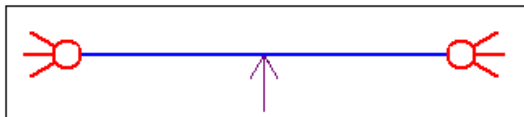


TEST SCHEDULE R 29	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	SHEAR – AXIS 2	EC3.RES.T2.002



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_y [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

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

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 M₃=0, always