

## DOVE TAIL COLLAPSIBLE CORES

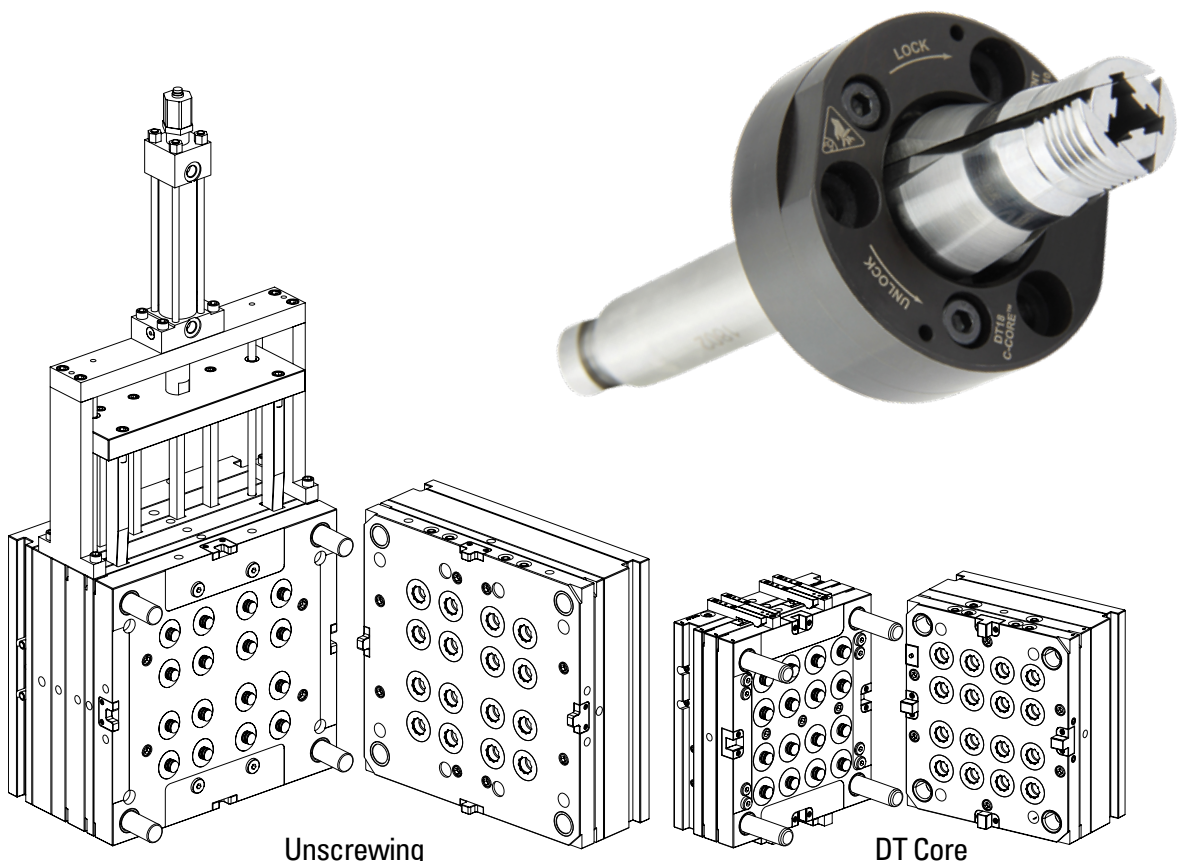
- ▶ Positive mechanically actuated Collapsible Core
- ▶ Collapse amount: 5% to 7% per side
- ▶ Eliminates costly Rack and Gear Systems
- ▶ Enables faster mold cycle times
- ▶ Patented Quick Lock helps cut service time
- ▶ Built-in center cooling channel
- ▶ Standard and custom sizes available

### Simplified Mold Design Maximizes Cost Savings

The Collapsible Core DT Series provides a more compact and simplified solution to molding challenging internal undercut features such as o-ring grooves, slots and snap-fit designs. Available in four standard sizes, as well as custom sizes to meet your specific requirements, the DT Collapsible Core Series eliminates the need for unscrewing mechanisms.

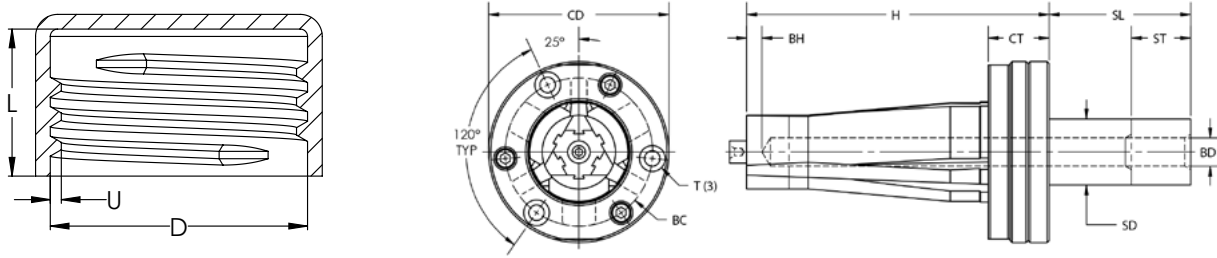
### Dove Tail Collapsible Cores Enable Application Design Flexibility

- ▶ All standard DT Series Collapsible Cores offer 360 degree molding of threads or other undercut features
- ▶ Molded parts are not required to be closed at one end; they may be partially or completely open
- ▶ DME offers customized DT Cores with pre-machined part detail
- ▶ A variety of coatings and treatments are available



## DT SERIES COLLAPSIBLE CORES

### DT SERIES

**DT**


REF	D	U	L	ST	H	SD	BD	BH	SL	CD	CT	BC	T
DT1010	10,00-10,99mm	0,36mm	7,5mm	43,5mm	87mm	10,5mm	3mm	5mm	58mm	50mm	21mm	37mm	M5 x 25
DT1111	11,00-11,99mm	0,41mm	8mm	44,5mm									
DT1212	12,00-12,99mm	0,46mm	8,5mm	45,5mm	87mm	12mm	4mm	5mm	59mm	52mm	21mm	38mm	M6 x 35
DT1313	13,00-13,99mm	0,51mm	9mm	46,5mm									
DT1414	14,00-14,99mm	0,56mm	9,5mm	47mm	87mm	14mm	5mm	5mm	60mm	54mm	21mm	41mm	M5x25
DT1515	15,00-15,99mm	0,61mm	10mm	47,5mm									
DT1616	16,00-16,99mm	0,66mm	10,5mm	48mm	87mm	15,5mm	6mm	5mm	62mm	56mm	21mm	43mm	M5x25
DT1717	17,00-17,99mm	0,71mm	11mm	48,5mm									
DT1819	18,00-19,99mm	0,82mm	12mm	50mm	99mm	18mm	8mm	6mm	61mm	63mm	24mm	49mm	M6x30
DT2021	20,00-21,99mm	0,92mm	12,5mm	55mm									
DT2224	22,00-24,99mm	1,04mm	13mm	59mm	109mm	22mm	10mm	6mm	64mm	69mm	24mm	55mm	M6x30
DT2527	25,00-27,99mm	1,20mm	15mm	66,5mm									
DT2830	28,00-30,99mm	1,36mm	18mm	71mm	129mm	28mm	12mm	6mm	60mm	77mm	26mm	63mm	M6x30
DT3133	31,00-33,99mm	1,50mm	21mm	78mm									
DT3436	34,00-36,99mm	1,73mm	22mm	79mm	139mm	34mm	14mm	6mm	64mm	93mm	27mm	75mm	M8x30
DT3739	37,00-39,99mm	1,88mm	24mm	85mm									
DT4042	40,00-42,99mm	2,06mm	25mm	86mm	151mm	39mm	17mm	6mm	65mm	101mm	32mm	83mm	M8x35
DT4345	43,00-45,99mm	2,24mm	27mm	93mm									
DT4648	46,00-48,99mm	2,42mm	28mm	94mm	161mm	42mm	20mm	6mm	69mm	110mm	32mm	90mm	M8x35
DT4951	49,00-51,99mm	2,57mm	31mm	99mm									
DT5254	52,00-54,99mm	2,77mm	32mm	100mm	183mm	50mm	22mm	6mm	85mm	130mm	39mm	107mm	M10x45
DT5557	55,00-57,99mm	2,95mm	34mm	106mm									
DT5860	58,00-60,99mm	3,10mm	36mm	111mm									

D Max. outer diameter  
U Min. undercut  
L Max. moulding length  
ST Max. collapse stroke  
H Core length  
SD Shaft diameter  
BD Cooling hole diameter

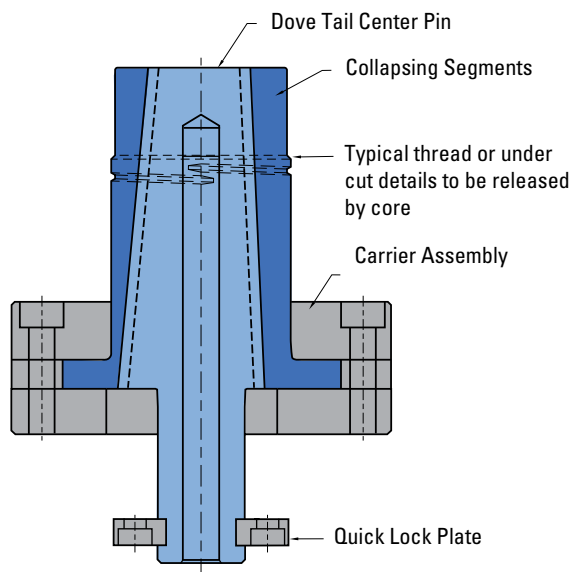
BH Distance to cooling hole  
SL Shaft length  
CD Carrier diameter  
CT Carrier assembly thickness  
BC Mounting screw bolt circle  
T Mounting screws (SHCS)

For sizes larger than 60 mm, contact DME directly.

Build in instructions available upon request.

## DT SERIES COLLAPSIBLE CORES CONSTRUCTION

DT



### Collapsing Segments

Mat.: 1.2363- Hardness: 54 -57 HRC

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

### Center Pin

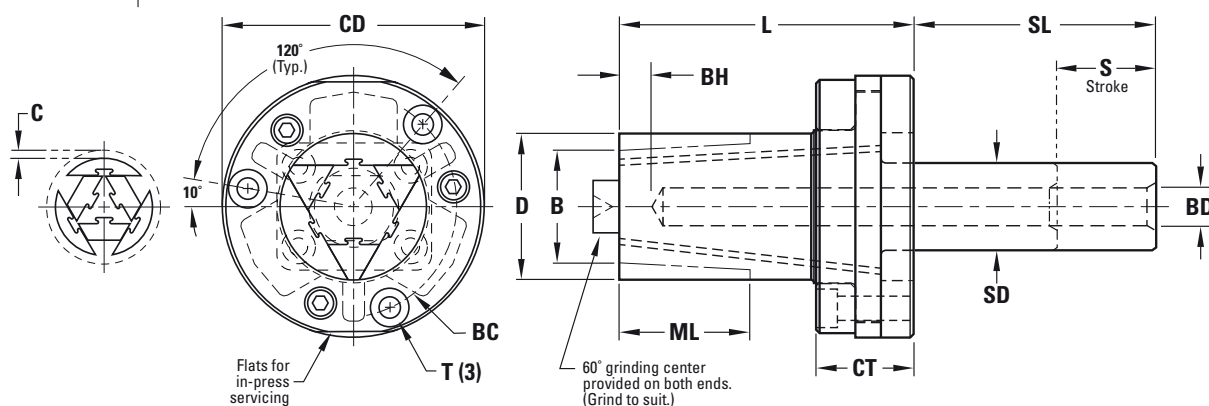
Mat.: 1.2379- Hardness: 60-62 HRC

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

### Carrier Assembly

Mat.: 1.2379- Hardness: 60-62 HRC

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



All dimensions and tolerances are in millimeters.

REF	D	B +3°/Side	ML	C	CD	CT ± 0,05	L +0,1 -0,0	SL	SD +0,00 -0,02	BD	BH	BC	T	S
DT18	21	17	22	1,1	53	21	60	60	16	6	6	40	M5 x 25	34
DT28	33	25	28	1,6	60	22	67	60	20	8	8	47	M5 x 25	38
DT38	42	33	43	2,1	76	28	85	60	25	10	10	60	M6 x 35	54
DT48	54	42	50	2,4	98	37	104	70	30	12	12	78	M8 x 40	62

D Max. outer diameter  
B Min. inner diameter  
ML Max. moulding length  
C Maximum collapse  
CD Carrier diameter

CT Carrier assembly thickness  
L Core length  
SL Shaft length  
SD Shaft diameter  
BD Cooling hole diameter

BH Distance to cooling hole  
BC Mounting screw bolt circle  
T Mounting screws  
S Maximum collapse stroke

## DT SERIES COLLAPSIBLE CORES SETRAL GREASE

DTG100



Setral is a full synthetic, solid free non-migrating grease for long term lubrication that is used to coat the sliding surfaces between our segments and center pin. DME recommends this grease for all DT core applications. MSDS and technical data sheets are available from DME.

Description: Setral INT/300 Grease : 100g Tube



## DT SERIES COLLAPSIBLE CORES GRINDING FIXTURES

**DTGF...**



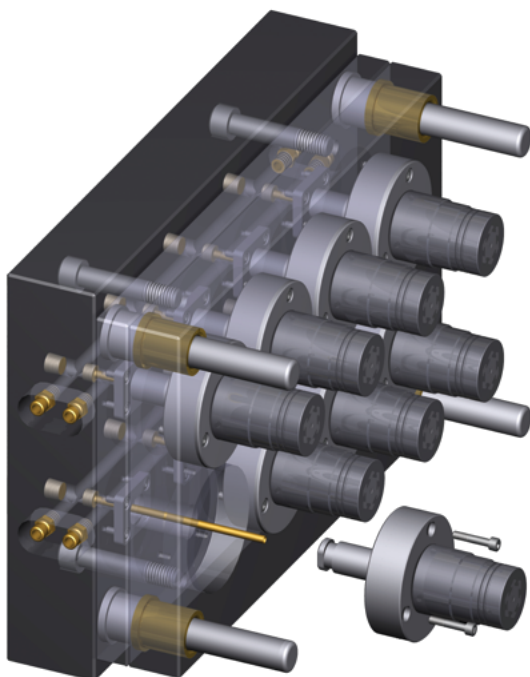
Grinding Fixtures for DT Collapsible Cores securely hold the core segments in place against the center pin when grinding, high speed machining or EDM'ing details. Although normally DME would provide cores with finished moulding details, grinding fixtures allow customers to machine their own details.

REF	Core size
<b>DTGF1011</b>	Grinding fixtures for DT1010 - DT1111
<b>DTGF1213</b>	Grinding fixtures for DT1212 - DT1313
<b>DTGF1415</b>	Grinding fixtures for DT1414 - DT1515
<b>DTGF1617</b>	Grinding fixtures for DT1616 - DT1717
<b>DTGF1821</b>	Grinding fixtures for DT1819 - DT2021
<b>DTGF2227</b>	Grinding fixtures for DT2224 - DT2527
<b>DTGF2833</b>	Grinding fixtures for DT2830 - DT3133
<b>DTGF3439</b>	Grinding fixtures for DT3436 - DT3739

REF	Core size
<b>DTGF4045</b>	Grinding fixtures for DT4042 - DT4345
<b>DTGF4651</b>	Grinding fixtures for DT4648 - DT4951
<b>DTGF5260</b>	Grinding fixtures for DT5254-DT5557-DT5860
<b>DTGF18</b>	Grinding fixtures for DT18
<b>DTGF28</b>	Grinding fixtures for DT28
<b>DTGF38</b>	Grinding fixtures for DT38
<b>DTGF48</b>	Grinding fixtures for DT48

## DT SERIES COLLAPSIBLE CORES QUICK LOCK PLATE (OPTIONAL)

**DT...**

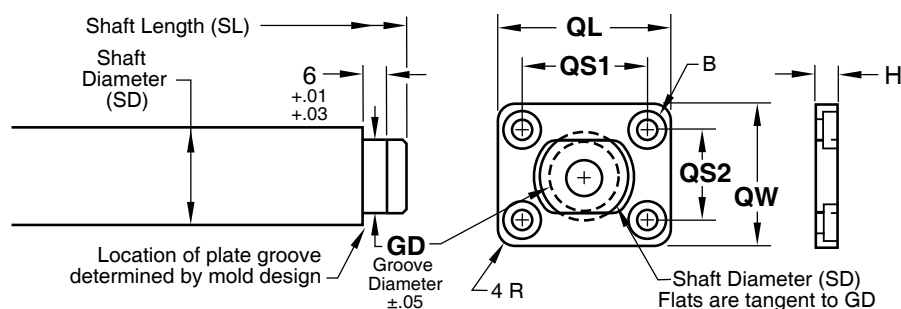


Features:  
Plate Material: 54-57 HRC

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

## DT SERIES COLLAPSIBLE CORES QUICK LOCK PLATE (OPTIONAL)

DTQL...

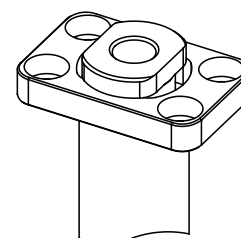
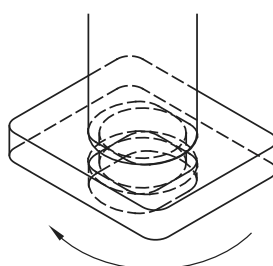
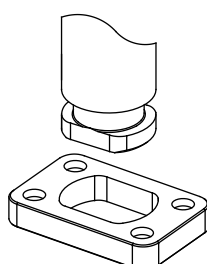


REF	For	gd	QL +0.00 -0.05	QW +0.00 -0.05	qs1	qs2	h	B MOUNTING SCREWS
DTQL1011	Quick Lock plate for DT1010 - DT1111	7.43mm .93in	26.01mm 1.024in	18.01mm .709in	17.50mm .689in	9.50mm .374in	4mm .1575in	M3 LHCS
DTQL1213	Quick Lock plate for DT1212 - DT1313	9.02mm 355in	27.99mm 1.102in	18.01mm .709in	19.51mm .768in	9.50mm .374in	4mm .1575in	M3 LHCS
DTQL1415	Quick Lock plate for DT1414 - DT1515	9.81mm 386in	30mm 1.181in	19.99mm .787in	21.49mm .846in	11.51mm .453in	5mm .1969in	M3 SHCS
DTQL1617	Quick Lock plate for DT1616 - DT1717	10.60mm .417in	32mm 1.260in	22mm .866in	23.50mm .925in	13.49mm .531in	5mm .1969in	M3 SHCS
DTQL1821	Quick Lock plate for DT1819 - DT2021	12.99mm .511in	35mm 1.378in	24.99mm .984in	24.99mm .984in	15.01mm .591in	6mm .2362in	M4 SHCS
DTQL2227	Quick Lock plate for DT2224 - DT2527	16.16mm .636in	38mm 1.496in	27.99mm 1.102in	27.99mm 1.102in	18.01mm .709in	6mm .2362in	M4 SHCS
DTQL2833	Quick Lock plate for DT2830 - DT3133	21.72mm .855in	43.99mm 1.732in	32mm 1.260in	34.01mm 1.339in	22mm .866in	6mm .2362in	M4 SHCS
DTQL3439	Quick Lock plate for DT3436 - DT3739	25.69mm 1.011in	51.99mm 2.047in	40.01mm 1.575in	40.01mm 1.575in	27.99mm 1.102in	8mm .3150in	M5 SHCS
DTQL4045	Quick Lock plate for DT4042 - DT4345	30.45mm 1.199in	56.01mm 2.205in	43.99mm 1.732in	43.99mm 1.732in	32mm 1.260in	8mm .3150in	M5 SHCS
DTQL4651	Quick Lock plate for DT4648 - DT4951	34.42mm 1.355in	57.99mm 2.283in	46mm 1.811in	46mm 1.811in	34.01mm 1.339in	8mm .3150in	M5 SHCS
DTQL5260	Quick Lock plate for DT5254-DT5557-DT5860	39.18mm 1.543in	65.99mm 2.598in	54mm 2.126in	53.01mm 2.087in	41mm 1.614in	10mm .3937in	M6 SHCS
DTQL18	Quick Lock plate for DT18	12mm .472in	35mm 1.378in	22mm .866in	25mm .984in	12mm .472in	6mm .236in	M4 SHCS
DTQL28	Quick Lock plate for DT28	15mm .591in	38mm 1.496in	25mm .984in	28mm 1.102in	15mm .591in	6mm .236in	M4 SHCS
DTQL38	Quick Lock plate for DT38	19mm .748in	41mm 1.614in	31mm 1.220in	30mm 1.181in	20mm .787in	6mm .236in	M4 SHCS
DTQL48	Quick Lock plate for DT48	23mm .906in	44mm 1.732in	35mm 1.378in	34mm 1.339in	25mm .984in	6mm .236in	M4 SHCS

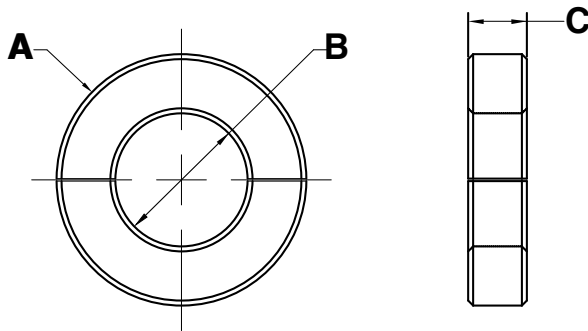
Align and push end of Center Pin through Quick Lock Plate.

Rotate Center Pin clockwise 90° to lock into place.

Bottom view of Center Pin and Quick Lock Plate in locked position.



## DT SERIES COLLAPSIBLE CORES SPLIT RING

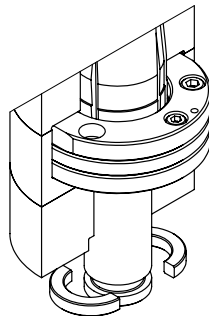
**DTSR...**


Utilizing DME's split ring allows for a simpler attachment method.

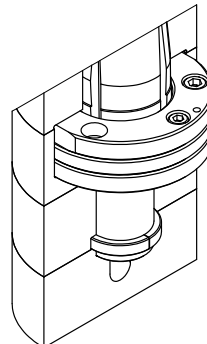
REF	For	A (mm)	B (mm)	C (mm)
<b>DTSR1011</b>	Split ring for fixing DT1010 - DT1111	16	7,95	3,99
<b>DTSR1213</b>	Split ring for fixing DT1212 - DT1313	17,53	9,53	3,99
<b>DTSR1415</b>	Split ring for fixing DT1414 - DT1515	20,32	10,31	5
<b>DTSR1617</b>	Split ring for fixing DT1616 - DT1717	21,08	11,13	5
<b>DTSR1821</b>	Split ring for fixing DT1819 - DT2021	25,40	13,49	5,99
<b>DTSR2227</b>	Split ring for fixing DT2224 - DT2527	28,70	16,66	5,99
<b>DTSR2833</b>	Split ring for fixing DT2830 - DT3133	34,29	22,23	5,99
<b>DTSR3439</b>	Split ring for fixing DT3436 - DT3739	42,16	26,19	8

REF	For	A (mm)	B (mm)	C (mm)
<b>DTSR4045</b>	Split ring for fixing DT4042 - DT4345	46,99	30,96	8
<b>DTSR4651</b>	Split ring for fixing DT4648 - DT4951	50,80	34,93	8
<b>DTSR5260</b>	Split ring to fix DT5254-DT5557-DT5860	59,69	39,70	9,98
<b>DTSR18</b>	Split ring for fixing DT18	24,89	12,70	6,35
<b>DTSR28</b>	Split ring for fixing DT28	27,94	15,88	6,35
<b>DTSR38</b>	Split ring for fixing DT38	34,80	20,62	6,35
<b>DTSR48</b>	Split ring for fixing DT48	37,59	25,40	6,35

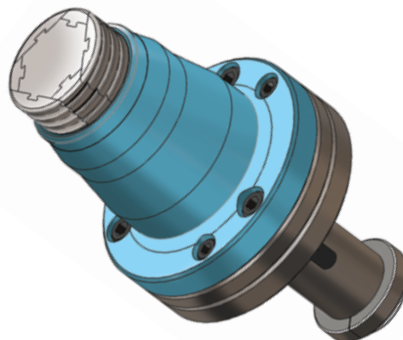
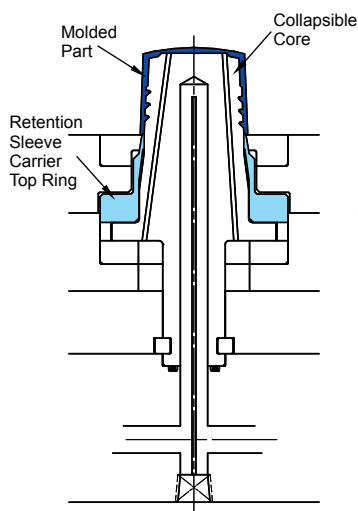
Assemble Core into Mould.  
Then collapse core to install split  
ring



Push Center pin forward to mould-  
ing position and install back plate



## RETENTION SLEEVE (OPTIONAL)



Retention Sleeves for DoveTail Collapsible  
Cores assure the position of the moulded part  
during core collapse and part ejection.

E-mail [DMEEU\\_specialprojects@dme.net](mailto:DMEEU_specialprojects@dme.net) for  
more information.





## DT SERIES COLLAPSIBLE CORES SUB-10 DT CORE SERIES

**DTSUB10**


The Sub-10 DT Cores make it possible to release very small threads and undercuts in moulded caps, connectors and small medical parts.

Allows moulding of parts with 7-10mm ID.

Simpler alternative to unscrewing moulds.

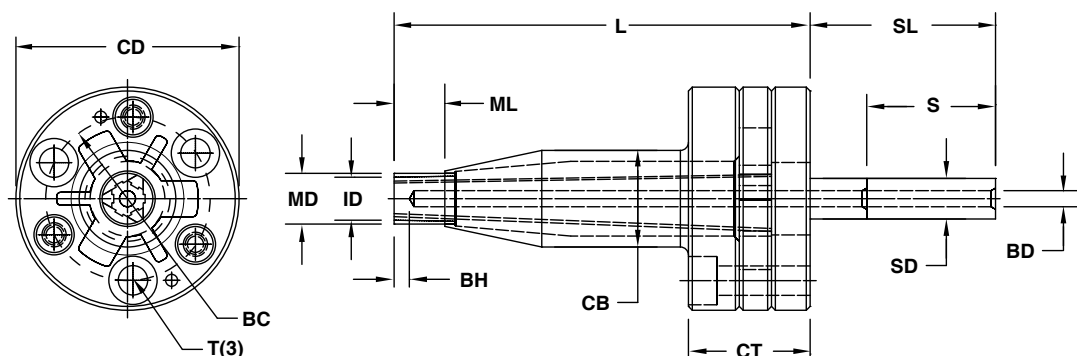
Reduces cycle time and maintenance requirements.

### Application Guidelines:

Maximum undercut depth is determined by final moulding diameter from application review.

Collapse stroke is determined by undercut depth from application review.

Cores are supplied complete with machined moulding details.



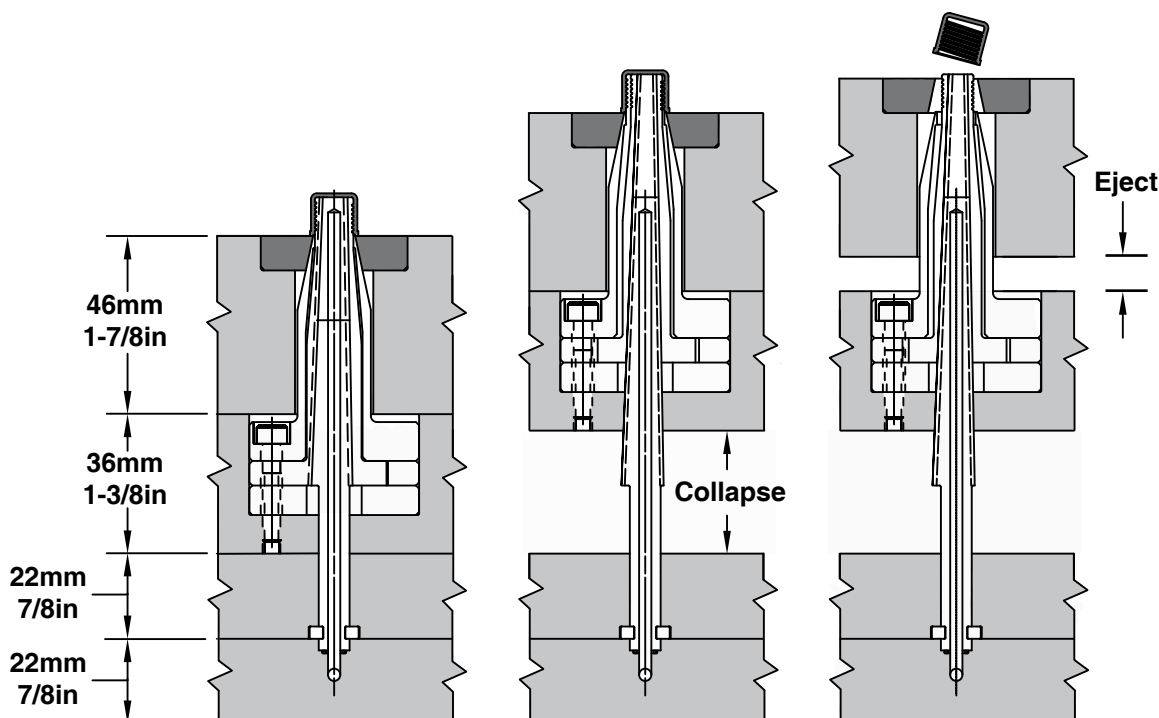
REF	MD	ID	ML	UC	CD	CB	CT	L	SL	SD	S	BD	BH	BC	T
DTSUB10	10mm	7mm	10mm	0,38mm	44mm	19mm	24mm	82mm	36mm	8mm	50mm	3mm	3mm	32mm	M5x25

MD Max. moulding diameter  
ID Min. moulding diameter  
ML Max. moulding length  
UC Maximum undercut  
CD Carrier assembly diameter

CB Carrier assembly body  
CT Carrier assembly thickness  
L Length  
SL Shaft length  
SD Shaft diameter

S Maximum collapse stroke  
BD Cooling hole diameter  
BH Cooling hole height  
BC Mounting bolt circle  
T Mounting bolt (3)

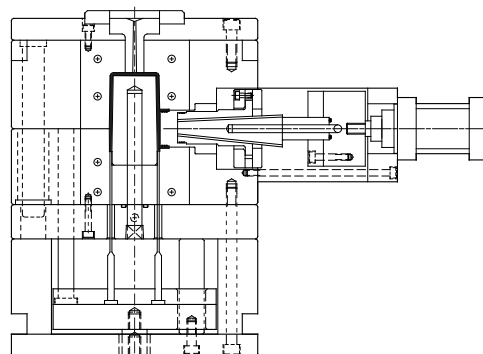
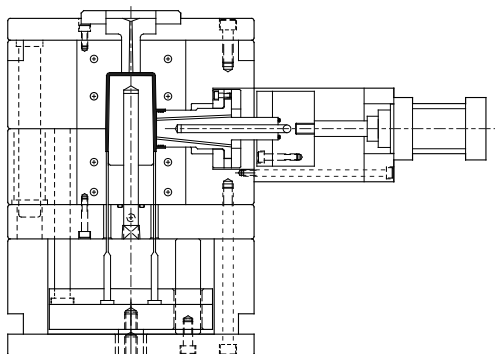
**NOTE:** Submit part geometry to [DMEEU\\_specialprojects@dme.net](mailto:DMEEU_specialprojects@dme.net) for quotes and application review.



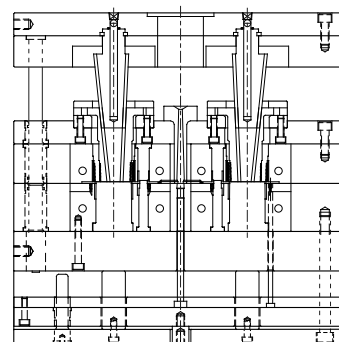
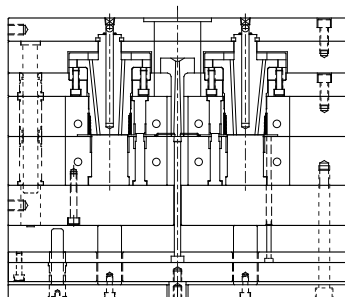
## DT SERIES COLLAPSIBLE CORES

### DT SERIES APPLICATIONS

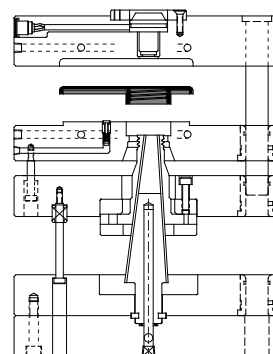
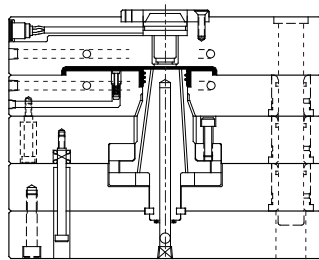
#### SIDE ACTION



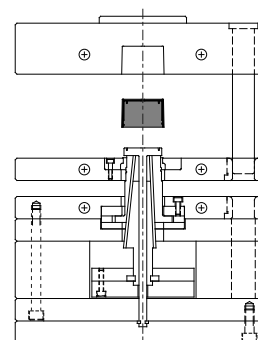
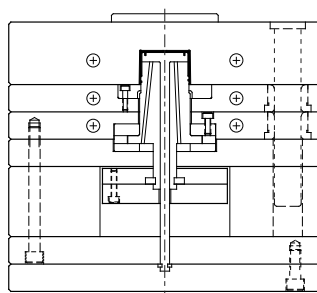
#### CAVITY SIDE



#### BOSS DETAIL

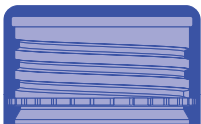
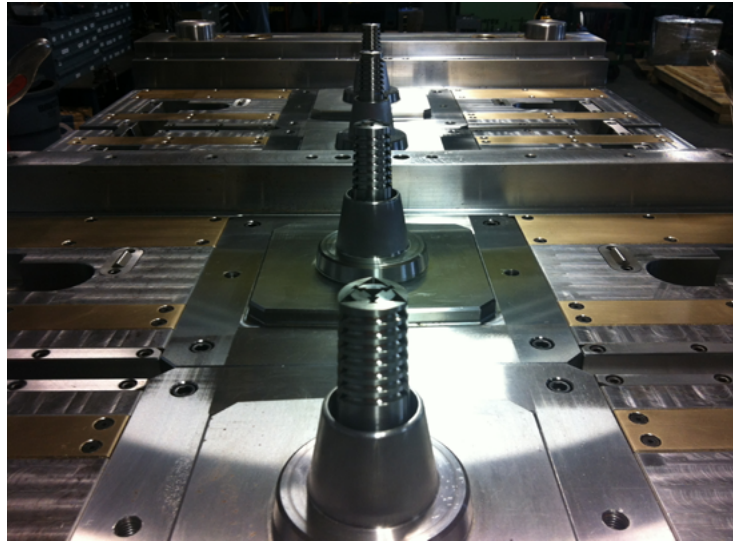
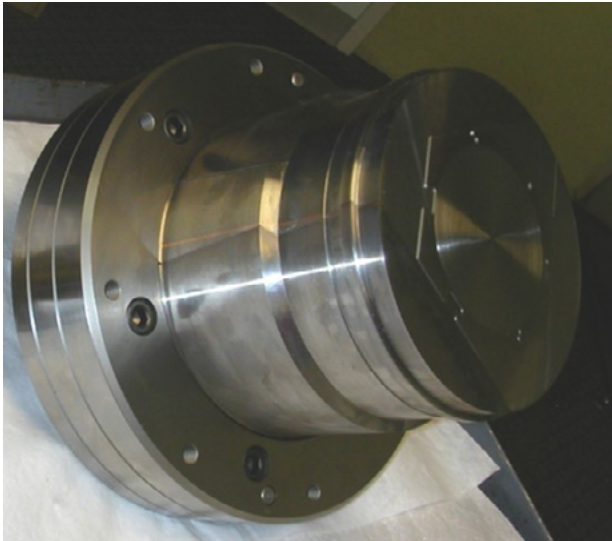


#### SEAL RING (PANCAKE PIN)

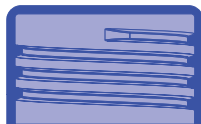




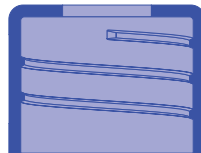
DT SERIES COLLAPSIBLE CORES  
DT SERIES CUSTOM APPLICATIONS



TE Cap



CT Cap



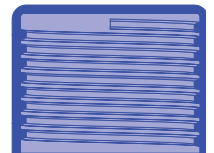
Threaded Collar



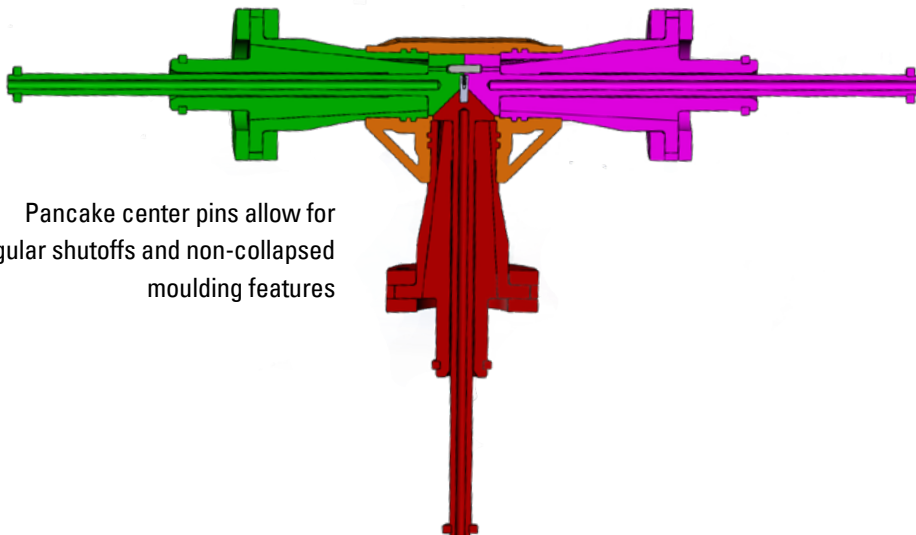
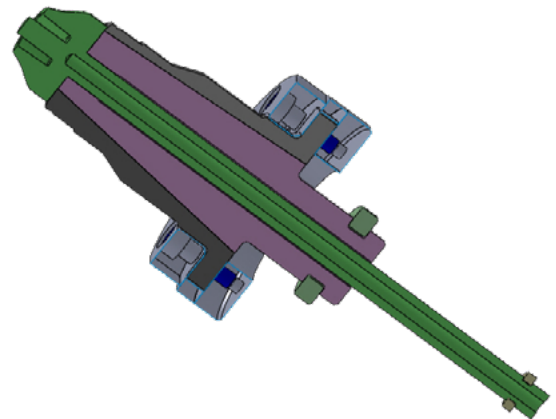
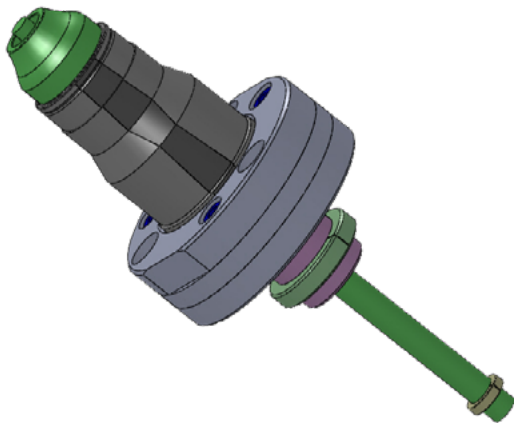
Prescription



Dosing



Long Thread Run



Pancake center pins allow for  
angular shutoffs and non-collapsed  
moulding features

