



DRADER

injectiweld

Product Brochure

Industrial Plastic Welder - Model W30000

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DRADER INJECTIWELD PLASTIC WELDING KIT

“The Drader,” as our loyal customers refer to it, is a hand-held plastic welding fabrication kit and repair system known worldwide for its ease of use and strong welds. Our clients get longer life out of their plastics, reduce waste and achieve cost savings for their business.

The Injectiweld has interchangeable tips and an automatic feed system that enables a person to use the welder with one hand. It uses radiant heat to thermally bond most types of plastics without the use of hot air or gas. The welding rod is automatically drawn into the gun by a set of rod driver wheels and fed into the connecting tube where it is nipped off, packed into the barrel, and melted.

Benefits of the Drader Injectiweld:

- The quality of the weld is very high even when users do not have a lot of experience.
- Interchangeable tips
- Scraping off surface oxidation is not necessary
- Stronger, more reliable welds than hot air sticks
- Long list of thermoplastics can be welded with Injectiweld

The Injectiweld is not compatible for welding all plastics, including:

- Thermoset plastics cannot be welded because they do not melt when heat is applied to them. Examples: F.R.P. (Fiberglass), Bakelite, Epoxies, Phenolics, Melamine, etc.
- PVC-U / PVC-P – PolyVinylChloride (Rigid / Flexible). The lowest temperature setting of the Injectiweld is too high for PVC-U or PVC-P. The material will burn inside the welder’s barrel. This will release chlorine gas, which is harmful to the operator’s health and will damage the aluminum parts of the welder.
- PMMA – PolyMethyl MethAcrylate. Using this material inside the Injectiweld may cause the piston rod to become stuck. When PMMA is sheared, it exhibits very sharp edges around the circumference of the breakage. These sharp edges may prohibit the piston rod from moving backwards.
- PFA – PerFluoro Alkoxy. The weld temperature for this material exceeds the maximum temperature setting.



Please get in touch with our technical team to discuss your project application and to determine if the type of plastic you need to weld is compatible.

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Injectiweld Machine



Description of Components:

#	Description	Item ID #
1	W30000 Injectiweld	Unique serial number
2	Barrel Washer	IPAR-A-BARWSH
3	3/16" Fillet Weld Tip	ITIP-2F6
4	Repair Tip	ITIP-2RP
5	Tip Nut Wrench	IPAR-A- TIPWRN
6	Tip Nut	IPAR-A-TIPNLO
7	Scraping Blade	IPAR-A-SCRBLD
8	Stick Scraper	IPAR-A-SCRSTK
9	Air Filter Assembly	IASS-A-AIRFILT 2
10	Screw Driver	IPAR-A-SCREWD
11	4AMP Fuse 2AMP Fuse	IPAR-A-FSEALL IPAR-A-FSE2A
12	Heat Transfer Compound	IPAR-A-HTTRCO
	Quick Manual (not shown)	
	Carrying Case (not shown)	IPAR-A-CASE

Heated Barrel & Welding Tip System:



#	Description	Item ID #
1	W30000 Barrel	IPAR-A-BARW30
2	Indexing Pin	(Shop Supply)
3	RTD Sensor	IPAR-A-RTDSE4
4	Heater	(Various ID numbers)
Please note, there are other barrel parts that are not listed here		

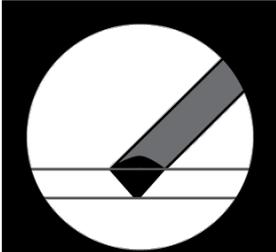
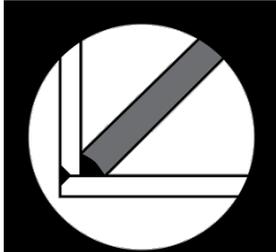
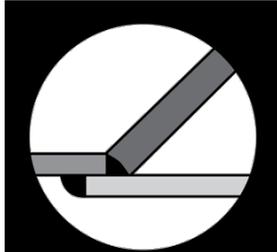
Welding Tip Selection:

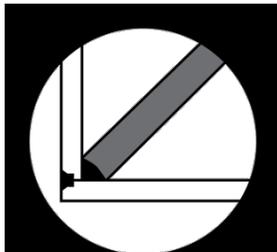
The correct tip will make a difference on quality and appearance of the weld. There are different tips for various applications. The two welder kit tips are the repair tip (# 3 in photo) and the 3/16" fillet weld tip (# 5 in photo).

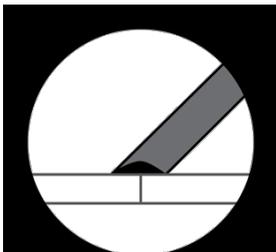


#	Description	Item ID	Main Usage
1	Blank Tip	ITIP-2BL-5.5	Custom tips; design your own for your special application
2	Prototyping Tip	ITIP-2PR	Prototyping, repairs, filling holes, spot welding tight areas
3	Repair Tip	ITIP-2RP	Repairs, filling holes, spot welding tight areas, prototyping
4	Bull-Nose Tip	ITIP-2BN	Repairs, filling holes, filling voids

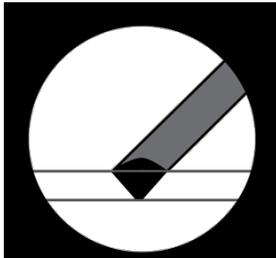
Different Types of Welds:

Fillet Welds		
 <p>Fillet Weld Tip Sheet Fillet Weld</p>	 <p>Fillet Tip 90° Fillet Weld</p>	 <p>Fillet Tip 90° Fillet Weld</p>
<p>Fillet tips are used mainly for fillet welds [90°] and butt welds. The style of those tips allows one to weld from inside corners out and be able to seal the corners without changing to another tip style. Fillet tips can also be used for crack repairs, as long as the crack is somewhat straight. The longer preheat section allows faster welding speed than welding cracks with the conical tip.</p>		

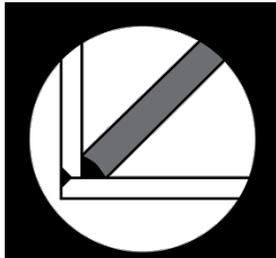
Repair Tip, Prototyping Tip		
 <p>Repair Tip Crack Repairs</p>	 <p>Repair Tip Spot Welds</p>	 <p>Repair Tip 90° Fillet Weld</p>
<p>Repair tips are used for crack repairs, filling small holes, spot welding, for reaching tight areas, and for prototyping. Because of their conical shape, the repair tip and prototyping tip offer similar types of welds. Choose the size that best suits your application.</p>		

Ribbon Weld Tip	
 <p>Ribbon Weld Tip Non Pressure Weld</p>	<p>The Ribbon weld tip is used to make a seam weld on thermoplastic materials such as belting and thin sheets. Because this welding tip does not weld down to the root side, it should not be used for regular butt welds.</p>

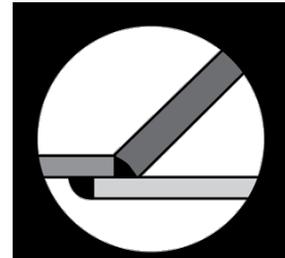
Fillet Welds



**Fillet Weld Tip
Sheet Fillet Weld**



**Fillet Tip
90° Fillet Weld**



**Fillet Tip
90° Fillet Weld**

Fillet tips are used mainly for fillet welds [90°] and butt welds. The style of those tips allows one to weld from inside corners out and be able to seal the corners without changing to another tip style. Fillet tips can also be used for crack repairs, as long as the crack is somewhat straight. The longer preheat section allows faster welding speed than welding cracks with the conical tip.

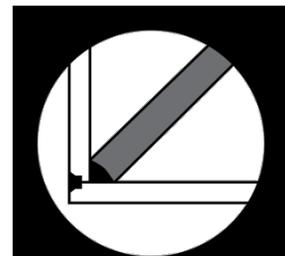
Repair Tip, Prototyping Tip



**Repair Tip
Crack Repairs**



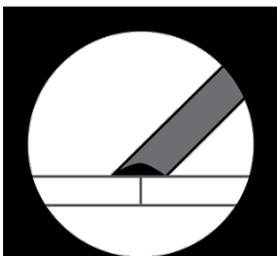
**Repair Tip
Spot Welds**



**Repair Tip
90° Fillet Weld**

Repair tips are used for crack repairs, filling small holes, spot welding, for reaching tight areas, and for prototyping. Because of their conical shape, the repair tip and prototyping tip offer similar types of welds. Choose the size that best suits your application.

Ribbon Weld Tip



**Ribbon Weld Tip
Non Pressure Weld**

The Ribbon weld tip is used to make a seam weld on thermoplastic materials such as belting and thin sheets. Because this welding tip does not weld down to the root side, it should not be used for regular butt welds.



Features	Benefits	Reasons
High-pressure Injection	You will get a consistent, high quality weld, even if you don't have a lot of expertise.	Drader's hot tip prepares the parent material for a pressurized shot of molten welding rod. The shot of molten rod physically mixes with the melted parent material. The result, when cool, is a high quality weld.
Measured Shot & Consistent Pressure	You can apply the right pressure on the welding rod and have a high quality weld every time.	Welding rod applied at a proper and consistent pressure makes a quality weld. The Injectiweld takes care of these details by reliably delivering a measured shot of molten welding rod.
Heated Tip	Save time and save money.	Drader's hot tip melts the parent material in a precise area. As it melts the plastic, the injection point of the tip sinks below the surface of the plastic and below the layer of oxidation. Therefore, there is no need to take time and scrape away the oxidization layer on top of the plastic unless heavy contamination exists.
Interchangeable Tip	Your welder can perform many tasks.	Make fillet welds, spot welds, tack welds and butt welds just by changing Drader's tip. Fill voids; add flanges and fittings; make models, prototypes, and repair plastic. Weld bead sizes range from 1.5 mm (1/16") to about 13 mm (1/2").
Variable Temperature Setting	You have a versatile welder that can weld a great variety of thermoplastics.	The Injectiweld has a temperature range of between 200 and 300°C (390 - 575°F). Set the tip temperature to the optimal weld temperature of the plastic material to ensure a proper melt and a high quality weld.
Radiant Heat vs. Hot Air	Weld thin parts with greater ease.	Hot air may deflect over a considerable area and warp thin plastic. Injectiweld has a localized heating area, and therefore welding thin parts is easier.
One Hand Operation	You can operate the welder with one hand and have a free hand to hold the plastic parts.	It is easy to use and is efficient. It is often necessary to hold parts while welding them together, so you can speed up the entire welding process since you may not have to clamp or tack the part before welding.
Compact Size	You can weld in confined spaces.	Injectiweld's one-handed operation and compact size allows greater range of movement in confined spaces an areas often inaccessible to other welders.
Compressed Air	You can weld a wide range of materials.	The Drader Injectiweld uses compressed air to move a piston back and forth. Compressed air provides the appropriate pressure for welding materials with different physical properties.
One Size of Welding Rod	Reduce inventory and save storage space.	Rod diameter remains constant. Drader's interchangeable tips control weld bead size.