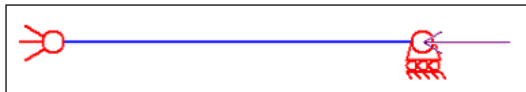


TEST SCHEDULE R 6	EN 1993-1-1: 2005 (EUROCODE 3)	Sargon ©, Cescoplus ©
RESISTANCE	COMPRESSION	EC3.RES.NN.003



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

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

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

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

Cv	(Cv-Tv)/Tv
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.