

# SPIROL®

## INSERT INSTALLATION TECHNOLOGY

### Model HM Manual Heat Insert Driver

As much as 75% of an Insert's performance is the direct result of how well it was installed. Therefore, in order to maximise performance, all of the factors that impact installation must be carefully controlled. **SPIROL's Model HM Manual Insert Driver** has been designed to eliminate the dependency on the operator to control these factors. The result is nearly perfect flow of the plastic for optimal retention and performance.

#### Designed to install virtually any type of Heat/Ultrasonic Style Insert

##### Standard Features:

- Internal air-spring installation system for infinitely adjustable and consistent force
- Easily adjustable, digital temperature controller
- Easily interchangeable heat tips to accommodate various Insert sizes and applications

##### The Model HM is:

- Easy:** - Simple to operate and easily adjustable
- Accurate:** - Base plate is pre-drilled for simple and precise fixture location
- Reliable:** - Post mount style frame is sturdy, lightweight, and portable
- Precise:** - Micrometre style insertion depth stop for accurate, consistent installations
- Versatile:** - Installs Inserts ranging in sizes from M2 to M6 metric threads and No. 2 to 1/4" unified threads, and the simple up-down adjustment of the machine makes it easy to accommodate various sized components



*Model HM  
—  
Shown with  
optional fixture*

Optional alignment fixtures available.

*Automated installation machines  
are also available from **SPIROL**.*



### Application:

A moulder of plastic yo-yos wanted to introduce a higher quality product to the market. By incorporating threaded Brass Inserts into each half of the yo-yo, a higher quality joint would be created resulting in a truer rotational axis. Inserts also provide reusable threads which would enable unlimited assembly and disassembly without damage to the plastic. The moulder wanted to utilise existing moulds, as well as minimise the investment required to install the Inserts. The high heat and limited space made manual loading of the Insert into the mould undesirable. There was also the potential for a mis-loaded Insert to cause costly damage to the mould.

### Solution:

**SPIROL's** Engineers reviewed the application, and recommended that a symmetrical brass Insert be used in conjunction with several economical **SPIROL Model HM Manual Heat Inserters**. The HM heat machines were lined up in a portable production work cell. The symmetrical design made placement of the Insert in the yo-yo's hole quick and easy. The HM machine has only two settings, temperature and air pressure, making it extremely easy to use. The operator places the Insert in the hole, pulls the handle on the press until it reaches a positive stop, and holds. The heated tip engages the Insert and transfers heat until the Insert reaches the correct melt temperature of the plastic. The compressed air, created by pulling the handle, then smoothly and consistently pushes the Insert into position. This system delivers exceptionally repeatable, quality installations that result in consistent Insert performance. The HM also provides versatility for future designs as it can easily be converted to install almost any size and style heat Insert.

**SPIROL** offers complimentary Application Engineering support. We will assist on new designs as well as help resolve issues, and recommend cost savings on existing designs. Let us help by visiting **Application Engineering Services** on [SPIROL.co.uk](http://SPIROL.co.uk).

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