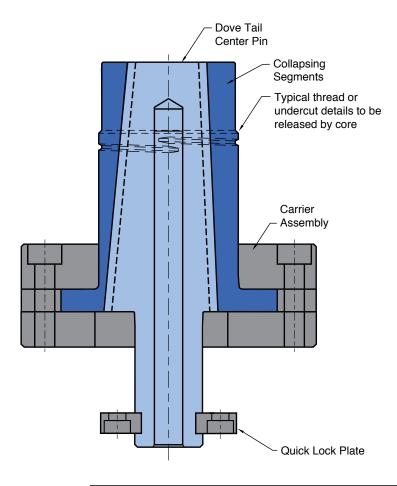


US Patent No. 8,033,810 Other patents pending



## Dove Tail Collapsible Cores - DT Series





## **Collapsing Segments**

M A-2 H 54-57 HRC

- Designed to mechanically collapse when the center pin is withdrawn.
- The fit between the segments is controlled to permit flash-free molding.

### **Center Pin**

M D-2 H 58-63 HRC

- Serves to expand the segments of the core to their molding position
- The pin may be flush to the core face.

### **Carrier Assembly**

M D-2 H 58-62 HRC

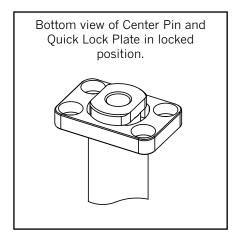
- Mounts DT Core assembly to the mold carrier plate.
- · Provides guided and anti-rotational segment movement.

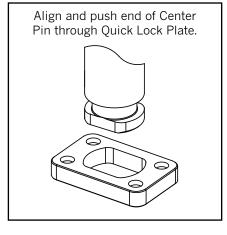


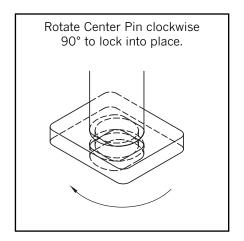
#### **Quick Lock Feature**

Plate Material: A-2, 54-57 HRC

Utilizing Progressive's exclusive Quick Lock mounting configuration, the DT Core can be removed and serviced while the mold remains in the press. This feature allows for a higher cavitation percentage and lower maintenance costs than other tool design approaches.



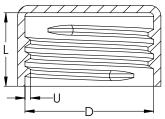


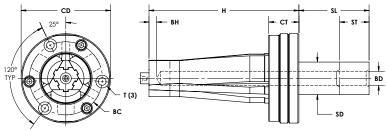




# Dove Tail Collapsible Cores - DT Series







|                   |                                   | D                           |                                   | <b>Y </b>                           |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
|-------------------|-----------------------------------|-----------------------------|-----------------------------------|-------------------------------------|---------------------|--------------------------|------------------------------------|---------------------------------------|------------------------------|---------------------------|--|--|-----------------------------------|
| CATALOG<br>NUMBER | D<br>Maximum<br>Outer<br>Diameter | <b>U</b><br>Max<br>Undercut | L<br>Maximum<br>Molding<br>Length | ST<br>Maximum<br>Collapse<br>Stroke | H<br>Core<br>Length | S D<br>Shaft<br>Diameter | B D<br>Cooling<br>Hole<br>Diameter | B H<br>Distance<br>to Cooling<br>Hole | <b>SL</b><br>Shaft<br>Length | CD<br>Carrier<br>Diameter | CT<br>Carrier<br>Assembly<br>Thickness | B C<br>Mounting<br>Screw<br>Bolt<br>Circle | T<br>Mounting<br>Screws<br>(SHCS) |
| DT1010            | 10.00-10.99mm<br>.394433in        | .36mm<br>.014in             | 7.5mm<br>.295in                   | 43.5mm<br>1.713in                   | 87mm<br>3.425in     | 10.5mm<br>.413in         | 3mm<br>.1in                        | 5mm<br>.2in                           | 58mm<br>2.283in              | 50mm<br>1.969in           | 21mm<br>.827in                         | 37mm<br>1.457in                            | M5 x 25                           |
| DT1111            | 11.00-11.99mm<br>.433472in        | .41mm<br>.016in             | 8mm<br>.315in                     | 44.5mm<br>1.752in                   |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT1212            | 12.00-12.99mm<br>.472511in        | .46mm<br>.018in             | 8.5mm<br>.335in                   | 45.5mm<br>1.791in                   | 87mm<br>3.425in     | 12mm<br>.472in           | 4mm<br>.2in                        | 5mm<br>.2in                           | 59mm<br>2.323in              | 52mm<br>2.047in           | 21mm<br>.827in                         | 38mm<br>1.496in                            | M6 x 35                           |
| DT1313            | 13.00-13.99mm<br>.512551in        | .51mm<br>.020in             | 9mm<br>.354in                     | 46.5mm<br>1.831in                   |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT1414            | 14.00-14.99mm<br>.551590in        | .56mm<br>.022in             | 9.5mm<br>.374in                   | 47mm<br>1.850in                     | 87mm<br>3.425in     | 14mm<br>.551in           | 5mm<br>.2in                        | 5mm<br>.2in                           | 60mm<br>2.362in              | 54mm<br>2.126in           | 21mm<br>.827in                         | 41mm<br>1.614in                            | M5x25                             |
| DT1515            | 15.00-15.99mm<br>.591630in        | .61mm<br>.024in             | 10mm<br>.394in                    | 47.5mm<br>1.870in                   |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT1616            | 16.00-16.99mm<br>.630669in        | .66mm<br>.026in             | 10.5mm<br>.413in                  | 48mm<br>1.890in                     | 87mm<br>3.425in     | 15.5mm<br>.610in         | 6mm<br>.2in                        | 5mm<br>.2in                           | 62mm<br>2.441in              | 56mm<br>2.205in           | 21mm<br>.827in                         | 43mm<br>1.693in                            | M5x25                             |
| DT1717            | 17.00-17.99mm<br>.669708in        | .71mm<br>.028in             | 11mm<br>.433in                    | 48.5mm<br>1.909in                   |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT1819            | 18.00-19.99mm<br>.709787in        | .82mm<br>.032in             | 12mm<br>.472in                    | 50mm<br>1.969in                     | 99mm<br>3.898in     | 18mm<br>.709in           | 8mm<br>.3in                        | 6mm<br>.2in                           | 61mm<br>2.402in              | 63mm<br>2.480in           | 24mm<br>.945in                         | 49mm<br>1.929in                            | M6x30                             |
| DT2021            | 20.00-21.99mm<br>.787866in        | .92mm<br>.036in             | 12.5mm<br>.492in                  | 55mm<br>2.165in                     |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT2224            | 22.00-24.99mm<br>.866984in        | 1.04mm<br>.041in            | 13mm<br>.512in                    | 59mm<br>2.323in                     | 109mm<br>4.291in    | 22mm<br>.866in           | 10mm<br>.4in                       | 6mm<br>.2in                           | 64mm<br>2.520in              | 69mm<br>2.717in           | 24mm<br>.945in                         | 55mm<br>2.165in                            | M6x30                             |
| DT2527            | 25.00-27.99mm<br>.984-1.102in     | 1.20mm<br>.047in            | 15mm<br>.591in                    | 66.5mm<br>2.618in                   |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT2830            | 28.00-30.99mm<br>1.102-1.220in    | 1.36mm<br>.053in            | 18mm<br>.709in                    | 71mm<br>2.795in                     | 129mm<br>5.079in    | 28mm<br>1.102in          | 12mm<br>.5in                       | 6mm<br>.2in                           | 60mm<br>2.362in              | 77mm<br>3.031in           | 26mm<br>1.024in                        | 63mm<br>2.480in                            | M6x30                             |
| DT3133            | 31.00-33.99mm<br>1.220-1.338in    | 1.50mm<br>.059in            | 21mm<br>.827in                    | 78mm<br>3.071in                     |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT3436            | 34.00-36.99mm<br>1.339-1.456in    | 1.73mm<br>.068in            | 22mm<br>.866in                    | 79mm<br>3.110in                     | 139mm<br>5.472in    | 34mm<br>1.339in          | 14mm<br>.6in                       | 6mm<br>.2in                           | 64mm<br>2.520in              | 93mm<br>3.661in           | 27mm<br>1.063in                        | 75mm<br>2.953in                            | M8x30                             |
| DT3739            | 37.00-39.99mm<br>1.457-1.574in    | 1.88mm<br>.074in            | 24mm<br>.945in                    | 85mm<br>3.346in                     |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT4042            | 40.00-42.99mm<br>1.575-1.693in    | 2.06mm<br>.081in            | 25mm<br>.984in                    | 86mm<br>3.386in                     | 151mm<br>5.945in    | 39mm<br>1.535in          | 17mm<br>.7in                       | 6mm<br>.2in                           | 65mm<br>2.559in              | 101mm<br>3.976in          | 32mm<br>1.260in                        | 83mm<br>3.268in                            | M8x35                             |
| DT4345            | 43.00-45.99mm<br>1.693-1.811in    | 2.24mm<br>.088in            | 27mm<br>1.063in                   | 93mm<br>3.661in                     |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT4648            | 46.00-48.99mm<br>1.811-1.929in    | 2.42mm<br>.095in            | 28mm<br>1.102in                   | 94mm<br>3.701in                     | 161mm<br>6.339in    | 42mm<br>1.654in          | 20mm<br>.8in                       | 6mm<br>.2in                           | 69mm<br>2.717in              | 110mm<br>4.331in          | 32mm<br>1.260in                        | 90mm<br>3.543in                            | M8x35                             |
| DT4951            | 49.00-51.99mm<br>1.929-2.047in    | 2.57mm<br>.101in            | 31mm<br>1.220in                   | 99mm<br>3.898in                     |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT5254            | 52.00-54.99mm<br>2.047-2.165in    | 2.77mm<br>.109in            | 32mm<br>1.260in                   | 100mm<br>3.937in                    |                     |                          |                                    |                                       |                              |                           |  |  |                                   |
| DT5557            | 55.00-57.99mm<br>2.165-2.283in    | 2.95mm<br>.116in            | 34mm<br>1.339in                   | 106mm<br>4.173in                    | 183mm<br>7.205in    | 50mm<br>1.969in          | 22mm<br>.9in                       | 6mm<br>.2in                           | 85mm<br>3.346in              | 130mm<br>5.118in          | 39mm<br>1.535in                        | 107mm<br>4.213in                           | M10x45                            |
| DT5860            | 58.00-60.99mm<br>2.283-2.401in    | 3.10mm<br>.122in            | 36mm<br>1.417in                   | 111mm<br>4.370in                    |                     |                          |                                    |                                       |                              |                           |  |  |                                   |

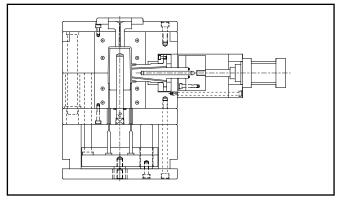
For sizes larger than 60mm, contact Mould & Die Solutions

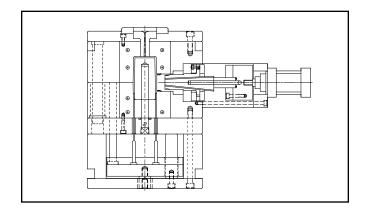


## Dove Tail Collapsible Cores - DT Series

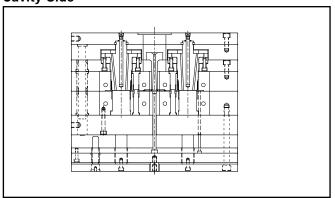


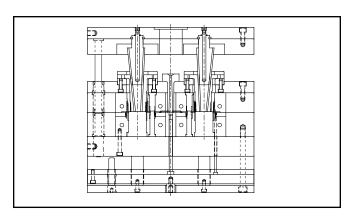
## **Side Action**



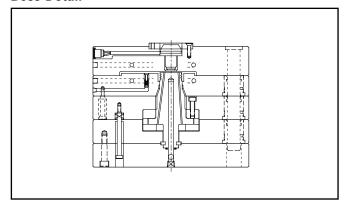


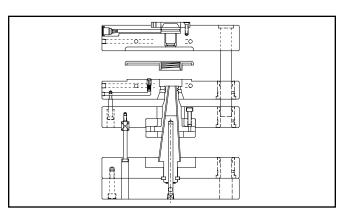
## **Cavity Side**



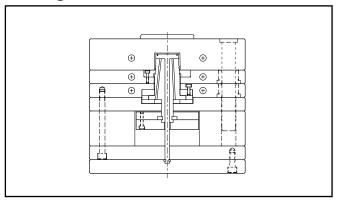


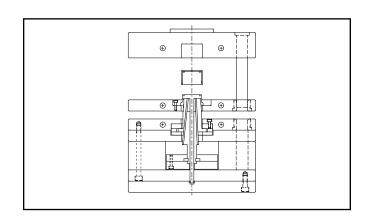
## **Boss Detail**





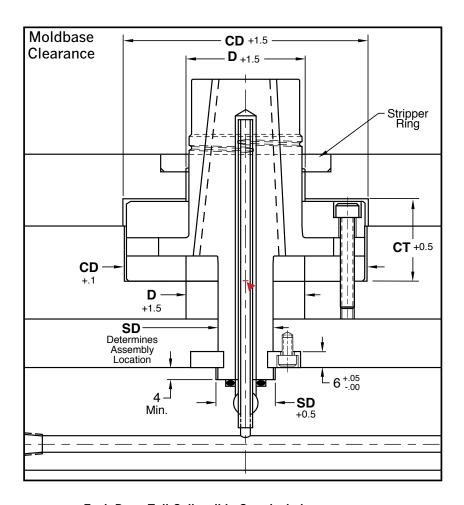
## **Seal Ring**











#### **Each Dove Tail Collapsible Core includes:**

DT Series Core/Pin/Carrier Assembly Quick Lock Plate All mounting screws

#### **Application Guidelines**

- All standard DT Series Cores offer 360  $^{\circ}$  molding of threads or other undercuts.
- Molded parts do not need to be closed at one end. They may be partially or completely open.
- Stripper ring can be provided by moldmaker with either a tapered or straight fit, as shown in the machining guidelines at left.
- Parts with size requirements that fall outside of the standard sizes are available on a custom order basis.
- Progressive can provide Dove Tail cores with your thread or cap detail already machined. Also, coatings and treatments may also be provided. Email your part drawing or application to tech@procomps.com for a review.