## ROYAL 312 (E 312-16)

-----

### **Applications**

Suitable for welding of Heavy machinery parts, earth moving equipments, automobile spring, trumnions of cement mill and other allied components, parts subject to corrosion and impact. Joining and surfacing of High Carbon, low and high alloy steel, tool steel, spring steel, manganese steel, case hardening steel, high speed steel, cost steel etc

#### Characteristics on Usage

A medium heavy coated rutile type all position electrode giving 30 % Cr. And 10 % Nickel weld deposit. The electrode has very soft arc and gives smooth and defect free austeno ferritie weld metal. Almost no distortion and embrifflement of the base material. The weld metal is resistant to friction, heat and corrosion is work hardening and shockproof gives radiography weld deposit.

#### Notes On Usage

> 1) Dry the electrodes at 350° C for 60 min. before use.

- > 2) Keep the current as low as possible.
- 3) Remove rust, water, oil, paint etc. from groove.

#### Welding Positions



#### **Chemical Composition Of Weld Metal**

C%	Mn%	Si%	S%	P%	Cr %	Ni %	Mo %
0.15 Max	0.50 – 2.50	1.00Max	0.030 Max	0.040 Max	28.0 - 32.0	8.0 – 10.50	0.75 Max

#### **Mechanical Properties Of Weld Metal**

U.T.S.	ELONGATION
(N/mm²)	( L = 4d ) %
660	22

# Packing and Welding Current

KG PER PACKET	KG PER CARTON	LBS PER PACKET	LBS PER CARTON	In Amps	Current (Amps)
2	10	4.40	22.05	50 - 70	AC /DC + Ve
2	10	4.40	22.05	70 – 100	
2	10	4.40	22.05	100 – 130	
2	10	4.40	22.05	130 – 160	
	KG PER PACKET 2 2 2 2 2 2	KG PER PACKET KG PER CARTON   2 10   2 10   2 10   2 10   2 10   2 10   2 10   2 10	KG PER PACKET KG PER CARTON LBS PER PACKET   2 10 4.40   2 10 4.40   2 10 4.40   2 10 4.40   2 10 4.40   2 10 4.40   2 10 4.40	KG PER PACKETKG PER CARTONLBS PER PACKETLBS PER CARTON2104.4022.052104.4022.052104.4022.052104.4022.052104.4022.052104.4022.05	KG PER PACKETKG PER CARTONLBS PER PACKETLBS PER CARTONIn Amps2104.4022.0550 - 702104.4022.0570 - 1002104.4022.05100 - 1302104.4022.05130 - 160

#### Packing

·