

Table for PE



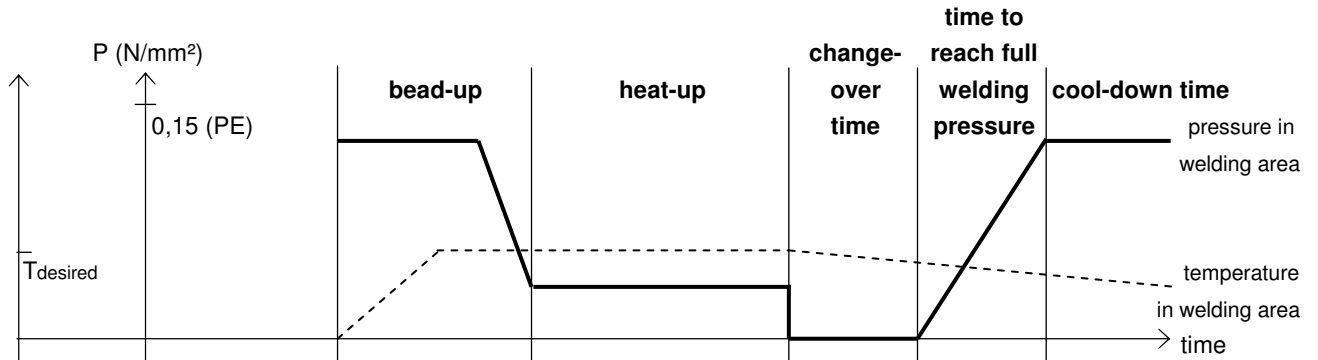
Foundation: 2207, 2208 DIN 16932 German association for welding
Use for: **4911**

1 bar on manometer: **59 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
90	2,2	41,0	2	0,5	22	4	4	2	2
	2,8	33,0	2	0,5	28	4	4	2	3
	3,5	26,0	3	0,5	35	5	5	3	4
	4,3	21,0	3	0,5	43	5	5	3	6
	5,1	17,6	4	1,0	51	5	5	4	7
	5,4	17,0	4	1,0	54	5	5	4	7
	6,7	13,6	5	1,0	67	6	6	5	10
	8,2	11,0	6	1,5	82	6	6	6	11
	10,1	9,0	7	1,5	101	7	7	7	14
12,3	7,4	8	2,0	123	8	8	8	16	
110	2,7	41,0	3	0,5	27	4	4	3	3
	3,4	33,0	3	0,5	34	5	5	3	4
	4,2	26,0	4	0,5	42	5	5	4	6
	5,3	21,0	5	1,0	53	5	5	5	7
	6,3	17,6	6	1,0	63	6	6	6	9
	6,6	17,0	6	1,0	66	6	6	6	9
	8,1	13,6	7	1,5	81	6	6	7	11
	10,0	11,0	8	1,5	100	7	7	8	14
	12,3	9,0	10	2,0	123	8	8	10	16
15,1	7,4	12	2,0	151	9	9	12	20	

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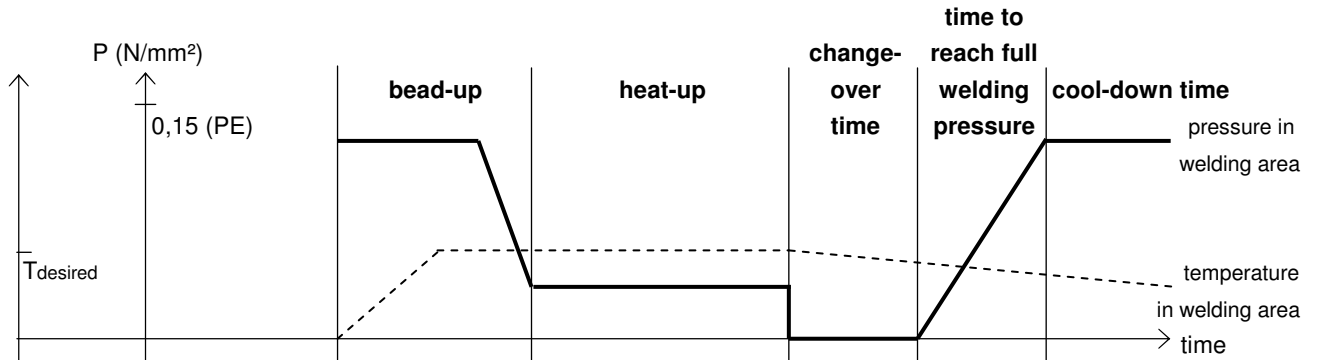
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125	3,1	41,0	4	0,5	31	4	4	4	4
	3,9	33,0	4	0,5	39	5	5	4	5
	4,8	26,0	5	1,0	48	5	5	5	6
	6,0	21,0	6	1,0	60	6	6	6	8
	7,1	17,6	7	1,5	71	6	6	7	10
	7,4	17,0	7	1,5	74	6	6	7	10
	9,2	13,6	9	1,5	92	7	7	9	13
	11,4	11,0	11	1,5	114	8	8	11	15
	14,0	9,0	13	2,0	140	9	9	13	18
17,1	7,4	15	2,0	171	9	10	15	22	
140	3,5	41,0	4	0,5	35	5	5	4	4
	4,3	33,0	5	0,5	43	5	5	5	6
	5,4	26,0	6	1,0	54	5	5	6	7
	6,7	21,0	8	1,0	67	6	6	8	10
	8,0	17,6	9	1,5	80	6	6	9	11
	8,3	17,0	9	1,5	83	7	7	9	12
	10,3	13,6	11	1,5	103	7	7	11	14
	12,7	11,0	13	2,0	127	8	8	13	17
	15,7	9,0	16	2,0	157	9	10	16	20
19,2	7,4	19	2,5	192	10	11	19	24	

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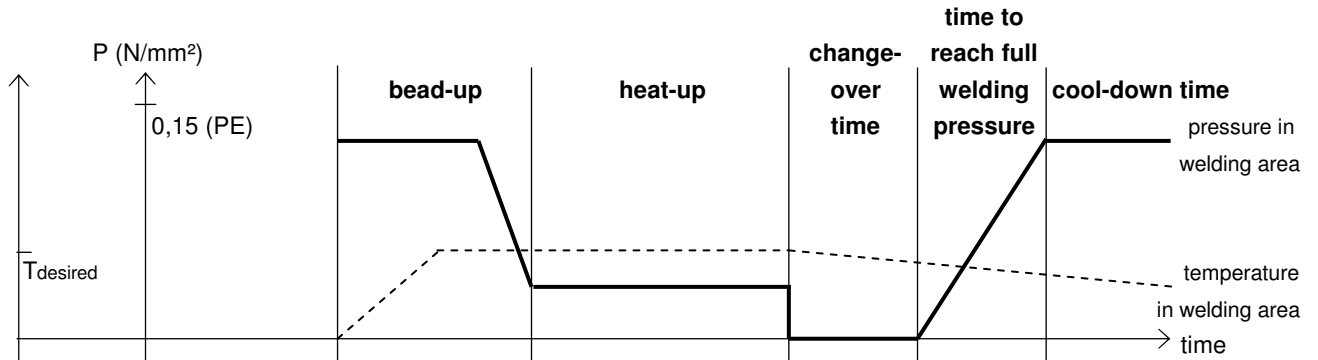
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pipe diameter OD [mm]	pipe wall (s) [mm]	SDR	bead-up pressure [bar]	circular bead min. [mm]	heat-up time [s]	max. change-over time [s]	time to reach welding pressure [s]	welding pressure [bar]	cool-down time [min] ①
160	4,0	41,0	5	0,5	40	5	5	5	5
	4,9	33,0	7	1,0	49	5	5	7	7
	6,2	26,0	8	1,0	62	6	6	8	9
	7,7	21,0	10	1,5	77	6	6	10	11
	9,1	17,6	11	1,5	91	7	7	11	13
	9,5	17,0	12	1,5	95	7	7	12	13
	11,8	13,6	14	1,5	118	8	8	14	16
	14,6	11,0	17	2,0	146	9	9	17	19
	17,9	9,0	21	2,0	179	10	11	21	23
21,9	7,4	25	2,5	219	11	12	25	27	
180	4,4	41,0	7	0,5	44	5	5	7	6
	5,5	33,0	8	1,0	55	5	5	8	8
	6,9	26,0	10	1,0	69	6	6	10	10
	8,6	21,0	12	1,5	86	7	7	12	12
	10,2	17,6	14	1,5	102	7	7	14	14
	10,7	17,0	15	1,5	107	7	7	15	14
	13,3	13,6	18	2,0	133	8	9	18	17
	16,4	11,0	22	2,0	164	9	10	22	21
	20,1	9,0	26	2,5	201	10	11	26	25
24,6	7,4	31	2,5	246	12	13	31	30	

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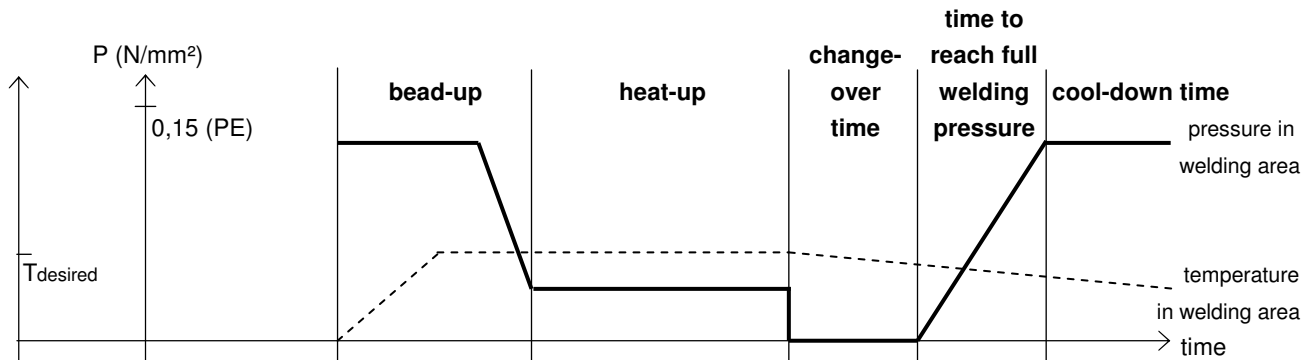
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200	4,9	41,0	8	1,0	49	5	5	8	7
	6,2	33,0	10	1,0	62	6	6	10	9
	7,7	26,0	12	1,5	77	6	6	12	11
	9,6	21,0	15	1,5	96	7	7	15	13
	11,4	17,6	18	1,5	114	8	8	18	15
	11,9	17,0	18	1,5	119	8	8	18	16
	14,7	13,6	22	2,0	147	9	9	22	19
	18,2	11,0	27	2,0	182	10	11	27	23
	22,4	9,0	32	2,5	224	11	12	32	28
27,4	7,4	38	3,0	274	13	15	38	34	
225	5,5	41,0	10	1,0	55	5	5	10	8
	6,9	33,0	13	1,0	69	6	6	13	10
	8,6	26,0	15	1,5	86	7	7	15	12
	10,8	21,0	19	1,5	108	8	8	19	15
	12,8	17,6	22	2,0	128	8	8	22	17
	13,4	17,0	23	2,0	134	8	9	23	18
	16,6	13,6	28	2,0	166	9	10	28	21
	20,5	11,0	34	2,5	205	10	12	34	26
	25,2	9,0	41	2,5	252	12	14	41	31
30,8	7,4	48	3,0	308	14	16	48	38	

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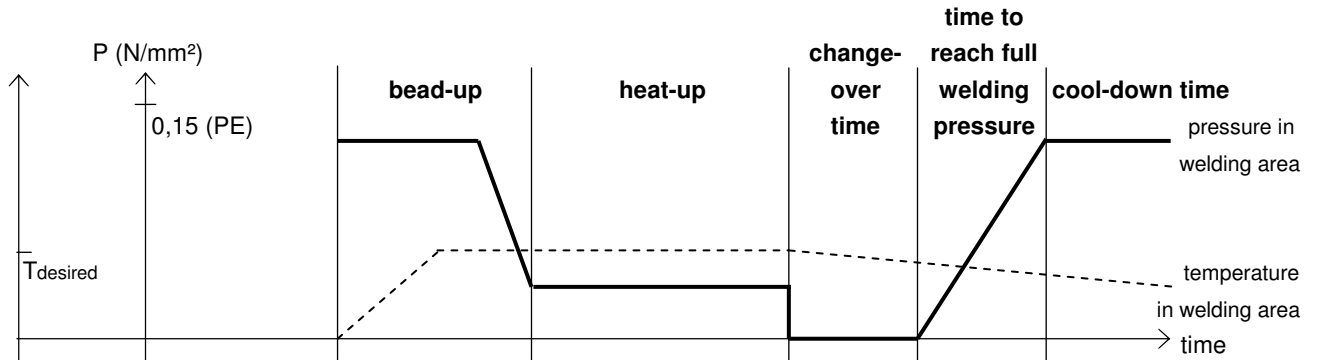
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250	6,2	41,0	13	1,0	62	6	6	13	9
	7,7	33,0	15	1,5	77	6	6	15	11
	9,6	26,0	19	1,5	96	7	7	19	13
	11,9	21,0	23	1,5	119	8	8	23	16
	14,2	17,6	27	2,0	142	9	9	27	19
	14,8	17,0	28	2,0	148	9	9	28	19
	18,4	13,6	35	2,0	184	10	11	35	23
	22,7	11,0	42	2,5	227	11	13	42	28
	27,9	9,0	50	3,0	279	13	15	50	34
34,2	7,4	59	3,0	342	15	18	59	42	
280	6,9	41,0	16	1,0	69	6	6	16	10
	8,6	33,0	19	1,5	86	7	7	19	12
	10,7	26,0	24	1,5	107	7	7	24	14
	13,4	21,0	29	2,0	134	8	9	29	18
	15,9	17,6	34	2,0	159	9	10	34	20
	16,6	17,0	35	2,0	166	9	10	35	21
	20,6	13,6	43	2,5	206	10	12	43	26
	25,4	11,0	52	2,5	254	12	14	52	31
	31,3	9,0	63	3,0	313	14	16	63	38
38,3	7,4	74	3,5	383	16	20	74	47	

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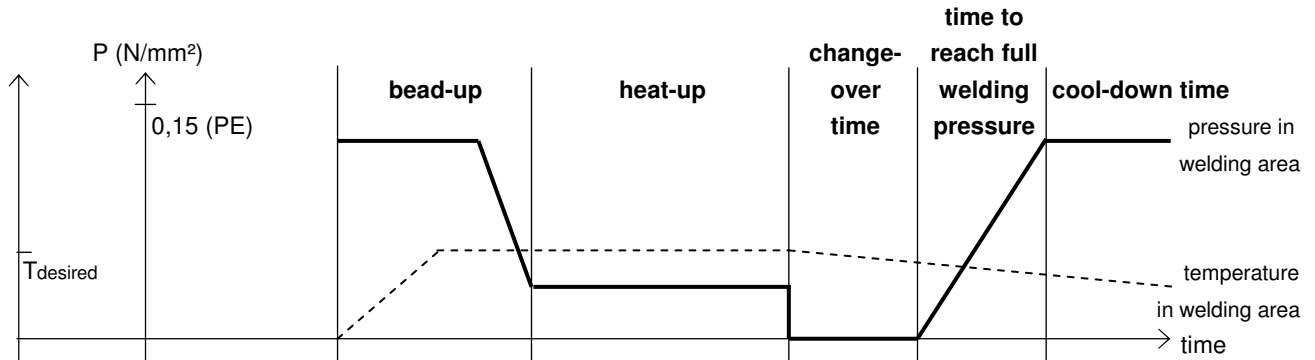
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315	7,7	41,0	19	1,5	77	6	6	19	11
	9,7	33,0	24	1,5	97	7	7	24	13
	12,1	26,0	30	2,0	121	8	8	30	16
	15,0	21,0	36	2,0	150	9	9	36	19
	17,9	17,6	43	2,0	179	10	11	43	23
	18,7	17,0	45	2,0	187	10	11	45	24
	23,2	13,6	55	2,5	232	11	13	55	29
	28,6	11,0	66	3,0	286	13	15	66	35
	35,2	9,0	79	3,0	352	15	18	79	43
43,1	7,4	94	3,5	431	18	22	94	52	
355	8,7	41	25	1,5	87	7	7	25	12
	10,9	33	30	1,5	109	8	8	30	15
	13,6	26,0	38	2,0	136	8	9	38	18
	16,9	21,0	46	2,0	169	9	10	46	22
	20,1	17,6	54	2,5	201	10	11	54	25
	21,1	17	57	2,5	211	11	12	57	26
	26,1	13,6	69	3,0	261	12	14	69	32
	32,2	11,0	84	3,0	322	14	17	84	39
	39,7	9,0	100	3,5	397	17	20	100	48
48,5	7,4	119	3,5	485	20	24	119	58	

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
- Join parts with wall thickness ≥ 15 mm