

# Time of Flight Diffraction

Time-of-flight diffraction (TOFD) is typically used in conjunction with phased-array applications as a rapid screening tool for the detection and sizing of circumferential- and axial-weld imperfections. TOFD setup involves placing two transducers on opposite sides of the area to be inspected. Sound waves are then refracted into the specimen at angles appropriate to component thickness.



## THE Applus+ SOLUTION

Applus+ has developed proven and tested procedures for time-of-flight diffraction inspections in accordance with applicable codes. Our technicians are rigorously trained and assessed, both internally and externally, on data acquisition and interpretation.

## Target customers

Time of Flight Diffraction has been used on a variety of equipment and across a vast range of fields including:

- Upstream
- Midstream
- Downstream
- Transport pipelines
- Refining
- New construction
- Power
- Aerospace
- Nuclear
- Offshore
- Maintenance

## Key customer benefits

Time-of-flight diffraction is highly sensitive and can detect multi-oriented indications not typically or easily detected by conventional means. This technique is also considered one of the fastest methods of non-destructive testing available for the level of information obtained.