



PROJECT AND CONSTRUCTION OF PLASTIC INJECTION MOULDS

«Men, Ideas and technology at work»





A.T.O.S. SRL is the ideal partner in the design and construction of high quality moulds.

Set in San Quirino (PN-Italy), since 2000 we have specialized in the design and construction of moulds for plastic injection.

Our compact and efficient structure, currently made up of 14 employees, allows us to respond quickly to customer needs by creating quality products.

The team makes the difference: we are a compact, competitive and capable team, able to achieve important goals!

We face technical problems with professionalism and a proactive attitude, guaranteeing the quality and reliability of our products. The satisfaction of our customers is achieved thanks to the excellent work of all the staff.

As you will see in this presentation, we do not have a predominant sector of activity. We cover the most different sectors: all the requests of our historical and potential customers are challenges for us, ending with great satisfaction for the results obtained.

Competence, empathy for technology and people, respect for technical and commercial agreements are the foundations of our company.

Our activity is completed with maintenance, repairing and adjustment services, both on moulds produced by us and on third-party ones. We also carry out precision machining of any type.

“MEN, IDEAS, TECHNOLOGY AT WORK”

Our motto thus summarizes the union among the human intellect, ideas and technology aimed to achieve always increasingly exciting goals.

www.atositalia.com



FIELDS of activity:

- AUTOMOTIVE INDUSTRY
- LIGHTING
- HOUSEHOLD APPLIANCES
- SPORT AND FREETIME
- TELEPHONY
- FASTENING INDUSTRY
- PACKAGING
- OFFICE
- INDUSTRIAL TRANSPORT
- TECHNICAL PIECES
- HIGHLY AESTHETIC PIECES
- MEDICAL
- RUBBER



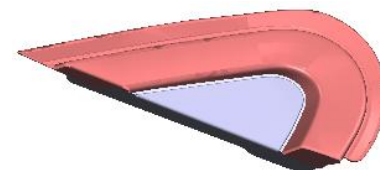
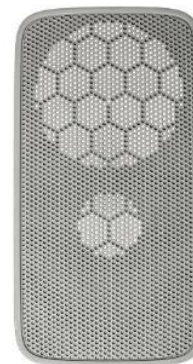
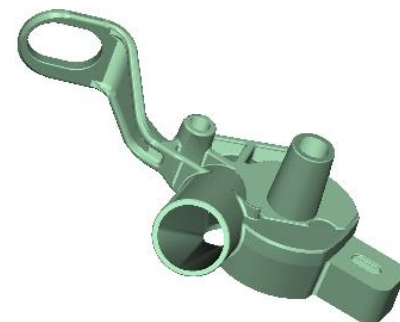


OUR TECHNOLOGY

- 2K, 3K
- AIR MOULDING
- MOULD DECORATION
- TECHNIC
- AESTHETIC

FOR THE FOLLOWING PIECES:

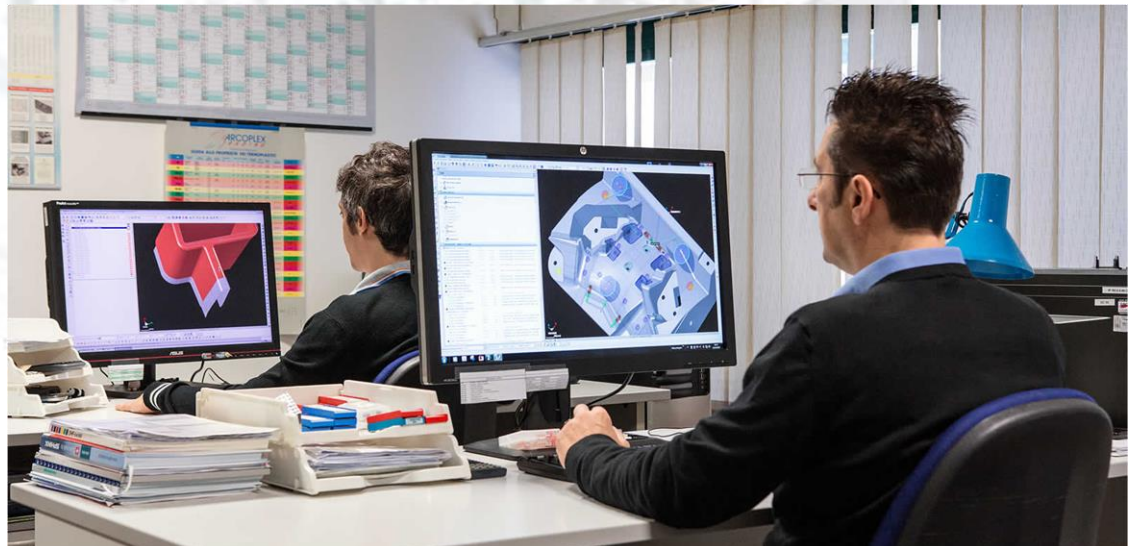
- HIGHLY AESTHETIC
- AESTHETIC
- TECNIC
- CHROMED
- LACQUERED
- WITH COMPLEX GEOMETRIES



MOULD CONSTRUCTION

We use several programmes and software systems:

- CATIA
- WORKNC
- Other Software- and Design-Systems





TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection:

Sliders and angled

lifter:

Injection type:

Surface:

HIGHLY AESTHETIC TOOL

CHROME FRAME

PC-ABS

1

mm. 696 x 1326 x 884

50 HRC quenched steel

round ejectors

no. 29 ejection movements

hot runner and no. 3 closed nozzles

mirror polish finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection:

Sliders and angled lifter:

Injection type:

Surface:

TECNICAL TOOL

FILTER (Ø 0,8 mm holes)

PA 66

4

mm. 546 x 546 x 520

50 HRC quenched steel

double ejection with bolts and round ejectors - Ø 1 mm.

no. 4

Hot runner and no. 8 nozzles direct on piece

VDI/CH24 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

VERTICAL

RESONATOR

>PP-GF40%<

4

mm. 696 x 996 (1780) x 757

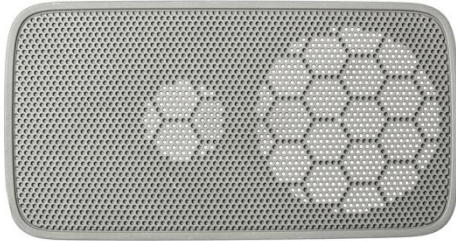
quenched steel 50 HRC

mechanic

no. 4 mechanic + No. 2 hydraulic

hot runner with no. 4 close nozzle direct on part

VDI/CH27 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

REVERSE TOOL

LOUDSPEAKER

PP T20

2

mm. 496 x 696 x 790

50 HRC quenched steel

hydraulic through round ejectors

No. 8 mechanic movements

hot runner with no. 4 injection points – valve gate
directly on piece

VDI/CH24 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

2K, ROTARY TOOL (rotary table Ø 850)

SEPARATION COMPONENT

PA GF10% + TPU

1+1 (1+1)

mm. 696 x 696 x 595

50 HRC quenched steel

mechanic through round ejectors and inserts

no. 12 third plate ejection movements on cavity side

hot runner with no. 2 closed nozzles; hot runner with no. 1
open flow nozzle

photo engraving finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection:

Sliders and angled lifter:

Injection type:

Surface:

2K / CUBE TECHNOLOGY

PILLAR COVER

ABS-PC + PMMA

2+(2 finished)

mm. 746x946x851 (x2)

50 HRC quenched steel

hydraulic with round and sleeve ejectors

4+4 double hydraulic movements

2+2 ejector movements

ABS + PC: hot runner with 3+3 closed nozzles

PMMA: hot runner with 1+1 closed nozzles

Mirror polish finishing





TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface (cavity and core side):

AESTHETIC

FILTER

PS / SAN

1

mm. 446 x 496 x 687

50 HRC quenched steel

mechanic

no. 2 mechanic movements + no. 1 with spring in cavity side

hot nozzle direct on piece

mirror polish finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface (cavity and core side):

AESTHETIC

DISPENSER DOOR

PC

1

mm. 546 x 546 x 481

52 HRC quenched steel

mechanic with ferrule

no. 1 mechanic

ot runner with no. 1 nozzle

mirror polish finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection:

Sliders and angled lifter:

Injection type:

Surface:

TECHNICAL

CLASP

PA6

4

mm. 196 X 396 X 267

50 HRC quenched steel

mechanic through round ejectors

0

cold runner and fan gate

VDI/CH22 eroded finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection:

Sliders and angled lifter:

Injection type:

Surface:

TECHNICAL

SKI-BOOT LEVEL

PC-ABS

2+2

mm. 196 X 296 X 235

quenched steel 48 HRC

mechanic through round ejectors

no. 1 hydraulic

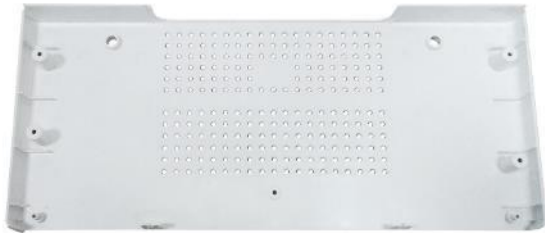
cold runner and tunnel gate

sand paper 800 finishing

ATOS



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TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

OFFICE

KEYBOARD

ABS

1

mm. 446 x 496 x 390

hardened steel

mechanic through round ejectors

0

hot runner with 2 nozzles and submarine

Sand paper 1000 finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface (cavity + core side):

TECHNICAL

GUIDE FOR RESIN CASTING

PA6 GF30%

1

mm. 366 x 896 x 627

46-48 HRC quenched steel

mechanic through round ejectors

hydraulic unscrewing mechanism and slider

hot runner with no. 2 valve nozzles + tunnel gate

polish finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

AESTHETIC

TIMER CAP

ABS

2

mm. 346 x 446 x 380

hardened steel

mechanic through ferrule

no. 2 sliders

no. 1 nozzle + tunnel gate on slider

sand paper 1000 finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

TECHNICAL

SHOWER CONNECTION

POM

2

mm. 246 x 446 x 300

quenched steel 48 HRC

mechanic through ferrule

no. 2 cavity-side movements

hot runner and no. 2 nozzles and tunnel gate

VDI/CH37 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

LIGHTING

LIGHT BODY

PC

1+1

mm. 646 x 670 x 557

50 HRC quenched steel

mechanic through round / tubular ejectors and ferrule

no. 2 core-side inserts - polished

hot nozzle and fan gate

mirror polish finishing





TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface (cavity + core side):

LIGHTING

LIGHT GUIDANCE

PC

2

mm. 296 x 296 x 390

50 HRC quenched steel

mechanic through round ejectors

no. 4 mechanic core-side movements

hot nozzle and fan gate

mirror polish finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

IN MOULD DECORATION

CELL PHONE

PC on thermoformed and silk screen printed film

1

mm. 346 x 346 x 380

50 HRC quenched steel

mechanic through round and blade ejectors

no. 4 mechanic movements

angled cold runner and tunnel gate

mirror finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Surface:

IN MOULD DECORATION – OVER-INJECTION

LID

PC on silk screen printed film

2

mm. 346 x 446 x 335

50 HRC quenched steel

mechanic

no. 1 hydraulic movement

mirror finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders, angle lifter:

Injection type:

Surface:

VERTICAL

LOWER HOUSING

ABS < Luminous LX-0971 PMG668 + 2% Batch

1

mm. 750 x 350 x 500

48 HRC quenched steel

round, blade ejectors and Cumsa insert

no. 1 hydraulic movement with closed tool

Injection through two tunnel gates on ejector

Mirror polish finishing

ATOS



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TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

MULTI-CAVITY

DOWEL

PP

64

mm. 446 x 746 x 520

50 HRC quenched steel

mechanic through round ejectors

no. 4 mechanic movements

hot runner with no. 8 nozzles on sprue

VDI/CH26 erosion finishing



Peculiarities:

Cycle time shorter than 9"

production: 125.000.000 pcs/year





TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

AIR MOULDING

HANDLE

PPT20

1

mm. 646 x 746 x 646

quenched steel

mechanic + ferrule+ ejectors

no. 2 mechanic + 1 ejector

hot runner with 1 close nozzle

VDI/CH26 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

REVERSE TOOL

LID

PE-HD

1

mm. 746 x 896 x 650

hardened steel

hydraulic

no. 8 ejection movements

no. 1 hot valve gate nozzle

photo engraving + mirror polish finishing



TYPE OF TOOL

NAME

Plastic material:

Number of cavities:

Tool dimensions:

Tool material:

Ejection:

Sliders and angled lifter:

Injection:

Cavity:

INDUSTRIAL TRANSPORT SYSTEM

TRANSPORT MODULE

PA66

8

mm. 846 x 956 x 640

50 HRC quenched steel

hydraulic with cylinders

no. 16 core-side hydraulic sliders

hot runner with 8 closed nozzles

VDI/CH24 erosion finishing



TYPE OF TOOL

NAME

Plastic material:

Number of cavities:

Tool dimensions:

Tool material:

Ejection:

Sliders and angled lifter:

Injection:

Cavity:

INDUSTRIAL TRANSPORT SYSTEM

TRANSPORT MODULE

POM

4

mm. 546 x 996 x 540

50 HRC quenched steel

hydraulic

no. 8 core-side hydraulic sliders

no. 4 ejection movements

hot runner with 2 closed nozzles

VDI/CH24 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

2K, Ø 520 ROTARY TOOL

SEALING CAP

PP + EPDM

4+(4) finished

mm. 396 x 396 x 460

hardened steel 50 HRC

mechanic through round ejectors

4 cavity side movements (mechanic + spring)

PP: hot runner with 2 valve gate nozzles

EPDM: hot runner with 2 valve gate nozzles

VDI/CH27 erosion finishing



TOOL TYPE

ARTICLE

Plastic material:

Number of cavities:

Tool sizes:

Tool material:

Ejection type:

Sliders and angle lifter:

Injection type:

Surface:

AESTHETIC

SUPPORT

>ABS<

1

mm. 596 x 596 x 610

hardened steel

mechanic + ferrules

no. 4 ejection movements

Hot nozzle

Photo engraving finishing

Examples of rubber pieces produced with moulds built by us:

SCHEATH



USB STOPPER



GASKETS



2K (PLASTIC+RUBBER)



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Thank you for your attention!



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