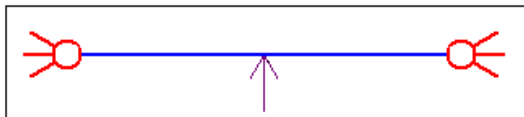


TEST SCHEDULE R 29	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	SHEAR – AXIS 2	EC3.RES.T2.002



Program: WEURO © version October 2007 for Sargon and Cescoplus
Keywords: EN 1993, Eurocode 3, example, validation, benchmark, reliability, quality control, error measure. **Parole chiave:** Eurocodice 3, esempio, validazione, test ,affidabilità, controllo di qualità, misura dell'errore
Tv=exploitation target value, **Cv=**exploitation computed value
Authors: Ing. Marco Croci, Ing. Paolo Rugarli

BEAM		
Length [mm]	Left end	Right end
1000	HINGE	HINGE

LOAD		
Type	Value	Point of application
SHEAR FORCE T_2	$T=2.000.000N$	MIDDLE POINT

MATERIAL	A441/40					
f_v [N/mm ²]	f_u [N/mm ²]	E [N/mm ²]	ν	γ_{M0}	γ_{M1}	γ_{M2}
276	414	2,000e+05	0,3	1,1	1,1	1,25

CROSS SECTION	HSL 500x106				
A [mm ²]	J_2 [mm ⁴]	J_3 [mm ⁴]	J_t [mm ⁴]	W_2 [mm ³]	W_3 [mm ³]
13520	6,486e+08	8,101e+07	1,200e+06	2,647e+06	5,410e+05
W_{pl2} [mm ³]	W_{pl3} [mm ³]	i_2 [mm]	i_3 [mm]	i_t [mm]	
2,858e+06	8,141e+05	219	77,39	86,6	
h	$b_1=b_2$	t_w	$t_{f1}=t_{f2}$		
490	300	6	18		

OTHER DATA				
d [mm]	t_w [mm]	$A_v=2b*t_f$ [mm ²]		
454	6	10.796		

TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS

$$V_{pl,Rd}=A_v*(f_y/\sqrt{3})/\gamma_{M0}$$

$Tv=T/ V_{pl,Rd}$
6,392E-01

CHECKER'S RESULTS (COMPUTED VALUES) AND COMPARISON WITH THE TARGET

Cv	$(Cv-Tv)/Tv$
6,392E-01	0,000E+00

Only member's extreme sections were considered in the check in order to get bending moment $M_3=0$, always