

REFORM YOUR MACHINE AND START SAVING NOW



itoSave®
servomotor kit

ACHIEVE ENERGY SAVINGS UP TO 80%
INVESTMENT RETURNS IN LESS THAN 3 YEARS FOR MOST OF THE INSTALLATIONS

**UNIQUE SAVINGS SOLUTION
AN INCREASE IN STABILITY**

The itoSave servomotor kit achieves better performance on your machine by replacing motors and traditional hydraulic pumps with high range servomotors and more efficient hydraulic pumps.

This grants a number of very important benefits, including a higher torque, a variety of control modes and unsurpassable working efficiency. Itoplas' itoSave kit ensures stable cycles on the injection moulding machine and energy savings up to 80%.

Unbeatable energy savings.

**TAILORED SERVOMOTOR KITS
ENERGETIC STUDY WITH NO COMPROMISE**

The team at Itoplas Engineering makes a preliminary study of your machine before proceeding with the adaptation of the system. This allows us to determine the driver and servomotor model best suited to meet with your requirements.

To be able to precisely determine the energy savings that will be obtained after assembly, the engineers at Itoplas conduct this study with no compromise before each kit's installation.

A system optimized for each configuration.

**A DECREASE IN CONSUMPTION
AN INCREASE IN PRODUCTIVITY**

High energy saving ratings are but one of the many benefits obtained by machines working with an itoSave kit assembled.

Thanks to the use of itoSave technology, the pressure and oil flow control are controlled in close ring, without the need for proportional valves.

This ensures that when the hydraulic oil is at different temperatures, the cycle's velocities will stay the same, giving as a result stable machines with constant cycles.

Gain a more stable and efficient machine.

SUCCESS STORIES

OUR CUSTOMERS BENEFIT ALREADY FROM THE ADVANTAGES OF THE itoSAVE SYSTEM

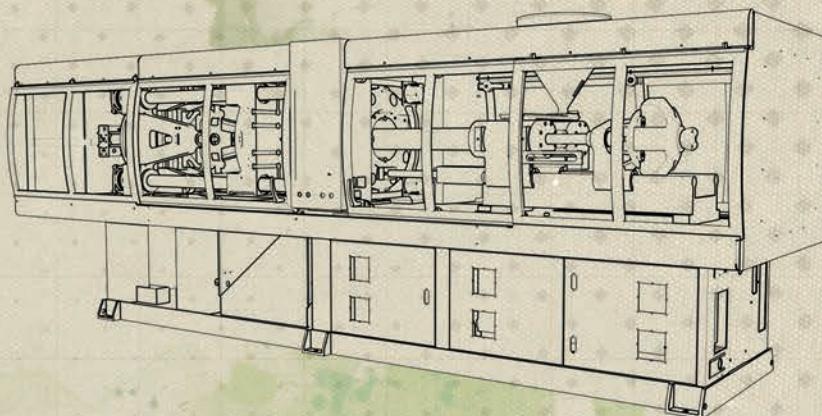
MODEL:	TONNES:	YEAR:	
Engel	700	1991	
NUMBER OF MOTORS:	CYCLE:	CYCLE TIME:	INJECTION WEIGHT:
2	24h/5d/11 months	36 sec	500 gr
ANNUAL POWER CONSUMPTION (BEFORE itoSAVE):			ANNUAL POWER CONSUMPTION (AFTER itoSAVE):
309,634 kVA		131,468 kVA	
PERCENTAGE OF MOTOR SAVINGS:	PERCENTAGE OF ENERGY SAVINGS INCLUDING OIL HEATING:	ANNUAL SAVINGS IN ELECTRICITY:	
57.50%	62.40%	11,817€	
MODEL:	TONNES:	YEAR:	
Italtech	1000	1988	
NUMBER OF MOTORS:	CYCLE:	CYCLE TIME:	INJECTION WEIGHT:
3	24h/5d/12 months	56 sec	400 gr
ANNUAL POWER CONSUMPTION (BEFORE itoSAVE):			ANNUAL POWER CONSUMPTION (AFTER itoSAVE):
642,576 kVA		168,944 kVA	
PERCENTAGE OF MOTOR SAVINGS:	PERCENTAGE OF ENERGY SAVINGS INCLUDING OIL HEATING:	ANNUAL SAVINGS IN ELECTRICITY:	
73.70%	79.80%	55,968€	
MODEL:	TONNES:	YEAR:	
Sandretto	1300	1993	
NUMBER OF MOTORS:	CYCLE:	CYCLE TIME:	INJECTION WEIGHT:
2	24h/5d/12 months	65 sec	600 gr
ANNUAL POWER CONSUMPTION (BEFORE itoSAVE):			ANNUAL POWER CONSUMPTION (AFTER itoSAVE):
606,425 kVA		207,349 kVA	
PERCENTAGE OF MOTOR SAVINGS:	PERCENTAGE OF ENERGY SAVINGS INCLUDING OIL HEATING:	ANNUAL SAVINGS IN ELECTRICITY:	
65.80%	75.00%	47.157€	
MODEL:	TONNES:	YEAR:	
Krauss Maffei	800	1997	
NUMBER OF MOTORS:	CYCLE:	CYCLE TIME:	INJECTION WEIGHT:
1	24h/6d/11 months	76 sec	334 gr
ANNUAL POWER CONSUMPTION (BEFORE itoSAVE):			ANNUAL POWER CONSUMPTION (AFTER itoSAVE):
460,134 kVA		126,775 kVA	
PERCENTAGE OF MOTOR SAVINGS:	PERCENTAGE OF ENERGY SAVINGS INCLUDING OIL HEATING:	ANNUAL SAVINGS IN ELECTRICITY:	
72.40%	74.80%	33.336€	

Enter our website to learn about more success stories of the itoSave system

http://itoplas.com/en/products/itosave/itosave_success

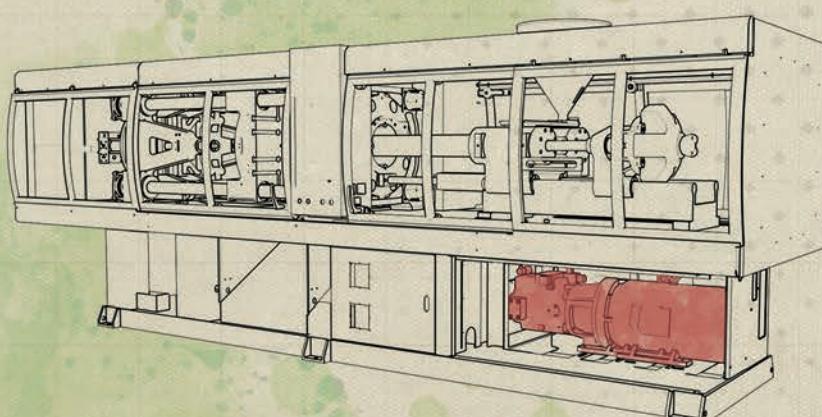
ADAPTING THE itoSAVE KIT IN 4 STEPS

HOW TO ACHIEVE IMMEDIATE ENERGY SAVINGS ON INJECTION MOULDING MACHINES



STEP 1 SYSTEM ANALYSIS

The installation process for an itoSave kit begins by studying the hydraulic circuit currently present in the machine. This allows our team of engineers to determine the number of servomotors and drivers necessary by using in-house developed optimizing software that will analyze every possible combination and return the alternative with the best relation between the investment required and the energy savings obtained.



STEP 2 UNINSTALL AND MODIFY

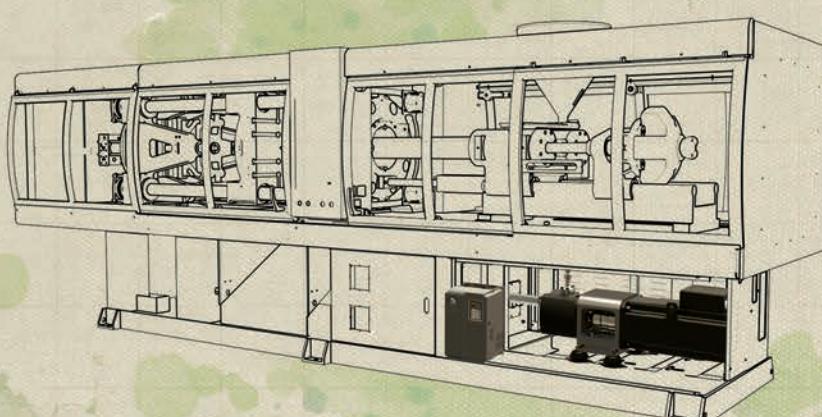
Once the necessary configuration and equipment for the itoSave system adaptation is determined, Itoplas proceeds to uninstall all the unnecessary elements, like the motors currently equipped in the machine, which will be replaced by last generation servo drivers.

During this stage the necessary modifications are made to the hydraulic system for the posterior installation of the kit.



STEP 3 INSTALLATION AND FINISHES

At this stage the itoSave system components are installed on the machine. The new servomotors and the rest of the elements that make the kit are assembled into the machine and the last necessary modifications are made to adapt the current hydraulic system to the new system.



STEP 4 SETTINGS AND INITIALIZATION

For the finishing stage, and after having installed all the necessary elements in the machine and adapted the hydraulic system, our engineers adapt the control signals of the motor to calibrate and optimize the performance of the kit on the machine it has just been installed.

When this stage has finished, the installation of the itoSave kit is over, and you will be able to enjoy a more profitable, efficient and productive machine.

SAVE MONEY BY ADAPTING YOUR MACHINE

THE **itoSAVE** KIT ACHIEVES BETTER PERFORMANCE BY REPLACING MOTORS AND HYDRAULIC PUMPS WITH SERUOMOTORS AND MORE EFFICIENT HYDRAULIC PUMPS

TAILORED KITS

Itoplas Engineering makes a preliminary study previously to the adaptation of the **itoSave** system for your press, blowing machine, injection moulding machine, extrusion press or any other machine equipped with hydraulic pumps and proportionals. This study determines the driver and servomotor model best suited for your production requirements. We reduce the energy consumption, both active and reactive, by removing from the machine the electrical motors, pumps and hydraulic pressure blocks and pumps with proportionals.

REMOVAL OF THE PROPORTIONALS

The **itoSave** servomotor system controls pressure and oil flow in close ring, without the need for proportional valves for its regulation. In addition, this ensures that when the hydraulic oil is at different temperatures, the cycle's velocities will stay the same, resulting in stable machines with constant cycles and increasing quality control.

LESSER OIL DEGRADATION

The **itoSave** technology uses only the necessary oil for each movement. One of the direct advantages of this optimization is the reduction of maintenance costs, since the lifespan for the oil, filters and hydraulic elements is extended. Cylinder gaskets and seals are some of the other elements that suffer a lesser wear.

REDUCED WATER CONSUMPTION

The **itoSave** servomotors have the advantage of heating less the hydraulic oil, and as a direct consequence, there is a reduction in water consumption and savings in heat energy.

LESS AMBIENT NOISE

The servomotors incorporated by Itoplas in its **itoSave** kits have a low noise level. Even when the machine is working at full load, the **itoSave** dynamic components never exceed 75db.

INCREASE IN PRODUCTIVITY

High torque, a variety in control modes and high efficiency are some of the advantages provided by Itoplas Energy Saving Servomotor Kit. This allows to get stable machines with repetitive cycles.

ENERGY SAVINGS

For Itoplas Engineering it is equally important to ensure and increase the stability of the machine on all its working stages than to achieve maximum energy savings, especially because thanks to that the system stands out from other alternatives such as frequency / velocity converters.

