

Web: www.auscal.com.au Email: acs@auscal.com.au A.B.N. 33 623 153 736



### **TruForce**

### Hydraulic Universal Testing Machine | TF-HUT-B

#### **Load Frame Configuration:**

6 columns, Static hydraulic UTM

### **Capacity:**

3000kN

#### **Test Space:**

Dual zone (tension on top, compression on bottom)

### **Typical specimens:**

Fasteners, rebar, chain, welds, castings

#### Load frame

- Worm-wheel driven crosshead ensures high accuracy movement to adjust test space
- High-Stiffness 6-column load frame design incorporates 3-position crosshead, adjustable specimen positioning, precision guide columns, thick crosshead and base beam minimizes load frame stored energy while producing reliable, stable, accurate load, strain and modulus values.
- Ergonomically designed load frames ensure safety, reduce operator fatigue, and provide the highest level of flexibility.
- Standard Dual Zone Test Space for reducing setup time
- "Quick Return" hydraulic valve for higher throughput
- Automatic limit checking for crosshead position, overload, over temperature, over voltage, etc.
- The system can return automatically, the oil cylinder can return the original position via manual or automatically after finishing testing
- Positive specimen holding is ensured by the wedge action of hydraulic operated grips
- Imported encoder mounted on the seat is for position measurement of crosshead with high accuracy
- High performance servo valve provides high stability and reliability





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#### Load cell

- Use strain gauge load cell technology to measure the force being applied to specimen. The load cell is located in the lower grip and is used to directly measure tensile force.
- High precise load cell measures and captures sensitively tension and compression force, high accuracy load measurement resolution reaches 1/500000 with no steps.
- Famous brand load cell ensures high precision and repeatability.

#### Full complement of test accessories

Extensive range of accessories to meet test requirements in almost any application or industry: rebar, fasteners, chain, welds, castings, concrete and other building materials

- Tension grip
- Compression fixture
- Flexure fixture
- Rock shear fixture
- Concrete split fixture
- Fastener tension grip
- Extensometer
- Automatic extensometer
- others





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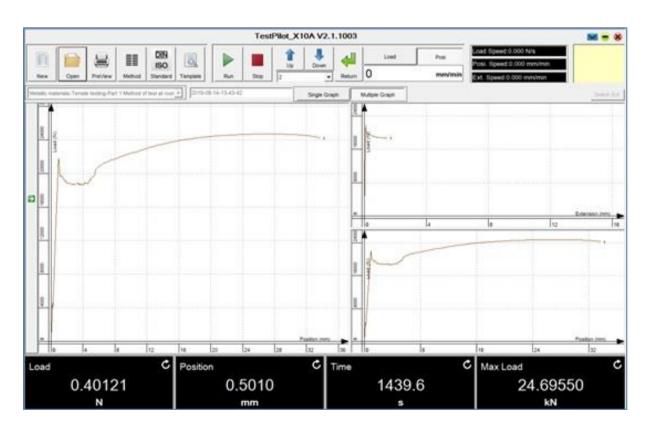
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### Powerful test software - TruTest

#### -Two steps to start testing: select a project, press start

This software features a large, growing host of pre-packaged test methods to help you quickly and efficiently meet the requirements of global test standards such as ASTM, ISO, DIN, EN, BS, and more. Selected by an operator at runtime, these methods are crafted to meet the specific test flow, analysis and reporting requirements of industry standards across a range of specimen and test types. Pre-packaged test methods are available in a wide selection of bundled sets, including: Polymers & Plastics, Metals, Construction Materials, Biomedical Products, Paper Products, Adhesives, foam, textiles and more.

- ➤ Versatile, easy-to-use TruTest software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more)
- Modular design permits easy upgrading
- Plenty of test standards are built in the library of the software for routine tests.
- ➤ User configured report: user can preset report template and include necessary information, like company information, statistics, and etc. Test report can export to Excel or Word.
- ➤ Powerful graphic function: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others
- ➤ Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, kgf, lbf, MPa, and so on, user can define the unit by themselves using formula.





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# **Specifications:**

Model	TF-HUT306	
Туре	Type B	
Capacity (kN)	3000	
Calibration accuracy	Class 1 / Class 0.5	
Force accuracy	Better than ±1%/±0.5%	
Force range	1% ~ 100%FS	
Extension range	1% ~ 100%FS	
Extension accuracy	Better than ±1%/±0.5%	
Extension resolution	1/500000 of max extension	
Actuator (piston) speed (mm/min)	0 ~ 100	
Force loading speed	0.02% ~ 2% FS /s	
Column number	6	
Column spacing (test space width)	530	
(mm)	330	
Maximum tension space (mm)	1200	
Maximum compression space (mm)	1000	
Diameter of round specimens (mm)	Ф30 ~ Ф110	
Thickness of flat specimens (mm)	10 ~ 100	
Compression platens (mm)	Ф280	
Actuator (piston) stroke (mm)	300	
Frame dimension	1320×950×3958	
$(length \times width \times height) (mm)$	1320\\930\\3938	
Hydraulic Power Unit dimension	1150×630×1000	
$(length \times width \times height) (mm)$	1130<030<1000	
Power consumption (kw)	6	
Power supply	3-phase, AC415V, 50Hz	
Frame weight (kg)	11000	



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### **Standard configurations:**

Name		Description	Quantity
Main machine	Load frame	Dual space, class 1	1 set
	Load cell	built-in the load frame	1 set
	Displacement encoder		1 set
	Motor and speed reducer		1 set
HPU	Oil tank		1 set
	Pump		1 set
	Servo Valve		1 set
	Valve manifold		1 set
	Cooling fan		1 set
	High pressure oil hoses		4 sets
Grips & Fixtures	Compression fixture		1 pair
	Hydraulic wedge action tensile grip		1 pair
Controller	grip	Model: DTC-500	1 set
Software		Testpilot, English version	1 set
Accessories	Maintenance tools	inner hexagon spanner 1 set Phillips screwdriver 1 set Open spanner 1 set	1 set
	Operation & Maintenance manual		1 set
	Software manual		1 set
	Warranty card		1 set
	Quality Certificate		1 set

#### Prepared by customer:

- The anti-wear hydraulic oil (N46, 80L) shall be purchased by customer at local market. The foundation work must be finished before UTM delivered 14 days.
- Computer and printer should be prepared by customer