

Molding activities

SMART GEARS LTD

Way LAW

Smart Gears company profile

- Fargo Telecom is a subsidiary of Fargo Group
- Telecom department created in 1977 – company incorporated in 2002
- Headquarters, R&D, sales: Hong Kong China,
- Subsidiary : India, Vietnam, South Africa.
- Staff: 40 people
- Fast growing company.
 - > Turnover 2005: 15 M\$
 - > Turnover 2006: 35 M\$
- Smart is a newly formed company part of Fargo Telecom Holding handling :
 - R&D
 - Production
 - Plastic tooling and Mechanical components business

Fargo's vision & mission

VISION : Accomplish the high valuable product with our customer

MISSION : To provide the high quality product, service and technical support for customer

Our VALUES

- Open, honest communication
- High level of integrity
- Service excellence
- Continually seek new knowledge and efficiencies
- Flexibility and the ability to rise to the challenge of our competition
- Great team work and team spirit

Our Service

- Plastic Tooling Fabrication
- Plastic parts production
- Silicon Keypad
- Metal Parts
 - a) Sheet metal
 - b) Screw
- Mock-up

Plastic Tooling & Parts

Plastic Tooling & Parts

- High Precision plastic tooling
- Co-Injection tooling
- Spray painting
- Silkscreen printing
- Simple parts assembly

Plastic Tooling – Precision Mold

(Machine Size: 50~250 Ton)

- High Precision plastic mold



Plastic Tooling – Precision Mold



Chargers & Adaptors



Binoculars Parts



Insert Molding



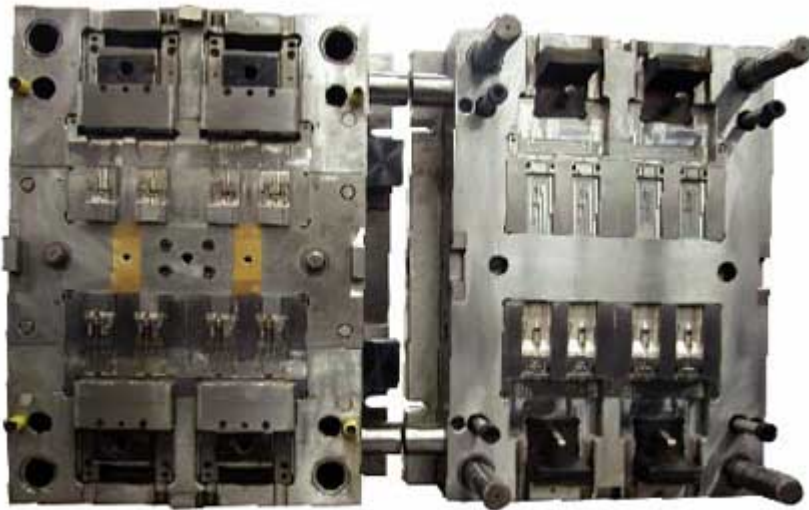
Syringe



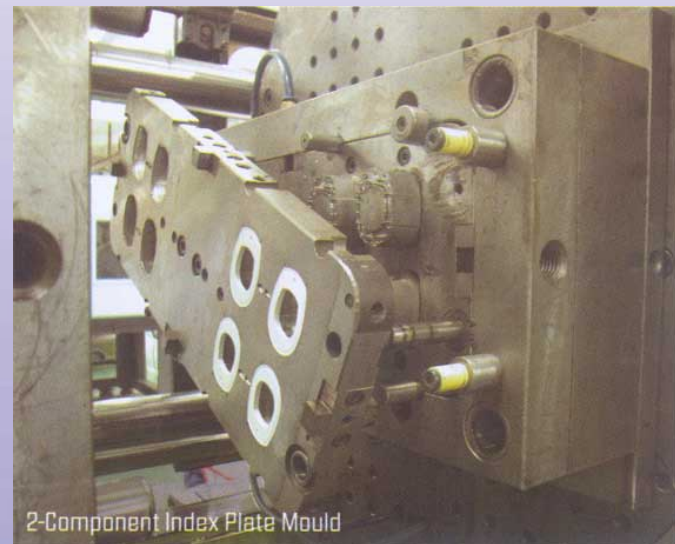
Diffusers & Lenses

Plastic Tooling – Co-injection Tooling

- Co-injection mold



2-Component Electrical Connector Tooling



2-Component Index Plate Mould

(Machine Size: 160T ~250T)

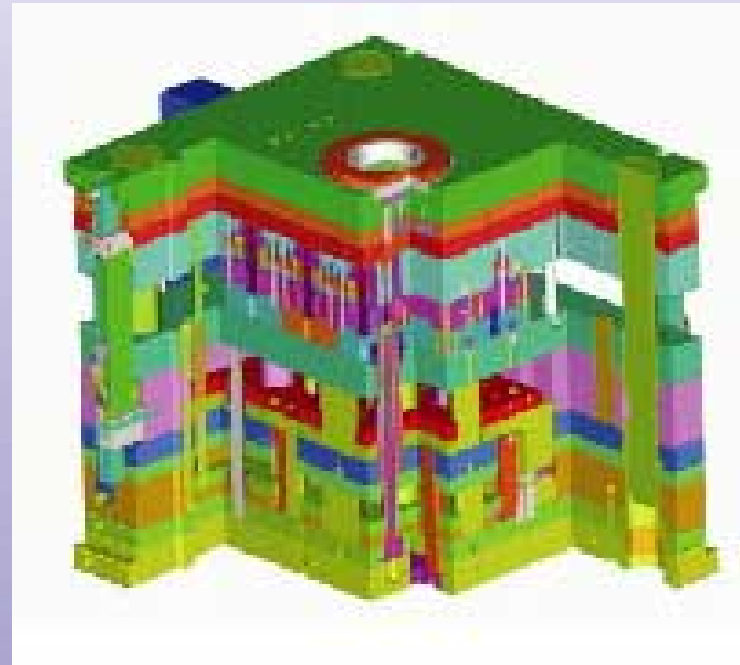
Plastic Tooling – Co-injection molding



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Plastic Tooling – Software

- Unigarphics
- Pro Engineer
- Solidworks
- Master CAM
- AutoCAD



Plastic Parts

- Injection Machines ~ 92
- Co-Injection Machines ~ 12



Plastic Parts



Printing

Spraying



Assembly



SILICON KEYPAD



Silicon Keypad



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Silicon Keypad

- Silicon Spray Coating
- Polyurethane Spray Coating
- Epoxy Coating
- Plastic & Rubber Assembly



Metal Parts – Sheet Metal

Metal Parts - Sheet Metal

- More than 160 stamping press



Metal Parts – Sheet Metal

- Material selection

COPPER	C1100-H	C1100-1/2H	C1100-1/4H	
BRASS	C2680-H	C2680-1/2H	C2680-1/4H	
PHOSPHOR BRONZE	C5191-H	C5191-1/2H	C5210-H	
ALUMINUM	AL1100-H14	AL3003-H14	AL5052-H32	
STAINLESS STEEL	SUS301-H	SUS301-3/4H	SUS301-1/2H	SUS304-3/4H SUS304-1/4H
COLD-ROLLED STEEL	SPCC	SPCD		
ELECTROLYTIC TIN-PLATED STEEL	SPTE			
ELECTROLYTIC ZINC-PLATED STEEL	SECC			
HOT DIPPED ZINC-PLATED STEEL	SGCC			
NICKEL SILVER	C7521-H	C7521-1/2H		
LEADFRAME MATERIAL	ALLOY 42	CA194 No.8	CDA510-1/2H	

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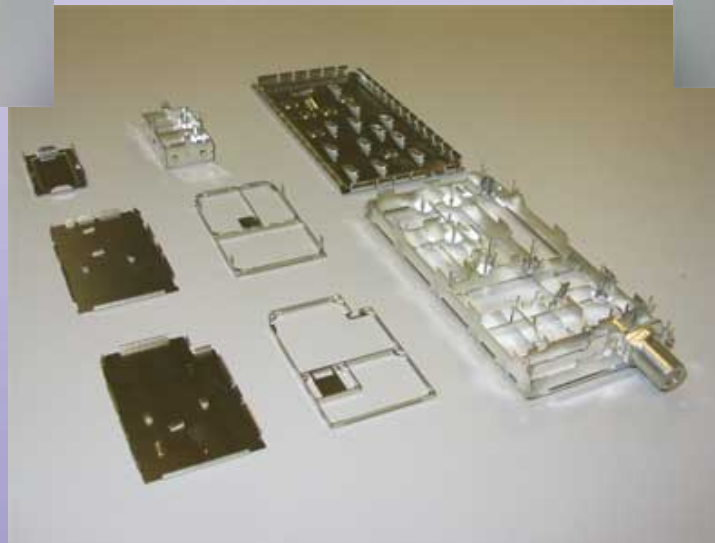
Metal parts – Sheet Metal



Casing



DEEP DRAWN PARTS



SHIELDS FOR TELECOMMUNICATION MODULES

Metal Parts – Screw & Nuts

Metal Parts - Screw



**Machine & Self
Tapping Screw**



Sems Screws & Screw with washer



**Hexagon Head &
Socket Screw**

Metal Parts – Nuts

- Hexagon Nuts
- Domed Cap Nuts
- Square Nuts



Metal Parts – Screw & Nuts

- Standard
 - a) ANSI
 - b) ISO
 - c) JIS
 - d) DIN
 - e) BSW

Metal Part – Screw & Nuts



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Metal Parts – Screw & Nuts

- **Material**
 - a) Mild steel
 - b) Stainless steel
 - c) Brass

- **Surface Finishing**
 - a) Zinc
 - b) Nickel
 - c) Black Zinc
 - d) Zinc, Brass, Nickel

Metal Parts – Screw & Nuts

- Salt Spray test



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Metal Part – CNC Lathe



Mock-up

- Stereolithography (SLA)
Size: 500x500x500mm
- Selective Laser Sintering (SLS)
Size: 350x350x600mm
- Fused Deposition Modelling (FDM)
Size: 250x250x250mm



Mock-up

- Vacuum Casing
 - a) ABS property
 - b) PP property
 - c) Transparent acrylic property
 - d) Soft rubber property
- Reverse Engineering Design



Quality Inspection



CMM

Spray Abrasive Testing Machine

High Voltage Conductive Tester

Pin Gauge

Thread Gauge

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Profile Projector



Digital Height Gauge

Quality Inspection

- Production inspection before shipment
- CPK Inspection
- AQL Standard



Color Inspection Machine

Thank You

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