

Working group 'Control Valves/Final Elements'

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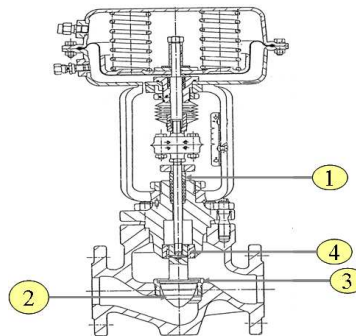
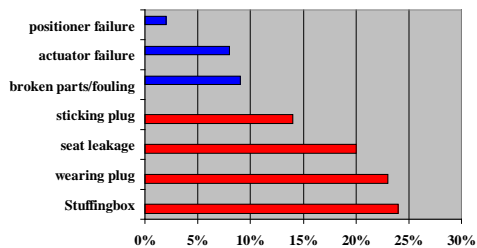
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Costs related to control valves:

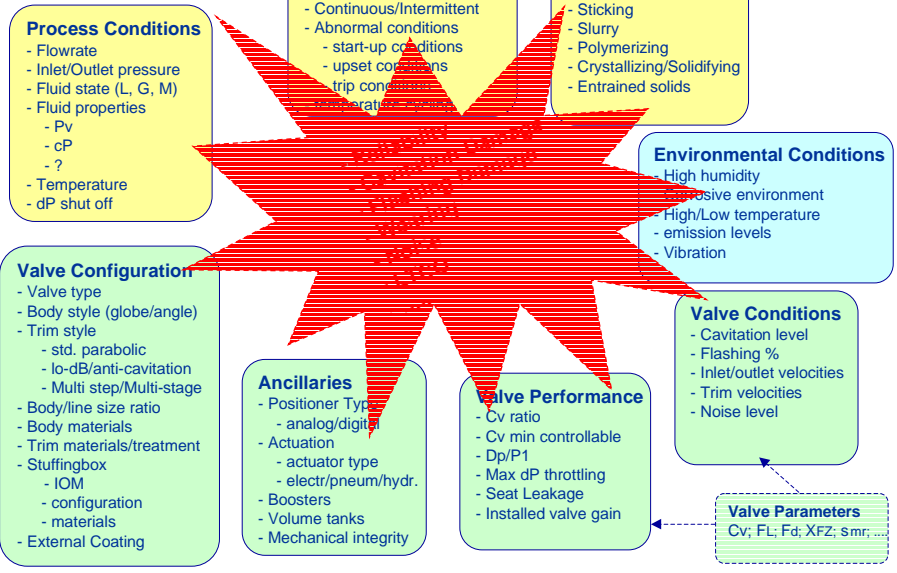
- initial cost + installation = 10-20% of total life cycle cost
- valve wetted parts count for 80+% of valve revision cost
- every year \pm 7% of installed base in "revised"
- average revision cost per valve \pm € 2000

Average revision cost control valves (1995 data)
Population of 40,000 valves (several WIB members)



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Influencing Factors

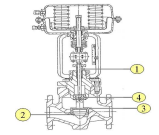


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Activities:

Define Stuffingbox Requirements

- Define minimum requirements
- Fugitive emission IPPC - BAT
- Hysteresis
- Tightness
- Life Time
- Maintenance



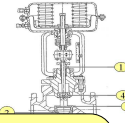
Control Valve Reliability Prediction

- Determine impact of
 - Velocity calculations and warnings
 - Flashing applications
 - Valve style and body form/trim configurations in relation to fluid property behavior
 - Cavitation prediction
 - Aerodynamic noise calculation IEC 60534-8-3
 - Update Control valve datasheet IEC 60534-7
 - Organize Workshop VW2006

Controllability Prediction Project

- Develop guideline / test project
 - Definition of controllability
 - Essential parameters
 - How to documenting parameters
 - Rangeability; inherent & installed
 - Important validation tests
 - Control Valve items affecting dynamic performance
 - Organize Workshop VW2008

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Activities:

Smart Positioner test project

- Test project
- overall performance testing
 - vibration testing
 - high/low temperature testing
 - endurance testing
 - Set-up reliability database End-Users

Rotary Valve test project

- Test project
- overall performance testing
 - parameter testing (e.g. Fd parameter)
 - endurance testing

Partial Stroke Test Devices

- Develop guideline / test project
- Hardware requirements
 - Diagnostics
 - Configurations/settings
 - Relation to fool proof testing
 - Develop guideline Application requirements; how and when to use

Exchange knowledge/field experience

- Inside / outside working group
- Every working group meeting
- Valve Overhaul during Turn Around
- Specific problems/concerns in design or applications

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Working group Control Valves/Final elements:

- Excellent platform for **End-User ~ End-User:**
 - Exchange knowledge /experiences
 - Gain in-depth knowledge
- Excellent platform for **End-User ~ Supplier:**
 - Supplier has the in-depth knowledge on design/materials
 - End-User has the in-depth knowledge of the processes
 - Voice of the Customer

