**As per customer's request, special diameters and tank depths can be supplied**

### SLURRY MIXING TANKS

**HEAVY DUTY, BELT DRIVEN MODEL**

**SINCE THE CREATION OF SHELL-O-MATIC, WE HAVE BUILT NEARLY 1000 SLURRY TANKS SO WE KNOW THERE IS MUCH MORE TO IT THAN A SIMPLE ROTATING DRUM WITH A PADDLE.**

First, we pay attention to providing our customer with rugged and reliable driving mechanisms to ensure their tanks never stop. Second, we know that slurry material is expensive and probably the most important and sensitive component of the shell building system, so we provide you with all available options to measure, control and maintain the slurry quality.

This includes:

- Level sensing and control of the robot to maintain constant dipping depth
- Rotating speed adjustment
- Real-time viscosity sensing
- Temperature sensing and control through a water-cooled paddle
- Automatic cover that opens only when parts need to be dipped
- Vacuum slurry tanks if needed

To ensure ease of cleaning we can also provide a variety of plastic covers and liners, including one-piece plastic liners for the tank interior. Furthermore, all wetted parts of the tank are made of high-quality stainless steel.

We can also provide turntables that can hold many tanks and position the one needed for the robot area, thus allowing a smaller envelope robot to access a plurality of tanks. If you need to move the tank around, we can build it on an air cushion, making it easy for an operator to displace it.

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<tr>
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<th>D1</th>
<th>A</th>
<th>B</th>
<th>E</th>
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<th>SLURRY VOLUME</th>
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</table>
SLURRY MIXING TANKS
DIRECT DRIVEN MODEL

STANDARD FEATURES
- Removable, L-shaped paddle
- Variable Speed
- Slurry level sensing
- On/off switch
- Remote Start/Stop
- Automatic cover
- Overload protection
- Water Cooling
- Plastic liner
- Temperature Controls
- Full plastic tank
- Zero speed detection (alarm)

Options
- Variable speed
- Slurry level sensing
- Remote start/stop
- Automatic cover
- Water cooling
- Plastic liner
- Temperature controls
- Full plastic tank
- Zero speed detection (alarm)

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SLURRY MIXING TANKS
OPTIONS/VARIANTS

VERY LARGE TANK
88”-2235 mm dia.
Mobile unit with on-board drive

VACUUM SLURRY TANK

WATER COOLING MANUALLY CONTROLLED

WATER COOLING AUTOMATICALLY CONTROLLED
**SLURRY MIXING TANKS**

**OPTIONS/VARIANTS**

**VISCOMETER**

The AST-100IPRI Viscometer is inserted into the slurry and outputs continuous measurement of viscosity and temperature. The instrument enables automatic viscosity control and improved quality assurance over cup method.

**Benefits:**
- Correlates with lab viscometer and cup measurement
- Enables continuous logging of viscosity and temperature
- Alarms for “off-spec” slurry condition
- Improves stucco coverage and optimizes drying time
- Reduces cracking, excess metal, burn in and penetration
- Minimizes operator involvement

**Features:**
- 316SS construction with baffle plate for abrasion protection
- Easy cleanable design with no moving parts
- Internal RTD eliminates slurry build up
- Viscosity & temperature outputs as 4-20mA, RS-485 & RS-232
- Fully tested for future QC checks

**Options:**
- AST-310SY-420 controller for closed loop viscosity control
- Quick release bracket for inspection and cleaning
- Manual and wireless data logging options
- 115VAC, 230VAC or 24vdc power input options

**SLURRY PH SENSOR**

- RADEL with double O-ring front end – 3/4” back end MNPT
- -5 °C to 105 °C
- Immersible and submersible
- Double junction
- High capacity KYNAR reference
- Acid/fluoride resistant
- Ammonia, chlorine and sulphide gas resistant
- Proprietary toughened glass
- 6 m cable
- Plug & Play sensor has a quick connect fitting
  - Teflon silicon sealing option
  - For dealing with solvents add $ per sensor

**Viscometer**

![Viscometer Diagram]

**SLURRY MIXING TANKS**

**OPTIONS / VARIANTS**

- Water Cooling
- Automatically Controlled
- Very Large Tank
- 88”-2235mm dia.
- Mobile unit with on-board drive

- Stationary Premix Tank
  - With Propeller Mixer
  - Stationary Unit
  - Mobile Unit

- Water Cooling
- Manually Controlled
  - Water Cooling Control Module D-19057

- Mobile Slurry Tank
  - On Air Cushions
  - Automatic Slurry Level Sensing
  - Turntable, Powered
    - Size 1 - 90”
    - Size 2 - 100”

- Direct Driven Tank
  - For Manual Dipping
  - For Premixing
  - For Limited Space
AUTOMATIC SLURRY LEVEL SENSING

The robot follows the slurry level and maintains a constant shell dimension “A”.

When the minimum slurry level “Q” is reached, the robot will stop at the end of the cycle and give an alarm signal.

The operator then adds slurry to max level (using a pump, by gravity or manually).