

**PDKM**

**MOLD  
ENGINEERING  
SERVICES**

*ADD VALUE, BEYOND SUPPLY*



[www.pdkm.com.my](http://www.pdkm.com.my)

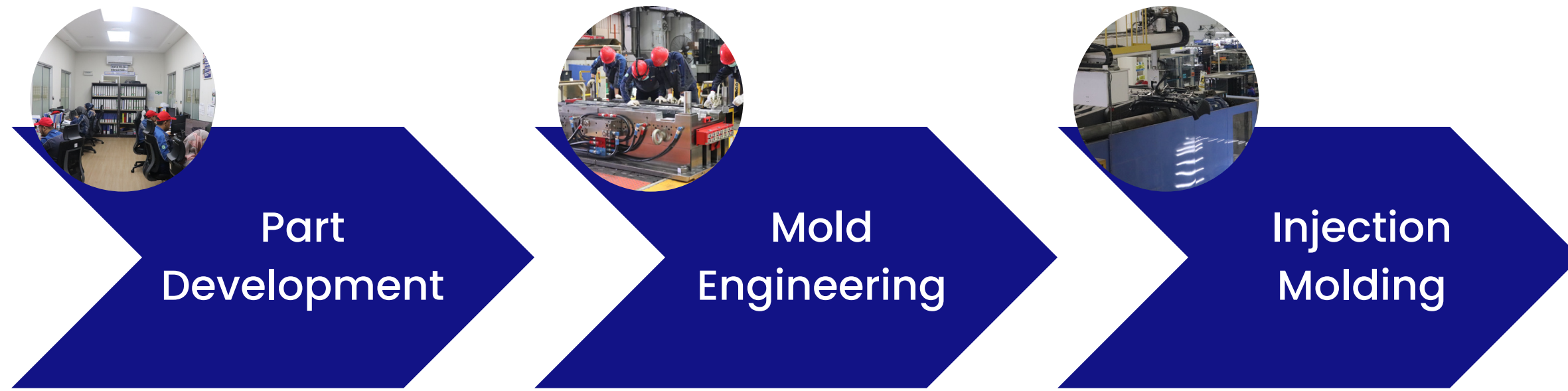


# CONTENTS

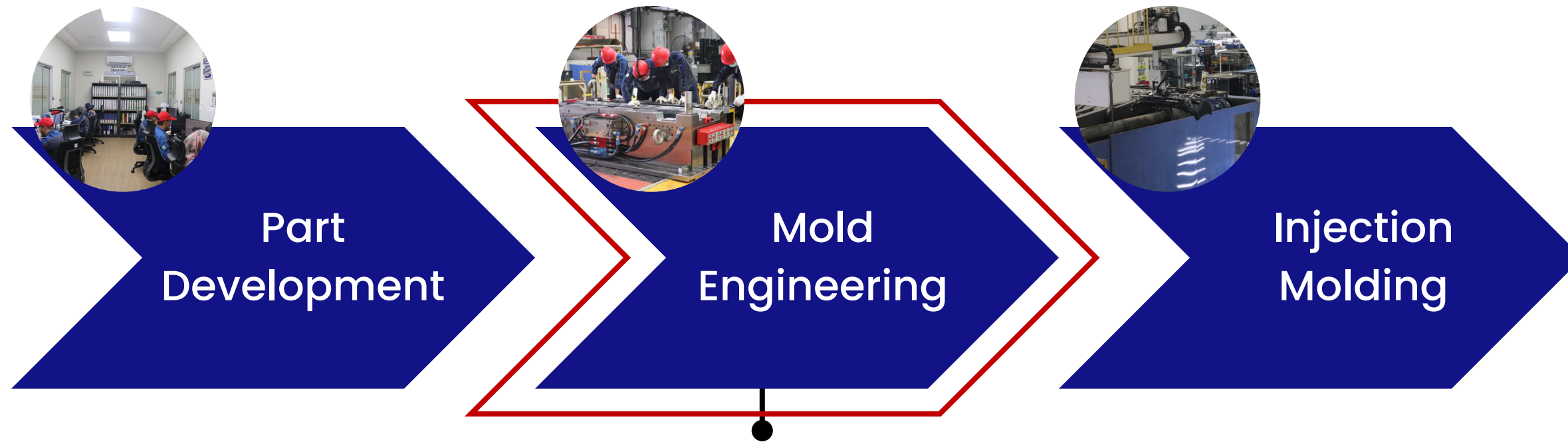
1. Introduction of Mold Engineering
2. Experience in Services
3. Engineering Services
4. Other activities
5. Our Beliefs



# PLASTIC INJECTION MOLDING PROCESS



# PLASTIC INJECTION MOLDING PROCESS



- Mold Fabrication
- Mold Maintenance
- Mold Development



# MOLD ENGINEERING BACKGROUND

- Industry leader in plastic injection manufacturing
- Committed to quality and innovation

**ESTABLISH SINCE 2014**



## Mold Maintenance

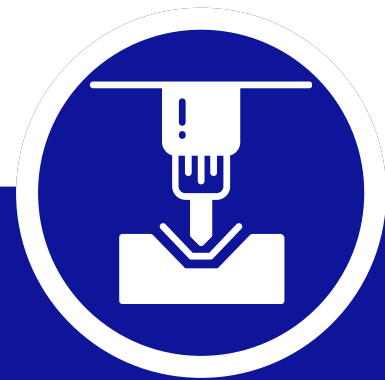


Keep molds well-maintained  
to make them last longer

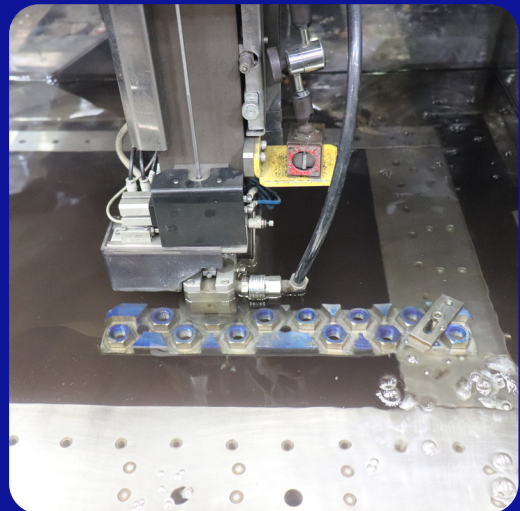
# MOLD ENGINEERING BACKGROUND

- Industry leader in plastic injection manufacturing
- Committed to quality and innovation

**ESTABLISH SINCE 2014**



## Mold Fabrication



Manufacture plastic mold to shape material for injection machines



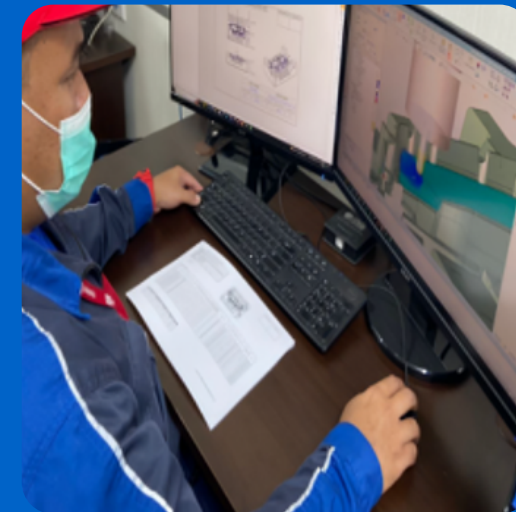
## Mold Maintenance



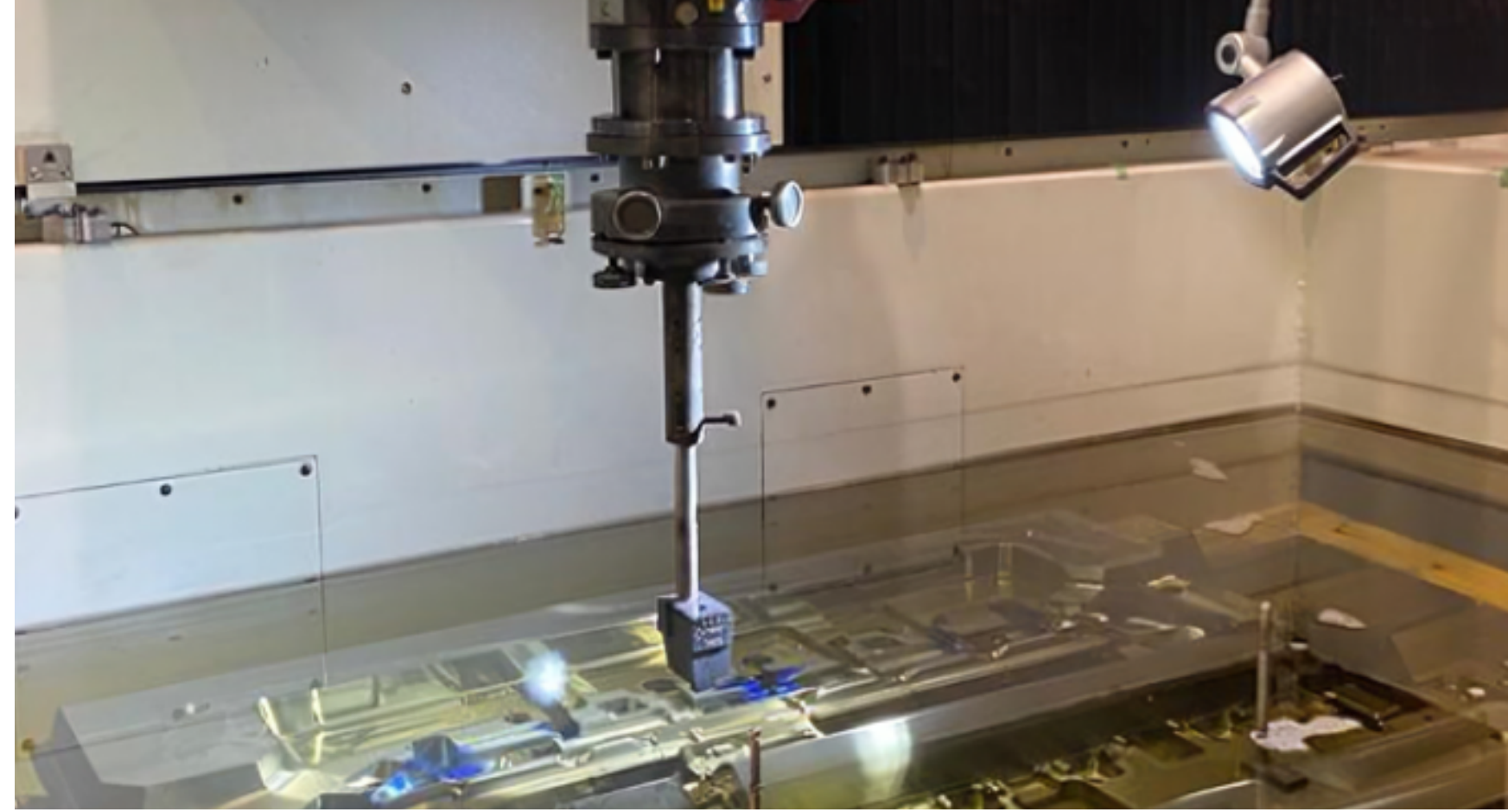
Keep molds well-maintained to make them last longer



## Mold Development



Ensuring smooth progress during mass pro start up activities by controlling mold quality during development since design stages. Design photos review and katabunkai activities



# FACILITIES



# FACILITIES

NO	MACHINE TYPE	BRAND	MODEL	QUANTITY
1	CNC Machining Center Machines	OKUMA, MAKINO	MAKINO V56i Gr, OKUMA MILLAC 1052 V II, OKUMA MCV-A II, MILLAC 561 V II	4
2	Wire Cut EDM Machines	SODICK	AQ750L, SL 600Q	2
3	Electrical Discharge Machines	SODICK	AG 60L, AQ 15L	2
4	NC Milling Machines	MAKINO	AVNC-74, VHR-A	2
5	Surface Grinding Machines	OKAMOTO	MM415, PSG84DX	2
6	Lathe Machines	BLUE LINE INDUSTRIES	AL-6ML	1
7	Radial Drilling Machines	AICHI OKUMA	RA-1600	1
8	Die Spotting Machines	ASAI	DSP3500m	1
9	Laser Welding Machines	MIYACHI	ML-2150A	1
10	Tig Welding Machines	PANASONIC	WP300	1
11	Mold Rotating Machines	DENSO	FT-2035	1
12	Mold Cooling Channel Washing Machines	BLUE ENGINEERING	WATER WAY NR-1100	1
13	Hydraulic Checking Machines	TOKYO KEIKI	TU11C	1
14	Dry Ice Blast	COOL JET	AERO 80FP	1

# SOFTWARE & TECHNOLOGIES

NO	MACHINE TYPE	BRAND	MODEL	QUANTITY
1	Computer Aided Design (CAD) Software	CIMATRON	Designer Solution, Master Solution	3
2	Computer Aided Manufacturing (CAM) Software	CIMATRON	Quick Electrode, Nc Programming	2
3	Computer Aided Design (CAD) Mold Design Software	CATIA	CATIA GLA	3
4	Computer Aided Design (CAD) Mold Design Software	DYNA VISTA	Dynavista	2



# FACILITIES – MOLD FABRICATION

<b>NAME</b>	CNC MACHINING CENTER MACHINES
<b>BRAND</b>	OKUMA & MAKINO
<b>MODEL</b>	MAKINO V56i GR, OKUMA MILLAC 1056 VII, OKUMA MCV-A II, MILLAC 561 VII
<b>QUANTITY</b>	4 UNITS
<b>PURPOSE</b>	FOR CUTTING 3 DIMENSION SURFACE / PROFILE



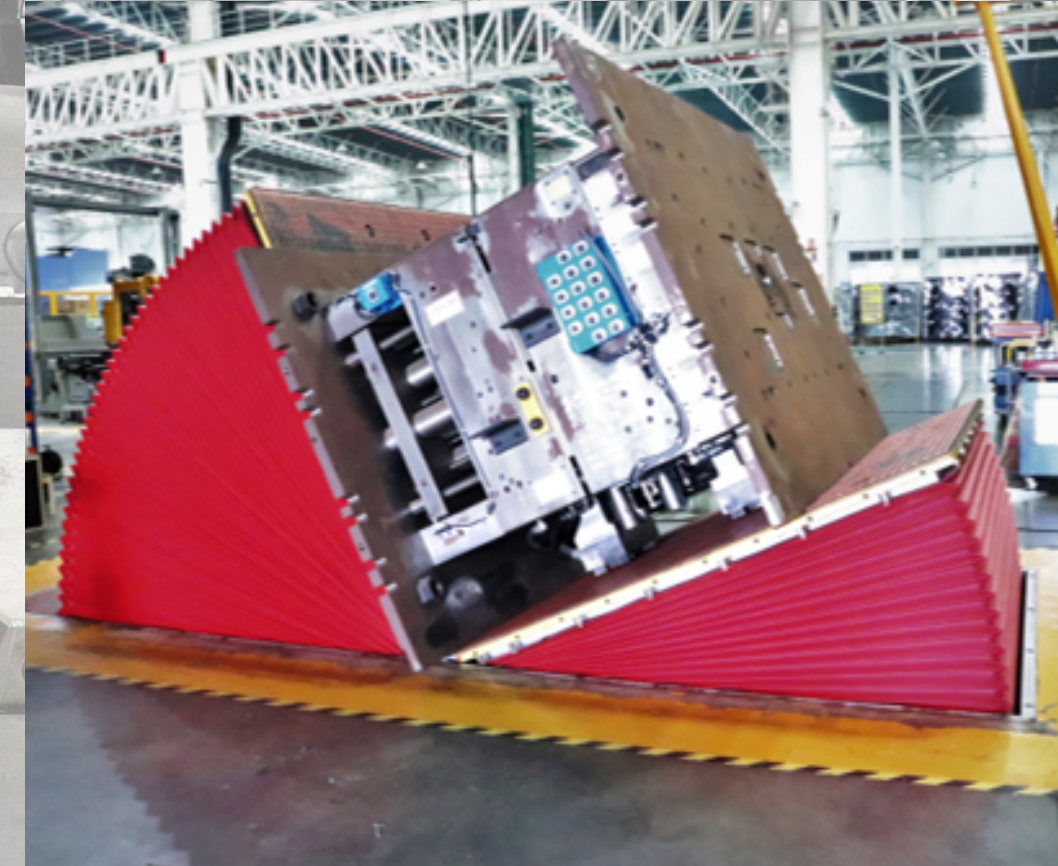
<b>NAME</b>	WIRE CUT EDM MACHINE
<b>BRAND</b>	SODICK
<b>MODEL</b>	AQ750L, SL 600Q
<b>QUANTITY</b>	2 UNITS
<b>PURPOSE</b>	FOR CUTTING 2 DIMENSION SHAPE

# FACILITIES – MOLD MAINTENANCE



<b>NAME</b>	DIE SPOTTING MACHINE
<b>BRAND</b>	ASAI
<b>MODEL</b>	DSP3500m
<b>QUANTITY</b>	1 UNIT
<b>PURPOSE</b>	FOR CHECKING TOUCHING SURFACE

<b>NAME</b>	MOLD ROTATING MACHINE
<b>BRAND</b>	DENSON
<b>MODEL</b>	FT-2035
<b>QUANTITY</b>	1 UNIT
<b>PURPOSE</b>	FOR MOLD TURNING



# EXPERIENCE



**Repair**

FEBRUARY 2015

**>100**

INHOUSE MOLD

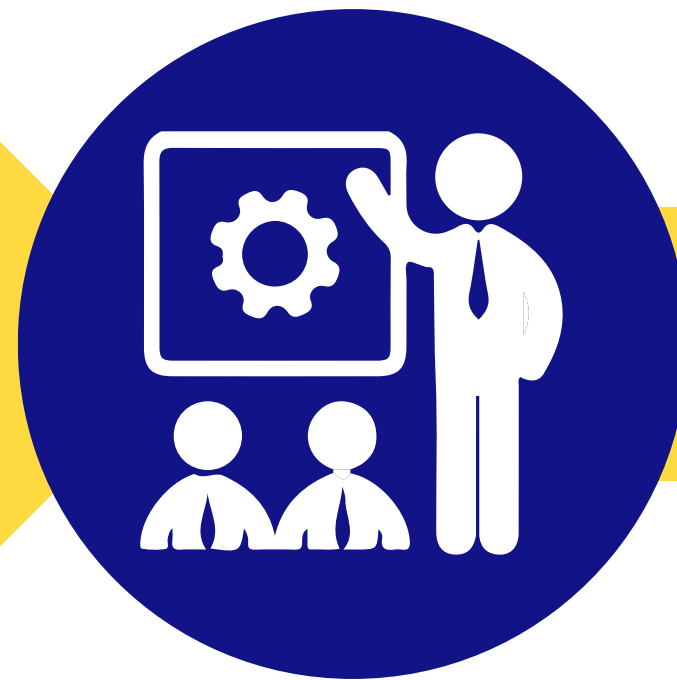


**Design**

NOVEMBER 2019

**>20**

DESIGNS



**Coaching**

EXPERIENCE

**>5**

YEARS



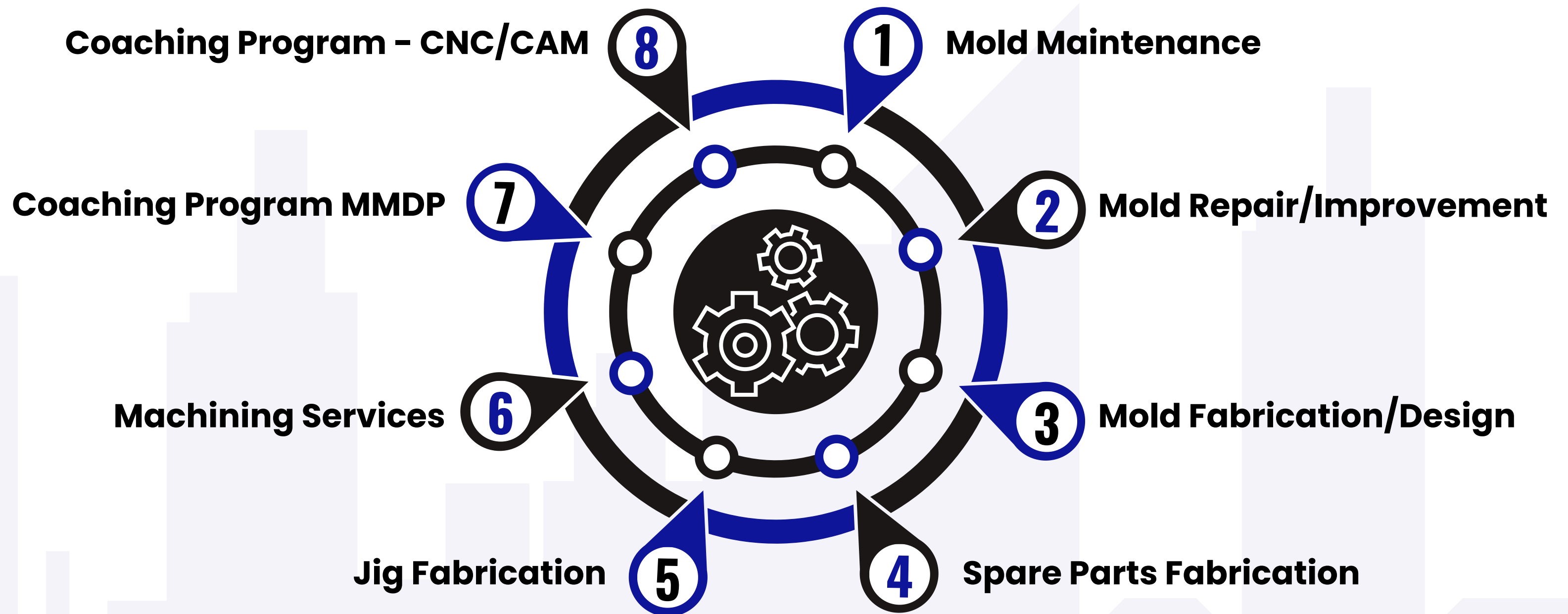
**Support**

CONTINUOUS

**>15**

VENDORS

# ENGINEERING SERVICES



# 1. Mold Maintenance

“0” PRODUCTION  
DOWNTIME RELATED TO  
MOLD ISSUE



Activity involving cleaning, regreasing, identifying problems focussing on mass production molds. In PDKM, our practice is preventive maintenance, which contributing on reducing mold sudden malfunction during mass production.

## METHOD

### TIME BASED MAINTENANCE

- 1 TIME / MONTH FOR EACH MOLD

### SHOT BASED MAINTENANCE

- **EASY:** < 10K SHOT
- **MAJOR:** > 10K SHOT
- **OVERHAUL :** 200K SHOT

## PROCESS

- DRY ICE BLASTING
- CLEANING MOLD PART
- GREASING MOLD
- MINOR PROCESS
- MOLD REPAIR

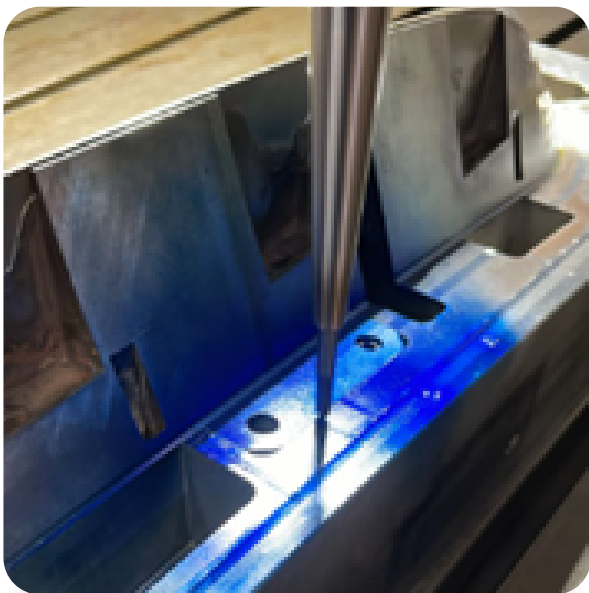


## BENEFITS

CUSTOMIZED MAINTENANCE PLANS

EXPERT TECHNICAL SUPPORT

STANDARD COMPLIANCE



MOLD REPAIR

123

TOTAL MOLD



No	Item	Proc	SELAGA 18/12/2023																	
			Day shift							Night shift										
1	PRODUCTION RUNNING	7																		
2	DISMANTLE CORE - UNTIL MAIN CORE INSERT	4																		
3	CNC CORE - POCKET (2 POSITION)	6																		
4	3D PROCESS - POCKET	2																		
5	EDM - POCKET	7																		
6	FITTING NEW INSERT - 2 INSERT	4																		
7	POLISHING	2																		
8	ASSEMBLY PROCESS	5																		
9	PRODUCTION INJECTION																			

CUSTOMERS



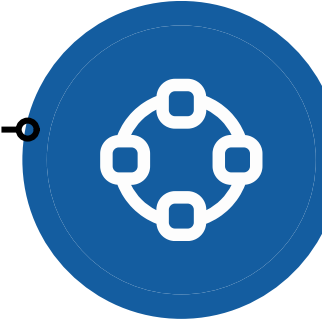
## 2. Mold Repair/Improvement

Repair and improvement are activities involving corrective maintenance that also takes place in PDKM. These are the countermeasure from issues that had been highlighted during mass production. All the activities are done in house to reduce repair lead time.

Improvement On Mold Safety



Burr Repair



Refitting



Gas Mark Improvement



Runner & Gate Repair



Cavity Polishing



**BENEFITS**

ENHANCED PERFORMANCE

COST-EFFECTIVE SOLUTIONS

COMPREHENSIVE SUPPORT

# 3. Mold Fabrication/Design

PDKM have the capability to design, fabricate and assemble mold inhouse. Our team already involved in mold making activities since D55L projects and had the capability to do up until 13000 tonne machine mold. The biggest achievements is louver and spoiler related.



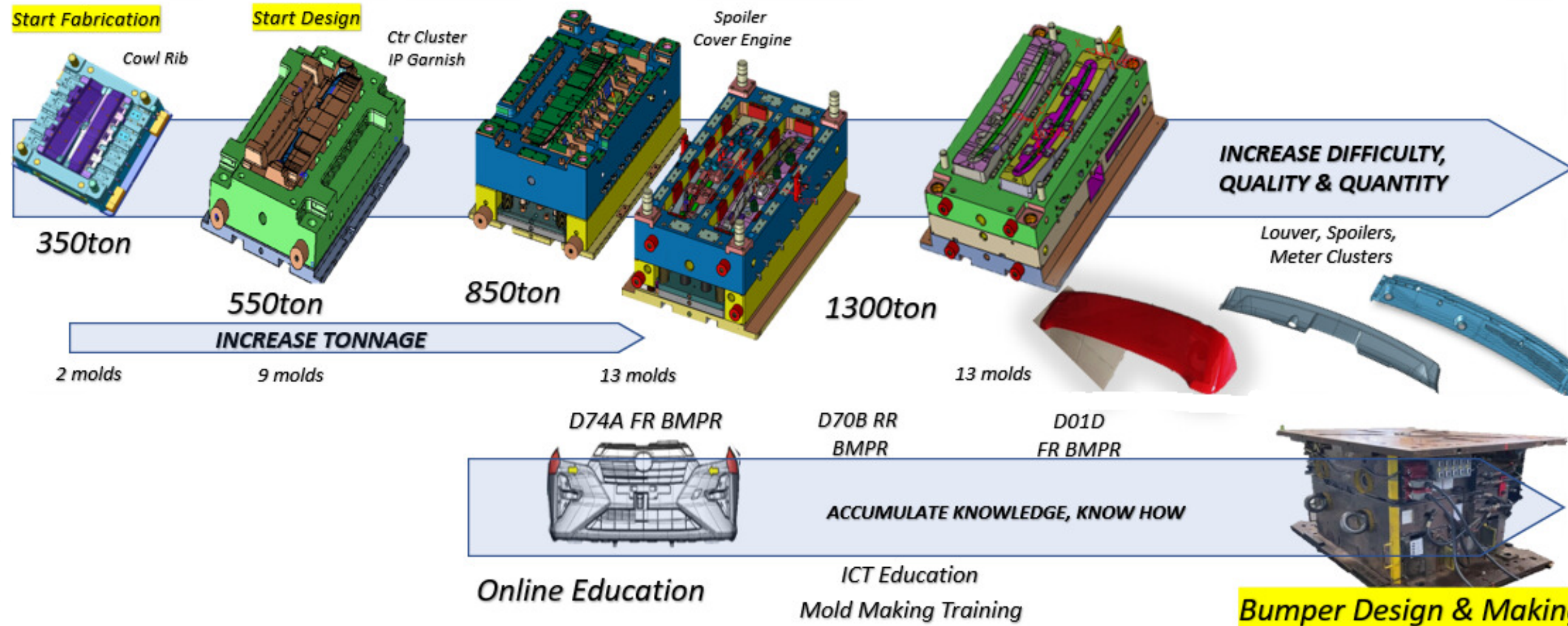
CAD / CAM  
PROCESS DESIGN



MACHINING  
PROCESS  
(CNC, EDM)



FITTING  
&  
ASSEMBLY



INHOUSE DESIGN

23

TOTAL MOLD

CAN  
FABRICATE  
UP TO

1300T

**BENEFITS**

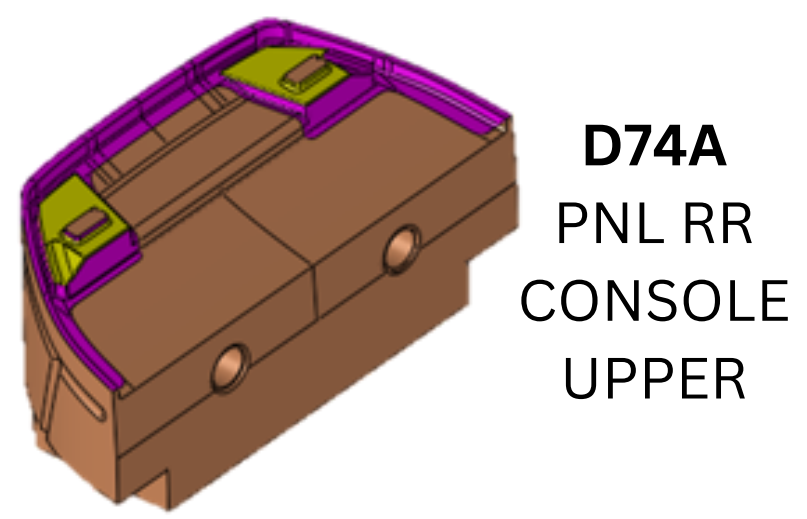
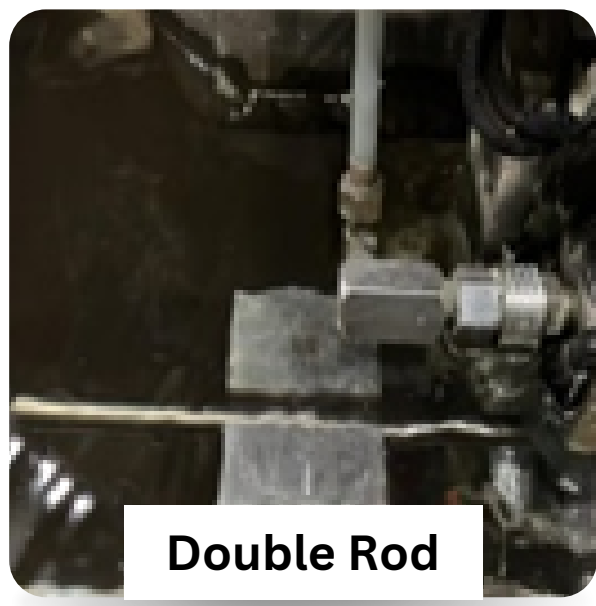
HIGH QUALITY MOLD

DESIGNED FOR SUSTAINABILITY

TECHNICAL SUPPORT

# 4. Spare Parts Fabrication

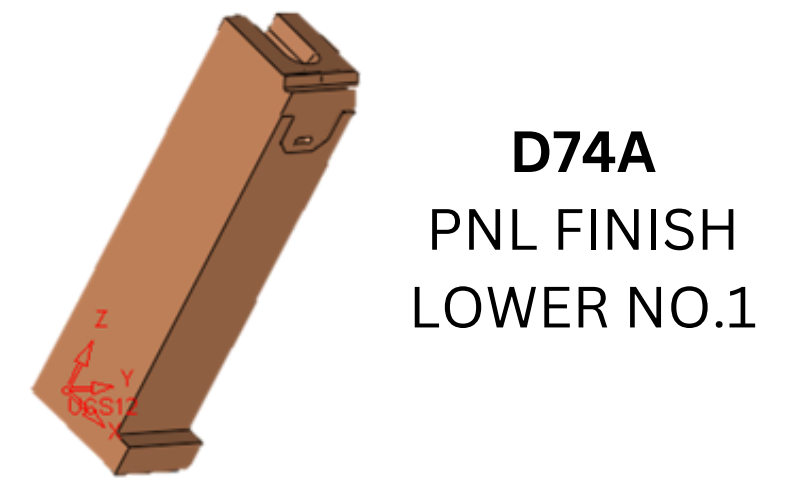
In order to optimizing our machines capacities, our team also contributing in spare parts fabrication for current mass production molds. These are to ensure no major issues during production. This activities run on monthly basis based on request from mold maintenance team.



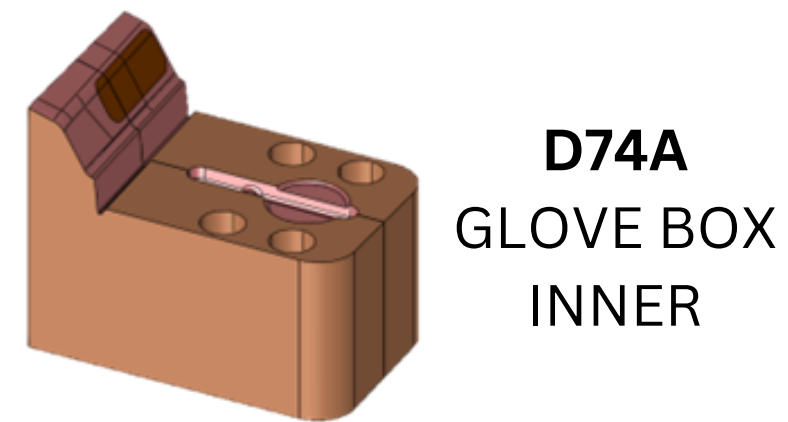
**D74A**  
PNL RR  
CONSOLE  
UPPER



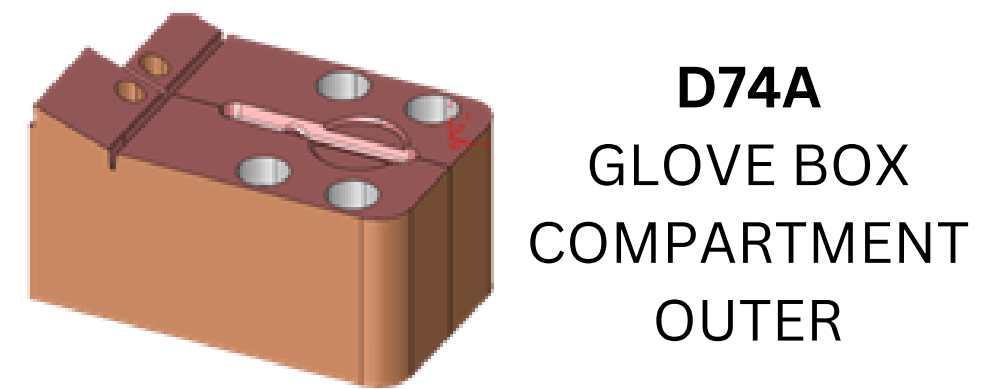
**D74A**  
INSTR PNL  
FINISH  
LOWER



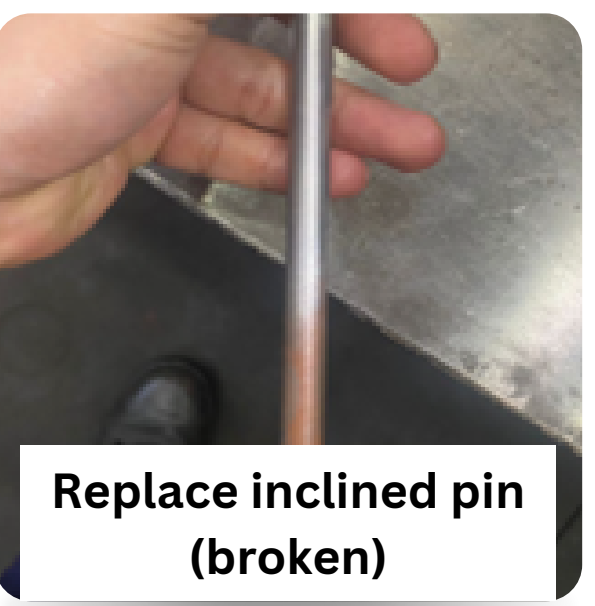
**D74A**  
PNL FINISH  
LOWER NO.1



**D74A**  
GLOVE BOX  
INNER



**D74A**  
GLOVE BOX  
COMPARTMENT  
OUTER



Replace inclined pin  
(broken)



Replace inclined pin  
(broken)



Nozzle tip dented

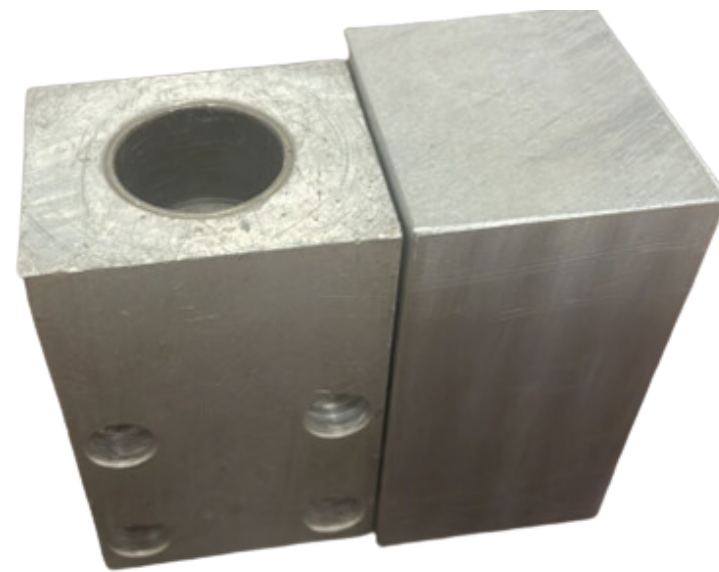
**BENEFITS** FLEXIBLE & VERSATILE COST SAVINGS RAPID RESPONSE

# 5. Jig Fabrication

Our team also involved in jigs fabrication activities especially during new model developments. Most of them are assembly jigs and some of them are tools and machine parts related. By having this activities, it will help us on controlling our cost and reduce delivery lead time.



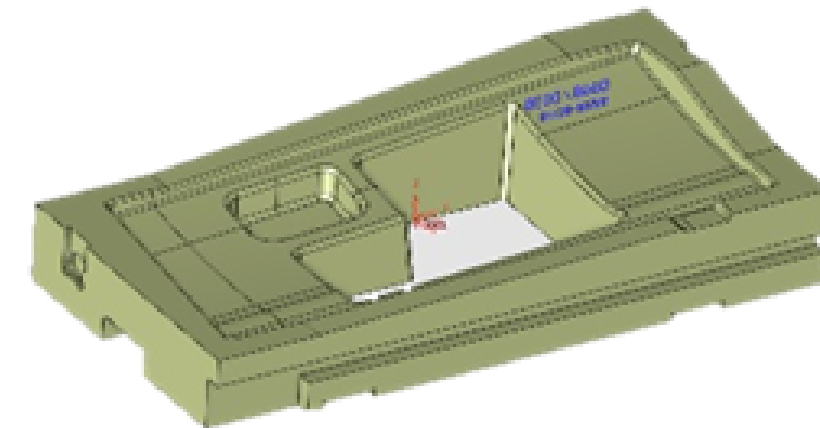
Spacer



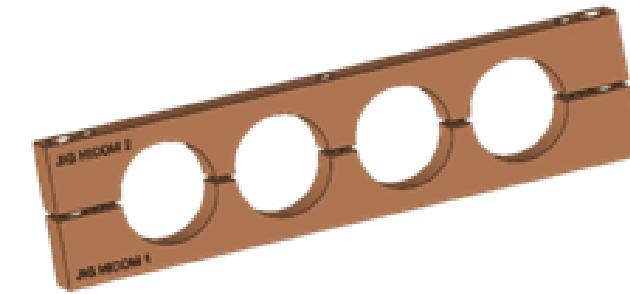
Black Holder Material



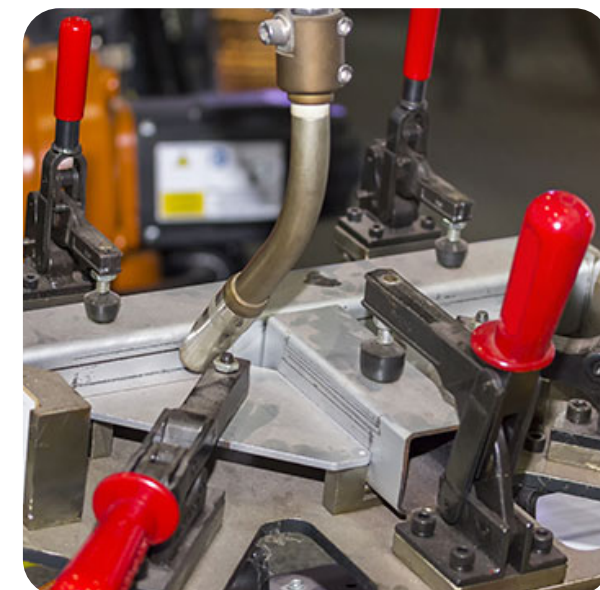
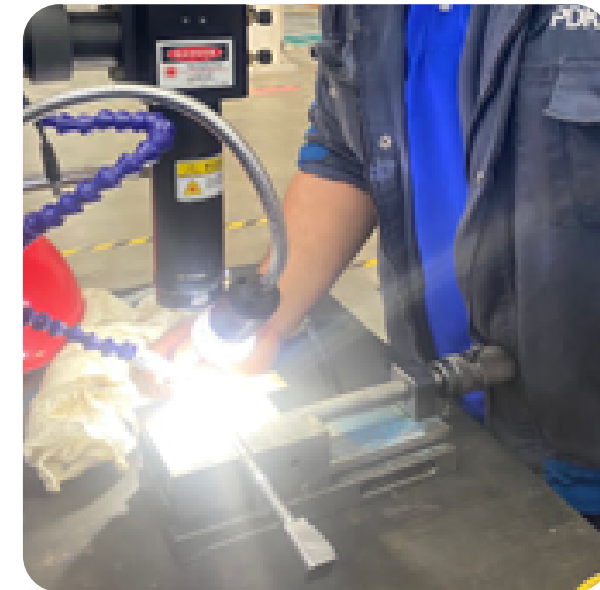
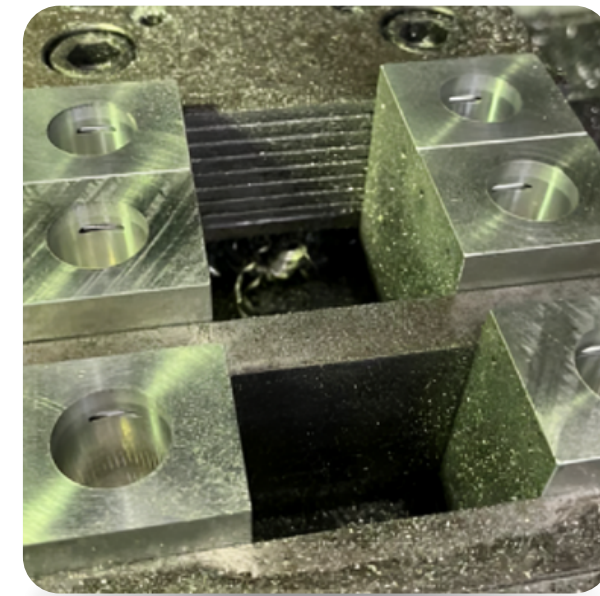
Robot Attachment



Jig Base D66B Glove Box



Jig Hicom - Mold Transfer

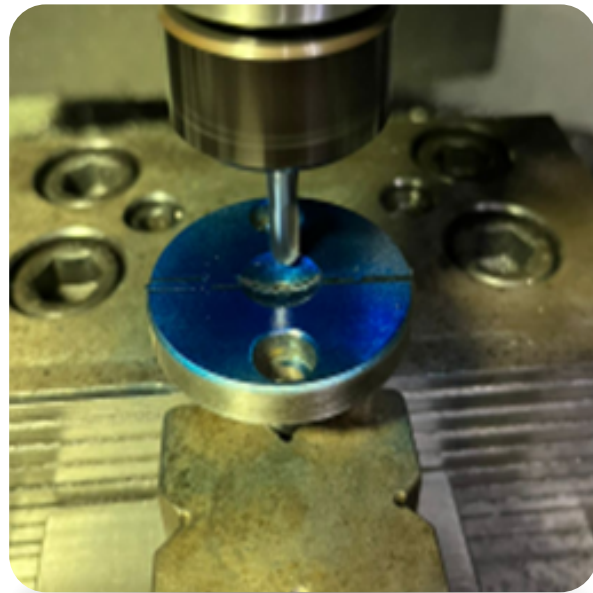
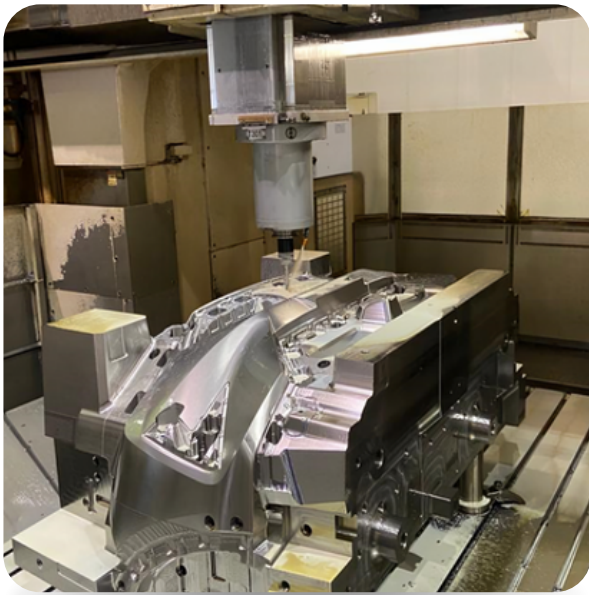
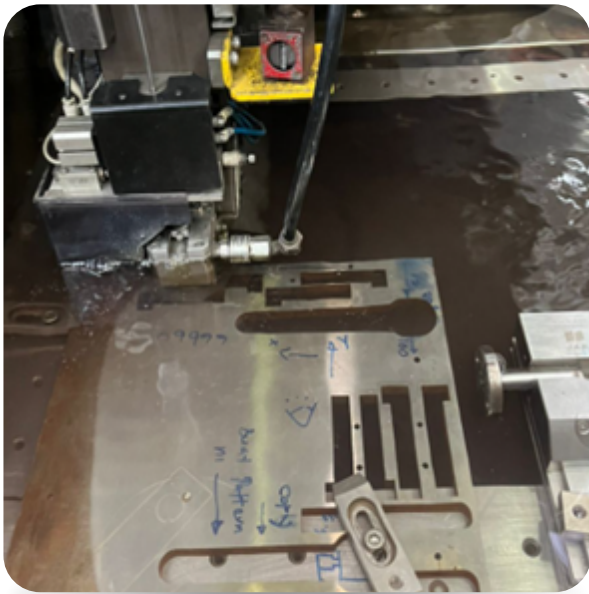


**BENEFITS**

**TECHNICAL EXPERTISE**

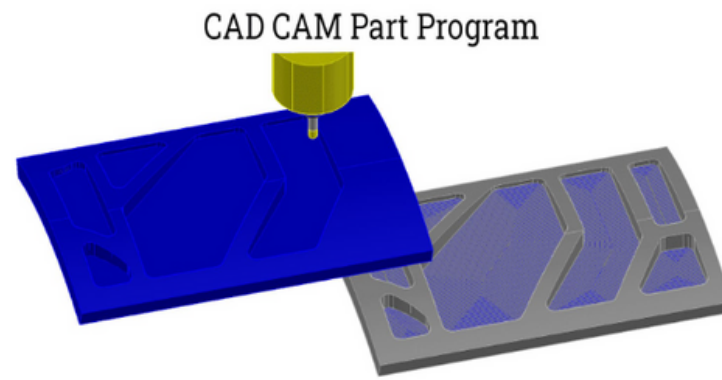
**COST SAVING**

**CONSISTENT ACCURACY**



## 6. Machining Services

Since 2018, PDKM did received request from others company for machining activities. These request came as tuning activities, repairing and improvements. As per now, a lot of request were especially from Perodua-related companies. Some activities also involving with higher education sectors such universities and so on.



Electric Discharge Machines (EDM)

Drilling

Milling



Lathe

CAD,  
CAM,  
CAE

**BENEFITS**

ACCURATE MOLD COMPONENTS

HANDLE COMPLICATED MOLD

# 7. Coaching Program - MMDP

Real Case Study



# PDKM



Custom made training program, focusing on sharing the best practices and systems in PDKM of mold maintenance for the benefits of all



DELLOYD

MOLD MAINTENANCE SUPPORT

# 2019 - 2023

ACCORDINGLY



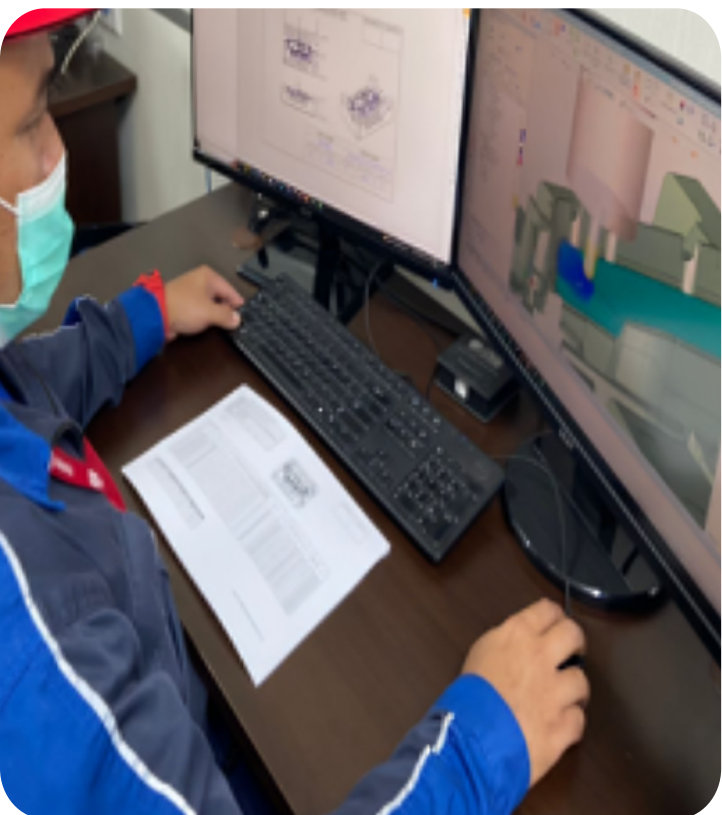
CUSTOMERS



# BENEFITS

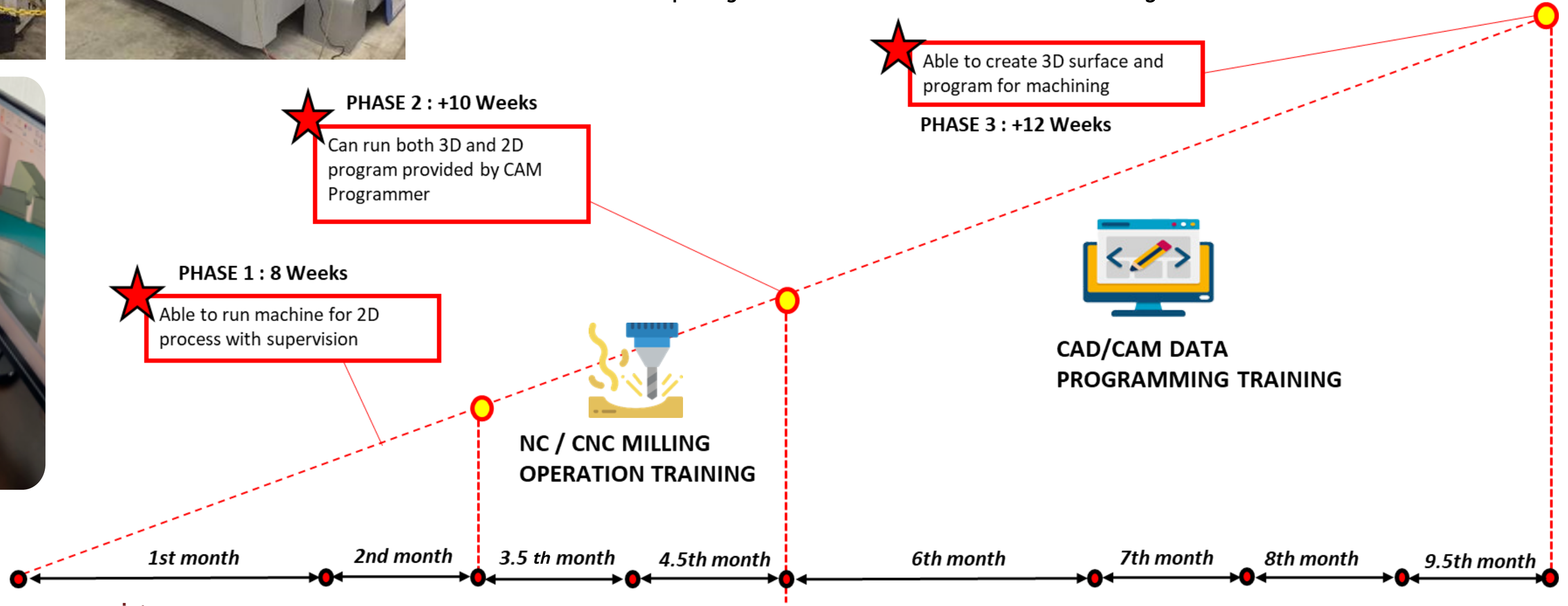
GOOD MOLD MAINTENANCE PRACTICES

HIGH QUALITY PLASTIC COMPONENTS



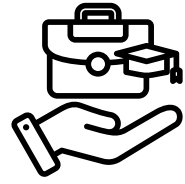
# 8. Coaching Program - CNC/CAM

- Comprehensive CNC machining and CAM training programs
- End-to-end Training Solutions
- Hands-on project based on case study



**BENEFITS** EXPERTS TRAINERS / HANDS-ON TRAINING / CUSTOMIZED TRAINING PROGRAMS

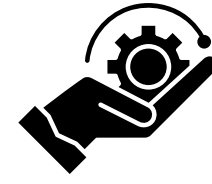
# Other Activities



## INTERNSHIPS



- State-of-the-Art Facilities
- Hands-On Projects
- **Industry Partnerships**



## SHARING KNOW-HOW



- Mold Repair
- Process Improvement
- Tech Sharing
- Mold Troubleshooting
- Die Modification
- Quality Inspection



## SKILL UP TRAINING

### Bumper Mold Design



### Machining & Assembly



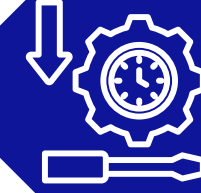
# Our Beliefs

**Good** Maintenance,  
Creates **Good** Mold

**Good** Mold, Creates  
**Good** Product



Increase Mold Lifespan



Reduce Mold Downtime



Increase Production Efficiency



Reduce Part Rejection

# Thank You!



Wahidah Hanazli



011-11859851



wahidah@pdkmsb.com



PDKM, Lot 29139, Locked Bag 222, Sungai Choh,  
48000 Rawang, Selangor