

MANUAL AND AUTOMATED SCANNERS

DASEL provides high-quality solutions for their wide range of products, making easier inspection routines in field and at laboratory facilities.

MANUAL SCANNER

The manual scanner developed by DASEL can be used in TOFD, Conventional UT and Phased-Array inspections.



The design is simple and requires minimum training and setup time. Its high-quality materials and components make it suitable for industrial applications. Moreover, it has a coded axis allowing accurate data acquisition for faster and efficient inspections. The scanner supports two probes (single-element or phased array) and it is fully compatible with ULTRASCOPE, DIFRASCOPE and SITAU products.

SCANNER - Main features

Supports 2 / 4 probes for TOFD, phased array, or pulse-echo inspections.

High precision mechanics allows a constant scanning speed for smooth data acquisition.

Four industrial-strength magnetic wheels guarantee good coupling and reliable displacement on ferromagnetic surfaces.

Compatible with ULTRASCOPE, DIFRASCOPE and SITAU Systems.

Water injection input and uniform couplant delivery.

Room available to integrate AMPLUS-32 preamplifier for improved TOFD and Pitch&Catch inspections.

Minimal time needed for probe mounting.

IMMERSION INSPECTION TANKS



Immersion Systems are frequently used when the object under test and the probe are submerged in a liquid (usually water) that acts as coupling medium.

DASEL provides a wide range of immersion tanks for non-destructive testing in water bath, with standard dimensions or manufactured according to customer requirements.

The immersion systems can be supplied with any of the DASEL-NDT ultrasonic instrumentation (including mono or multichannels, preamplifiers, phased arrays systems, etc.) or interfaced to existing test equipment at the customer facilities. However,

the capabilities of the system, such as operating modes, dynamic range, etc., are determined in function of the installed ultrasonic system.

The immersion systems are totally automatized and can be controlled from a PC using the Motor-Motion software, or even more, they can be integrated in custom applications by using our LabVIEW, MATLAB or C++ toolboxes.



Standard immersion inspection tanks			
Model	X [mm]	Y [mm]	Z [mm]
DIS-400	400	400	250
DIS-800	800	400	250
DIS-1000	1000	800	300
DIS-XXXX	Customizable	Customizable	Customizable

Main features

Three motorized axis (x,y,z). A fourth motorized rotary axis is optional
Adjustable scan index, vertical and horizontal scans. Optionally, revolution surface scans.

Mechanical features

Rugged aluminum structure with laminated structure.
Ball screw drive with positioning accuracy of ± 0.1 mm
Methacrylate independent tank
Probe-holders manually adjustable ($+90^\circ$ TO -90° at XZ or YZ) and with fine adjust of orientation.
Scan speed between 25 mm/s (Stepper motors) and 66 mm/s (Servos)

Electrical features

Stepper motors with independent power stages and USB for up to 4 motors (Standard)
Position encoders in motors X and Y for acquisition synchronization (also in θ if an optional rotary axis is used)
Low noise electronics. Limit switches, warning indicators and emergency stop control.

