



Description

The Hydro Test Bench is designed to test one by one BIT with test pressures up to 300 bar (4351,13 psi), in order to verify the leakage proof of the test BITs. It is possible to obtain higher pressures on request. Easy and fast replacement of female BIT interface in order to change the product under test. The pressure generation system allows to get any type of ramp: it can be managed directly by the operator and it reaches a greater performance than traditional system, both for accuracy and repeatability of the test.

The test bench is equipped with a data acquisition system and an interface software which allow to: control the functions, memorize and recall test recipes, arrange alarm logs and measures trends. Each female will be equipped by bar code SS label, whose function is to identify properly the female thread. During the test setup the operator shall recognize the female by barcode reader, includes in the bench, then he will start the test.

The Bench, complete with the options, is compliant with Industry 4.0, suitable to data exchange with MES/ERP systems.

HTB-01H

One Head Hydro Test Bench 2.1

Technical specifications

A. Main parameters:

1. Carbon steel structure, max. dimensions (WxDxH) 1850x1120x2000 (72,83"X44,09"X78,74");
2. Test chamber with sliding protections;
3. Rotating heads of $\pm 180^\circ$;
4. Collection recovery circuit with filter;
5. Max test pressure, 300 bar (4351,13 psi);
6. Fluid test tank, 50 liters (13,20 US gal);
7. Software control system which could be installed also on external PC;
8. Automatic or manual mode to perform the test;
9. Max power absorption: 400Vac@50/60Hz@1kW;
10. Pneumatic supply: dry air 6 bar (87 psi);
11. Weight, about 1500 kg (3307 lb), according to the BIT configuration;
12. Remote control for support and diagnostics;
13. Max bit dimension D: 500mm (19,68") h: 600mm (23,62")
14. Max bit Weight: 245kg (540 lb)

B. Measures:

1. Fluid pressure in the test circuit

C. Safety devices:

1. Hydraulic test circuit pressure switch;
2. Calibrated pressure break disc relief valve on pump air inlet;
3. Tank levels switch;
4. Safety lock on sliding protection block;
5. Emergency button;
6. Flashing lights when test is in progress.

D. Control software and supervision interface:

1. Advanced user interface to manage easily test and captured data;
The interface allows to: manage all the test bench, program the recipes with different test values, produce and archive the reports, display the test trends and save the operational alarms;
2. Automatic test interruption in case of intervention of hardware security devices or adjustable operating thresholds;
3. Test data storage in CSV / Excel files, with print management;
4. Possibility to perform the test in "free running" mode;
5. Barcode interface for BIT data reading and automatic recipe setting.

E. Performance:

1. Linearity $\pm 0,25\%$ fs;
2. Hysteresis $\pm 0,25\%$ fs;
3. Accuracy $\pm 0,3\%$ fs;

F. Options

1. BIT body temperature;
2. Pressure@temperature compensation of BIT body;
3. Bar Code / QR Code Reader;
4. OPC Data exchange (MES/ERP);
5. Female Bit interface.

G. Documentation

1. User and maintenance manual;



Environment
Process Automation
Test Bench
Turbomachinery

Systems & Diagnostics Engineering



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