

**SPECIFICATIONS** Coalescing Removal Separator (CRS) Air & Sediment Separator

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

SECTION 23 21 16

Hydronic Piping Specialties

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

# Unit shall be a Bell & Gossett® Coalescing Removal Separator (CRS), as manufactured by Xylem.

**1.02 RELATED SECTIONS**

1. Section 23 01 70 – Operation & Maintenance of Central HVAC Equipment
2. Section 23 20 00 – HVAC Piping and Pumps
3. Section 23 21 13 – Hydronic Piping

**1.03 REFERENCES**

1. ASME – American Society of Mechanical Engineers.
2. ANSI – American National Standards Institute.
3. ISO – International Standards Organization.

**1.04 SUBMITTALS**

1. Submit data cover sheet.
2. Dimensional print(s).
3. Sales bulletin.
4. Installation, operation & maintenance manual.

**1.05 QUALITY ASSURANCE**

1. The product manufacturer shall be fully certified by the International Standards Organization
per ISO 9001.

# The manufacturer shall carry a minimum product liability insurance of $5,000,000.00 per occurrence.

**1.06 MAINTENANCE MATERIAL SUBMITTALS**

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

# Subject to compliance with these specifications, the following manufacturers shall be acceptable:

1. Air & Sediment Separator
2. Xylem Inc. Bell & Gossett® Coalescing Removal Separator Model CRS-\_\_\_\_, CRSN-\_\_\_\_, CRS-\_\_\_\_-HV, or CRSN-\_\_\_\_-HV.
3. Pre-approved equal.

**2.02 COMPONENTS**

1. Air & Sediment Separator
2. The Air & Sediment Separator shall be designed, constructed, and stamped in accordance with Section VIII, Division I of the ASME Boiler and Pressure Vessel Code, and registered with the National Board of Boiler and Pressure Vessel Inspectors.
3. The Air & Sediment Separator shall be rated for \_\_\_\_ psi (\_\_\_\_\_\_ kPa) maximum working pressure.
4. The Air & Sediment Separator shall have a maximum temperature rating of 450°F (232°C).
5. The Air & Sediment Separator body shall be made of carbon steel.
6. The Air & Sediment Separator body shall be two times the nominal inlet/outlet pipe diameter.
7. The Air & Sediment Separator shall have an internal coalescing medium consisting of stainless steel tubes with 3/16” perforations and 51% open area. The coalescing medium shall be made of 304 Stainless Steel.
8. Coalescing medium shall be removable to facilitate routine cleaning (CRS- models only).
9. The Air & Sediment Separator should be supplied with a 3rd party test report certifying that the unit can remove 99% or more of dissolved air and 96% or more of total suspended particulate.
10. The Air & Sediment Separator shall include threaded blow down connection to allow for sediment to be regularly cleaned out of the unit.
11. The Air & Sediment Separator shall include a threaded air removal connection on top of the unit so an air vent or expansion/compression tank can be connected, allowing collected air to be removed from the unit.
12. The Air & Sediment Separator shall include a threaded skim valve connection on the side of the unit to allow floating sediment to be removed.
13. The Air & Sediment Separator shall be available with either NPT end connections (2” thru 4” sizes only), flanged end connections, or grooved end connections.
14. Flange end connections should be designed according to ANSI Standards.

**2.03 ACCESSORIES**

1. Air & Sediment Separator Accessories
2. Blowdown Valve.
3. Skim Valve
4. Air Vent

**PART 3 EXECUTION**

* 1. **INSTALLATION**
1. Install Air & Sediment Separator in accordance with manufacturer’s instructions.

# Unit shall be a Bell & Gossett® Coalescing Removal Separator Model CRS-\_\_\_\_, CRSN-\_\_\_\_, CRS-\_\_\_\_-HV, or CRSN-\_\_\_\_-HV.

###### END OF SECTION



[www.bellgossett.com](http://www.bellgossett.com/)

Bell & Gossett is a trademark of Xylem Inc. or one of its subsidiaries.

© 2016 Xylem Inc. Coalescing Removal Separator (CRS) August 2016