

# SPIROL®

## PIN INSTALLATION TECHNOLOGY

### Model PMH Heavy Duty Manual Pin Inserter

This exceptionally versatile tool is ideally suited for low to moderate levels of production: from a single unit for prototype assembly, to multiple units on an assembly line. The **Model PMH** easily accommodates quick change-overs. The fixture is simply replaced at the base of the machine, and the pin diameter is easily changed by switching the pin driving chuck. The precisely machined rack and casting results in smooth operation, precise positioning, repeatability, and durability.

#### Design Features/Benefits:

- Easy:** - Simple to operate and easily adjustable
- Accurate:** - Base plate is pre-drilled for simple and precise fixture location
- Reliable:** - Cast iron frame, all heavy duty components
- Versatile:** - Installs pins ranging in diameter from 0.8 mm to 10 mm (1/32" to 3/8")
  - Easy tooling changeover to accommodate a variety of applications
- Capacities:** - 6.7 kN (1500 lbs.) maximum insertion force
  - Vertical adjustment: Uses spacer blocks
  - Fixed throat dimension: 120 mm (4.7")
  - Stroke: 76 mm (3") – 177 mm (7")
- Options:** - Torque-controlled handle that can be preset to the desired installation force
  - Resettable counter

#### Simple Operation:

1. Load the part to be pinned into an alignment fixture
2. Manually insert a pin into the spring-loaded jaws of the pin-driving chuck
3. Pull the lever until the unit reaches a finely adjustable pre-set stop
4. Release the lever
5. Unload the finished assembly

**Optional alignment fixtures available.**

**For higher production output, *semi-automatic* machines are readily available from SPIROL.**



*Shown with optional fixture*



Easily accommodates  
**SPIROL Pin-Driving Chucks: CXA, CXD**

*CXA/CXD*

See the **Model PMH** in action:  
<https://youtu.be/h7TI6DSwsk4>



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## Installation Made Easy



### SPIROL Model PMH Manual Pin Inserter

#### Application:

A pump manufacturer was manually pinning brass gears to steel shafts. The objective was to assemble the gear to the shaft without damaging the gear teeth. The current process was operator dependent and the pin being installed was difficult to hold, align and hammer into place without damaging the pin or assembly. The insertion force required to install the pin was approximately 750 lbs. They were pinning several different gear/shaft assemblies, therefore, quick and easy pin diameter and fixture changeover was a major concern.

#### Solution:

The **SPIROL Model PMH** Heavy Duty Manual Pin Inserter was the perfect solution. The manual machine is capable of insertion forces up to 1,500 lbs, is low cost, portable, and easily convertible from one application to the next. The PMH equipped with a spring-loaded alignment pin resolved the alignment issue and provided a fixturing solution that holds the assembly in place during the pinning operation. The **SPIROL CXA Pin Driving Chuck** supports the pin during the entire installation process and the press has a positive stop for pin depth control, significantly reducing operator dependence. Various assembly sizes are easily accommodated by changing the fixture, CXA tool and fine adjustment of the installation stroke.

The Model PMH Heavy Duty Manual Pin Inserter met the assembler's need for flexibility and ease of installation for their low volume, multiple size, high insertion force applications.

*Also consider our **SPIROL Models PR and CR machines** for automatic feeding and insertion.*

**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.com](http://SPIROL.com).

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