Company introduction

Woosung Precision is one of the best two-shot mold suppliers in the world. We meet our customers' needs by providing optimized two-shot solutions based on our accumulated knowhow and capabilities of producing all the types of two-shot mold in the globe.

We give top priorities to our customers' success. We made the critical contribution to the success of realizing Samsung TOC TV & Monitor design through our Core-index axis two shot solution. In addition, we assisted Samsung Electronics to reduce their injection molding cost and increase in productivity with our TI-mold. We try to make our customers take the No.1 spot in the global market.

History

2015
- Developed Color Form Mold.

2014
- Acquired Injection Supplier Qualification of HYUNDAI and KIA Motors

2013
- New factory built for larger tools manufacturing

2012
- Acquired Mold Supplier Qualification of HYUNDAI and KIA Motors

2011
- Developed TI-TC three-shot Mold first in the world

2010
- Awarded Presidential Commendation for Excellent Capital Goods Development
- Established Branch office, WOOSUNG U.S.A. & Began Business with Delphi(2shot-Toolings)

2009
- Awarded Supplier Distinguished Service Medal from Samsung.
- Established 3rd factory in needs of manufacturing larger tools.
- Developed TI Mold which increases productivity by reducing clamping force

2008
- Set up I-Manufacturing, Collaborative Production System based on the web.
- Acquired TS16949 .

2006
- Began to provide TOC two-shot mold for Samsung Video & Display Division.
- Awarded The Best Innovative Mold Supplier of Year from Samsung.
- Acquired ISO 9002, QS9000.

2004
- Began to provide two-shot mold for Samsung Home appliance Division.
- Established the subsidiary for two-shot injection molding.

2003
- Signed Business partnership with Mouldgroup in Sweden.
- Began to export Fuso-koki in Japan.

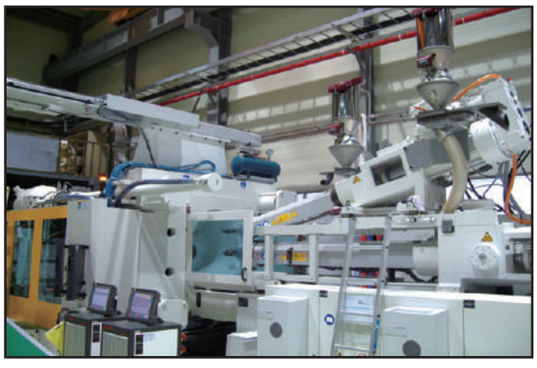
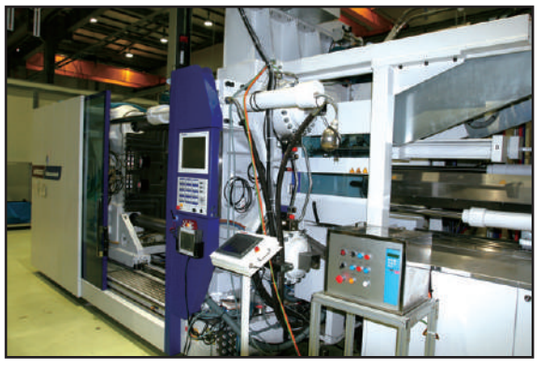
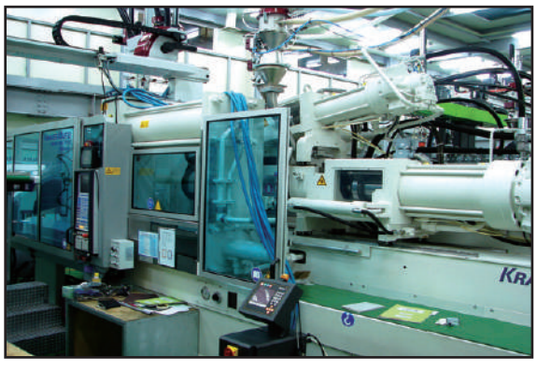
2000
- Began to export to Europe and Japan.

1993
- Founded as a plastic injection mold provider of Samsung Electronics.

[Two-shot molding Machine for Test-run & production]

Maker	Type	Operation	Clamping force	Qty
Krauss Maffei	Two-shot	Spin Form Color form dosing equipment	1300 Tons	1
Krauss Maffei	Three-shot	Turning Inside	1300 Tons	1
Battenfield	Three-shot	Core-index rotation	650 Tons	1
Krauss Maffei	Two-shot	Core-index rotation	650 Tons	3
Krauss Maffei	Two-shot	Core-index rotation	500 Tons	2
ENGEL	Two-shot	Core-index rotation	400 Tons	1
Krauss Maffei	Two-shot	Core-index rotation	350 Tons	1
Krauss Maffei	Two-shot	Core-index rotation	200 Tons	1
BMK	Two-shot	Rotary	120 Tons	1



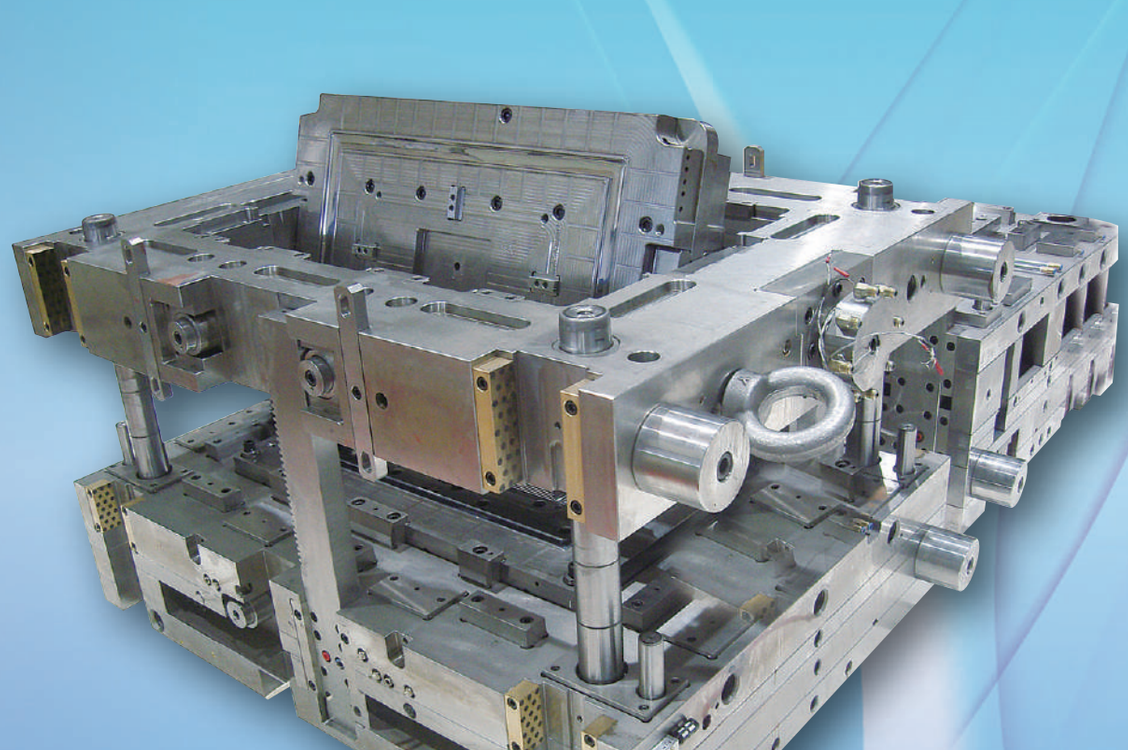

Woosung Precision Co., Ltd.

Head quarters
31, Choemdan venture-ro 60 beon-gil, Buk-gu, Gwangju, Korea
Phone : +82-62-953-8900
Fax : +82-62-953-8910
Email : woosung.us@gmail.com

U.S. Office
2855 Coolidge Highway,
Suite 108, Troy, MI 48084
Email : woosung.us@gmail.com

WOOSUNG PRECISION

The world best Two shot mold supplier



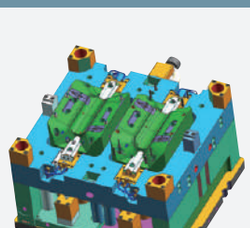
Woosung Precision Co., Ltd.
http://www.newmold.co.kr

We produce all the realizable types of two-shot mold in the world

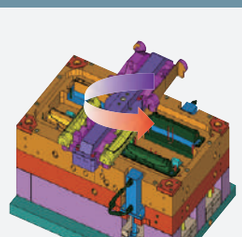
- Two-shot molding is producing multi-material parts composed of different resins or colors in one cycle by means of mechanical movement of rotating cores in a mold.
- Required to use heat-treated steel with high processing accuracy.

【Benefits of two-shot mold】

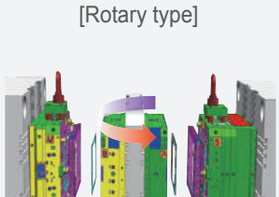
- Diverse choices in design for visible exterior & functional parts.
- Decrease in defect rate of part production by preventing geometry bump, flash & assembly errors.
- Increase in productivity of part production by removing secondary processing steps, coating, gluing, mounting & etc.



[Rotary type]



[Core-index Axis type]



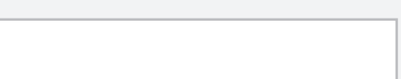
[Spin form type]

[Turning-inside type]

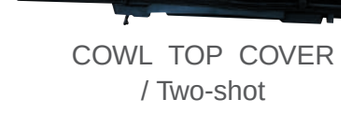
We play key roles to our customers' success

COWL TOP COVER
/ Two-shot

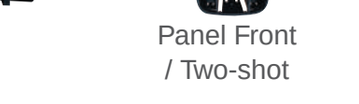
Panel Front
/ Two-shot

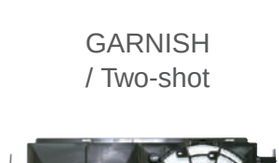


GARNISH
/ Two-shot

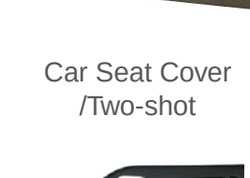


Car Seat Cover
/Two-shot



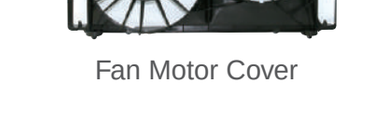


Fan Motor Cover



Door Trim

Bumper Assy



Grille Radiator

Customers

SAMSUNG
HYUNDAI·KIA MOTORS
HYUNDAI MOBIS
AMS 주식회사 캠스 Creative Auto Module System Co., Ltd.
DELPHI
mould group
VOLVO
FUSO MACHINE WORKS,LTD.
HANON SYSTEMS
HONDA
TOYOTA

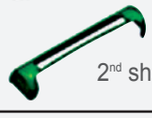
Introduction of Two-shot molds

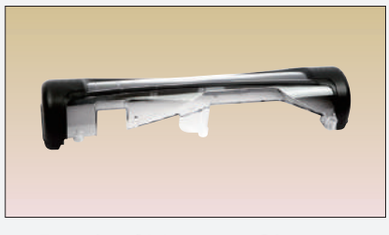
Over mold is the most primitive stage of two-shot molding. It is recommended to choose over-molding if the production quantity is not much, the part geometry is simple or for inside part.
On the other hand, if the part you need is exterior, high volume and complicated, two-shot molding will be better option.

【Figure 1. Over-mold vs. Core-index】

FEATURES	OVER MOLD	TWO-SHOT MOLD
1st show Part transfer	Inserted into the core of 2nd mold by operators or robot actions.	Moved into the 2nd shot core by the rotating index axis in the same mold.
Design versatility	Limited to applicable part geometries and under-cuts.	Much more applicable than over mold because of being able to set up different parting lines of 1st shot and 2nd shot.
Exterior design quality	Flash &bump happen to exterior design parts due to inserting 1st show part into right position of the 2nd mold.	Flash &bump can be extremely minimized because 1st show parts are moved into 2nd shot exactly.

【Figure 2. Case study, NEW CASE-DRUM of Vacuum cleaner】

ITEMS		OVER MOLDING	TWO-SHOT MOLDING
 Completed part	Cavity or molds	One part out / 2molds	Two parts out / 1 mold
	Resin	1st part : PC / 2nd part : TPE	1st part : PC / 2nd part : TPE
	Machine tonnage	650 Ton	Two-shot press 650 Ton
 1st shot part	Cycle time	1st shot : 45sec, 2nd shot : 50 sec	2-shot molding : 47 sec
	Tooling cost	100%	135%
 2nd shot part	Defect rate	7%	5%
	Extra cost	Labor , poor quality & stock cost	Need new two-shot press



Brush of Vacuum Cleaner
Two-shot part

Cover frame, High glossy
Weldless two-shot part

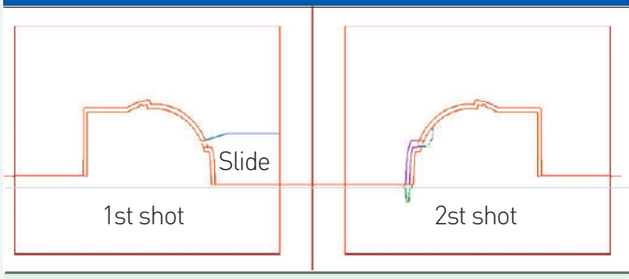
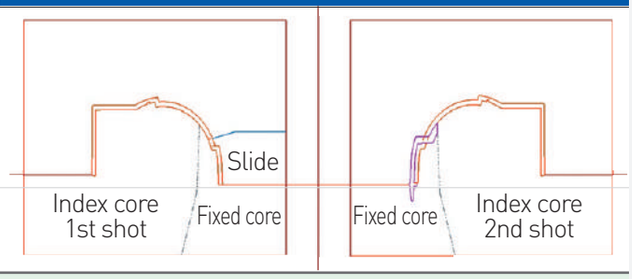
Stand base, High glossy
Weldless two-shot part

Introduction of Two-shot molds

Rotary platen and Core-index type has the similar principle of two-shot molding which is called “rotating”. Both types are mutually complementary to each other when it comes to tooling cost, molding productivity and part feasibility.

You can choose which one you need to use considering part feasibility, initial cost and production infrastructure.

【Figure 3. Rotary vs. Core-index】

ROTARY		CORE-INDEX AXIS
		
1st show part transfer	• Molding 2nd shot by rotating the entire fixed half after injection molding 1st shot part.	• Molding 2nd shot part by rotating the designated part of the core by rotating index axis after injection molding 1st shot part.
Strength	• Cost-effective tooling cost for simple & small parts. • Easy to build cores & ejecting structures.	• More applicable than the other 2shot molds. • Able to mold bigger parts than Rotary type on the same size press. • Good to handle various undercuts &complicated geometries.
Weakness	• Limited to applicable part geometries & under-cuts. • Improper for big parts as it needs a bigger plate of press.	• Not easy to use lifters due to narrow inside space in the mold. • Limited to weight of the core that needs to be rotated.
Usage	• Very useful to make small &simple parts. • Tooling cost is similar to Core-index axis type.	• Good to develop new design concept owing to the versatility. • Powerful to realize exterior and visible parts for value-add.

Temp door / Air handle unit
Two-shot part

Charger coupler / Electric car
Two-shot part

Control Panel/Printer
Weldless two-shot part