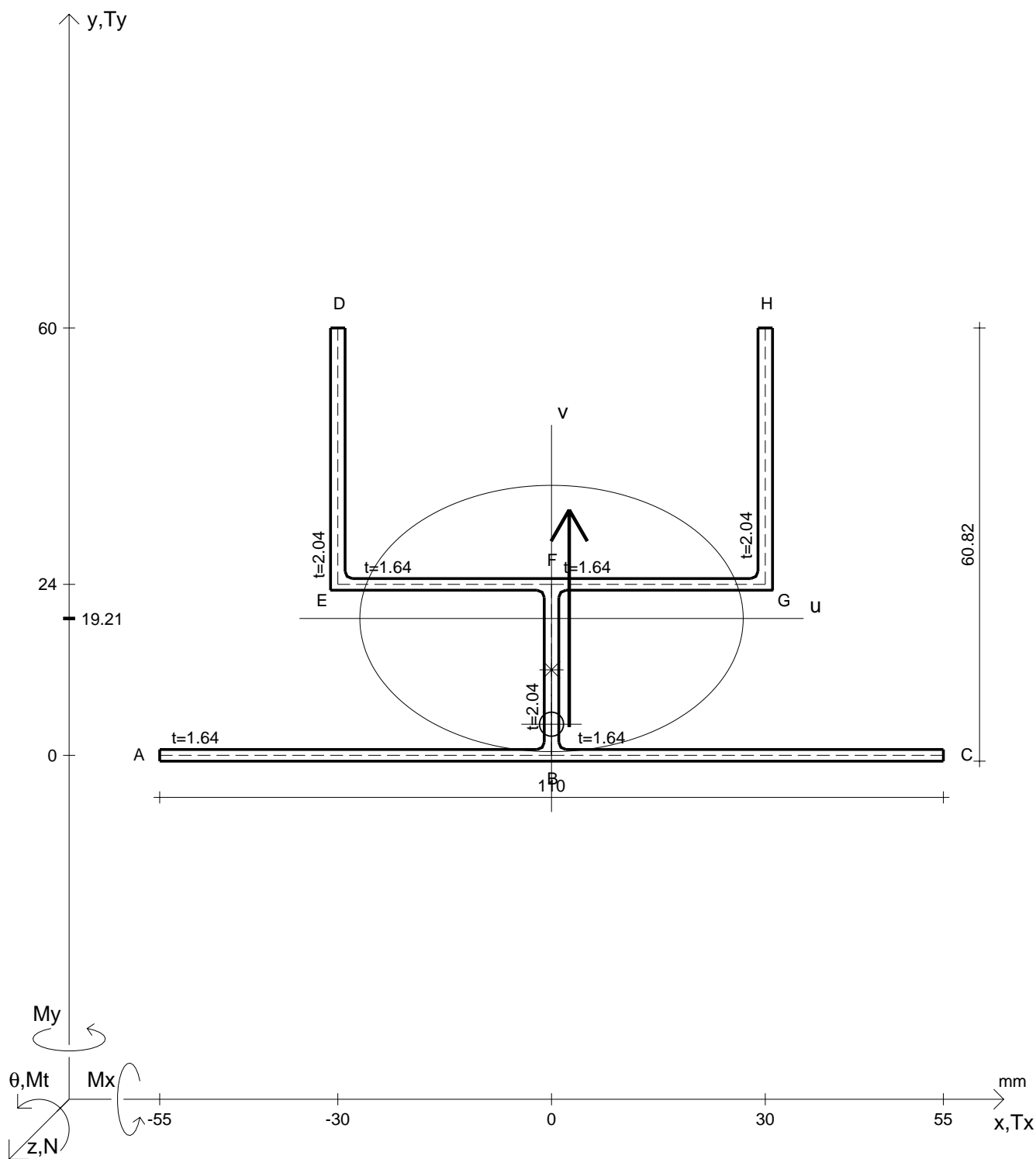


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 5000 \text{ N}$	$M_x = -6500 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1290 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 4600 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 20.63 \text{ mm}$	$\tau(M_t)_d = 17.24 \text{ N/mm}^2$	$\sigma_{lld} = -1.123 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.25 \text{ N/mm}^2$	$\sigma_{tresca} = 62.37 \text{ N/mm}^2$
$v_o = -17.02 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 54.4 \text{ N/mm}^2$
$A^* = 491 \text{ mm}^2$	$\tau(T_y)_s = 13.25 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.89 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.25 \text{ N/mm}^2$	$\theta_t = 0.1056 \text{ /m}$
$C_w = 34249904 \text{ mm}^6$	$\sigma = 13.09 \text{ N/mm}^2$	$r_u = 19.92 \text{ mm}$
$J_u = 194784 \text{ mm}^4$	$\tau_s = -3.995 \text{ N/mm}^2$	$r_v = 27.01 \text{ mm}$
$J_v = 358303 \text{ mm}^4$	$\tau_d = 30.49 \text{ N/mm}^2$	$r_o = 37.63 \text{ mm}$
$J_t = 544.3 \text{ mm}^4$	$\sigma_{ls} = 37.73 \text{ N/mm}^2$	$J_p = 695240 \text{ mm}^4$
$\sigma(N) = 10.18 \text{ N/mm}^2$	$\sigma_{lls} = -24.64 \text{ N/mm}^2$	
$\sigma(M_x) = 2.903 \text{ N/mm}^2$	$\sigma_{ld} = 14.21 \text{ N/mm}^2$	

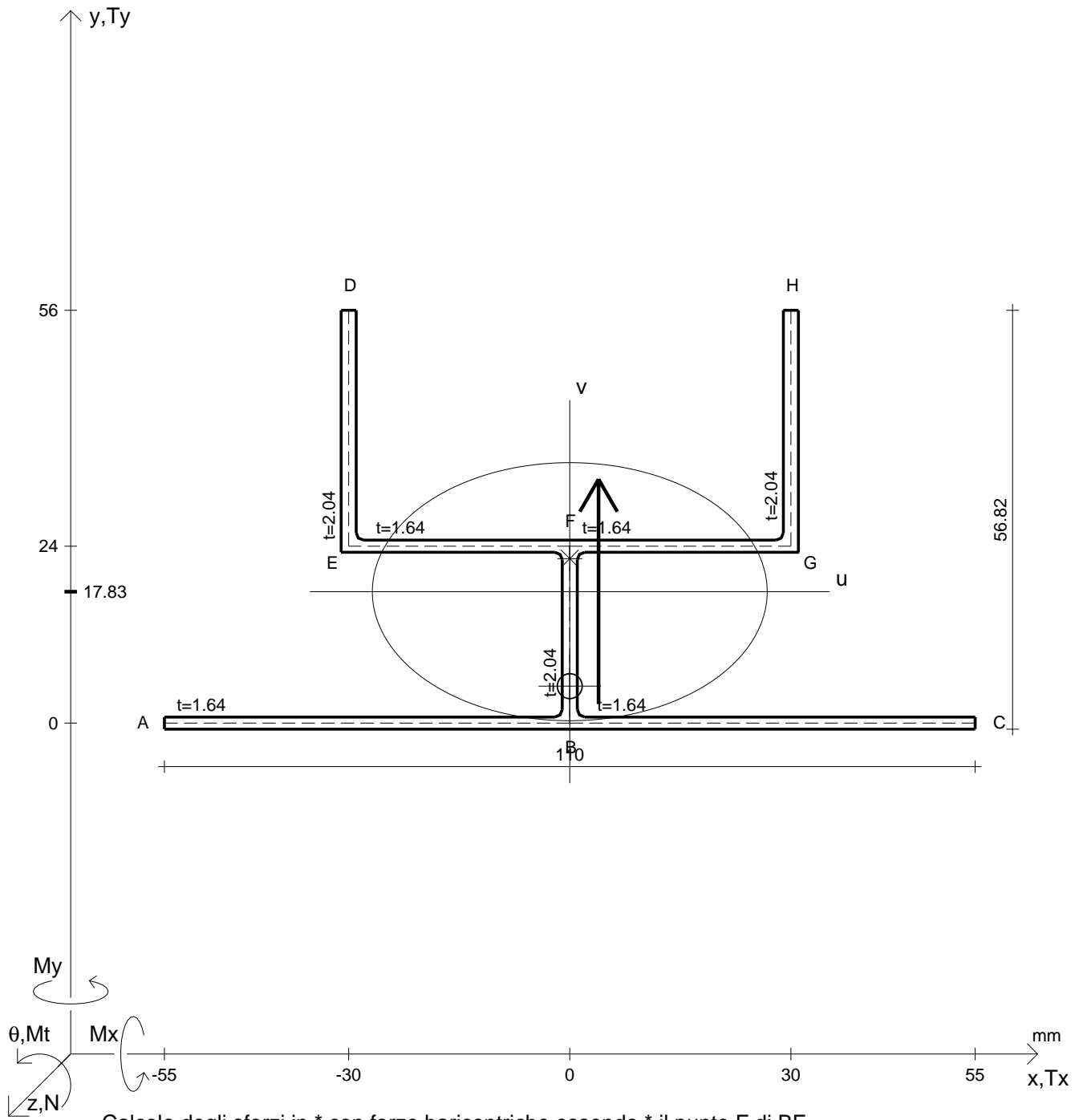




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5330 N	M <sub>t</sub> = 3250 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1310 N	M <sub>x</sub> = -66200 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.48 N/mm <sup>2</sup>
y <sub>G</sub> = 19.21 mm	J <sub>t</sub> = 521.6 mm <sup>4</sup>	σ = 14.11 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.63 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.23 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.958 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07788 /m
v <sub>o</sub> = -14.84 mm	σ(M <sub>x</sub> ) = 2.878 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.38 N/mm <sup>2</sup>	r <sub>u</sub> = 18.69 mm
A* = 474.6 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.71 N/mm <sup>2</sup>	σ <sub>l<sub>s</sub></sub> = 35.33 N/mm <sup>2</sup>	r <sub>v</sub> = 26.91 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) <sub>d</sub> = 14.67 N/mm <sup>2</sup>	σ <sub>l<sub>ls</sub></sub> = -21.22 N/mm <sup>2</sup>	r <sub>o</sub> = 35.97 mm
C <sub>w</sub> = 29476892 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>l<sub>d</sub></sub> = 14.37 N/mm <sup>2</sup>	J <sub>p</sub> = 614024 mm <sup>4</sup>
J <sub>u</sub> = 165875 mm <sup>4</sup>	τ(T <sub>ys</sub> ) <sub>s</sub> = 14.67 N/mm <sup>2</sup>	σ <sub>l<sub>ld</sub></sub> = -0.2667 N/mm <sup>2</sup>	
J <sub>v</sub> = 343615 mm <sup>4</sup>	τ(T <sub>yd</sub> ) <sub>s</sub> = 14.67 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.55 N/mm <sup>2</sup>	

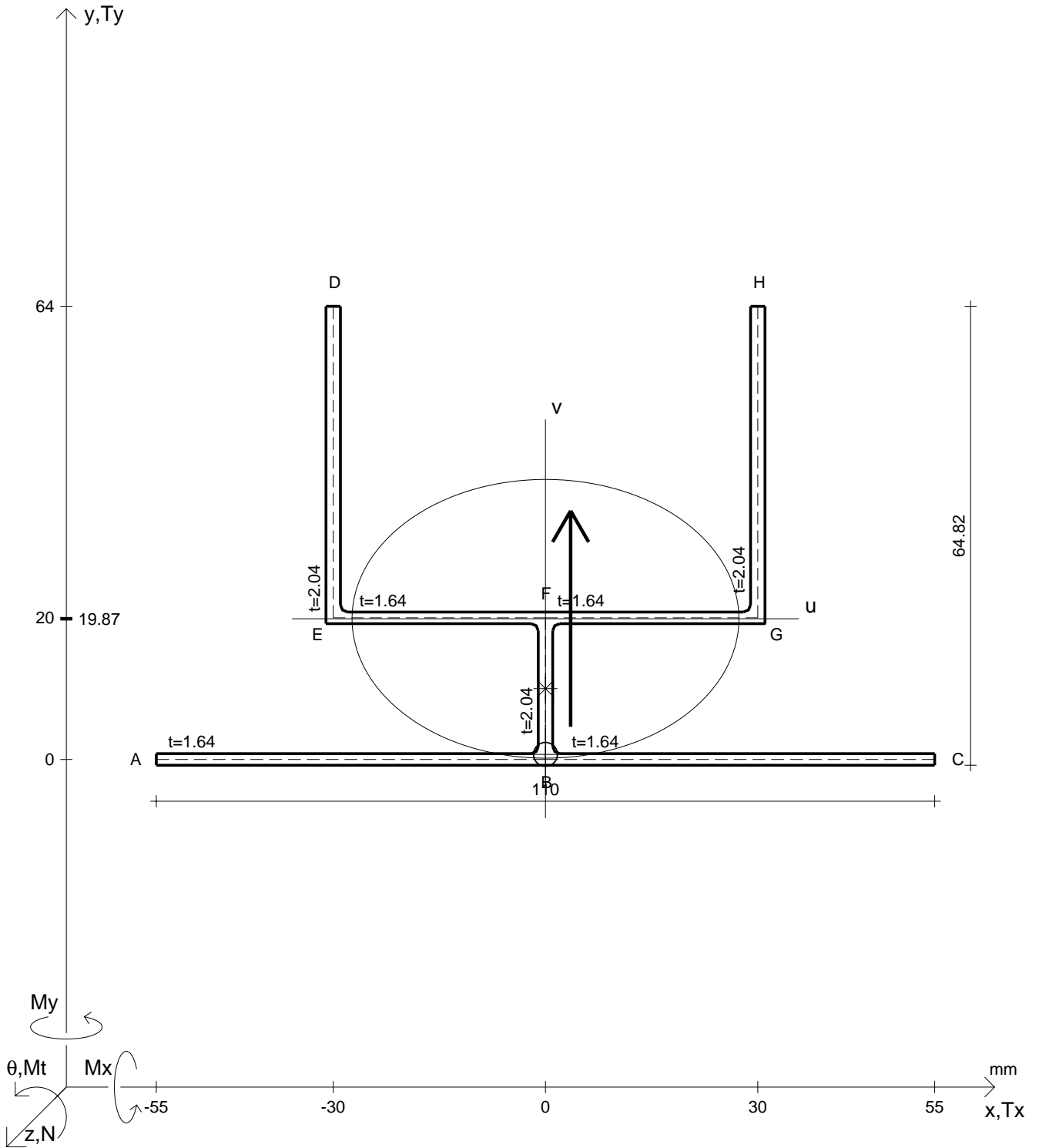




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto F di BF

N = 5630 N	$M_x = 66100 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 891 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7002 \text{ N/mm}^2$
$M_t = 3480 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.48 \text{ N/mm}^2$
$y_G = 17.83 \text{ mm}$	$\tau(M_t)_d = 14.23 \text{ N/mm}^2$	$\sigma_{mises} = 46.08 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.89 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.5 \text{ N/mm}^2$
$v_o = -12.82 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08718 / \text{m}$
$A^* = 458.3 \text{ mm}^2$	$\tau(T_y)_s = 10.89 \text{ N/mm}^2$	$r_u = 17.5 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.89 \text{ N/mm}^2$	$r_v = 26.79 \text{ mm}$
$C_w = 26288800 \text{ mm}^6$	$\sigma = 15.19 \text{ N/mm}^2$	$r_o = 34.47 \text{ mm}$
$J_u = 140423 \text{ mm}^4$	$\tau_s = -3.336 \text{ N/mm}^2$	$J_p = 544647 \text{ mm}^4$
$J_v = 328927 \text{ mm}^4$	$\tau_d = 25.12 \text{ N/mm}^2$	
$J_t = 499 \text{ mm}^4$	$\sigma_{ls} = 33.84 \text{ N/mm}^2$	
$\sigma(N) = 12.28 \text{ N/mm}^2$	$\sigma_{lls} = -18.65 \text{ N/mm}^2$	
$\sigma(M_x) = 2.905 \text{ N/mm}^2$	$\sigma_{ld} = 15.89 \text{ N/mm}^2$	



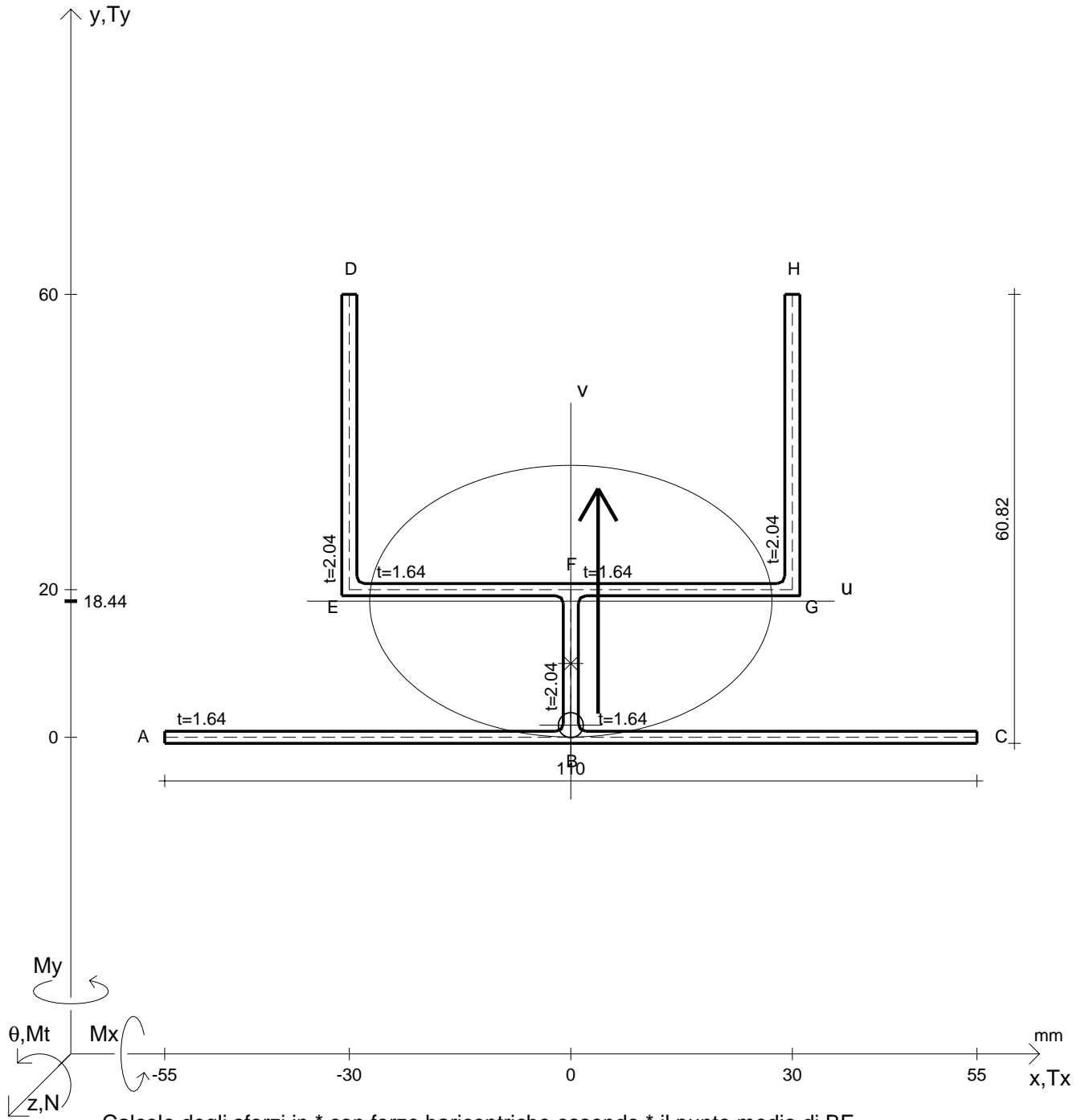


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4550 N	M <sub>t</sub> = 4300 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1210 N	M <sub>x</sub> = -86600 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.86 N/mm <sup>2</sup>
y <sub>G</sub> = 19.87 mm	J <sub>t</sub> = 555.6 mm <sup>4</sup>	σ = 13.53 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.73 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 9.116 N/mm <sup>2</sup>	τ <sub>s</sub> = -3.87 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.09675 /m
v <sub>o</sub> = -19.15 mm	σ(M <sub>x</sub> ) = 4.417 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.71 N/mm <sup>2</sup>	r <sub>u</sub> = 19.69 mm
A* = 499.1 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 15.79 N/mm <sup>2</sup>	σ <sub>lls</sub> = 35.29 N/mm <sup>2</sup>	r <sub>v</sub> = 27.34 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 11.92 N/mm <sup>2</sup>	σ <sub>lld</sub> = 14.56 N/mm <sup>2</sup>	r <sub>o</sub> = 38.75 mm
C <sub>w</sub> = 38329068 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>lld</sub> = -1.028 N/mm <sup>2</sup>	J <sub>p</sub> = 749473 mm <sup>4</sup>
J <sub>u</sub> = 193441 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 11.92 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 57.04 N/mm <sup>2</sup>	
J <sub>v</sub> = 372991 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 11.92 N/mm <sup>2</sup>		



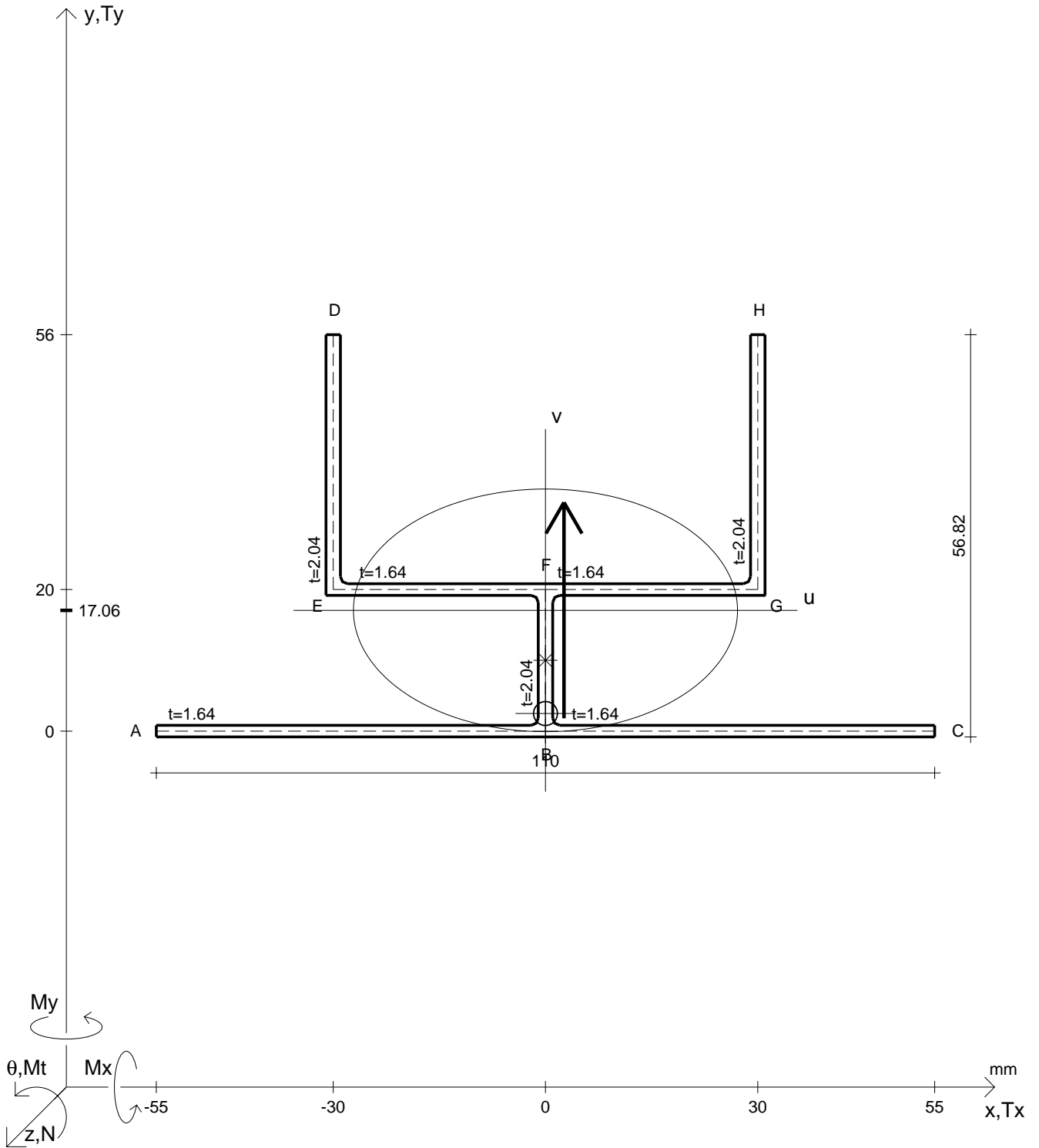




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4920 N	$M_x = -57400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1220 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.167 \text{ N/mm}^2$
$M_t = 4510 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.28 \text{ N/mm}^2$
$y_G = 18.44 \text{ mm}$	$\tau(M_t)_d = 17.26 \text{ N/mm}^2$	$\sigma_{mises} = 54.34 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.17 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.86 \text{ N/mm}^2$
$v_o = -16.79 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1058 / \text{m}$
$A^* = 482.8 \text{ mm}^2$	$\tau(T_y)_s = 13.17 \text{ N/mm}^2$	$r_u = 18.4 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.17 \text{ N/mm}^2$	$r_v = 27.24 \text{ mm}$
$C_w = 30419158 \text{ mm}^6$	$\sigma = 13.16 \text{ N/mm}^2$	$r_o = 36.92 \text{ mm}$
$J_u = 163469 \text{ mm}^4$	$\tau_s = -4.089 \text{ N/mm}^2$	$J_p = 657951 \text{ mm}^4$
$J_v = 358304 \text{ mm}^4$	$\tau_d = 30.44 \text{ N/mm}^2$	
$J_t = 532.9 \text{ mm}^4$	$\sigma_{ls} = 37.72 \text{ N/mm}^2$	
$\sigma(N) = 10.19 \text{ N/mm}^2$	$\sigma_{lls} = -24.56 \text{ N/mm}^2$	
$\sigma(M_x) = 2.964 \text{ N/mm}^2$	$\sigma_{ld} = 14.32 \text{ N/mm}^2$	

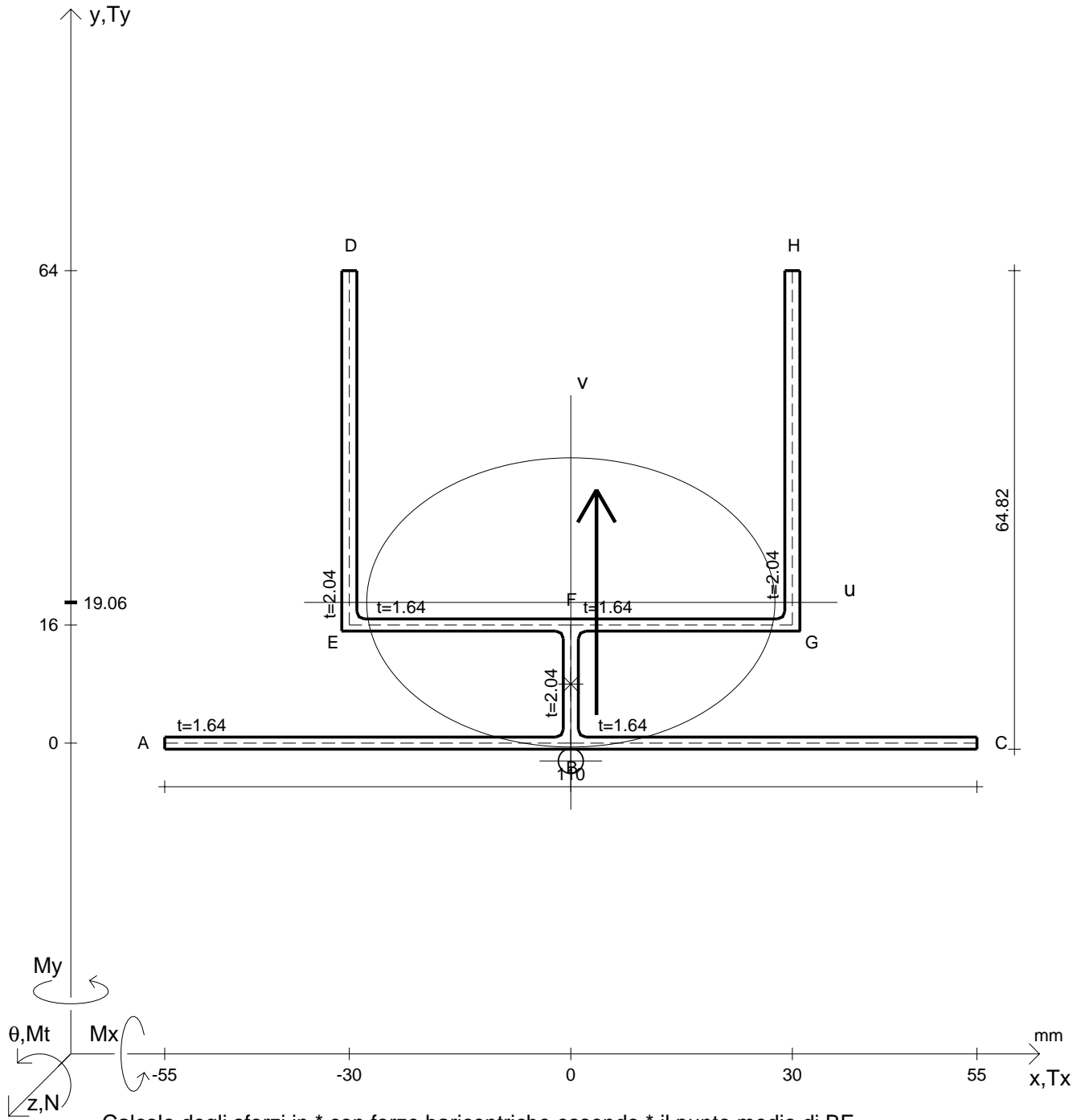




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5250 N	M <sub>t</sub> = 3190 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1220 N	M <sub>x</sub> = -57300 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.3 N/mm <sup>2</sup>
y <sub>G</sub> = 17.06 mm	J <sub>t</sub> = 510.3 mm <sup>4</sup>	σ = 14.21 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.54 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.753 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07814 /m
v <sub>o</sub> = -14.57 mm	σ(M <sub>x</sub> ) = 2.952 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.26 N/mm <sup>2</sup>	r <sub>u</sub> = 17.14 mm
A* = 466.5 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.75 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.27 N/mm <sup>2</sup>	r <sub>v</sub> = 27.14 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.51 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -21.07 N/mm <sup>2</sup>	r <sub>o</sub> = 35.25 mm
C <sub>w</sub> = 24487126 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 14.42 N/mm <sup>2</sup>	J <sub>p</sub> = 579670 mm <sup>4</sup>
J <sub>u</sub> = 137016 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.51 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.2131 N/mm <sup>2</sup>	
J <sub>v</sub> = 343615 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.51 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.34 N/mm <sup>2</sup>	

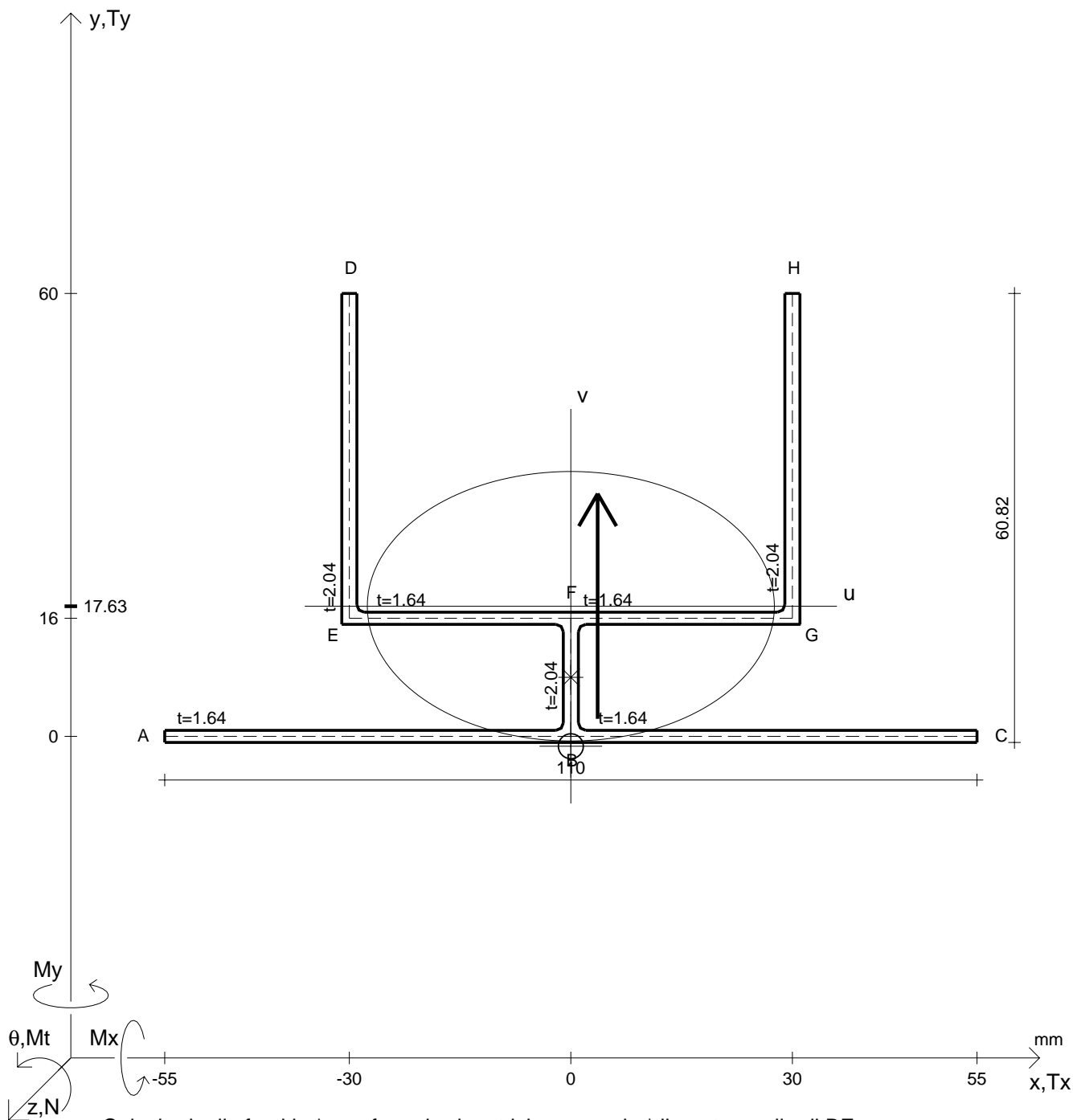




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 6260 N	$M_x = -78100 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1140 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7825 \text{ N/mm}^2$
$M_t = 3970 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.48 \text{ N/mm}^2$
$y_G = 19.06 \text{ mm}$	$\tau(M_t)_d = 14.29 \text{ N/mm}^2$	$\sigma_{mises} = 46.22 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.58 \text{ N/mm}^2$	$\sigma_{st.ven} = 39.09 \text{ N/mm}^2$
$v_o = -21.48 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08754 / \text{m}$
$A^* = 507.3 \text{ mm}^2$	$\tau(T_y)_s = 10.58 \text{ N/mm}^2$	$r_u = 19.59 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.58 \text{ N/mm}^2$	$r_v = 27.64 \text{ mm}$
$C_w = 50410456 \text{ mm}^6$	$\sigma = 16.78 \text{ N/mm}^2$	$r_o = 40.12 \text{ mm}$
$J_u = 194621 \text{ mm}^4$	$\tau_s = -3.707 \text{ N/mm}^2$	$J_p = 816344 \text{ mm}^4$
$J_v = 387679 \text{ mm}^4$	$\tau_d = 24.87 \text{ N/mm}^2$	
$J_t = 566.9 \text{ mm}^4$	$\sigma_{ls} = 34.63 \text{ N/mm}^2$	
$\sigma(N) = 12.34 \text{ N/mm}^2$	$\sigma_{lls} = -17.85 \text{ N/mm}^2$	
$\sigma(M_x) = 4.439 \text{ N/mm}^2$	$\sigma_{ld} = 17.56 \text{ N/mm}^2$	



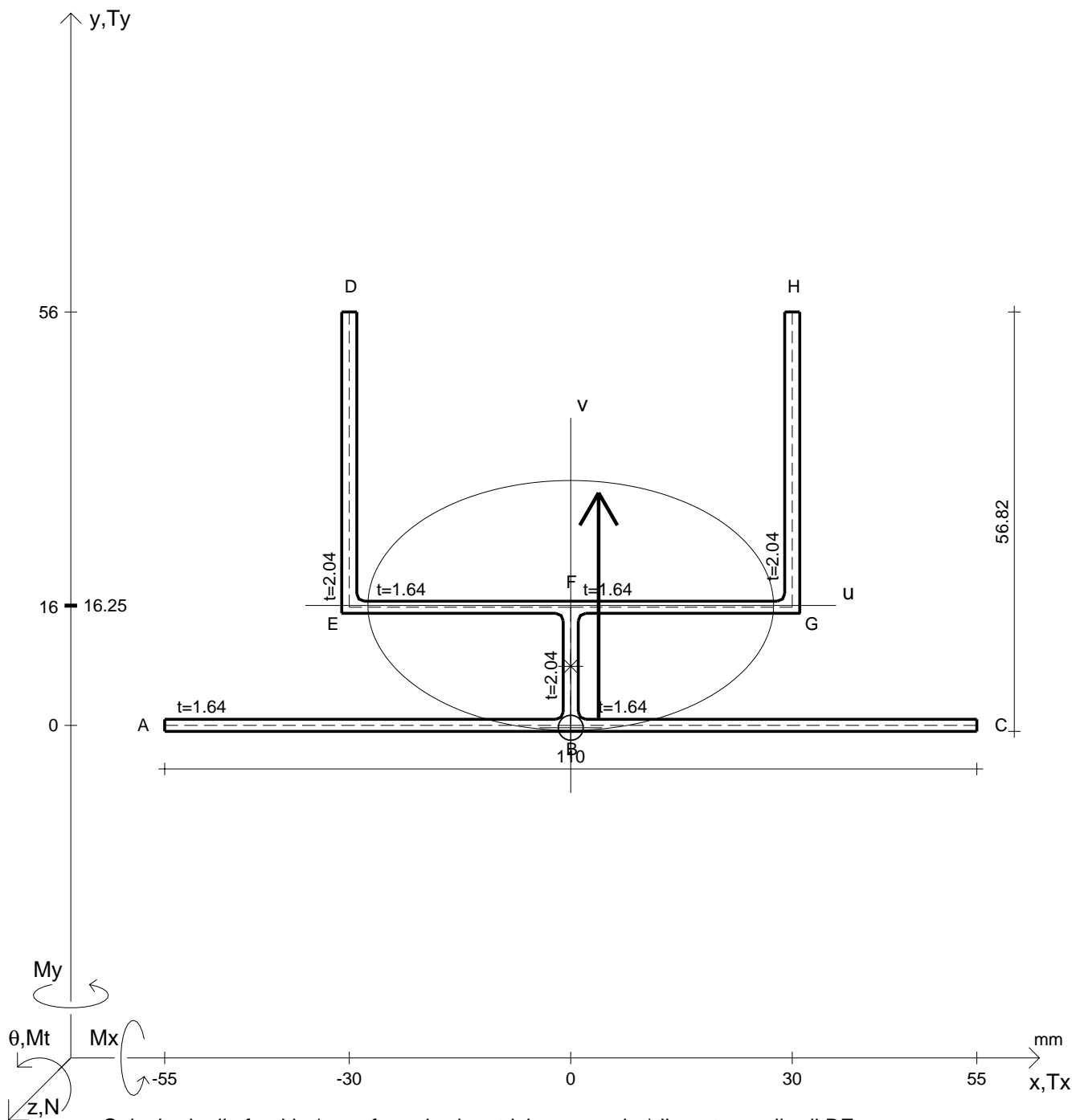


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4480 N	$M_x = -76300 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1160 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -1.059 \text{ N/mm}^2$
$M_t = 4210 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 56.89 \text{ N/mm}^2$
$y_G = 17.63 \text{ mm}$	$\tau(M_t)_d = 15.78 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 49.73 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.84 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 40.66 \text{ N/mm}^2$
$v_o = -18.97 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09669 / \text{m}$
$A^* = 491 \text{ mm}^2$	$\tau(T_y)_s = 11.84 \text{ N/mm}^2$	$r_u = 18.25 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.84 \text{ N/mm}^2$	$r_v = 27.56 \text{ mm}$
$C_w = 38777396 \text{ mm}^6$	$\sigma = 13.62 \text{ N/mm}^2$	$r_o = 38.11 \text{ mm}$
$J_u = 163508 \text{ mm}^4$	$\tau_s = -3.943 \text{ N/mm}^2$	$J_p = 713104 \text{ mm}^4$
$J_v = 372991 \text{ mm}^4$	$\tau_d = 27.62 \text{ N/mm}^2$	
$J_t = 544.3 \text{ mm}^4$	$\sigma_{\text{ls}} = 35.25 \text{ N/mm}^2$	
$\sigma(N) = 9.125 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -21.63 \text{ N/mm}^2$	
$\sigma(M_x) = 4.495 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 14.68 \text{ N/mm}^2$	



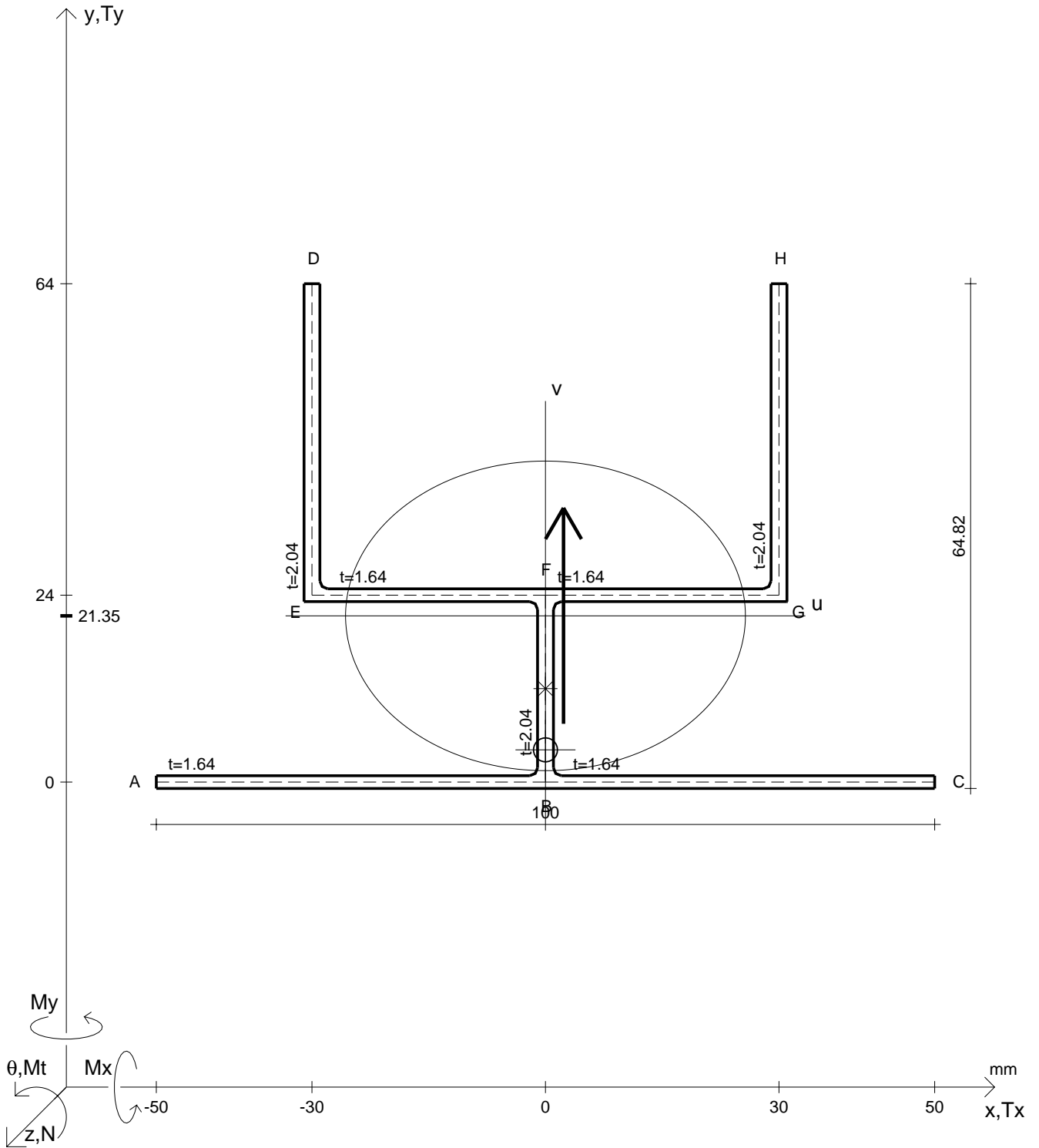




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4840 N	$M_x = -49900 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1170 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.159 \text{ N/mm}^2$
$M_t = 4420 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.4 \text{ N/mm}^2$
$y_G = 16.25 \text{ mm}$	$\tau(M_t)_d = 17.29 \text{ N/mm}^2$	$\sigma_{mises} = 54.44 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.2 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.96 \text{ N/mm}^2$
$v_o = -16.57 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1059 / \text{m}$
$A^* = 474.6 \text{ mm}^2$	$\tau(T_y)_s = 13.2 \text{ N/mm}^2$	$r_u = 16.93 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.2 \text{ N/mm}^2$	$r_v = 27.48 \text{ mm}$
$C_w = 29454160 \text{ mm}^6$	$\sigma = 13.22 \text{ N/mm}^2$	$r_o = 36.27 \text{ mm}$
$J_u = 135979 \text{ mm}^4$	$\tau_s = -4.082 \text{ N/mm}^2$	$J_p = 624554 \text{ mm}^4$
$J_v = 358303 \text{ mm}^4$	$\tau_d = 30.49 \text{ N/mm}^2$	
$J_t = 521.6 \text{ mm}^4$	$\sigma_{ls} = 37.81 \text{ N/mm}^2$	
$\sigma(N) = 10.2 \text{ N/mm}^2$	$\sigma_{lls} = -24.59 \text{ N/mm}^2$	
$\sigma(M_x) = 3.026 \text{ N/mm}^2$	$\sigma_{ld} = 14.38 \text{ N/mm}^2$	

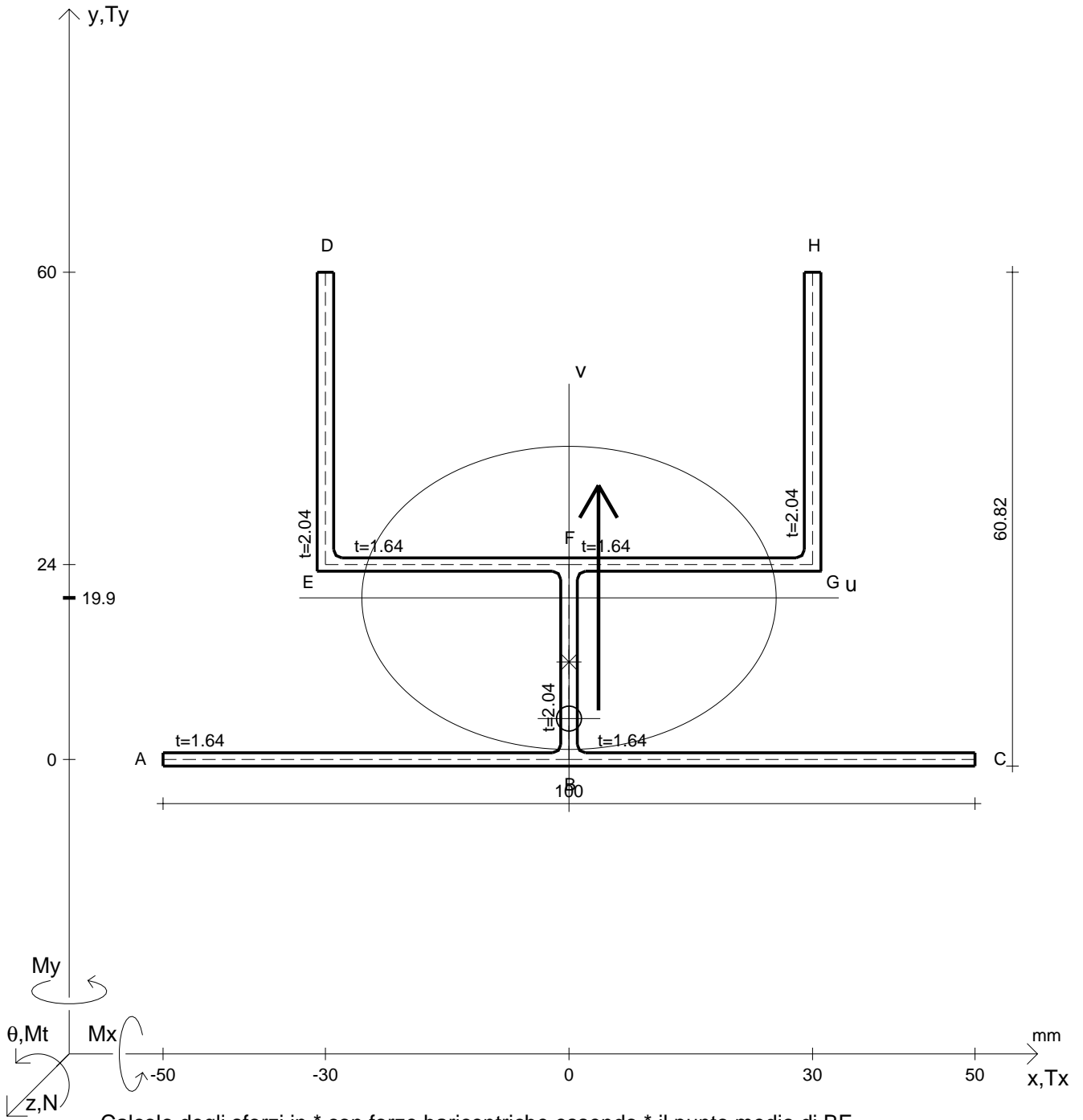




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5340 N	M <sub>t</sub> = 3310 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1430 N	M <sub>x</sub> = -71700 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.45 N/mm <sup>2</sup>
y <sub>G</sub> = 21.35 mm	J <sub>t</sub> = 529.6 mm <sup>4</sup>	σ = 14.83 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.85 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.736 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07813 /m
v <sub>o</sub> = -17.21 mm	σ(M <sub>x</sub> ) = 3.573 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.24 N/mm <sup>2</sup>	r <sub>u</sub> = 19.88 mm
A* = 474.6 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.75 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.64 N/mm <sup>2</sup>	r <sub>v</sub> = 25.68 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.49 N/mm <sup>2</sup>	σ <sub>IIs</sub> = -20.82 N/mm <sup>2</sup>	r <sub>o</sub> = 36.76 mm
C <sub>w</sub> = 33572556 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.03 N/mm <sup>2</sup>	J <sub>p</sub> = 641124 mm <sup>4</sup>
J <sub>u</sub> = 187561 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.49 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.2007 N/mm <sup>2</sup>	
J <sub>v</sub> = 313067 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.49 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.46 N/mm <sup>2</sup>	

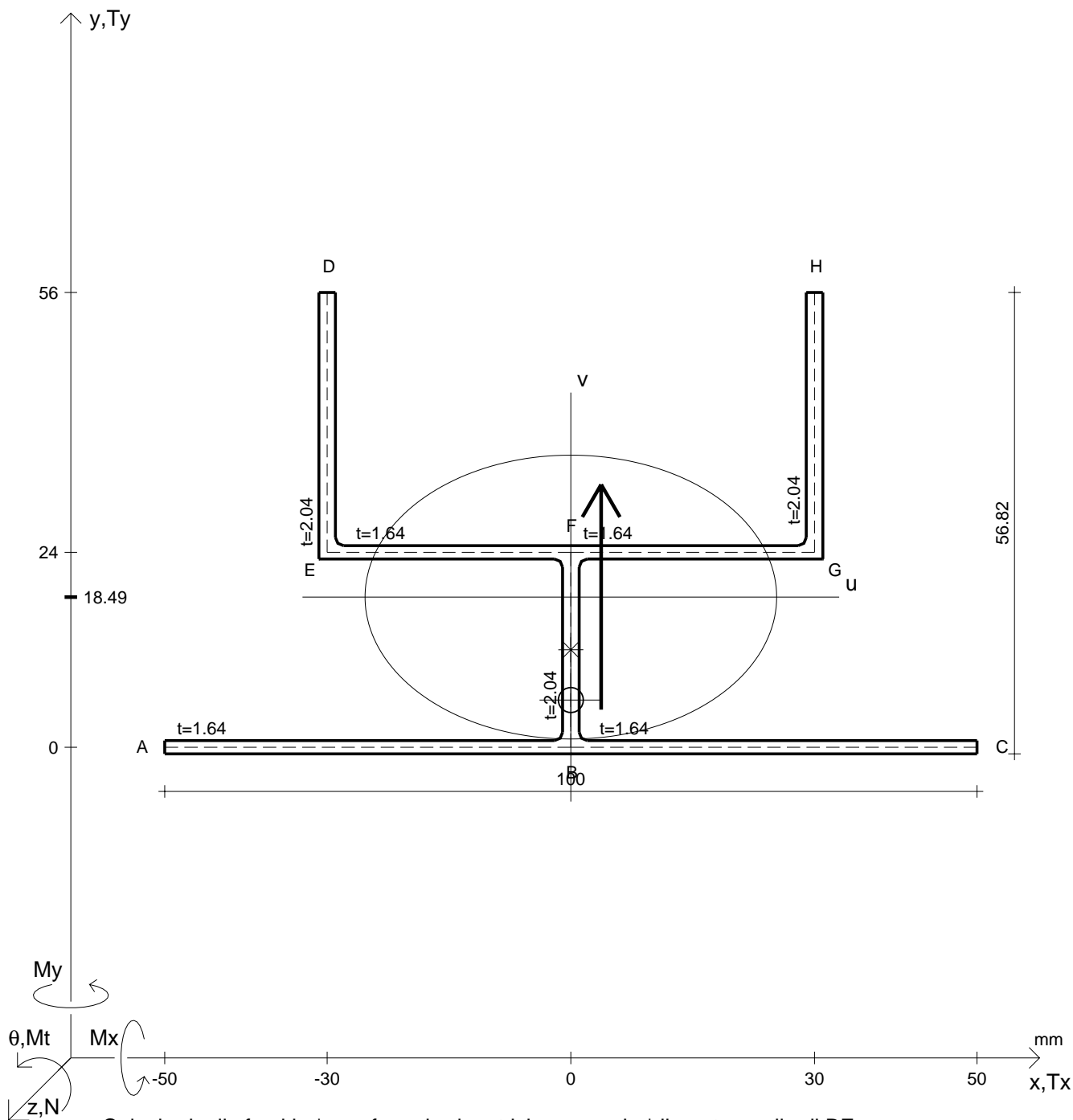




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5640 N	$M_x = -71600 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 974 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7249 \text{ N/mm}^2$
$M_t = 3540 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 52.5 \text{ N/mm}^2$
$y_G = 19.9 \text{ mm}$	$\tau(M_t)_d = 14.25 \text{ N/mm}^2$	$\sigma_{mises} = 46.15 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.78 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.76 \text{ N/mm}^2$
$v_o = -14.87 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08729 / m$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 10.78 \text{ N/mm}^2$	$r_u = 18.66 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.78 \text{ N/mm}^2$	$r_v = 25.52 \text{ mm}$
$C_w = 28481996 \text{ mm}^6$	$\sigma = 15.85 \text{ N/mm}^2$	$r_o = 34.93 \text{ mm}$
$J_u = 159606 \text{ mm}^4$	$\tau_s = -3.466 \text{ N/mm}^2$	$J_p = 559247 \text{ mm}^4$
$J_v = 298379 \text{ mm}^4$	$\tau_d = 25.03 \text{ N/mm}^2$	
$J_t = 506.9 \text{ mm}^4$	$\sigma_{ls} = 34.18 \text{ N/mm}^2$	
$\sigma(N) = 12.31 \text{ N/mm}^2$	$\sigma_{lls} = -18.33 \text{ N/mm}^2$	
$\sigma(M_x) = 3.543 \text{ N/mm}^2$	$\sigma_{ld} = 16.58 \text{ N/mm}^2$	



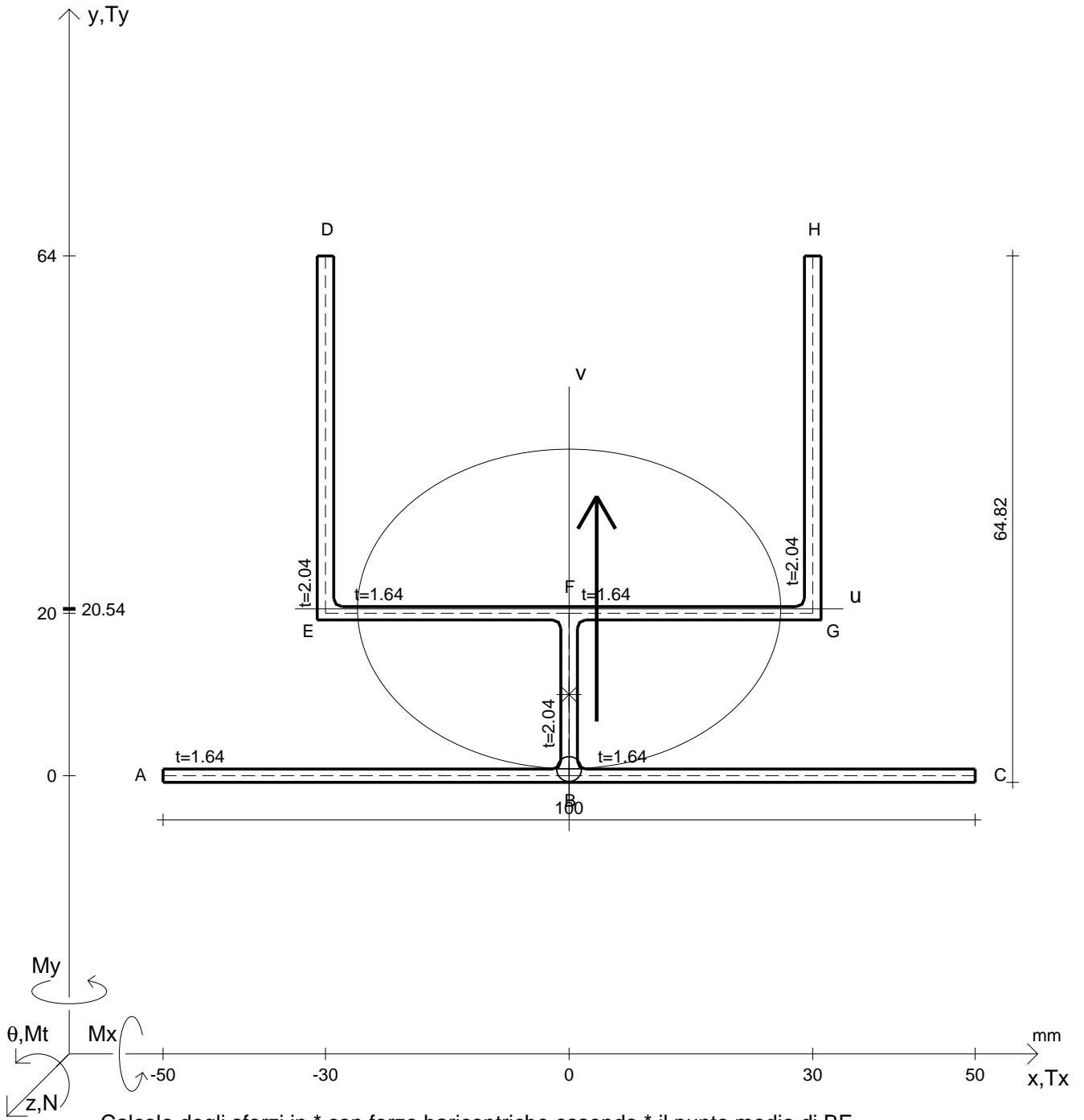


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4010 N	$M_x = -70800 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1000 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.9603 \text{ N/mm}^2$
$M_t = 3730 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 57.05 \text{ N/mm}^2$
$y_G = 18.49 \text{ mm}$	$\tau(M_t)_d = 15.71 \text{ N/mm}^2$	$\sigma_{mises} = 49.8 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 12.12 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.33 \text{ N/mm}^2$
$v_o = -12.68 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09628 / m$
$A^* = 441.9 \text{ mm}^2$	$\tau(T_y)_s = 12.12 \text{ N/mm}^2$	$r_u = 17.48 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 12.12 \text{ N/mm}^2$	$r_v = 25.34 \text{ mm}$
$C_w = 24971366 \text{ mm}^6$	$\sigma = 12.48 \text{ N/mm}^2$	$r_o = 33.29 \text{ mm}$
$J_u = 135017 \text{ mm}^4$	$\tau_s = -3.592 \text{ N/mm}^2$	$J_p = 489760 \text{ mm}^4$
$J_v = 283691 \text{ mm}^4$	$\tau_d = 27.83 \text{ N/mm}^2$	
$J_t = 484.3 \text{ mm}^4$	$\sigma_{ls} = 34.76 \text{ N/mm}^2$	
$\sigma(N) = 9.074 \text{ N/mm}^2$	$\sigma_{lls} = -22.28 \text{ N/mm}^2$	
$\sigma(M_x) = 3.404 \text{ N/mm}^2$	$\sigma_{ld} = 13.44 \text{ N/mm}^2$	



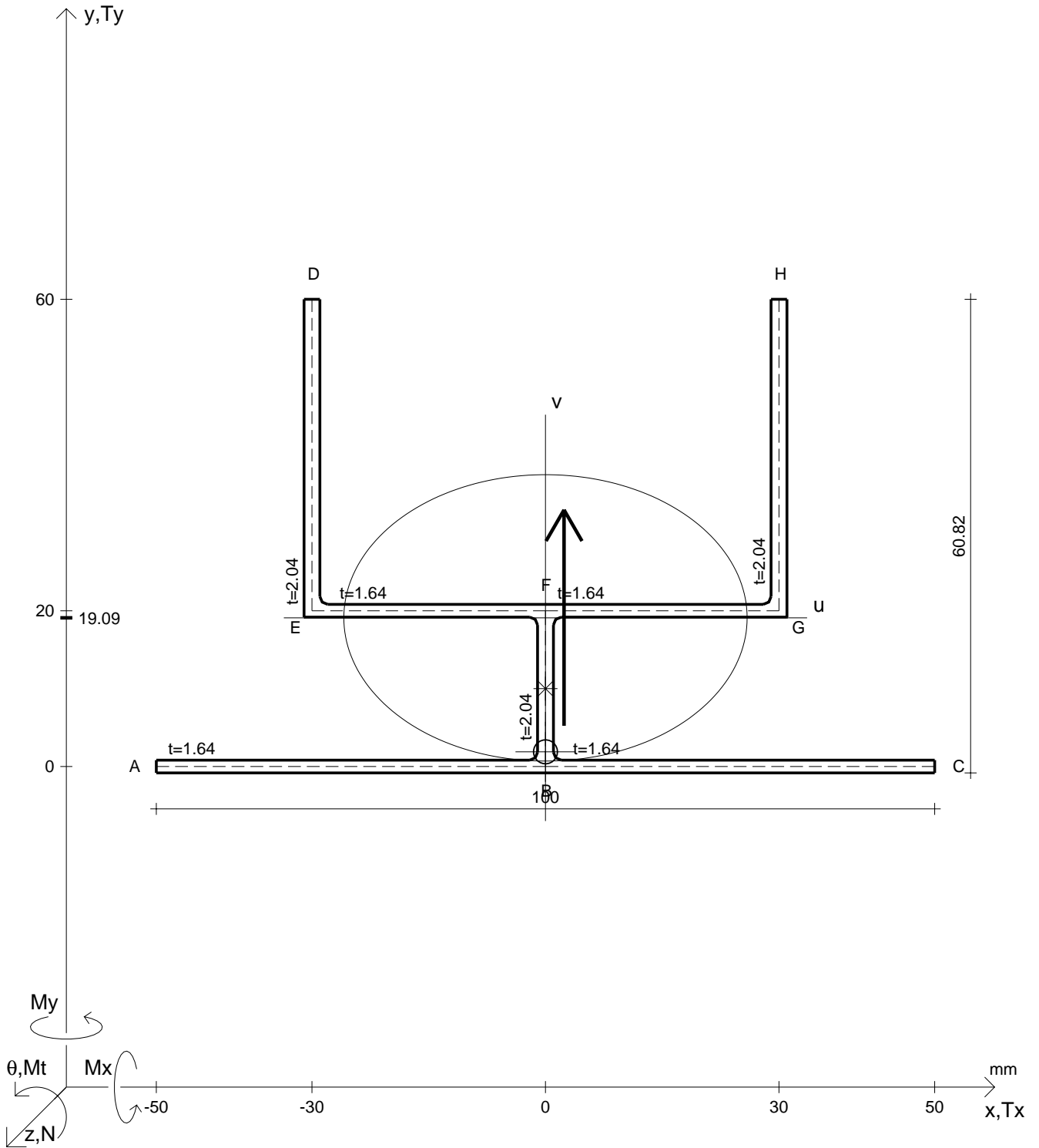




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4920 N	$M_x = -62700 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1350 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.189 \text{ N/mm}^2$
$M_t = 4580 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.21 \text{ N/mm}^2$
$y_G = 20.54 \text{ mm}$	$\tau(M_t)_d = 17.27 \text{ N/mm}^2$	$\sigma_{mises} = 54.31 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.06 \text{ N/mm}^2$	$\sigma_{st.ven} = 44.03 \text{ N/mm}^2$
$v_o = -19.73 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1058 / \text{m}$
$A^* = 482.7 \text{ mm}^2$	$\tau(T_y)_s = 13.06 \text{ N/mm}^2$	$r_u = 19.67 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.06 \text{ N/mm}^2$	$r_v = 26.06 \text{ mm}$
$C_w = 38302636 \text{ mm}^6$	$\sigma = 13.73 \text{ N/mm}^2$	$r_o = 38.14 \text{ mm}$
$J_u = 186749 \text{ mm}^4$	$\tau_s = -4.213 \text{ N/mm}^2$	$J_p = 702340 \text{ mm}^4$
$J_v = 327755 \text{ mm}^4$	$\tau_d = 30.34 \text{ N/mm}^2$	
$J_t = 540.9 \text{ mm}^4$	$\sigma_{ls} = 37.97 \text{ N/mm}^2$	
$\sigma(N) = 10.19 \text{ N/mm}^2$	$\sigma_{lls} = -24.24 \text{ N/mm}^2$	
$\sigma(M_x) = 3.539 \text{ N/mm}^2$	$\sigma_{ld} = 14.92 \text{ N/mm}^2$	

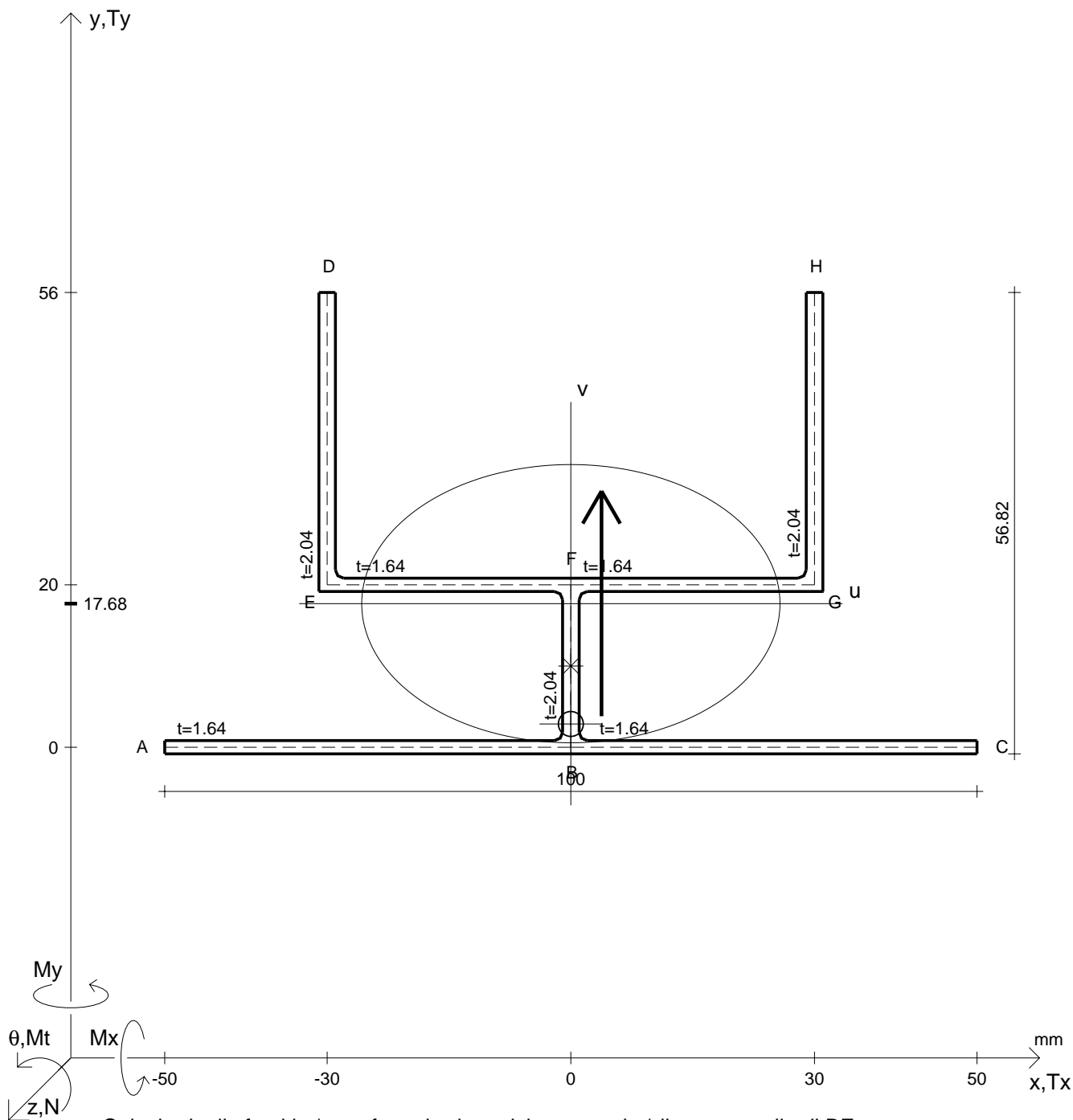




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5250 N	M <sub>t</sub> = 3240 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1360 N	M <sub>x</sub> = -62900 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.42 N/mm <sup>2</sup>
y <sub>G</sub> = 19.09 mm	J <sub>t</sub> = 518.2 mm <sup>4</sup>	σ = 14.88 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.84 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.26 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.697 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07815 /m
v <sub>o</sub> = -17.21 mm	σ(M <sub>x</sub> ) = 3.626 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.21 N/mm <sup>2</sup>	r <sub>u</sub> = 18.39 mm
A* = 466.4 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.75 N/mm <sup>2</sup>	σ <sub>lIs</sub> = 35.65 N/mm <sup>2</sup>	r <sub>v</sub> = 25.91 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.45 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.76 N/mm <sup>2</sup>	r <sub>o</sub> = 36.13 mm
C <sub>w</sub> = 30278588 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 15.07 N/mm <sup>2</sup>	J <sub>p</sub> = 608822 mm <sup>4</sup>
J <sub>u</sub> = 157695 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.45 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1912 N/mm <sup>2</sup>	
J <sub>v</sub> = 313067 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.45 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.41 N/mm <sup>2</sup>	

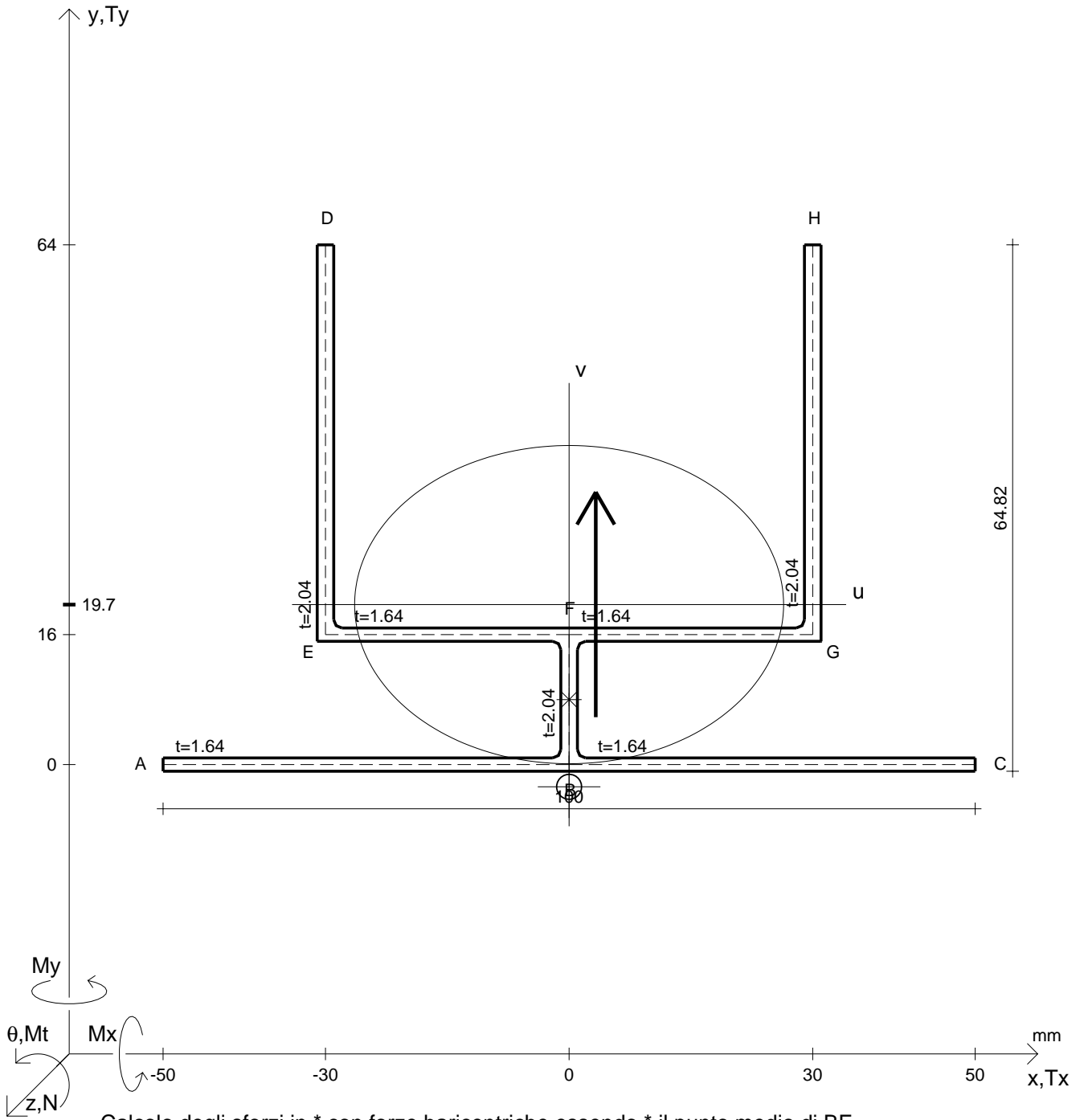




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5550 N	$M_x = -62100 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 917 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7317 \text{ N/mm}^2$
$M_t = 3460 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.46 \text{ N/mm}^2$
$y_G = 17.68 \text{ mm}$	$\tau(M_t)_d = 14.24 \text{ N/mm}^2$	$\sigma_{mises} = 46.13 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.75 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.77 \text{ N/mm}^2$
$v_o = -14.82 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08727 / m$
$A^* = 450.1 \text{ mm}^2$	$\tau(T_y)_s = 10.75 \text{ N/mm}^2$	$r_u = 17.13 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.75 \text{ N/mm}^2$	$r_v = 25.75 \text{ mm}$
$C_w = 24164750 \text{ mm}^6$	$\sigma = 15.94 \text{ N/mm}^2$	$r_o = 34.29 \text{ mm}$
$J_u = 132070 \text{ mm}^4$	$\tau_s = -3.493 \text{ N/mm}^2$	$J_p = 529238 \text{ mm}^4$
$J_v = 298379 \text{ mm}^4$	$\tau_d = 24.99 \text{ N/mm}^2$	
$J_t = 495.6 \text{ mm}^4$	$\sigma_{ls} = 34.2 \text{ N/mm}^2$	
$\sigma(N) = 12.33 \text{ N/mm}^2$	$\sigma_{lls} = -18.26 \text{ N/mm}^2$	
$\sigma(M_x) = 3.611 \text{ N/mm}^2$	$\sigma_{ld} = 16.67 \text{ N/mm}^2$	



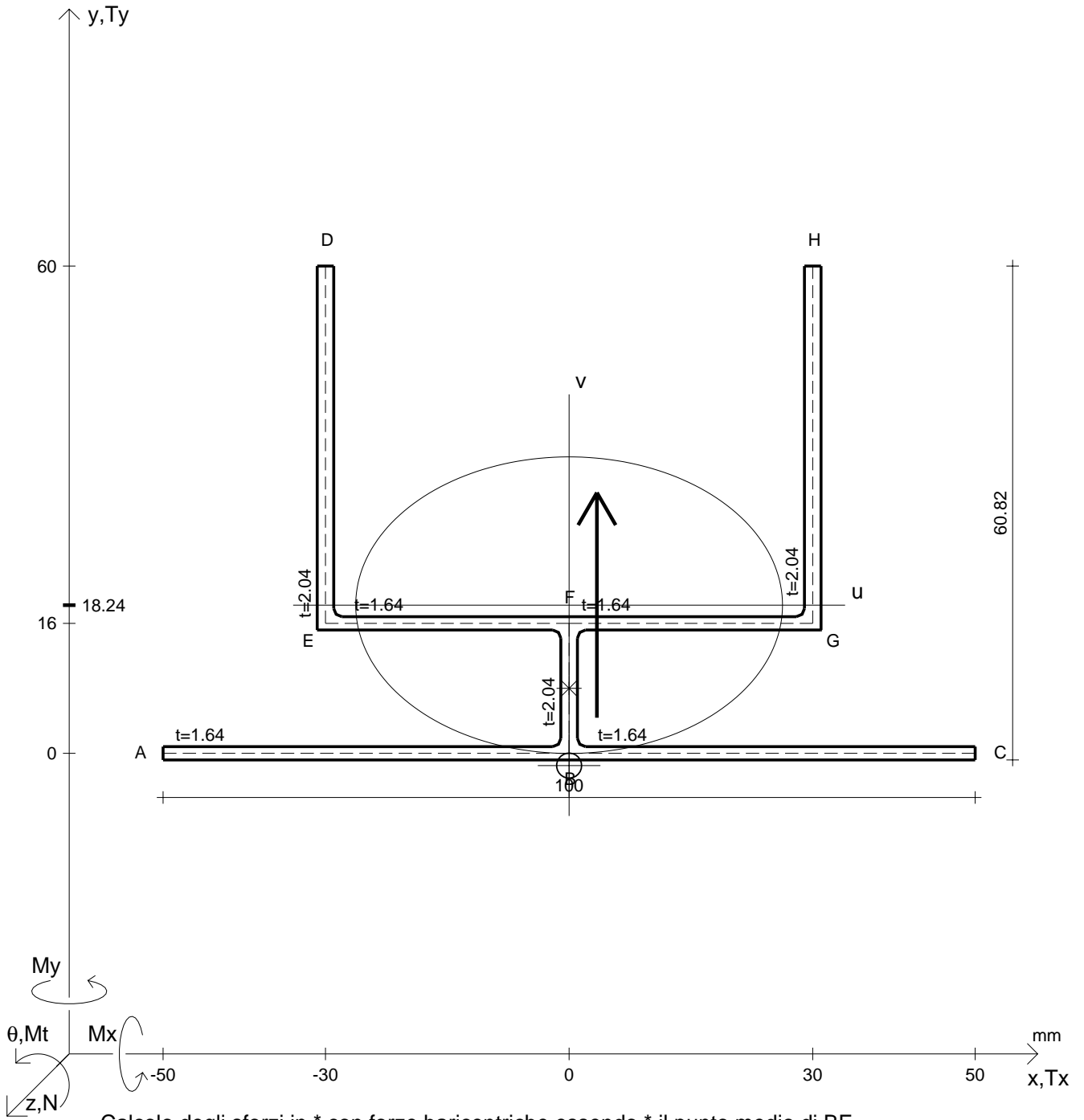


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4480 N	$M_x = -84000 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1300 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.033 \text{ N/mm}^2$
$M_t = 4270 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 56.96 \text{ N/mm}^2$
$y_G = 19.7 \text{ mm}$	$\tau(M_t)_d = 15.77 \text{ N/mm}^2$	$\sigma_{mises} = 49.85 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.79 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.98 \text{ N/mm}^2$
$v_o = -22.44 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09666 / m$
$A^* = 490.9 \text{ mm}^2$	$\tau(T_y)_s = 11.79 \text{ N/mm}^2$	$r_u = 19.59 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.79 \text{ N/mm}^2$	$r_v = 26.41 \text{ mm}$
$C_w = 50110828 \text{ mm}^6$	$\sigma = 14.34 \text{ N/mm}^2$	$r_o = 39.81 \text{ mm}$
$J_u = 188463 \text{ mm}^4$	$\tau_s = -3.986 \text{ N/mm}^2$	$J_p = 777999 \text{ mm}^4$
$J_v = 342443 \text{ mm}^4$	$\tau_d = 27.56 \text{ N/mm}^2$	
$J_t = 552.2 \text{ mm}^4$	$\sigma_{ls} = 35.65 \text{ N/mm}^2$	
$\sigma(N) = 9.126 \text{ N/mm}^2$	$\sigma_{lls} = -21.31 \text{ N/mm}^2$	
$\sigma(M_x) = 5.214 \text{ N/mm}^2$	$\sigma_{ld} = 15.37 \text{ N/mm}^2$	



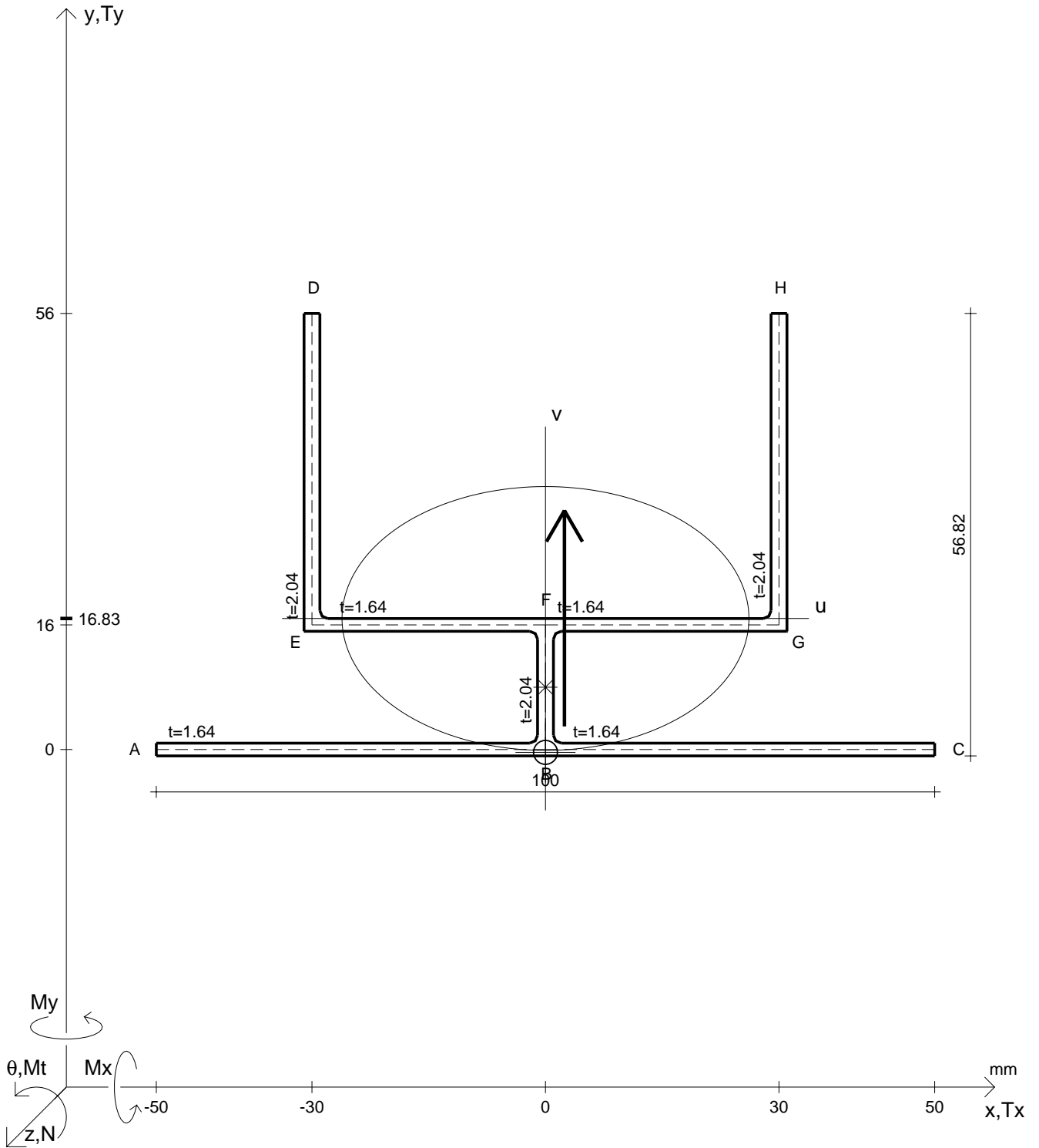




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 4840 \text{ N}$	$M_x = -55300 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1310 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 4490 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 18.24 \text{ mm}$	$\tau(M_t)_d = 17.3 \text{ N/mm}^2$	$\sigma_{lld} = -1.185 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.09 \text{ N/mm}^2$	$\sigma_{tresca} = 62.31 \text{ N/mm}^2$
$v_o = -19.76 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 54.4 \text{ N/mm}^2$
$A^* = 474.6 \text{ mm}^2$	$\tau(T_y)_s = 13.09 \text{ N/mm}^2$	$\sigma_{st.ven} = 44.11 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.09 \text{ N/mm}^2$	$\theta_t = 0.106 / m$
$C_w = 38685968 \text{ mm}^6$	$\sigma = 13.78 \text{ N/mm}^2$	$r_u = 18.26 \text{ mm}$
$J_u = 158233 \text{ mm}^4$	$\tau_s = -4.212 \text{ N/mm}^2$	$r_v = 26.28 \text{ mm}$
$J_v = 327755 \text{ mm}^4$	$\tau_d = 30.38 \text{ N/mm}^2$	$r_o = 37.61 \text{ mm}$
$J_t = 529.6 \text{ mm}^4$	$\sigma_{ls} = 38.04 \text{ N/mm}^2$	$J_p = 671271 \text{ mm}^4$
$\sigma(N) = 10.2 \text{ N/mm}^2$	$\sigma_{lls} = -24.26 \text{ N/mm}^2$	
$\sigma(M_x) = 3.58 \text{ N/mm}^2$	$\sigma_{ld} = 14.96 \text{ N/mm}^2$	

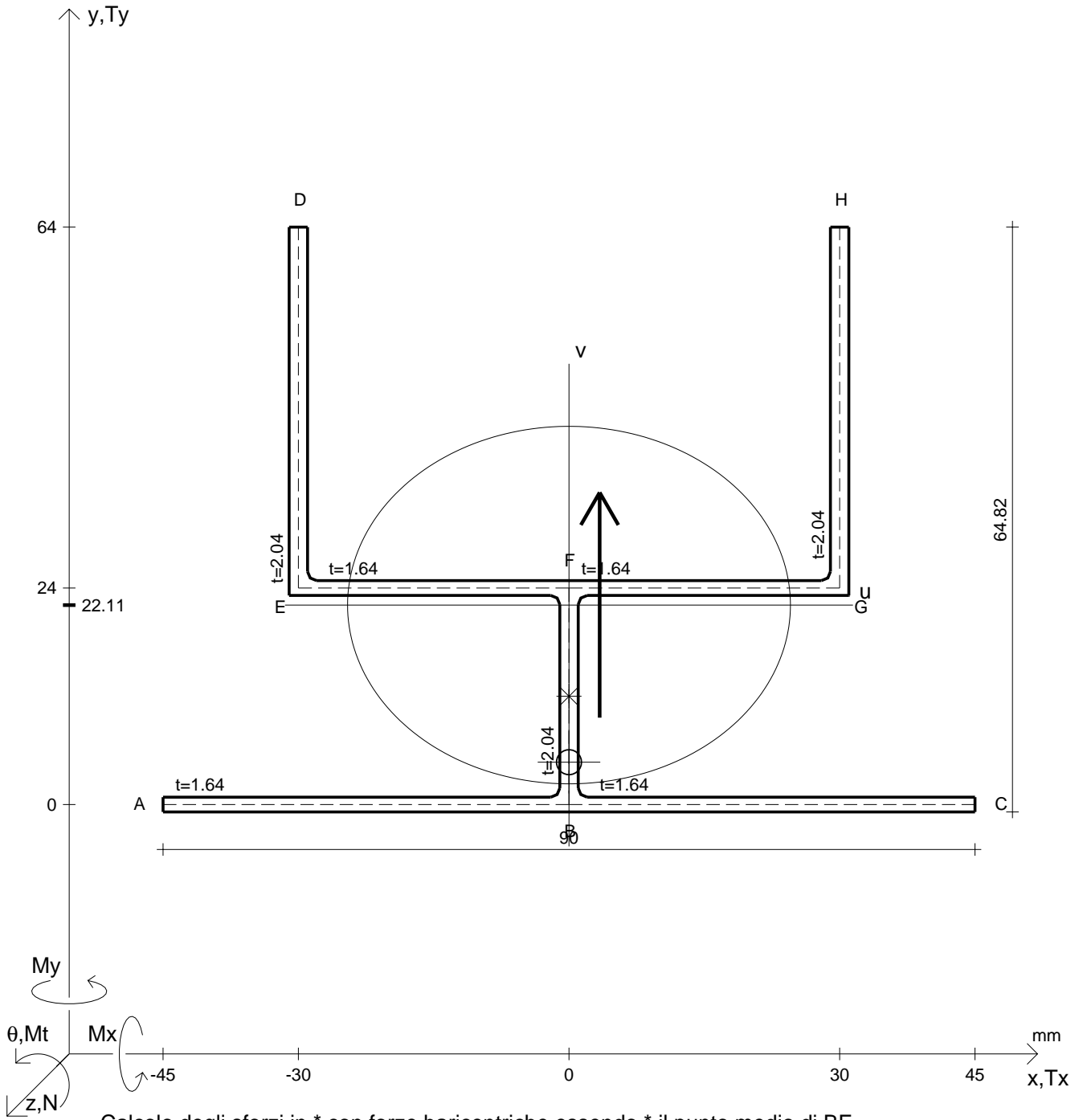




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5170 N	M <sub>t</sub> = 3170 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1300 N	M <sub>x</sub> = -54800 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.34 N/mm <sup>2</sup>
y <sub>G</sub> = 16.83 mm	J <sub>t</sub> = 506.9 mm <sup>4</sup>	σ = 14.96 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.81 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.28 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.631 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07817 /m
v <sub>o</sub> = -17.19 mm	σ(M <sub>x</sub> ) = 3.679 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.15 N/mm <sup>2</sup>	r <sub>u</sub> = 16.94 mm
A* = 458.2 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.76 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.64 N/mm <sup>2</sup>	r <sub>v</sub> = 26.14 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.39 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.68 N/mm <sup>2</sup>	r <sub>o</sub> = 35.58 mm
C <sub>w</sub> = 29448810 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.14 N/mm <sup>2</sup>	J <sub>p</sub> = 580046 mm <sup>4</sup>
J <sub>u</sub> = 131496 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.39 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1757 N/mm <sup>2</sup>	
J <sub>v</sub> = 313067 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.39 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.31 N/mm <sup>2</sup>	

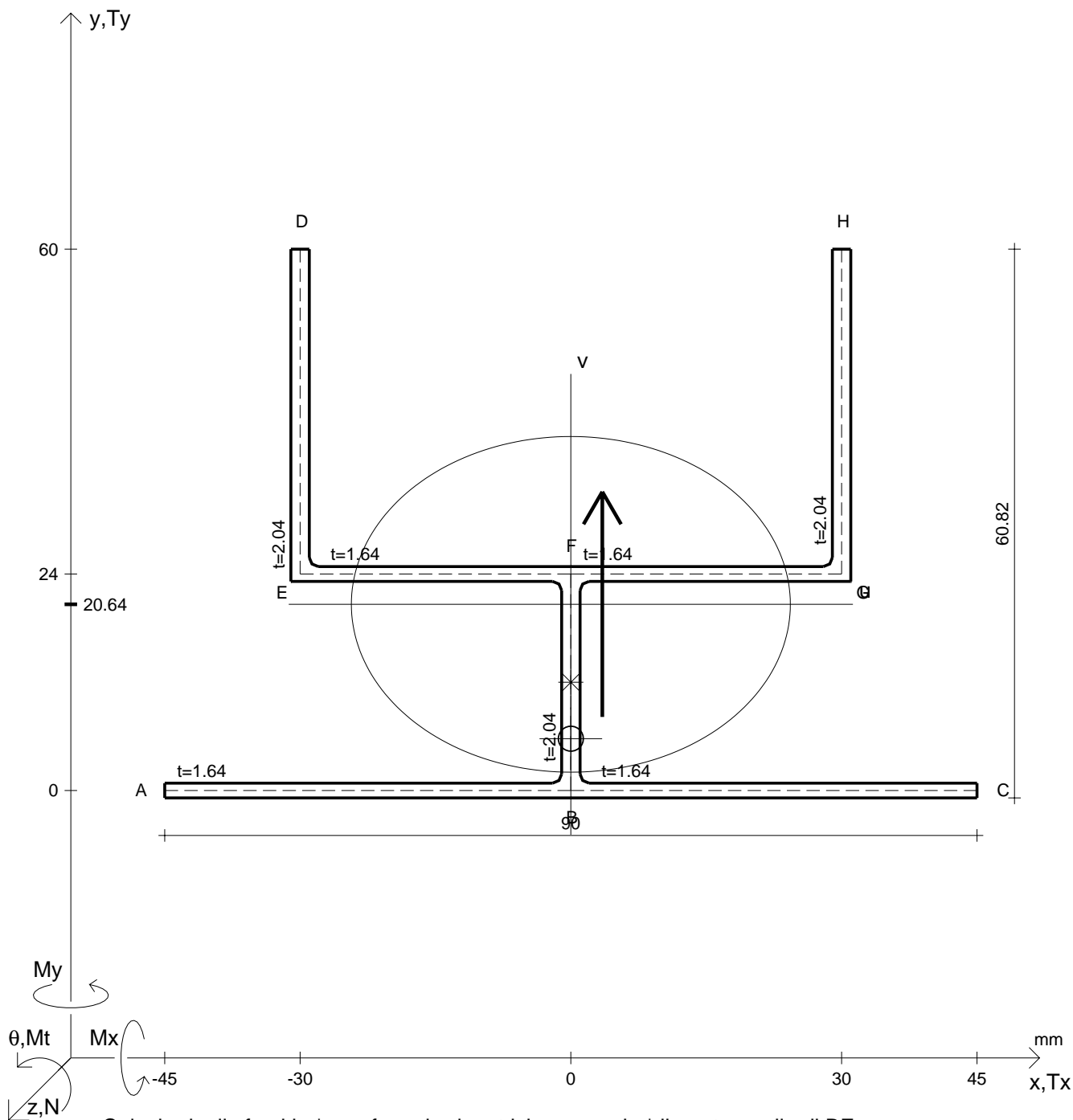




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5650 N	$M_x = -77400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1060 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -0.7816 \text{ N/mm}^2$
$M_t = 3600 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 52.39 \text{ N/mm}^2$
$y_G = 22.11 \text{ mm}$	$\tau(M_t)_d = 14.26 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 46.14 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.57 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 39 \text{ N/mm}^2$
$v_o = -17.41 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.0874 / \text{m}$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 10.57 \text{ N/mm}^2$	$r_u = 19.81 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.57 \text{ N/mm}^2$	$r_v = 24.55 \text{ mm}$
$C_w = 32852696 \text{ mm}^6$	$\sigma = 16.68 \text{ N/mm}^2$	$r_o = 36.03 \text{ mm}$
$J_u = 179821 \text{ mm}^4$	$\tau_s = -3.695 \text{ N/mm}^2$	$J_p = 594801 \text{ mm}^4$
$J_v = 276030 \text{ mm}^4$	$\tau_d = 24.83 \text{ N/mm}^2$	
$J_t = 514.9 \text{ mm}^4$	$\sigma_{\text{ls}} = 34.54 \text{ N/mm}^2$	
$\sigma(N) = 12.33 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -17.86 \text{ N/mm}^2$	
$\sigma(M_x) = 4.352 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 17.47 \text{ N/mm}^2$	



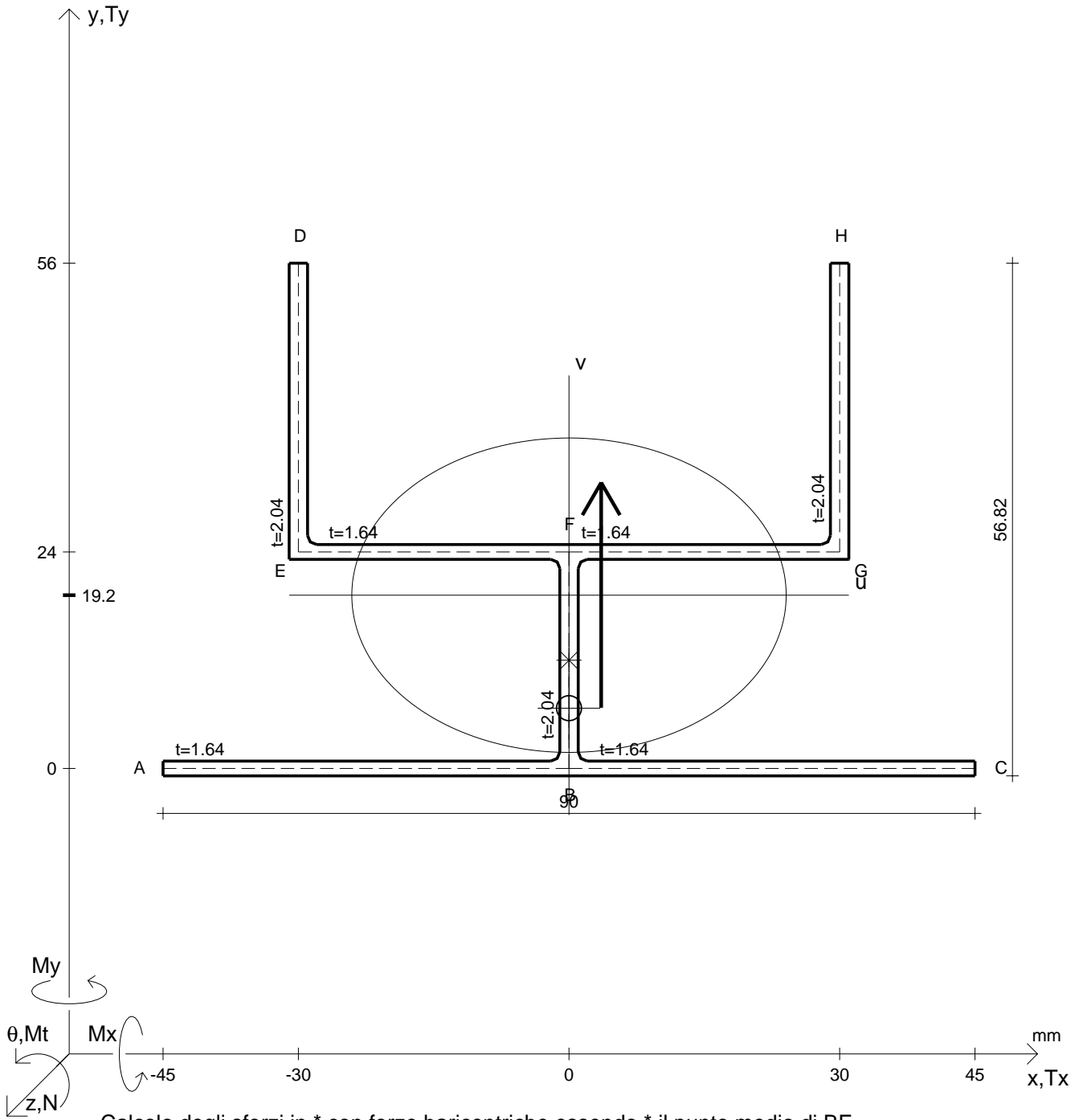


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4020 N	$M_x = -76500 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1090 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.026 \text{ N/mm}^2$
$M_t = 3800 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 56.9 \text{ N/mm}^2$
$y_G = 20.64 \text{ mm}$	$\tau(M_t)_d = 15.75 \text{ N/mm}^2$	$\sigma_{mises} = 49.73 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.9 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.6 \text{ N/mm}^2$
$v_o = -14.89 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.0965 / \text{m}$
$A^* = 441.8 \text{ mm}^2$	$\tau(T_y)_s = 11.9 \text{ N/mm}^2$	$r_u = 18.6 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.9 \text{ N/mm}^2$	$r_v = 24.32 \text{ mm}$
$C_w = 27411016 \text{ mm}^6$	$\sigma = 13.42 \text{ N/mm}^2$	$r_o = 34.05 \text{ mm}$
$J_u = 152872 \text{ mm}^4$	$\tau_s = -3.851 \text{ N/mm}^2$	$J_p = 512185 \text{ mm}^4$
$J_v = 261342 \text{ mm}^4$	$\tau_d = 27.65 \text{ N/mm}^2$	
$J_t = 492.2 \text{ mm}^4$	$\sigma_{ls} = 35.16 \text{ N/mm}^2$	
$\sigma(N) = 9.098 \text{ N/mm}^2$	$\sigma_{lls} = -21.74 \text{ N/mm}^2$	
$\sigma(M_x) = 4.322 \text{ N/mm}^2$	$\sigma_{ld} = 14.45 \text{ N/mm}^2$	



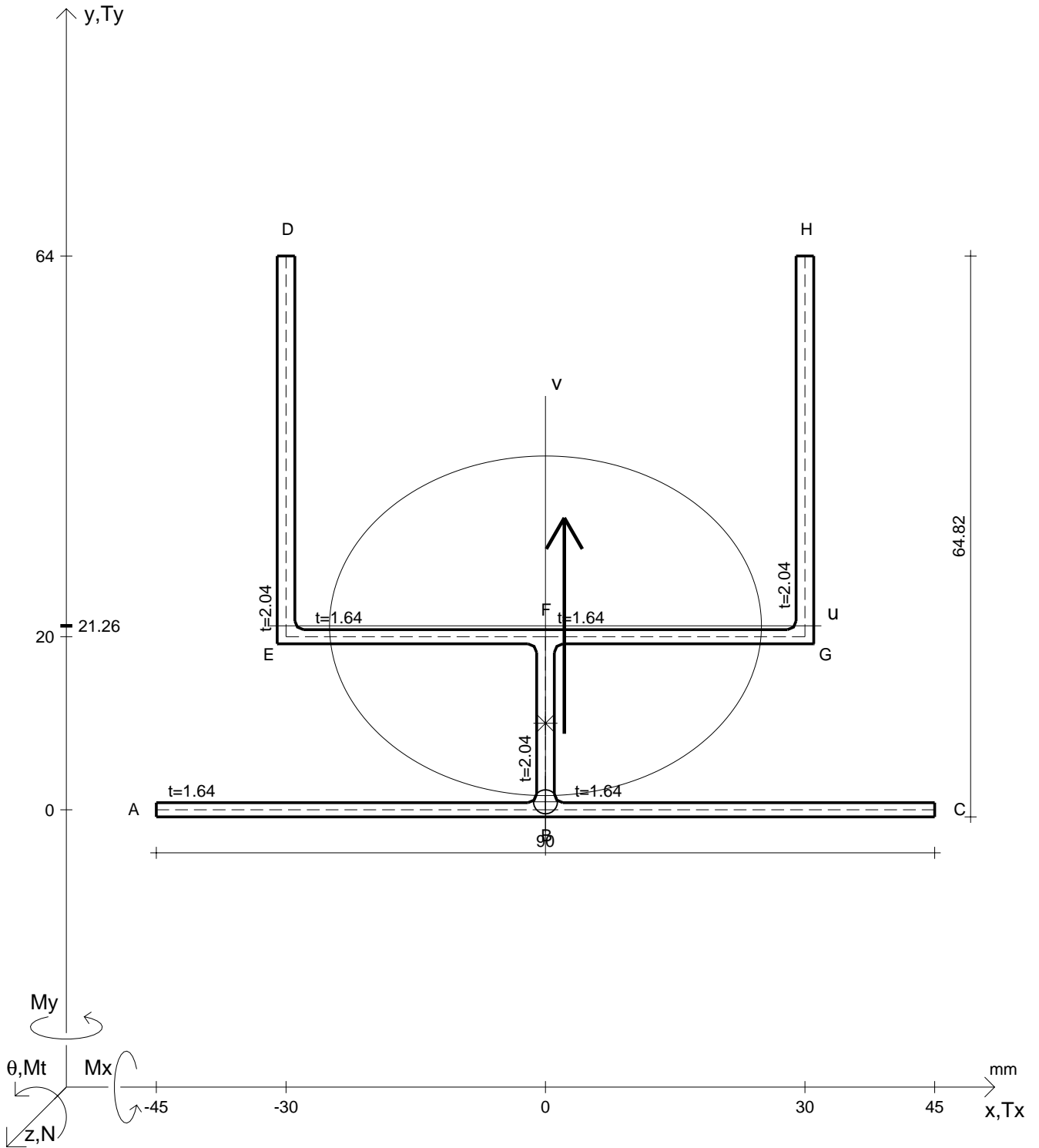




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4320 N	$M_x = -51000 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1110 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.083 \text{ N/mm}^2$
$M_t = 3960 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.37 \text{ N/mm}^2$
$y_G = 19.2 \text{ mm}$	$\tau(M_t)_d = 17.2 \text{ N/mm}^2$	$\sigma_{mises} = 54.41 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.3 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.86 \text{ N/mm}^2$
$v_o = -12.52 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1054 / \text{m}$
$A^* = 425.5 \text{ mm}^2$	$\tau(T_y)_s = 13.3 \text{ N/mm}^2$	$r_u = 17.42 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.3 \text{ N/mm}^2$	$r_v = 24.08 \text{ mm}$
$C_w = 23532954 \text{ mm}^6$	$\sigma = 13 \text{ N/mm}^2$	$r_o = 32.25 \text{ mm}$
$J_u = 129193 \text{ mm}^4$	$\tau_s = -3.904 \text{ N/mm}^2$	$J_p = 442549 \text{ mm}^4$
$J_v = 246654 \text{ mm}^4$	$\tau_d = 30.5 \text{ N/mm}^2$	
$J_t = 469.6 \text{ mm}^4$	$\sigma_{ls} = 37.69 \text{ N/mm}^2$	
$\sigma(N) = 10.15 \text{ N/mm}^2$	$\sigma_{lls} = -24.69 \text{ N/mm}^2$	
$\sigma(M_x) = 2.844 \text{ N/mm}^2$	$\sigma_{ld} = 14.08 \text{ N/mm}^2$	

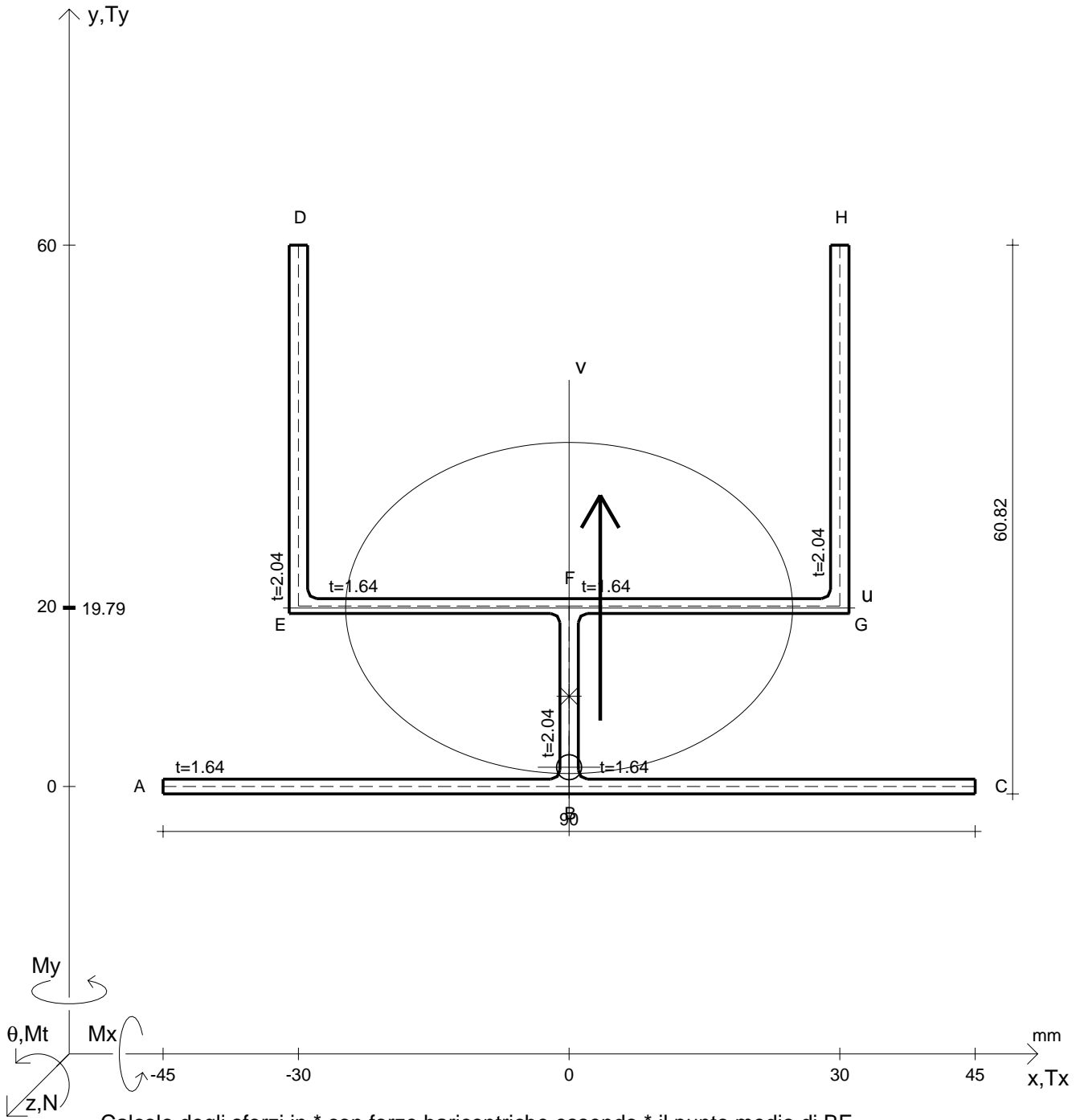




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5260 N	M <sub>t</sub> = 3290 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1510 N	M <sub>x</sub> = -68600 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.39 N/mm <sup>2</sup>
y <sub>G</sub> = 21.26 mm	J <sub>t</sub> = 526.2 mm <sup>4</sup>	σ = 15.58 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 41.04 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.28 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.548 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07816 /m
v <sub>o</sub> = -20.34 mm	σ(M <sub>x</sub> ) = 4.303 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.06 N/mm <sup>2</sup>	r <sub>u</sub> = 19.62 mm
A* = 466.3 mm <sup>2</sup>	τ(M <sub>v</sub> ) <sub>d</sub> = 12.76 N/mm <sup>2</sup>	σ <sub>ls</sub> = 35.95 N/mm <sup>2</sup>	r <sub>v</sub> = 24.97 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.3 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.37 N/mm <sup>2</sup>	r <sub>o</sub> = 37.72 mm
C <sub>w</sub> = 38274872 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 15.73 N/mm <sup>2</sup>	J <sub>p</sub> = 663316 mm <sup>4</sup>
J <sub>u</sub> = 179585 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.3 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1524 N/mm <sup>2</sup>	
J <sub>v</sub> = 290718 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.3 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.32 N/mm <sup>2</sup>	

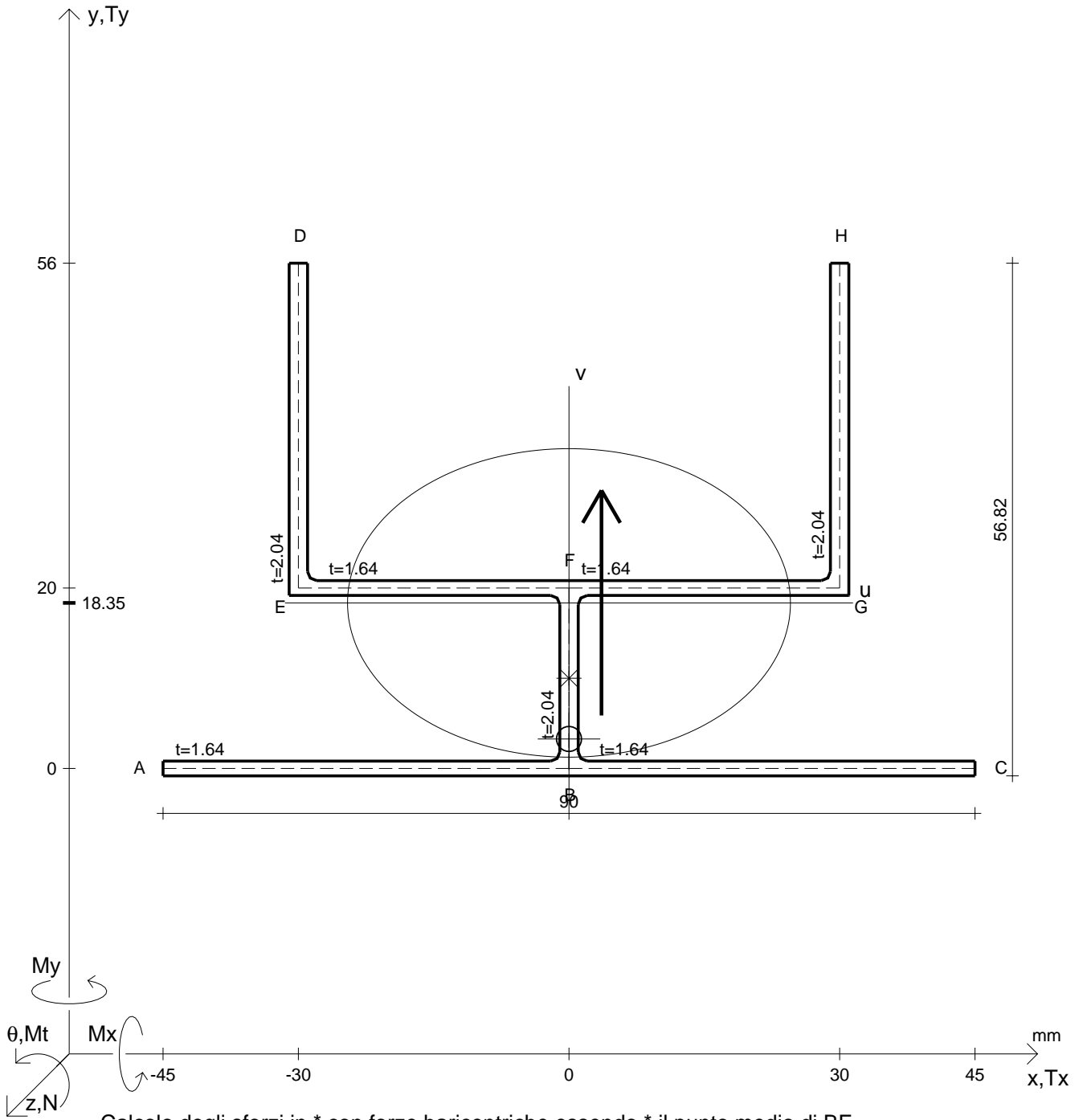




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5550 N	$M_x = -67900 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1020 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7527 \text{ N/mm}^2$
$M_t = 3520 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 52.52 \text{ N/mm}^2$
$y_G = 19.79 \text{ mm}$	$\tau(M_t)_d = 14.26 \text{ N/mm}^2$	$\sigma_{mises} = 46.25 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.63 \text{ N/mm}^2$	$\sigma_{st.ven} = 39.1 \text{ N/mm}^2$
$v_o = -17.65 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08738 / \text{m}$
$A^* = 450 \text{ mm}^2$	$\tau(T_y)_s = 10.63 \text{ N/mm}^2$	$r_u = 18.35 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.63 \text{ N/mm}^2$	$r_v = 24.77 \text{ mm}$
$C_w = 30129194 \text{ mm}^6$	$\sigma = 16.72 \text{ N/mm}^2$	$r_o = 35.52 \text{ mm}$
$J_u = 151500 \text{ mm}^4$	$\tau_s = -3.627 \text{ N/mm}^2$	$J_p = 567679 \text{ mm}^4$
$J_v = 276030 \text{ mm}^4$	$\tau_d = 24.89 \text{ N/mm}^2$	
$J_t = 503.5 \text{ mm}^4$	$\sigma_{ls} = 34.62 \text{ N/mm}^2$	
$\sigma(N) = 12.33 \text{ N/mm}^2$	$\sigma_{lls} = -17.9 \text{ N/mm}^2$	
$\sigma(M_x) = 4.386 \text{ N/mm}^2$	$\sigma_{ld} = 17.47 \text{ N/mm}^2$	



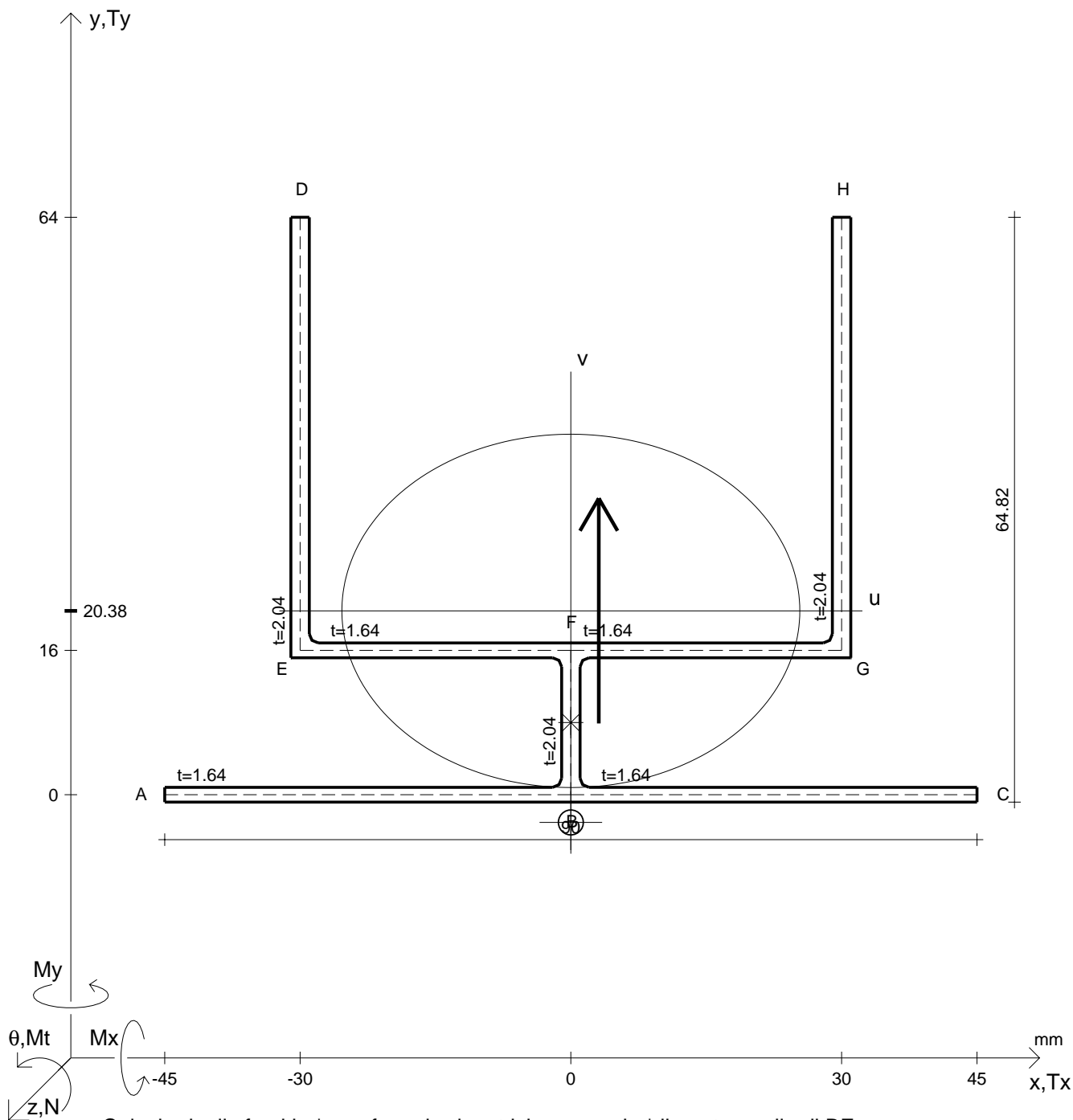


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 3950 \text{ N}$	$M_x = -66400 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1030 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 3710 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 18.35 \text{ mm}$	$\tau(M_t)_d = 15.74 \text{ N/mm}^2$	$\sigma_{lld} = -1.029 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.87 \text{ N/mm}^2$	$\sigma_{tresca} = 56.84 \text{ N/mm}^2$
$v_o = -15.08 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 49.69 \text{ N/mm}^2$
$A^* = 433.7 \text{ mm}^2$	$\tau(T_y)_s = 11.87 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.58 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.87 \text{ N/mm}^2$	$\theta_t = 0.09643 / m$
$C_w = 23817720 \text{ mm}^6$	$\sigma = 13.48 \text{ N/mm}^2$	$r_u = 17.1 \text{ mm}$
$J_u = 126750 \text{ mm}^4$	$\tau_s = -3.865 \text{ N/mm}^2$	$r_v = 24.55 \text{ mm}$
$J_v = 261342 \text{ mm}^4$	$\tau_d = 27.61 \text{ N/mm}^2$	$r_o = 33.5 \text{ mm}$
$J_t = 480.9 \text{ mm}^4$	$\sigma_{ls} = 35.16 \text{ N/mm}^2$	$J_p = 486686 \text{ mm}^4$
$\sigma(N) = 9.108 \text{ N/mm}^2$	$\sigma_{lls} = -21.68 \text{ N/mm}^2$	
$\sigma(M_x) = 4.374 \text{ N/mm}^2$	$\sigma_{ld} = 14.51 \text{ N/mm}^2$	



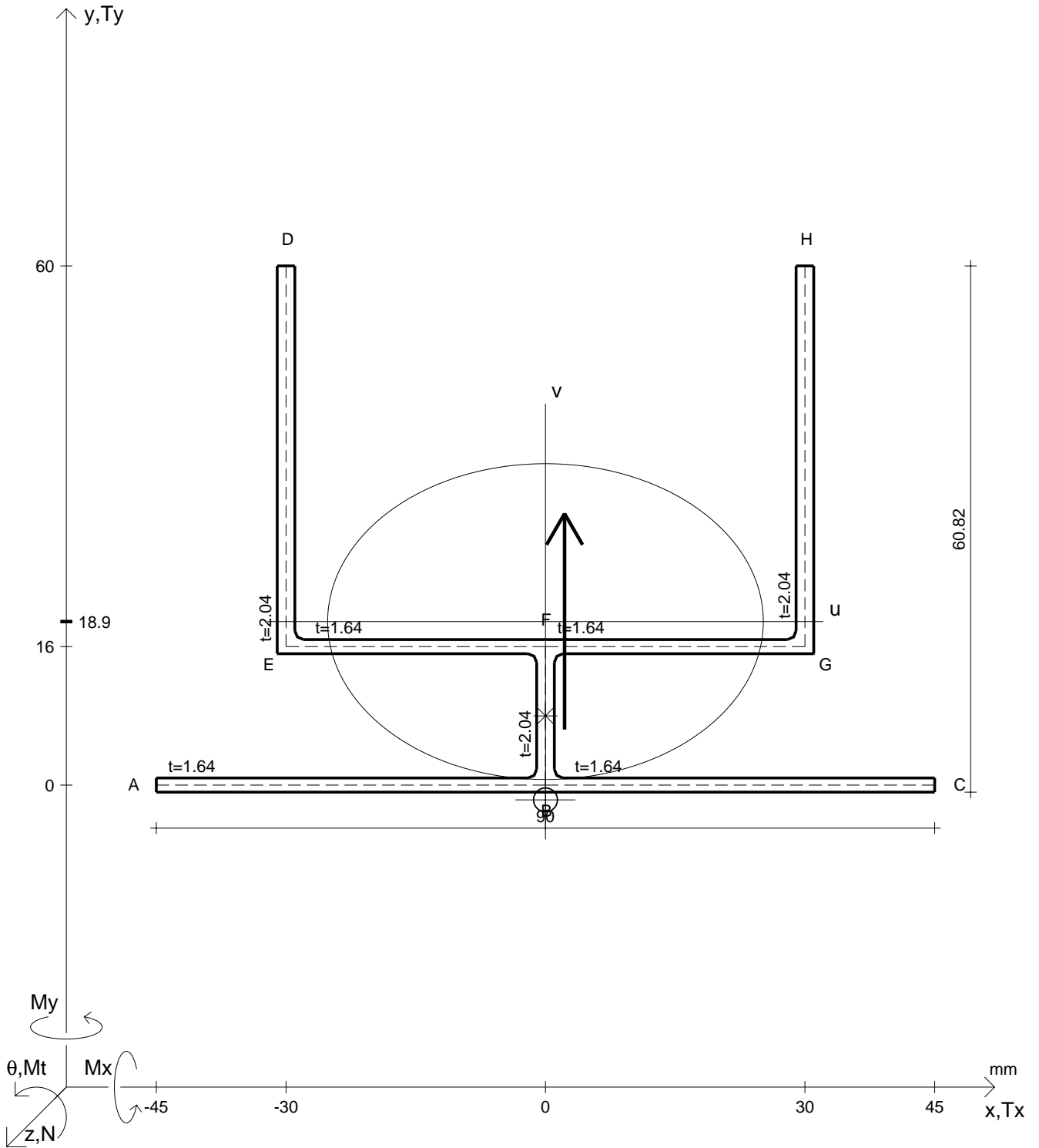




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4840 N	$M_x = -60900 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1470 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -1.187 \text{ N/mm}^2$
$M_t = 4550 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 62.17 \text{ N/mm}^2$
$y_G = 20.38 \text{ mm}$	$\tau(M_t)_d = 17.27 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 54.31 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 12.98 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 44.23 \text{ N/mm}^2$
$v_o = -23.45 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1058 / \text{m}$
$A^* = 474.5 \text{ mm}^2$	$\tau(T_y)_s = 12.98 \text{ N/mm}^2$	$r_u = 19.58 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 12.98 \text{ N/mm}^2$	$r_v = 25.37 \text{ mm}$
$C_w = 49799424 \text{ mm}^6$	$\sigma = 14.35 \text{ N/mm}^2$	$r_o = 39.71 \text{ mm}$
$J_u = 181880 \text{ mm}^4$	$\tau_s = -4.293 \text{ N/mm}^2$	$J_p = 748177 \text{ mm}^4$
$J_v = 305406 \text{ mm}^4$	$\tau_d = 30.24 \text{ N/mm}^2$	
$J_t = 537.5 \text{ mm}^4$	$\sigma_{\text{ls}} = 38.26 \text{ N/mm}^2$	
$\sigma(N) = 10.2 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -23.91 \text{ N/mm}^2$	
$\sigma(M_x) = 4.145 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 15.53 \text{ N/mm}^2$	

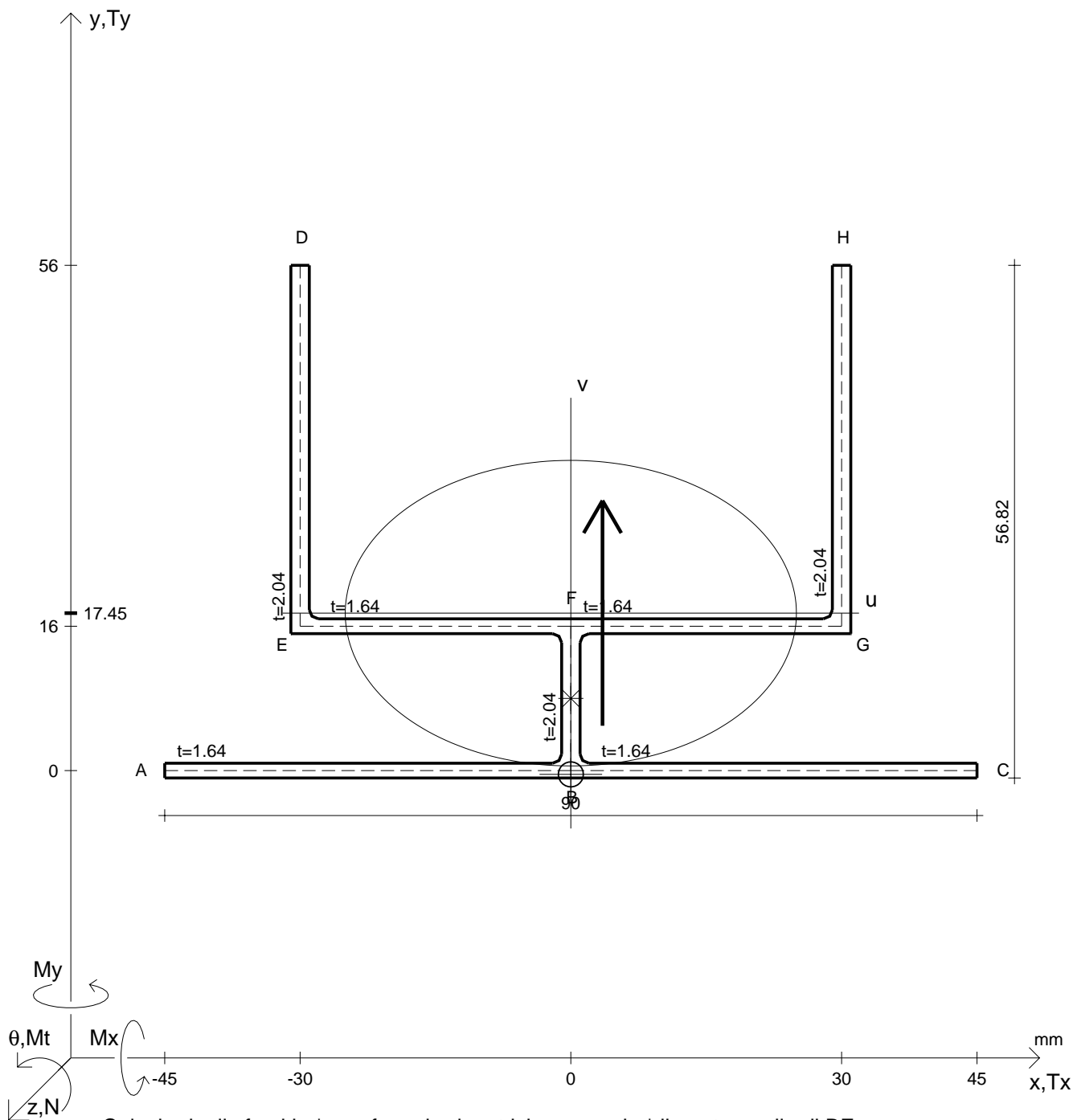




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5170 N	M <sub>t</sub> = 3220 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1460 N	M <sub>x</sub> = -60600 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.27 N/mm <sup>2</sup>
y <sub>G</sub> = 18.9 mm	J <sub>t</sub> = 514.9 mm <sup>4</sup>	σ = 15.61 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.96 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.28 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.464 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07818 /m
v <sub>o</sub> = -20.61 mm	σ(M <sub>x</sub> ) = 4.327 N/mm <sup>2</sup>	τ <sub>d</sub> = 26.98 N/mm <sup>2</sup>	r <sub>u</sub> = 18.25 mm
A* = 458.2 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.76 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.89 N/mm <sup>2</sup>	r <sub>v</sub> = 25.19 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.22 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.28 N/mm <sup>2</sup>	r <sub>o</sub> = 37.31 mm
C <sub>w</sub> = 38589920 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.75 N/mm <sup>2</sup>	J <sub>p</sub> = 637828 mm <sup>4</sup>
J <sub>u</sub> = 152579 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.22 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1361 N/mm <sup>2</sup>	
J <sub>v</sub> = 290718 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.22 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.17 N/mm <sup>2</sup>	





Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

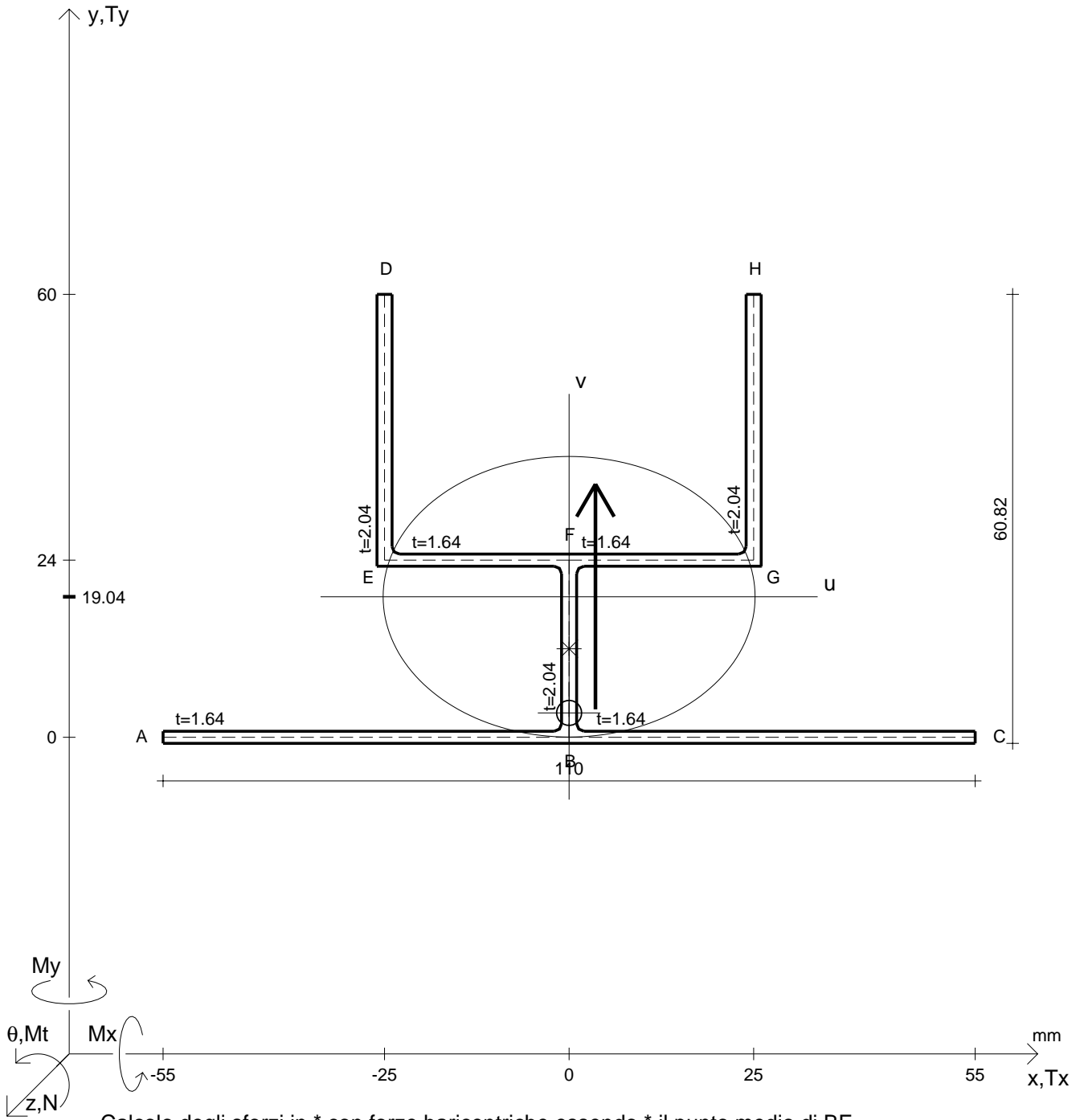
$N = 5460 \text{ N}$	$M_x = -59300 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 981 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7579 \text{ N/mm}^2$
$M_t = 3440 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 52.49 \text{ N/mm}^2$
$y_G = 17.45 \text{ mm}$	$\tau(M_t)_d = 14.26 \text{ N/mm}^2$	$\sigma_{mises} = 46.23 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.61 \text{ N/mm}^2$	$\sigma_{st.ven} = 39.1 \text{ N/mm}^2$
$v_o = -17.87 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08736 / m$
$A^* = 441.8 \text{ mm}^2$	$\tau(T_y)_s = 10.61 \text{ N/mm}^2$	$r_u = 16.93 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.61 \text{ N/mm}^2$	$r_v = 24.99 \text{ mm}$
$C_w = 29443120 \text{ mm}^6$	$\sigma = 16.78 \text{ N/mm}^2$	$r_o = 35.08 \text{ mm}$
$J_u = 126680 \text{ mm}^4$	$\tau_s = -3.646 \text{ N/mm}^2$	$J_p = 543786 \text{ mm}^4$
$J_v = 276030 \text{ mm}^4$	$\tau_d = 24.87 \text{ N/mm}^2$	
$J_t = 492.2 \text{ mm}^4$	$\sigma_{ls} = 34.64 \text{ N/mm}^2$	
$\sigma(N) = 12.36 \text{ N/mm}^2$	$\sigma_{lls} = -17.85 \text{ N/mm}^2$	
$\sigma(M_x) = 4.424 \text{ N/mm}^2$	$\sigma_{ld} = 17.54 \text{ N/mm}^2$	







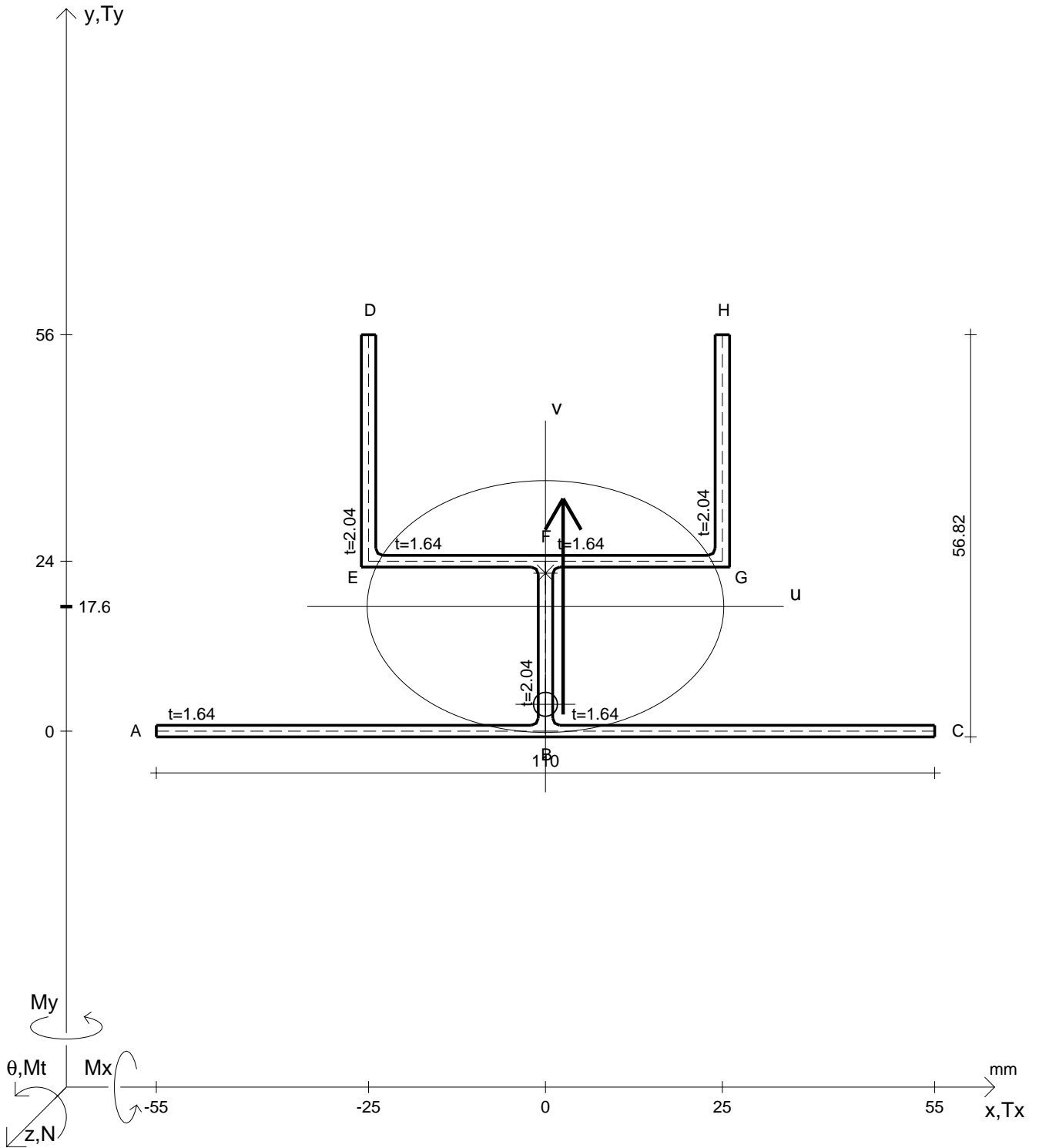




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4660 N	$M_x = -58800 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1200 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -1.094 \text{ N/mm}^2$
$M_t = 4280 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 62.43 \text{ N/mm}^2$
$y_G = 19.04 \text{ mm}$	$\tau(M_t)_d = 17.22 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 54.44 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.34 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 43.77 \text{ N/mm}^2$
$v_o = -15.73 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1055 / \text{m}$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 13.34 \text{ N/mm}^2$	$r_u = 19 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.34 \text{ N/mm}^2$	$r_v = 25.19 \text{ mm}$
$C_w = 19884582 \text{ mm}^6$	$\sigma = 12.67 \text{ N/mm}^2$	$r_o = 35.26 \text{ mm}$
$J_u = 165485 \text{ mm}^4$	$\tau_s = -3.881 \text{ N/mm}^2$	$J_p = 569727 \text{ mm}^4$
$J_v = 290787 \text{ mm}^4$	$\tau_d = 30.57 \text{ N/mm}^2$	
$J_t = 506.9 \text{ mm}^4$	$\sigma_{\text{ls}} = 37.55 \text{ N/mm}^2$	
$\sigma(N) = 10.17 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -24.88 \text{ N/mm}^2$	
$\sigma(M_x) = 2.501 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 13.76 \text{ N/mm}^2$	

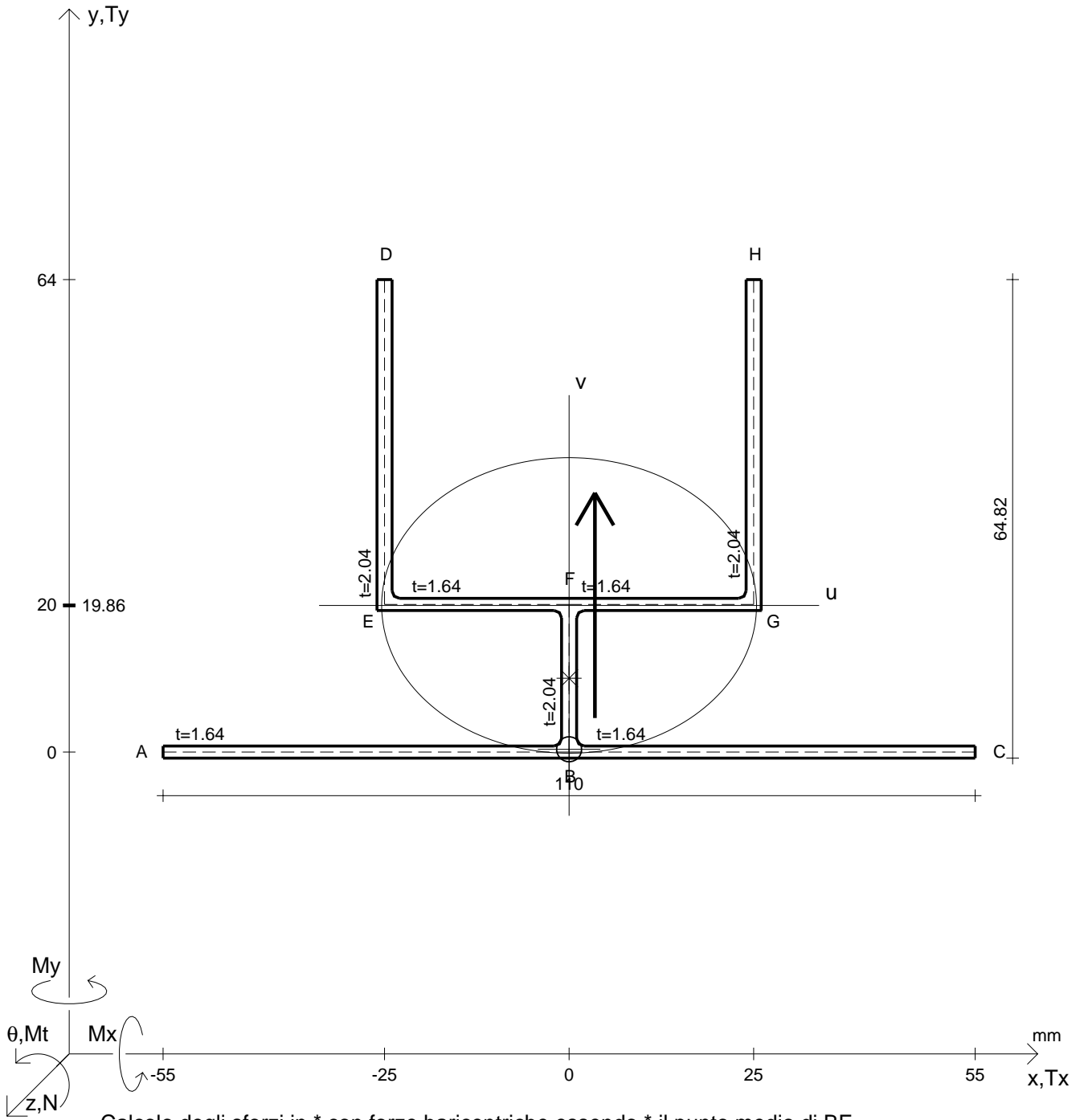




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto F di BF

N = 4960 N	M <sub>t</sub> = 3020 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1210 N	M <sub>x</sub> = 59200 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.39 N/mm <sup>2</sup>
y <sub>G</sub> = 17.6 mm	J <sub>t</sub> = 484.3 mm <sup>4</sup>	σ = 13.93 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.52 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.22 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.915 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07795 /m
v <sub>o</sub> = -13.81 mm	σ(M <sub>x</sub> ) = 2.711 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.36 N/mm <sup>2</sup>	r <sub>u</sub> = 17.78 mm
A* = 441.9 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.72 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.2 N/mm <sup>2</sup>	r <sub>v</sub> = 25.2 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) <sub>d</sub> = 14.64 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -21.26 N/mm <sup>2</sup>	r <sub>o</sub> = 33.79 mm
C <sub>w</sub> = 17999948 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 14.19 N/mm <sup>2</sup>	J <sub>p</sub> = 504674 mm <sup>4</sup>
J <sub>u</sub> = 139776 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.64 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.2585 N/mm <sup>2</sup>	
J <sub>v</sub> = 280587 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.64 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.46 N/mm <sup>2</sup>	

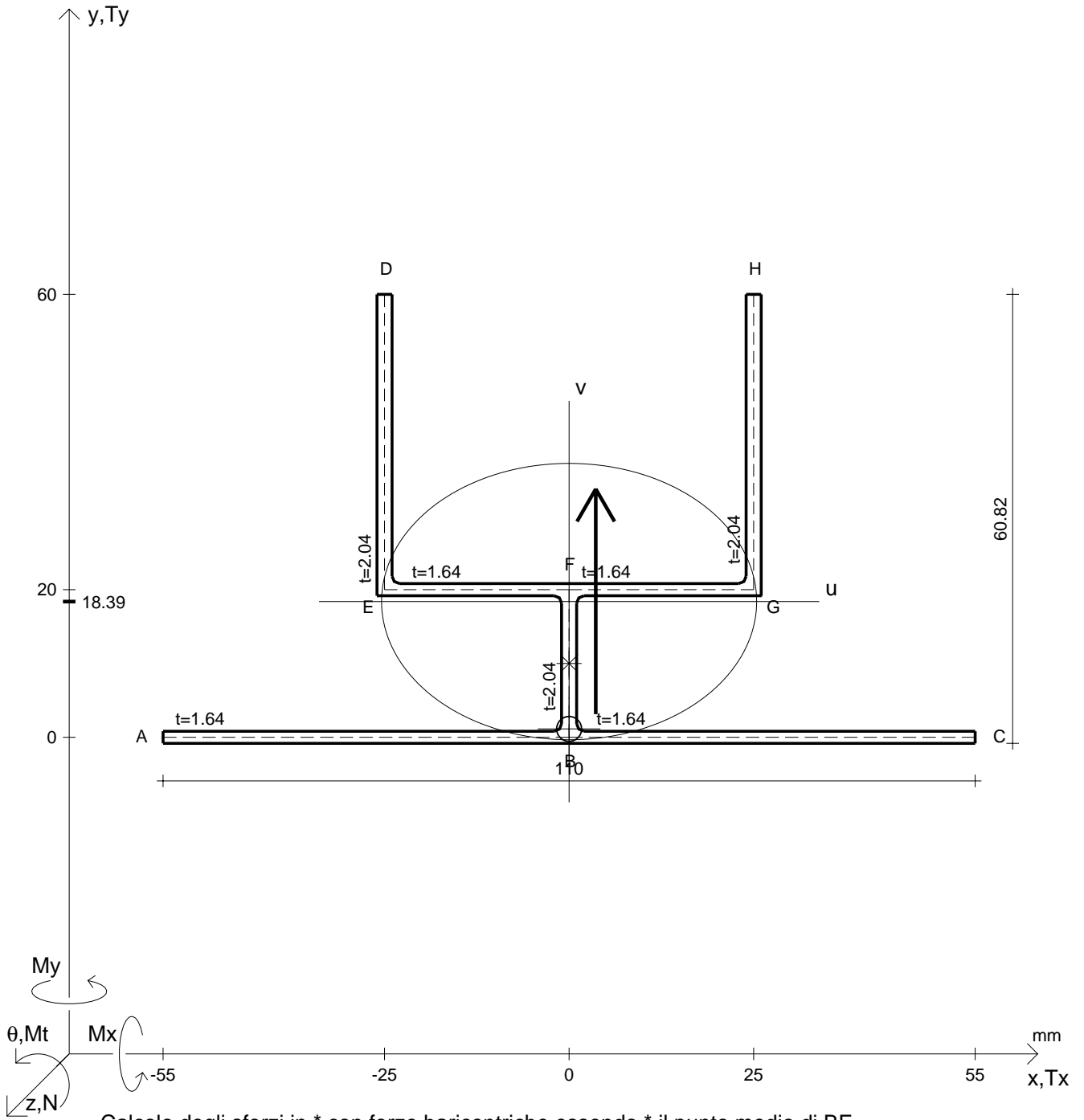




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N$	$= 5960 \text{ N}$	$M_x$	$= -79100 \text{ Nmm}$	$G$	$= 80000 \text{ N/mm}^2$
$T_y$	$= 1080 \text{ N}$	$\sigma_a$	$= 50 \text{ N/mm}^2$	$\sigma_{lld}$	$= -0.7647 \text{ N/mm}^2$
$M_t$	$= 3780 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 52.41 \text{ N/mm}^2$
$y_G$	$= 19.86 \text{ mm}$	$\tau(M_t)_d$	$= 14.26 \text{ N/mm}^2$	$\sigma_{mises}$	$= 46.12 \text{ N/mm}^2$
$u_o$	$= 0 \text{ mm}$	$\tau(T_{yc})$	$= 10.64 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 38.9 \text{ N/mm}^2$
$v_o$	$= -19.49 \text{ mm}$	$\tau(T_{yb})_d$	$= 0 \text{ N/mm}^2$	$\theta_t$	$= 0.08736 / m$
$A^*$	$= 482.7 \text{ mm}^2$	$\tau(T_y)_s$	$= 10.64 \text{ N/mm}^2$	$r_u$	$= 20.02 \text{ mm}$
$S_u^*$	$= 0 \text{ mm}^3$	$\tau(T_y)_d$	$= 10.64 \text{ N/mm}^2$	$r_v$	$= 25.39 \text{ mm}$
$C_w$	$= 25339542 \text{ mm}^6$	$\sigma$	$= 16.38 \text{ N/mm}^2$	$r_o$	$= 37.75 \text{ mm}$
$J_u$	$= 193441 \text{ mm}^4$	$\tau_s$	$= -3.621 \text{ N/mm}^2$	$J_p$	$= 687905 \text{ mm}^4$
$J_v$	$= 311187 \text{ mm}^4$	$\tau_d$	$= 24.89 \text{ N/mm}^2$		
$J_t$	$= 540.9 \text{ mm}^4$	$\sigma_{ls}$	$= 34.4 \text{ N/mm}^2$		
$\sigma(N)$	$= 12.35 \text{ N/mm}^2$	$\sigma_{lls}$	$= -18.02 \text{ N/mm}^2$		
$\sigma(M_x)$	$= 4.033 \text{ N/mm}^2$	$\sigma_{ld}$	$= 17.14 \text{ N/mm}^2$		



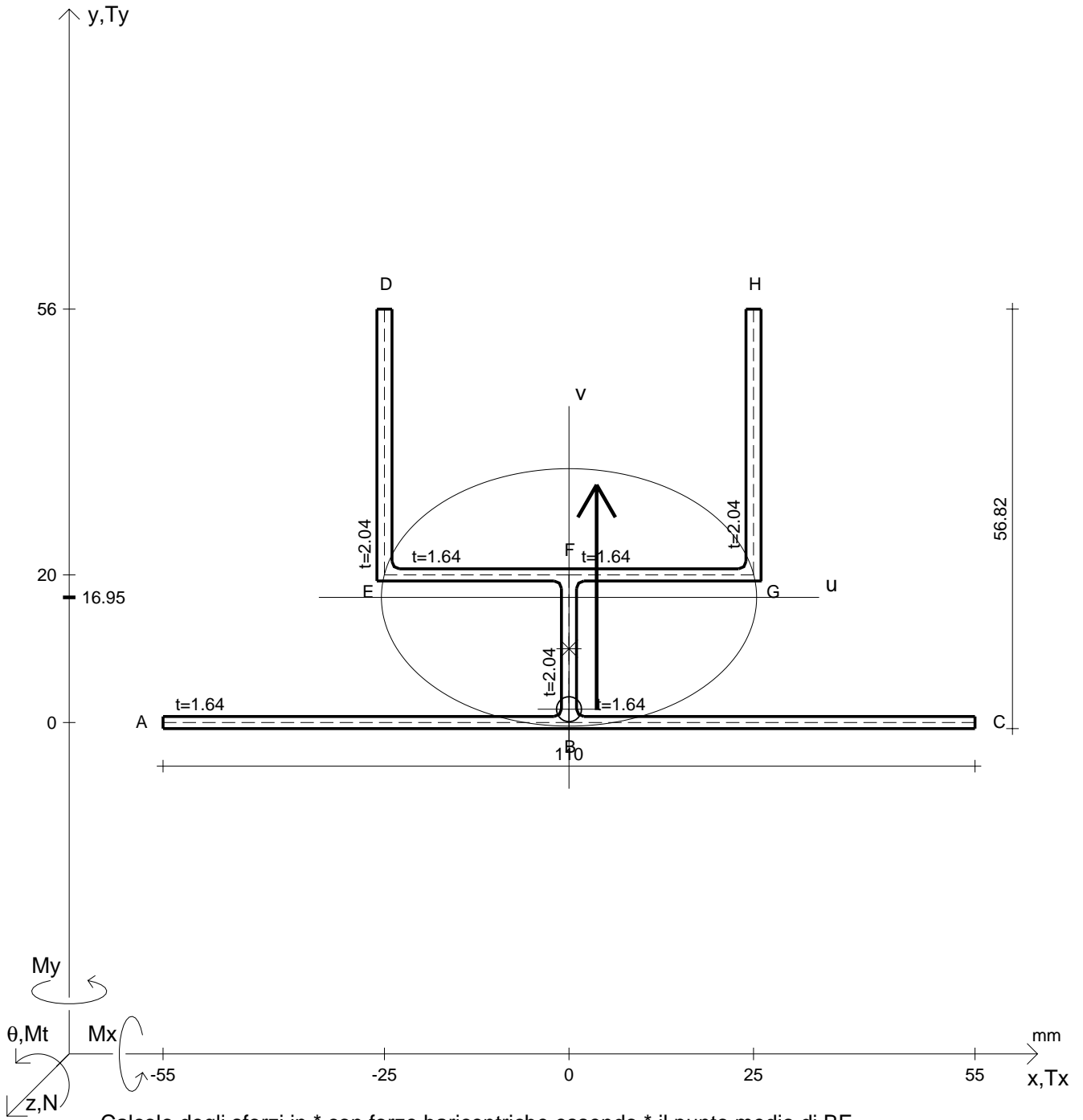


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4250 N	$M_x = -77600 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1110 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.039 \text{ N/mm}^2$
$M_t = 4010 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 57 \text{ N/mm}^2$
$y_G = 18.39 \text{ mm}$	$\tau(M_t)_d = 15.78 \text{ N/mm}^2$	$\sigma_{mises} = 49.8 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.95 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.54 \text{ N/mm}^2$
$v_o = -17.25 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09672 / m$
$A^* = 466.4 \text{ mm}^2$	$\tau(T_y)_s = 11.95 \text{ N/mm}^2$	$r_u = 18.72 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.95 \text{ N/mm}^2$	$r_v = 25.4 \text{ mm}$
$C_w = 20045488 \text{ mm}^6$	$\sigma = 13.1 \text{ N/mm}^2$	$r_o = 35.96 \text{ mm}$
$J_u = 163428 \text{ mm}^4$	$\tau_s = -3.832 \text{ N/mm}^2$	$J_p = 603238 \text{ mm}^4$
$J_v = 300987 \text{ mm}^4$	$\tau_d = 27.74 \text{ N/mm}^2$	
$J_t = 518.2 \text{ mm}^4$	$\sigma_{ls} = 35.05 \text{ N/mm}^2$	
$\sigma(N) = 9.112 \text{ N/mm}^2$	$\sigma_{lls} = -21.95 \text{ N/mm}^2$	
$\sigma(M_x) = 3.983 \text{ N/mm}^2$	$\sigma_{ld} = 14.13 \text{ N/mm}^2$	



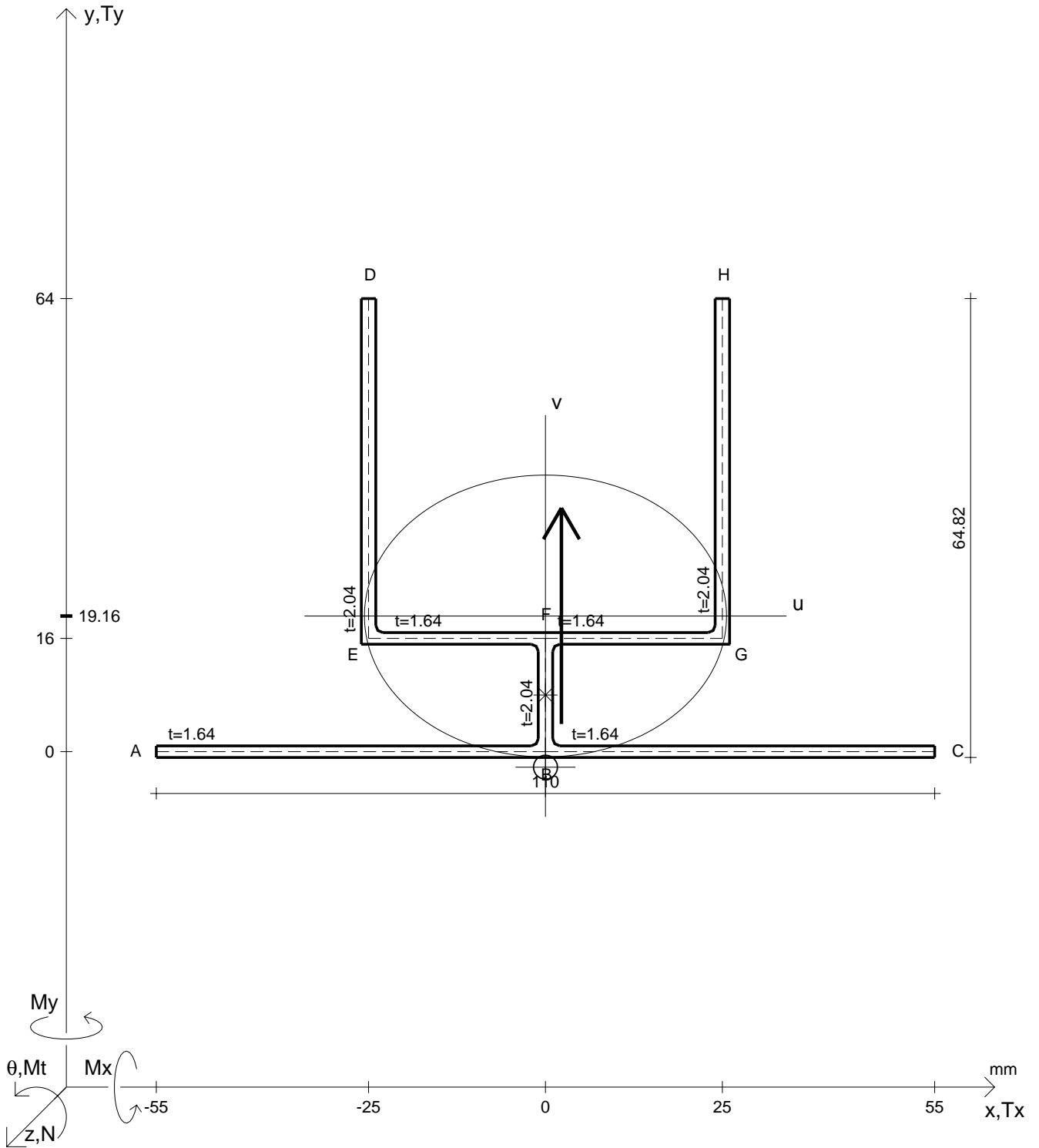




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4580 N	$M_x = -51100 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1120 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 4190 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	
$y_G = 16.95 \text{ mm}$	$\tau(M_t)_d = 17.25 \text{ N/mm}^2$	$\sigma_{lld} = -1.151 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.24 \text{ N/mm}^2$	$\sigma_{tresca} = 62.31 \text{ N/mm}^2$
$v_o = -15.14 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 54.34 \text{ N/mm}^2$
$A^* = 450.1 \text{ mm}^2$	$\tau(T_y)_s = 13.24 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.73 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.24 \text{ N/mm}^2$	$\theta_t = 0.1057 / \text{m}$
$C_w = 16166110 \text{ mm}^6$	$\sigma = 12.77 \text{ N/mm}^2$	$r_u = 17.44 \text{ mm}$
$J_u = 136869 \text{ mm}^4$	$\tau_s = -4.002 \text{ N/mm}^2$	$r_v = 25.42 \text{ mm}$
$J_v = 290787 \text{ mm}^4$	$\tau_d = 30.49 \text{ N/mm}^2$	$r_o = 34.34 \text{ mm}$
$J_t = 495.6 \text{ mm}^4$	$\sigma_{ls} = 37.54 \text{ N/mm}^2$	$J_p = 530890 \text{ mm}^4$
$\sigma(N) = 10.18 \text{ N/mm}^2$	$\sigma_{lls} = -24.77 \text{ N/mm}^2$	
$\sigma(M_x) = 2.595 \text{ N/mm}^2$	$\sigma_{ld} = 13.92 \text{ N/mm}^2$	

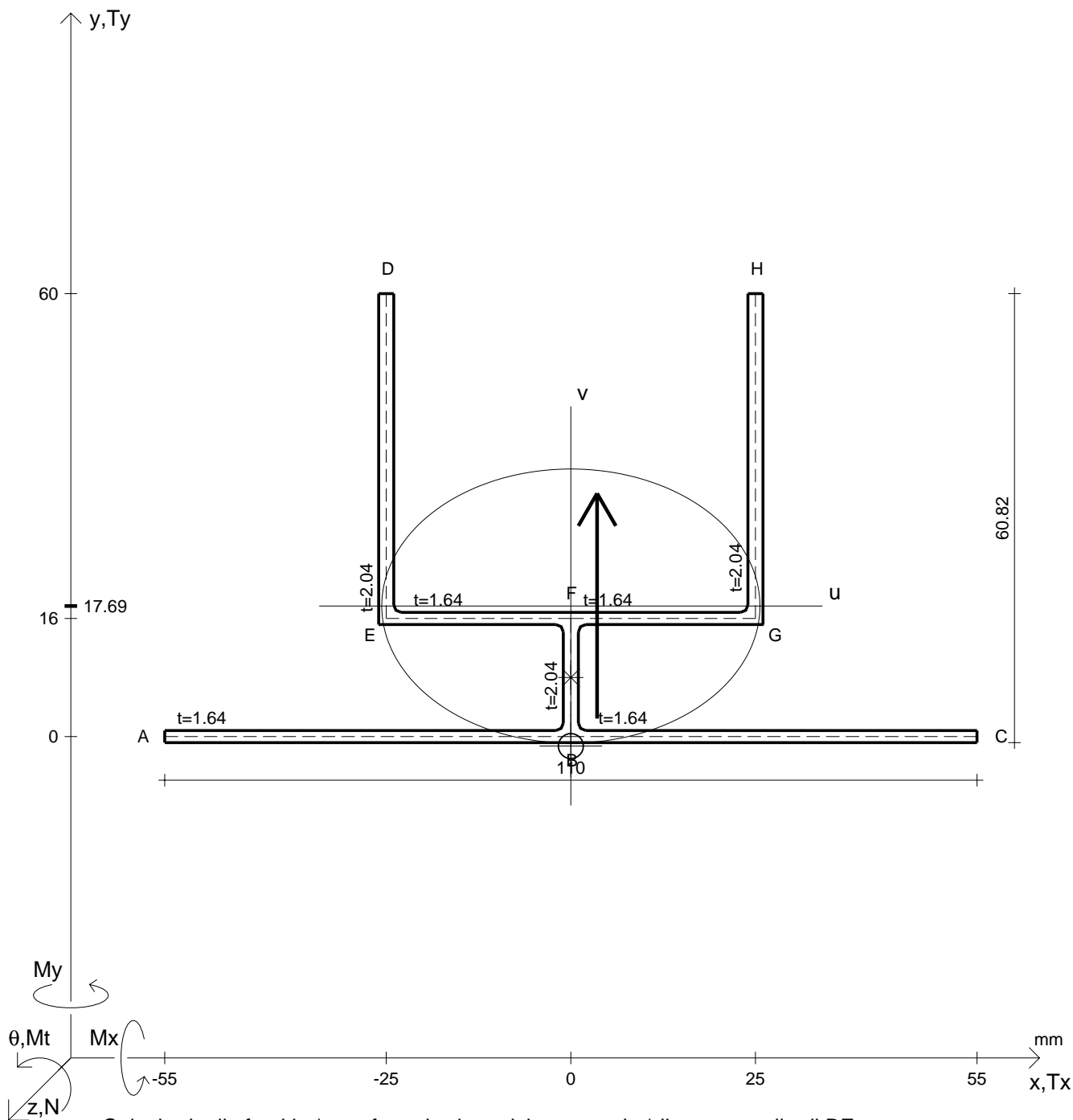




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5530 N	M <sub>t</sub> = 3450 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1530 N	M <sub>x</sub> = -70800 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.27 N/mm <sup>2</sup>
y <sub>G</sub> = 19.16 mm	J <sub>t</sub> = 552.2 mm <sup>4</sup>	σ = 15.33 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.87 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.27 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.542 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.0781 /m
v <sub>o</sub> = -21.36 mm	σ(M <sub>x</sub> ) = 4.064 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.03 N/mm <sup>2</sup>	r <sub>u</sub> = 19.9 mm
A* = 490.9 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.75 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.76 N/mm <sup>2</sup>	r <sub>v</sub> = 25.59 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.29 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.43 N/mm <sup>2</sup>	r <sub>o</sub> = 38.82 mm
C <sub>w</sub> = 34157428 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 15.48 N/mm <sup>2</sup>	J <sub>p</sub> = 739797 mm <sup>4</sup>
J <sub>u</sub> = 194462 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.29 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1536 N/mm <sup>2</sup>	
J <sub>v</sub> = 321386 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.29 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.2 N/mm <sup>2</sup>	

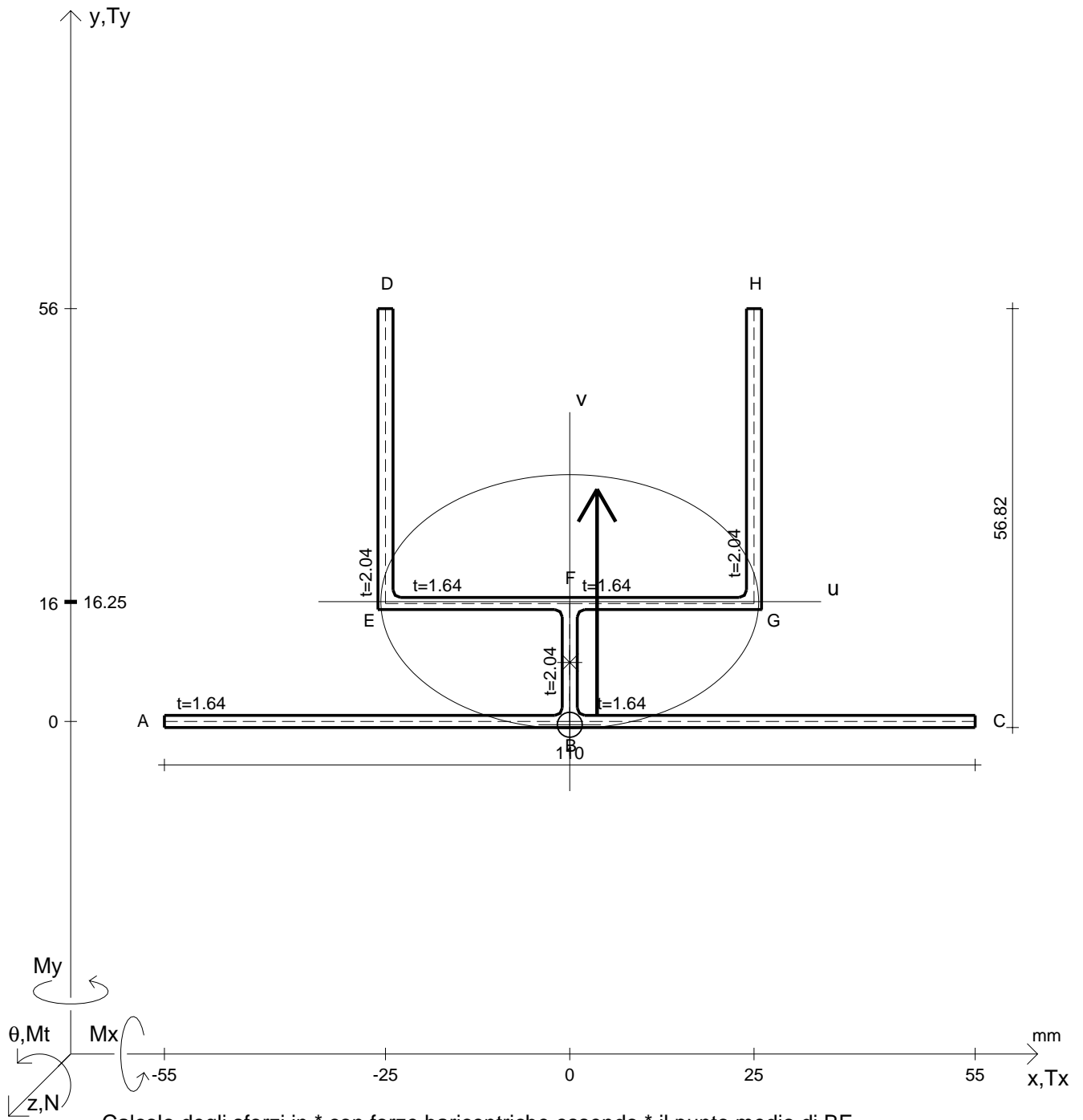




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5860 N	$M_x = -69700 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1040 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7536 \text{ N/mm}^2$
$M_t = 3700 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 52.46 \text{ N/mm}^2$
$y_G = 17.69 \text{ mm}$	$\tau(M_t)_d = 14.25 \text{ N/mm}^2$	$\sigma_{mises} = 46.17 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.65 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.97 \text{ N/mm}^2$
$v_o = -18.97 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08734 / m$
$A^* = 474.6 \text{ mm}^2$	$\tau(T_y)_s = 10.65 \text{ N/mm}^2$	$r_u = 18.56 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.65 \text{ N/mm}^2$	$r_v = 25.61 \text{ mm}$
$C_w = 26000314 \text{ mm}^6$	$\sigma = 16.48 \text{ N/mm}^2$	$r_o = 36.88 \text{ mm}$
$J_u = 163463 \text{ mm}^4$	$\tau_s = -3.604 \text{ N/mm}^2$	$J_p = 645512 \text{ mm}^4$
$J_v = 311187 \text{ mm}^4$	$\tau_d = 24.9 \text{ N/mm}^2$	
$J_t = 529.6 \text{ mm}^4$	$\sigma_{ls} = 34.47 \text{ N/mm}^2$	
$\sigma(N) = 12.35 \text{ N/mm}^2$	$\sigma_{lls} = -17.99 \text{ N/mm}^2$	
$\sigma(M_x) = 4.132 \text{ N/mm}^2$	$\sigma_{ld} = 17.23 \text{ N/mm}^2$	



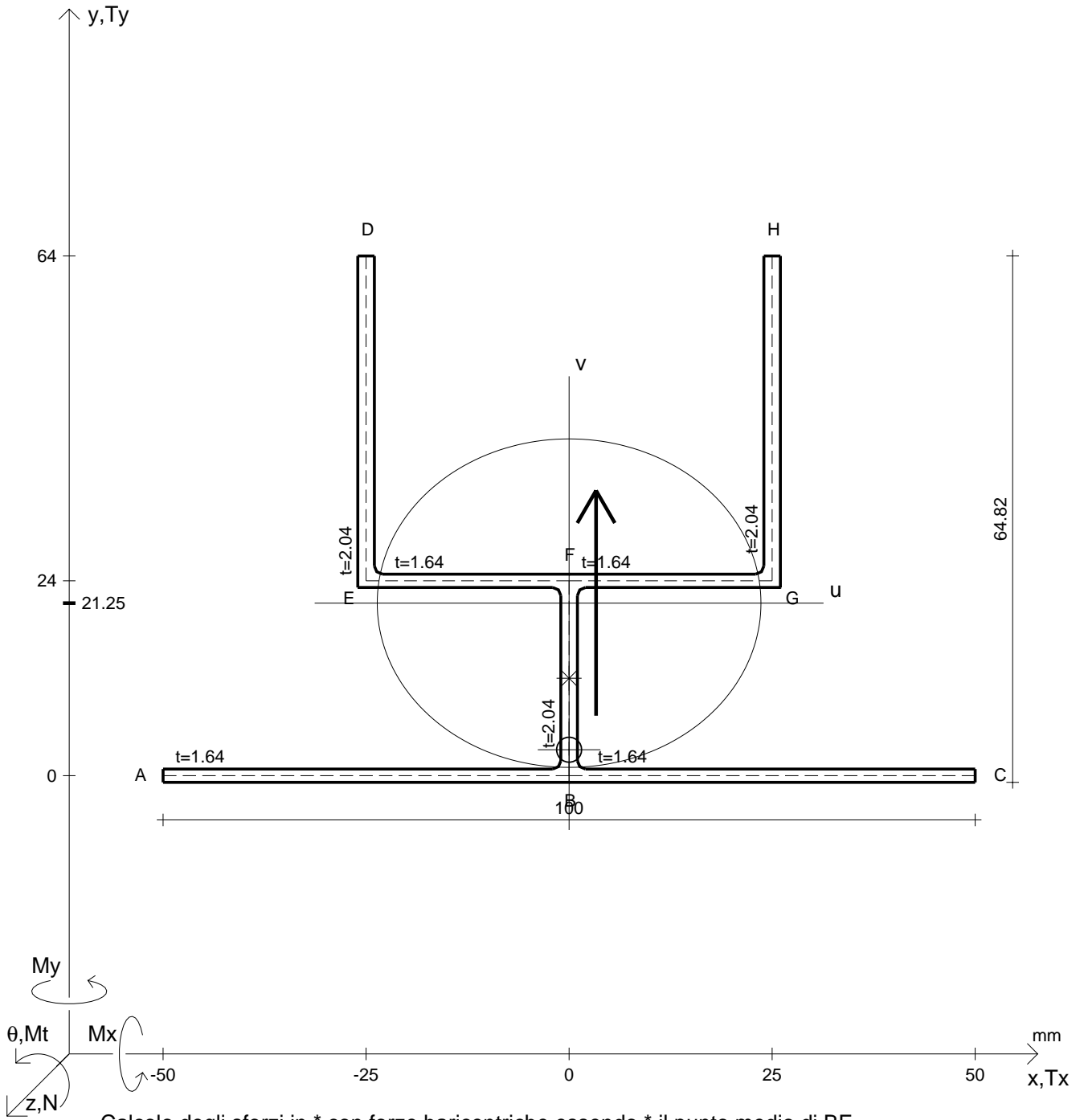


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4180 N	$M_x = -67600 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1060 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.017 \text{ N/mm}^2$
$M_t = 3920 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 57.04 \text{ N/mm}^2$
$y_G = 16.25 \text{ mm}$	$\tau(M_t)_d = 15.78 \text{ N/mm}^2$	$\sigma_{mises} = 49.84 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.97 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.61 \text{ N/mm}^2$
$v_o = -16.7 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09666 / m$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 11.97 \text{ N/mm}^2$	$r_u = 17.23 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.97 \text{ N/mm}^2$	$r_v = 25.63 \text{ mm}$
$C_w = 19545080 \text{ mm}^6$	$\sigma = 13.23 \text{ N/mm}^2$	$r_o = 35.11 \text{ mm}$
$J_u = 135978 \text{ mm}^4$	$\tau_s = -3.806 \text{ N/mm}^2$	$J_p = 564788 \text{ mm}^4$
$J_v = 300987 \text{ mm}^4$	$\tau_d = 27.74 \text{ N/mm}^2$	
$J_t = 506.9 \text{ mm}^4$	$\sigma_{ls} = 35.13 \text{ N/mm}^2$	
$\sigma(N) = 9.122 \text{ N/mm}^2$	$\sigma_{lls} = -21.91 \text{ N/mm}^2$	
$\sigma(M_x) = 4.103 \text{ N/mm}^2$	$\sigma_{ld} = 14.24 \text{ N/mm}^2$	



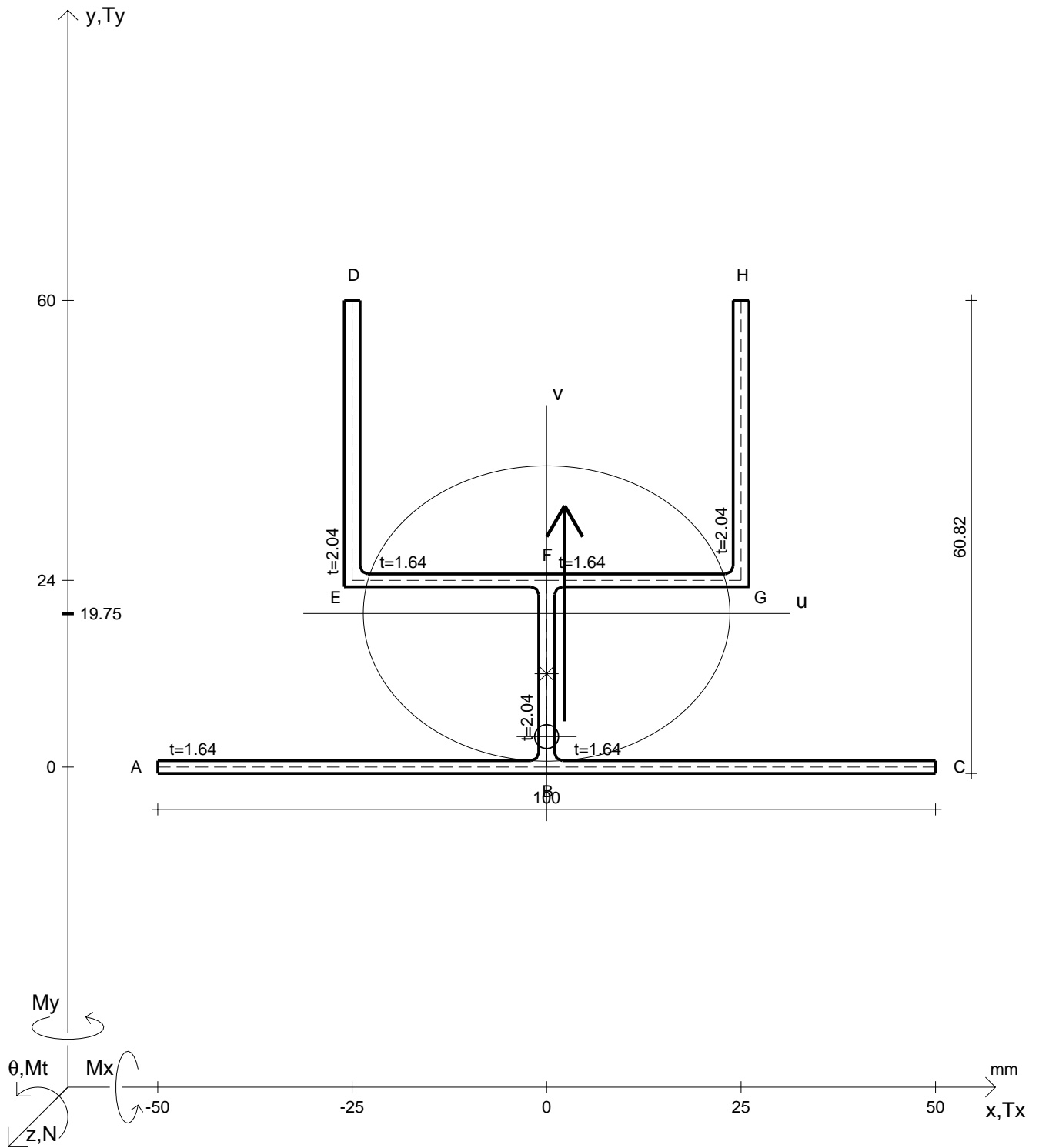




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4660 N	$M_x = -63900 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1310 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{IIId}} = -1.117 \text{ N/mm}^2$
$M_t = 4350 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{\text{tresca}} = 62.35 \text{ N/mm}^2$
$y_G = 21.25 \text{ mm}$	$\tau(M_t)_d = 17.24 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 54.41 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.22 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 43.97 \text{ N/mm}^2$
$v_o = -18.05 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1056 / \text{m}$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 13.22 \text{ N/mm}^2$	$r_u = 20.23 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.22 \text{ N/mm}^2$	$r_v = 23.63 \text{ mm}$
$C_w = 22455678 \text{ mm}^6$	$\sigma = 13.32 \text{ N/mm}^2$	$r_o = 35.96 \text{ mm}$
$J_u = 187442 \text{ mm}^4$	$\tau_s = -4.017 \text{ N/mm}^2$	$J_p = 592502 \text{ mm}^4$
$J_v = 255750 \text{ mm}^4$	$\tau_d = 30.45 \text{ N/mm}^2$	
$J_t = 514.9 \text{ mm}^4$	$\sigma_{\text{Is}} = 37.84 \text{ N/mm}^2$	
$\sigma(N) = 10.17 \text{ N/mm}^2$	$\sigma_{\text{IIs}} = -24.51 \text{ N/mm}^2$	
$\sigma(M_x) = 3.154 \text{ N/mm}^2$	$\sigma_{\text{Id}} = 14.44 \text{ N/mm}^2$	

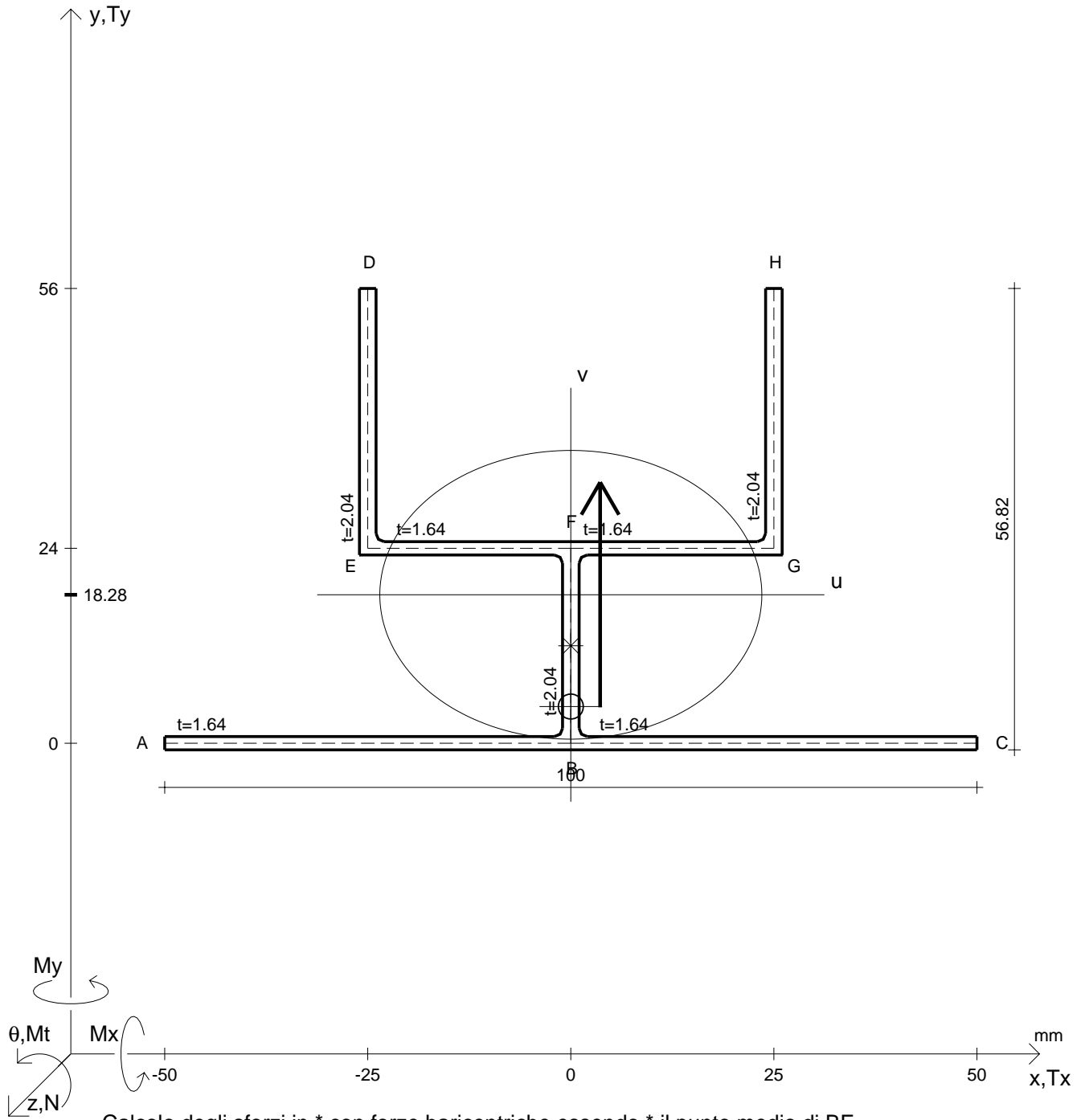




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4970 N	M <sub>t</sub> = 3070 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1320 N	M <sub>x</sub> = -64400 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.33 N/mm <sup>2</sup>
y <sub>G</sub> = 19.75 mm	J <sub>t</sub> = 492.2 mm <sup>4</sup>	σ = 14.38 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.61 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.795 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07796 /m
v <sub>o</sub> = -15.83 mm	σ(M <sub>x</sub> ) = 3.131 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.24 N/mm <sup>2</sup>	r <sub>u</sub> = 18.99 mm
A* = 441.8 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.72 N/mm <sup>2</sup>	σ <sub>lIs</sub> = 35.36 N/mm <sup>2</sup>	r <sub>v</sub> = 23.57 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.52 N/mm <sup>2</sup>	σ <sub>lIs</sub> = -20.99 N/mm <sup>2</sup>	r <sub>o</sub> = 34.16 mm
C <sub>w</sub> = 19299734 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>lId</sub> = 14.6 N/mm <sup>2</sup>	J <sub>p</sub> = 515631 mm <sup>4</sup>
J <sub>u</sub> = 159320 mm <sup>4</sup>	τ(T <sub>yc</sub> ) <sub>s</sub> = 14.52 N/mm <sup>2</sup>	σ <sub>lId</sub> = -0.2207 N/mm <sup>2</sup>	
J <sub>v</sub> = 245550 mm <sup>4</sup>	τ(T <sub>yd</sub> ) = 14.52 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.35 N/mm <sup>2</sup>	

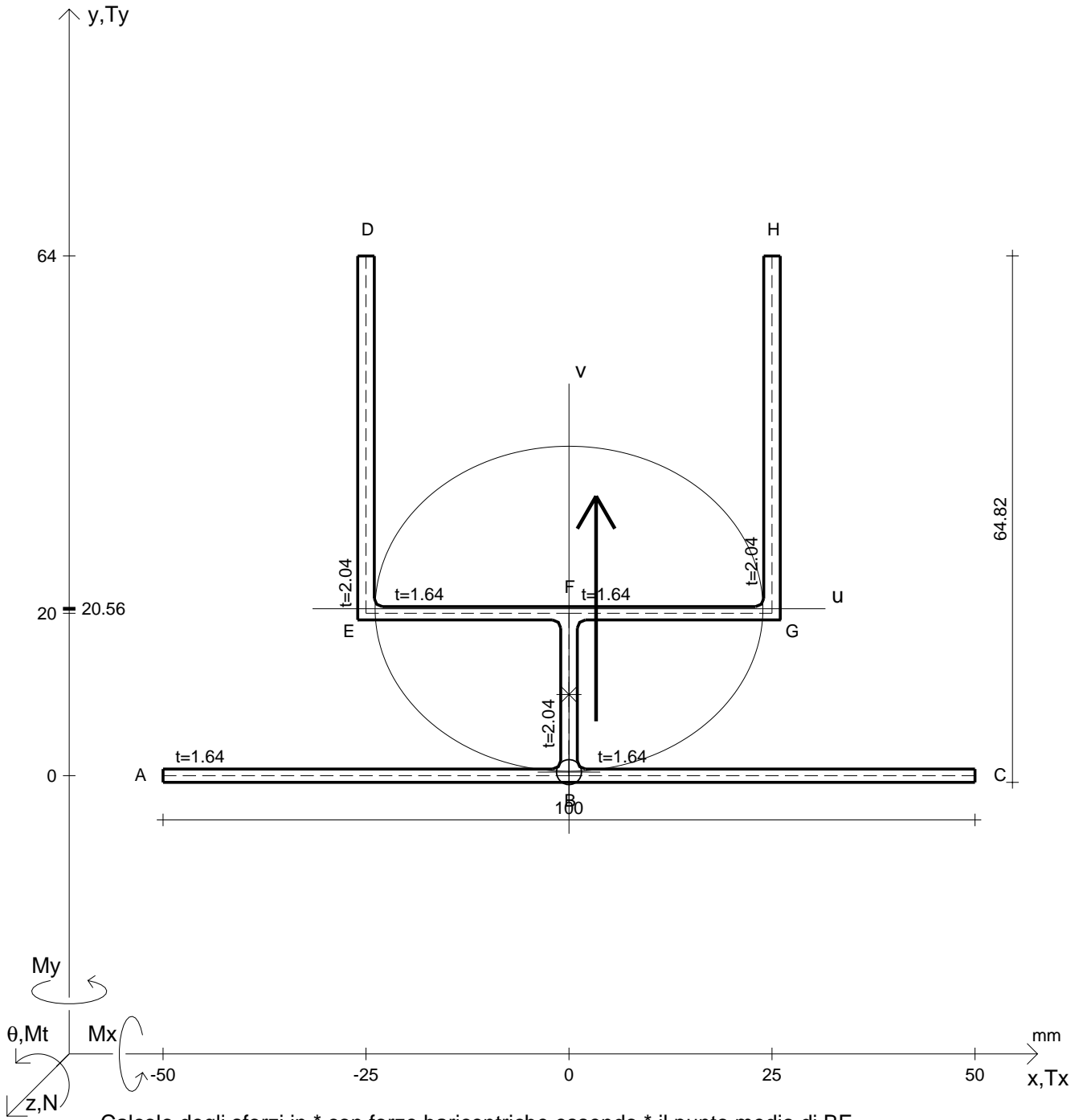




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5230 N	$M_x = -64000 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 905 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.6931 \text{ N/mm}^2$
$M_t = 3270 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 52.44 \text{ N/mm}^2$
$y_G = 18.28 \text{ mm}$	$\tau(M_t)_d = 14.21 \text{ N/mm}^2$	$\sigma_{mises} = 46.06 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.88 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.51 \text{ N/mm}^2$
$v_o = -13.76 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08705 / m$
$A^* = 425.5 \text{ mm}^2$	$\tau(T_y)_s = 10.88 \text{ N/mm}^2$	$r_u = 17.78 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.88 \text{ N/mm}^2$	$r_v = 23.52 \text{ mm}$
$C_w = 17226178 \text{ mm}^6$	$\sigma = 15.28 \text{ N/mm}^2$	$r_o = 32.54 \text{ mm}$
$J_u = 134500 \text{ mm}^4$	$\tau_s = -3.327 \text{ N/mm}^2$	$J_p = 450449 \text{ mm}^4$
$J_v = 235350 \text{ mm}^4$	$\tau_d = 25.08 \text{ N/mm}^2$	
$J_t = 469.6 \text{ mm}^4$	$\sigma_{ls} = 33.86 \text{ N/mm}^2$	
$\sigma(N) = 12.29 \text{ N/mm}^2$	$\sigma_{lls} = -18.58 \text{ N/mm}^2$	
$\sigma(M_x) = 2.988 \text{ N/mm}^2$	$\sigma_{ld} = 15.97 \text{ N/mm}^2$	





Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

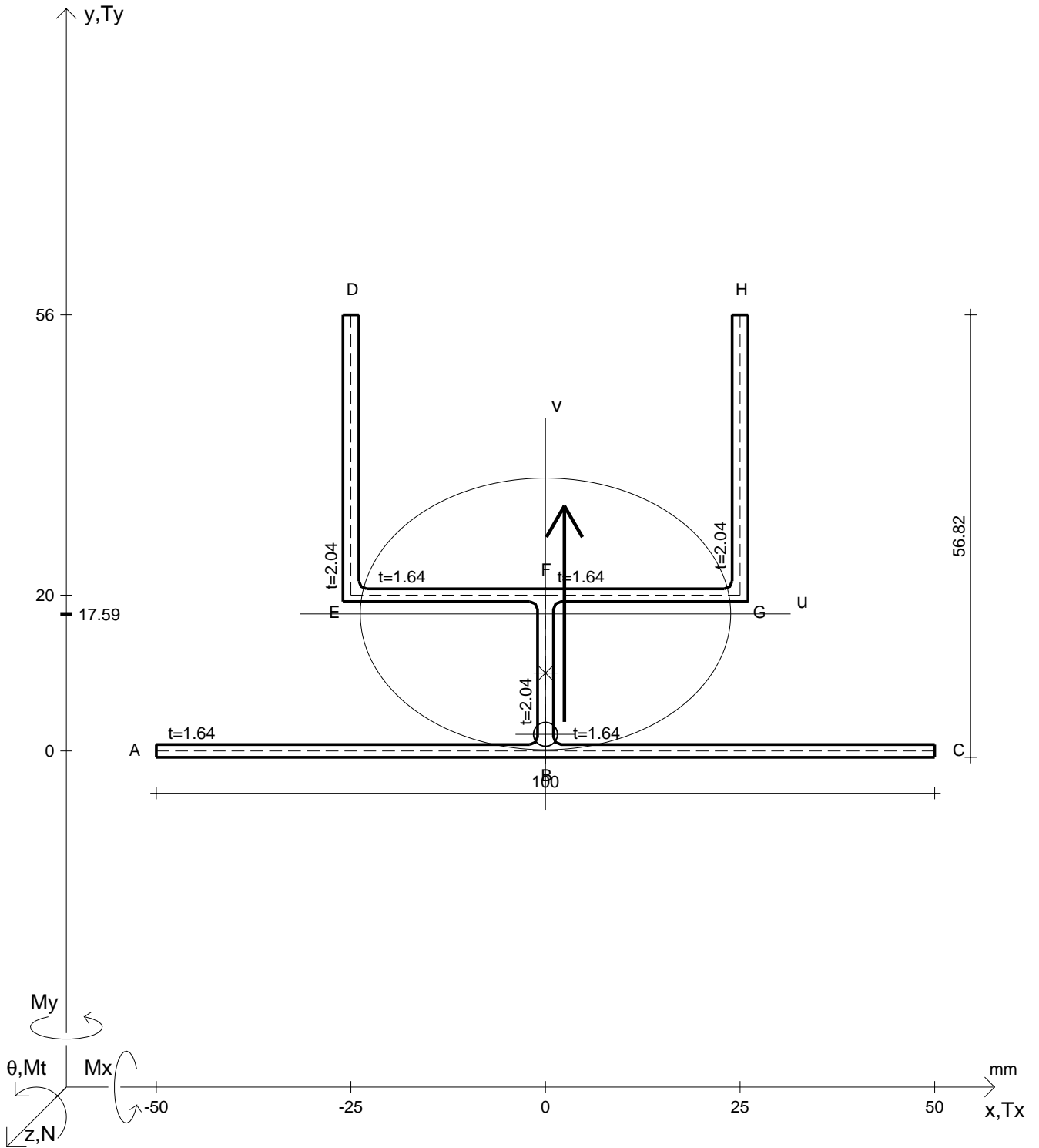
N = 4250 N	$M_x = -84900 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1220 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -1.05 \text{ N/mm}^2$
$M_t = 4070 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 56.92 \text{ N/mm}^2$
$y_G = 20.56 \text{ mm}$	$\tau(M_t)_d = 15.78 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 49.78 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.82 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 40.79 \text{ N/mm}^2$
$v_o = -20.12 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09669 / \text{m}$
$A^* = 466.3 \text{ mm}^2$	$\tau(T_y)_s = 11.82 \text{ N/mm}^2$	$r_u = 20.01 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.82 \text{ N/mm}^2$	$r_v = 23.88 \text{ mm}$
$C_w = 25332026 \text{ mm}^6$	$\sigma = 13.92 \text{ N/mm}^2$	$r_o = 37.09 \text{ mm}$
$J_u = 186744 \text{ mm}^4$	$\tau_s = -3.964 \text{ N/mm}^2$	$J_p = 641461 \text{ mm}^4$
$J_v = 265950 \text{ mm}^4$	$\tau_d = 27.59 \text{ N/mm}^2$	
$J_t = 526.2 \text{ mm}^4$	$\sigma_{\text{ls}} = 35.42 \text{ N/mm}^2$	
$\sigma(N) = 9.114 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -21.5 \text{ N/mm}^2$	
$\sigma(M_x) = 4.801 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 14.97 \text{ N/mm}^2$	







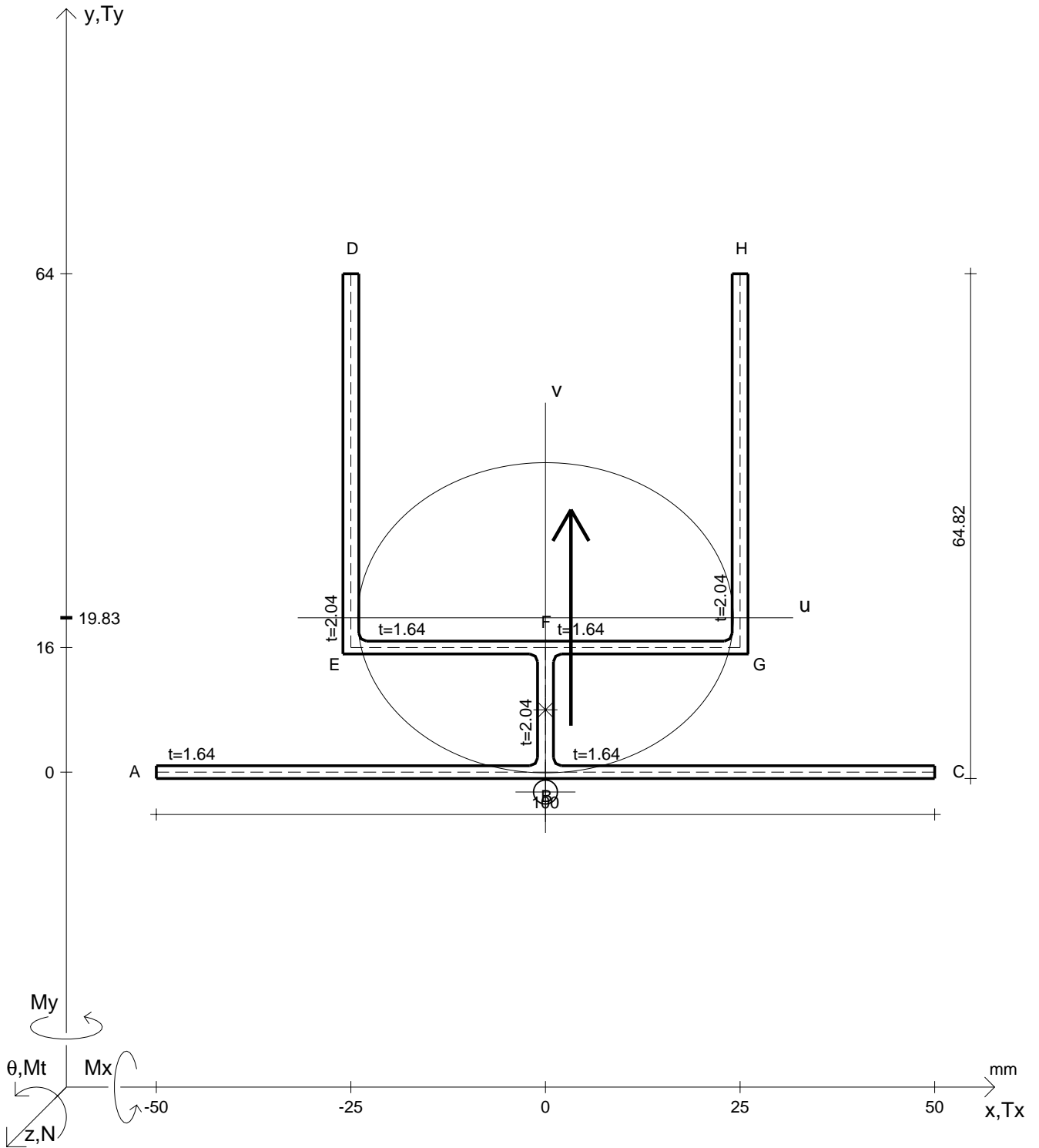




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4880 N	M <sub>t</sub> = 3010 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1240 N	M <sub>x</sub> = -56000 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.35 N/mm <sup>2</sup>
y <sub>G</sub> = 17.59 mm	J <sub>t</sub> = 480.9 mm <sup>4</sup>	σ = 14.47 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.66 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.702 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07824 /m
v <sub>o</sub> = -15.45 mm	σ(M <sub>x</sub> ) = 3.222 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.24 N/mm <sup>2</sup>	r <sub>u</sub> = 17.44 mm
A* = 433.7 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.77 N/mm <sup>2</sup>	σ <sub>ls</sub> = 35.42 N/mm <sup>2</sup>	r <sub>v</sub> = 23.79 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.47 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.95 N/mm <sup>2</sup>	r <sub>o</sub> = 33.31 mm
C <sub>w</sub> = 15991313 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 14.67 N/mm <sup>2</sup>	J <sub>p</sub> = 481091 mm <sup>4</sup>
J <sub>u</sub> = 131978 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.47 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1975 N/mm <sup>2</sup>	
J <sub>v</sub> = 245550 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.47 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.37 N/mm <sup>2</sup>	

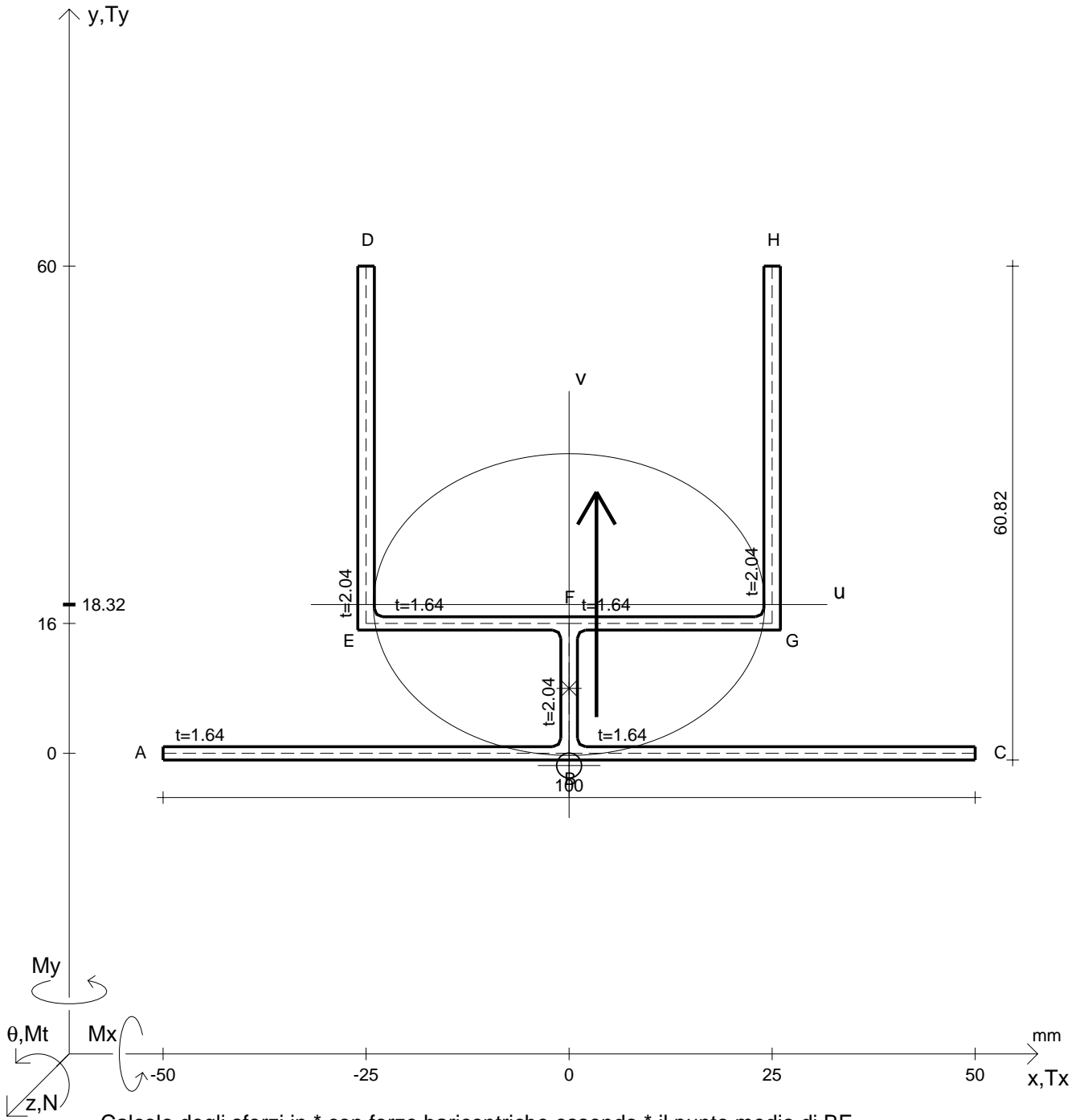




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5860 N	M <sub>t</sub> = 3760 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1150 N	M <sub>x</sub> = -76800 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 46.23 N/mm <sup>2</sup>
y <sub>G</sub> = 19.83 mm	J <sub>t</sub> = 537.5 mm <sup>4</sup>	σ = 17.18 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 39.22 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 12.35 N/mm <sup>2</sup>	τ <sub>s</sub> = -3.76 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.08744 /m
v <sub>o</sub> = -22.38 mm	σ(M <sub>x</sub> ) = 4.825 N/mm <sup>2</sup>	τ <sub>d</sub> = 24.78 N/mm <sup>2</sup>	r <sub>u</sub> = 19.92 mm
A* = 474.5 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 14.27 N/mm <sup>2</sup>	σ <sub>Is</sub> = 34.81 N/mm <sup>2</sup>	r <sub>v</sub> = 24.12 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 10.51 N/mm <sup>2</sup>	σ <sub>IIs</sub> = -17.64 N/mm <sup>2</sup>	r <sub>o</sub> = 38.47 mm
C <sub>w</sub> = 33903468 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 17.96 N/mm <sup>2</sup>	J <sub>p</sub> = 702062 mm <sup>4</sup>
J <sub>u</sub> = 188231 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 10.51 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.787 N/mm <sup>2</sup>	
J <sub>v</sub> = 276150 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 10.51 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 52.45 N/mm <sup>2</sup>	



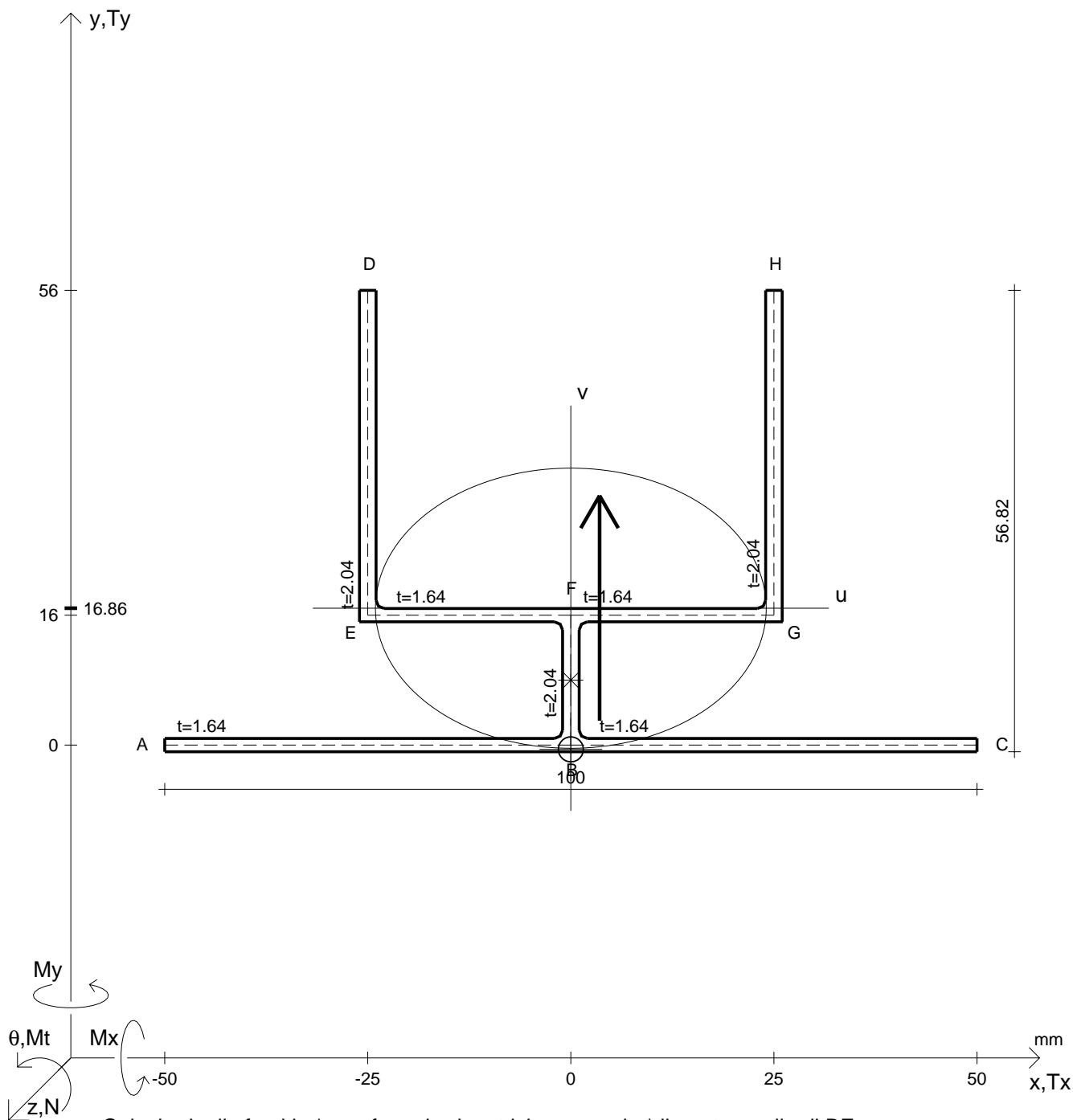


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4180 N	$M_x = -75000 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1180 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.024 \text{ N/mm}^2$
$M_t = 3980 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 56.98 \text{ N/mm}^2$
$y_G = 18.32 \text{ mm}$	$\tau(M_t)_d = 15.77 \text{ N/mm}^2$	$\sigma_{mises} = 49.84 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.85 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.87 \text{ N/mm}^2$
$v_o = -19.83 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09663 / m$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 11.85 \text{ N/mm}^2$	$r_u = 18.58 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.85 \text{ N/mm}^2$	$r_v = 24.09 \text{ mm}$
$C_w = 25912916 \text{ mm}^6$	$\sigma = 14.02 \text{ N/mm}^2$	$r_o = 36.31 \text{ mm}$
$J_u = 158147 \text{ mm}^4$	$\tau_s = -3.924 \text{ N/mm}^2$	$J_p = 604197 \text{ mm}^4$
$J_v = 265950 \text{ mm}^4$	$\tau_d = 27.62 \text{ N/mm}^2$	
$J_t = 514.9 \text{ mm}^4$	$\sigma_{ls} = 35.5 \text{ N/mm}^2$	
$\sigma(N) = 9.123 \text{ N/mm}^2$	$\sigma_{lls} = -21.48 \text{ N/mm}^2$	
$\sigma(M_x) = 4.896 \text{ N/mm}^2$	$\sigma_{ld} = 15.04 \text{ N/mm}^2$	



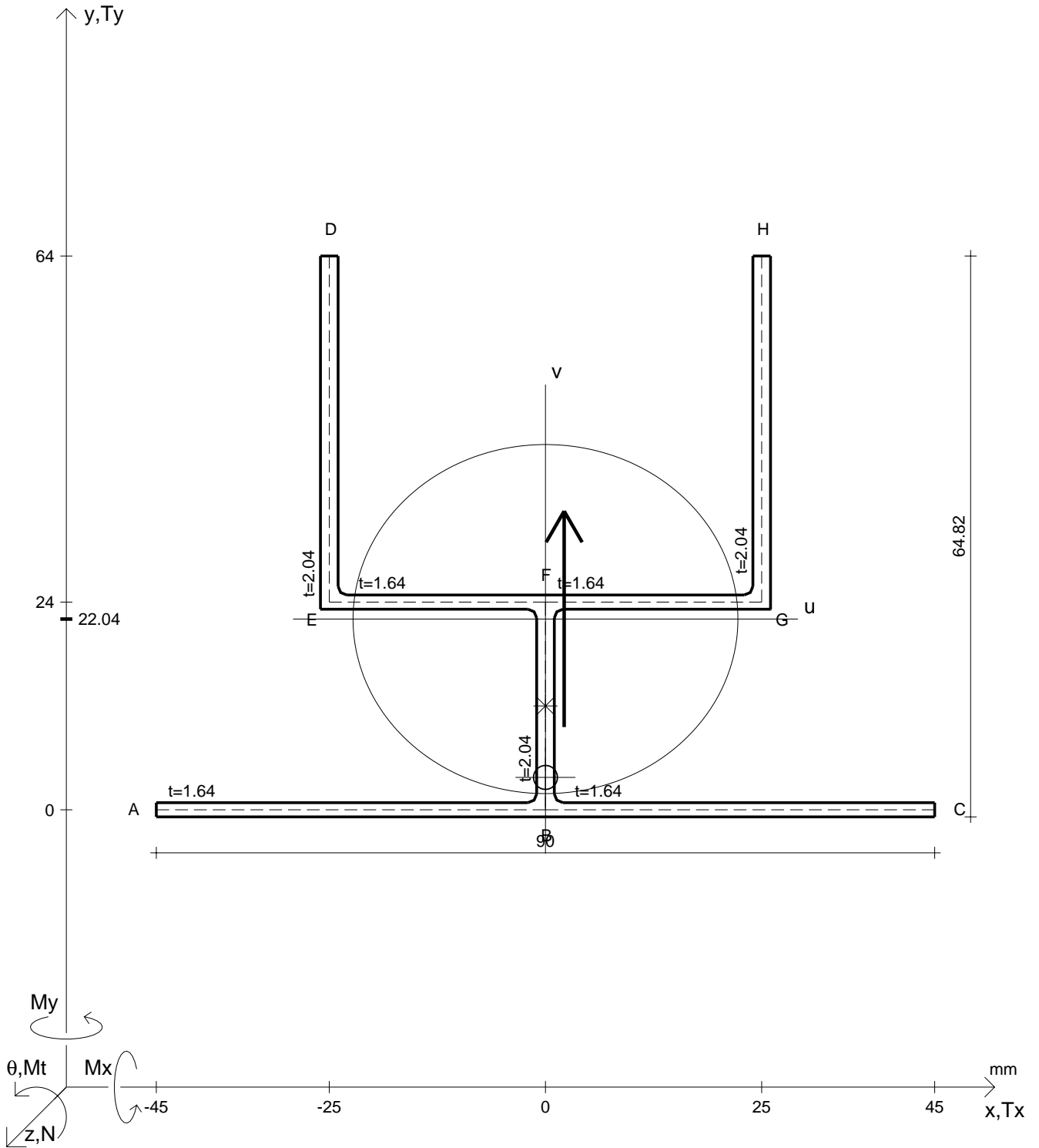




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4510 N	$M_x = -49000 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1180 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.198 \text{ N/mm}^2$
$M_t = 4170 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.22 \text{ N/mm}^2$
$y_G = 16.86 \text{ mm}$	$\tau(M_t)_d = 17.28 \text{ N/mm}^2$	$\sigma_{mises} = 54.31 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.09 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.95 \text{ N/mm}^2$
$v_o = -17.38 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1059 / \text{m}$
$A^* = 441.8 \text{ mm}^2$	$\tau(T_y)_s = 13.09 \text{ N/mm}^2$	$r_u = 17.25 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.09 \text{ N/mm}^2$	$r_v = 24.06 \text{ mm}$
$C_w = 19534424 \text{ mm}^6$	$\sigma = 13.51 \text{ N/mm}^2$	$r_o = 34.33 \text{ mm}$
$J_u = 131484 \text{ mm}^4$	$\tau_s = -4.197 \text{ N/mm}^2$	$J_p = 520761 \text{ mm}^4$
$J_v = 255750 \text{ mm}^4$	$\tau_d = 30.37 \text{ N/mm}^2$	
$J_t = 492.2 \text{ mm}^4$	$\sigma_{ls} = 37.86 \text{ N/mm}^2$	
$\sigma(N) = 10.21 \text{ N/mm}^2$	$\sigma_{lls} = -24.36 \text{ N/mm}^2$	
$\sigma(M_x) = 3.301 \text{ N/mm}^2$	$\sigma_{ld} = 14.71 \text{ N/mm}^2$	





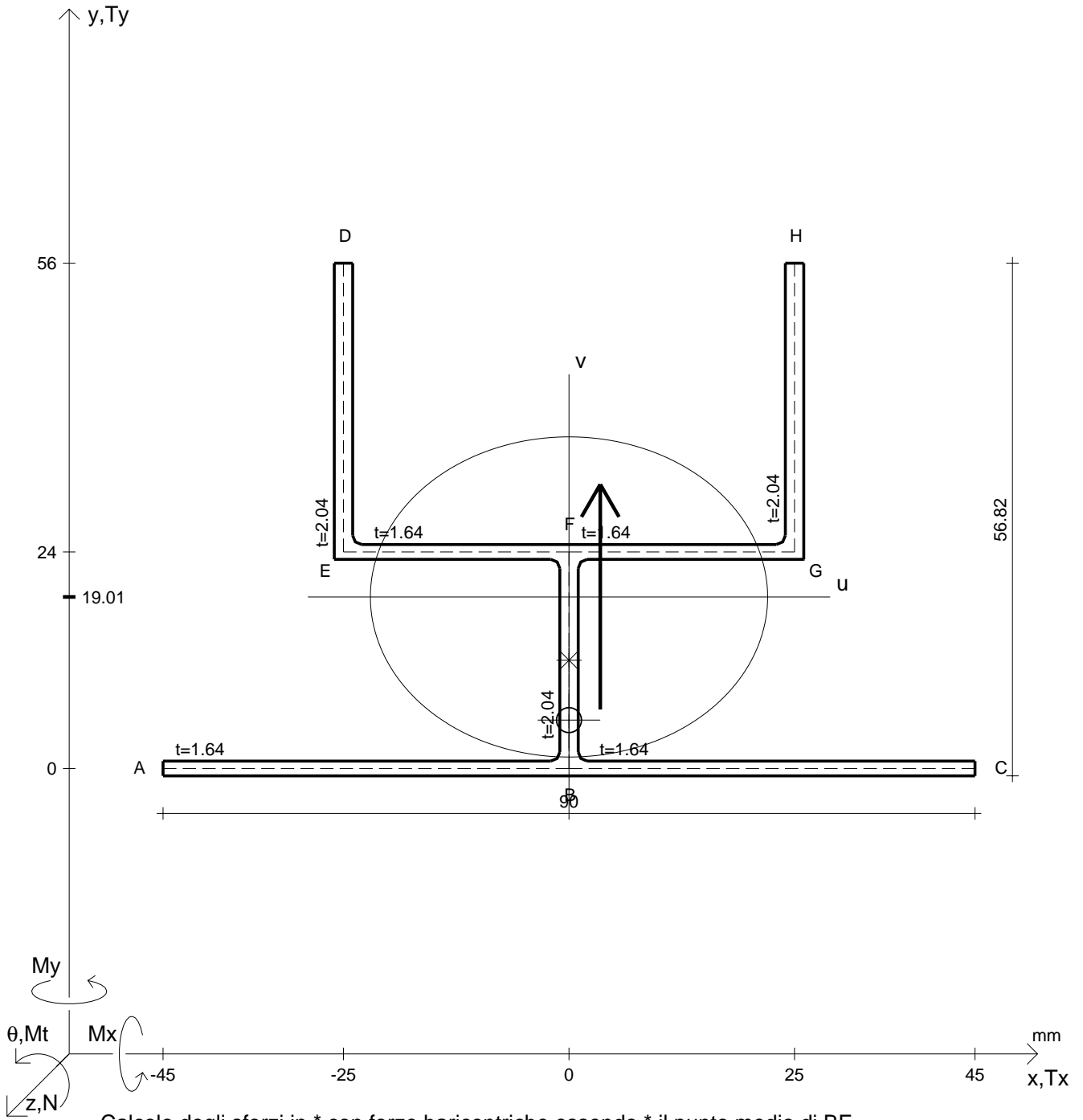
Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4970 N	M <sub>t</sub> = 3130 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1450 N	M <sub>x</sub> = -69800 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.46 N/mm <sup>2</sup>
y <sub>G</sub> = 22.04 mm	J <sub>t</sub> = 500.2 mm <sup>4</sup>	σ = 15.15 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.95 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.649 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07823 /m
v <sub>o</sub> = -18.3 mm	σ(M <sub>x</sub> ) = 3.898 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.18 N/mm <sup>2</sup>	r <sub>u</sub> = 20.17 mm
A* = 441.8 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.77 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.79 N/mm <sup>2</sup>	r <sub>v</sub> = 22.25 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.42 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.64 N/mm <sup>2</sup>	r <sub>o</sub> = 35.17 mm
C <sub>w</sub> = 22012634 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.33 N/mm <sup>2</sup>	J <sub>p</sub> = 546412 mm <sup>4</sup>
J <sub>u</sub> = 179761 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.42 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1774 N/mm <sup>2</sup>	
J <sub>v</sub> = 218714 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.42 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.44 N/mm <sup>2</sup>	







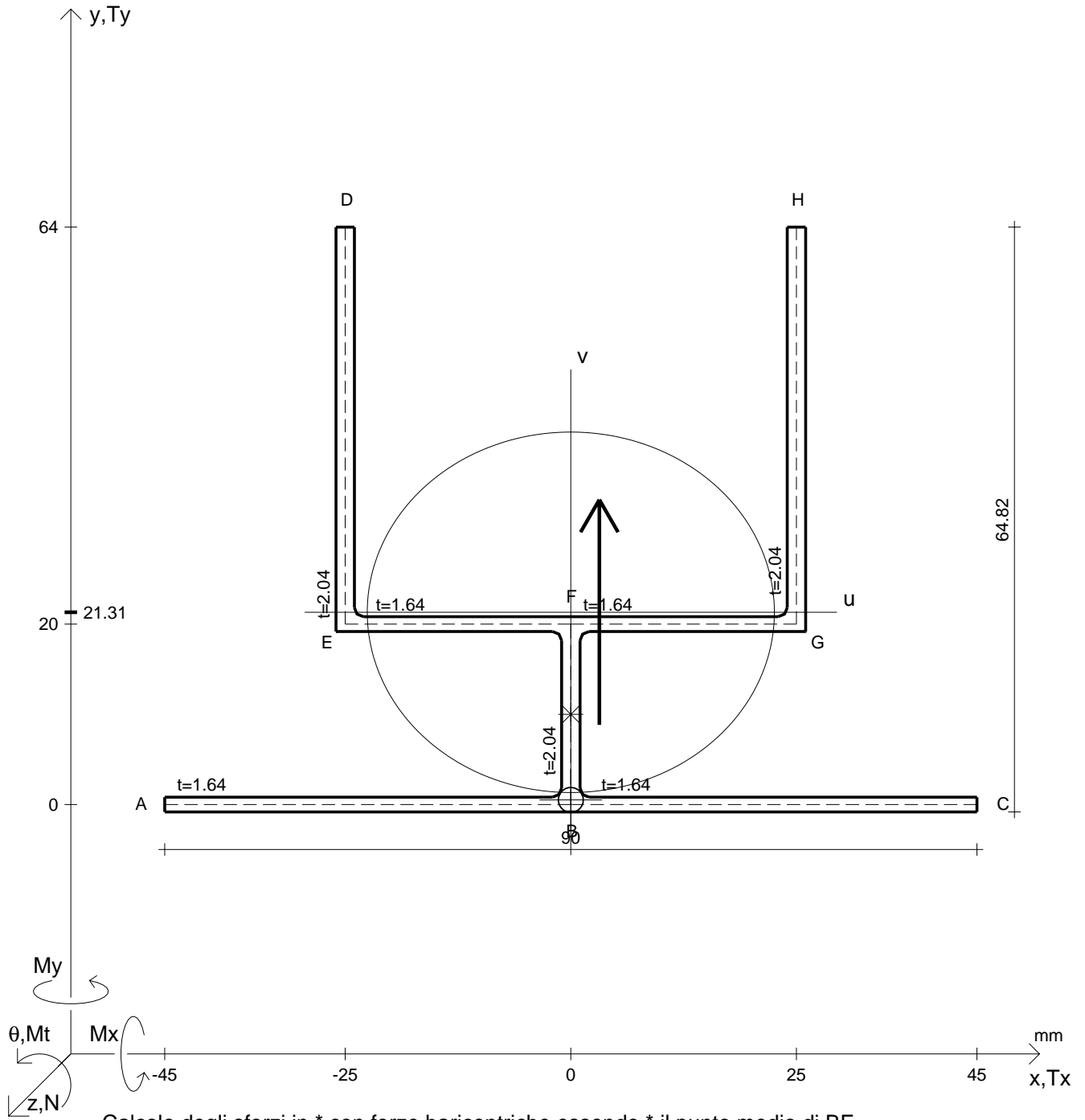


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 3720 N	$M_x = -68500 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1010 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{Ild} = -0.9841 \text{ N/mm}^2$
$M_t = 3500 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 56.88 \text{ N/mm}^2$
$y_G = 19.01 \text{ mm}$	$\tau(M_t)_d = 15.7 \text{ N/mm}^2$	$\sigma_{mises} = 49.67 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 12.01 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.36 \text{ N/mm}^2$
$v_o = -13.65 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09618 / m$
$A^* = 409.1 \text{ mm}^2$	$\tau(T_y)_s = 12.01 \text{ N/mm}^2$	$r_u = 17.74 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 12.01 \text{ N/mm}^2$	$r_v = 22.02 \text{ mm}$
$C_w = 16329846 \text{ mm}^6$	$\sigma = 12.82 \text{ N/mm}^2$	$r_o = 31.4 \text{ mm}$
$J_u = 128801 \text{ mm}^4$	$\tau_s = -3.686 \text{ N/mm}^2$	$J_p = 403366 \text{ mm}^4$
$J_v = 198313 \text{ mm}^4$	$\tau_d = 27.71 \text{ N/mm}^2$	
$J_t = 454.9 \text{ mm}^4$	$\sigma_{Is} = 34.85 \text{ N/mm}^2$	
$\sigma(N) = 9.093 \text{ N/mm}^2$	$\sigma_{Ils} = -22.03 \text{ N/mm}^2$	
$\sigma(M_x) = 3.729 \text{ N/mm}^2$	$\sigma_{Id} = 13.81 \text{ N/mm}^2$	



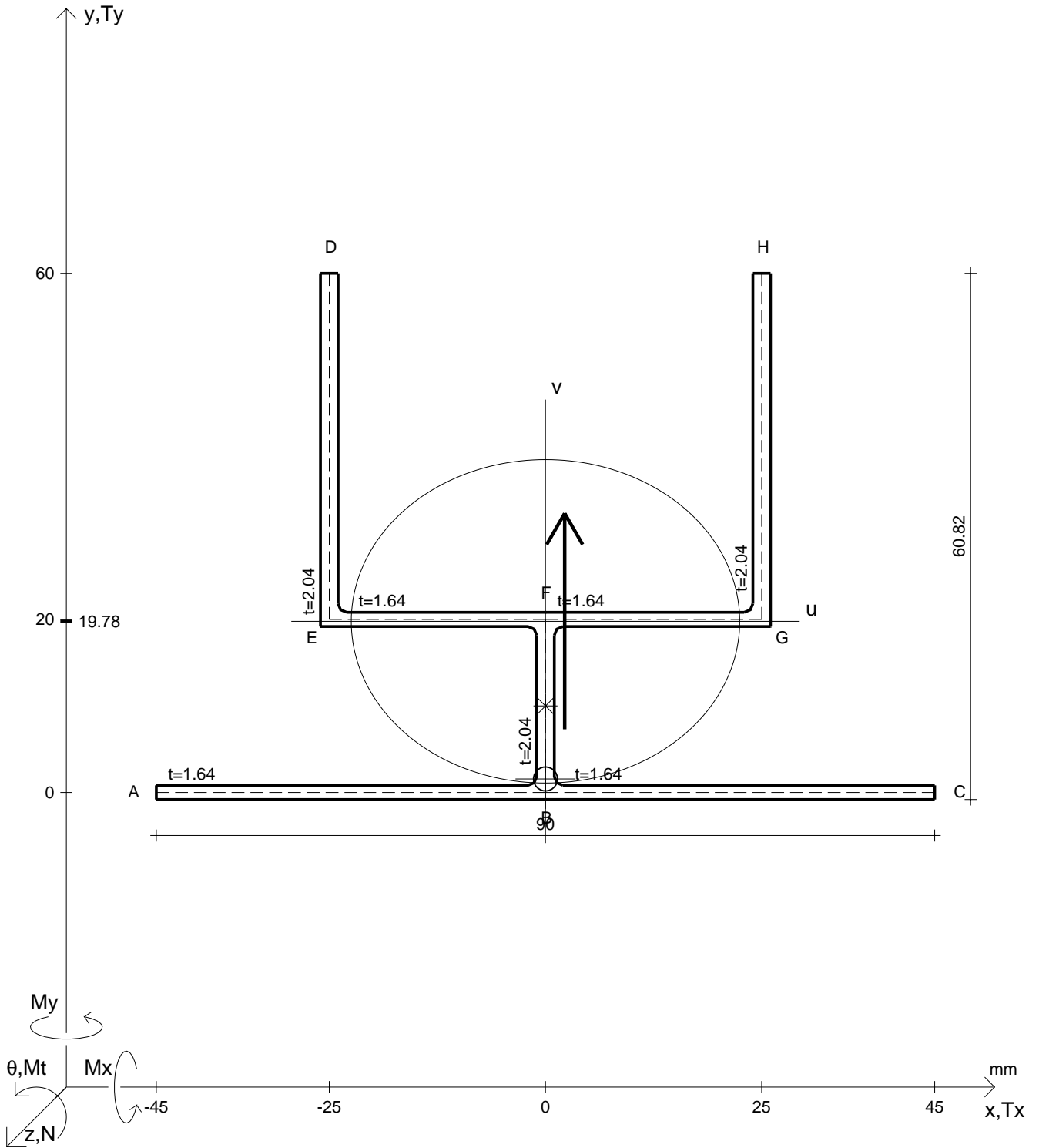




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4590 N	$M_x = -61400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1370 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.19 \text{ N/mm}^2$
$M_t = 4330 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.17 \text{ N/mm}^2$
$y_G = 21.31 \text{ mm}$	$\tau(M_t)_d = 17.27 \text{ N/mm}^2$	$\sigma_{mises} = 54.3 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.01 \text{ N/mm}^2$	$\sigma_{st.ven} = 44.13 \text{ N/mm}^2$
$v_o = -20.8 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1058 / \text{m}$
$A^* = 449.9 \text{ mm}^2$	$\tau(T_y)_s = 13.01 \text{ N/mm}^2$	$r_u = 19.98 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.01 \text{ N/mm}^2$	$r_v = 22.56 \text{ mm}$
$C_w = 25323660 \text{ mm}^6$	$\sigma = 14.07 \text{ N/mm}^2$	$r_o = 36.61 \text{ mm}$
$J_u = 179558 \text{ mm}^4$	$\tau_s = -4.262 \text{ N/mm}^2$	$J_p = 603084 \text{ mm}^4$
$J_v = 228913 \text{ mm}^4$	$\tau_d = 30.28 \text{ N/mm}^2$	
$J_t = 511.5 \text{ mm}^4$	$\sigma_{ls} = 38.12 \text{ N/mm}^2$	
$\sigma(N) = 10.2 \text{ N/mm}^2$	$\sigma_{lls} = -24.05 \text{ N/mm}^2$	
$\sigma(M_x) = 3.867 \text{ N/mm}^2$	$\sigma_{ld} = 15.26 \text{ N/mm}^2$	

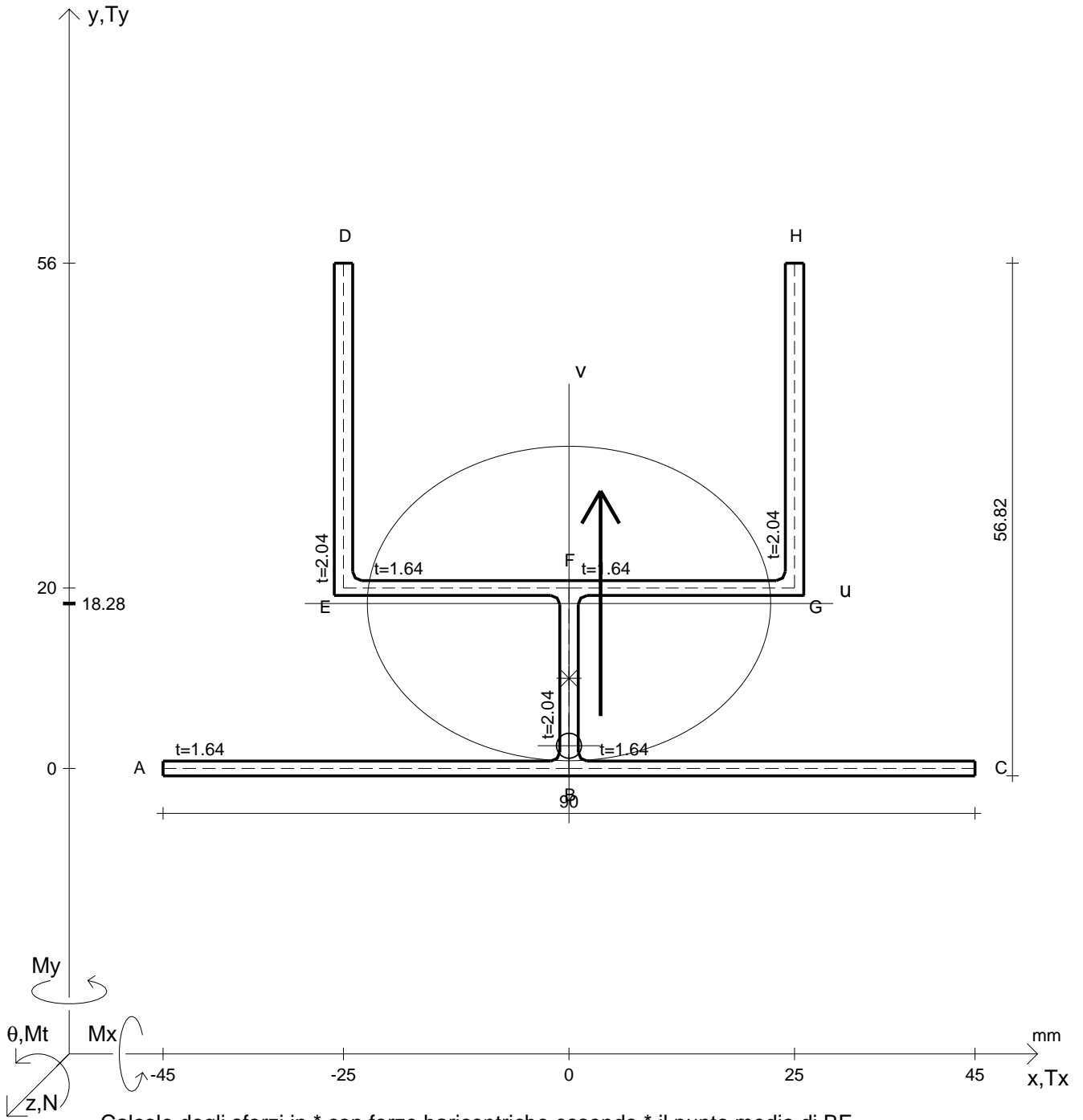




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4890 N	M <sub>t</sub> = 3060 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1380 N	M <sub>x</sub> = -61500 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.44 N/mm <sup>2</sup>
y <sub>G</sub> = 19.78 mm	J <sub>t</sub> = 488.8 mm <sup>4</sup>	σ = 15.25 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.97 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.28 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.611 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07825 /m
v <sub>o</sub> = -18.22 mm	σ(M <sub>x</sub> ) = 3.97 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.15 N/mm <sup>2</sup>	r <sub>u</sub> = 18.69 mm
A* = 433.6 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.77 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.83 N/mm <sup>2</sup>	r <sub>v</sub> = 22.46 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.38 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.58 N/mm <sup>2</sup>	r <sub>o</sub> = 34.43 mm
C <sub>w</sub> = 19899592 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.42 N/mm <sup>2</sup>	J <sub>p</sub> = 514097 mm <sup>4</sup>
J <sub>u</sub> = 151499 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.38 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1685 N/mm <sup>2</sup>	
J <sub>v</sub> = 218713 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.38 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.4 N/mm <sup>2</sup>	

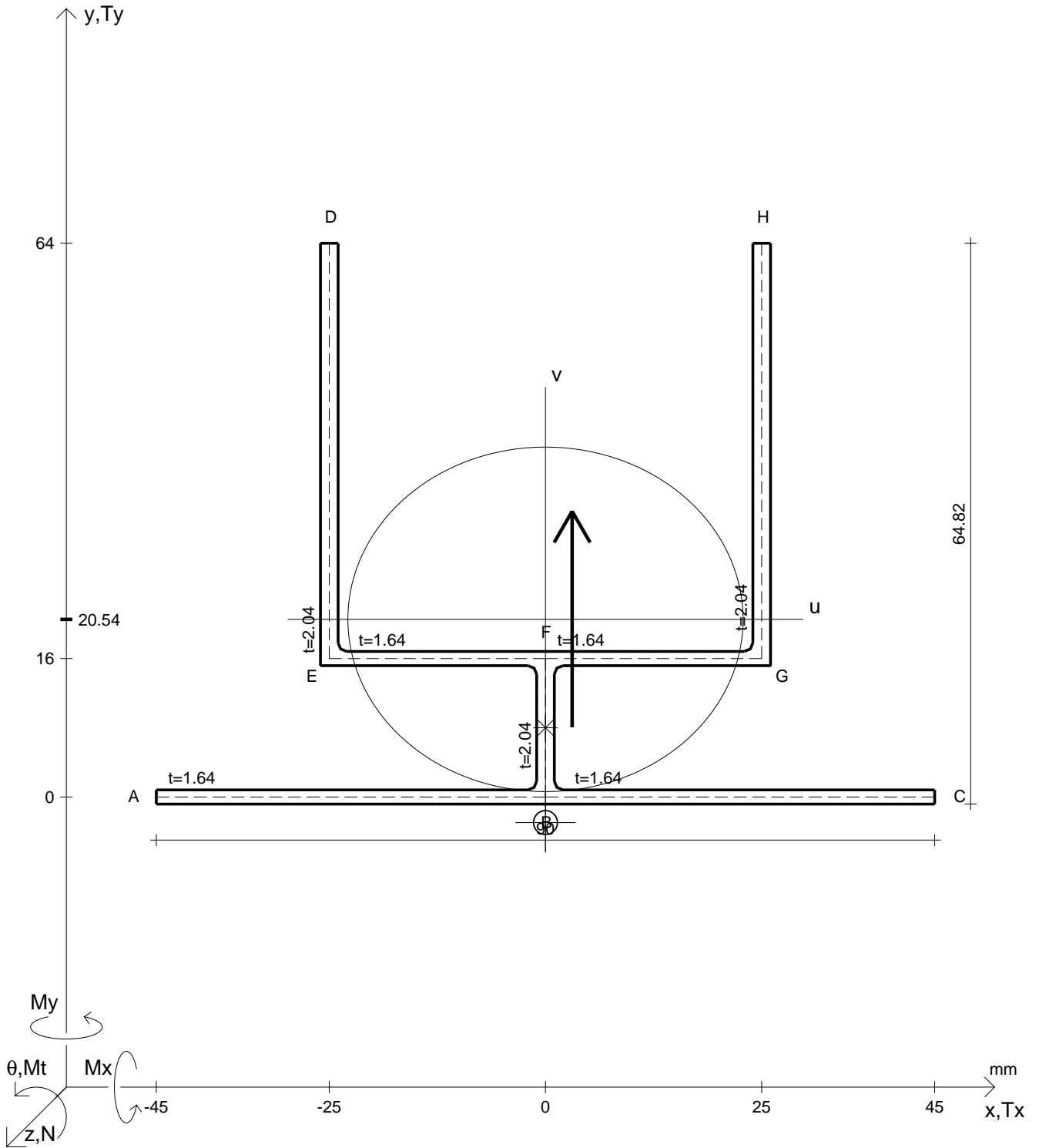




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5150 N	$M_x = -60500 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 931 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7473 \text{ N/mm}^2$
$M_t = 3260 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.52 \text{ N/mm}^2$
$y_G = 18.28 \text{ mm}$	$\tau(M_t)_d = 14.27 \text{ N/mm}^2$	$\sigma_{mises} = 46.2 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.7 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.93 \text{ N/mm}^2$
$v_o = -15.76 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08741 / m$
$A^* = 417.3 \text{ mm}^2$	$\tau(T_y)_s = 10.7 \text{ N/mm}^2$	$r_u = 17.43 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.7 \text{ N/mm}^2$	$r_v = 22.35 \text{ mm}$
$C_w = 15791732 \text{ mm}^6$	$\sigma = 16.3 \text{ N/mm}^2$	$r_o = 32.43 \text{ mm}$
$J_u = 126703 \text{ mm}^4$	$\tau_s = -3.569 \text{ N/mm}^2$	$J_p = 438921 \text{ mm}^4$
$J_v = 208513 \text{ mm}^4$	$\tau_d = 24.96 \text{ N/mm}^2$	
$J_t = 466.2 \text{ mm}^4$	$\sigma_{ls} = 34.41 \text{ N/mm}^2$	
$\sigma(N) = 12.34 \text{ N/mm}^2$	$\sigma_{lls} = -18.11 \text{ N/mm}^2$	
$\sigma(M_x) = 3.955 \text{ N/mm}^2$	$\sigma_{ld} = 17.04 \text{ N/mm}^2$	



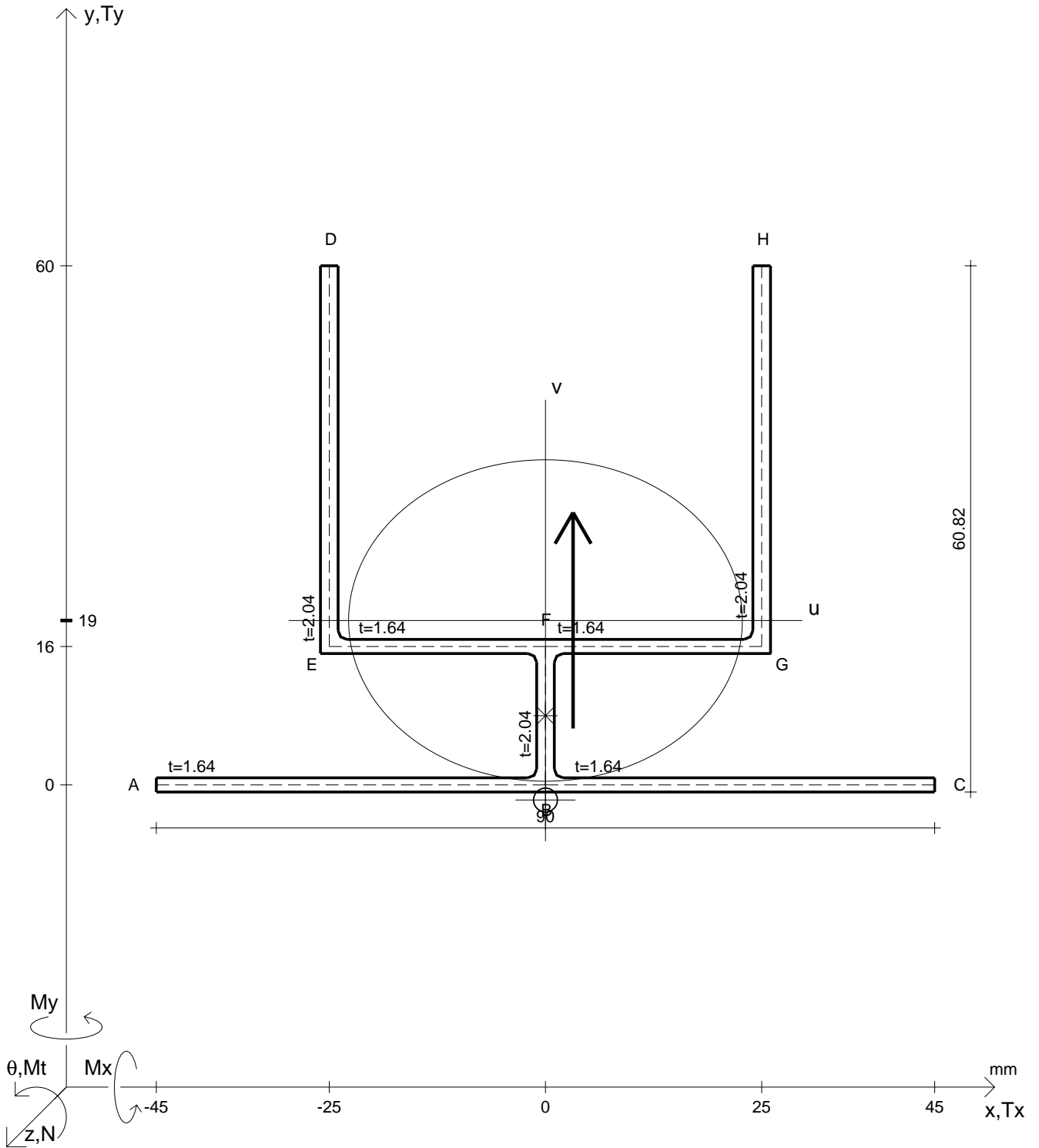


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4180 N	M <sub>t</sub> = 4040 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1310 N	M <sub>x</sub> = -82500 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.78 N/mm <sup>2</sup>
y <sub>G</sub> = 20.54 mm	J <sub>t</sub> = 522.8 mm <sup>4</sup>	σ = 14.82 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 41.09 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 9.125 N/mm <sup>2</sup>	τ <sub>s</sub> = -4.09 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.0966 /m
v <sub>o</sub> = -23.49 mm	σ(M <sub>x</sub> ) = 5.696 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.44 N/mm <sup>2</sup>	r <sub>u</sub> = 19.91 mm
A* = 458.1 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 15.76 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.83 N/mm <sup>2</sup>	r <sub>v</sub> = 22.85 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 11.68 N/mm <sup>2</sup>	σ <sub>lIs</sub> = -21.01 N/mm <sup>2</sup>	r <sub>o</sub> = 38.34 mm
C <sub>w</sub> = 33624000 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.87 N/mm <sup>2</sup>	J <sub>p</sub> = 673366 mm <sup>4</sup>
J <sub>u</sub> = 181555 mm <sup>4</sup>	τ(T <sub>ys</sub> ) = 11.68 N/mm <sup>2</sup>	σ <sub>lId</sub> = -1.054 N/mm <sup>2</sup>	
J <sub>v</sub> = 239113 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 11.68 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.85 N/mm <sup>2</sup>	



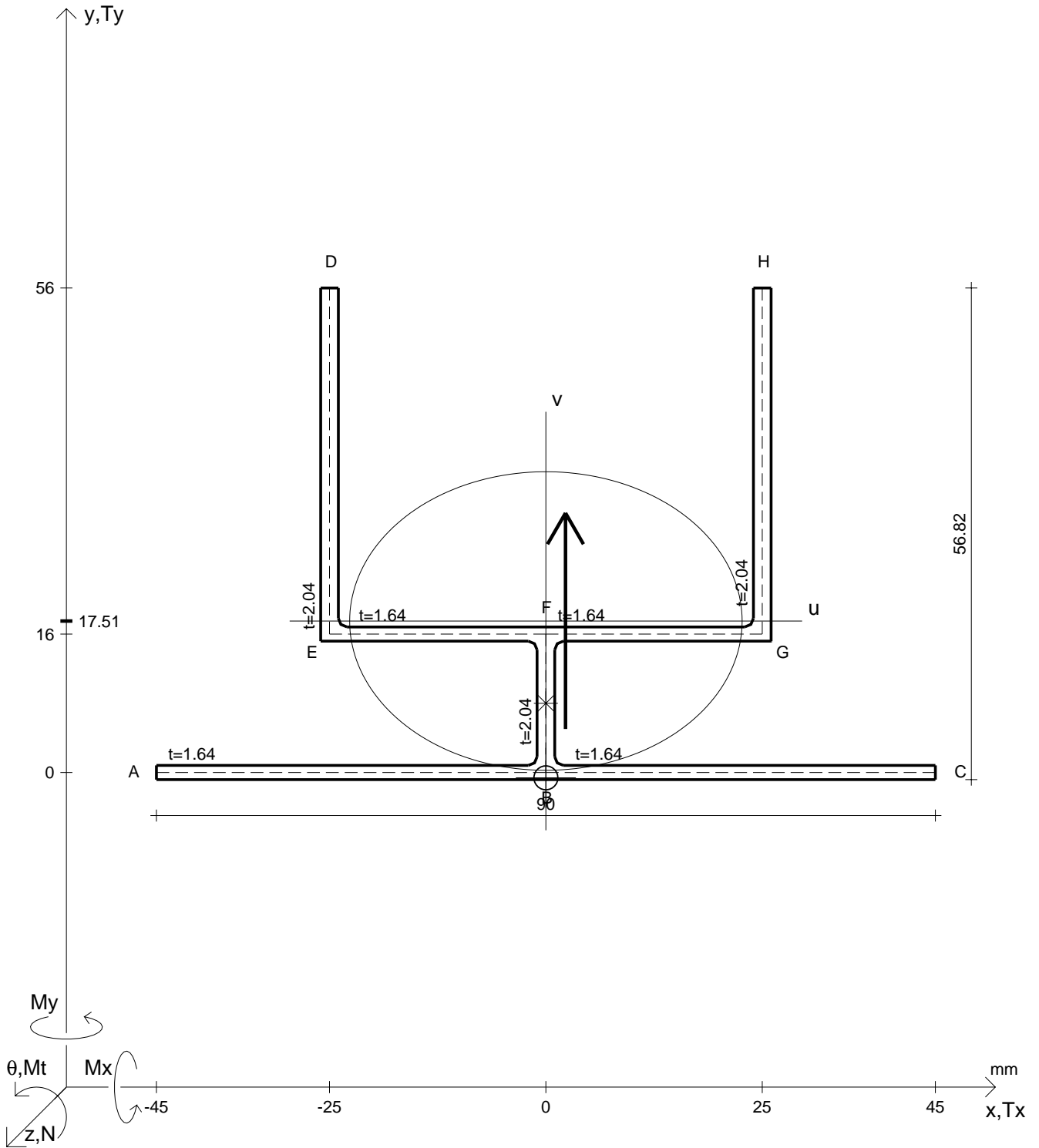




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 4500 \text{ N}$	$M_t = 4240 \text{ Nmm}$	$\sigma_a = 50 \text{ N/mm}^2$	$G = 80000 \text{ N/mm}^2$
$T_y = 1330 \text{ N}$	$M_x = -54300 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 54.41 \text{ N/mm}^2$
$y_G = 19 \text{ mm}$	$J_t = 500.2 \text{ mm}^4$	$\sigma = 14.11 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 44.22 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\sigma(N) = 10.19 \text{ N/mm}^2$	$\tau_s = -4.25 \text{ N/mm}^2$	$\theta_t = 0.106 / \text{m}$
$v_o = -20.75 \text{ mm}$	$\sigma(M_x) = 3.92 \text{ N/mm}^2$	$\tau_d = 30.34 \text{ N/mm}^2$	$r_u = 18.58 \text{ mm}$
$A^* = 441.8 \text{ mm}^2$	$\tau(M_t)_d = 17.29 \text{ N/mm}^2$	$\sigma_{\text{Is}} = 38.2 \text{ N/mm}^2$	$r_v = 22.76 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_{yG}) = 13.04 \text{ N/mm}^2$	$\sigma_{\text{IIs}} = -24.09 \text{ N/mm}^2$	$r_o = 35.97 \text{ mm}$
$C_w = 25815644 \text{ mm}^6$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{\text{Id}} = 15.29 \text{ N/mm}^2$	$J_p = 571557 \text{ mm}^4$
$J_u = 152437 \text{ mm}^4$	$\tau(T_y)_s = 13.04 \text{ N/mm}^2$	$\sigma_{\text{IId}} = -1.182 \text{ N/mm}^2$	
$J_v = 228913 \text{ mm}^4$	$\tau(T_y)_d = 13.04 \text{ N/mm}^2$	$\sigma_{\text{tresca}} = 62.29 \text{ N/mm}^2$	

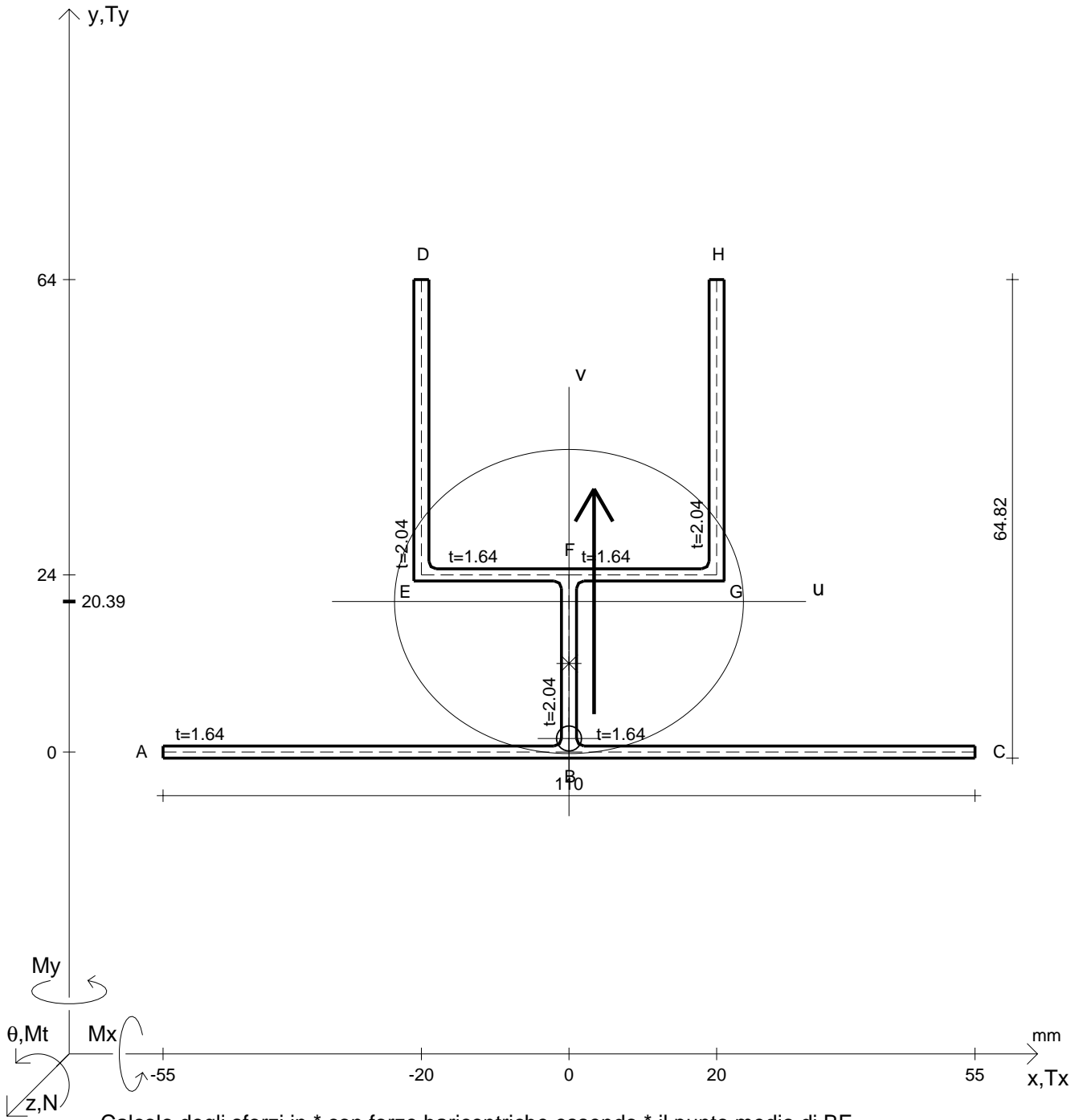




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4800 N	M <sub>t</sub> = 2990 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1320 N	M <sub>x</sub> = -53700 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.38 N/mm <sup>2</sup>
y <sub>G</sub> = 17.51 mm	J <sub>t</sub> = 477.5 mm <sup>4</sup>	σ = 15.31 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.95 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.28 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.555 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07827 /m
v <sub>o</sub> = -18.12 mm	σ(M <sub>x</sub> ) = 4.031 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.1 N/mm <sup>2</sup>	r <sub>u</sub> = 17.25 mm
A* = 425.4 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.77 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.82 N/mm <sup>2</sup>	r <sub>v</sub> = 22.67 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.33 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.51 N/mm <sup>2</sup>	r <sub>o</sub> = 33.77 mm
C <sub>w</sub> = 19522416 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.47 N/mm <sup>2</sup>	J <sub>p</sub> = 485091 mm <sup>4</sup>
J <sub>u</sub> = 126644 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.33 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1564 N/mm <sup>2</sup>	
J <sub>v</sub> = 218713 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.33 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.33 N/mm <sup>2</sup>	

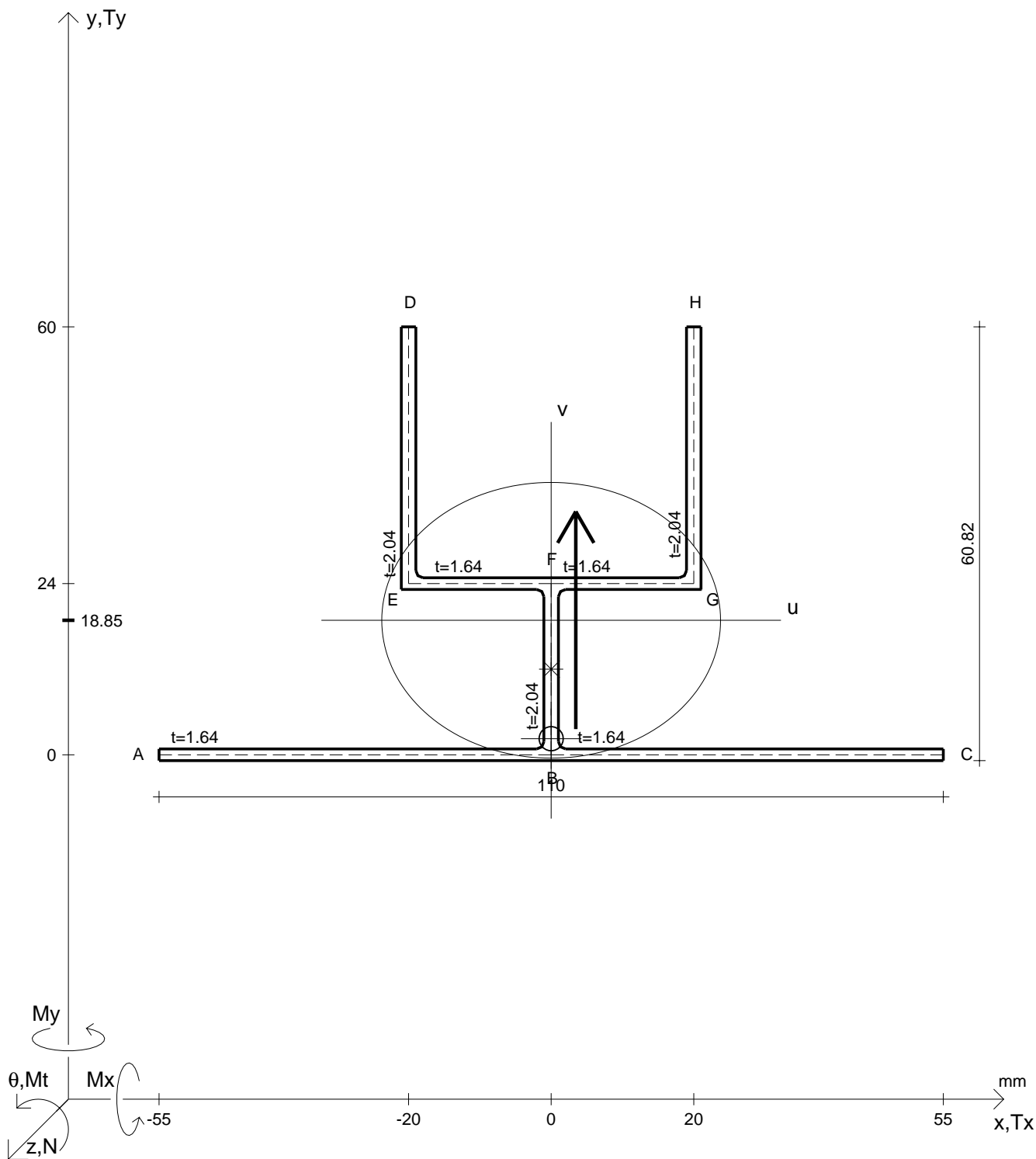




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5650 N	$M_x = -80300 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1060 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7362 \text{ N/mm}^2$
$M_t = 3600 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.51 \text{ N/mm}^2$
$y_G = 20.39 \text{ mm}$	$\tau(M_t)_d = 14.26 \text{ N/mm}^2$	$\sigma_{mises} = 46.16 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.78 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.74 \text{ N/mm}^2$
$v_o = -18.55 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.0874 / \text{m}$
$A^* = 458.2 \text{ mm}^2$	$\tau(T_y)_s = 10.78 \text{ N/mm}^2$	$r_u = 20.6 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.78 \text{ N/mm}^2$	$r_v = 23.63 \text{ mm}$
$C_w = 13919610 \text{ mm}^6$	$\sigma = 15.8 \text{ N/mm}^2$	$r_o = 36.43 \text{ mm}$
$J_u = 194386 \text{ mm}^4$	$\tau_s = -3.489 \text{ N/mm}^2$	$J_p = 607993 \text{ mm}^4$
$J_v = 255930 \text{ mm}^4$	$\tau_d = 25.04 \text{ N/mm}^2$	
$J_t = 514.9 \text{ mm}^4$	$\sigma_{ls} = 34.16 \text{ N/mm}^2$	
$\sigma(N) = 12.33 \text{ N/mm}^2$	$\sigma_{lls} = -18.36 \text{ N/mm}^2$	
$\sigma(M_x) = 3.467 \text{ N/mm}^2$	$\sigma_{ld} = 16.53 \text{ N/mm}^2$	



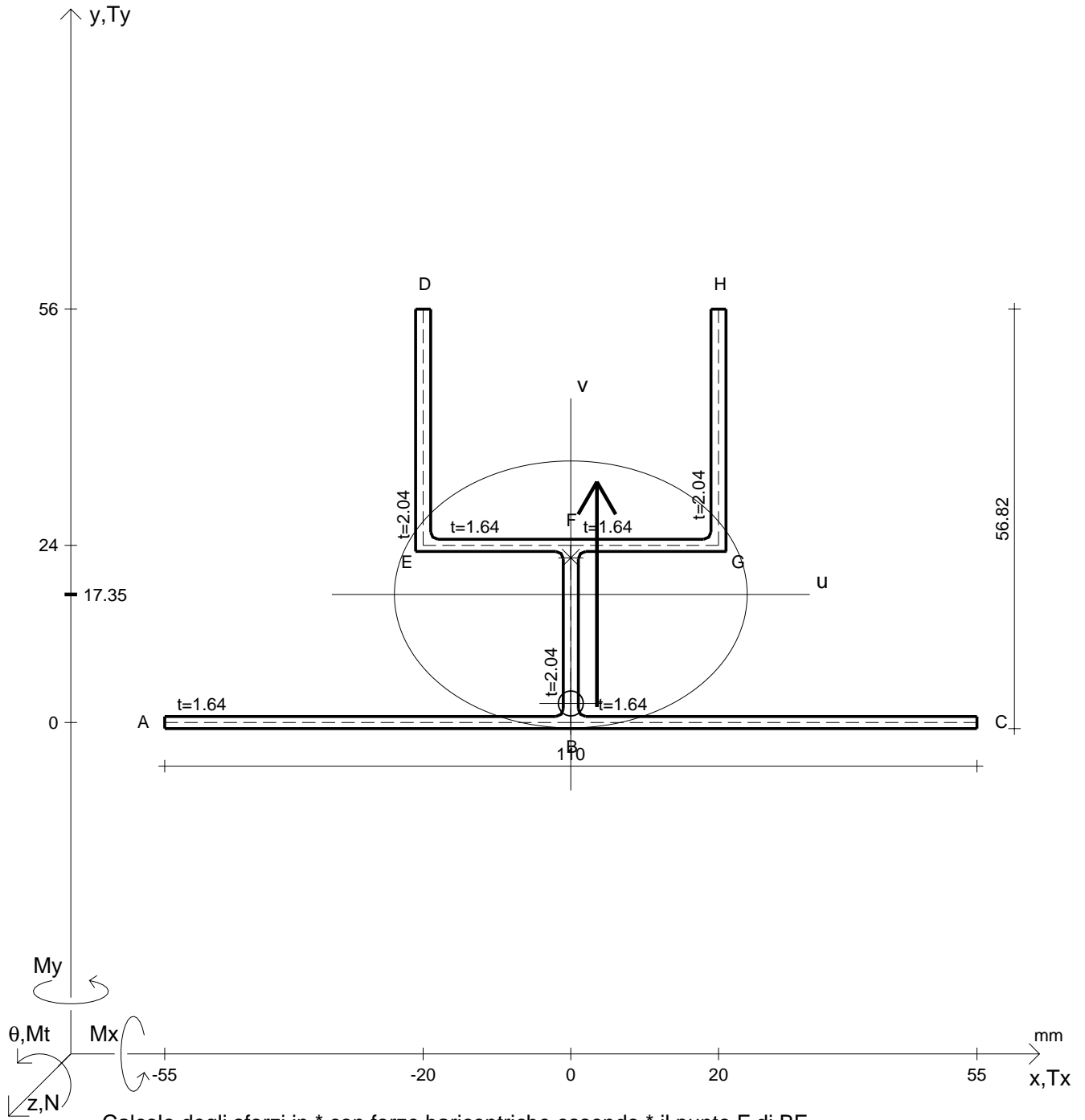


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4020 N	M <sub>t</sub> = 3800 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1100 N	M <sub>x</sub> = -79000 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.87 N/mm <sup>2</sup>
y <sub>G</sub> = 18.85 mm	J <sub>t</sub> = 492.2 mm <sup>4</sup>	σ = 12.38 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.35 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 9.098 N/mm <sup>2</sup>	τ <sub>s</sub> = -3.61 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.0965 /m
v <sub>o</sub> = -16.6 mm	σ(M <sub>x</sub> ) = 3.281 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.89 N/mm <sup>2</sup>	r <sub>u</sub> = 19.33 mm
A* = 441.8 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 15.75 N/mm <sup>2</sup>	σ <sub>Is</sub> = 34.76 N/mm <sup>2</sup>	r <sub>v</sub> = 23.76 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 12.14 N/mm <sup>2</sup>	σ <sub>lls</sub> = -22.38 N/mm <sup>2</sup>	r <sub>o</sub> = 34.84 mm
C <sub>w</sub> = 12230014 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 13.35 N/mm <sup>2</sup>	J <sub>p</sub> = 536220 mm <sup>4</sup>
J <sub>u</sub> = 165067 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 12.14 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.9758 N/mm <sup>2</sup>	
J <sub>v</sub> = 249402 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 12.14 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 57.13 N/mm <sup>2</sup>	



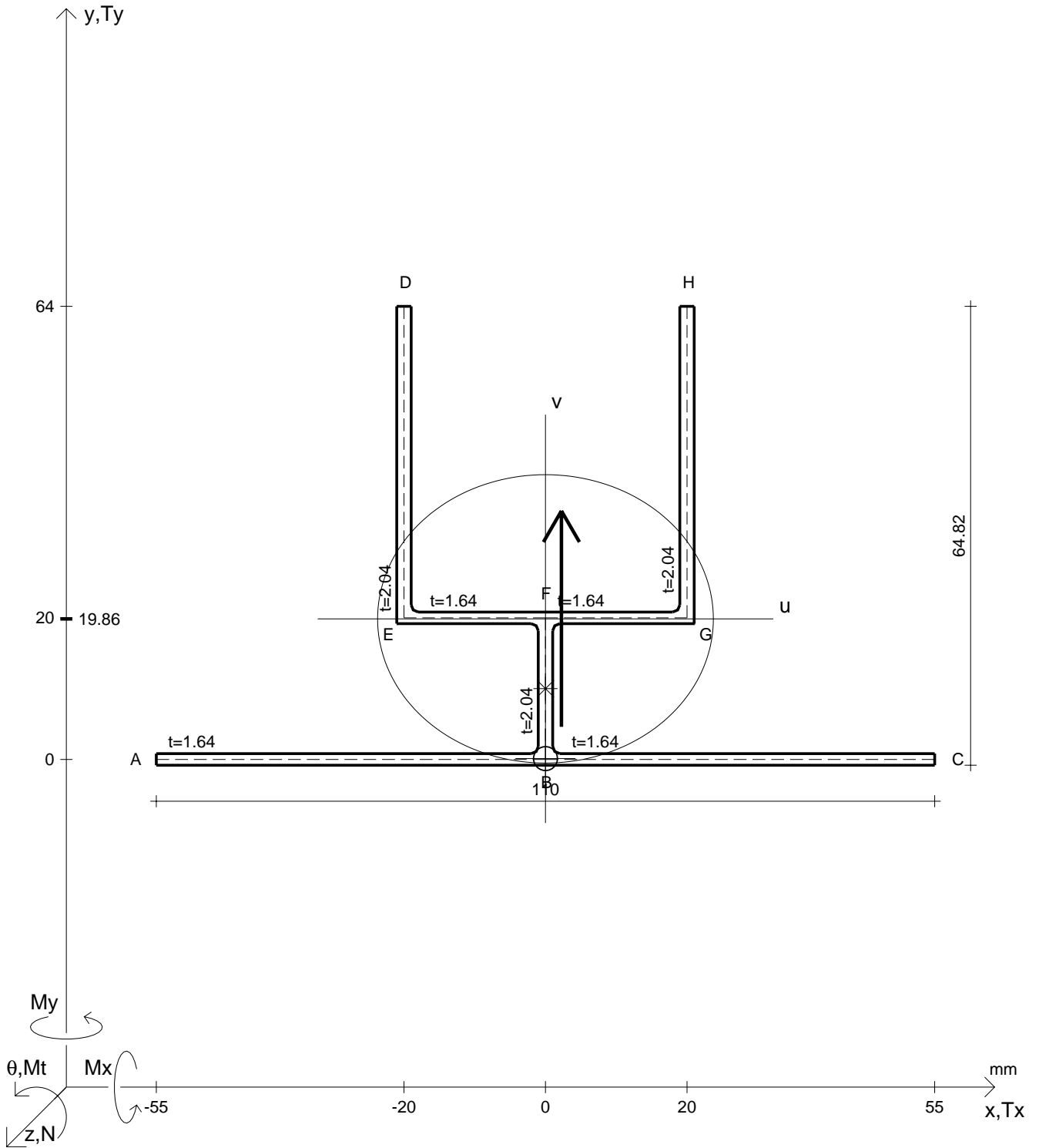




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto F di BF

N = 4320 N	$M_x = 52300 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1120 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{Ild} = -1.059 \text{ N/mm}^2$
$M_t = 3960 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.49 \text{ N/mm}^2$
$y_G = 17.35 \text{ mm}$	$\tau(M_t)_d = 17.2 \text{ N/mm}^2$	$\sigma_{mises} = 54.48 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.39 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.8 \text{ N/mm}^2$
$v_o = -14.77 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1054 /m$
$A^* = 425.5 \text{ mm}^2$	$\tau(T_y)_s = 13.39 \text{ N/mm}^2$	$r_u = 18.08 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.39 \text{ N/mm}^2$	$r_v = 23.89 \text{ mm}$
$C_w = 11214532 \text{ mm}^6$	$\sigma = 12.65 \text{ N/mm}^2$	$r_o = 33.4 \text{ mm}$
$J_u = 139078 \text{ mm}^4$	$\tau_s = -3.811 \text{ N/mm}^2$	$J_p = 474769 \text{ mm}^4$
$J_v = 242874 \text{ mm}^4$	$\tau_d = 30.6 \text{ N/mm}^2$	
$J_t = 469.6 \text{ mm}^4$	$\sigma_{Is} = 37.57 \text{ N/mm}^2$	
$\sigma(N) = 10.15 \text{ N/mm}^2$	$\sigma_{Ils} = -24.92 \text{ N/mm}^2$	
$\sigma(M_x) = 2.499 \text{ N/mm}^2$	$\sigma_{Id} = 13.71 \text{ N/mm}^2$	

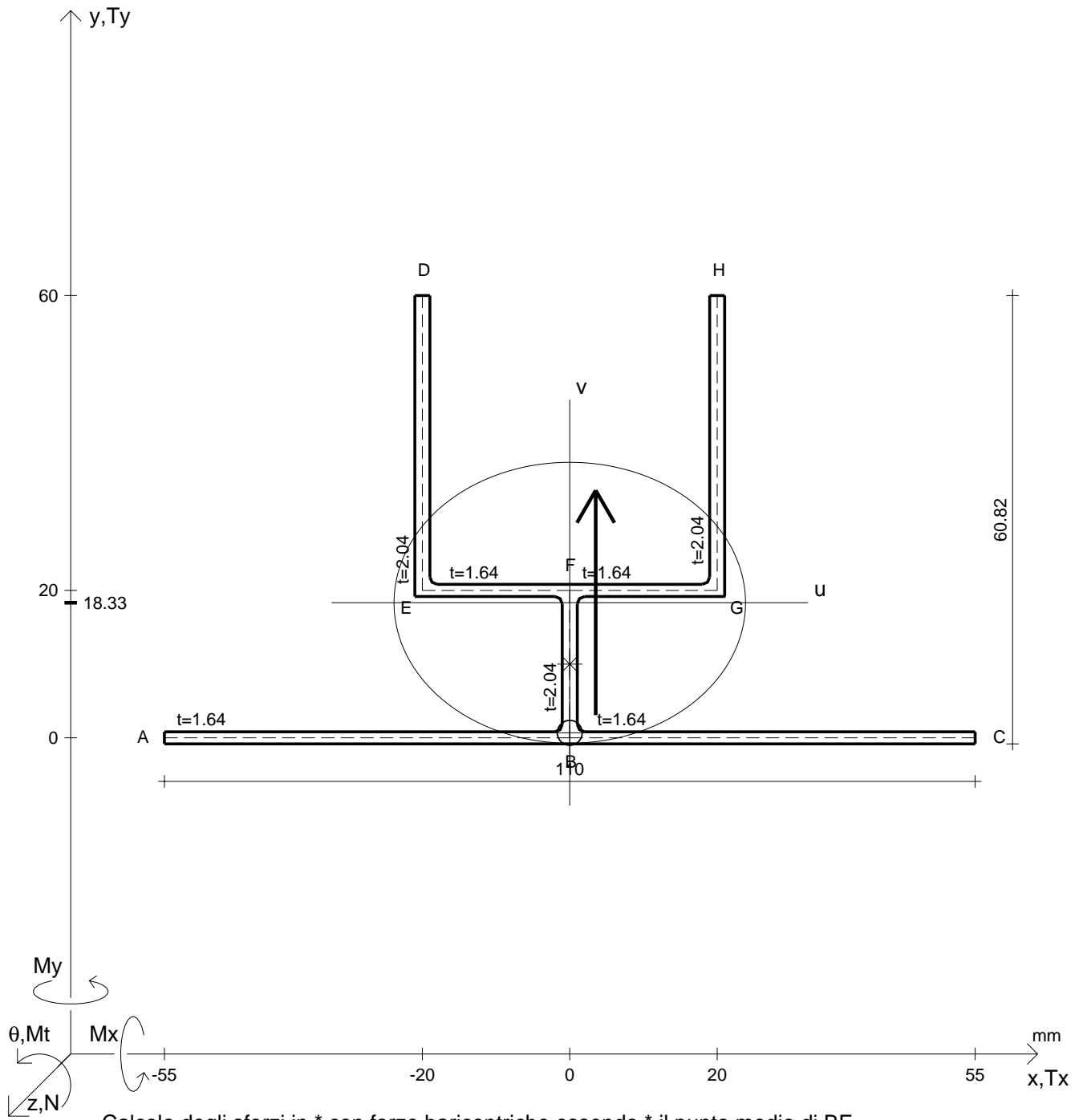




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 5260 \text{ N}$	$M_t = 3290 \text{ Nmm}$	$\sigma_a = 50 \text{ N/mm}^2$	$G = 80000 \text{ N/mm}^2$
$T_y = 1460 \text{ N}$	$M_x = -71500 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 49.3 \text{ N/mm}^2$
$y_G = 19.86 \text{ mm}$	$J_t = 526.2 \text{ mm}^4$	$\sigma = 14.92 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 40.77 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\sigma(N) = 11.28 \text{ N/mm}^2$	$\tau_s = 1.619 \text{ N/mm}^2$	$\theta_t = 0.07816 / \text{m}$
$v_o = -19.74 \text{ mm}$	$\sigma(M_x) = 3.643 \text{ N/mm}^2$	$\tau_d = 27.13 \text{ N/mm}^2$	$r_u = 20.37 \text{ mm}$
$A^* = 466.3 \text{ mm}^2$	$\tau(M_t)_d = 12.76 \text{ N/mm}^2$	$\sigma_{\text{IIs}} = 35.6 \text{ N/mm}^2$	$r_v = 23.72 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_{yG}) = 14.37 \text{ N/mm}^2$	$\sigma_{\text{IIId}} = 15.1 \text{ N/mm}^2$	$r_o = 36.98 \text{ mm}$
$C_w = 15367185 \text{ mm}^6$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{\text{IIId}} = -0.1737 \text{ N/mm}^2$	$J_p = 637571 \text{ mm}^4$
$J_u = 193441 \text{ mm}^4$	$\tau(T_y)_s = 14.37 \text{ N/mm}^2$	$\sigma_{\text{tresca}} = 56.28 \text{ N/mm}^2$	
$J_v = 262458 \text{ mm}^4$	$\tau(T_y)_d = 14.37 \text{ N/mm}^2$		

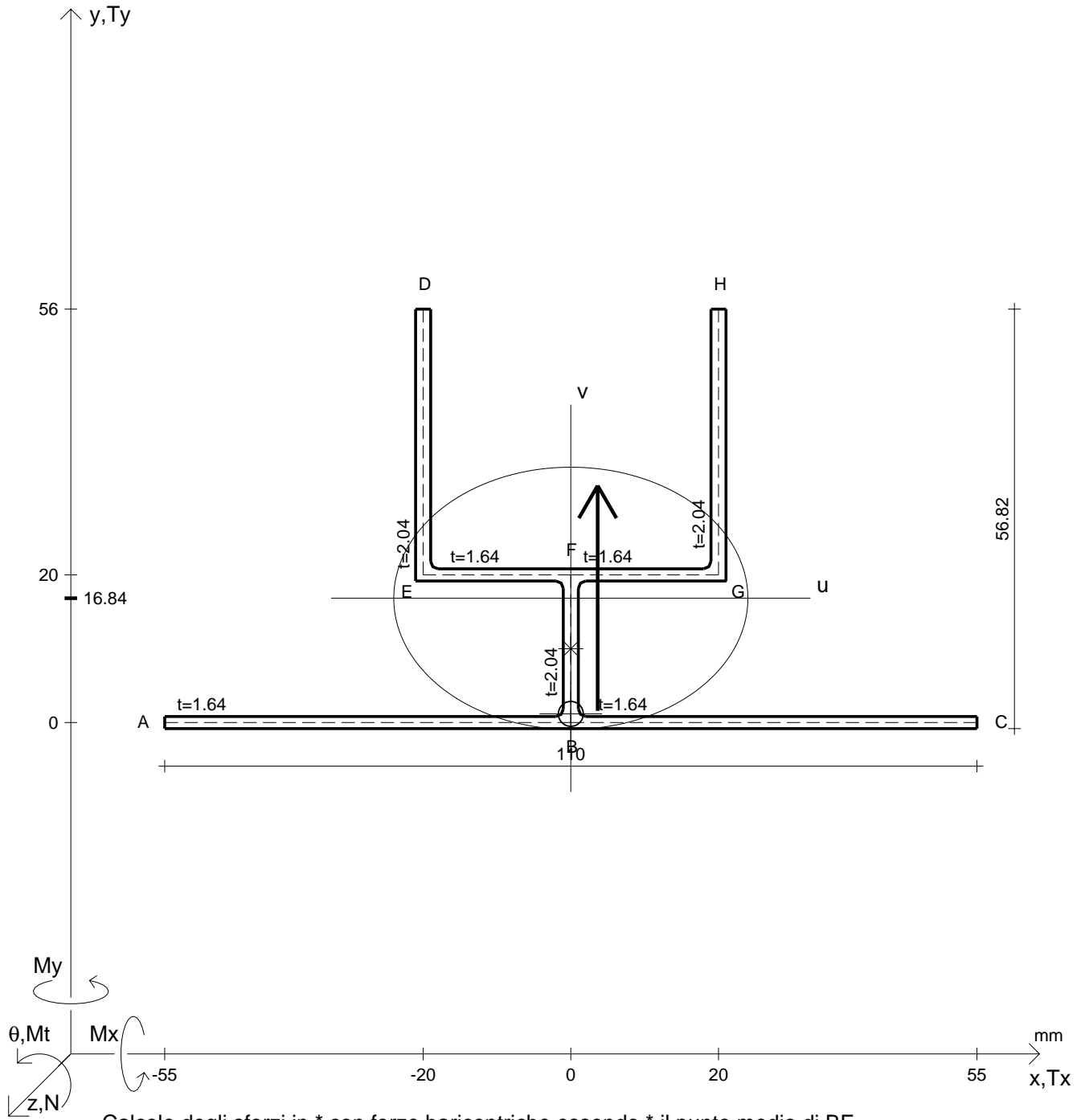




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 5550 \text{ N}$	$M_x = -70700 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1000 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 3520 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 18.33 \text{ mm}$	$\tau(M_t)_d = 14.26 \text{ N/mm}^2$	$\sigma_{lld} = -0.7446 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.74 \text{ N/mm}^2$	$\sigma_{tresca} = 52.47 \text{ N/mm}^2$
$v_o = -17.65 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 46.14 \text{ N/mm}^2$
$A^* = 450 \text{ mm}^2$	$\tau(T_y)_s = 10.74 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.77 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.74 \text{ N/mm}^2$	$\theta_t = 0.08738 / m$
$C_w = 12083096 \text{ mm}^6$	$\sigma = 15.94 \text{ N/mm}^2$	$r_u = 19.05 \text{ mm}$
$J_u = 163383 \text{ mm}^4$	$\tau_s = -3.524 \text{ N/mm}^2$	$r_v = 23.85 \text{ mm}$
$J_v = 255930 \text{ mm}^4$	$\tau_d = 25 \text{ N/mm}^2$	$r_o = 35.26 \text{ mm}$
$J_t = 503.5 \text{ mm}^4$	$\sigma_{ls} = 34.21 \text{ N/mm}^2$	$J_p = 559425 \text{ mm}^4$
$\sigma(N) = 12.33 \text{ N/mm}^2$	$\sigma_{lls} = -18.27 \text{ N/mm}^2$	
$\sigma(M_x) = 3.604 \text{ N/mm}^2$	$\sigma_{ld} = 16.68 \text{ N/mm}^2$	



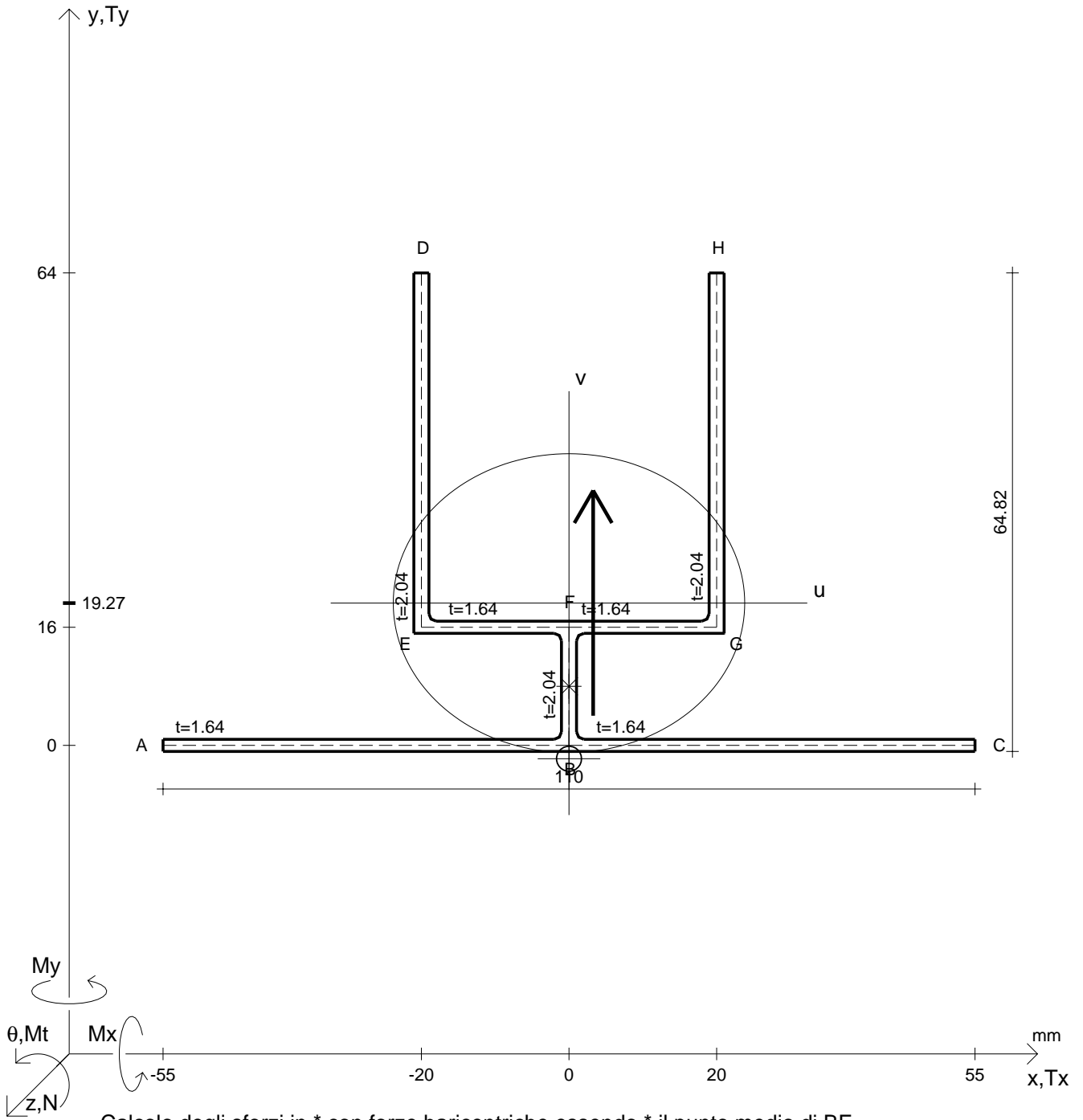


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 3950 N	$M_x = -68900 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1020 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{Ild} = -1.033 \text{ N/mm}^2$
$M_t = 3710 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 56.86 \text{ N/mm}^2$
$y_G = 16.84 \text{ mm}$	$\tau(M_t)_d = 15.74 \text{ N/mm}^2$	$\sigma_{mises} = 49.64 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.99 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.25 \text{ N/mm}^2$
$v_o = -15.66 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09643 / m$
$A^* = 433.7 \text{ mm}^2$	$\tau(T_y)_s = 11.99 \text{ N/mm}^2$	$r_u = 17.75 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.99 \text{ N/mm}^2$	$r_v = 23.98 \text{ mm}$
$C_w = 9735992 \text{ mm}^6$	$\sigma = 12.55 \text{ N/mm}^2$	$r_o = 33.7 \text{ mm}$
$J_u = 136711 \text{ mm}^4$	$\tau_s = -3.747 \text{ N/mm}^2$	$J_p = 492513 \text{ mm}^4$
$J_v = 249402 \text{ mm}^4$	$\tau_d = 27.73 \text{ N/mm}^2$	
$J_t = 480.9 \text{ mm}^4$	$\sigma_{Is} = 34.71 \text{ N/mm}^2$	
$\sigma(N) = 9.108 \text{ N/mm}^2$	$\sigma_{Ils} = -22.15 \text{ N/mm}^2$	
$\sigma(M_x) = 3.445 \text{ N/mm}^2$	$\sigma_{Id} = 13.59 \text{ N/mm}^2$	



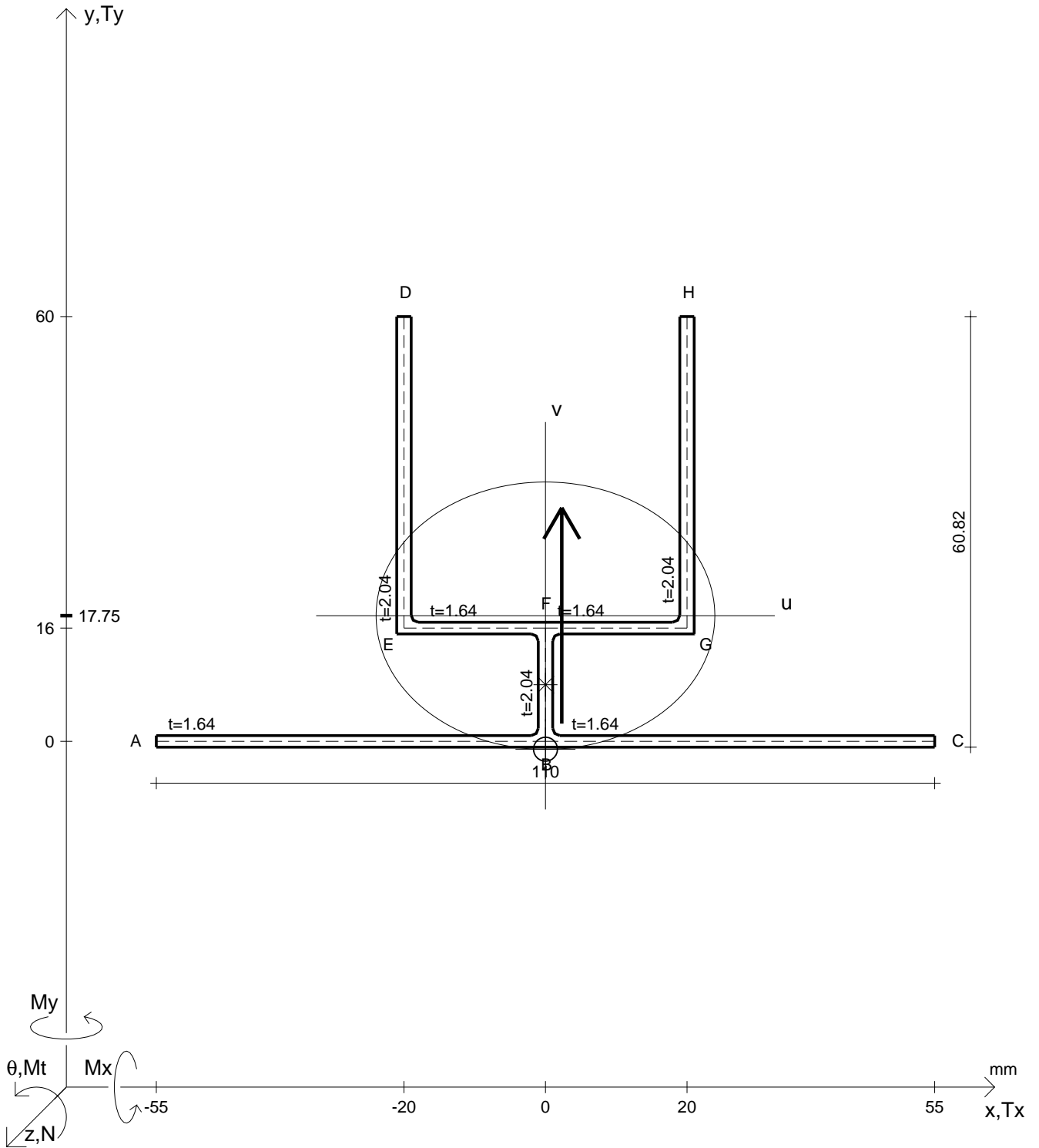




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4840 N	$M_x = -63400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1390 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.173 \text{ N/mm}^2$
$M_t = 4550 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.24 \text{ N/mm}^2$
$y_G = 19.27 \text{ mm}$	$\tau(M_t)_d = 17.27 \text{ N/mm}^2$	$\sigma_{mises} = 54.35 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.07 \text{ N/mm}^2$	$\sigma_{st.ven} = 44.1 \text{ N/mm}^2$
$v_o = -21.08 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1058 / \text{m}$
$A^* = 474.5 \text{ mm}^2$	$\tau(T_y)_s = 13.07 \text{ N/mm}^2$	$r_u = 20.24 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.07 \text{ N/mm}^2$	$r_v = 23.81 \text{ mm}$
$C_w = 21412384 \text{ mm}^6$	$\sigma = 13.88 \text{ N/mm}^2$	$r_o = 37.69 \text{ mm}$
$J_u = 194292 \text{ mm}^4$	$\tau_s = -4.202 \text{ N/mm}^2$	$J_p = 674158 \text{ mm}^4$
$J_v = 268986 \text{ mm}^4$	$\tau_d = 30.34 \text{ N/mm}^2$	
$J_t = 537.5 \text{ mm}^4$	$\sigma_{ls} = 38.06 \text{ N/mm}^2$	
$\sigma(N) = 10.2 \text{ N/mm}^2$	$\sigma_{lls} = -24.18 \text{ N/mm}^2$	
$\sigma(M_x) = 3.678 \text{ N/mm}^2$	$\sigma_{ld} = 15.05 \text{ N/mm}^2$	

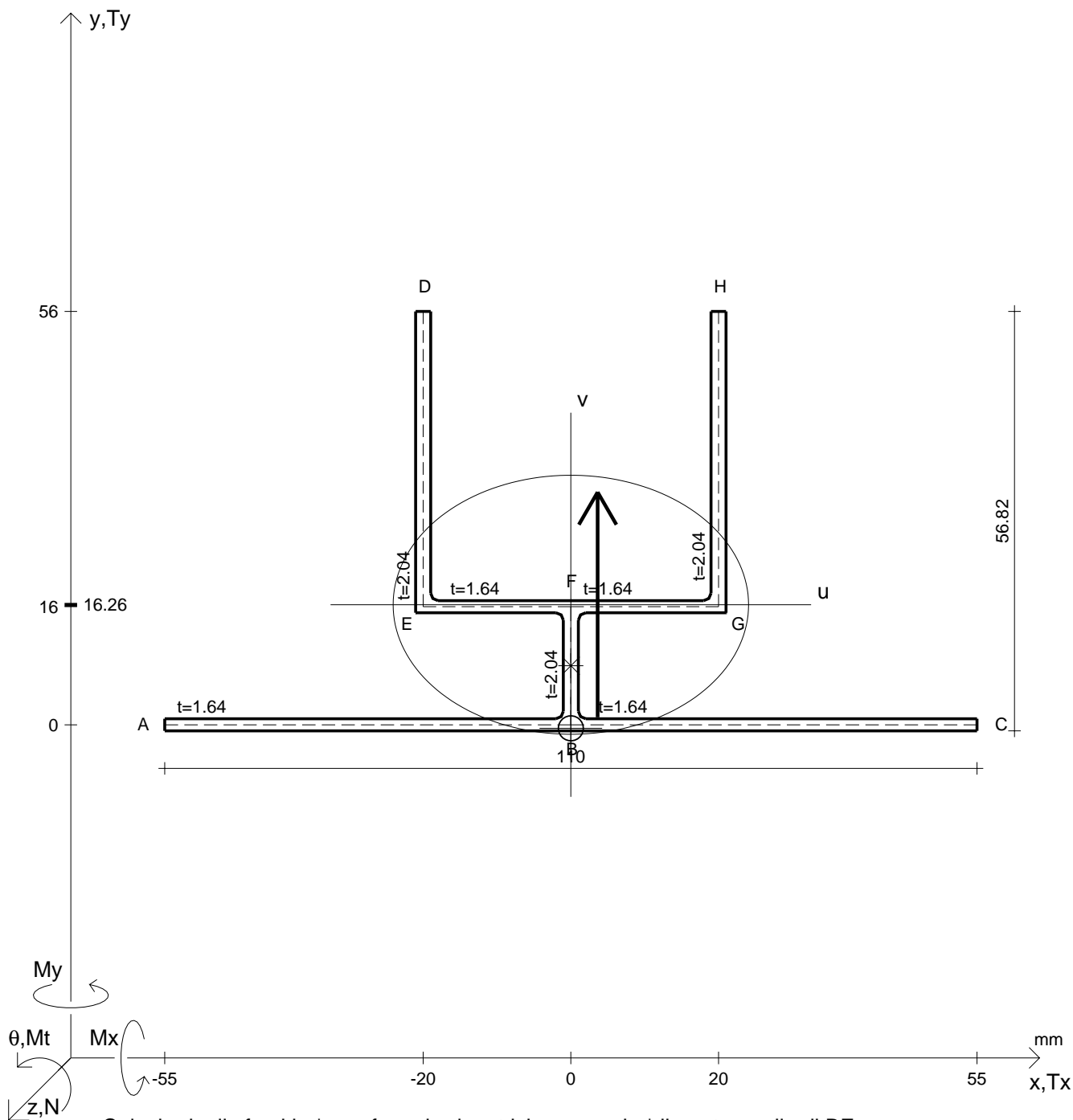




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5160 N	M <sub>t</sub> = 3220 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1400 N	M <sub>x</sub> = -63100 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.37 N/mm <sup>2</sup>
y <sub>G</sub> = 17.75 mm	J <sub>t</sub> = 514.9 mm <sup>4</sup>	σ = 15.03 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.85 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.26 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.632 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07818 /m
v <sub>o</sub> = -18.86 mm	σ(M <sub>x</sub> ) = 3.765 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.15 N/mm <sup>2</sup>	r <sub>u</sub> = 18.89 mm
A* = 458.2 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.76 N/mm <sup>2</sup>	σ <sub>ls</sub> = 35.68 N/mm <sup>2</sup>	r <sub>v</sub> = 23.93 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.39 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.66 N/mm <sup>2</sup>	r <sub>o</sub> = 35.85 mm
C <sub>w</sub> = 16086831 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 15.2 N/mm <sup>2</sup>	J <sub>p</sub> = 588817 mm <sup>4</sup>
J <sub>u</sub> = 163414 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.39 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1751 N/mm <sup>2</sup>	
J <sub>v</sub> = 262458 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.39 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.34 N/mm <sup>2</sup>	

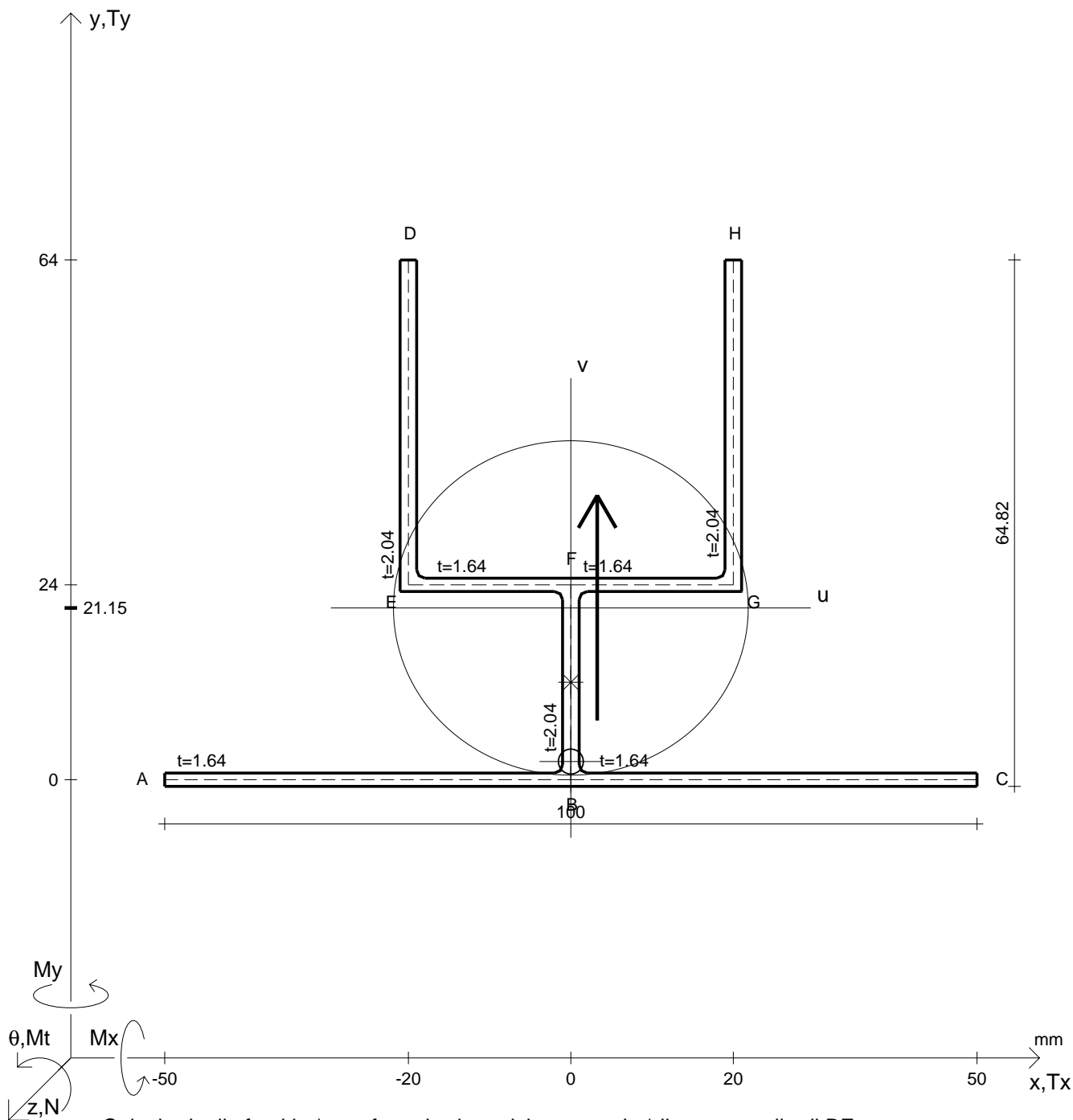




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5450 N	$M_x = -61700 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 948 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -0.7472 \text{ N/mm}^2$
$M_t = 3440 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 52.46 \text{ N/mm}^2$
$y_G = 16.26 \text{ mm}$	$\tau(M_t)_d = 14.26 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 46.14 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.71 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 38.82 \text{ N/mm}^2$
$v_o = -16.74 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08736 / \text{m}$
$A^* = 441.8 \text{ mm}^2$	$\tau(T_y)_s = 10.71 \text{ N/mm}^2$	$r_u = 17.54 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.71 \text{ N/mm}^2$	$r_v = 24.07 \text{ mm}$
$C_w = 11930255 \text{ mm}^6$	$\sigma = 16.08 \text{ N/mm}^2$	$r_o = 34.16 \text{ mm}$
$J_u = 135977 \text{ mm}^4$	$\tau_s = -3.546 \text{ N/mm}^2$	$J_p = 515680 \text{ mm}^4$
$J_v = 255930 \text{ mm}^4$	$\tau_d = 24.97 \text{ N/mm}^2$	
$J_t = 492.2 \text{ mm}^4$	$\sigma_{\text{ls}} = 34.27 \text{ N/mm}^2$	
$\sigma(N) = 12.33 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -18.19 \text{ N/mm}^2$	
$\sigma(M_x) = 3.75 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 16.83 \text{ N/mm}^2$	



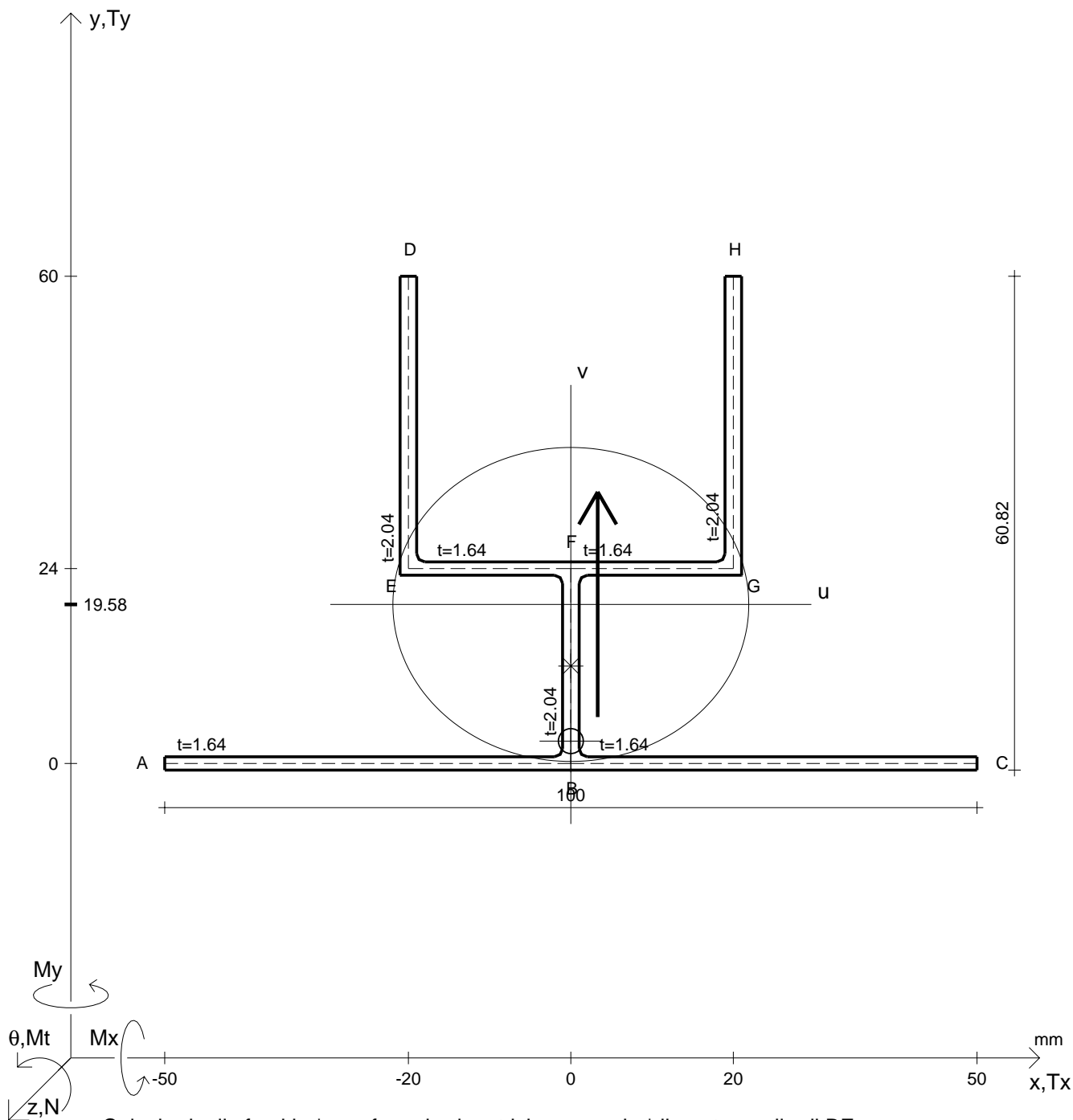


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 4020 \text{ N}$	$M_x = -86300 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1190 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 3860 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 21.15 \text{ mm}$	$\tau(M_t)_d = 15.74 \text{ N/mm}^2$	$\sigma_{lld} = -1.002 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.96 \text{ N/mm}^2$	$\sigma_{tresca} = 56.98 \text{ N/mm}^2$
$v_o = -18.91 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 49.79 \text{ N/mm}^2$
$A^* = 441.8 \text{ mm}^2$	$\tau(T_y)_s = 11.96 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.6 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.96 \text{ N/mm}^2$	$\theta_t = 0.09647 / m$
$C_w = 13733471 \text{ mm}^6$	$\sigma = 13.32 \text{ N/mm}^2$	$r_u = 20.59 \text{ mm}$
$J_u = 187313 \text{ mm}^4$	$\tau_s = -3.788 \text{ N/mm}^2$	$r_v = 21.84 \text{ mm}$
$J_v = 210693 \text{ mm}^4$	$\tau_d = 27.7 \text{ N/mm}^2$	$r_o = 35.48 \text{ mm}$
$J_t = 500.2 \text{ mm}^4$	$\sigma_{ls} = 35.15 \text{ N/mm}^2$	$J_p = 556028 \text{ mm}^4$
$\sigma(N) = 9.1 \text{ N/mm}^2$	$\sigma_{lls} = -21.83 \text{ N/mm}^2$	
$\sigma(M_x) = 4.215 \text{ N/mm}^2$	$\sigma_{ld} = 14.32 \text{ N/mm}^2$	



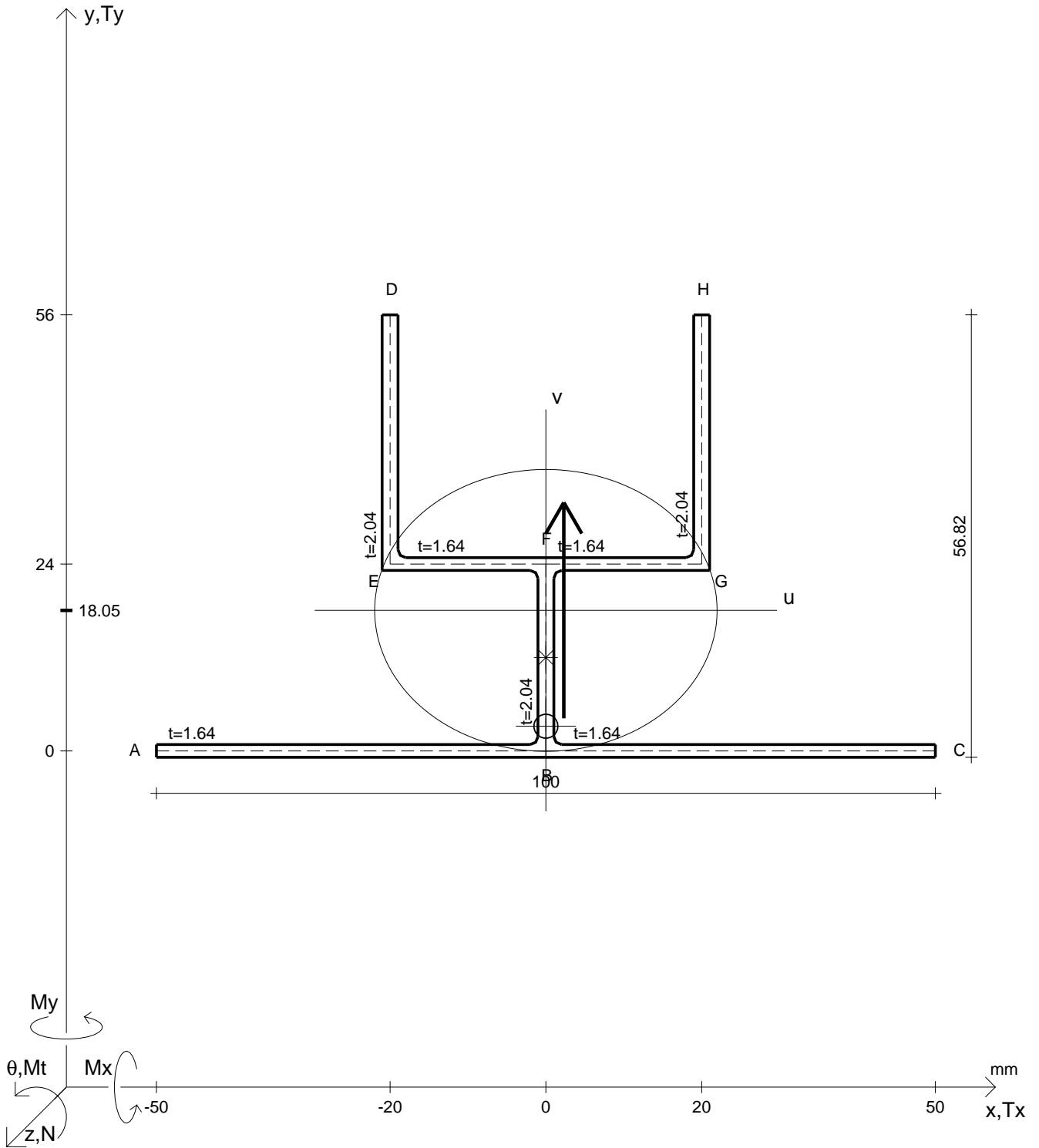




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4330 N	$M_x = -57300 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1220 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.081 \text{ N/mm}^2$
$M_t = 4030 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.44 \text{ N/mm}^2$
$y_G = 19.58 \text{ mm}$	$\tau(M_t)_d = 17.22 \text{ N/mm}^2$	$\sigma_{mises} = 54.46 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.33 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.87 \text{ N/mm}^2$
$v_o = -16.83 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1055 / \text{m}$
$A^* = 425.4 \text{ mm}^2$	$\tau(T_y)_s = 13.33 \text{ N/mm}^2$	$r_u = 19.33 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.33 \text{ N/mm}^2$	$r_v = 21.91 \text{ mm}$
$C_w = 11948987 \text{ mm}^6$	$\sigma = 12.91 \text{ N/mm}^2$	$r_o = 33.72 \text{ mm}$
$J_u = 159012 \text{ mm}^4$	$\tau_s = -3.888 \text{ N/mm}^2$	$J_p = 483640 \text{ mm}^4$
$J_v = 204165 \text{ mm}^4$	$\tau_d = 30.55 \text{ N/mm}^2$	
$J_t = 477.5 \text{ mm}^4$	$\sigma_{ls} = 37.67 \text{ N/mm}^2$	
$\sigma(N) = 10.18 \text{ N/mm}^2$	$\sigma_{lls} = -24.76 \text{ N/mm}^2$	
$\sigma(M_x) = 2.732 \text{ N/mm}^2$	$\sigma_{ld} = 13.99 \text{ N/mm}^2$	

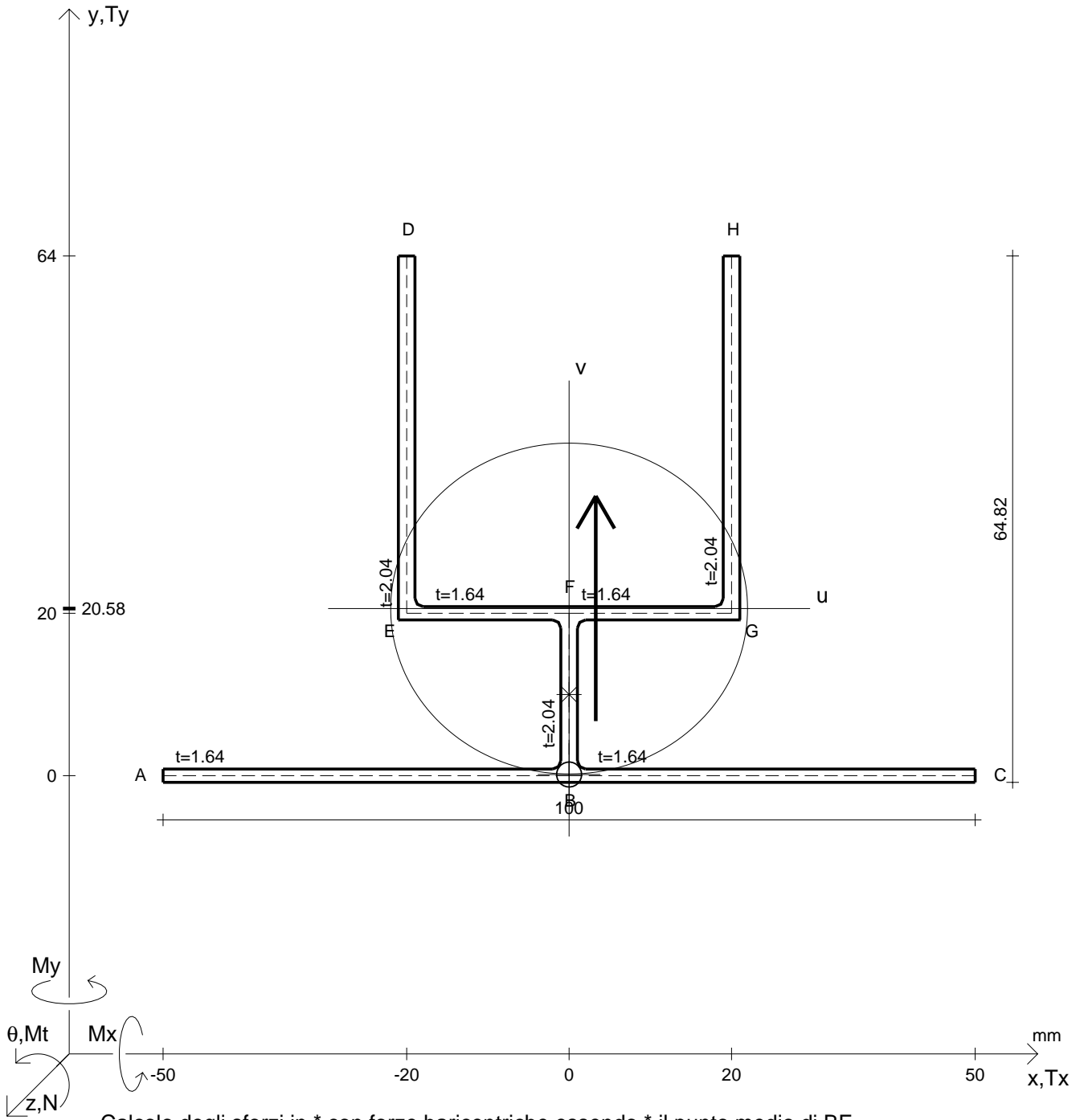




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4590 N	M <sub>t</sub> = 2830 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1230 N	M <sub>x</sub> = -57300 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.33 N/mm <sup>2</sup>
y <sub>G</sub> = 18.05 mm	J <sub>t</sub> = 454.9 mm <sup>4</sup>	σ = 13.81 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.43 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.22 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.961 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07777 /m
v <sub>o</sub> = -14.87 mm	σ(M <sub>x</sub> ) = 2.588 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.34 N/mm <sup>2</sup>	r <sub>u</sub> = 18.09 mm
A* = 409.1 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.69 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.11 N/mm <sup>2</sup>	r <sub>v</sub> = 21.98 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.65 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -21.3 N/mm <sup>2</sup>	r <sub>o</sub> = 32.12 mm
C <sub>w</sub> = 10843201 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 14.08 N/mm <sup>2</sup>	J <sub>p</sub> = 422081 mm <sup>4</sup>
J <sub>u</sub> = 133941 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.65 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.2731 N/mm <sup>2</sup>	
J <sub>v</sub> = 197637 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.65 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.41 N/mm <sup>2</sup>	

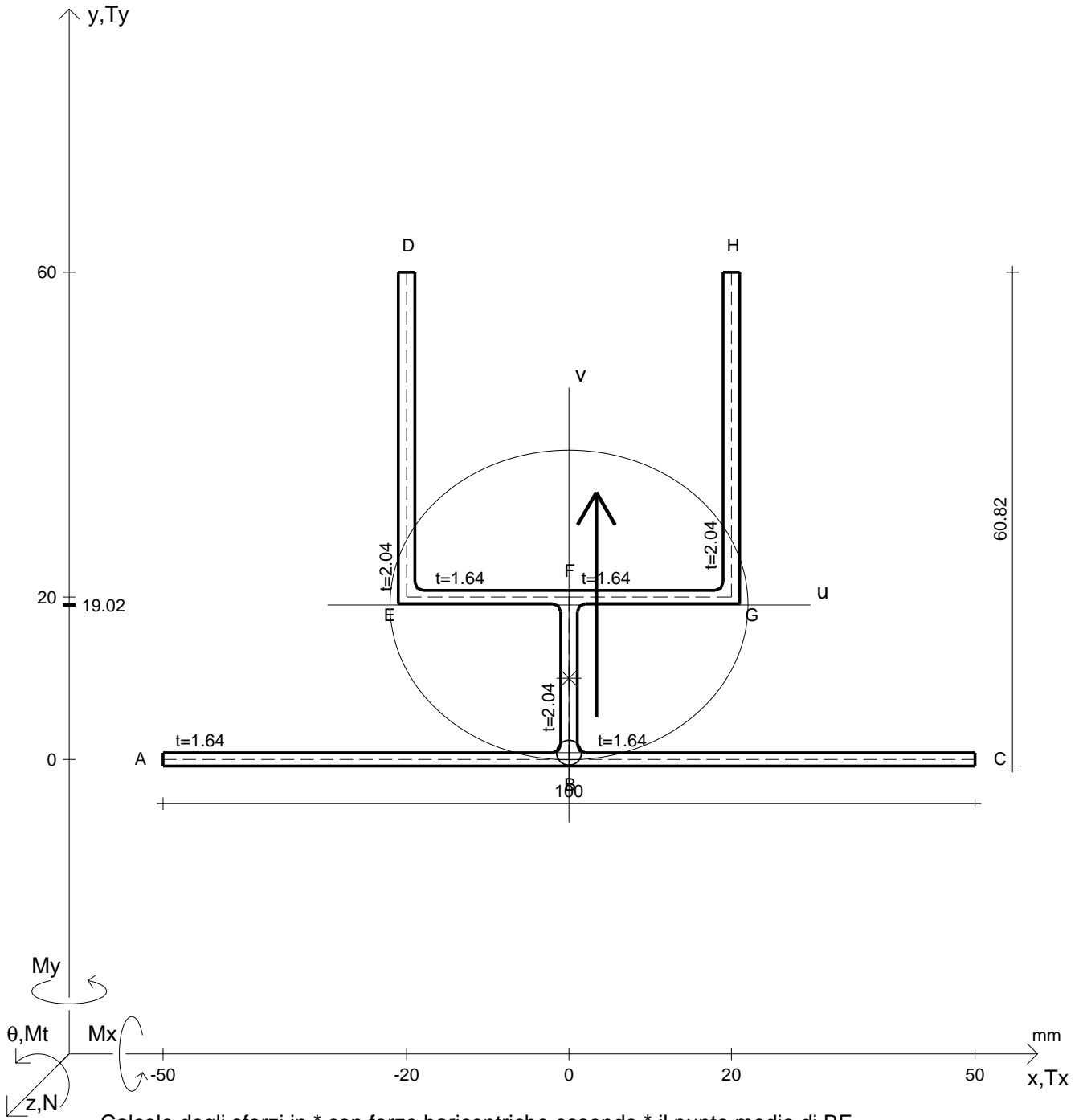




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5550 N	$M_x = -77600 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1090 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7863 \text{ N/mm}^2$
$M_t = 3580 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.43 \text{ N/mm}^2$
$y_G = 20.58 \text{ mm}$	$\tau(M_t)_d = 14.28 \text{ N/mm}^2$	$\sigma_{mises} = 46.17 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.57 \text{ N/mm}^2$	$\sigma_{st.ven} = 39.05 \text{ N/mm}^2$
$v_o = -20.44 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08749 / m$
$A^* = 449.9 \text{ mm}^2$	$\tau(T_y)_s = 10.57 \text{ N/mm}^2$	$r_u = 20.37 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.57 \text{ N/mm}^2$	$r_v = 21.97 \text{ mm}$
$C_w = 15366407 \text{ mm}^6$	$\sigma = 16.73 \text{ N/mm}^2$	$r_o = 36.27 \text{ mm}$
$J_u = 186738 \text{ mm}^4$	$\tau_s = -3.712 \text{ N/mm}^2$	$J_p = 591877 \text{ mm}^4$
$J_v = 217221 \text{ mm}^4$	$\tau_d = 24.85 \text{ N/mm}^2$	
$J_t = 511.5 \text{ mm}^4$	$\sigma_{ls} = 34.58 \text{ N/mm}^2$	
$\sigma(N) = 12.34 \text{ N/mm}^2$	$\sigma_{lls} = -17.85 \text{ N/mm}^2$	
$\sigma(M_x) = 4.397 \text{ N/mm}^2$	$\sigma_{ld} = 17.52 \text{ N/mm}^2$	





Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

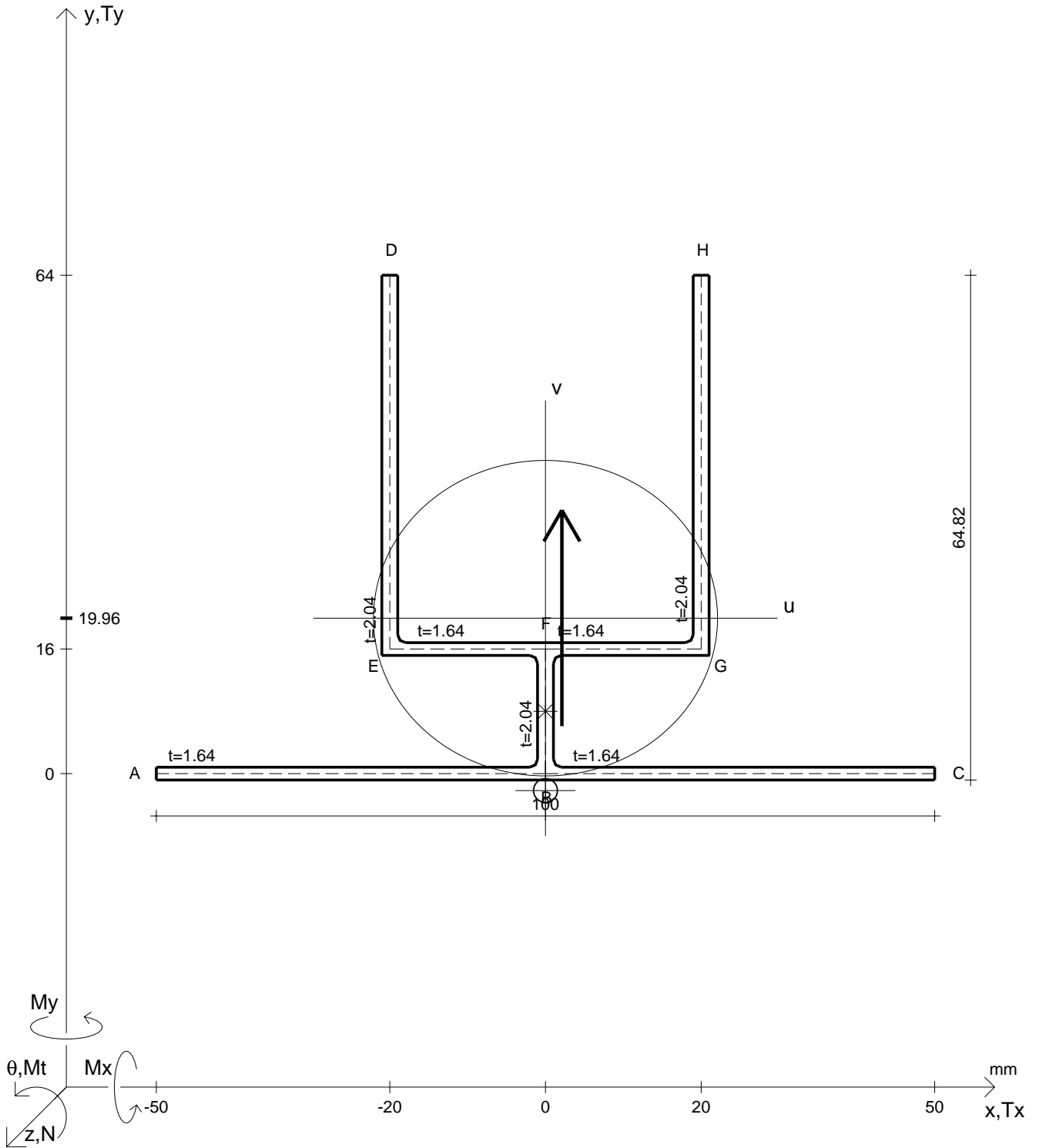
N = 3950 N	$M_x = -76000 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1120 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -1.056 \text{ N/mm}^2$
$M_t = 3780 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 56.88 \text{ N/mm}^2$
$y_G = 19.02 \text{ mm}$	$\tau(M_t)_d = 15.77 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 49.72 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.86 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 40.6 \text{ N/mm}^2$
$v_o = -18.19 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09666 / \text{m}$
$A^* = 433.6 \text{ mm}^2$	$\tau(T_y)_s = 11.86 \text{ N/mm}^2$	$r_u = 19.07 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.86 \text{ N/mm}^2$	$r_v = 22.04 \text{ mm}$
$C_w = 12057424 \text{ mm}^6$	$\sigma = 13.46 \text{ N/mm}^2$	$r_o = 34.36 \text{ mm}$
$J_u = 157665 \text{ mm}^4$	$\tau_s = -3.916 \text{ N/mm}^2$	$J_p = 511856 \text{ mm}^4$
$J_v = 210693 \text{ mm}^4$	$\tau_d = 27.63 \text{ N/mm}^2$	
$J_t = 488.8 \text{ mm}^4$	$\sigma_{\text{ls}} = 35.17 \text{ N/mm}^2$	
$\sigma(N) = 9.11 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -21.71 \text{ N/mm}^2$	
$\sigma(M_x) = 4.349 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 14.51 \text{ N/mm}^2$	







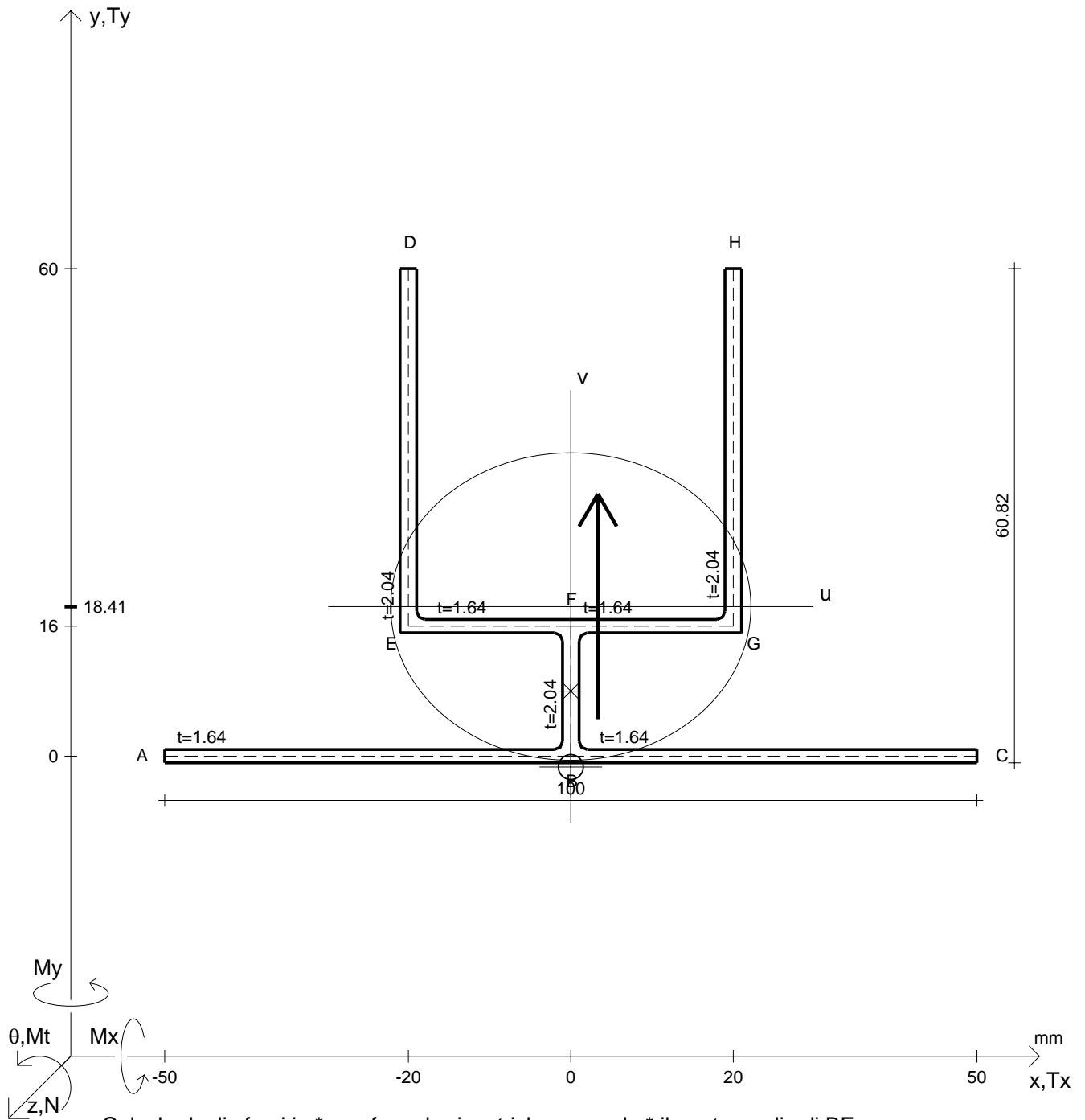




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5160 N	M <sub>t</sub> = 3270 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1550 N	M <sub>x</sub> = -69600 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.4 N/mm <sup>2</sup>
y <sub>G</sub> = 19.96 mm	J <sub>t</sub> = 522.8 mm <sup>4</sup>	σ = 15.69 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 41.09 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.26 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.525 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07819 /m
v <sub>o</sub> = -22.14 mm	σ(M <sub>x</sub> ) = 4.429 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.05 N/mm <sup>2</sup>	r <sub>u</sub> = 20.26 mm
A* = 458.1 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.76 N/mm <sup>2</sup>	σ <sub>lIs</sub> = 36.01 N/mm <sup>2</sup>	r <sub>v</sub> = 22.1 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.29 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.31 N/mm <sup>2</sup>	r <sub>o</sub> = 37.27 mm
C <sub>w</sub> = 21234312 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 15.84 N/mm <sup>2</sup>	J <sub>p</sub> = 636226 mm <sup>4</sup>
J <sub>u</sub> = 187983 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.29 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1469 N/mm <sup>2</sup>	
J <sub>v</sub> = 223749 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.29 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.32 N/mm <sup>2</sup>	

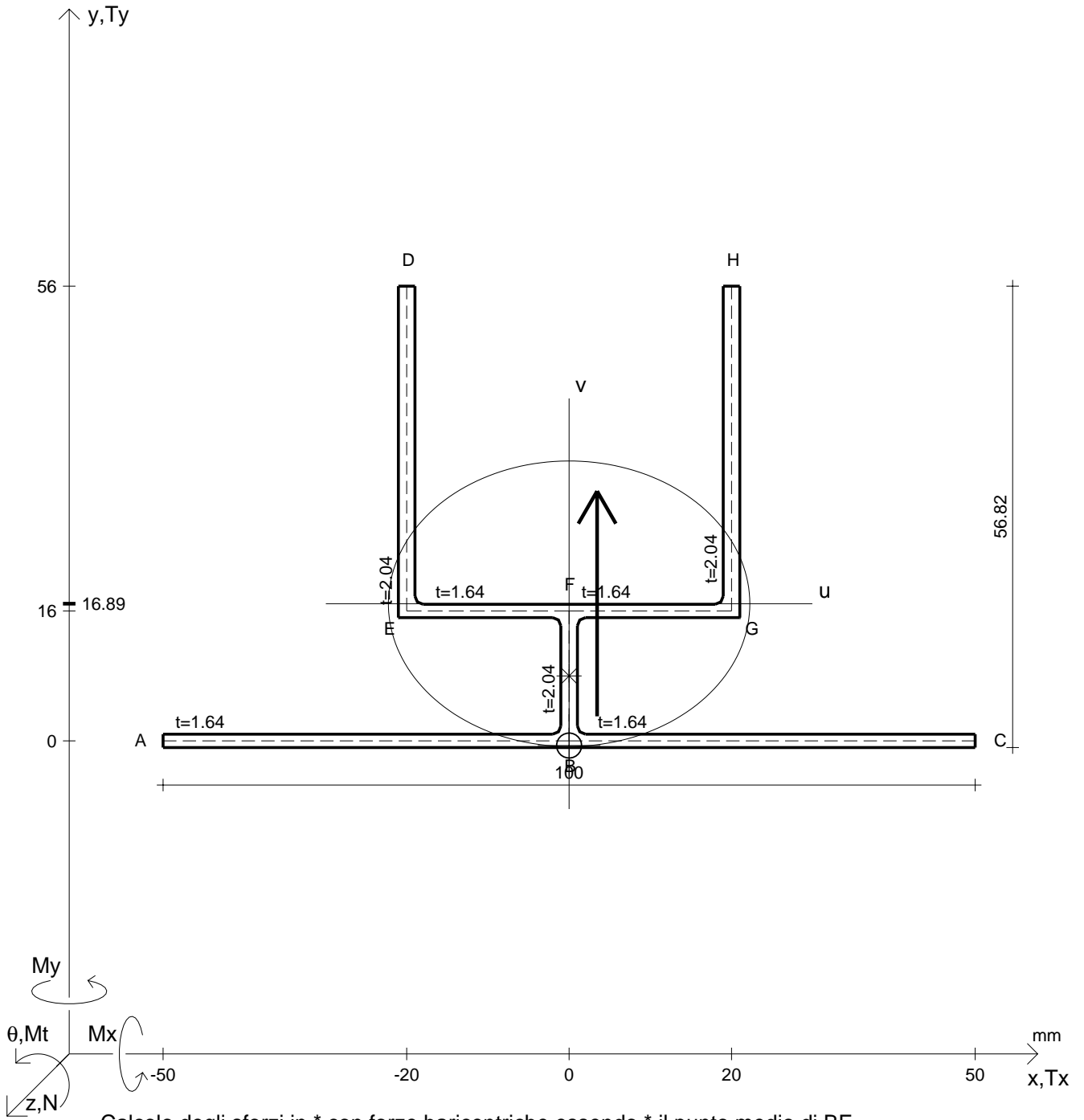




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N$	$= 5450 \text{ N}$	$M_x$	$= -68500 \text{ Nmm}$	$G$	$= 80000 \text{ N/mm}^2$
$T_y$	$= 1050 \text{ N}$	$\sigma_a$	$= 50 \text{ N/mm}^2$	$\sigma_{lld}$	$= -0.768 \text{ N/mm}^2$
$M_t$	$= 3500 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 52.52 \text{ N/mm}^2$
$y_G$	$= 18.41 \text{ mm}$	$\tau(M_t)_d$	$= 14.28 \text{ N/mm}^2$	$\sigma_{mises}$	$= 46.26 \text{ N/mm}^2$
$u_o$	$= 0 \text{ mm}$	$\tau(T_{yc})$	$= 10.6 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 39.14 \text{ N/mm}^2$
$v_o$	$= -19.75 \text{ mm}$	$\tau(T_{yb})_d$	$= 0 \text{ N/mm}^2$	$\theta_t$	$= 0.08747 / m$
$A^*$	$= 441.8 \text{ mm}^2$	$\tau(T_y)_s$	$= 10.6 \text{ N/mm}^2$	$r_u$	$= 18.92 \text{ mm}$
$S_u^*$	$= 0 \text{ mm}^3$	$\tau(T_y)_d$	$= 10.6 \text{ N/mm}^2$	$r_v$	$= 22.17 \text{ mm}$
$C_w$	$= 16019685 \text{ mm}^6$	$\sigma$	$= 16.85 \text{ N/mm}^2$	$r_o$	$= 35.21 \text{ mm}$
$J_u$	$= 158055 \text{ mm}^4$	$\tau_s$	$= -3.678 \text{ N/mm}^2$	$J_p$	$= 547564 \text{ mm}^4$
$J_v$	$= 217221 \text{ mm}^4$	$\tau_d$	$= 24.87 \text{ N/mm}^2$		
$J_t$	$= 500.2 \text{ mm}^4$	$\sigma_{ls}$	$= 34.69 \text{ N/mm}^2$		
$\sigma(N)$	$= 12.34 \text{ N/mm}^2$	$\sigma_{lls}$	$= -17.84 \text{ N/mm}^2$		
$\sigma(M_x)$	$= 4.511 \text{ N/mm}^2$	$\sigma_{ld}$	$= 17.62 \text{ N/mm}^2$		



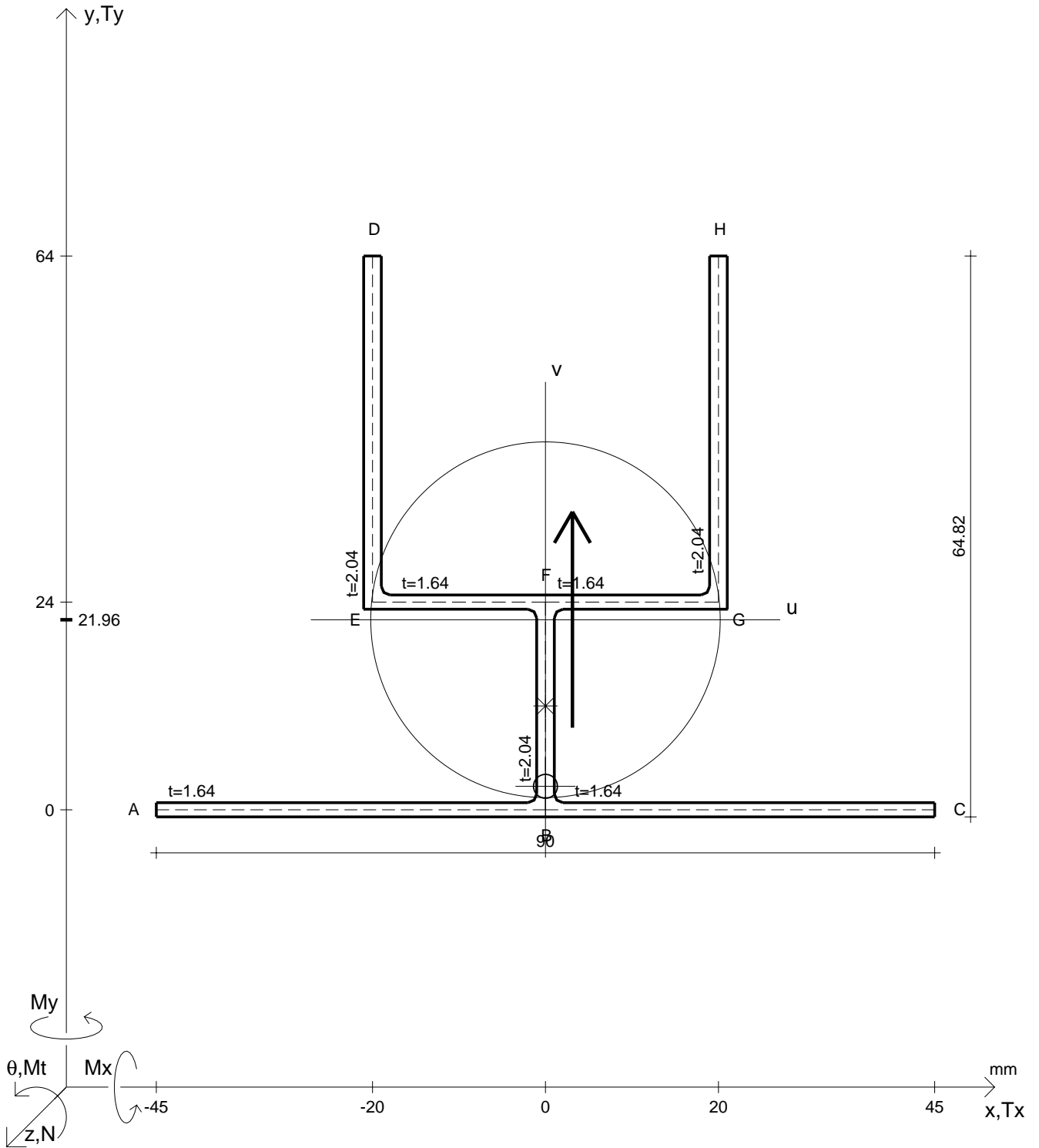


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 3880 N	$M_x = -66400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1070 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 3690 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	
$y_G = 16.89 \text{ mm}$	$\tau(M_t)_d = 15.76 \text{ N/mm}^2$	$\sigma_{lld} = -1.025 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.89 \text{ N/mm}^2$	$\sigma_{tresca} = 56.96 \text{ N/mm}^2$
$v_o = -17.47 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 49.8 \text{ N/mm}^2$
$A^* = 425.4 \text{ mm}^2$	$\tau(T_y)_s = 11.89 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.7 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.89 \text{ N/mm}^2$	$\theta_t = 0.09659 / m$
$C_w = 11917938 \text{ mm}^6$	$\sigma = 13.61 \text{ N/mm}^2$	$r_u = 17.58 \text{ mm}$
$J_u = 131472 \text{ mm}^4$	$\tau_s = -3.874 \text{ N/mm}^2$	$r_v = 22.25 \text{ mm}$
$J_v = 210693 \text{ mm}^4$	$\tau_d = 27.65 \text{ N/mm}^2$	$r_o = 33.31 \text{ mm}$
$J_t = 477.5 \text{ mm}^4$	$\sigma_{ls} = 35.28 \text{ N/mm}^2$	$J_p = 471946 \text{ mm}^4$
$\sigma(N) = 9.12 \text{ N/mm}^2$	$\sigma_{lls} = -21.67 \text{ N/mm}^2$	
$\sigma(M_x) = 4.49 \text{ N/mm}^2$	$\sigma_{ld} = 14.64 \text{ N/mm}^2$	



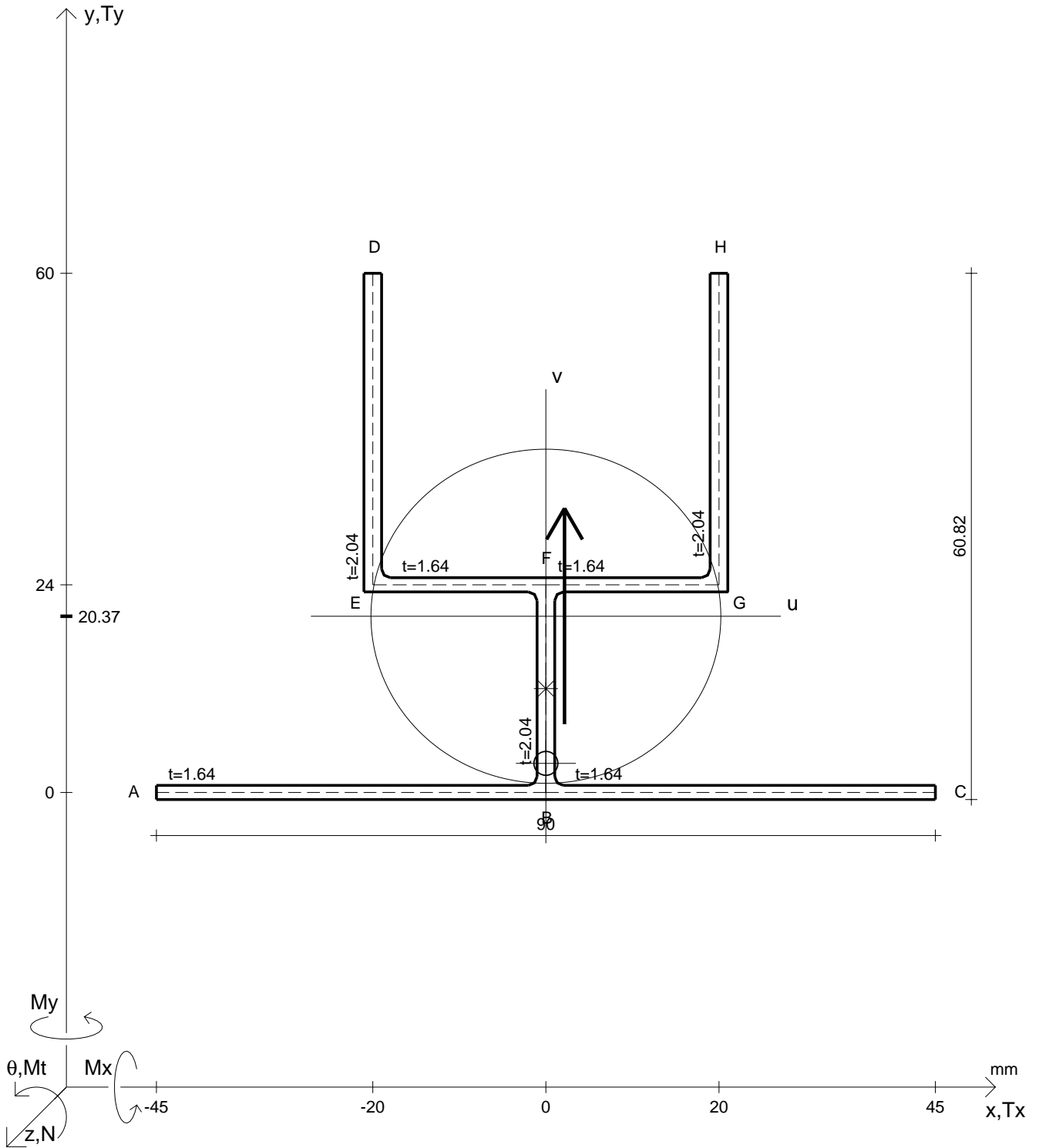




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 4330 \text{ N}$	$M_t = 4110 \text{ Nmm}$	$\sigma_a = 50 \text{ N/mm}^2$	$G = 80000 \text{ N/mm}^2$
$T_y = 1320 \text{ N}$	$M_x = -62400 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 54.31 \text{ N/mm}^2$
$y_G = 21.96 \text{ mm}$	$J_t = 485.4 \text{ mm}^4$	$\sigma = 13.64 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 44 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\sigma(N) = 10.18 \text{ N/mm}^2$	$\tau_s = -4.19 \text{ N/mm}^2$	$\theta_t = 0.1058 / \text{m}$
$v_o = -19.25 \text{ mm}$	$\sigma(M_x) = 3.46 \text{ N/mm}^2$	$\tau_d = 30.35 \text{ N/mm}^2$	$r_u = 20.55 \text{ mm}$
$A^* = 425.4 \text{ mm}^2$	$\tau(M_t)_d = 17.27 \text{ N/mm}^2$	$\sigma_{\text{Is}} = 37.93 \text{ N/mm}^2$	$r_v = 20.21 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_{yG}) = 13.08 \text{ N/mm}^2$	$\sigma_{\text{IIs}} = -24.29 \text{ N/mm}^2$	$r_o = 34.66 \text{ mm}$
$C_w = 13508873 \text{ mm}^6$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{\text{Id}} = 14.82 \text{ N/mm}^2$	$J_p = 511004 \text{ mm}^4$
$J_u = 179695 \text{ mm}^4$	$\tau(T_y)_s = 13.08 \text{ N/mm}^2$	$\sigma_{\text{IId}} = -1.185 \text{ N/mm}^2$	
$J_v = 173657 \text{ mm}^4$	$\tau(T_y)_d = 13.08 \text{ N/mm}^2$	$\sigma_{\text{tresca}} = 62.22 \text{ N/mm}^2$	

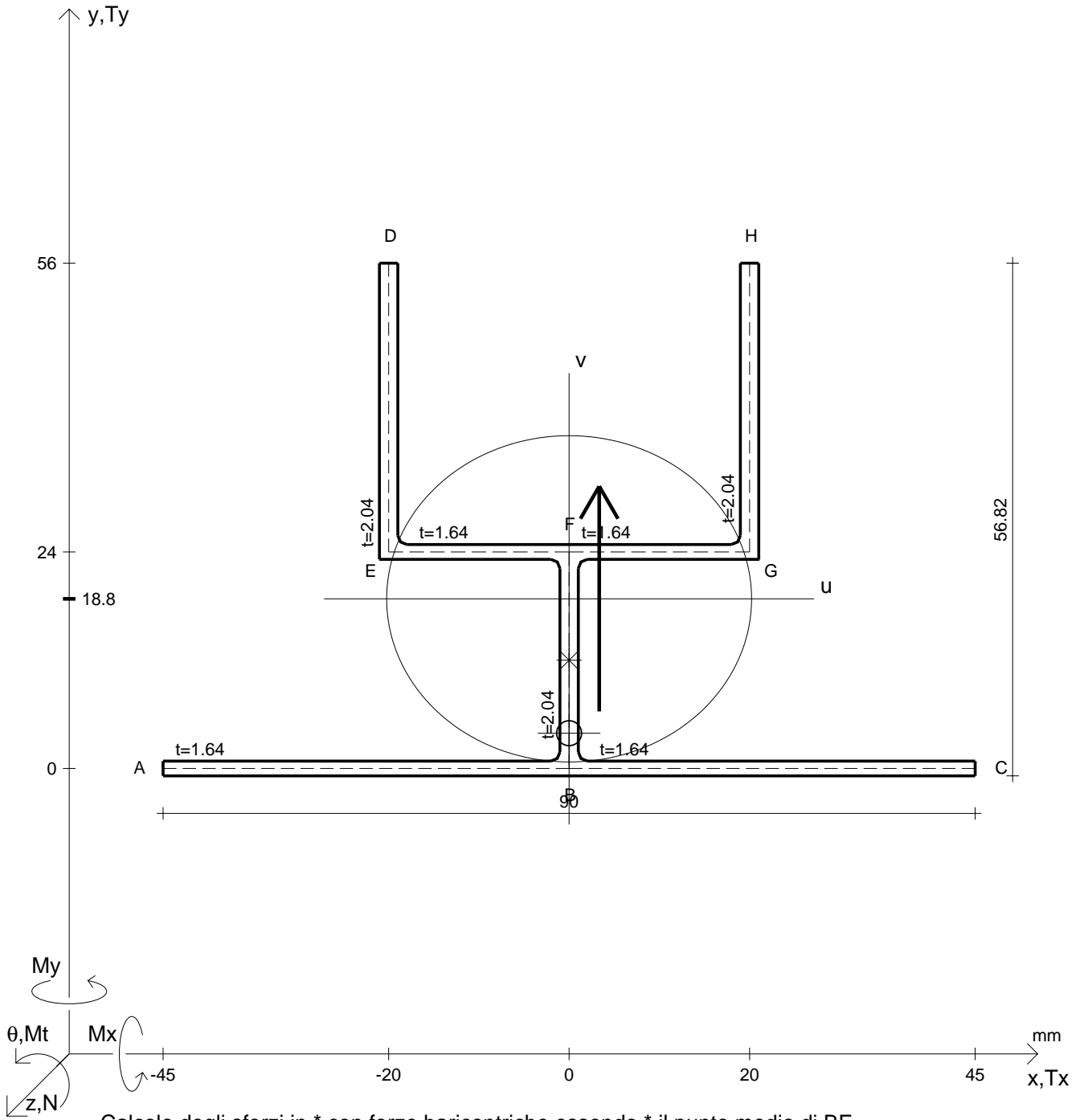




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4600 N	M <sub>t</sub> = 2890 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1340 N	M <sub>x</sub> = -62600 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.35 N/mm <sup>2</sup>
y <sub>G</sub> = 20.37 mm	J <sub>t</sub> = 462.8 mm <sup>4</sup>	σ = 14.68 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.73 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.727 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07806 /m
v <sub>o</sub> = -17 mm	σ(M <sub>x</sub> ) = 3.435 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.2 N/mm <sup>2</sup>	r <sub>u</sub> = 19.31 mm
A* = 409 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.74 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.52 N/mm <sup>2</sup>	r <sub>v</sub> = 20.21 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.47 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.84 N/mm <sup>2</sup>	r <sub>o</sub> = 32.72 mm
C <sub>w</sub> = 11605636 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 14.88 N/mm <sup>2</sup>	J <sub>p</sub> = 437835 mm <sup>4</sup>
J <sub>u</sub> = 152471 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.47 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.2005 N/mm <sup>2</sup>	
J <sub>v</sub> = 167129 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.47 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.36 N/mm <sup>2</sup>	

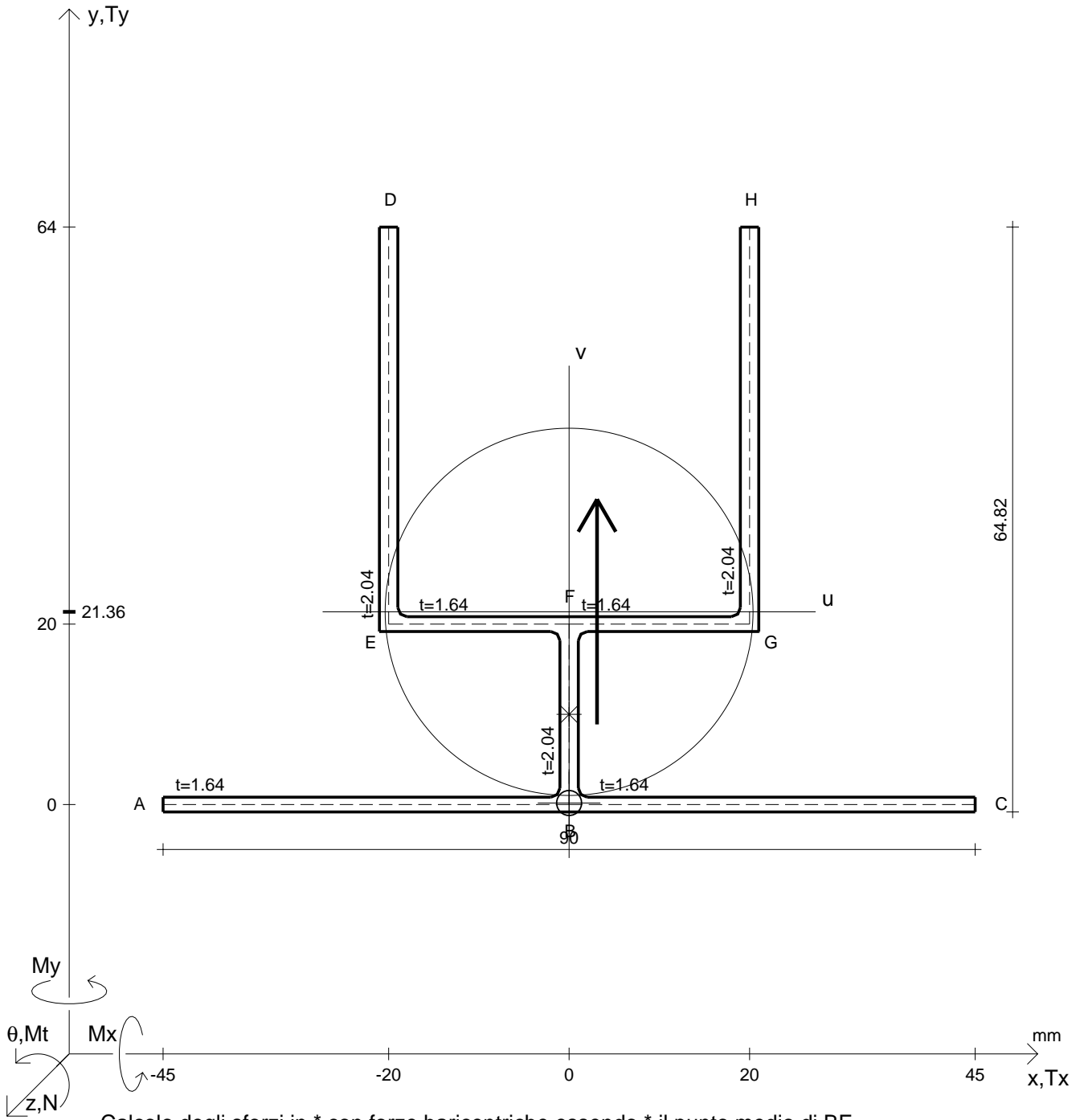




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

$N = 4830 \text{ N}$	$M_x = -62000 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 919 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 3070 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 18.8 \text{ mm}$	$\tau(M_t)_d = 14.23 \text{ N/mm}^2$	$\sigma_{lld} = -0.7052 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.84 \text{ N/mm}^2$	$\sigma_{tresca} = 52.5 \text{ N/mm}^2$
$v_o = -14.89 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 46.13 \text{ N/mm}^2$
$A^* = 392.7 \text{ mm}^2$	$\tau(T_y)_s = 10.84 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.66 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.84 \text{ N/mm}^2$	$\theta_t = 0.08718 / m$
$C_w = 10383435 \text{ mm}^6$	$\sigma = 15.58 \text{ N/mm}^2$	$r_u = 18.08 \text{ mm}$
$J_u = 128376 \text{ mm}^4$	$\tau_s = -3.389 \text{ N/mm}^2$	$r_v = 20.22 \text{ mm}$
$J_v = 160601 \text{ mm}^4$	$\tau_d = 25.07 \text{ N/mm}^2$	$r_o = 30.95 \text{ mm}$
$J_t = 440.2 \text{ mm}^4$	$\sigma_{ls} = 34.04 \text{ N/mm}^2$	$J_p = 376100 \text{ mm}^4$
$\sigma(N) = 12.3 \text{ N/mm}^2$	$\sigma_{lls} = -18.46 \text{ N/mm}^2$	
$\sigma(M_x) = 3.286 \text{ N/mm}^2$	$\sigma_{ld} = 16.29 \text{ N/mm}^2$	





Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

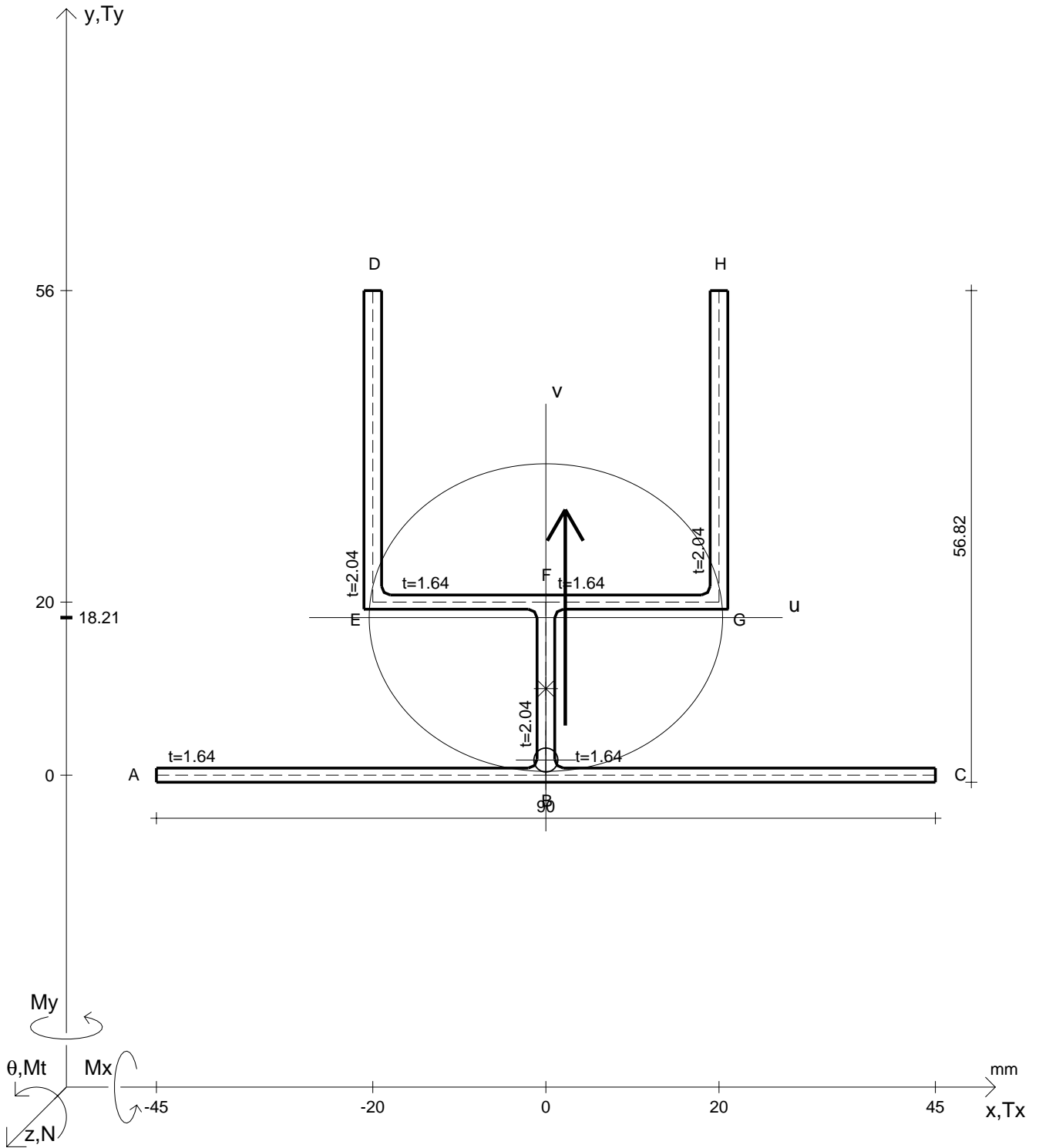
N = 3950 N	$M_x = -83200 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1240 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{\text{Ild}} = -1.021 \text{ N/mm}^2$
$M_t = 3840 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{\text{tresca}} = 56.99 \text{ N/mm}^2$
$y_G = 21.36 \text{ mm}$	$\tau(M_t)_d = 15.77 \text{ N/mm}^2$	$\sigma_{\text{mises}} = 49.88 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.8 \text{ N/mm}^2$	$\sigma_{\text{st.ven}} = 41.01 \text{ N/mm}^2$
$v_o = -21.19 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09662 / \text{m}$
$A^* = 433.5 \text{ mm}^2$	$\tau(T_y)_s = 11.8 \text{ N/mm}^2$	$r_u = 20.35 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.8 \text{ N/mm}^2$	$r_v = 20.39 \text{ mm}$
$C_w = 15365480 \text{ mm}^6$	$\sigma = 14.38 \text{ N/mm}^2$	$r_o = 35.76 \text{ mm}$
$J_u = 179529 \text{ mm}^4$	$\tau_s = -3.965 \text{ N/mm}^2$	$J_p = 554295 \text{ mm}^4$
$J_v = 180185 \text{ mm}^4$	$\tau_d = 27.57 \text{ N/mm}^2$	
$J_t = 496.8 \text{ mm}^4$	$\sigma_{\text{ls}} = 35.68 \text{ N/mm}^2$	
$\sigma(N) = 9.111 \text{ N/mm}^2$	$\sigma_{\text{lls}} = -21.31 \text{ N/mm}^2$	
$\sigma(M_x) = 5.264 \text{ N/mm}^2$	$\sigma_{\text{ld}} = 15.4 \text{ N/mm}^2$	







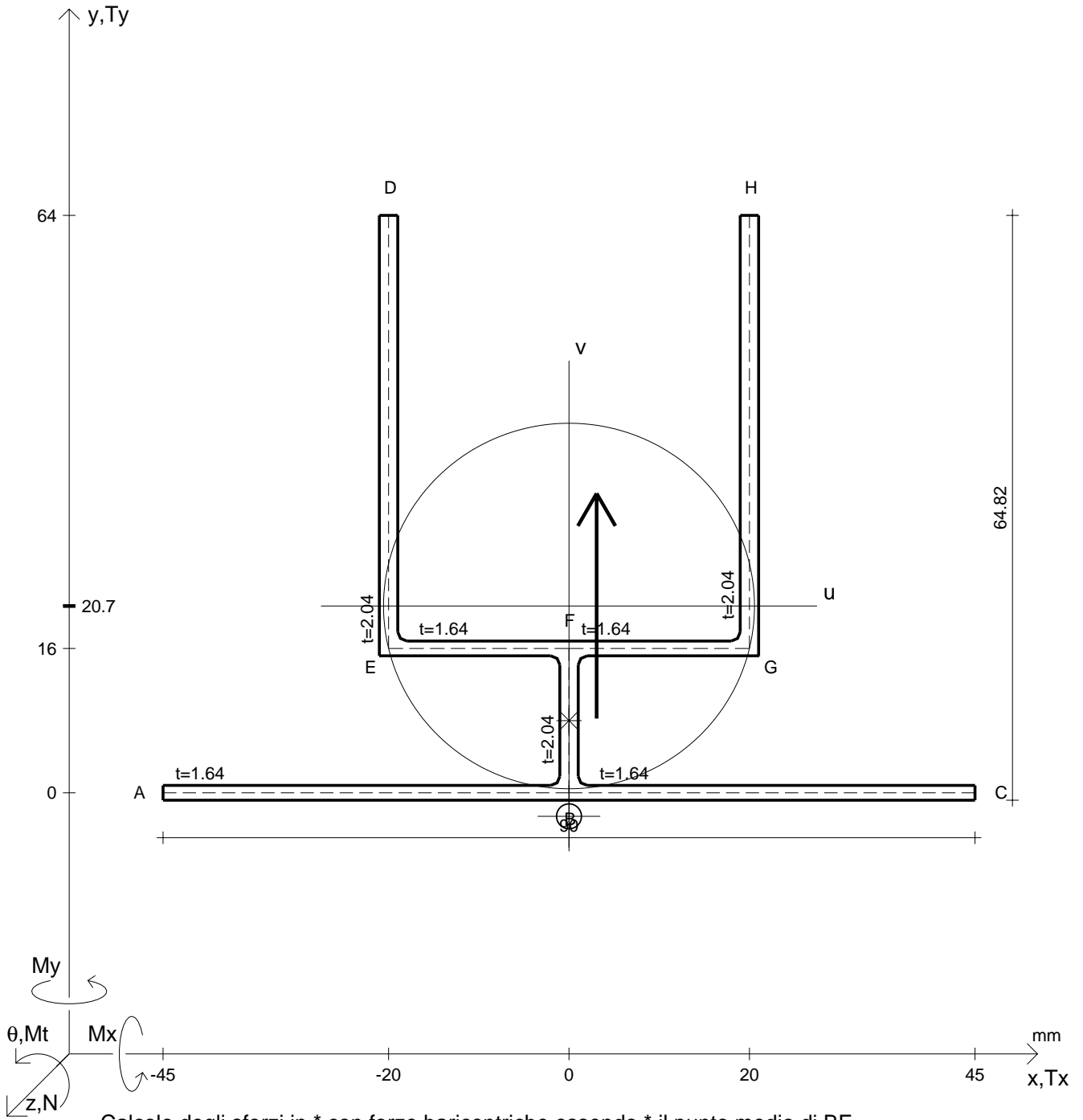




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4510 N	M <sub>t</sub> = 2820 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1260 N	M <sub>x</sub> = -54600 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.32 N/mm <sup>2</sup>
y <sub>G</sub> = 18.21 mm	J <sub>t</sub> = 451.5 mm <sup>4</sup>	σ = 14.79 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.74 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.25 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.683 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07807 /m
v <sub>o</sub> = -16.46 mm	σ(M <sub>x</sub> ) = 3.541 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.17 N/mm <sup>2</sup>	r <sub>u</sub> = 17.77 mm
A* = 400.9 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.74 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.55 N/mm <sup>2</sup>	r <sub>v</sub> = 20.42 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.42 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -20.76 N/mm <sup>2</sup>	r <sub>o</sub> = 31.68 mm
C <sub>w</sub> = 9567191 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 14.98 N/mm <sup>2</sup>	J <sub>p</sub> = 402442 mm <sup>4</sup>
J <sub>u</sub> = 126653 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.42 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1891 N/mm <sup>2</sup>	
J <sub>v</sub> = 167129 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.42 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.31 N/mm <sup>2</sup>	

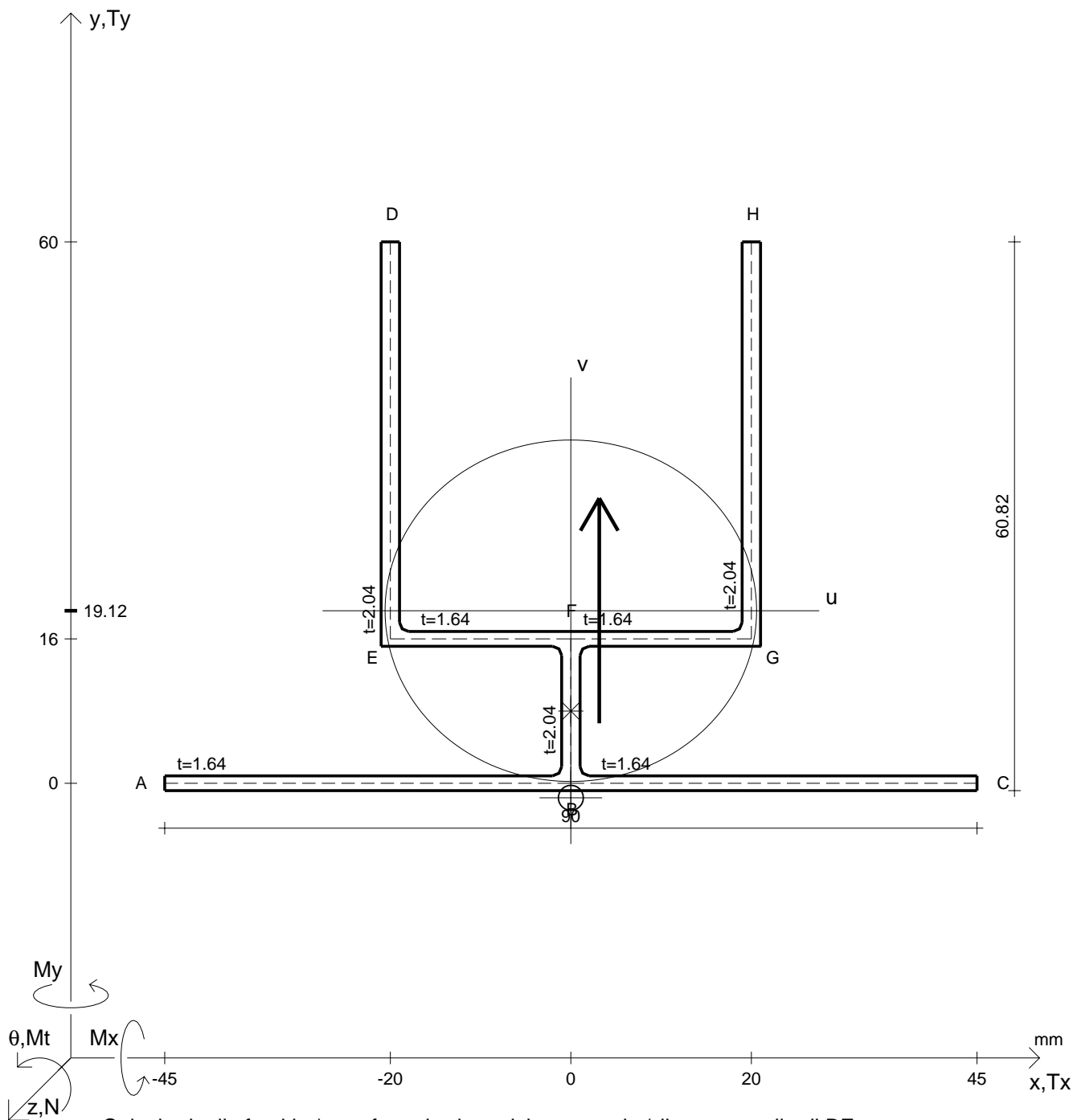




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5450 N	$M_x = -75500 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1160 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7875 \text{ N/mm}^2$
$M_t = 3550 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 52.45 \text{ N/mm}^2$
$y_G = 20.7 \text{ mm}$	$\tau(M_t)_d = 14.25 \text{ N/mm}^2$	$\sigma_{mises} = 46.27 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.44 \text{ N/mm}^2$	$\sigma_{st.ven} = 39.39 \text{ N/mm}^2$
$v_o = -23.31 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08734 / m$
$A^* = 441.7 \text{ mm}^2$	$\tau(T_y)_s = 10.44 \text{ N/mm}^2$	$r_u = 20.25 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.44 \text{ N/mm}^2$	$r_v = 20.56 \text{ mm}$
$C_w = 21024276 \text{ mm}^6$	$\sigma = 17.63 \text{ N/mm}^2$	$r_o = 37.1 \text{ mm}$
$J_u = 181205 \text{ mm}^4$	$\tau_s = -3.809 \text{ N/mm}^2$	$J_p = 607915 \text{ mm}^4$
$J_v = 186713 \text{ mm}^4$	$\tau_d = 24.7 \text{ N/mm}^2$	
$J_t = 508.1 \text{ mm}^4$	$\sigma_{ls} = 35.04 \text{ N/mm}^2$	
$\sigma(N) = 12.34 \text{ N/mm}^2$	$\sigma_{lls} = -17.41 \text{ N/mm}^2$	
$\sigma(M_x) = 5.293 \text{ N/mm}^2$	$\sigma_{ld} = 18.42 \text{ N/mm}^2$	



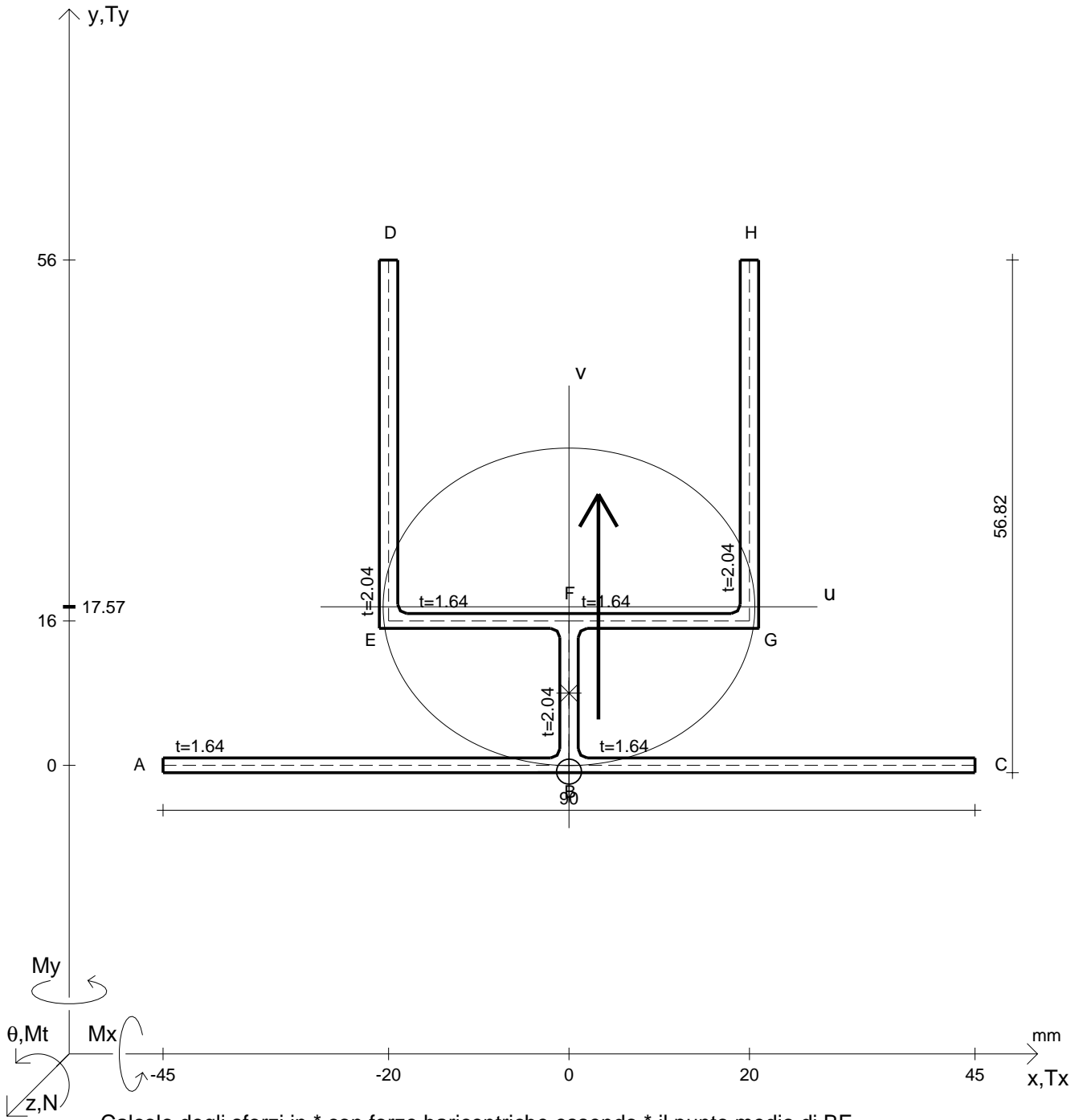


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 3880 N	$M_x = -73600 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1190 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.032 \text{ N/mm}^2$
$M_t = 3750 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 56.9 \text{ N/mm}^2$
$y_G = 19.12 \text{ mm}$	$\tau(M_t)_d = 15.76 \text{ N/mm}^2$	$\sigma_{mises} = 49.81 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.75 \text{ N/mm}^2$	$\sigma_{st.ven} = 41 \text{ N/mm}^2$
$v_o = -20.73 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09656 / m$
$A^* = 425.4 \text{ mm}^2$	$\tau(T_y)_s = 11.75 \text{ N/mm}^2$	$r_u = 18.92 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.75 \text{ N/mm}^2$	$r_v = 20.58 \text{ mm}$
$C_w = 15939609 \text{ mm}^6$	$\sigma = 14.5 \text{ N/mm}^2$	$r_o = 34.81 \text{ mm}$
$J_u = 152283 \text{ mm}^4$	$\tau_s = -4.004 \text{ N/mm}^2$	$J_p = 515321 \text{ mm}^4$
$J_v = 180185 \text{ mm}^4$	$\tau_d = 27.51 \text{ N/mm}^2$	
$J_t = 485.4 \text{ mm}^4$	$\sigma_{ls} = 35.7 \text{ N/mm}^2$	
$\sigma(N) = 9.122 \text{ N/mm}^2$	$\sigma_{lls} = -21.2 \text{ N/mm}^2$	
$\sigma(M_x) = 5.374 \text{ N/mm}^2$	$\sigma_{ld} = 15.53 \text{ N/mm}^2$	







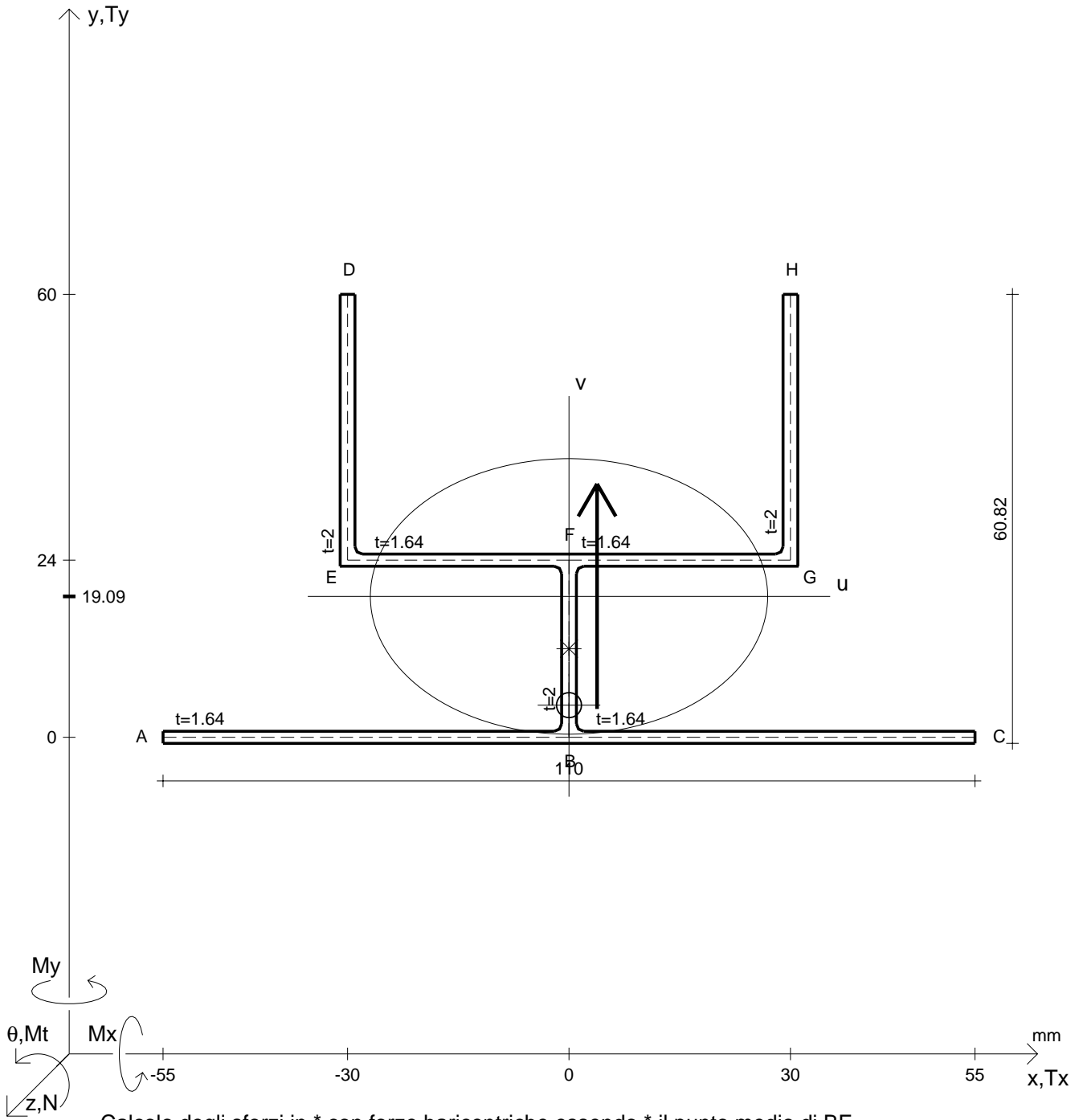
Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4170 N	$M_x = -48100 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1200 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.177 \text{ N/mm}^2$
$M_t = 3920 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 62.27 \text{ N/mm}^2$
$y_G = 17.57 \text{ mm}$	$\tau(M_t)_d = 17.28 \text{ N/mm}^2$	$\sigma_{mises} = 54.37 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.08 \text{ N/mm}^2$	$\sigma_{st.ven} = 44.1 \text{ N/mm}^2$
$v_o = -18.27 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1059 / \text{m}$
$A^* = 409 \text{ mm}^2$	$\tau(T_y)_s = 13.08 \text{ N/mm}^2$	$r_u = 17.59 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.08 \text{ N/mm}^2$	$r_v = 20.6 \text{ mm}$
$C_w = 11903075 \text{ mm}^6$	$\sigma = 13.83 \text{ N/mm}^2$	$r_o = 32.68 \text{ mm}$
$J_u = 126606 \text{ mm}^4$	$\tau_s = -4.202 \text{ N/mm}^2$	$J_p = 436730 \text{ mm}^4$
$J_v = 173657 \text{ mm}^4$	$\tau_d = 30.36 \text{ N/mm}^2$	
$J_t = 462.8 \text{ mm}^4$	$\sigma_{ls} = 38.05 \text{ N/mm}^2$	
$\sigma(N) = 10.19 \text{ N/mm}^2$	$\sigma_{lls} = -24.22 \text{ N/mm}^2$	
$\sigma(M_x) = 3.635 \text{ N/mm}^2$	$\sigma_{ld} = 15.01 \text{ N/mm}^2$	





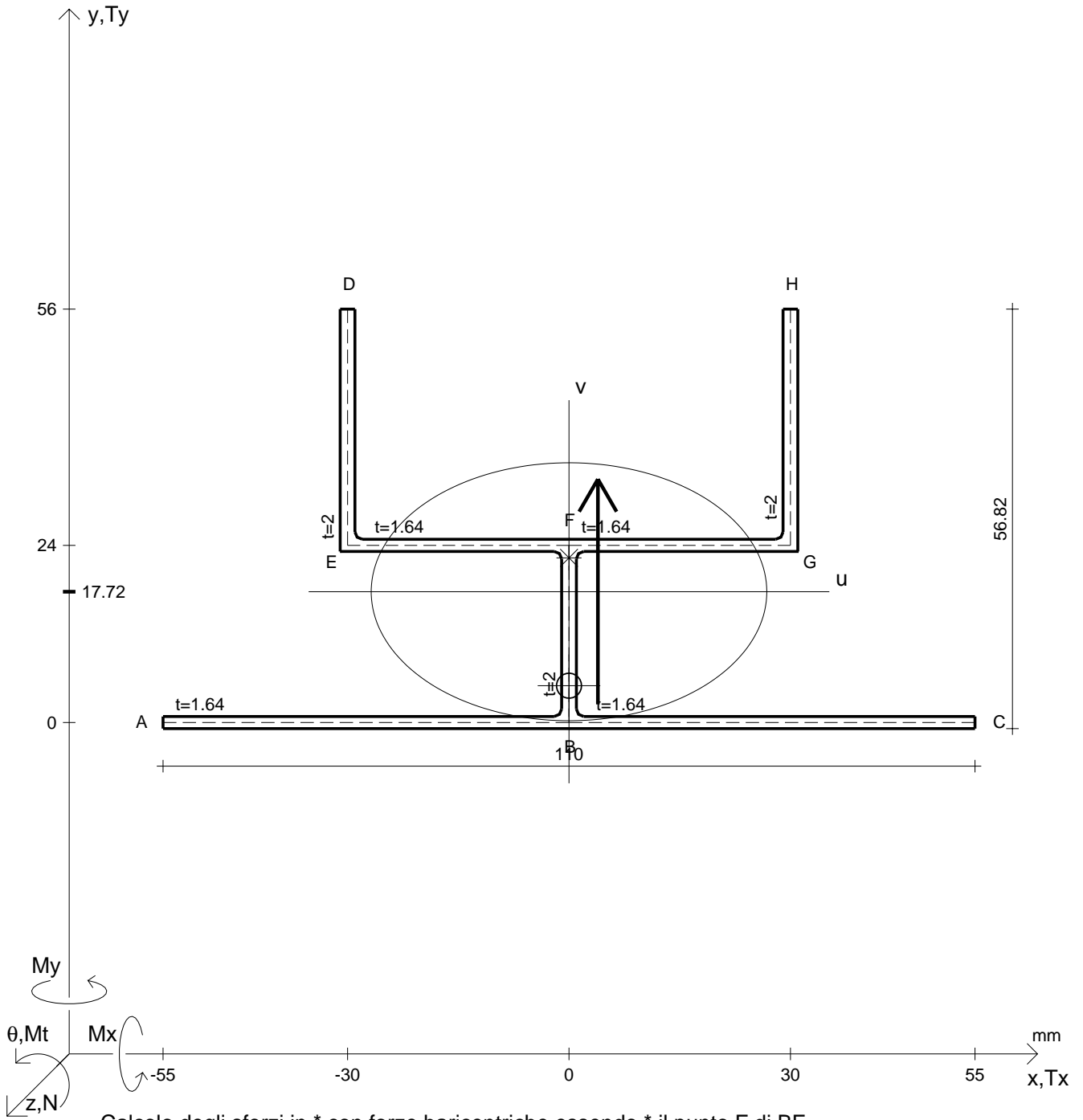




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5800 N	$M_x = -72100 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 947 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	
$M_t = 3600 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	
$y_G = 19.09 \text{ mm}$	$\tau(M_t)_d = 14.23 \text{ N/mm}^2$	$\sigma_{lld} = -0.708 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.85 \text{ N/mm}^2$	$\sigma_{tresca} = 52.48 \text{ N/mm}^2$
$v_o = -14.73 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\sigma_{mises} = 46.1 \text{ N/mm}^2$
$A^* = 470.8 \text{ mm}^2$	$\tau(T_y)_s = 10.85 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.59 \text{ N/mm}^2$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.85 \text{ N/mm}^2$	$\theta_t = 0.08894 / m$
$C_w = 29190016 \text{ mm}^6$	$\sigma = 15.44 \text{ N/mm}^2$	$r_u = 18.66 \text{ mm}$
$J_u = 163965 \text{ mm}^4$	$\tau_s = -3.381 \text{ N/mm}^2$	$r_v = 26.91 \text{ mm}$
$J_v = 341024 \text{ mm}^4$	$\tau_d = 25.08 \text{ N/mm}^2$	$r_o = 35.91 \text{ mm}$
$J_t = 506 \text{ mm}^4$	$\sigma_{ls} = 33.96 \text{ N/mm}^2$	$J_p = 607113 \text{ mm}^4$
$\sigma(N) = 12.32 \text{ N/mm}^2$	$\sigma_{lls} = -18.52 \text{ N/mm}^2$	
$\sigma(M_x) = 3.116 \text{ N/mm}^2$	$\sigma_{ld} = 16.14 \text{ N/mm}^2$	



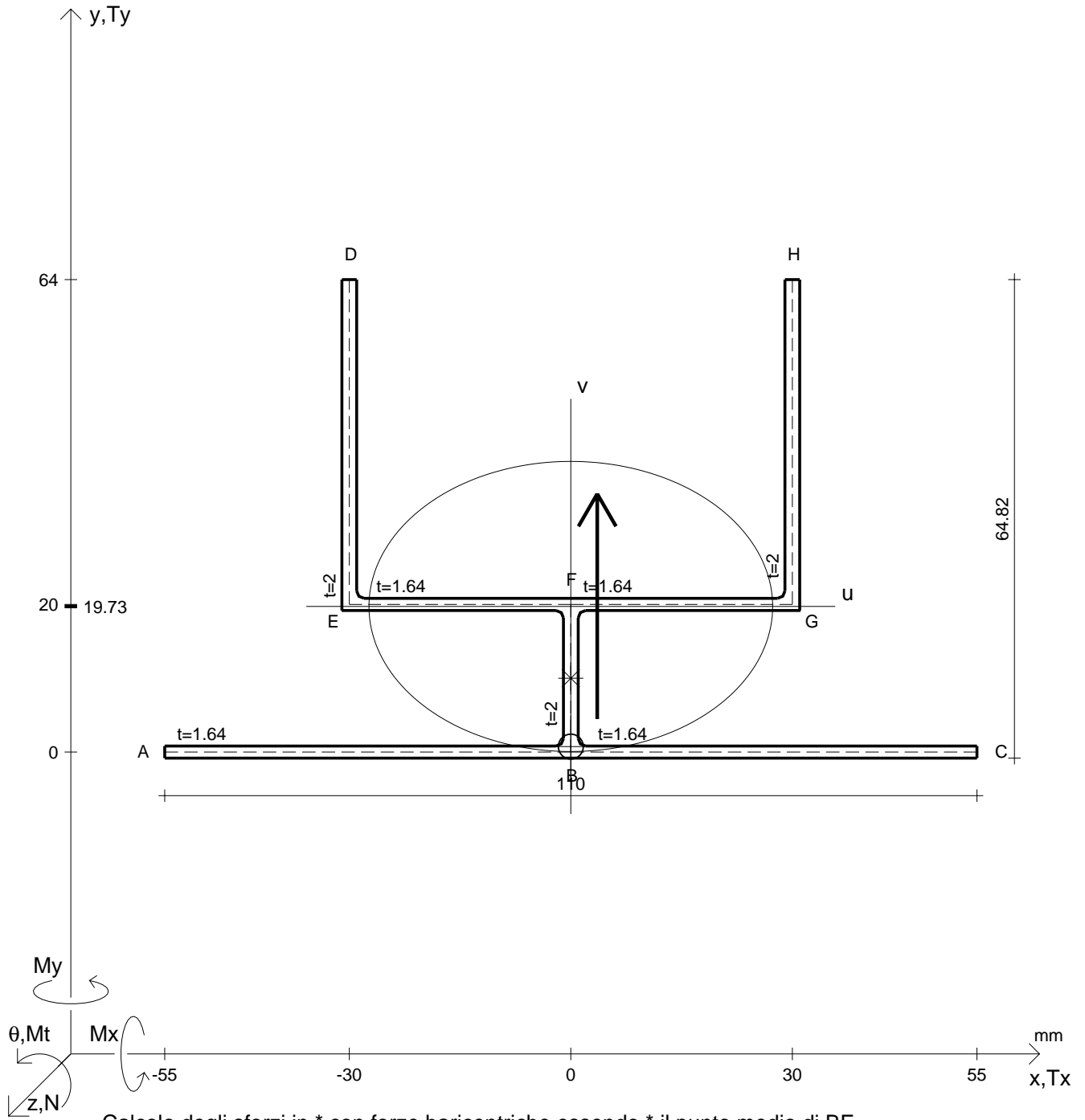


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto F di BF

N = 4130 N	$M_x = 71400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 974 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.9514 \text{ N/mm}^2$
$M_t = 3810 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 57.13 \text{ N/mm}^2$
$y_G = 17.72 \text{ mm}$	$\tau(M_t)_d = 15.72 \text{ N/mm}^2$	$\sigma_{mises} = 49.86 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 12.17 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.32 \text{ N/mm}^2$
$v_o = -12.73 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09827 / m$
$A^* = 454.8 \text{ mm}^2$	$\tau(T_y)_s = 12.17 \text{ N/mm}^2$	$r_u = 17.47 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 12.17 \text{ N/mm}^2$	$r_v = 26.8 \text{ mm}$
$C_w = 26071476 \text{ mm}^6$	$\sigma = 12.31 \text{ N/mm}^2$	$r_o = 34.43 \text{ mm}$
$J_u = 138862 \text{ mm}^4$	$\tau_s = -3.552 \text{ N/mm}^2$	$J_p = 539142 \text{ mm}^4$
$J_v = 326624 \text{ mm}^4$	$\tau_d = 27.9 \text{ N/mm}^2$	
$J_t = 484.6 \text{ mm}^4$	$\sigma_{ls} = 34.72 \text{ N/mm}^2$	
$\sigma(N) = 9.081 \text{ N/mm}^2$	$\sigma_{lls} = -22.41 \text{ N/mm}^2$	
$\sigma(M_x) = 3.231 \text{ N/mm}^2$	$\sigma_{ld} = 13.26 \text{ N/mm}^2$	



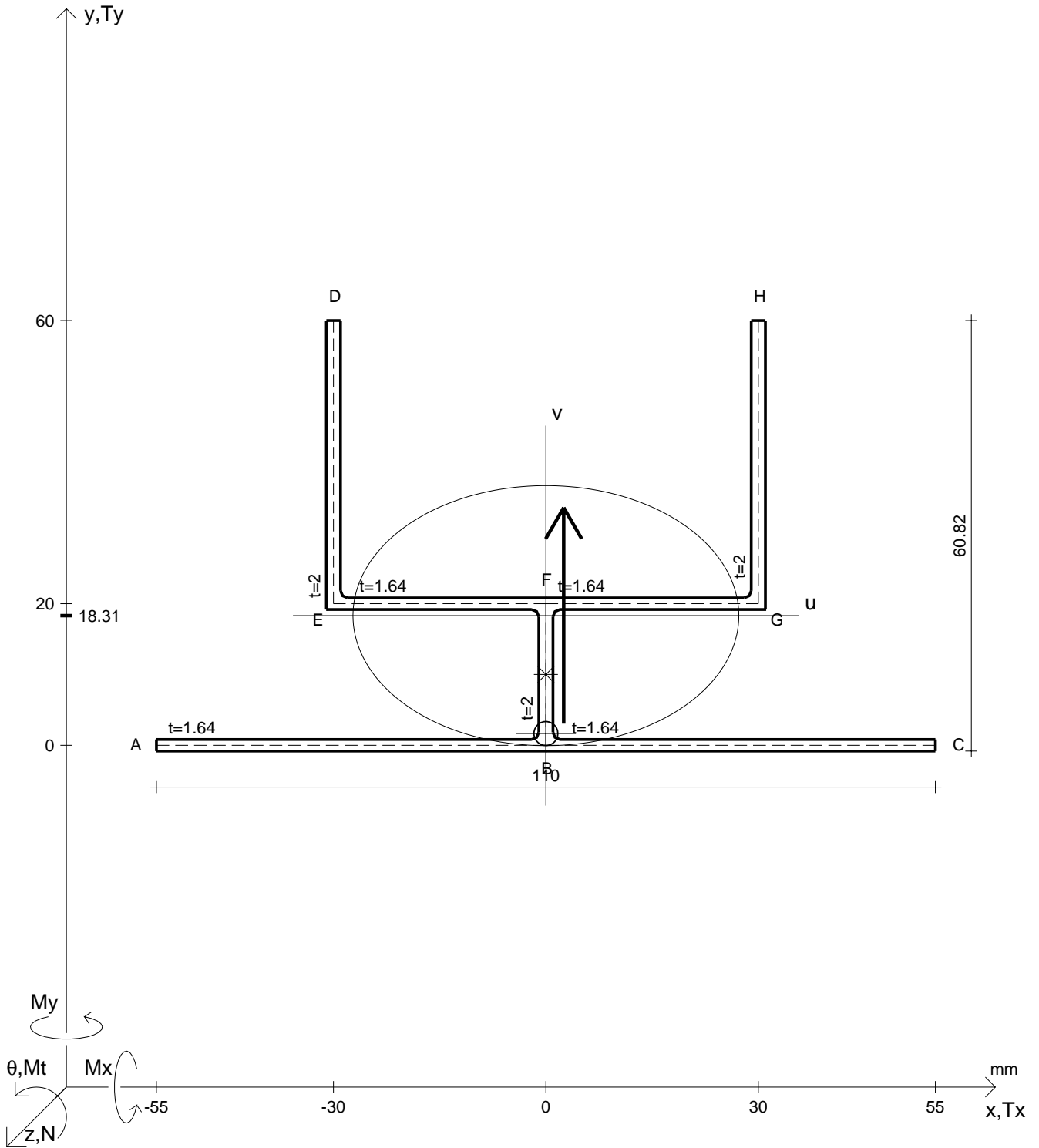




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5040 N	$M_x = -63000 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1300 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.196 \text{ N/mm}^2$
$M_t = 4650 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.25 \text{ N/mm}^2$
$y_G = 19.73 \text{ mm}$	$\tau(M_t)_d = 17.29 \text{ N/mm}^2$	$\sigma_{mises} = 54.33 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.11 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.93 \text{ N/mm}^2$
$v_o = -18.99 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.108 / \text{m}$
$A^* = 494.8 \text{ mm}^2$	$\tau(T_y)_s = 13.11 \text{ N/mm}^2$	$r_u = 19.65 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.11 \text{ N/mm}^2$	$r_v = 27.34 \text{ mm}$
$C_w = 37794388 \text{ mm}^6$	$\sigma = 13.39 \text{ N/mm}^2$	$r_o = 38.65 \text{ mm}$
$J_u = 191035 \text{ mm}^4$	$\tau_s = -4.178 \text{ N/mm}^2$	$J_p = 739205 \text{ mm}^4$
$J_v = 369824 \text{ mm}^4$	$\tau_d = 30.4 \text{ N/mm}^2$	
$J_t = 538 \text{ mm}^4$	$\sigma_{ls} = 37.82 \text{ N/mm}^2$	
$\sigma(N) = 10.19 \text{ N/mm}^2$	$\sigma_{lls} = -24.43 \text{ N/mm}^2$	
$\sigma(M_x) = 3.207 \text{ N/mm}^2$	$\sigma_{ld} = 14.59 \text{ N/mm}^2$	

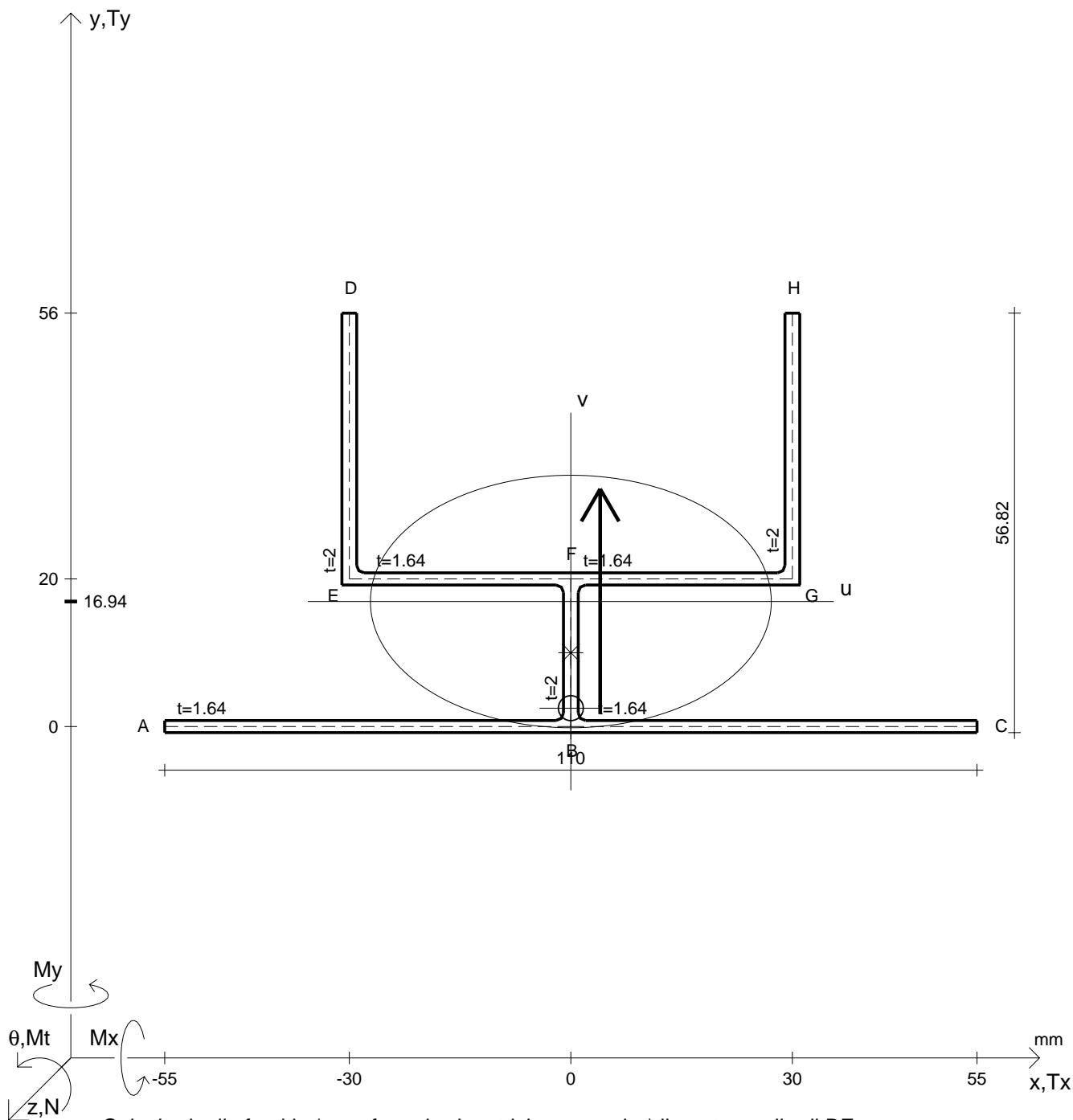




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5390 N	M <sub>t</sub> = 3300 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1310 N	M <sub>x</sub> = -63200 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.39 N/mm <sup>2</sup>
y <sub>G</sub> = 18.31 mm	J <sub>t</sub> = 516.6 mm <sup>4</sup>	σ = 14.51 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.7 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.26 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.706 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07985 /m
v <sub>o</sub> = -16.65 mm	σ(M <sub>x</sub> ) = 3.254 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.26 N/mm <sup>2</sup>	r <sub>u</sub> = 18.36 mm
A* = 478.8 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.78 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.46 N/mm <sup>2</sup>	r <sub>v</sub> = 27.25 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.48 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.95 N/mm <sup>2</sup>	r <sub>o</sub> = 36.83 mm
C <sub>w</sub> = 30027276 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 14.71 N/mm <sup>2</sup>	J <sub>p</sub> = 649642 mm <sup>4</sup>
J <sub>u</sub> = 161463 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.48 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1979 N/mm <sup>2</sup>	
J <sub>v</sub> = 355424 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.48 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.41 N/mm <sup>2</sup>	

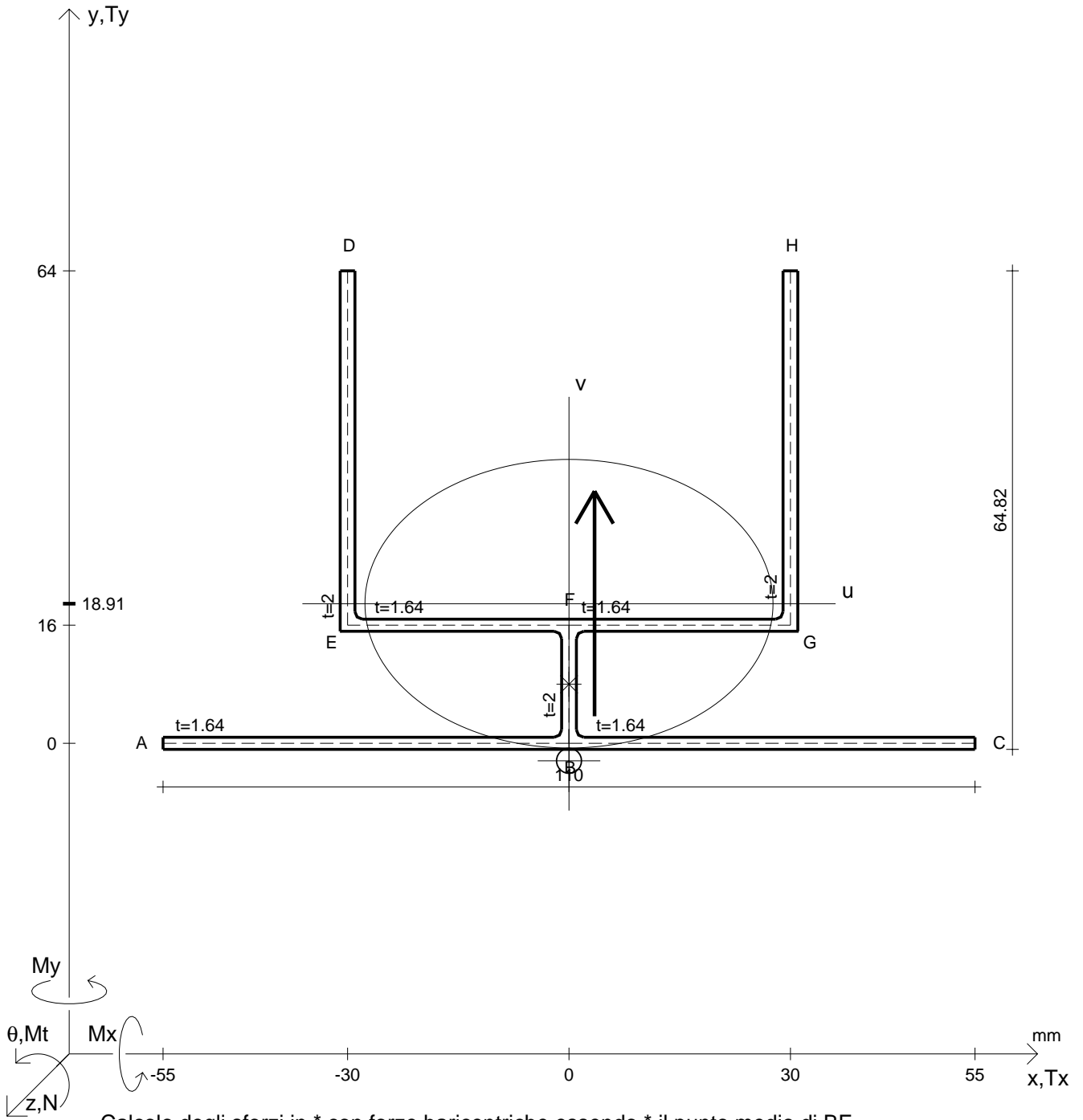




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5710 N	$M_x = -62400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 888 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7306 \text{ N/mm}^2$
$M_t = 3530 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.48 \text{ N/mm}^2$
$y_G = 16.94 \text{ mm}$	$\tau(M_t)_d = 14.25 \text{ N/mm}^2$	$\sigma_{mises} = 46.1 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.81 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.62 \text{ N/mm}^2$
$v_o = -14.45 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08909 / m$
$A^* = 462.8 \text{ mm}^2$	$\tau(T_y)_s = 10.81 \text{ N/mm}^2$	$r_u = 17.1 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.81 \text{ N/mm}^2$	$r_v = 27.15 \text{ mm}$
$C_w = 24206568 \text{ mm}^6$	$\sigma = 15.54 \text{ N/mm}^2$	$r_o = 35.19 \text{ mm}$
$J_u = 135369 \text{ mm}^4$	$\tau_s = -3.448 \text{ N/mm}^2$	$J_p = 573013 \text{ mm}^4$
$J_v = 341024 \text{ mm}^4$	$\tau_d = 25.06 \text{ N/mm}^2$	
$J_t = 495.3 \text{ mm}^4$	$\sigma_{ls} = 34.01 \text{ N/mm}^2$	
$\sigma(N) = 12.34 \text{ N/mm}^2$	$\sigma_{lls} = -18.47 \text{ N/mm}^2$	
$\sigma(M_x) = 3.199 \text{ N/mm}^2$	$\sigma_{ld} = 16.27 \text{ N/mm}^2$	



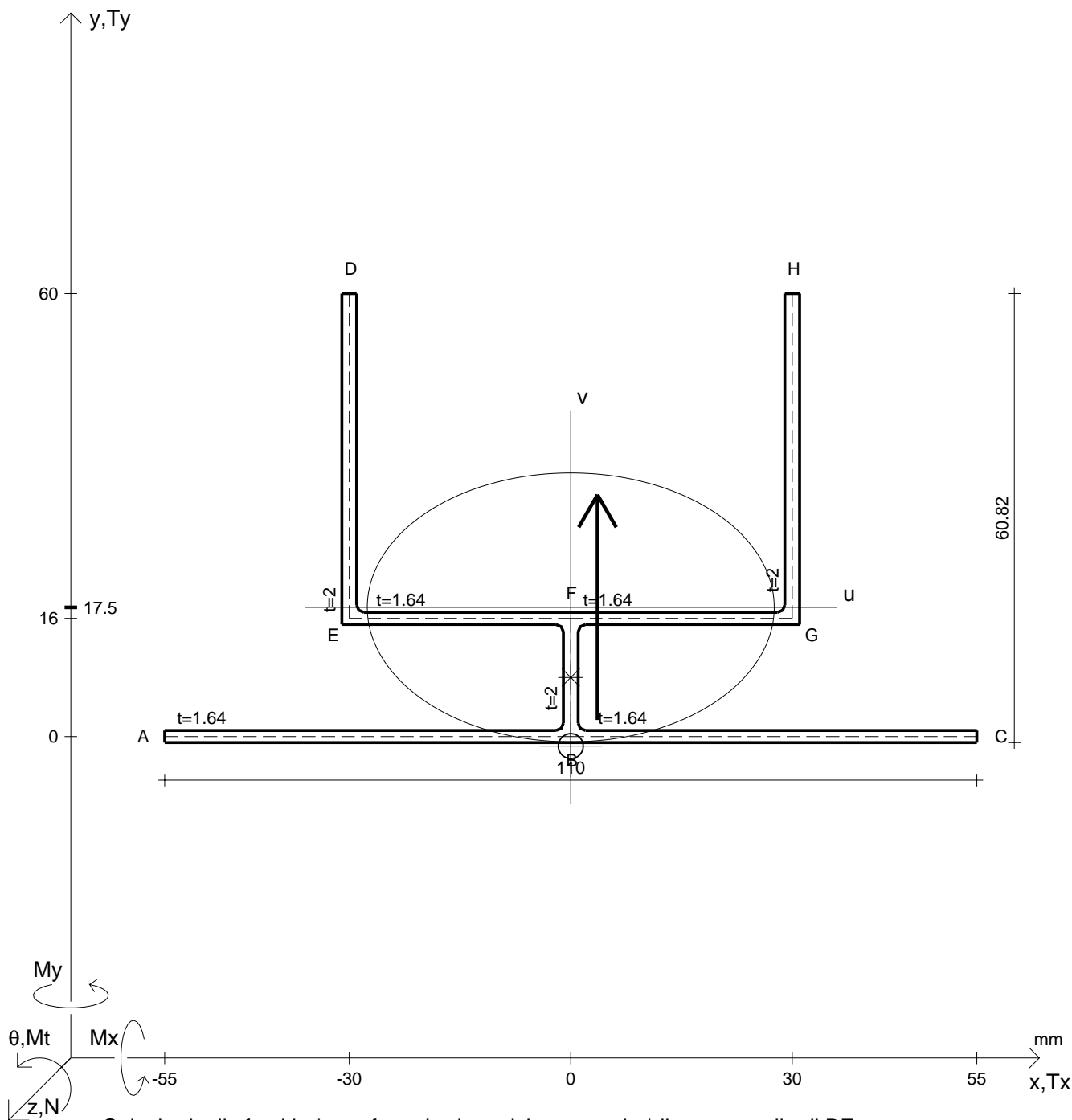


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4590 N	$M_x = -84200 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1250 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.022 \text{ N/mm}^2$
$M_t = 4330 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 57.05 \text{ N/mm}^2$
$y_G = 18.91 \text{ mm}$	$\tau(M_t)_d = 15.79 \text{ N/mm}^2$	$\sigma_{mises} = 49.89 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.88 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.87 \text{ N/mm}^2$
$v_o = -21.28 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09866 / m$
$A^* = 502.8 \text{ mm}^2$	$\tau(T_y)_s = 11.88 \text{ N/mm}^2$	$r_u = 19.55 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.88 \text{ N/mm}^2$	$r_v = 27.64 \text{ mm}$
$C_w = 49638284 \text{ mm}^6$	$\sigma = 13.91 \text{ N/mm}^2$	$r_o = 39.99 \text{ mm}$
$J_u = 192097 \text{ mm}^4$	$\tau_s = -3.907 \text{ N/mm}^2$	$J_p = 804083 \text{ mm}^4$
$J_v = 384224 \text{ mm}^4$	$\tau_d = 27.66 \text{ N/mm}^2$	
$J_t = 548.6 \text{ mm}^4$	$\sigma_{ls} = 35.48 \text{ N/mm}^2$	
$\sigma(N) = 9.129 \text{ N/mm}^2$	$\sigma_{lls} = -21.57 \text{ N/mm}^2$	
$\sigma(M_x) = 4.784 \text{ N/mm}^2$	$\sigma_{ld} = 14.93 \text{ N/mm}^2$	



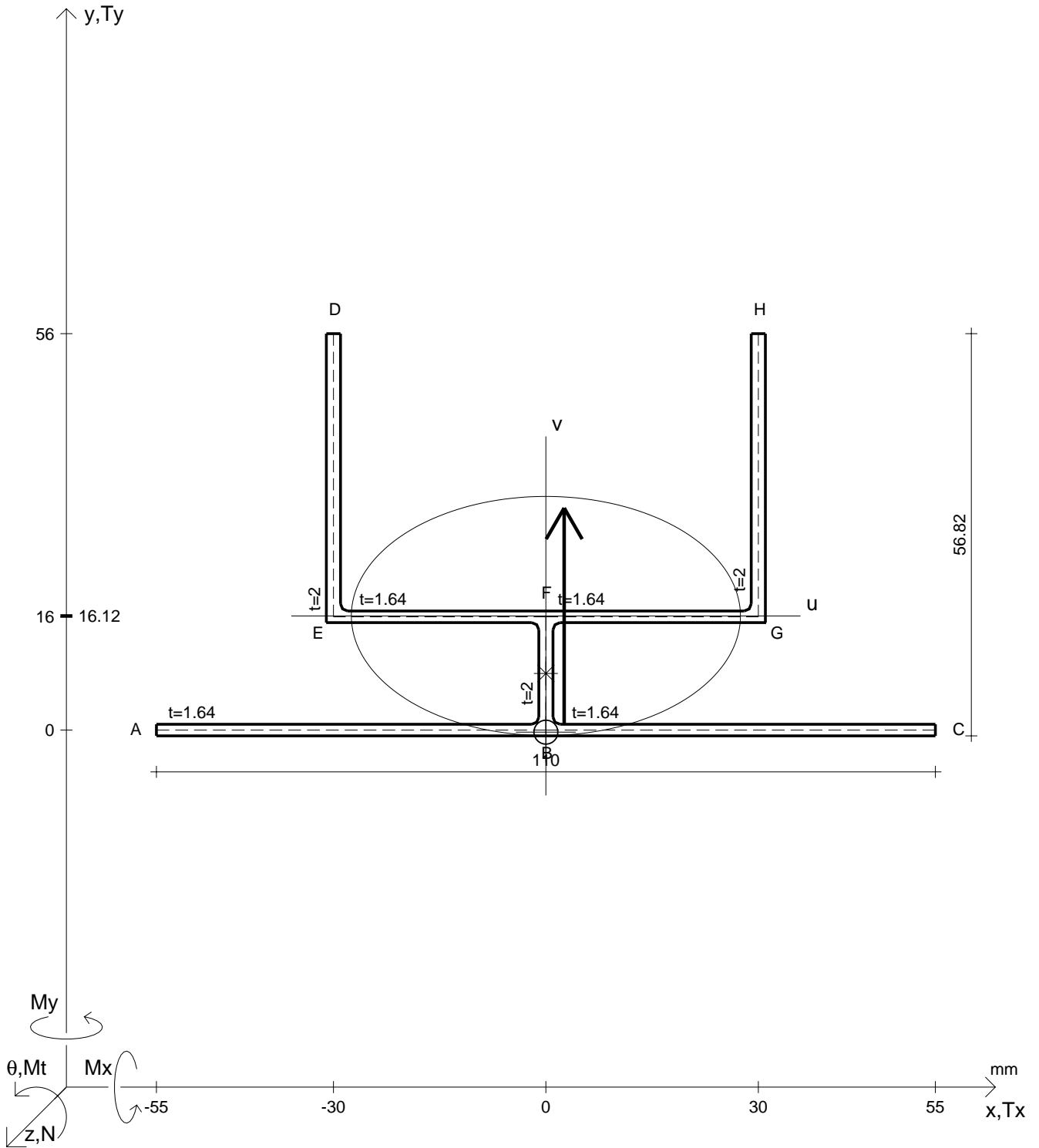




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4960 N	$M_x = -55400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1260 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.167 \text{ N/mm}^2$
$M_t = 4560 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 62.39 \text{ N/mm}^2$
$y_G = 17.5 \text{ mm}$	$\tau(M_t)_d = 17.3 \text{ N/mm}^2$	$\sigma_{mises} = 54.45 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.17 \text{ N/mm}^2$	$\sigma_{st.ven} = 44.04 \text{ N/mm}^2$
$v_o = -18.79 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1081 / \text{m}$
$A^* = 486.8 \text{ mm}^2$	$\tau(T_y)_s = 13.17 \text{ N/mm}^2$	$r_u = 18.21 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.17 \text{ N/mm}^2$	$r_v = 27.56 \text{ mm}$
$C_w = 38196692 \text{ mm}^6$	$\sigma = 13.45 \text{ N/mm}^2$	$r_o = 38 \text{ mm}$
$J_u = 161398 \text{ mm}^4$	$\tau_s = -4.131 \text{ N/mm}^2$	$J_p = 703121 \text{ mm}^4$
$J_v = 369824 \text{ mm}^4$	$\tau_d = 30.46 \text{ N/mm}^2$	
$J_t = 527.3 \text{ mm}^4$	$\sigma_{ls} = 37.92 \text{ N/mm}^2$	
$\sigma(N) = 10.19 \text{ N/mm}^2$	$\sigma_{lls} = -24.47 \text{ N/mm}^2$	
$\sigma(M_x) = 3.26 \text{ N/mm}^2$	$\sigma_{ld} = 14.62 \text{ N/mm}^2$	

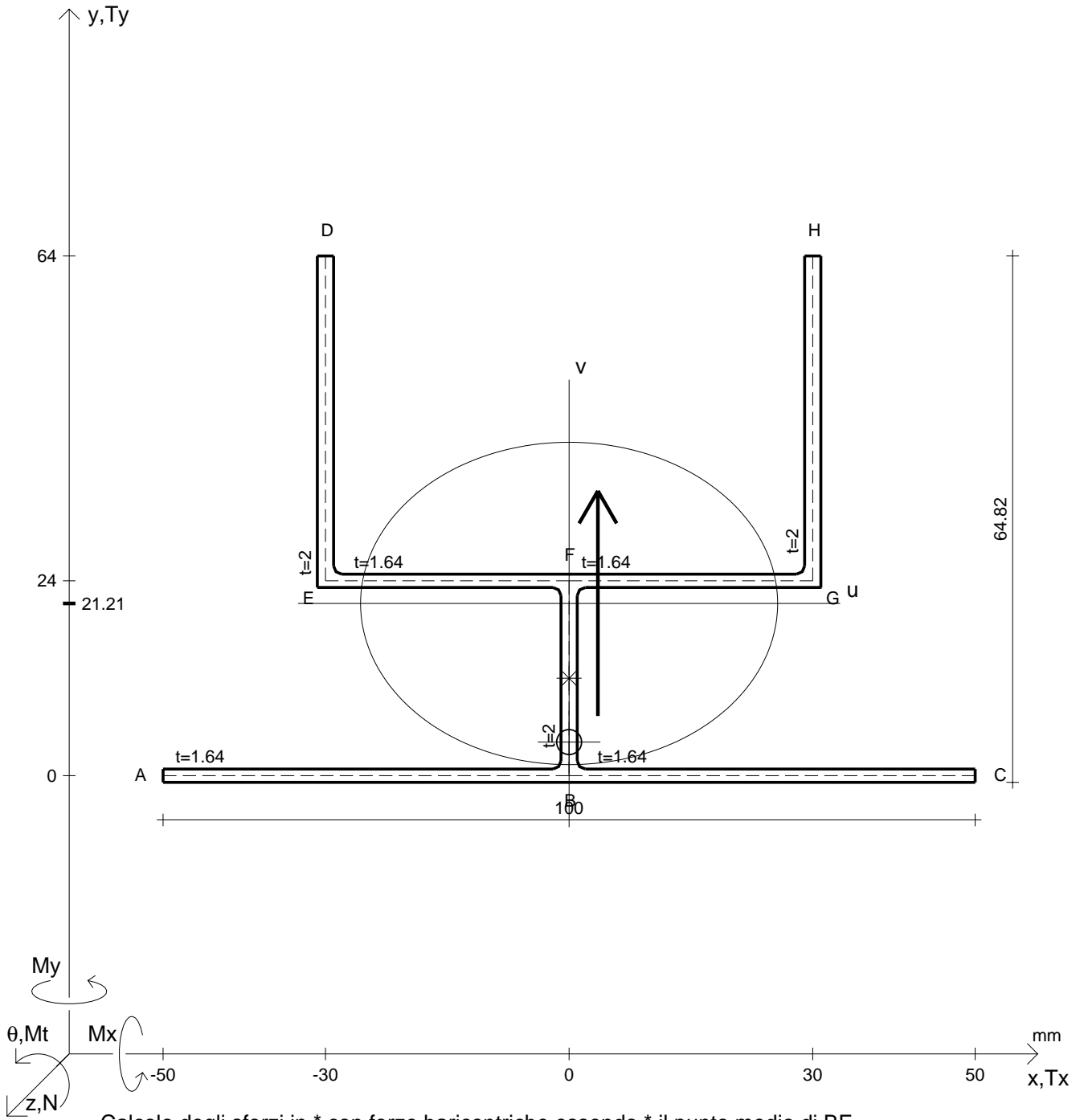




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5310 N	M <sub>t</sub> = 3230 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1250 N	M <sub>x</sub> = -54900 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.34 N/mm <sup>2</sup>
y <sub>G</sub> = 16.12 mm	J <sub>t</sub> = 506 mm <sup>4</sup>	σ = 14.6 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.69 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.28 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.677 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.0798 /m
v <sub>o</sub> = -16.41 mm	σ(M <sub>x</sub> ) = 3.322 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.21 N/mm <sup>2</sup>	r <sub>u</sub> = 16.89 mm
A* = 470.8 mm <sup>2</sup>	τ(M <sub>x</sub> ) <sub>d</sub> = 12.77 N/mm <sup>2</sup>	σ <sub>ls</sub> = 35.47 N/mm <sup>2</sup>	r <sub>v</sub> = 27.48 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.44 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.87 N/mm <sup>2</sup>	r <sub>o</sub> = 36.19 mm
C <sub>w</sub> = 29030874 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 14.79 N/mm <sup>2</sup>	J <sub>p</sub> = 616506 mm <sup>4</sup>
J <sub>u</sub> = 134239 mm <sup>4</sup>	τ(T <sub>ys</sub> ) = 14.44 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.19 N/mm <sup>2</sup>	
J <sub>v</sub> = 355424 mm <sup>4</sup>	τ(T <sub>yd</sub> ) = 14.44 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.35 N/mm <sup>2</sup>	

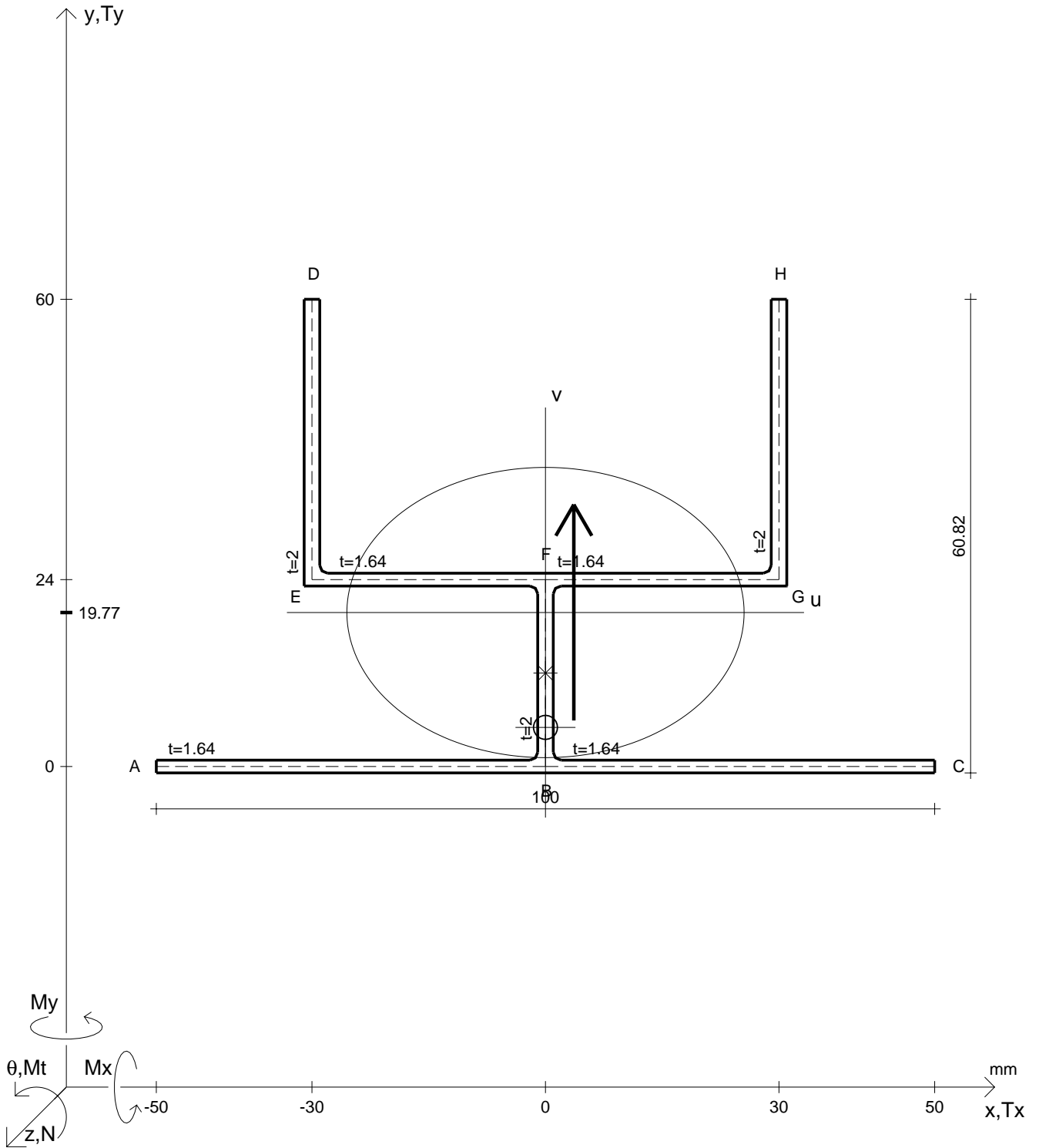




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N	= 5800 N	$M_x$	= -78000 Nmm	G	= 80000 N/mm <sup>2</sup>
$T_y$	= 1030 N	$\sigma_a$	= 50 N/mm <sup>2</sup>	$\sigma_{lld}$	= -0.7484 N/mm <sup>2</sup>
$M_t$	= 3650 Nmm	E	= 200000 N/mm <sup>2</sup>	$\sigma_{tresca}$	= 52.41 N/mm <sup>2</sup>
$y_G$	= 21.21 mm	$\tau(M_t)_d$	= 14.24 N/mm <sup>2</sup>	$\sigma_{mises}$	= 46.11 N/mm <sup>2</sup>
$u_o$	= 0 mm	$\tau(T_{yc})$	= 10.68 N/mm <sup>2</sup>	$\sigma_{st.ven}$	= 38.83 N/mm <sup>2</sup>
$v_o$	= -17.07 mm	$\tau(T_{yb})_d$	= 0 N/mm <sup>2</sup>	$\theta_t$	= 0.08901 /m
$A^*$	= 470.4 mm <sup>2</sup>	$\tau(T_y)_s$	= 10.68 N/mm <sup>2</sup>	$r_u$	= 19.85 mm
$S_u^*$	= 0 mm <sup>3</sup>	$\tau(T_y)_d$	= 10.68 N/mm <sup>2</sup>	$r_v$	= 25.68 mm
$C_w$	= 33188500 mm <sup>6</sup>	$\sigma$	= 16.21 N/mm <sup>2</sup>	$r_o$	= 36.67 mm
$J_u$	= 185354 mm <sup>4</sup>	$\tau_s$	= -3.562 N/mm <sup>2</sup>	$J_p$	= 632607 mm <sup>4</sup>
$J_v$	= 310187 mm <sup>4</sup>	$\tau_d$	= 24.92 N/mm <sup>2</sup>		
$J_t$	= 512.6 mm <sup>4</sup>	$\sigma_{ls}$	= 34.31 N/mm <sup>2</sup>		
$\sigma(N)$	= 12.33 N/mm <sup>2</sup>	$\sigma_{lls}$	= -18.1 N/mm <sup>2</sup>		
$\sigma(M_x)$	= 3.876 N/mm <sup>2</sup>	$\sigma_{ld}$	= 16.95 N/mm <sup>2</sup>		



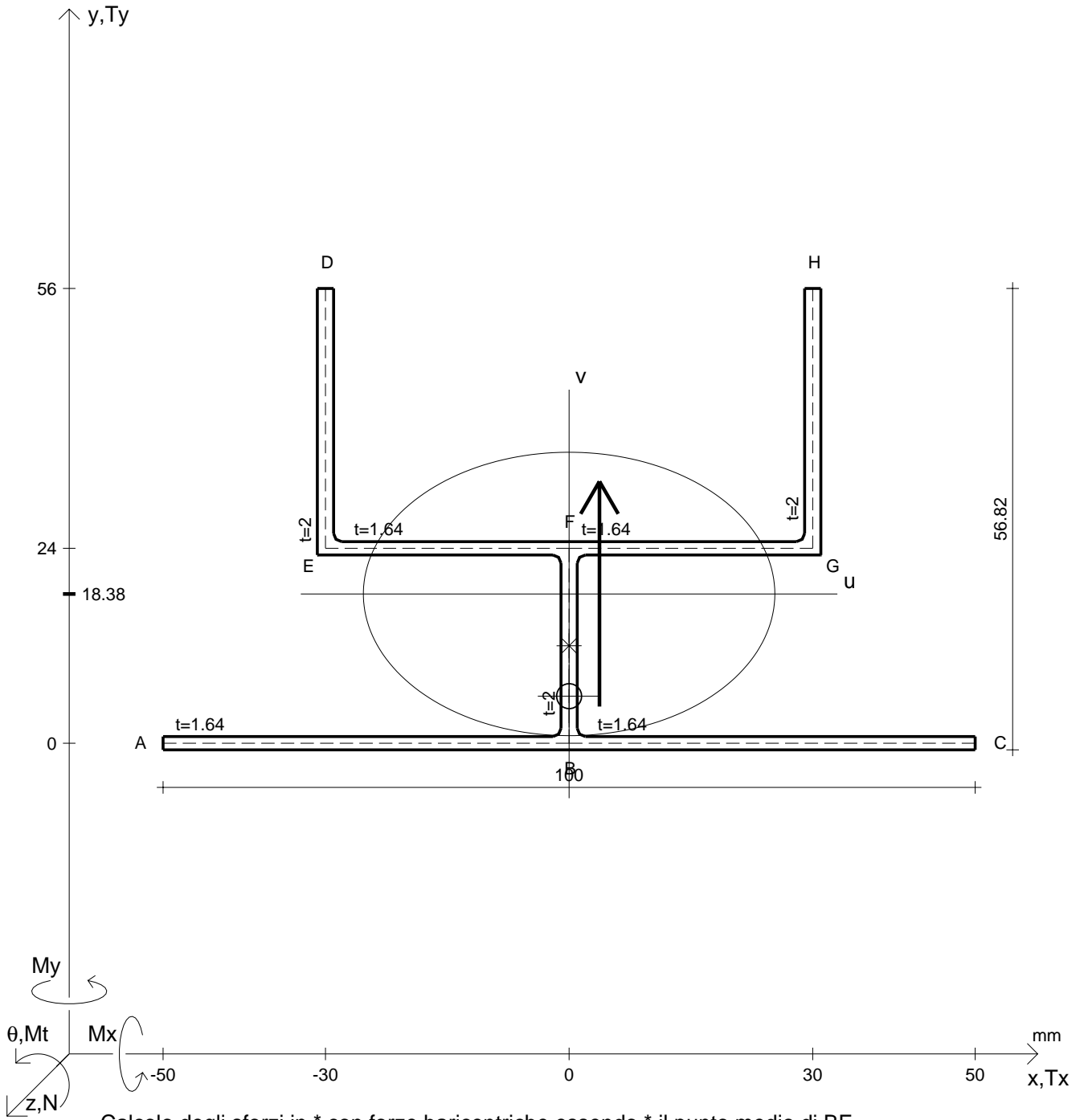


Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4130 N	M <sub>t</sub> = 3860 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1060 N	M <sub>x</sub> = -77300 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.71 N/mm <sup>2</sup>
y <sub>G</sub> = 19.77 mm	J <sub>t</sub> = 491.3 mm <sup>4</sup>	σ = 12.9 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.41 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 9.089 N/mm <sup>2</sup>	τ <sub>s</sub> = -3.71 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.09822 /m
v <sub>o</sub> = -14.75 mm	σ(M <sub>x</sub> ) = 3.809 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.72 N/mm <sup>2</sup>	r <sub>u</sub> = 18.63 mm
A* = 454.4 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 15.72 N/mm <sup>2</sup>	σ <sub>Is</sub> = 34.91 N/mm <sup>2</sup>	r <sub>v</sub> = 25.51 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 12 N/mm <sup>2</sup>	σ <sub>IIIs</sub> = -22.01 N/mm <sup>2</sup>	r <sub>o</sub> = 34.87 mm
C <sub>w</sub> = 28199614 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 13.89 N/mm <sup>2</sup>	J <sub>p</sub> = 552429 mm <sup>4</sup>
J <sub>u</sub> = 157775 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 12 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.9912 N/mm <sup>2</sup>	
J <sub>v</sub> = 295787 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 12 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.92 N/mm <sup>2</sup>	



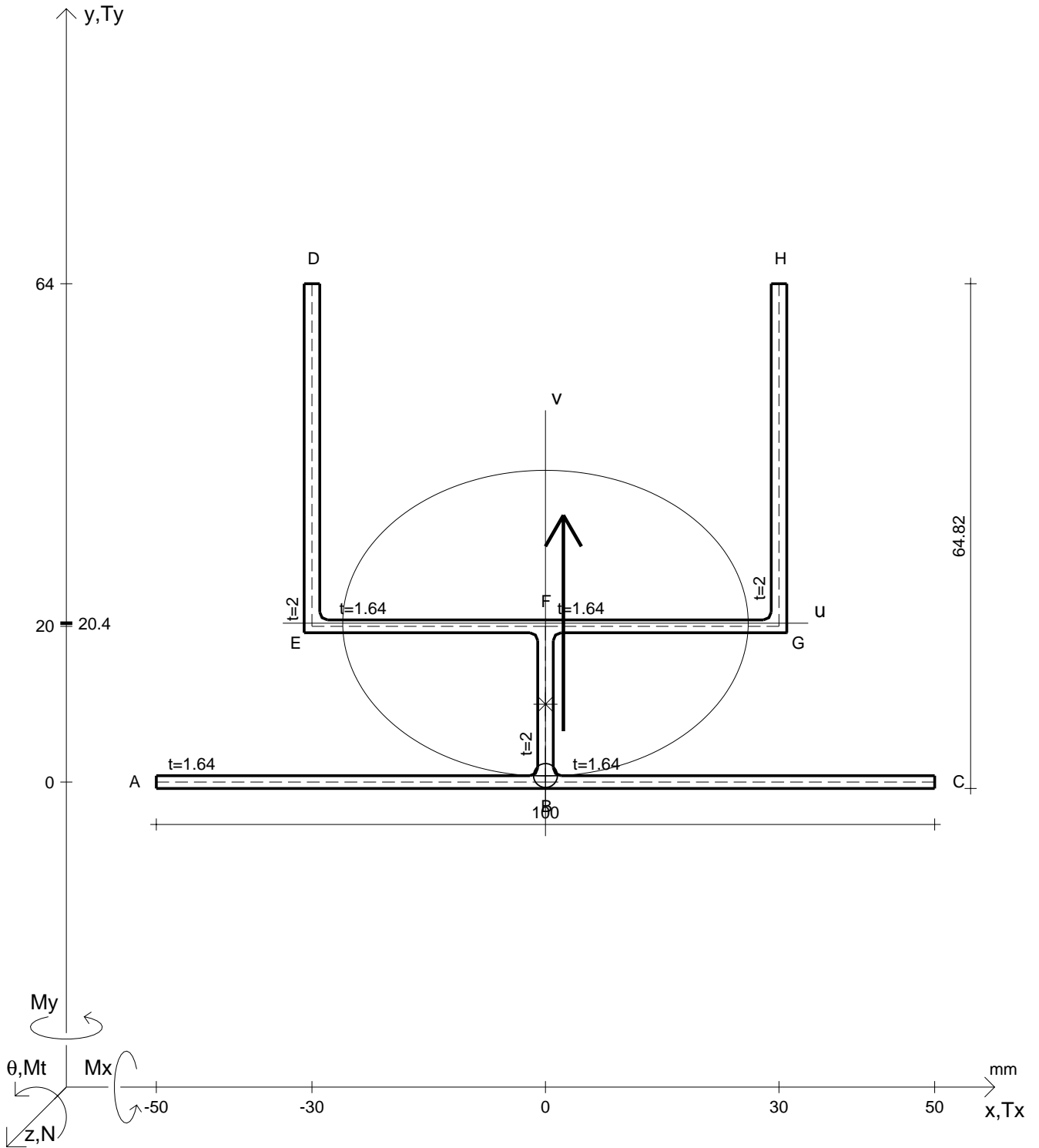




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4450 N	$M_x = -51600 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1080 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.057 \text{ N/mm}^2$
$M_t = 4040 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 62.46 \text{ N/mm}^2$
$y_G = 18.38 \text{ mm}$	$\tau(M_t)_d = 17.19 \text{ N/mm}^2$	$\sigma_{mises} = 54.46 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 13.39 \text{ N/mm}^2$	$\sigma_{st.ven} = 43.77 \text{ N/mm}^2$
$v_o = -12.59 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.1075 / \text{m}$
$A^* = 438.4 \text{ mm}^2$	$\tau(T_y)_s = 13.39 \text{ N/mm}^2$	$r_u = 17.45 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 13.39 \text{ N/mm}^2$	$r_v = 25.33 \text{ mm}$
$C_w = 24763626 \text{ mm}^6$	$\sigma = 12.62 \text{ N/mm}^2$	$r_o = 33.24 \text{ mm}$
$J_u = 133522 \text{ mm}^4$	$\tau_s = -3.802 \text{ N/mm}^2$	$J_p = 484361 \text{ mm}^4$
$J_v = 281387 \text{ mm}^4$	$\tau_d = 30.59 \text{ N/mm}^2$	
$J_t = 469.9 \text{ mm}^4$	$\sigma_{ls} = 37.54 \text{ N/mm}^2$	
$\sigma(N) = 10.15 \text{ N/mm}^2$	$\sigma_{lls} = -24.92 \text{ N/mm}^2$	
$\sigma(M_x) = 2.465 \text{ N/mm}^2$	$\sigma_{ld} = 13.67 \text{ N/mm}^2$	

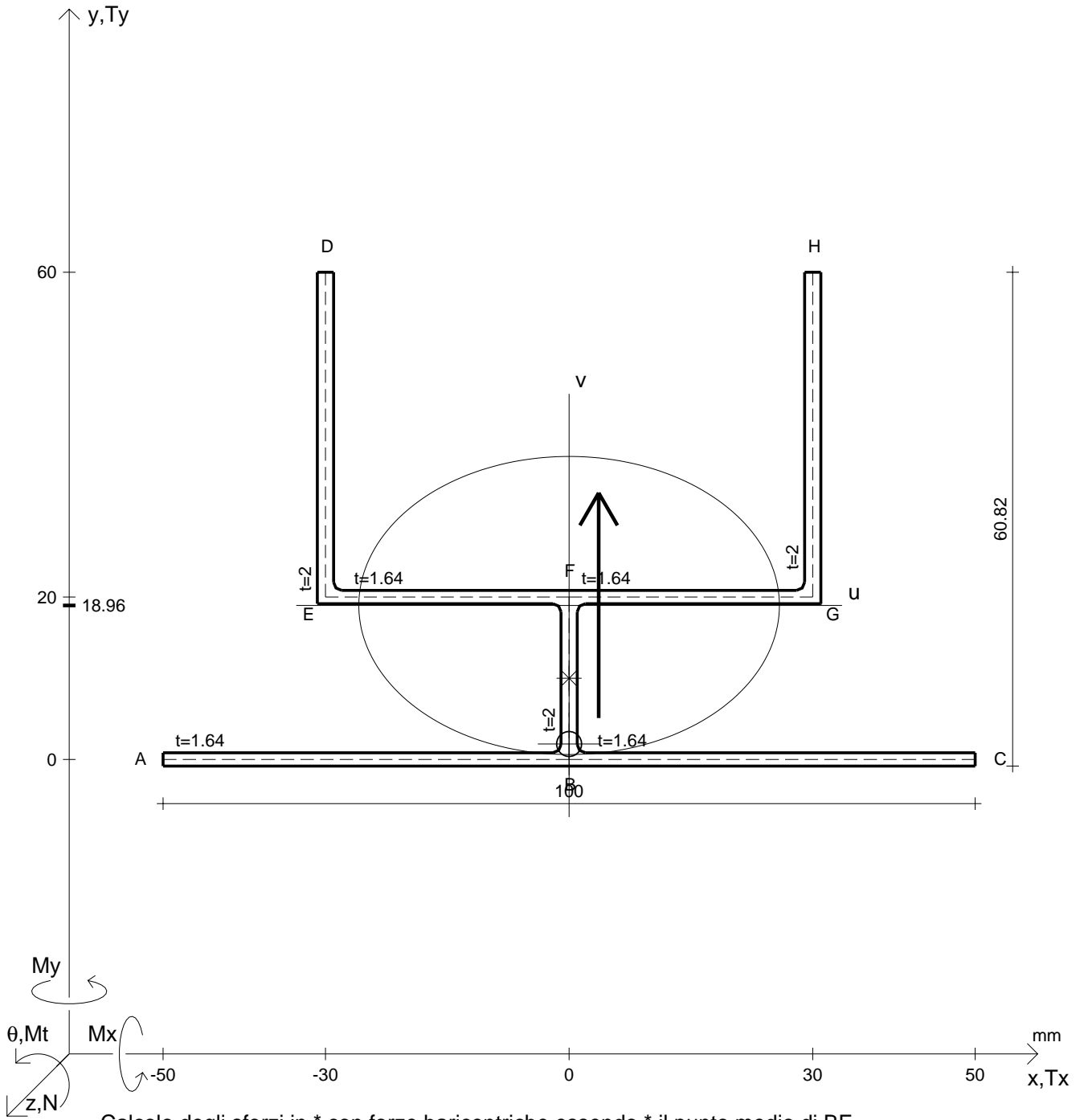




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5390 N	M <sub>t</sub> = 3340 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1450 N	M <sub>x</sub> = -69000 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.37 N/mm <sup>2</sup>
y <sub>G</sub> = 20.4 mm	J <sub>t</sub> = 523.3 mm <sup>4</sup>	σ = 15.16 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.89 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.27 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.597 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07979 /m
v <sub>o</sub> = -19.56 mm	σ(M <sub>x</sub> ) = 3.891 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.13 N/mm <sup>2</sup>	r <sub>u</sub> = 19.63 mm
A* = 478.4 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.77 N/mm <sup>2</sup>	σ <sub>Is</sub> = 35.75 N/mm <sup>2</sup>	r <sub>v</sub> = 26.05 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.36 N/mm <sup>2</sup>	σ <sub>IIs</sub> = -20.59 N/mm <sup>2</sup>	r <sub>o</sub> = 38.03 mm
C <sub>w</sub> = 37766180 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>Id</sub> = 15.32 N/mm <sup>2</sup>	J <sub>p</sub> = 692025 mm <sup>4</sup>
J <sub>u</sub> = 184435 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.36 N/mm <sup>2</sup>	σ <sub>IIId</sub> = -0.1664 N/mm <sup>2</sup>	
J <sub>v</sub> = 324587 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.36 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.34 N/mm <sup>2</sup>	

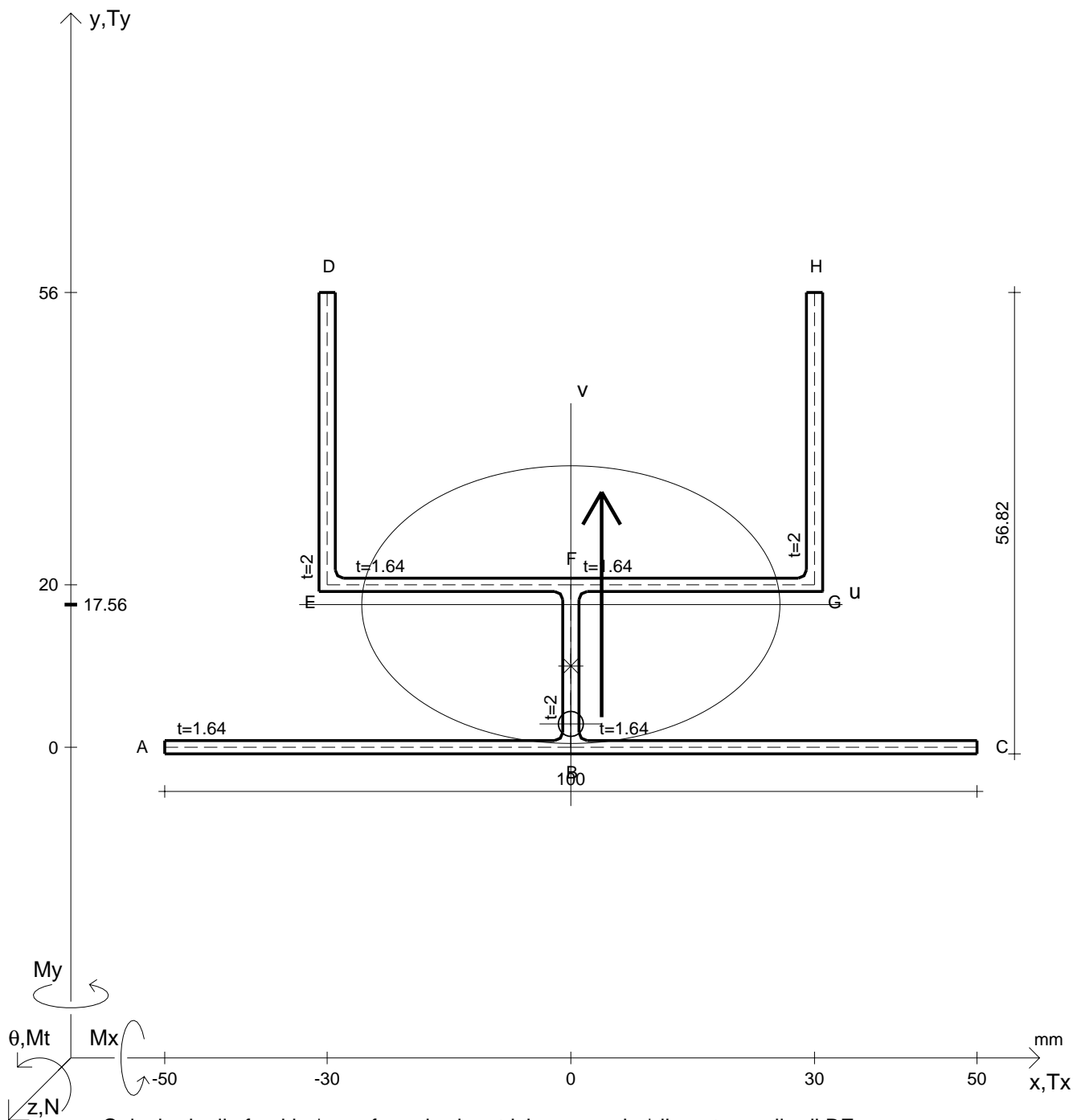




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5710 N	$M_x = -68400 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 983 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7491 \text{ N/mm}^2$
$M_t = 3580 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.51 \text{ N/mm}^2$
$y_G = 18.96 \text{ mm}$	$\tau(M_t)_d = 14.27 \text{ N/mm}^2$	$\sigma_{mises} = 46.19 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.69 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.92 \text{ N/mm}^2$
$v_o = -17.06 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08916 / \text{m}$
$A^* = 462.4 \text{ mm}^2$	$\tau(T_y)_s = 10.69 \text{ N/mm}^2$	$r_u = 18.35 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.69 \text{ N/mm}^2$	$r_v = 25.9 \text{ mm}$
$C_w = 29884250 \text{ mm}^6$	$\sigma = 16.28 \text{ N/mm}^2$	$r_o = 36.04 \text{ mm}$
$J_u = 155768 \text{ mm}^4$	$\tau_s = -3.572 \text{ N/mm}^2$	$J_p = 600511 \text{ mm}^4$
$J_v = 310187 \text{ mm}^4$	$\tau_d = 24.96 \text{ N/mm}^2$	
$J_t = 501.9 \text{ mm}^4$	$\sigma_{ls} = 34.4 \text{ N/mm}^2$	
$\sigma(N) = 12.35 \text{ N/mm}^2$	$\sigma_{lls} = -18.11 \text{ N/mm}^2$	
$\sigma(M_x) = 3.935 \text{ N/mm}^2$	$\sigma_{ld} = 17.03 \text{ N/mm}^2$	





Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

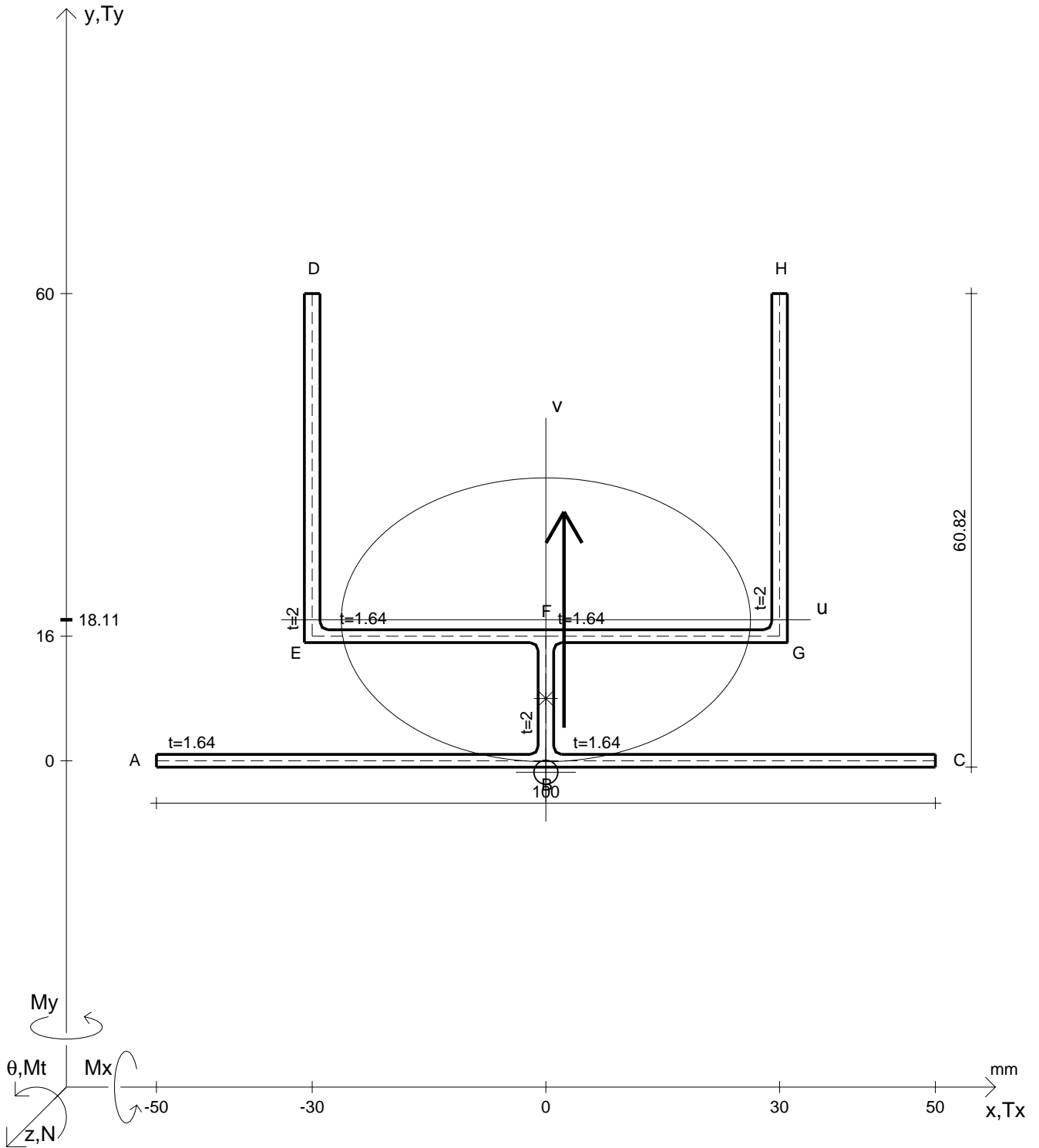
$N = 4070 \text{ N}$	$M_x = -67000 \text{ Nmm}$	$G = 80000 \text{ N/mm}^2$
$T_y = 1000 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.016 \text{ N/mm}^2$
$M_t = 3790 \text{ Nmm}$	$E = 200000 \text{ N/mm}^2$	$\sigma_{tresca} = 57.04 \text{ N/mm}^2$
$y_G = 17.56 \text{ mm}$	$\tau(M_t)_d = 15.77 \text{ N/mm}^2$	$\sigma_{mises} = 49.83 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 12 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.53 \text{ N/mm}^2$
$v_o = -14.69 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09858 / m$
$A^* = 446.4 \text{ mm}^2$	$\tau(T_y)_s = 12 \text{ N/mm}^2$	$r_u = 17.1 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 12 \text{ N/mm}^2$	$r_v = 25.74 \text{ mm}$
$C_w = 23882860 \text{ mm}^6$	$\sigma = 13 \text{ N/mm}^2$	$r_o = 34.22 \text{ mm}$
$J_u = 130490 \text{ mm}^4$	$\tau_s = -3.773 \text{ N/mm}^2$	$J_p = 522613 \text{ mm}^4$
$J_v = 295787 \text{ mm}^4$	$\tau_d = 27.77 \text{ N/mm}^2$	
$J_t = 480.6 \text{ mm}^4$	$\sigma_{ls} = 35.02 \text{ N/mm}^2$	
$\sigma(N) = 9.117 \text{ N/mm}^2$	$\sigma_{lls} = -22.02 \text{ N/mm}^2$	
$\sigma(M_x) = 3.883 \text{ N/mm}^2$	$\sigma_{ld} = 14.02 \text{ N/mm}^2$	







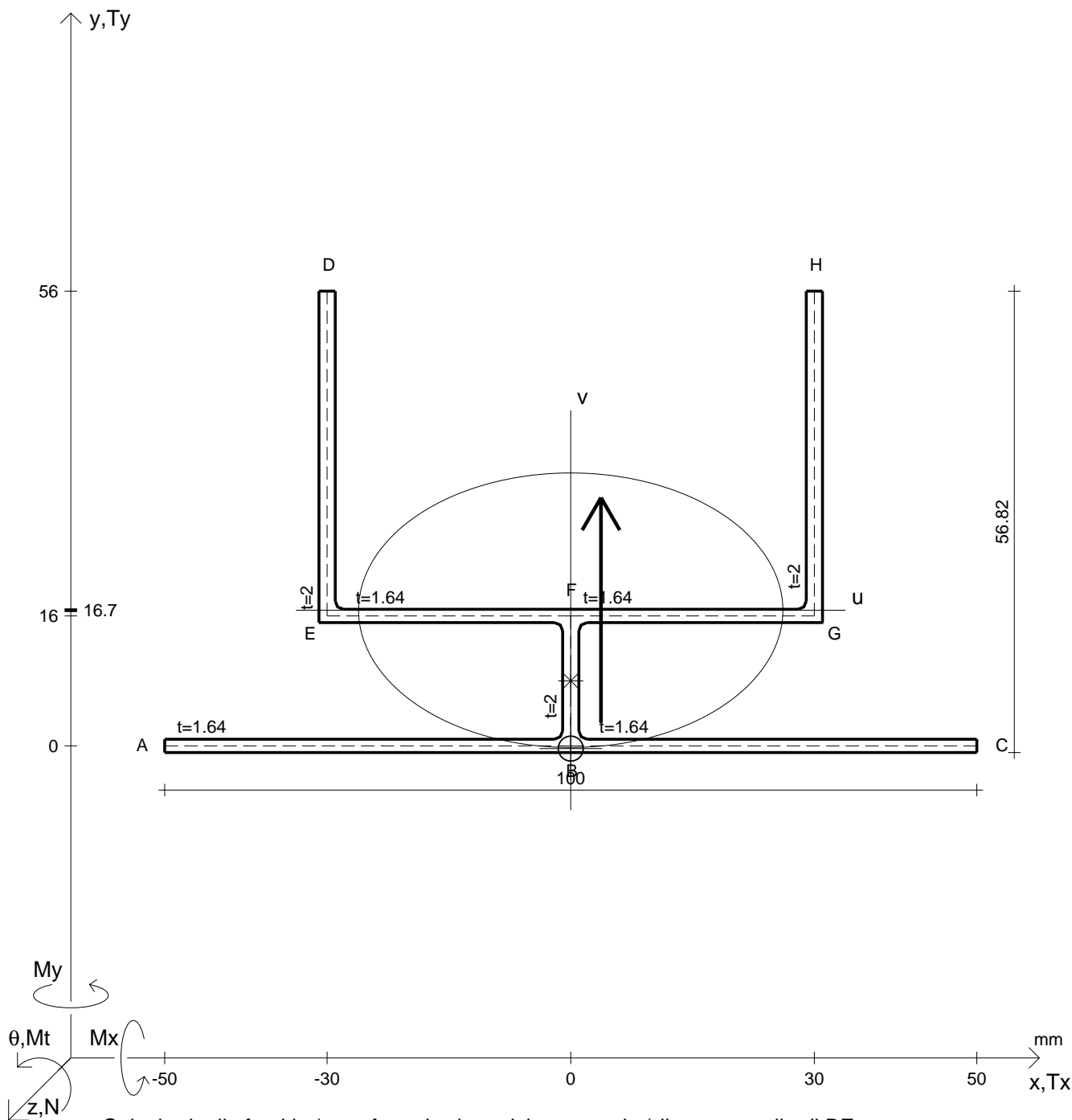




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5300 N	M <sub>t</sub> = 3270 Nmm	σ <sub>a</sub> = 50 N/mm <sup>2</sup>	G = 80000 N/mm <sup>2</sup>
T <sub>y</sub> = 1400 N	M <sub>x</sub> = -60900 Nmm	E = 200000 N/mm <sup>2</sup>	σ <sub>mises</sub> = 49.31 N/mm <sup>2</sup>
y <sub>G</sub> = 18.11 mm	J <sub>t</sub> = 512.6 mm <sup>4</sup>	σ = 15.21 N/mm <sup>2</sup>	σ <sub>st.ven</sub> = 40.86 N/mm <sup>2</sup>
u <sub>o</sub> = 0 mm	σ(N) = 11.27 N/mm <sup>2</sup>	τ <sub>s</sub> = 1.562 N/mm <sup>2</sup>	θ <sub>t</sub> = 0.07974 /m
v <sub>o</sub> = -19.58 mm	σ(M <sub>x</sub> ) = 3.941 N/mm <sup>2</sup>	τ <sub>d</sub> = 27.08 N/mm <sup>2</sup>	r <sub>u</sub> = 18.22 mm
A* = 470.4 mm <sup>2</sup>	τ(M <sub>t</sub> ) <sub>d</sub> = 12.76 N/mm <sup>2</sup>	σ <sub>ls</sub> = 35.73 N/mm <sup>2</sup>	r <sub>v</sub> = 26.27 mm
S <sub>u</sub> * = 0 mm <sup>3</sup>	τ(T <sub>yc</sub> ) = 14.32 N/mm <sup>2</sup>	σ <sub>lls</sub> = -20.52 N/mm <sup>2</sup>	r <sub>o</sub> = 37.49 mm
C <sub>w</sub> = 38110560 mm <sup>6</sup>	τ(T <sub>yb</sub> ) <sub>d</sub> = 0 N/mm <sup>2</sup>	σ <sub>ld</sub> = 15.37 N/mm <sup>2</sup>	J <sub>p</sub> = 661160 mm <sup>4</sup>
J <sub>u</sub> = 156201 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>s</sub> = 14.32 N/mm <sup>2</sup>	σ <sub>lld</sub> = -0.1587 N/mm <sup>2</sup>	
J <sub>v</sub> = 324587 mm <sup>4</sup>	τ(T <sub>y</sub> ) <sub>d</sub> = 14.32 N/mm <sup>2</sup>	σ <sub>tresca</sub> = 56.25 N/mm <sup>2</sup>	

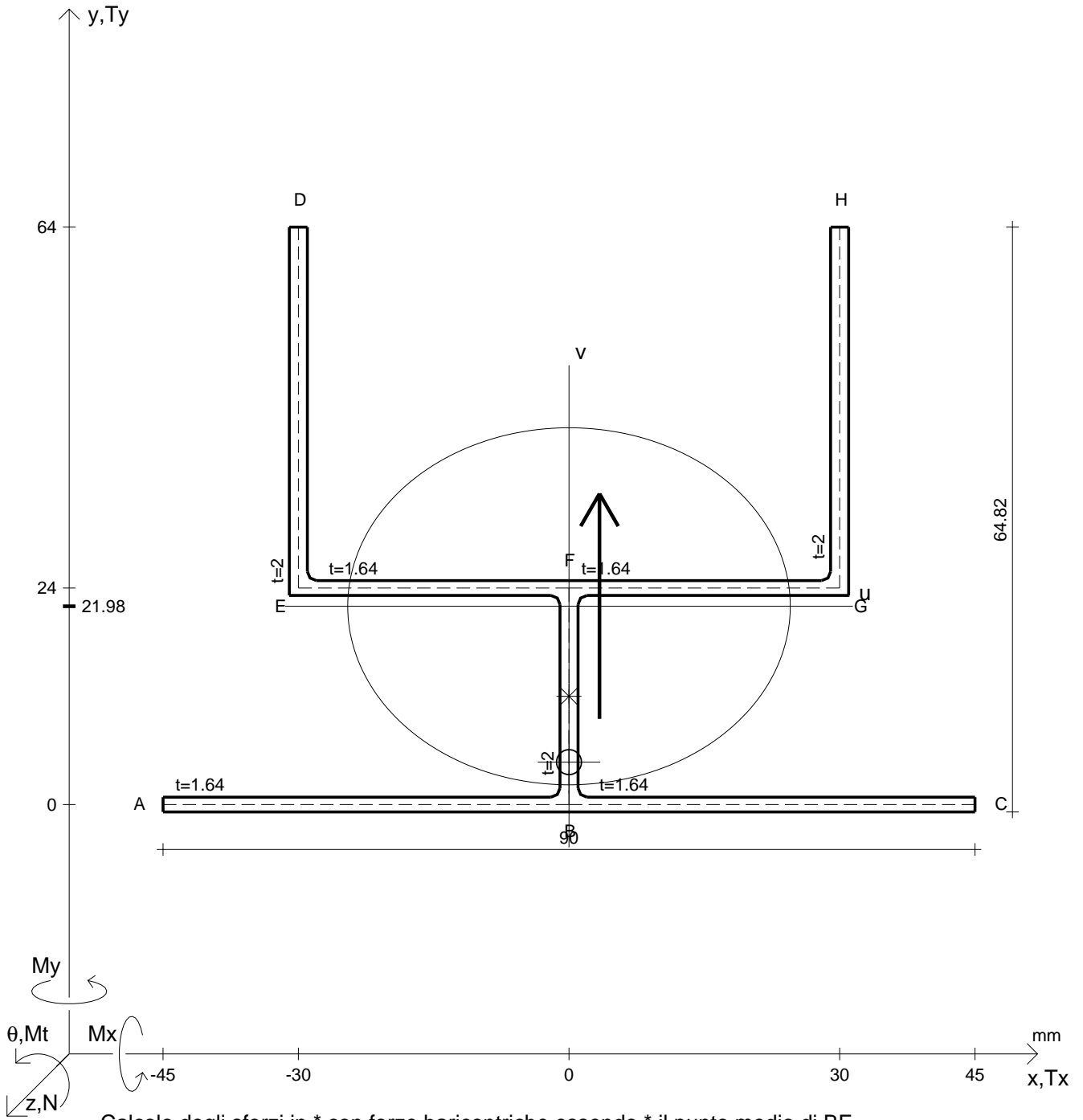




Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 5610 N	$M_x = -59600 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 942 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -0.7634 \text{ N/mm}^2$
$M_t = 3510 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 52.54 \text{ N/mm}^2$
$y_G = 16.7 \text{ mm}$	$\tau(M_t)_d = 14.29 \text{ N/mm}^2$	$\sigma_{mises} = 46.23 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 10.68 \text{ N/mm}^2$	$\sigma_{st.ven} = 38.97 \text{ N/mm}^2$
$v_o = -17.04 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.08931 / m$
$A^* = 454.4 \text{ mm}^2$	$\tau(T_y)_s = 10.68 \text{ N/mm}^2$	$r_u = 16.9 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 10.68 \text{ N/mm}^2$	$r_v = 26.13 \text{ mm}$
$C_w = 29026464 \text{ mm}^6$	$\sigma = 16.34 \text{ N/mm}^2$	$r_o = 35.48 \text{ mm}$
$J_u = 129823 \text{ mm}^4$	$\tau_s = -3.614 \text{ N/mm}^2$	$J_p = 571926 \text{ mm}^4$
$J_v = 310187 \text{ mm}^4$	$\tau_d = 24.97 \text{ N/mm}^2$	
$J_t = 491.3 \text{ mm}^4$	$\sigma_{ls} = 34.44 \text{ N/mm}^2$	
$\sigma(N) = 12.35 \text{ N/mm}^2$	$\sigma_{lls} = -18.1 \text{ N/mm}^2$	
$\sigma(M_x) = 3.996 \text{ N/mm}^2$	$\sigma_{ld} = 17.11 \text{ N/mm}^2$	





Calcolo degli sforzi in \* con forze baricentriche essendo \* il punto medio di BF

N = 4140 N	$M_x = -83500 \text{ Nmm}$	G = 80000 N/mm <sup>2</sup>
$T_y = 1160 \text{ N}$	$\sigma_a = 50 \text{ N/mm}^2$	$\sigma_{lld} = -1.03 \text{ N/mm}^2$
$M_t = 3920 \text{ Nmm}$	E = 200000 N/mm <sup>2</sup>	$\sigma_{tresca} = 56.87 \text{ N/mm}^2$
$y_G = 21.98 \text{ mm}$	$\tau(M_t)_d = 15.75 \text{ N/mm}^2$	$\sigma_{mises} = 49.73 \text{ N/mm}^2$
$u_o = 0 \text{ mm}$	$\tau(T_{yc}) = 11.84 \text{ N/mm}^2$	$\sigma_{st.ven} = 40.72 \text{ N/mm}^2$
$v_o = -17.27 \text{ mm}$	$\tau(T_{yb})_d = 0 \text{ N/mm}^2$	$\theta_t = 0.09842 / m$
$A^* = 454 \text{ mm}^2$	$\tau(T_y)_s = 11.84 \text{ N/mm}^2$	$r_u = 19.78 \text{ mm}$
$S_u^* = 0 \text{ mm}^3$	$\tau(T_y)_d = 11.84 \text{ N/mm}^2$	$r_v = 24.53 \text{ mm}$
$C_w = 32467290 \text{ mm}^6$	$\sigma = 13.81 \text{ N/mm}^2$	$r_o = 35.94 \text{ mm}$
$J_u = 177709 \text{ mm}^4$	$\tau_s = -3.908 \text{ N/mm}^2$	$J_p = 586338 \text{ mm}^4$
$J_v = 273150 \text{ mm}^4$	$\tau_d = 27.59 \text{ N/mm}^2$	
$J_t = 497.9 \text{ mm}^4$	$\sigma_{ls} = 35.34 \text{ N/mm}^2$	
$\sigma(N) = 9.119 \text{ N/mm}^2$	$\sigma_{lls} = -21.53 \text{ N/mm}^2$	
$\sigma(M_x) = 4.688 \text{ N/mm}^2$	$\sigma_{ld} = 14.84 \text{ N/mm}^2$	