

# PROCESS GAS

## FLASHBACK ARRESTOR SAFETY

A FLASHBACK ARRESTOR IS A SAFETY DEVICE USED IN PROCESS GAS SYSTEMS SUCH AS OXYGEN-FUEL WELDING AND CUTTING. THE ARRESTORS STOP THE FLAME OR REVERSE FLOW OF GAS BACK UP INTO THE STORAGE BOTTLES OR SUPPLY LINE. IT PROTECTS THE USER AND EQUIPMENT FROM FIRE OR EXPLOSIONS.

- THERE ARE MANY REASONS WHY FLASHBACK OCCURS.
- THE FLASHBACK ARRESTORS CONSIST OF INTRICATE PARTS TO PREVENT FLASHBACK.
- SELECT THE CORRECT FLASHBACK ARREST.
- INSTALL THE FLASHBACK ARRESTOR CORRECTLY.
- INSPECT YOUR FLASHBACK ARREST SYSTEM EACH TIME PRIOR TO USING THE EQUIPMENT.



**BC Forest Safety**

Safety is good business

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- 1) A FLASHBACK IS GENERALLY CAUSED BY THE REVERSE FLOW OF GASES UPSTREAM INTO THE HOSES OR OTHER STORAGE BOTTLES. THIS REVERSE FLOW IS USUALLY THE RESULT OF:
- Improper shutdown and/or start up procedures.
  - Allowing cylinder pressures to become too low.
  - A check valve not working properly.

2) THE FLASHBACK ARRESTORS CONSIST OF THREE MAIN PARTS:

- NON-RETURN VALVE - This stops the reverse flow (back surge) of gas.
- SINTERED FLAME FILTER - This blocks the reverse flow of a flame.
- THERMAL ACTIVATED CUT-OFF VALVE (fitted to regulator mounted models only) - In case of a sustained (continuous) flashback or backfire, this valve will close and stop the flow of gas in any direction.

- 3) WHEN SELECTING YOUR FLASHBACK ARRESTOR BE SURE TO CHOOSE THE PROPER DEVICE. PAY PARTICULAR ATTENTION TO REQUIRED EQUIPMENT GAS FLOW RATES AND THE FLOW INFORMATION SUPPLIED WITH THE FLASHBACK ARRESTORS. FEATURES LIKE THERMAL SHUT OFFS MAY ALSO INFLUENCE DEVICE SELECTION.

- 4) FLASHBACK ARRESTORS ARE EITHER LOCATED AT THE BOTTLES OR THE TORCH. FLASHBACK ARRESTORS SHOULD BE INSTALLED AT THE LOCATION SPECIFIED BY THE MANUFACTURER.

- 5) ALL EQUIPMENT, ESPECIALLY SAFETY EQUIPMENT LIKE FLASHBACK ARRESTORS, MUST BE IN GOOD WORKING ORDER TO FUNCTION PROPERLY. INSPECT THE ARRESTORS WHEN DOING YOUR PRE-USE EQUIPMENT INSPECTIONS. DURING THE INSPECTION, LOOK FOR DAMAGE TO THE TREADS OR CASE AND DIRT OR DEBRIS INSIDE THE FLASHBACK ARREST.

FLASHBACK ARRESTORS AND CHECK VALVES ARE NOT INTENDED TO REPLACE PROPER PRACTICES FOR SAFE OPERATION. THEY CAN PROVIDE AN INCREASED LEVEL OF PROTECTION IN ADDITION TO THE MANUFACTURERS RECOMMENDED OPERATING PROCEDURES.

