

Table for PE



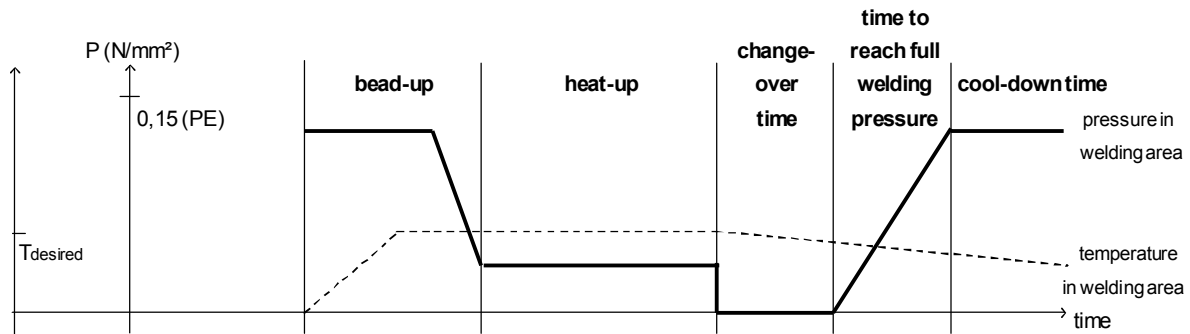
Foundation: 2207, 2208 DIN 16932 German association for welding
 Use for: **8000** DA 450 - 800 (valid from 2000-07 to 2009-05)
10000 DA 500 - 1000 (valid from 2000-07)
12000 DA 800 - 1200 (valid from 2000-07)

1 bar on manometer: **463 N**

PE 80 The value for heating element temperature is between 200° C - 220° C.
 The **smaller** the pipe wall the **higher** the temperature.

PE 100 The standard value for heating element temperature is 220° C.
 Increase the change-over time and the welding pressure time at PE 100 as fast as possible !

Additional to the given bead-up force and to the welding force the moving force of the support must be added !



| pipe diameter OD [mm] | pipe wall (s) [mm] | SDR | bead-up pressure [bar] | circular bead min. [mm] | heat-up time [s] | max. change-over time [s] | time to reach welding pressure [s] | welding pressure [bar] | cool-down time [min] ① |
|-----------------------|--------------------|------|------------------------|-------------------------|------------------|---------------------------|------------------------------------|------------------------|------------------------|
| 450 | 11,0 | 41 | 5 | 1,5 | 110 | 8 | 8 | 5 | 15 |
| | 13,8 | 33 | 7 | 2,0 | 138 | 9 | 9 | 7 | 18 |
| | 17,2 | 26 | 8 | 2,0 | 172 | 9 | 10 | 8 | 22 |
| | 21,5 | 21,0 | 10 | 2,5 | 215 | 11 | 12 | 10 | 27 |
| | 25,5 | 17,6 | 12 | 2,5 | 255 | 12 | 14 | 12 | 31 |
| | 26,7 | 17 | 12 | 3,0 | 267 | 12 | 14 | 12 | 33 |
| | 33,1 | 13,6 | 15 | 3,0 | 331 | 15 | 17 | 15 | 40 |
| | 40,9 | 11 | 18 | 3,5 | 409 | 17 | 21 | 18 | 49 |
| | 50,3 | 9,0 | 21 | 4,0 | 503 | 20 | 25 | 21 | 60 |
| 61,5 | 7,4 | 25 | 4,0 | 615 | 23 | 31 | 25 | 71 | |
| 500 | 12,3 | 41 | 7 | 2,0 | 123 | 8 | 8 | 7 | 16 |
| | 15,3 | 33 | 8 | 2,0 | 153 | 9 | 9 | 8 | 20 |
| | 19,1 | 26 | 10 | 2,5 | 191 | 10 | 11 | 10 | 24 |
| | 23,9 | 21,0 | 12 | 2,5 | 239 | 11 | 13 | 12 | 30 |
| | 28,4 | 17,6 | 14 | 3,0 | 284 | 13 | 15 | 14 | 35 |
| | 29,7 | 17 | 15 | 3,0 | 297 | 13 | 16 | 15 | 36 |
| | 36,8 | 13,6 | 18 | 3,0 | 369 | 16 | 19 | 18 | 45 |
| | 45,4 | 11 | 22 | 3,5 | 454 | 19 | 23 | 22 | 55 |
| | 56 | 9 | 26 | 4,0 | 560 | 21 | 28 | 26 | 66 |
| 68,3 | 7,4 | 31 | 4,0 | 683 | 25 | 34 | 31 | 78 | |
| 560 | 13,7 | 41 | 8 | 2,0 | 137 | 8 | 9 | 8 | 18 |
| | 17,2 | 33 | 10 | 2,0 | 172 | 9 | 10 | 10 | 22 |
| | 21,4 | 26 | 12 | 2,5 | 214 | 11 | 12 | 12 | 27 |
| | 26,7 | 21 | 15 | 3,0 | 267 | 12 | 14 | 15 | 33 |
| | 31,7 | 17,6 | 18 | 3,0 | 317 | 14 | 17 | 18 | 39 |
| | 33,2 | 17 | 18 | 3,0 | 332 | 15 | 17 | 18 | 41 |
| | 41,2 | 13,6 | 22 | 3,5 | 412 | 17 | 21 | 22 | 50 |
| | 50,8 | 11 | 27 | 4,0 | 508 | 20 | 25 | 27 | 61 |
| 62,5 | 9 | 32 | 4,0 | 625 | 23 | 31 | 32 | 72 | |

Table for PE



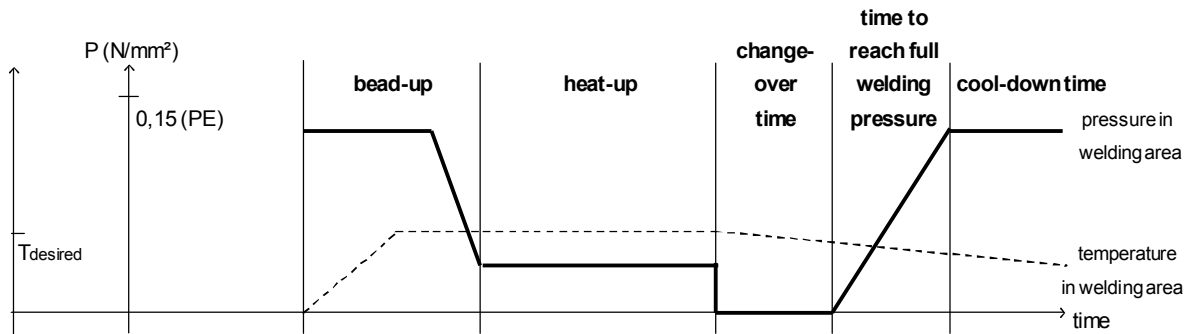
Foundation: 2207, 2208 DIN 16932 German association for welding
 Use for: **8000** DA 450 - 800 (valid from 2000-07 to 2009-05)
10000 DA 500 - 1000 (valid from 2000-07)
12000 DA 800 - 1200 (valid from 2000-07)

1 bar on manometer: **463 N**

PE 80 The value for heating element temperature is between 200° C - 220° C.
 The **smaller** the pipe wall the **higher** the temperature.

PE 100 The standard value for heating element temperature is 220° C.
 Increase the change-over time and the welding pressure time at PE 100 as fast as possible !

Additional to the given bead-up force and to the welding force the moving force of the support must be added !



| pipe diameter OD [mm] | pipe wall (s) [mm] | SDR | bead-up pressure [bar] | circular bead min. [mm] | heat-up time [s] | max. change-over time [s] | time to reach welding pressure [s] | welding pressure [bar] | cool-down time [min] ① |
|-----------------------|--------------------|------|------------------------|-------------------------|------------------|---------------------------|------------------------------------|------------------------|------------------------|
| 630 | 15,4 | 41 | 10 | 2,0 | 154 | 9 | 9 | 10 | 20 |
| | 19,3 | 33 | 12 | 2,5 | 193 | 10 | 11 | 12 | 24 |
| | 24,1 | 26 | 15 | 2,5 | 241 | 11 | 13 | 15 | 30 |
| | 30,0 | 21 | 19 | 3,0 | 300 | 16 | 16 | 19 | 37 |
| | 35,7 | 17,6 | 22 | 3,0 | 357 | 16 | 18 | 22 | 43 |
| | 37,4 | 17 | 23 | 3,5 | 374 | 16 | 19 | 23 | 45 |
| | 46,3 | 13,6 | 28 | 3,5 | 463 | 19 | 19 | 28 | 56 |
| | 57,2 | 11 | 34 | 4,0 | 572 | 22 | 29 | 34 | 67 |
| 62,5 | 9 | 32 | 4,0 | 625 | 23 | 31 | 32 | 72 | |
| 710 | 17,4 | 41 | 13 | 2,0 | 174 | 10 | 10 | 13 | 22 |
| | 21,8 | 33 | 16 | 2,5 | 218 | 11 | 12 | 16 | 27 |
| | 27,2 | 26 | 19 | 3,0 | 272 | 12 | 15 | 19 | 33 |
| | 33,9 | 21 | 24 | 3,0 | 339 | 15 | 18 | 24 | 41 |
| | 40,2 | 17,6 | 28 | 3,5 | 402 | 17 | 20 | 28 | 49 |
| | 42,1 | 17 | 29 | 3,5 | 421 | 18 | 21 | 29 | 51 |
| | 52,2 | 13,6 | 35 | 4,0 | 522 | 21 | 26 | 35 | 62 |
| | 64,5 | 11 | 43 | 4,0 | 645 | 24 | 32 | 43 | 74 |
| 800 | 19,6 | 41 | 16 | 2,0 | 145 | 9 | 9 | 16 | 19 |
| | 24,5 | 33 | 20 | 2,5 | 245 | 12 | 13 | 20 | 30 |
| | 30,6 | 26 | 24 | 3,0 | 306 | 14 | 16 | 24 | 37 |
| | 38,1 | 21 | 30 | 3,5 | 381 | 16 | 20 | 30 | 46 |
| | 45,3 | 17,6 | 35 | 3,5 | 453 | 19 | 23 | 35 | 55 |
| | 47,4 | 17 | 37 | 3,5 | 474 | 19 | 24 | 37 | 57 |
| 900 | 22,0 | 41 | 20 | 2,5 | 220 | 11 | 12 | 20 | 27 |
| | 27,6 | 33 | 25 | 3,0 | 276 | 13 | 15 | 25 | 34 |
| | 34,4 | 26 | 31 | 3,0 | 344 | 15 | 18 | 31 | 42 |
| | 42,9 | 21 | 38 | 3,5 | 429 | 18 | 22 | 38 | 52 |
| | 51,0 | 17,6 | 45 | 4,0 | 510 | 20 | 26 | 45 | 61 |
| | 53,3 | 17 | 46 | 4,0 | 533 | 21 | 27 | 46 | 63 |

Table for PE



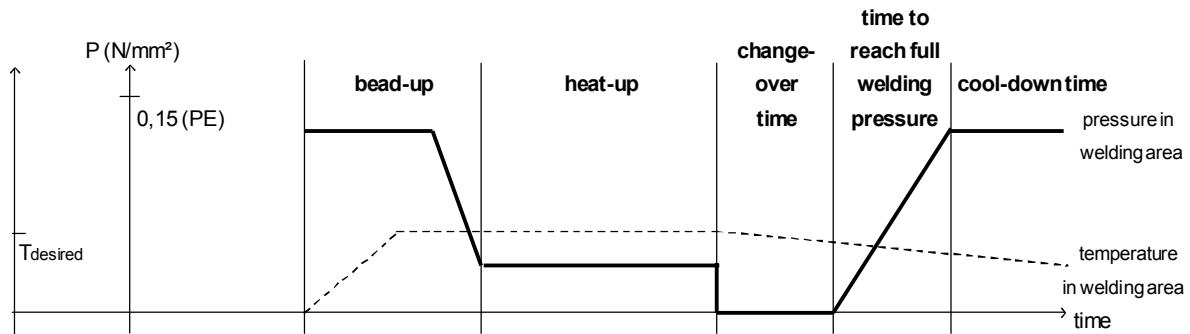
Foundation: 2207, 2208 DIN 16932 German association for welding
 Use for: **8000** DA 450 - 800 (valid from 2000-07 to 2009-05)
10000 DA 500 - 1000 (valid from 2000-07)
12000 DA 800 - 1200 (valid from 2000-07)

1 bar on manometer: **463 N**

PE 80 The value for heating element temperature is between 200° C - 220° C.
 The **smaller** the pipe wall the **higher** the temperature.

PE 100 The standard value for heating element temperature is 220° C.
 Increase the change-over time and the welding pressure time at PE 100 as fast as possible !

Additional to the given bead-up force and to the welding force the moving force of the support must be added !



| pipe diameter OD [mm] | pipe wall (s) [mm] | SDR | bead-up pressure [bar] | circular bead min. [mm] | heat-up time [s] | max. change-over time [s] | time to reach welding pressure [s] | welding pressure [bar] | cool-down time [min] ^① |
|-----------------------|--------------------|------|------------------------|-------------------------|------------------|---------------------------|------------------------------------|------------------------|-----------------------------------|
| 1000 | 24,5 | 41 | 25 | 2,5 | 245 | 12 | 13 | 25 | 30 |
| | 30,6 | 33 | 31 | 3,0 | 306 | 14 | 16 | 31 | 37 |
| | 38,2 | 26 | 38 | 3,5 | 382 | 16 | 20 | 38 | 46 |
| | 47,7 | 21 | 47 | 3,5 | 426 | 18 | 22 | 47 | 51 |
| | 56,7 | 17,6 | 55 | 4,0 | 567 | 22 | 28 | 55 | 67 |
| | 59,3 | 17 | 57 | 4,0 | 593 | 22 | 30 | 57 | 69 |
| 1200 | 29,4 | 41 | 36 | 3,0 | 294 | 13 | 16 | 36 | 36 |
| | 36,7 | 33 | 44 | 3,0 | 367 | 16 | 19 | 44 | 45 |
| | 45,9 | 26 | 54 | 3,5 | 459 | 19 | 23 | 54 | 55 |
| | 57,2 | 21 | 67 | 4,0 | 572 | 22 | 29 | 67 | 67 |
| | 68,0 | 17,6 | 79 | 4,0 | 680 | 24 | 34 | 79 | 78 |

^① Remaining under the cool-down time for up to 50% is allowed under the following conditions:

- prefabrication under workshop conditions
- low additional pressure at unclamping
- no additional pressure during further cooling down
- load onto the workpieces only after being completely cooled down