

Product Information

TNJ-002B Comprehensive Chair Universal Test Machine

Use:Tester chairs is used to test the strength and durability of each part of furniture through each part of furniture is under one-off or repetitive load in the normal use or wrong use condition.It is used for testing the mechanical performance of all kinds of chairs.

Standards

- i) Seat and back static/durability test--EN1728:2012 6.4/ 6.17
- ii) Seat front edge static test--EN1728:2012 6.5
- iii) Armrest upward and downward static test--EN1728:2012 6.13/6.11
- iv) Legs forward/sideways static test--EN1728:2012 6.15/6.16
- v) Back impact test--EN1728:2012 6.25
- vi) Seat impact test--EN1728:2012 6.24



Quantity required:-

One (1)-unit – **BS EN 1728:2012**

Technical specifications:-

>Need of 5 type different testing station and needed fulfill minimum of specifications:-

- 1) Dimension machine frame: (2700 X 1990 X 2300) mm
- 2) Power supply: Single Phase, Ac220V
- 3) Having 5 testing station:-

I) Seat and back static/durability & seat front edge static tester

- a) Pneumatic cylinder with load cell capacity 1000N (horizontal) & 2000N (Vertical)
- b) 1 horizontal cylinder and 1 vertical cylinder
- c) Mechanism – a specified vertical load is applied first to seat and the load is maintained when the horizontal is applied
- d) Adjustable load direction (90° to the chair backrest)
- e) Adjustable height
- f) Loading pad- attached to the cylinder and can pivot freely
 - Seat loading pad- attached to the vertical cylinder (refer attachment)
 - Back loading pad – attached to the horizontal cylinder (refer attachment)
- g) Electronic predetermined counter (EPC) – 6 digit counter to stroke the cylinder up to 200,000 cycles
- h) Compressed air: $\pm 6\text{kg/m}^2$
- i) Plc programming code available
- j) Single phase AC 220V
- k) Speed: adjustable (10 – 20 cycle/minute)

II) Armrest Upward and Downward Static Tester

- a) Consist of 2 cylinders. Both cylinder can be set to:-
 - Vertical position with adjustable horizontal distance (up to 1m)
 - To apply vertical downward force (up to 900N) on the arm rest and to lift the chair off the platform.
- b) The height is adjustable up to 1m
- c) Loading pad attached to the cylinder: removable, 100mm diameter , 50 mm thickness, 12mm radius rounded edges & flat surface.
- d) Three (3) operation mode:
 - Mode 1: operate 1st cylinder only (for chair with one sided armrest)
 - Mode 2: operate 2nd cylinder only (for chair with one sided armrest)
 - Mode 3: operated both cylinder simultaneously
- e) Force shall be maintained for 10 ± 2 s

III) Legs Forward/Sideways Static Tester

- a) Consists of 1 cylinder which can be set to the horizontal and vertical position
- b) Load cell: capacity 1000N
- c) The height is adjustable up to 1m
- d) Loading pad attached to the cylinder : 100mm diameter, 50 mm thickness, 12 radius rounded edges and flat surface
- e) Force application: 10 times, maintained for 10 ± 2 s

IV) Back/Arm Impact Tester

- a) Impact hammer
 - Hanging and pivoting pendulum hammer for free fall
 - Height adjustable (300-1000mm)
 - Construction – refer attachment
- b) Height measurement scale
 - Floor standing and mobile

- Range: 1.5m
- c) Rubber mat
- Size: 1.5 x 1.5 x 0.002 m
- Hardness: (85±10) IRHD according to ISO7619-2:2010, tested by accredited lab

V) Seat Impact tester

- a) Pneumatic cylinder
- To hold , release and raise the impactor
- Height: adjustable height up to 2m from the floor
- Attached to the impactor and allow the impactor to fall freely on the test surface at height up to 300 mm (adjustable)
- b) Impactor - refer attachment

>>> Additional component

- Having 'connectors' on control panel for ease integration
- Stopper 12mm thickness

Our furniture instrument competitive features :

1. European standard aluminum profile
(Thickness and strength 5 times higher than industry)
2. U.S.-origin high-precision force sensors
3. Ades a cylinder
4. Portable magnet retainer
5. Customize the 1 to 1 load block to standard