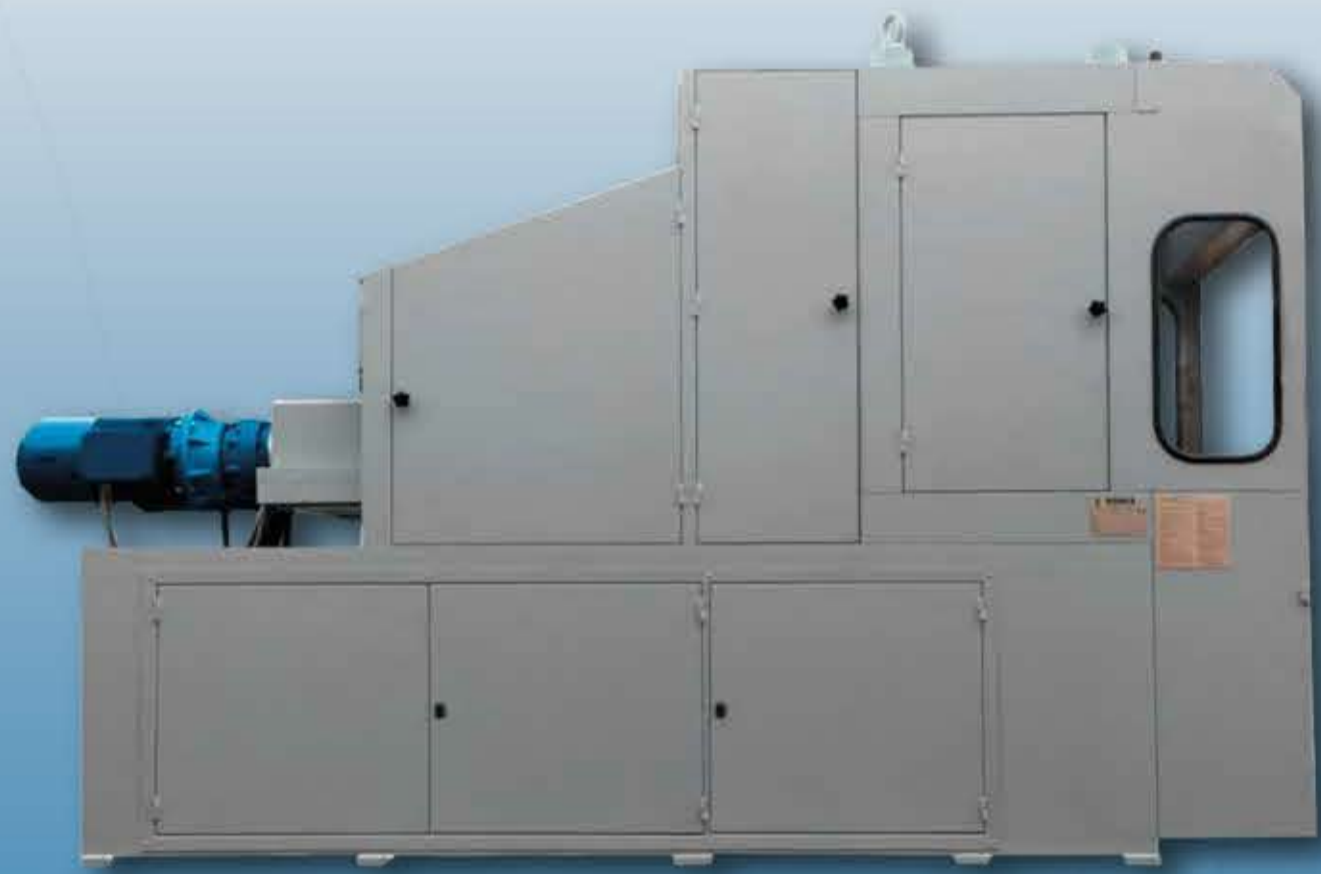


ELASTIKA 260
INJECTION MOLDING MACHINE

ELASTIKA is an injection molding machine for processing natural rubber, synthetic rubber (EPDM, SBR, NBR), liquid silicones (LSR), thermosetting resins, EVA, etc. Its basic version has got two completely independent workstations with 250 mm distance between bottom and top parts of the mold. The bottom part of the mold moves horizontally by 450 mm to facilitate the extraction of vulcanized items.

The main feature of this machine is the fixed-position injector endowed with alternated cooling and heating zones to achieve an accurate temperature control in the pre-vulcanization phase.

Each hydraulic cylinder directly works on the mold with an adjustable clamping force variable from 1500 to 2600 kN. By this way, when using molds of different height, no height adjustment is required for the press group. ELASTIKA can be fitted on demand with a number of workstations, variable from two up to six.



Since 1996 Konia has been developing innovative engineering solutions in many different industrial fields. Starting from small hydraulic equipments and growing in the market of customized high-performances industrial machines, we gained our clients' trust all over Italy and abroad.

We own flexibility and know-how to satisfy a really wide spectrum of needs and requests.

We are here glad to present our range of extrusion and injection molding machines for rubber and plastic materials. Ideal for manufacturing different types of products, including shoe soles, technical items and accessories, they are all characterized by a high productivity rate, low maintenance and outstanding reliability. They are all ready to perform.



MOLDING MACHINES
CATALOGUE



K2 All-in-one
FULLY ELECTRIC MOLDING MACHINE

Our flagship K2 is a FULLY electric molding machine for processing natural rubber, synthetic rubber (EPDM, SBR, NBR), liquid silicones (LSR), thermosetting resins, EVA, etc. The electric-hydraulic cylinder of the press unit directly works on the mold with an adjustable clamping force variable from 1500 up to 2600 kN.

K2 All-in-one can work as one workstation for one-colored items or one workstation for two-colored items. The two-colored molding modality is possible thanks to the exclusive software installed on the machine.

This one can optimally control the three most important molding parameters (pressure, time, temperature) in the mold, in the injector and in its nozzle. By this way, it is able to manage pre-vulcanization and vulcanization steps of the two colors in order to get the best adhesion between the two materials. With the touch-screen display/control panel, all the machine functions are available in a clear and easy format. From the same device, of course, the operator can monitor working parameters in real time: remote control is available as an option.

- Key features:
- High reliability and low maintenance
 - High speed and efficiency
 - Low consumption, low power installed, high energy saving (-80%) compared to traditional non electric machines
 - Low noise emission
 - Maximum precision with possible remote control of molding parameters
 - Press unit covered by European patent



KONIA s.r.l. - Via Enrico Malintoppi, 12 - 63900 - Fermo (FM) - ITALY
Tel: +39 0734 605066 - Fax: +39 0734 664513 - Web: www.konia.it - E-Mail: info@konia.it

KONIA s.r.l. - Industrial plants and machines - Customized devices
Automation and robotization - Handling and delivering equipment



DUPLEX 210
INJECTION MOLDING MACHINE

DUPLEX 210 is an injection molding machine with two completely independent workstations for processing rigid, flexible, compact and expanded thermoplastic materials as TR, PVC, TPU, Polystyrene, etc.

- Two workstations for one-colored items
 - One workstation for two-colored items
- It is possible to choose the way DUPLEX 210 works simply using a switch: by doing that, the machine automatically converts its production cycle.

One of the main technical features is that the bottom part of its mold just moves horizontally (the top part is provided with frontal opening): this means no more accidental movements of objects like pins, welts, leather strips and small metal parts previously placed in the mold (as it occurs instead with a machine with mobile mold) and no more continuous wear of injection nozzles and of the inlet hole of the mold.

The top part of the mold opens frontally, rotating by 75°, allowing the operator to easily load welts and inserts. Clamping force 210 ton.



MONO 3-210
INJECTION MOLDING MACHINE

MONO 3-210 is an injection molding machine with three completely independent workstations for processing rigid, flexible, compact and expanded thermoplastic materials as TR, PVC, TPU, Polystyrene, etc. to produce one-colored items.

One of the main technical features is in its mold with fixed bottom part (the top part is provided with frontal opening): this means no more accidental movements of objects like pins, welts, leather strips and small metal parts previously placed in the mold (as it occurs, instead, in a machine with mobile mold) and no more continuous wear of injection nozzles and of the inlet hole of the mold.

The top part of the mold opens frontally, rotating by 75° (90° on request), allowing the operator to easily load welts and inserts.

Also available as **EXTRUSION** molding machine.

MONO 3-100



MAXIMA 3-210
INJECTION MOLDING MACHINE

MAXIMA 3-210 is an injection molding machine for processing thermoplastic materials, incorporating leading-edge technology which ensures matchless production of articles in three colors.

It is possible to process rigid, flexible, compact or expanded thermoplastic materials, as TR, PVC, TPU, Polystyrene, etc. The top part of the mold opens frontally, rotating by 75°, allowing the operator to load easily welts and inserts.

One of the main technical features is that its mold bottom part just moves horizontally (the top part is provided with frontal opening): this means no more accidental movements of objects like pins, welts, leather strips and small metal parts previously placed in the mold (as it occurs instead with a machine with mobile mold) and no more continuous wear of injection nozzles and of the inlet hole of the mold.

MAXIMA 3-210 can handle discontinuous productions (semi-automatic, i.e. with the aid of an operator) or continuous productions (automatic, i.e. without operator) thanks to the sprues automatic extraction module and to the automatic material loading system (available on request). The MAXIMA 3-210 can also be used with molds designed for every other type of machine.

Also available as **EXTRUSION** molding machine.

MAXIMA 3-100

DUPLEX 100
EXTRUSION MOLDING MACHINE

The new Duplex 100 is an extrusion molding machine which allows the production of items with rigid, flexible and compact thermoplastic materials as TR, PVC, Polystyrene, etc. (but not TPU).

All movements inside the machine are hydraulically operated as well as the closure press system that is composed of two direct action press cylinders (with a closure force of 100 Ton).

The injection is done with two electric motors, each coupled with a mechanical gearbox and with an inverter to supply 80-250 rev/min.

New Duplex 100 is a very compact machine, easily transportable, not expensive thanks to the fact that both the electrical and hydraulic control boxes are placed inside the machine itself.

DUPLEX 210RE + DUPLEX 100RE

The robotized version of DUPLEX machine is available on demand, both as DUPLEX 210RE robotized INJECTION molding machine and as DUPLEX 100RE robotized EXTRUSION molding machine.



COMMON FEATURES OF EXTRUSION AND INJECTION MACHINES

The main hydraulic pump is driven by an electric servomotor to ensure minimum energy consumption, maximum life of hydraulic oil, minimum environmental noise level and minimum use of coolant. Plasticization of the thermoplastic resin is operated by an electric servomotor coupled with a planetary gear unit with variable output speed, enabling the processing of different thermoplastic materials, according to their own characteristics.

The combination of the above mentioned electric drives allows to perform simultaneously the plasticization phase of one injection unit and the injection phase of another station: this means very short cycle time and high output rate. Electric switchboard and hydraulic power unit are placed inside the case of the machine to make it as compact as possible: this does not affect at all easy access for maintenance operations.

A touch-screen display/control panel makes the machine user friendly and the operator is also able to monitor all the processing parameters in real time. Remote control is available on request.

STANDARD EQUIPMENT

- Electronic operation with microprocessor
- Energy saving hydraulic pump
- Cooling device with flow regulators for bottom and top mold holders
- Mold closure system without adjustment
- Tived device for blowing air in the mold
- Extrusion driven by electric motor coupled with three speed mechanical gearbox
- End-of-injection sensor with double microswitch
- Timed kickback
- Soles automatic ejection device
- Sprues automatic extraction device
- Touch screen display/control panel
- CE certified safety guards

EXTRUSION EXCLUSIVE FEATURES

Each hydraulic cylinder directly works on the mold with a clamping force up to 1000 kN. This means that, when using molds of different height, no adjustment is required for the press group.

The extrusion modality is operated by electric motors; each of them is driven by inverter to supply a variable speed from 80 up to 250 rpm: this enables processing of different thermoplastic materials, according to their own characteristics.

- For each model, technical differences between injection and extrusion machines are:
- Extrusion process
 - Clamping force
 - Electric three-phase motors

KONIA RESERVES THE RIGHTS TO CHANGE AT ANY TIME TECHNICAL DATA, SPECIFICATIONS AND PICTURES DESCRIBED AND SHOWN IN THIS PUBLICATION. ALL RIGHTS RESERVED. REPRODUCTION IN WHOLE OR PART OF THIS BROCHURE WITHOUT KONIA'S WRITTEN PERMISSION IS FORBIDDEN. VALID FROM FEBRUARY 2015.

MODEL NAME TYPE	MONO 3 210	MAXIMA 3 210	DUPLEX 210	ELASTIKA 260	MONO 3 100	MAXIMA 3 100	DUPLEX 100
	INJECTION				EXTRUSION		
CLAMPING FORCE	1500 - 2100 kN		2600 kN		1000 kN		
MAX MOULD DIMENSIONS	340x400 mm		340x400 mm		340x400 mm		
MOULD HEIGHT	70 - 150 mm		70 - 150 mm		70 - 150 mm		
DISTANCE BETWEEN TIE BARS	550 mm		550 mm		550 mm		
INJECTION SCREW DIAMETER	55 mm		55 mm		65 mm		
L/D RATIO	22		22		15		
SCREW ROTATION SPEED	80 - 230 RPM		80 - 230 RPM		80 - 250 RPM		
SCREW MAX TORQUE	550 Nm		550 Nm		650 Nm		
CALCULATED INJECTION VOLUME	620 cm³		620 cm³		N/A		
CALCULATED EXTRUSION VOLUME	N/A		N/A		750 cm³		
MAX INJECTION SPEED	70 mm/s		47 mm/s		N/A		
MAX INJECTION FLOW RATE	165 cm³/s		100 cm³/s		N/A		
INJECTION PRESSURE	1100 Kg/cm²		1800 Kg/cm²		N/A		
EXTRUSION PRESSURE	N/A		N/A		400 Kg/cm²		
NUMBER OF INJECTORS	3		2		2		
NUMBER OF EXTRUDERS	N/A		N/A		3		
HEATING ZONES FOR EACH INJECTOR	4		3		N/A		
HEATING ZONES FOR EACH EXTRUDER	3		N/A		3		
HEATING POWER FOR EACH INJECTOR	3.5 kW		2.5 kW		N/A		
HEATING POWER FOR EACH EXTRUDER	N/A		N/A		3.2 kW		
POWER OF PLASTICIZATION UNIT/RPM	7.5 kW / 960		11 kW / 960		N/A		
POWER OF EXTRUDER UNIT/RPM	N/A		N/A		11 kW / 960		
DRIVE POWER HYDRAULIC UNIT	15 kW		15 kW		11 kW		
LOWER EJECTORS	STANDARD		STANDARD		STANDARD		
EJECTOR STROKE	100 mm		100 mm		100 mm		
EJECTOR FORCE	15 kN		15 kN		15 kN		
ELECTRICAL CONNECTION	42.5 kW		42.5 kW		42.5 kW		
OPERATING POWER	< 25 kW		< 25 kW		< 25 kW		
WEIGHT	9300 Kg		9300 Kg		5200 Kg		
LENGTH	3400 mm		3400 mm		3400 mm		
WIDTH	2300 mm		2300 mm		1700 mm		
HEIGHT	2100 mm		2100 mm		2050 mm		
PRODUCTION RATE (depending on material)	130 - 230 pairs/h		ON REQUEST		120 - 210 pairs/h	20 - 60 pairs/h	80 - 140 pairs/h
UPPER EJECTORS	ON REQUEST		ON REQUEST		ON REQUEST		
EJECTORS STROKE	30 mm		30 mm		30 mm		
EJECTOR FORCE	15 kN		15 kN		15 kN		



Technical specifications