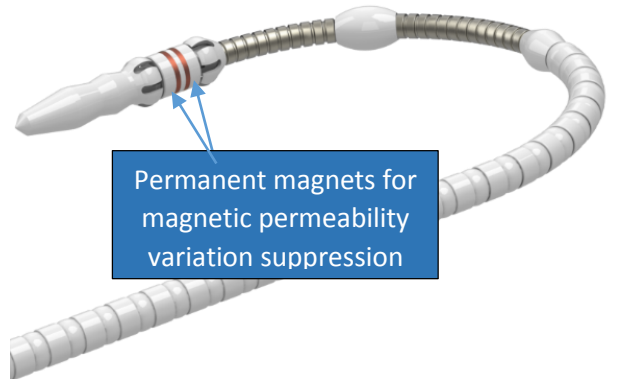
M/ULC/C* Mag Biased Bobbin Probe for Tight Bends

Standard Features

- Same basic design as ULC bobbin probe
- With extra flexible beaded section behind the probe head.

* Specify length of beaded section.

- With permanent magnets for suppression of tubing magnetic permeability variations



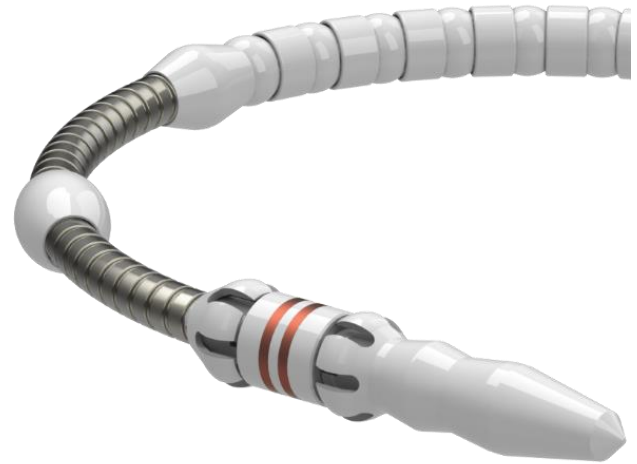
Standard Options

Probe Diameters	Push Poly Length (Includes beaded section)	* Beaded section length	Push Poly Type	Frequency Range	Connectors
0.450" (11.43mm) to 0.900" (22.8mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	2 feet (610mm) 4 feet (1.22m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items					

URF Flexible Bobbin Probe for Small Diameter Tubing

Standard Features

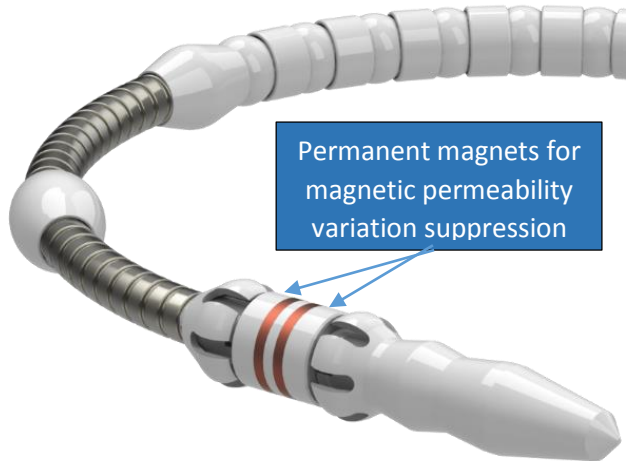
- Designed for inspection of non-ferrous tubing
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~5" (127mm) depending on test conditions.
- Programmed identification, authentication device (Nuclear steam generator probes)



M/URF Flexible Bobbin Probe for Small Diameter Tubing

Standard Features

- Same basic design as URF bobbin probe
- With permanent magnets for suppression of tubing magnetic permeability variations



URF and M/URF Standard Options

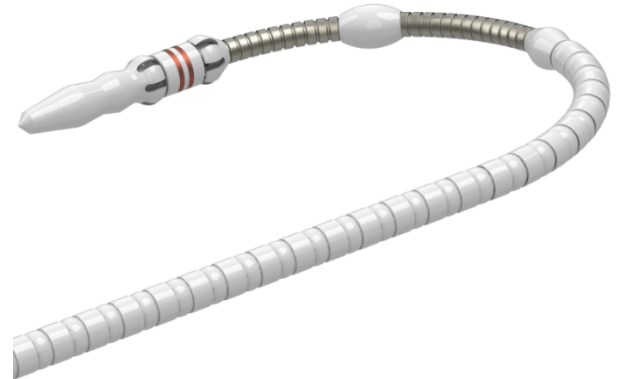
Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.380" (9.6mm) to 0.470" (11.93mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m)	5/16T (Thin wall) 5/16H (Heavy wall)	Multiple ranges available	4 pin or 36 pin

Custom options are available for all items

URF/C* Flexible Bobbin Probe for Small Diameter Tubing and Tight Bends

Standard Features

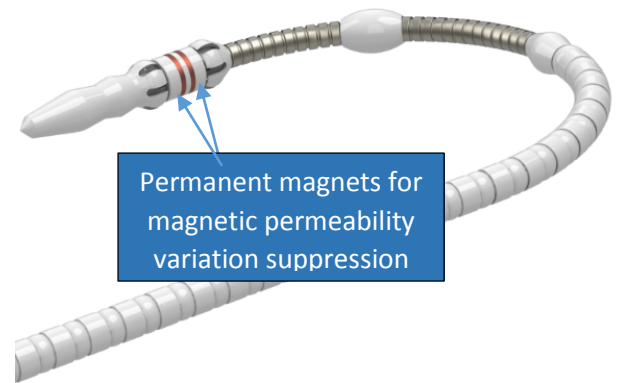
- Same basic design as URF bobbin probe
- With extra flexible beaded section behind the probe head.
- * Specify length of beaded section (2 or 4 feet).



M/URF/C* Flexible Mag Biased Bobbin Probe for Small Diameter Tubing and Tight Bends

Standard Features

- Same basic design as URF bobbin probe
- With extra flexible beaded section behind the probe head.
- * Specify length of beaded section (2 or 4 feet).
- With permanent magnets for suppression of tubing magnetic permeability variations



URF/C and M/URF/C Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.340" (8.64mm) to 0.470" (11.93mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m)	5/16T (Thin wall)	Multiple ranges available	4 pin or 36 pin
Custom options are available for all items				

BJF Flexible Bobbin Probe for Small Diameter Tubing, Tight Bends and No Centering Feet

Standard Features

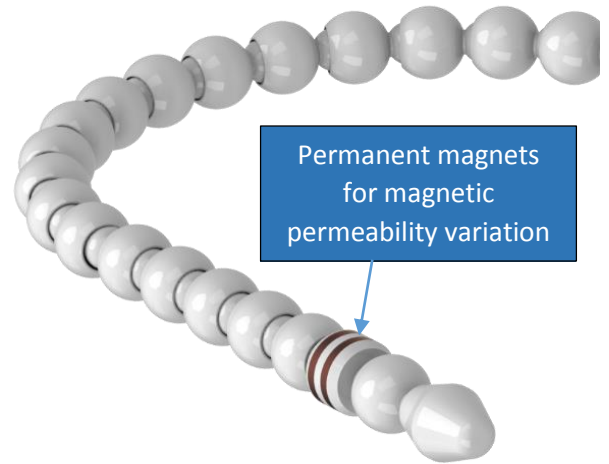
- Designed for inspection of non-ferrous tubing
- Extremely flexible probe head for difficult to inspect, small radius U-bend tubes
- Probe head minimum U-bend radius: ~2.5" (63.5mm) depending on test conditions.
- Probe diameters ordered are generally 0.080" to 0.100" under the tube inside diameter. Optimum probe diameter will depend on the tube nominal inside diameter, the amount of tube ovality and tube surface conditions
- Programmed identification, authentication device (Nuclear steam generator probes with 36 pin connector only)



M/BJF Flexible Mag Biased Bobbin Probe for Small Diameter Tubing, Tight Bends and No Centering Feet

Standard Features

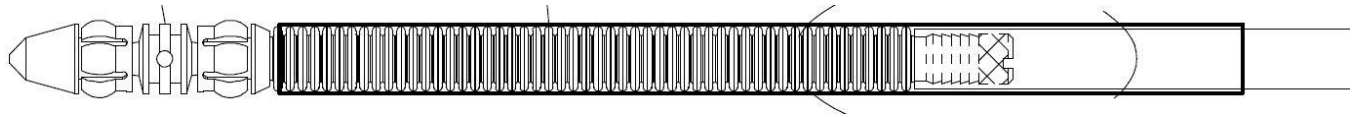
- Same basic design as BJF bobbin probe
- With permanent magnets for suppression of tubing magnetic permeability variations



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
.300" (7.6mm) to .900" (22.86 mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin or 36 pin 2 BNC
Custom options are available for all items				

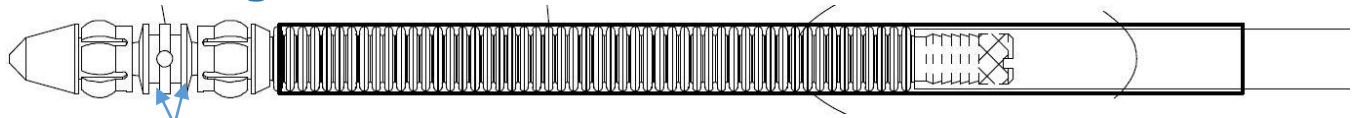
F Flex Bobbin Probe



Standard Features

- Designed for inspection of non-ferrous tubing
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~5" (127mm) depending on test conditions
- Programmed identification, authentication device (Nuclear steam generator probes)

FM Flex Mag Biased Bobbin Probe



Permanent magnets for magnetic permeability variation suppression

Standard Features

- Same basic design as F bobbin probe
- With permanent magnets for suppression of tubing magnetic permeability variations

Standard Options

Probe Diameters		Push Poly Length	Push Poly Type	Frequency Range	Connectors
F	FM	All Probes	All Probes	All Probes	All Probes
0.320" (8.13mm) to 0.930" (23.62mm) in 0.010" increments	0.340" (8.64mm) to 0.490 (12.45mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.48m)	5/16T (Thin wall) 5/16H (Heavy wall) 3/8T (Thin wall) 3/8H (Heavy wall)	Multiple ranges available	4 pin, 36 pin or 2 BNC

Custom options are available for all items

LC4 Tube Roll Profiling Bobbin Probe

Standard Features

- Designed for inspection of straight non-ferrous tubing
- Longer probe head for higher stability in tube sheet roll transitions or near dents
- Additional centering feet (petals) for improved centering in tube sheet expansion
- Programmed identification, authentication device (Nuclear steam generator probes)

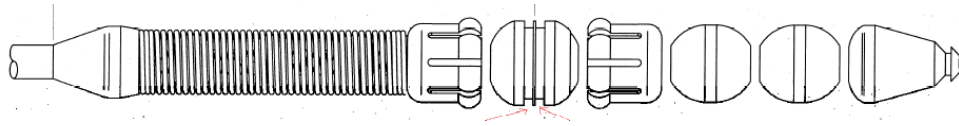
* Provide inside diameter of tube sheet expansion and nominal tube inside diameter when ordering. The standard centering foot outside diameter will be 0.045" (1.14mm) larger than the probe outside diameter



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Centering Foot Diameter	Frequency Range	Connectors
0.460" (11.68mm) to 0.730" (18.54mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	3/8T (Thin wall)	Probe outside diameter + 0.045" (1.14mm)	Multiple ranges available	4 pin, 36 pin or 2 BNC
Custom options are available for all items					

SAX EDF Steam Generator Bobbin Probe for French Market



Standard Features (See part numbers that end in “N”)

- Designed for inspection of non-ferrous EDF (Électricité de France) tubing
- Flexible probe head for both straight and U-bend tube inspection
- Bobbin Electromagnet for suppression of tubing magnetic permeability variations
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant

SAX EDF Steam Generator Bobbin Probe with Rotating Feet for French Market



Standard Features (See part numbers that end in “O”)

- Same basic design as EDF S/G SAX bobbin probe
- With centering feet (Petals) that are free to rotate for longer, more even wear
- With beads that are free to rotate
- With longer flexible section behind coils

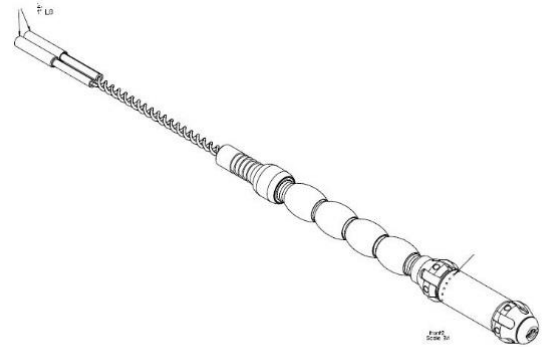
Standard Probes

Probe Part Number	Probe Diameter	Feet (Petal) type	Foot (Petal) Diameter	Push Poly Length	Push Poly Type	Connector
AASX001N	18.5mm	Stationary	19.7mm	33.5m	7mm	6 pin Jaeger
AASX001O	18.5mm	Rotating	19.7mm	33.5m	7mm	6 pin Jaeger
AASX002N	18.0mm	Stationary	19.7mm	33.5m	7mm	6 pin Jaeger
AASX002O	18.0mm	Rotating	19.7mm	33.5m	7mm	6 pin Jaeger
AASX003N	15.9mm	Stationary	16.9mm	33.5m	7mm	6 pin Jaeger
AASX003O	15.9mm	Rotating	16.9mm	33.5m	7mm	6 pin Jaeger
AASX004N	15.4mm	Stationary	16.9mm	33.5m	7mm	6 pin Jaeger
AASX004O	15.4mm	Rotating	16.9mm	33.5m	7mm	6 pin Jaeger

CTR1 Carter 1 Bobbin Probes

Standard Features

- Specialized differential bobbin with extremely strong, focused permanent magnet biasing. Capable of saturating or partially saturating mildly ferritic materials such as Monel, Sea-cure, 400 series stainless steel and 3RE60 depending on thickness and relative permeability.
- Designed to magnetically saturate Monel straight and larger radius steam generator U-bend tubing
- Ceramic foot petal wear inserts are for use in **CANDU (CANada Deuterium Uranium)** power plants
- Wear resistant ceramic foot (petal) inserts standard.
- Programmed identification, authentication device (36 pin probes)
- Titanium encased coils



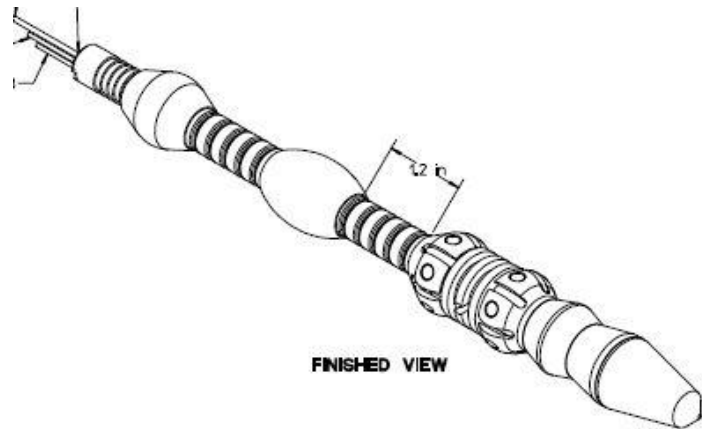
Standard Options

Probe Versions	Body Type	Retrieval Wire	Foot Petal Wear Insert	Magnetic Field Orientation	Push Poly Length	Push Poly Type	Connector
CTR1	Standard	To head	None	Axial	Application specific	Application specific	4 pin, 36 pin
CTR1/CFI	Standard	To head	Ceramic	Axial	Application specific	Application specific	4 pin, 36 pin
CTR1/RWI	Standard	Full length	Ceramic	Axial	Application specific	Application specific	36 pin
CTR1/SBRWI	Short	Full length	Ceramic	Axial	Application specific	Application specific	36 pin
CTR1/CFI	Standard	To head	Ceramic	Axial	Application specific	Application specific	4 pin, 36 pin
CTR1/SBCFI	Short	To head	Ceramic	Axial	Application specific	Application specific	4 pin, 36 pin
CTR1/R	Standard	To head	Ceramic	Radial (For flaw detection under carbon steel supports)	Application specific	Application specific	4 pin

BSFI Bobbin Probes

Standard Features

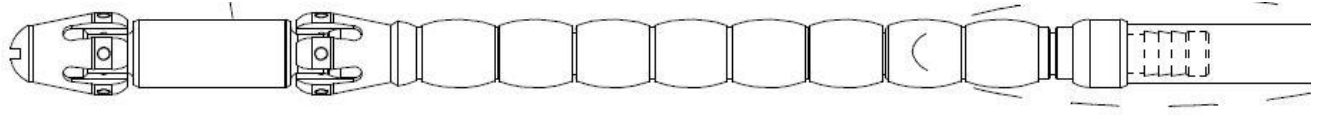
- ULC type probe with ceramic foot inserts
- Designed to inspect non-ferrous **CANDU** (CANada Deuterium Uranium) power plant straight and U-bend tubing.
- Wear resistant ceramic foot (petal) inserts
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~5" (127mm) depending on test conditions
- Programmed identification, authentication device (36 pin probes)



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.480" (12.0mm)	83' (25.3m) 100' (30.5m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	4 pin 36 pin
Custom options are available for all items				

A/CFI Bobbin Probes



- Differential bobbin
- Designed to inspect straight and U-bend tubing.
- Ceramic foot petal wear inserts are for use in **CANDU (CANada Deuterium Uranium)** power plants.
- Programmed identification, authentication device
- Wear resistant ceramic foot (petal) inserts standard.
- Titanium encased coils

Standard Features

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.380" (9.65mm)	100' (30.5m)	5/16 HDPE-H		36 pin
Custom options are available for all items				

T/LC/NF Thimble Tube Bobbin Probe



Standard Features

- Designed for inspection of nuclear reactor flux thimble tubes.
- Flat wound metal push tube (shaft) or Nylon push tube ($\geq .188''$ (4.77mm) probe diameter only)
- Fully encased differential bobbin coil pair

Standard Options

Probe Diameters	Push Poly Length	Push Tube Type	Frequency Range	Connectors
.175" (4.44mm)	125' (38.1m)	.157" (4mm) diameter flat-wound metal shaft only	Multiple ranges available	4 pin or 36 pin
.182" (4.62mm)	125' (38.1m)	.157" (4mm) diameter flat-wound metal shaft only	Multiple ranges available	4 pin or 36 pin
.188" (4.77mm)	125' (38.1m)	.157" (4mm) diameter flat-wound metal shaft or 3/16" (4.76mm) Type H Nylon	Multiple ranges available	4 pin or 36 pin
Custom options are available for all items				

SUB/F Bobbin Probes for French Market

Standard Features

- Designed for inspection of non-ferrous tubing
- Flexible probe head for both straight and U-bend tube inspection
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant



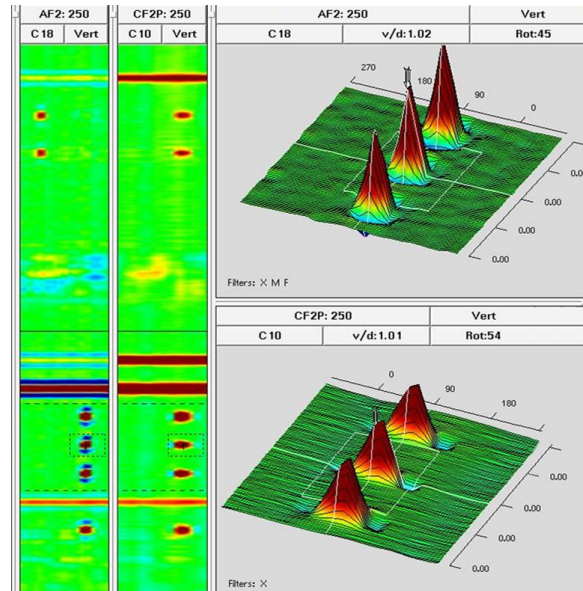
Standard Options

Probe Part Number	Probe Body Diameter	Frequency Range	Total Length	Push Tube Type	Centering Diameter	Connector
A138098B	9.8mm	50 kHz to 500 kHz	24.4m	¼T	11.5mm	6 pin Jaeger
SUBF-001	10.0mm	50 kHz to 500 kHz	24.4m	¼T	11.5mm	6 pin Jaeger

Array Probes



CXB4 and Combination X-Probe



EddyNet Array Probe C-Scan Plot

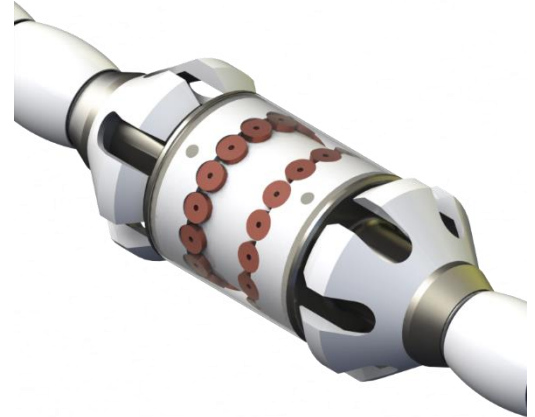
Zetec is the leader in array coil technology. Our patent on reusing transmit and receive coils allows us to create a better coverage per coil density than anyone else in the industry. So when you use our probes for your inspections, you'll gather all of the necessary data in "one pass" through the tube, resulting in a cost savings on the procedure. Our selection of probes includes X-Probes, the standard array technology in the nuclear industry. Two technologies, array and bobbin, integrated into a single probe for shorter inspections, fewer probe changes, fewer trips to the platform, and reduced radiation exposure. CXB probes, designed to find circumferential cracks and other indications in non-nuclear heat exchangers.

Zetec X-Probes have been the industry standard for over 15 years

XP1 Flexible X-Probe for VVER Market

Standard Features

- Designed for inspection of non-ferrous VVER 1000 (0.512" ID) or 440 (0.519" ID) steam generator tubing
- Multi-coil array technology (No bobbin)
- Flexible probe head for both straight and bend inspection
- Probe head minimum U-bend radius: ~2.36" (60mm) depending on test conditions.
- Programmed identification, authentication device



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Application	Connectors
0.430" (10.92mm) or 0.440" (11.17mm)	52' (15.85m)	5/16 LM	Designed for inspection of 0.055" (1.4mm) or 0.059" (1.5mm) wall 321 stainless steel	36 pin

Custom options are available for all items

XP2 Flexible X-Probe with Mag Biased Bobbin

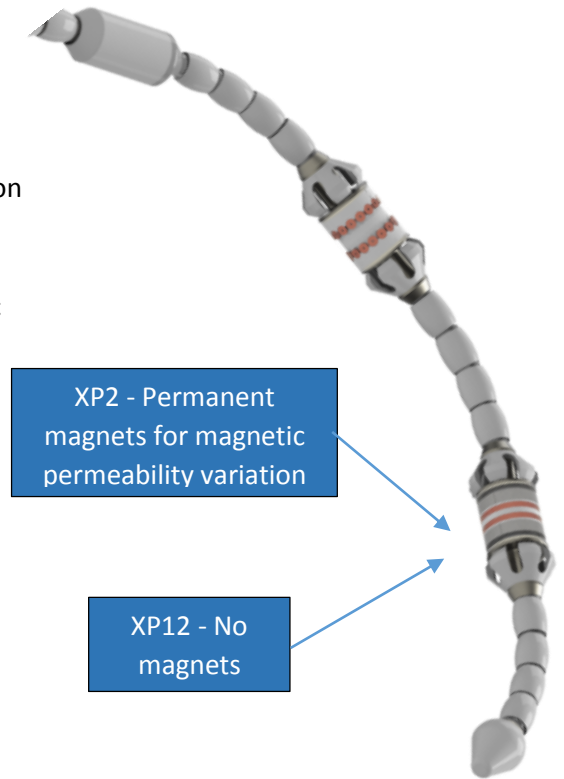
Standard Features

- Designed for inspection of non-ferrous tubing
- Combination of array and bobbin technologies
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~10" (254mm) depending on test conditions
- Bobbin permanent magnets for suppression of tubing magnetic permeability variations
- Programmed identification, authentication device

XP12 Flexible X-Probe with Bobbin

Standard Features

- Same basic design as the XP2
- Non-mag-biased bobbin (No permanent magnets)

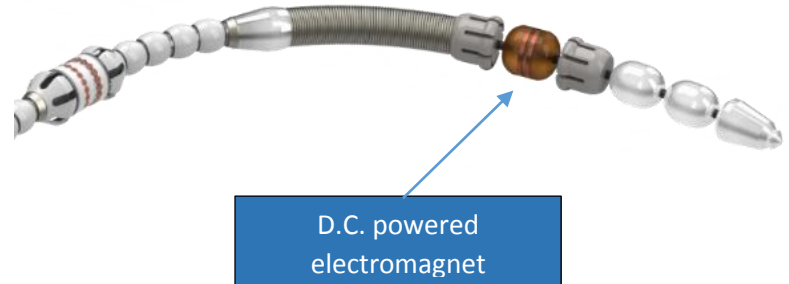


Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.330" (8.38mm) to 0.720" (18.29mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	36 pin
Custom options are available for all items				

XP2 Flexible X-Probe with SAX Bobbin (SAX SMX) for French Market

Standard Features

- Designed for inspection of non-ferrous EDF (Électricité de France) tubing
- Combination of array and bobbin technologies
- Flexible probe head for both straight and U-bend tubes
- Probe head minimum U-bend radius: ~10" (254mm) depending on test conditions.
- Bobbin Electromagnet for suppression of tubing magnetic permeability variations
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant
- Programmed identification, authentication device

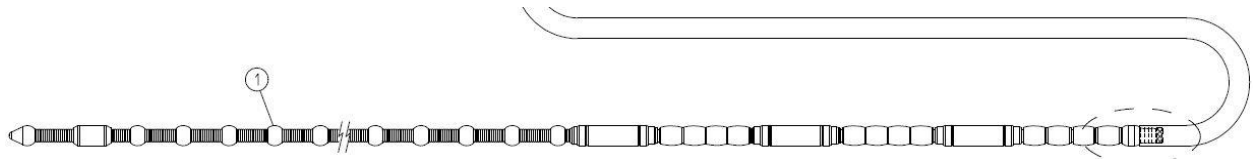


Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.610" (15mm) and 0.720" (18mm)	105' (32m)	3/8T (Thin wall)		36 pin
Custom options are available for all items				

XP3 X-Probe for Tight Bends

Standard Features

- Array technology without bobbin coils
- Extra flexible probe head.
- Probe head minimum U-bend radius: ~2.5" (63.5mm)
- Programmed identification, authentication device
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant version available



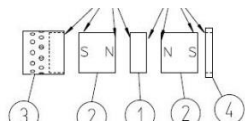
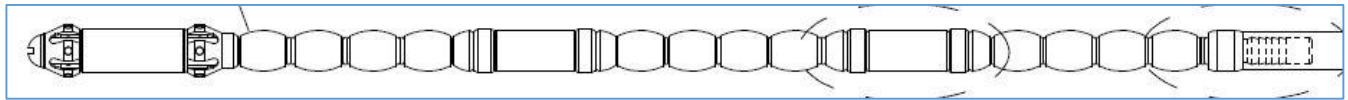
Standard Options

Probe Diameters		Push Poly Length	Push Poly Type	Frequency Range	Connectors
With Feet	Without Feet				
0.540" (13.72mm) to 0.710" (18.03mm) in 0.010" increments	0.360 (9.14mm) to 0.468" (11.89mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 100' (30.5m) 110' (33.5m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	36 pin
Custom options are available for all items					

XP4 Flexible Mag Biased X-Probe for CANDU Market

Standard Features

- Designed for inspection of **CANDU** heat exchanger tubing
- Multi-coil 3x12 array (Centered circumferential flow sensors for magnet compatibility)
- Magnetically-biased for saturation of Monel 400
- Wear resistant ceramic foot petal inserts
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~10" (254mm) depending on test conditions



Probe Diameters	Push Poly Length	Push Poly Type	Application	Connectors
0.330" (8.38mm) 0.350" (8.89mm)	90' (27.43m)	5/16 HDPE	Tuned for CANDU heat exchangers	36 pin
Custom options are available for all items				

XP6 Flexible X-Probe for CANDU Market

Standard Features

- Designed for inspection of **CANDU** heat exchanger tubing
- Short, titanium encased body
- Wear resistant ceramic foot petal inserts
- Multi-coil 3x12 array (Double the normal circumferential flow sensors for increased resolution)
- Probe head minimum U-bend radius: 2.5" (63.5mm)



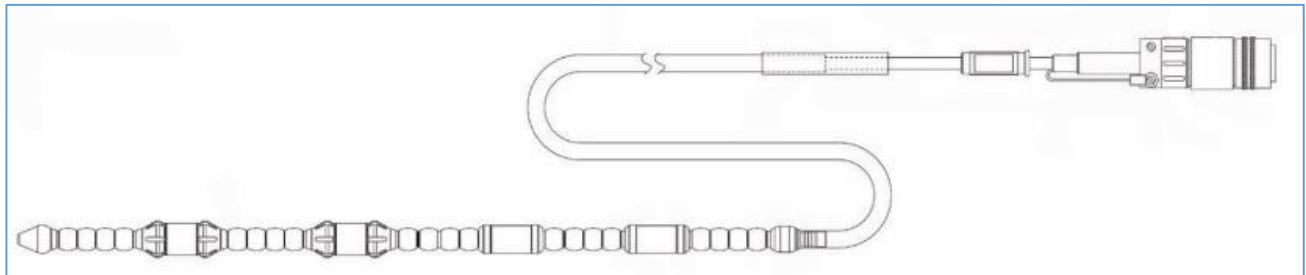
Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Application	Connectors
0.480" (12.19mm)	100' (30.48m)	3/8T	Tuned for CANDU heat exchangers	36 pin
Custom options are available for all items				

XP7 Flexible X-Probe with Snub Nose

Standard Features

- Designed for inspection of non-ferrous ROTSG and OTSG (Once through Steam Generator) tubing
- Combination of array and bobbin technologies
- Probe head designed for straight tube inspection
- Permanent magnets for suppression of tubing magnetic permeability variations
- Programmed identification, authentication device



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.510" (12.95mm)	83' (25.3m)	3/8T (Thin wall)	Tuned for OTSG tube inspection	36 pin
Custom options are available for all items				

XP10 Mag Biased X-Probe for Tight Bend CANDU

Standard Features

- Designed for inspection of CANDU heat exchanger tubing
- Titanium encased body
- Full length retrieval cord
- Wear resistant ceramic foot petal inserts
- Magnetically biased multi-coil 3x8 coil array
- Programmed identification, authentication device



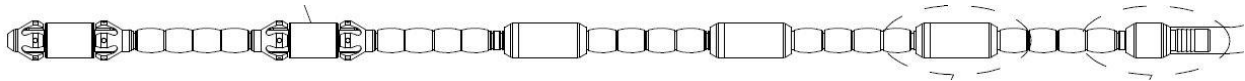
Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Application	Connectors
0.350" (9.0mm)	90' (27.43m)	5/16 HDPE-H	CANDU heat exchangers	36 pin
Custom options are available for all items				

XP13 Flexible X-Probe for CANDU Tight Bends

Standard Features

- Designed for inspection of CANDU heat exchanger tubing
- Short, titanium encased body
- Wear resistant ceramic foot petal inserts
- Multi-coil 3x12 array
- Differential bobbin coils
- Probe head minimum U-bend radius: 2.5" (63.5mm)



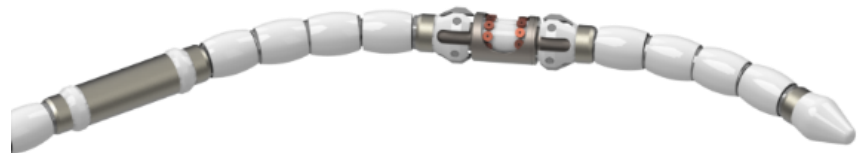
Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Application	Connectors
0.380" (9.65mm) 0.480" (12.19mm)	100' (30.48m) or 83' (25.3m)	5/16T or 3/8T	CANDU heat exchangers	36 pin
Custom options are available for all items				

XP15 Flexible X-Probe for CANDU

Standard Features

- Designed for inspection of CANDU heat exchanger tubing
- Titanium encased body
- Wear resistant ceramic foot petal inserts
- Multi-coil 2x12 array



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Application	Connectors
0.365" (9.27mm) or 0.380" (9.65mm)	100' (30.48m)	5/16T	CANDU heat exchangers	36 pin
Custom options are available for all items				

XP16 Flexible X-Probe with Mag Biased Bobbin for Small Diameter Tubes

Standard Features

- Designed for inspection of non-ferrous heat exchanger tubing



Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.350" (8.89mm)	60' (18.29m)	5/16T	Multiple ranges available	36 pin
Custom options are available for all items				

CXB1 Array Probe



Standard Features

- Designed for inspection of non-ferrous tubing
- Combination of **circumferential** flaw sensitive array and bobbin technologies
- Flexible probe head for both straight and U-bend tube inspection
- Probe head minimum U-bend radius: ~10" (254mm) depending on test conditions.
- Programmed identification, authentication device
- Compatible Zetec Eddy Current Instruments: MIZ-80, MIZ-85, MIZ-200

Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.330" (8.38mm) to 1.150" (29.21mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 110' (33.5m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	36 pin
Custom options are available for all items				

CXB2 Array Probe



Standard Features

- Designed for inspection of straight non-ferrous tubing
- Combination of **circumferential** flaw sensitive array and bobbin technologies
- Programmed identification, authentication device
- Compatible Zetec Eddy Current Instruments: MIZ-80, MIZ-85, MIZ-200

Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.330" (8.38mm) to 1.150" (29.21mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 110' (33.5m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	36 pin
Custom options are available for all items				

CXB4 Array Probe



Standard Features

- Designed for inspection of straight non-ferrous tubing
- Combination of **circumferential/axial** flaw sensitive array and bobbin technologies
- Programmed identification, authentication device
- Compatible Zetec Eddy Current Instruments: MIZ-80, MIZ-85, MIZ-200

Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
0.330" (8.38mm) to 0.770" (19.56mm) in 0.010" increments	50' (15.2m) 83' (25.3m) 110' (33.5m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	36 pin
Custom options are available for all items				

MRPC Probes and Motor Units



Flex Head, Extension Shaft and DH3



9D Motor Unit

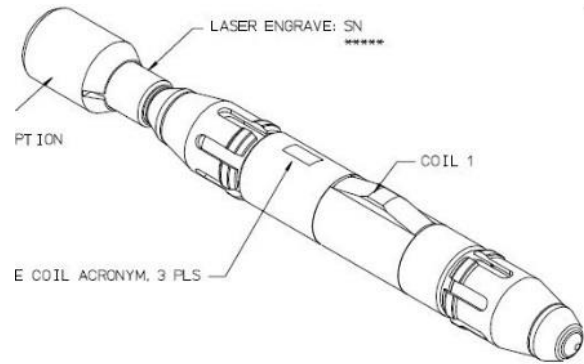
Zetec is the leader in tubing rotating probes technology. We are backed by our nearly 50 years as the global leader in developing NDT solutions for the critical inspection needs of the world's major industries. Our expertise in developing technological solutions combined with our extensive field experience puts us in a unique position to understand your specific needs. Our rotating probes will provide you with the data necessary for you to make intelligent decisions.

We have created and developed thousands of probe designs successful at identifying and characterizing flaws across a range of applications. In addition to providing you with the rotating probe technology for your inspection solutions, we have track a record of providing support to our clients due to unforeseen issues that have arisen during the inspection process. As NDT industry leaders and inspection technology innovators, the experts at Zetec are your trusted advisers for your NDT solution needs.

DH1 One Coil Rotating Probe

Standard Features

- Designed for helical inspection of straight heat exchanger tubing
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (~50 kHz to 400 kHz with ~240 kHz peak frequency)



Standard Options

Probe Diameters	Coils	Connectors
0.380" (9.65mm) 0.480" (12.19mm)	Non-mag-biased PP11A +Point coil	5 pin 7 pin (5/2) (≥0.480" diameter probes)
Custom options are available for all items		

DH2/PC Two Coil Rotating Probe

Standard Features

- Designed for helical inspection of straight heat exchanger tubing
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (~50 kHz to 400 kHz with ~240 kHz peak frequency)
- Omni-directionally sensitive pancake coil (~50 kHz to 500 kHz with ~400 kHz peak frequency)
- Available with either standard coils or mag-biased coils



Standard Options

Probe Diameters	Coils	Connectors
0.500" (11.18mm) to 0.720" (18.29mm) in 0.010" increments	Non-mag-biased P115A pancake coil and PP11A +Point coil	7 pin (5/2) (≥0.480" diameter probes)
Custom options are available for all items		

DH3/PC Three Coil Rotating Probe

Standard Features

- Designed for helical inspection of straight heat exchanger tubing
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (~50 kHz to 400 kHz with ~240 kHz peak frequency)
- Omni-directionally sensitive pancake coil (~50 kHz to 500 kHz with ~400 kHz peak frequency)
- Shielded, high resolution pancake coil (~200 kHz to 800 kHz with ~600 kHz peak frequency)
- Available with either standard coils or mag-biased coils



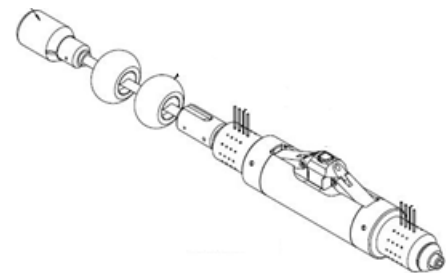
Standard Options

Probe Diameters	Coils	Connectors
0.520" (10.92mm) to 0.720" (11.17mm) in 0.010" increments	Non-mag-biased P115A pancake coil, SP080B pancake coil and PP11A +Point coil	7 pin (5/2)
Custom options are available for all items		

DI1 Dent Inspection Probe

Standard Features

- Designed for helical inspection of dented heat exchanger tubes or repair sleeves
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (~50 kHz to 400 kHz with ~240 kHz peak frequency)



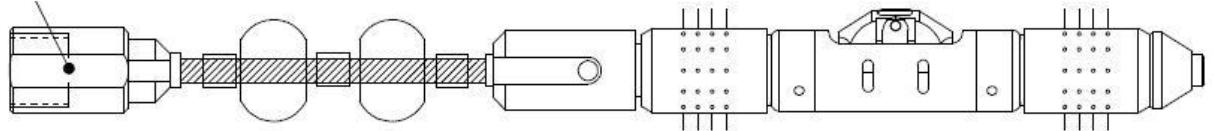
Standard Options

Probe Diameters	Coils	Connectors
0.500" (12.7mm) 0.580" (14.73mm) 0.720" (11.17mm)	PP11A +Point coil	7 pin (5/2)
Custom options are available for all items		

GPP Repair Sleeve Rotating Probe

Standard Features

- Designed for helical inspection of **repair sleeves** in straight heat exchanger tubing
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (PP17A +Point coil for 100 kHz peak frequency, PP20A for 200 kHz peak frequency)



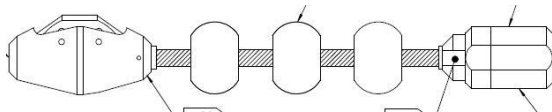
Standard Options

Probe Diameters	Coils	Connectors
0.440" (11.18mm) to 0.610" (15.49mm) in 0.010" increments	PP20A or PP17A +Point coil	5 pin and 0.500"(12.7mm) diameter (7 pin (5/2 type)
Custom options are available for all items		

BPP Tube Plug Inspection Probe

Standard Features

- Designed for helical inspection of heat exchanger tube plugs
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil



Standard Options

Probe Diameters	Coils	Connectors
0.410" (10.41mm) to 0.660" (16.76mm) in 0.010" increments	PP11A +Point coil	0.500"(12.7mm) diameter (7 pin (5/2 type)
Custom options are available for all items		

RG3-4 Rotating Probe for Tube Sleeve Inspection

Standard Features

- Designed for helical inspection of **repair sleeves** in straight heat exchanger tubing
- Wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (PP17A +Point coil for 100 kHz peak frequency, PP20A for 200 kHz peak frequency)



Standard Options

Probe Diameters	Coils	Connectors
0.440" (11.18mm) to 0.610" (15.49mm) in 0.010" increments	PP20A or PP17A +Point coil	5 pin and 0.500"(12.7mm) diameter (7 pin (5/2 type)
Custom options are available for all items		

FH/R1 Small Radius U-Bend Rotating Probe

Standard Features

- Designed for helical inspection of **small radius U-Bend** heat exchanger tubing
- 18" long design
- Contour tracking, wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (~50 kHz to 400 kHz with ~240 kHz peak frequency)
- Extremely flexible shaft for inspection of ≥ 2.30 Radius U-bends
- Available with either standard coil or mag-biased coil



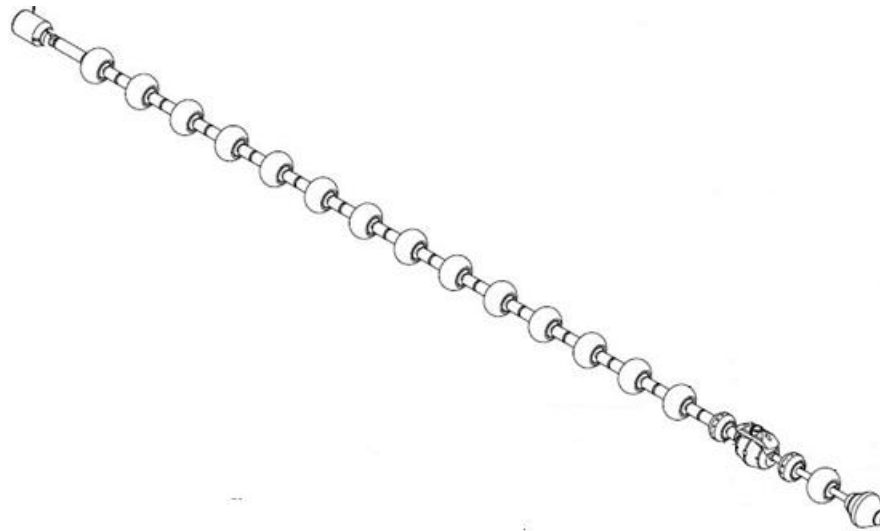
Standard Options

Probe Diameters	Probe Length	Coils	Connectors
0.480" (12.19mm) to 0.680" (17.27mm) in 0.010" increments	18" (457mm)	PP11A +Point coil	7 pin (5/2)
Custom options are available for all items			

FH Small Radius U-Bend Rotating Probe

Standard Features

- Designed for helical inspection of **small radius U-Bend** heat exchanger tubing
- Contour tracking, wear resistant coil holder
- Axial and circumferential crack sensitive +Point coil (~50 kHz to 400 kHz with ~240 kHz peak frequency)
- Extremely flexible shaft for inspection of $\geq 2.30''$ Radius U-bends
- Available with either standard coil or mag-biased coil



Standard Options

Probe Diameters	Probe Lengths	Coils	Connector
0.480" (12.19mm) to 0.680" (17.27mm) in 0.010" increments	24" (609mm)	PP11A +Point coil	7 pin (5/2)(Ø 0.500")
Custom options are available for all items			

STS Small Radius U-Bend Rotating Probe for French Market

Standard Features

- Designed for inspection of non-ferrous EDF (Électricité de France) tubing.
- Absolute pancake coil with internal reference coil.
- Up/Down indicator. External reference required.
- Locator bobbin coil. External reference required.
- Extremely flexible shaft for inspection of $\geq 2.5''$ Radius U-bends
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant



Standard Options

Probe Part Number	Probe Body Diameter	Center Frequency	Probe Length (Connector end to coil center)	Centering Diameter	Connector
AATX017A	15.9mm	240kHz	664mm	19.8mm	Lemo 5 pin
AATX580B	13.34mm	280kHz	702.5mm	16.9mm	Lemo 5 pin
AATX680A	15.9mm	240kHz	664mm	19.9mm	Lemo 5 pin
10035666	15.9mm	240kHz	664mm	19.9mm	Lemo 5 pin

STT-STL Rotating Probe for French Market

Standard Features

- Designed for inspection of non-ferrous EDF (Électricité de France) tubing.
- STL element: Differential/absolute pancake coil pair at 45 degree angle.
- STT element: Anisotropic differential receive coils sharing common drive coil.
- Internal STT receive coil amplifier.
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant



Photo côté capteurs STT



Standard Options

Probe Part Number	Probe Body Diameter	Frequency Range	Probe Length	Centering Diameter	Connector
B143185A	18.0mm	100 kHz to 600 kHz (240kHz center frequency)	180mm	20.4mm	Lemo 10 pin
B144152A	15.2mm	STL: 25kHz to 500 kHz STT: 140 kHz to 670 kHz	180mm	17.6/17.3mm	Lemo 12 pin
B144153A	15.2mm	STL: 25kHz to 500 kHz STT: 140 kHz to 670 kHz	180mm	17.6/17.3mm	Lemo 12 pin

STL Rotating Probe for French Market

Standard Features

- Designed for inspection of straight non-ferrous EDF (Électricité de France) tubing.
- Coil element: Differential/absolute pancake coil pair at 45 degree angle.
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant



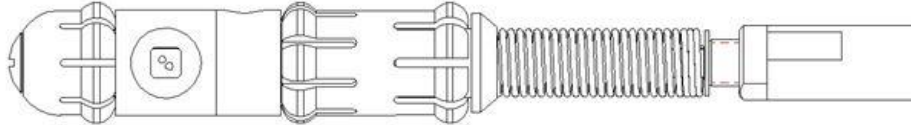
Standard Options

Probe Part Number	Probe Body Diameter	Frequency Range	Probe Length	Centering Diameter	Connector
10036340	18.0mm	100 kHz to 600 kHz	180mm	20.4mm	Lemo 10 pin
10036341	15.2mm	100kHz to 600 kHz	180mm	17.3/17.6mm	Lemo 12 pin
AASX020A	18.0mm	25kHz to 500 kHz	178mm	19.9/20.4	Lemo 5 pin
AASX021A	15.2mm	25kHz to 500 kHz	176mm	17.3/17.6mm	Lemo 5 pin

STE Rotating Probe for French Market

Standard Features

- Designed for inspection of straight non-ferrous EDF (Électricité de France) tubing.
- Coil element: Differential/absolute pancake coil pair at 45 degree angle.
- PMUC (Produits et Matériaux Utilisables en Centrale) compliant

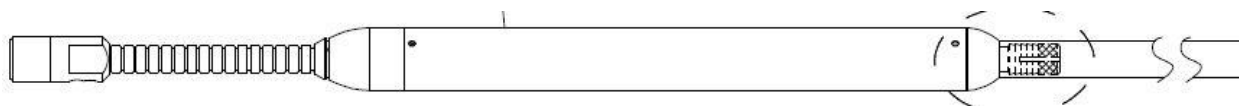


Standard Options

Probe Part Number	Probe Body Diameter	Probe Length	Centering Diameter	Connector
B150148A	14.8mm	151mm	17.3mm	Lemo 5 pin
B150185A	18.0mm	154.3mm	20.4mm	Lemo 5 pin
B151185A	18.0mm	154.3mm	20.4mm	Lemo 5 pin

Motor Units

9D and 9DNS Motor Unit (900 RPM)



Standard Features

- Designed to spin Zetec U-bend and straight tube rotating probe heads at 900 rpm
- Stainless steel motor housing. The 9DNS motor housing is covered with a Nylon sleeve
- Dual in-line D.C. micromotors
- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 5/2 connectors

Standard Options

Motor Diameters		Poly Length	Probe Head Connector	Instrument Connector
9D	9DNS	All Motors	All Motors	All Motors
0.560" (10.92mm) 0.610" (11.17mm) 0.720" (18.29mm)	0.610" (11.17mm)	50' (15.2m) 83' (25.3m)	7 pin (5/2)	36 pin
Custom options are available for all items				

12Q, 12QNS and 12Q/5PL Motor Unit (1200 RPM)

Standard Features



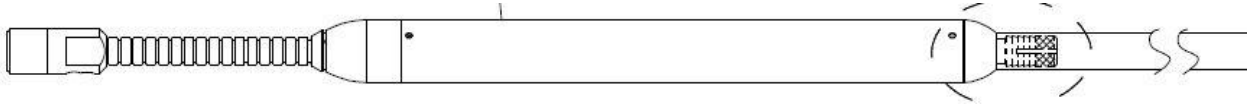
- Designed to spin Zetec straight tube rotating probe heads at 1200 rpm
- Stainless steel motor housing. The 12QNS motor housing is covered with a Nylon sleeve
- Four in-line D.C. micromotors
- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 5/2 connectors

Standard Options

Motor Diameters			Poly Length	Probe Head Connector			Instrument Connector
12Q	12QNS	12Q/5PL	All Motors	12Q	12QNS	12Q/5PL	All Motors
0.460" (11.68mm)) 0.500" (12.7mm)	0.560" (14.22mm)	0.460" (11.68mm)	50' (15.2m) 83' (25.3m)	7 pin (5/2)	7 pin (5/2)	5 Pin	36 pin
Custom options are available for all items							

3S Motor Unit (300 RPM)

Standard Features

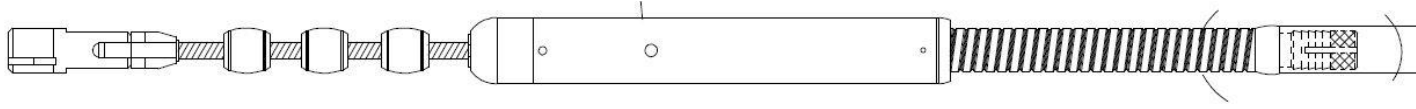


- Designed to spin Zetec U-bend and straight tube rotating probe heads at 300 rpm
- Stainless steel motor housing.
- Single D.C. micromotor
- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 5/2 connectors

Standard Options

Motor Diameters	Poly Length	Probe Head Connector	Instrument Connector
0.500" (12.70mm) 0.560" (14.22mm) 0.610" (11.17mm) 0.720" (18.29mm)	50' (15.2m) 83' (25.3m)	7 pin (5/2)	36 pin
Custom options are available for all items			

3S/F Motor Unit (300 RPM)



Standard Features

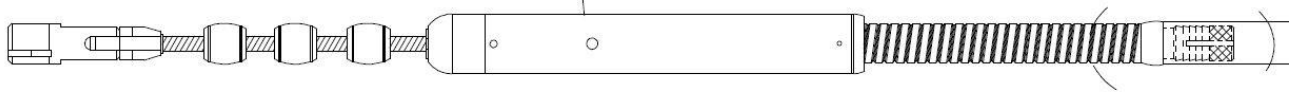
- Designed to spin Zetec straight tube rotating probe heads at 300 rpm
- 0.150" diameter flexible drive shaft and flex member between the motor and the Nylon tubing
(Allows improved rotation and translation when testing in confined spaces)
- Stainless steel motor housing. (Nylon covered motor housing versions available)
- Single D.C. micromotor
- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 3 pin connectors

Standard Options

Motor Diameters	Poly Length	Probe Head Connector	Instrument Connector
0.395" (10.03mm) 0.460" (11.68mm) 0.480" (12.19mm)	50' (15.2m) 83' (25.3m)	3 pin	36 pin
Custom options are available for all items			

HT/5PL and HT/3P Motor Unit (High Torque 300 RPM)

Standard Features

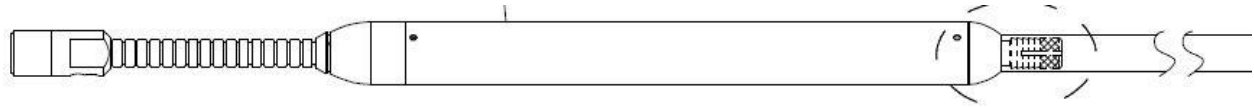


- Designed to spin Zetec straight tube rotating probe heads at 300 rpm
- 0.150" diameter flexible drive shaft and flex member between the motor and the Nylon tubing
- Stainless steel motor housing.
- Dual in-line D.C. micromotors (More torque than the single D.C. motor 3S/F motor unit)
- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 3 pin connectors

Standard Options

Motor Diameters		Poly Length	Probe Head Connector		Instrument Connector
HT/5PL	HT/3P	All Motors	HT/5PL	HT/3P	All Motors
0.460" (11.68 mm)	0.395" (10.03 mm)	50' (15.2m) 83' (25.3m)	5 pin	3 pin	36 pin
Custom options are available for all items					

HT Motor Unit (High Torque 300 RPM)



Standard Features

- Designed to spin Zetec straight tube and U-bend rotating probe heads at 300 rpm
- Stainless steel motor housing.
- Dual in-line D.C. micromotors

≥0.560" diameter: More torque than the single D.C. motor 3S motor unit

<0.560" diameter: More torque than the single D.C. motor 3S/F motor unit

- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 5/2 connectors

Standard Options

Motor Diameters	Poly Length	Probe Head Connector	Instrument Connector
0.460" (11.68mm) 0.500" (12.70mm) 0.610" (11.17mm) 0.720" (18.29mm)	50' (15.2m) 83' (25.3m)	7 pin (5/2)	36 pin
Custom options are available for all items			

24S Motor Unit (2400 RPM) While Supplies Last (Bulletin 05-1437)



Standard Features

- Designed to spin Zetec U-bend and straight tube rotating probe heads at 2400 rpm
- Stainless steel motor housing.
- Single, high torque brushless motor
- Low noise precision gold contact slip-ring
- Low EMI cable
- 5 trigger signals per rotation
- Connector is compatible with probe head 5/2 connectors

Standard Options

Motor Diameters	Poly Length	Probe Head Connector	Instrument Connector
0.480" (12.19mm) 0.580" (14.73)mm 0.610" (15.49mm)	50' (15.2m) 83' (25.3m)	7 pin (5/2)	36 pin
Custom options are available for all items			

TEO Bobbin Probe for Mildly Ferritic Tubes

Standard Features

- Titanium encased probe head for straight tube inspection
- Designed to partially saturate and suppress magnetic permeability noise in mildly ferritic materials such as Monel, 3RE60, SEA-CURE, and 400 series stainless steel

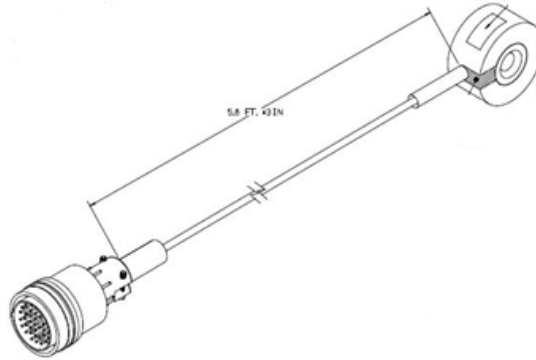


Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
.400" (10.16mm) to 1.070" (27.18mm) in 0.010" increments	65' (25.3m)	5/16T (Thin wall) 3/8T (Thin wall)	Multiple ranges available	4 pin
Custom options are available for all items				

Encircling Probes

ENC/2 and ENC/3 Bobbin Encircling Probe



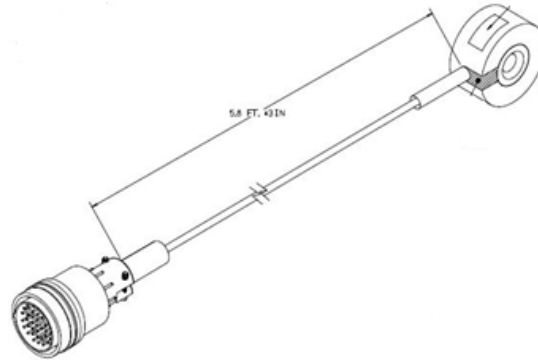
Standard Features

- Dual bobbin encircling coils.
- Designed for inspection of straight non-ferrous tubing
- 2" (ENC/2) or 3" (ENC/3) diameter outer housing

Standard Options

Probe Inside Diameters		Cable Length	Connector
ENC/2	ENC/3	6' (1.83m)	4 pin
0.030" (0.762mm) to 1.000" (25.4mm) in 0.010" increments	1.010" (25.654mm) to 2.000" (50.8mm) in 0.010" increments		
Custom options are available for all items			

ENC/RCCA/DUAL Array and Bobbin Encircling Probe



Standard Features

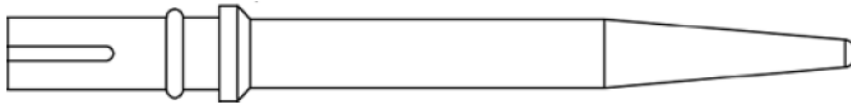
- Array of non-surface riding absolute pancake coils
- Dual bobbin encircling coils
- Radiation resistant cable
- Designed for inspection of nuclear power plant rod cluster control assembly (RCCA) tubes.
- Multiple probes typically used simultaneously
- With or without centering devices

Standard Options

Probe Diameters	Cable Length	Connector
0.400" (10.0mm)	100ft (30.5m)	36 pin
Custom options are available for all items		

Handheld Eddy Current Probes

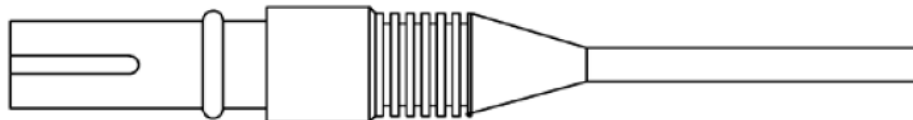
DTP Detachable Tip Pencil Probe with Tapered Tip



Standard Features

- 3.4 in. long tip
- 50 - 500kHz frequency range

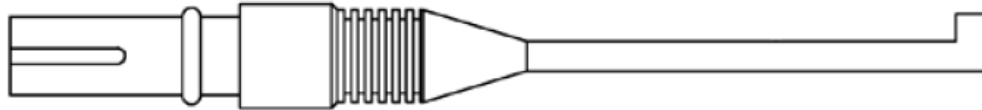
DTPS Detachable Tip Pencil Probe , Shielded



Standard Features

- 1.25 in. long tip
- Frequency range options: 50kHz - 500kHz, 500kHz - 1MHz

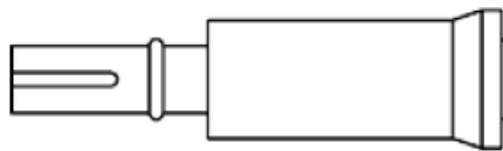
9DTS 90 Degree Detachable Tip Pencil Probes, Shielded



Standard Features

- 90-degree tip
- Frequency range options: 50kHz - 500kHz, 500kHz - 1MHz

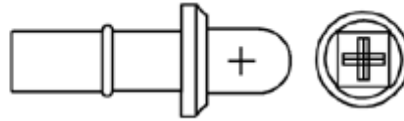
DTSPS Detachable Tip Spot Probes, Spring Loaded



Standard Features

- Spot probe
- 0.375" diameter spring loaded coil surface
- 0.870" diameter body
- 50kHz - 500kHz frequency range

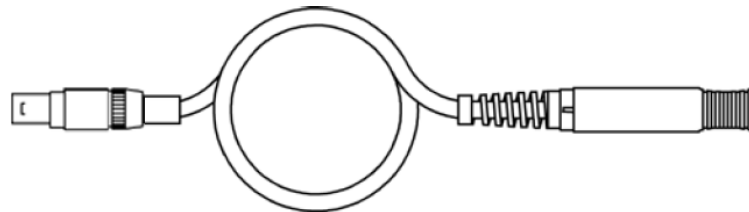
WSP/+P Detachable Tip Weld Scan +Point Probe



Standard Features

- Radius probe tip for inspection of raised weld beads
- Operating in differential mode
- 30kHz – 300kHz frequency range

DTPH Detachable Tip Probe Handles



Standard Features

- 6-foot cable
- Compatible with all detachable tip probes
- 4-pin Fischer connector
- Probe handle length options: 2 in., 3 in.

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.

XPSFP Surface Array Flex Probe

The Surface Array Flex Probe allows you to reduce inspection time and improve flaw detection, all the while providing you with a full record of inspection. It offers simple “one-pass” inspections of the weld bead, transition zone, and heat-affected zone. The unique flexible surface design and proprietary X-Probe coil technology allows it to conform to the weld surface where it can detect pitting and surface cracks in any orientation. The probe transmits data directly to the MIZ-200 acquisition software, where it is analyzed and stored.



Standard Features

- Maximum weld bead height: 0.197 in. (5 mm)
- Minimum detectable crack (L x W x D): 0.020 in., 0.004 in., 0.020 in. (0.5mm, 0.1mm, 0.5mm)
- Maximum penetration depth: 0.039 in. (1mm) (Stainless Steel)
- Includes custom carrying case
- Optional encoder for accurate sizing and positioning of defects

Standard Options

Surface Coverage	Cable Length	Coil Diameter	Center Frequency	Connectors
2.047 in. (52mm)	13' (4m) 33' (10m)	0.079 in. (2mm)	600kHz	MIZ-200 Array Connector
Custom options are available for all items				

Remote Field Testing (RFT) Probes

The Remote Field Testing (RFT) technique is a variation of the eddy current send/receive probe technique. The exciter coils are separated from the receiver coils by a distance equivalent to two or three times the tube OD. The receiver coils sense the flux lines that cross the tube wall twice. Remote field has an equal sensitivity to ID and OD indications, while the phase shift is directly proportional to wall loss.

The remote field testing technique is used for the inspection of ferromagnetic tubing; such as carbon steel and ferritic stainless, as well as for the detection and sizing of wall thinning resulting from corrosion, erosion, wear, pitting, and baffle cuts.

RFTLD Remote Field Testing Low Voltage Dual Exciter



Standard Features

- Absolute and differential signal
- Single or dual driver operation selectable from the software interface
- Includes a 30-dB preamplifier
- Better detection of signal at tube support plate
- Wear resistant

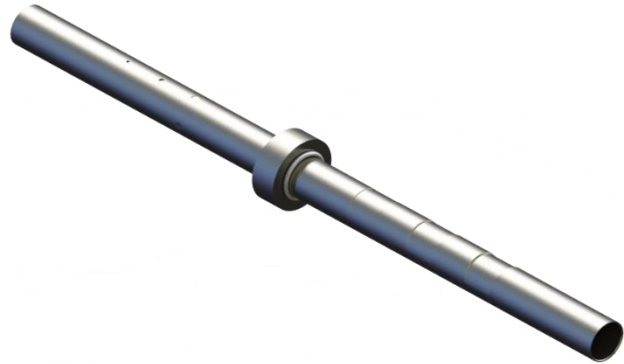
Standard Options

Probe Diameters	Push Poly Length	Push Poly Type	Frequency Range	Connectors
10mm, 11mm, 12mm, 13mm, 14mm, 16mm, 17mm, 18mm, 19mm, 22mm, 24mm	65' (20m) 98' (30m)	3/8T (Thin wall)	100Hz – 1000Hz 5kHz – 30kHz	19 pin Amphenol
Custom options are available for all items				

Calibration Standards

Zetec manufactures and stocks a wide variety of standards. We also manufacture standards to customer-supplied specifications.

All tubing standards are supplied with a drawing, showing as-built dimensions, material type, serial number, date of manufacture, and purchase order number. As built drawings of tube standards also record test frequency (ZQA 4.1 curve) and ET phase angles. All tubing standards fabricated from Zetec-supplied materials include material chemical certification. Plate and block standards are supplied uncertified. Zetec retains a copy of the as-built drawing at our facility as a permanent record.



ASME Standard with Tube Support Ring

Effective 1 January 2007, all requests for Zetec supply of standards in support of Steam Generator inspections will require “Customer Supplied Material” and will also require a Zetec receipt inspection in accordance with QAS-3013-PR-S. Contact Zetec Customer Service for more details about supplying your material for manufacturing.

Ordering Calibration Standards

The following information should be provided when ordering a standard:

1. Probe being used with the standard
2. Serial number of existing similar standard or concept drawing
3. Material of the standard
4. Tubing OD and wall thickness of the standard, or thickness of a flat plate standard
5. Will customer supply the material?
6. Material type for tube supports (if required)
7. For tubing standards is it
 - a. Inline
 - b. Guide tube
 - c. Handheld
8. Specific flaw information
 - a. Type of flaw
 - b. Orientation, dimensions and tolerance of flaw