

WELDING PROCEDURE SPECIFICATIONS

WPS NO. : RU 10001

PROCESS : GTAW + GMAW

COMPONENT FABRICATION PLANT

BHEL, RUDRAPUR

WELDING PROCEDURE SPECIFICATION

WPS NO. RU 10001____
REV. NO. __00____
REV. DT. __24.02.98

Company Name____CFP , BHEL , RUDRAPUR____

WPS No.____RU 10001____Date____24.02.98____

Rev. No.____00____Date____24.02.98____

Supporting PQR No.____01____DT 24.02.98____

Welding Process(es)____GTAW + GMAW____Type(s)____MANUAL____

JOINTS

DETAILS

Joint Design____AS PER APPROVED PRODUCTION DRAWINGS

Backing____YES____

Backing Material_ BASE METAL / WELD METAL

RETAINERS____NONE

BASE METALS

P.No.____21____Group No.____----____

TO

P.No.____21____Group No.____----____

OR

Spec.type/Chemical Analysis____N.R.____

TO

Spec.type/Chemical Analysis____N.R.____

THICKNESS RANGE

Base Metal : Groove : 5 - 24 mm Fillet : All Sizes

Pipe Dia Range: Groove : All Diameters Fillet : All Sizes

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G.C. GURURANI
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FILLER METALS

	GTAW	GMAW
Spec. No. (SFA)	: 5.10	5.10
AWS No.(Class)	: ER 4043	ER 4043
F.No.	: 23	23
A.No.	: N.A.	N.A
Size of filler metal	: DIA 3.15 mm	DIA 1.6 mm

WELD METAL (THICKNESS RANGE)

Groove	: 9.00 mm Max	16.00 mm Max
Fillet	: All Sizes	All Sizes
Electrode flux class	: N.A.	
Flux trade name	: N.A	
Consumable Insert	: N.A.	
Others	: NIL	

<u>POSITION</u>	:	<u>POSTWELD HEAT TREATMENT</u>
Position Groove :	1G	Temperature range: NONE
Welding Progression:	N.A.	Time range : NONE
Position of fillet :	1F	

<u>PREHEAT</u>	:	<u>GAS</u>
Preheat temp. : Min. +16 C	:	<u>Gas(es)</u> <u>Flow rate</u>
	:	(l/min)
Interpass temp : Max. +250 C	:	Shielding : ARGON 5 - 20
Preheat Maint : N.R	:	Trailing : NIL NIL
	:	Backing : NIL NIL

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Weld	:	Process	:	Filler metal	:	Current	:	Volt	:	Travel
Layers	:		:	Class dia	:	Type Amp.	:	Range	:	Speed

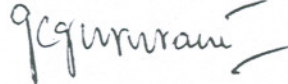
Root Run	GTAW	ER 4043	3.15	AC 200 - 280	--	40-70 mm/Min
First run Subsequent layers	GMAW	ER 4043	1.60	DCRP 180-230	--	200-300

SPECIAL REMARKS : Ensure that approx. 12.5 mm area near the weld joint is thoroughly cleaned prior to welding.

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