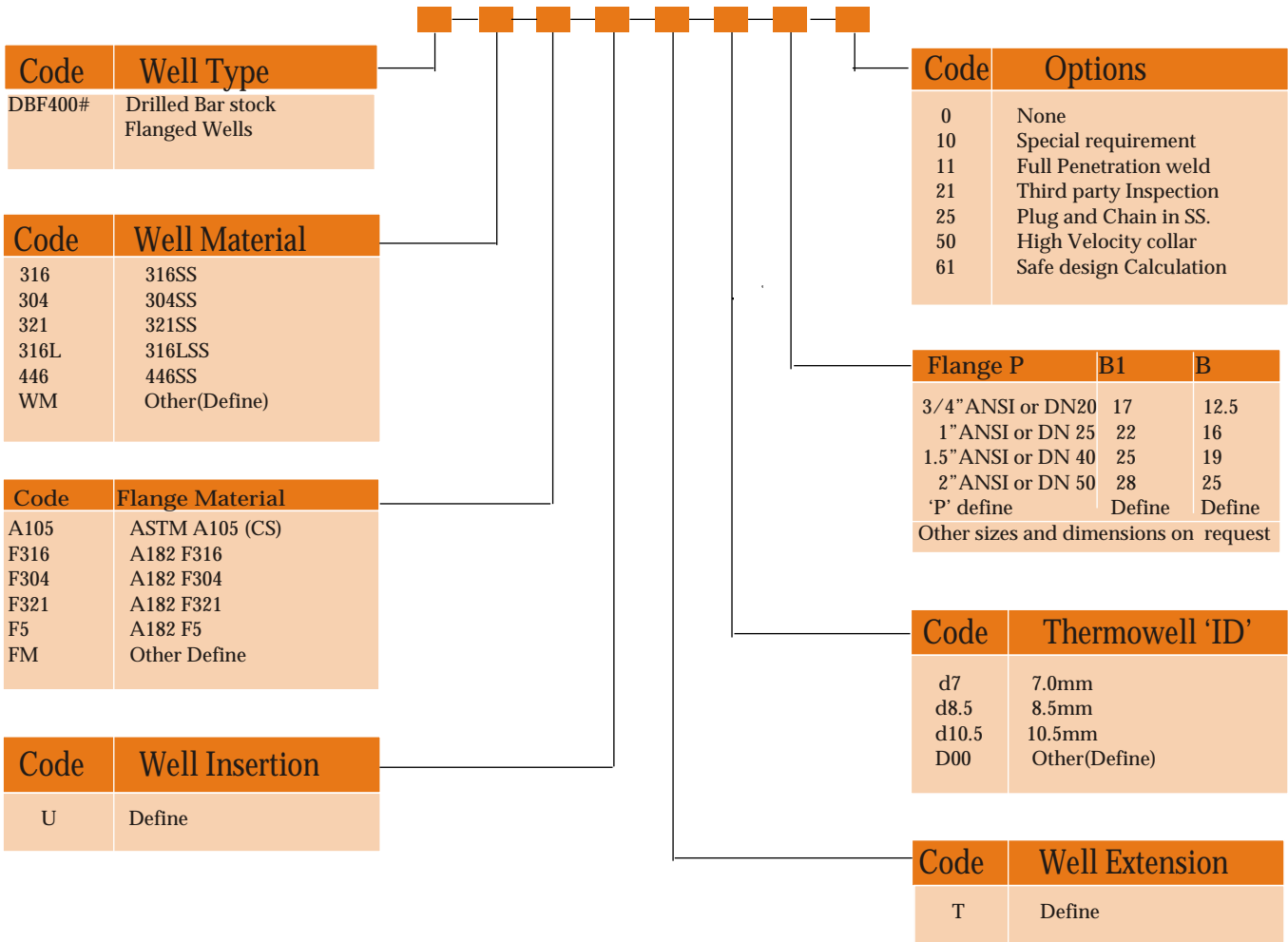
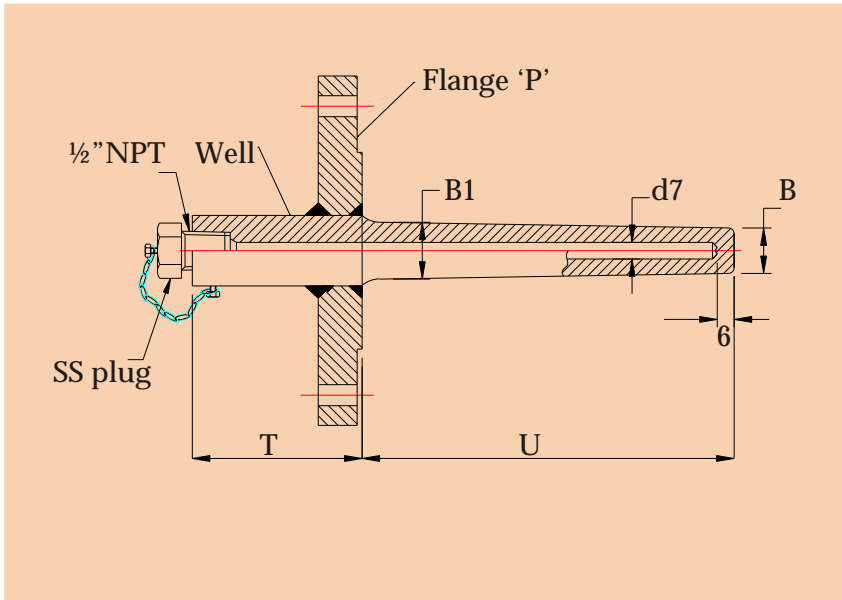


**TW 400 Series
Thermowells**

- Made from Drilled Bar stock
- A Flanged tapered Thermowell.
- Safe Design as per ASME PTC19.3
- Various materials to choose from.

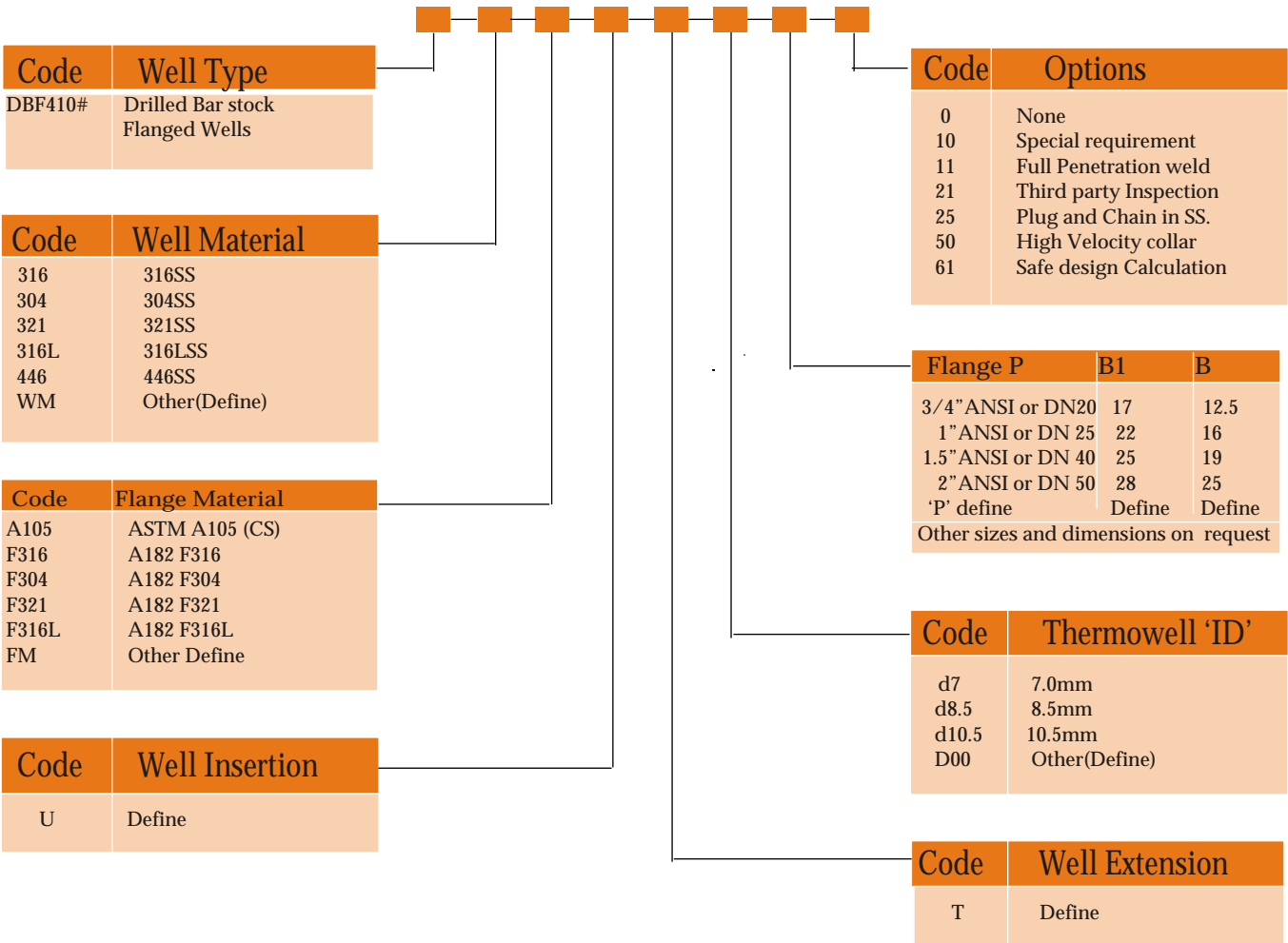
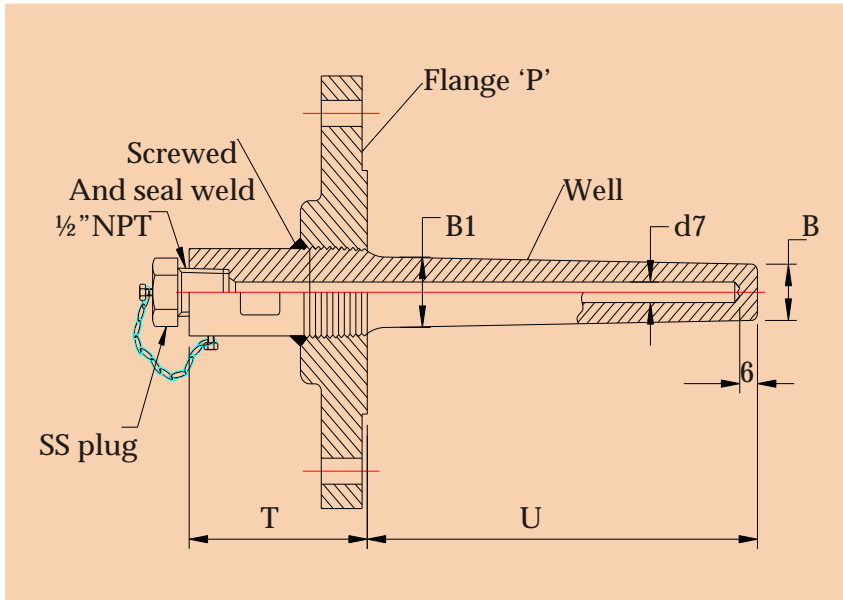


ORDERING EXAMPLE

TW 400 SERIES DBF400#-316-F316-U-T-d7-1.5" 150#RF(B1=25,B=19)-Op25

**TW 410 Series
Thermowells**

- Made from Drilled Bar stock
- A Flanged tapered Thermowell as Per ENI0165.00 .
- Safe Design as per ASME PTC19.3
- Various materials to choose from.

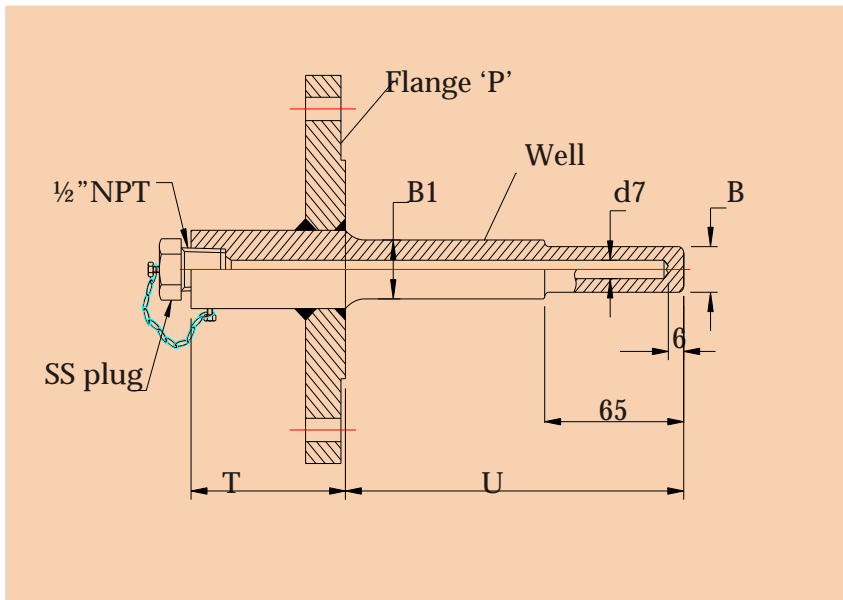


ORDERING EXAMPLE

TW 410 SERIES DBF410#-316-F316-U-T-d7-1.5"150#RF(B1=25,B=19)-Op25

TW 420 Series
Thermowells

- Made from Drilled Bar stock
- A stepped shank for faster response.
- Safe Design as per ASME PTC19.3
- Various materials to choose from.



| Code | Well Type |
|---------|------------------------------------|
| DBF420# | Drilled Bar stock Flanged Wells |

| Code | Well Material |
|------|---------------|
| 316 | 316SS |
| 304 | 304SS |
| 321 | 321SS |
| 316L | 316LSS |
| 446 | 446SS |
| WM | Other(Define) |

| Code | Flange Material |
|-------|-----------------|
| A105 | ASTM A105 (CS) |
| F316 | A182 F316 |
| F304 | A182 F304 |
| F321 | A182 F321 |
| F316L | A182 F316L |
| FM | Other Define |

| Code | Well Insertion |
|------|----------------|
| U | Define |

| Code | Options |
|------|-------------------------|
| 0 | None |
| 10 | Special requirement |
| 11 | Full Penetration weld |
| 21 | Third party Inspection |
| 25 | Plug and Chain in SS. |
| 50 | High Velocity collar |
| 61 | Safe design Calculation |

| Flange P | B1 | B |
|--------------------|--------|--------|
| 3/4" ANSI or DN20 | 17 | 12.5 |
| 1" ANSI or DN 25 | 22 | 16 |
| 1.5" ANSI or DN 40 | 25 | 19 |
| 2" ANSI or DN 50 | 28 | 25 |
| 'P' define | Define | Define |

Other sizes and dimensions on request

| Code | Thermowell 'ID' |
|-------|-----------------|
| d7 | 7.0mm |
| d8.5 | 8.5mm |
| d10.5 | 10.5mm |
| D00 | Other(Define) |

| Code | Well Extension |
|------|----------------|
| T | Define |

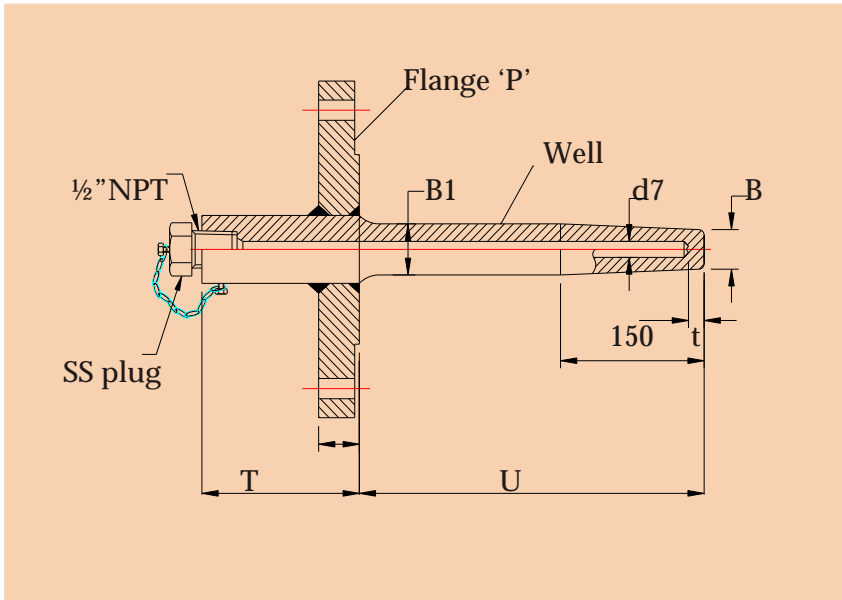
ORDERING EXAMPLE

TW 420 SERIES DBF420#-316-F316-U-T-d7-1.5" 150#RF(B1=25,B=19)-Op25

TW 430 Series

Thermowells

- Made from Drilled Bar stock
- A Flanged Straight & tapered shank Thermowell.
- Safe Design as per ASME PTC19.3
- Various materials to choose from.



| Code | Well Type | Code | Options |
|---------|------------------------------------|------|-------------------------|
| DBF430# | Drilled Bar stock Flanged Wells | 0 | None |
| | | 10 | Special requirement |
| | | 11 | Full Penetration weld |
| | | 21 | Third party Inspection |
| | | 25 | Plug and Chain in SS. |
| | | 50 | High Velocity collar |
| | | 61 | Safe design Calculation |

| Code | Well Material |
|------|---------------|
| 316 | 316SS |
| 304 | 304SS |
| 321 | 321SS |
| 316L | 316LSS |
| 446 | 446SS |
| WM | Other(Define) |

| Code | Flange Material |
|-------|-----------------|
| A105 | ASTM A105 (CS) |
| F316 | A182 F316 |
| F304 | A182 F304 |
| F321 | A182 F321 |
| F316L | A182 F316L |
| FM | Other Define |

| Code | Well Insertion |
|------|----------------|
| U | Define |

| Code | Thermowell 'ID' |
|-------|-----------------|
| d7 | 7.0mm |
| d8.5 | 8.5mm |
| d10.5 | 10.5mm |
| D00 | Other(Define) |

| Code | Well Extension |
|------|----------------|
| T | Define |

| Flange P | Rating | B1 | B | t |
|--------------|--------|----|----|---|
| 1.5", 2", 3" | ≤ 600# | 22 | 16 | 4 |
| 1.5", 2", 3" | ≥ 900# | 25 | 18 | 4 |

Define Flange rating and facing

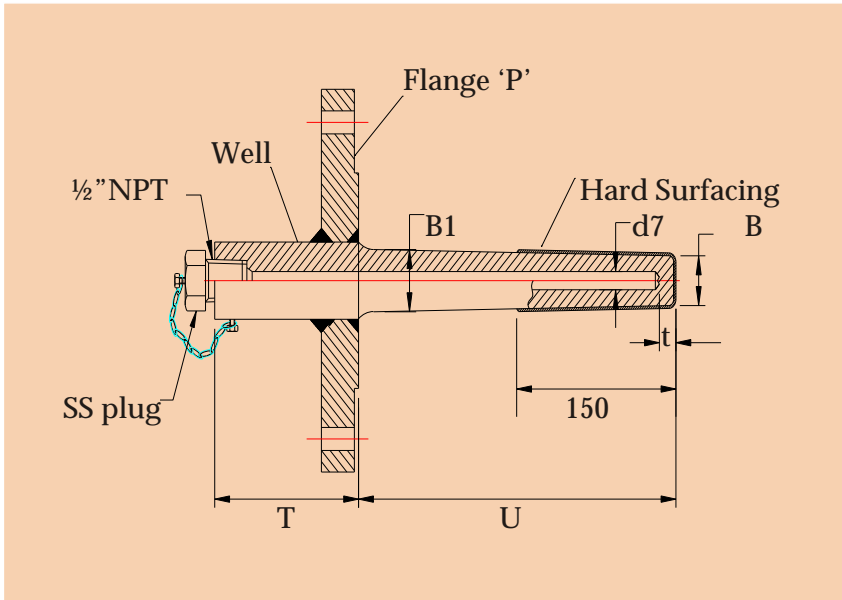
ORDERING EXAMPLE

TW 430 SERIES DBF430#-316-F316-U-T-d7-1.5" 150#RF(B1=25,B=19)-Op25

TW 401 Series

Thermowells

- Made from Drilled Bar stock
- A Flanged Thermowell with hard surfacing on shank.
- Safe Design as per ASME PTC19.3
- Various materials to choose from.



| Code | Well Type | Code | Options |
|---------|------------------------------------|------|------------------------|
| DBF401# | Drilled Bar stock Flanged Wells | 0 | None |
| | | 10 | Special requirement |
| | | 11 | Full Penetration weld |
| | | 21 | Third party Inspection |
| | | 25 | Plug and Chain in SS. |

| Code | Well Material | Flange P | B1 | B |
|-----------|---------------|---------------------------------------|--------|--------|
| 316 | 316SS | 3/4" ANSI or DN20 | 17 | 12.5 |
| 304 | 304SS | 1" ANSI or DN 25 | 22 | 16 |
| 321 | 321SS | 1.5" ANSI or DN 40 | 25 | 19 |
| 316L | 316LSS | 2" ANSI or DN 50 | 28 | 25 |
| 446 | 446SS | 'P' define | Define | Define |
| UNS 42200 | A565 Gr 616 | Other sizes and dimensions on request | | |
| WM | Other(Define) | | | |

| Code | Coating Material | Code | Thermowell 'ID' |
|---------|--|-------|-----------------|
| Ste 0.5 | Stellite 0.5mm thick | d7 | 7.0mm |
| Ste 1.0 | Stellite 1.0mm thick | d8.5 | 8.5mm |
| TuC 0.5 | TuC 0.5mm thick | d10.5 | 10.5mm |
| TuC 1.0 | TuC 1.0mm thick | D00 | Other(Define) |
| AV-2M | AV-2M diffusion Alloy 0.1mm to 0.25mm Thick | | |

| Code | Flange Material | Code | Well Extension |
|-------|-----------------|------|----------------|
| A105 | ASTM A105 (CS) | T | Define |
| F316 | A182 F316 | | |
| F304 | A182 F304 | | |
| F321 | A182 F321 | | |
| F316L | A182 F316L | | |
| FM | Other Define | | |

| Code | Well Insertion |
|------|----------------|
| U/U1 | Define |

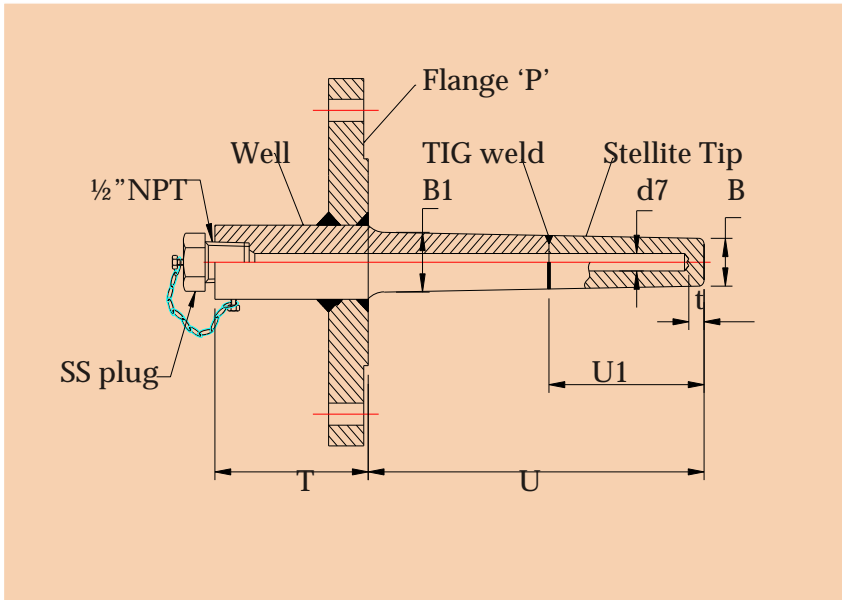
ORDERING EXAMPLE

TW 401 SERIES DBF401#-316-TuC-A105-U/U1-T-d7-1"150#RF(B1=22,B=16)-Op25

TW 404 Series

Thermowells

- Made from Drilled Bar stock
- A Flanged Thermowell with Stellite 6 tip.
- Excellent abrasion resistance & Suitable for use in fluidized beds, Reactors/ regenerators.



| Code | Well Type | Code | Options | |
|---------|------------------------------------|---------------------------------------|------------------------|--------|
| DBF404# | Drilled Bar stock Flanged Wells | 0 | None | |
| | | 10 | Special requirement | |
| | | 11 | Full Penetration weld | |
| | | 21 | Third party Inspection | |
| | | 25 | Plug and Chain in SS. | |
| Code | Well Material | Flange P | B1 | B |
| Inc8 | Incoloy 800 | 3/4" ANSI or DN20 | 17 | 12.5 |
| Inc6 | Inconel600 | 1" ANSI or DN 25 | 22 | 16 |
| 321 | 321SS | 1.5" ANSI or DN 40 | 25 | 19 |
| 310 | 310SS | 2" ANSI or DN 50 | 28 | 25 |
| 446 | 446SS | 'P' define | Define | Define |
| WM | Other(Define) | Other sizes and dimensions on request | | |
| Code | Thermowell tip | Code | Thermowell 'ID' | |
| Ste 6 | Stellite 6, length U1 | d7 | 7.0mm | |
| | | d8.5 | 8.5mm | |
| | | d10.5 | 10.5mm | |
| | | D00 | Other(Define) | |
| Code | Flange Material | Code | Well Extension | |
| A105 | ASTM A105 (CS) | T | Define | |
| F316 | A182 F316 | | | |
| F304 | A182 F304 | | | |
| F321 | A182 F321 | | | |
| F316L | A182 F316L | | | |
| FM | Other Define | | | |
| Code | Well Insertion | | | |
| U/U1 | Define | | | |

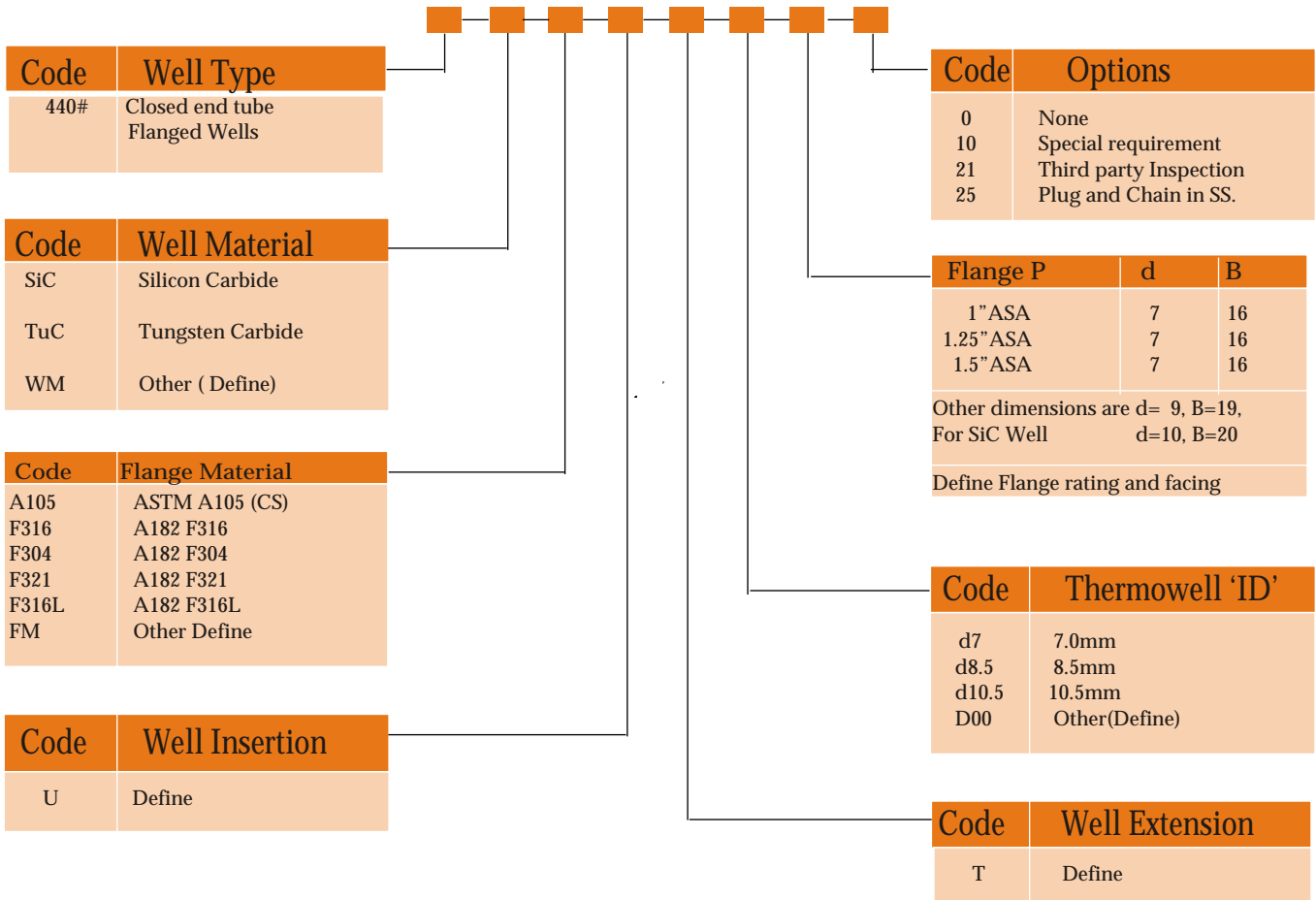
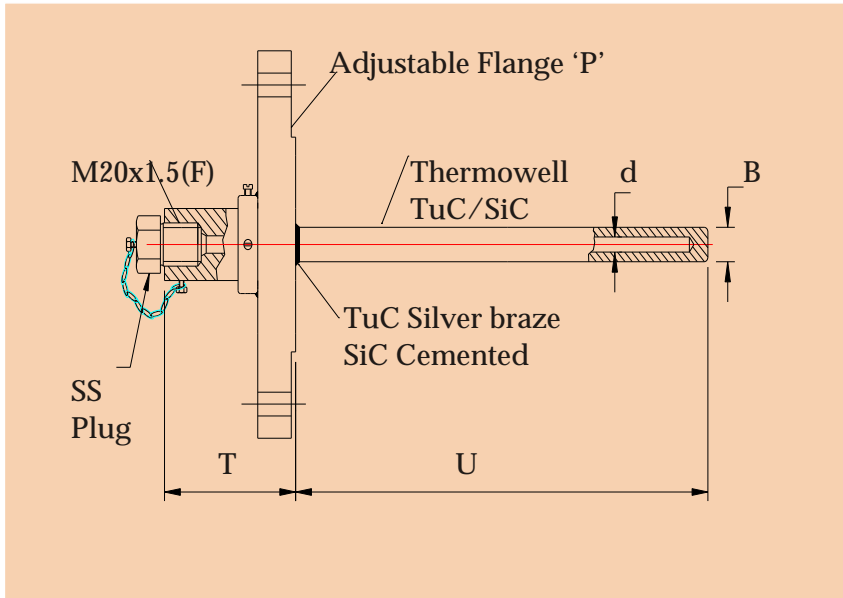
ORDERING EXAMPLE

TW 404 SERIES DBF404#-446-Ste 6-F316-U/U1-T-d7-2"150#RF(B1=28,B=25)-Op25

TW 440 Series

Thermowells

- Made from Closed end tubes
- Solid Sintered Tungsten carbide Thermowell for mill classifier outlet.
- Recrystallized Silicon carbide for Use on high temperature and Abrasive services.

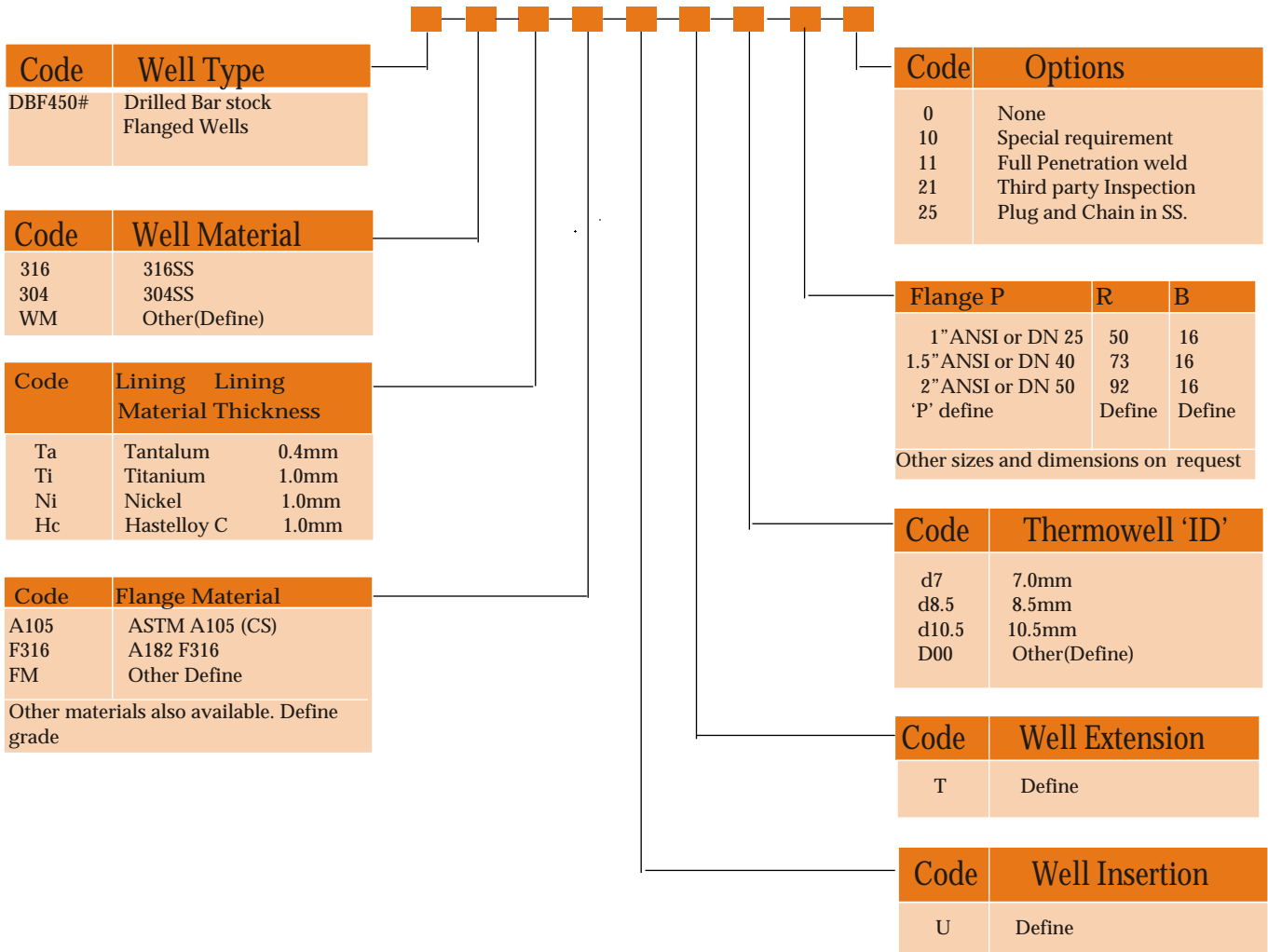
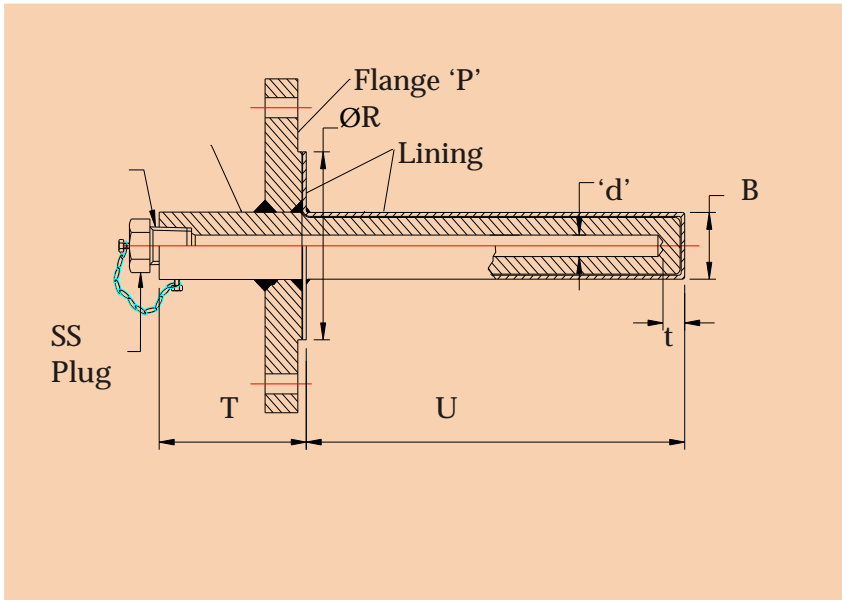


ORDERING EXAMPLE

TW 440 SERIES 440#-TuC-A105-U-T-d7-1.5" 150#RF(d7,B=16)-Op25

**TW 450 Series
Thermowells**

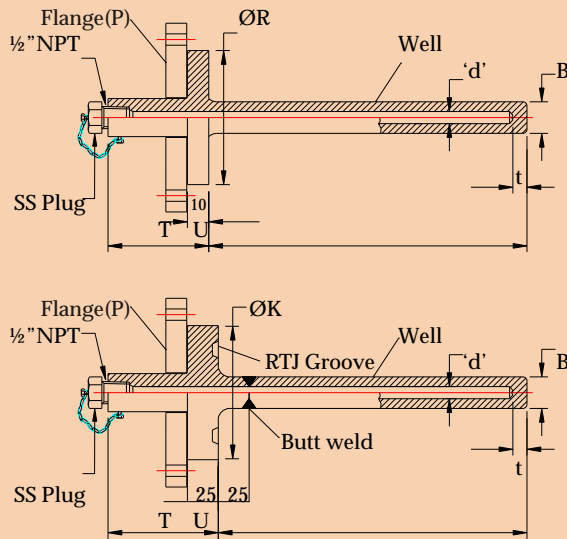
- Made from Drilled Bar stock
- A Flanged Thermowell with Lining.
- Lining in Ta, Ti, Ni, Hast C.
- Various materials to choose from.



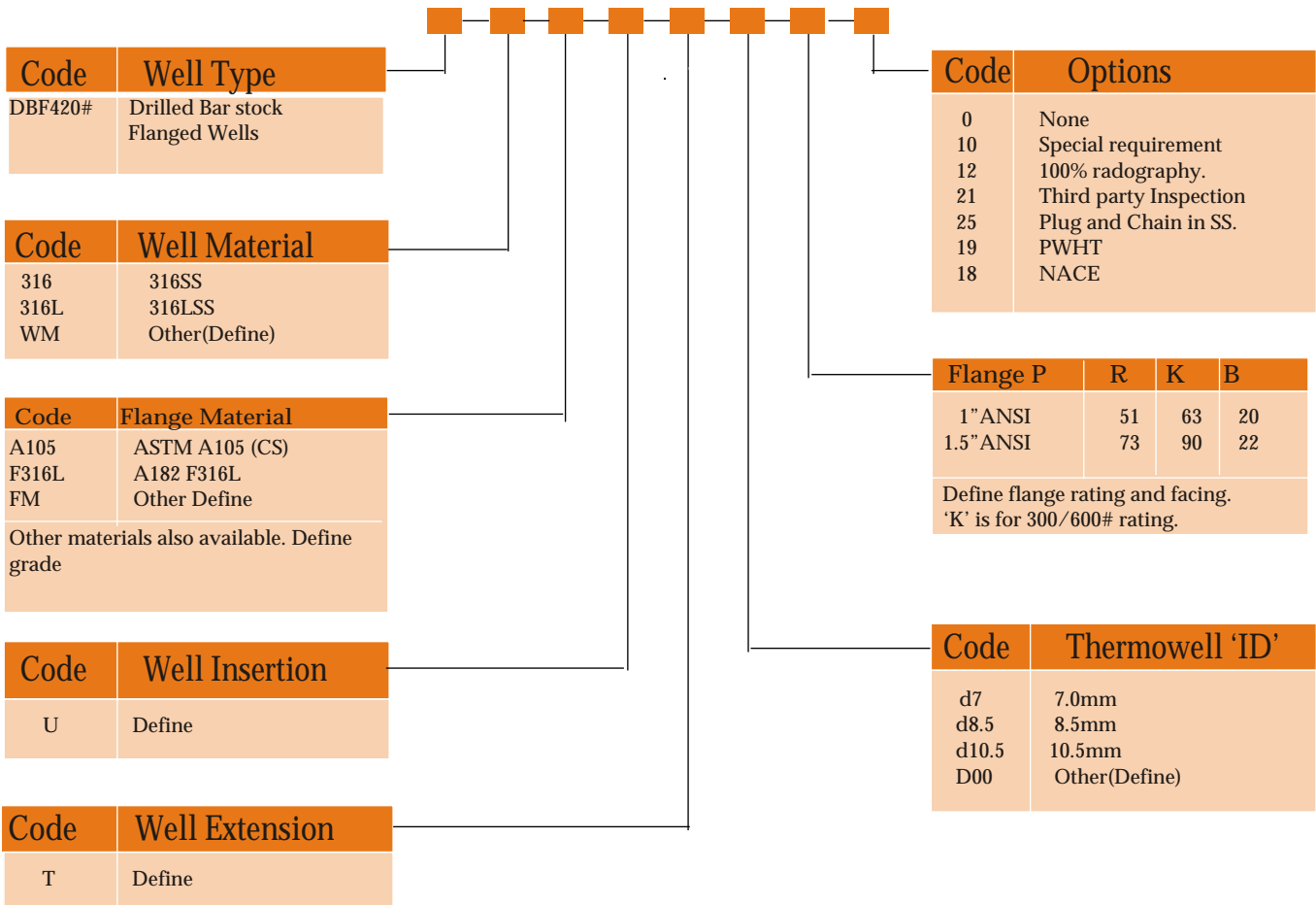
ORDERING EXAMPLE

TW 450 SERIES DBF450#-316-Ta-F316-U-T-d7-1"150#RF(R50,B=16)

**TW 460 Series
Thermowells**

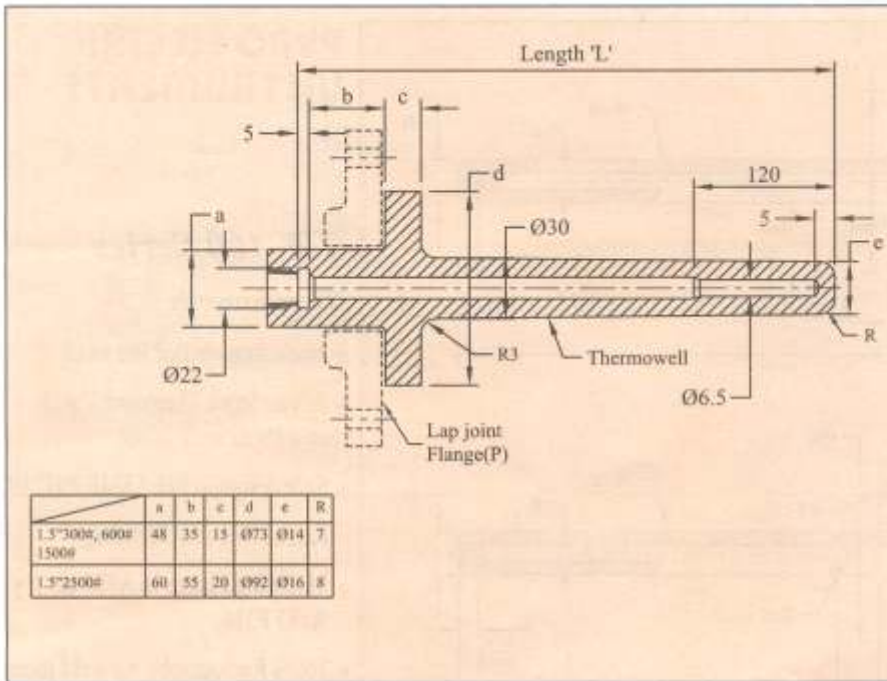


- Made from Drilled Bar stock
- A Van Stone Thermowell with or Without weld joints.
- Safe Design as per ASME PTC19.3
- Raised face or RTJ Facing.
- Mounting flange in A105 or A182 F316.
- 100% Radiography for weld joints.
- PWHT
- Hardness to NACE MR-01-75
- Ferrite number between 3 & 10



ORDERING EXAMPLE

TW 460 SERIES DBF460#-316-F316-U-T-d7-1"150#RF(R=51,K=63,B=20)-Op25



TW 460B Series Thermowells

- Made from drilled Bar stock
- A Van Stone Thermowell with or without weld joints.
- Raised face or RTJ facing.
- Mounting Flange in A105 or A182 F316
- 100% Radiography for weld joints.
- PWHT
- Hardness to NACE MR-01-75
- Ferrite Number between 3 & 10

Pyrowells 460B Series

| Code | Well Type |
|-------|---------------------|
| DBF | Drilled bar stock |
| 460B# | Flanged 460B#Series |

| Code | Well Material |
|------|----------------|
| 304 | SS 304 |
| 316 | SS 316 |
| 316L | SS 316L |
| 321 | SS 321 |
| 446 | SS 446 |
| WM | Other (define) |

| Code | Flange Material |
|-------|-----------------|
| A105 | ASTM A105(CS) |
| F304 | A182 F304 |
| F316 | A182 F316 |
| F316L | A182 F316L |
| F321 | A182 F321 |
| FM | Other (define) |

| Code | TW Length |
|------|------------------------------|
| L | 230, 255, 345, 355, 405, 455 |



| Code | Option |
|------|------------------------|
| 0 | None |
| 10 | Special requirement |
| 21 | Third Party Inspection |
| 25 | Plug & chain in SS |
| 12 | 100% Radiography |
| 19 | PWHT |

| Flange P | d |
|--|----|
| 1.5"ANSI | 73 |
| Define flange rating and facing. 'K' is for 300/600# rating. | |

| Code | Thermowell 'ID' |
|-------|-----------------|
| d7 | 7.0 mm |
| d8.5 | 8.5 mm |
| d10.5 | 10.5 mm |
| d00 | Other (define) |

ORDERING EXAMPLE

TW 460B SERIES -DBF460B#-316-F316-L-d7-1.5\"300#RF-Option 12, 25

PYRO ELECTRIC INSTRUMENTS GOA PVT. LTD.

Flat 'B' Hill Crown Apt., College Road, Mupuca, Goa 403 507. Tel. : (0832)252719, Fax : (0832)263294, E-Mail:pyrogoa@goatelecom.com
 Plot No.71, Bicholim Ind. Estate, Bicholim (Goa) Tel. : 0832-361212. Mumbai Office Tel. : (022) 4378033 Tel/Fax : (022) 4309301
 E-Mail : pyromumbai@pyroelectricgoa.com website : www.pyroelectricgoa.com