Johari Engineering

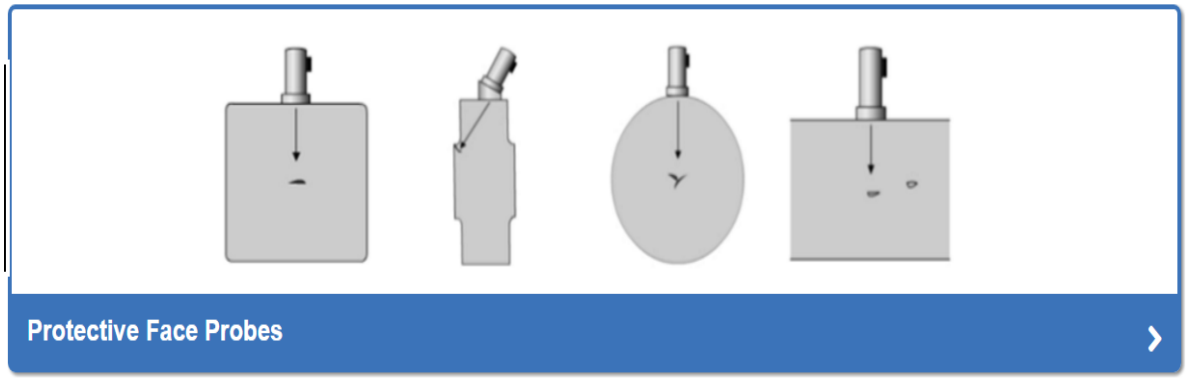
JE Ultrasonic Transducers

For Flaw Detection

Johari Engineering

We are ISO 9001-2015 Certified Company &
Life member of ISNT.
info@johariengineering.in

Contact Transducers
Straight Beam Contact Transducers, Protective



Applications:

- General purpose, larger parts with simple geometry
- Forgings, billets
- Plates, bars, square profiles
- Containers, machine components, shells
- Inspection at high temperature with delay line

We are ISO 9001-2015 Certified Company &
Life member of ISNT.

www.johariengineering.in

Johari Engineering

Probe Code and Technical Specification
Straight Beam

Probe Code	Contact face dia. in mm Ø	Frequency	Calibration Certificate
JE.5 SM	10	0.5 Mhz	
JE1 SM	10	1 Mhz	Yes
JE2 SM	10	2 Mhz	Yes
JE4 SM	10	4 Mhz	Yes
JE5 SM	10	5 Mhz	Yes
JE10 SM	10	10 Mhz	
JE.5 S	24	0.5Mhz	
JE1 S	24	1 Mhz	Yes
JE2 S	24	2 Mhz	Yes
JE4 S	24	4 Mhz	Yes
JE5 S	24	5 Mhz	Yes
JE10 S	24	10 Mhz	

Custom configurations are available by special order.

Johari Engineering

info@johariengineering.in

Contact Transducers
Angle Beam Transducers—Large & Small Sizes

Angle Beam - Shear Wave Probes ›

Applications:

- General weld inspection, larger objects, thicker sections
- Pipes, tanks, pressure vessels
- Axles, forgings, castings
- Bridges and other structures
- Railroad wheels and rail
- Replicable & Integrated wedges

We are ISO 9001-2015 Certified Company &
Life member of ISNT.

Johari Engineering

info@johariengineering.in

Probe Code and Technical Specification

Angle Beam Transducers—Large & Small Sizes

Probe Code	Size in mm	Frequency	Angle in Degree
JE2A35M	8*9	2	35
JE2A45M	8*9	2	45
JE2A60M	8*9	2	60
JE2A70M	8*9	2	70
JE2A80M	8*9	2	80
JE4A35M	8*9	4	35
JE4A45M	8*9	4	45
JE4A60M	8*9	4	60
JE4A70M	8*9	4	70
JE4A80M	8*9	4	80
JE2A35S	14*14	2	35
JE2A45S	14*14	2	45
JE2A60S	14*14	2	60
JE2A70S	14*14	2	70
JE2A80S	14*14	2	80

Custom configurations are available by special order.

Johari Engineering

info@johariengineering.in

Probe Code and Technical Specification

Angle Beam Transducers—Large & Small Sizes

Probe Code	Size in mm	Frequency	Angle in Degree
JE4A35S	14*14	4	35
JE4A45S	14*14	4	45
JE4A60S	14*14	4	60
JE4A70S	14*14	4	70
JE4A80S	14*14	4	80
JE2A35	20*22	2	35
JE2A45	20*22	2	45
JE2A60	20*22	2	60
JE2A70	20*22	2	70
JE2A80	20*22	2	80
JE4A35	20*22	4	35
JE4A45	20*22	4	45

Custom configurations are available by special order.

Probe Code and Technical Specification

Angle Beam Transducers—Large & Small Sizes

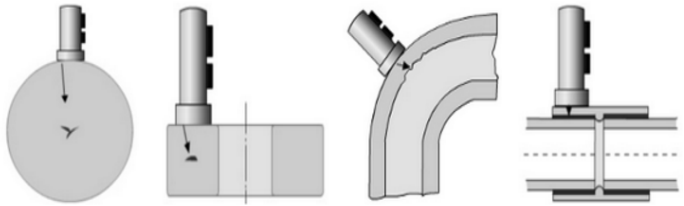
Probe Code	Size in mm	Frequency	Angle in Degree
JE4A60	20*22	4	60
JE4A70	20*22	4	70
JE4A80	20*22	4	80
JE1A35	20*22	1	35
JE1A45	20*22	1	45
JE1A60	20*22	1	60
JE1A70	20*22	1	70
JE1A80	20*22	1	80
JE5A35	20*22	5	35
JE5A45	20*22	5	45
JE5A60	20*22	5	60
JE5A70	20*22	5	70

Custom configurations are available by special order.

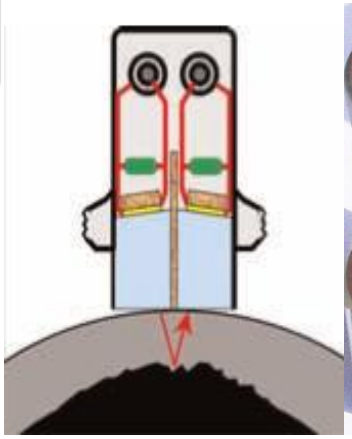
Johari Engineering

info@johariengineering.in

Contact Transducers
Dual Element (TR) Transducer



Dual Element Probes



Applications:

- Transmit and receive elements separated by crosstalk barrier
- Requires couplant layer, typically a gel, oil, or paste
- Typically used for manual inspection
- Remaining wall thickness, corrosion, erosion
- Near surface flaw detection
- Small parts—screws, bolts, pins
- Cladding and weld overlay
- Bond testing
- Railroad wheels
- Core flaws in shafts, bars, billets
- Coarse grain materials
- Excellent near surface resolution
- Improved coupling on curved and rough surfaces
- Reduce noise caused by scattering
- Can be contoured for curved parts

Johari Engineering

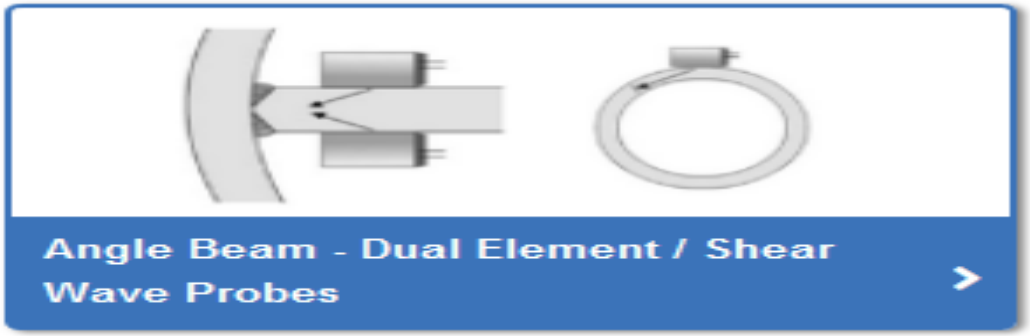
Probe Code and Technical Specification

Contact Transducers Dual Element (TR) Transducer

Probe Code	Contact face dia. in mm Ø	Frequency	Calibration Certificate
JE1TRM	10	1 Mhz	Yes
JE2TRM	10	2 Mhz	Yes
JE4TRM	10	4 Mhz	Yes
JE5TRM	10	5 Mhz	Yes
JE10TRM	10	10 Mhz	Yes
JE1TR	24	1 Mhz	Yes
JE2TR	24	2 Mhz	Yes
JE4TR	24	4 Mhz	Yes
JE5TR	24	5 Mhz	Yes
JE10TR	24	10 Mhz	Yes
JE5TR	24	5 Mhz	Yes

Custom configurations are available by special order.

Contact Transducers
Angle Beam Dual Element (TR) Transducer



Applications:

- Testing of small to middle sized objects with smooth or slightly rough surfaces, whose material does not greatly have sound attenuative effect on shear waves. For example. They are used on small mountings for the detection of radial cracks, corrosion cracks on the inside of thin walled containers, as well as transverse cracks on heat exchanger tubes in the direct scanning mode.
- Detection and evaluation of small, near surface flaws
- Thin-walled tubes and containers
- matched point focusing to the flaw position
- Angles of 45° , 60° and 70° Frequency of 2 and 4MHz

Johari Engineering

Probe Code and Technical Specification

Dual Angle Element (TR) Transducer

Probe Code	Size of Probe in mm	Frequency	Angle in degree
JE4ATR45M	8*9	4 Mhz	45
JE4ATR60M	8*9	4 Mhz	60
JE4ATR70M	8*9	4 Mhz	70
JE2ATR45M	8*9	2 Mhz	Yes
JE2ATR60M	8*9	2 Mhz	Yes
JE2ATR70M	8*9	2 Mhz	Yes
JE4ATR45	14*14	4 Mhz	Yes
JE4ATR60	14*14	4 Mhz	Yes
JE4ATR70	14*14	4 Mhz	Yes
JE2ATR45	14*14	2 Mhz	Yes
JE2ATR60	14*14	2 Mhz	Yes

Custom configurations are available by special order.

Transducer Accessories Cables and Adapters

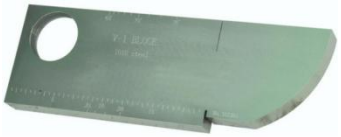
Cable Type	Length in Meter	First Connector	Second Connector
JEL0 L0	1.5,2,3,5 Mtr	Lemo 00/ Mini Lemo	Lemo 00/ Mini Lemo
JEL0 L1	1.5,2,3,5 Mtr	Lemo 00/ Mini Lemo	Lemo 01/ Lemo
JEL0 BNC	1.5,2,3,5 Mtr	Lemo 00/ Mini Lemo	BNC
JEL0 M	1.5,2,3,5 Mtr	Lemo 00/ Mini Lemo	Microdot
JEL1 BNC	1.5,2,3,5 Mtr	Lemo 01/ Lemo	BNC
JEL1 M	1.5,2,3,5 Mtr	Lemo 01/ Lemo	Microdot
JEL1 L1	1.5,2,3,5 Mtr	Lemo 01/ Lemo	Lemo 01/ Lemo
JE M M	1.5,2,3,5 Mtr	Microdot	Microdot

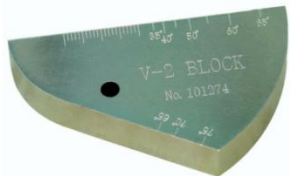
Custom configurations are available by special order.

Johari Engineering

Ultrasonic Calibration Blocks

Block Type	Description
IIW- V1 Block	• Large angle beam calibration block • 100 mm radius for angle beam range calibration • Measure beam index point and refracted angle • Also used to check resolution and sensitivity • Thickness :- 25 mm
IIW- V2 Block	• 25 mmradius opposite a 50 mm radius • Side drilled hole to check beam index point and refracted angle • Thickness :- 12.5 mm
10 Steps Block	Step block for calibrating thickness range Steps 1,2,3,4,5,6,7,8,9,10 mm Material Available :- SS, CS, Babitt
Block A5	Beam calibration block for beam profile measurement and resolution checks for shear wave probes, also sensitivity levels for shear and compression probes. 9 x 1.5mm Ø target holes. Includes case.
RTB (A7)	Resolution Block for checking shear wave probe resolution as per BS4331 Part 3 1974. 4 steps at 2, 3, 4 and 5mm.
DAC Block	Setting DAC characteristics of shear wave and compression wave probes. Flaws typically 1.5mm diameter holes at 20%, 40%, 60% and 80% of thickness.





Custom configurations are available by special order.

Johari Engineering

info@johariengineering.in

Couplants and Calibration Block

JEG-F	Universal coupling paste	Temperature range: -20°C to +100°C
JEGT	Multi-grade coupling paste	Temperature range: -30°C to +250°C
JEGM	High-temperature coupling paste	Temperature range: +200°C to +450°C
VW	Stepped calibration block	For the function control of thickness gauges Material :- SS, Carbon Steel, Babbit (84)

Custom configurations are available by special order.

Contact Info

Johari Engineering

We are ISO 9001-2015 Certified Company & Life member of ISNT.

|**Johari Engineering** | 1213 Kailashpur Saharanpur UP 247001 India

Contact No +917534987430

Email: info@johariengineering.in

www.johariengineering.in