

# Ditzler Vulkan

Plastic welding equipment



## DR1000 / DR1900

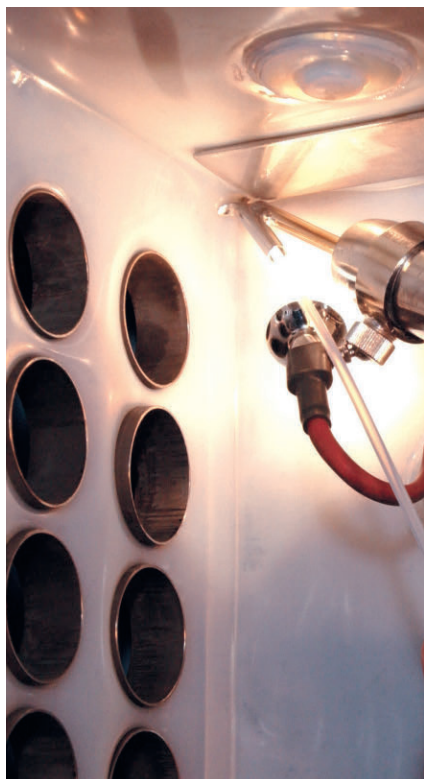
- ultra light and slim
- very easy to handle
- powerful, even in confined spaces
- double protective insulation for safety
- whole device only handwarm, even at max. operating temperature
- electronic system provides high levels of temperature accuracy
- service friendly / low repair costs
- Swiss quality, tested by Electrosuisse

vulkan

# Ditzler Vulkan

## Plastic welding equipment

For efficient, fast and safe work on all the thermoplastic plastics currently recognised, with continuous regulation to 600°C, stabilised to  $\pm 2^\circ\text{C}$ , independent of the volume of air flow.



The powerful heating element is provided with double electrical insulation so that work can be carried out with greater safety in all areas.



Efficient working is ensured by a multitude of nozzles, especially developed and tested for all the profiles conventionally available.

**Protective stainless steel cover**

- easy to remove for servicing work
- stays hand hot, even at the highest ventilation temperatures



The slim, compact and outstandingly light construction guarantees precise, efficient working under more difficult conditions, as well as in confined and inaccessible locations.

Standard device with 5m air tube, other lengths (8m/10m, ...) on request

### lit by 3D minispot



**5101** lit by 24V/20W minispot,  
consisting of:

**5101.1** detachable ring on protective  
cover to DR1000 (red handle),  
DR1900 (blue handle)

**5101.2** switching ring with 5m cable  
and special plug, suitable  
for electrical mains connecting  
equipment

**5101/8m** lit by 24V/20W minispot  
with 8m cable consisting of:

**5101.1** detachable ring on protective  
cover to DR1000 (red handle),  
DR1900 (blue handle)

**5101.2/8m** switching ring with 8m cable  
and special plug, suitable for  
electrical mains connecting  
equipment

### 3D control spot



**5102** control spot  
**24V/20W**  
with handle and  
miniswitch, 5m  
cable and special  
plug, suitable for  
electrical mains  
connecting equip-  
ment

## electrical mains connecting equipment



### 5120 mains connecting equipment with plug for lighting equipment

- 230 Volt for welding gear DR1000
- 24 Volt protection voltage for lighting
- fault current protection switch, FI-30mA
- 2,5m power cable

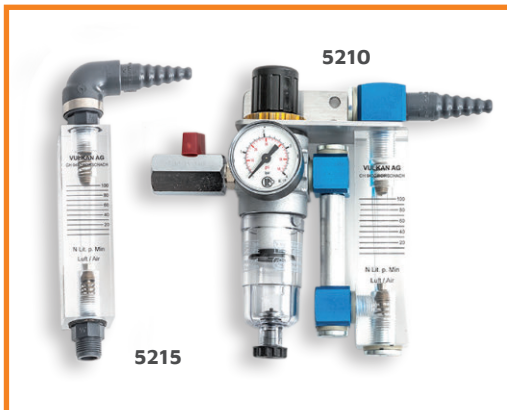
**5121** - 120 Volt for welding gear DR1900

### 5130 nitrogen/air mains connecting equipment with plug for lighting equipment

- 230 Volt for welding gear DR1000
- 24 Volt protection voltage for lighting
- fault current protection switch, FI-30 mA
- 3-way valve to switch from nitrogen to air
- pressure reduction valve
- air flow meter, with 10-100 NL/min scale
- 2,5m power cable, with plug as required

**5140** - 120 Volt for welding gear DR1900

## welding air regulator combination



**5215** flow meter made of plexiglas, transparent with scale 10-100 NL/min, 3/8" air connection nipple and hose connection

**5210** welding air regulator combination comprising pressure reduction station with manometer, oil separator, stop tap, flow meter with scale 10-100 NL/min and hose connection

### table stand



**5320 special table stand**  
made of stainless steel  
for welding gear  
DR1000 / DR1900

### stativ with temperature



**5330 stativ with temperature display** in stainless steel  
for welding gear DR1000 / DR1900  
– print plate from  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . ( $+14^{\circ}\text{F}$  to  $+122^{\circ}\text{F}$ )  
– temperature sensor  $-40^{\circ}\text{C}$  to  $+1000^{\circ}\text{C}$   
– display limits  $-999.9^{\circ}\text{C}$  to  $+999.9^{\circ}\text{C}$ .

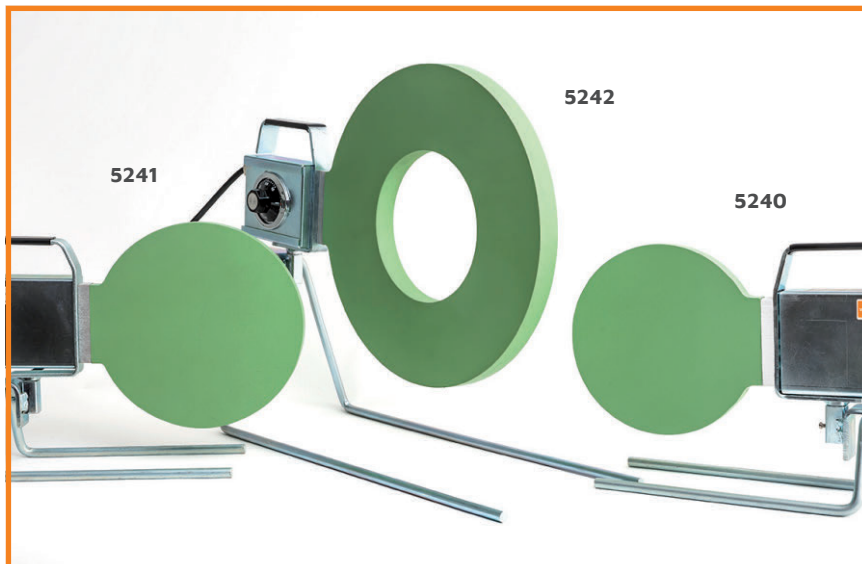


## compressor



**5250 supercharger**  
50 HZ, 230V, 435W

## welding mirrors



### welding mirror with / without table stand

- special teflon coating with high abrasion-resistance and non stick qualities
- precise heat distribution
- chemical-resistant against all materials
- temperatur-resistant up to 320°C
- special measurements and designs on request

### standard:

- 5240** Ø 190 mm
- 5241** Ø 220 mm
- 5242** Ø 340 mm / hole Ø 160 mm

## welding nozzles

### round nozzles with lip



- 5020** Ø 3 mm
- 5021** Ø 4 mm
- 5022** Ø 5 mm
- 5023** Ø 6 mm
- 5024** Ø 8 mm

### round nozzles without lip



- 5030** Ø 3 mm
- 5031** Ø 4 mm
- 5032** Ø 5 mm
- 5033** Ø 6 mm
- 5034** Ø 8 mm

### stitch nozzle (tacking tip)



- 5040**

### fast welding nozzles, round



- 5050** Ø 3 mm
- 5051** Ø 4 mm

nozzles with long pre-warming zone for  
PE, PP, PVC, PVDF, and ECTFE welding



### fast welding nozzles, triangular



<b>5060.1</b>	△ 2 mm	<b>5062</b>	△ 6 mm
<b>5060</b>	△ 3 mm	<b>5063</b>	△ 8 mm
<b>5061</b>	△ 4 mm	<b>5064</b>	△ 10 mm

nozzles with long pre-warming zone  
for PE, PP, PVC, PVDF, and ECTFE welding

### flat nozzles for welding band



<b>5070</b>	□ 2.5 mm × 15 mm (E-CTFE)
<b>5071</b>	□ 2 mm × 12 mm
<b>5072</b>	□ 2 mm × 8 mm

wide slot nozzles, suitable for cap strips

### steep welding nozzles, round/triangular



<b>5090</b>	Ø 3 mm, straight
<b>5091</b>	Ø 4 mm, straight
<b>5092</b>	△ 4 mm

nozzles with short pre-warming zone  
for PFA and FEP welding

### nozzle extensions



<b>5089.01</b>	Ø 10/8 mm × 250 mm
<b>5089.02</b>	Ø 8/6 mm × 250 mm
<b>5089.03</b>	Ø 6/4 mm × 250 mm

angled models on request



**5310**    **triangular scraper**  
for various tasks

**5311**    **special deburring tool**  
various blades

**5312**    **pull scraper** to hollow out  
welding grooves

**5313**    **pull scraper**  
**with cutting metal insert**

**5314**    **triangular scraper**  
**with handle**

**5314.1**    **triangular scraper**

**5314.2**    **handle to triangular scraper**

**5314.3**    **scraper drop form**

**5314.4**    **scraper hexagonal form**

**5315**    **welding nozzle pliers**  
to change hot welding nozzles

**5316**    **side cutting pliers, 145mm,**  
for clean cutting of  
welding wire

**5317**    **brush with brass bristles**  
to clean welding nozzles

**5318**    **stainless steel scraper**  
to remove the welding wire  
before carrying out welding  
tasks, with cut-in grooves to  
match the welding wire

**5319**    **stainless steel scraper**  
for general removal tasks

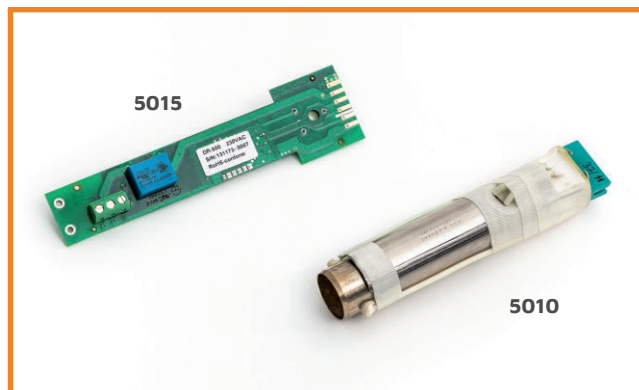
**5340**    **angle piece 90°** to nozzles

**5341**    **angle piece 45°** to nozzles



**welding gear DR1000, 230V/900W**

<b>5012</b>	<b>heating element</b>	<b>5002.22</b>	<b>rotary knob red</b>
<b>5017</b>	<b>print plate,</b>	<b>5002.31</b>	<b>hose main line</b>
	compl. temperature electronic		Ø 17,5 mm × 12,5 mm
<b>5002.1</b>	<b>protection cover,</b>	<b>5002.90</b>	<b>air hose, short line</b>
	stainless steel		Ø 15 mm × 12,5 mm
<b>5002.2</b>	<b>handle with control button</b>	<b>5002.41</b>	<b>air distribution piece</b>
<b>5002.32B</b>	<b>power cable red</b>		
	with plug		

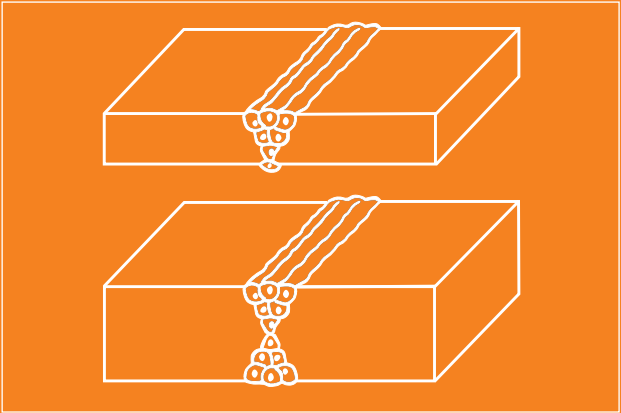


**welding gear DR500, 230V/800W (previous model)**

<b>5010</b>	<b>heating element</b>
<b>5015</b>	<b>print plate</b>

# weld forms

With a plate thickness of 20mm, it is recommended to connect the plates together, using an extruder or by butt welding. As thicker a plate is, as more „weld layer“ must be done.



The most important types of welds in hot gas welding

examples of welding seam construction	
plate thickness (mm)	welding rod number x diameter (mm)
V-seam	
2	1 x 4
3	3 x 3
4	1 x 3 and 2 x 4
5	6 x 3
DV-seam (X-seam)	
4	2 (1 x 4)
5	2 (3 x 3)
6	2 (3 x 3)
8	2 (1 x 3 and 2 x 4)
10	2 (6 x 3)



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