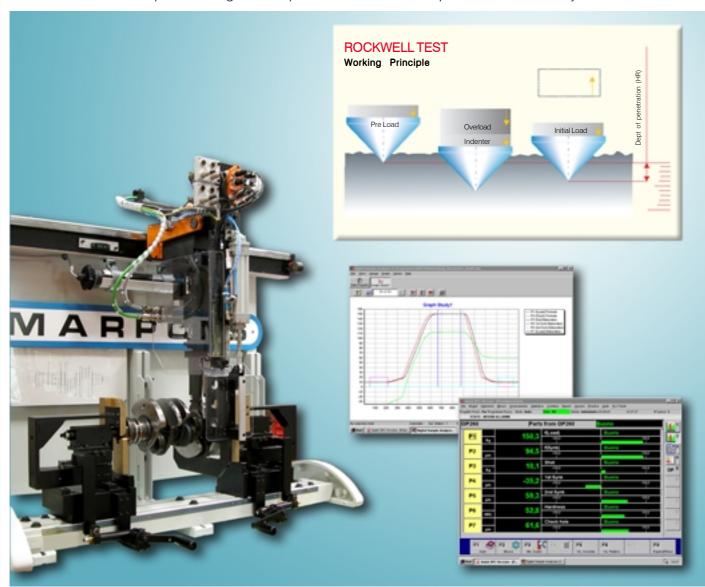


H.R.C TESTING

CONVENTIONAL HARDNESS ROCKWELL TESTING EQUIPMENT FOR SHAFTS

The system is capable of verifying the surface hardness of Crankshafts and Camshafts, in Rockwell scale, quickly and very reliably. Tests can be performed on either finished ground surfaces or on turned and facetted surfaces, allowing for testing immediately after the heat treatment operation. The hardness tests are performed according to ISO standards.

The uniqueness of this testing system makes it possible to neglect the test parts machined surface condition when the required testing load is applied to it. As a result the system can provide a higher level performance in terms of precision and reliability.



Testing cycle:

The crankshaft is manually loaded onto mechanical reference "V's" which are located on the bench. The inspection head, by use of a mechanical guide is easily positioned onto the required diameter to be inspected. The hardness test cycle is automatically initiated by means of operator palm buttons. (Fig. 1)

Hardness Test on Crankpins

The system is able to perform the hardness test on sections of the pin journals 360° around the diameter with the simple rotation of the crankshaft without any further positioning of the part. .(fig.2)

Hardness test on toothed wheels

Thanks to a particular part reference system it is possible to perform the hardness test also on the surface of the teeth. Infact this reference system allows a perfect allignement between the penetrator and the top area of the teeth to be checked. (fig.3).

Electronic system

The electronic E9066 will display in graphic mode the correct execution of the test cycle, the HRC/HRA values and the statistical data related to the single measure or to complete part. Additionally it can give alarms whenever a part is found to be out of the hardness tolerance.

Testing range

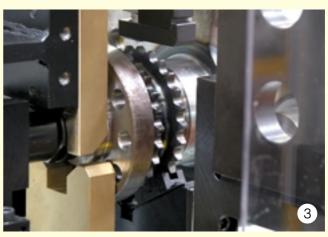
The inspection head is able to perform hardness tests in a range of 70mm, therefore covering the complete range of crankshafts of the automotive production family.



Automatic inspection system

Fully automatic machines are available to inspect all mains and pin bearings of crankshafts or main bearings and cam lobe base circles of camshafts, simultaneously. These systems are designed with cycle times and material handling features to accommodate requirements for 100% inspection of HRC or HRA.







For a full list of address locations, please consult the Marposs official website

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