

# HotSense™ Ultrasonic Time-Of-Flight Diffraction (TOFD) Full Inspection Kit

Be ready for any weld inspection with a complete set of HotSense™ Time-of-Flight Diffraction (TOFD) transducers for on-stream inspection of a wide range of welds, depths and vessel diameters.

**Keywords:** TOFD, weld inspection, on-stream inspection, extreme environments, ultrasonic testing, high temperature

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ADVANCED  
TECHNOLOGIES



## HOTSENSE

- Built on the award winning HotSense™ ultrasonic platform powered by the proprietary Ionix HPZ piezoceramic
- Complete set of HotSense™ TOFD probes with integrated 50, 60 and 70° wedges with flat, 8", 12" and 16" profiles to cover pipe diameters from 6" NPS to flat
- Includes high-temperature couplant feed tubing, splitters and high-temperature cables
- -55 to +350°C [-67 to +662°F] continuous use temperature range without cooling or duty cycling

## APPLICATION

- Cover scan depths up to 70 mm with a range of wedge angles and frequencies.
- Profiled wedges to maximise coupling and sensitivity on a range of assets
- Make weld inspections on hot assets, on-stream, without the need to shutdown or isolate
- Make effective weld root corrosion assessments rapidly at high-temperature

## SOLUTIONS

- Maximise productivity with reduced down-time and outages with on-stream inspection
- Perform high-temperature pre-inspections to optimise shutdowns
- Standardise data collection using commercial UT flaw detectors and scanners
- Reduce operational costs and maximise production margins

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# HotSense™ TOFD



## FULL INSPECTION KIT CONTENTS

DESCRIPTION	APPLICATION
HotSense™ TOFD - 70 deg, 6 MHz probe, with 5 mm replaceable pivot pins, couplant nozzles to fit 4 mm to 4.5 mm tube	The higher frequency improves the measurement resolution and high nominal probe angle helps to reduce the dead zone near the surface. Recommended for wall thickness up to 25 mm
HotSense™ TOFD - 60 deg, 5 MHz probe, with 5 mm replaceable pivot pins, couplant nozzles to fit 4 mm to 4.5 mm tube	Balancing detection resolution and depth of penetration across the temperature range. The nominal probe angle of 60° make it suitable for wall thickness from 15 mm to 30 mm.
HotSense™ TOFD - 50 deg, 5 MHz probe, with 5 mm replaceable pivot pins, couplant nozzles to fit 4 mm to 4.5 mm tube	The lowest probe angle makes it suitable for thicker parts, up to 70 mm

All probe angles provided as pairs with the following wedge profiles:  
 Flat, NPS 8", NPS 12" and NPS 16"  
 Total of 24 HotSense™ TOFD Probes

INCLUDED ACCESSORIES	DESCRIPTION
2 x High temperature dual cable 5 m Lemo 00 to Lemo 00	Rugged and reliable temperature resilient cables to connect to your scanner of choice
4 x Y-Splitter with tubing for couplant feed	High temperature splitter adapters to connect your couplant feed system to the HotSense probes
HotSense™ TOFD - Protective case with cutouts for 24 HotSense™ TOFD Probes, cables and accessories	A secure case to keep your probes safe, together and organised



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