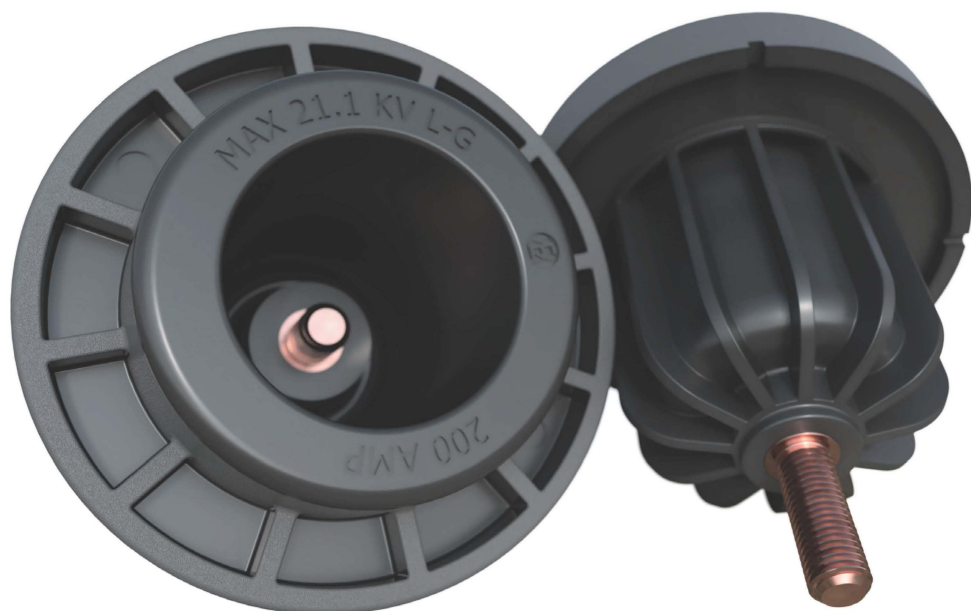


# High Voltage Bushing Well

## 35kV Class



ECI, ERMCO Components Inc.  
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The ERMCO Components, Inc. high voltage bushing well utilizing a highly rigid thermoplastic compound that meets or exceeds all industry and ECI requirements. The bushing well is designed for the termination of primary leads in oil filled devices such as padmount transformers. The bushing well mating interface conforms to the ANSI/IEEE Std. 386 for Separable Insulated Connectors and will accept switch modules (bushing well inserts) complying with the Standard.

### DESIGN FEATURES

- Insulated body is molded of a thermoplastic compound designed for excellent electrical and mechanical properties.
- The ground shield is oil resistant.
- The connecting stud is a copper alloy molded into the body to provide a high strength leak free bond.
- Gasket location and compression are controlled at the O.D. by the molded in gasket retaining ring.
- Dimensions comply with ANSI/IEEE 386 Standard Figure 3 for Separable Insulated Connectors.
- Uses tank mounting hole of Ø2.562".
- Recommended torque values: External clamp is 80 in-lbs, Internal connection is 80 in-lbs
- Nitrile gasket (9U09AAW278)
- The removable stud is a copper alloy.

*Use a 13/16" socket to replace stud, insert 7/16"-14 threaded end first and torque to 22 ft-lbs.*

*Order removable studs separately (9U09AAW270)*

For more information contact  
[Componentssupport@ermco-eci.com](mailto:Componentssupport@ermco-eci.com)  
or call (423)638-2302

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Table 1 Voltage Ratings and Characteristics

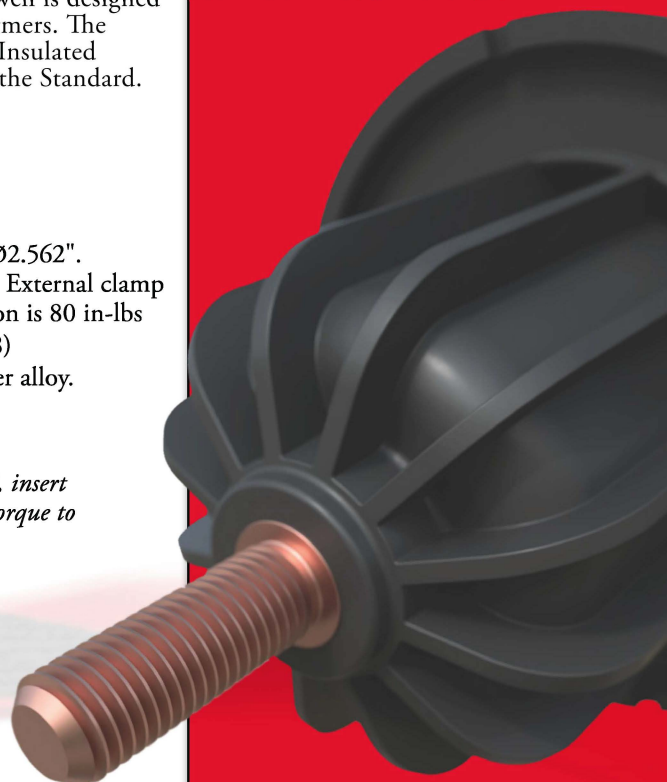
| Description                               | kV   |
|-------------------------------------------|------|
| Standard Voltage Class                    | 35   |
| Maximum Continuous Line to Ground Voltage | 21.1 |
| AC 60 Hz 1 Minute Withstand               | 50   |
| DC 15 Minute Withstand                    | 103  |
| BIL and Full Wave Crest                   | 150  |
| Minimum Corona Voltage Level              | 26   |

Voltage ratings and characteristics are in accordance with ANSI/IEEE Std. 386TM standard.

Table 2 Current Ratings and Characteristics

| Description        | Amperes                                                                              |
|--------------------|--------------------------------------------------------------------------------------|
| Continuous Current | 200 A rms                                                                            |
| Short Time         | 10,000 A rms symmetrical for 0.17 seconds<br>3,500 A rms symmetrical for 3.0 seconds |

Current ratings and characteristics are in accordance with ANSI/IEEE Std. 386TM standard.



## Ordering Information

### High Voltage Bushing Well Kits (Standard Stud Type)

| Catalog Number | Description                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------|
| 9U03TPS150     | • HV Bushing Well                                                                                          |
| 9U03TPS151     | • HV Bushing Well<br>• Nitrile Gasket                                                                      |
| 9U03TPS152     | • HV Bushing Well<br>• Nitrile Gasket<br>• Steel Clamp ( <i>Zinc Electroplating with Yellow Chromate</i> ) |
| 9U03TPS153     | • HV Bushing Well<br>• Nitrile Gasket •<br>Stainless Steel Clamp                                           |
| 9U03TPS154     | • HV Bushing Well • Steel Clamp ( <i>Zinc Electroplating with Yellow Chromate</i> )                        |
| 9U03TPS155     | • HV Bushing Well •<br>Stainless Steel Clamp                                                               |

### High Voltage Bushing Well Kits (Removable Stud Type)

| Catalog Number | Description                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------|
| 9U03TPR150     | • HV Bushing Well                                                                                          |
| 9U03TPR151     | • HV Bushing Well<br>• Nitrile Gasket                                                                      |
| 9U03TPR152     | • HV Bushing Well<br>• Nitrile Gasket<br>• Steel Clamp ( <i>Zinc Electroplating with Yellow Chromate</i> ) |
| 9U03TPR153     | • HV Bushing Well •<br>Nitrile Gasket •<br>Stainless Steel Clamp                                           |
| 9U03TPR154     | • HV Bushing Well • Steel Clamp ( <i>Zinc Electroplating with Yellow Chromate</i> )                        |
| 9U03TPR155     | • HV Bushing Well •<br>Stainless Steel Clamp                                                               |

### Hardware Kit

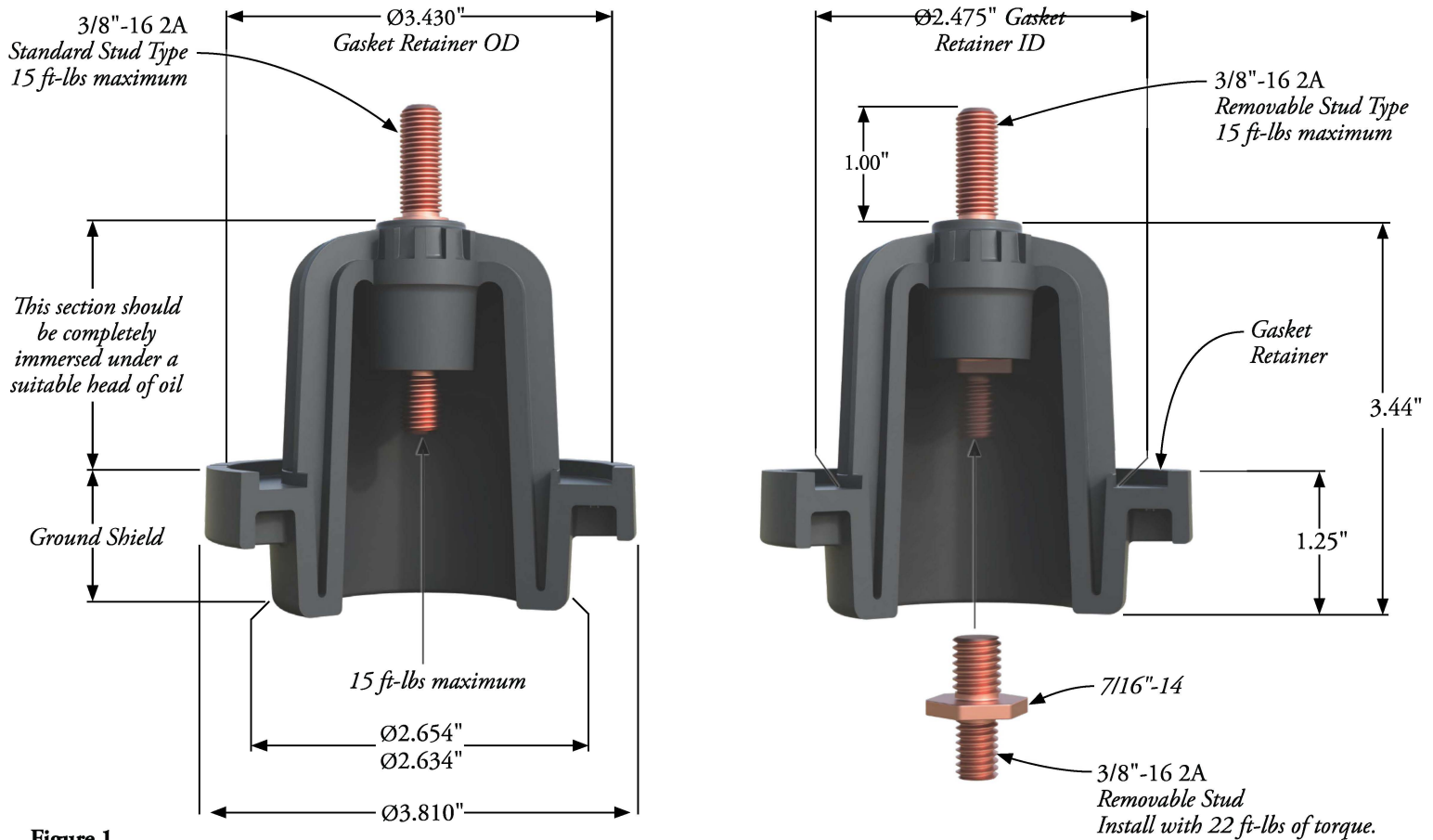
| Catalog Number | Description                                                                        |
|----------------|------------------------------------------------------------------------------------|
| 9U09AAW280     | • Steel Clamp ( <i>Zinc Electroplating with Yellow Chromate</i> ) • Nitrile Gasket |
| 9U09AAW281     | • Stainless Steel Clamp<br>• Nitrile Gasket                                        |

### Replacement Parts

| Catalog Number | Description                                                        |
|----------------|--------------------------------------------------------------------|
| 9U09AAW270     | Removable Stud                                                     |
| 9U09AAW272     | Steel Clamp<br>( <i>Zinc Electroplating with Yellow Chromate</i> ) |
| 9U09AAW273     | Stainless Steel Clamp                                              |
| 9U09AAW278     | Nitrile Gasket                                                     |
| 9U09PRT001     | Dust Cap for Standard Stud Type<br>Color: Red Dust Cap for         |
| 9U09PRT002     | Removable Stud Type Color: Purple                                  |



## Dimensions and Performance

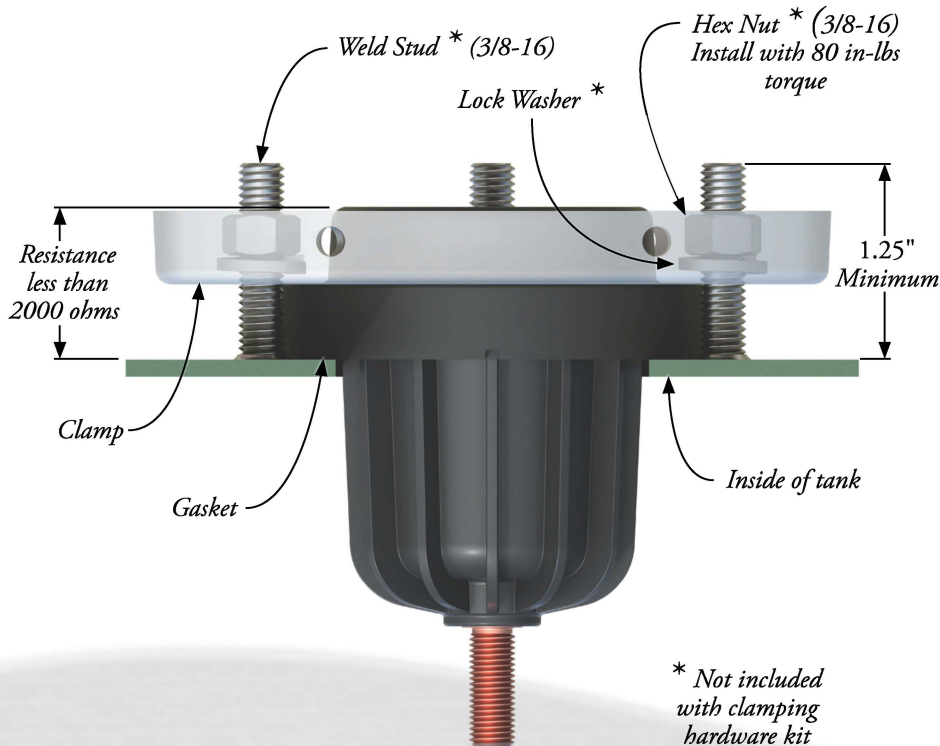


**Figure 1**

### High Voltage Bushing Well Dimensions

Removable and Standard Type

Note: Dimensions are given for reference only.



**Figure 2**

### External Clamping Hardware Arrangement

## MECHANICAL PERFORMANCE

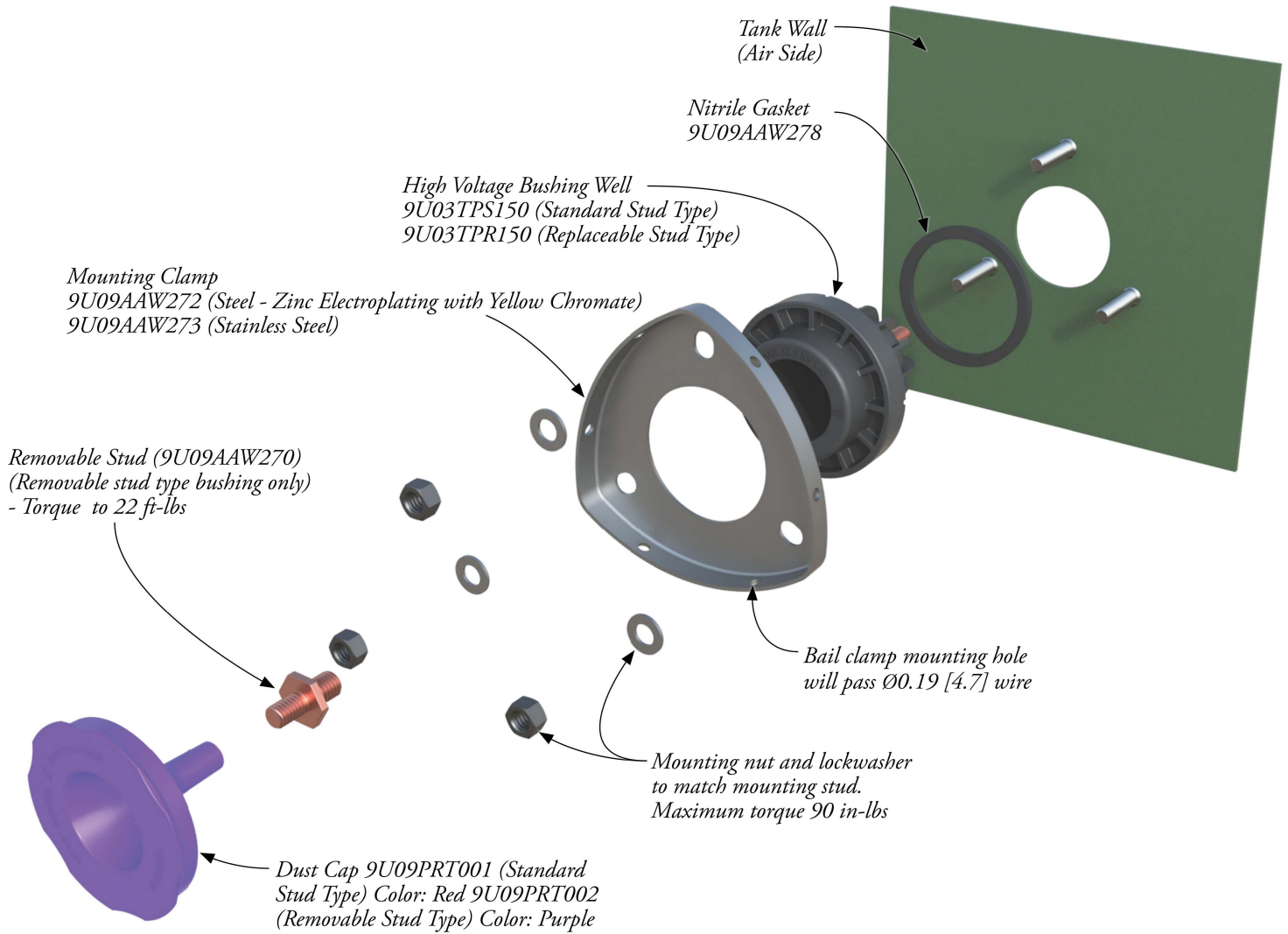
- The bushing well interface conforms to ANSI / IEEE Std 386 for separable insulated connections.
- Direct pushout force exceeds 1,500 lbf
- Breaking torque exceeds 25 ft-lbs on molded-in studs
- Seal integrity between the molding compound and the current carrying stud certified using Helium mass spectrometer at  $1.2 \times 10^{-6}$  atm cc/sec sensitivity.

## CHEMICAL PERFORMANCE

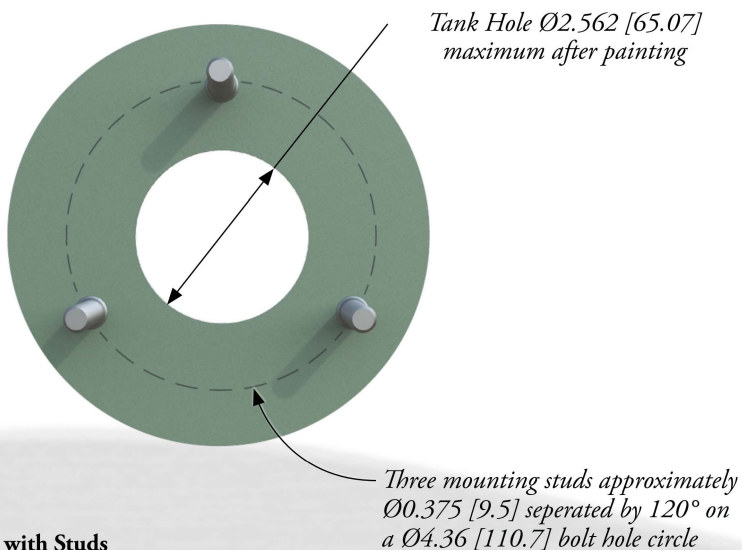
- Passes recognized 10°C transformer oil compatibility test.
- Passes recognized silicone fluid compatibility test.
- Material retains mechanical strength after 120 hrs exposure to insulating fluids at 140°C .

## THERMAL PERFORMANCE

- The ERMCO Components bushing well exhibited no cracking and passed electrical testing after thermal cycling between -40°C and 130°C (10 cycles, one cycle / day, six hours transition, six hours dwell).



**Figure 3**  
Mounting to Tank



**Figure 4**  
Tank Hole with Studs

Note: Dimensions are given for reference only.





# Made in USA

For more information contact  
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