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Airbus

MODERNE ENTWICKLUNGEN BEI FLUGZEUGSYSTEMEN

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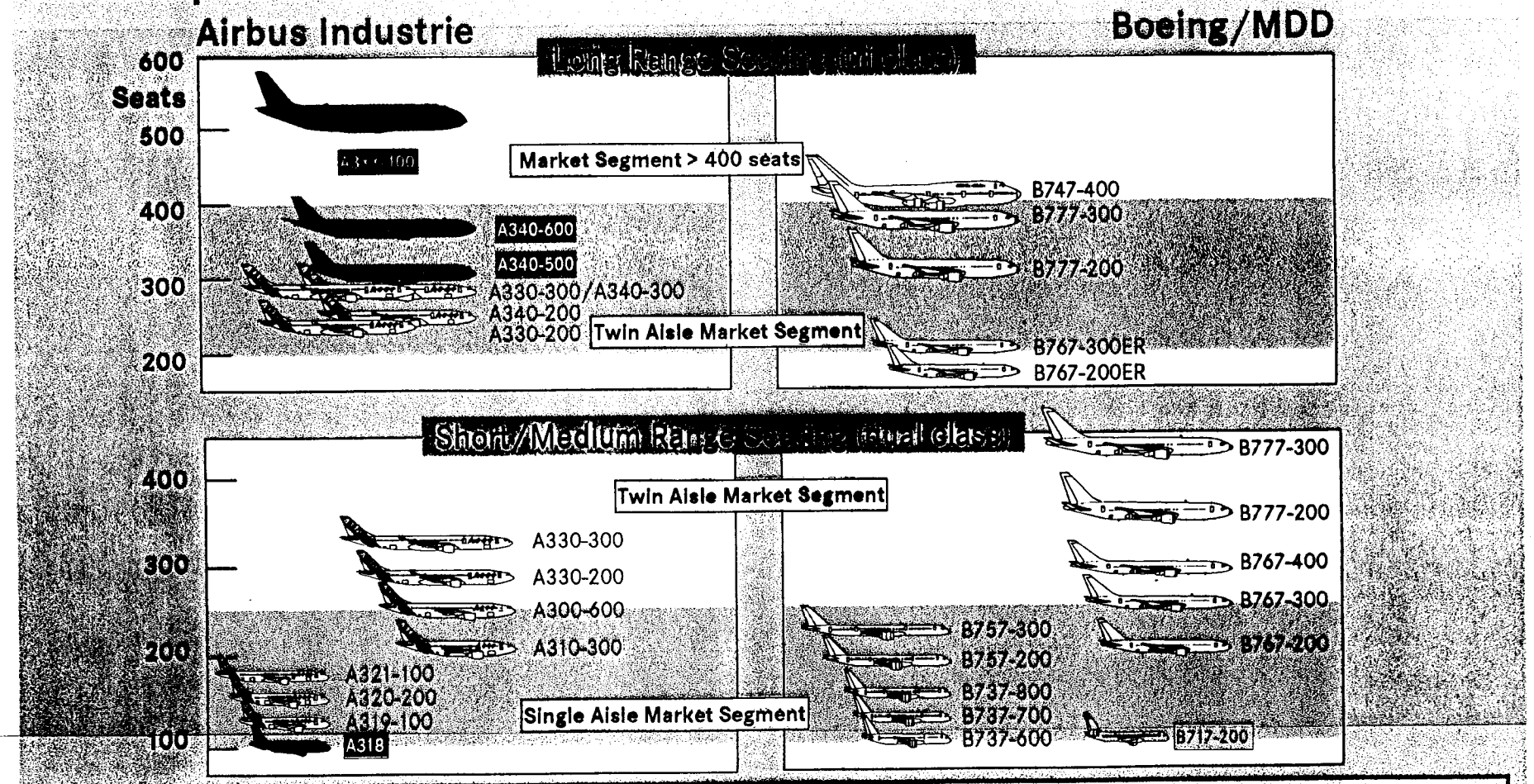
Inhalt

- Airbus-Produkte und Herausforderungen
- Systemschwerpunkte der DA
- Neue Entwicklungen und ausgewälhte Beispiele
- Die neue Elektronik
- Entwicklungsprozesse, Methoden und Tools
- Integrierte Teststände
- Schlussfolgerungen

Current product lines



With only two cross sections Airbus offers a complete product line between 100 and 380 seats

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Flugzeuge der nächsten Generation

Sicherer	Systemverbesserungen (höhere Zuverlässigkeit) Bauweisen Flugführung
Wirtschaftlicher	Weitere Senkung des Treibstoffverbrauchs Reduzierung der Wartungskosten und der Produktkosten
Umweltschonender	Weitere Senkung des Treibstoffverbrauchs Bessere Aerodynamik Gewichtsreduzierung durch neue Werkstoffe u. Bauweisen Lärmreduzierung Reduzierung der Abgasemissionen
Passagierkomfort	Senkung des Kabinengeräuschpegels Allgemeine Komfortverbesserung (Unterflurbetten, etc..) Verbesserung externer Kommunikation, Kabinendienste Reichweiteverbesserung für Point-to-Point connections

Key Buying Factors

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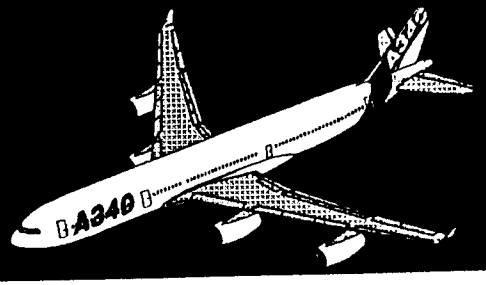
Direct
Operating
Cost



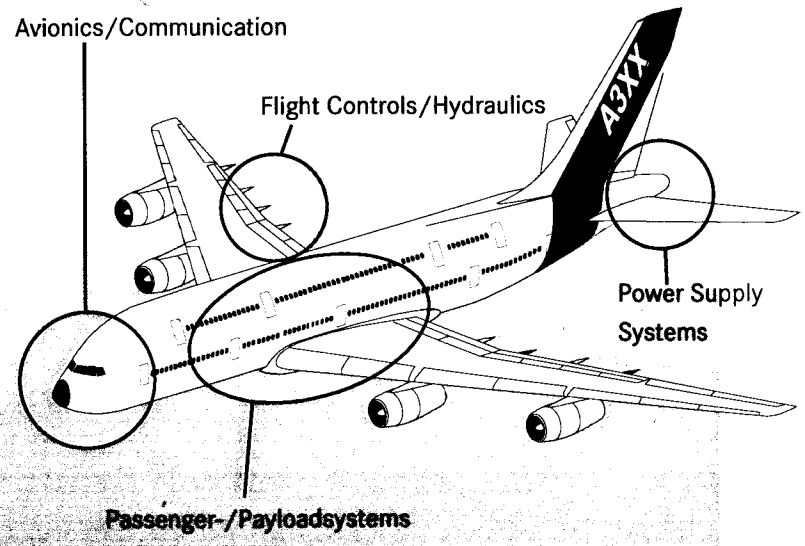
Added
Value

- Economics
- Commonality
- Performance
- Cabin Comfort
- Environmental Aspects
- Marketing/ Infrastructure

Key Buying Factors highlight the importance of aircraft design features for the operator in addition to "classic" DOC comparisons

Aircraft System Competences

- **Passenger- / Payloadsystems (Key Competence)**
  - Air Conditioning, Communication, Fire Protection, Ice and Rain Protection, Lights, Oxygen, Pneumatic, Water/Waste, Doors
  - Inflight Entertainment
- **Flight Controls / Hydraulics (Key Competence)**
  - Flight Controls / Hydraulicsystems
- **Power Supply Systems (Key Competence)**
  - Airborne Auxiliary Power, Electrical Power
- **Avionic und Communication (Key Competence)**
  - Communication, Indicating Recording Systems, Onboard Maintenance System

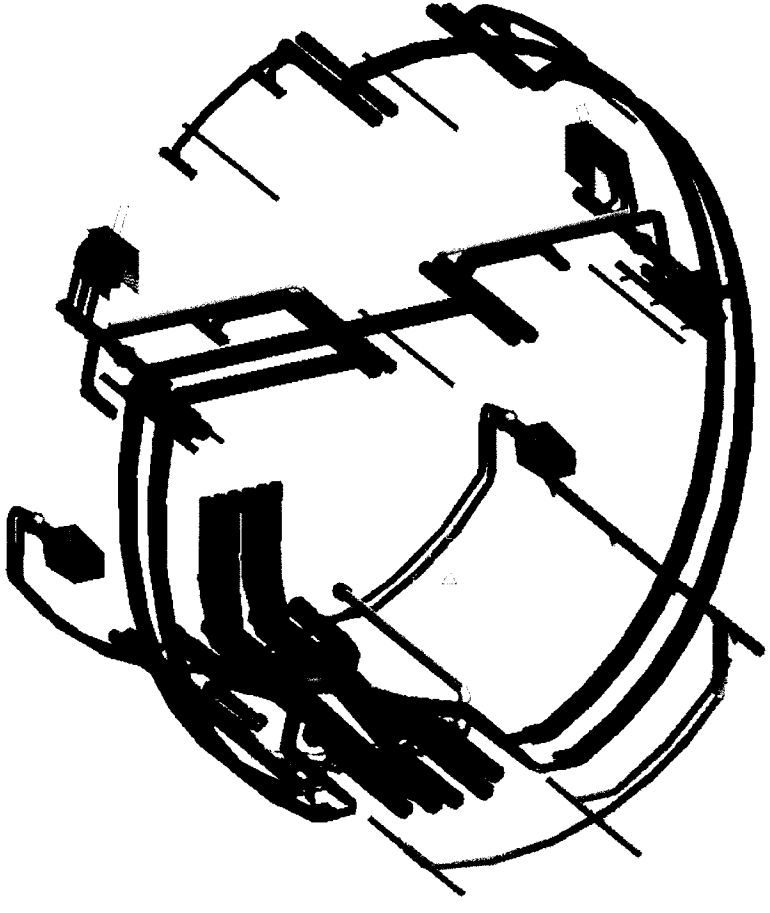


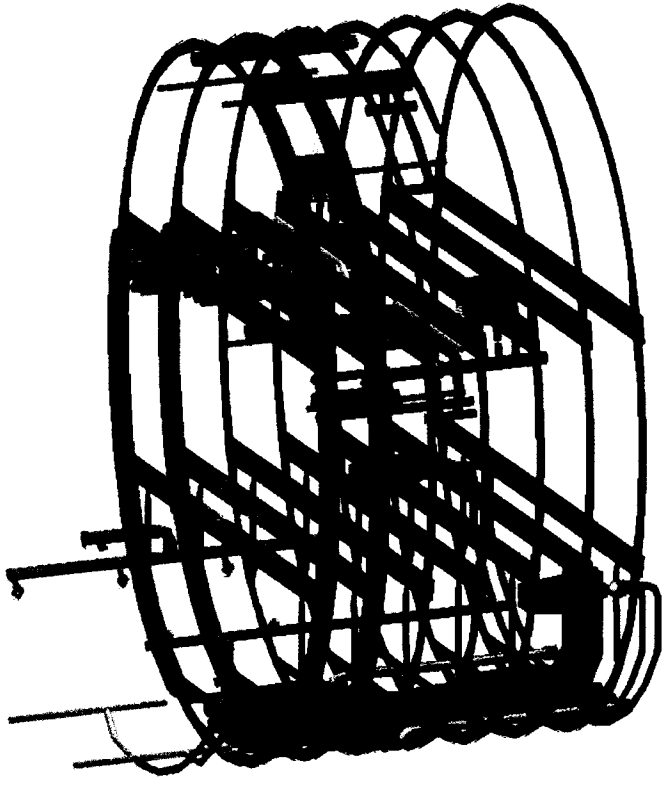
AIR CONDITIONING SYSTEM

Air Distribution and Ventilation System

Main Tasks:

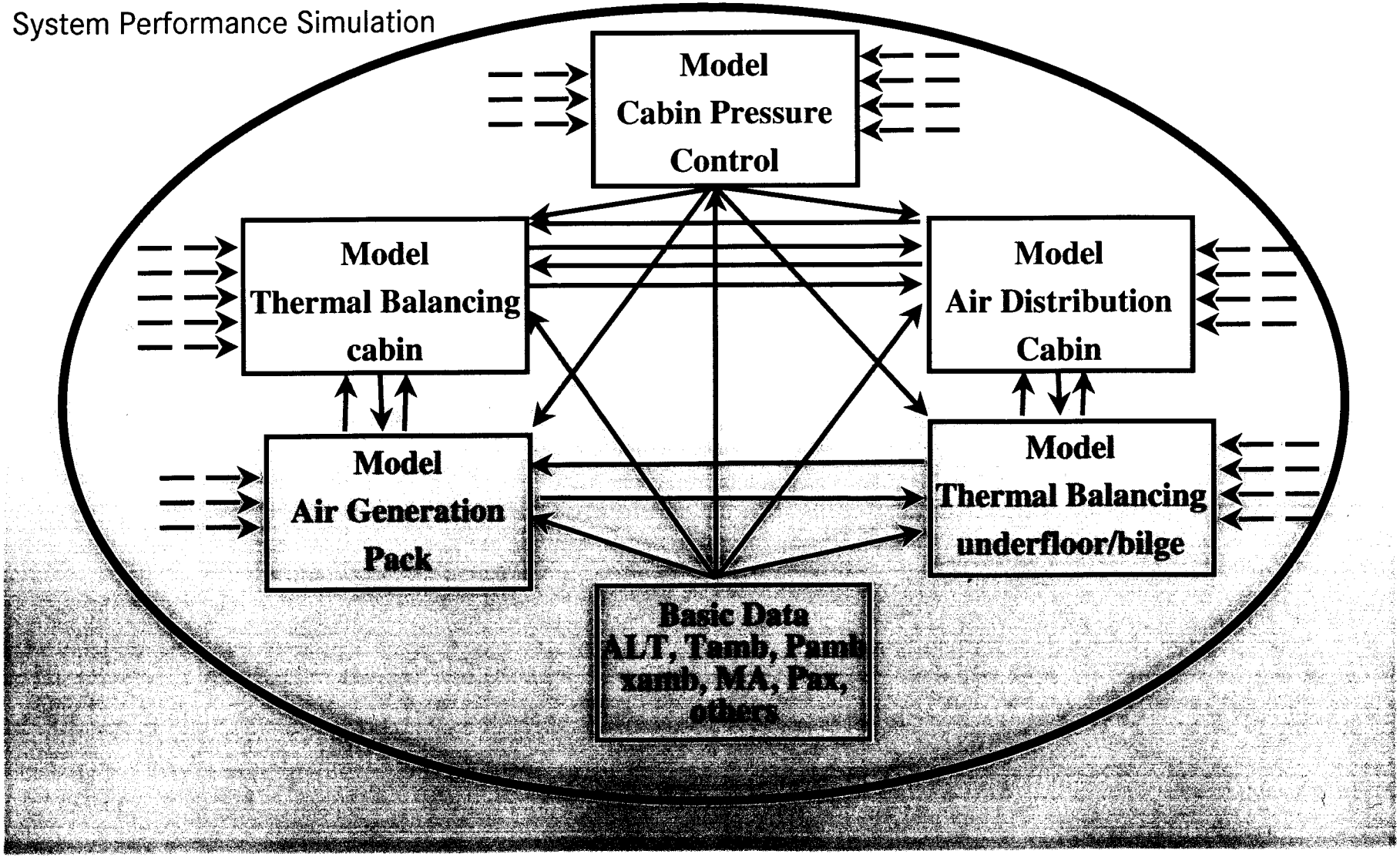
- Cabin Air Distribution
- Cabin Air Recirculation
- Air Conditioning of Cargo Compartments
- Galley and Toilet Ventilation
- Emergency Ram Air





AIR CONDITIONING SYSTEM

System Performance Simulation



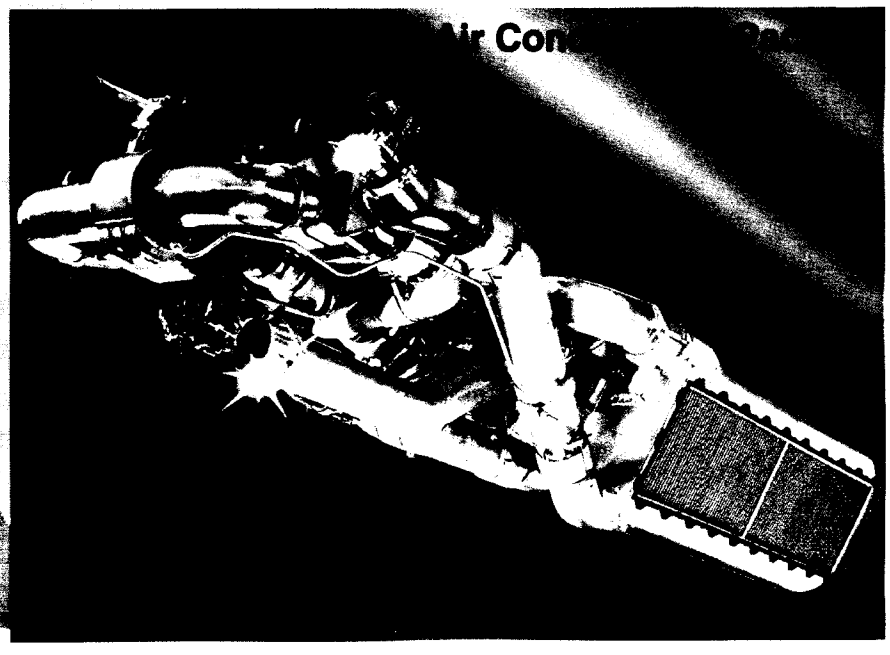
AIR CONDITIONING SYSTEM

Main Tasks:

- Provide air to pressurize cabin
- Provide fresh air for passengers
- Cool down bleed air to required temperature
- Decrease humidity of bleed air

Characteristic of A340 Pack:

Installation:	in front of main LDG bay
Weight:	ca. 180 kg
Max. airflow:	1.65 kg per sec
Airflow temperature:	-50°C to + 50°C

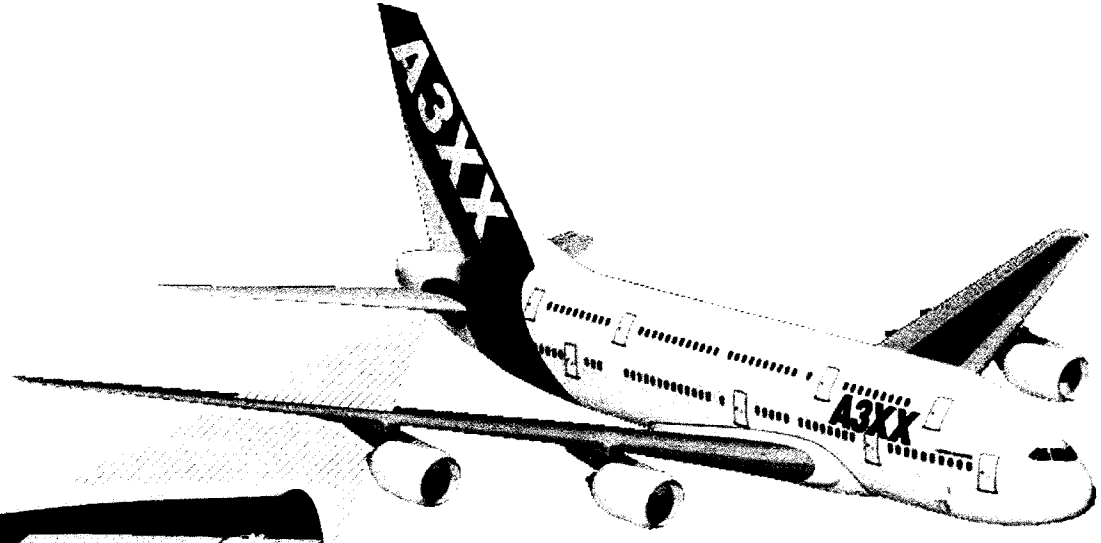


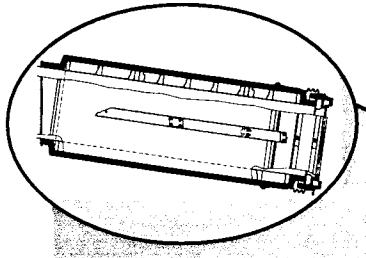
Task of the APU System

- Provide Bleed Air for: - Environmental Control System
  - Main Engine Start

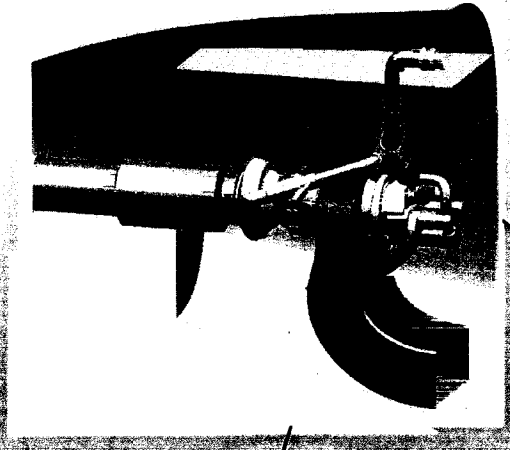
- Electrical Power for: - Complete Electrical Network

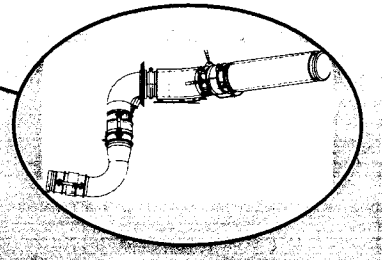
APU and Subsystems



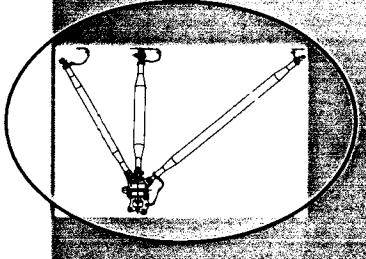


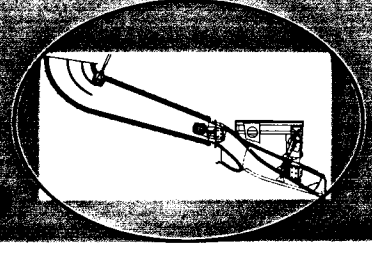
Exhaust Muffler

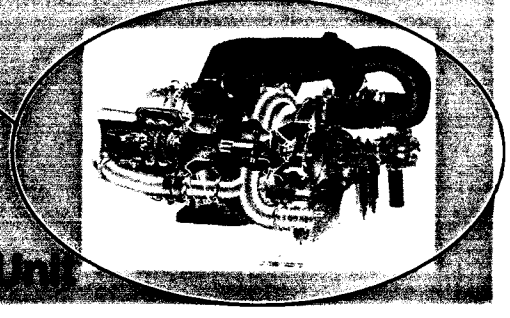




Bleed Air







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Airbus Cabin and Communications Technology

..... in the Center is the Passenger

Equipment and System Verification at DA