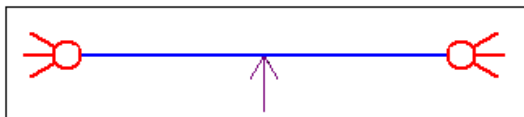


TEST SCHEDULE R 21	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	SHEAR – AXIS 3	EC3.RES.T3.001



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 ₃	T=200.000N	MIDDLE POINT

MATERIAL	S235					
f _y [N/mm ²]	f _u [N/mm ²]	E [N/mm ²]	ν	γ _{M0}	γ _{M1}	γ _{M2}
235	360	2,10E+05	0,3	1,1	1,1	1,25

CROSS SECTION	RHS 90x90x7x14				
A [mm ²]	J ₂ [mm ⁴]	J ₃ [mm ⁴]	J _t [mm ⁴]	W ₂ [mm ³]	W ₃ [mm ³]
2198	2,486e+06	2,486e+06	4,117e+06	5,525e+04	5,525e+04
W _{pl2} [mm ³]	W _{pl3} [mm ³]	i ₂ [mm]	i ₃ [mm]	i _t [mm]	
6,699e+04	6,699e+04	33,63	33,63	0	
h	b	t	r		
90	90	7	14		

OTHER DATA					
A _v =A*h/(b+h) [mm ²]					
1.099					

TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS

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

$T_v = T / V_{pl,Rd}$
7,377E-01

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

Cv	(Cv-Tv)/Tv
7,378E-01	1,172E-04

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