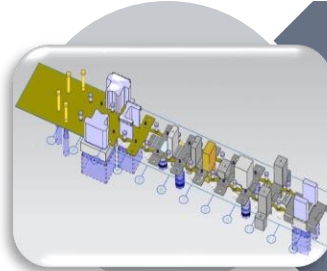
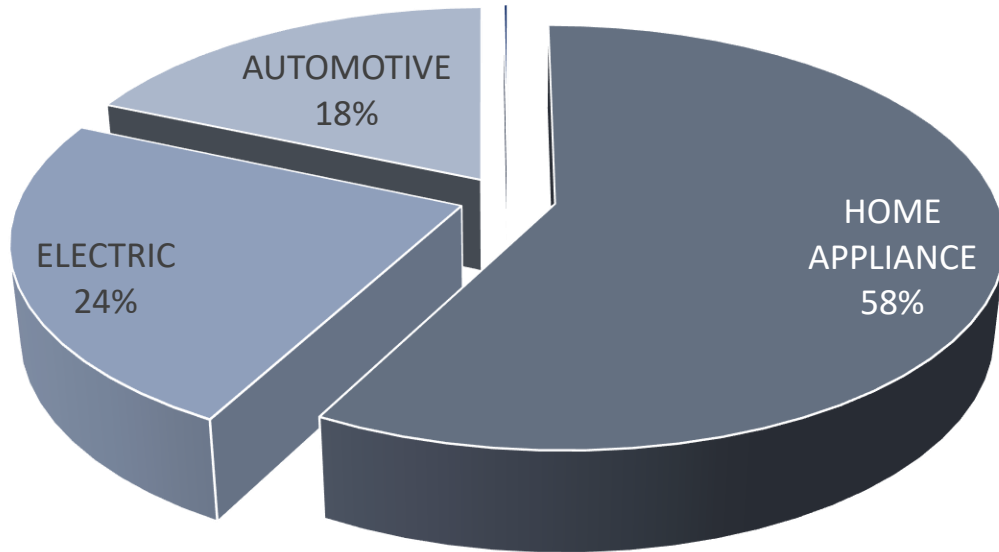


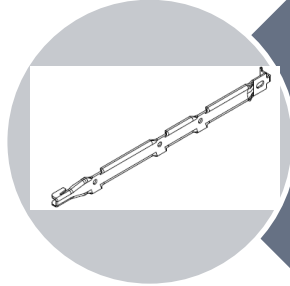


PRECISION METAL STAMPING SA DE CV

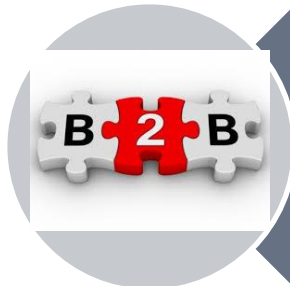




Progressive die /
Injection molds

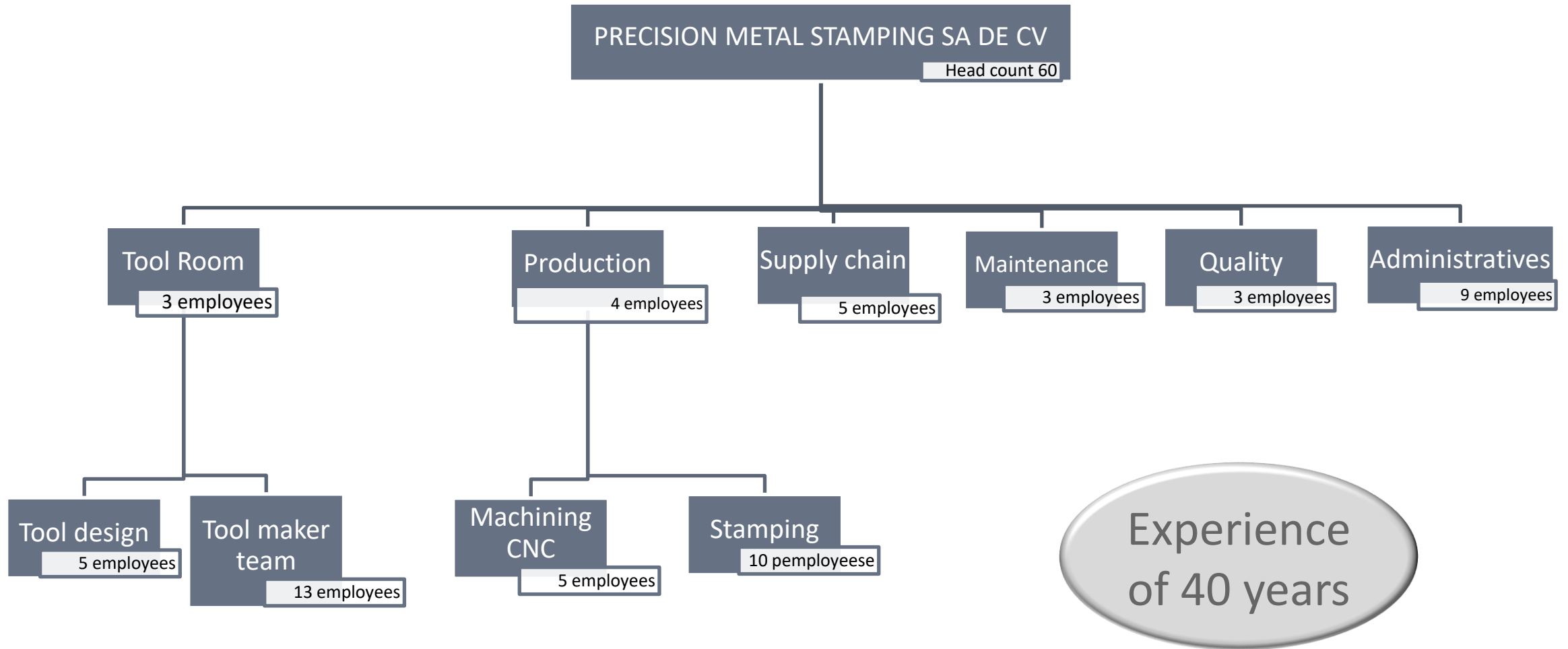


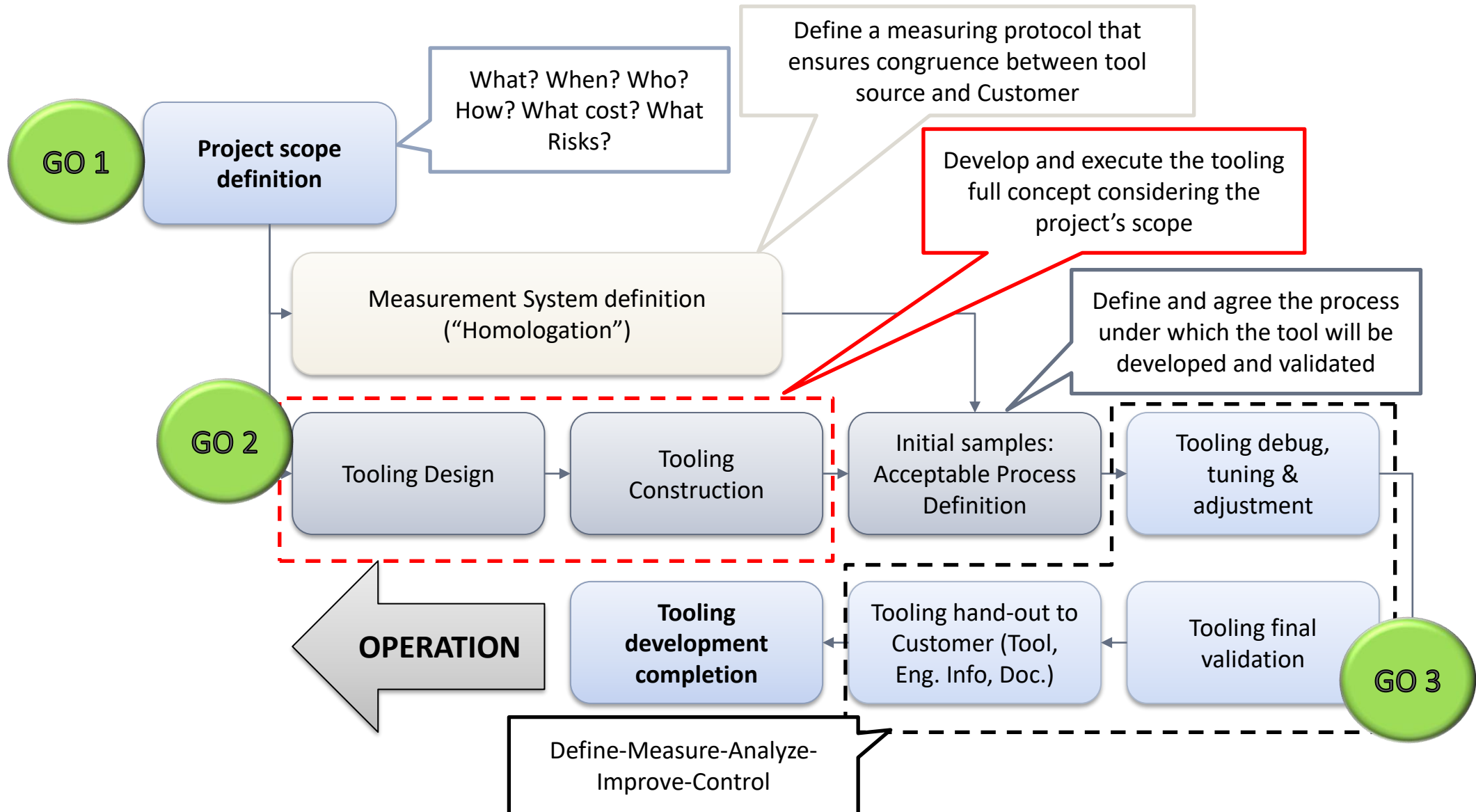
Stamped parts



Commercial
strategy: B2B





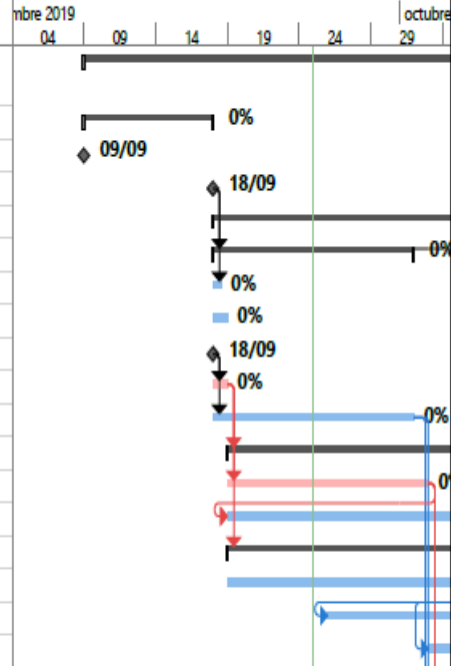




PROGRAM MANAGEMENT GANTT

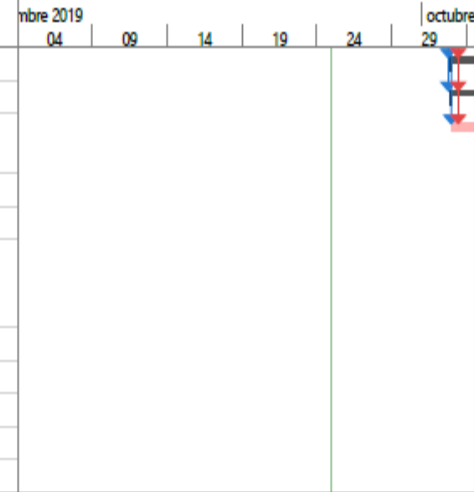
9176TPD GANTT

Id	Nombre de tarea	Duración	Comienzo	Fin
1	9176TPD 81280-TZA0-J010-72-0000 BRKT C; RH & LH	69,5 días	lun 09/09/19	vie 13/12/19
2	Info. Customer	7 días	lun 09/09/19	mié 18/09/19
3	PO and downpayment	0 días	lun 09/09/19	lun 09/09/19
4	Drawing release	0 días	mié 18/09/19	mié 18/09/19
5	TOOLING	61,5 días	mié 18/09/19	jue 12/12/19
6	Engineering	10 días	mié 18/09/19	mar 01/10/19
7	Feasibility (GO1)	0,5 días	mié 18/09/19	mié 18/09/19
8	Design	1 día	mié 18/09/19	mié 18/09/19
9	Approval design (GO2)	0 días	mié 18/09/19	mié 18/09/19
10	Release BOM	1 día	mié 18/09/19	mié 18/09/19
11	2D drawings	10 días	mié 18/09/19	mar 01/10/19
12	Raw Mat. purchasing	20 días	jue 19/09/19	mié 16/10/19
13	Steel RM heat treatment	10 días	jue 19/09/19	mié 02/10/19
14	Raw Material	15 días	jue 19/09/19	mié 09/10/19
15	Purchasing components	20 días	jue 19/09/19	mié 16/10/19
16	Bushing & Posts	15 días	jue 19/09/19	mié 09/10/19
17	Die, punch, pilot	15 días	jue 26/09/19	mié 16/10/19
18	Spring & Cylinders	5 días	jue 03/10/19	mié 09/10/19



9176TPD GANTT

Id	Nombre de tarea	Duración	Comienzo	Fin
19	Manufacturing	38 días	jue 03/10/19	lun 25/11/19
20	Fabrication	33 días	jue 03/10/19	lun 18/11/19
21	Heat treatment components	25 días	jue 03/10/19	mié 06/11/19
22	Regular components	18 días	jue 24/10/19	lun 18/11/19
23	Assembly	5 días	mar 19/11/19	lun 25/11/19
24	Assembly Die fitting & Dry-run (Tuning & adjustment)	5 días	mar 19/11/19	lun 25/11/19
25	1st Tryouts (FOT)	0,5 días	mar 26/11/19	mar 26/11/19
26	Dim. Analysis	1 día	mar 26/11/19	mié 27/11/19
27	Correction loop & Tryouts	10 días	mié 27/11/19	mié 11/12/19
28	Dim. Analysis PPAP	1 día	mié 11/12/19	jue 12/12/19
29	**Customer validation (GO3)	0 días	vie 13/12/19	vie 13/12/19



Tareas críticas	solo fin	Resumen manual
División crítica	solo duración	Resumen del proyecto
Progreso de tarea crítica	Línea base	Tareas externas
Tarea	División de la línea base	Hito externo
División	Hito de línea base	Tarea inactiva
Progreso de tarea	Hito	Hito inactivo
Tarea manual	Progreso del resumen	Resumen inactivo
solo el comienzo	Resumen	Fecha límite

Tareas críticas	solo fin	Resumen manual
División crítica	solo duración	Resumen del proyecto
Progreso de tarea crítica	Línea base	Tareas externas
Tarea	División de la línea base	Hito externo
División	Hito de línea base	Tarea inactiva
Progreso de tarea	Hito	Hito inactivo
Tarea manual	Progreso del resumen	Resumen inactivo
solo el comienzo	Resumen	Fecha límite

Quotation stage

Customer RFQ

Project Feasibility

FCO-01

Quotation

Engineering change

E.C. Feasibility

FGC-33

Planning and execute internal Kick-off meeting
With core team

APQP signed document

FCO-07

Project Gantt

Timing

Open Items

Open actions

Tooling GO (if apply)

GO

Production Planning Sheet

FCO-09

Communication and follow-up

Weekly following

Weekly communication with client

Frequent execution

Results

PR Evaluation

FCO-10

Issue of PPAP

PPAP REQ

PSW Approval

Initial production preparation

Safe Launch Plan

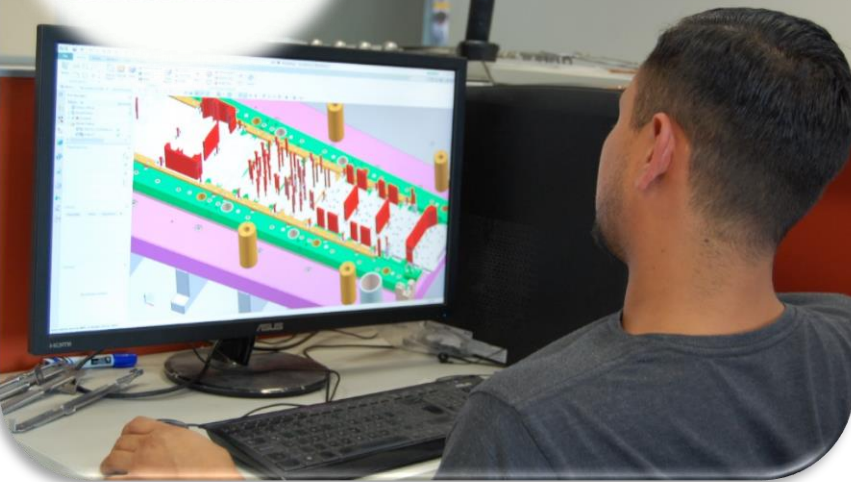
S.O.P.

Project closure

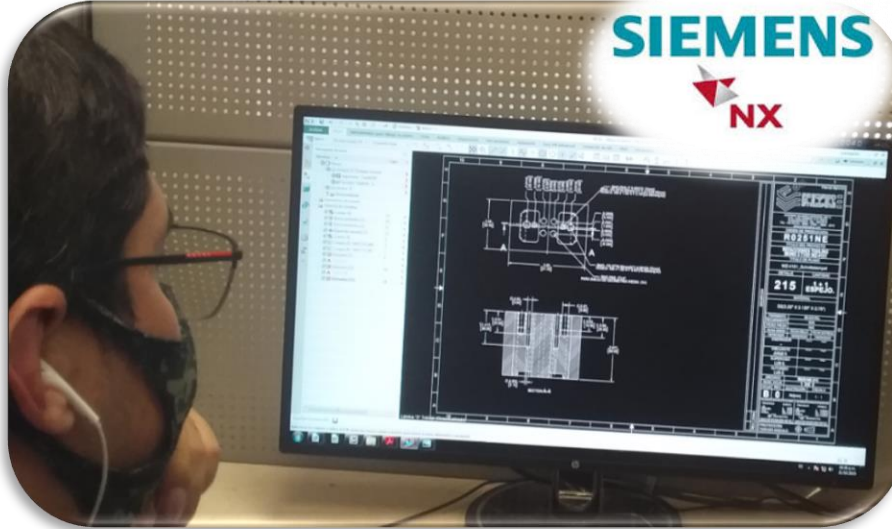


DESIGN AND MANUFACTURING ENGINEERING

KEYCREATOR™
The evolution of CADKEY®



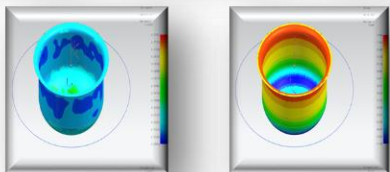
SIEMENS
NX



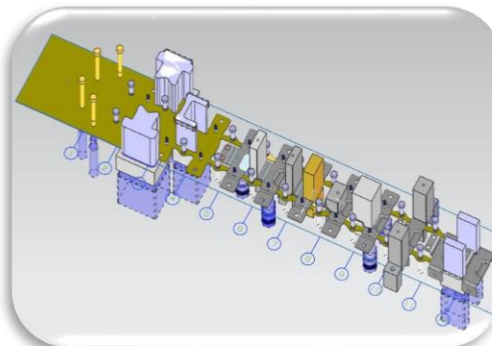
SIEMENS NX WITH
PROGRESSIVE DIE
WIZARD MODULE 2
LICENCES

SOLID WORKS 2 LICENCES

KEY CREATOR 2 LICENCES



Stamping
Analysis



2 DIE DESIGNERS + 1 MOLD DESIGNER
2 ENGINEERING CONSULTANTS
WITH 80 YEARS OF EXPERIENCE


24 DESIGNS PER DESIGNER ANNUALLY
OF INSTALLED CAPABILITY

Draft designer

Engineering level
Drawing of dies and molds
Drawing of devices and spare parts
Make Bill of Materials
Management of engineering files
Quotation of materials
Software NX Siemens and Key Creator
2 years of training

Designer Senior

Tooling designer level
Management of design department
Training of draft and tooling designer
Internal approval of designs
3 years of training



	Tooling designer
Engineering level	
Draft designer level	
Design software	
Design of tooling and molds	
Knowledge of manufacturing process	
Interpretation of drawing (GD&T)	
Skills of mechanical assembly in CAD	
Use of measurement equipment	
Validation of tooling	
3 years of training	

Tool Maker

Machinest

Mechanical junior level
Use of measurement equipment.
Use of CNC and EDM machines
Corrective and Preventive
maintenance of toolings
1 year of training

Specialized machinest level
Specialized in use of CNC, WEDM
and EDM machines.
Capability to manufacture a tooling
within all required process
Contribute ideas for desing and
optimization of tooling
manufacturing
3 years of training

Machinest junior

Machine shop technician.
Use of manual tool machines
Benchwork skills
Use of basic measurement equipment.
CNC basic set up
3 month of training.

Specialized machinest

Machinest level
Specialized in use of CNC, WEDM
and EDM machines.
Detection, Analysis and Correction
of problems in tooling assembly and
desing
Adjustment of new tooling
3 years of training

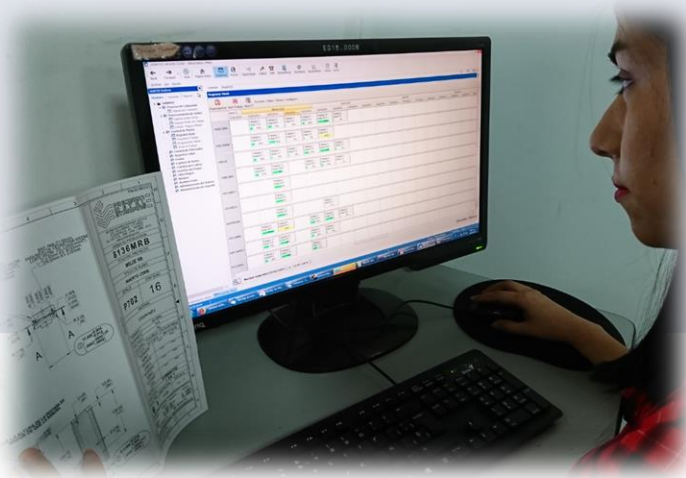
Analysis of
Customer's
requirement

Planning (Unique
pieces or Stock
Max/Min)

Manufacturing

Inspection 100%

Delivery to
customer with
dimensional report





TOOLING DEVELOPMENT HARDWARE

EDM	Vertical CNC	Grinding & Conventional	Metrology
1 MITSUBISHI MD+PRO WireEDM 23.2" X 20.2"	1 CINCINNATI ARROW 750 30" X 20" X 20" Machining Center	1 HYDRAULIC GRINDER CHEVALIER 16 X 40	1 MITUTOYO PHA-14 W/QM DATA Optical comparator
1 CHARMILLES ROBOFIL 290 AWT WireEDM 15.7"X 9.8"X 9.8"	1 CHEVALIER 2033 30" X 20" X 20" Machining Center	2 HYDRAULIC GRINDER with Optidress HARIG 6 x 18	1 CMM CONTURA G2 27.6" X 27.6" X 23.6"
1 MAKINO U6 HEAT WireEDM 25.6" X 17.7" X 16.5"	1 HAAS VM6 Machining Center 64"X32"X30"	2 GRINDERS CHEVALIER 6 X 18	
1 MITSUBISHI EA12-V CNC SINKER EDM 15.7" X 11.8" X 11.8"	1 HAAS VF 2 30"X20"X20"	1 MILLPORT MILLING Machine with digital scales	
1 CHMER A6040L CNC SINKER EDM 23.6" X 15.7" X 13.8"	1 OKUMA GENOS M560-B 41.3" X 22" X 18"	1 CONVENTIONAL LATHES	
1 SURE FIRST SINKER EDM 19" X 12"	1 Bridgeport 30,000 RPM for graphite electrodes		
1 SURE FIRST DRILL EDM			
7 MACHINES	6 MACHINES	7 MACHINES	2 MACHINES

22 major equipment to produce tooling

Metal stamping

- 15 mechanical presses: 5 a 160 ton
- 2 Hydraulic presses: (45 & 200 ton)

Plastic injection molding

- 2 Horizontal conventional molding presses: 180 & 500 ton

CNC Machining

- CNC Machining center HAAS DT-1 quick tool exchange, 4-axis.
- 2 CNC turning centers (6" y 8" diam)
- 2 CNC turning centers with bar feeder
- 1 CNC turning center (8"diam) with live tools

Our equipment





CMM ZEISS



ÓPTICAL COMPARATOR

ROCKWELL C
HARDNESS TESTERWORKSHOP
MICROSCOPE

Other minor measurement equipment:

2 Digital Height caliper

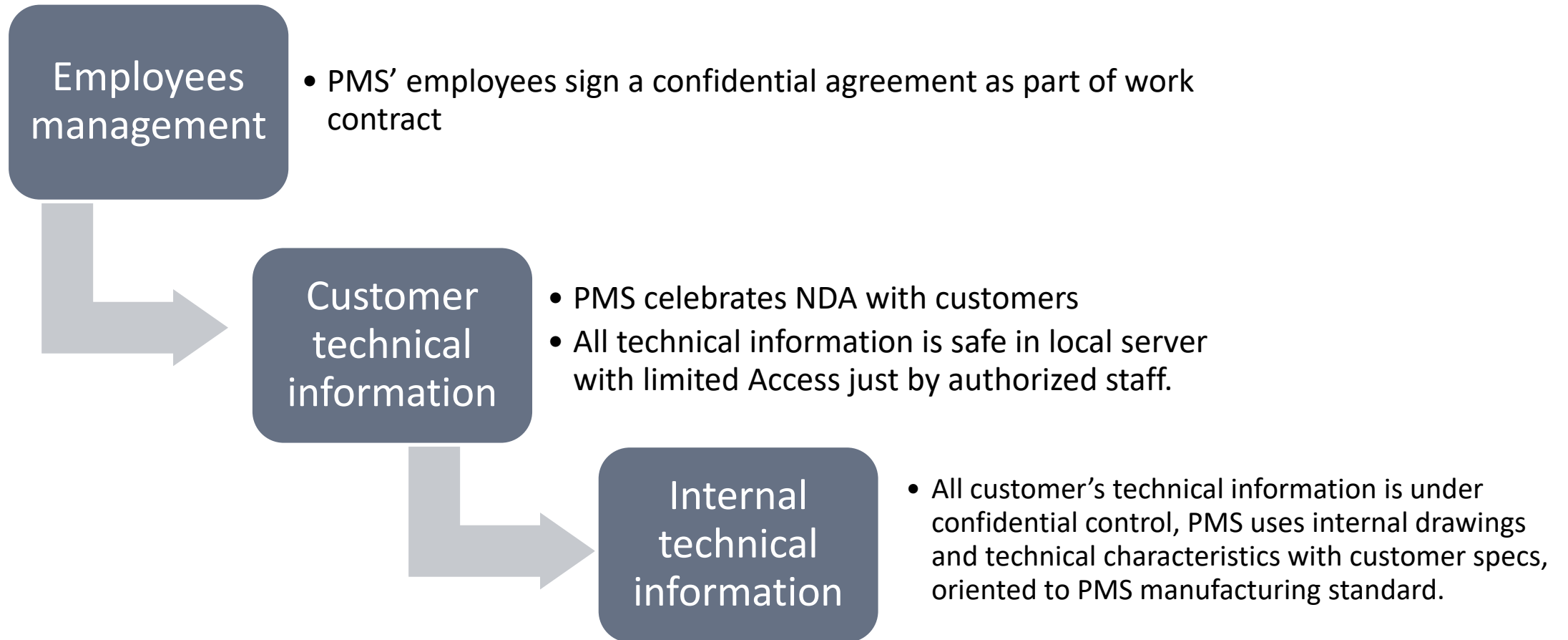
1 Height master

1 Roughness meter.

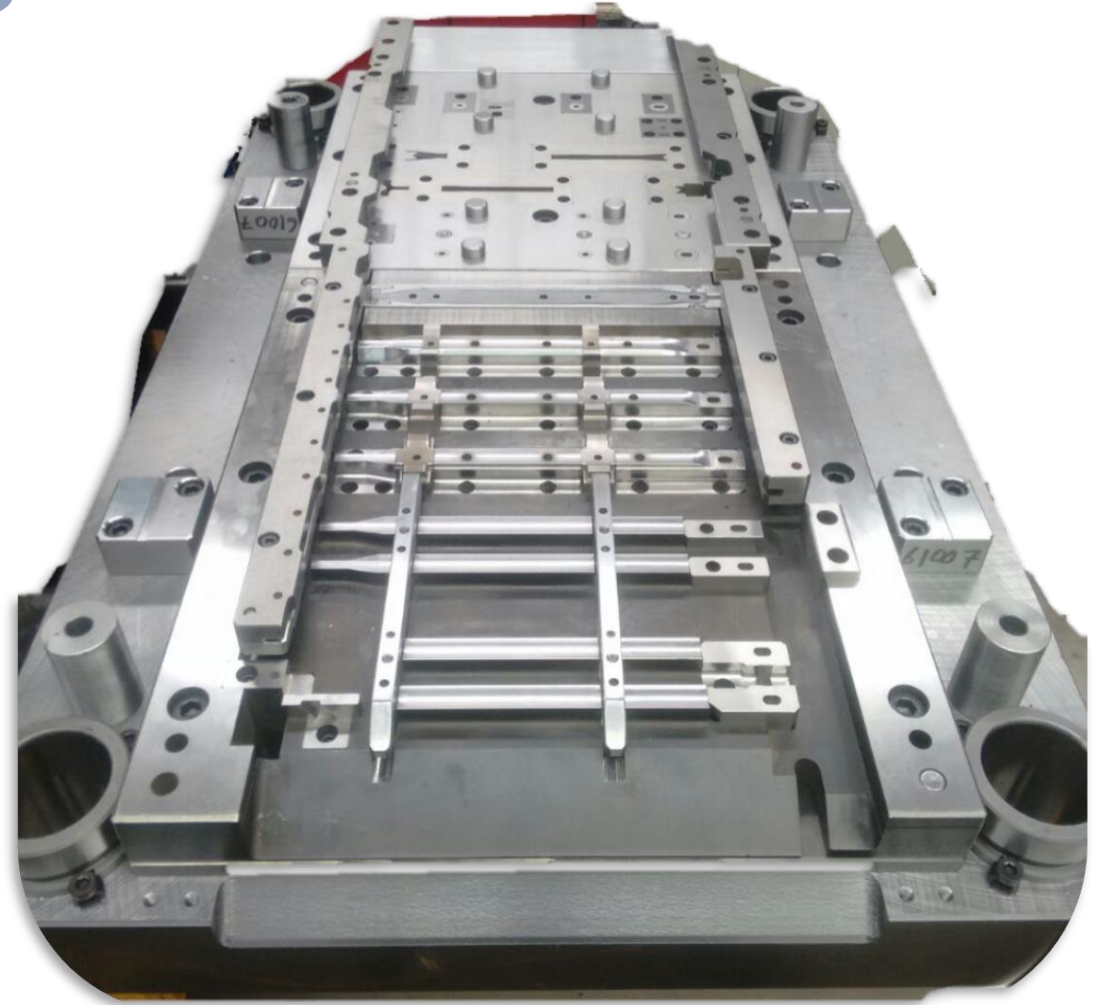
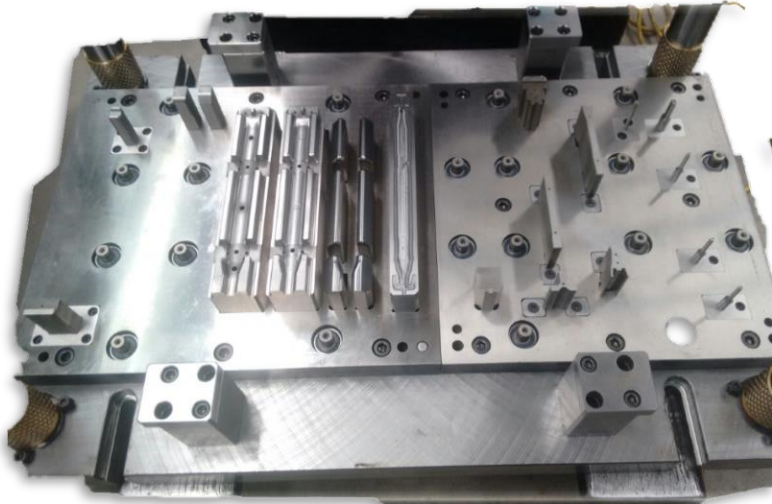
1 Borematic micrometer

Gauge block and pin gauge sets

Digital micrometers and calipers



*Progressive die for Security
air bags / OEM VW*



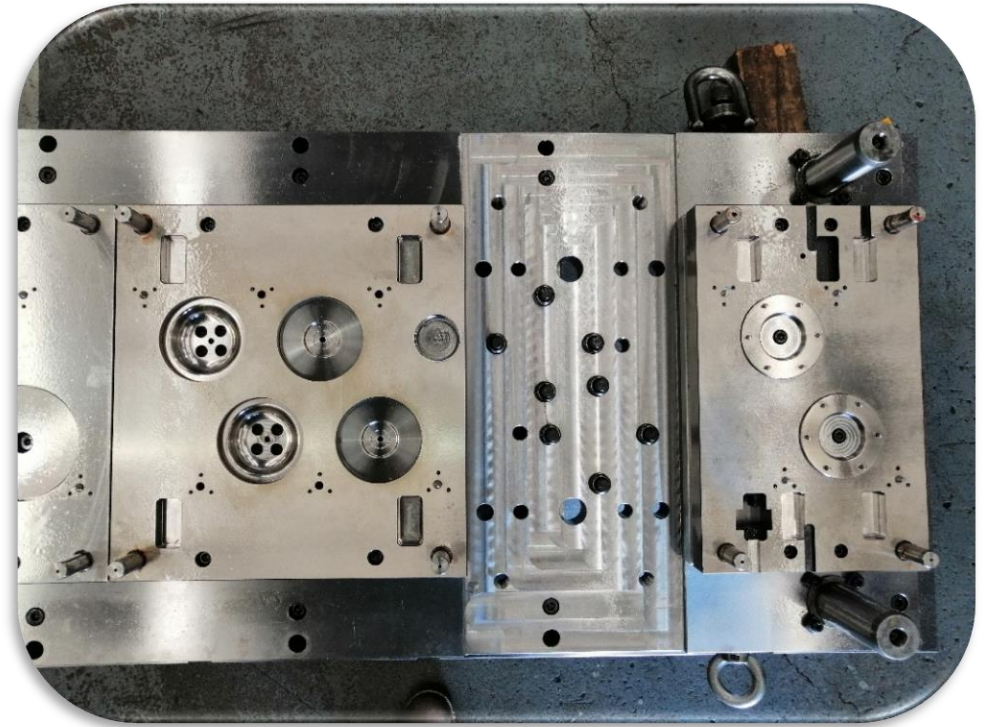
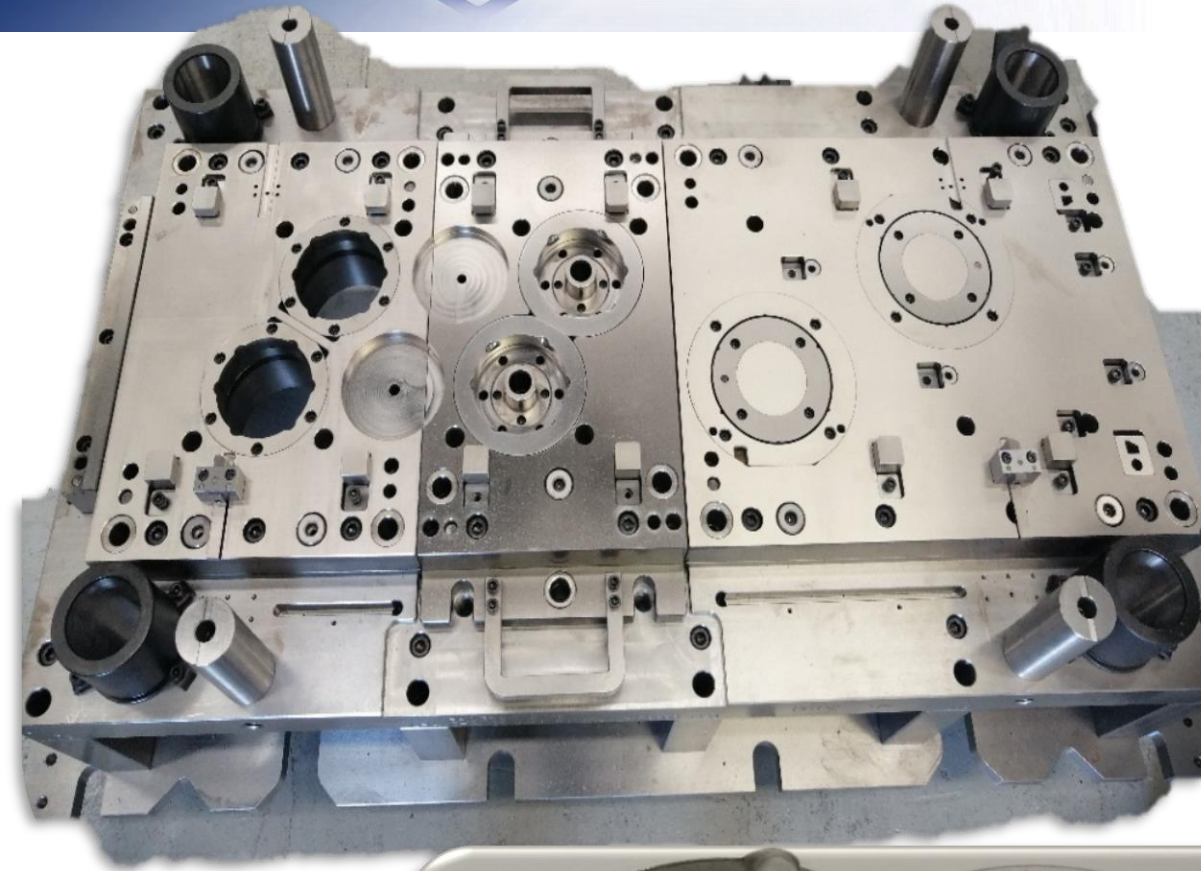
Automotive pieces for current projects



*Progressive die for Security air bags iSi Automotive
/ OEM VW*



*Progressive die with modules
for automotive cover for
filters Donaldson / OEM VW*



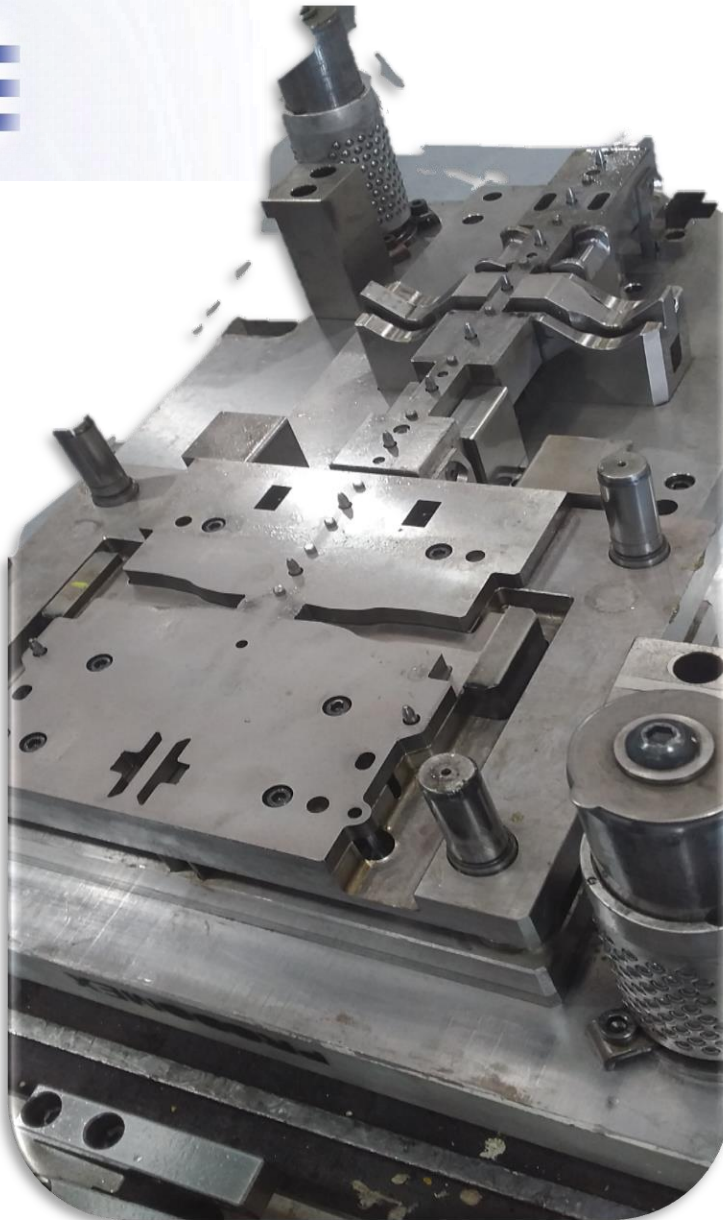
Automotive pieces for current projects



Progressive die with modules for automotive cover for filters Donaldson / OEM VW



*Progressive
die Brackets
Prodomex /
OEM Honda*



Automotive pieces for current projects

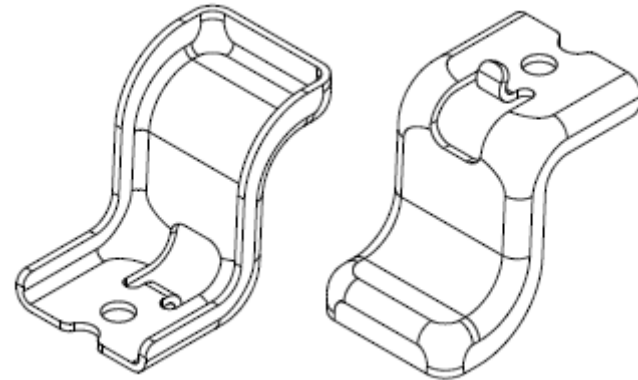
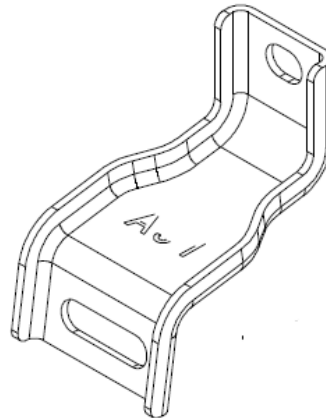
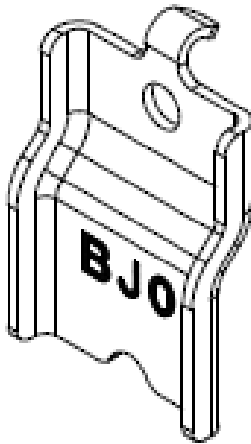
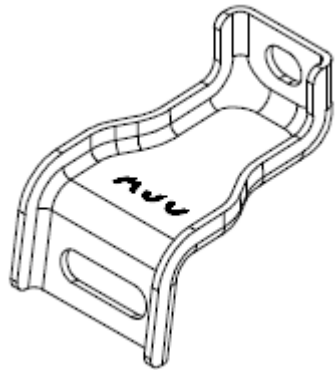
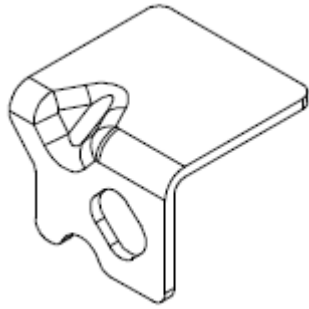
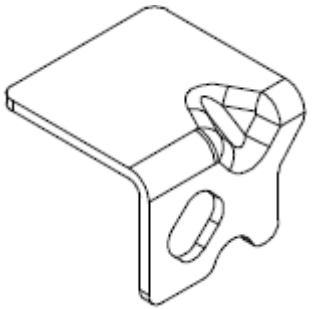


*Progressive die Brackets Prodomex /
OEM Honda CIVIC*



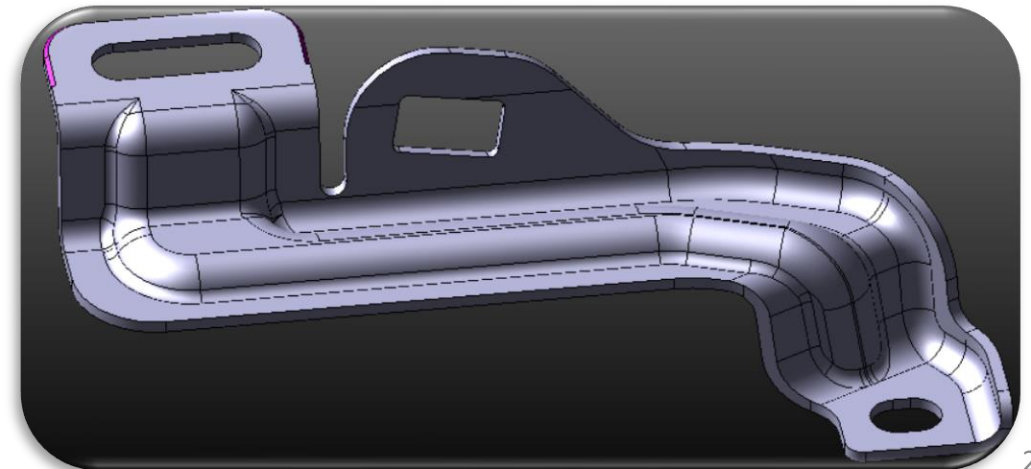
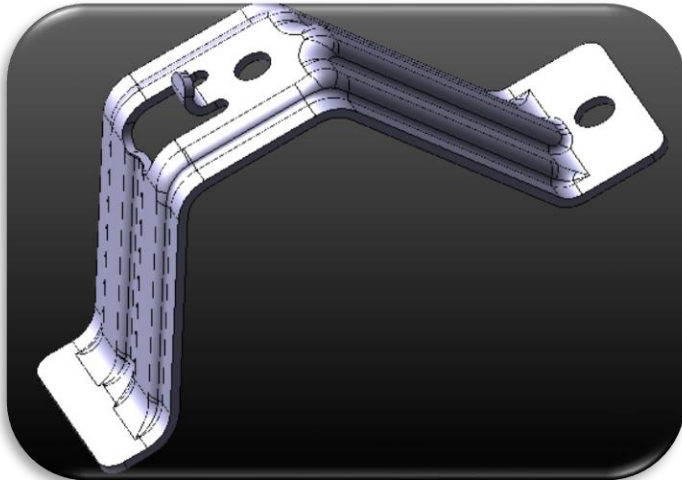
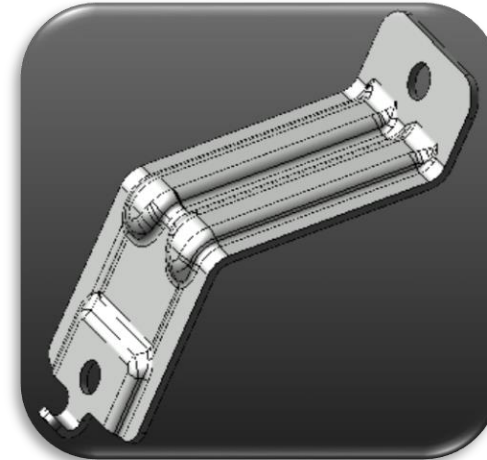
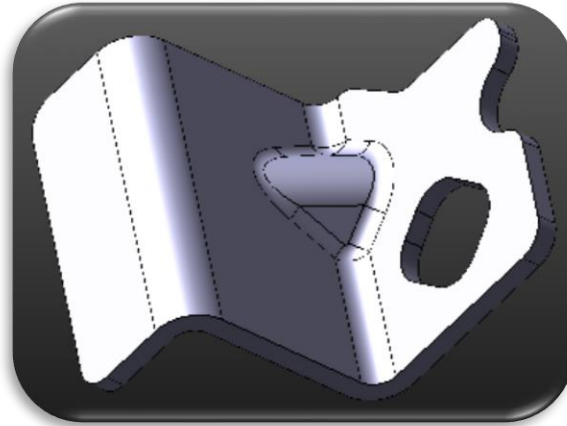
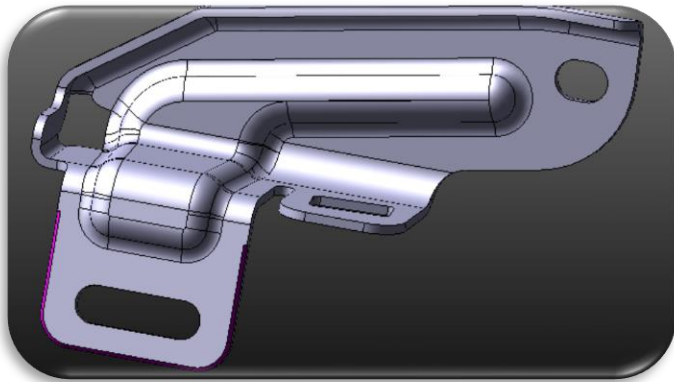
Automotive pieces for current projects

*Progressive die Brackets Prodomex / OEM
Honda CIVIC
An assembly with EAU of 270 Kpcs*



New Automotive RFQ

*Progressive die Brackets Prodomex / OEM
Honda CRV23M
An assembly with EAU of 250 Kpcs*



Tool grade steel

- M2
- D2
- M4
- VANADIS 4/8



Main Suppliers:

Serviacero (Guadalajara Mex)

Aceros Levinson (Guadalajara Mex)

Aceros Especiales Voestlapine (Querétaro Mex)

Aceros Fortuna (Guadalajara Mex)

Standard components

- MEUSBURGER
- DAYTON
- DANLY IEM



OUR CUSTOMERS



MAIN CONTACT

- Julian Gomez
- Commercial Manager
- julian.gomez@pmstamping.com
- Phone 52 33 3666 2708

Plant Address

- 47 Antonio Alvarez Esparza St.
- Las Liebres
- San Pedro Tlaquepaque
- Jalisco
- Mexico
- Zip 45623