



**KONGSBERG**  
A U T O M O T I V E

## KA-HU Tampoprint insourcing 2010

## Why we decided to print inside?

- ▶ **Cost efficiency**
  - **Cheaper than by the service from an other company**
- ▶ **Quality**
  - **The process is simple. We thought we will be able to produce on high quality level within a quite short learning time**
- ▶ **Advantages in shipping**
  - **We don't have to wait for the supplier**
  - **We don't have to sort parts in case of quality problems**
  - **We don't have to repack parts in case of wrong packaging**
- ▶ **Future**
  - **With this action we will have possibilities to supply tampoprinted parts to other intercompanies-so we can earn money to the division**
- ▶ **Far future**
  - **We can sell our service for the market also not just inside the division-it is one more income**



## The production will start with these projects

T8

A3

X61B



## Tampo machine



## Prices now and weekly quantity

- ▶ **A3**
  - 2450 pcs/wk
  - 0.179 Euro/pcs price now
- ▶ **T8**
  - 4400 pcs/wk
  - 0.158 Euro/pcs price now
- ▶ **X61B**
  - 600 pcs/wk
  - 0.178 Euro/pcs price now

**Mean price: 0.17 Euro/pcs**  
**Total: 7500db/wk**



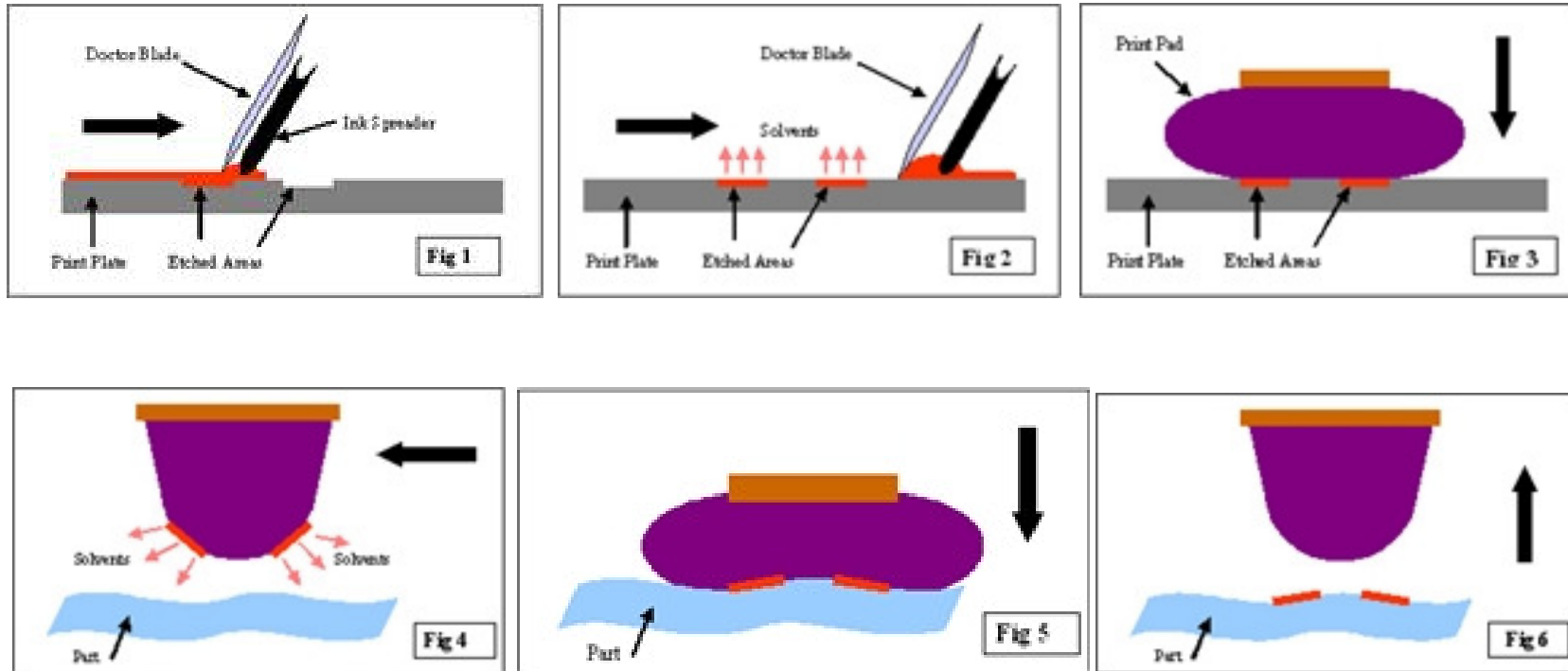
## Project payback

- ▶ Investment: 10.000 Euro (machine,all other components,tools,builting a special workplace,air conditioning,first paint set)
- ▶ Regarding our calculation we can produce with half price like the suppliers but we reckon with the hidden and not visible costs too.So we calculated with just 20% cost saving
- ▶  $10.000/0,035= \sim 300.000$  pcs of printing needed for the returning
- ▶  $300.000/7.500= 40$

**Rate of return:  
40 weeks**



## Process in pics



## Tasks, reaponsibles, target dates

Resp.	Help	A3	T8	X61B	Issue
PHO	LZA	01.27	01.27	01.27	Study process,machine transfer
AVI	LZA	02.05	02.05	02.05	Container buy or rent decision
GKO		02.05	02.05	02.05	To get plate dwgs
PKI	OBU	02.05	02.05	02.05	Plate from supplier or buy new?
PHO		02.05	02.05	02.05	To get the machine book
PHO		02.08	02.08	02.08	Test plate ordering
PHO		02.08	02.08	02.08	Plate casing ordering
PHO	TSZ	02.08	02.08	02.08	Other matherials buying-not paint
PHO	GTO	02.08	02.08	02.08	How to store the dangerous materials?
LZA	TSZ	02.10	02.10	02.10	Antistatic machine ordering
PHO,LZA	TES	02.10	02.10	02.10	To assign sample parts prod. quantity
PHO	ETA	02.12	02.12	02.12	To build the container
TES,KJA		02.12	02.12	02.12	To get sample parts RM
OBU	LZA	02.12	02.12	02.12	What kind of paint can we use?
ITO	OBU	02.12	02.12	02.12	BOM settings
PHO	TSZ	02.12	02.12	02.12	To buy a scale
LZA	TLA	02.12	02.12	02.12	Clam design-ask bids
PHO		02.15	02.15	02.15	Clam ordering or producing KA
PHO		02.15	02.15	02.15	Paint ordering
GTO		02.15	02.15	02.15	Scale calibration
PHO		02.15	02.15	02.15	Study process in KAHU
LZA		02.15	02.15	02.15	Sample parts prod.





## Tasks, reaponsibles, target dates

NMO,RDE	SDE	02.15	02.15	02.15	FMEA+FC making starts
GTO		02.15	02.15	02.15	To get safety data sheets
TLA		02.16	02.16	02.16	Power,areator,air conditioner installation
PHO		02.16	02.16	02.16	Plate ordering
LZA	ZNE	02.16	02.16	02.16	Material flow plan
LZA		02.17	02.17	02.17	Desks,shelf plan
LZA	TLA	02.17	02.17	02.17	To design tool positioner
PHO		02.17	02.17	02.17	To order tool positioner
IFR		02.18	02.18	02.18	Desks,shelf producing
IFR	GTO	02.19	02.19	02.19	To make dangerous materials storing place
TLA	LZA	02.19	02.19	02.19	To make safety casing
IFR		02.19	02.19	02.19	Service instruction creating
LZA	IFR	02.26	02.26	02.26	Prod. line and flow harmonization
LZA		03.01	03.01	03.01	Work instruction creating
PHO		03.03	03.03	03.03	CP creating
PHO		03.05	03.05	03.05	Packaging instruction creating
GTO		03.09	03.09	03.09	Checking docs creating
PHO	LZA	03.10	03.10	03.10	OP training
GTO		03.12	03.12	03.12	Risk analysis
GTO		03.12	03.12	03.12	Hygienic mesuring
LZA		03.16	03.16	03.16	Prod. Test
BSZ	RZA	03.22	03.22	03.22	Quality approval
NMO,RDE	SDE	03.24	03.24	03.24	FMEA+FC completing
NMO,RDE		03.31	03.31	03.31	PPAP submission





# Thanks for attendance!

