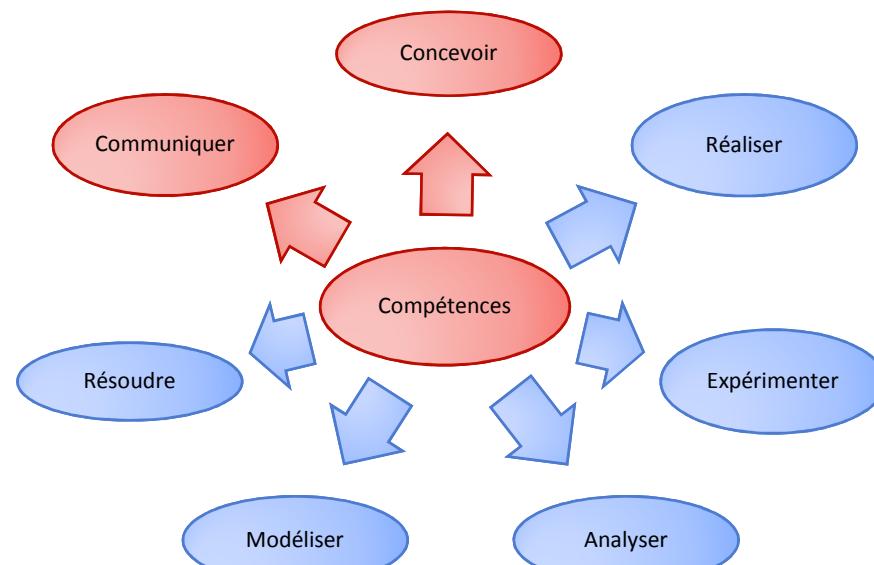
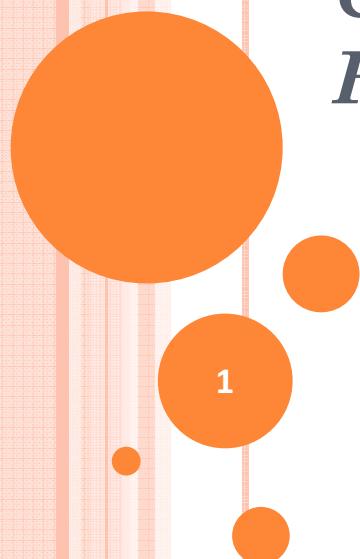
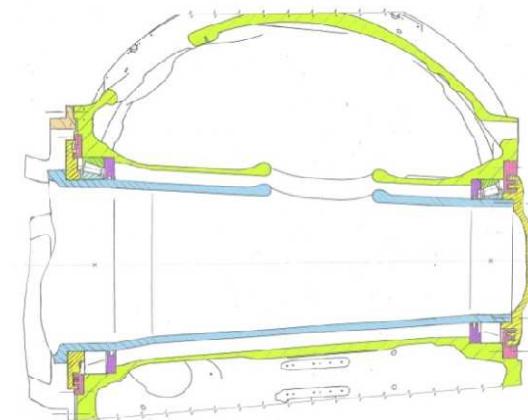
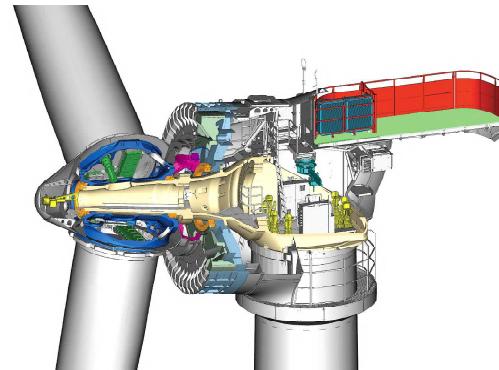


ÉTUDE DES SYSTÈMES MÉCANIQUES ANALYSER – CONCEVOIR – RÉALISER

CONCEPTION – CHAPITRE 1 : REPRÉSENTATION DES PIÈCES EN 2D



PRÉSENTATION



Éolienne Offshore Haliade 150

Objectifs

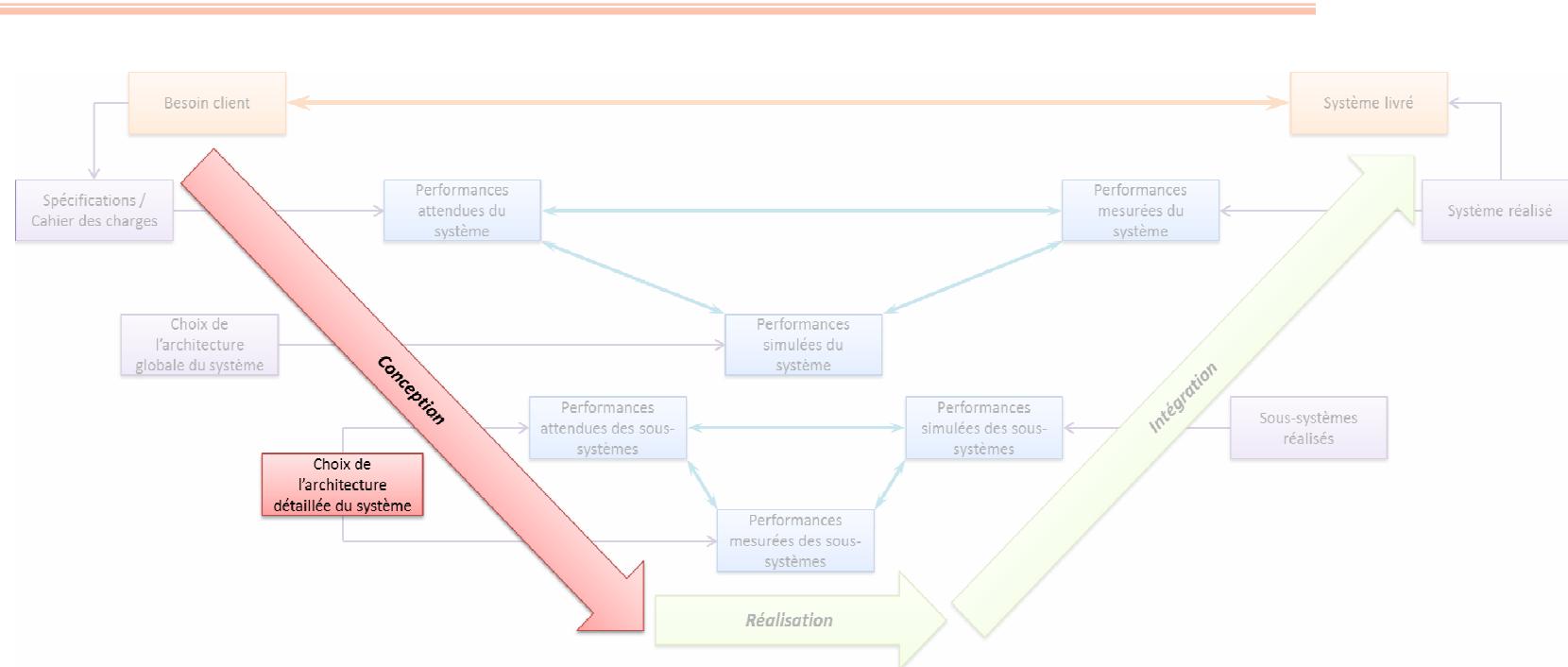
- Lire et interpréter un dessin de définition 2D.

Compétence : Communiquer

- Com1-C1-S1 : Produire des documents techniques adaptés à une communication (interne et externe)
- Com1-C1-S2 : Décoder une représentation 2D.

2

PRÉSENTATION



Objectifs

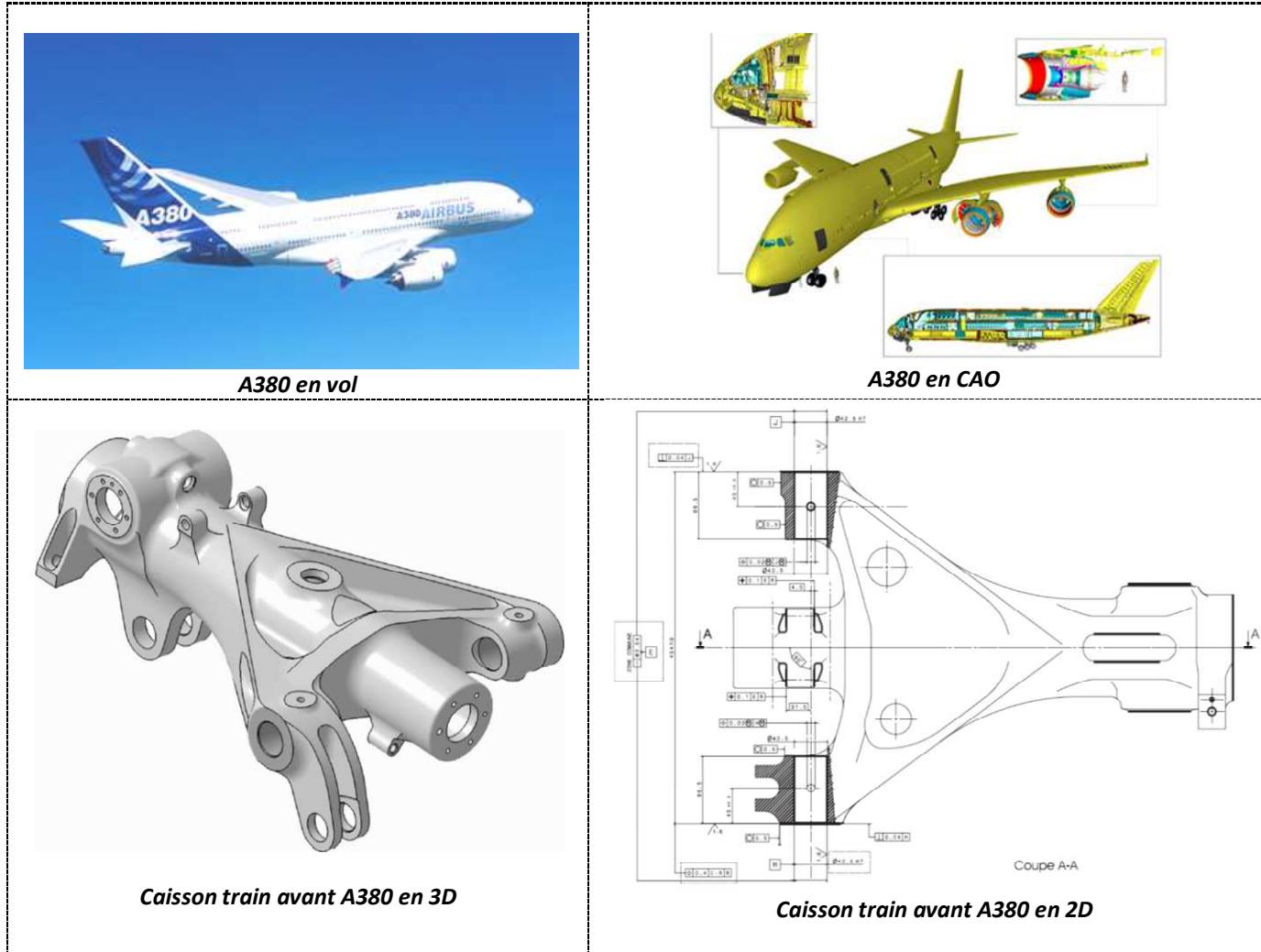
- Lire et interpréter un dessin de définition 2D.

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- Com1-C1-S1 : Produire des documents techniques adaptés à une communication (interne et externe)
- Com1-C1-S2 : Décoder une représentation 2D.

3

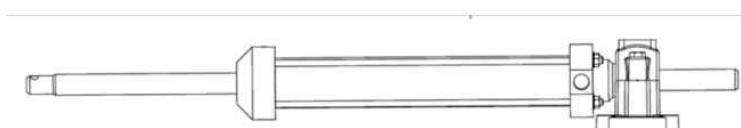
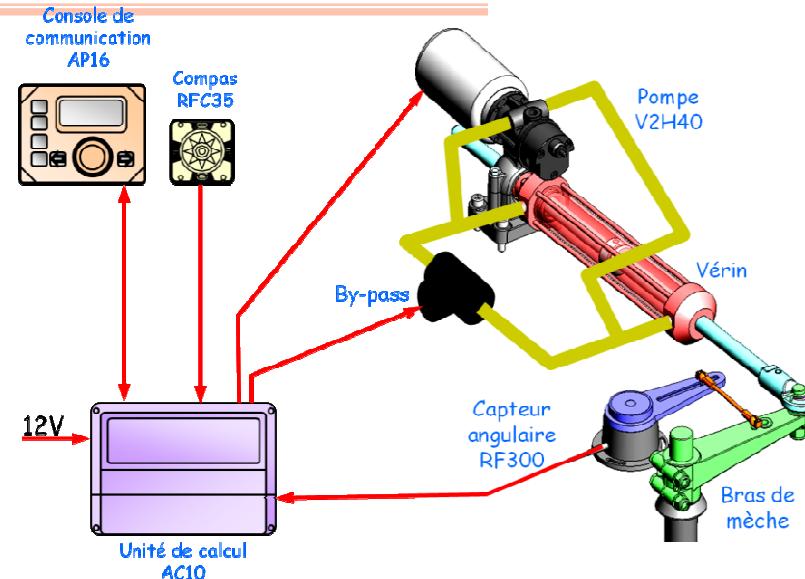
CONCEPTION DES PRODUITS INDUSTRIELS PRÉLIMINAIRES



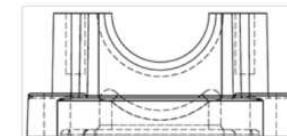
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CONCEPTION DES PRODUITS INDUSTRIELS

DESSIN D'ENSEMBLE – DESSIN DE DÉFINITION

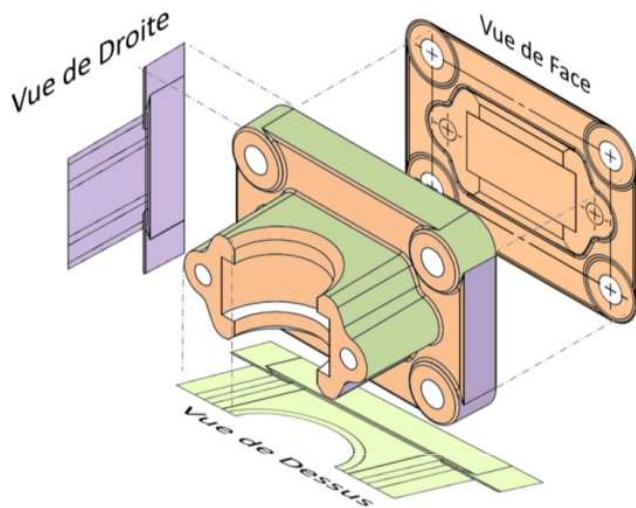


Dessin d'ensemble



Dessin de définition

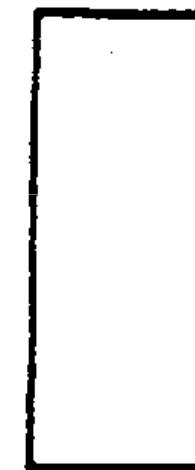
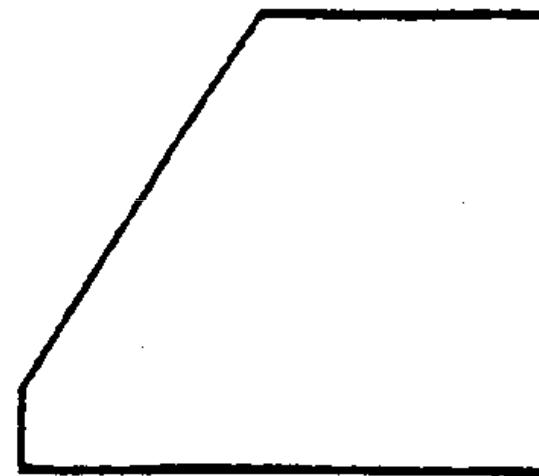
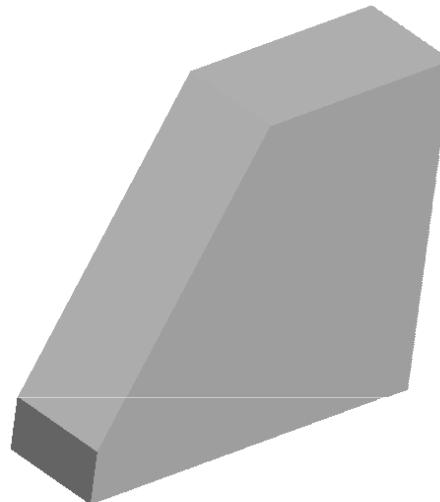
DESSIN 2D - PROJECTION ORTHOGONALE



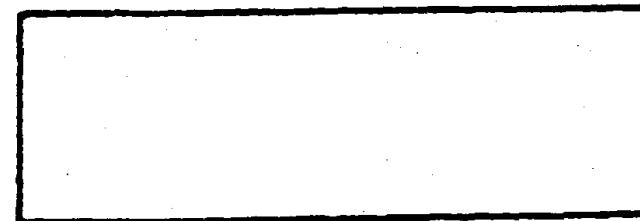
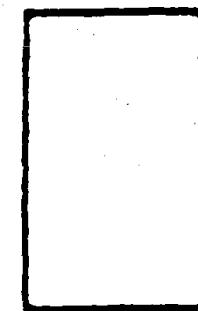
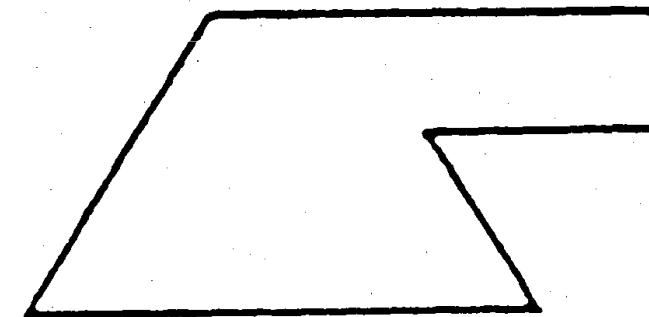
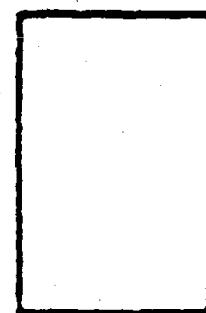
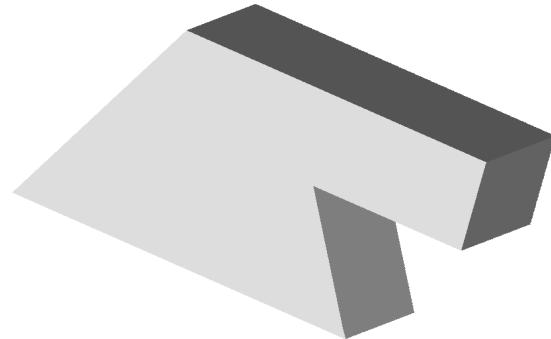
La projection orthogonale consiste à projeter un modèle géométrique d'une pièce sur un plan orthogonal à la direction d'observation. La figure obtenue respecte les règles de tracé suivantes :

- trait continu pour les arêtes et les contours visibles ;
- trait pointillé pour les arêtes et les contours cachés ;
- trait mixte pour les axes de révolution et plan de symétrie.

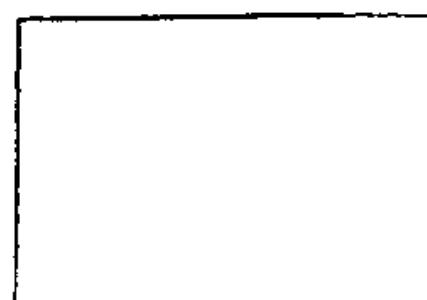
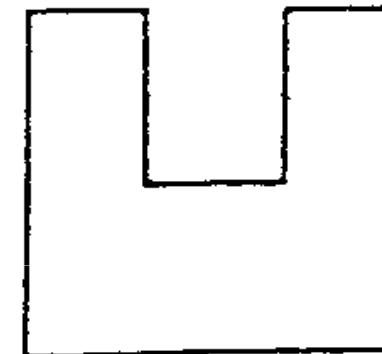
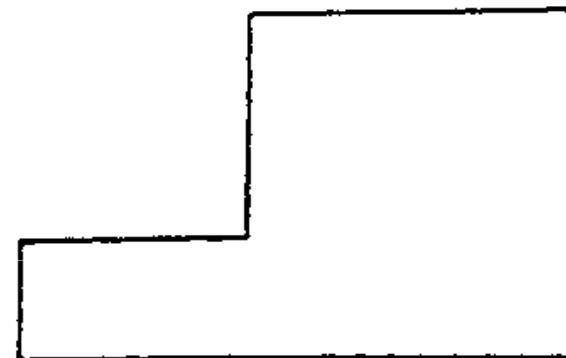
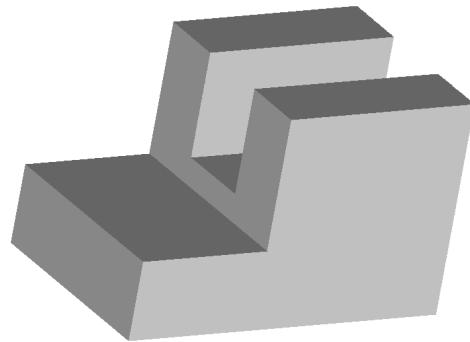
LES PROJECTIONS DE BASE PIÈCES SIMPLES



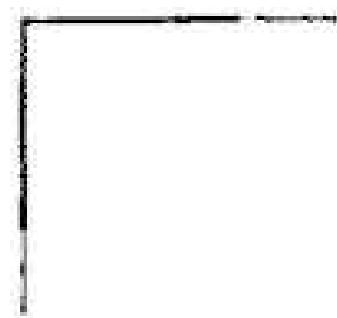
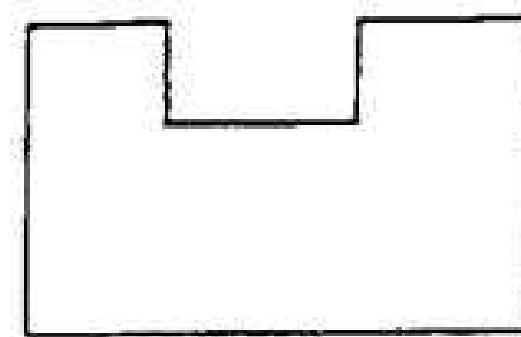
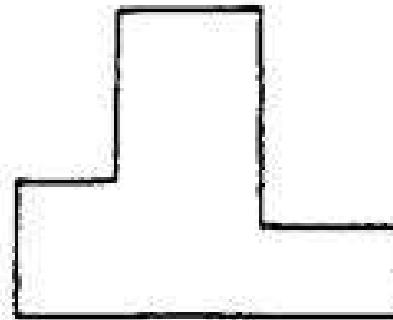
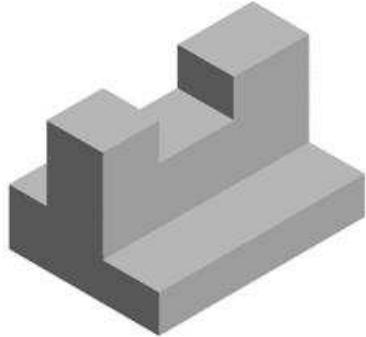
LES PROJECTIONS DE BASE PIÈCES SIMPLES



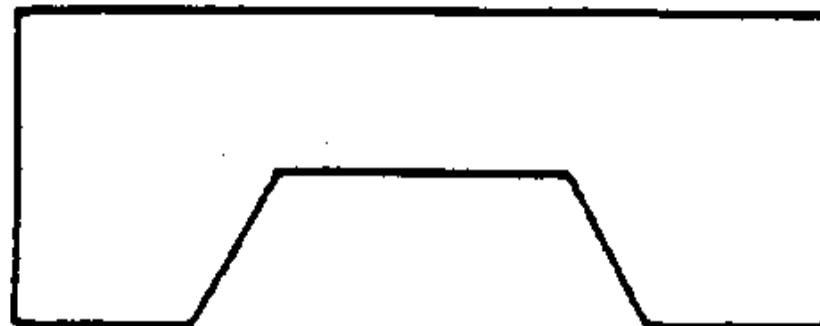
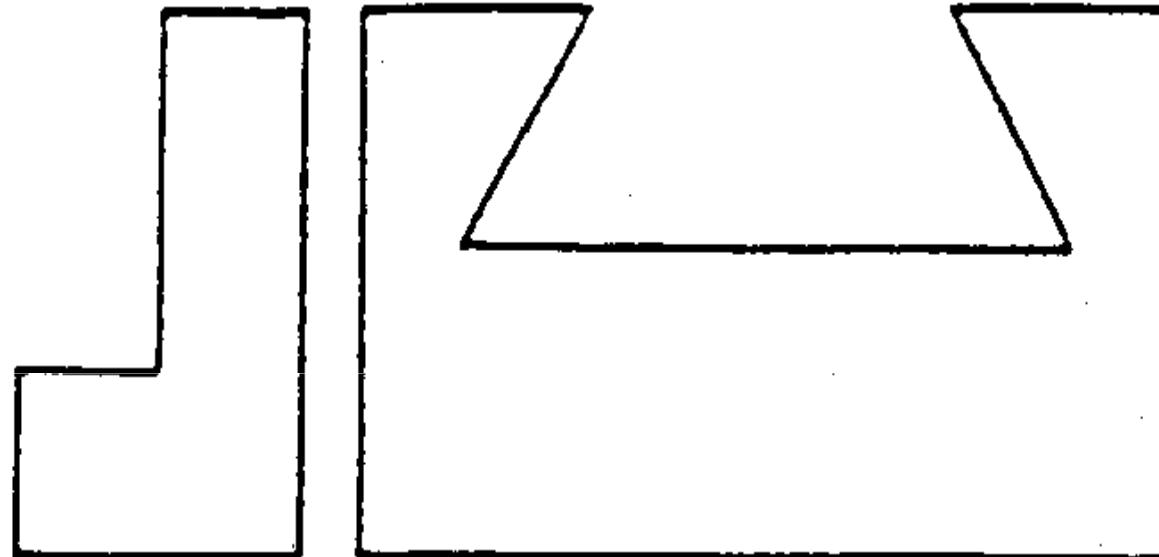
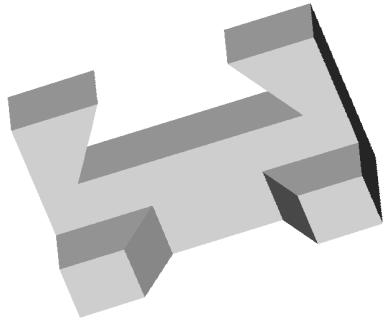
LES PROJECTIONS DE BASE PIÈCES SIMPLES



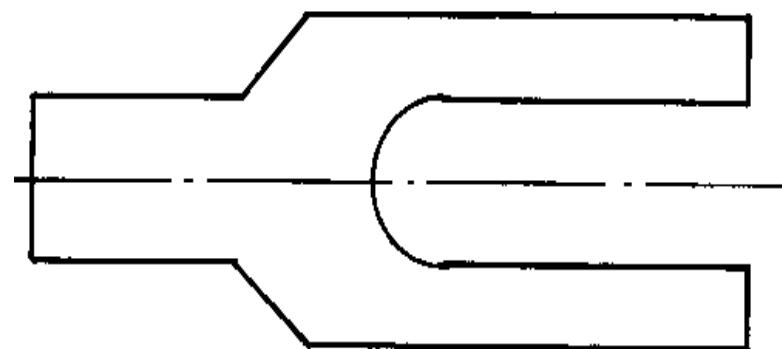
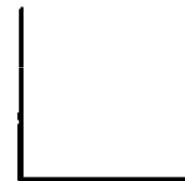
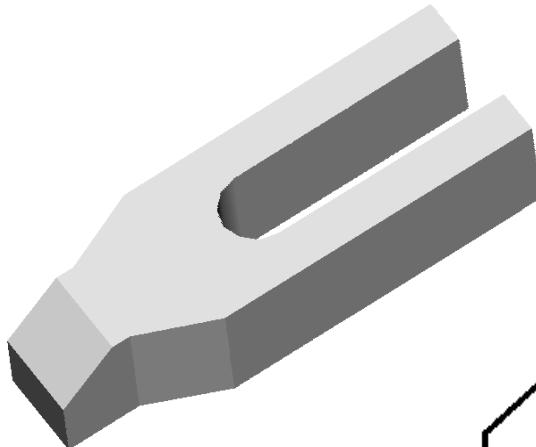
LES PROJECTIONS DE BASE PIÈCES SIMPLES



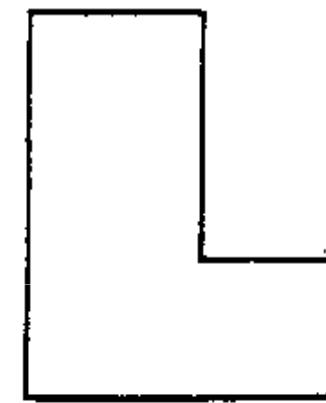
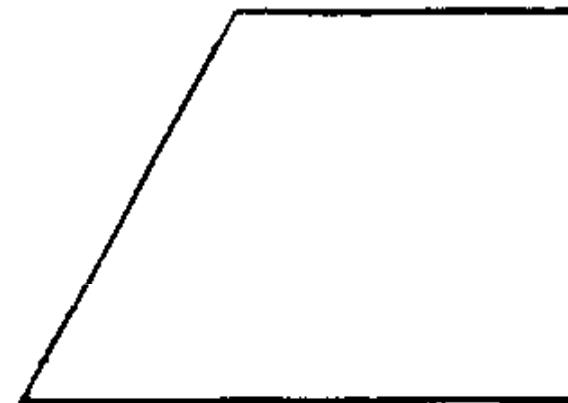
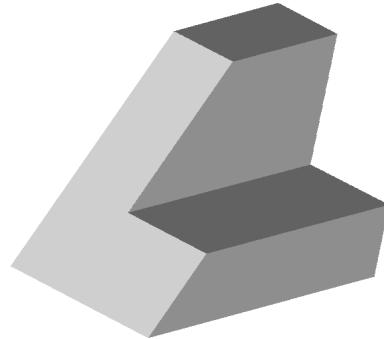
LES PROJECTIONS DE BASE PIÈCES SIMPLES



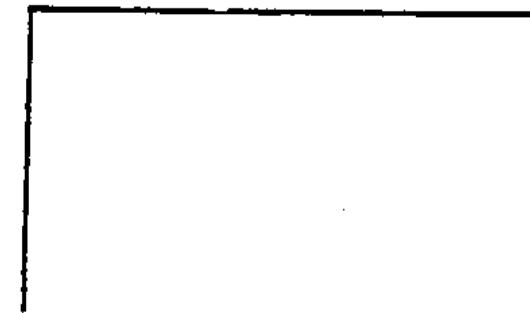
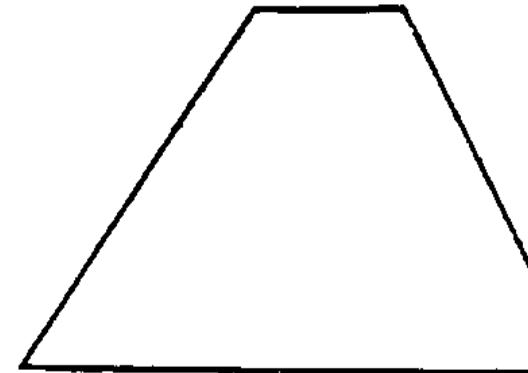
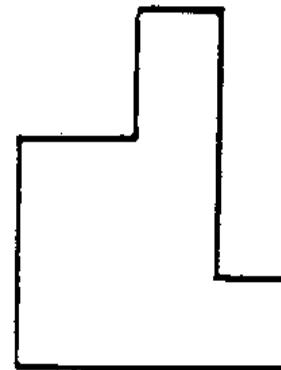
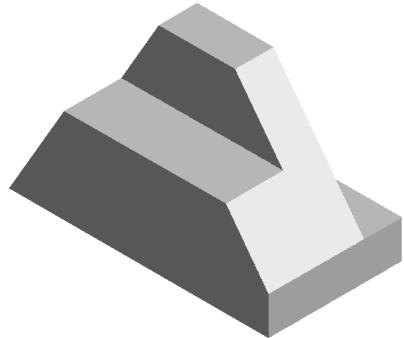
LES PROJECTIONS DE BASE PIÈCES PLUS COMPLEXES



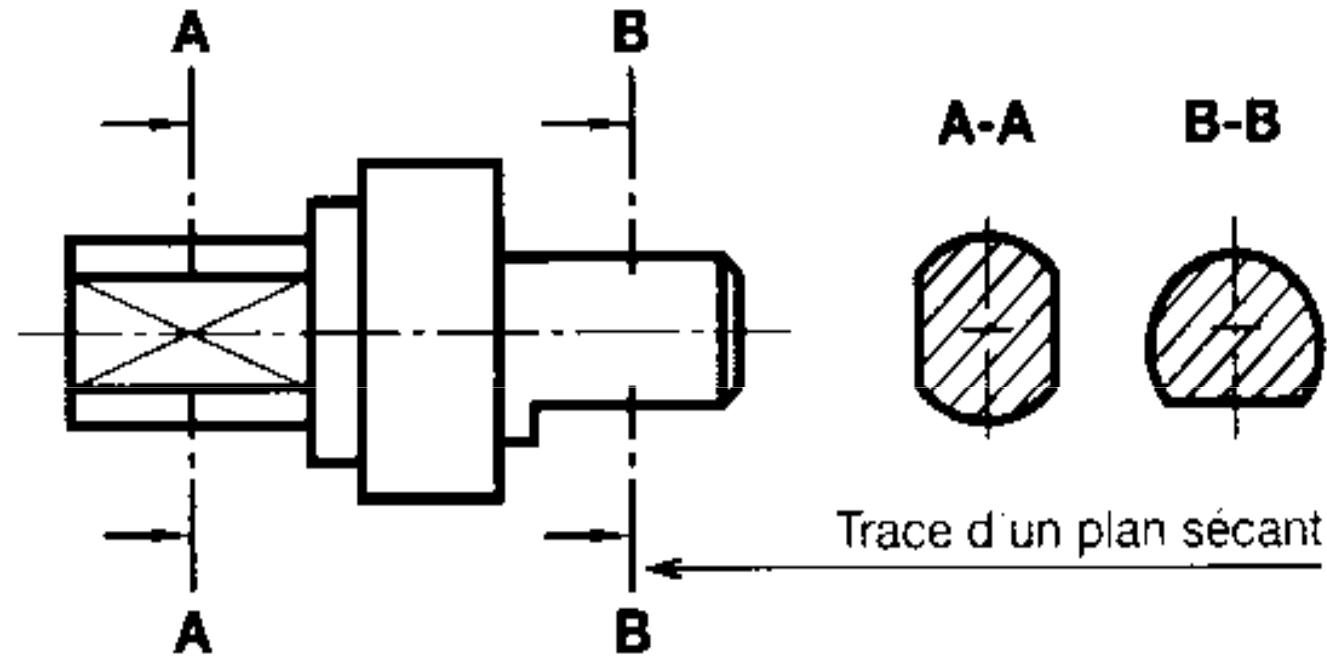
LES PROJECTIONS DE BASE PIÈCES SIMPLES



LES PROJECTIONS DE BASE PIÈCES PLUS COMPLEXES

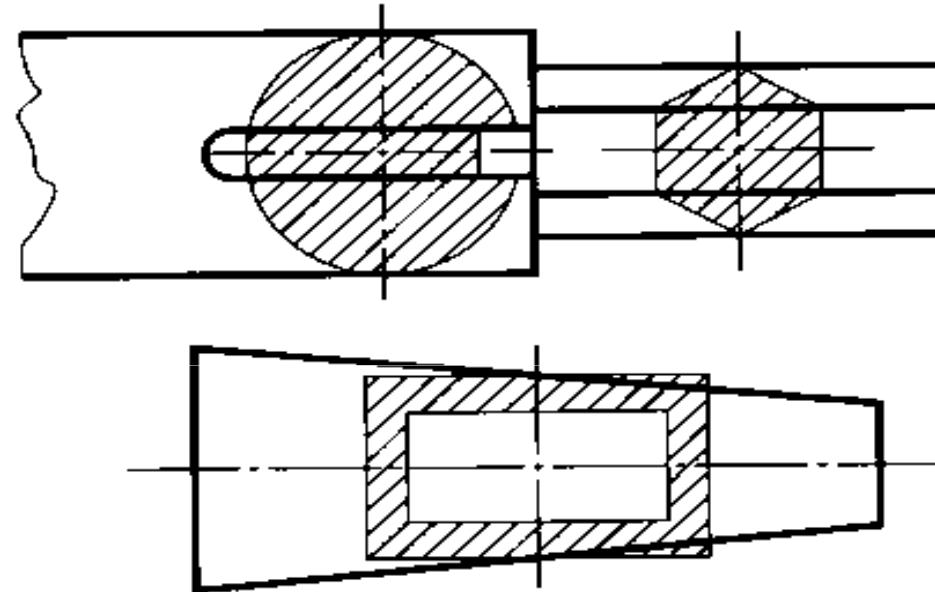


LES COUPES ET LES SECTIONS SECTIONS SORTIES



LES COUPES ET LES SECTIONS

SECTIONS RABATTUES



LES COUPES ET LES SECTIONS

LES COUPES

Règles importantes :

- deux règles importantes à retenir ;
- les hachures ne traversent jamais un trait fort ;
- les hachures ne s'arrêtent jamais sur un trait interrompu fin.

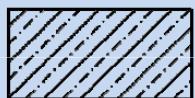
Remarques : Hachures et matériaux



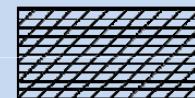
Tous métaux et
alliages



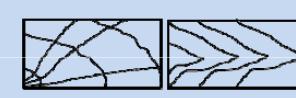
Métaux et alliages
légers (aluminium)



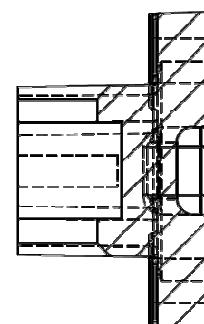
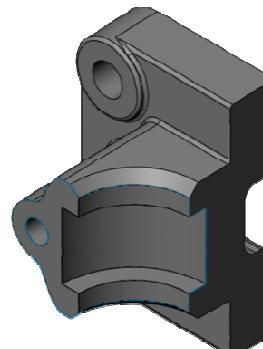
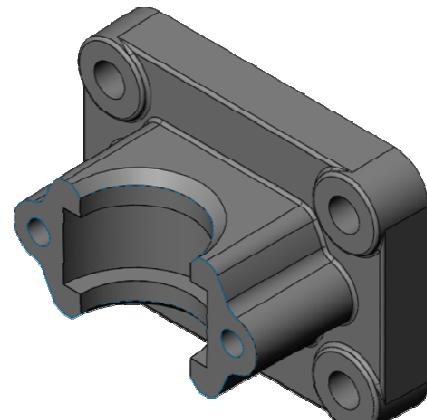
Cuivre et ses
alliages



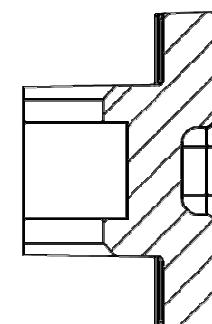
Matières plastiques
et isolantes



Bois

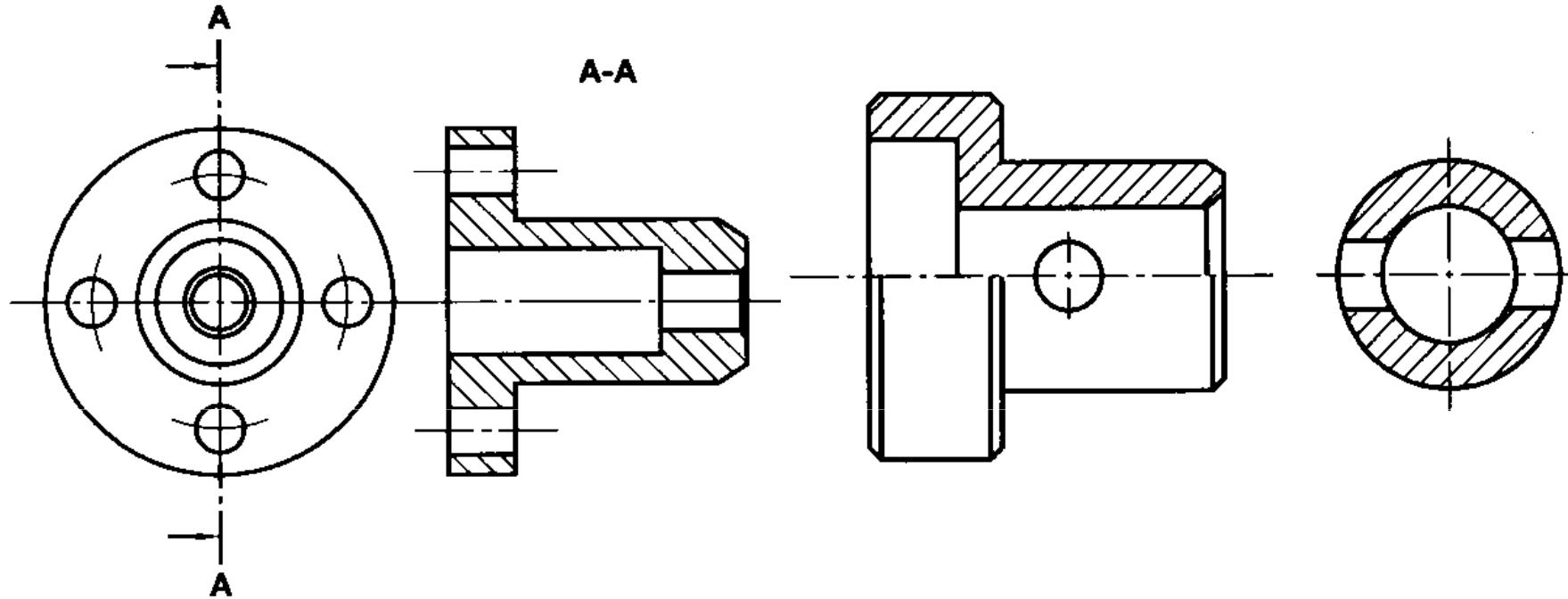


Vue en coupe
(arrêtes non visibles
en traits interrompus)



Vue en coupe
(arrêtes non visibles
non représentées)

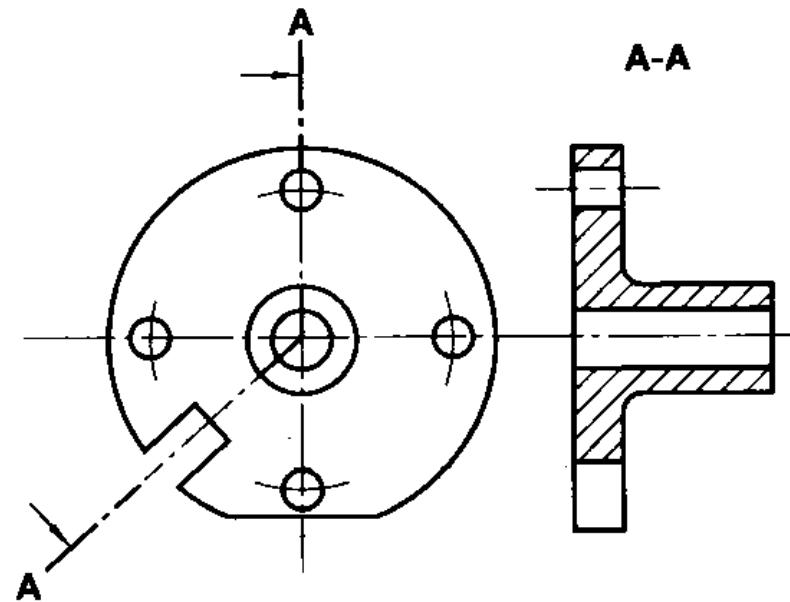
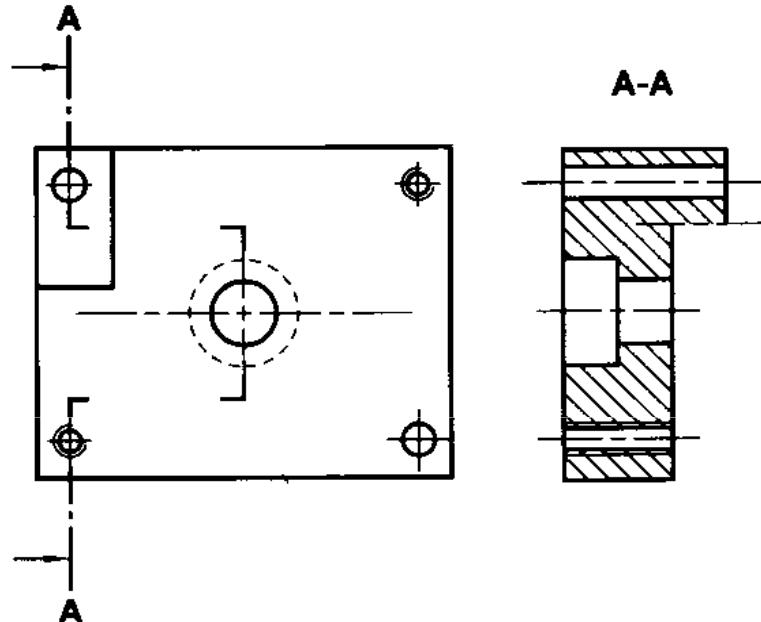
COUPE PAR UN SEUL PLAN ET DEMI COUPE



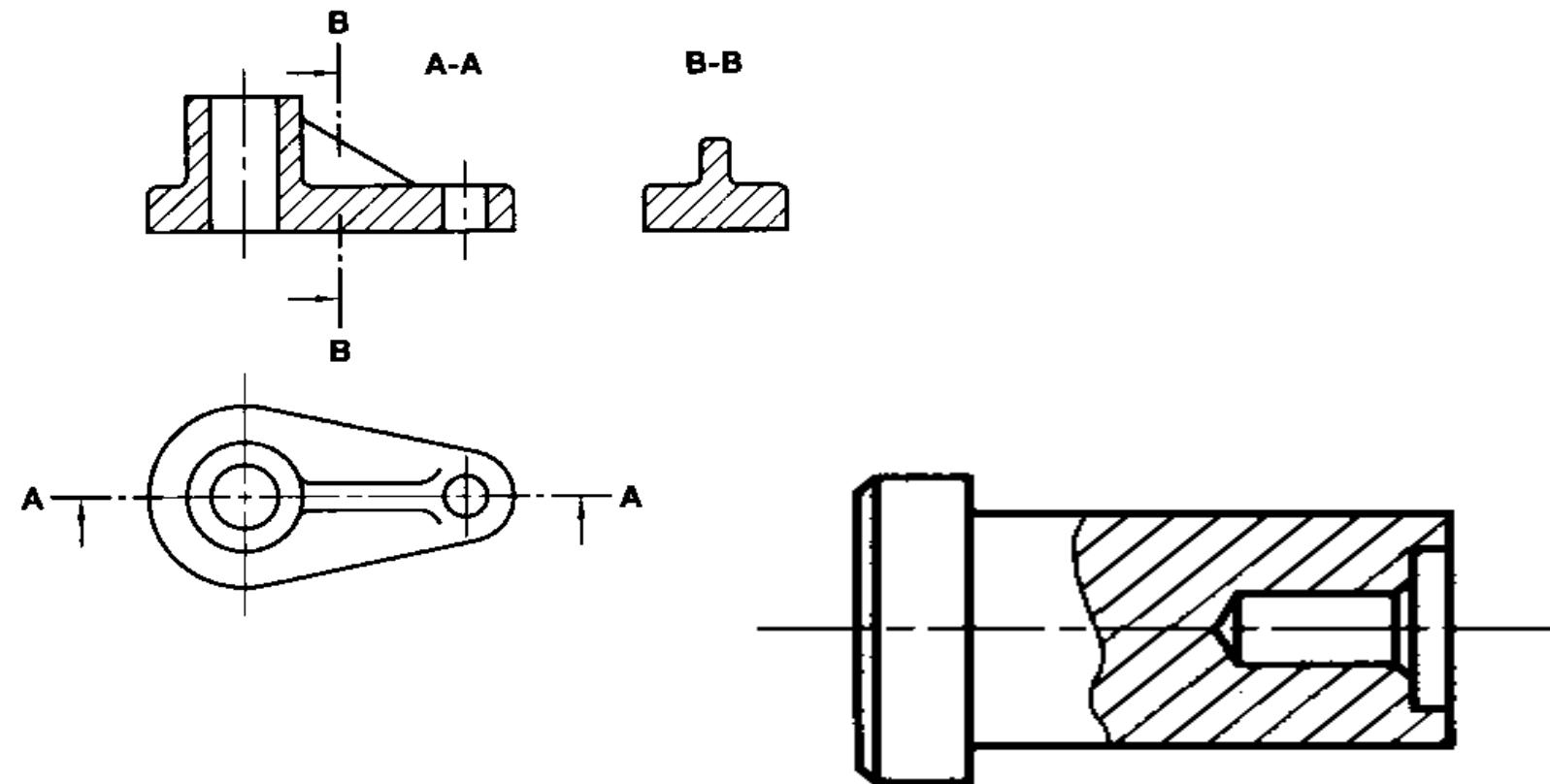
Remarque :

- Ne pas dessiner les arêtes cachées si cette représentation n'apporte rien à la compréhension de l'objet.
- Lorsque la localisation d'un plan de coupe est évidente, aucune indication de sa position ou de son identification n'est pas absolument nécessaire.

COUPE BRISÉE À PLANS PARALLÈLES OU A PLANS SÉCANTS



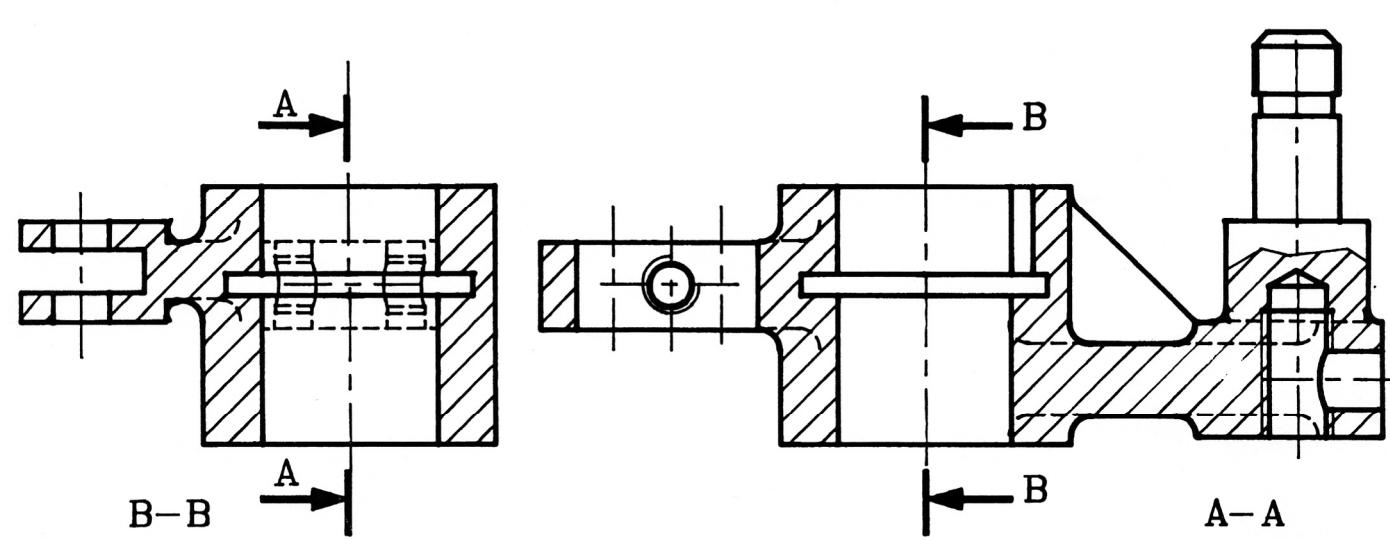
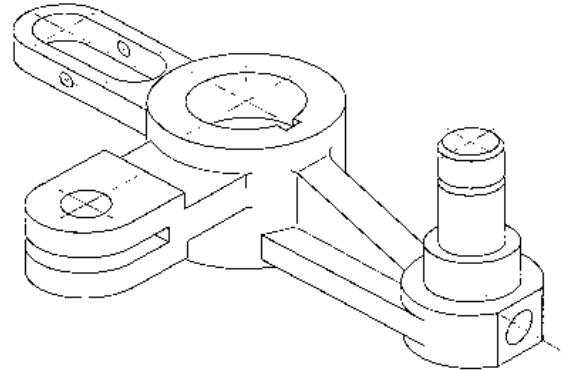
COUPE DES NERVURES ET COUPES LOCALES



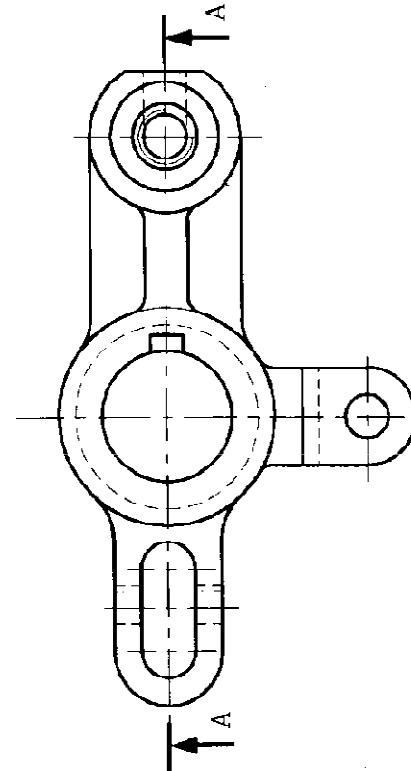
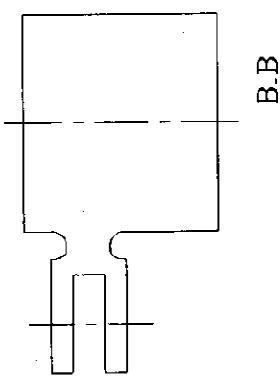
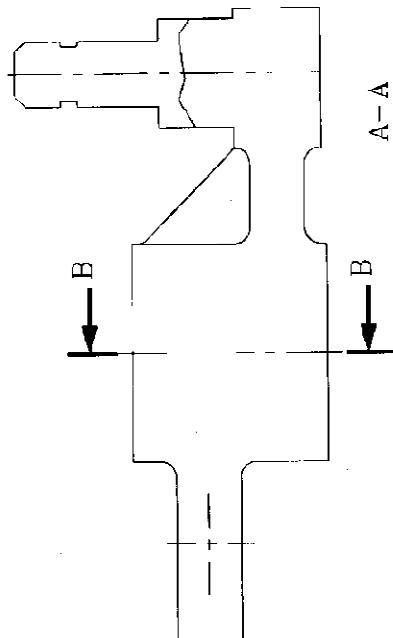
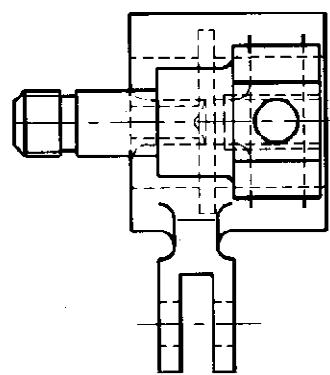
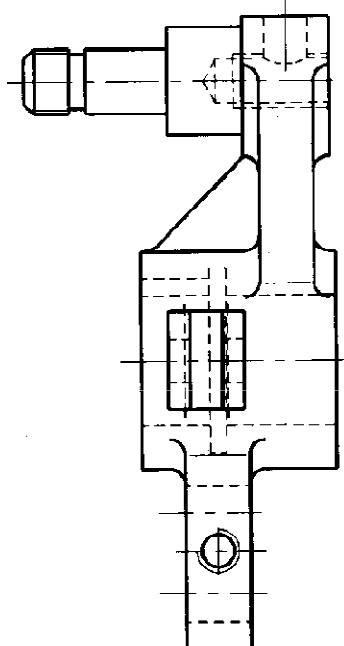
ÉLÉMENTS NON COUPÉS

- On ne coupe pas tout élément plein dont la coupe ne donnerait pas une représentation plus détaillée. Ne sont donc, en général, pas coupés
 - vis, boulons, rivets,
 - arbres pleins, billes,
 - clavettes, goupilles
 - bras de poulie et de volants.

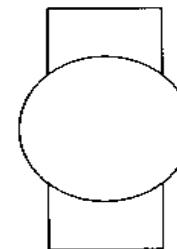
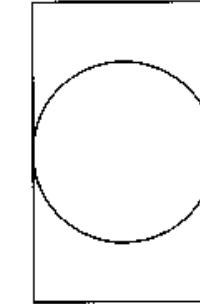
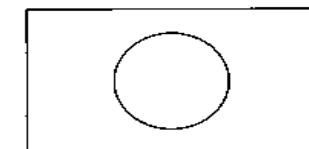
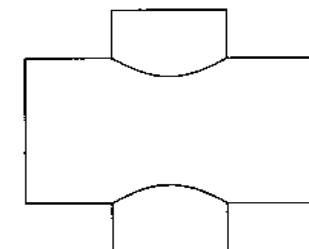
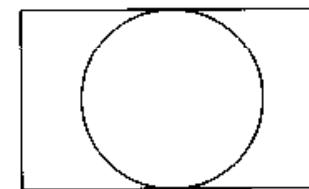
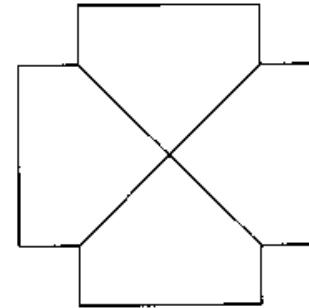
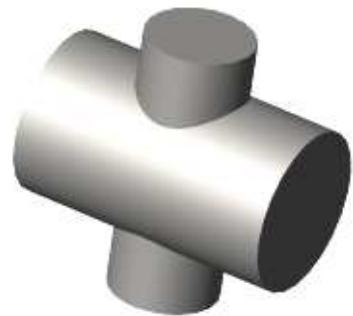
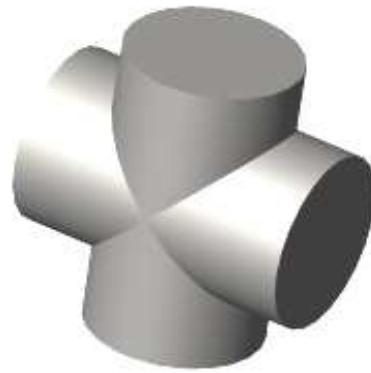
APPLICATION LEVIER



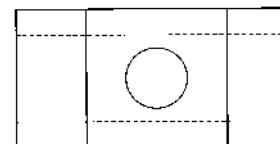
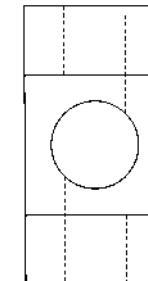
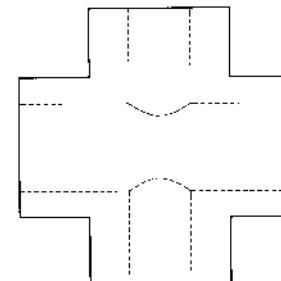
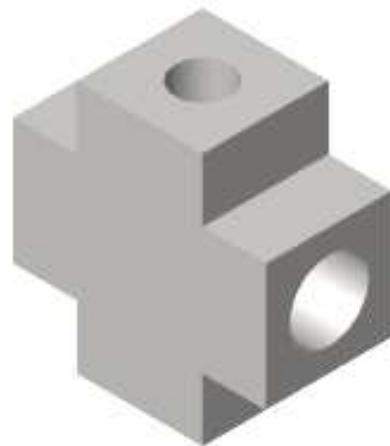
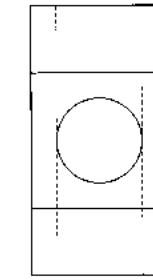
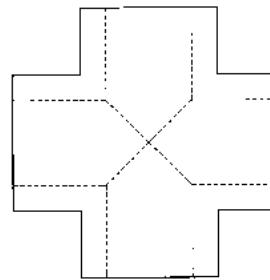
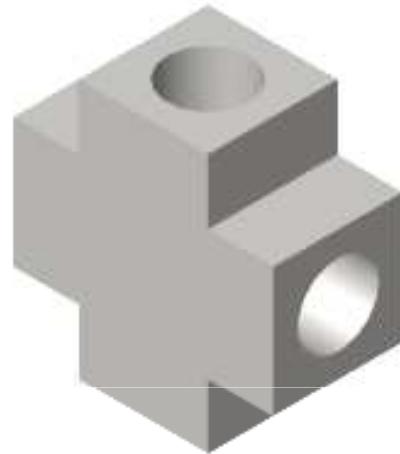
DESSIN DE DÉFINITION A COMPLÉTER



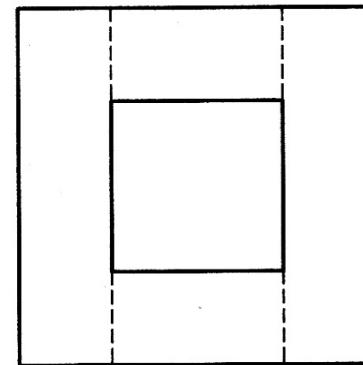
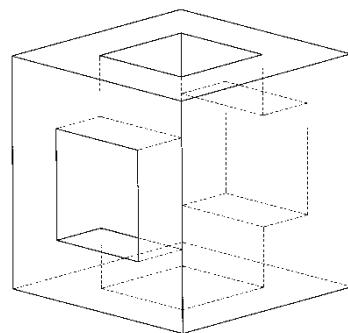
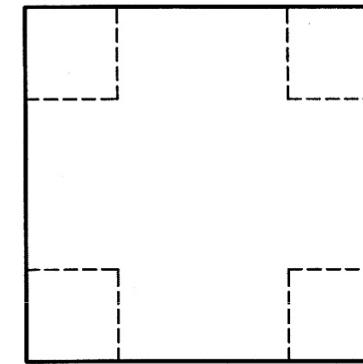
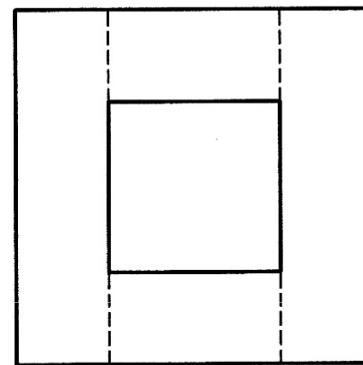
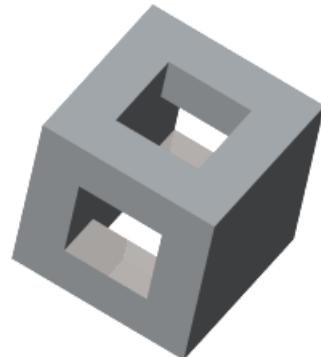
INTERSECTION DES CYLINDRES



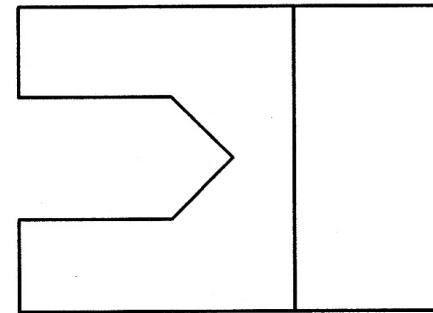
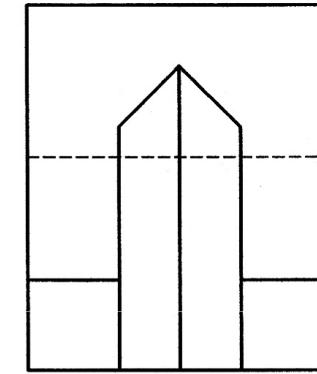
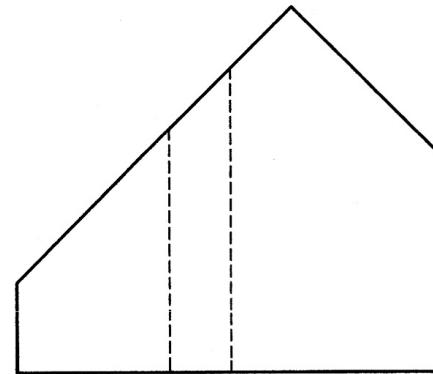
CYLINDRES CREUX



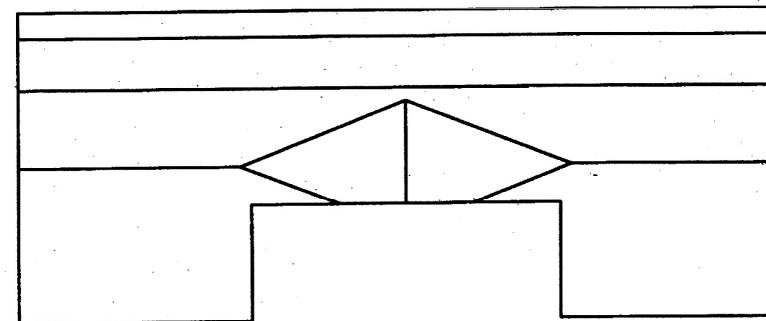
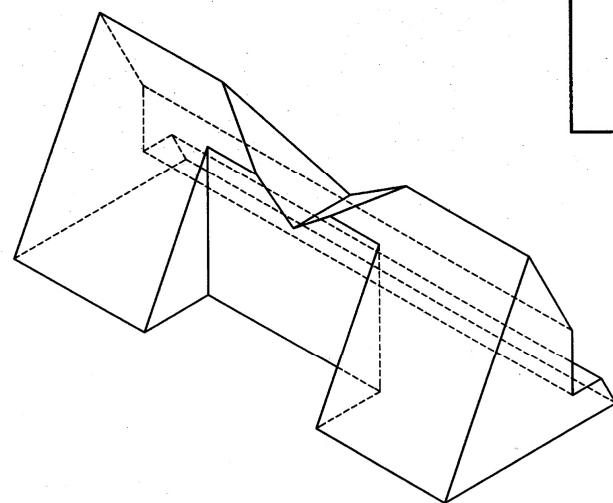
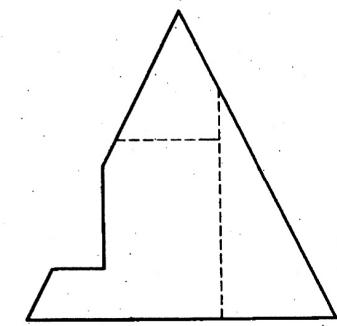
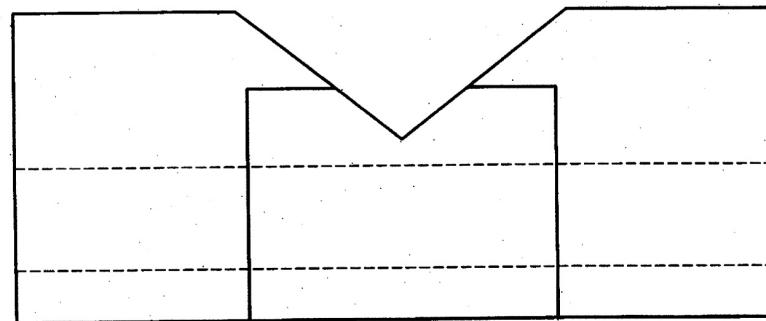
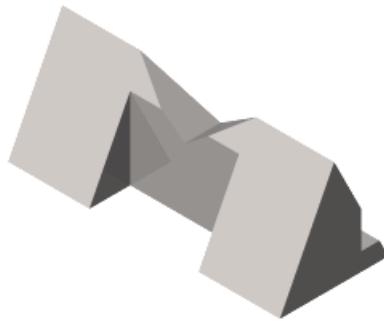
EXERCICES



EXERCICES



EXERCICES



EXERCICES

