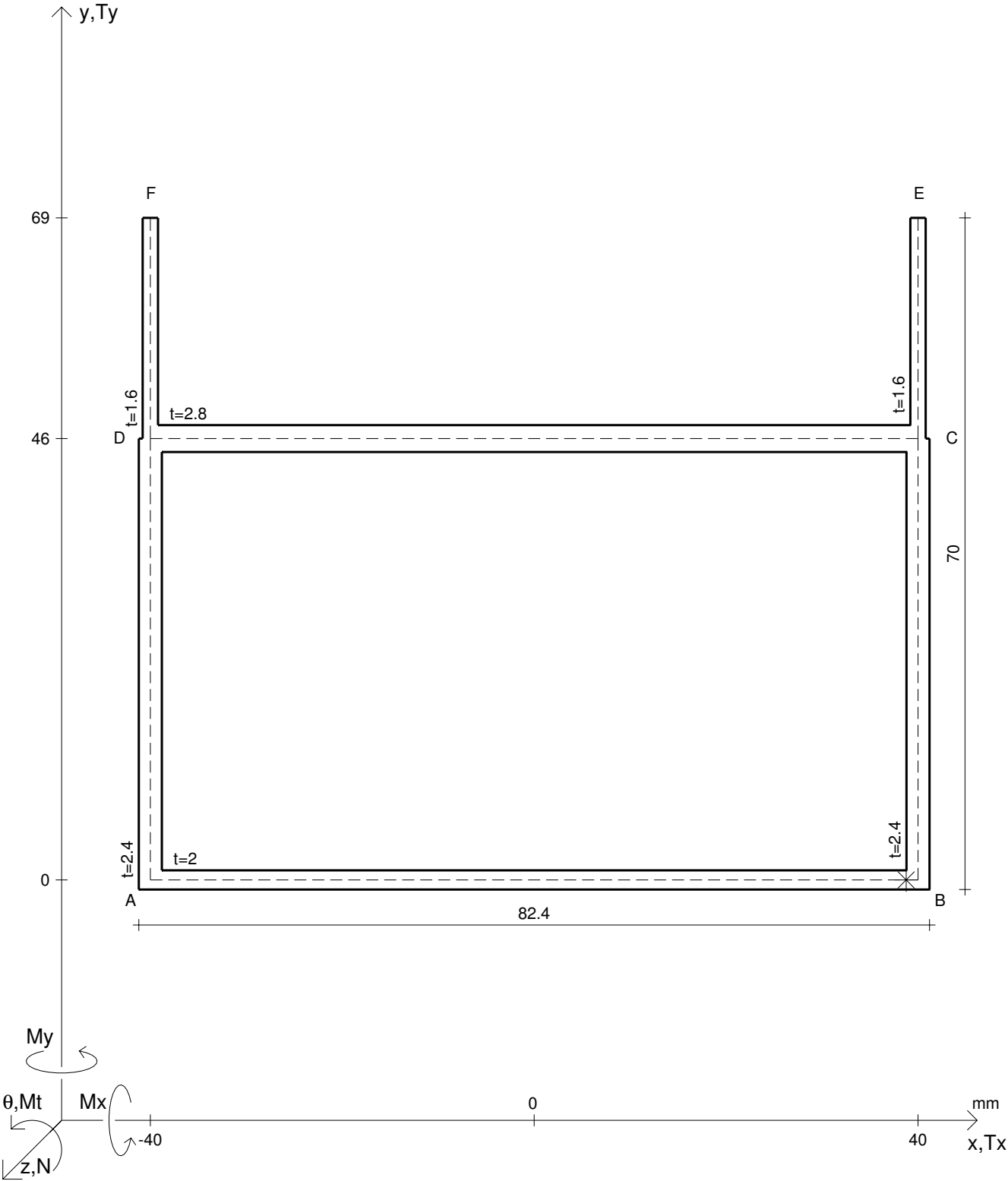


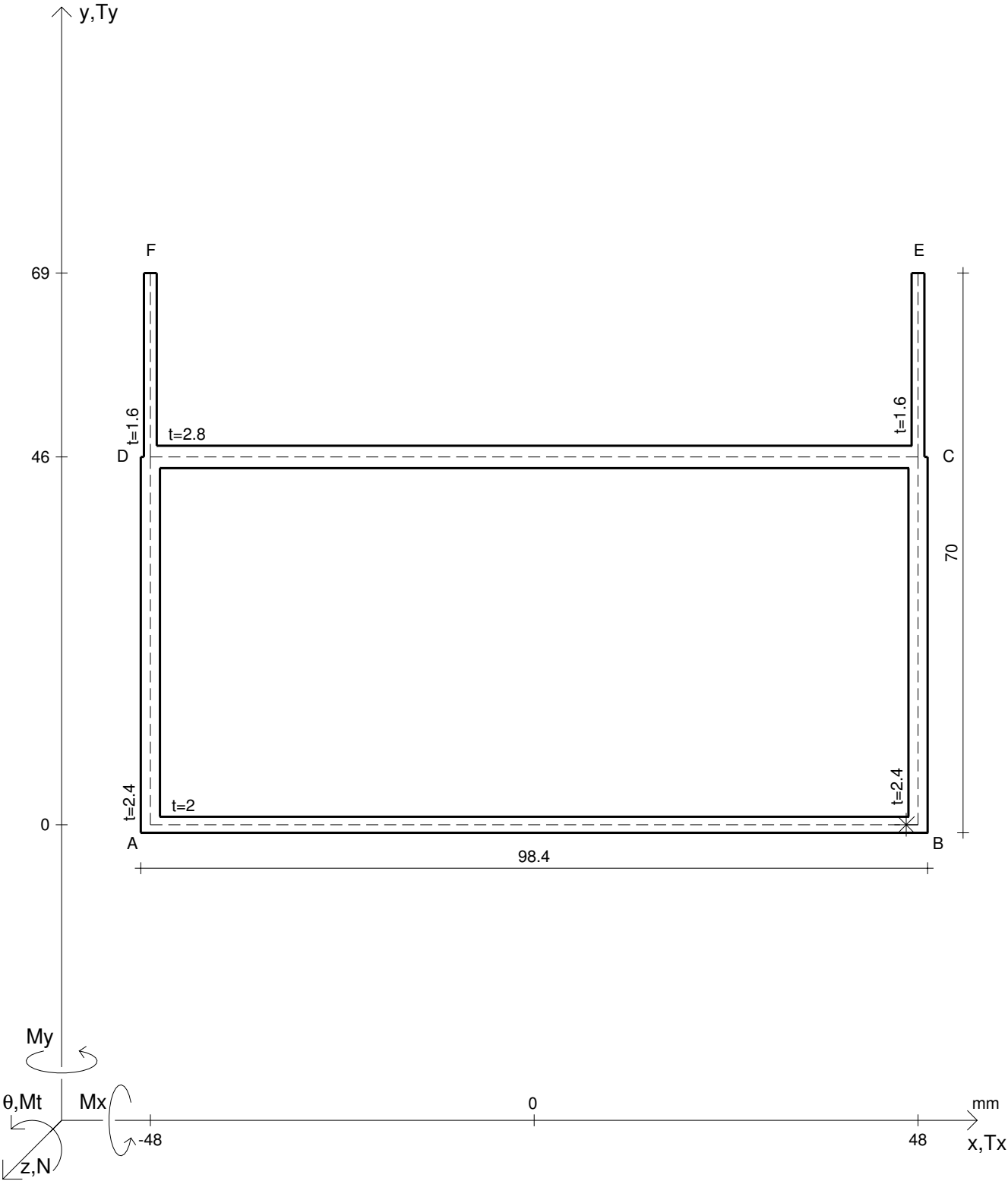
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

N	= 39000 N	M <sub>x</sub>	= -355000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 837000 Nmm	M <sub>y</sub>	= -745000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		

@ Adolfo Zavelani Rossi, Politecnico di Milano, vers.12.06.06

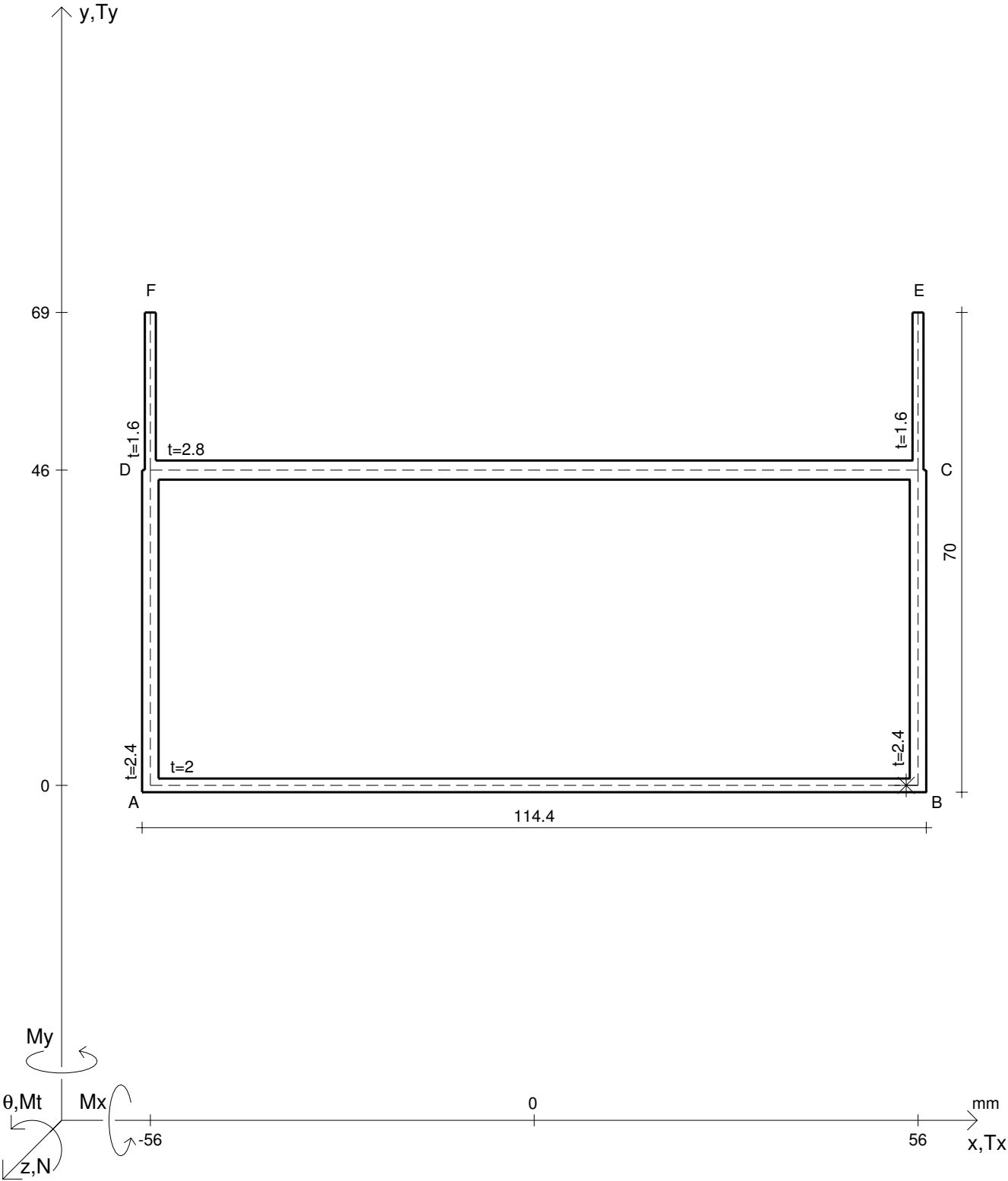


Calcolo degli sforzi con forze baricentriche in * punto B di BA							
N	= 48300 N	M <sub>x</sub>	= -454000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 775000 Nmm	M <sub>y</sub>	= -1090000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		

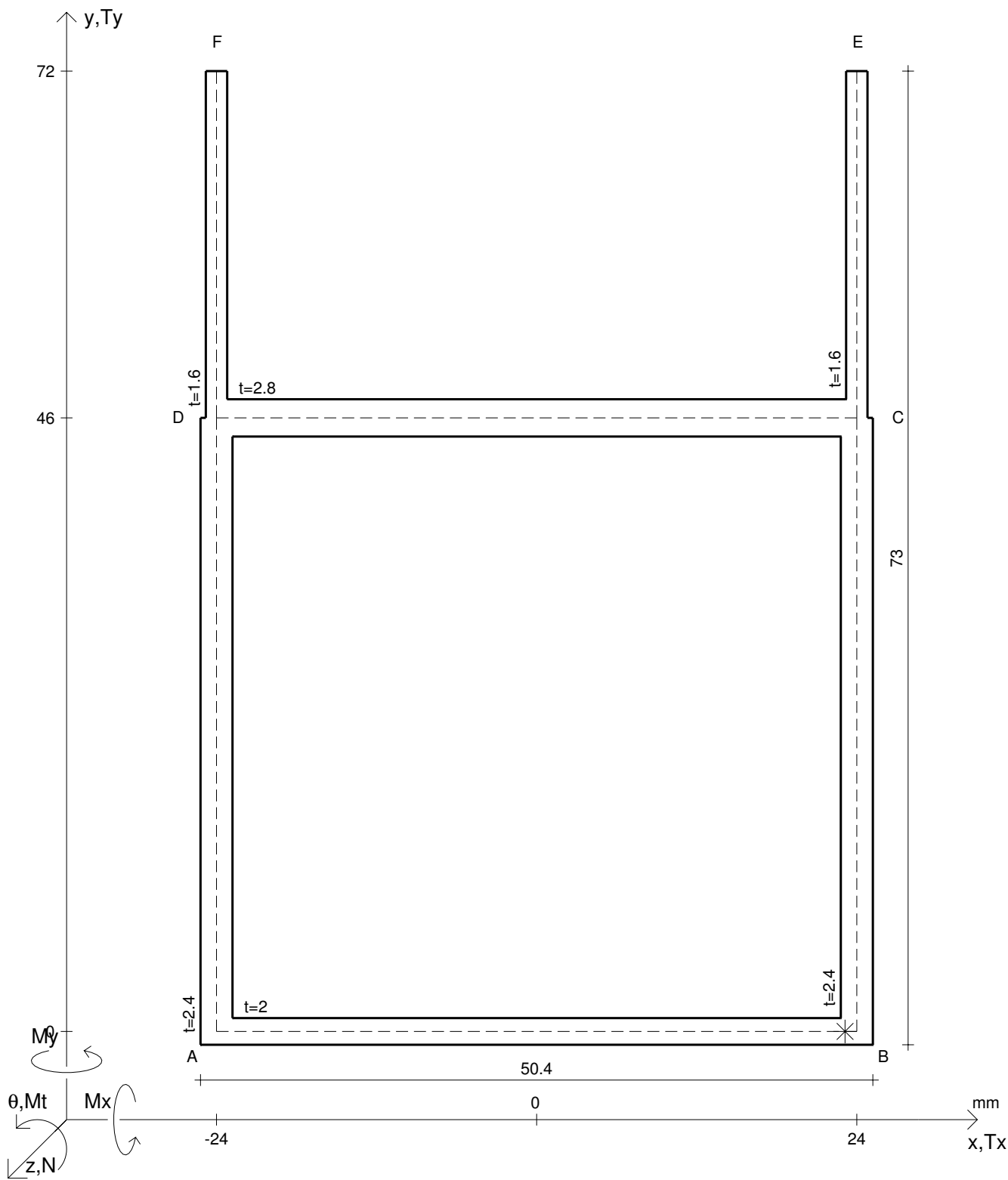


Calcolo degli sforzi con forze baricentriche in \* punto B di BA

N	= 39800 N	M <sub>x</sub>	= -565000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 1040000 Nmm	M <sub>y</sub>	= -1530000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		

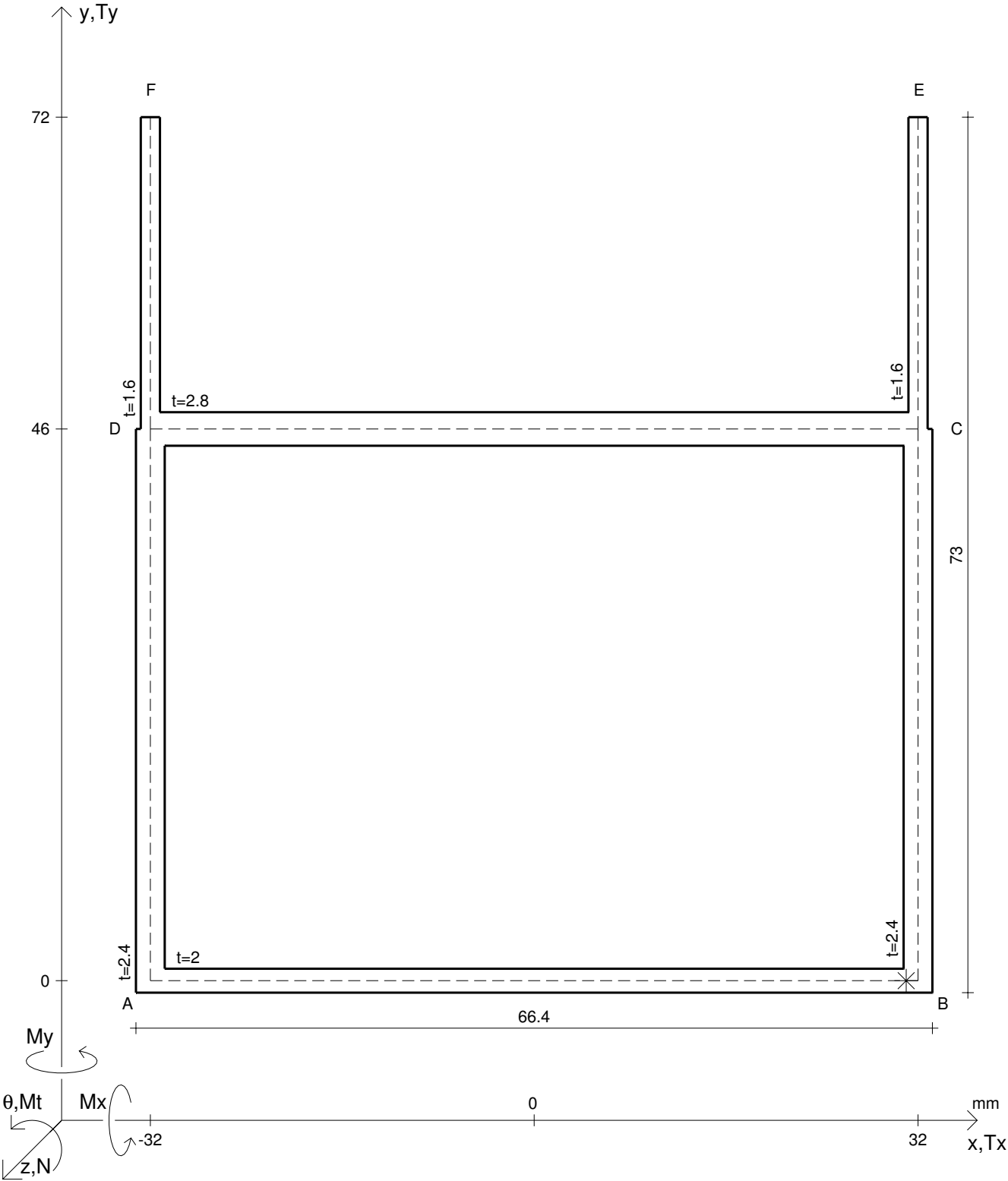


Calcolo degli sforzi con forze baricentriche in * punto B di BA							
N	= 49200 N	M <sub>x</sub>	= -687000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 1340000 Nmm	M <sub>y</sub>	= -1400000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		



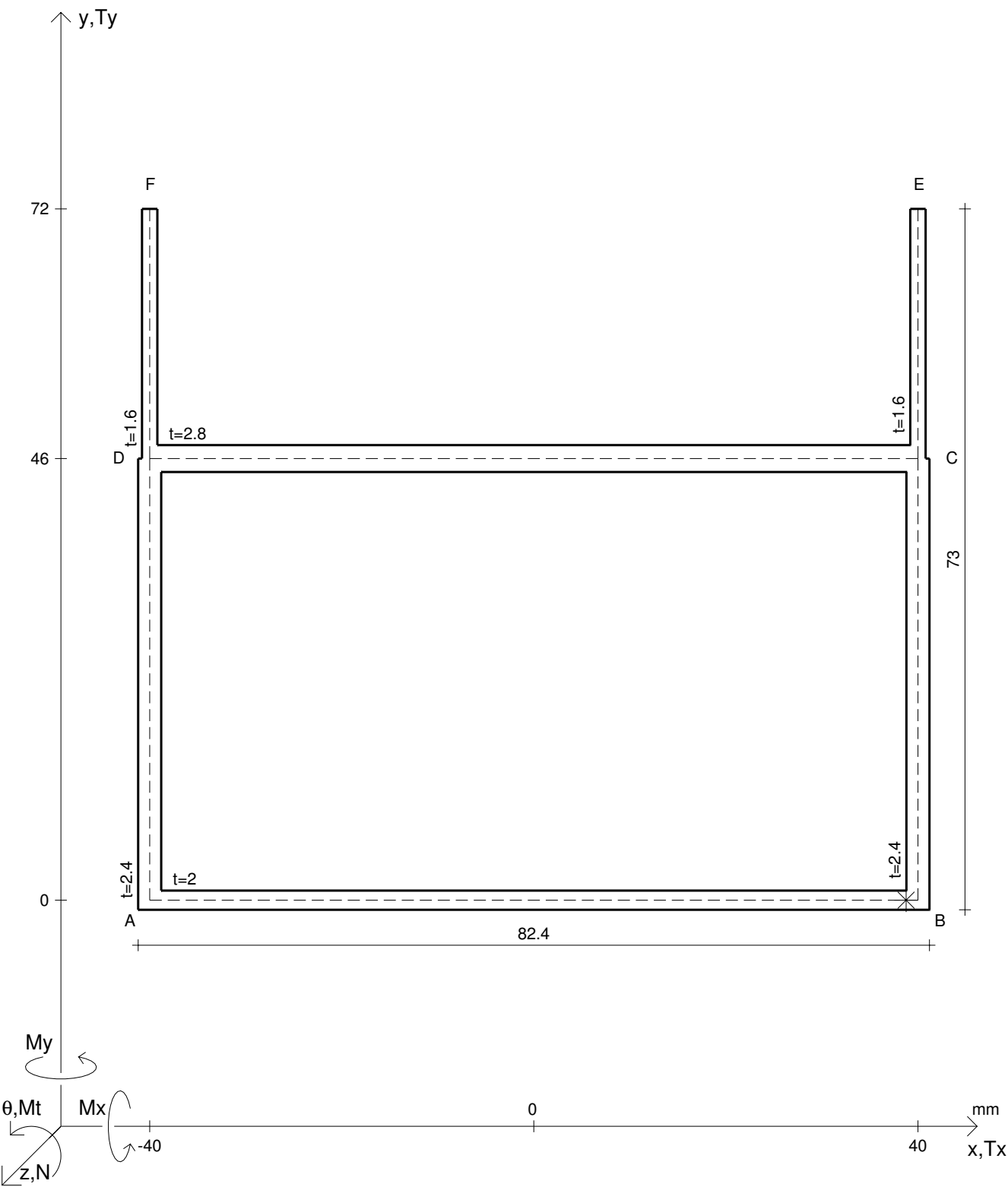
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

N	= 34700 N	M <sub>x</sub>	= -309000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 629000 Nmm	M <sub>y</sub>	= -537000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		



Calcolo degli sforzi con forze baricentriche in \* punto B di BA

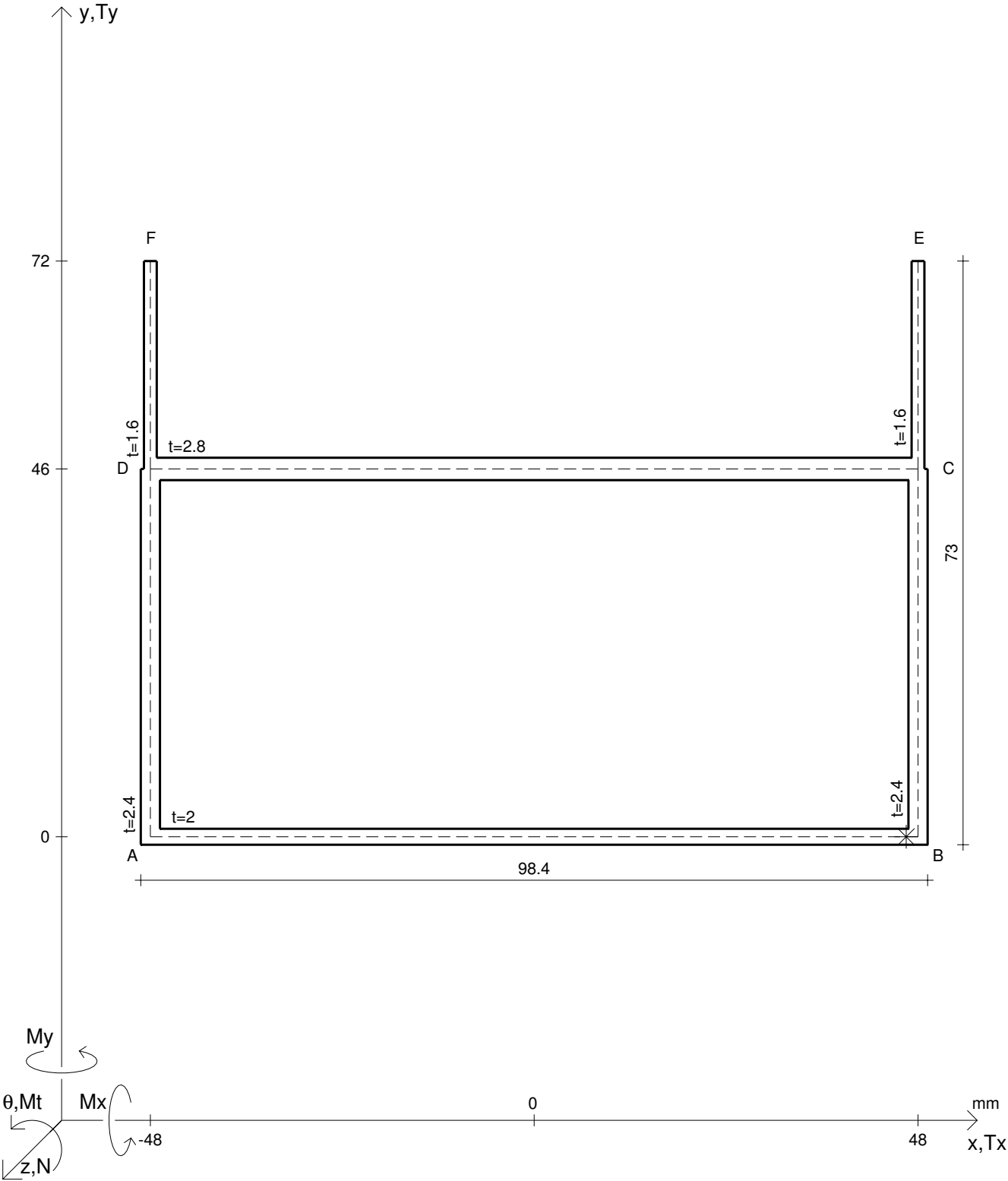
N	= 43700 N	M <sub>x</sub>	= -400000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 622000 Nmm	M <sub>y</sub>	= -849000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		



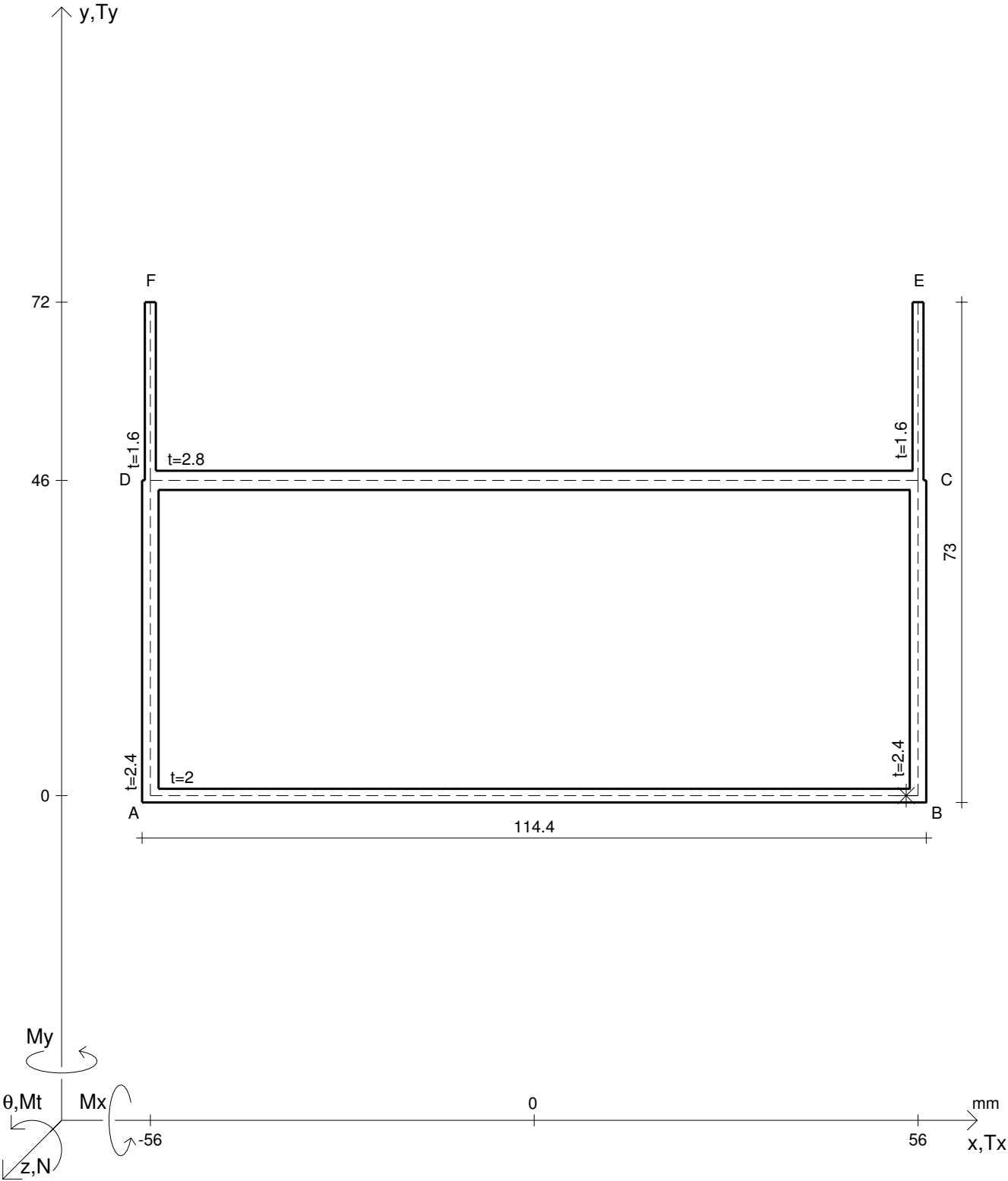
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

N	= 36500 N	M <sub>x</sub>	= -502000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 873000 Nmm	M <sub>y</sub>	= -1240000 Nmm	E	= 200000 N/mm <sup>2</sup>	θ <sub>t</sub>	=
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	r <sub>u</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>v</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>o</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=		
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		



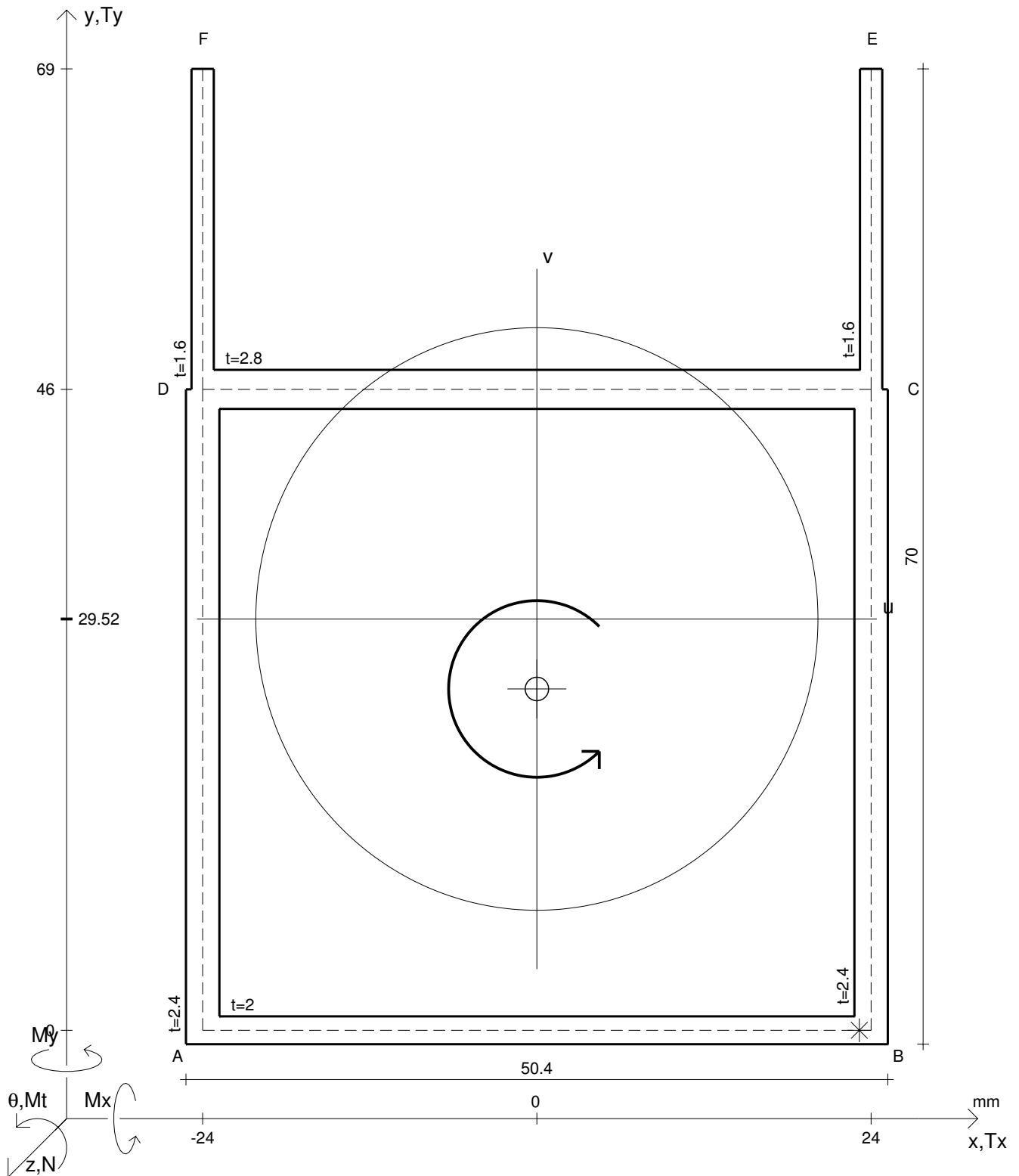


Calcolo degli sforzi con forze baricentriche in * punto B di BA							
N	= 45400 N	M <sub>x</sub>	= -615000 Nmm	σ <sub>a</sub>	= 200 N/mm <sup>2</sup>	G	= 77000 N/mm <sup>2</sup>
M <sub>t</sub>	= 1160000 Nmm	M <sub>y</sub>	= -1160000 Nmm	E	= 200000 N/mm <sup>2</sup>		
y <sub>g</sub>	=	J <sub>t</sub>	=	τ	=	θ <sub>t</sub>	=
u <sub>o</sub>	=	σ(N)	=	σ <sub>I</sub>	=	r <sub>u</sub>	=
v <sub>o</sub>	=	σ(M <sub>x</sub> )	=	σ <sub>II</sub>	=	r <sub>v</sub>	=
A <sub>n</sub>	=	σ(M <sub>y</sub> )	=	σ <sub>tresca</sub>	=	r <sub>o</sub>	=
J <sub>u</sub>	=	τ(M <sub>t</sub> )	=	σ <sub>mises</sub>	=		
J <sub>v</sub>	=	σ	=	σ <sub>st.ven</sub>	=		



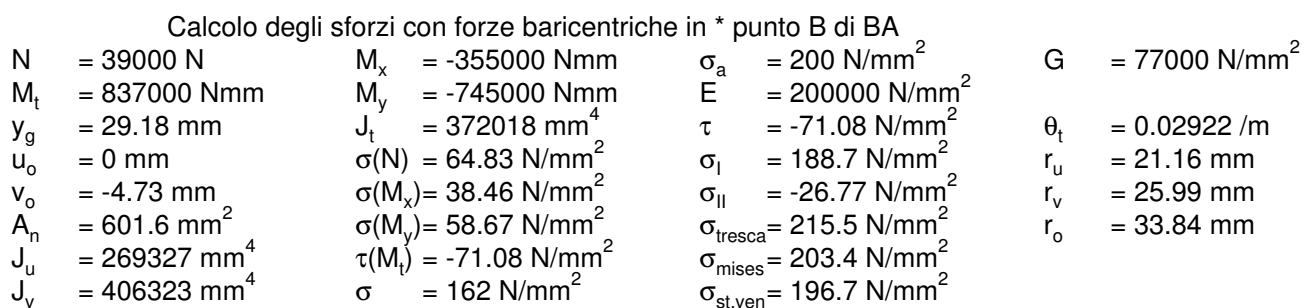
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

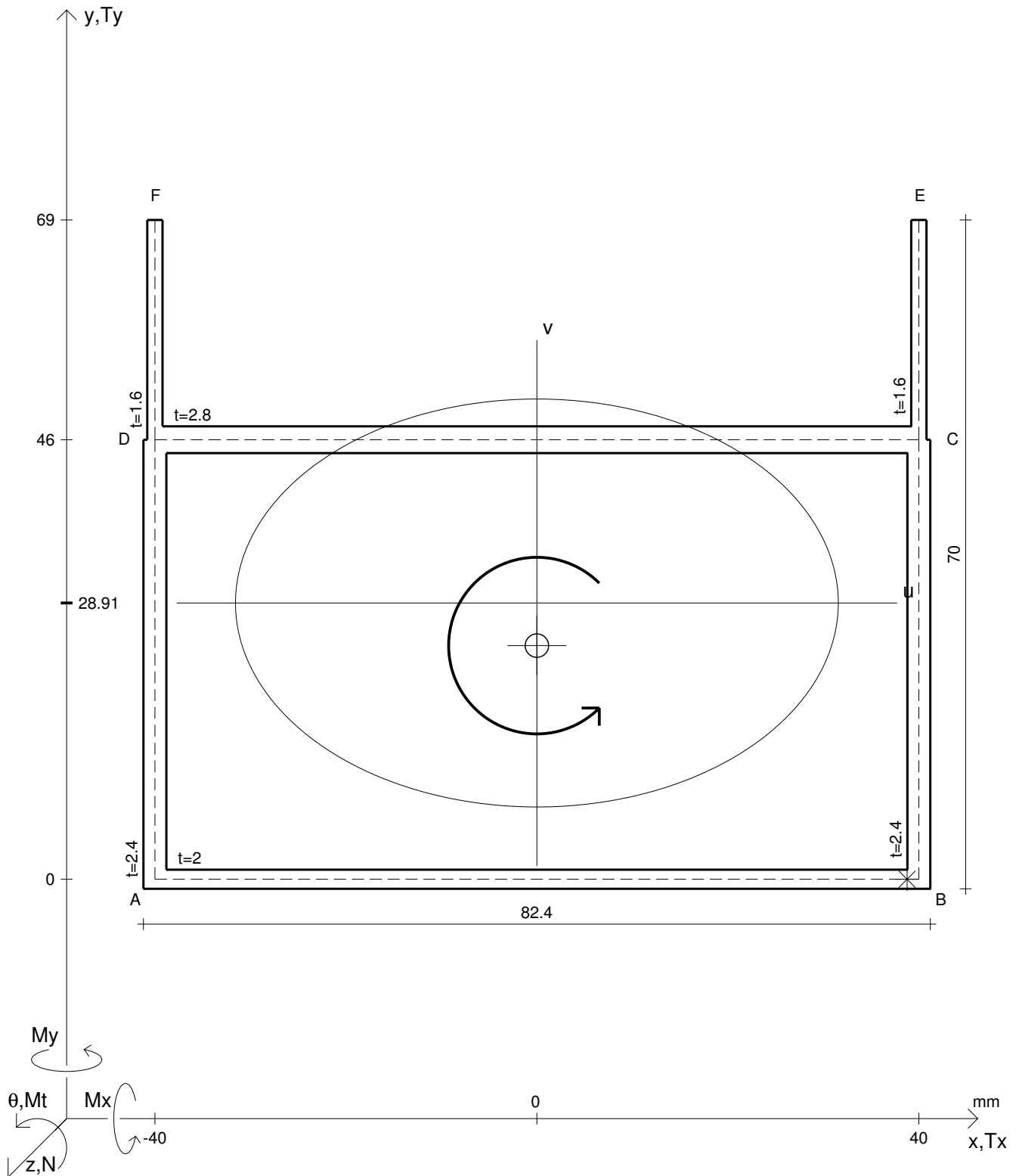
$N$	$= 55400 \text{ N}$	$M_x$	$= -503000 \text{ Nmm}$	$\sigma_a$	$= 200 \text{ N/mm}^2$	$G$	$= 77000 \text{ N/mm}^2$
$M_t$	$= 1480000 \text{ Nmm}$	$M_y$	$= -1610000 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\theta_t$	$=$
$y_g$	$=$	$J_t$	$=$	$\tau$	$=$	$r_u$	$=$
$u_o$	$=$	$\sigma(N)$	$=$	$\sigma_I$	$=$	$r_v$	$=$
$v_o$	$=$	$\sigma(M_x)$	$=$	$\sigma_{II}$	$=$	$r_o$	$=$
$A_n$	$=$	$\sigma(M_y)$	$=$	$\sigma_{tresca}$	$=$		
$J_u$	$=$	$\tau(M_t)$	$=$	$\sigma_{mises}$	$=$		
$J_v$	$=$	$\sigma$	$=$	$\sigma_{st.ven}$	$=$		



Calcolo degli sforzi con forze baricentriche in \* punto B di BA

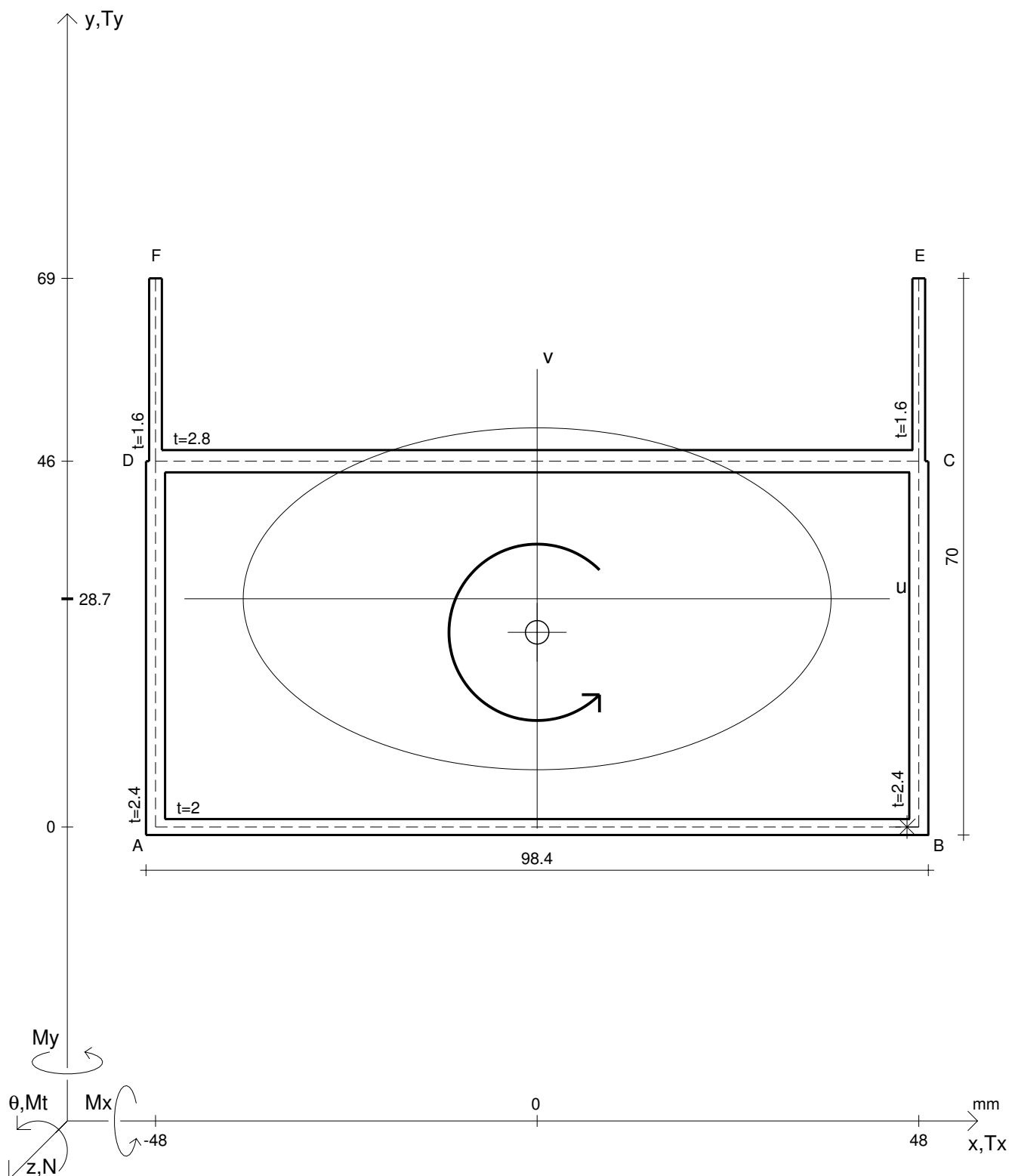
$N$	$= 30600 \text{ N}$	$M_x$	$= -411000 \text{ Nmm}$	$\sigma_a$	$= 200 \text{ N/mm}^2$	$G$	$= 77000 \text{ N/mm}^2$
$M_t$	$= 571000 \text{ Nmm}$	$M_y$	$= -466000 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\theta_t$	$= 0.03022 / \text{m}$
$y_g$	$= 29.52 \text{ mm}$	$J_t$	$= 245370 \text{ mm}^4$	$\tau$	$= -64.65 \text{ N/mm}^2$	$r_u$	$= 20.9 \text{ mm}$
$u_o$	$= 0 \text{ mm}$	$\sigma(N)$	$= 58.31 \text{ N/mm}^2$	$\sigma_I$	$= 186 \text{ N/mm}^2$	$r_v$	$= 20.18 \text{ mm}$
$v_o$	$= -5.022 \text{ mm}$	$\sigma(M_x)$	$= 52.9 \text{ N/mm}^2$	$\sigma_{II}$	$= -22.47 \text{ N/mm}^2$	$r_o$	$= 29.49 \text{ mm}$
$A_n$	$= 524.8 \text{ mm}^2$	$\sigma(M_y)$	$= 52.31 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 208.5 \text{ N/mm}^2$		
$J_u$	$= 229344 \text{ mm}^4$	$\tau(M_t)$	$= -64.65 \text{ N/mm}^2$	$\sigma_{mises}$	$= 198.2 \text{ N/mm}^2$		
$J_v$	$= 213811 \text{ mm}^4$	$\sigma$	$= 163.5 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 192.7 \text{ N/mm}^2$		





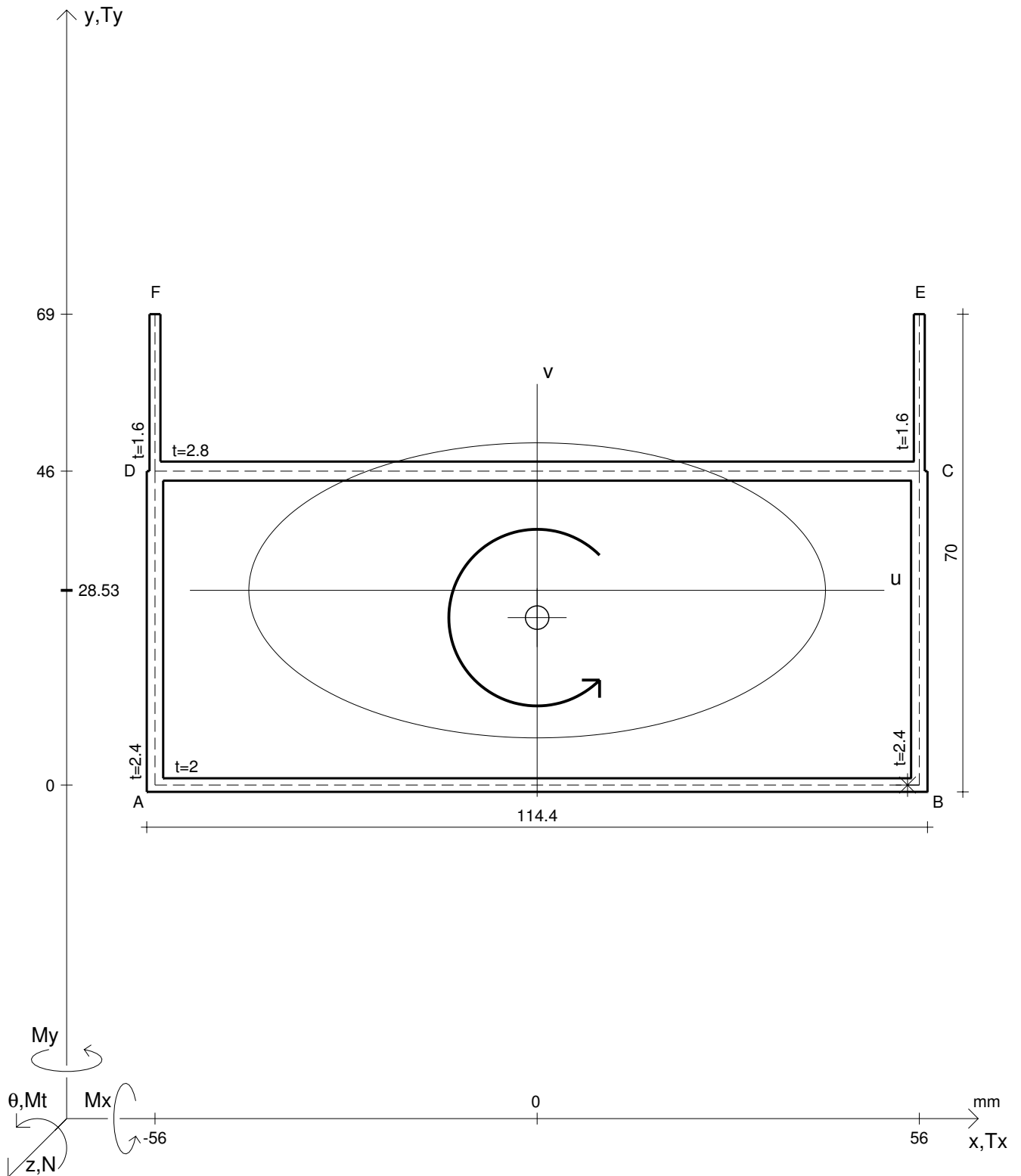
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

$N = 48300$ N	$M_x = -454000$ Nmm	$\sigma_a = 200$ N/mm <sup>2</sup>	$G = 77000$ N/mm <sup>2</sup>
$M_t = 775000$ Nmm	$M_y = -1090000$ Nmm	$E = 200000$ N/mm <sup>2</sup>	$\theta_t = 0.01986$ /m
$y_g = 28.91$ mm	$J_t = 506709$ mm <sup>4</sup>	$\tau = -52.65$ N/mm <sup>2</sup>	$r_u = 21.35$ mm
$u_o = 0$ mm	$\sigma(N) = 71.2$ N/mm <sup>2</sup>	$\sigma_I = 192.6$ N/mm <sup>2</sup>	$r_v = 31.56$ mm
$v_o = -4.461$ mm	$\sigma(M_x) = 42.45$ N/mm <sup>2</sup>	$\sigma_{II} = -14.4$ N/mm <sup>2</sup>	$r_o = 38.37$ mm
$A_n = 678.4$ mm <sup>2</sup>	$\sigma(M_y) = 64.51$ N/mm <sup>2</sup>	$\sigma_{tresca} = 207$ N/mm <sup>2</sup>	
$J_u = 309200$ mm <sup>4</sup>	$\tau(M_t) = -52.65$ N/mm <sup>2</sup>	$\sigma_{mises} = 200.1$ N/mm <sup>2</sup>	
$J_v = 675840$ mm <sup>4</sup>	$\sigma = 178.2$ N/mm <sup>2</sup>	$\sigma_{st.ven} = 196.9$ N/mm <sup>2</sup>	



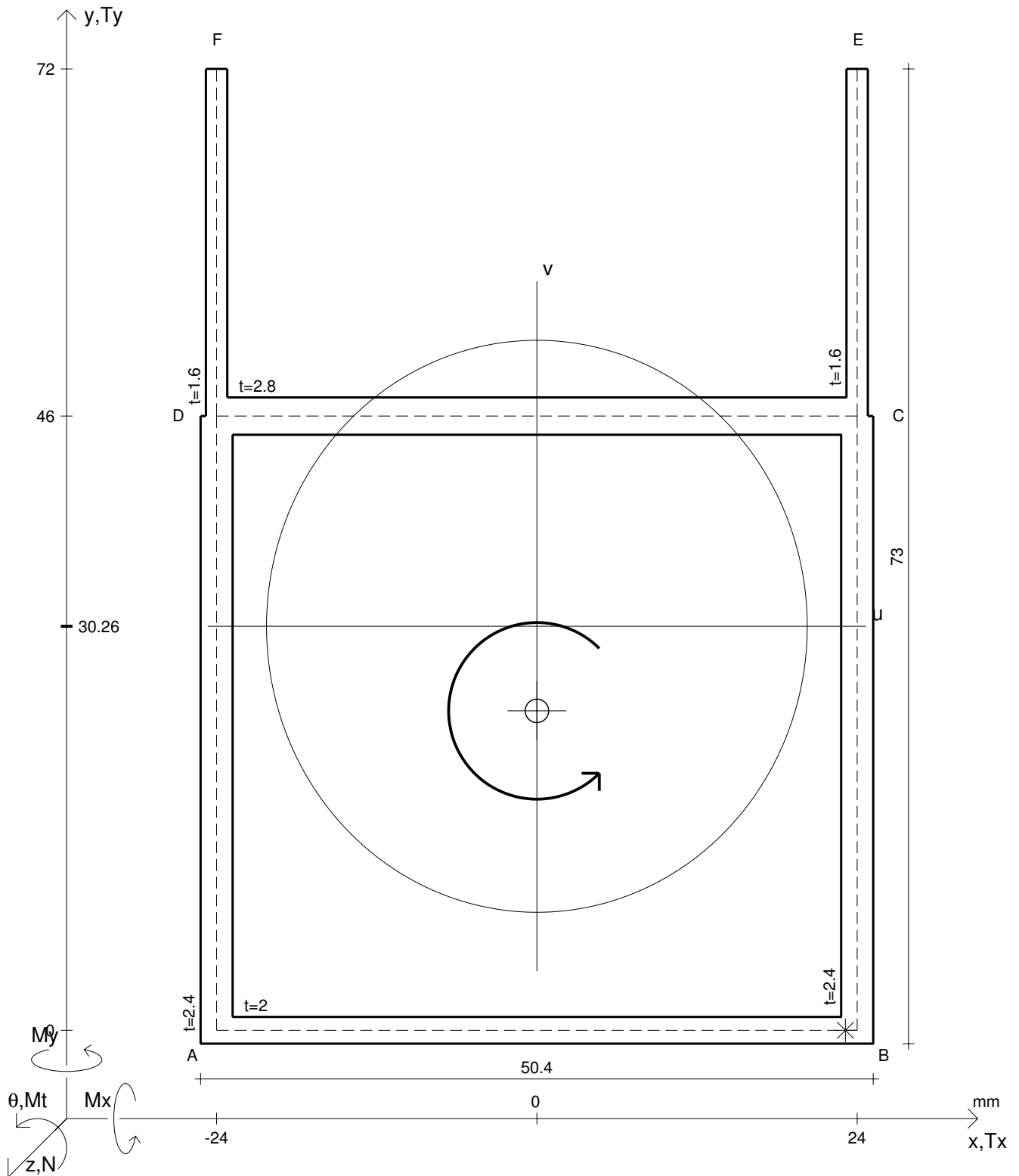
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

$N$	$= 39800 \text{ N}$	$M_x$	$= -565000 \text{ Nmm}$	$\sigma_a$	$= 200 \text{ N/mm}^2$	$G$	$= 77000 \text{ N/mm}^2$
$M_t$	$= 1040000 \text{ Nmm}$	$M_y$	$= -1530000 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\theta_t$	$= 0.02089 / \text{m}$
$y_g$	$= 28.7 \text{ mm}$	$J_t$	$= 646699 \text{ mm}^4$	$\tau$	$= -58.88 \text{ N/mm}^2$	$r_u$	$= 21.5 \text{ mm}$
$u_o$	$= 0 \text{ mm}$	$\sigma(N)$	$= 52.7 \text{ N/mm}^2$	$\sigma_I$	$= 188.7 \text{ N/mm}^2$	$r_v$	$= 36.97 \text{ mm}$
$v_o$	$= -4.216 \text{ mm}$	$\sigma(M_x)$	$= 46.47 \text{ N/mm}^2$	$\sigma_{II}$	$= -18.37 \text{ N/mm}^2$	$r_o$	$= 42.97 \text{ mm}$
$A_n$	$= 755.2 \text{ mm}^2$	$\sigma(M_y)$	$= 71.15 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 207.1 \text{ N/mm}^2$		
$J_u$	$= 348997 \text{ mm}^4$	$\tau(M_t)$	$= -58.88 \text{ N/mm}^2$	$\sigma_{mises}$	$= 198.5 \text{ N/mm}^2$		
$J_v$	$= 1032192 \text{ mm}^4$	$\sigma$	$= 170.3 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 194.2 \text{ N/mm}^2$		



Calcolo degli sforzi con forze baricentriche in \* punto B di BA

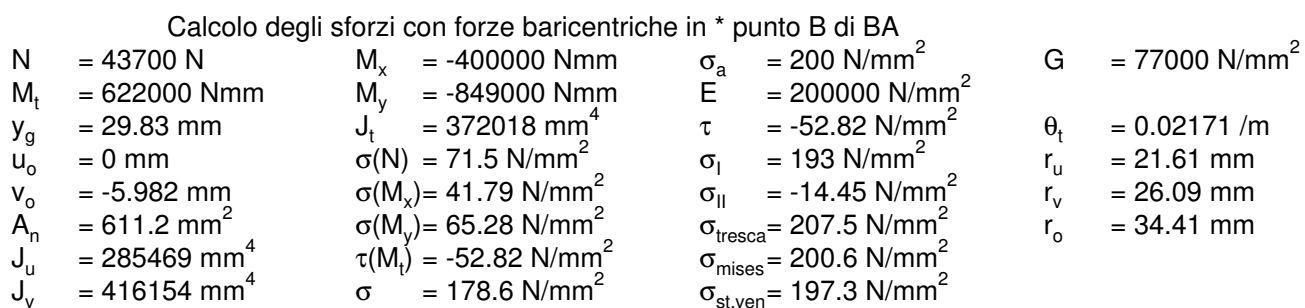
$N$	$= 49200 \text{ N}$	$M_x$	$= -687000 \text{ Nmm}$	$\sigma_a$	$= 200 \text{ N/mm}^2$	$G$	$= 77000 \text{ N/mm}^2$
$M_t$	$= 1340000 \text{ Nmm}$	$M_y$	$= -1400000 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\theta_t$	$= 0.02202 \text{ /m}$
$y_g$	$= 28.53 \text{ mm}$	$J_t$	$= 790365 \text{ mm}^4$	$\tau$	$= -65.02 \text{ N/mm}^2$	$r_u$	$= 21.62 \text{ mm}$
$u_o$	$= 0 \text{ mm}$	$\sigma(N)$	$= 59.13 \text{ N/mm}^2$	$\sigma_I$	$= 185.2 \text{ N/mm}^2$	$r_v$	$= 42.25 \text{ mm}$
$v_o$	$= -3.994 \text{ mm}$	$\sigma(M_x)$	$= 50.42 \text{ N/mm}^2$	$\sigma_{II}$	$= -22.83 \text{ N/mm}^2$	$r_o$	$= 47.63 \text{ mm}$
$A_n$	$= 832 \text{ mm}^2$	$\sigma(M_y)$	$= 52.79 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 208 \text{ N/mm}^2$		
$J_u$	$= 388739 \text{ mm}^4$	$\tau(M_t)$	$= -65.02 \text{ N/mm}^2$	$\sigma_{mises}$	$= 197.6 \text{ N/mm}^2$		
$J_v$	$= 1485210 \text{ mm}^4$	$\sigma$	$= 162.3 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 192 \text{ N/mm}^2$		

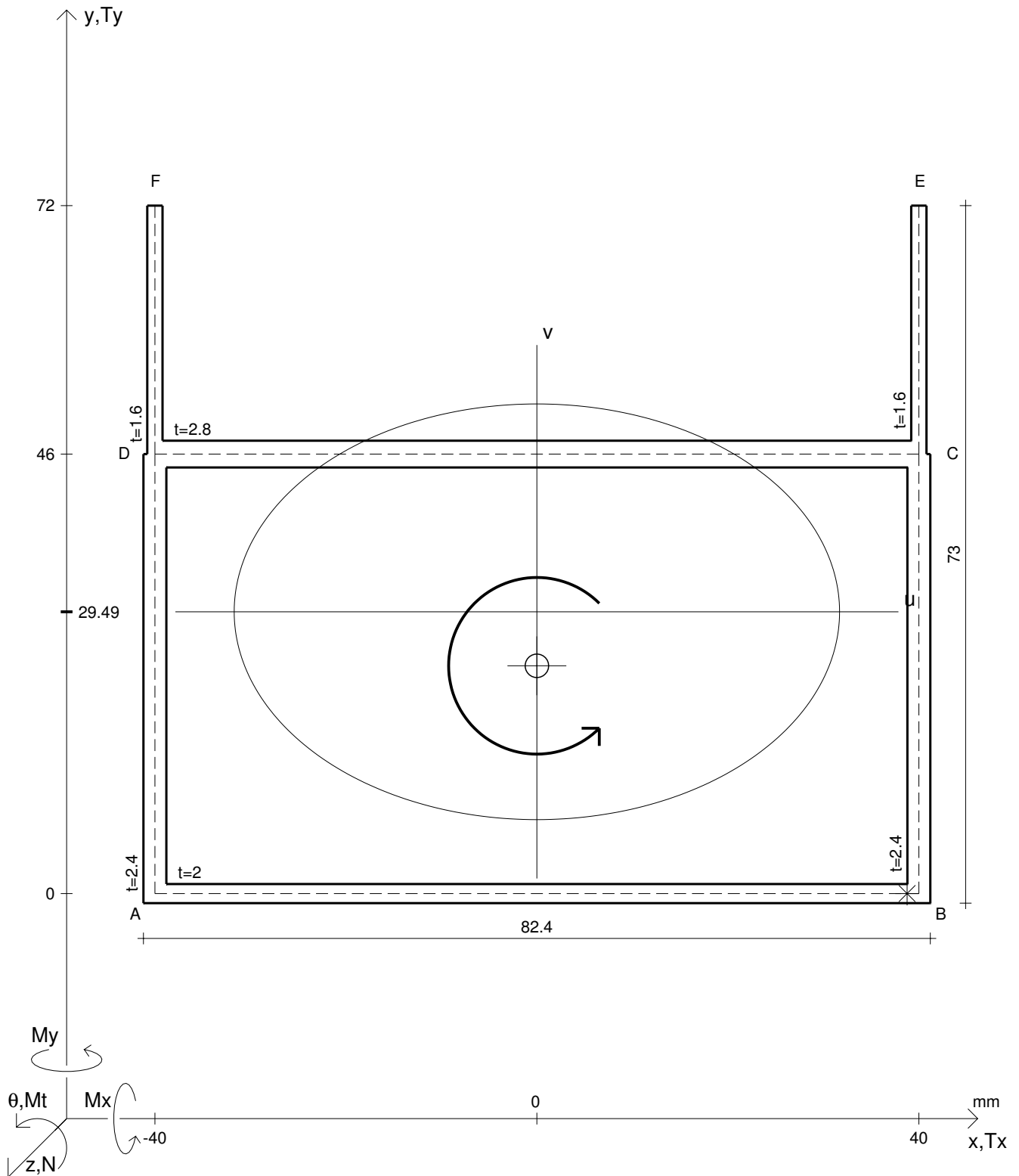


Calcolo degli sforzi con forze baricentriche in \* punto B di BA

$N$	$= 34700 \text{ N}$	$M_x$	$= -309000 \text{ Nmm}$	$\sigma_a$	$= 200 \text{ N/mm}^2$	$G$	$= 77000 \text{ N/mm}^2$
$M_t$	$= 629000 \text{ Nmm}$	$M_y$	$= -537000 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\theta_t$	$= 0.03329 \text{ /m}$
$y_g$	$= 30.26 \text{ mm}$	$J_t$	$= 245370 \text{ mm}^4$	$\tau$	$= -71.22 \text{ N/mm}^2$	$r_u$	$= 21.42 \text{ mm}$
$u_o$	$= 0 \text{ mm}$	$\sigma(N)$	$= 64.93 \text{ N/mm}^2$	$\sigma_I$	$= 188.7 \text{ N/mm}^2$	$r_v$	$= 20.26 \text{ mm}$
$v_o$	$= -6.334 \text{ mm}$	$\sigma(M_x)$	$= 38.13 \text{ N/mm}^2$	$\sigma_{II}$	$= -26.88 \text{ N/mm}^2$	$r_o$	$= 30.16 \text{ mm}$
$A_n$	$= 534.4 \text{ mm}^2$	$\sigma(M_y)$	$= 58.76 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 215.6 \text{ N/mm}^2$		
$J_u$	$= 245183 \text{ mm}^4$	$\tau(M_t)$	$= -71.22 \text{ N/mm}^2$	$\sigma_{mises}$	$= 203.5 \text{ N/mm}^2$		
$J_v$	$= 219341 \text{ mm}^4$	$\sigma$	$= 161.8 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 196.7 \text{ N/mm}^2$		

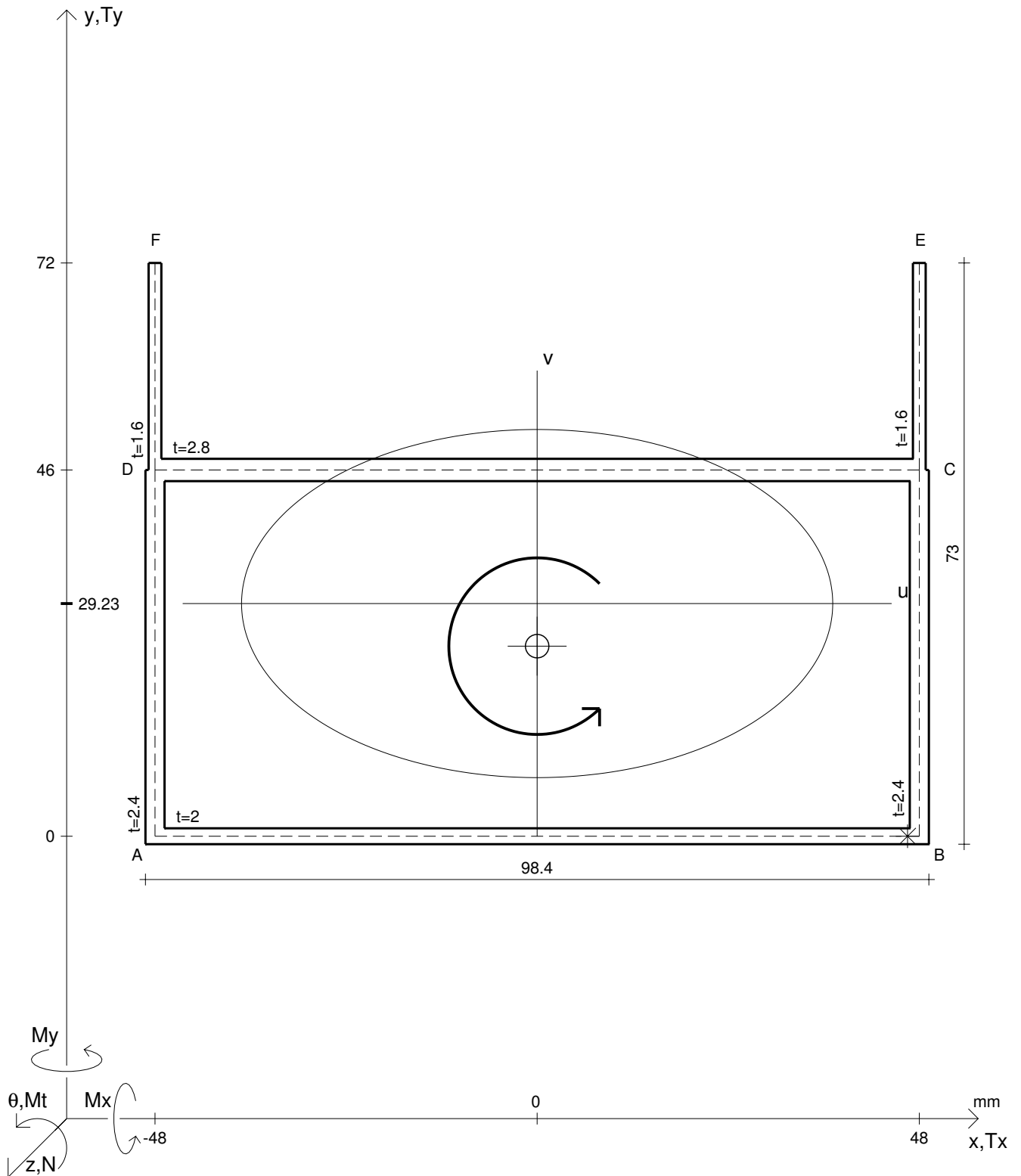






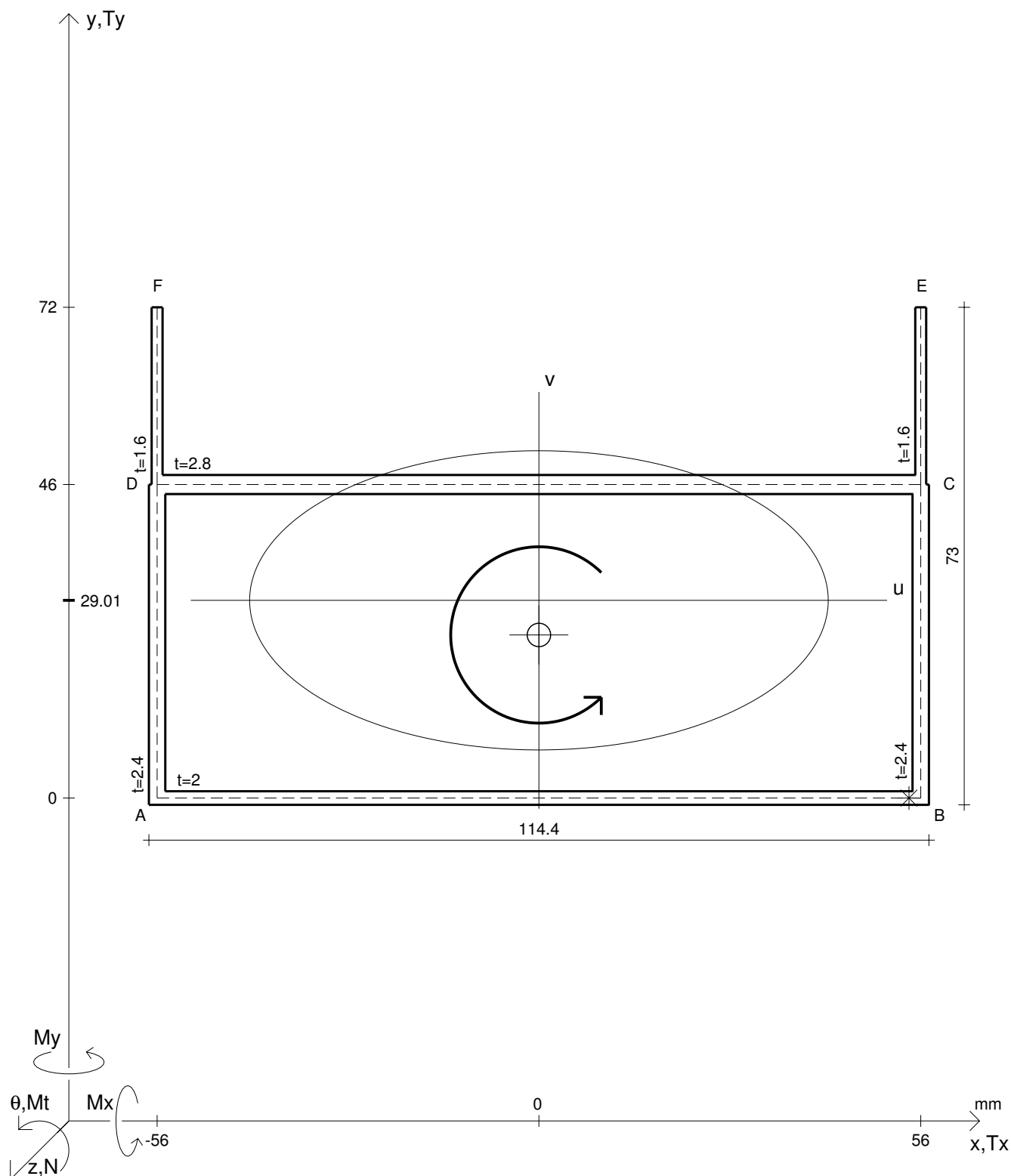
Calcolo degli sforzi con forze baricentriche in \* punto B di BA

$N$	$= 36500 \text{ N}$	$M_x$	$= -502000 \text{ Nmm}$	$\sigma_a$	$= 200 \text{ N/mm}^2$	$G$	$= 77000 \text{ N/mm}^2$
$M_t$	$= 873000 \text{ Nmm}$	$M_y$	$= -1240000 \text{ Nmm}$	$E$	$= 200000 \text{ N/mm}^2$	$\theta_t$	$= 0.02238 \text{ /m}$
$y_g$	$= 29.49 \text{ mm}$	$J_t$	$= 506709 \text{ mm}^4$	$\tau$	$= -59.31 \text{ N/mm}^2$	$r_u$	$= 21.75 \text{ mm}$
$u_o$	$= 0 \text{ mm}$	$\sigma(N)$	$= 53.05 \text{ N/mm}^2$	$\sigma_I$	$= 188.9 \text{ N/mm}^2$	$r_v$	$= 31.7 \text{ mm}$
$v_o$	$= -5.653 \text{ mm}$	$\sigma(M_x)$	$= 45.47 \text{ N/mm}^2$	$\sigma_{II}$	$= -18.62 \text{ N/mm}^2$	$r_o$	$= 38.86 \text{ mm}$
$A_n$	$= 688 \text{ mm}^2$	$\sigma(M_y)$	$= 71.76 \text{ N/mm}^2$	$\sigma_{tresca}$	$= 207.5 \text{ N/mm}^2$		
$J_u$	$= 325579 \text{ mm}^4$	$\tau(M_t)$	$= -59.31 \text{ N/mm}^2$	$\sigma_{mises}$	$= 198.9 \text{ N/mm}^2$		
$J_v$	$= 691200 \text{ mm}^4$	$\sigma$	$= 170.3 \text{ N/mm}^2$	$\sigma_{st.ven}$	$= 194.5 \text{ N/mm}^2$		



Calcolo degli sforzi con forze baricentriche in \* punto B di BA

$N$	$= 45400$ N	$M_x$	$= -615000$ Nmm	$\sigma_a$	$= 200$ N/mm <sup>2</sup>	$G$	$= 77000$ N/mm <sup>2</sup>
$M_t$	$= 1160000$ Nmm	$M_y$	$= -1160000$ Nmm	$E$	$= 200000$ N/mm <sup>2</sup>	$\theta_t$	$= 0.0233$ /m
$y_g$	$= 29.23$ mm	$J_t$	$= 646699$ mm <sup>4</sup>	$\tau$	$= -65.67$ N/mm <sup>2</sup>	$r_u$	$= 21.86$ mm
$u_o$	$= 0$ mm	$\sigma(N)$	$= 59.36$ N/mm <sup>2</sup>	$\sigma_I$	$= 184.7$ N/mm <sup>2</sup>	$r_v$	$= 37.13$ mm
$v_o$	$= -5.352$ mm	$\sigma(M_x)$	$= 49.17$ N/mm <sup>2</sup>	$\sigma_{II}$	$= -23.35$ N/mm <sup>2</sup>	$r_o$	$= 43.42$ mm
$A_n$	$= 764.8$ mm <sup>2</sup>	$\sigma(M_y)$	$= 52.81$ N/mm <sup>2</sup>	$\sigma_{tresca}$	$= 208$ N/mm <sup>2</sup>		
$J_u$	$= 365566$ mm <sup>4</sup>	$\tau(M_t)$	$= -65.67$ N/mm <sup>2</sup>	$\sigma_{mises}$	$= 197.4$ N/mm <sup>2</sup>		
$J_v$	$= 1054310$ mm <sup>4</sup>	$\sigma$	$= 161.3$ N/mm <sup>2</sup>	$\sigma_{st.ven}$	$= 191.7$ N/mm <sup>2</sup>		



Calcolo degli sforzi con forze baricentriche in \* punto B di BA

$N = 55400$ N	$M_x = -503000$ Nmm	$\sigma_a = 200$ N/mm <sup>2</sup>	$G = 77000$ N/mm <sup>2</sup>
$M_t = 1480000$ Nmm	$M_y = -1610000$ Nmm	$E = 200000$ N/mm <sup>2</sup>	$\theta_t = 0.02432$ /m
$y_g = 29.01$ mm	$J_t = 790365$ mm <sup>4</sup>	$\tau = -71.82$ N/mm <sup>2</sup>	$r_u = 21.95$ mm
$u_o = 0$ mm	$\sigma(N) = 65.83$ N/mm <sup>2</sup>	$\sigma_I = 188.7$ N/mm <sup>2</sup>	$r_v = 42.43$ mm
$v_o = -5.077$ mm	$\sigma(M_x) = 35.99$ N/mm <sup>2</sup>	$\sigma_{II} = -27.34$ N/mm <sup>2</sup>	$r_o = 48.04$ mm
$A_n = 841.6$ mm <sup>2</sup>	$\sigma(M_y) = 59.5$ N/mm <sup>2</sup>	$\sigma_{tresca} = 216$ N/mm <sup>2</sup>	
$J_u = 405464$ mm <sup>4</sup>	$\tau(M_t) = -71.82$ N/mm <sup>2</sup>	$\sigma_{mises} = 203.7$ N/mm <sup>2</sup>	
$J_v = 1515315$ mm <sup>4</sup>	$\sigma = 161.3$ N/mm <sup>2</sup>	$\sigma_{st.ven} = 196.8$ N/mm <sup>2</sup>	