

UM-4 SERIES ULTRASONIC THICKNESS GAUGE



PRODUCT PARAMETERS

PRODUCT NAME: UM-4 ULTRASONIC THICKNESS GAUGE
MEASURING RANGE: 0.6MM ~ 508MM
PRODUCT MODEL: UM-4, UM-4D, UM-4DL
RESOLUTION: 0.01MM
STORAGE FUNCTION: UM-4DL
PENETRATING COATING: UM-4DL

WORKING PRINCIPLE

ULTRASONIC PULSE EMITTED BY PROBE

THE ULTRASONIC THICKNESS GAUGE MEASURES THE THICKNESS ACCORDING TO THE ULTRASONIC PULSE REFLECTION PRINCIPLE. WHEN THE ULTRASONIC PULSE EMITTED BY THE PROBE REACHES THE MATERIAL INTERFACE THROUGH THE MEASURED OBJECT, THE PULSE IS REFLECTED BACK TO THE PROBE, AND THE THICKNESS OF THE MEASURED MATERIAL IS DETERMINED BY ACCURATELY MEASURING THE PROPAGATION TIME OF THE ULTRASONIC WAVE IN THE MATERIAL.

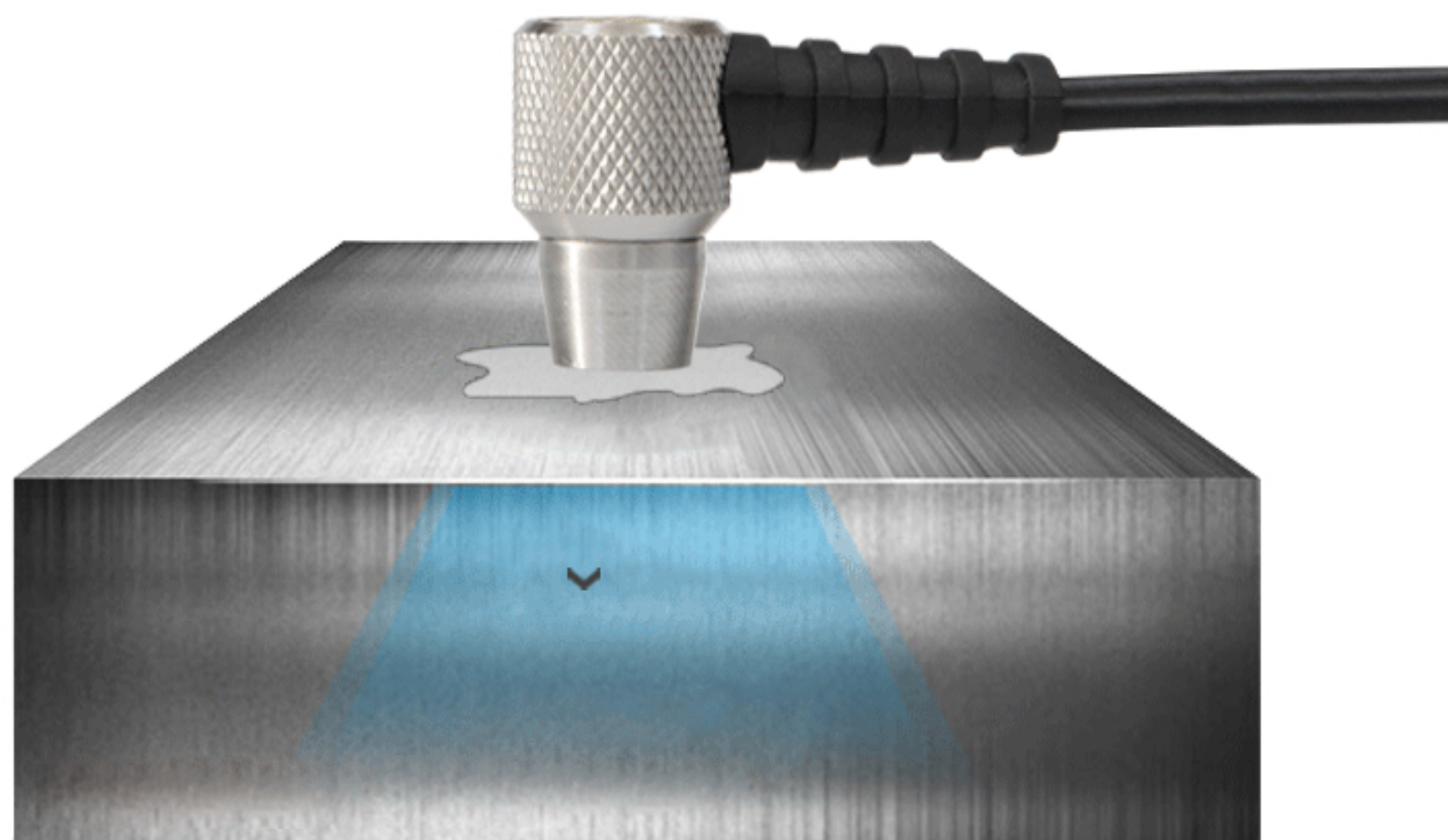
$$H = \frac{v \times t}{2}$$

IN THE FORMULA:

H MEASURE THE THICKNESS

V-MATERIAL SOUND VELOCITY

TTRANSMISSION TIME OF ULTRASONIC WAVE IN THE TEST PIECE



PENETRATING COATING FUNCTION

IT IS NOT NECESSARY TO REMOVE THE COATING AND DIRECTLY MEASURE THE NET THICKNESS OF THE SUBSTRATE

UM-4D AND UM-4DL ALSO HAVE THIS POPULAR FUNCTION. THIS FUNCTION IS REALIZED BY MEASURING TWO CONTINUOUS BOTTOM ECHOES OF THE SUBSTRATE.

