

Baldwin Pulse Spray Dampening Solution

PRINTING

Application:

- Drop-in Solution on an Offset Printing Press for Pulse Dampener Spray Bar:
 - 62 spray-bars on the press
 - 4 valves per bar
 - 248 valves in facility
- Pulse rate controlled by speed of the press
 - 45,000 papers per hour = 4-5 pulses/sec

Solution:

- Stainless steel bullet valve (BV) with wash-down modification
 - BV214A-DF1-00-BCWA-CBG=8702
 - 2 Way, Normally Closed, Double Diaphragm, Nitrile seals, 24 VDC, 5.4 Watt.
- Value added assembly; Custom plastic delrin manifold is an exact drop in unit
- Sealed connector and mated connector added for field retrofits and replacements
 - Crimp-on 3 place molex water-tight connector

Challenges:

- Existing valve = OEM Baldwin
- Spray bar has tight tolerance (45-50psi)
 - Fluctuations require regular maintenance and pressure adjustment
- More / less water causes web breaks
 - Entire press must be shut down if a web break occurs
- Unbalanced design with skinner-type poppet has poor life expectancy
- Coils fail regularly – get stuck open or drip
 - New assembly required to fix simply a coil; cost for replacement = \$800
- Existing maintenance requires complete rebuild (currently every 6 months)
 - Rebuilds require complete dis-assembly of the valves and bars

