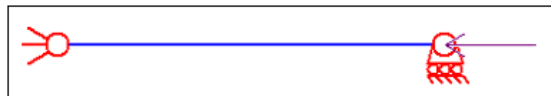


<b>TEST SCHEDULE R 7</b>	<b>EN 1993-1-1: 2005 (EUROCODE 3)</b>	<b>Sargon ©, Cescoplus ©</b>
<b>RESISTANCE</b>	<b>COMPRESSION</b>	<b>EC3.RES.NN.004</b>



**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

<b>BEAM</b>		
Length [mm]	Left end	Right end
4000	HINGE	SIMPLY SUPPORTED

<b>LOAD</b>		
Type	Value	Point of application
COMPRESSION	N=100.000N	RIGHT END

<b>MATERIAL</b>	<b>S355</b>					
$f_y$ [N/mm <sup>2</sup> ]	$f_u$ [N/mm <sup>2</sup> ]	E [N/mm <sup>2</sup> ]	$\nu$	$\gamma_{M0}$	$\gamma_{M1}$	$\gamma_{M2}$
355	510	2,10E+05	0,3	1,1	1,1	1,25

<b>CROSS SECTION</b>	<b>IPE 100</b>	<b>CLASS: N<sup>c</sup> → 1</b>			
A [mm <sup>2</sup> ]	J <sub>2</sub> [mm <sup>4</sup> ]	J <sub>3</sub> [mm <sup>4</sup> ]	J <sub>t</sub> [mm <sup>4</sup> ]	W <sub>2</sub> [mm <sup>3</sup> ]	W <sub>3</sub> [mm <sup>3</sup> ]
1032	1,710e+06	1,592e+05	1,202E+04	3,420e+04	5,789e+03
W <sub>pl2</sub> [mm <sup>3</sup> ]	W <sub>pl3</sub>	i <sub>2</sub> [mm]	i <sub>3</sub> [mm]	i <sub>t</sub> [mm]	
3,941E+04	9,145E+03	40,7	12,42	15,88	
h	b	t <sub>w</sub>	t <sub>f</sub>	r	
100	55	4,1	5,7	7	

<b>OTHER DATA</b>					

**TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS**

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

$T_v = N / N_{c,Rd}$
3,003E-01

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

Cv	(Cv-Tv)/Tv
3,002E-01	-1,703E-04