



## **A042 UNIVERSAL TESTING MACHINE CAPACITY 1000 kN (224809 lbf)**

Hydraulic universal testing machine developed for testing on various metallic materials and allows the execution of a wide range of static test. The machine consists of the following parts:

**LOAD CELL 1000 kN (224809 lbf)**

**CROSS DISPLACEMENT TRANSDUCER 300 mm**

**TEST FRAME 1000 kN**, with built-in load cell load piston. The frame is designed to allow testing of traction in the lower compartment, while the higher compartment remains available and usable for other types of executable compression tests, bending, folding, cutting, with the accessories you already own. The tensile heads are an integral part of the frame.

**HYDRAULIC CONTROL UNIT COMPUTERIZED**, designed to control and the complete management of the tests with test machines tension/compression materials according to the standards of ISO 6892-1 Reference. The test machine control is carried out with computerised system which controls the functions and processes the results of the tests. The load control system is innovative because it uses a special hydraulic pump, is controlled by the flow of oil to the piston, acting on the speed of rotation of the pump motor. This new system ensures high reliability, accuracy of results, high productivity and low noise in compliance with regulations on noise pollution. The control unit is supplied with:

- Personal computer
- Color Deskjet printer A4 format
- High pressure hose Connection for connecting to the test machine
- Manuals instruction
- ACCREDIA Calibration certificate LAT
- TCSOft2004Plus software ( A007)

**The accessories to effect all the tests have to be ordered separately.**

**TECHNICAL CHARACTERISTICS:****A042 HYDRAULIC COMPUTERIZED MACHINE FOR TENSILE TEST**

|                         |  |                            |
|-------------------------|--|----------------------------|
| 1000 kN<br>0.1kN        | Load Capacity<br>Resolution  | 224809 lbf<br>22 lbf       |
| 1                       | Class<br>ISO 7500-1 (From 2% to 100% f.s.)                               | 1                          |
| 90 mm/min<br>0.6 mm/min | Maximum Speed<br>Minimum Speed   | 3.54 in./mm<br>0.02 in./mm |
| 1300 kN/mm              | Stiffness frame  | 7423191 lbf/in.            |
| 300 mm                  | Crosshead travel   | 11.8 in.                   |
| 100 mm<br>830 mm        | Max distance between tensile heads<br>Min distance between tensile heads | 3.94 in.<br>32.68 in.      |
| 190 mm                  | Flexural/Bending plane width   | 7.48 in.                   |
| 1000 m<br>280 mm        | Horizontal Flexural space<br>Vertical space of compression plates        | 39.37 in.<br>11.02 in.     |
| 4220 mm                 | Height required  | 166.1 in.                  |
| 900 x 860 x 3920 mm     | Dimensions<br>Width x Depth x Height                                     | 35.4 x 33.9 x 154.3 in.    |
| 2750 kg                 | Weight   | 6063 lb                    |

**A300-S HYDRAULIC CONTROL UNIT COMPUTERIZED**

|                      |                                      |                        |
|----------------------|--------------------------------------|------------------------|
| 900 x 510 x 1700 mm  | Dimensions<br>Width x Depth x Height | 35.4 x 20.1 x 66.9 in. |
| 133 kg               | Weight (Without oil and PC)          | 293 lb                 |
| 350 bar              | Max Pressure                         |                        |
| 2.6 l/min            | Max load to 100% engine rpm          |                        |
| 20 l                 | Tank Capacity                        |                        |
| THELLUS OIL 46 SHELL | Oil Type                             |                        |
| 10 % / 80 %          | Relative Umidity                     |                        |
| 400V 3ph+N+T 50Hz    | Power Supply                         |                        |
| 3.5 kW               | Max Power Absorbed                   |                        |

**STANDARD ACCESSORIES :****A042-A101 GRIPS**

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 5 to 10 mm (0.18 to 0.39 in.) and 90 mm (3.54 in.) length.

**A042-A102 GRIPS**

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 10 to 15 mm (0.39 to 0.59 in.) and 90 mm (3.54 in.) length.

**A042-A103 GRIPS**

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 15 to 20 mm (0.59 to 0.79 in.) and 90 mm (3.54 in.) length.

**A042-A104 GRIPS**

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 20 to 30 mm (0.79 to 1.18 in.) and 90 mm (3.54 in.) length.

**A042-A105 GRIPS**

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 30 to 40 mm (1.18 to 1.57 in.) and 90 mm (3.54 in.) length.

**A042-A106 GRIPS**

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 40 to 50 mm (1.57 to 1.97 in.) and 90 mm (3.54 in.) length.

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#### A042-A107 GRIPS

A pair of grips with "V" plain tightening surfaces, applicable to specimens with diameter from 50 to 60 mm (1.97 to 2.36 in.) and 90 mm (3.54 in.) length.

#### A042-A113 GRIPS

A pair, with plain tightening surfaces applicable to specimens with thickness from 0 to 12 mm (0 to 0.47 in.) and until 80x90 mm (3.15x3.54 in.) (width x length).

#### A042-A114 GRIPS

A pair, with plain tightening surfaces applicable to specimens with thickness from 12 to 24 mm (0.47 to 0.94 in.) and until 80x90 mm (3.15x3.54 in.) (width x length).

#### A042-A115 GRIPS

A pair, with plain tightening surfaces applicable to specimens with thickness from 24 to 36 mm (0.94 to 1.42 in.) and until 80x90 mm (3.15x3.54 in.) (width x length).

#### A042-A116 GRIPS

A pair, with plain tightening surfaces applicable to specimens with thickness from 36 to 48 mm (1.42 to 1.89 in.) and until 80x90 mm (3.15x3.54 in.) (width x length).

#### A010-A111 EQUIPMENT FOR COMPRESSION TESTS

Consist of one upper plate spherically seated compression self-aligning  $\varnothing$  100 mm (3.94 in.) and fixable and a lower plate plane  $\varnothing$  150 mm (5.90 in.). Steel made 58HRC.

#### A042-A112

##### EQUIPMENT FOR FLEXURAL / BENDING TESTS

3-point flexural / bending device, Steel made.

Distance between supports adjustable from 50 to 500 mm (1.97 to 19.68 in.).

Upper diameter roller 25 mm (0.98 in.)

Lower Set of diameter rollers 50 and 100 mm (1.97 and 3.94 in.).

#### **OTHER ACCESSORIES ARE AVAILABLE ON REQUEST**

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