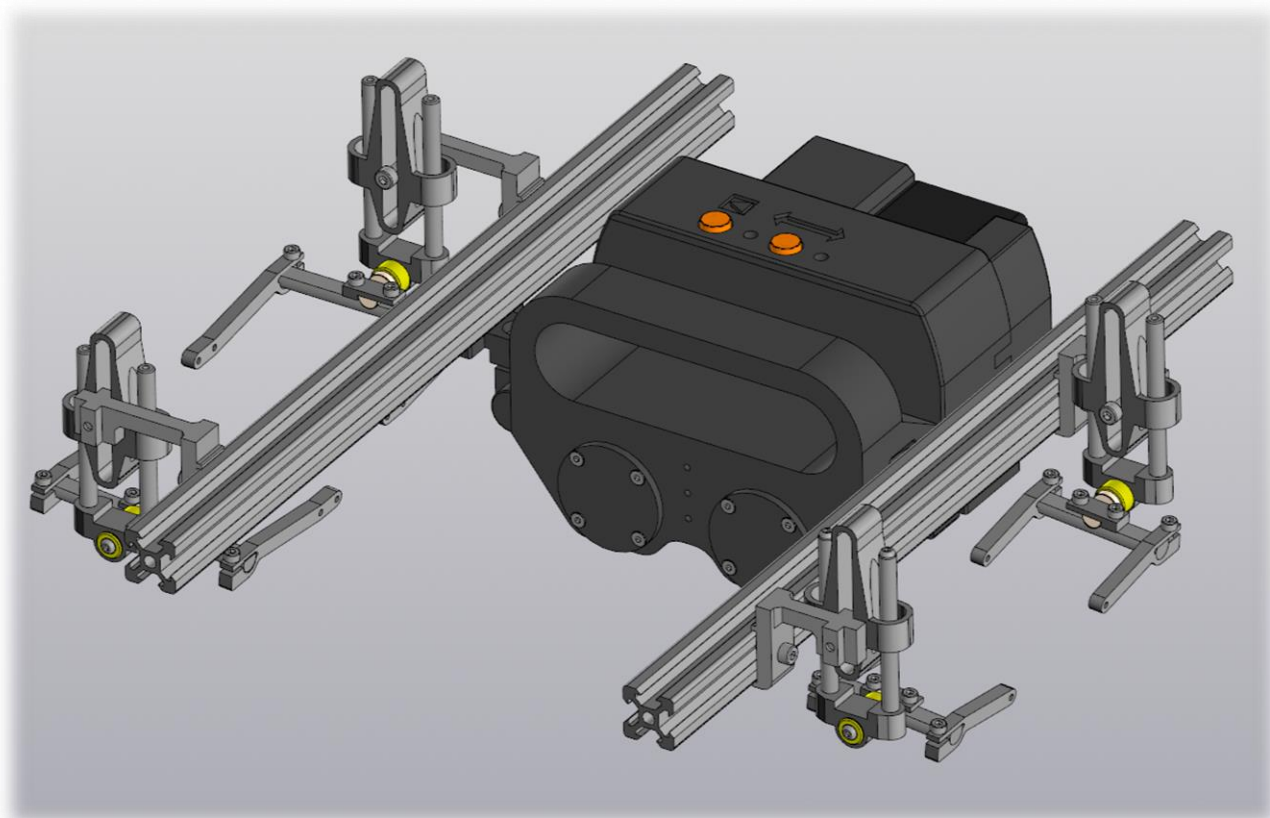


Scanner «AutoPASCAN»



2024

Annotation

Scanner «AutoPASCAN» is used in conjunction with ultrasonic flaw detectors from various manufacturers operating in multichannel mode, with phased arrays and the TOFD method.

General information

The scanner is designed for mechanized ultrasonic inspection of circumferential and longitudinal welds of pipelines, reservoirs and other metal structures made of magnetic steels. The use of the scanner ensures the best quality of the UT acquisition data and ensures that the positioning from the center of the weld is accurately observed during scanning.

Due to the possibility of installation of the scanner body on one side of the weld, it is possible to inspect the overlapping welds, reservoir welds, multi-thickness welds with a large edge offset (more than 5 mm). The scanner is also convenient for monitoring bends.

In addition to weld inspection, the scanner can work with direct PA transducers when monitoring the base metal. The scanner allows to operate in linear or raster scanning mode.

The AutoPASCAN can be used on pipes with an external diameter from 50 mm and higher when scanning the circumferential welds (girth welds) and on pipes with an external diameter from 320 mm and higher when scanning along the pipe (longitudinal welds).

The construction of the scanner allows to position the magnetic wheels on the cleaned Heat Affected Zone (HAZ). At the same time, the required minimum clearing zone of the HAZ is 50 mm in each direction from the weld (but not less than the width of the prism + shift area).

The construction of the magnetic wheel path sensor ensures high accuracy of movement measurement, which eliminates slippage and distortion of the control results.

The scanner design has a convenient and reliable adjustment of the height of the holders for ultrasonic transducers and their angle of inclination for stable acoustic contact on various pipe diameters.

The main characteristics of scanner

- Number of installed transducers: from 1 to 4;
- Diameter for girth welds: from 50 mm to flat surface;
- Diameter for longitudinal welds: from 320 mm to flat surface;
- Transducers holders: universal, quick-released;
- Number of magnetic wheels of the main scanner unit: 2;
- Total force to detach the main scanner unit (with a thickness of more than 4 mm): at least 15 kg;
- Control of the positioning on the weld: mechanical pointers for positioning at the edges or in the center of the welded joint;
- Type of installation of the Encoder: on the axis of the magnetic wheel of the scanner through a magnetic coupling;
- Encoder connector: any, determined by the customer when placing an order.

The weight of the main scanner unit:

- Scanner with 2 clamps – 3 kg;
- Hermeticity: IP66;
- Operating temperature range: -40 °C to +70 °C.

Completeness

The completeness and type of connector of the encoder of the scanner is determined by the customer and depends on the planned configurations, scanning pattern, and the equipment used.