Membrane Electrode

Topic: TECTRON™ Roof and Floor ME Cells and Bare Electrodes

PRODUCT DATA SHEET

The TECTRON Roof and Floor Membrane Electrode (ME) Cells serve as the opposing electrode to the ware. Their position and orientation are critical to achieving uniform ED film thickness. ED film is deposited according to how much current flows to each section of the ware.

Roof and floor ME Cells are placed on the top and bottom, respectively, to supplement Side ME Cells. In some cases (especially with densely loaded ware arrangements), Roof and Floor ME Cells can be used to increase the uniformity of the ED film thickness distribution.

Benefits

- Improved coverage in recessed areas.
- Low electrical resistance.
- Easy installation and maintenance.
- Lower membrane current densities for longer life.
- Special purpose membranes to control paint chemistry and improve film quality.
- Unlimited technical support available via telephone.

Features

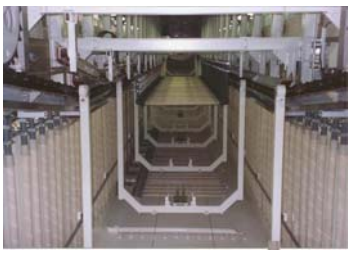
- Cylindrical electrode design has no exposed edges to wear rapidly, develop hot spots or pinch the membrane.
- ME Cells can be installed anywhere in the tank.
- Reduced acid removal rates can be achieved by appropriate choice of membrane type.
- Design assistance is available at no extra charge. Installation supervision is also available, usually at no extra cost.

Placement of ME Cells

- *Tank Entrance* - Increases the coating time of the recessed areas of the ware by coating the exterior of the ware faster.
- *Tank Exit* - Increases the power available to drive e-coat into the recessed areas of the ware.
- *Throughout the Tank* - Decreases the load of the Side ME Cells. Side anodes will not coat the top or bottom of the ware; therefore, more power will be available for the interior.

Cells vs. Bare Electrodes

- Bare electrodes are less complex than Flushable ME Cells. Usually the total surface area of the bare electrodes is less than 15% of total surface area.
- Flushable ME Cells do not put iron into the ED bath. Tanks with flushable ME Cells tend to have less sludge than tanks with bare electrodes.



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Think and act in a safe manner. Always disconnect power and use a lockout before you work on the E-coat system, or any of the related subsystems. Observe any confined space conditions. Use the appropriate safety equipment and clothing for the task.