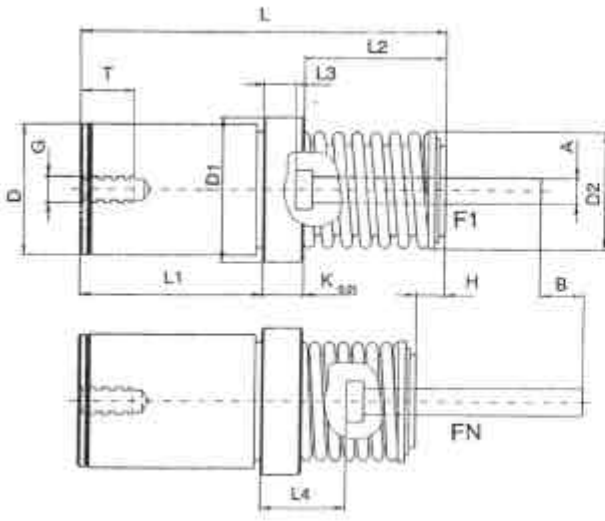


HEPA

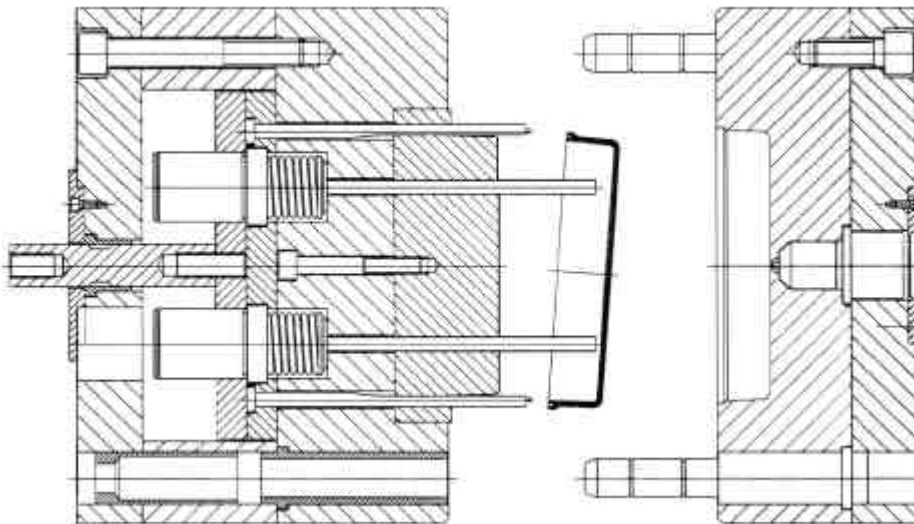
Hydraulic Ejector Pin Accelerator



- For design engineers, molders and moldmakers
- Provides simple, space and cost saving solutions
- Requires little machining. Provides for easy installation
- Increases production

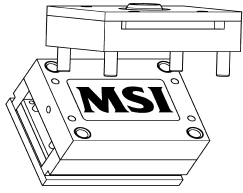
The Accelerated Ejector system **HEPA** provides a simple, space saving solution for design engineers, moldmakers and molders. Quite often injection molds require “two-step” ejection to safely release the molded part from the mold. The **HEPA** unit has the advantage that it may be placed in molds with very limited space. Furthermore, the round configuration of the **HEPA** facilitates custom machining, assembly and makes for easy installation. The highly effective design of the **HEPA** unit allows shorter cycle time and increases production for new and retrofit application. **HEPA** units are currently available in 3 sizes to accommodate ejector pin diameters ranging from 1/16 to 3/4 inch. For metric sized ejector pins the range is from 1mm to 20mm.

| DIMENSIONS ARE IN MM | | | | | | | | | | | | | | | | FORCES | |
|----------------------|-----------|--------|------|------|-------|------|------|------|------|------|------|------|------|-----|----|--------|------|
| Size | Catalog # | A | H | B | L | L1 | L2 | L3 | L4 | K | D | D1 | D2 | G | T | F1 | FN |
| 1 | HEPA1-4 | 1...4 | 6.0 | 8.4 | 70.0 | 33.5 | 28.5 | 7.0 | 15.4 | 8.0 | 23.0 | 26.0 | 22.0 | -- | -- | 170N | 226N |
| 2 | HEPA2-8 | 2...8 | 8.0 | 12.5 | 105.5 | 52.5 | 41.0 | 11.5 | 24.0 | 12.0 | 40.0 | 44.0 | 36.0 | M8 | 15 | 360N | 426N |
| 3 | HEPA6-20 | 6...20 | 20.0 | 20.0 | 193.0 | 83.0 | 90.0 | 40.3 | 60.3 | 20.0 | 75.0 | 82.0 | 66.5 | M16 | 24 | 497N | 822N |



Application: “Housing Parts”:
 The mold shown here (Fig. 1) is used to manufacture plastic housing parts which have projected details with undercuts along the edges. The details are molded with shaped ejector pins. During the ejection, the shaped ejector pins and the **HEPA** mounted ejector pins initially push the part away from the core section. The part, however, is still held in place by the slight undercut that is molded by the shaped pins, until the **HEPA** mounted ejector pins accelerate forward and finally push the plastic part away from the undercuts.

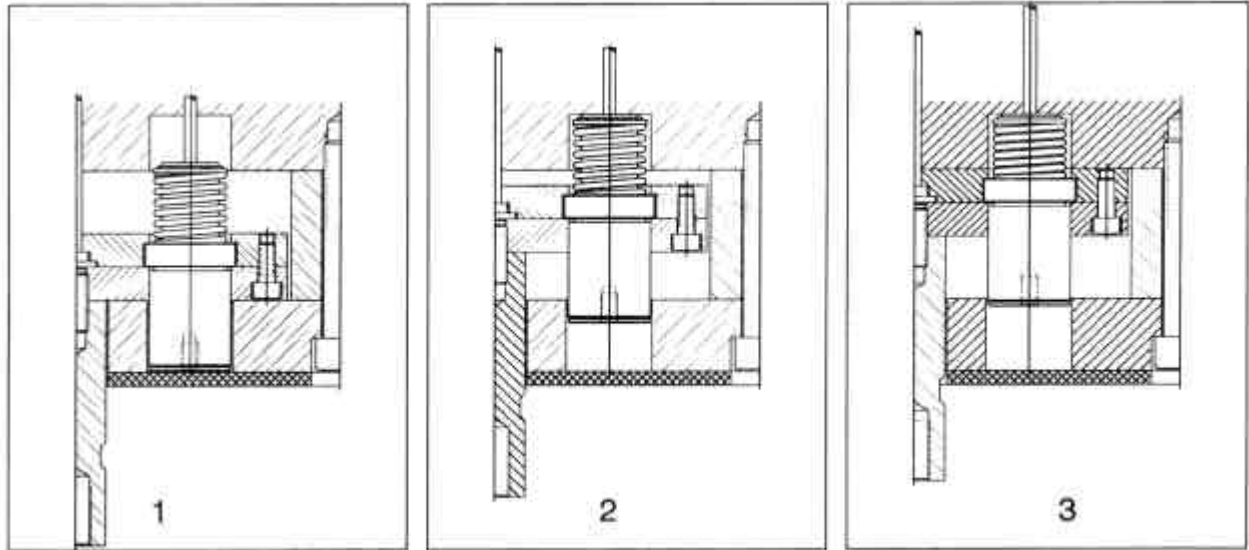
Fig. 1 **HEPA system is used to eject plastic housing with undercuts.**



HEPA

Hydraulic Ejector Pin Accelerator

HEPA System in Motion



Technical Information: The above pictures 1-3 display a typical **HEPA** installation and the various positions during an ejection. Picture 1: The mold is in a stand still position. As the platen moves forward all ejectors, including the **HEPA** mounted ejector pin, move forward simultaneously. Picture 2: The surface plate of the **HEPA** reaches the designated activation point. As the surface plate can no longer move forward, the hydraulic forces are being activated and the acceleration of the ejector begins. Picture 3: The **HEPA** accelerated pin has moved approximately .500 inch further out than all other conventional ejector pins.

HEPA Installation

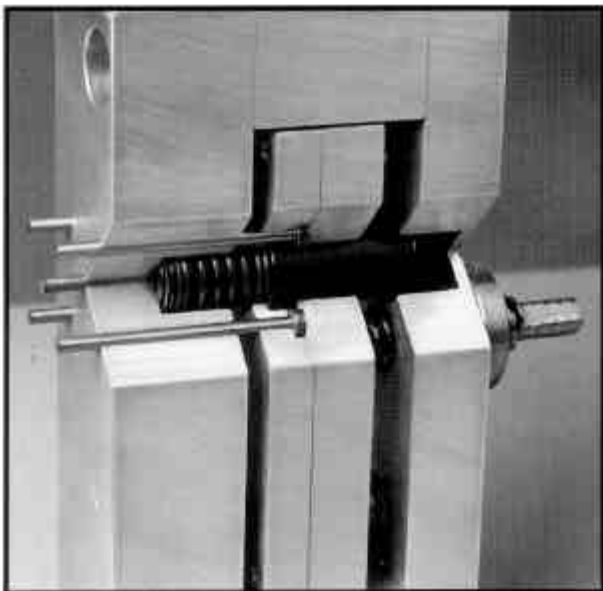


Fig. 2

Figure 2 demonstrates a single **HEPA** (size 1) installation. What's unique about this arrangement is that the ejector pins surrounding the **HEPA** are spaced just over 1 inch apart from each other. This clearly demonstrates the small space required to install this precise functioning acceleration system. The **HEPA** unit is maintenance free once installed. Tested for 500,000 cycles and more (up to a million cycles). The unit is reusable.