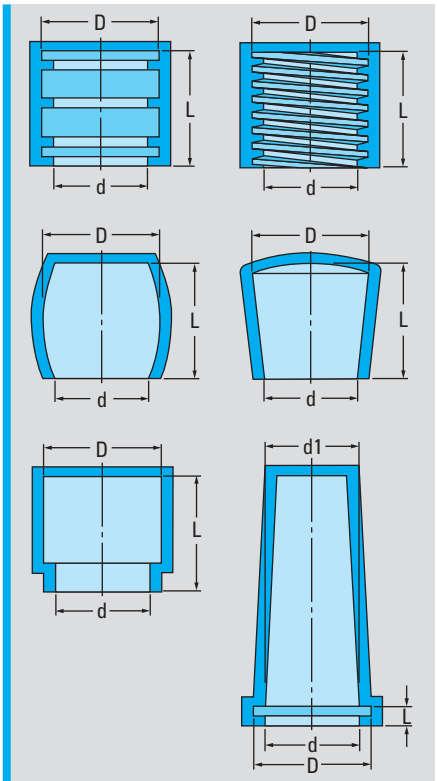
Installation and Motion Sequence

Structure

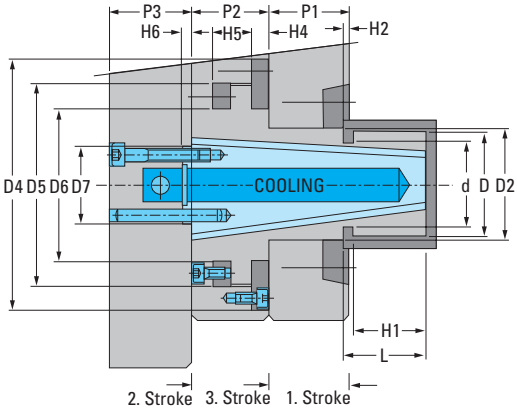
Normally, the D-M-E Multiform Collapsible Core consists of an inner core and six external segments. The segments are arranged on the inner core in various precisely calculated bevelled planes. During ejection, the segments slide across the inner core (dovetail) and perform a radial movement, which allows the internal undercut to demold.



The internal undercut is comprised of the smaller diameter "d" and the bigger diameter "D." For a mathematical calculation of the Multiform Collapsible Core, the internal length "L" is also of great importance. The larger the ratio of L to D, the smaller the possible undercut ratio.

In order to achieve an excellent undercut ratio for large item lengths where the internal undercut is at the item's front part, it is possible to flange a stationary core in front of the D-M-E Multiform Collapsible Core.

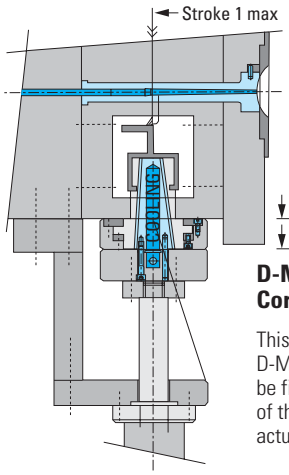
Installation Instructions



D = large diameter
d = small diameter
D2 = stripping diameter
L = internal length
P1 = stripping plate
P2 = segment retaining plate
P3 = clamping plate
D4 = max. external diameter

1. Stroke = mold opens
2. Stroke = axial segment movement (segment lift)
3. Stroke = stripping

Stroke 2 added to Stroke 3 = ejection stroke

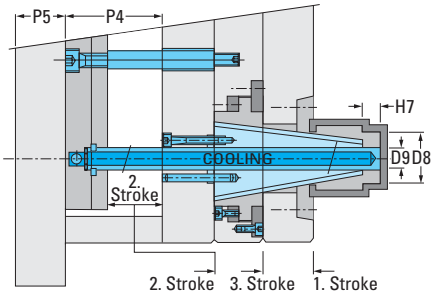


D-M-E Multiform Collapsible Core (flanged on the side)

This example illustrates that the D-M-E Multiform Collapsible Core can be fitted into the tool in the direction of the split line or obliquely. It is actuated using a hydraulic cylinder.

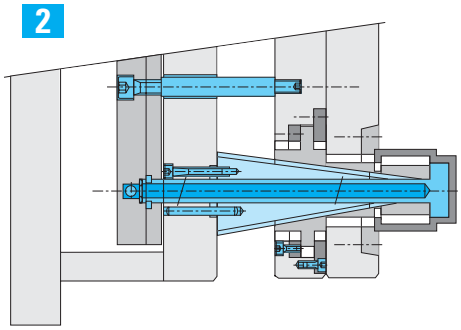
Motion Sequence (with flanged stationary core)

1



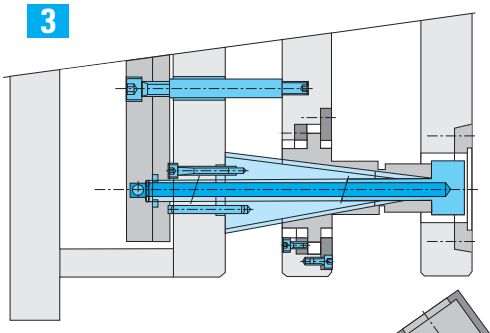
The cooling time has expired – the mold opens completely.

2



Ejection movement forward until the segments' axial movement has been completed; undercut is released.

3



Ejector movement completed; part is ejected.