APC ApS is a Danish-Chinese outsourcing company that produces custom designed components and finished products in China:

- Electronic Manufacturing Services (EMS), Box Build (Mechatronics)
- Plastic and Aluminium injection molding and manufacturing of molds.
- Aluminium and Steel machining and Cast Iron
- Custom design electronic components: PCB, Optoelectronics, LCD, Transformers, Power Supply, Cable and Wireharness, Membrane Switches.
- Product development and design in hardware, software, PCB layout, EMC testing, 3D engineering drawing and prototyping
- ISO 13485 (Medical), ISO 9001:2002, ISO 14001, QS9000, TS 16949

Awards:

APC Danish - APC Hong Kong / Shenzhen - APC Shanghai
APC Asian Production & Components ApS - Sundkrogen 35 - DK 6400 Sonderborg
Tlf: +45 74 48 50 05 Fax: +45 74 48 50 45 E-Mail: apc@apc.as Web: www.apc.as
APC has a large portfolio of customers at selected specialist manufacturers in China, with whom APC has a close and long term cooperation. This combined with cultural insight and years of operating and networking in China gives our customers following advantages:

- Better prices, equivalent to clean factory prices.
- Suppliers accept smaller quantities than usual in China.
- Better service, attention and flexibility from supplier.
- Easy communication, as contact is maintained by APC. No misunderstandings caused by cultural and linguistic differences.

APC has offices in Shanghai, and Hong Kong / Shenzhen / Dong Guan, which performs quality audits at suppliers, and ensures delivery times and prices.

APC China:
Production engineer, Jacky Shi
Shenzhen / Dongguan
Responsible for audits and delivery

Herry Wang
Shanghai

Bodil Sylvest
Entrepreneur Of The Year® (EOY) award to the most successful and innovative entrepreneurial business leaders around the globe in more than 125 cities in 40 countries worldwide. All winners become lifetime members of The Entrepreneur Of The Year Hall of Fame, which is part of the Entrepreneur Of The Year Academy. Each year the national country winners from around the world are invited to the World Entrepreneur Of The Year awards.

Entrepreneur Of The Year 1997

J. Sylvest Jensen

Today APC Asia Production & Components ApS

In China since 1998

Former Factory in Denmark from 1984 to 1998

Today APC Asia Production & Components ApS

I dag APC

Today APC ApS

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DK-2970 Hørsholm

Telephone (+45) 4779 19 40

Fax (+45) 4779 17 79

Email sales@apc.dk

Web www.apc.dk

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Company background: From 1984 to 1998 Electronic Manuacturing Services

From 1998 - Outsourcing - EMS, Plast & Metal production in China
After APC Accept:
Directly contact concerning technical issues with cc to APC

All commercial contact only through APC

Follow-up:
- Quality
- Deliveries
APC’s Partners in Asia

China, Thailand, Malaysia, India, Czech Republic
Electronics product development

- HW Design 25$ / hour
- SW Design 35$ / hour
- Embedded SW
- FPGA and ASIC implementation
- Print CAD Layout 35$ / hour
- Print Prototyping
- EMC, EMI and EMS test approximately from 2000$
Mechanical design, development and construction

- 2 & 3 D Mechanical Drawing 25$ / hour
- Tool Drawings
- Mechanical Design 35$ / hour
- Prototype Manufacturing
Electronic Manufacturing Services (EMS)

- ELECTRONIC ASSEMBLY PCBA (SMT & HMT). Processor according to RoHS.
- Assembly of QFP- and BGA, uBGA / CSP, 01005 components and wire bonding.
- Complete product manufacturing and assembly (Box Build).
- Material Procurement, Strategic Procurement. Production, Logistics online (ERP).
- Prototyping (NPI New Product Induction).
- QC: In-Circuit (ICT), Visual inspection (AOI) and function test (FT).
- X-ray control, Burn-in (BI) and EMC Test. Input Control (QI).
- ESD protected, temperature-controlled, Class 10K clean room.
- Small series of 50 pcs (High Mix), 100 pcs (Low Mix) and upwards, without quantitative restriction on customized production lines.
- HW, SW, PCB Print Layout & Mechanical Design and Development.
- Guaranteed prices among lowest in world market prices. Typically, prices below 30% of European prices, in addition to clean factory price China.

Approximately 30-40% of Danish manufacturing cost. Low volume from 100 pcs.
Examples of customer-specific products

Electronic Manufacturing Services /EMS)
Examples of customer-specific products

Box Build

Typically, total delivery time 6-8 weeks for first delivery
Examples of customer-specific products

Contract Manufacturing Services
APC’s EMS partners:
Electronic assembly SMD, HMT, COB, Box Build (Mecatronic)

SMD Linie
SMD Pick and place machines
85 SMD Linies
Box Build assembly lines
Custom-designed components:

**Printed Circuit Board (PCB):**
- Single-double-sided
- Multilayer
- Flexible PCB (FCB)

**Membrane Switch:**
- Silicone Keypad
- Rubber Keypad
- Touch Panel

**Optoelectronics:**
- LCD LCM Modul
- TFT LED LD

**Transformers:**
- transformers
- Toroidal
- Coils
- Power Supply

**Cable & Wireharness:**
- Cable Bundles
- Flat Cables
- Spiral Cables
- Power cord
- Connectors

**Plastic and Aluminium injection molding/Ext.:**
- 35T to 3600T
- Up to 2500 mm
- Vacuum forming

**Metal Machining CNC & Casting:**
- Laser Cutting, Press, Bending, Punching……
- Turning, Milling, Grinding

**Aluminum Processing:**
- Sheet metal boxes
- Cabinets and front panel
- Extrusion - Profiles
Examples of Printed Circuit Board (PCB)
Examples of Membrane Switch
Examples of Optoelectronics LCD(M), TFT, Touch
Examples of Transformers, Power Supply
Examples of Wireharness
Standard Components

Is not directly included in the APC's product program, but can be supplied by order > 1-2000 USD

Direct from the factory via our Hong Kong / Shenzhen branch

- Connectors
- Relays
- Mounting Boxes
- Switches / Switches
- Motors
- Semiconductors
- Power (Contactors, PLC)
- Panel PC
**Plastic and Aluminium Injection / Extrusion & Tooling**

- **Tooling cost**
  - Small Item: 2500-4000$
  - Big Item: 4000-6500$

- **Delivery time**
  - ca. 5 weeks

- **Item delivery time Plastic and Alu.**
  - ca. 1-2 weeks

- **Extrusion**
- **SLA models**

- **If you don't have 3D Mechanical drawing,** we can do a 3D drawing after your model.

- **Normaly 1 day of**
  - 25$ / hour
Examples of customer-specific plastic products
Examples of customer-specific plastic products
APC´s Plastic and Aluminium partners:
Tooling for Plastic and Aluminium injection:
Metal Machining

Non-cutting machining
- CNC Laser Cutting
- Press
- Bending
- Pulling
- Punching

Machining
- CNC Turning
- CNC Milling
- Grinding

Castings
- Sand Castings
- Wax/Investmen Casting
- Steel/Aluminum Casting

Rubber

Enclosures, Chassies, Rack, Front plates
Examples of customer-specific metal products
Machining - Casting
Examples of customer-specific metal products
Machining - Casting
Examples of customer-specific sheet metal working

Sheet metal working
Examples of customer-specific Aluminium Injection
Aluminium Pressure Injection
Examples of customer-specific Steel Casting

Einvestmen Casting

Die Casting

Sand Casting
Examples of customer-specific Sand Casting

Sand Casting
APC’s Machining partners:
Electronic Manufacturing Services (EMS):

- Quality security. **ISO 13485 (Medical)**, ISO 9001: 2008, ISO 14001 (Environmental), QS 9000, TS 16949 (Automobile), IPC-A-610 kl.3 (Highest requirements) CE og ROHS certified.

- Quality Standard acc: IPC-A-610 Standard Class 1, 2 and 3 (Highest requirement)

- ESD protected, temperature regulated, Class 10K clean room.
- QC: In-circuit (ICT), Visual inspection (AOI) and function test (FT).

Printed Circuit Board (PCB):

- Quality Standard acc: PERFAG DIN/IEC326
- IPC-A-600 (Acceptance of Printed Boards)
- IPC-6012 (Qualification and Performance Specification for PCB)
- RoHS Directive
Quality Certification and Standards – Plastic & Metal:

Quality Standard Plastic & Metal production:


Quality Standard & Norm for Plastic Injection:

- DIN 16901 Plastic Moulding
- ISO 1302 surface condition

Quality Standard & Norm for Metal Work:

- ISO 2768-1
## Audit Spørgsmål:

<table>
<thead>
<tr>
<th>Supplier: xxxxxxx</th>
<th>xxxxxxxxx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit performed by: xxxxxxxxx, APC, Shenzhen</td>
<td></td>
</tr>
<tr>
<td>Date: 08-04-2010</td>
<td></td>
</tr>
</tbody>
</table>

### 4.1.2 Organization

<table>
<thead>
<tr>
<th>Does supplier have a Quality Manager?</th>
<th>Name:</th>
</tr>
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<tbody>
<tr>
<td>Is the Quality Manager independent of the production?</td>
<td></td>
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</table>

### 4.2 Quality Management System

<table>
<thead>
<tr>
<th>Does supplier have a quality policy?</th>
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<tbody>
<tr>
<td>Does supplier have a manual for quality?</td>
</tr>
<tr>
<td>Is the manual available for the staff?</td>
</tr>
<tr>
<td>Which quality approvals has the supplier last approval:</td>
</tr>
<tr>
<td>Which norm approval has supplier last approval:</td>
</tr>
<tr>
<td>Which environment approval last approval:</td>
</tr>
</tbody>
</table>
Thanks for your attention