

# **Extrusion Welders**





For decades, **WEGENER** has been developing, designing, building and selling high-performance and reliable hand extrusion welders. They combine a very compact and lightweight design with a high welding performance and excellent quality of the extrudate. All extruders in the **WEGENER** EXWELD x3 series have an extrusion part with a fully-fledged 3-zone extrusion screw, a rapid microprocessor-based control system for the extrudate and air temperature as well as the main drive and a patented thermal isolation of the extrusion part from the drive. One new feature is the modular design, so that users can perform minor maintenance and service work themselves. Even demanding materials such as CPVC can be easily processed with the corresponding PVC extruder version.

## Which Extruder fits to which sheet thickness?

Extruder	max.					She	eet	Thic	kne	ss [	mm	]			
	welding output PE (kg/h)	3	4	5	6	8	10	12	15	20	25	30	35	40	50
EXWELD mini2	0,9														
EXWELD aero	2,6														
EXWELD sigma3 EC	1,9														
EXWELD sigma3 SC	1,9														
EXWELD alpha3 EC	2,6														
EXWELD alpha3 SC	2,6														
EXWELD beta3 EC	4,6														
EXWELD beta3 SC	4,6														
EXWELD gamma3 EC	6,2														
EXWELD hydro beta2	4,8														

# **Application**

During extrusion welding, the components to be joined are welded using a continuously fed filler material (welding wire). A similar material is preferably used as welding wire. The extrudate that is continuously produced by the extruder is applied in the weld joint that has been pre-heated (hot gas) to the processing temperature.

User-friendly and practical design through:

- WEGENER microprocessor control system for air and extrudate temperature, and to control the motor
- Own air supply in the SC version through a WEGENER brushless Airbox 2,200 W
- EXWELD sigma3 and EXWELD alpha3 external air supply in the EC version through a WEGENER air heater 2,500 W
- EXWELD beta3 and gamma3 external air supply in the EC version through a WEGENER air heater 3,000 W
- Switch between actual and target value display for air heater and extrudate temperature
- Cold start protection (start-up protection dependent on time and temperature)
- Monitoring of the pre-set target temperature of the extrudate heater with motor-stop function if the deviation is too high
- Easily exchangeable PTFE welding shoe, adjustable front handle
- The scope of delivery includes a welding shoe of your choice and an integrated or external unit stand











Technical Data	sigma3 SC TWISTY	sigma3 EC TWISTY	EXWELD alpha3 SC	EXWELD alpha3 EC
	Item no. 30273	Item no. 30274	Item no. 30275	Item no. 30276
Power supply:	230 V 1/N/PE 50/60 Hz	230 V 1/N/PE 50/60 Hz	230 V 1/N/PE 50/60 Hz	230 V 1/N/PE 50/60 Hz
Power consumption:	3,390 W	3,690 W	3,660 W	3,960 W
Air requirement:	self-contained air supply	>300 l/min	self-contained air supply	>300 l/min
Heating capacity (air):	2,200 W	2,500 W	2,200 W	2,500 W
Welding capacity (PE):	approx. 1.9 kg/h	approx. 1.9 kg/h	approx. 2.6 kg/h	approx. 2.6 kg/h
Welding capacity (PP):	approx. 1.8 kg/h	approx. 1.7 kg/h	approx. 2.2 kg/h	approx. 2.2 kg/h
Welding rod diameter:				
PE (mm)	3,4,5	3,4,5	3,4,5	3,4,5
PP (mm)	3,4	3,4	3,4,5	3,4,5
Weight:*	5.6 kg	5.4 kg	6.9 kg	6.3 kg
Dimensions (L x H x W in mm):	440 x 230 x 130	440 x 250 x 130	530 x 290 x 140	530 x 220 x 135

Technical Data	alpha3 SC TWISTY	alpha3 EC TWISTY	EXWELD beta3 SC	EXWELD beta3 EC
	Item no. 30277	Item no. 30278	Item no. 30279	Item no. 30280
Power supply:	230 V 1/N/PE 50/60 Hz	230 V 1/N/PE 50/60 Hz	230/400 V 3/N/PE 50/60 Hz	230/400 V 3/N/PE 50/60 Hz
Power consumption:	3,660 W	3,960 W	4,560 W	5,360 W
Air requirement:	self-contained air supply	>300 l/min	self-contained air supply	>300 l/min
Heating capacity (air):	2,200 W	2,500 W	2,200 W	3,000 W
Welding capacity (PE):	approx. 2.6 kg/h	approx. 2.6 kg/h	approx. 4.6 kg/h	approx. 4.6 kg/h
Welding capacity (PP):	approx. 2.2 kg/h	approx. 2.2 kg/h	approx. 4.3 kg/h	approx. 4.3 kg/h
Welding rod diameter:				
PE (mm)	3,4,5	3,4,5	3,4,5	3,4,5
PP (mm)	3,4,5	3,4,5	3,4,5	3,4,5
Weight:*	7.0 kg	6.4 kg	10.6 kg	9.9 kg
Dimensions (L x H x W in mm):	555 x 280 x 135	555 x 240 x 130	590 x 390 x 140	590 x 335 x 150

Technical Data	beta3 SC TWISTY	beta3 EC TWISTY	EXWELD gamma3 EC
	Artikel-Nr. 30281	Artikel-Nr. 30282	Artikel-Nr. 30283
Power supply:	230/400 V 3/N/PE 50/60 Hz	230/400 V 3/N/PE 50/60 Hz	230/400 V 3/N/PE 50/60 Hz
Power consumption:	4,560 W	5,360 W	5,760 W
Air requirement:	self-contained air supply	>300 l/min	>300 l/min
Heating capacity (air):	2,200 W	3,000 W	3,000 W
Welding capacity (PE):	approx. 4.6 kg/h	approx. 4.6 kg/h	approx. 6.2 kg/h
Welding capacity (PP):	approx. 4.3 kg/h	approx. 4.3 kg/h	approx. 5.6 kg/h
Welding rod diameter:			
PE (mm)	3,4,5	3,4,5	3,4,5
PP (mm)	3,4,5	3,4,5	3,4,5
Weight:*	10.7 kg	10.0 kg	10.1 kg
Dimensions (L x H x W in mm):	600 x 390 x 140	600 x 335 x 140	590 x 335 x 150

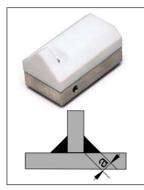
Do you need an extruder to weld PVC or pellets / granules? If so, we are your competent partner too! Contact us now, we will be happy to help!

<sup>\*</sup> without input lead (cable)

#### **Accessories**

An extensive range of accessories for weld seam preparation, quality control and weld seam finishing as well as a complete assortment of welding shoes for all welding geometries round off the **WEGENER** delivery portfolio.

# Welding Shoes for Extrusion Welder:



# fillet weld (90° weld): (a-measurement according to DVS Rules)

article no.	sheet thickness	a size
14153	5, 6, 8 mm	5.6 mm
14154	10 mm	7.0 mm
14155	12 mm	8.4 mm
14156	15 mm	10.5 mm
11060	20 mm	14.0 mm
11061	25 mm	17.5 mm
11062	30 mm	21.0 mm
11063	35 mm	24.5 mm
11064	40 mm	28.0 mm
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#### V-weld:

article no.	sheet thickness	
11065	5,6 mm	
11066	8 mm	
11067	10 mm	
11068	12 mm	
11069	15 mm	
11070	20 mm	
11071	25 mm	
11072	30 mm	
11073	35 mm	
11074	40 mm	



# Blower DT 16

- On-site blower for extrusion welders with external air supply
- 350 I/min at 0.6 bar
- 1.1 kW alternating current motor, 230 V
- Air distributor for one extrusion welder
- Integrated pressure relief valve
- 2.5 m connection cable with plug

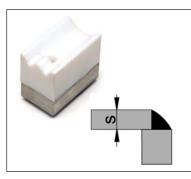
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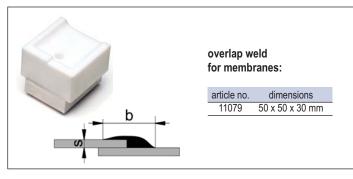
Air Flow Meter

article no. 13125



# outer edge weld (90°):

article no.	sheet thickness
11075	5.6 mm
11076	8 mm
11077	10 mm
11078	12 mm





## rough shoes:

article no.	dimensions
11080	50 x 30 x 30 mm
11082	70 x 40 x 40 mm
13512	50 x 50 x 30 mm



Draw Blade DE/EU article no. 18609

**Draw Blade US** article no. 19046





Welding shoe round for corner welds

article no. 24664



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