

**General Buttwelding Parameters for HDPE pipes PE 80 according to the German
Association for welding norm DVS 2207 part 1**

Pipe Wall thickness	Temp. of heating element	Adjusting Bead height with pressure	Heat up Pressure	Heat up time Sec	Maximum Change time sec	Time to reach Full welding Pressure	Welding Pressure	Min. Cooling Time under welding pressure
In mm	In °C	0,15N/mm ²	In N/mm ²	10 x wall thickness		In sec	In N/mm ²	in Minute
< 4,5	220	1,5mm	0,01	45	5	5	0,15	6
4,5-7	215	1,5mm	0,01	45-70	5-6	5-6	0,15	6-10
7-12	215	1,5mm	0,01	70-120	6-8	6-8	0,15	10-16
12-19	210	1,5mm	0,01	120-190	8-10	8-10	0,15	16-24
19-26	205	2,0mm	0,01	190-260	10-12	10-14	0,15	24-32
26-37	205	3,0mm	0,01	260-370	12-16	14-19	0,15	32-45
37-50	200	3,5mm	0,01	370-500	16-20	19-25	0,15	45-60
50-70	200	4,0mm	0,01	500-700	20-25	25-35	0,15	60-80

NOTE:

We would like to point that the given values for the pressure are the general values only and these values have to be transmitted according to the individual buttwelding equipment to be used as follows:

wp = welding pressure (0,15N/mm²)

pcs = surface of pipe cross section

hc = surface of hydraulic cylinder cross section

p = pressure on manometer

$$\text{Formula for pressure in PSI: } \frac{wp(N/mm^2) \times pcs(mm^2)}{hc(mm^2)} \times 142.234 = p[inPSI]$$

$$\text{Formula for pressure in bar: } \frac{wp(N/mm^2) \times pcs(mm^2)}{hc(mm^2)} \times 10 = p[bar]$$