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## Two Electrode Electrogas Arc Welding Machine

# High-efficiency vertical automatic welding machine (Electrogas arc welding machine)

This is similar to single-electrode type Electrogas arc welding machine except the two electrodes are disposed across the thickness of steel plate. Flux cored wire and solid wire are used as the electrodes on cap side and root side. Compared with single-electrode method, this method permits much more efficient welding with extra-heavy steel plates ranging from 40 to 80mm in thickness, reduces man-hours, and increases the reliability of welded joints.

#### **FEATURES**

- 1. Vertical position single-pass welding of plates of 40 to  $80 \mathrm{mm}$  thickness is possible.
- Higher quality and performance, compared to single-electrode welding, is achieved.
- 3. Simultaneous weaving of both electrodes in the plate thickness direction stabilizes penetration.
- 4. Performing welding under automatic elevation control by welding current detection reduces operator monitoring time.
- 5. Forming uniform and beautiful penetration beads is possible using the fixed back material, SB-60VT.

#### **■** Standard Specifications

### Traveling carriage unit

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Input voltage	AC200V±10% 50/60Hz		
Traveling method	Rack & pinion		
Traveling speed	max.500mm/min		
Traveling control	Automatic elevation control by welding current detection		
Clutch mechanism	Equipped(when the clutch is released, manual push traveling is possible)		
Torch setting adjustment	Vertical adjustment: ±20mm		
	Horizontal: ±30mm		
	Plate thickness direction: ±20mm		
Traveling rail	1.5m/each		
Coolant constant contact sliding copper plate	Water cooled type		
External dimensions(mm)	565(W)×705(L)×405(H)		
Weight	Approx.25kg		
Weaving unit			
Weaving type	Round trip simple vibration		
Amplitude width	0 or 2 to 50mm		
Stop position	Both ends of the amplitude width		
Stopping time	0 or 1 to 5sec.		

#### **■** Option Specifications

#### Wire feeding rate, digital display

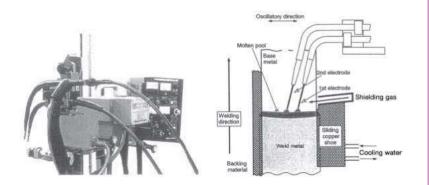
Wire feeding rate 0.0 to 50.0m/min

#### ■ EXAMPLES OF WELDING CONDITION

Plate thickness mm	Brand name of wire	Electerode	Current A	Voltage V	Speed cm/min	Heat input kJ/cm	Oscillatory width mm
50	EG-3T	Cap side	390	42	6.8	282	5
	YM-55H	Root side	370	42			
60	EG-3T	Cap side	390	42	6.0	319	15
60	YM-55H	Root side	370	42			
70	EG-3T	Cap side	390	42	4.5	426	25
70	YM-55H	Root side	370	42			

#### ■ RECOMMENDED WELDING MATERIALS

Electrode	Wire Brand name	Backing Material	Shield Gas (l/min)	
Cap side	EG-3T	SB-60VT	CO <sub>2</sub> , 35~40	
Root side	YM-55H	SD-00/1		



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