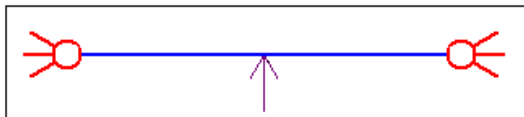


TEST SCHEDULE R 22	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	SHEAR – AXIS 3	EC3.RES.T3.002



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 ₃	T=1.000.000N	MIDDLE POINT

MATERIAL	A514/100					
f _y [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	I 200x25				
A [mm ²]	J ₂ [mm ⁴]	J ₃ [mm ⁴]	J _t [mm ⁴]	W ₂ [mm ³]	W ₃ [mm ³]
3218,7	2,349E+07	3,090E+06	5,440E+04	2,312E+05	4,633E+04
W _{pl2} [mm ³]	W _{pl3} [mm ³]	i ₂ [mm]	i ₃ [mm]	i _t [mm]	
2,589E+05	7,121E+04	85,4	31	38,51	
h	b	t _w	t _f	r	
203,2	133,4	5,8	7,8	7,6	

OTHER DATA				
A _V =A-2bt _f +(t _w +2r)t _f [mm ²]				
1.301,46				

TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS

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

Tv=T/V _{pl,Rd}
1,062E+00

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

Cv	(Cv-Tv)/Tv
1,062E+00	-3,412E-04

Only member's extreme sections were considered in the check in order to get bending moment M₂=0, always