

Fingertip Angle Beam Transducers and Wedges

Technisonic offers **Fingertip Removable Angle Beam Quick Change Transducers (ABFQ)** in two series: General Purpose (GP) and Composite (CMP). Their chief application is the inspection of welds for flaws with suitable orientation. They are useable on all commercially available flaw detectors. Their small size is ideal for inspection in limited access areas, on curved surfaces or for reducing the approach distance to the test area. The GP series is recommended for the majority of testing. For hard-to-penetrate materials such as austenitics, composites, plastics, etc., the CMP series provides greater sensitivity, increased signal-to-noise ratio, deeper penetration and better resolution when used with Technisonic wedges (WFO). The threaded transducer body screws directly into the wedge, making wedge changes fast and easy. This design insures positive coupling between the transducer and wedge. Color coded labels identify the frequency of the transducer. A microdot connector is supplied.

Technisonic's **Quick Change Wedges (WFO)** are designed to get maximum sound energy into the test material while dissipating internal reflections into a highly attenuative material that is built into every Quick Change Wedge.

Frequency (MHz)	.250"	.375"	.500"
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General Purpose Series (GP)

1.0	ABFQ-0202-GP	ABFQ-0203-GP	ABFQ-0104-GP
2.25	ABFQ-0302-GP	ABFQ-0303-GP	ABFQ-0204-GP
3.5	ABFQ-0502-GP	ABFQ-0503-GP	ABFQ-0304-GP
5.0	ABFQ-1002-GP	ABFQ-1003-GP	ABFQ-0504-GP
10.0	ABFQ-1002-GP	ABFQ-1003-GP	ABFQ-1004-GP

Composite Series (CMP)

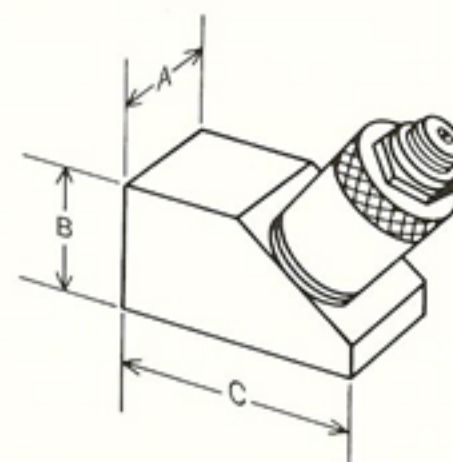
1.0	ABFQ-0104-CMP	ABFQ-0104-CMP	ABFQ-0104-CMP
1.5	ABFQ-1.503-CMP	ABFQ-1.504-CMP	ABFQ-1.504-CMP
2.25	ABFQ-0202-CMP	ABFQ-0203-CMP	ABFQ-0204-CMP
3.5	ABFQ-0302-CMP	ABFQ-0303-CMP	ABFQ-0304-CMP
5.0	ABFQ-0502-CMP	ABFQ-0503-CMP	ABFQ-0504-CMP

Fingertip Wedges

Wedge Style	Element Dia.	45°	60°	70°	90°
WFO	.250"	WFO-02-45	WFO-02-60	WFO-02-70	WFO-02-90
WFO	.375"	WFO-03-45	WFO-03-60	WFO-03-70	WFO-03-90
WFO	.500"	WFO-04-45	WFO-04-60	WFO-04-70	WFO-04-90

*Refracted angle as measured @ 5MHz.

- Special angles or curved wedges available upon request.
- Wedges with short exit points (WFOSE) available on request.
- High temperature wedges available upon request.



DIMENSIONS 1/4"

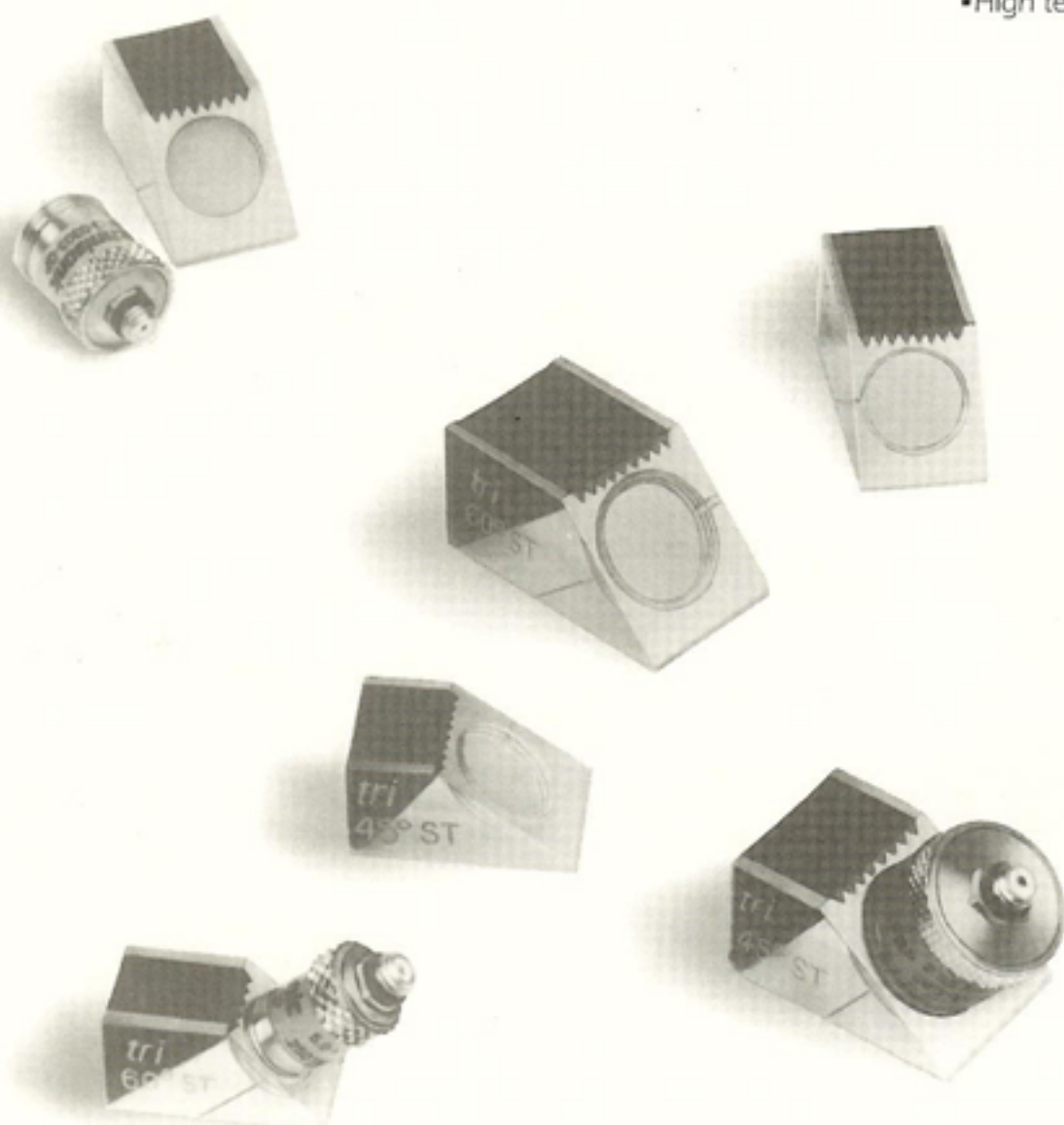
Angle	A	B	C
45°	.45"	.42"	.80"
60°	.45"	.47"	.90"
70°	.45"	.48"	1.00"
90°	.45"	.50"	.95"

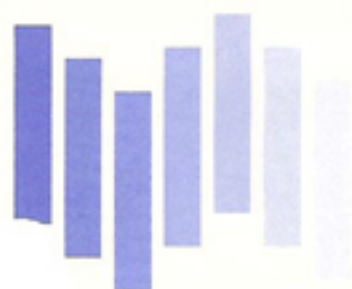
DIMENSIONS 3/8"

45°	.60"	.51"	.97"
60°	.60"	.57"	1.14"
70°	.60"	.60"	1.25"
90°	.60"	.70"	1.15"

DIMENSIONS 1/2"

45°	.75"	.58"	1.15"
60°	.75"	.68"	1.35"
70°	.75"	.71"	1.45"
90°	.75"	.75"	1.39"





Fingertip Angle Beam Transducers and Wedges

Technisonic Research offers **Fingertip Removable Angle Beam Transducers (ABFR)** in two series: General Purpose (GP) and Composite (CMP). Their chief application is for weld inspection or flaw detection of suitably oriented flaws. They are useable on all commercially available flaw detectors. They are designed for the inspection of limited access areas, on curved surfaces and for reducing the approach distance to the test area. The GP series is recommended for the majority of testing. For hard-to-penetrate materials such as austenitics, composites, plastics, etc., the CMP series provides greater sensitivity, increased signal-to-noise ratio, deeper penetration and better resolution when used with Technisonic wedges (WF). These transducers feature a captive screw design, eliminating the problem of lost screws. Stainless steel housings provide rugged dependability. They also feature an acoustically matched epoxy lens to insure optimum performance. A knurled surface provides a very comfortable non-slip grip. Color coded labels identify the frequency of the transducer. A microdot connector is supplied.

Technisonic's **Fingertip Removable Wedges (WF)** are designed to get maximum sound energy into the test material while dissipating internal reflections into a highly attenuative material that is built into every Fingertip Removable Wedge.

Frequency (MHz)	Element Diameter	
	.250"	.500"

General Purpose Series (GP)

1.0	—	ABFR-0104-GP
2.25	ABFR-0202-GP	ABFR-0204-GP
3.5	ABFR-0302-GP	ABFR-0304-GP
5.0	ABFR-0502-GP	ABFR-0504-GP
10.0	ABFR-1002-GP	ABFR-1004-GP

Composite Series (CMP)

1.0	—	ABFR-0104-CMP
2.25	ABFR-0202-CMP	ABFR-0204-CMP
3.5	ABFR-0302-CMP	ABFR-0304-CMP
5.0	ABFR-0502-CMP	ABFR-0504-CMP

Wedge Style	Element Dia.	Effective angle in steel*			
		45°	60°	70°	90°

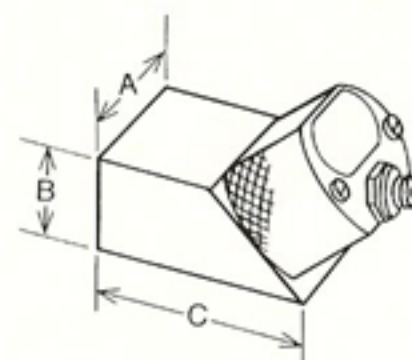
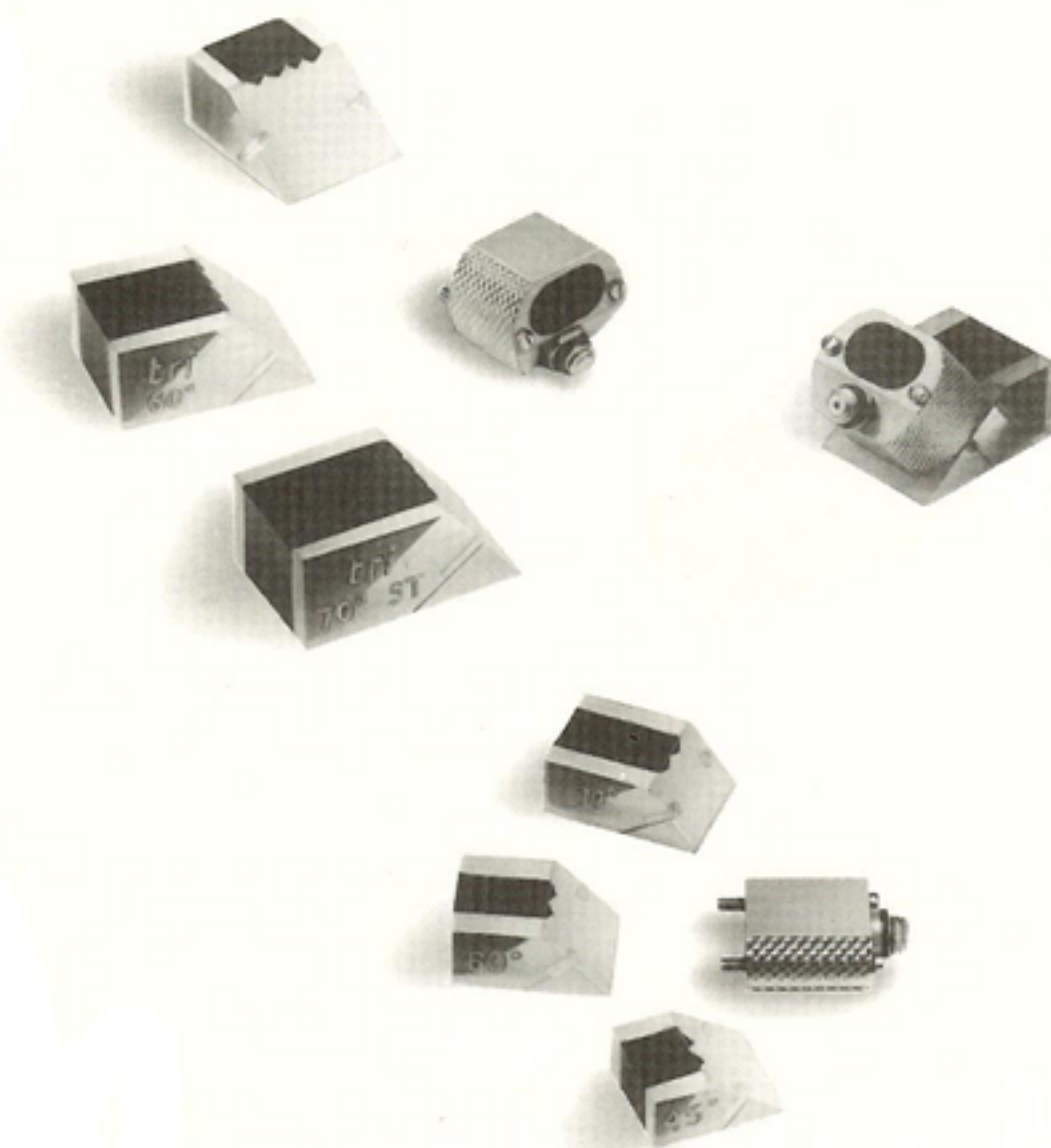
Fingertip Wedges

WF	.250"	WF-02-45	WF-02-60	WF-02-70	WF-02-90
WF	.500"	WF-04-45	WF-04-60	WF-04-70	WF-04-90

Fingertip Wedges (High Temperature) 550° F

WFHT	.250"	WFHT-02-45	WFHT-02-60	WFHT-02-70	—
WFHT	.500"	WFHT-04-45	WFHT-04-60	WFHT-04-70	—

- Special angles or curved wedges available upon request.
- Cooling Cycle: Allow transducer to cool to ambient temperature after 10 seconds of contact time @ 350° F.
- * Refracted angle as measured @ 5MHz.



DIMENSIONS 1/4"

Angle	A	B	C
45°	.50"	.27"	.60"
60°	.50"	.32"	.69"
70°	.50"	.33"	.75"
90°	.50"	.50"	.90"

DIMENSIONS 1/2"

Angle	A	B	C
45°	.75"	.45"	.95"
60°	.75"	.50"	1.05"
70°	.75"	.53"	1.17"
90°	.75"	.76"	1.56"



Fingertip Angle Beam Transducers

Technisonic's **Fingertip Potted Angle Beam Transducers (ABFP)** are best suited for the inspection of limited access areas with all commercially available flaw detectors. The integral wedge design insures excellent signal/noise ratios and their small size allows testing of slightly curved or irregularly shaped surfaces. Rear mounted microdot connectors are standard but top mounted microdots are available.

Technisonic's **Microminiature Angle Beam Transducers (MMAB)** are ideal for testing situations where access to the area of interest is extremely limited. A top mounted microdot connector is normally supplied but rear mounted connectors are available on special order.

ABFP

Frequency (MHz)	45°	Effective Angle in Steel	60°	70°	90°
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Element Dimensions: .250" x .250"

2.25	ABFP-0202-45	ABFP-0202-60	ABFP-0202-70	ABFP-0202-90
5.0	ABFP-0502-45	ABFP-0502-60	ABFP-0502-70	ABFP-0502-90
10.0	ABFP-1002-45	ABFP-1002-60	ABFP-1002-70	ABFP-1002-90

Element Dimensions: .375" x .375"

2.25	ABFP-0203-45	ABFP-0203-60	ABFP-0203-70	ABFP-0203-90
5.0	ABFP-0503-45	ABFP-0503-60	ABFP-0503-70	ABFP-0503-90
10.0	ABFP-1003-45	ABFP-1003-60	ABFP-1003-70	ABFP-1003-90

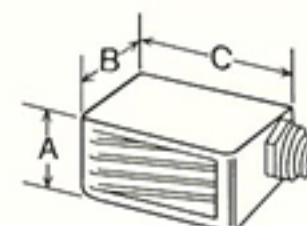
• ABFP Series is available with composite element on request.

MMAB

Frequency (MHz)	45°	Effective Angle in Steel	60°	70°	90°
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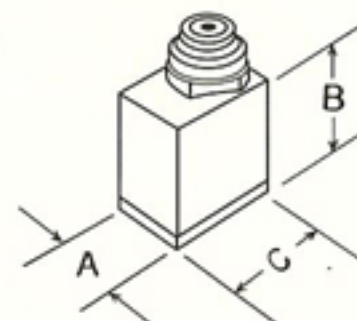
Element Dimensions: .187" x .187"

5.0	MMAB-0501-45	MMAB-0501-60	MMAB-0501-70	MMAB-0501-90
10.0	MMAB-1001-45	MMAB-1001-60	MMAB-1001-70	MMAB-1001-90



ABFP

Element Size	Dimensions	A	B	C
.25" sq.		.36"	.60"	.74"
.37" sq.		.49"	.60"	1.00"



MMAB

Dimensions	A	B	C
.25"	.37"	.37"	