

AMIGO PROBES

TSC have a wide range of probes available for use with the AMIGO ACFM Crack Microgauge. Our range of STANDARD PROBES operate at 5kHz and are suitable for a wide range of general purpose applications. Basic types are weld, mini pencil and micro pencil.

For applications requiring higher sensitivity, especially when used on non-magnetic materials, TSC offer a range of HIGH FREQUENCY PROBES. These operate at 50kHz and require an AMIGO with High Frequency Option fitted.

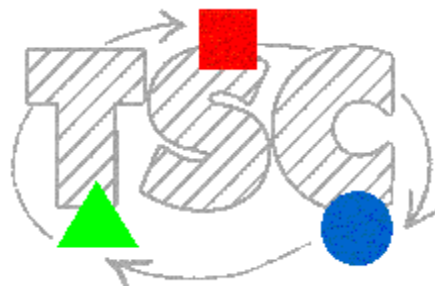
TSC have also developed a range of UNDERWATER PROBES. These are sealed for water depths of 50m and are characterised by an "electronics bulge" in the cable.

To aid choice of the correct probe, there is an easy to follow probe selection flow chart for the commonest types at the end of this datasheet. Other types are described below. TSC will also be pleased to advise on which probe to use for a particular job.

STANDARD PROBES AND HIGH FREQUENCY PROBES

There are four basic configurations:

WELD PROBE

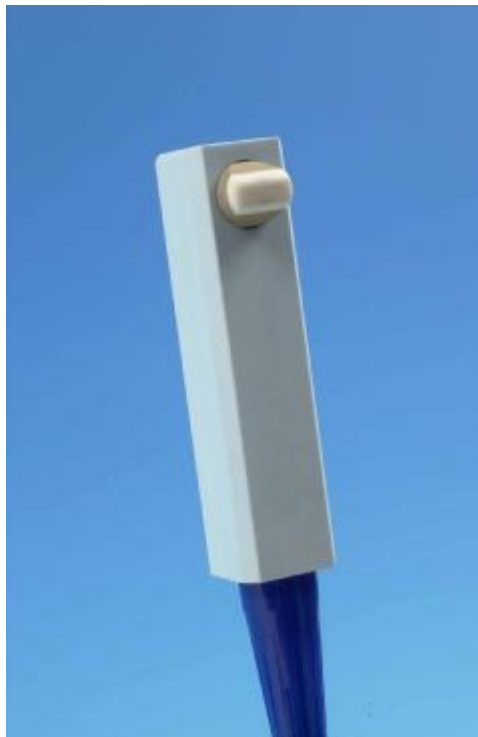




STRAIGHT PENCIL



RIGHT ANGLED PENCIL



TRANSVERSE PENCIL

The following table gives type numbers for the different configurations of STANDARD and HIGH FREQUENCY PROBES

	Weld	Straight Pencil	R/A Pencil	Transverse Pencil
Standard Probes	Type 256			
Mini		Type 250	Type 251	Type 252
Micro		Type 255	Type 253	Type 254

	Weld	Straight Pencil	R/A Pencil	Transverse Pencil
High Frequency Probes	Type 257			
Micro		Type 263	Type 261	Type 262

CABLE LENGTH

All STANDARD and HIGH FREQUENCY PROBES are with 5m cable length as standard. Cable lengths up to 50m are available on special orders.

UNDERWATER PROBES

Underwater probes are available with cable lengths up to 50m, length to be specified on ordering.



WELD PROBE TYPE 293



PENCIL PROBE TYPE 303



RIGHT ANGLE MINI PENCIL TYPE 291



STRAIGHT MINI PENCIL OR MICRO PENCIL

	Weld	Straight Pencil	R/A Pencil	Standard Pencil
Underwater Amigo Probes	Type 293			Type 303
Mini		Type 292	Type 291	
Micro		Type 305		

SUMMARY OF UNDERWATER PROBES AVAILABLE FOR USE WITH AMIGO

Is access good enough to deploy a standard weld probe? (I.e. flat plate, butt weld t-butt, large tubular intersections etc.)

YES

NO

Choose one of three available configurations of pencil probe to fit the geometry to be inspected:

Does local geometry include plate edges, stiffener plate ends, small diameter pipes etc.?

Straight for (e.g.) confined space, acute angle t-butts, and groundout areas

R.A. parallel for (e.g.) rat holes, axial cracks inside tube

R.A. transverse for (e.g.) circumferential cracks inside tubes

NO

YES

Do you need to detect shallow (<0.5mm in ferritic steel, <2mm in non-ferrous metals), or short (<5mm) crack AND is the inspection surface smooth?

Y N

Y N

Y N

Use standard Weld probe

Straight Micro pencil

Straight mini pencil

RA parallel micro pencil

RA parallel mini pencil

RA transverse micro pencil

RA transverse mini pencil

If you have an Amigo with the high frequency option installed you can use high frequency versions of weld or micro pencil to improve sensitivity to small defects. Note however, that use of high frequency is not recommended if the inspection surface is rough, or has visible grinding marks, or a metallic coating.

Type No's

5 kHz	256	255	250	253	251	254	252
50 kHz	257	263	-	261	-	262	-
Underwater	293	305	292	-	291	-	-

FLOWCHART SELECTION OF COMMON AMIGO PROBE TYPES

SPECIAL PROBES

TSC can produce customised probes to suit particular applications. The following is an example of a long nose pencil probe, designed to suit a customer's specific requirements. This probe was used to conduct inspections in a shaft keyway.

Please contact TSC if you have an application that can benefit from a special probe.



SPECIAL PROBE FOR KEYWAY INSPECTION

TSC INSPECTION SYSTEMS

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UNITED KINGDOM

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Please Note: As part of its continuing programme of product improvement, TSC reserve the right to alter specifications without prior notice.