

Oxygen Cleaning Specification - OCS 1.0

1.0 SCOPE

This specification outlines the requirements for cleaning, inspecting and packaging heat exchangers designed for oxygen service.

2.0 C SERIES HEAT EXCHANGERS

2.1 FIN/TUBE CORE

- 2.1.1 Fins shall be vapor degreased after punching and before tube insertion.
- 2.1.2 After the fins are degreased, they shall not come in contact with oily or dirty surfaces. Persons handling the fins shall wear clean gloves.
- 2.1.3 A representative random sampling of fins shall be selected from the batch and inspected under black light. If any grease is observed, the entire batch should be degreased and reinspected.
- 2.1.4 After pressure testing, the core shall be vapor degreased.
- 2.1.5 Prior to installation in the housing, the core shall be wrapped in plastic.

2.2 PRESSURE HOUSING

After fabrication, the housing shall be visually inspected to be free of any loose scale or weld spatter. If the housing is not hot-dip galvanized, it shall be vapor degreased. Prior to installation of the core, openings in the housing shall be covered and the entire housing wrapped in plastic.

2.3 FINAL ASSEMBLY

Prior to installation of the fin/tube core into the pressure housing, a visual inspection with a black light shall be performed.

3.0 AA SERIES HEAT EXCHANGERS

3.1 COOLING CORES

The cooling cores are degreased prior to assembly.

3.2 INLET AND OUTLET HEADERS

- 3.2.1 One end of each header, where the transitions are to be attached, will be removed and the headers will be visually inspected with black light. If any oil or grease appears on the face of the cooling core, the core will be rejected for the oxygen service application.
- 3.2.2 If oil or grease is present in the header, it will be swabbed with denatured alcohol, using a lint-free cloth. After cleaning, the headers will again be inspected with black light.
- 3.2.3 Once the headers are clean, degreased transitions will be welded onto the open ends of the headers.
- 3.2.4 The headers will again be inspected, and assuming no additional cleaning is required, will be pressure tested with oil free nitrogen.

4.0 PACKAGING FOR SHIPMENT

Fluid connections shall be covered. The entire unit shall be wrapped in plastic sheeting and tagged "CLEANED FOR OXYGEN SERVICE".