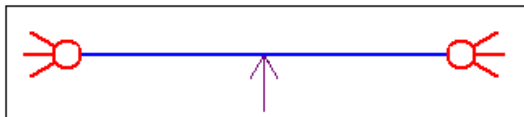


TEST SCHEDULE R 28	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	SHEAR – AXIS 2	EC3.RES.T2.001



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=500.000N		MIDDLE POINT		
MATERIAL	A514/100					
f_v [N/mm ²]	f_u [N/mm ²]	E [N/mm ²]	ν	γ_{M0}	γ_{M1}	γ_{M2}
689	758	2,000e+05	0,3	1,1	1,1	1,25
CROSS SECTION		IPE 100				
A [mm ²]	J_2 [mm ⁴]	J_3 [mm ⁴]	J_t [mm ⁴]	W_2 [mm ³]	W_3 [mm ³]	
1032	1,710e+06	1,592e+05	1,202E+04	3,420e+04	5,789e+03	
W_{pl2} [mm ³]	W_{pl3}	i_2 [mm]	i_3 [mm]	i_t [mm]		
3,941E+04	9,145E+03	40,7	12,42	15,88		
h	b	t_w	t_f	r		
100	55	4,1	5,7	7		
OTHER DATA						
$A_v=2b \cdot t_f$ [mm ²]						
626.9						

TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS

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

$T_v=T / V_{pl,Rd}$
1,103E+00

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

Cv	(Cv-Tv)/Tv
1,103E+00	0,000E+00

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