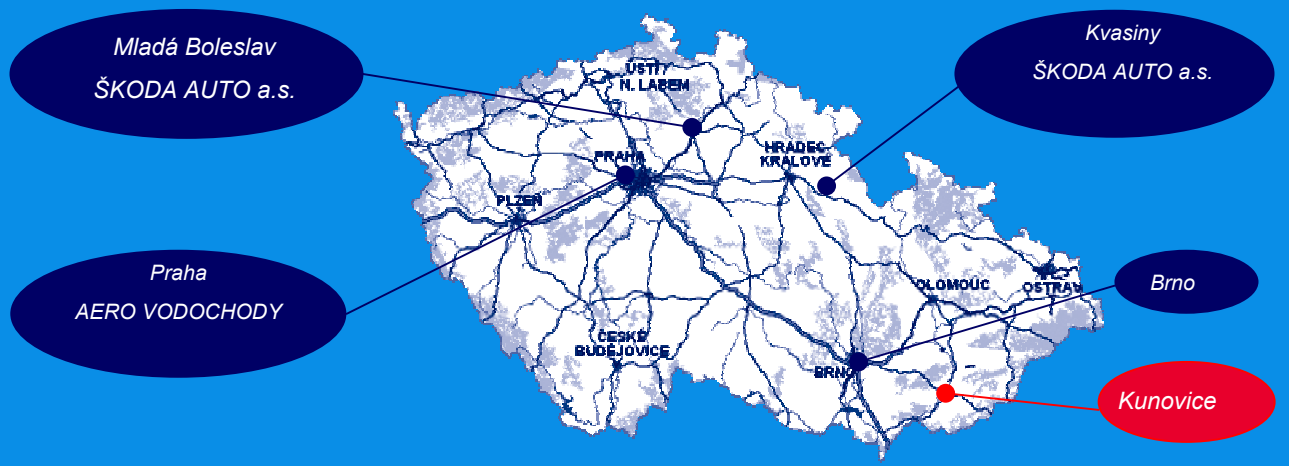

EVEKTOR
design & engineering
WWW.EVEKTOR.CZ

GENERAL INFORMATION

- **LOCATION - CZECH REPUBLIC**

  Kunovice - Company Headquarters



HISTORY

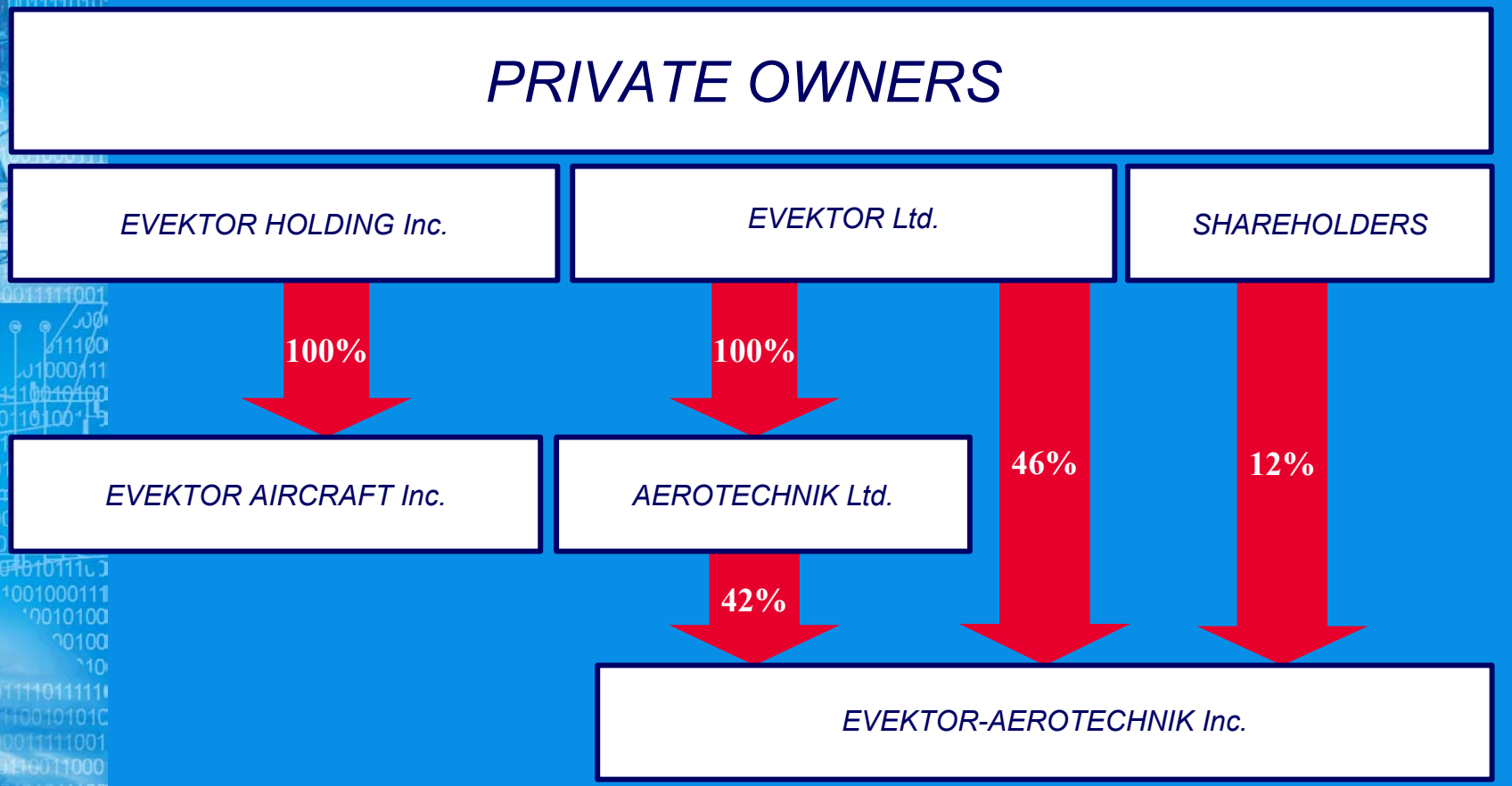
1970 Aerotechnik established

1991 Evektor Ltd. established (design and engineering)

1996 Evektor became 100% owner of Aerotechnik CZ Ltd.

1999 Evektor - Aerotechnik Inc. established

LEGAL COMPANIES STRUCTURE



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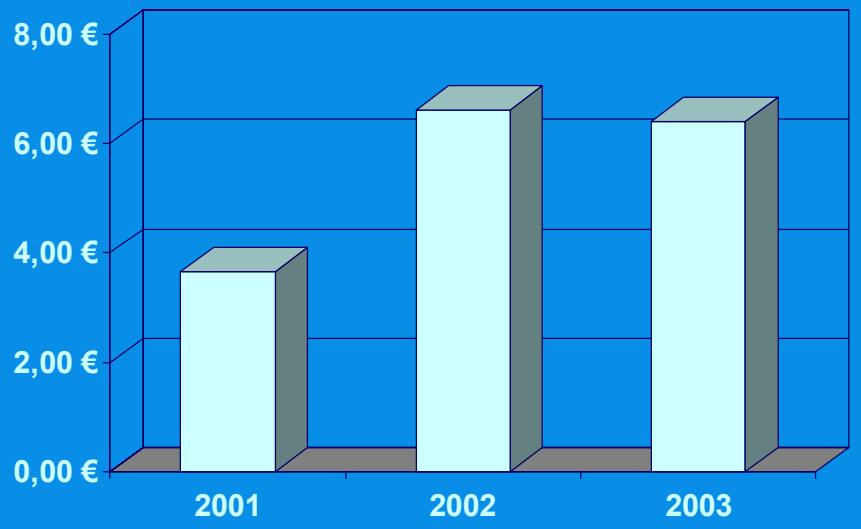
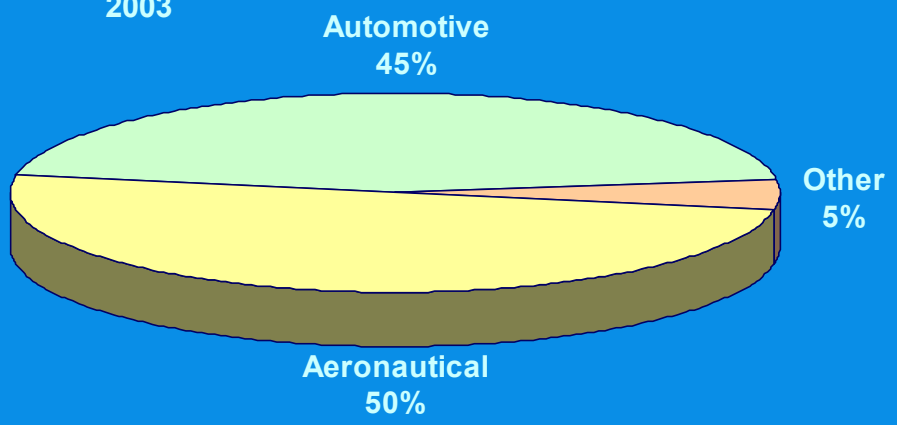
FIGURES – SALES [mil. €]





NOTE: exchange rates	2000	1EUR = 33,0 CZK
	2001	1EUR = 31,8 CZK
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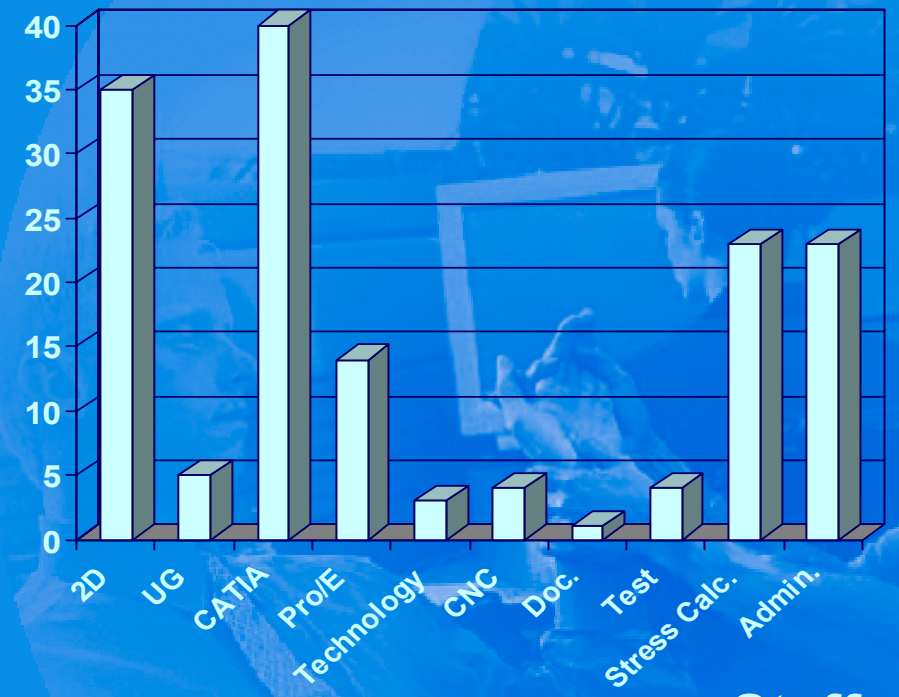
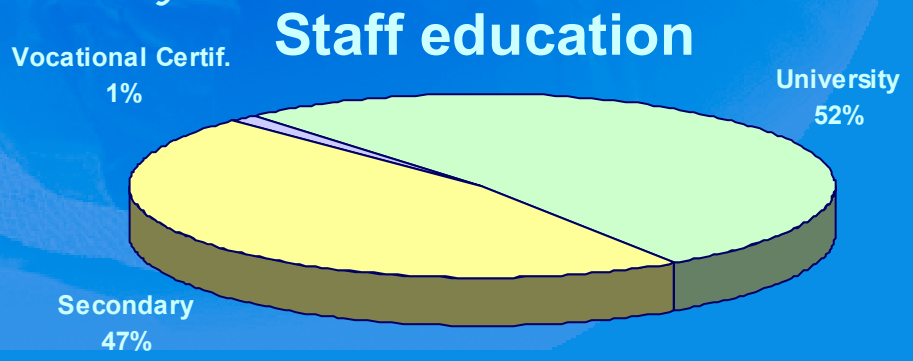
FIGURES - HUMAN RESOURCES 02/2003





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DESIGN ACTIVITIES

AERONAUTICAL	AUTOMOTIVE	GENERAL
Airframes	Car bodies	Design studio
Interiors		Technology
Doors		Plastic material forms
Mechanisms		
Plastic material parts		
Jigs, tools, fixtures - molding, assembly, welding, manipulation		
Complete aircraft development cover JAR/FAR-23, JAR-VLA	Batch stamping tools	

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DESIGN ACTIVITIES - ANALYSES

CLASSICAL METHODS

- Aircraft loads
- Thin-walled structures
- „Hand“ calc.
- Weights
- Mechanism
- Fatigue
- Tests planning
- Certification reports

FINITE ELEMENTS METHOD

- Linear analyses
- Solid models
- Non-linearities - material, geometrical
- Plastic parts analyses
- Stamping simulations
- Dynamics
- Optimization
- Flow - inner, outer
- Crash

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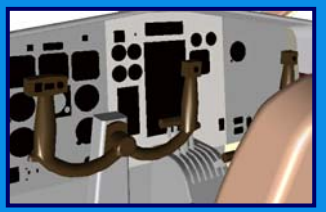
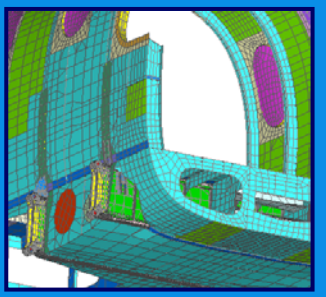
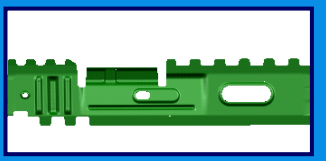
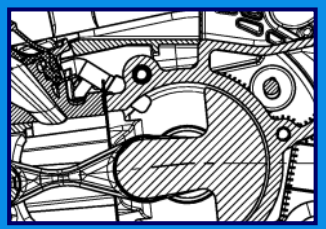
PROJECTS PROCESSING

- *Study, Pre-project*
- *Design and development*
- *Stress analyses and mass optimization*
- *Visualization*
- *Detailed part models*
- *Assembly models*
- *Production of drawing documentation according to the specific customer requir.*









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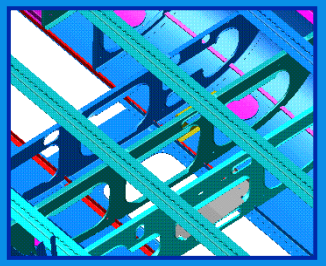
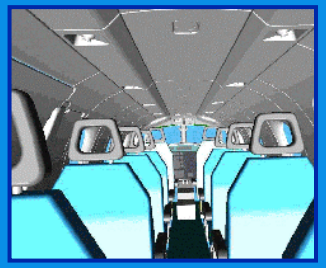
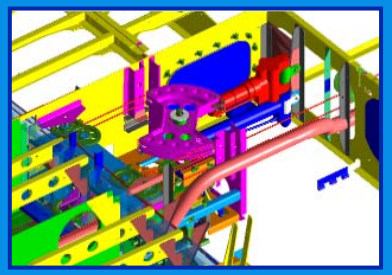
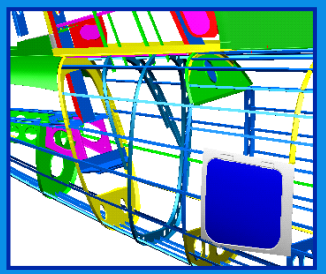
DESIGN CAPABILITIES

- ***3D DESIGN SW***
  - *CATIA (33+)*
  - *UNIGRAPHICS (4)*
  - *PRO/ENGINEER (18)*
  - *ICEM SURF (2)*
  - *Mechanical Desktop (3)*









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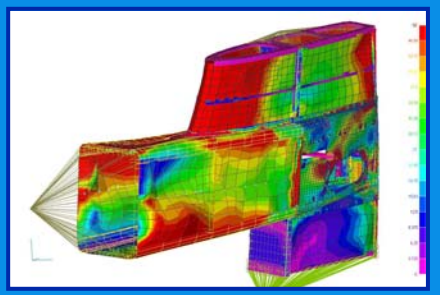
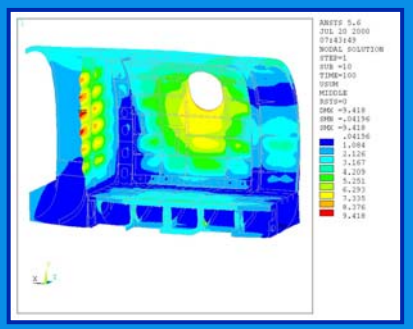
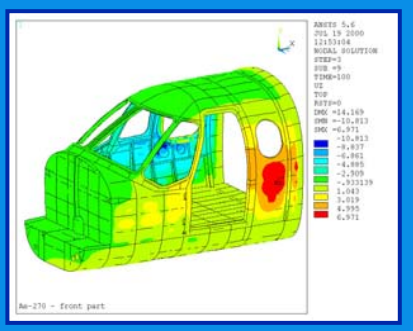
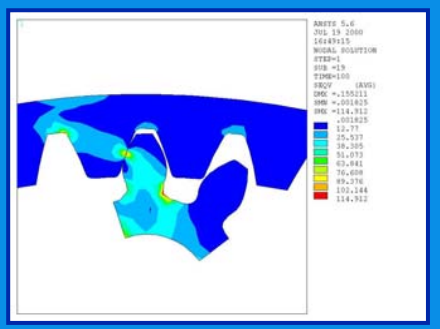
DESIGN CAPABILITIES

- ***ANALYSES SW***
  - *Patran/Nastran*
  - *ANSYS*
  - *ANSA*
  - *FEMAP*
  - *MEDINA*
  - *Autoform*
  - *Animator*
  - *SAVLE*
  - *Mathlab, Mathcad*









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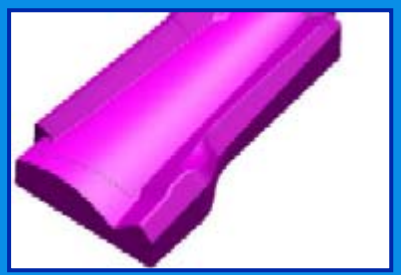
INDUSTRIALIZATION

- *Technology, job cards*
- *Prototype tooling*
- *Serial jigs and tools*
- *Assembly, welding jigs*
- *Manipulation, check jigs*
- *Stamping and forming tools*
- *Production lines*
- *CNC machining programs*



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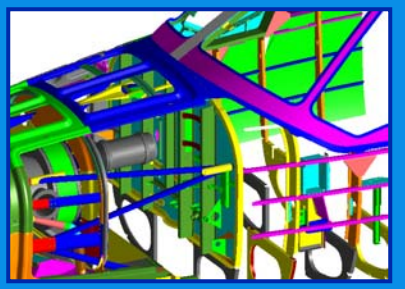
DESIGN REFERENCES

Key project – Ae 270 IBIS

- *Design of airframe*
- *Design of systems*
- *Complete production documentation management*
- *Flight loads analyses, stressing of complete airframe*
- *Interior design*
- *Design of production jigs & tools*
- *Flight tests support*



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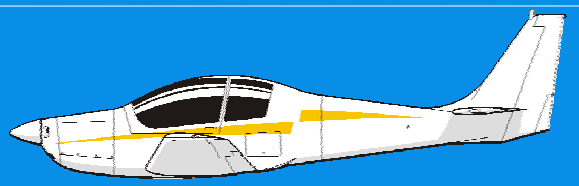
DESIGN REFERENCES

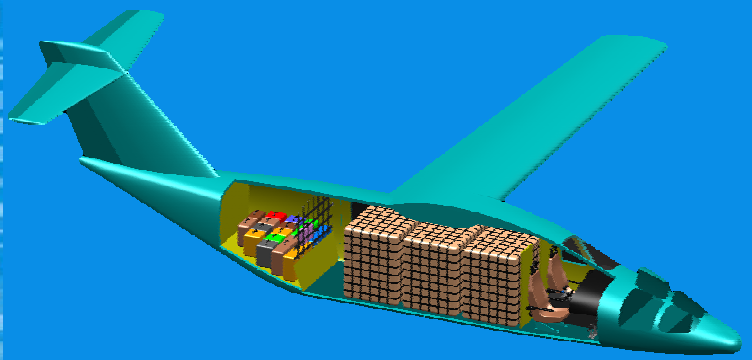


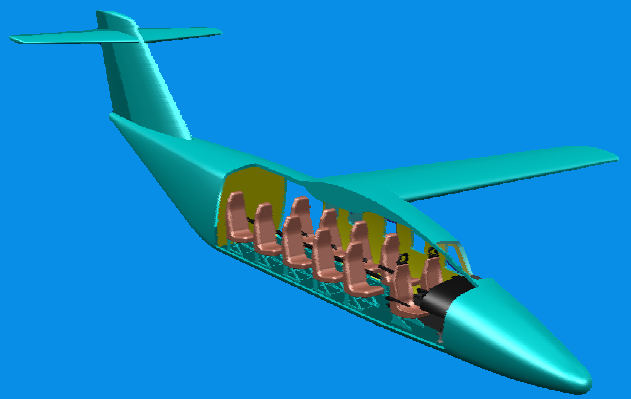
VUT 100

- *new generation of four-to-five seat, all metal, JAR-23 / FAR 23 aircraft with retractable landing gear*
- *for basic and advanced training of private and military pilots, night and instrument flight training, general commercial use, tourism and sport flying, aero-towing and other special purposes*
- *complete development and production preparation*

MAIN AEROSPACE INDUSTRY REFERENCE

- **EV-55**
  New generation 9/14 seat turboprop
  -project in design and development phase





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DESIGN REFERENCES

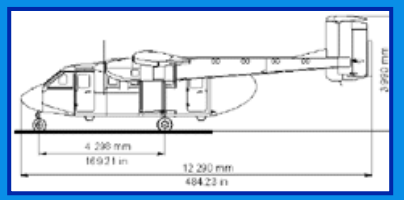
Finished project - Raven 257

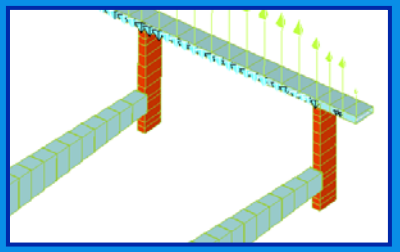
– *Complete design and development based on customer ideas*

– *Flight loads analyses, stressing of complete airframe*

– *Design of production jigs & tools*

– *Initial flight tests*





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DESIGN REFERENCES

EV-97 TeamEurostar

– *Complete design and development*

– *Production documentation mngmnt*

– *Design of production jigs & tools*

– *Complete stress tests*

– *Complete flight tests*

– *Over 300 units delivered*

– *10 planes monthly*

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DESIGN REFERENCES

Own project - Harmony VLA

– *Complete design and development*

– *Production documentation management*

– *Flight loads analyses, stressing*

– *Design of production jigs & tools*

– *Stress test planning*

– *Complete flight tests*

– *Certification proces management*

– ***CERTIFIED!!!***

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DESIGN REFERENCES

Practical experiences of our designers

- *L 410 Turbolet*
- *L 610*
- *L 13/23 Blanik*
- *L 33 Solo*
- *ZLIN*
- *L 159 ALCA*

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DESIGN REFERENCES

Aero Vodochody (Boeing Group), Czech Republic

ANDREAS STIHL AG & Co. KG, Germany

AUDI – Sparte Werkzeugbau, Germany

E.I.S. Aircraft GmbH, Germany

IBIS AEROSPACE Ltd., International

Marshall Aerospace, Great Britain

SOCATA, France

Škoda Auto a.s., Czech Republic

Vulcan Air S.p.A., Italy

WALTER a.s., Czech Republic

WEBA GmbH, Austria

VW Werkzeugbau, Wolfsburg, Germany

Wolfsberg Aircraft NV, Belgium

Letecká továrna, s.r.o., Czech Republic

EVEKTOR-AEROTECHNIK Inc.

EVEKTOR - AEROTECHNIK

EVEKTOR - AEROTECHNIK

ORGANISATION CHART

- Managing Director
  - Secretary
  - Personal Dept.
  - Technical Section
  - Commercial Section
  - Logistic Section
  - Quality Assurance
  - Finance Section
  - Production Section
  - Quality Inspection Dept.

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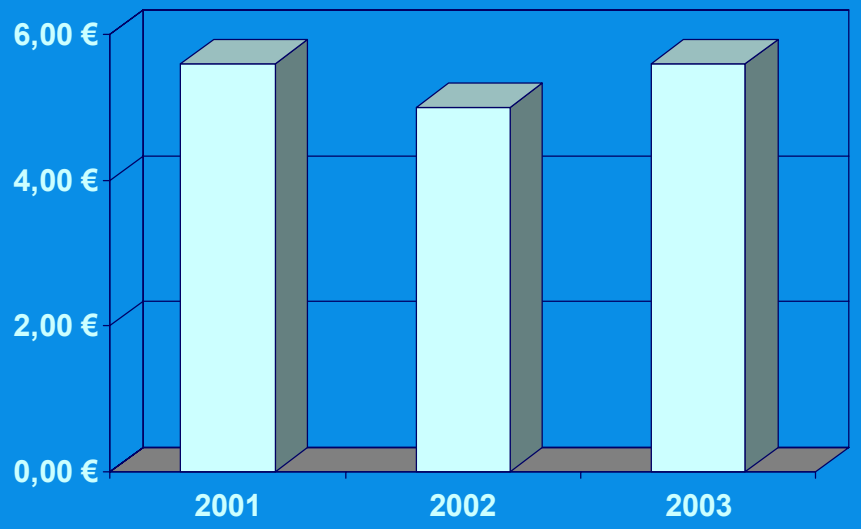
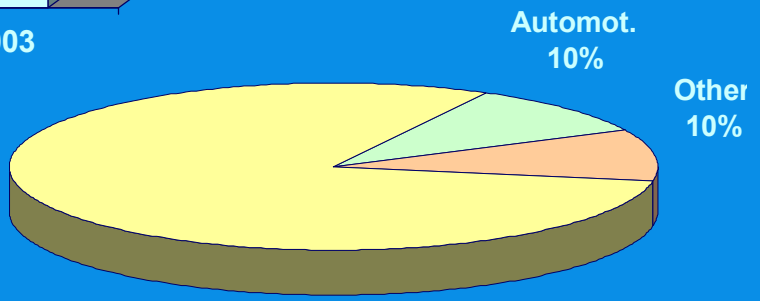
AEROSPACE ACTIVITIES

- **COMPLETE PRODUCT DEVELOPMENT AND PRODUCTION CYCLE**
  - *UL aircraft design and development*
  - *Prototyping of airframes, assemblies and detail parts*
  - *Serial production*
  - *Jigs and tools production*

- **CURRENT AFFAIRS**
  - *EV-97 Eurostar and Ae-270 serial production*
  - *Harmony test operation*
  - *Tooling for other customers (SIWE, AERO, EIS, …)*

FIGURES – SALES [mil. €]





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APPROVALS

- *Product Organization Approval according to JAR 21 Subpart G for production of aircraft products, parts and appliances*
- *ISO 9001 certificate issued by KEMA Registered Quality*
- *CAA approvals for maintenance and repair, testing and design*

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MAIN AEROSPACE INDUSTRY REFERENCE

- ***Ae 270 IBIS***

  Small multipurpose turboprop

  Production of

  - rear part of fuselage

  - fin, rudder

  - doors

  - control system parts

EVEKTOR - AEROTECHNIK

MAIN AEROSPACE INDUSTRY REFERENCE

- ***Harmony VLA***
  Light sport aircraft certified according to JAR-VLA
  -complete design and development
  -prototype production

- ***EV-97 Eurostar***
  Light/microlight all-metal two seater
  -complete design and development
  -serial production - over 300 delivered
  - 10 planes monthly

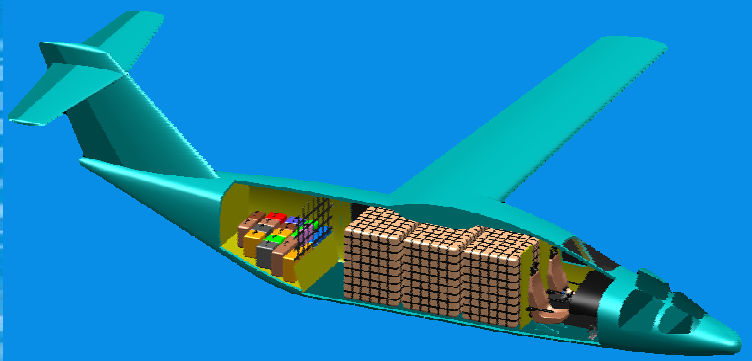
MAIN AEROSPACE INDUSTRY REFERENCE

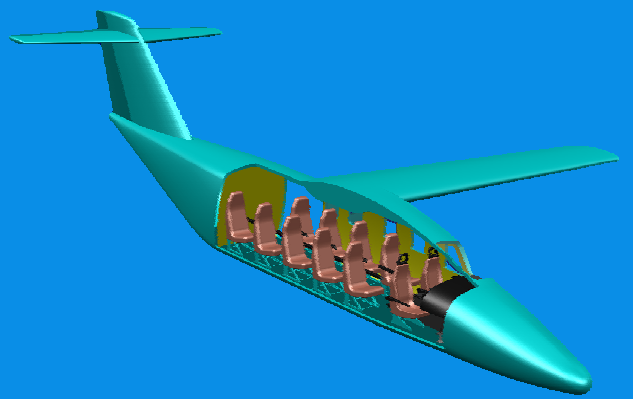
- **SportStar**
  Light sport two seat aircraft/trainer
  Designed according to LSA proposed requirements
  - complete design and development
  - serial production

- **VUT100 Cobra**
  Four-to-five seat JAR-23/FAR-23 aircraft
  - complete design and development
  - under prototyping
  - serial production planned for 2006

MAIN AEROSPACE INDUSTRY REFERENCE

- **EV-55**
  New generation 9/14 seat turboprop
  -project in design and development phase of Evektor





MAIN AEROSPACE INDUSTRY REFERENCE

- ***Wolfsberg-Evektor***
  Raven 257
  Small multi-role transport aircraft
  - complete design and development
  - production of fuselage, pylons and tail unit and final assembly

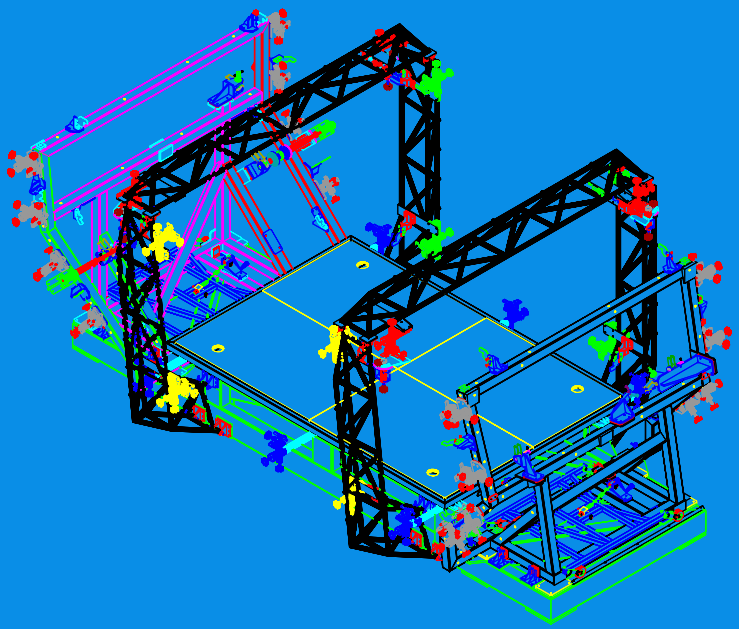
- ***Aero Vodochody***
  L 159 ALCA
  Advanced Light Combat Aircraft
  -airframe development and fuselage nose production

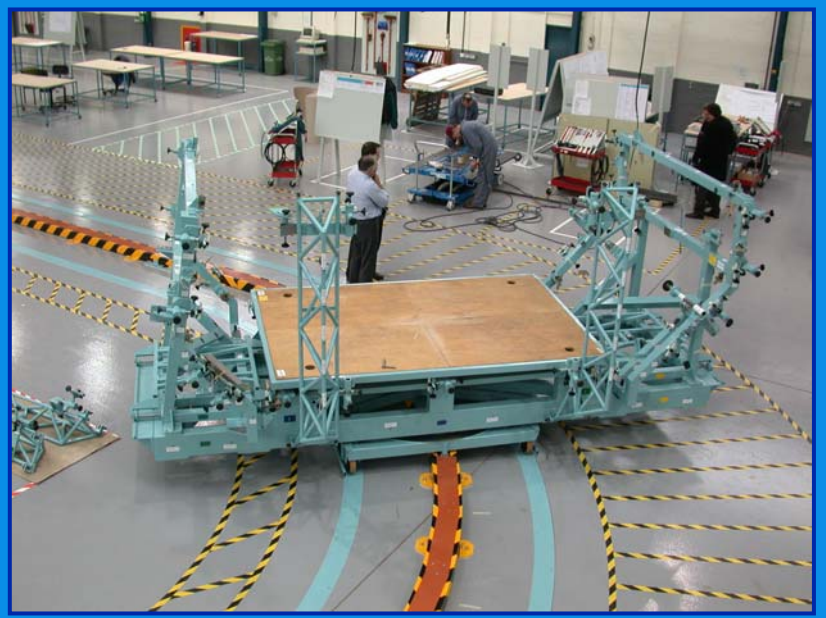
MAIN AEROSPACE INDUSTRY REFERENCE

- ***Marshall Aerospace, UK***

  Tooling

  - design and manufacturing assembly tools and moving line for the B747 Auxiliary Fuel Tank Program





MAIN AEROSPACE INDUSTRY REFERENCE

- ***Vulcan Air, Italy***

  Tail Unit

  - design and manufacturing tools and prototype production of horizontal tail unit

MANUFACTURING CAPABILITIES

- ***PRODUCTION***

CNC Turning

dia. 200mm, length 500mm (short-run production)

dia. 56mm, length 60mm (large-lot production)

INDEX ABC 36

TAJMAC MCFV2080

FV 30 CNC

CNC Milling

2030×810, height 810mm (controlled by SIEMENS)

600×300, height 110mm (controlled by HEIDENHEIN)

MANUFACTURING CAPABILITIES

- ***PRODUCTION***

  CNC Measuring

  1500×800, height 700mm

WENZEL LH 87 1 3D

DETAIL OF WENZEL LH 87 1 3D

PC CONTROL UNIT OF WENZEL LH 87 1 3D

Others

- *Heat treatment of steel and Al-alloy parts*
- *Welding by TIG, MIG, MAG*
- *Production of aircraft assemblies*

TESTING CAPABILITIES

- ***Static tests***
- ***Flight tests***
  - *flight performances*
  - *flight characteristics*
  - *aircraft systems*
- ***Ground tests***
- ***Laboratory tests***

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EV-AT REFERENCES

Aero Vodochody (Boeing Group), Czech Republic
ANDREAS STIHL AG & Co. KG, Germany
E.I.S. Aircraft GmbH, Germany
Marshall Aerospace, United Kingdom
Škoda Auto a.s., Czech Republic
Vulcan Air S.p.A., Italy
Wolfsberg Aircraft NV, Belgium
Letecká továrna, s.r.o., Czech Republic
ACR, Germany
IKARUSFLUG, Germany
Moravan, Czech Republic
Technometra, Czech Republic
Socata, France
Labinal, France
Jihlavan, Czech Republic

COMMUNICATION

- *Internet - 192 kb/sec*
- *Virtual Private Net - 64 kb/sec*
- *E-mail (max. 10 MB/file), FTP (up to 600 MB)*
- *ISDN line - 64 kb/sec*

EVEKTOR

CONTACT

Internet: www.evektor.cz

Design

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Fax: +420 572 537 901

Production

marketing@evektor.cz

Phone: +420 572 537 545
+420 572 537 323

Fax: +420 572 537 910

Kunovice Airport coordinates:

Geographical coordinates of airport reference point	49 01 48 N 17 26 30 E , RWY 03C/21 C
AFTN	LKKUZTZX
Allowed mode of operation (IFR/VFR)	IFR/VFR
MET service room	+420 572 564 105, 817 630
Airport control	+420 572 564 131, 817 600