



INITIATION A L'EUROCODE 5

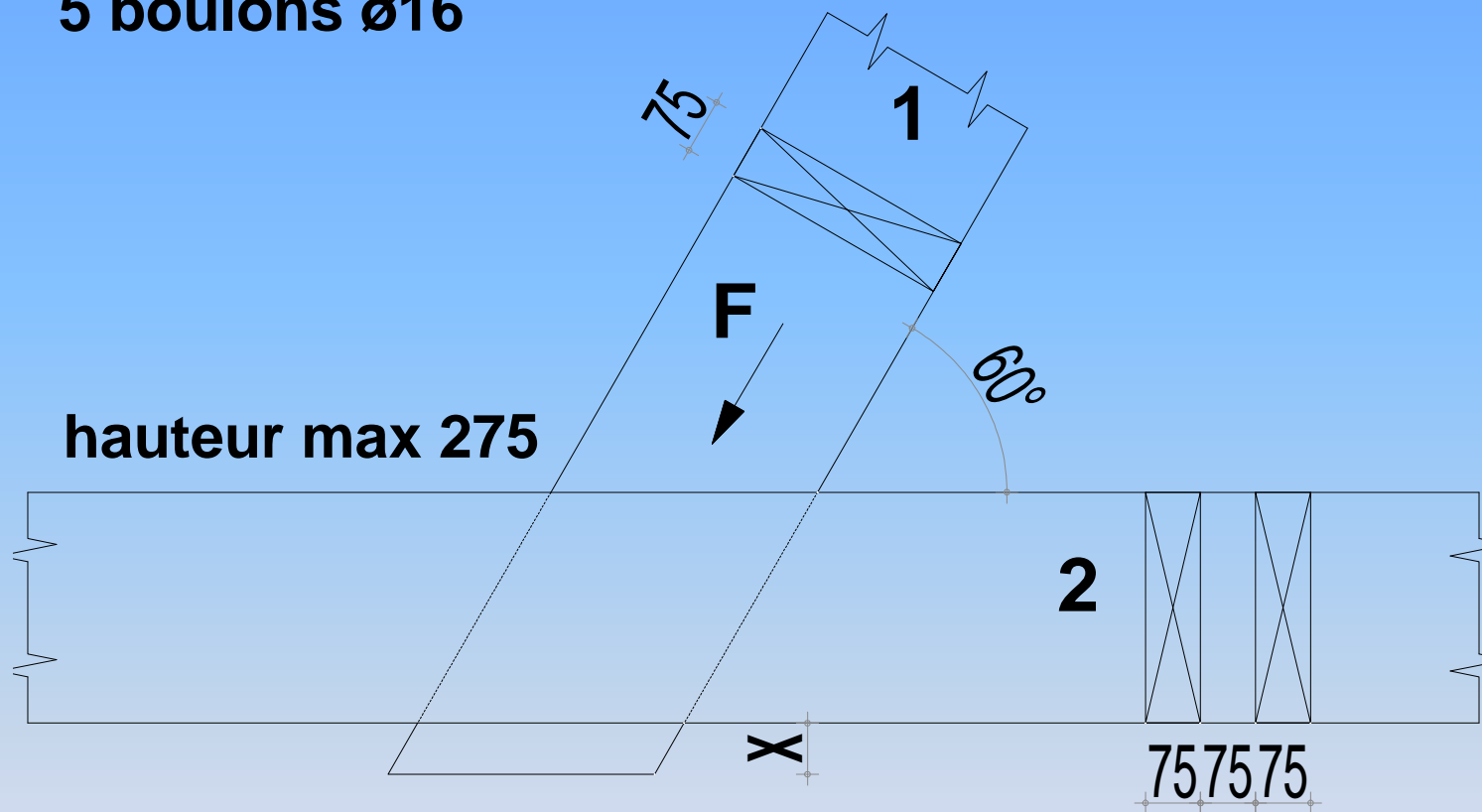
LYCEE HAROUN TAZIEFF

POSITIONNEMENT DES ASSEMBLEURS



LE POINT DE DEPART

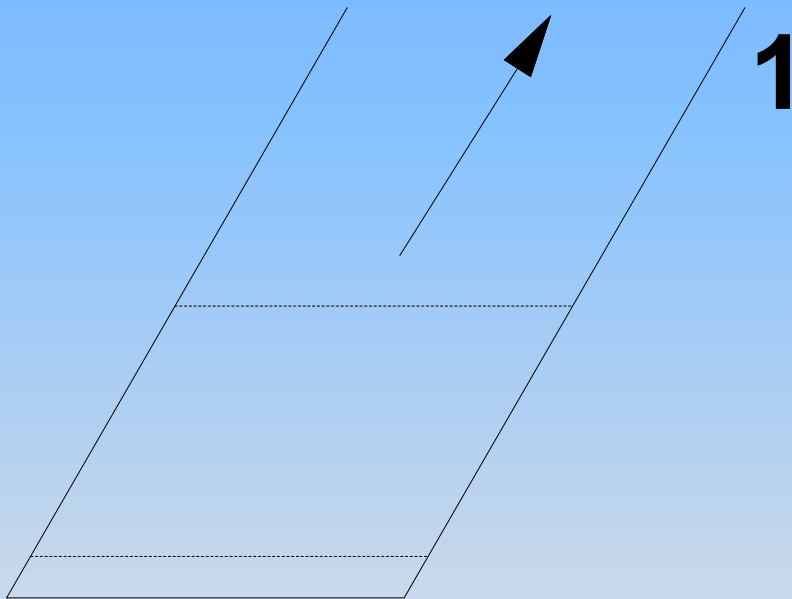
5 boulons $\varnothing 16$



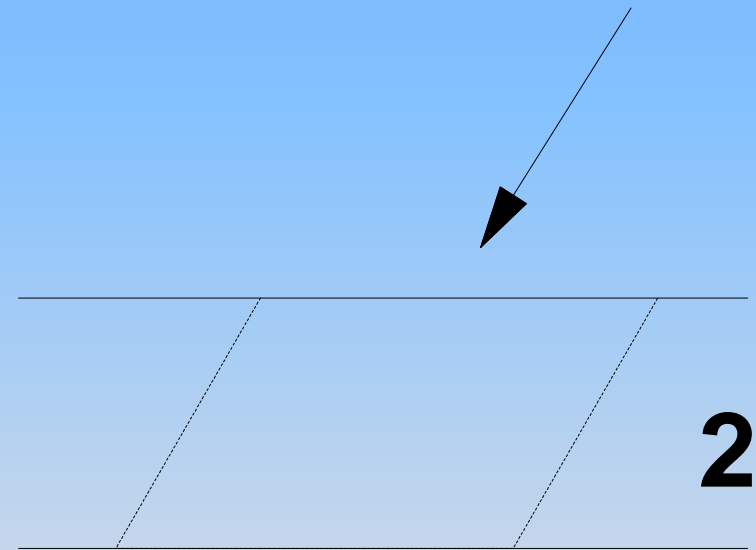
ISOLER CHAQUE PIECE

INDIQUER L'ACTION EXTERIEURE SUR LA PIECE ISOLEE

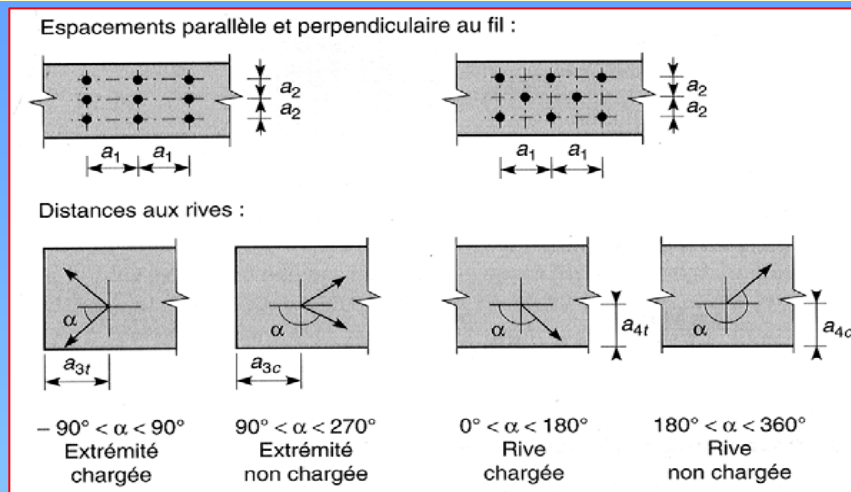
Action boulons sur 1



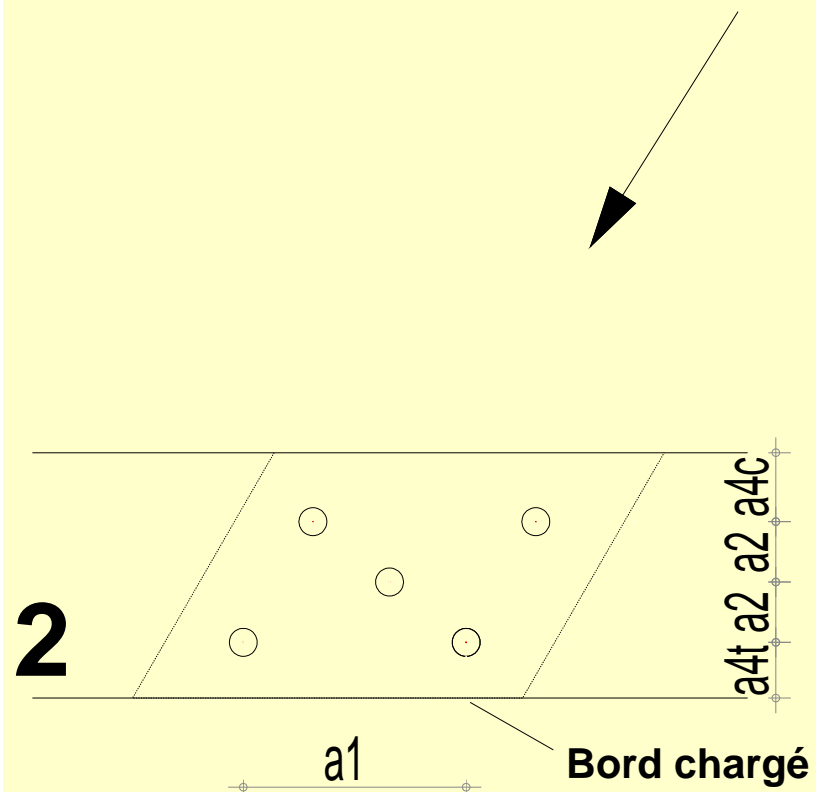
Action boulons sur 2



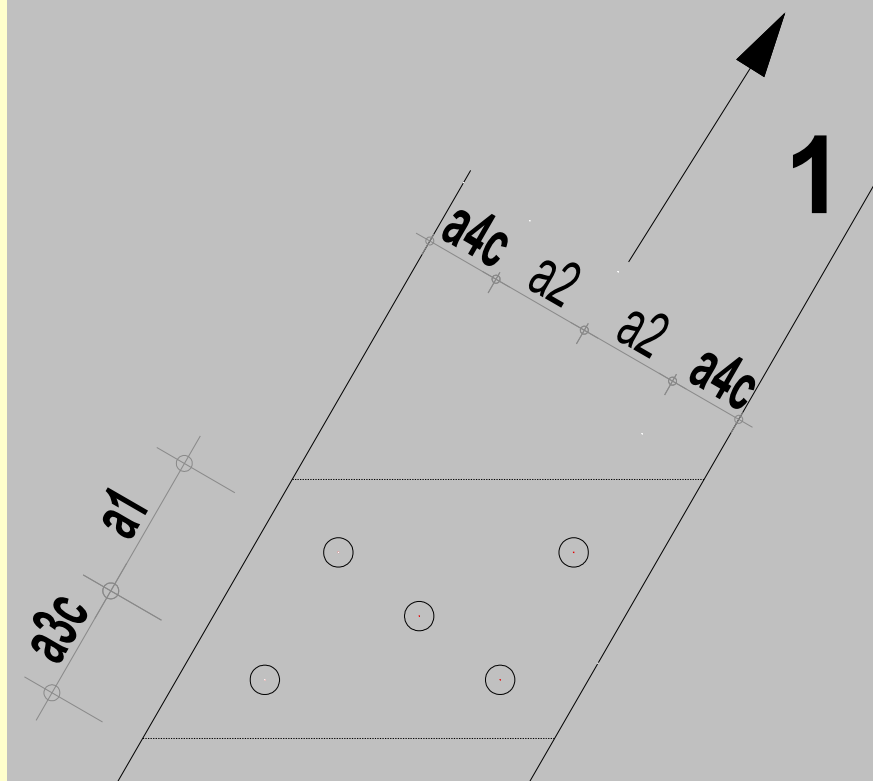
PLACER LES CONDITIONS A RESPECTER



Action boulons sur 2

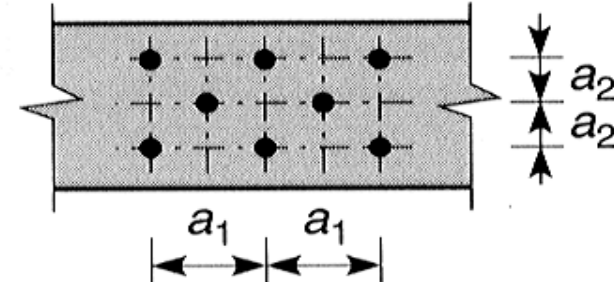
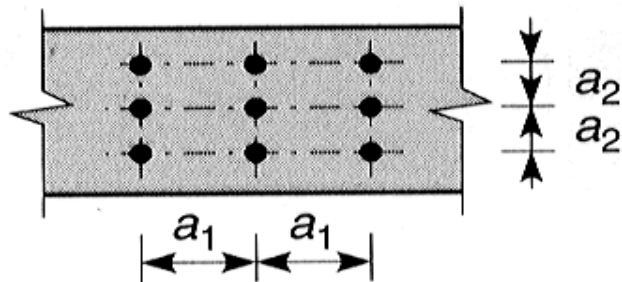


Action boulons sur 1

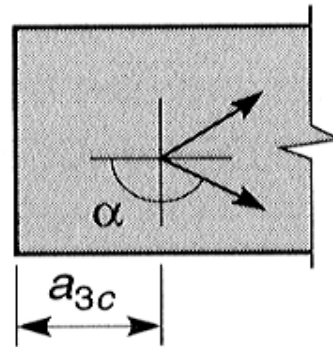
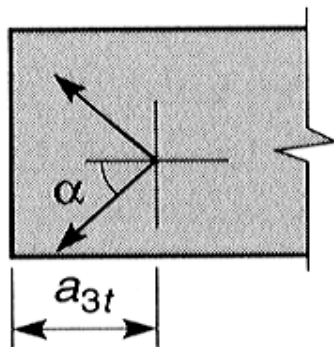


PLACER LES CONDITIONS A RESPECTER

Espacements parallèle et perpendiculaire au fil :

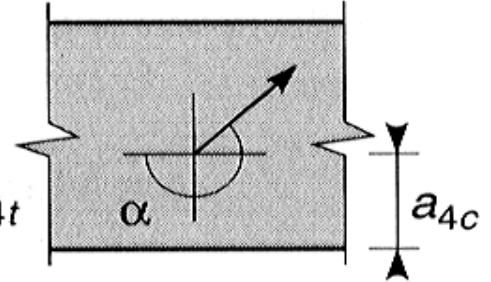
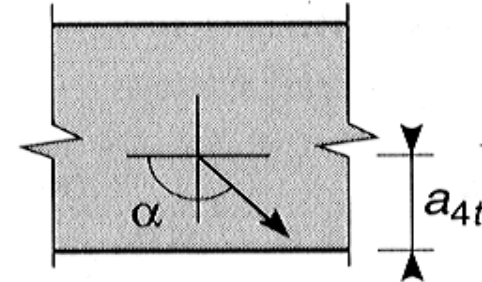


Distances aux rives :



$-90^\circ < \alpha < 90^\circ$
Extrémité
chargée

$90^\circ < \alpha < 270^\circ$
Extrémité
non chargée



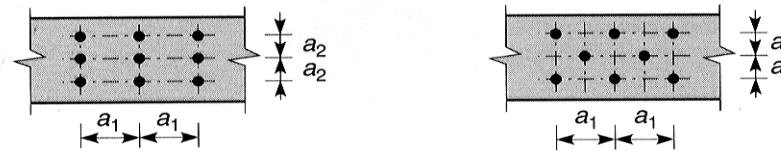
$0^\circ < \alpha < 180^\circ$
Rive
chargée

$180^\circ < \alpha < 360^\circ$
Rive
non chargée

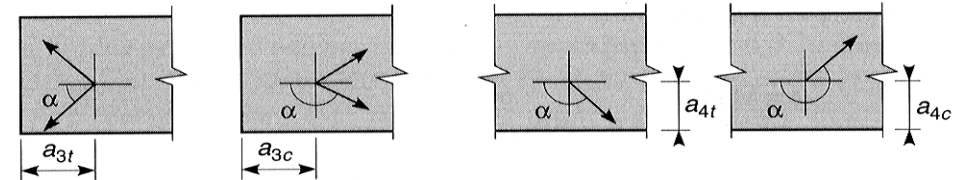
DONNER LES VALEURS DES POSITIONS

FORFAITAIREMENT

Espacements parallèle et perpendiculaire au fil :



Distances aux rives :



$-90^\circ < \alpha < 90^\circ$
Extrémité
chargée

$90^\circ < \alpha < 270^\circ$
Extrémité
non chargée

$0^\circ < \alpha < 180^\circ$
Rive
chargée

$180^\circ < \alpha < 360^\circ$
Rive
non chargée

		a1	a2	a3		a4	
				a3t chargé	a3c non chargé	a4t chargé	a4c non chargé
BOULONS		5d	4d	7d / 80 mm	7d	5d	3d
BROCHES		5d	3d	7d / 80 mm	7d	5d	3d
POINTES		10d	5d	15d	10d	7d	5d
VIS	$\varnothing \leq 6$	10d	5d	15d	10d	7d	5d
	$\varnothing > 6$	5d	4d	7d / 80 mm	7d	4d	4d

INDIQUER LES VALEURS MINIMALES A RESPECTER

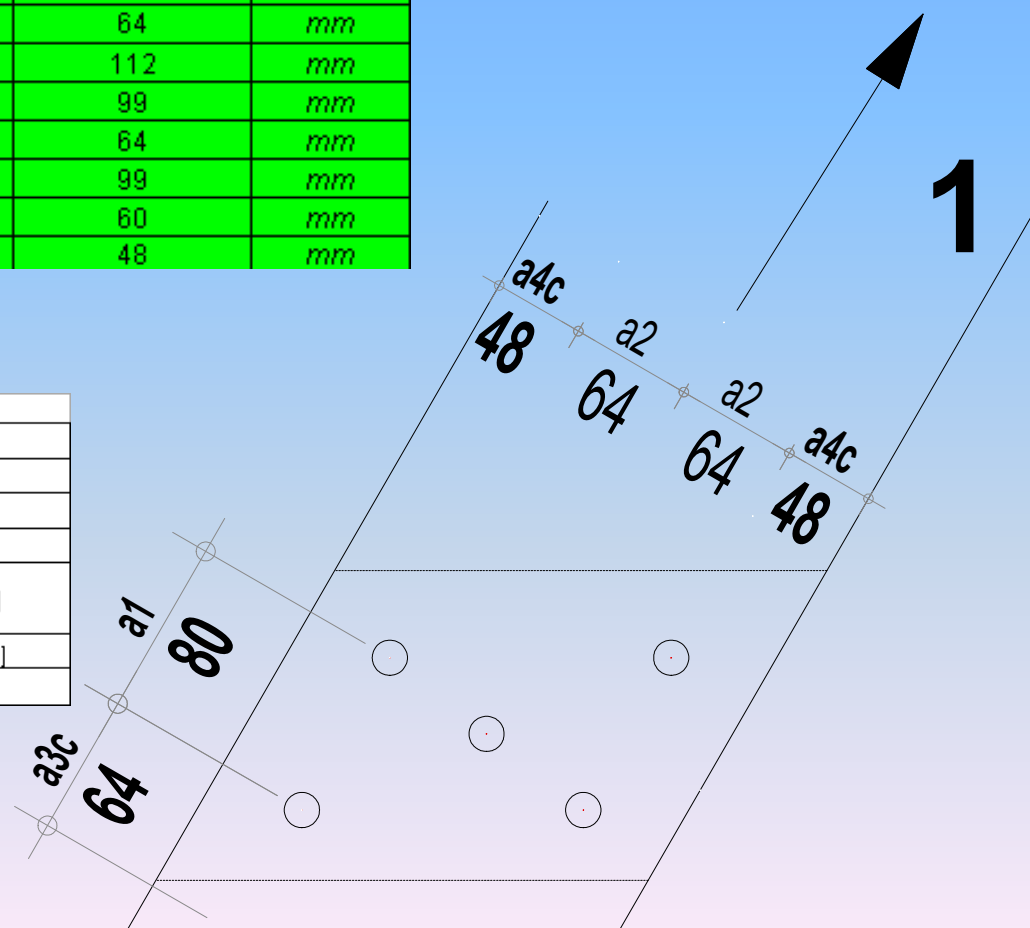
AVEC COACH

POSITIONNEMENT				
Choisir le type de tige	BOULONS			
Choisir le ϕ de la tige	16			mm
Indiquer l'angle α par rapport au fil du bois	PIECE 1	PIECE 2		
	0	60		degré
a1	80	72		mm
a2	64	64		mm
a3t	112	112		mm
a3c	64	99		mm
a3c	64	64		mm
a3c	64	99		mm
a4t	48	60		mm
a4c	48	48		mm

PAR LE CALCUL

Tableau 5.3 Positionnement des boulons		
a1	// au fil	$(4 + \cos \alpha) d$
a2	\perp au fil	$4d$
a3t	$-90^\circ \leq \alpha \leq 90^\circ$	Max [7d ; 80 mm]
a3c	$150^\circ \leq \alpha \leq 210^\circ$	4d
	$90^\circ \leq \alpha \leq 150^\circ$	Max [$1+6 \sin \alpha d$; 4d]
	$210^\circ \leq \alpha \leq 270^\circ$	
a4t	$0^\circ \leq \alpha \leq 180^\circ$	Max [$2+2 \sin \alpha d$; 3d]
a4c	autres valeurs de α	3d

Action boulons sur 1

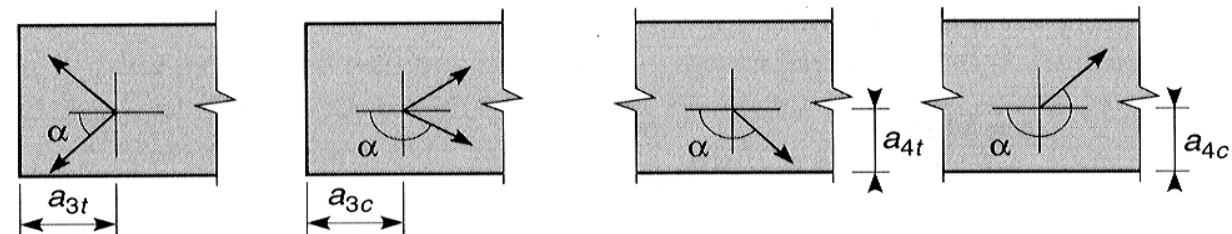


INDIQUER LES VALEURS MINIMALES A RESPECTER

Espacements parallèle et perpendiculaire au fil :



Distances aux rives :



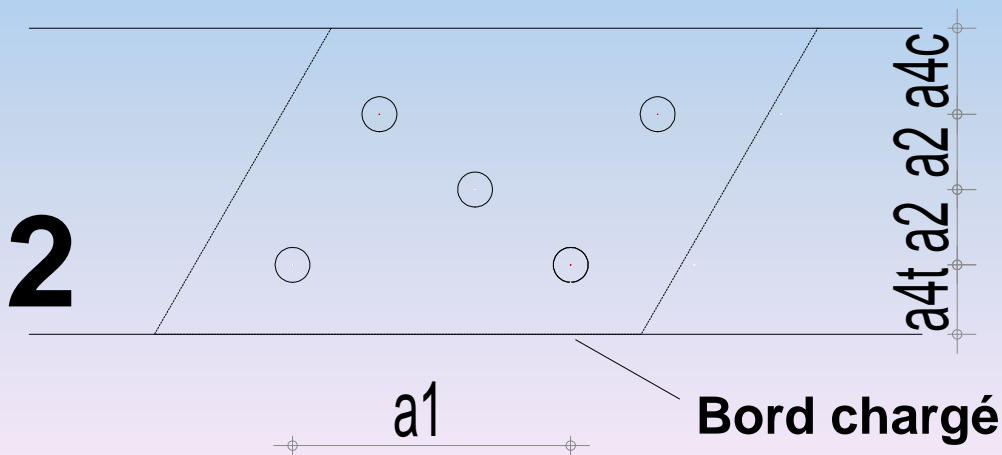
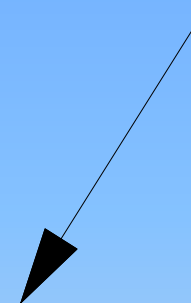
$-90^\circ < \alpha < 90^\circ$
Extrémité
chargée

$90^\circ < \alpha < 270^\circ$
Extrémité
non chargée

$0^\circ < \alpha < 180^\circ$
Rive
chargée

$180^\circ < \alpha < 360^\circ$
Rive
non chargée

Action boulons sur 2



INDIQUER LES VALEURS MINIMALES A RESPECTER

AVEC COACH

POSITIONNEMENT

Choisir le type de tige	BOULONS		
Choisir le ϕ de la tige	16		mm
Indiquer l'angle α par rapport au fil du bois	PIECE 1	PIECE 2	
	0	60	degré
a1	80	72	mm
a2	64	64	mm
a3t	112	112	mm
a3c	64	99	mm
a3c	64	64	mm
a3c	64	99	mm
a4t	48	60	mm
a4c	48	48	mm

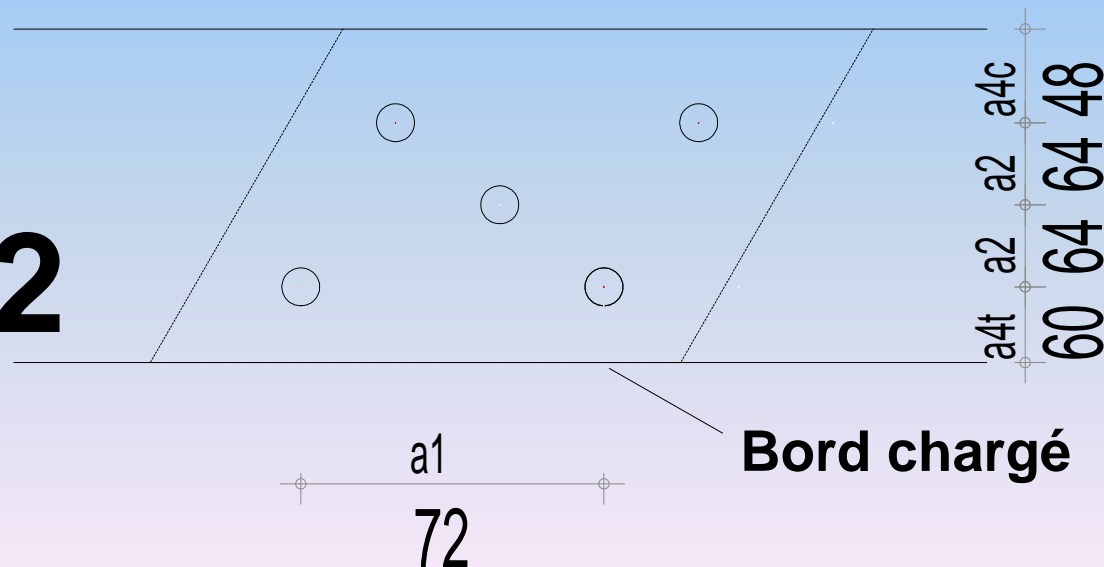
Action boulons sur 2

PAR LE CALCUL

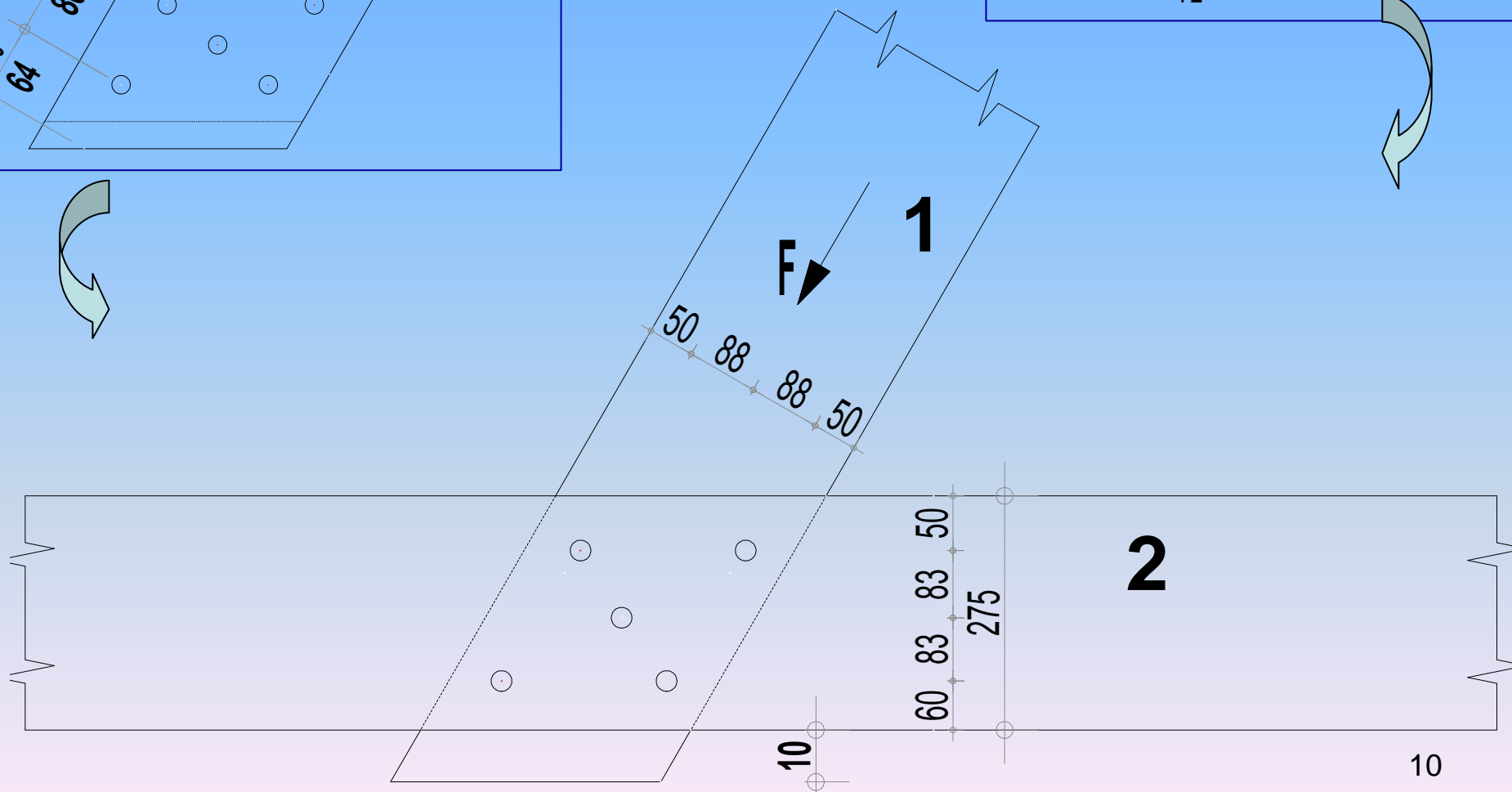
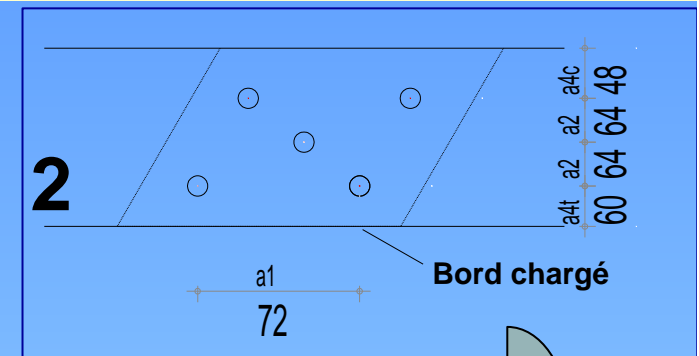
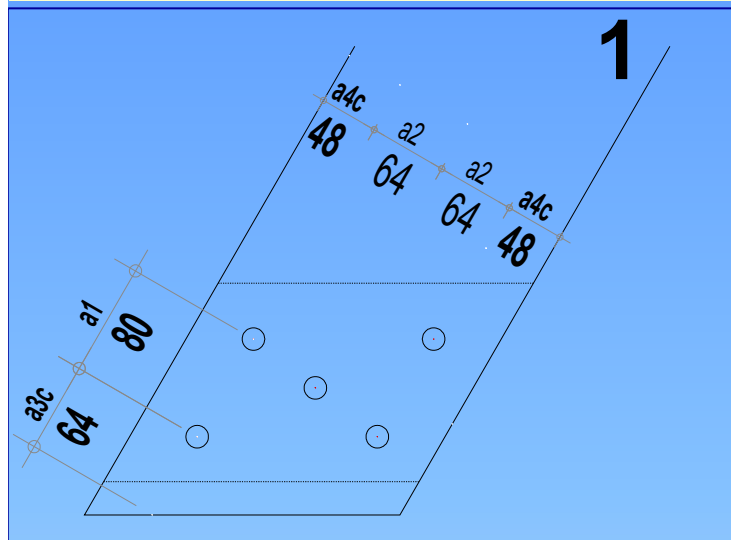
Tableau 5.3 Positionnement des boulons

a1	// au fil	$(4 + \cos \alpha) d$
a2	\perp au fil	$4d$
a3t	$-90^\circ \leq \alpha \leq 90^\circ$	Max [7d ; 80 mm]
a3c	$150^\circ \leq \alpha \leq 210^\circ$	4d
	$90^\circ \leq \alpha \leq 150^\circ$	Max [1,16 sin α d ; 4d]
	$210^\circ \leq \alpha \leq 270^\circ$	
a4t	$0^\circ \leq \alpha \leq 180^\circ$	Max [2+2 sin α]d ; 3d]
a4c	autres valeurs de α	3d

2

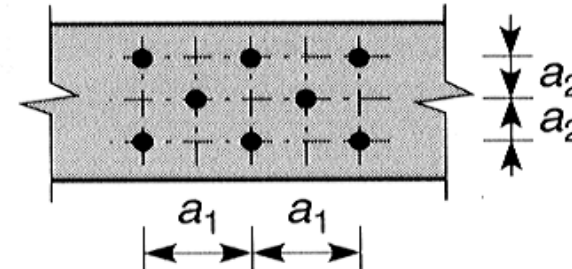
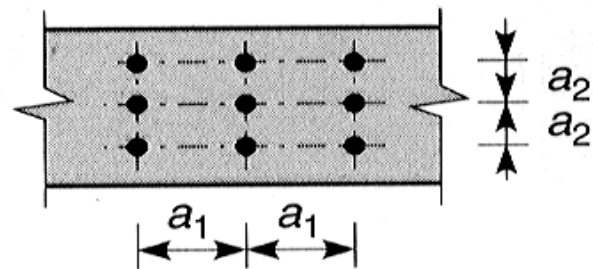


ETABLIR LE SCHEMA DEFINITIF DE L'ASSEMBLAGE

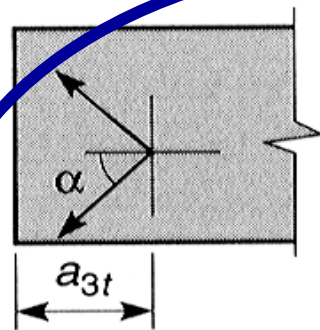


PARTICULARITES DE a_3

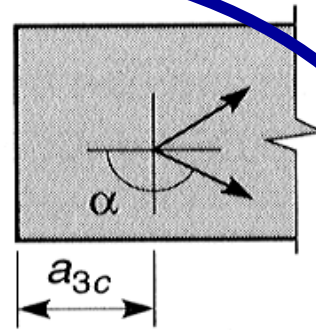
Espacements parallèle et perpendiculaire au fil :



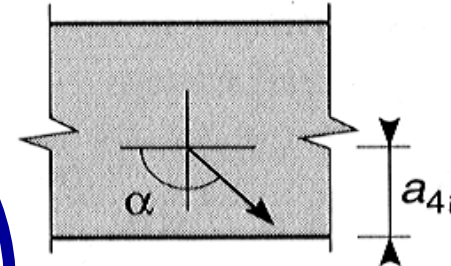
Distances aux rives :



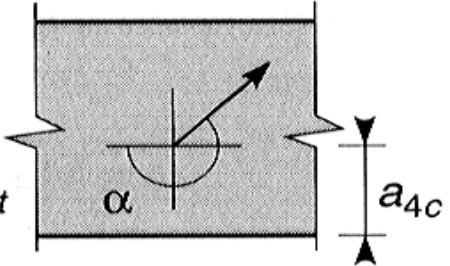
$-90^\circ < \alpha < 90^\circ$
Extrémité
chargée



$90^\circ < \alpha < 270^\circ$
Extrémité
non chargée



$0^\circ < \alpha < 180^\circ$
Rive
chargée

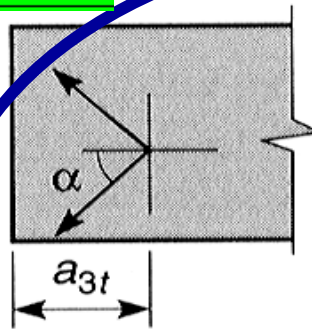


$180^\circ < \alpha < 360^\circ$
Rive
non chargée

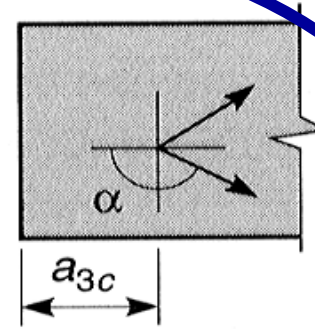
PARTICULARITES DE a_3

a_{3t}

$90^\circ < \alpha < -90^\circ$



$-90^\circ < \alpha < 90^\circ$
Extrémité
chargée



$90^\circ < \alpha < 270^\circ$
Extrémité
non chargée

a_{3c}

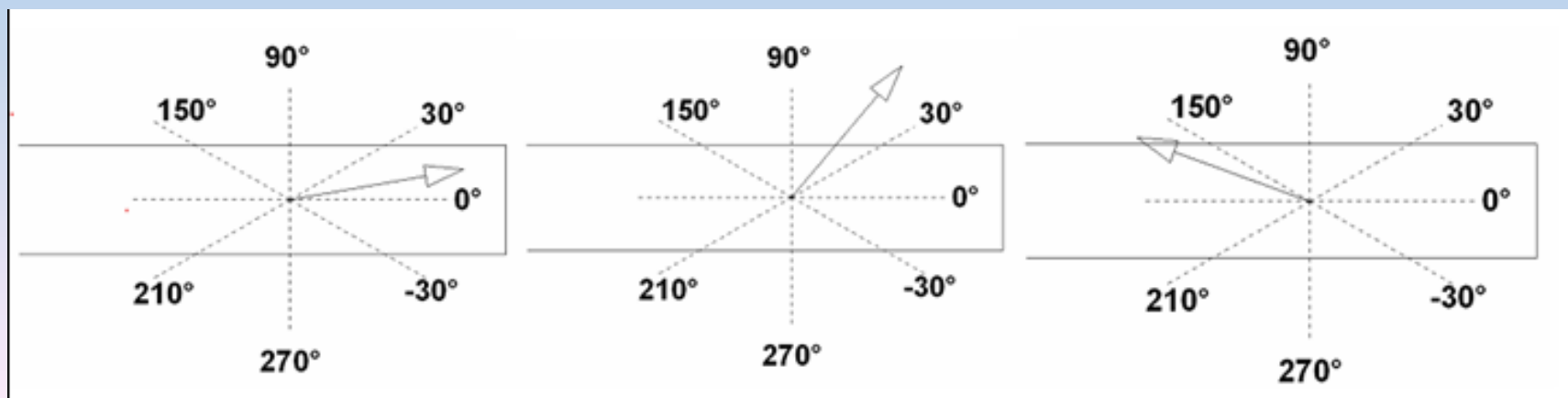
$90^\circ < \alpha < 150^\circ$

a_{3c}

$150^\circ < \alpha < 210^\circ$

a_{3c}

$210^\circ < \alpha < 270^\circ$





FIN

LYCEE HAROUN TAZIEFF

