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WPS NO : 004 **DATE :** **Supporting PQR NO : 003**

Welding process (es) : Shielded Metal Arc Welding

TYPE : (Manual / Semi Auto / Auto) : Manual

Application(s) : Components of Carbon Steels of P1 materials

QW – 402 JOINTS

Joint design : Groove and Fillet

Backing : No

Backing Material Type : --

JOINT DETAILS

Refer Production Drawing

BASE METALS (QW-403)

P.NO . 01 Group No 01 or 02 to P.NO. 01 Group No 01 or 02 (OR)

Specification type and grade : Carbon Steels to Carbon Steels

Specification type and grade :

Thickness Range : Base Metal :- Groove : 4.8 to 32mm Fillet : All
Pipe Dia Range : All Fillet : All

FILLER METALS (QW-404)

SMAW

Spec.No (SFA)

5.1

AWS No (Class)

E-7018

F. Number

04

A . Number

01

Size of Filler Metals

See Table

Weld Metal Thickness Range :

Groove :

32mm Max.

Fillet:

All

Electrode – Flux (Class)

—

Flux Trade Name

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POSITIONS (QW – 405)

Position(s) of Groove : All

Welding Progression : Vertical up / down

Position(s) of Fillet : All

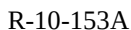
PRE HEAT (QW – 406)

Preheat Temp Min : ---

Interpass Temp Max : 350°C

Preheat Maintenance : ---

Special heating applicable : ---



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Time Range : Nil

Gas(es)	Mixture	Flow Rate
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Trailing : --

Backing : --

Volts (Range) : See Table

Electrode Wire feed speed range : --

Others : --

Weld Layers	Process	Filler Metal		Current		Volt Range	Travel Speed Range	Others (e.g.,Remarks, Comments, Hot Wire Addition, Technique Torch Angle, Etc.)
		Class	Dia in mm	Type Polarity	Amp. Range			
Root	SMAW	E-7018	3.15	DC-EP	120-140	--	--	--
Filler	SMAW	E-7018	4.00	DC-EP	140-180	--	--	--
	SMAW	E-7018	5.00	DC-EP	220-260	--	--	--

FOR BHEL : BAP : RANIPET

Reviewed and Approved By

Signature & Seal:

Date: 01 04 2001