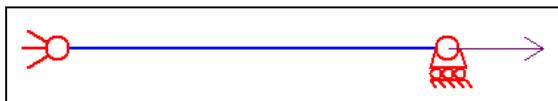


TEST SCHEDULE R 3	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	TENSION	EC3.RES.NP.003



Program: WEURO © version October 2007 for Sargon and Cescoplus

Keywords: EN 1993, Eurocode 3, example, validation, benchmark, reliability, quality control, error measure. **Parole chiave:** Eurocode 3, esempio, validazione, test, affidabilità, controllo di qualità, misura dell'errore

Tv=exploitation target value, **Cv**=exploitation computed value

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

LOAD		
Type	Value	Point of application
TENSION	N=100.000N	RIGHT END

MATERIAL	A572/42					
f_y [N/mm ²]	f_u [N/mm ²]	E [N/mm ²]	ν	γ_{M0}	γ_{M1}	γ_{M2}
290	414	2,000e+05	0,3	1,1	1,1	1,25

CROSS SECTION	PLT40x10	CLASS: N ⁺ →1			
A [mm ²]	J ₂ [mm ⁴]	J ₃ [mm ⁴]	J _t [mm ⁴]	W ₂ [mm ³]	W ₃ [mm ³]
400	3,333E+03	5,333E+04	1,123E+04	6,667E+02	2,667E+03
W _{pl2} [mm ³]	W _{pl3} [mm ³]	i ₂ [mm]	i ₃ [mm]	i _t [mm]	
1.000E+03	4.000E+03	2,887	11.55	0	

OTHER DATA					
% red A_{net}	A_{net} [mm ²]				
0,92	368				

TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS

$$N_{p/Rd} = A \cdot f_y / \gamma_{M0}, \quad N_{u/Rd} = 0,9 \cdot A_{net} \cdot f_u / \gamma_{M2}, \quad N_{t/Rd} = \min(N_{p/Rd}, N_{u/Rd})$$

$N_{p/Rd}$ [N]	$N_{u/Rd}$ [N]	$N_{t/Rd}$ [N]	$T_v = N / N_{t/Rd}$
105.455	109.693	105.455	9,483E-01

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

C_v	$(C_v - T_v) / T_v$
9,483E-01	2,977E-05