Couplant Solutions Catalog

ECHO ultrasonics — The couplant experts

EchoPure™
The most universal water-free UT couplant

Operating Range: -60° to 350°F / -51° to 176°C

- Ideal for very cold and very warm inspections
- Couplant of choice for phased array manual inspections (PAMUT)
- Complies with P91 steel requirement for water-free couplant
- Four viscosities (fluids and gels)
- Very slow drying
- All ingredients approved for incidental food contact
- Water-free means no ice crystals which cause noise, down to -60˚F / -51˚C

SuperSoniX™
Enhanced performance

Operating Range: -10° to 220°F / -23° to 104°C

- Contains glycerin to improve signal to noise ratio
- Slow drying
- Compatible with most materials
- Medium and high viscosity
- No nitrates, nitrites, glycol ethers or formaldehyde
- Water-soluble

UltraSonix™
Glycerin-free – Aircraft grade

Operating Range: 10° to 220°F / -12° to 104°C

- Glycerin-free – meets FAA AC 25-29 requirement of no glycerin for aluminum inspections
- Compatible with most materials
- Medium viscosity
- No nitrates, nitrites, glycol ethers or formaldehyde

Signal™
The couplant for better signal with less noise

Operating Range: -18° to 224°F / -28° to 107°C

- Providing improved signal-to-noise through superior acoustics
- Improves signal to noise ratio on rough surfaces such as castings, rough bar stock and fiberglass
- Gel viscosity remains in place for overhead and vertical surfaces

Sonix™
Best choice for a low-cost general purpose ultrasonic couplant

Operating Range: 18° to 120°F / - 8° to 50°C

- Strong coupling film, salt stable
- Good ferrous corrosion inhibition
- No nitrates, nitrites, glycol ethers or formaldehyde
- Water-soluble

Glycerin
GE Approved Glycerol, Batch 205 for CFM56-7B engine fan blades

Operating Range: 65° to 500°F / 18° to 260°C

- Packaged from USP glycerin, 99+%
- High acoustic impedance
- Will not harden on equipment
- Pumpable fluid
- Compatible with plastics

Echo Shear Wave™
Transmits normal incidence shear wave

Operating Range: 40° to 90°F / 4° to 32°C

- Couples shear wave and guided wave
- Water-soluble
- Easily removed with water wash

Echo 8 ZH™
For flow metering and long term monitoring at elevated temperatures

Operating Range:
Short Term: -45° to 750°F / -42° to 398°C
Long Term: -45° to 400°F / -42° to 204°C

- Enhanced acoustic impedance
- Reduces surface roughness acoustic noise

Echo Z+™
High acoustic impedance

Operating Range: 0° to 200°F / -18° to 93°C

- Ideal for rough surfaces and concrete
- Pencil Point and shear wave inspections
- Five viscosities

Forever Wedge™

- Facilitates more reproducible inspections, less artifacts and longer wedge coupling.
- High viscosity fluid couplant for use between phased array and angle beam transducers and the wedge.

EchoMix® Single Powder

Operating Range: 32° to 120°F / 0° to 50°C

- 1-part powder mix
- Easily mixed in water
- Salt resistant
- No formaldehyde
- Compact for shipping & storage

AeroSoniX™ Drone Couplant

Operating Range: -50° to 775°F / 45° to 412°C

- High temperature UT couplant that pumps like a fluid, stays in place like a gel.
- Broad temperature range.
- No residue, varnish or corrosion in drone pumps.

High Temperature Couplants

Operating range is printed on every label of Echo's high temperature couplants

VersaSonic®

Best general purpose, high temperature couplant, two viscosities

Operating Range: -10° to 700°F / -23° to 371°C
Auto Ignition: 788°F / 420°C

- Excellent high temperature transducer lubricant, extends transducer life
- Two viscosities: medium and high
- Fast repsonse, no wait time
- Does not contain peanut oil, silicone oil or plastic polymer

HiTempco™+

No residue, fast response

Operating Range: -50° to 850°F / -45° to 455°C
Auto Ignition: 894°F / 479°C

- **Improved** higher temperature formulation
- Fast response, no wait time
- No residue or varnish
- Less smoke
- No plastic polymer or char
- Excellent corrosion inhibition

EchoTherm™

Excellent performance for use above 850°F

Operating Range: 200° to 1000°F / 93° to 538°C
Auto Ignition: 1300°F / 704°C

- Less expensive couplant for use over 850°F and in inspection ports
- Ultra-high temperature
- Contains a plastic polymer which delays response time 2 seconds
- Leaves plastic residue (char)

EchoTherm Extreme™

The best – no residue, instant, stable response to 1250°F

Operating Range: -40° to 1250°F / -40° to 675°C
Auto Ignition: 1300°F / 704°C

- Ultra-high temperature
- Fast response, no wait time
- No plastic polymer
- No plastic char residue
- Broadest operating range

Fluid Couplants for AUT and Robotic UT Inspections

Echo 8 HT™

Most universal AUT fluid

Operating Range: -50° to 800°F / -45° to 425°C
Pumpable Range:
Grade 1: 30° to 800°F / -1° to 425°C
Grade 4: 50° to 800°F / 10° to 425°C
Auto Ignition: 850°F / 454°C

- Two viscosities (Grades 1 & 4)
- Little or no residue
- Non-irritating
- Silicone-based

Echo 6 HT Fluid™

Operating Range: -40° to 675°F / -40° to 357°C
Pumpable Range: 0° to 675°F / -18° to 357°C
Auto Ignition: 789°F / 421°C

- Replacement for peanut, canola and mineral oils
- No sticky film, varnish or smoke
- Reduced risk of under-insulation cracking
- Low cost silicone-based fluid

Echo 3 HT Fluid™

Operating Range: -30° to 350°F / -34° to 177°C
Pumpable Range: 35° to 350°F / 2° to 177°C
Auto Ignition: 628°F / 331°C

- Water-soluble
- No need to remove
- Least expensive intermediate temperature fluid

EchoFLOW Fluid™

Operating Range: -40° to 150°F / -40° to 65°C
Pumpable Range: -40° to 150°F / -40° to 65°C

- Can be pumped in extreme cold
- Environmentally safe
- Approved for use in the Tundra
- Water-soluble

SUPERIOR COUPLANTS • BEST PRICE
ECHO ultrasonics
GUARANTEE
OUTSTANDING SERVICE

QAS INTERNATIONAL
ISO 9001:2015
REGISTERED COMPANY

ECHO ultrasonics The couplant experts

Echo Ultrasonics, LLC
774 Marine Drive | Bellingham, WA 98225
360.671.9121 | echoultrasonics.com

11/19/2024