

CEE-BEE J-88

by Cee-Bee®



data sheet

CEE-BEE SCALE CONDITIONER J-88 is an alkaline permanganate scale conditioner for use with alkaline scale and rust removers and acid pickles for removing rust, heat scale, hot rolling scale, carbon and organic coatings.

BENEFITS

- Prepares heat and hot rolling scale for removal in alkaline rust and scale removers, such as Cee-Bee J-84A or J-84AL, or acid removers such as J-19 or J-3.
- Removes carbon deposits and many chemically resistant coatings from metals which would be damaged by acidic oxidizing agents.
- Safe on steel, nickel alloys, chromium alloys and super alloys.

CONFORMS TO

- **ALLISON GAS TURBINE OPERATIONS (GENERAL MOTORS CORP)**
- **AMS 1383A (INCLUDES ARP 1755B)**
- **AVCO - LYCOMING DIVISION (GENERAL MOTORS CORP)**
- **GENERAL ELECTRIC C04-055**
- **GREENWICH AIRMOTIVE**
- **INTERNATIONAL AERO ENGINES CoMAT NO 01-165A**
- **ROLLS ROYCE OMat NO. 198C**
- **SNEMCA, FRANCE (DFM-56 MANUAL) CP.2008**
- **T.O.2-1-111, PMC 1267**
- **T.O.2J-1-32**

**NOTE: To place an order, call or FAX Customer Service at
800-932-7006 / FAX 1-216-441-1377
Cee-Bee Scale Conditioner J-88 Product Code # 26016**



NOTES PRIOR TO HANDLING

Before using your McGean-Rohco, Inc. products, all safety and operating instructions should be read and understood. If you have any questions, please contact your McGean-Rohco representative before proceeding.

USE PROCEDURES

USE 316 STAINLESS STEEL TANKS AND HEATERS WITH THIS PRODUCT. ALSO USE MECHANICAL AGITATION.

To condition heat & hot rolling scale on turbine engine parts:

In a cleaning line use precleaners Super Bee 300 LF, Cee-Bee Alkaline Descalers J-84A or J-84AL and Cee-Bee Acid Descalers J-19 or J-3.

For carbon and coating removal:

1. Preclean the parts with Cee-Bee Super Bee 300 LF to remove oil, grease, carbon and light rust. Rinse thoroughly by dipping in air agitated, overflowing, clear water.
2. Immerse parts in J-88 Conditioner at 1.30 - 2.00 lb/gal at 190 - 200 degrees F for 30 to 60 minutes. A concentration of 2.0 lb/gal is preferred.
3. Remove the parts and allow excess solution to drain back into the tank. To reduce dragout loss, rinse parts with a light mist of water over the tank, allowing water to fall into the tank. Then dip parts in air agitated, clear, overflowing water or spray rinse with air boosted water.
4. Remove conditioned scale and/or permanganate stains in a solution of J-84A, J-84AL, or an acid such as Cee-Bee C-623.
5. Rinse well. To protect ferrous parts from flash rusting, force-dry with hot air or apply a rust inhibitor such as Cee-Bee Nortex 3025.

CONTROL

- Daily additions of water are required to make up evaporation losses. In hard water areas, soft water is recommended. Periodic additions of J-88 or J-88L and/or J-88 Additive P/J-88 Additive PL are required to make up dragout losses and active ingredients consumed during the cleaning process. To determine concentrations, use the following procedures.

REAGENTS & EQUIPMENT

| | |
|------------------------------------|-------------------------|
| Distilled or deionized water | 500 ml volumetric flask |
| 1 N Sulfuric acid | 250 ml Erlenmeyer flask |
| 50% Sulfuric acid | 50 ml burette & stand |
| 0.1 N Potassium permanganate | 25 ml pipette |
| 0.1 N Sodium oxalate | 10 ml pipette |
| pH meter | Glass filter funnel |
| 11 cm glass microfiber filter disc | |

PROCEDURE

Part I. Sample Filtration

If the sample is excessively dirty, filter approximately 50 ml of tank solution, heated to 190°F, using a glass filter funnel and glass microfiber filter disc. **DO NOT USE PAPER FILTERS.**

Part II. Concentration based on Alkalinity

1. Pipette a 5 ml aliquot of hot filtered solution into a 100 ml volumetric flask.
2. Dilute with DI water to 100 mls. Cap and mix by inversion.
3. Pipette 25 mls of the dilute solution into 250 ml Erlenmeyer flask and dilute to 100 ml with DI water.
4. Titrate with 1 N acid to pH 6.0 using the pH meter.

Calculation: ml 1N acid X 0.382 = lbs./gal. J-88 based on alkalinity

[(Operating Concentration) - (lbs./gal. J-88 based on alkalinity)] X 100 = lbs. J-88 required for 100 gals. of tank solution.

CONTROL (continued)**Part III. Permanganate**

1. Add 10 ml of 50% sulfuric acid to the previously titrated sample from Step II.
2. Add exactly 25 ml of freshly standardized 0.1N sodium oxalate solution and heat to approximately 190 degrees F.
3. If the solution does not decolorize when heated, add additional 0.1N sodium oxalate solution in 10 ml increments until decolorized.
4. When decolorized, IMMEDIATELY titrate with 0.1N potassium permanganate until a faint pink color remains for approximately 30 seconds.

Calculations: (ml. 0.1N sodium oxalate - ml. 0.1N potassium permanganate X 0.070 = lbs./gal. J-88 based on potassium permanganate.

(lbs./gal. J-88 based on alkalinity - lbs./gal. potassium permanganate) X 30 = lbs. J-88 Additive P required for 100 gallons of tank solution.

If J-88 Additive PL is used, calculate addition as follows:

(lbs./gal. J-88 based on alkalinity - lbs./gal. based on permanganate) X 6.5 = gals. J-88 Additive PL required for 100 gals. of tank solution.