



**Weld Mold Company**  
*Serving the welding  
industry since 1945*

750 Rickett Rd.  
Brighton, MI 48116  
(810) 229-9521  
fax (810) 229-9580

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## WELD MOLD 540

### DESCRIPTION:

For joining, buildup, and repairing cracked or fractured steels with up to 200,000 psi tensile strengths.

### APPLICATIONS:

Used for fabricating structures, machinery, assemblies and repair of equipment. Hot work applications include flooding complete impressions on forging dies. Widely used for overlays on dies, punches, inserts and other parts that require this hardness.

### PROCEDURE.

Remove all defects; heat checks, spalls, and cracks. Preheat the unit to a minimum of 800°F. Maintain this temperature during welding. Utilize short arc length. Peening is necessary when filling in small cavities. Peen after depositing each pass. Peening is not necessary when welding large areas such as complete impressions except on the final pass. After welding, cool the unit in still air to approximately 350°F. This is necessary to produce uniform weld hardness. When the cooling temperature is reached, immediately charge dies into a furnace at 1050°F and temper for 12 to 16 hours. On rams and sow blocks, etc., stress relieve at 1150°F. for 12 to 16 hours. Stress relieve hammer bases at 1150°F. at one hour per inch of thickness at temperature. Remove the unit from the furnace and cool in still air to room temperature.

### SMAW

DC+

### FCAW

DC+, 100%CO<sub>2</sub>  
Or 75%-25% CO<sub>2</sub>

### TECHNICAL DATA:

Available Processes:	SMAW and FCAW
Elongation:	Up to 23%
Hardness:	Rockwell C 38-42
Machinability:	Tough
Tensile Strength:	Up to 200,000 psi
Alloy Type:	Nickel-chromium-molybdenum