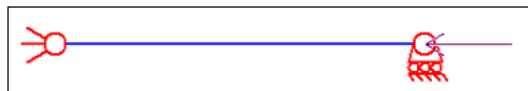


TEST SCHEDULE R 6	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	COMPRESSION	EC3.RES.NN.003



Program: WEURO © version October 2007 for Sargon and Cescoplus
Keywords: EN 1993, Eurocode 3, example, validation, benchmark, reliability, quality control, error measure. **Parole chiave:** 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			SIMPLY SUPPORTED	
LOAD						
Type		Value		Point of application		
COMPRESSION		N=30.000.000N		RIGHT END		
MATERIAL		S355				
f_y [N/mm ²]	f_u [N/mm ²]	E [N/mm ²]	ν	γ_{M0}	γ_{M1}	γ_{M2}
355	510	2,10E+05	0,3	1,1	1,1	1,25
CROSS SECTION		HSH 600X828		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]	
1,055E+05	6,544e+09	2,737e+09	1,813e+08	2,181e+07	9,124e+06	
W _{pl2} [mm ³]	W _{pl3} [mm ³]	i ₂ [mm]	i ₃ [mm]	i _t [mm]		
2,550e+07	1,379e+07	149	161	173,2		
h	b ₁ =b ₂	t _w	t _{f1} =t _{f2}			
600	600	32	76			
OTHER DATA						
Reduced f_y [N/mm ²]						
335						

TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS

$$N_{c,Rd} = A \cdot f_y / \gamma_{M0}$$

$T_v = N / N_{c,Rd}$
9,337E-01

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

C_v	$(C_v - T_v) / T_v$
9,334E-01	-3,427E-04

According to table 3.1 when cross section thickness is higher than 40mm yield stress should be decreased. Here a yield stress equal to 335N/mm² has been used.