



## **Product Note, PN 430, Rev 1**

### **Valve Constant Bleed (CB) Option**

December 28, 2018

The AP, AZ and AK 1/4 inch 3 series valves are available with a constant bleed option. As the name of the option implies, it provides a continuous, low flow of gas through the valve. The constant flow is achieved with a precision orifice (small hole) connecting the inlet and outlet ports. The option is called ‘constant bleed’ because gas flow through the orifice cannot be shut off. The valve still operates open and closed, controlling the full flow through the valve.

The constant bleed is typically used to provide a ‘trickle purge’ through piping to maintain an inert atmosphere. Common applications include source cabinet pigtail N2 bleed while the cylinder is disconnected and N2 valve driving a vacuum generator. The latter is typically employed in corrosive gas service to minimize corrosion of exhaust systems, extending their useful life. It also minimizes process gas reaction with air in exhaust systems, such as explosions with pyrophoric gases. It should be noted that if the valve with the CB option is intended to deliver purge N2 to a source manifold, a standard shut off valve should be located between the main manifold and the CB valve (the CB valve should be isolated from process gas by another shut-off valve).

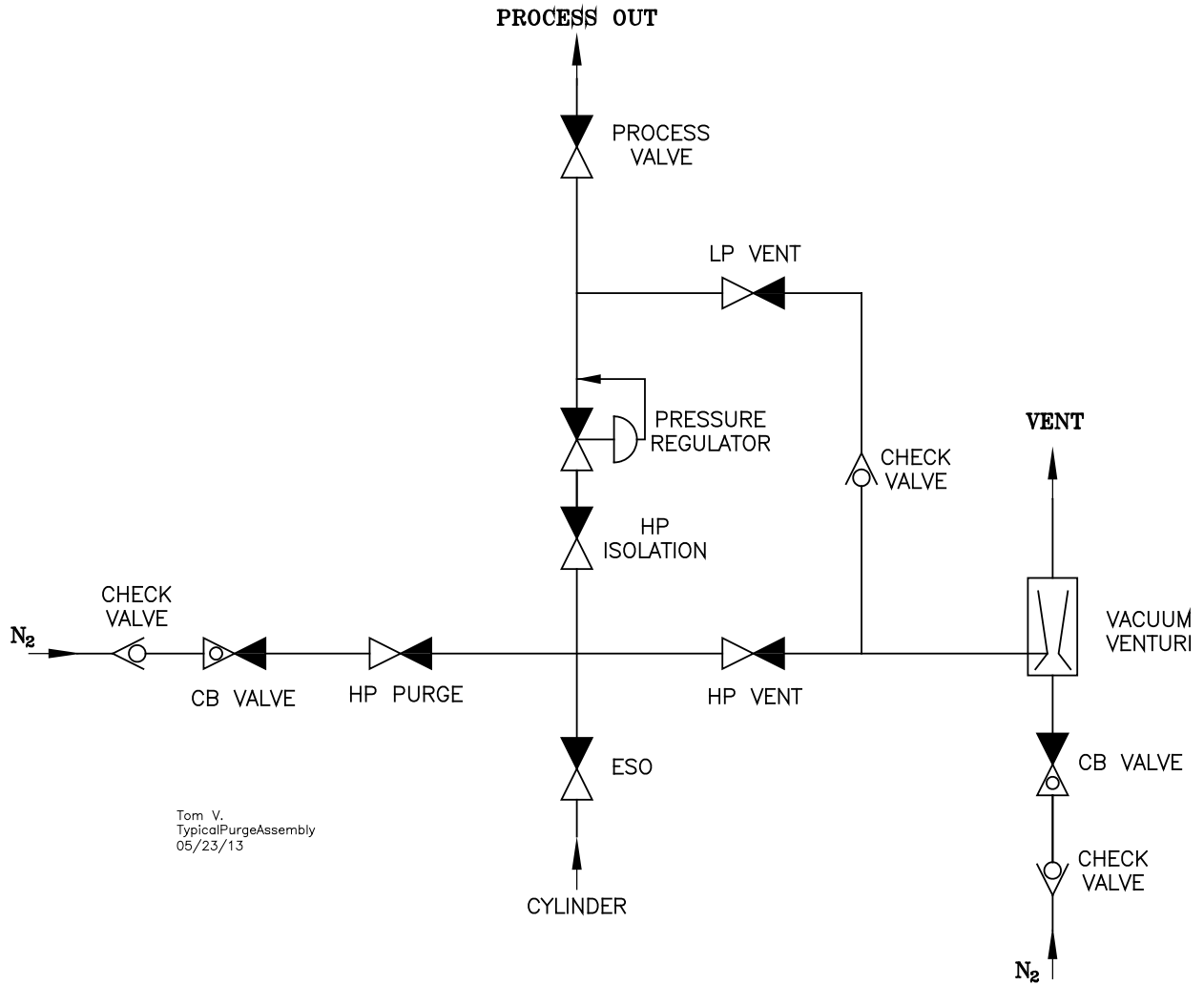
The CB options have the following nominal flows of N2 at 80 psig (5.5 bar) and designations:

CB 009	5 slpm
CB 013	8 slpm
CB 023	15 slpm

The CB option is available for these typical models, 3000, 3540, 3550, 3571, 3600, 3625, 3650, 3652 and 3657 in the AP, AZ and AK series with the following exceptions: 2P (not 2PW) bodies with integral, machined male connections, such as TW4, TW6, MV4, MV6 and 4T. Bodies must have welded connections or female NPT to enable access to drill the bleed orifice. Other models are also available depending upon body geometry, please consult the factory.

The CB option is specified at the end of the model number as above: CB 009, CB 013 and CB 023 for the various flow rates.

# Typical CB Applications In A Purge Manifold



Tom V.  
TypicalPurgeAssembly  
05/23/13