



# Selectarc B77

High Strength  
Basic Electrode

## Classification

AWS A5.5 : E11018-M      ISO 18275-A : E 69 4 Mn 2NiCrMo B 4 2  
H5

## Description & Applications

Basic electrode with a deposit which is very resistant to cracks and has a high strength. The deposit contains Ni, Cr, Mo, Mn for welding similar fine grain steels (service temperatures : -40 to +450°C) Very good radiographic quality and very low diffusible hydrogen ( 3 ml H<sub>2</sub>/100g metal deposit ).soft fusion, stable arc, low spatters and good removal of the slag.

**Main applications:** For low alloyed, tempered coated steels, pressure vessels, with a yield strength R<sub>e</sub>>650 MPa.

### Base materials

### Fine grain and cold tough steels:

NF A 36-204	:	E 500T* . E 620T* ,. E 690T* .
DIN 17102	:	StE 590* . StE690* . TStE 500* . WStE 500* . 17MnCrMo 33, 11 NiMnCrMo 55, 16 NiCrMo 12, 12MnNiMo 55.
Werkstoff Nr.	:	1.8928* - 1.7279* - 1.6780* - 1.6782* - 1.6343* etc.
ASTM	:	A517 - A533GrA - A537 - A678 - A633Gr C bis E N-A XTRA; N-A TRA70* (Thyssen).
Tube steels	:	API 5 LX: X70* . X75* . X80*

(\*) with eventual pre- and post weld heat treatment (consult us)

## Typical Weld Metal Composition ( % )

C	Si	Mn	Cr	Ni	Mo	Fe
<0.10	0.4	1.5	0.4	2.1	0.5	Rem.

## All Weld Metal Mechanical Properties

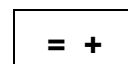
R <sub>e</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
>690	>760	>20	+20°C >120 -40°C >60

## Welding Current & Instructions

Electrode	ØxL ( mm )	2,5x350	3,2x350	4,0x450	5,0x450
Current	( A )	80	115	150	190

Redrying at 350 °C during 2 hours. Eventual preheating of the base metal depends on the thickness and the nature of the steel (50 to 130°C). Maintain an interpass temperature <150°C.

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