

SILstroke-3E



DUAL AIR SUPPLY & VENTING PATHS, LOCAL RESET

TESTIMONY

I once had a client tell me that he was buying the SILstroke-3 boxes for his ethylene unit because – with each trip it would take seven months of full capacity operations to makeup the lost revenue. With SILstroke-3 they have been running for three years continuously. SILstroke-3 will not increase operational efficiency, but it will decrease downtime and... increase your profits.

DESIGN

The SILstroke-3E is one of several models. Other models are for control valves, dual air operated valves, and models with on-board PLC for diagnostics and partial stroke testing. The SILstroke-3E design has no on-board PLC, but does have additional relays for diagnosing the health of the SILstroke-3E components.

The SILstroke-3E has unique features such as:

- Supporting Two ESD Signals
- Local RESET of the ESDV
- Manual RESET on Loss of Air
- 15 Diagnostic Relays That Detect:
 - Loss of Air Supply (AIR-dTect)
 - Loss of Either ESD Signal
 - Loss of Either ESD Common
 - Failed SOV
 - SOVs In By-Pass

For those times of maintenance, the SILstroke-3E maintenance by-pass valve (located in the center) allows for the by-passing of either the left pair of SOVs or the right pair of SOVs, but not both at the same time. That means the ESD system is always in control of the ESDV. Replacement of the SOV is simple and easy, and can be accomplished in a matter of minutes without defeating the safety function.



ESD APPLICATIONS

PATENTED 2oo4D SOV PATTERN

CLASS I, DIV 2, Grp A-D

FAULT TOLERANT

ON-LINE REPAIR

POWER: 18 to 28VDC; 450ma

SIL 3 CERTIFIED by TUV

SILstroke-3E



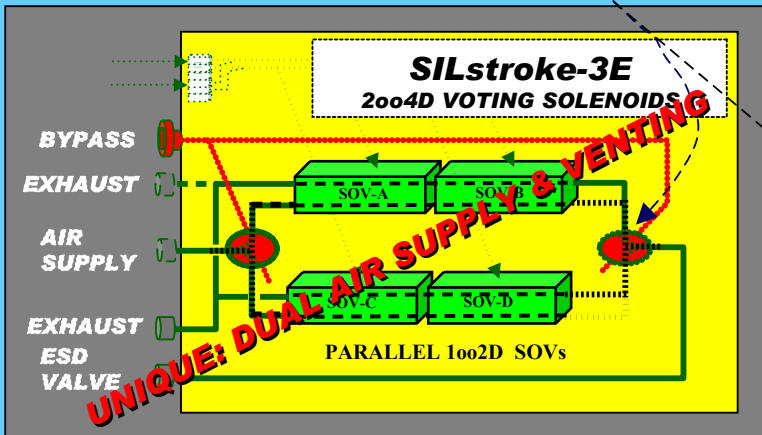
SafePlex Systems, Inc.
Protection, Solutions, Services, Integrity

No Single Dangerous SOV Failure - Fault Tolerant

SILstroke-3E OPERATION

SOVs in a 2oo4D arrangement masks all single failures, both dangerous and spurious. The arrangement shown below illustrates how SILstroke-3E is both a fault-tolerant and fail safe design. The parallel paths provide the fault-tolerance, and the series SOVs provide the fail safe aspect. Pressure switches are used to monitor the SOV's status. For maintenance, the by-pass valve will by-pass the upper or lower set of SOVs while the other remaining set controls the ESD valve. The by-pass valve isolates both the input and discharge sides of the SOV manifold, so on-line repair is possible.

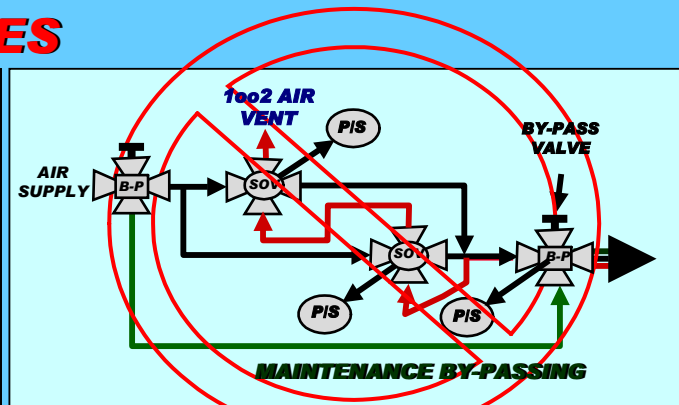
With its parallel 1.7 Cv air paths, the SILstroke-3 solution meets the process safety time of small or large ESD valves.



ASCO 2oo2 SOV PACKAGES

IMPORTANT NOTICE

SILstroke-3E SOVs are arranged with - parallel 1oo2D air supplying and venting paths - whereas the 2oo2 SOVs package has a parallel (2oo2) supply path, BUT a single 1oo2 venting path - that's dangerous!



ASCO BY-PASSES - BOTH SOVs DURING REPAIRS (Overrides ESD Control)