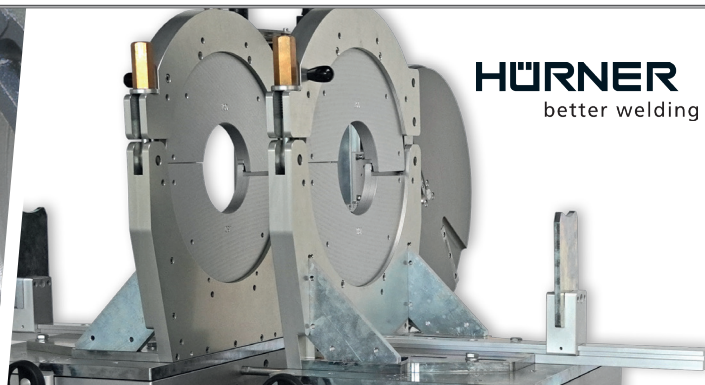




HÜRNER
better welding



EasyWeld 110 V 2

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1 Introduction

Dear Customer:

Thank you very much for purchasing our product. We are confident that it will perform to your fullest satisfaction.

The **EasyWeld 110 V 2** butt-welding machine is designed exclusively for welding pipes and components made of thermoplastic material with one of the diameters it is intended for, using the butt-welding process with heating element.

The product was manufactured according to state-of-the-art technology and recognized safety regulations.

Before shipment, the product was checked for operation reliability and safety. In case of errors of handling or misuse, however, the following may be exposed to hazards:

- the operator's health,
- the product and other hardware assets of the operator,
- the efficient work of the product.

All persons involved in the installation, operation, maintenance, and service of the product have to

- be properly qualified or trained,
- operate the product only when observed,
- read carefully and conform to the User's Manual before working with the product.

Thank you.

2 Safety Messages

Compliance with the following safety rules is critical for the effective use of the product and for working without exposing oneself to hazards.

2.1 Working with the Machine

- Keep the workplace and the equipment itself clean.
- Use appropriate caution when operating the machine.
- Operate the machine only when the power supply cords are perfectly in order (no damage, kinks, twists or knots) and protect the cords against cutting edges.
- Always dress appropriately when planning to use the machine: long trousers, heat-resistant safety gloves and safety shoes.
- Do not wear scarfs, necklaces, watches, rings or any other object that could get caught in the moving parts of the machine.

- Do not expose the machine to the elements and do not use it in unfavorable weather conditions (fog, snow, rain, high levels of humidity, etc.).
- Respect any applicable rules on occupational safety in force at the place the machine is used, and use common sense to avoid any hazardous situation.

2.2 Work Environment

- Do not use the machine, in particular its heating element, when flammable liquids or gases, chemically reactive or corrosive agents are in the vicinity.
- Make sure that the place where the machine is used and its immediate surroundings are sufficiently brightly illuminated.
- Operate the machine only when it is connected to a power supply source that is adequate for the power supply requirements posed by the electrical facing tool and the electrical heating element.

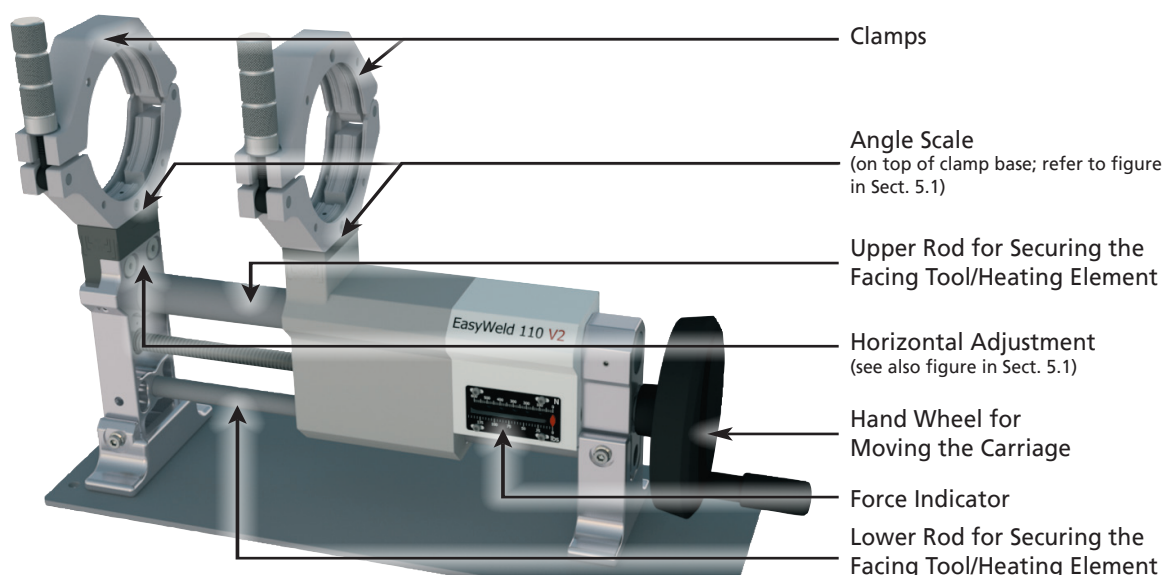
2.3 Intended Use

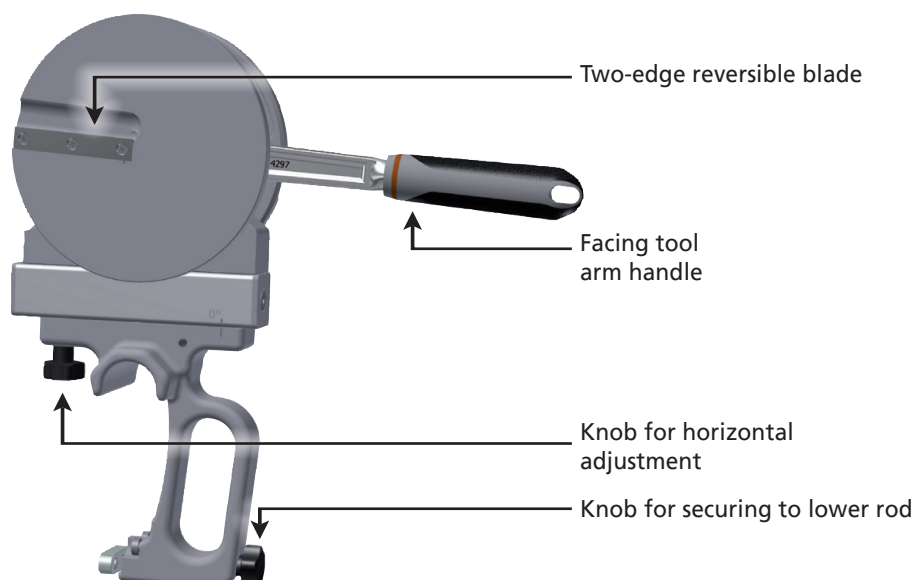
The use the product is intended for is described at the beginning of Sect. 1.

Any other use is deemed unintended, and any such use will void any and all warranty and liability assumed by the manufacturer for the product, including for consequential damage.

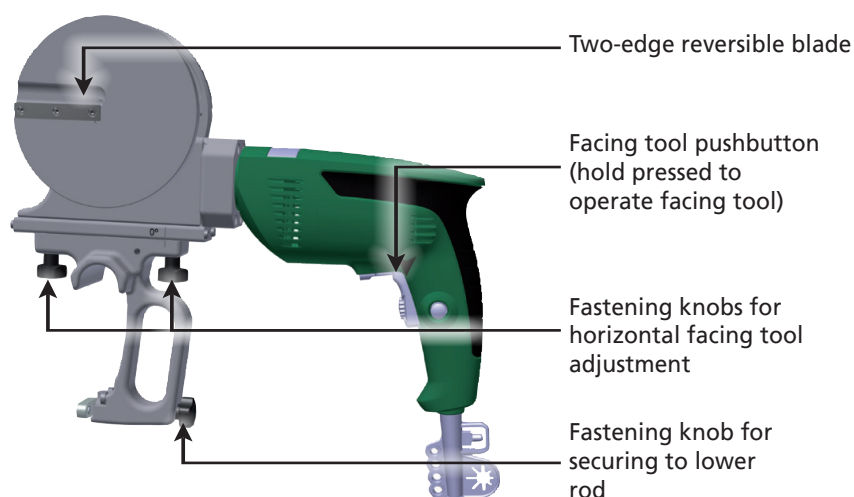
3 Machine Description

3.1 Component Overview

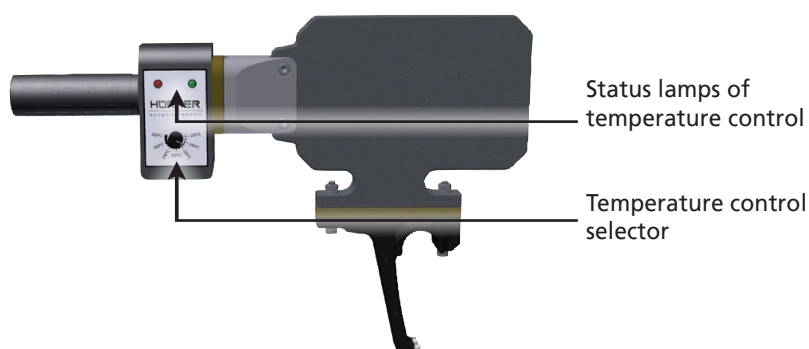




Manual Facing Tool - EasyWeld 110



Power Facing Tool - EasyWeld 110
(optional)



Heating Element - EasyWeld 110

3.2 Transport, Storage, Shipment

The machine ships on a base plate and requires only to be set on a surface where it will not slip. The shipment is properly wrapped and packaged to avoid possible damage.



Immediately after receipt, make sure that the shipment is complete and in a proper condition and notify the transporter of any defects or missing part. Complaints at a later point may no longer be eligible for remedy.

3.3 Technical Specifications

EasyWeld 110 V 2		U _{in} = 230 V		U _{in} = 110 V
Operating range	O.D. 20 - 110 mm			
Suitable materials	PE, PP, and PVDF			
Power supply of facing tool/heating elem.	230 V, 50/60 Hz 110 V, 50/60 Hz			
Carriage stroke	129 mm (5 1/8")			
Maximum force	600 N			
Pwr input heating elem./facing tool	800 W and 650 W 700 W and 650 W			
Dimensions of machine on base plate	516 × 390 × 180 mm (20 3/8 × 15 3/8 × 7 1/8")			
Weight of machine excluding base plate	approx. 9 kg (19.8 lbs.)			
Overall weight all components in box				
EasyWeld 110 V 2, manual fac. tool	57 kg (125 1/2 lbs.)			
EasyWeld 110 V 2, power facing tool	59 kg (129 3/4 lbs.)			
Supplied reducer inserts	20, 25, 32, 40, 50, 63, 75, 90 mm			

4 Principle of Operation

4.1 General Information

The heating element butt-welding process is a type of joint in which two components are plasticized by contact with a heating element and then pressed together with a defined force. The seamless joint is achieved through allowing them to cool. It includes the following operating steps:

- If the components to be jointed are of a smaller diameter than the size of the clamps, the appropriate reducer inserts are installed in the clamps.
- The clamps are prepared for the desired joint: straight or elbow of one of the available angles.
- The components are secured in the clamps and aligned to each other.
- The butts of the pipes/fittings are faced and when facing is completed, the butts are checked for proper alignment.
- The butts of the components are pressed against the heating element, to be heated as defined by the applicable welding time.
- The heating element is removed from in-between the components and both, pipes or fittings, are pressed against each other under the defined force and allowed to cool down.

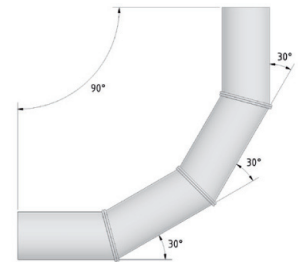


No external forces must be applied prior to the components having completely cooled down.

Important

4.2 Information on Welding Elbows

As a preparation of the welding process, the components have to be cut to the desired angle of the joint. Then the jointing operation at an angle can be performed as described above. When welding a segmented bend, the next joint can be made right after the first joint, provided the segment pieces were pre-cut at the correct angle. If not, the next piece has still to be prepared by cutting it at the angle needed for the joint with the preceding segment, as previously explained. Then the next segment joint is possible. When jointing segments, the operation is performed exclusively on the user's side of the machine.



The general information on the welding process also holds for segmented-bend joints, as described below. However where appropriate, additional information on them may be included below.

5 Operation



Info

The content of the delivery includes rubber legs and the respective screws to fasten them under the base plate. The machine can be used without them. However, the installation of the rubber legs for added stability is highly recommended. If it is used simply sitting on its base plate, the machine can slide when it applies a substantial force to the components being processed.



Important

When welding **components made of ECTFE**, utmost precision is required! The very careful cleaning and preparation of the point of jointing before the welding process is critical, since every (foreign) particle that may have been overlooked will be visible. The heating element surfaces require careful checking as well. They must not exhibit any scratches or damage because if so, there would be a risk for the component but not to detach properly from the heating element after the bead was formed.

5.1 Preparing the Welding Process, Clamping the Components

For bend segments, the clamps must be rotated to make the desired angle (see the angle scale imprinted below the clamps). To change the angle of the jointing setup, loosen the hexagonal socket screws in the top surface of the base of the clamp, in the clamp itself, on both sides, then retighten them.

As a preparation to the welding process and prior to it, the applicable welding forces F and welding times t have to be

looked up in the tables in the appendix (see Sect. 5.4 ff. below).



Important

All force values F in the tables in the appendix are for a **straight joint**. In angled joints, all values are identical, excepting forces, to which apply other values, F_α , computed depending on the planned angle α according to the following equation: $F_\alpha = \frac{F}{\text{coeff}_\alpha}$

where the following applies for the coefficient:

$\alpha = 5 \text{ deg.}$	—	$\text{coeff}_\alpha = 0.996$
$\alpha = 11.25 \text{ deg.}$	—	$\text{coeff}_\alpha = 0.981$
$\alpha = 15 \text{ deg.}$	—	$\text{coeff}_\alpha = 0.966$

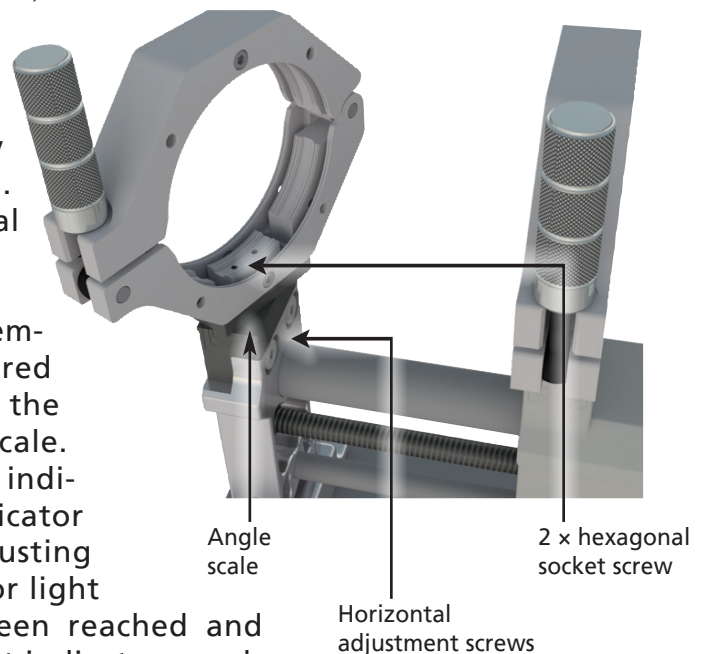
Sample calculation:

Material PE 80, diameter 63 mm, SDR 11, $\alpha = 15^\circ$

$$F_\alpha = \frac{F}{\text{coeff}_\alpha} = F_{15^\circ} = \frac{156,3 \text{ N}}{0,966} = 161,80 \text{ N}$$

Switching the heating element on by plugging its power cord into the mains supply is part of the preparation of the jointing. The heating element will have the nominal temperature only after some time.

The heating element enables manual temperature control. The temperature required for the welding operation can be set with the turning selector, based on the provided scale. Power is supplied to it as soon as the red indicator light is on. As long as the green indicator light flashes, the heating element is adjusting the temperature. When the green indicator light is constantly lit, this temperature has been reached and welding can be started. A flashing red light indicates a malfunction that prevents further use of the heating element.



5.2 Facing Component Butts

Place the facing tool between the component butts, setting it onto the upper rod and against the lower rod and secure it by turning the appropriate knob. If the power facing tool is used, press the trigger-style pushbutton at this point and hold it pressed-down. Then use the hand wheel to move the movable carriage of the machine in on the fixed carriage. The power facing tool then works both component butts automatically. With the manual facing tool, the blade is driven by the back and forth of the arm, as though a ratchet spanner.



Important

When the clamps are set at an angle, the facing tool has to be moved forward or backward on its sup-

port, so the components are in a centered position with respect to the facing tool. To move it, loosen, then retighten the knob or the knobs under the facing tool.

Facing is properly completed when a continuous blade of material is cut from both component butts. This typically requires a force of about 150 N. The facing force has to be set and kept according to the indicator using the hand wheel.



Do not put your hand into the operating area of the facing tool while facing is in progress and—when using the power facing tool—remove shavings only after the facing tool stops.

5.3 Checking Component Alignment

After facing, verify that the alignment of the components is correct and that any gap is within tolerance. Re-clamp them if needed.

A horizontal alignment offset can be compensated for by the horizontally adjustable fixed clamp (refer to figure in Sect. 3.1, 5.1) of the machine (loosen both fastening screws, move clamp, retighten fastening screws).

5.4 Bead Build-up Stage

Insert the hot heating element between the two components to be jointed and close both of them in on it using the hand wheel.

During the bead build-up, the force F_1 has to be applied. This force has to be looked up in the tables in the appendix. **In case of joints at an angle, instead of F use the computed force F_α** (see “Important” paragraph at the end of Sect. 5.1).

Continue turning the hand wheel until the force indicator on the right-hand side of the machine indicates the force level valid for F_1 .

The bead build-up stage is completed when the weld bead that is forming reaches the height indicated in the tables in the appendix.

5.5 Heating Stage

At the end of the bead build-up stage, the force must be reduced to F_2 , as previously looked up in the appendix. To do this, turn the hand wheel in the opposite direction. **In case of joints at an angle, instead of F use the com-**

puted force F_α (see "Important" paragraph at the end of Sect. 5.1).

The force thus set has to be constantly applied in the heating stage. The heating stage is completed after the duration that is indicated for t_2 in the appendix.



Important

Despite the reduced force, the contact of the components and the heating element must be ensured throughout this stage. It must not be lost anywhere on the component circumference. If so, abort and repeat the welding operation.

5.6 Change-over and Jointing

When the heating stage is completed, turn the hand wheel back to remove the components to be joined from the heating element, remove the heating element from in-between them and bring the components in contact with each other using the hand wheel.

The longest acceptable duration for this stage of the welding process is the one indicated for t_3 in the tables in the appendix.

Immediately after contact is established between the component butts, the jointing force has to be reached. Building this force, by continuing to turn the hand wheel until the force indicator shows the value for F_5 , has to be done as a consistent and linear increase. F_5 is the same as F_1 . **In case of joints at an angle, instead of F use the computed force F_α** (see "Important" paragraph at the end of Sect. 5.1).

The force increase, to reach the jointing force, must neither take longer than indicated in the appendix nor — under the DVS standard — be shorter than 50 % of that duration.

5.7 Cooling Stage

When the jointing force is reached, keep the movable carriage of the machine at this position, in order for this force to be kept. It must continue to be applied, while the joint cools down, for as many minutes as indicated in the tables in the appendix. Like all other durations, it depends on the wall thickness.

During this stage, no external forces must affect the new joint.

5.8 End of Welding

After the full duration for the cooling stage, before open-

ing the clamps and taking the new joint out of them, reduce the applied force to 0.

6 Troubleshooting

Issue	Correction
The electrical facing tool does not operate. or The heating element does not operate	The facing tool/heating element must be connected to a power supply, and the supply must meet the requirements posed by it.
The facing process does not yield an outcome of the desired/required quality.	The facing blades must be sharp and the rotating blade supports, in a good condition.

7 Service and Maintenance

- Clean the machine completely at the end of every job, especially if it is going to be stored for a prolonged period of time.
- Check that the shaft along which the movable parts move is always clean.
- Check the clamps and their tightening mechanism for proper operation.
- Check the PTFE coating of the heating element. Its surfaces should be homogeneous and without scratches. If the material homogeneity is compromised or the part is damaged, it should be replaced.
- Check the facing tool for proper condition, in particular the blades must be sharp. The blades can be reversed once and work can go on with their second sharp edge. When both edges are worn, the blades must be replaced. Do not attempt to sharpen the blades on your own, as such sharpened blades tend to be a hazard and cannot ensure a proper facing outcome.

8 Service and Repair Contact

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35325 Mücke, Deutschland Fax: +49 (0)6401 9127 39

Web: www.huerner.de Mail: info@huerner.de



We reserve the right to make technical changes to the product without prior notice.

Pursuant to the directive 2012/19/EU on waste electrical and electronic equipment (so-called WEEE Directive), equipment that was manufactured or distributed by ourselves may be returned to us. To discuss the exact procedure to follow, please contact us with the details above.

We also declare that equipment manufacture complies with the directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (so-called RoHS Directive).



9 Product Components/Spares

Reducer 110/20 (set w/ 8 semicircular inserts)	400-102-024
Reducer 110/25 (set w/ 8 semicircular inserts)	400-102-025
Reducer 110/32 (set w/ 8 semicircular inserts)	400-102-026
Reducer 110/40 (set w/ 8 semicircular inserts)	400-102-027
Reducer 110/50 (set w/ 8 semicircular inserts)	400-102-028
Reducer 110/63 (set w/ 8 semicircular inserts)	400-102-029
Reducer 110/75 (set w/ 8 semicircular inserts)	400-102-030
Reducer 110/90 (set w/ 8 semicircular inserts)	400-102-031
Replacement facing blade	400-101-000
Transport case	400-102-000
Manual facing tool, incl. horiz. adjustability	200-260-057
Pwr facing tool 230 V / 650 W, incl. hor. adjust.	400-020-003
Pwr facing tool 110 V / 650 W, incl. hor. adjust.	400-020-004
Heating element 230 V / 800 W	400-020-001
Heating element 110 V / 700 W	400-020-002
Tabletop stand for heating elem. / facing tool	400-101-109
Carrying and storage rack	
for heating element and facing tool	400-400-000
Welding neck support	400-460-000
Narrow clamp, RH side	400-451-000
Narrow clamp, LH side	400-450-000

Appendix

The stages of the welding process, for which the tables below provide applicable time and force values, are addressed in detail in Sect 5.4 ff of this manual.

	Diameter of components to be welded Диаметр свариваемых деталей
	Wall thickness of components Толщина стенки свариваемых деталей
$\frac{D}{s}$	Standard Dimension Ratio as $\emptyset$ /wall Стандартное соотношение $\emptyset$ /стенка
	Maximum alignment gap before welding Макс. смещение концов перед сваркой
	Heating element temp. while welding Температура нагревателя в течение сварки
	Bead thickness to end bead build-up stage Высота наплыва в конце подгонки

The **time for cooling** depends on the ambient temperature. The cooling time given in the tables is applicable to outside temperatures $> 25^{\circ}\text{C}$. If this time is observed, the welded joint will be standard-compliant under DVS in all events. If the ambient temperature is lower, the cooling time can be reduced:

- if it is $< 25^{\circ}\text{C}$, but $> 15^{\circ}\text{C}$
for PE by 25 %
for PP by 20 %
- if it is $< 15^{\circ}\text{C}$
for PE by 40 %
for PP by 30 %

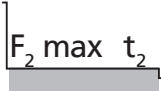
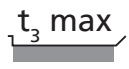
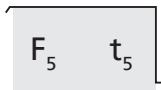
For joints made in the workshop, the cooling time can be reduced:

- for PE** by 50 %
for PP by 40 %

provided only minor mechanical stress is exercised on the new joint while and after it is removed from the basic machine chassis.

Приложение

Фазы сварочного процесса, для которых таблицы снизу задают надлежащие времена и усилия, поясняются в разделах 5.4 и след. данного руководства.

	Force in bead build-up stage Усилие в фазе подгонки
	Max. force and time of heating stage Макс. усилие и время в фазе нагрева
	Max. time of change-over Макс. продолжительность перестановки
	Time of linear increase to joining force Продолж. повышения к усилию соединения
	Joining force and time of cooling Усилие соединения и время охлаждения

Время охлаждения определяется в зависимости от окружающей температуры. Значения, заданные снизу, применимы при температуре воздуха $> 25^{\circ}\text{C}$. Если будет соблюдено это время, соединение будет согласно норме DVS во всяком случае. При температуре воздуха ниже этого разрешается сократить время охлаждения:

- если она $< 25^{\circ}\text{C}$, но $> 15^{\circ}\text{C}$
для ПЭ, на 25 %
для ПП, на 20 %
- если она $< 15^{\circ}\text{C}$
для ПЭ, на 40 %
для ПП, на 30 %

Если сварка выполняется на заводе, охлаждение разрешается сократить:

- для ПЭ**, на 50 %
для ПП, на 40 %

насколько механические силы, воздействующие на новое соединение при и после вынимания из машины, являются незначительными.

PE 80 / PE 100		HÜRNER EasyWeld 110 V 2											
DVS 2207-1 (de 08/2015, en 12/2016)													
		$\frac{D}{s}$				F_1		F_2 max.	t_2	t_3 max.	t_4	F_5	t_5
mm	mm	SDR	mm	°C (PE 80)	°C (PE 100)	N	mm	N	sec	sec	sec	N	min

20	1,9	11	0,1	200	220	16	0,5	1	19	5	5	16	6,5
20	2,8	7,4	0,2	200	220	23	0,5	2	28	5	5	23	6,5
20	3,4	6	0,3	220	220	27	0,5	2	34	5	5	27	6,5
20	4,1	5	0,4	220	220	31	0,5	2	41	5	5	31	6,5
25	2,3	11	0,2	220	220	25	0,5	2	23	5	5	25	6,5
25	3,5	7,4	0,3	220	220	35	0,5	2	35	5	5	35	6,5
25	4,2	6	0,4	219	220	41	0,5	3	42	5	5	41	6,5
25	5,1	5	0,5	218	220	48	1,0	3	51	5	5	48	7,0
32	1,9	17	0,1	220	220	27	0,5	2	19	5	5	27	6,5
32	2,9	11	0,2	220	220	40	0,5	3	29	5	5	40	6,5
32	4,4	7,4	0,4	219	220	57	0,5	4	44	5	5	57	6,5
32	5,4	6	0,5	218	220	68	1,0	5	54	5	5	68	7,5
40	1,0	41	0,1	220	220	18	0,5	1	10	5	5	18	6,5
40	1,3	33	0,1	220	220	24	0,5	2	13	5	5	24	6,5
40	1,6	26	0,1	220	220	29	0,5	2	16	5	5	29	6,5
40	2,4	17	0,2	220	220	43	0,5	3	24	5	5	43	6,5
40	3,7	11	0,3	220	220	63	0,5	4	37	5	5	63	6,5
40	4,5	9	0,4	219	220	75	0,5	5	45	5	5	75	6,5
40	5,5	7,4	0,5	218	220	89	1,0	6	55	5	5	89	7,5
40	6,7	6	0,6	217	220	105	1,0	7	67	6	6	105	9,0
50	1,3	41	0,1	220	220	30	0,5	2	13	5	5	30	6,5
50	1,6	33	0,1	220	220	36	0,5	2	16	5	5	36	6,5
50	2,0	26	0,2	220	220	45	0,5	3	20	5	5	45	6,5
50	3,0	17	0,3	220	220	66	0,5	4	30	5	5	66	6,5
50	4,6	11	0,4	219	220	98	1,0	7	46	5	5	98	6,5
50	5,6	9	0,5	218	220	117	1,0	8	56	5	5	117	8,0
50	6,9	7,4	0,6	217	220	140	1,0	9	69	6	6	140	9,5
50	8,3	6	0,8	215	220	163	1,5	11	83	7	7	163	11,0
63	1,6	41	0,1	220	220	46	0,5	3	16	5	5	46	6,5
63	2,0	33	0,2	220	220	57	0,5	4	20	5	5	57	6,5
63	2,5	26	0,2	220	220	71	0,5	5	25	5	5	71	6,5
63	3,8	17	0,3	220	220	106	0,5	7	38	5	5	106	6,5
63	5,8	11	0,5	218	220	156	1,0	10	58	6	6	156	8,0
63	7,1	9	0,7	217	220	187	1,5	12	71	6	6	187	9,5
63	8,6	7,4	0,8	215	220	220	1,5	15	86	7	7	220	11,5
63	10,5	6	1,0	213	220	260	1,5	17	105	7	7	260	13,5



See important info on interpretation of tables on page 16.

PE 80 / PE 100 DVS 2207-1 (de 08/2015, en 12/2016)		HÜRNER EasyWeld 110 V 2											
 mm	 mm	$\frac{D}{s}$ SDR	 mm	 °C (PE 80)	 °C (PE 100)	F_1 N	 mm	F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min

75	1,9	41	0,1	220	220	65	0,5	4	19	5	5	65	6,5
75	2,3	33	0,2	220	220	79	0,5	5	23	5	5	79	6,5
75	2,9	26	0,2	220	220	99	0,5	7	29	5	5	99	6,5
75	4,5	17	0,4	219	220	150	0,5	10	45	5	5	150	6,5
75	6,8	11	0,6	217	220	219	1,0	15	68	6	6	219	9,5
75	8,4	9	0,8	215	220	264	1,5	18	84	7	7	264	11,0
75	10,3	7,4	1,0	214	220	314	1,5	21	103	7	7	314	13,5
75	12,5	6	1,2	212	220	368	2,0	25	125	8	8	368	16,0
90	2,2	41	0,2	220	220	91	0,5	6	22	5	5	91	6,5
90	2,8	33	0,2	220	220	115	0,5	8	28	5	5	115	6,5
90	3,5	26	0,3	220	220	143	0,5	10	35	5	5	143	6,5
90	5,4	17	0,5	218	220	215	1,0	14	54	5	5	215	7,5
90	8,2	11	0,8	215	220	316	1,5	21	82	6	6	316	11,0
90	10,1	9	1,0	214	220	380	1,5	25	101	7	7	380	13,0
90	12,3	7,4	1,2	212	220	450	2,0	30	123	8	8	450	16,0
90	15,0	6	1,5	210	220	530	2,0	35	150	9	9	530	19,0
110	2,7	41	0,2	220	220	137	0,5	9	27	5	5	137	6,5
110	3,4	33	0,3	220	220	171	0,5	11	34	5	5	171	6,5
110	4,2	26	0,4	219	220	209	0,5	14	42	5	5	209	6,5
110	6,6	17	0,6	217	220	322	1,0	21	66	6	6	322	9,0
110	10,0	11	1,0	214	220	471	1,5	31	100	7	7	471	13,0
110	12,3	9	1,2	212	220	566	2,0	38	123	8	8	566	16,0
110	15,1	7,4 **	1,5	210	220	675	2,0	45	151	9	9	675	19,5
110	18,3	6 **	1,8	208	220	791	2,0	53	183	10	11	791	23,0

** Verschweißung von Werkstücken mit dieser SDR-Stufe nur mit Produktausführung EasyWeld 110 T !
Jointing components of this SDR rating only when using product version EasyWeld 110 T !
Assemblage de pièces de cette caractéristique SDR uniquement à l'aide du modèle EasyWeld 110 T !
Соединение деталей с этим значением SDR только при использовании варианта EasyWeld 110 T !

PolyFlo PE 100-RC		EasyWeld 110 V 2										
	 mm	 mm	$\frac{D}{s}$ SDR	 °C (PE 100)	F_1 N	 mm	F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min
ext. int.	50 32	3,0 3,0	17 11	220	118	0,5	10	25	5	5	118	6,5
ext. int.	90 63	5,4 5,8	17 11	220	343	0,5	30	53	6	6	343	8,0



See important info on interpretation of tables on page 16.

PP DVS 2207-11 (de 05/2020, en 09/2017)		HÜRNER EasyWeld 110 V 2										
 mm	 mm	$\frac{D}{s}$ SDR	 mm	 °C	F_1 N	 mm	F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min
20	1,9	11	0,1	210	11	0,5	1	22	5	6	11	6,5
20	2,8	7,4	0,2	210	15	0,5	2	33	5	6	15	6,5
20	3,4	6	0,3	210	18	0,5	2	40	5	6	18	6,5
20	4,1	5	0,4	210	20	0,5	2	48	5	6	20	6,5
25	2,3	11	0,2	210	16	0,5	2	27	5	6	16	6,5
25	3,5	7,4	0,3	210	24	0,5	2	41	5	6	24	6,5
25	4,2	6	0,4	210	27	0,5	3	49	5	6	27	6,5
25	5,1	5	0,5	210	32	0,5	3	60	5	6	32	7,0
32	1,8	17,6	0,1	210	17	0,5	2	21	5	6	17	6,5
32	2,9	11	0,2	210	27	0,5	3	34	5	6	27	6,5
32	4,4	7,4	0,4	210	38	0,5	4	52	5	6	38	6,5
32	5,4	6	0,5	210	45	0,5	5	63	5	6	45	7,5
40	1,0	41	0,1	210	12	0,5	1	12	5	6	12	6,5
40	1,3	33	0,1	210	16	0,5	2	15	5	6	16	6,5
40	1,6	26	0,1	210	19	0,5	2	19	5	6	19	6,5
40	2,3	17,6	0,2	210	27	0,5	3	27	5	6	27	6,5
40	3,7	11	0,3	210	42	0,5	4	44	5	6	42	6,5
40	4,5	9	0,4	210	50	0,5	5	53	5	6	50	6,5
40	5,5	7,4	0,5	210	60	0,5	6	64	5	6	60	7,5
40	6,7	6	0,6	210	70	0,5	7	78	6	7	70	9,0
50	1,3	41	0,1	210	20	0,5	2	15	5	6	20	6,5
50	1,6	33	0,1	210	24	0,5	2	19	5	6	24	6,5
50	2,0	26	0,2	210	30	0,5	3	24	5	6	30	6,5
50	2,9	17,6	0,2	210	43	0,5	4	34	5	6	43	6,5
50	4,6	11	0,4	210	66	0,5	7	54	5	6	66	6,5
50	5,6	9	0,5	210	78	0,5	8	65	5	6	78	8,0
50	6,9	7,4	0,6	210	93	0,5	9	80	6	7	93	9,5
50	8,3	6	0,8	210	109	1,0	11	95	6	8	109	11,0
63	1,6	41	0,1	210	31	0,5	3	19	5	6	31	6,5
63	2,0	33	0,2	210	38	0,5	4	24	5	6	38	6,5
63	2,5	26	0,2	210	48	0,5	5	29	5	6	48	6,5
63	3,6	17,6	0,3	210	67	0,5	7	42	5	6	67	6,5
63	5,8	11	0,5	210	104	0,5	10	68	6	7	104	8,0
63	7,1	9	0,7	210	125	1,0	12	82	6	7	125	9,5
63	8,6	7,4	0,8	210	147	1,0	15	98	6	8	147	11,5
63	10,5	6	1,0	210	173	1,0	17	119	7	10	173	13,5



See important info on interpretation of tables on page 16.

PP DVS 2207-11 (de 05/2020, en 09/2017)		HÜRNER EasyWeld 110 V 2										
		$\frac{D}{s}$ SDR			F_1 N		F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min
mm	mm		mm	°C		mm						

75	1,9	41	0,1	210	44	0,5	4	22	5	6	44	6,5
75	2,3	33	0,2	210	53	0,5	5	27	5	6	53	6,5
75	2,9	26	0,2	210	66	0,5	7	34	5	6	66	6,5
75	4,3	17,6	0,4	210	96	0,5	10	51	5	6	96	6,5
75	6,8	11	0,6	210	146	0,5	15	79	6	7	146	9,5
75	8,4	9	0,8	210	176	1,0	18	96	6	8	176	11,0
75	10,3	7,4	1,0	210	209	1,0	21	117	7	10	209	13,5
75	12,5	6	1,2	210	245	1,0	25	140	7	11	245	16,0
90	2,2	41	0,2	210	61	0,5	6	26	5	6	61	6,5
90	2,8	33	0,2	210	77	0,5	8	33	5	6	77	6,5
90	3,5	26	0,3	210	95	0,5	10	41	5	6	95	6,5
90	5,1	17,6	0,5	210	136	0,5	14	60	5	6	136	7,0
90	8,2	11	0,8	210	211	1,0	21	94	6	8	211	11,0
90	10,1	9	1,0	210	254	1,0	25	114	7	9	254	13,0
90	12,3	7,4	1,2	210	300	1,0	30	138	7	11	300	16,0
90	15,0	6	1,5	210	353	1,0	35	165	8	14	353	19,0
110	2,7	41	0,2	210	91	0,5	9	32	5	6	91	6,5
110	3,4	33	0,3	210	114	0,5	11	40	5	6	114	6,5
110	4,2	26	0,4	210	140	0,5	14	49	5	6	140	6,5
110	6,3	17,6	0,6	210	205	0,5	21	73	6	7	205	8,5
110	10,0	11	1,0	210	314	1,0	31	113	7	9	314	13,0
110	12,3	9	1,2	210	378	1,0	38	138	7	11	378	16,0
110	15,1	7,4	1,5	210	450	1,0	45	166	8	14	450	19,5
110	18,3	6	1,8	210	527	1,0	53	199	9	16	527	23,0

Poly Flo PP-R		EasyWeld 110 V 2										
			$\frac{D}{s}$ SDR		F_1 N		F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min
	mm	mm		°C (PE 100)		mm						
ext. int.	50 32	3,0 3,0	17 11	210	78	0,5	7	36	5	5	78	6,5
ext. int.	90 63	5,4 5,8	17 11	210	274	0,5	26	70	5,5	6	274	8,0



See important info on interpretation of tables on page 16.

PVDF DVS 2207-15 (de 12/2005)		HÜRNER EasyWeld 110 V 2										
 mm	 mm	$\frac{D}{s}$ SDR	 mm	 °C	F_1 N	 mm	F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min
20	1,9	21	0,1	240	11	0,5	1	59	3	3	11	5,0
25	1,9	21	0,1	240	14	0,5	1	59	3	3	14	5,0
32	2,4	21	0,2	240	22	0,5	2	64	3	3	22	5,5
40	2,4	21	0,2	240	28	0,5	3	64	3	3	28	5,5
50	3,0	21	0,3	240	44	0,5	4	70	3	4	44	5,5
63	2,5	33	0,2	240	48	0,5	5	65	3	3	48	5,5
63	3,0	21	0,3	240	57	0,5	6	70	3	4	57	5,5
63	3,8	17	0,3	240	71	0,5	7	78	3	4	71	6,5
75	2,5	33	0,2	240	57	0,5	6	65	3	3	57	5,5
75	3,6	21	0,3	240	81	0,5	8	76	3	4	81	6,0
75	4,5	17	0,4	240	100	0,5	10	85	3	5	100	7,5
90	2,8	33	0,2	240	77	0,5	8	68	3	4	77	5,5
90	4,3	21	0,4	240	116	0,5	12	83	3	4	116	7,0
110	3,4	33	0,3	240	114	0,5	11	74	3	4	114	6,0
110	5,3	21	0,5	240	174	0,5	17	93	3	5	174	8,5



See important info on interpretation of tables on page 16.

ECTFE		HÜRNER EasyWeld 110 V 2										
 mm	 mm	$\frac{D}{s}$ SDR	 mm	 °C	F_1 N	 mm	F_2 max. N	t_2 sec	t_3 max. sec	t_4 sec	F_5 N	t_5 min
20	1,9	21	0,2	280	9	0,5	1	12	4	5	9	3,0
25	1,9	21	0,2	280	12	0,5	1	12	4	5	12	3,0
32	2,4	21	0,2	280	19	0,5	2	18	4	5	19	4,0
40	2,4	21	0,2	280	24	0,5	3	18	4	5	24	4,0
50	3	21	0,3	280	38	0,5	4	25	4	5	38	5,0
63	2,5	33	0,3	280	40	0,5	5	19	4	5	40	4,0
63	3	21	0,3	280	48	0,5	6	25	4	5	48	5,0
63	3,8	17	0,4	280	60	0,5	7	31	4	5	60	6,0
75	2,5	33	0,3	280	48	0,5	6	19	4	5	48	4,0
75	3,6	21	0,4	280	69	0,5	8	29	4	5	69	5,5
75	4,5	17	0,5	280	85	0,5	10	35	4	5	85	7,0
90	2,8	33	0,3	280	65	0,5	8	22	4	5	65	5,0
90	4,3	21	0,4	280	98	0,5	12	33	4	5	98	6,0
110	3,4	33	0,3	280	97	0,5	11	27	4	5	97	5,5
110	5,3	21	0,5	280	148	0,5	17	40	4	5	148	7,0



See important info on interpretation of tables on page 16.

DECLARATION OF CONFORMITY

We

HÜRNER Schweisstechnik GmbH
Technologie Str.
D - 35325 Mücke-Atzenhain

declare under our sole responsibility that the product

HÜRNER EasyWeld 110 V 2

Manual Heating-element Butt-welding Machine

to which this declaration relates, is in conformity with the following, and further thereto that
1) the relevant technical files and related technical and user documentation have been compiled in-house, 2) that the assessment and measurement protocols, which are also at the basis of said files, are in place in-house as a means of continuous quality control, and 3) that where the product or components of it is/are machinery in the sense of the relevant Statutory Instrument 2008/1597, it is/they are no machinery included in Schedule 2, Part 4 of said Instrument.

U. K. Conformity Assessment

The Supply of Machinery (Safety) Regulations 2008, S. I. 2008 no. 1597

— all of the above, as and where applicable, as amended by the Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019, S. I. 2019 no. 696, and, where applicable, further amended by the Product Safety and Metrology etc. (Amendment to Extent and Meaning of Market) (EU Exit) Regulations 2020, S. I. 2020 no. 676

Designated Standards

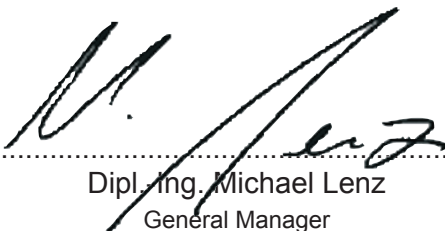
Directive 2012/19/EU

Directive 2011/65/EU

Any and all modifications of the product without our prior approval, and any repairs carried out in an unprofessional manner, shall cause this declaration to become void.

Mücke-Atzenhain

— 17.09.2026 —


.....
Dipl.-Ing. Michael Lenz
General Manager

KONFORMITÄTSERKLÄRUNG

Declaration of Conformity

Декларация о соответствии

Déclaration de conformité

Wir / We / Мы / Nous

HÜRNER Schweisstechnik GmbH
Technologie Str.
D - 35325 Mücke-Atzenhain



erklären in alleiniger Verantwortung, dass das Produkt
declare under our sole responsibility that the product
заявляем с полной ответственностью, что изделие
déclarons sous notre seule responsabilité que le produit

HÜRNER EasyWeld 110 V 2

Manuelle Stumpfschweißmaschine mit Heizelement
Manual Heating-element Butt-welding Machine
Ручная машина для стыковой сварки с нагревателем,
Machine manuelle à souder bout-à-bout à élément chauffant,

auf die sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten
übereinstimmen
to which this declaration relates, are in conformity with the following standards or standardizing
documents
auxquels se réfère cette déclaration, sont conformes aux normes et documents de normalisation
suivants

CE-Konformität / CE Conformity / Соответствие CE / Conformité CE

Directive 2006/42/EC Directive 2012/19/EU
Directive 2011/65/EU Regulation 2025/40/EU

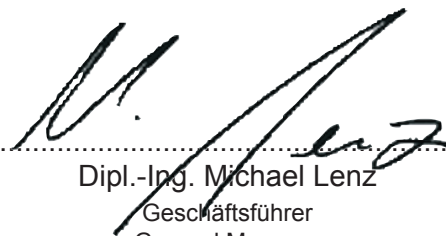
Bei einer nicht mit uns abgestimmten Änderung des Produkts oder einer nicht fachgerecht durchgeführten Reparatur verliert diese Erklärung ihre Gültigkeit.

Any and all modifications of the product without our prior approval, and any repairs carried out in an unprofessional manner, shall cause this declaration to become void.

Настоящая декларация утрачивает силу в случаях внесения изменений в продукцию без нашего предварительного согласия, а также непрофессионального выполнения ремонта.

En cas de modification apportée au produit sans notre accord préalable ainsi que de réparation effectuée de manière non professionnelle, cette déclaration deviendra caduque.

Mücke-Atzenhain
— 17.09.2026 —


.....
Dipl.-Ing. Michael Lenz
Geschäftsführer
General Manager
Исполнительный директор
Directeur général

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