

# What is SyncroSpeed?

**... the most effective energy saving retrofit  
an injection moulder can buy**

SyncroSpeed is a retrofit control system installed on plastic injection moulding machines (IMMs); its purpose is to improve the machine's operating energy efficiency. The system includes a variable speed drive (VSD or inverter) which is used to regulate the speed of the pump motors. Controlled in the correct way, reducing motor speed can result in a considerable reduction in motor power consumption while at the same time maintaining full productivity (cycle time) and process consistency (part quality); this is what SyncroSpeed does.

Induction electric motors are used on all conventional hydraulic machines, selected for their ruggedness, low purchase cost, and low ongoing maintenance. These motors run at a fixed speed and drive the hydraulic pumps, but most of the time the machine operations does not need all the oil from all the pumps. Machine manufacturers use various techniques for the management of the over-production of oil, the excess volumes must be returned back to the oil reservoir, but all with varying degrees of inefficiency. A far more efficient method would be to continuously regulate the speed of the electric motor, so the pumps produce just the right volume of oil that is needed at any instant; this is the purpose of SyncroSpeed.



**Wisconsin, USA**  
*SyncroSpeed 135 HP  
2-motor system  
installed on a  
Cincinnati 725t*

SyncroSpeed comprises electronics hardware and control software components. All hardware is bought from recognized leading global suppliers and is assembled in an industrial steel enclosure. The software supports unique and highly sophisticated elements of control, developed through the needs and experiences of working with most of the popular makes and models of injection moulding machines around the world.

The savings results depend on several factors ...the plastic injection moulding machine brand & model, the form of the moulded component, and the material being processed. Typical energy savings are between 25%-45%, with some exceptional results exceeding 70%. In practical terms, SyncroSpeed is the best technology, it finds and delivers the energy saving on any hydraulic press. When the bottom line is all about reducing energy

and operating costs ... SyncroSpeed is the premium tool to make those reductions and is best deployed on larger motors that are planned to be in production for most hours of the year.

Ruggedness and reliability are underpinned by robust design & build, adherence to prevailing standards & codes, together with a high specification of all key components. The control and physical configuration offers four escalating levels of system by-pass to rapidly manage any minor or major event that may affect production capability. The remote monitoring system links SyncroSpeed installations with the CCS bureau in England to support realtime monitoring, data-logging, program updates and troubleshooting.

The SyncroSpeed team offer a great deal of know-how and experience. We are ready to assess your stock of injection moulding machines, analyse the savings potential, and offer an effective program of attack on the unseen wasted energy associated with your machines. We have installations from Korea to California on most popular makes of IMM including Krauss Maffei, Engel, Windsor, Stork, Cincinnati, Van Dorn, Sandretto, Negri Bossi, Toshiba, Mitsubishi, Haitian, LG.



**Bavaria, Germany**  
*SyncroSpeed 185 kW  
single motor system  
installed on a Husky 1100t*

overleaf : read about the value of SyncroSpeed

# The Value of SyncroSpeed

## ... this is all you need

peak performance



The deep integration of SyncroSpeed control with the host IMM controller provides all the data to support energy saving strategies throughout the entire cycle of the machine. Together with our really smart software, the deep integration puts performance well ahead of less featured systems. Low-grade interfacing cannot monitor the IMM in detail and does not manage the energy savings in detail.

really smart software



15 years of Continuous Improvement and the experience of hundreds of machines of most flavours, the SyncroSpeed software sees all the IMM activity so there are no hidden opportunities of energy saving that can slip by.

transparent installation



Once installed and commissioned, the SyncroSpeed system automatically responds to the setup of each job, without further manual adjustments ... job after job.

more smart software



Motors, pumps, couplings all have to be protected rather than abused. The SyncroSpeed software optimises the savings without harsh control that will lead to early failure of vital components.

bullet proof components



We source all key hardware from recognised global manufacturers, standing with reputations for reliability, performance, innovation and technical backup.

an information centre



The touchscreen HMI lets you navigate several screens that provide all the necessary data concerning the status of the SyncroSpeed system and the energy savings being realised. Password hierarchy, of course, and it comes full color!

remote monitoring & support



With internet access to our SyncroSpeed installations, status and performance is monitored from our bureau in England. We can troubleshoot and make software fixes, download other software changes and upgrades. The support goes further ... if you need information about SyncroSpeed utilisation and performance, we can upload data and assemble your report.

4 levels of bypass



If things were to go wrong, you need to know that production will not be compromised. Our installations have 4 escalating levels of bypass; depending on the severity, your IMM is back up and running within a few keystrokes to an hour.

compliance & quality assurance



From design, through build, to installation, we work to all relevant directives, standards and codes. We are ISO 9001 registered, it's all part of what we do.

performance guarantee



Not only is the entire system offered with a 12 month guarantee but energy saving performance is guaranteed too. We will tell you how much savings you can expect from our SyncroSpeed installations and in most cases underwrite a minimum performance.

installation schematics & user manuals



Documentation is important and seems obvious to be included in the supply. Up front we can provide examples of the depth and detail we go to. Rest easy that you'll get them once the job is complete.

vendor skill set



When it comes to innovative and effective solutions for industrial automation & control, the team at CCS Technology have a great deal to offer with a combined strength of 200 years in design of control hardware and software. We'll tackle most jobs involving control of speed, motion or position.

a complete job



Our price covers all supply, delivery to your door, installation, and verification. And covers the training, schematics, and manuals too. In fact, all that you need for a complete, assured and successful energy saving project.

SyncroSpeed specification may change without notice