



TTR Group Inc.

Butterfly Valve & Actuator Seminar

Training Agenda - KUTTR13

City: _____

Date: _____

Training
Location

Contact:

License No. TTRG 2371

CEUs 0.7

Time: 8:30a.m. - 4:00p.m.

Agenda Pages: 3

Presenter: Bruce James

Agenda Days: 1

Test: Yes

Code: E- Engineering / O- Operations E/O- Engineering & Operations

Products: AWWA butterfly Valves and AWWA Actuation
Markets: Municipal WTP, WWTP, In plant and Buried service
Scope: Features & Benefits / Applications & Installations / Creating Applicable Specifications

Audience That Will Benefit
Operations / Maintenance / Engineering

Single Day Agenda

8:00 - 8:15 AM Introduction / Attendance (cell phones on silent or vibrate)
Coffee & Prep

8:15 - 8:30 TTR Background /Distribution/Manufacturing/Engineering.
Experience

8:30 – 10:00 Transparency of the Manufactures
Butterfly Valves

AWWA C504 Latest Revision Standard Guidelines 150 & 250lb	E
AWWA Velocity Rating / Pressure Class and Actuator Selection	E
AWWA C516-10 Standard 72 inch and larger	E
Coatings and AWWA Butterfly Valves AWWA C550	E
AWWA Available Manual of Practice	E
M44 & M49 AWWA Standards of Practice	E/O
AWWA Butterfly Manufactures Brands & Objective Comparisons	E/O
AWWA Seat in Body vs. Seat on Disc Designs	E/O
Flow Direction & Torque Effects- Static, Dynamic & Shaft Orientation	E/O
AWWA Butterfly Valves vs. Industrial Butterfly Valves	E/O
AWWA Butterfly Valves Typical Failures & Causes	O
Reality of Seat Field Replacement and Adjustability	O



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10:00 - 10 15 Break	Break	
10:15 – 12:00 Butterfly Valves	Tuberculation Effects and Valve Performance Elastomer Performance and Durometer Degradation Cast Iron vs. Ductile Iron Bodies AWWA Butterfly Valve Design Limitations & Minimum Requirements AWWA Butterfly Valves on Control Proper Sizing of Control Valves Avoiding Cavitation Proper Operation of an AWWA Butterfly Valve Piping Orientations / Installation & Operation. Proper Handling / Lifting / Storage Maintenance Requirements and Adjustments Municipal Migration of Triple Off set Zero Leakage BFVs Suggested Specifications / Features Benefits / Options Specifying without limiting Considerations for Specification Creation	E/O E E E/O E/O E/O E/O O O O O E E E E/O
12:00 - 12:30 Lunch	In - House Lunch	
12:30 – 2:00 Actuation	AWWA C504 & AWWA C540 Latest Revisions Worm Gear vs. Travelling Nut/ AWWA C540 review Actuation in Chambers & Buried Service - Why Grease Pack Actuator Mounting Orientations and Sizing Open Left & Open Right Oil filled vs. Grease Filled Actuators Actuator Sizing & Specifications – Unidirectional & Bidirectional flow Actuator Removal / Packing Retaining Safety Issues Actuator & Valve Shaft Locking Devices & Requirements. Typical Actuator Failures & Causes & Prevention.	E/O E/O E/O E/O O E/O E/O O E/O O
2:00 – 2:15 Break	Break	
2:15 – 2:45 Actuation	Actuator Performance Specifications and Industry Standards. Preventing Field Failures. Installation Options and Submerged Actuation Electric Actuation & Memory Failure	E O O E/O



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	Manual Override Operation & Handwheel Sizing	E/O
	Maintenance Requirements and Adjustments	O
	Considerations for Specification Creation	E
2:45 – 3:00	Free Standing Torque Tubes Design Requirements & Applications	E/O
Engineered	Shaft Extensions Torsional Calculations & Maximum Deflection	E/O
Shaft Extensions	Specification Importance	E
& Torque Tubes	Typical Field Failures and Issue.	E/O
	Considerations for Specification Creation	E
3:00 – 3:20	Test	
3:30-4:00	Test Review	
Adjourn		
Presenter	Bruce James - Experience 34 + years / Inventor- 4 Valve Patents Valve Commissioning & Field Experience 25+ years Associations – AWWA / ISA/WEFTEC / CPSA AWWA C520 Standards Committee member	

Requirements & Information

- Start Time is 8:30am
- Web connection if possible
- Lap top presentation with back up files
- No cell phone use please during the presentations
- Presentations will be provided in the form of PPT
- Hard and soft copies will be provided
- Tests are Mandatory

End of Agenda

