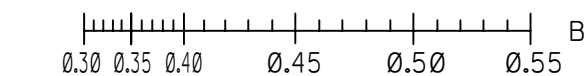
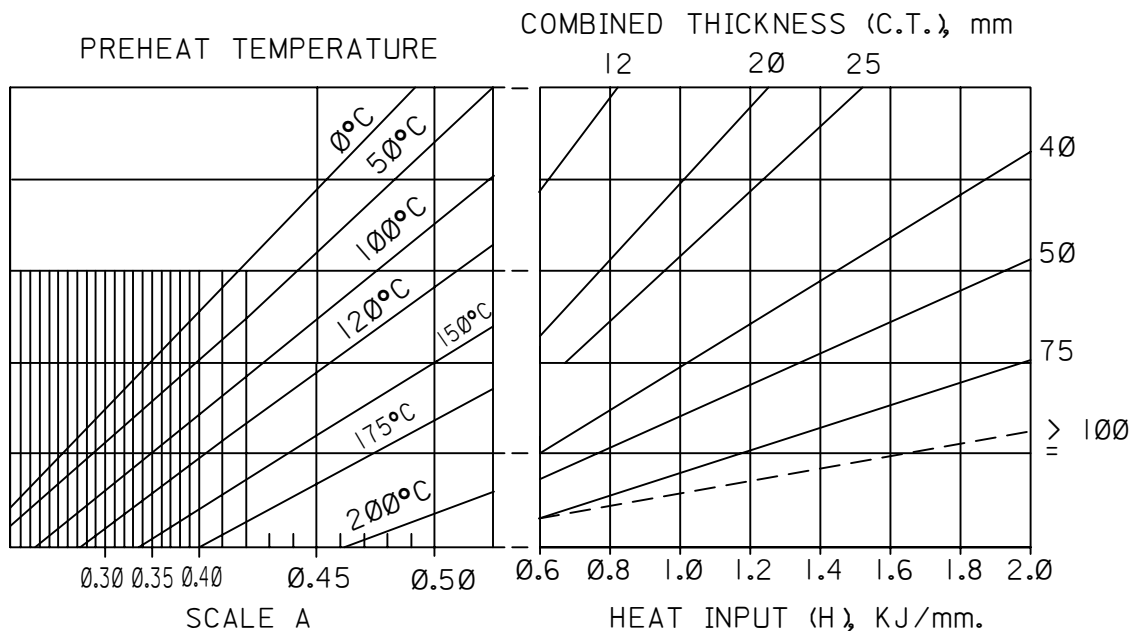
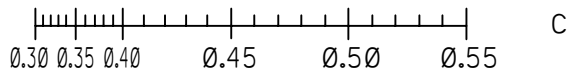


SAUDI ARABIAN OIL COMPANY

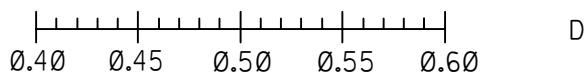
APPD.			
CERT.			
CHKD.			
DESCRIPTION	DRAWING DIGITIZED INTO CADD DATABASE WITHOUT CHANGES		
REVISED SCALE BAR.			
JO/EWO			
BY	ESSD RCR	ESSD JVV	
DATE	DEC95	JUN92	
NO.	03	02	
REVISIONS			
DRAWN BY _____			
DATE _____			
CHKD. BY _____			
OPRG. DEPT.			
BY _____			
DATE _____			
ENG. DEPT.			
BY _____			
DATE _____			
APP'D. FOR CONSTR.			
BY _____			
DATE _____			
CERTIFIED			
BY _____			
DATE _____			
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED.			



$$H(KJ/mm.) = \frac{E(VOLTS) \times I(AMPS) \times 60}{S(SPEED, mm./MIN) \times 1000}$$

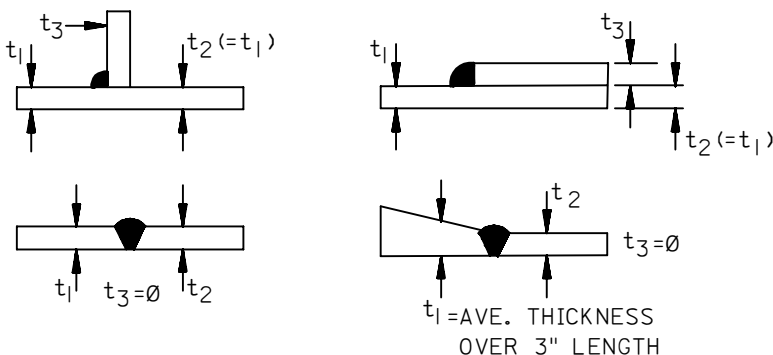


$$C.E. = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$



USE SCALE "A" FOR CELLULOSIC ELECTRODES
USE SCALE "B" FOR SUBMERGED-ARC WELDING
USE SCALE "C" FOR LOW HYDROGEN ELECTRODES
USE SCALE "D" FOR M.I.G. & T.I.G. PROCESS

CARBON EQUIVALENT (C.E.)



NOTES:

FOR USE WHEN ACTUAL VALUES ARE NOT KNOWN OR SPECIFIED.
PIPE: CE=0.42
PLATE: USE MAXIMUM CHEMISTRY OF GRADE.
IF UNKNOWN, USE CE=0.50.

DETERMINING THE COMBINED THICKNESS PARAMETER (C.T.)

FOR VARIOUS JOINT GEOMETRIES: IN ALL CASES, C.T.=t + t + t

DRAWING TITLE	PLANT NO.	INDEX	DRAWING NO.	SHT. NO.	REV. NO.
PREHEAT LEVELS FOR WELDING CARBON STEELS (INCLUDES LOW HYDROGEN PROCESSES)	990	W	AE-036451	005	03
STD. DWG.	J0/EWO-				