

**BHARAT HEAVY ELECTRICALS LIMITED
INDUSTRIAL VALVES PLANT, GOINDWAL**

WELDING PROCEDURE SPECIFICATION

WPS NO. : W004 DATED: 19.09.2000

REV. : 00

**REF (TRICHY WPS NO: A.1H-03/02 DT27/06/91)
(SUPPORTING PQR NO: 445,462)**

WELDING PROCESS : SMAW TYPE : MANUAL

**APPLICATION : HARD FACING OF C-STEEL COMPONENTS(Cr/Cr-Ni
corrosion resistant)**

Base Metal : Carbon Steel, Thickness 12 mm and above.
Joint Design : As per Production Drg./Requirement
Hard facing : Min. 3 mm
Initial and inter-pass cleaning : Chipping/Brushing/Grinding.

**Electrode Class : AWS NO E430 1st layer (Buffer)
E410 2nd layer**

SFA Spn. No. : 5.4

Position of groove: 1G

Current polarity : DCEP

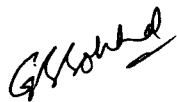
Current characteristics :

**Buffer (1st layer) : E430 : Dia 4.0mm : 130 – 160 amp
5.0mm : 170-200 amp**
**Balance (2nd layer) : E410 : Dia 4.0 mm : 130 – 160 amp
5.0mm : 170-200 amp**

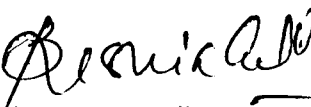
PRE-HEAT TEMP : 150 Deg. Centi (min)

Inter-pass Temp. : 350 deg. Centi.(max)

Post Weld Heat Treatment : NIL


Engineer/ Quality
(Prepared By)

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Manager/Quality
(Approved By)