

VALVE TESTING

Valve Testing & Actuation 109

Norbar's Valve Testing System has been designed to monitor and control the opening and closing of ball valves and gate valves by means of torque and/or angle measurement with optional proximity switches for added security when required.

Torque is applied using either:

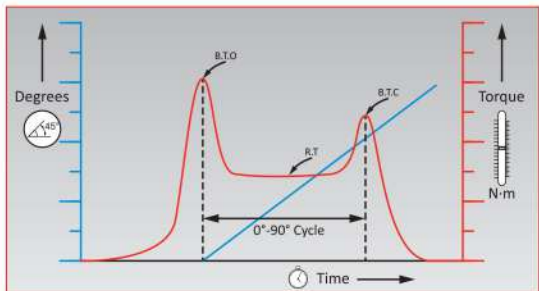
Dual solenoid valves to control the forward and reverse rotation of any Norbar PneuTorque® remote series tool.

AC Servo motor that can be controlled in both the forward and reverse rotation. The system may also be cycled to a user pre-set number of counts. The control is provided by a touchscreen control panel with precision torque, angle and pressure measurement.





VALVE TESTING & ACTUATION



This diagram represents what we would expect to occur during a "break to open" to "break to close" cycle of a typical ball valve, with R.T. being the "run torque".



Example of a pneumatically driven PTS-72-1000 Remote fitted with torque and angle transducer as part of a Valve Testing System



Example of an engineered to order Valve Testing System in application

VALVE TESTING SYSTEM

Engineered to order Valve Testing System

Typical applications include the testing of Ball Valves requiring cyclical rotation 0 - 90° / 90 - 0°, whilst recording torque vs angle data. Testing of Gate Valves / Valve Actuators by opening & closing whilst recording torque vs angle / turns data. The test must be remotely controlled from outside of the test chamber, where the test valve is pressurised.

- 10" touchscreen HMI & PLC housed in painted steel enclosure for indoor / workshop use
- Test data capture and output in CSV format onto external USB drive, time & date stamped
- Up to 20 targets can be set against a test
- Generate customer test reports and produce graphs
- Real time torque & angle or torque & turns data streaming via RS232 serial port
- Precision controlled low noise AC servo drive
- Operates Pneumatic (via solenoid valves), or AC servo drive tools
- Using the AC servo drive an optional lock can be added to hold a butterfly valve at a prescribed angle
- Dedicated input ports for pressure, temperature and proximity sensors
- Controller available as separate component to upgrade existing valve testing kits
- Automatic recognition of Smart transducers
- Forward / reverse cycling - user programmable number of cycles, variable up to 32,000 sweeps
- Emergency stop button and torque overload limit function
- Utilises Norbar's tried and tested PneuTorque multiplier along with Torque and Angle Transducers - various capacities available
- Torque Range: 100 - 300,000 N-m (capacities up to 500,000 available on application)
- Powerful brushless motor is quiet and maintenance free
- Option to include network capability