

Cytec Zylindertechnik GmbH have been producing locking cylinders for over 30 years. These are sold in the UK and Ireland by CyTec Systems UK Ltd.

Working closely with our customers and the technical team in Germany we have built up a lot of experience regarding the sizing and application of locking cylinders for mould tool applications as well as their use in special purpose machines.

All our hydraulic locking cylinders are based on sound technical concepts. We use a mechanical lock that is operated by hydraulic power, It is not required to maintain pressure once the cylinder is locked, in fact it is detrimental to hold pressure on. This ensures that we provide a rigid lock.

The cylinders must move to the end position to lock. Sensors can be provided that check the lock is in place.

Cylinders can be ordered with or without preload. The concept of preload is often confusing for our customers, although it is important to understand the benefits when designing injection mould tools.

What is preload?

You can screw a bolt into a plate using your fingers or you can tighten it up using a torque wrench. In both cases the bolt head remains in the same position.

By introducing pre load to our locking cylinders when holding side cores in place on injection mould tools, it allows for stretching of the mounting bolts and bedding in of cores, it is also critical for longer side cores over 100mm length.

We have seen many applications where after a small running period the cores bed in and a small adjustment must be made. This is very easy with CyTec locking cylinders and we offer a number of easy methods for cylinder adjustment.

Please note that unlike other manufacturers cylinders we have tested, altering pre load does not lower the holding force. There is no requirement to maintain hydraulic pressure during operation.

If the toolmaker does not have an available hydraulic power supply the cylinders can be moved by air. When our cylinders are in the locked position the piston rod cannot be pushed back without destroying the cylinder.

If during the moulding trial flash is present carry out the following simple checks:-

1. Confirm the correct size cylinder has been selected.
2. Check cylinder mounting to the tool. A dial indicator on the mounting bracket during moulding will show if the bracket is flexing.
3. Adjust cylinder pre load. (this is best done gradually as pre load can introduce large forces).

Our sales engineers can give advise on cylinder selection and mounting. We are here to help and provide assistance where necessary.

CyTec Zylindertechnik GmbH are continually striving to improve and develop our locking cylinders

Our range of CyBlock cylinders has been extended and we have a major development in new range of HSU CyPull cylinders that give higher locking forces in smaller cylinders.

A range of locking air cylinders are also being developed and trialled. These will be suitable for packaging machines, food industry and medical moulding.

Further details in our next report.

If you require any further information please contact

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