







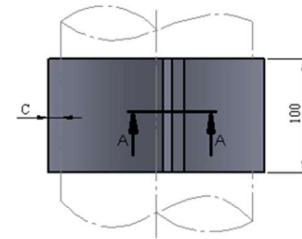
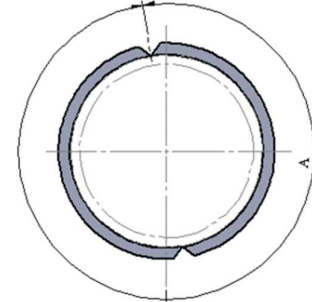
| 25 | | FULL RING PADS | |
|------|---|----------------|--|
| 25.1 | T-WP-021 SHORT FULL RING PAD FOR CS , SS & ALLOY LINES , 100 mm LONG | 25.4 | T-WP-024 FULL RING PAD FOR CS , SS & ALLOY LINES , 300 mm LONG |
| |  | |  |
| 25.2 | T-WP-022 SHORT FULL RING PAD FOR CS , SS & ALLOY LINES , 150 mm LONG | 25.5 | T-WP-025 FULL RING PAD FOR CS , SS & ALLOY LINES , 400 mm LONG |
| |  | |  |
| 25.3 | T-WP-023 SHORT FULL RING PAD FOR CS , SS & ALLOY LINES , 200 mm LONG | 25.6 | T-WP-026 FULL RING PAD FOR CS , SS & ALLOY LINES , 500 mm LONG |
| |  | |  |

| | | | |
|------|---|--|--|
| 25 | FULL RING PADS | | |
| 25.7 | T-WP-027 FULL RING PAD FOR CS , SS & ALLOY LINES , 600 mm LONG | | |
| 25.8 | T- WP-901 SPECIAL FULL RING PADS FOR CS , SS & ALLOY LINES , (VARIABLE LENGTH) | | |
| | | | |

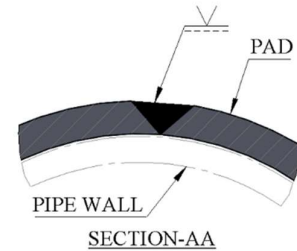


25.1 SHORT FULL RING PAD FOR CS , SS & ALLOY LINES , 100 mm LONG
WP-021

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-021-(DN)-SS | SS | 350°C | -196°C (-105°C) (Refer Note) |
| T-WP-021-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T- WP-021-(DN)-LCS | LCS | 350°C | (-) 46 °C |
| T-WP-021-(DN)-DU | Du | 100°C (Operating) | (-) 46 °C |
| T-WP-021-(DN)-6Mo | 6Mo | 120°C (Operating) | -196°C (-105°C) (Refer Note) |
| T-WP-021-(DN)-TI** | TI | 350°C | (-) 196 °C |



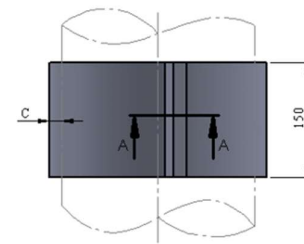
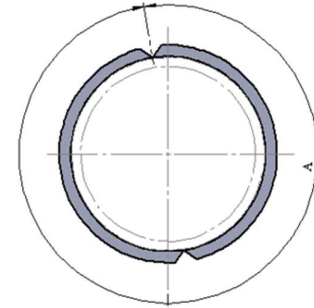
| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|-------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-021-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 0.98 | 1.00 |
| T-WP-021-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 1.40 | 1.43 |
| T-WP-021-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 1.78 | 1.81 |
| T-WP-021-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 2.18 | 2.22 |
| T-WP-021-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 2.58 | 2.63 |
| T-WP-021-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 3.33 | 3.39 |
| T-WP-021-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 4.13 | 4.21 |
| T-WP-021-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 4.88 | 4.97 |
| T-WP-021-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 5.38 | 5.48 |
| T-WP-021-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 6.13 | 6.25 |
| T-WP-021-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 6.88 | 7.01 |
| T-WP-021-0500 | DN 500 | 20" | 508 | 1627 | 6 | 7.66 | 7.81 |
| T-WP-021-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 8.42 | 8.58 |
| T-WP-021-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 9.18 | 9.35 |
| T-WP-021-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 9.91 | 10.10 |
| T-WP-021-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 10.67 | 10.87 |
| T-WP-021-0750 | DN 750 | 30" | 762 | 2425 | 6 | 11.42 | 11.64 |
| T-WP-021-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 12.18 | 12.41 |
| T-WP-021-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 12.92 | 13.17 |
| T-WP-021-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 13.67 | 13.93 |
| T-WP-021-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 24.04 | 24.50 |
| T-WP-021-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 25.06 | 25.54 |
| T-WP-021-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 26.56 | 27.06 |
| T-WP-021-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 27.82 | 28.35 |
| T-WP-021-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 29.05 | 29.61 |
| T-WP-021-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 30.31 | 30.89 |



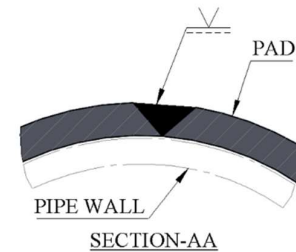
** Titanium (TI) wear plates for DN50 , DN80 and DN 100 are 4mm thick.
 All welds to be a=0.7 x W.T , but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Req'd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°C.

25.2 SHORT FULL RING PAD FOR CS , SS & ALLOY LINES , 150 mm LONG
WP-022

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-022-(DN)-SS | SS | 350°C | -196°C (-105°C) (Refer Note) |
| T-WP-022-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T- WP-022-(DN)-LCS | LCS | 350°C | (-) 46 °C |
| T-WP-022-(DN)-DU | Du | 100°C (Operating) | (-) 46 °C |
| T-WP-022-(DN)-6MO | 6Mo | 120°C (Operating) | -196°C (-105°C) (Refer Note) |
| T-WP-022-(DN)-TI** | TI | 350°C | (-) 196 °C |



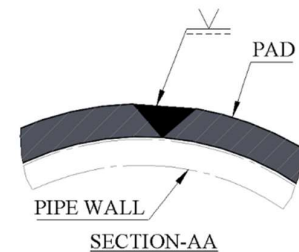
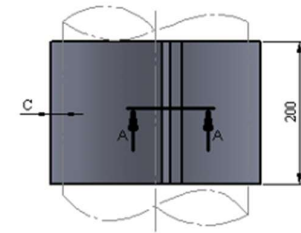
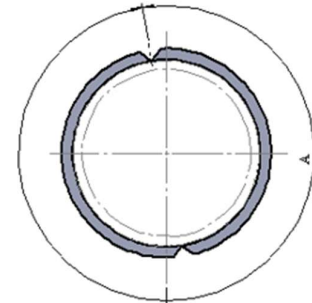
| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|-------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-022-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 1.47 | 1.50 |
| T-WP-022-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 2.11 | 2.15 |
| T-WP-022-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 2.67 | 2.72 |
| T-WP-022-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 3.27 | 3.33 |
| T-WP-022-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 3.87 | 3.95 |
| T-WP-022-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 4.99 | 5.09 |
| T-WP-022-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 6.20 | 6.31 |
| T-WP-022-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 7.32 | 7.46 |
| T-WP-022-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 8.07 | 8.22 |
| T-WP-022-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 9.20 | 9.37 |
| T-WP-022-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 10.32 | 10.52 |
| T-WP-022-0500 | DN 500 | 20" | 508 | 1627 | 6 | 11.49 | 11.71 |
| T-WP-022-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 12.63 | 12.87 |
| T-WP-022-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 13.76 | 14.03 |
| T-WP-022-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 14.87 | 15.16 |
| T-WP-022-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 16.00 | 16.31 |
| T-WP-022-0750 | DN 750 | 30" | 762 | 2425 | 6 | 17.13 | 17.46 |
| T-WP-022-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 18.26 | 18.61 |
| T-WP-022-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 19.39 | 19.76 |
| T-WP-022-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 20.51 | 20.90 |
| T-WP-022-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 36.07 | 36.76 |
| T-WP-022-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 37.59 | 38.30 |
| T-WP-022-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 39.83 | 40.60 |
| T-WP-022-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 41.73 | 42.53 |
| T-WP-022-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 43.58 | 44.41 |
| T-WP-022-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 45.46 | 46.33 |



** Titanium (TI) wear plates for DN50 , DN80 and DN 100 are 4mm thick
 All welds to be a=0.7 x W.T , but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Reqd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°c.

25.3 SHORT FULL RING PAD FOR CS, SS & ALLOY LINES , 200 mm LONG
WP- 023

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-023-(DN)-SS | SS | 350°C | -196°C (-105°C) (Refer Note) |
| T-WP-023-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T- WP-023-(DN)-LCS | LCS | 350°C | (-) 46 °C |
| T-WP-023-(DN)-DU | Du | 100°C (Operating) | (-) 46 °C |
| T-WP-023-(DN)-6MO | 6MO | 120°C (Operating) | -196°C (-105°C) (Refer Note) |
| T-WP-023-(DN)-TI** | TI | 350°C | (-) 196 °C |

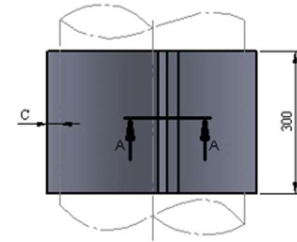
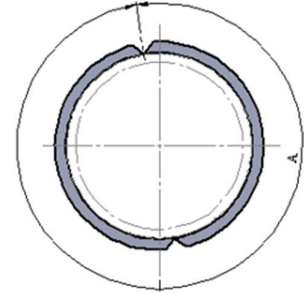


| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|-------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-023-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 1.96 | 2.00 |
| T-WP-023-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 2.81 | 2.86 |
| T-WP-023-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 3.56 | 3.63 |
| T-WP-023-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 4.36 | 4.44 |
| T-WP-023-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 5.16 | 5.26 |
| T-WP-023-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 6.66 | 6.79 |
| T-WP-023-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 8.26 | 8.42 |
| T-WP-023-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 9.76 | 9.95 |
| T-WP-023-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 10.76 | 10.96 |
| T-WP-023-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 12.26 | 12.50 |
| T-WP-023-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 13.76 | 14.03 |
| T-WP-023-0500 | DN 500 | 20" | 508 | 1627 | 6 | 15.33 | 15.62 |
| T-WP-023-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 16.83 | 17.16 |
| T-WP-023-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 18.35 | 18.70 |
| T-WP-023-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 19.83 | 20.21 |
| T-WP-023-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 21.34 | 21.74 |
| T-WP-023-0750 | DN 750 | 30" | 762 | 2425 | 6 | 22.84 | 23.28 |
| T-WP-023-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 24.35 | 24.82 |
| T-WP-023-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 25.85 | 26.34 |
| T-WP-023-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 27.35 | 27.87 |
| T-WP-023-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 28.85 | 29.40 |
| T-WP-023-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 30.07 | 30.64 |
| T-WP-023-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 31.87 | 32.48 |
| T-WP-023-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 33.38 | 34.02 |
| T-WP-023-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 34.86 | 35.53 |
| T-WP-023-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 36.37 | 37.07 |

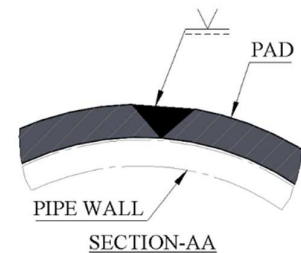
** Titanium (Ti) wear plates for DN50 , DN80 and DN 100 are 4mm thick
 All welds to be a=0.7 x W.T , but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Reqd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°C.

25.4 FULL RING PAD FOR CS , SS & ALLOY LINES , 300 mm LONG
WP-024

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-024-(DN)-SS | SS | 350°c | -196°c (-105°c) (Refer Note) |
| T-WP-024-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T- WP-024-(DN)-LCS | LCS | 350°c | (-) 46 °C |
| T-WP-024-(DN)-DU | Du | 100°c (Operating) | (-) 46 °C |
| T-WP-024-(DN)-6MO | 6MO | 120°c (Operating) | -196°c (-105°c) (Refer Note) |
| T-WP-024-(DN)-TI** | TI | 350°c | (-) 196 °C |



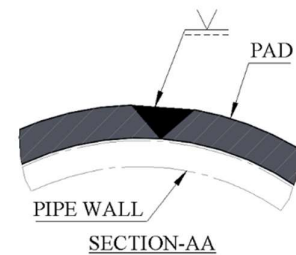
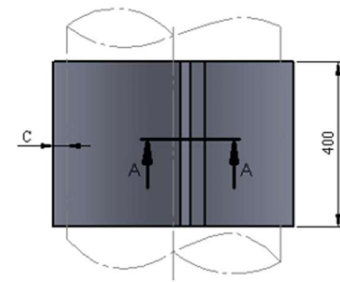
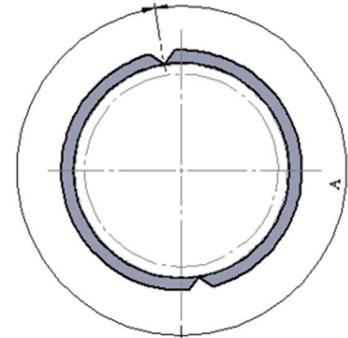
| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|-------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-024-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 2.94 | 3.00 |
| T-WP-024-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 4.21 | 4.29 |
| T-WP-024-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 5.34 | 5.44 |
| T-WP-024-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 6.54 | 6.67 |
| T-WP-024-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 7.74 | 7.89 |
| T-WP-024-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 9.99 | 10.18 |
| T-WP-024-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 12.39 | 12.63 |
| T-WP-024-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 14.64 | 14.92 |
| T-WP-024-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 16.14 | 16.44 |
| T-WP-024-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 18.40 | 18.75 |
| T-WP-024-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 20.64 | 21.04 |
| T-WP-024-0500 | DN 500 | 20" | 508 | 1627 | 6 | 22.99 | 23.43 |
| T-WP-024-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 25.25 | 25.73 |
| T-WP-024-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 27.53 | 28.05 |
| T-WP-024-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 29.74 | 30.31 |
| T-WP-024-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 32.00 | 32.62 |
| T-WP-024-0750 | DN 750 | 30" | 762 | 2425 | 6 | 34.27 | 34.92 |
| T-WP-024-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 36.53 | 37.22 |
| T-WP-024-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 38.77 | 39.51 |
| T-WP-024-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 41.02 | 41.80 |
| T-WP-024-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 72.13 | 73.51 |
| T-WP-024-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 75.17 | 76.61 |
| T-WP-024-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 79.67 | 81.19 |
| T-WP-024-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 83.46 | 85.06 |
| T-WP-024-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 87.16 | 88.82 |
| T-WP-024-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 90.93 | 92.66 |



** Titanium (TI) wear plates for DN50 , DN80 and DN 100 are 4mm thick
 All welds to be $a=0.7 \times W.T$, but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Reqd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°c.

25.5 FULL RING PAD FOR CS, SS & ALLOY LINES , 400 mm LONG
WP-025

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-025-(DN)-SS | SS | 350°C | -196°C (-105°C) (Refer Note) |
| T-WP-025-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T-WP-025-(DN)-LCS | LCS | 350°C | (-) 46 °C |
| T-WP-025-(DN)-DU | Du | 100°C (Operating) | (-) 46 °C |
| T-WP-025-(DN)-6MO | 6MO | 120°C (Operating) | -196°C (-105°C) (Refer Note) |
| T-WP-025-(DN)-TI** | TI | 350°C | (-) 196 °C |

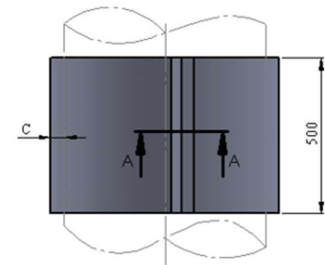
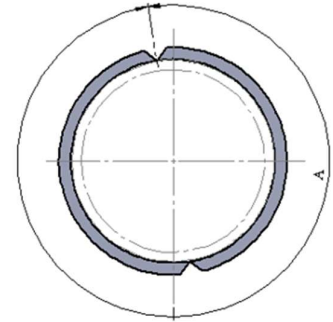


| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|-------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-025-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 3.9 | 4.0 |
| T-WP-025-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 5.6 | 5.7 |
| T-WP-025-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 7.1 | 7.3 |
| T-WP-025-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 8.7 | 8.9 |
| T-WP-025-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 10.3 | 10.5 |
| T-WP-025-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 13.3 | 13.6 |
| T-WP-025-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 16.5 | 16.8 |
| T-WP-025-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 19.5 | 19.9 |
| T-WP-025-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 21.5 | 21.9 |
| T-WP-025-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 24.5 | 25.0 |
| T-WP-025-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 27.5 | 28.1 |
| T-WP-025-0500 | DN 500 | 20" | 508 | 1627 | 6 | 30.7 | 31.2 |
| T-WP-025-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 33.7 | 34.3 |
| T-WP-025-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 36.7 | 37.4 |
| T-WP-025-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 39.7 | 40.4 |
| T-WP-025-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 42.7 | 43.5 |
| T-WP-025-0750 | DN 750 | 30" | 762 | 2425 | 6 | 45.7 | 46.6 |
| T-WP-025-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 48.7 | 49.6 |
| T-WP-025-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 51.7 | 52.7 |
| T-WP-025-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 54.7 | 55.7 |
| T-WP-025-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 96.2 | 98.0 |
| T-WP-025-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 100.2 | 102.1 |
| T-WP-025-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 106.2 | 108.3 |
| T-WP-025-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 111.3 | 113.4 |
| T-WP-025-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 116.2 | 118.4 |
| T-WP-025-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 121.2 | 123.6 |

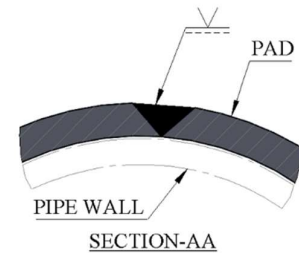
** Titanium (Ti) wear plates for DN50 , DN80 and DN 100 are 4mm thick
 All welds to be a=0.7 x W.T , but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Reqd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°C.

25.6 FULL RING PAD FOR CS, SS & ALLOY LINES, 500 mm LONG
WP-026

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-026-(DN)-SS | SS | 350°C | -196°C (-105°C) (Refer Note) |
| T-WP-026-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T-WP-026-(DN)-LCS | LCS | 350°C | (-) 46 °C |
| T-WP-026-(DN)-DU | Du | 100°C (Operating) | (-) 46 °C |
| T-WP-026-(DN)-6MO | 6MO | 120°C (Operating) | -196°C (-105°C) (Refer Note) |
| T-WP-026-(DN)-TI** | TI | 350°C | (-) 196 °C |



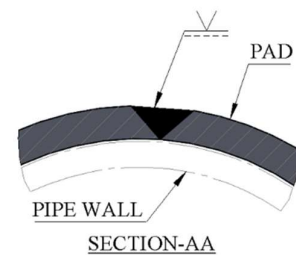
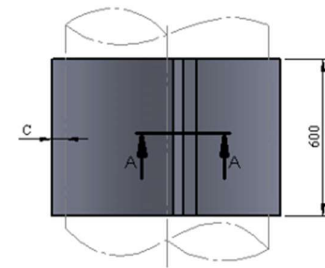
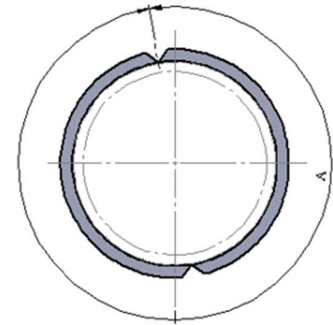
| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|--------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-026-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 4.90 | 4.99 |
| T-WP-026-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 7.02 | 7.15 |
| T-WP-026-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 8.90 | 9.07 |
| T-WP-026-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 10.90 | 11.11 |
| T-WP-026-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 12.91 | 13.15 |
| T-WP-026-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 16.65 | 16.97 |
| T-WP-026-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 20.65 | 21.05 |
| T-WP-026-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 24.40 | 24.86 |
| T-WP-026-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 26.89 | 27.41 |
| T-WP-026-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 30.66 | 31.25 |
| T-WP-026-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 34.41 | 35.06 |
| T-WP-026-0500 | DN 500 | 20" | 508 | 1627 | 6 | 38.32 | 39.05 |
| T-WP-026-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 42.08 | 42.89 |
| T-WP-026-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 45.88 | 46.75 |
| T-WP-026-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 49.57 | 50.52 |
| T-WP-026-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 53.34 | 54.36 |
| T-WP-026-0750 | DN 750 | 30" | 762 | 2425 | 6 | 57.11 | 58.20 |
| T-WP-026-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 60.88 | 62.04 |
| T-WP-026-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 64.62 | 65.86 |
| T-WP-026-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 68.37 | 69.67 |
| T-WP-026-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 120.22 | 122.52 |
| T-WP-026-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 125.29 | 127.68 |
| T-WP-026-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 132.78 | 135.32 |
| T-WP-026-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 139.10 | 141.76 |
| T-WP-026-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 145.26 | 148.04 |
| T-WP-026-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 151.54 | 154.44 |



** Titanium (Ti) wear plates for DN50, DN80 and DN 100 are 4mm thick.
 All welds to be a=0.7 x W.T, but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Reqd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°c.

25.7 FULL RING PAD FOR CS, SS & ALLOY LINES , 600 mm LONG
WP-027

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-027-(DN)-SS | SS | 350°c | -196°c (-105°c) (Refer Note) |
| T-WP-027-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T- WP-027-(DN)-LCS | LCS | 350°c | (-) 46 °C |
| T-WP-027-(DN)-DU | Du | 100°c (Operating) | (-) 46 °C |
| T-WP-027-(DN)-6MO | 6MO | 120°c (Operating) | -196°c (-105°c) (Refer Note) |
| T-WP-027-(DN)-TI** | TI | 350°c | (-) 196 °C |

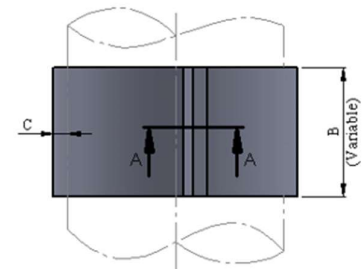
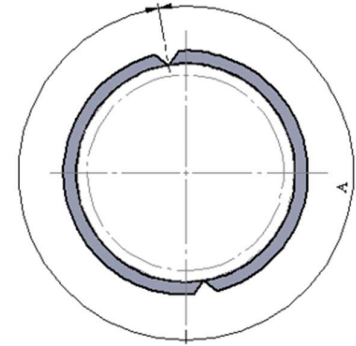


| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg | |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|--------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | CS | SS |
| T-WP-027-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | 5.88 | 5.99 |
| T-WP-027-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | 8.42 | 8.58 |
| T-WP-027-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | 10.68 | 10.89 |
| T-WP-027-0125 | DN 125 | 5" | 141.3 | 463 | 6 | 13.08 | 13.33 |
| T-WP-027-0150 | DN 150 | 6" | 168.3 | 548 | 6 | 15.49 | 15.78 |
| T-WP-027-0200 | DN 200 | 8" | 219.1 | 707 | 6 | 19.98 | 20.36 |
| T-WP-027-0250 | DN 250 | 10" | 273.0 | 877 | 6 | 24.78 | 25.26 |
| T-WP-027-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | 29.28 | 29.84 |
| T-WP-027-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | 32.27 | 32.89 |
| T-WP-027-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | 36.79 | 37.50 |
| T-WP-027-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | 41.29 | 42.08 |
| T-WP-027-0500 | DN 500 | 20" | 508 | 1627 | 6 | 45.98 | 46.86 |
| T-WP-027-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | 50.50 | 51.47 |
| T-WP-027-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | 55.05 | 56.10 |
| T-WP-027-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | 59.49 | 60.62 |
| T-WP-027-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | 64.01 | 65.23 |
| T-WP-027-0750 | DN 750 | 30" | 762 | 2425 | 6 | 68.53 | 69.84 |
| T-WP-027-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | 73.05 | 74.45 |
| T-WP-027-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | 77.55 | 79.03 |
| T-WP-027-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | 82.04 | 83.61 |
| T-WP-027-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | 144.27 | 147.02 |
| T-WP-027-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | 150.34 | 153.22 |
| T-WP-027-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | 159.34 | 162.38 |
| T-WP-027-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | 166.92 | 170.11 |
| T-WP-027-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | 174.32 | 177.65 |
| T-WP-027-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | 181.85 | 185.33 |

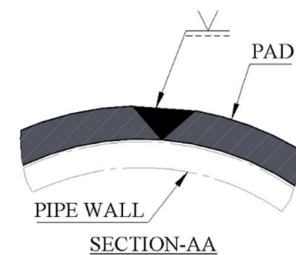
** Titanium (TI) wear plates for DN50 , DN80 and DN 100 are 4mm thick.
 All welds to be a=0.7 x W.T , but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Req'd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°c.

25.1 SPECIAL FULL RING PADS FOR CS , SS & ALLOY LINES , (VARIABLE LENGTH)
WP-901

| TYPICAL PART NUMBER | AVAILABLE MATERIAL SHORT CODE | STD DETAIL TEMPERATURE LIMITATION | |
|---------------------|-------------------------------|-----------------------------------|------------------------------|
| | | MAX. OPERATING TEMP | MIN. DESIGN TEMP. |
| T-WP-901-(DN)-SS | SS | 350°c | -196°c (-105°c) (Refer Note) |
| T-WP-901-(DN)-CS | CS | 350 °C | (-) 20 °C |
| T- WP-901-(DN)-LCS | LCS | 350°c | (-) 46 °C |
| T-WP-901-(DN)-DU | Du | 100°c (Operating) | (-) 46 °C |
| T-WP-901-(DN)-6MO | 6MO | 120°c (Operating) | -196°c (-105°c) (Refer Note) |
| T-WP-901-(DN)-TI** | TI | 350°c | (-) 196 °C |



| TYPE | LINE SIZE | | | DEVELOPED LENGTH A | C | WEIGHTS in kg |
|---------------|-----------|---------------|-------------|--------------------|------|---------------|
| | DN (mm) | NPS in (inch) | NPS in (mm) | | | |
| T-WP-901-0050 | DN 50 | 2" | 60.3 | 208 | 6 ** | TBA |
| T-WP-901-0080 | DN 80 | 3" | 89.9 | 298 | 6 ** | TBA |
| T-WP-901-0100 | DN 100 | 4" | 114.3 | 378 | 6 ** | TBA |
| T-WP-901-0125 | DN 125 | 5" | 141.3 | 463 | 6 | TBA |
| T-WP-901-0150 | DN 150 | 6" | 168.3 | 548 | 6 | TBA |
| T-WP-901-0200 | DN 200 | 8" | 219.1 | 707 | 6 | TBA |
| T-WP-901-0250 | DN 250 | 10" | 273.0 | 877 | 6 | TBA |
| T-WP-901-0300 | DN 300 | 12" | 323.8 | 1036 | 6 | TBA |
| T-WP-901-0350 | DN 350 | 14" | 355.6 | 1142 | 6 | TBA |
| T-WP-901-0400 | DN 400 | 16" | 406.4 | 1302 | 6 | TBA |
| T-WP-901-0450 | DN 450 | 18" | 457.2 | 1461 | 6 | TBA |
| T-WP-901-0500 | DN 500 | 20" | 508 | 1627 | 6 | TBA |
| T-WP-901-0550 | DN 550 | 22" | 558.8 | 1787 | 6 | TBA |
| T-WP-901-0600 | DN 600 | 24" | 609.6 | 1948 | 6 | TBA |
| T-WP-901-0650 | DN 650 | 26" | 660.4 | 2105 | 6 | TBA |
| T-WP-901-0700 | DN 700 | 28" | 711.2 | 2265 | 6 | TBA |
| T-WP-901-0750 | DN 750 | 30" | 762 | 2425 | 6 | TBA |
| T-WP-901-0800 | DN 800 | 32" | 812.8 | 2585 | 6 | TBA |
| T-WP-901-0850 | DN 850 | 34" | 863.6 | 2744 | 6 | TBA |
| T-WP-901-0900 | DN 900 | 36" | 914.4 | 2903 | 6 | TBA |
| T-WP-901-0950 | DN 950 | 38" | 965.2 | 3063 | 10 | TBA |
| T-WP-901-1000 | DN 1000 | 40" | 1016 | 3192 | 10 | TBA |
| T-WP-901-1050 | DN 1050 | 42" | 1066.8 | 3383 | 10 | TBA |
| T-WP-901-1100 | DN 1100 | 44" | 1117.6 | 3544 | 10 | TBA |
| T-WP-901-1150 | DN 1150 | 46" | 1168.4 | 3701 | 10 | TBA |
| T-WP-901-1200 | DN 1200 | 48" | 1219.2 | 3861 | 10 | TBA |



** Titanium (TI) wear plates for DN50 , DN80 and DN 100 are 4mm thick
 All welds to be a=0.7 x W.T , but maximum 4mm CFW.
 All welded attachment welded direct to PWHT pipe need to be welded before PWHT.
 Wearplate shall be used for fatigue sensitive lines.
 Impact Test Req'd. for the below min design temperature
 for Matl. Code SS (-)196° c, for Matl. Code LCS,& DU (-)46°c.