

CARVER - 9540



DIE BUILT-UP ALLOY WITH
HIGH TENSILE STRENGTH

SPECIAL HOT WORKING TOOL STEEL WELDING ALLOY

SMAW	FCAW	MCW
DC+	DC+, 100% Co2 Or 75% Argon 25% CO2	DC+, 100% CO2 Or 75% Argon-25% Co2 Or 90% Argon-10% CO2

TECHNICAL DATA	
Alloy Type :	Nickel-Chromium-Molybdenum
Tensile Strength :	850 N/mm ²
Elongation :	UP to 20%
Machinability :	Good
Hardness :	Rockwell C 42-45
Available Processes :	SMAW, FCAW and SAW

RECOMMENDED CURRENT RANGE

ELECTRODES	
SIZE (MM)	AMPS
3.15	120-150
4.00	160-190
5.00	200-240

FLUX CORED WIRES		METAL CORED WIRES	
SIZE (MM)	AMPS	SIZE (MM)	AMPS
1.6	270-320	1.6	270-320
2.4	330-370	2.4	330-370

FEATURES :

For joining, buildup, and repairing cracked or fractured steels with up to 170,000 psi tensile strengths. CARVER 9545 has established itself as the standard for die block repair by exhibiting exceptional impact qualities, high tensile strength and good elongation. CARVER 9540 was designed to operate at high amperage for continuous out of position flood welding.

APPLICATIONS :

Use for fabricating structures, machinery, assemblies and repair of equipment. Hot work applications include joining fractured forging dies that are to be machined. Expressly made for welding both wrought and cast steel structures. Also used for touch-up work and making engineering changes.

PROCEDURE :

Remove all defects; heat checks, spalls, and cracks. Preheat the unit to a minimum of 425°C. 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 175°C. This is necessary to produce uniform weld hardness. When the cooling temperature is reached, immediately charge dies into a furnace at 560°C and temper for 12 to 16 hours. On rams, sow block and similar type units stress relieve at 620°C for 12 to 16 hours. Stress relieve hammer bases at 620°C at one hour per inch of thickness at temperature. Remove the unit from the furnace and cool in still air to room temperature.



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