

## DESCRIPTION OF ANODIZE/PHOSPHATE TANKS & ACCESSORIES

### Station # 1-Soak -140° F

(1) 18" DOT x 24" CDOT x 42" deep I.D. Soak tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized girth supports as required, and the following accessories:

- 316 SS, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination digital temperature controller, and liquid level control.
- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

### Station # 2-DI Rinse-Ambient

(1) 18" DOT x 24" CDOT x 42" deep I.D. Cold Water Rinse tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim and properly sized girth supports as required, 1" dia. overflow with drain, manual ball valve for fill, roto-meter for metered rinsing, and the following accessories:

- Air agitation sparger with flow adjustment.
- Two (2) V rack positioning saddles.

### Station # 3-Etch-140° F

(1) 18" DOT x 24" CDOT x 42" deep I.D. Caustic Etch tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized girth supports as required, and the following accessories:

- 316 SS, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination digital temperature controller, and liquid level control.
- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

### Station # 4 & # 5-Double Cold Water Rinse-Ambient-(Tap Water)

(1) 36" DOT x 24" CDOT x 42" deep I.D. Double Cold Water Rinse tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be divided into (2) separate 18" x 24 I.D. sections. The tank will be equipped with a 2" rim, properly sized steel encapsulated girth supports as required and equipped with center over/under weir. Includes 1" dia. overflow with drain, manual ball valve for fill, roto-meter for metered rinsing, and the following accessories:

- Air agitation sparger with flow adjustment.
- Two (2) V rack positioning saddles per station.

### Station # 6-Deoxidize Tank-Ambient

(1) 18" DOT x 24" CDOT x 42" deep I.D. Deoxidize tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized girth supports as required and the following accessories:

- Air agitation sparger with flow adjustment and two (2) V rack positioning saddles.

### **Station # 7 & # 8-Double Cold-Water Rinse-Ambient**

(1) 36" DOT x 24" CDOT x 42" deep I.D. Double Cold Water Rinse tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be divided into (2) separate 18" x 24 I.D. sections. The tank will hold tap water in Station # 7 and D.I. water in Station # 8. The tank will also be equipped with a 2" rim, properly sized steel encapsulated girth supports as required, and equipped with center over/under weir. Includes 1" dia. overflow with drain, manual ball valve for fill, rotometer for metered rinsing, and the following accessories:

- Air agitation sparger with flow adjustment.
- Two (2) V rack positioning saddles per station.

### **Station # 9-Type II Anodize-72° F**

(1) 24" DOT x 24" CDOT x 42" deep I.D. Sulfuric Anodize tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized steel encapsulated girth supports as required, and the following accessories:

- 316 SS external shell and tube heat exchanger.
- Properly size copper and aluminum bussing (+ /-).
- (2) V rack positioning saddles.
- Recirculation pump with internal eductor system.
- Air agitation sparger with flow adjustment.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.
- Type II Anodize Rectifier; One (1) Air-Cooled, 24 VDC, 300 Amp, DC rectifier complete with digital DC voltmeter, digital DC current meter, rectifier on/off disconnect, input circuit breaker, and over current protection. Includes properly sized copper bussing from the (+/-) connections located on the rectifier over to the sulfuric anodizing process tank.
- Type II Anodize; One (1) Air-Cooled, Portable Chiller **(for Sulfuric Anodize Process)** designed for 7.5 tons of cooling capacity, 62° F. set point, 72° F.

### **Station # 10-Type III Anodize**

(1) 24" DOT x 24" CDOT x 42" deep I.D. Hard coat anodize tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim and properly sized girth supports as required, and the following accessories:

- 316 SS external shell and tube heat exchanger.
- Properly size copper and aluminum bussing (+ /-).
- (2) V rack positioning saddles.
- Recirculation pump with internal eductor system.

- Air agitation sparger with flow adjustment.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.
- Type III Anodize Rectifier; One (1) Air-Cooled, 60 VDC, 600 Amp, DC rectifier complete with digital DC voltmeter, digital DC current meter, rectifier on/off disconnect, input circuit breaker, and over current protection. Includes properly sized copper bussing from the (+/-) connections located on the rectifier over to the sulfuric anodizing process tank.
- Type III Anodize; One (1) Air-Cooled, Portable Chiller *(for Sulfuric Anodize Process)* designed for 25 tons of cooling capacity, 22° F. set point, 32° F.

#### **Station # 11- Rinse-Ambient**

(1) 18" DOT x 24" CDOT x 42" deep I.D. Rinse tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim and properly sized girth supports as required, Includes 1" dia. overflow with drain, manual ball valve for fill, roto-meter for metered rinsing, and the following accessories:

- Air agitation sparger with flow adjustment.
- Two (2) V rack positioning saddles.

#### **Station # 12- Nitric Dip**

(1) 18" DOT x 24" CDOT x 42" deep I.D. Nitric Dip tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized girth supports as required and the following accessories:

- Air agitation sparger with flow adjustment.
- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

#### **Station # 13-Rinse-Ambient**

(1) 18" DOT x 24" CDOT x 42" deep I.D. Post Dip tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized girth supports as required. Includes 1" dia. overflow with drain, manual ball valve for fill, roto-meter for metered rinsing, and the following accessories:

- Air agitation sparger with flow adjustment.
- Two (2) V rack positioning saddles.

#### **Station # 14-Black Dye-140° F**

(1) 18" DOT x 24" CDOT x 42" deep I.D. Black Dye tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim, properly sized steel encapsulated girth supports as required, and the following accessories:

- Titanium, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination

digital temperature controller, and liquid level control.

- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

#### **Station # 15-Hot Rinse-200° F**

(1) 18" DOT x 24" CDOT x 42" deep I.D. Hot Water tank fabricated from 1/4" thick 316 stainless steel material. The tank will be supplied with insulation on all (4) sides of the tank and will be encased with an 18-20-gauge outer stainless-steel skin. The tank will be equipped with a 2" rim and the following accessories:

- 316 SS, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination

digital temperature controller, and liquid level control.

- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

### **SECTION VI PHOSPHATE TANKS AND ACCESSORIES**

#### **Station # 16-Soak -140° F**

(1) 36" DOT x 18" CDOT x 18" deep I.D. Soak tank fabricated from 1/4" thick 316 SS material. The tank will be equipped with a 2" rim, properly sized girth supports as required, and the following accessories:

- 316 SS, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination

digital temperature controller, and liquid level control.

- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

#### **Station # 17- Cold-Water Rinse-Ambient (DI Water)**

(1) 36" DOT x 18" CDOT x 18" deep I.D. Cold Water Rinse tank fabricated from 3/4" thick Natural Polypropylene material. The tank will also be equipped with a 2" rim, properly sized steel encapsulated girth supports as required, and equipped with center over/under weir. Includes 1" dia. overflow with drain, manual ball valve for fill, rotometer for metered rinsing, and the following accessories:

- Two (2) V rack positioning saddles per station.

#### **Station # 18-Grain Refiner -120° F**

(1) 36" DOT x 18" CDOT x 18" deep I.D. grain refiner tank fabricated from 1/4" thick 316 SS material. The tank will be equipped with a 2" rim, properly sized girth supports as required, and the following accessories:

- 316 SS, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination

digital temperature controller, and liquid level control.

- Air agitation sparger with flow adjustment.

- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

#### **Station # 19-Phosphate-180° F**

(1) 36" DOT x 18" CDOT x 18" deep I.D. Phosphate tank fabricated from 1/4" thick 316 SS material. The tank will be equipped with a 2" rim, properly sized girth supports as required, and the following accessories:

- Teflon, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination digital temperature controller, and liquid level control.
- Two (2) V rack positioning saddles.
- PVC BU-3 updraft exhaust hoods complete with properly sized slots, drip lips, and side shields.

#### **Station #20- Rinse-Ambient**

(1) 36" DOT x 18" CDOT x 18" deep I.D. Rinse tank fabricated from 3/4" thick Natural Polypropylene material. The tank will be equipped with a 2" rim and properly sized girth supports as required, Includes 1" dia. overflow with drain, manual ball valve for fill, roto-meter for metered rinsing, and the following accessories:

- Two (2) V rack positioning saddles.

#### **Station # 21- Oil-140° F**

(1) 36" DOT x 18" CDOT x 18" deep I.D. Oil tank fabricated from 1/4" thick 316 SS material. The tank will be equipped with a 2" rim and properly sized girth supports as required, Includes 1" dia. overflow with drain, manual ball valve for fill, roto-meter for metered rinsing, and the following accessories:

- 316 SS, 480-volt, 3 phase, P2 style Immersion heaters, complete with combination digital temperature controller, and liquid level control.
- Two (2) V rack positioning saddles.