Excellence in low volume production

ISO 9001
AS 9100
AQAP 2110
History

- 1978 Start subcontracting activities in machining for Aerospace markets
- 1992 MBO sheet metal activities from Thales
- 2000 Integration of sheet metal and machining activities into electro-mechanical assemblies
- 2007 Introduction of new brand name Tecnovia covering all group activities
- 2009 New modern facility in Hoogezand
Tecnovia Group Structure

- Finance, IT, HR, Marketing & Sales
  - Tecnovia PSM: Operations
  - Tecnovia Van den Akker: Operations
  - Tecnovia Inaxxion: Operations
Locations

[Map showing locations in the Netherlands, Belgium, and Germany, with points marked for Amsterdam, Haarlem, The Hague, Rotterdam, Utrecht, Zwolle, Arnhem, Nijmegen, Tilburg, Eindhoven, and Maastricht.]
Key figures

Track record of 32 years in subcontracting

Projected sales 2010: € 13.5 mio.
(Tecnovia PSM + Tecnovia van den Akker + Tecnovia Inaxxion)
Added value

- Project Management
- Engineering
- Prototyping
- Single component manufacturing
- Mechanical high precision parts
- Sheet metal assemblies
- System integration
Project approach

- Project management
- Project planning PRINCE - 2
- Single point of contact
- Progress control
- Supply chain management
- Configuration management
- Quality assurance
- Inventory management
- ERP
Engineering

- Concurrent engineering
- Product engineering → Pro-E, Catia, Solid works
- Process engineering → Edge Cam, Radan,
- FMEA (Failure mode and effects analysis)
- Validation
- Prototyping
- Testing
- Documentation
- Value engineering
Prototyping

- Single part production of mechanical and sheet metal parts
- Sourcing of components and special processes
- Qualification of suppliers
- First Article Inspection (FAI)
- First-off integration
- First Article Test (FAT)
In-house manufacturing of mechanical components

- CAD-CAM Programming online
- CNC turning
- CNC milling
- CNC measuring
- Finishing / Polishing
- Heat treatment
- Surface treatment
In-house manufacturing of sheet metal components

- CNC-Laser cutting
- CNC-Punching < 10 mm
- Polishing / grinding
- Bending
- Welding (certified)
- Manual sheet metal working
- Coating
Sheet metal assemblies

- Welding
- Riveting
- Bonding
- Alignment
- Coating
- Cleanroom
System integration

- Electro- mechanical assemblies
  - Mechanical parts
  - Electronics, controls, ESD
  - Hydraulics
  - Pneumatics
  - Vacuum technology
  - Wiring
- Supply chain management
- System testing
- Test reports and certificates
Raw materials

- Titanium
- Super alloys
- Stainless steel
- Aluminum
- Copper alloys
- Steeal
- Plastics
Quality Assurance (1)

- AQAP 2110
- AS9100
- Lloyd’s certificate
- Certified welding:
  (EN 287/ISO 9606/DIN 2303/DIN 3824-2)
- Customer audits
Quality Assurance (2)
Quality inspection

- Calibrated inspection equipment
- First Article Inspection
- Intermediate inspection
- Final inspection
- Measurement reports
- Certificate of Conformity
- Documentation and traceability
Market segments

- Aircraft industries
- Aerospace
- Defense technology (Land systems)
- Defense technology (Naval systems)
- Gas turbines
- Nuclear industries
- Optics industries
- Medical technology
- Process industries
- Mechanical construction general
Sheet metal & assembly
Mechanical parts production
Electromechanical assemblies
Sheet metal parts
Tecnovia Inaxxion BV
Building under construction

Tecnovia Inaxxion BV
Korte Groningerwg 1F
9607 PS Foxhol
The Netherlands
Business concept

- Low human factor costs
- Minimized leadtimes
- High yield
- 24/7-capacity
- Repeat production
- Small batches (5-500 pcs.)
- 5-Axis simultaneous milling
- Precision parts
- Measuring reports
- Identification
- Traceability
- AS 9100 certified

First 100% robotized machining plant in the Netherlands!
Plant lay-out (initial)
Plant lay-out initial (2)
Plant layout (final)
Machines list (initial as of December 2010)

- 2 x Hermle C40 (December, 2009)
- 2 x Mori Seiki NMV 5000 (May, 2010)
- 1 x Perkute washing machine (May, 2010)
- 1 x Zeiss Accura 12/18/10 (February, 2010)
- 1 x Zoller Venturion
- Erowa MTS clamping system (hydraulic)

Capacity: (4 machines)
- approx. 7500 hrs.
- 24 hrs./day, 7 days/week
Hermle C-40

- 5-axis simultaneous milling
- 800 x 750 x 500 mm (XYZ)
- pos.accuray 8 µm VDI
- spindle 18.000 rpm
- 10/15 kW, 70/130 Nm
- 195 tools
- Renishaw measuring probe
Mori Seiki NMV 5000

- 5-axis simultaneous milling
- 730 x 510 x 510 mm (XYZ)
- pos.accuray 3 µm VDI
- spindle 12,000 rpm
- 19/15 kW, 70/130 Nm
- 181 tools
- Renishaw measuring probe

http://www.youtube.com/watch?v=bGf9AWZe7UM
Washing machine

- rotary washing machine
- washing, rinsing, drying
- max. pallet 500x500 mm
- detergent solution
- environmental friendly
- 20º C
Zeiss Accura

- CNC-measuring machine
- 1200 x 1800 x 1000 mm (XYZ)
- Articulating probeholder RDS
- accuray 3 µm VDI
- Calypso software
- MBD-prepared
Zoller Venturion

- Tool presetter
- Data link through Soflex
- Transfer of setting data to the machines

http://www.youtube.com/watch?v=V24SN0iNpuc
Integrated software

- ERP-system Plan-de-Campagne
- Job management Soflex
- CAM Top Solid
- Measuring Zeiss Calypso
- Siemens 840D CNC-control
Network configuration
Q & A

For more information, please contact us!

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