

SPANISH MANUFACTURING EUROPEAN TECHNOLOGY



Serie **iS** injection moulding machines

ARTISAN ENGINEERING WITH MAXIMUM PROFITABILITY

DESIGNED AND MANUFACTURED IN SPAIN WITH EUROPEAN COMPONENTS

The team at Itoplas Engineering designs and manufactures each of the injection moulding machine elements, including the electrical and hydraulic parts and the electronic system, to ensure a more stable and controllable injection.

Our engineers, with extensive experience in the plastics industry, apply their craftsmanship and expertise to each of the products they develop, helping to reach a ratio value for money unbeatable.

High tonnage spanish injection machines.

STURDY AND REPETITIVE MACHINES STATE OF THE ART TECHNOLOGY

The iS injection moulding machine series incorporates our own developed technology, which allows each machine to achieve its maximum possible performance.

Thanks to the itoSave energy saving system, the iS series machines achieve consumptions up to 80% lower in comparison with traditional motors.

In addition, the integrated itoControl system grants stable and repetitive cycles through the most intuitive user interface.

Increase your performance, decrease your costs.

GREAT RANGE OF STANDARD EQUIPMENT A SOLID CHOICE FOR THE FUTURE

The iS series include a wide range of standard options. Its versatility and adaptability is combined with the availability of standardized replacement parts, as well as continuous updates to the itoControl system software and a technical support department made up of industry experts at the disposal of our customers.

This combination of human and technical resources results in a machine permanently updated and adjusted to your requirements.

To invest in Itoplas is to commit to the future.

DESIGNED AND MANUFACTURED IN SPAIN

CUSTOM SOLUTIONS AND TURNKEY PROJECTS

Itoplas is the only distributor of injection moulding machines which designs and manufactures its products in Spain, providing engineering solutions with European performance and ensuring maximum quality through local production. Each of our products is developed with exclusive dedication, creating a specific solution for each of our customers, adapting our experience to all your needs.

Thanks to manufacturing in our own facilities, we can easily adapt to the exclusive needs of each customer, creating fully customized solutions or adapting our series standards to specific needs. Itoplas proposes a craftsman engineering, made to measure, to provide their customers with maximum profitability.

Our long experience in the plastics sector gives us the ability to design integral solutions for the manufacturing of any kind of plastic product, covering the cycle of production, from the design of the part, manufacturing requirements analysis and construction of the production line until delivery of the finished product for your logistic management.

Local, innovative high-end products.



TECHNICAL MATERIALS

ADVANCED INJECTION CAPABILITIES

For the transformation of technical materials, Itoplas Engineering's injection moulding machines include as part of their standard equipment bimetallic screws and injection systems such as the part filling through pressure transducers in the mould, in the chamber or in the hydraulic circuit.

They also have available surveillance systems to control the injection pressure and prevent exceeding the security limit, ensuring that neither the mould nor the hot runner chamber are damaged. One of Itoplas' controller standard features is the option to inject in stages, used to avoid bursts in the sprue entry with materials such as:

- PVC (Polyvinyl Chloride)
- PC (Polycarbonates)
- POM (Homo and copoly acetates)
- Acrylic resins: PMMA (Normal and high impact polymethacrylate), SAM, ASA.
- MBS (Copolymers)
- Polyamides: PA/6, PA/66 with nylon charges and glass fiber.
- Acetal resins: PPO, PPS, PPSU

Unsurpassed productivity, even with the most complex materials.

ECONOMICAL AND COST EFFECTIVE

ALL THE PRODUCTIVITY AT THE LOWEST COST

All our machines use low consumption servomotors. This translates into savings up to 80% in comparison with machines equipped with traditional motors. Thanks to the optimized design of the hydraulic systems, together with the performance of the servomotors, oil temperature increments are reduced to room temperature, reducing cooling costs dramatically.

In addition, thanks to the possibilities of itoControl, more than 70% of the incidences in our machines can be resolved remotely without displacement of technical staff.

A sure contribution to your production and profits.

RELIABLE AND EFFICIENT

QUALITY SYSTEMS AND COMPONENTS

The iS series is characterized by its high durability and robustness thanks to its high quality components. The high performance obtained by its systems while putting low strain on the circuits and working at low temperature helps keep a long life cycle for all components. Thanks to the possibility of remote connection provided by itoControl you will be able to operate your machine at any time from anywhere. This will help you plan your business production more effectively.

The latest technology at the service of performance and stability.



MINIMUM CONSUMPTION itoSAVE ENERGY SAVING SYSTEM

The itoSave system, integrated as a standard part on all machines of the iS series, ensures stable cycles and power consumption up to 80% less than traditional machines.

itoSave technology grants the machine a number of added benefits that prolong the life of the machine and its performance.

For instance, itoSave uses just the necessary oil for each movement, reducing the costs related to maintenance by extending the lifespan of the oil, filters and hydraulic elements. Also, by putting less strain on the hydraulic oil it decreases its normal working temperature, which causes a drastic reduction of heat energy.

In addition, the machine will work more silently, not exceeding 75db even when the machine is working at full load.

To invest in Itoplas is to invest in innovation.

MAXIMUM CONTROL NEXT GENERATION ito5000 CONTROL SYSTEM

itoControl electronic control systems are the culmination of years of experience and development focused on the technology behind injection moulding machines. The ito5000 model installed on the machines of the iS series presents an intuitive and pleasant interface that is accessible to any user, running on high-precision technology developed by Itoplas.

The itoControl systems are completely modular, where both users that want a very technical and demanding parameterization and those that want an easier programming of the machine can be comfortable, providing a comprehensive control of production and a thorough analysis of the machine's work.

Its remote connection possibilities, which allow for analysis and manipulation of parameters of the injection moulding machine remotely, will allow you to control and manage your production freely, from anywhere.

Itoplas Engineering designs and develops its controls with the user always in mind.



REMOTE CONNECTION A TECHNOLOGY ALWAYS AT THE FOREFRONT

The products developed by Itoplas are always in a constant process of development, implementing the latest technology in each one of our machines and ensuring that our technology remains always at the forefront.

The injection moulding machines of the iS series have features that facilitate security and handling when using them, either locally from the panel integrated in the machine or remotely from any computer or device with internet access. Thanks to its security systems and its safe connection and identity verification protocols remote control of the machine is fully guaranteed.

There is also the possibility of making backup copies of the working parameters in our website. This way, the user can be sure that such information will never be lost and will be readily available at any time. This provides simple and accessible recovery process when is needed.

The integrated itoControl electronic system also benefits from this technology.

The injection moulding machine has available at any given moment the most recent version of its software thanks to the free update packages available on our website. These packages, developed continuously by our R&D team, make sure the machine will always work the most efficient, accurate and accessible way as possible.

TECHNICAL SPECIFICATIONS

MODEL	i90S			i130S			i160S			i200S			i260S			i320S			
INJECTION UNIT																			
Screw type	-	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Diameter	mm	30	35	40	35	40	45	40	45	50	45	50	60	50	60	70	60	70	80
Injection volume	cm ³	120	164	214	183	239	302	270	342	422	390	481	693	589	848	1155	990	1347	1759
Maximum weight (MW)	g	113	154	201	172	224	284	254	321	397	366	452	651	554	797	1085	930	1266	1654
Maximum injection pressure	Mpa	197	145	111	228	174	138	235	185	150	218	176	123	232	161	118	226	166	127
L/D relation of the screw	L/D	24,1	20,6/1	18,1	23,4/1	20,5/1	18,2/1	23,1	20,4/1	18,4/1	23,1/1	20,8/1	17,3/1	25,2/1	21,1	18,1	24,5/1	21,1	18,4/1
Screw stroke	mm	170			190			215			245			300			350		
Screw revolutions	rpm	0-221			0-207			0-289			0-161			0-188			0-162		
CLAMPING UNIT																			
Clamping strength	kN	900			1300			1600			2000			2600			3200		
Opening stroke	mm	320			340			410			460			520			580		
Plate dimensions	mm	540x540			600x600			670 x 670			740 x 740			835 x 835			950x950		
Space between columns	mm	360 x 360			410 x 410			460 x 460			510 x 510			580x580			670x670		
Max. daylight	mm	680			790			910			1010			1120			1235		
Mould thickness (min - max)	mm	130-360			145-450			160-500			185-550			195-600			220-655		
Ejector stroke	mm	100			100			120			150			180			180		
Ejector strength	kN	28,5			34,3			42			49			77			77		
Ejectors number	-	4+1			4+1			4+1			4+1			8+1			8+1		
POWER / HEATING																			
Pressure system	Mpa	14,5			17,5			17,5			17,5			17,5			17,5		
Servomotor power	kW	12,6			18,8			28,3			28,3			41			56,5		
Heating power	kW	6,9			8,9			12			12,2			14,5			21,6		
Temperature control zones	-	4			4			5			5			6			6		
OTHER																			
Oil capacity	L	140			150			175			200			275			500		
Dimensions (LxWxH)	m	4 x 1.3 x 1.8			4.3 x 1.4 x 1.8			4.7 x 1.4 x 2.0			5.3 x 1.5 x 2.1			6.2 x 1.6 x 2.2			6.7 x 1.7 x 2.2		
Machine net weight	kg	3000			3500			4600			5500			10000			13000		

MODEL	i400S			i480S			i560S			i650S			i800S			i1000S			
INJECTION UNIT																			
Screw type	-	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Diameter	mm	70	80	90	75	85	95	75	85	95	80	90	100	90	100	105	100	105	115
Injection volume	cm ³	1539	2011	2545	1878	2412	3012	1922	2468	3083	2262	2863	3534	3181	3927	4330	4123	4546	5453
Maximum weight (MW)	g	1447	1890	2392	1765	2267	2832	1806	2320	2898	2126	2691	3322	2990	3691	4070	3876	4273	5126
Maximum injection pressure	Mpa	212	162	128	209	163	130	217	169	135	197	156	126	218	176	160	176	160	133
L/D relation of the screw	L/D	24,1	21,1	18,7/1	23,8/1	21,1	18,8/1	24,5/1	21,1	18,8/1	23,6/1	21,1	18,9/1	25,4/1	22,9/1	21,8/1	23,2/1	22,1/1	20,2/1
Screw stroke	mm	400			425			435			450			500			525		
Screw revolutions	rpm	0-152			0-145			0-171			0-171			0-176			0-169		
CLAMPING UNIT																			
Clamping strength	kN	4000			4800			5600			6500			8000			10000		
Opening stroke	mm	720			755			850			880			1025			1150		
Plate dimensions	mm	1080 x 1080			1165 x 1135			1210 x 1180			1340 x 1310			1430 x 1430			1680 x 1680		
Space between columns	mm	740x740			830 x 800			880 x 850			930 x 900			970 x 970			1130 x 1130		
Max. daylight	mm	1470			1555			1700			1750			2000			2250		
Mould thickness (min - max)	mm	280-750			265 - 800			300-850			300-870			380-975			450-1100		
Ejector stroke	mm	205			250			280			280			300			350		
Ejector strength	kN	111			111			137			137			275			275		
Ejectors number	-	12+1			12+1			12+1			12+1			5+8+4			13 + 4		
POWER / HEATING																			
Pressure system	Mpa	17,5			17,5			17,5			17,5			17,5			17,5		
Servomotor power	kW	80,6			41 + 41			41 + 56,5			41 + 56,5			56,5 + 56,5			56,5 + 80		
Heating power	kW	24,1			31,3			33,1			33,1			40,6			48,7		
Temperature control zones	-	6			6			6			6			7			7		
OTHER																			
Oil capacity	L	600			700			750			750			950			1000		
Dimensions (LxWxH)	m	7,6 x 1,85 x 2,2			8,1 x 2,1 x 2,3			8,6 x 2,1 x 2,3			8,8 x 2,4 x 2,4			10,6 x 2,55 x 2,5			11,4 x 2,8 x 2,6		
Machine net weight	kg	17000			20000			25000			30000			45000			55000		

The iS+ series is an evolution of the iS series, improving on the features of each model and providing the machines with an increase on the size of the plates (in comparison to the iS series) that can reach 15-20%.

Serie iS+
injection moulding machines

TECHNICAL SPECIFICATIONS

MODEL	i90S+			i130S+			i160S+			i200S+			i260S+			i320S+			
INJECTION UNIT																			
Screw type	-	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Diameter	mm	30	35	40	35	40	45	40	45	50	45	50	60	50	60	70	60	70	80
Injection volume	cm ³	120	164	214	183	239	302	270	342	422	390	481	693	589	848	1155	990	1347	1759
Maximum weight (MW)	g	113	154	201	172	224	284	254	321	397	366	452	651	554	797	1085	930	1266	1654
Maximum injection pressure	Mpa	238	175	134	228	174	138	235	185	150	218	176	123	232	161	118	226	166	127
L/D relation of the screw	L/D	24,1	20,6/1	18,1	23,4/1	20,5/1	18,2/1	23,1	20,4/1	18,4/1	23,1/1	20,8/1	17,3/1	25,2/1	21,1	18,1	24,5/1	21,1	18,4/1
Screw stroke	mm	170			190			215			245			300			350		
Screw revolutions	rpm	0-244			0-324			0-289			0-216			0-255			0-203		
CLAMPING UNIT																			
Clamping strength	kN	900			1300			1600			2000			2600			3200		
Opening stroke	mm	340			410			460			520			580			720		
Plate dimensions	mm	600x600			670 x 670			740 x 740			835 x 835			950x950			1080 x 1080		
Space between columns	mm	410 x 410			460 x 460			510 x 510			580x580			670x670			740x740		
Max. daylight	mm	790			910			1010			1120			1235			1470		
Mould thickness (min - max)	mm	145-450			160-500			185-550			195-600			220-655			280-750		
Ejector stroke	mm	100			120			150			180			180			205		
Ejector strength	kN	34,3			42			49			77			77			111		
Ejectors number	-	4+1			4+1			4+1			8+1			8+1			12+1		
POWER / HEATING																			
Pressure system	Mpa	17,5			17,5			17,5			17,5			17,5			17,5		
Servomotor power	kW	18,8			28,3			28,3			41			56,5			80,6		
Heating power	kW	6,9			8,9			12			12,2			14,5			21,6		
Temperature control zones	-	4			5			5			6			6			6		
OTHER																			
Oil capacity	L	150			175			200			275			500			600		
Dimensions (LxWxH)	m	4.2 x 1.4 x 1.8			4.6 x 1.4 x 2.0			5.1 x 1.5 x 2.1			5.9 x 1.6 x 2.2			6.4 x 1.7 x 2.2			7.4 x 1.85 x 2.2		
Machine net weight	kg	3300			4400			5300			9600			12600			16600		

MODELO	i400S+			i480S+			i560S+			i650S+			i800S+			
INJECTION UNIT																
Screw type	-	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Diameter	mm	70	80	90	75	85	95	75	85	95	80	90	100	90	100	105
Injection volume	cm ³	1539	2011	2545	1878	2412	3012	1922	2468	3083	2262	2863	3534	3181	3927	4330
Maximum weight (MW)	g	1447	1890	2392	1765	2267	2832	1806	2320	2898	2126	2691	3322	2990	3691	4070
Maximum injection pressure	Mpa	212	162	128	209	163	130	217	169	135	197	156	126	218	176	160
L/D relation of the screw	L/D	24,1	21,1	18,7/1	23,8/1	21,1	18,8/1	24,5/1	21,1	18,8/1	23,6/1	21,1	18,9/1	25,4/1	22,9/1	21,8/1
Screw stroke	mm	400			425			435			450			500		
Screw revolutions	rpm	0-179			0-171			0-171			0-197			0-199		
CLAMPING UNIT																
Clamping strength	kN	4000			4800			5600			6500			8000		
Opening stroke	mm	755			850			880			1025			1150		
Plate dimensions	mm	1165 x 1135			1210 x 1180			1340 x 1310			1430 x 1430			1680 x 1680		
Space between columns	mm	830 x 800			880 x 850			930 x 900			970 x 970			1130 x 1130		
Max. daylight	mm	1555			1700			1750			2000			2250		
Mould thickness (min - max)	mm	265 - 800			300-850			300-870			380-975			450-1100		
Ejector stroke	mm	250			280			280			300			350		
Ejector strength	kN	111			137			137			275			275		
Ejectors number	-	12+1			12+1			12+1			5+8+4			13 + 4		
POWER / HEATING																
Pressure system	Mpa	17,5			17,5			17,5			17,5			17,5		
Servomotor power	kW	41 + 41			41 + 56,5			41 + 56,5			56,5 + 56,5			56,5 + 80		
Heating power	kW	24,1			31,3			33,1			33,1			40,6		
Temperature control zones	-	6			6			6			7			7		
OTHER																
Oil capacity	L	700			750			800			950			1000		
Dimensions (LxWxH)	m	7,9 x 2,1 x 2,3			8,3 x 2,1 x 2,3			8,7 x 2,2 x 2,4			10,3 x 2,55 x 2,6			11,2 x 2,8 x 2,6		
Machine net weight	kg	19500			24500			28000			44300			54000		

The iS+ series of injection moulding machines include machines of more than 1000t, including custom-made high tonnage models. Consult with our engineering about the particular specifications of the machine you need.

GENERAL SPECIFICATIONS

INJECTION UNIT

- Bimetallic barrel and screw.
- Three possible screw diameters.
- Ceramic resistors for barrel heating.

OPTIONAL EQUIPMENT

- Automatic barrel cooling.
- Plastizing system and barrel for PET, technical or special materials and PVC.

CLAMPING UNIT

- Security protections in accordance to international regulations EN201-2009 with quadruple system - hydraulic, electric, electronic and mechanic - controlled by redundant security systems and circuits and independent security relays.
- Plates with T slot anchors and mould centering Euromap 2.
- Connection system for robot Euromap 67.
- Mechanical anchor system for robot Euromap 18.
- Double mould safety system.
- High clamping velocity for fast moulds.

OPTIONAL EQUIPMENT

- Plates and ejector with special configuration according to Euromap 2 regulations.
- Special mould width measurements, adapted to the customer needs.

HYDRAULIC EJECTOR

- Central ejector with quick fastening system to the mould.
- Radial ejectors according to Euromap 2.
- Detection of the ejector retracted by limit switch.

CORES

- Selector for the hydraulic ejector inserted like a core inside the core sequence.
- One core included.

OPTIONAL EQUIPMENT

- Controller for up to 10 independent core circuits.

HYDRAULIC SYSTEM

- Very low noise level.
- Antivibration pads on pumps and servomotors.
- Pressure transducer for PID controlling the machine movements.
- High energy savings, thanks to the use of servomotors and integration of Itoplas' iToSave system.
- Hydraulic components from leading global brands.
- Microfilter 3R system of the oil.
- Smaller oil tank in comparison to standard machines.

OPTIONAL EQUIPMENT

- Higher velocity during injection and other movements with extra servomotors on iS systems.
- Parallel movements with double hydraulic circuit and independent servomotor.
- Design of special systems for controlling custom movements.

MECHANIC SYSTEM

- Itoplas guard system.
- Stainless steel hopper with low friction guides.
- Special machine base design that allows removal of parts on both sides of the machine.
- Machine base design with free space below the clamping unit.

OPTIONAL EQUIPMENT

- Special machine base, with extra height, for the removal of parts.
- Special guard design for PVC machines.
- Automatic extraction and assembly system in the locking column, for placement of big moulds.

ELECTRONIC / ELECTRIC SYSTEM

- General contactor as servodrive safety.
- Redundant emergency system, according to regulations, with emergency buttons in the opposite work zones.
- Isolation transformer for the automatism system and control according to regulations.

OPTIONAL EQUIPMENT

- PID control system of hot runner for moulds (maximum 64 zones), installed security contactor and double pole breakers (I + N).
- Potential for installation of a thermocouple for different moulds with "J" or "K" type.

ito5000 SYSTEM SPECIFICATIONS

CONTROL SYSTEM

- ito5000 system with distributed architecture and high-speed bus.
- Interaction through 15,6" color touch screen with 180° viewing angle.
- Integrated keyboard on the machine with embossed buttons and leds for signaling of the active movements.
- Visualization and movement control through real-time graphics.
- Mould data storage on internal memory for up to 50 million configurations.
- Mould data backup and recovery on USB.
- Quick access to parameters.
- User changes history.
- Interactive help program.
- Plastic materials library.
- Access to drawings, schematics and digitized documents and pictures of the machine and its components.
- Pressure curve chart with overlapping of movements or cycle signals.
- Alarm indicators with advice on possible solutions for the operator.
- Real production calculations.
- Power consumption calculations.
- High precision controller on tenth of millimetre precision for position parameters and on hundredth of a second for movement time parameters.
- Quality control program with build up and rejection of faulty parts.
- Visualization of input and output signals.
- Visualization of technical parameters of the machine.
- Calendar for programming tasks, specific or repeated through time, for both its connection or disconnection.
- Interactive diagnostics of the process.
- Easily adaptable systems for technical materials like PVC, PET, PC, etc.
- Internacionalization: Instantaneous change of language.

OPTIONAL EQUIPMENT

- Total control of the machine remotely in real-time.
- Direct technical assistance on the machine through Internet.
- Up to 64 additional temperature zones for the mould's hot runner regulation.
- Automatic mould cooling, through two independent circuits.
- Reference curves overlapping over the charts in real-time.

FUNCTIONS OVER THE CLAMPING UNIT

- Automatic lubrication.
- Adjustable clamping strength with no staggering.
- Programmable opening and closing velocity in 5 stages.
- Rapid closing program.
- Automatic mould adjustment program.
- Double mould safety system with high precision at low pressure.
- EUROMAP12 or EUROMAP67 robot interface.
- Programmable blowing.
- Parameterizable configuration for any kind of locking.

OPTIONAL EQUIPMENT

- Automatic door controller.
- Automatic extraction and assembly system in the locking column, for placement of big moulds.

FUNCTIONS OVER THE HYDRAULIC EJECTOR

- Selection for the number of ejections.
- Independent ejection regulation.
- Detection of the ejector retracted by limit switch.

OPTIONAL EQUIPMENT

- Simultaneous ejector during opening with one or double hydraulic circuit.

FUNCTIONS OVER THE INJECTION SYSTEM

- PID temperature controller for the barrel heat.
- Safety device with screw rotation blocking.
- Power and temperature charts.
- Programmable maintenance temperature.
- Automatic correction system for the parameters related to injection and loading according to the parameters of the last cycle.
- Automatic purge program, fully programmable and adapted to each mould.
- Operation of the injection group by various modes.
- Alarm for controlling maximum injection pressure.
- Real time charts for the different stages of injection, showing pressure, velocity and position or time.
- Close ring injection program in pressure and velocity.
- Decompression program before and after plasticising.
- Idle cycles program.
- Instant visualization of the screw revolutions.
- Itoplas improved intrusion system.

OPTIONAL EQUIPMENT

- Automatic correction system for injection parameters.
- Up to 24 control zones for sequential injection.
- Gas injection system.
- Opening and closing control system for the hydraulic nozzle.
- High speed injection through servomotors.
- Mould controller for itoGate system (developed by Itoplas) for injection of PVC parts without sprue.

FUNCTIONS OVER THE CORES

- Regulation for pressure, velocity and time separated by each movement of core in and core out in each circuit.
- Activation of any core by position of the mould.
- Selector for the hydraulic ejector inserted like a core inside the core sequence.
- Maintenance of core in and core out pressure during the cycle, as mould safety.
- Configuration of a second phase of core in and core out movement.

OPTIONAL EQUIPMENT

- Controller for up to 10 independent core circuits.
- Simultaneous core in and core out movement during closing and opening (respectively) with one or double hydraulic circuit.
- Circuits controller for additional cores.

FUNCTIONS OVER THE HYDRAULIC SYSTEM

- Backpressure during plasticising controlled by an independent proportional, achieving great precision.
- Readings and alarm for oil temperature.

OPTIONAL EQUIPMENT

- Double hydraulic circuit controller with pressure and velocity proportionals for combined movements.

FUNCTIONS OVER THE ELECTRICAL / ELECTRONIC SYSTEM

- Itoplas' electronic control system in all transducers.
- Control for proportionals directly from the outputs on the ito5000 controller.
- Activation of the main contactor in the heating system.
- Electronic system protection, with net filters and high-efficiency Schaffner passband.

FROM THE PRODUCTION OF IDEAS TO THE MANUFACTURING OF REALITIES

Since its foundation, the team at Itoplas Engineering has always had its sight in the future. In how, the things that we do today, can be done better and more efficiently. The challenge of finding the answers to that question is an inherent part of our team's work methodology, in a constant production of not only physical, tangible products, but also new solutions and processes.

That's why our work at Itoplas always begins with the production of an idea, and from there to the paper and then to our production facilities, controlling each step of development until it reaches our customers doorstep with a degree of control and adaptability of the whole process impossible to achieve with other systems.

CRAFTSMANSHIP AND TECHNIQUE COMMITMENT TO THE PLASTICS

Itoplas has developed over its history multiple kinds of injection moulding machines, each one a step forward on its goal of making the most efficient and precise machine possible. Able to work over a very long time while keeping a high precision in each injection made, Itoplas Engineering's machines are the result of all the experience and technique garnered by our engineers throughout the years.

Because of that, for our engineering the essential moment in every project is when our customers trust their injection needs to us. Following our philosophy of turnkey projects, our team coordinates to develop a proposal with a technical efficiency and profitability hard to find in the industry.

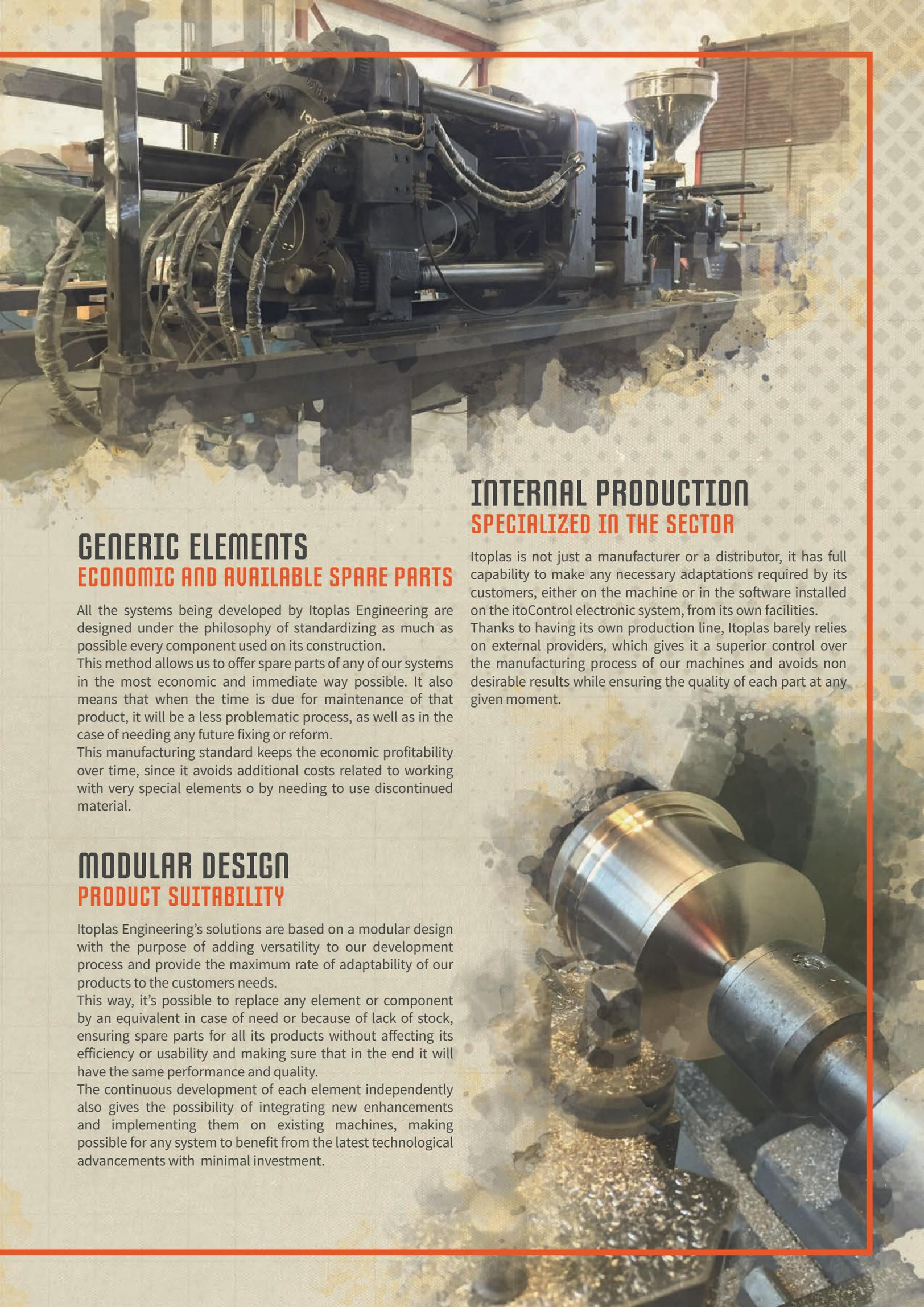


EXPERIENCE AND TECHNOLOGY AT THE FOREFRONT OF DEVELOPMENT

Itoplas' team is comprised of experts in the sector, who are in charge of each step, from the machining of each part to the development of the electronics and the code running in our machines. It is not easy to achieve the quality standards that Itoplas requires for its products, from sturdiness to precision and repeatability, and that's why our engineering makes a point of controlling every stage of the process from its productive plant.

This gives us the possibility of establishing a development system with strict quality control protocols, applied thoroughly to each manufactured product. Itoplas uses the latest technological advancements to make sure the result is always a trustworthy injection moulding machine.





GENERIC ELEMENTS ECONOMIC AND AVAILABLE SPARE PARTS

All the systems being developed by Itoplas Engineering are designed under the philosophy of standardizing as much as possible every component used on its construction.

This method allows us to offer spare parts of any of our systems in the most economic and immediate way possible. It also means that when the time is due for maintenance of that product, it will be a less problematic process, as well as in the case of needing any future fixing or reform.

This manufacturing standard keeps the economic profitability over time, since it avoids additional costs related to working with very special elements or by needing to use discontinued material.

MODULAR DESIGN PRODUCT SUITABILITY

Itoplas Engineering's solutions are based on a modular design with the purpose of adding versatility to our development process and provide the maximum rate of adaptability of our products to the customers needs.

This way, it's possible to replace any element or component by an equivalent in case of need or because of lack of stock, ensuring spare parts for all its products without affecting its efficiency or usability and making sure that in the end it will have the same performance and quality.

The continuous development of each element independently also gives the possibility of integrating new enhancements and implementing them on existing machines, making possible for any system to benefit from the latest technological advancements with minimal investment.

INTERNAL PRODUCTION SPECIALIZED IN THE SECTOR

Itoplas is not just a manufacturer or a distributor, it has full capability to make any necessary adaptations required by its customers, either on the machine or in the software installed on the itoControl electronic system, from its own facilities.

Thanks to having its own production line, Itoplas barely relies on external providers, which gives it a superior control over the manufacturing process of our machines and avoids non desirable results while ensuring the quality of each part at any given moment.

TURNKEY PROJECTS SOLUTIONS FOR THE PLASTICS INDUSTRY

SIMPLICITY AND FUNCTIONALITY ANSWERING YOUR NEEDS

Coming from a long experience in the sector and its own technology, Itoplas Engineering establishes itself in the European market, designing and manufacturing its own products, injection moulding machines, automation systems and energy saving kits.

Thanks to its high knowledge in the plastics sector, Itoplas can provide solutions from beginning to end during a project, taking full charge of the whole process, from the adaptation of the manufacturing plant on a general level, as well as developing specific solutions for the production of particular parts, always adapting to the established manufacturing requirements and providing the customer with a complete solution, handing over to the customer a fully functional operation: a turnkey project.

VERSATILITY AND ADAPTABILITY EXPERIENCE AS QUALITY ENDORSEMENT

Unlike bigger companies, the added value to Itoplas rests on its exclusive dedication to its customers, providing integral solutions for each one of them without being limited to sales through a catalogue.

Our idea of a craftsman engineering is born from the basic concept of Engineering, as the base requirement for being able to manufacture products of the maximum performance, along with the concept of Craftsmanship, as an added value to the personal dedication to the products being adapted for each customer.

What sets Itoplas apart from the rest of engineering is its reverse development process, which let us design the machine starting from the electronics, not the mechanics. This can be achieved thanks to the global knowledge of the machine morphology of our engineers, reaching absolute control with the minimal cost. All this knowledge, along with our different product series, gives Itoplas the ability to provide any custom solution in the plastics industry, no matter how complex or special it may look to the customer. Thanks to being able to manufacture our own products, we can adapt our machines to any kind of requirement, and, even better, while keeping for the customer a superior profitability in comparison to other manufacturers, since the performance of the machine will be adjusted to the requirements received and the adaptation cost will be much lower in comparison to mass production systems.



Serie iSH

injection moulding machines hydraulic

A SERIES MADE TO ORDER OBTAIN THE MACHINE YOU NEED

The iSH series is fully customizable, and each one of the machines that compose it is made to order for every customer in accordance to its specific production requirements. Either because of special working velocity needs or because of specific conditions of control and precision, the iSH series will give you exactly the result you need.

CLAMPING UNIT

The clamping unit for the iSH injection moulding machines is hydraulic, which avoids possible functional limitations in very specific working environments where the toggle system might cause oil contamination in the production of parts. With a clamping unit of this kind the group is given a wider open range while requiring less maintenance.

INJECTION GROUP

The injection group, just as the clamping unit, is hydraulic, which provides more precision and control when injecting and producing plastic parts. This improves, even more, the capabilities of injection for more technical materials already included on the iS and iS+ series.

MACHINE BASE

The design of the machine base is even more open than the one in the iS and iS+ series. This gives more options when configuring the extraction of the parts, allowing, for instance, the integration of systems for part removal or multiple kinds of falling, depending on the operational requirements of each customer.

NO LIMITS

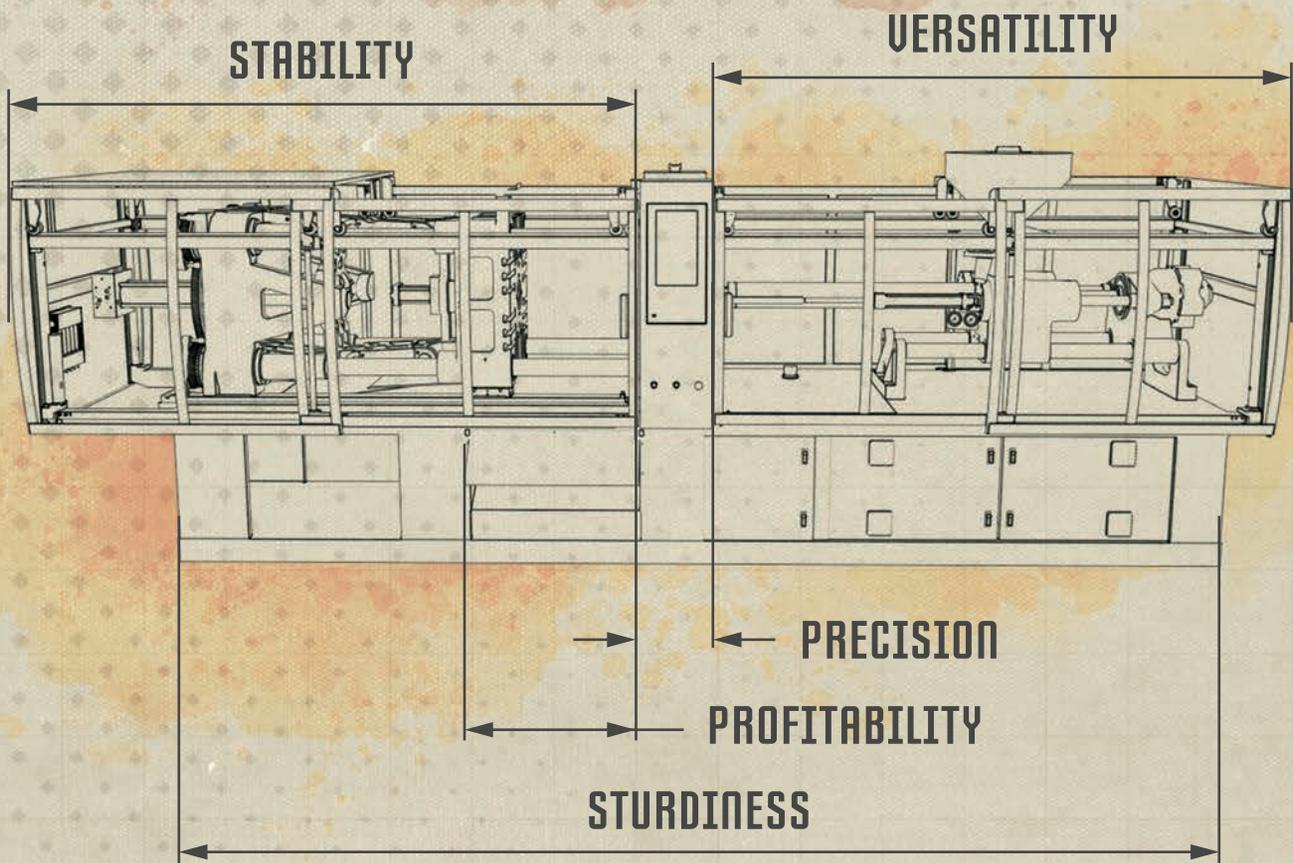
Based on the requirements received, the integrated components on every model can be easily redesigned. For instance, it would be possible to build a clamping unit with a really long opening stroke, or an injection group with specifications far superior (or inferior) to the standard for a machine with the same working strength.

Below are the technical specifications for some of the models already manufactured for the iSH series, built according to the needs of our customers. Remember to consult with our engineering to obtain the machine you need.

MODEL	i90SH			i130SH			i160SH			
	INJECTION UNIT									
Screw type	-	A	B	C	A	B	C	A	B	C
Diameter	mm	35	40	45	40	45	50	45	50	55
Injection volume	cm ³	173	226	286	250	320	355	420	515	625
Maximum weight (MW)	g	163	213	269	220	290	360	380	470	565
Maximum injection pressure	Mpa	231,4	177,2	140	220	174,5	141	215	174,5	144
L/D relation of the screw	L/D	20/1	20/1	20/1	20/1	20/1	20/1	20/1	20/1	20/1
Screw stroke	mm	180			200			260		
Screw revolutions	rpm	0-256			0-260			0-265		
	CLAMPING UNIT									
Clamping strength	kN	916			1350			1900		
Opening stroke	mm	500			600			750		
Plate dimensions	mm	600 x 600			700 x 700			800 x 800		
Space between columns	mm	400 x 400			450 x 450			520 x 520		
Max. daylight	mm	700			825			1000		
Mould thickness (min - max)	mm	200			225			250		
Ejector stroke	mm	150			175			200		
Ejector strength	kN	33,7			35			50		
Ejectors number	-	4 + 1			4 + 1			4 + 1		
	POWER / HEATING									
Pressure system	Mpa	17,5			17,5			17,5		
Servomotor power	kW	18,8			28,3			41		
Heating power	kW	9,8			11,5			14,5		
Temperature control zones	-	3 + 1			3 + 1			3 + 1		
	OTHERS									
Oil capacity	L	230			320			415		
Machine dimensions (LxWxH)	mxm	4,35 x 0,9 x 2			4,8 x 1,1 x 2,1			4,7 x 1,2 x 2,3		
Machine net weight	kg	4400			5500			8300		

HIGH PERFORMANCE AND MAXIMUM EFFICIENCY

DESIGNED AND MANUFACTURED IN SPAIN TO ENSURE A HIGH PRECISION
AND LOW CONSUMPTION THANKS TO THE USE OF SERVOMOTORS



DOING THINGS A DIFFERENT WAY

Itoplas Engineering was born thanks to the union of several professionals with great experience in the plastics sector that set out to provide custom solutions through high performance along with maximum profitability, optimizing resources, innovating with cutting edge technology and with the environment always in mind.

This is reflected in Itoplas' iS series injection moulding machines, the culmination of the skill and craftsmanship of our team, which controls every step of the design and production process from our own local facilities.

An iS injection moulding machine is more than a tool. Versatile, stable and adaptable, it will meet your requirements, whichever they are, and help make your business more productive and profitable.

