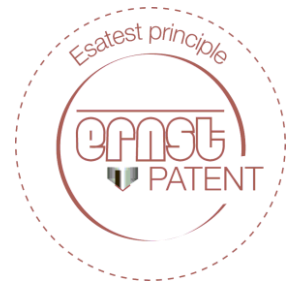




HANDY ESATEST X

瑞士恩斯特便携式硬度计



简介:

特别适合：精密仪器、航空、航天、军工、高铁、核电及焊缝检测

1. 型号：HANDY ESATEST 便携式硬度计

Hardness tester type: HANDY ESATEST X Portable hardness tester

2. 生产厂家：瑞士 ERNST 公司采 ERNST 的专利技术：

压痕深度电阻测量法。是**维氏**标准方法最好的替代方法。

Ernst's patent: The penetration depth is detected through the measurement of electric resistance, operates according to the Ernst ESATEST patented method, alternative to the Vickers standard method.

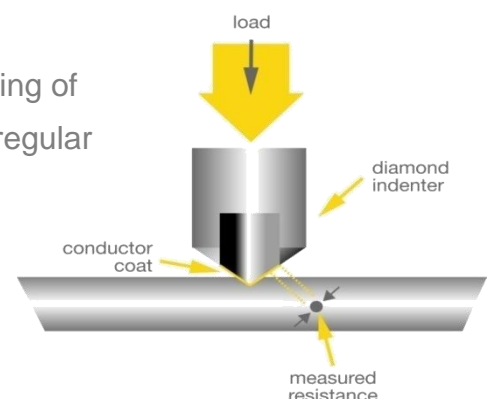
3. 专门设计为解决在硬度测试领域以前未解决或很难解决的硬度测试问题。

specifically designed as a solution to previously unresolved problems in the hardness testing field.



4. 新的专利原则的硬度测定允许测试难以进入的领域，如内表面，齿轮齿，不规则的形状，车轮与车轴连接部位，内孔，齿轮渐开线等

the new-patented principle of hardness determination allows testing of difficult-to-access areas, such as internal surfaces, gear teeth, irregular shapes, wheel joints, interiors, gear evolvents etc.



5. HANDY ESATEST 符合 DIN 50158 标准

HANDY ESATEST conforms to the DIN 50158 standards.

原理与应用

Operating principle and use

With the new ESATEST principle the diamond indenter works as a probe to the determination of the dimension of the impression.

应用一种测试方法可以实现不同材料的硬度测试如：铁素体、马氏体、奥氏体钢、铝、铜、黄铜等。力值范围：1Kg~10Kg。这种快速测试试样表面的硬度非常重要且对生产很有作用。它还可以快速的评价热处理过程中较浅的有效硬化层的深度。

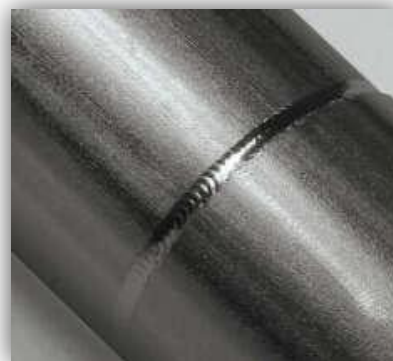
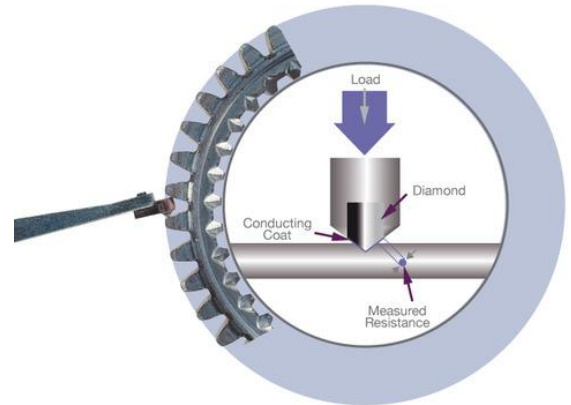
With only one measurement the different hardnesses can be visualized conforming to the whole range of loads from 9.81 to 98.1 N and on each kind of metals (ex.: ferritic-martensitic, austenitic steels, aluminum, copper, brass, etc.); this solution is very useful for testing of superficially treated specimens, as it allows a quick evaluation of the depth of the superficial treatment.

方便快捷的硬度测试仪 **HANDY ESATEST X** 非常适合测试**焊缝及热影响区 (HAZ)**，以及**非常薄的铝合金**部件。

HANDY ESATEST X proves to be most suitable for testing weld seams and heat affected zones (HAZ), as well as aluminum parts even with very thin thickness.

HANDY ESATEST X 安装了 LCD 显示屏，用户通过简易界面的软件操作，自动显示每次测试时的硬度值，可以设置公差水平，统计计算硬度结果等

The instrument is equipped with LCD backlit graphic display, operated by a user-friendly software that allows to display the hardness value at each applied load, set the tolerance levels, make statistics calculation of the hardness results.



HANDY ESATEST X 配备 USB 输出接口。

HANDY ESATEST X is provided with USB output for computer.

HANDY ESATEST X 便携式硬度计是根据施加负荷后测量半导体金刚石压头的接触面电阻。

The model HANDY ESATEST X portable hardness tester is based on measuring the electrical resistance of the contact surface of a semi-conductive diamond indenter according to the applied load.

该仪器适用于任何类型的金属的硬度测试，例如：铁素体马氏体钢，奥氏体钢，铝，铜，黄铜等

The instrument is suitable for the hardness testing of any type of metal, eg.: ferritic-martensitic steels, austenitic steels, aluminum, copper, brass, etc.

仪器特点

Technical features:

力值范围：9.8 to 98 N (1-10 kgf)

Test load: 9.8 to 98 N (1-10 kgf)

硬度测试范围：

Direct reading on LCD display of the following hardness scales:

- HV (80-900)
- HRA (60-85)
- HRB (40-105)
- HRC (20-68)
- HRD (40.3-76.9)
- HRF (82-115)
- HB/30 (75-610)
- N/mm² (255-2180)

其它可选标尺：

Other scales on request:

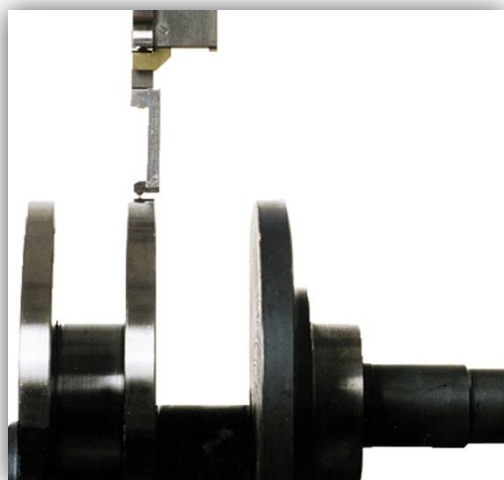
- HB/5, HB/10, Shore, etc.

HANDY ESATEST X 组成部件：

HANDY ESATEST X consists of:

用于施加载荷的机械部分（测试枪头）

测试弹性变形和载荷传感探头，温度传感器



半导体金刚石压头和各种测试支架，应用不同支架可以进行硬度测试如内孔、齿轮齿面等还可以横向以及垂直工作

Mechanical unit for load application.

Load cell at elastic deformation and sensing probe.

Incorporated temperature sensor.

Semi-conductive diamond indenter and proper support to perform hardness testing in hard-to-test points such as interiors, gears, etc. Can work horizontally as well as vertically.

带有微处理器的数据处理部分，液晶背光显示屏。

Microprocessor electronic box with LCD backlit display for display of the hardness at each applied load.

设置了批量测试的 5 个公差范围和测试结果的统计计算

Possibility to set up to 5 tolerance ranges in batch testing and statistical calculation of the test results.

可以储存 8 个文件，1000 组数据。

8 file can be stored – 1000 results.

可以用 5 种语言打印测试报告。

Possibility to print out the test certificate in 5 languages.

可以使用交流电源 AC 或使用充电电池工作。

AC or rechargeable battery operation.

齿轮齿面测试结果：

1、HRC 64.1
2、HRC 64.6
3、HRC 65.1
4、HRC 64.2
5、HRC 65.0

平均值：
HRC 64.6

用时：39 秒

标准配置

HANDY ESATEST X Standard equipment

HANDY ESATEST X 采用木箱包装。箱内装有：

HANDY ESATEST X is delivered in its typical wooden case complete with:

- HV 标准硬度试块
- HV hardness test block
- 非磁性材料链接夹
- Kit for non-magnetic materials
- 点支撑夹具
- 2 points bases
- 平面夹具及圆弧面夹具
- Large base for flat and cylindrical parts
- 充电电池
- AC battery charger
- 操作手册
- Operation Manual



包装

Packing dimensions:

Net weight : kg. 1.500
Approx. gross weight : kg. 6.100
Wooden box dimension : 51 x 42 x 23 cm.

交货期: 60 天

60 days from the date hereof

产地:

Country of Origin

Switzerland (瑞士)

