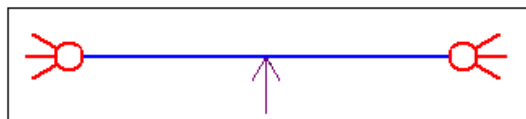


<b>TEST SCHEDULE R 26</b>	<b>EN 1993-1-1: 2005 (EUROCODE 3)</b>	<b>Sargon ©, Cescoplus ©</b>
RESISTANCE	SHEAR – AXIS 3	<b>EC3.RES.T3.006</b>



**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

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

LOAD		
Type	Value	Point of application
SHEAR FORCE $T_3$	$T=500.000N$	MIDDLE POINT

MATERIAL S235						
$f_y$ [N/mm <sup>2</sup> ]	$f_u$ [N/mm <sup>2</sup> ]	$E$ [N/mm <sup>2</sup> ]	$\nu$	$\gamma_{M0}$	$\gamma_{M1}$	$\gamma_{M2}$
235	360	2,10E+05	0,3	1,1	1,1	1,25

CROSS-SECTION HE 240 A					
$A$ [mm <sup>2</sup> ]	$J_2$ [mm <sup>4</sup> ]	$J_3$ [mm <sup>4</sup> ]	$J_t$ [mm <sup>4</sup> ]	$W_2$ [mm <sup>3</sup> ]	$W_3$ [mm <sup>3</sup> ]
7684	7,763E+07	2,769E+07	4,155E+05	6,751E+05	2,307E+05
$W_{pl2}$ [mm <sup>3</sup> ]	$W_{pl3}$ [mm <sup>3</sup> ]	$i_2$ [mm]	$i_3$ [mm]	$i_t$ [mm]	
7,446E+05	3,517E+05	100,5	60	69,28	
$h$	$b$	$t_w$	$t_f$	$r$	
230	240	7,5	12	21	

OTHER DATA					
$A_v=A-2bt_f+(t_w+2r)t_f$ [mm <sup>2</sup> ]					
2.518					

**TARGET VALUES BASED ON PRELIMINAR COMPUTATIONS**

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

$T_v=T / V_{pl,Rd}$
8,050E-01

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

$C_v$	$(C_v-T_v)/T_v$
8,050E-01	<b>6,021E-05</b>

Only member's extreme sections were considered in the check in order to get bending moment  $M_2=0$ , always

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