

## DL-350 Digital Low Spatter / Low Heat Input Arc Welding Machine

### Inverter D SERIES



The DL-350

#### Features & Benefits

- Significant reduction in spatter for CO<sub>2</sub> / MIG / Stainless Steel DC welding applications.
- Support for low-alloy, high-strength steels.
- Thin plate welding mode greatly improves welding quality for thin plate applications.
- Capable of welding very thin materials less than .030" (0.8mm).
- Greater gap tolerance for thin optimized automation settings.
- Less welding fumes and cleaner bead appearances.
- Digital turbo startup function improves arc starting performance.
- 27 pre-optimized wave forms for different wire types and diameters, and different gases.
- Custom wave forms can also be saved.
- Improves penetration ratios.
- Reduces arc outage, prevalent in older machines.

#### Revolutionary Spatter Reduction Control

Would you like to reduce your overhead costs by reducing the amount of wire used and labor required for cleaning up spatter? Wouldn't it be nice to reduce the amount of spatter in your facility while producing cleaner welds? Look no further than the DL-350 from OTC DAIHEN.

The DL-350 is the world's first CO<sub>2</sub> / MIG / Stainless Steel welding machine to feature a dedicated Spatter Reduction Control, which reduces the amount of spatter generated by up to 75% when compared with conventional welding machines. The results are much cleaner welds with virtually no spatter, which greatly improves production efficiency in terms of overhead costs (wire, cleaning labor) and improved part appearance.

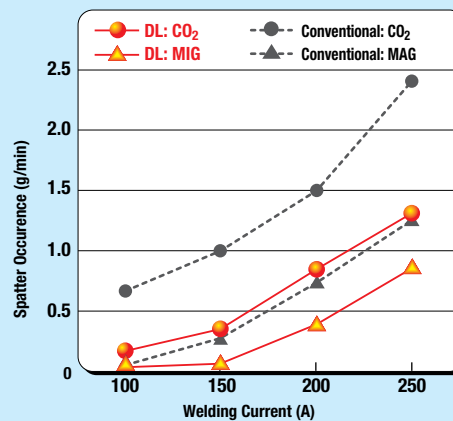


Conventional Welder

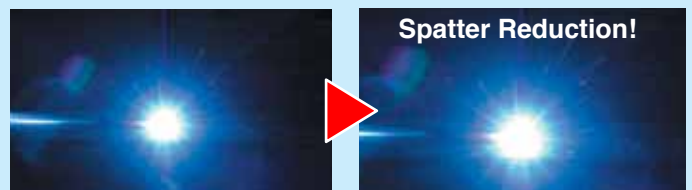
DL-350

Shield Gas: CO<sub>2</sub>, Weld Current: 250A, Weld Voltage: 25.5V, Travel Speed: 80 cm/min, Plate Thickness: 4.5mm

#### DL-350 vs. Conventional Inverter Machine



Reduction of spatter by as much as 3/4 when compared to conventional welding machines.



Conventional Welder





DL-350

# Advanced CO<sub>2</sub> / MAG / MIG Welding Technology

## EN Thin Plate Welding Mode

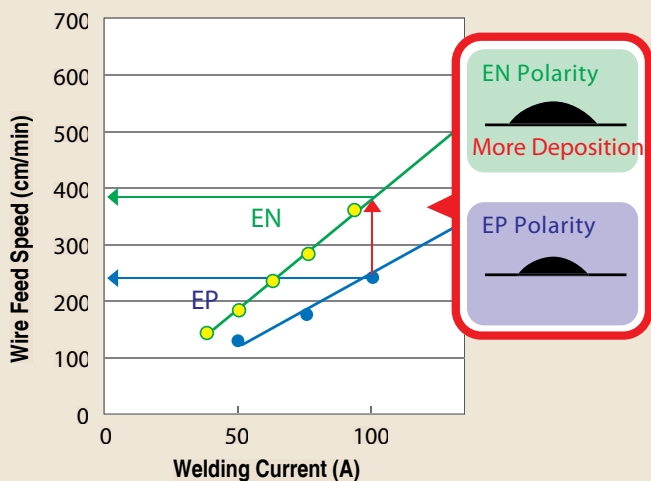
Welds even very thin plate materials: the DL-350 utilizes an Electrode Negative (EN) welding mode to limit the heat input to the material. EN welding mode improves the welding of thin plates by:

- Protecting from burn-through of thin plate materials (less than 1mm in thickness).
- Providing higher rates of deposition at the (see below).
- Reducing the heat input to the material, which results in less heat distortion.

Gap	Bead Appearance	Cross Section Macro
0mm		
1mm		

EN Thin Plate Plate Welding Mode for 0.7mm Material

## Deposition Rates of EN Mode vs. EP Mode



At the same current, EN Polarity has about 1.5 times more deposition as an EP Polarity weld, which makes EN mode ideal for welding gaps of thin plate materials.

## STANDARD SPECIFICATIONS

### DL-350 Welding Power Supply

Item	Specification
Model Name	DL-350
Welding Modes	CO <sub>2</sub> / MAG / MIG (Stainless Steel), available in Electrode Positive (Standard & High Speed) and Electrode Negative
Rated Input Voltage	208 ± 10% (50 / 60 Hz)
Number of Phases	3-phase
Rated Input	18.2 kVA (16.6 kW)
Rated Duty Cycle	60%
Rated Output Current	350 A
Rated Load Voltage	36 V
Output Current Range	30 ~ 350 A
Output Voltage Range	12 ~ 36 V
Maximum No-Load Voltage	85 V
Max. Program Storage	100 programs
Temperature Rise	+320° F (+160° C)
External Dimensions	11.8" x 27.8" x 23.4" (300mm x 705mm x 595mm)
Weight	126 lbs. (57.2 kg)

### D-Series Wire Feeders

Item	Specification	
Model Name	CMRE-741	AF-4001/AF4011
Wire Feed Speed	866 in. / min (22 m/min)	
Usable Wire Diameters	Mild Steel	.024" ~ 1/16" (0.6mm ~ 1.6mm)
	Stainless Steel	.030" ~ 1/16" (0.8mm ~ 1.6mm)
Weight	28.6 lbs. (13 kg)	
External Dimensions	8.5" x 21.4" x 13.6" (215mm x 543mm x 350mm)	



OTC DAIHEN INC.  
(Headquarters)  
1400 Blauser Dr., Tipp City, OH 45371  
Ph: 937-667-0800 • Fax: 937-667-0885

Branch Offices: Atlanta, Georgia  
Charlotte, North Carolina  
Monterrey, Mexico  
Novi, Michigan