

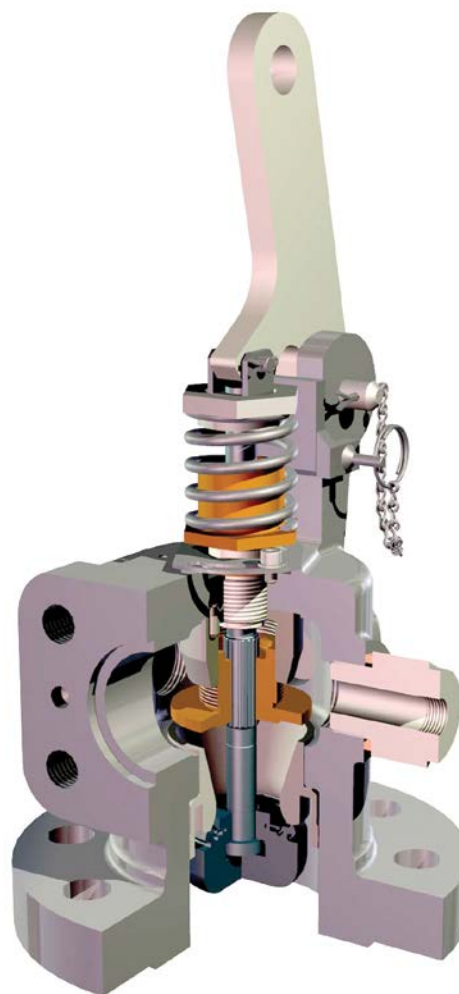
# Diamond Power® EAPC™ Poppet Valve Sootblower Control System

Long retractable sootblowers periodically require adjustment of head pressure settings to achieve desired steam pressure levels for cleaning. Historically, to adjust head pressure settings, standard poppet valves had to be closed and isolated and the sootblower shut off – oftentimes across the entire bank. The Diamond Power® EAPC™ poppet valve was developed specifically to solve this problem, and has undergone significant design improvements since its first introduction in the 1990s.

The latest EAPC poppet valve design can be adjusted externally, while the sootblower is running, without binding or galling. Laboratory testing provided key information to solve critical friction contact points and surfaces, and to optimize trigger-to-steam contact patterns. Field tests in both utility and recovery boiler environments confirmed trouble-free operation in long-term use under severe operating conditions.

## Benefits

- Simple and safe valve adjustment procedure:
  - Install pressure gauge
  - Remove EAPC locking tab and reinstall to lock packing gland
  - Start sootblower
  - Turn adjusting nut with minimal torque effort
  - Reinstall EAPC locking tab
- Longer service life – free from internal binding or galling
- Less time spent resetting valves
- Maximize sootblower availability, cleaning performance and flexibility



*The EAPC poppet valve allows safe external steam pressure adjustment while the sootblower is operating.*

## Features

- Welded flexible valve seat and disc to prevent distortion from thermal stress
- Long-term reliability with freedom from leakage
- Pressure control disc made from materials proven to withstand steam service
- Adjustment flexibility among styles
- Steam yoke allows positive valve closure

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## Availability

The EAPC poppet valve is available as optional equipment on all retractable sootblowers. In addition, the EAPC poppet valve can be retrofitted to any existing Diamond Power retractable sootblower as a replacement part or a rebuild of the current valve.

*The EAPC poppet valve is available in two pressure classes:*

### Series 600 Carbon Steel

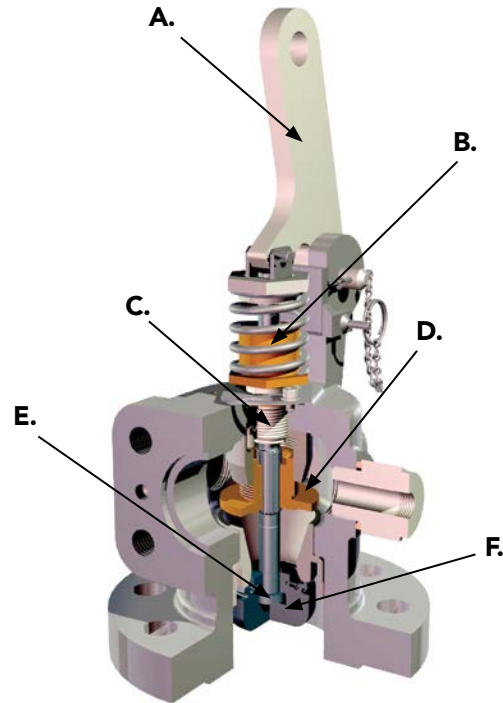
For service conditions to:  
650 psig @ 700F (4.48 MPa @ 371C)

### Series 900 Chrome-Moly

For service conditions to:  
950 psig @ 900F (6.55 MPa @ 482C), or  
1100 psig @ 850F (7.58 MPa @ 454C)

## EAPC Poppet Valve

- A.** Direct mechanical valve action
- B.** Rugged stem, hardened valve stem guide, and generous packing surface for minimum maintenance.
- C.** Micrometer-like adjustment for very close regulation at low flow rates
- D.** Lock pin to hold pressure setting
- E.** Welded-in polished Stellite® alloy valve seat is hydrotested to prevent leakage between the seat and body
- F.** Floating valve disc assures tight seating every time



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