

Impulse and Load Test Rig



About us:

Neometrix Defence Celebrating 20 Years of Excellence!

For the past two decades, Neometrix Defence has maintained its position as a premier provider of advanced test benches and rigs.

Our accreditation by the Directorate General of Aeronautical Quality Assurance, India (DGAQA) and Defence Research & Development Organization, India (DRDO) underscores our commitment to upholding the highest international defence industry standards.

Counting the Indian Air Force/Army/Navy, Ministry of Defence, Hindustan Aeronautical Limited, and DRDO among our esteemed clientele, we are recognized for delivering state-of-the-art solutions and unwavering performance reliability.

Strengths & Capabilities:

Neometrix Defence is a powerhouse of engineering brilliance, proudly serving every Indian Air Force station and partnering with the Indian Army, Navy, Railways, BARC, NPCIL, and ISRO. With a team of over 100 elite engineers and visionary founders from IIT Kanpur and IIT Delhi, we harness cutting-edge technology to set the gold standard in mechanical engineering.

We Don't Just Meet Industry Demands – We Define Them!



- We have established our presence in all Air Force stations across India. With the Indian Air Force as our leading customer, we are dedicated to upholding the highest standards of excellence in the aerospace industry.
- Our extensive clientele extends beyond the defence industry, including projects with the Indian Army, Navy, Railways, BARC, NPCIL, ISRO, and more. In essence, we excel in all aspects of mechanical engineering!
- Our team comprises over 100 graduate engineers, supported by a cutting-edge manufacturing site equipped with state-of-the-art machinery, enabling us to meet the highest Engineering standards.
- The founders of our company are distinguished graduates from IIT Kanpur and IIT Delhi, bringing extensive expertise and a wealth of engineering knowledge to Neometrix Defence.

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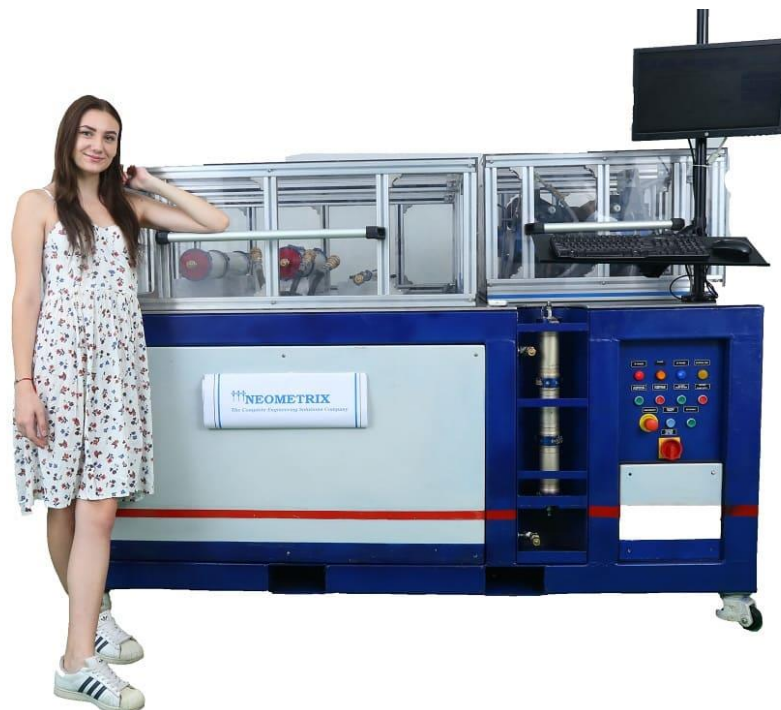
Introduction:

Dynamic Shear and Pressure Impulse Test Equipment (DSPITE) is a rig developed by Neometrix to test units with special modular joints made by Eaton. These units are hand-assembled and have multiple joints in each unit. DSPITE is a Hydraulic System based Servo controlled Actuator system to build required Pressure Impulse (Pressure) and Dynamic Shear (Pressure and Load) test profiles. Test Units are filled with Water-Glycol solution and are connected to Servo-actuators. These actuators take controlled precise strokes to create required Pressure Impulse graphs. The rig is capable to generate continuous Pressure and load graphs for Upto 300,000 cycles. It is an Endurance Testing Machine.



Technical Specification:

- Overall Dimensions: 2200x1500x1530mm
- Unit Weight: 1500 Kg (Dry Weight), 1700 Kg (With Oil and WaterGlycol filled)
- Max Power Consumption: 5 kW
- Main Power Supply: 3 Phase, 440 VAC
- DAQ Power Supply: Single Phase, 220 VAC
- Operating Fluid: Hydraulic Mineral Oil VG-32
- Operating Temperature: 20 C to 50 C
- Reservoir Capacity: 100 Liters
- Operating Fluid: Water-Glycol (Propylene Glycol 65% and Deionized Water 35%)
- Operating Temperature: 20 C to 30 C



Application:

Neometrix is very much focused on Aviation, Research Labs, Defense and Railway industries and offers complete range of systems & services which can be of immense use to you. We specialize in Hydraulic/ Servo Hydraulic Test Rigs, Fuel System Test Rigs, Pneumatic System Test Rigs, Oxygen/ Special Gases system Test Rigs, Very High-Pressure Systems, Electronic & Electrical Test Rigs.



Key Features:

- Continuous Pressure and Load graphs generation for Lakhs of cycles.
- Pressure Rise rate upto 100 bar/sec.
- Load Rise rate upto 2300 lb/sec.
- Automatic Control to correct generated graphs.
- Peak Pressure control under 8 psi band for continuous cycles.
- Peak Load Control under 5 lbs. band for continuous cycles.
- Multiple Unit Testing at same time.
- Simultaneous Pressure Impulse and Dynamic Shear Testing.
- Hydraulic Oil temperature control with minimum water consumption.



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