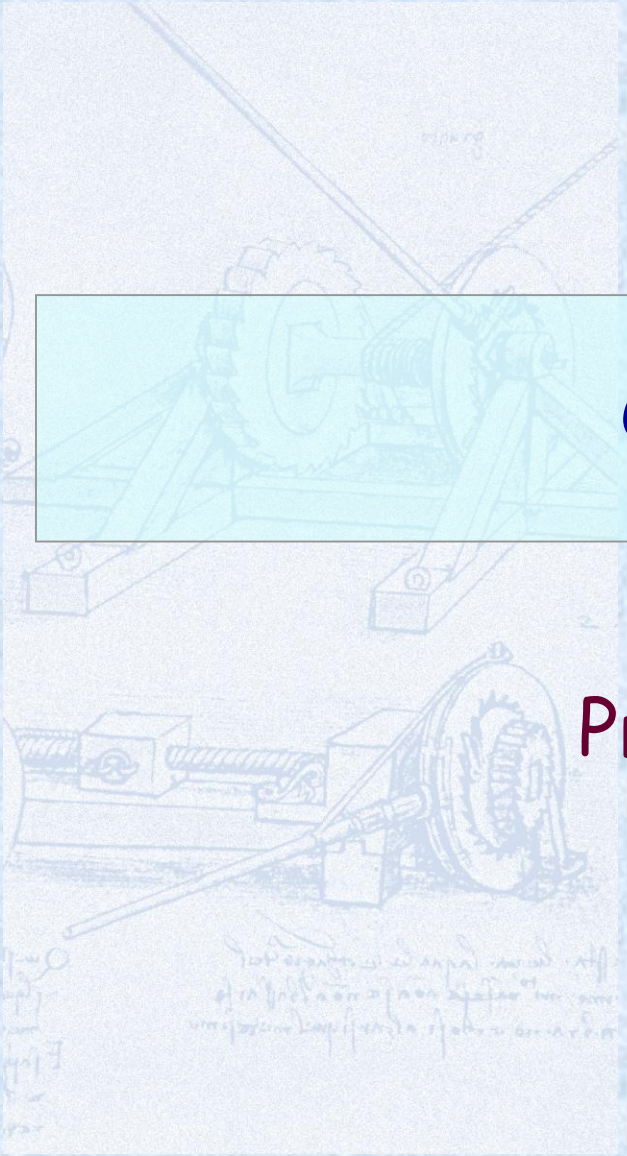
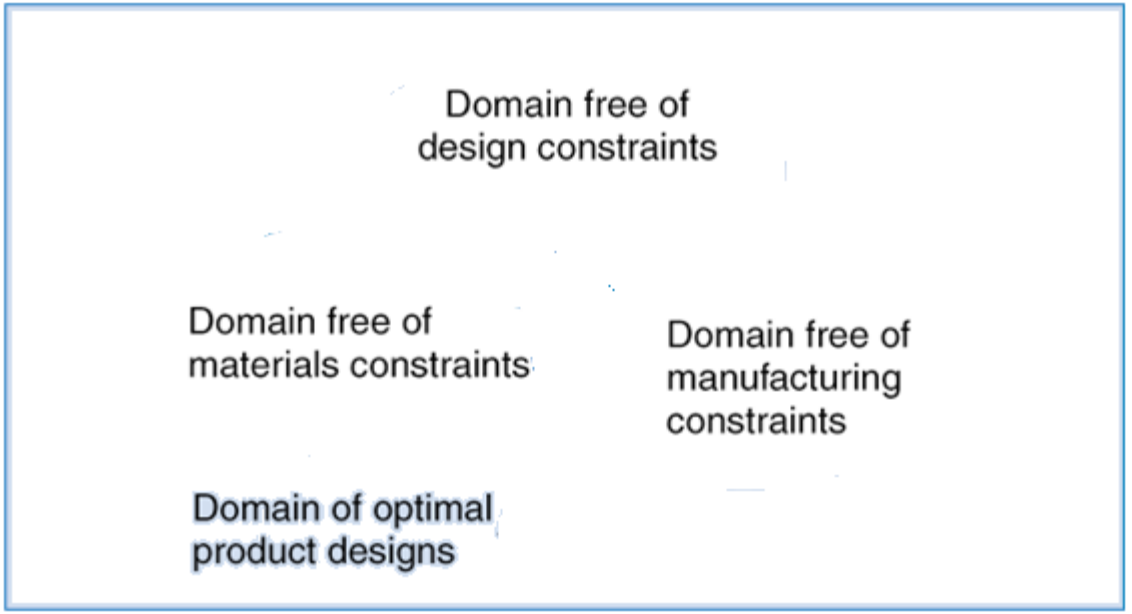


Chapter 11

Product Design

Product Design (제품설계 또는 상세설계)

- 설계사양의 만족
  기능, 성능, …
- 상세설계도(detail drawing)
  Shape and size
  Tolerances
  Materials
  Heat treatment
  Surface finish
- 경제성



Material Selection

- 비용
- 재료거동
- 강도
- 경도
- 탄성계수
- 전기적성질
- 인성
- 피로특성
- 파괴특성
- 마모저항
- 크리프저항
- 융점
- 열전도도
- 열팽창
- 비열
- 밀도
- 화학적성질

재료선정표

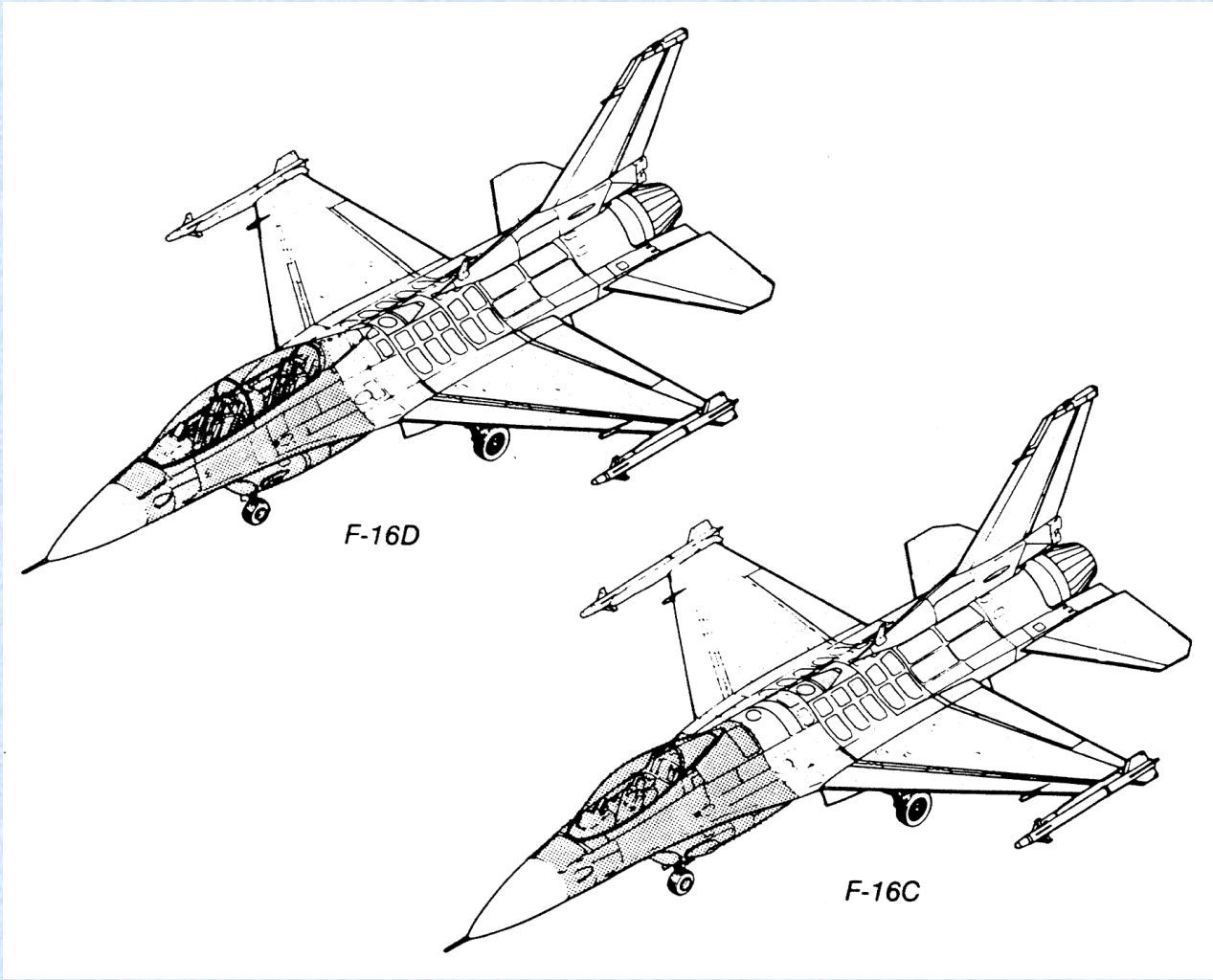
강도-밀도

Process Selection

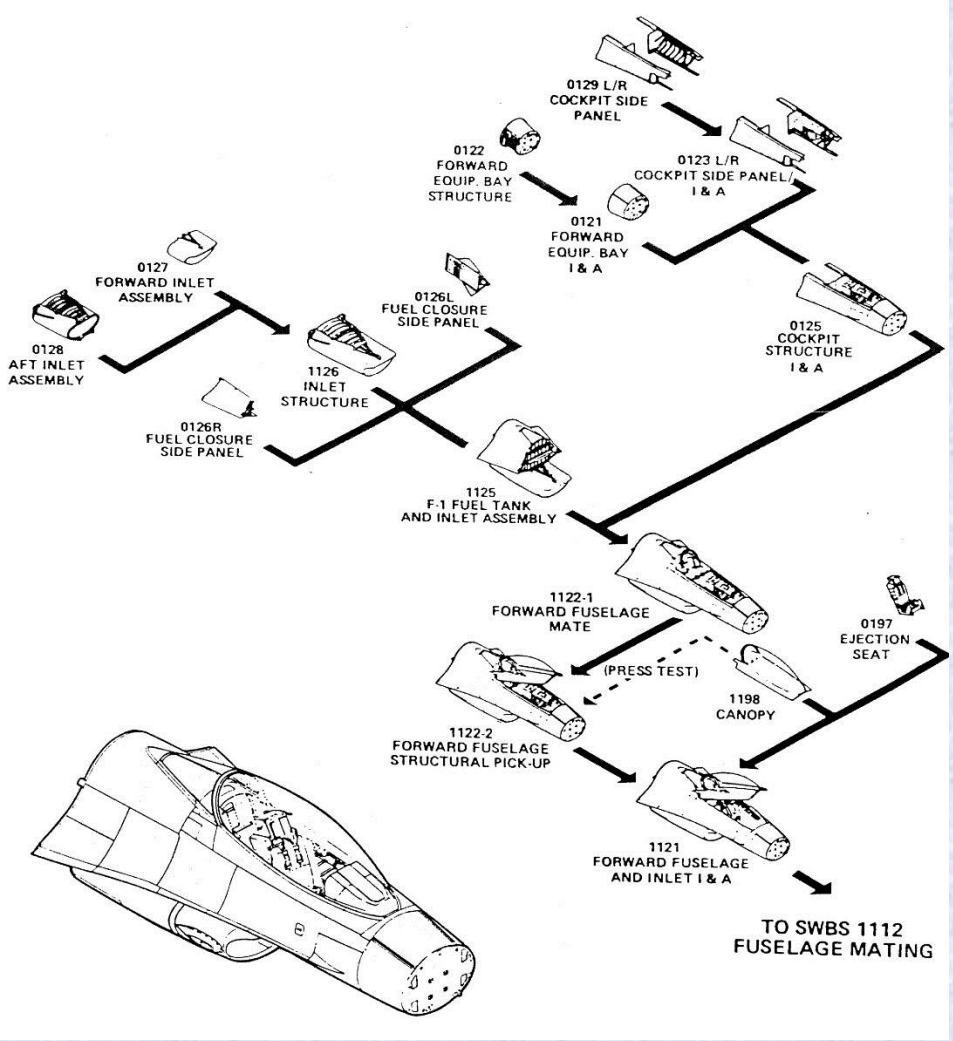
- 재료특성
- 부품형상
- 표면마무리
- 부품크기
- 공차
- Batch size
- 생산속도
- 자본비용
- 재료소모비용
- 노무비
- 준비비용
- 준비시간

복합재 제조공정

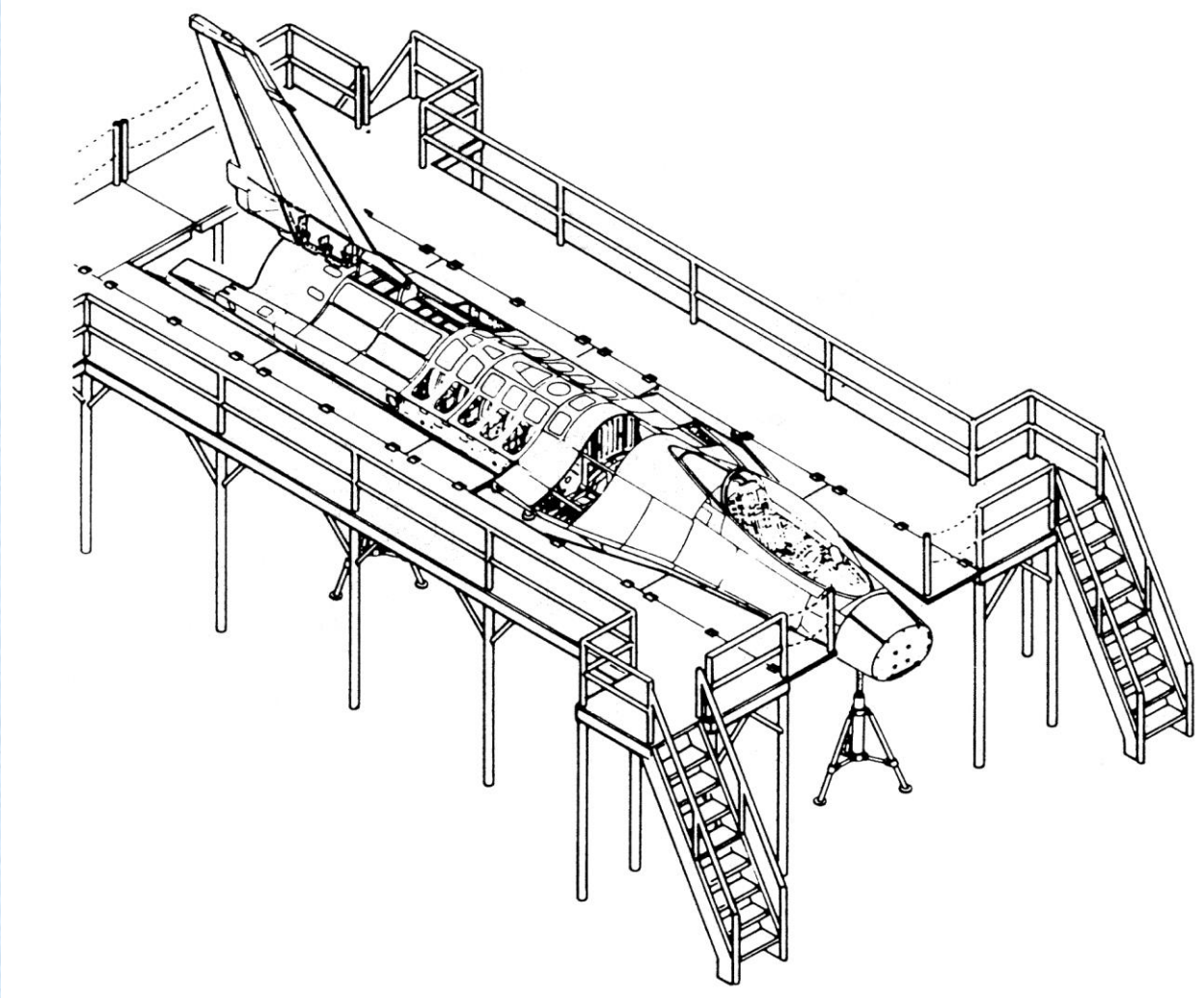
Requirement thru. Conceptual Design



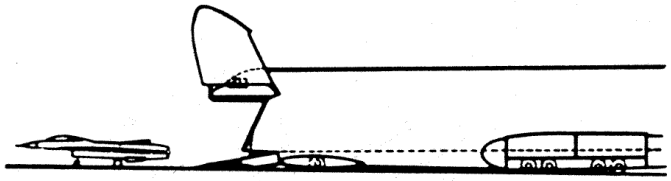
Product Design thru. Manufacturing Plan



Tooling thru. Manufacturing



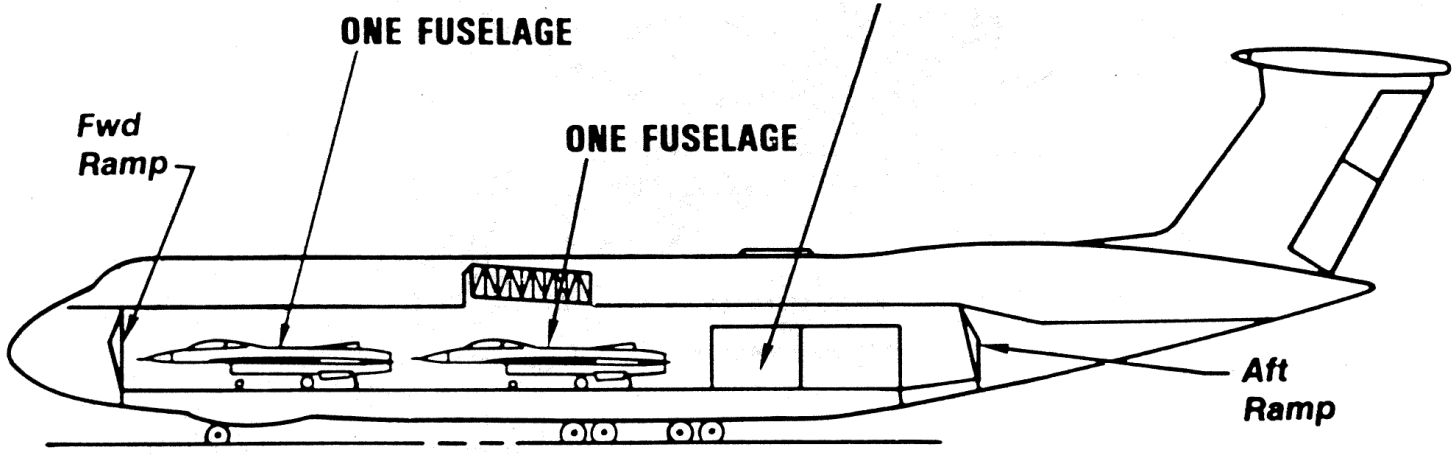
Rollout, Test thru. Delivery



FORWARD KNEELED POSITION
OFF-LOADING

Crated and Boxed

- **TWO SETS OF WINGS AND FLAPERONS**
- **TWO VERTICAL STABILIZERS AND RUDDERS**
- **TWO SETS OF HORIZONTAL STABILIZERS**



READY FOR OFF-LOADING