# Step Down Flanged Well Assemblies

**To order:** To specify a complete assembly, indicate the code letter or value for each requirement. To order a well only, fill in only the boxes in brackets. Add a nipple or nipple-union-nipple to a well by including the extension code and “A” length in addition to the well codes.

<table>
<thead>
<tr>
<th>Head Type</th>
<th>Extension</th>
<th>A Length</th>
<th>Well Type</th>
<th>U Length</th>
<th>Wall Material</th>
<th>T Length</th>
<th>Sensor Type</th>
<th>Flange Size</th>
<th>Rating</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nipple Galvanized</td>
<td>FTP</td>
<td>Flip Top Poly (white)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nipple/Union/Nipple Galvanized</td>
<td>EPA</td>
<td>Explosion Proof Aluminum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nipple Stainless Steel</td>
<td>EPAA</td>
<td>Explosion Proof Aluminum ATEX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nipple/Union/Nipple Stainless Steel</td>
<td>EPS</td>
<td>Explosion Proof Stainless Steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hex Nipple/Union/Nipple Stainless Steel</td>
<td>EHA</td>
<td>Explosion Proof Aluminum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure Seal in Union Galvanized</td>
<td>EHI</td>
<td>Explosion Proof Iron</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HEAD TYPE**
- 0: No Head
- CA: Cast Aluminum
- CI: Cast Iron
- CSS: Cast Stainless Steel
- PPS: Polypropylene Sanitary
- FTA: Flip Top Aluminum

**EXTENSION**
- N: Nipple Galvanized
- NUN: Nipple/Union/Nipple Galvanized
- NS: Nipple Stainless Steel
- NUNS: Nipple/Union/Nipple Stainless Steel
- HUNS: Hex Nipple/Union/Nipple Stainless Steel
- PNUN: Pressure Seal in Union Galvanized
- PNUUNS: Pressure Seal in Union Stainless Steel

See page A-7 for additional information.

**THERMOWELL - TYPE FR**

<table>
<thead>
<tr>
<th>Flange Size</th>
<th>Flange Rating</th>
<th>Flange Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>150</td>
<td>RF Raised Face</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>200</td>
<td>FF Flat Face</td>
</tr>
<tr>
<td>2&quot;</td>
<td>300</td>
<td>RTJ Ring Type Joint</td>
</tr>
<tr>
<td>3&quot;</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>4&quot;</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>900</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1500</td>
<td></td>
</tr>
</tbody>
</table>

**Well Materials – For other materials, see page B-6.**

A: Alloy 600  M: Monel® 400
AA: Alloy 20  N: Nickel
B: Hastelloy® B  P: 304SS
C: Hastelloy® C  Q: 310SS
D: 321SS  R: 316SS
F: 347SS  S: Carbon Steel
H: 446SS  T: Teflon®
I: Alloy 800  V: Alloy 825
LP: Low Carbon 304SS  W: Alloy 601
LR: Low Carbon 316SS  Y: Brass

**Flange Size**

- 1": 150
- 1 1/2": 200
- 2": 300
- 3": 400
- 4": 600
- 5": 900
- 6": 1500

**Flange Type**
- RF: Raised Face
- FF: Flat Face
- RTJ: Ring Type Joint

**Thermowell Options**

- FP: Full Penetration Weld
- HTE: Hydrostatic Pressure Test External
- HTT: Hydrostatic Pressure Test Internal
- NC: NACE Certification for Well
- OC: Oxygen Cleaned
- ST: Stellite® Coating
- TF: Teflon® Coating
- TC: Tungsten Carbide
- VC: Velocity Calculations
- RB: .130 Bore
- WB: .385 Bore
- BC: Brass Plug and Chain
- SC: SS Plug and Chain

**SENSOR CALIBRATION**

- J: Iron Constantan®
- K: Chrome® Alumel®
- T: Copper Constantan®
- E: Chrome® Constantan®
- N: Nicrosil® Nisil®
- PO: Low Temp RTD to 500° F
- PH: High Temp RTD to 900° F
- PM: Heavy Duty RTD to 900° F

Standard RTD is a three-wire 100 ohm Platinum / .00385 Alpha. For higher temperature ranges - consult factory. For special limits on thermocouples, repeat calibration code, i.e. JJ.

**Sensor OD**

- 1/8"
- 3/16"
- 1/4"
- 5/16"
- 3/8"

**Sensor Sheath Materials**

- P: 304SS
- Q: 310SS
- S: Carbon Steel
- T: Teflon®
- V: Alloy 825
- W: Chrome®
- Y: Brass

* Epoxy Seal - Max. Temp. 300°F

**Flange Options**

- RF: Raised Face
- FF: Flat Face
- RTJ: Ring Type Joint

**Sensor Sheath Materials**

- P: 304SS
- Q: 310SS
- S: Carbon Steel
- T: Teflon®
- V: Alloy 825
- W: Chrome®
- Y: Brass

* Epoxy Seal - Max. Temp. 300°F

**Options**

<table>
<thead>
<tr>
<th>Sensor Options</th>
<th>Thermowell Options</th>
<th>Transmitter/Indicator Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA: Class A</td>
<td>FP: Full Penetration Weld</td>
<td>LCP: Programmable, RTD, FM</td>
</tr>
<tr>
<td>PW: Four Wire RTD</td>
<td>HTE: Hydrostatic Pressure Test External</td>
<td>PT: Programmable FM</td>
</tr>
<tr>
<td>HV: High-Vibration RTD (PM only)</td>
<td>HTI: Hydrostatic Pressure Test Internal</td>
<td>HC: Hart® Compatible</td>
</tr>
<tr>
<td>CR: Cryogenic RTD (PM only)</td>
<td>NC: NACE Certification for Well</td>
<td>Provide Range and Temp F/C</td>
</tr>
<tr>
<td>CT: Compensated Terminals (EHA/EHI head only)</td>
<td>OC: Oxygen Cleaned</td>
<td>See pages A-33 – A34 for additional transmitter information.</td>
</tr>
<tr>
<td>ST: Stellite® Coating</td>
<td>TF: Teflon® Coating</td>
<td>LPI: Loop Temperature Indicator</td>
</tr>
<tr>
<td>TF: Teflon® Coating</td>
<td>TC: Tungsten Carbide</td>
<td>See pages A-33 – A34 for transmitter and other options.</td>
</tr>
</tbody>
</table>

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