

# TECTRON™ Large Diameter ME Cells

## PRODUCT DATA SHEET

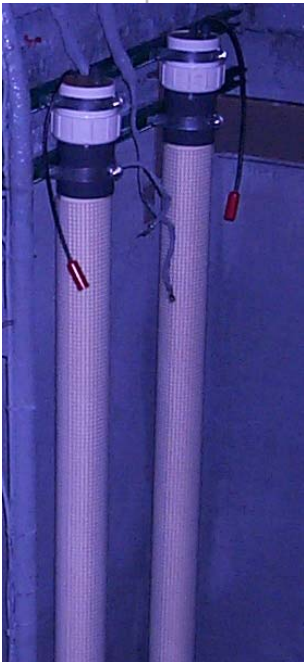
With a 3" or 5" diameter Electrode, large diameter TECTRON Membrane Electrode (ME) Cells are ready to meet the needs of automotive industry E-coat paint systems. They are designed to retrofit easily into existing systems. Mounting, supply/return and electrical connections are compatible with existing semi-circular or box cells. For customers presently using small diameter TECTRON ME Cells, conversion is easy. The benefit is all the operational advantages with fewer overall Cells. For all users, field installation costs are reduced due to fewer connections. Further, the 5" ME Cell has more surface area than the typical semi-circular cell.

## FEATURES

- The Large Diameter ME Cell incorporates an Electrode housed inside a Membrane Shell.
- The cylindrical Electrode design has no exposed edges; therefore no rapid wear, hot spots, or pinched membrane .
- Protective membrane guard is available for the 3" only.
- Open top version is suitable for most monorail type conveyor systems. Splash Guard is available.
- Bulkhead Fitting is available for the 3" only for use in a hoist or roll dip E-coat machine.
- ME Cell spacing is adjustable to balance current draw.
- Accessory items such as electrical quick disconnects and flow indicator/ valves are offered to facilitate installation.
- Membrane Shell is PVC, plastic and epoxy construction

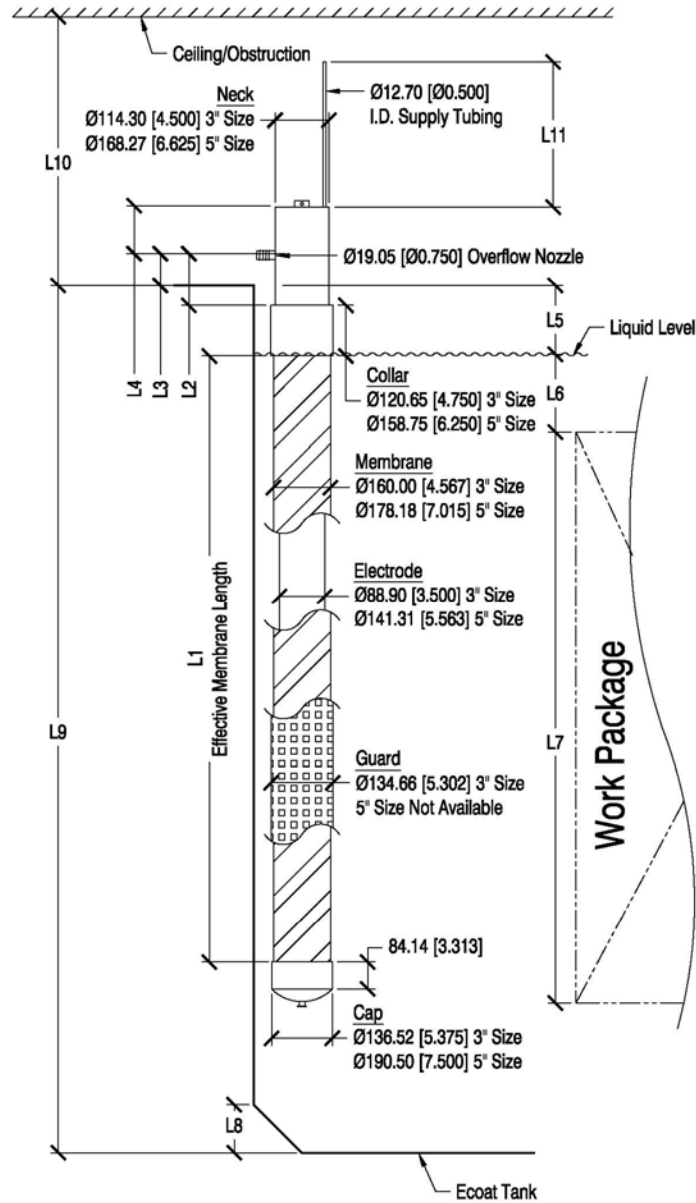
## PROPERTIES (3" & 5")

- The maximum outside diameter is 125 mm (4.8 in) & 180 mm (6.8 in).
- Membrane Shell is offered with effective lengths of 1400 mm, 1900 mm, 2300 mm and 2900 mm; sized to work package height . The Neck is sized according to tank depth.
- Membrane Shell weighs approximately 3.5 - 9 kg (8-22 lbs.), depending on length.
- The Electrode has a 88.9 mm (3.5 in) & 143.0 mm (5.63 in) outside diameter and is made of 316L Schedule 10 stainless steel pipe.
- 316L Electrode weight is 11.6 kg/m (7.8 lbs/ft per lineal foot) of electrode length.
- The Electrode has 0.280 m<sup>2</sup>/m (0.916 ft<sup>2</sup>/ft) & 0.444 m<sup>2</sup>/m (1.45 ft<sup>2</sup>/ft) of surface area per lineal foot.
- Current density of 32 - 54 amp/m<sup>2</sup> (3 - 5 amps/ft<sup>2</sup>) is typical at 200 - 400 volts.
- Recommended electrolyte flow rate is 0.8 lpm/m<sup>2</sup> (2.0 gpm/10 ft<sup>2</sup>) per ME Cell at 3- 3.5 bar (45- 55 ft) of head.



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# TECTRON Large Diameter Membrane Electrode Cells



Electrode Surface Area by L1  
Meter<sup>2</sup> (FT<sup>2</sup>)

L1 mm (in)	910 (35.8)	1400 (55.1)	1900 (74.8)	2300 (90.6)	2900 (114.2)
3"	0.254 (2.74)	0.397 (4.21)	0.531 (5.71)	0.642 (6.91)	0.810 (8.72)
5"	0.404 (4.35)	0.621 (6.69)	0.843 (9.08)	1.021 (10.99)	1.287 (13.86)

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