



# MODI - 410

## STAINLESS STEEL ELECTRODE

**CLASSIFICATION :** **AWS/A 5.4 : E 410-16**

**CHARACTERISTICS :** A stainless steel electrode with air hardening type deposit, containing approximately 12.5% Chromium, consisting of fine ferrite containing martensitic structure. The weld metal is resistant to cavitation, abrasion, corrosion and oxidation. The weld deposits give the hardness of 350 to 375 BHN. Operates equally well on AC or DC (+) in all conventional positions.

**APPLICATIONS :**

- \* For overlap on unalloyed steels and heat treatable chromium steel castings having 13% to 15% Cr.
- \* Surfacing of several parts of turbine made of 13% Cr Steels.
- \* Valve sheets and propellor shaft.

**RECOMMENDATIONS :** Re-dry the electrodes at 200°C for one hour. Keep the arc as short as possible. Weaving width should be within 2.5 times dia of electrodes. Do not use excessive current.

CHEMICAL ANALYSIS OF WELD-METAL(%) :	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
	0.12	1.0	0.90	11.0-13.5	0.70	0.75	0.03	0.04	0.75
	max	max	max		max	max	max	max	max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/A 5.4) (TYPICAL) :	Ultimate Tensile Strength N/mm <sup>2</sup>	Elongation (GL=4d) (%)
	520 min	20 min

**CURRENT CONDITIONS : USE AC OR DC (+)**

Size (mm)	3.15x350	4.0x350	5.0x350
Amps	90-130	140-180	180-220

**SPECIAL CHARACTERISTICS :**

**HARDENSS :**

- As Welded : 300-370 BHN
- After S.R. at 720°C
- 1¼ hours : 170-200 BHN



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# MODI 410-15

## STAINLESS STEEL ELECTRODE

**CLASSIFICATION :** AWS/A 5.4 : E 410-15

**CHARACTERISTICS :** A basic coated stainless steel electrode with air hardening type deposit, obtaining approximately 13% Cr, consisting of fine ferrite containing martensitic structure. The weld metal is resistant to cavitations, abrasion, corrosion and oxidation. The weld deposits give the hardness of 350 to 375 BHN. Operates on DC(+), in all conventional positions.

**APPLICATIONS :**

- \* For overlap on unalloyed steels and heat treatable chromium steel castings having 13% to 15% Cr.
- \* Surfacing of several parts of turbine made of 13% Cr steels.
- \* Valve Seats and propeller shaft.
- \* Suitable for refinery equipment, coal washers.

**RECOMMENDATIONS :** Re-dry the electrodes at 250°C for 1 hour. Keep the arc as short as possible. Weaving width should be within 2.5 times dia of electrode. Do not use excessive current. Use stainless steel wire brush for cleaning the welds.

CHEMICAL ANALYSIS OF WELD-METAL(%) :	C	Mn	Si	Cr	Ni	Mo	Cu	S	P
	0.10	1.0	0.9	11.0-13.5	0.7	0.75	0.75	0.03	0.04
	max	max	max		max	max	max	max	max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/A 5.4) :	Ultimate Tensile Strength	Elongation
	N/mm <sup>2</sup>	(%)
	520 min.	20 min.

**CURRENT CONDITIONS : USE DC (+) ONLY**

Size (mm)	3.15x350	4.0x350	5.0x350
Amps	90-130	140-180	180-220

**SPECIAL CHARACTERISTICS :**

**HARDNESS :** As welded : 300-370 BHN  
After SR : 170-220 BHN



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