

Montréal, 8 décembre 2020.

MADAME TANYA FRANCIS  
TECHNICAL STANDARDS & SAFETY AUTHORITY  
345 CARLINGVIEW DRIVE  
TORONTO ONTARIO  
CANADA M9W6N9

Fabricant : CONBRACO INDUSTRIES INC.  
P.O. BOX 247  
MATTHEWS NORTH CAROLINA  
U.S.A. 28105

Numéro de dossier : 950639

Numéro(s) de dessin(s) : R-1259 REV. 0 & SCOPE OF REGISTRATION (12 JUIN 20)

**Objet : Enregistrement des plans et devis – Confirmation de l'enregistrement**

Bonjour,

Nous vous informons que votre demande d'enregistrement de plans et devis a été traitée et que cette conception a été enregistrée sous le numéro d'enregistrement canadien (NEC\CRN) suivant : **0F06616.56.**

Nous portons votre attention sur certaines exigences réglementaires concernant les installations sous pression, ainsi que des codes et normes qui y sont associés :

- Le fabricant doit maintenir un programme de contrôle de la qualité valide pour fabriquer un équipement selon ce NEC;
- Ce numéro d'enregistrement demeure valide tant et aussi longtemps que les paramètres de conception demeurent inchangés. Dans le cas d'accessoires, l'enregistrement est valide pour une durée de 10 ans à partir de la date de conception doivent alors être resoumis pour validation;
- Le fabricant doit nous transmettre une copie de l' *Déclaration de conformité du constructeur (Manufacturer's Data Report)* pour chaque appareil ou chaudière fabriqué selon ce NEC dans les 30 jours suivant la signature de cette déclaration;
- Le numéro de dessin enregistré et le numéro de révision doivent être indiqués sur la déclaration de conformité pour les équipements fabriqués selon ce NEC.

Le présent avis d'approbation ne dégage pas le fabricant de ses responsabilités quant à la conception ou à la construction des équipements ou d'accessoires fabriqués selon un NEC.

Bureau d'expertise et d'homologation en équipements sous pression

**Montréal**

545, boul. Crémazie Est, 7<sup>ième</sup> étage

Montréal (Québec) H2M 2V2

Téléphone : 514 873-6459

Sans frais : 1 866 262-2084

[www.rbq.gouv.qc.ca](http://www.rbq.gouv.qc.ca)

Montréal, le 8 décembre 2020.

MRS. TANYA FRANCIS  
TECHNICAL STANDARDS & SAFETY AUTHORITY  
345 CARLINGVIEW DRIVE  
TORONTO ONTARIO  
CANADA M9W6N9

Manufacturer : CONBRACO INDUSTRIES INC.  
P.O. BOX 247  
MATTHEWS NORTH CAROLINA  
U.S.A. 28105

OUR REFERENCE : 950639  
Design number : R-1259 REV. 0 & SCOPE OF REGISTRATION (12 JUIN 20)

**Subject: Design registration confirmation**

Hi,

We wish to inform you that your design registration application has been evaluated and that it was registered under the following Canadian Registration Number (CRN): **0F06616.56**.

The following is a reminder of your obligations regarding certain requirements of the regulation respecting pressure vessels, and the referenced codes and standards:

- The manufacturer must maintain a valid quality control program to manufacture equipment according to the CRN.
- The CRN remains valid as long as there are no changes to the design calculations that might affect the pressure boundary. The design registration of fittings expires 10 years after acceptance. It must, therefore, be resubmitted for validation.
- The manufacturer shall submit a copy of the *Manufacturer's Data Report* to us for each equipment manufactured according to this CRN within 30 days following the signing of this report.
- The drawing number and the revision number registered under this CRN must be indicated on the *Manufacturer's Data Report* for equipment manufactured according to the CRN.

This notice of approval does not relieve the manufacturer of their responsibilities with respect to the design or fabrication of equipment manufactured according to this CRN.

Yours sincerely,

Bureau d'expertise et d'homologation en équipements sous pression

**Montréal**

545, boul. Crémazie Est, 7ième étage  
Montréal (Québec) H2M 2V2  
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## Statutory Declaration Registration of Fittings

**(a) Design Qualification**

<sup>1</sup> DAVID EDMONDS  
 SENIOR PROJECT ENGINEER



*(Position eg, president, plant manager, chief eng.)*

of CONBRACO INDUSTRIES, INC.  
*(name of company)*

Located at 1418 S. PEARL STREET, PAGELAND, SC, 29728  
*(plant address)*

do solemnly declare that the fittings listed hereunder, which are subject to the Boilers & Pressure Vessels Act:

- comply with all the requirements of the ANSI/ASME codes as to their dimensions, material, identification & service for which are required:
- Or
- are not covered by the provisions of the ANSI/ASME codes, and are therefore constructed to comply with \_\_\_\_\_ code and standard, and are designed to the best current engineering practice, as shown by the supporting test data.

**(b) Quality control of Manufacture**

I further declare the manufacture of these fittings is controlled by a quality control program which complies with the requirements of ISO 9001:2015 \_\_\_\_\_, and has been verified by the following authority or authorized agency NSAI

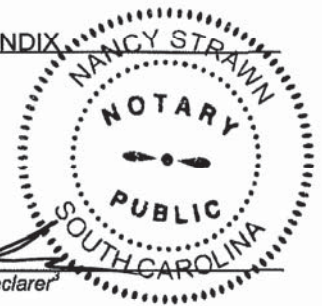
The fittings<sup>2</sup> covered by this declaration, for which I seek registration, are CATEGORY F

In support of the application, the following information, calculations and/or test data are attached:  
SCOPE OF CRN. DRAWINGS. CALCULATIONS. REPORTS. WORLDWIDE LOCATIONS APPENDIX

Declared before me at Pageland, SC  
 In the of state of South Carolina  
 The 18<sup>th</sup> day of June AD 2020

Nancy Strawn  
*A (commissioner for oaths)*

P. Edmonds  
*Signature of Declarer*



**For Official Use Only**

The application is accepted for registration in Category \_\_\_\_\_ in accordance with the Boilers and Pressure Vessels Act and CSA Standard B51.

This registration must be revalidated after ten (10) years from the date of acceptance.

Registered Number CRN \_\_\_\_\_

For the Chief Inspector \_\_\_\_\_  
 Date \_\_\_\_\_



<sup>1</sup> Three completed copied of Statutory Declaration form together with three copies of Catalogs, drawings of Bulletins illustrating above fittings shall be submitted.  
<sup>2</sup> All fittings are required to be registered in the name of the Manufacturer.  
<sup>3</sup> This form shall be completed and signed by the president of highest official in the manufacturing plan where the fitting is produced.



**SCOPE OF CRN REGISTRATION**

| Series Number | Size NPT | Standard Glass (Note 2) | Standard Stem Packing | Standard Glass Packing | Body Material                 | Body Rating (Note 1,2,3) |                   |
|---------------|----------|-------------------------|-----------------------|------------------------|-------------------------------|--------------------------|-------------------|
|               |          |                         |                       |                        |                               | MAWP at 100°F            | MAWP at MAWT      |
| 20-101        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 300 psig                 | 125 psig at 350°F |
| 20-102        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 300 psig                 | 125 psig at 350°F |
| 20-104        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 300 psig                 | 125 psig at 350°F |
| 20LF-104      | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | LF Brass ASTM B584 UNS C89836 | 300 psig                 | Max Temp = 100°F  |
| 20-105        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 300 psig                 | 125 psig at 350°F |
| 20LF-105      | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | LF Brass ASTM B584 UNS C89836 | 300 psig                 | Max Temp = 100°F  |
| 20-150        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 300 psig                 | 125 psig at 350°F |
| 20-151        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 300 psig                 | 125 psig at 350°F |
| 20-201        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-202        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-204        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-205        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-207        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-208        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-250        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-251        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-253        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-254        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-304        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-305        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-307        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-308        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-350        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |
| 20-351        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400    | 400 psig                 | 200 psig at 400°F |



**SCOPE OF CRN REGISTRATION**

| Series Number | Size NPT | Standard Glass (Note 2) | Standard Stem Packing | Standard Glass Packing | Body Material              | Body Rating (Note 1,2,3) |                   |
|---------------|----------|-------------------------|-----------------------|------------------------|----------------------------|--------------------------|-------------------|
|               |          |                         |                       |                        |                            | MAWP at 100°F            | MAWP at MAWT      |
| 20-353        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 20-354        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 20-410        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 20-601        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 20-602        | 3/4      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 20-604        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 20-605        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 20-703        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 20-704        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 20-713        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 20-714        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 20-804        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 20-805        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 21-104        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 21-105        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 21-150        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 21-151        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 300 psig                 | 125 psig at 350°F |
| 21-204        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 21-205        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 21-250        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 21-251        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 23-401        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-402        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-404        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-405        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |



**SCOPE OF CRN REGISTRATION**

| Series Number | Size NPT | Standard Glass (Note 2) | Standard Stem Packing | Standard Glass Packing | Body Material              | Body Rating (Note 1,2,3) |                   |
|---------------|----------|-------------------------|-----------------------|------------------------|----------------------------|--------------------------|-------------------|
|               |          |                         |                       |                        |                            | MAWP at 100°F            | MAWP at MAWT      |
| 23-450        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-451        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-453        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-454        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Stainless ASTM A351-CF8M   | 500 psig                 | 500 psig at 450°F |
| 23-651        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/GP                 | Stainless ASTM A351-CF8M   | 250 psig                 | 250 psig at 406°F |
| 23-654        | 3/4      | 5/8-HPG                 | TFE/HYP.SP            | TFE/GP                 | Stainless ASTM A351-CF8M   | 250 psig                 | 250 psig at 406°F |
| 24-301        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-302        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-304        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-305        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE.GP                 | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-350        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE.GP                 | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-351        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-353        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE.GP                 | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-354        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE.GP                 | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-601        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-602        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-651        | 1/2      | 5/8-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 24-652        | 3/4      | 3/4-HPG                 | TFE/HYP.SP            | TFE/HYP.GP             | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 25-201        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 25-202        | 3/8      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 25-204        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 25-205        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 25-207        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 25-208        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 400 psig                 | 200 psig at 400°F |
| 25-404        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 300 psig                 | 125 psig at 350°F |



**SCOPE OF CRN REGISTRATION**

| Series Number | Size NPT | Standard Glass (Note 2) | Standard Stem Packing | Standard Glass Packing | Body Material              | Body Rating (Note 1,2,3) |                   |
|---------------|----------|-------------------------|-----------------------|------------------------|----------------------------|--------------------------|-------------------|
|               |          |                         |                       |                        |                            | MAWP at 100°F            | MAWP at MAWT      |
| 25-405        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 300 psig                 | 125 psig at 350°F |
| 25-407        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 300 psig                 | 125 psig at 350°F |
| 25-408        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 300 psig                 | 125 psig at 350°F |
| 25-501        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 400 psig                 | 200 psig at 400°F |
| 25-502        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 400 psig                 | 200 psig at 400°F |
| 25-504        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 400 psig                 | 200 psig at 400°F |
| 25-505        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B16 UNS C36000  | 400 psig                 | 200 psig at 400°F |
| 25-601        | 1/2      | 5/8-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |
| 25-602        | 3/4      | 3/4-Standard            | TFE/HYP.SP            | EPDM.GP                | Brass ASTM B584 UNS C84400 | 500 psig                 | 250 psig at 400°F |

**NOTES**

**Note 1:** MAWP = Maximum Allowable Working Pressure, MAWT = Maximum Allowable Working Temperature.

**Note 2:** The pressure-temperature ratings shown are the maximum CRN pressure-temperature ratings.

In all cases the MAWP may be limited by the pressure-temperature ratings of the tubular gauge glass.

See attached tubular gauge glass pressure ratings.

**Note 3:** For low temperature operation the products shall conform to the rules of the applicable codes under which they are used.

**Note 4:** For Oil related service Viton glass gasket sets are available for each series.

**Note 5:** The following options are available:

- HPG High Pressure Glass
- RLG Red Line Glass
- HYP.GP Hypalon Glass Packing
- VIT.GP Viton Glass Packing
- TFEGP Teflon Glass Packing
- TFE/HYP.SP Teflon with Hypalon Stem Packing
- GGP Graphite Glass Packing
- GSP Graphite Stem Packing

**Note 6:** Minimum Design Metal Temperature (MDMT) = -20°F

**Note 7:** Corrosion Allowance = 0

**Note 8:** See attached list of manufacturing locations applicable to this CRN.

**CONBRACO INDUSTRIES, INC.**

1418 S. PEARL STREET  
 PAGELAND, SC  
 29728, USA



12-Jun-20

PAGE 1 OF 1

**TUBULAR GAUGE GLASS PRESSURE-TEMPERATURE RATINGS**

**In all cases the pressure-temperature ratings of the liquid level gauges are limited by the pressure-temperature ratings of the tubular gauge glass.**

| MAXIMUM RECOMMENDED WORKING PRESSURE (PSI) |         |           |      |       |        |                                 |                                  |
|--|---------|-----------|------|-------|--------|---------------------------------|----------------------------------|
| TYPE                                       | OD SIZE | TOL.      | WALL | TOL.  | LENGTH | TEMP. TO 150°F,<br>NO CORROSION | STEAM BOILER<br>SERVICE TO 450°F |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 8      | 210                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 10     | 210                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 12     | 205                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 14     | 200                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 16     | 195                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 18     | 190                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 24     | 180                             | 100                              |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 30     | 175                             | **                               |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 36     | 165                             | **                               |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 48     | 140                             | **                               |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 60     | 120                             | **                               |
| Standard                                   | 5/8     | +0, -3/64 | 5/64 | +1/64 | 72     | 100                             | **                               |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 8      | 210                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 10     | 210                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 12     | 205                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 14     | 200                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 16     | 195                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 18     | 190                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 24     | 180                             | 100                              |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 30     | 175                             | **                               |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 36     | 165                             | **                               |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 48     | 140                             | **                               |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 60     | 120                             | **                               |
| Standard                                   | 3/4     | +0, -3/64 | 3/32 | +1/64 | 72     | 100                             | **                               |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 8      | 435                             | 320                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 10     | 420                             | 315                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 12     | 410                             | 305                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 14     | 390                             | 295                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 16     | 375                             | 285                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 18     | 360                             | 280                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 20     | 350                             | 270                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 24     | 320                             | 255                              |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 30     | 280                             | **                               |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 36     | 245                             | **                               |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 48     | 195                             | **                               |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 60     | 150                             | **                               |
| High Pressure                              | 5/8     | +0, -1/32 | 3/32 | +1/64 | 72     | 100                             | **                               |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 8      | 425                             | 315                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 10     | 410                             | 310                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 12     | 400                             | 300                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 14     | 385                             | 290                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 16     | 370                             | 280                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 18     | 355                             | 275                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 20     | 345                             | 265                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 24     | 315                             | 250                              |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 30     | 275                             | **                               |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 36     | 240                             | **                               |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 48     | 190                             | **                               |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 60     | 145                             | **                               |
| High Pressure                              | 3/4     | +0, -1/32 | 3/32 | +1/64 | 72     | 100                             | **                               |
| Redline                                    | 5/8     | +0, -1/32 | 3/32 | +1/64 | 8      | 370                             | 285                              |
| Redline                                    | 5/8     | +0, -1/32 | 3/32 | +1/64 | 10     | 345                             | 280                              |
| Redline                                    | 5/8     | +0, -1/32 | 3/32 | +1/64 | 12     | 335                             | 280                              |
| Redline                                    | 5/8     | +0, -1/32 | 3/32 | +1/64 | 14     | 325                             | 275                              |
| Redline                                    | 5/8     | +0, -1/32 | 3/32 | +1/64 | 16     | 315                             | 270                              |
| Redline                                    | 5/8     | +0, -1/32 | 3/32 | +1/64 | 18     | 305                             | 265                              |



|         |     |           |      |       |    |     |     |
|---------|-----|-----------|------|-------|----|-----|-----|
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 20 | 290 | 265 |
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 24 | 265 | 255 |
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 30 | 235 | **  |
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 36 | 205 | **  |
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 48 | 165 | **  |
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 60 | 125 | **  |
| Redline | 5/8 | +0, -1/32 | 3/32 | +1/64 | 72 | 90  | **  |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 8  | 360 | 280 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 10 | 340 | 275 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 12 | 330 | 275 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 14 | 320 | 270 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 16 | 310 | 265 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 18 | 300 | 260 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 20 | 285 | 260 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 24 | 260 | 250 |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 30 | 230 | **  |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 36 | 200 | **  |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 48 | 160 | **  |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 60 | 125 | **  |
| Redline | 3/4 | +0, -1/32 | 3/32 | +1/64 | 72 | 90  | **  |

\*\* Maximum recommended length in this service is 24".



**WORLDWIDE LOCATIONS APPENDIX – PAGE 1 OF 1**

**CONBRACO INDUSTRIES, INC. LOCATIONS  
& CERTIFYING AUTHORITIES**

(rev. May 9, 2020)

**Conbraco Industries, Inc.**

1418 S. Pearl Street  
Pageland, SC 29728  
USA

**ISO 9001 Certified by NSAI**

**Conbraco Industries, Inc.**

1509 South Van Lingle  
Mungo Blvd  
Pageland, SC 29728

**ISO 9001 Certified by NSAI**

**Conbraco Industries, Inc.**

701 Matthews Mint Hill Road  
Matthews, NC 28105

**ISO 9001 Certified by NSAI**

**Conbraco Industries, Inc.**

125 Highway 501 East  
Conway, SC 29526

**ISO 9001 Certified by NSAI**

