

About

CV and Control Valve Test Rig

The cv and control valve test rig is a sophisticated machine designed to evaluate the performance characteristics of control valves. This rig measures the pressure drop across the valve to calculate its flow coefficient (cv) at various levels of valve opening. The machine provides a comprehensive analysis by generating graphs that illustrate the relationship between flow rate and pressure drop at different valve openings.

Key Features Of The CV And Control Valve Test Rig Include:

Pressure drop measurement: accurately measures the pressure drop across the valve, essential for determining the valve's performance.

Flow coefficient calculation: calculates the cv of the valve at various percentages of opening, providing valuable data on valve efficiency.

Graphical analysis: capable of plotting graphs that display the correlation between flow rate and pressure drop across different valve settings.

Error measurement: assesses the discrepancy between theoretical cv values and the results obtained from testing, allowing for precise evaluation of valve performance against theoretical predictions.



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Technical Details

Pump Cascade: Pump-3, Motor-3, Accessories-3

VFD: Three Phase-30KW, 40HP and 75KW, 100HP

Reactor: DC Reactor/Choke for Inverter Capacity up to 110KW

Proportional Control Valve: for throttling operation-after cascade-65 mm line size

Flow Meter: Flow Range: 1.6 to 16 m³/hr, with frequency to current converter, accuracy: +/-0.5%, Line size: 100mm

Check valve: 1.200mm#150: Body Material CS, Plate Material CF8M End Connection: Flanged as per ANSI B 16.5

Pressure Transmitter: Output: 4-20 mA, Range: 0-10 Bar

Water Filters: Cast Iron Y-strainer with stainless steel Element (150 Micron)



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Application

The cv and control valve test rig is used to valve test and this test rig measures the pressure drop across the valve to calculate its flow coefficient (cv) at various levels of valve opening. The machine provides a comprehensive analysis by generating graphs that illustrate the relationship between flow rate and pressure drop at different valve openings.



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Key Features

- Pressure Drop Measurement: Accurately Measures The Pressure Drop Across The Valve, Essential For Determining The Valve's Performance.
- Flow Coefficient Calculation: Calculates The CV Of The Valve At Various Percentages Of Opening, Providing Valuable Data On Valve Efficiency.
- Graphical Analysis: Capable Of Plotting Graphs That Display The Correlation Between Flow Rate And Pressure Drop Across Different Valve Settings.
- Error Measurement: Assesses The Discrepancy Between Theoretical CV Values And The Results Obtained From Testing, Allowing For Precise Evaluation Of Valve Performance Against Theoretical Predictions.

