

WELDING PROCEDURE SPECIFICATIONS

WPS NO. : RU 10004

PROCESS : GTAW

COMPONENT FABRICATION PLANT

BHEL, RUDRAPUR

WELDING PROCEDURE SPECIFICATION

WPS NO. RU 10004

REV. NO. 00

REV. DT. 24.02.98

Company Name CFP , BHEL , RUDRAPUR

WPS No. RU 10004 Date 24.02.98

Rev. No. 00 Date 24.02.98

Supporting PQR No. 04 DT 24.02.98

Welding Process(es) GTAW Type(s) MANUAL

JOINTSDETAILS

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

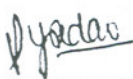
Spec.type/Chemical Analysis N.R.

THICKNESS RANGE

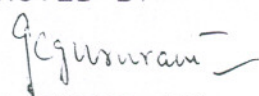
Base Metal : Groove : 1.6 - 9.5 mm Fillet : All Sizes

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

WORKED BY


(V.S. YADAV)
ENGINEER

APPROVED BY


(G.C. GURURANI)
DGM(PQM)

FILLER METALS

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

WELD METAL (THICKNESS RANGE)

Groove : 9.5 mm Max
 Fillet : 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. +150° C	:	Shielding : ARGON 5 - 20 Gr I
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 150 - 210	-- 60-100 mm/Min
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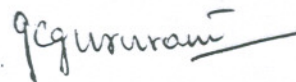
First run Subsequent layers	GTAW	ER 4043	3.15	AC 160 - 230	-- 200-300
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SPECIAL REMARKS : Ensure that approx. 12.5 mm area near the weld joint is thoroughly cleaned prior to welding.

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