



AUTOMATIC  
hardness testing



Quality Solutions

Ernst Representative in USA & Canada

CALL: 812-704-5491

The proper solution for any hardness control issue

ERNST

# TWIIIN

automatic hardness tester

## IMPORTANT:

Thanks to our special patented clamping device, testing is not affected by deflection of the test part, resulting in more accurate results.

## NOTE:

TWIIIN can test specimens of different shapes and dimensions. Overhanging pieces can be clamped without any extra support. Insensitive to any deflection of the test part. The electronics permits data collection of the test process. The elevating screw assembly can be removed for in line application and a completely automatic test process.

*(Folder concerning TWIIIN contains additional information)*

The automatic TWIIIN hardness tester works according to the Rockwell and Super Rockwell principle with loads from 15Kp to 187.5Kp (147.1N to 1839N)



The testing cycle is completely automatic and starts when the indenter comes into contact with the component. It can be activated by the keyboard, footswitch or automatically via PC

## Technical Characteristics:

- Working principle: Rockwell and Super Rockwell
- The indenter comes into contact with the test surface.
- Preload is applied.
- Then full load is applied for the time chosen by the operator.
- The hardness tester returns to preload position.
- Readout of Rockwell or Brinell result on large graphic LCD display

The TWIIIN hardness tester is equipped with an automatic safety device, which retracts the penetrator if a component is incorrectly positioned or in case of unintentional contact with the indenter.

# TWIN

T.D.M. double automatic line

## TWIN T.D.M. DAL SPECIAL EXECUTION

With double motorized roller line and test surface preparation by sanding for inline testing of bottles with  $\varnothing$  from 80mm to 350mm

### Technical Characteristics:

- Digital Brinell HB30 and Rockwell HRC reading (other scales on request)
- Test loads  
187,5kp (1840N) 150Kp (1471N)
- Surface preparation by means of built-in sanding system
- Testing time  
(surface preparation + hardness testing + selection):  
approx. 40 seconds  
(2 tests at 180° for 1 bottle)
- Preparation and testing can be carried out simultaneously on two bottles
- Adjustable sanding depth
- This hardness testing system can be integrated into a production line
- Surface preparation and hardness tests are automatic
- A motorized roller way provides for the handling of the bottles
- Several hardness tests on the same bottle can be performed on request

### Touchscreen operator panel and hardness testers displays

The touchscreen operator panel allows setting of the test parameters of both hardness testers. The test results are then shown on the hardness testers displays



# TWIN

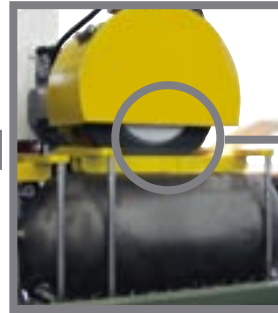
T.D.M. double automatic line

Layout upper view



## Grinding device

The lamellar grinding disc assures perfect adherence to the surface to be prepared.



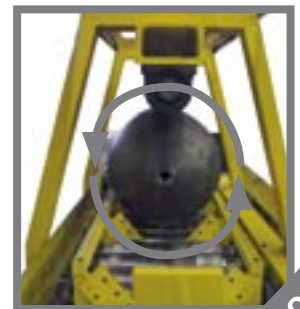
## Hardness testing

Hardness testing is performed by our automatic TWIN hardness tester.



## Transfer/rotation unit

The transfer/rotation unit allows to carrying out preparation of the test area and testing on the opposite line in the selected points.



view the movie on  
[www.ernstsa.com](http://www.ernstsa.com)



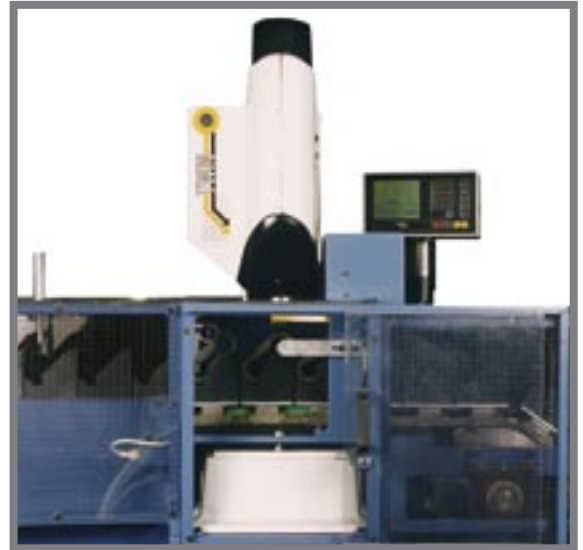
TWIN  
V.E.C.

### TWIN V.E.C. SPECIAL EXECUTION

Automatic motorized Rockwell and Superficial Rockwell hardness tester for batch testing of different components

#### Technical Characteristics:

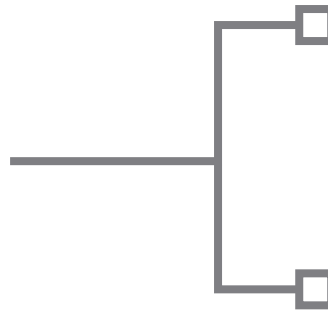
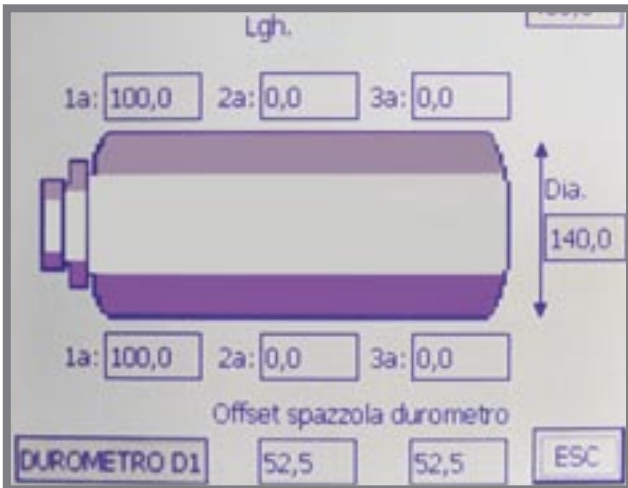
- Pre-loads: 3KP-10KP (29,4N-98N)
- Test loads:
  - 15KP-30KP-45KP (147N-294N-441N)  
(Superficial Rockwell)
  - 15,6KP-31,2KP-62,5KP-125KP-187,5KP  
(153,2N-306,5N-612,9N-1,226N-1,839N)  
(Brinell)
  - 60KP-100KP-150KP (588N-980N-1,471N)  
(Standard Rockwell)
- Indenter's stroke: 45mm



view the movie on  
[www.ernstsa.com](http://www.ernstsa.com)

# ERNST

automatic systems: focus on new releases



All significant parameters for an accurate hardness test, such as scale, tolerance and file description, can be set directly on the integrated touch screen panel, and then automatically sent to the two hardness test control displays. The touch screen panel also allows setting all the parameters concerning the length and diameter of the bottles, distance between the test points etc. This allows a fully automatic test cycle, remarkably increasing the production and preventing any operator error.

The hardness test results are directly shown on the double hardness testing control display, one for each hardness tester



FOCUS ON  
TWIN TDM DAL - SPECIAL FOR BOTTLES

Our best attention has been given to the electronics as to satisfy the most sophisticated requirements and especially to guarantee continuous working without inconvenience; even in critical environments such as heat treatments, foundries and different production divisions



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