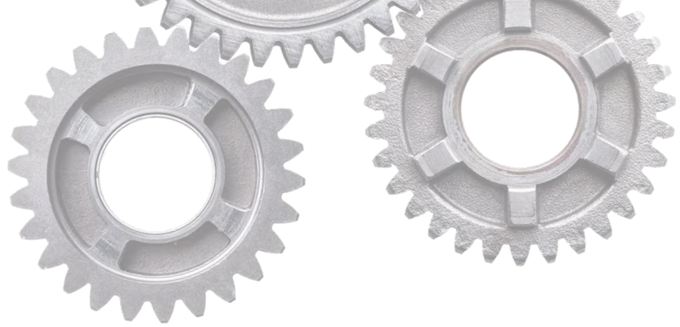
PLASTOMETREX

PIPELINE SOLUTION

# Simple, fast & reliable material verification

Accurate and immediate yield and ultimate tensile strength results

PLASTOMETREX



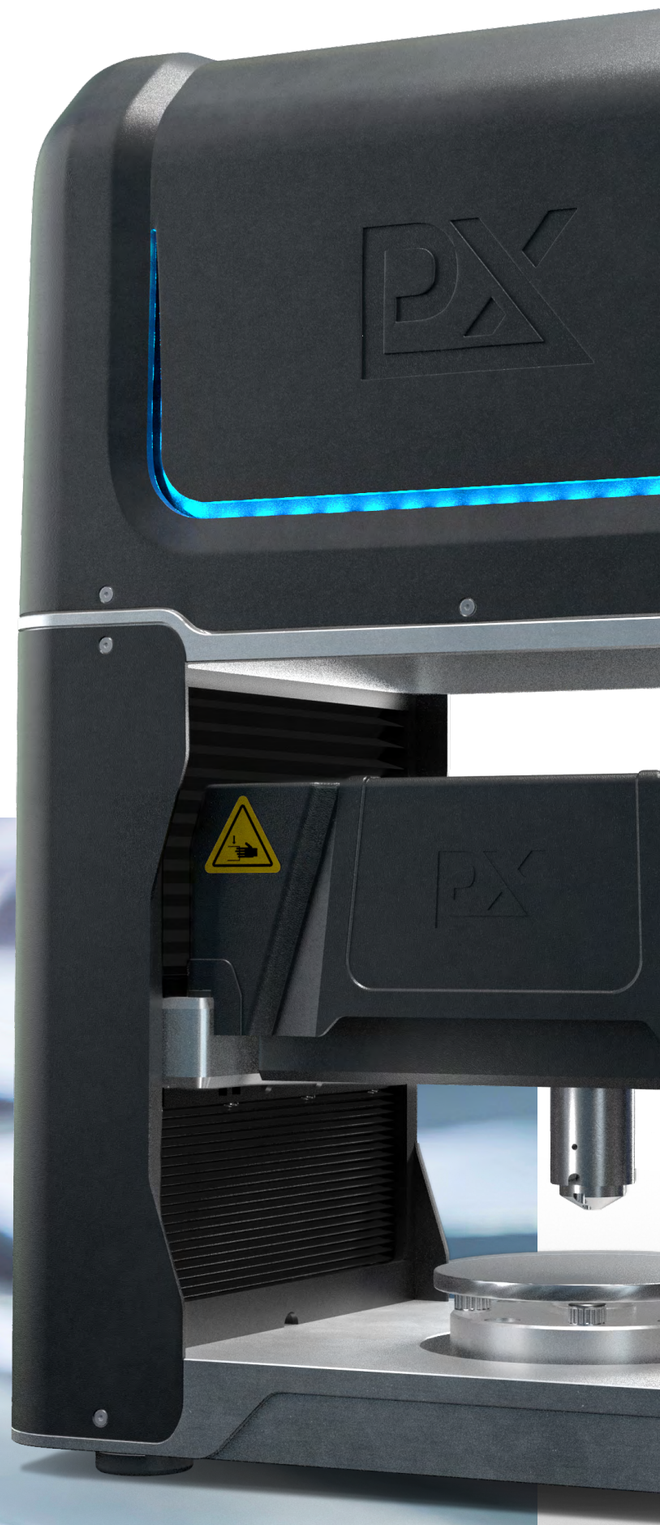
# Next generation mechanical testing

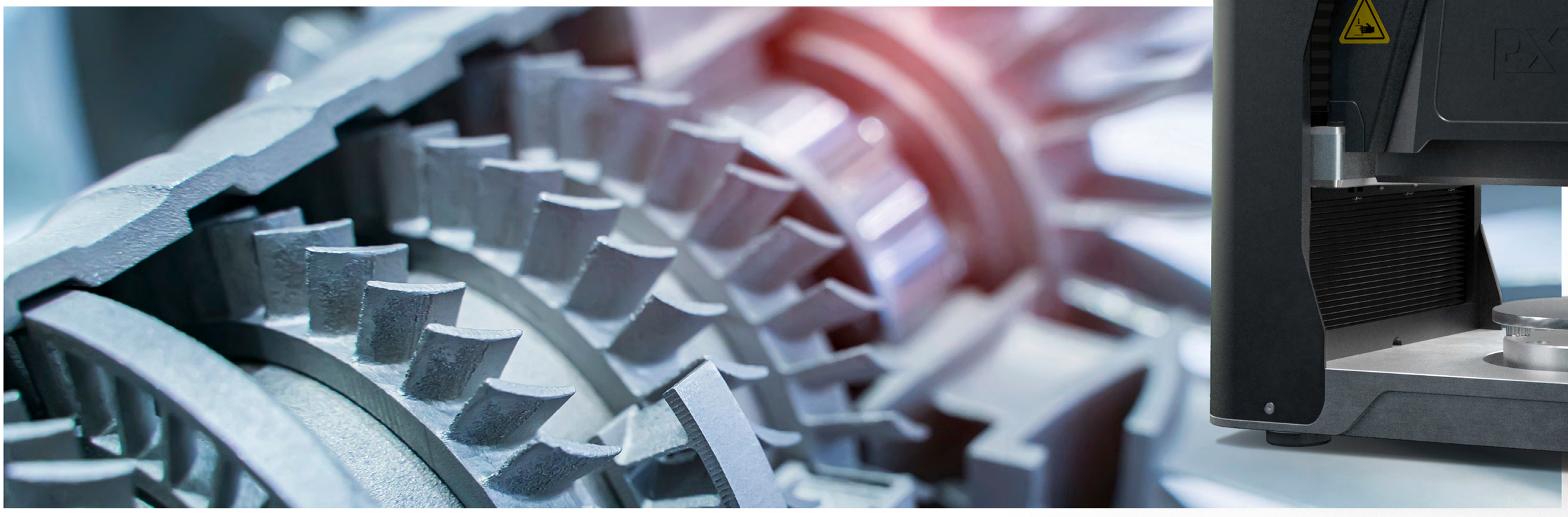
**Plastometrex are world leaders in rapidly and non-destructively obtaining key material strength parameters and full stress-strain curves to UTS.**

Our test solutions are based on our underlying platform technology - Profilometry-based Indentation Plastometry (PIP). The technique combines our deep expertise in materials science with hardware, advanced numerical methods and optimisation algorithms.

Plastometrex tools support industrial companies, universities and research organisations around the world. They help operators gain in-depth understanding of their AM and conventionally manufactured metal parts and materials, in a fraction of the time and cost compared with conventional testing methods.

- Stress-strain curves in under 5 minutes
- Minimal sample preparation
- Map property variations
- Test small samples



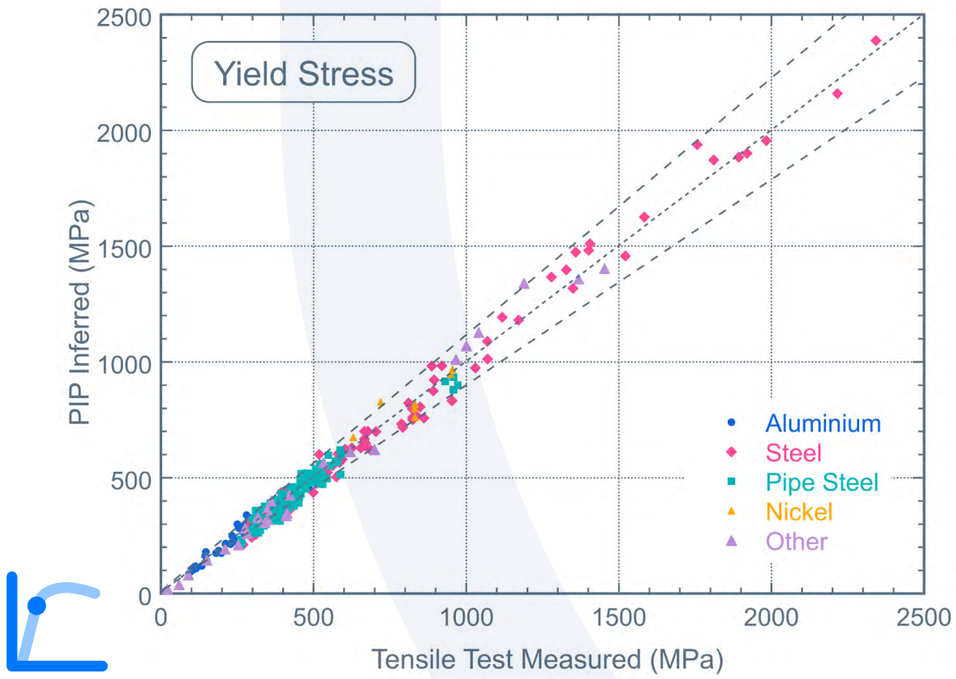


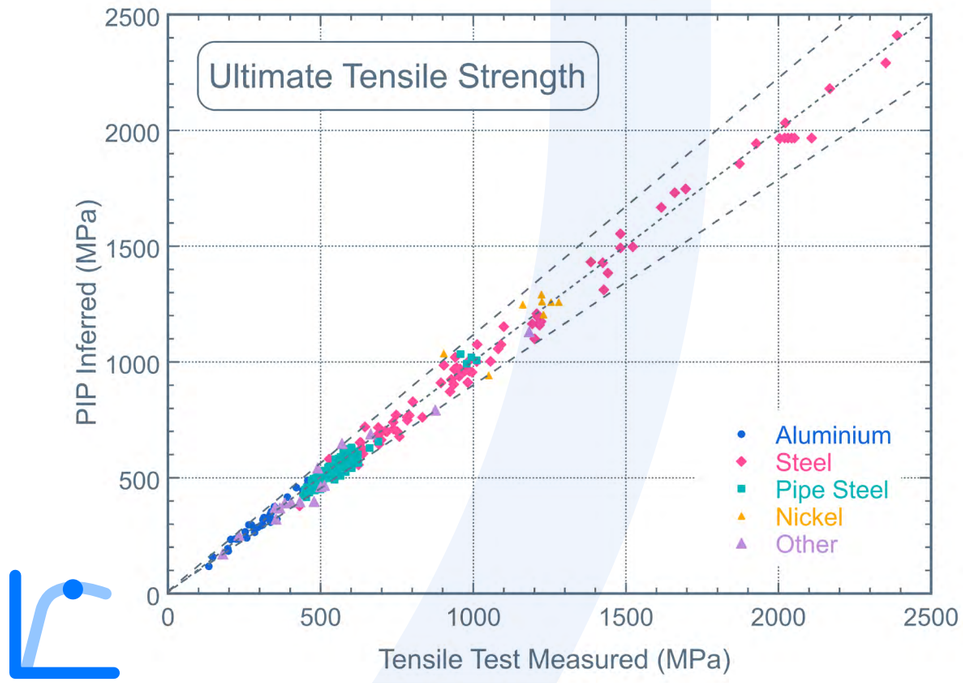
# Performance data

The graphs below show the level of agreement between PIP and conventional tensile testing for both the Yield Stress and Ultimate Tensile Strength. Perfect agreement is represented by the centre line, with 10% variation displayed by the dashed boundaries either side.

The data clearly demonstrate that PIP is an accurate method that can be applied to a broad range of metallic materials.

> Profilometry-based Indentation Plastometry (PIP) has been adopted by some of the world's most prominent organisations for its speed, flexibility, and accuracy.




Massachusetts Institute of Technology

AIRBUS

babcock™

MORF3D AEROSPACE

LEONARDO

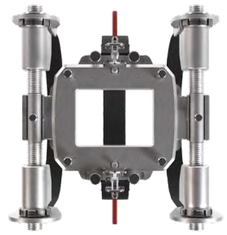
NPL

# Portable PIP

Employing the proven scientific methodology - PIP - the portable Indentation Plastometer provides accurate, quick, and affordable on-site testing of high-value metal assets. The device supports positive material identification (PMI) requirements, in-situ monitoring of material degradation over time, and asset and component life extension calculations, whilst delivering real-time TVC records.

- **Accurate results you can trust**
- **Report-ready data directly from the ditch**
- **Gold standard service and support**
- **Minimal training requirements**
- **Reduced preparation requirements**

# What's included



Cradle and supporting accessories

Indenter module

Optical profilometer module

### How it works

- Grind surface using hand-held, off-the-shelf tools.
- Attach cradle to pipe using our bespoke strap-tightening system.
- Connect the indenter module and perform an indent.
- Swap with the profilometry module which scans the indent profile.
- Our software then analyses the profile shape and gives a full stress-strain curve and real-time strength data.
- The whole process takes under 30 minutes per quadrant.

## Our development partners

**ROSEN**
Globally leading provider of cutting-edge solutions in all areas of asset integrity

**element**
Leading provider of testing, inspection and certification services

**NPL**
National measurement standards laboratory for the UK

UK Government Award

# Work with us!

Material supply

Specification development

Technology validation

Early adoption

Partnerships

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