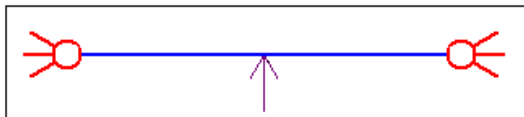


<b>TEST SCHEDULE R 28</b>	<b>EN 1993-1-1: 2005 (EUROCODE 3)</b>	<b>Sargon ©, Cescoplus ©</b>
RESISTANCE	SHEAR – AXIS 2	<b>EC3.RES.T2.001</b>



**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
1000	HINGE	HINGE

<b>LOAD</b>		
Type	Value	Point of application
SHEAR FORCE T <sub>2</sub>	T=500.000N	MIDDLE POINT

<b>MATERIAL</b>	<b>A514/100</b>					
f <sub>v</sub> [N/mm <sup>2</sup> ]	f <sub>u</sub> [N/mm <sup>2</sup> ]	E [N/mm <sup>2</sup> ]	v	γ <sub>M0</sub>	γ <sub>M1</sub>	γ <sub>M2</sub>
689	758	2,000e+05	0,3	1,1	1,1	1,25

<b>CROSS SECTION</b>	<b>IPE 100</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>					
A <sub>v</sub> =2b*t <sub>f</sub> [mm <sup>2</sup> ]					
626,9					

**TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS**

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

Tv = T / V <sub>pl,Rd</sub>
1,103E+00

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

Cv	(Cv-Tv)/Tv
1,103E+00	<b>0,000E+00</b>

Only member's extreme sections were considered in the check in order to get bending moment M<sub>3</sub>=0, always