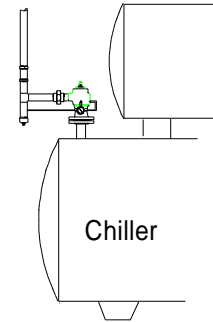


Guide specification for **REDI CONTROLS' RuptureSeal™**  
**Backup Relief Valve Models NRS-2 & NRS-3**  
*with*  
**Non-fragmenting Metal Rupture Disc**

**Performance Specifications  
For The Rupture Disk Backup Relief Valve:**

The Rupture Disk Backup Relief Valve shall be installed on low pressure centrifugal chiller's utilizing (R-11, R-113, & R-123) to protect against total loss of refrigerant charge, as well as pollution of the atmosphere, in the event of a rupture of the chiller's rupture disk. Valve construction, flow capacity, application and installation shall meet the recommendations of Division I, Section VIII of the 1992 ASME Boiler & Pressure Vessel Code and ASHRAE Standard 15-1992R

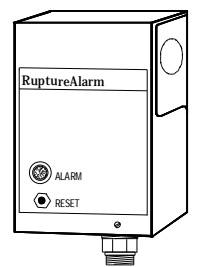


**Typical Installation**

**Requirements**

1. Must mount direct to chiller's existing Rupture Disk ANSI flange.
2. Must not require removal of chiller's refrigerant charge to install.
3. Must not require welding on chiller vessel to install.
4. Must be capable of serving as primary chiller relief once the rupture disk has burst.
5. Must be Stainless Steel construction -- to prevent rust & corrosion.
6. Must utilize a Solid Metal Reverse Buckling Rupture Disk.
7. Total installed weight of valve plus rupture disk must not exceed 17 pounds for 2" model or 39 pounds for 3" model.
8. Must be "flow capacity " rated according to appropriate ASME and ASHRAE Guidelines.
9. Manufacturer must make available upon request flow capacity test documentation by an ASME Certified testing laboratory for capacity certification of pressure relief devices. Documentation must include verification that valve operation remains stable (does not chatter) with up to at least 5 psig built-up back pressure.
10. Valve relief set-point calibration must be sealed in a manner (wire and lead seal) to prevent unauthorized tampering with certified calibration.
11. Must be totally serviceable without disturbing the valve's "sealed" set point calibration.

12. Must be direct spring Acting.
13. Must be ‘pop open” action coincident with bursting rupture disk as per foot-note 48 to Section UG-127.3b in Section VIII of the 1992 ASME Boiler & Pressure Vessel Code.
14. Must be back pressure isolated, to prevent loss of flow capacity due to lengthy discharge vent line.
15. Must come completely pre-assembled, tested and ready to install.
16. Must have external manually operated lift ring or lever that will allow testing of valve operation while chiller is running, to facilitate periodic safety checks such as those required by insurance underwriters.
17. Must include a double check pressure equalization valve, to prevent inadvertent pressure buildup between the valve and the rupture disk.
18. Must have tell-tale pressure gauge, to indicate potential leaking or rupture of rupture disk.
19. Must reseal within 3 psi of valve setting.
20. Valve seat O-Ring must be retained by mechanical means.  
Bonded or glued valve seat O-Ring not acceptable
21. Must have O-Ring valve seat capable of sealing “bubble tight.”
22. Must provide detailed IOM
23. Must provide pressure port for optional alarm \*
24. Must have “lifetime warranty” from manufacturer.
25. \* The **RuptureAlarm™** is available from REDI CONTROLS for use on the **RuptureSeal™** back up relief valve. This pre-assembled, ready to install alarm is specially designed to work in conjunction with the **RuptureSeal™** to alert the operator of a possible seeping or ruptured Chiller Rupture Disk. The unit also includes remote alarm enunciation capability. For additional information, contact REDI CONTROLS at **(800) 626-8640** or **(317) 865-4130**.



**RuptureAlarm™**

**File Literature Number 1002-03**

**Backup Relief Valve Models NRS-2 & NRS-3.**

Revised as of December 16, 2003