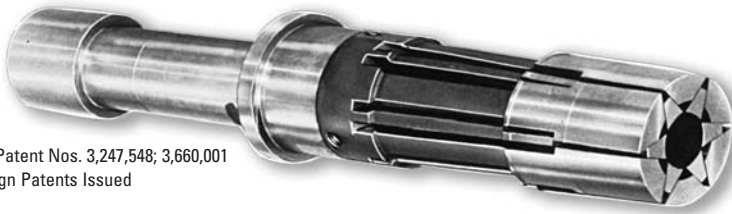


D-M-E Collapsible Cores

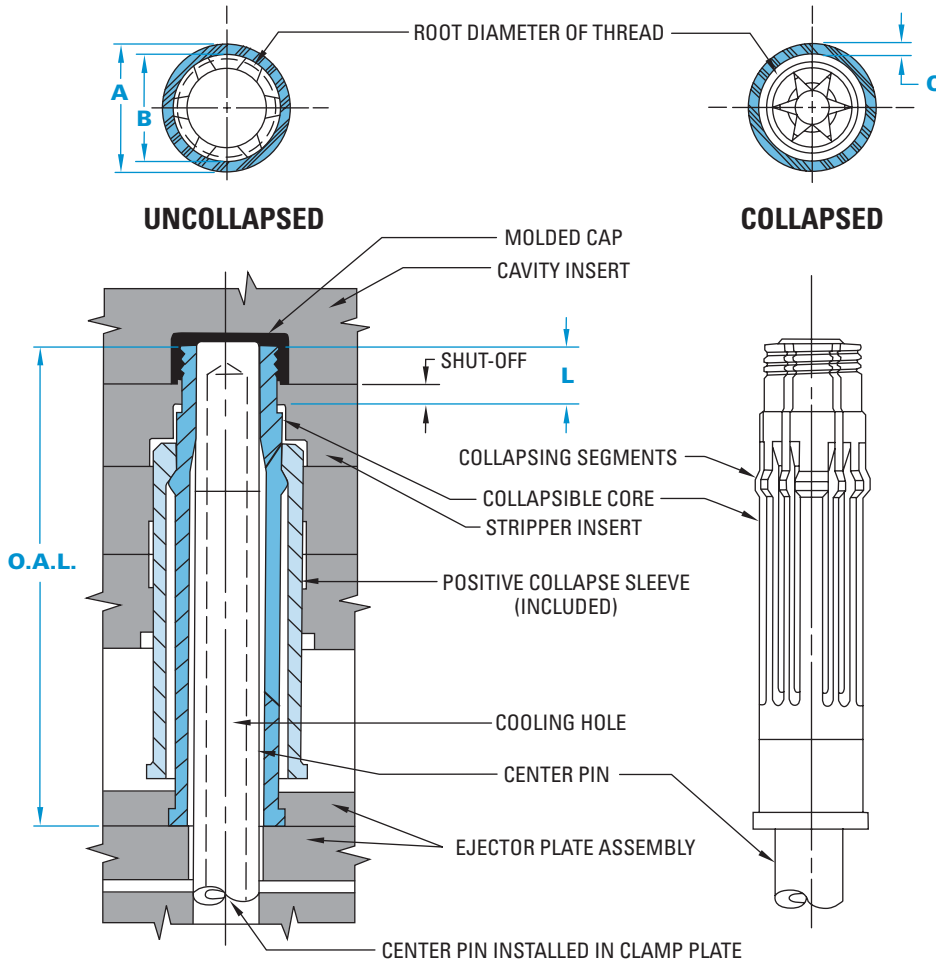
Efficiently mold
plastic parts requiring
internal threads, undercuts,
protrusions or cut-outs



D-M-E Standard Collapsible Core



U.S. Patent Nos. 3,247,548; 3,660,001
Foreign Patents Issued



Economically produce complex plastic parts

The Collapsible Core is a major breakthrough for molding plastic parts requiring internal threads, undercuts, protrusions or cut-outs. The patented design incorporates only three moving parts which utilize conventional mold movements.

The Collapsible Core's automatic operation makes it possible for you to produce parts that, previously, had been considered impossible to mold. Parts with internal protrusions, dimples, interrupted threads and cut-outs can now be economically produced on a high- or low-volume basis.

For conventional threaded parts, the Collapsible Core could cut your cycle time up to 30% when compared with unscrewing or other complex actuating mechanisms.

Full technical details, including basic stripper plate mold construction, core grinding instructions, and core and mold machining dimensions are included in the Collapsible Core and Collapsible Mini-Core Design & Assembly Guide — contact D-M-E for a copy.

ITEM NO.	A MAX. O.D. OF THREAD OR CONFIG.		B MIN. I.D. OF THREAD OR CONFIG.		CENTER PIN DIAMETER (AT TOP OF COLLAPSIBLE CORE)		L MAX. MOLDED LENGTH (INCL. MOLD SHUT-OFF)				C COLLAPSE PER SIDE AT TOP OF CORE**				O.A.L. OVERALL LENGTH OF COLLAPSIBLE CORE (ONLY)	
	inch	mm	inch	mm	inch	mm	inch	mm	*inch	*mm	inch	mm	*inch	*mm	inch	mm
CC-200-PC	1.270	32.25	.910	23.11	.785	19.93	.975	24.76	1.150	29.21	.043	1.09	.048	1.21	7.315	185.80
† CC-250-PC	1.270	32.25	.910	23.11	.785	19.93	.975	24.76	1.150	29.21	.043	1.09	.048	1.21	5.440	138.17
CC-202-PC	1.390	35.30	1.010	25.65	.885	22.47	.975	24.76	1.150	29.21	.055	1.39	.064	1.62	7.315	185.80
† CC-252-PC	1.390	35.30	1.010	25.65	.885	22.47	.975	24.76	1.150	29.21	.055	1.39	.064	1.62	5.440	138.17
CC-302-PC	1.740	44.19	1.270	32.25	1.105	28.06	1.225	31.11	1.400	35.56	.068	1.72	.083	2.10	7.315	185.80
† CC-352-PC	1.740	44.19	1.270	32.25	1.105	28.06	1.225	31.11	1.400	35.56	.068	1.72	.083	2.10	6.065	154.05
CC-402-PC	2.182	55.42	1.593	40.46	1.388	35.25	1.535	38.98	1.700	43.18	.090	2.28	.103	2.61	7.815	198.50
CC-502-PC	2.800	71.12	2.060	52.32	1.750	44.45	1.750	44.45	1.900	48.26	.115	2.92	.125	3.17	9.625	244.47
CC-602-PC	3.535	89.78	2.610	66.29	2.175	55.24	2.125	53.97	2.400	60.96	.140	3.55	.148	3.75	11.250	285.75

† Shorter overall length Collapsible Cores for any application, and particularly where mold shut height is limited.

NOTE: Special Collapsible Cores with molding lengths, special diameters or collapse other than shown in table above will be quoted on request.

* Cores having slightly greater collapse and molding length, as shown above, are usually available from stock — contact D-M-E.

** To determine maximum dimension of moldable undercut, reduce the amount of collapse per side shown in the table above by .020 per inch of part height requiring collapse.

D-M-E Standard Collapsible Mini-Core

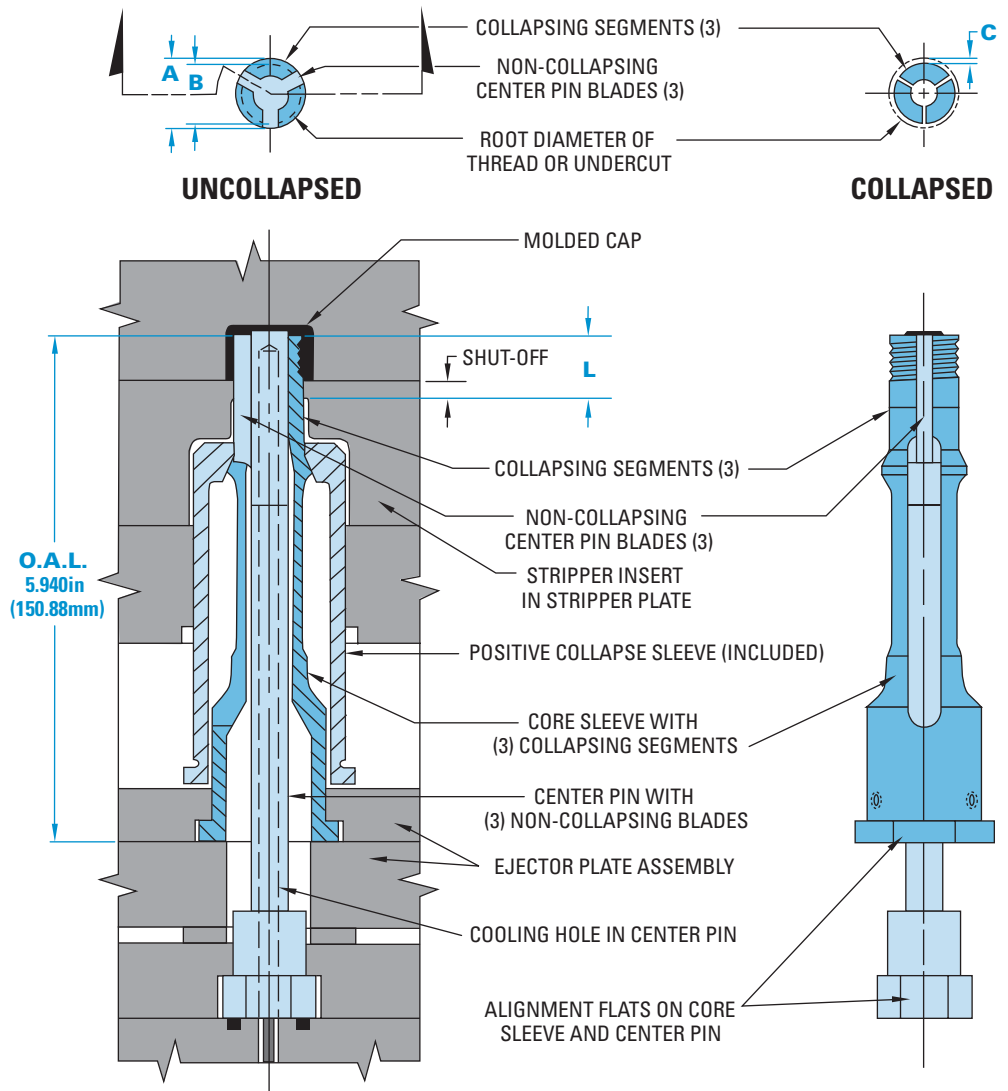
Easily mold parts with closures as small as 13mm

The Collapsible Mini-Core broadens the applications of collapsible core molds for closures as small as 13mm. Due to the smaller diameters involved, these Mini-Cores employ three larger collapsing segments combined with three narrow, non-collapsing blades which are an integral part of the center pin.

As a result, up to 80% full threads or undercuts can be molded. The function of the collapsing core also permits threads to stop at any point along the molded length — threads need not run out to the top of the core as with unscrewing molds. If a seal is required in the top of the closure, an undercut can be molded into the part to hold such a seal in place.

The collapsing action also permits a longer threaded area to be formed, without adding to the cycle time or requiring long rack and pinion mechanisms. In addition to threads, other configurations such as dimples, cut-outs or protrusions beyond the capabilities of unscrewing molds can be successfully molded. Three standard sizes of Collapsible Mini-Cores are available, for 13-16, 17-20 and 21-24mm closures.

Full technical details on core grinding and stripper plate mold construction are included in the [Collapsible Core and Collapsible Mini-Core Design & Assembly Guide](#) — contact D-M-E for a copy.



ITEM NO.	FOR CLOSURE DIAMETER RANGE	A MAX. O.D. OF THREAD OR CONFIG.		B MIN. I.D. OF THREAD OR CONFIG.		CENTER PIN DIAMETER (AT TOP OF MINI-CORE)		WIDTH OF (3) NON-COLLAPSING CENTER PIN BLADES (AT TOP OF CORE)		L MAX. MOLDED LENGTH (INCL. MOLD SHUT-OFF)		C COLLAPSE PER SIDE AT TOP OF CORE*	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CCM-0001	13-16	.645	16.38	.425	10.80	.300	7.62	.170	4.32	.850	21.59	.052	1.32
CCM-0002	17-20	.805	20.45	.560	14.22	.420	10.67	.190	4.83	.850	21.59	.057	1.45
CCM-0003	21-24	.965	24.51	.710	18.03	.560	14.22	.200	5.08	1.000	25.40	.059	1.50

- NOTES:**
1. Cores listed above include core, center pin, positive collapse sleeve, clamping ring and a special, non-bladed center pin arbor required for proper core grinding.
 2. Collapsible Mini-Cores with longer molding lengths, special diameters, collapse or number of segments will be quoted on request. For larger diameters (up to 3.535"), see Collapsible Cores.

*To determine maximum dimension of moldable undercut, reduce the amount of collapse per side shown in the table above by .020 per inch of part height requiring collapse.



Patent No. 6.575.730
and 6.106.271
(additional patents pending)

Additional D-M-E products compatible with Collapsible Core applications

2-Stage Ejectors — positive control of stroke sequence and distance in two-stage ejection

D-M-E 2-Stage Ejectors adapt to a number of mold base sizes and plate thicknesses and are available in two ejection sequences: Top Last (TL) and Bottom Last (BL). Each ejection sequence is available in three sizes to accommodate most standard D-M-E mold bases. The stroke range for each ejection stage is determined and fixed by the customer in a simple procedure and once installed, cannot be tampered with or accidentally changed. Featuring internally installed components, the D-M-E 2-Stage Ejector avoids interference with waterline connectors and externally mounted components.



Patent No. 5,494,435

Internal Latch Lock — precise control of mold plate latching operation

D-M-E's Internal Latch Lock allows measured control of the mold plate opening sequence on mold bases with stripper plates. It enables one plate or group of plates to be latched together while the first parting line opening occurs. After a predetermined amount of travel, the latch lock releases the latched plates for the remaining parting line or lines to open.

To accommodate most standard D-M-E stripper plate mold bases, the latch lock is available in three sizes — 28mm, 34mm, and 45mm — with two travel ranges and two center puller pin lengths. Like the 2-Stage Ejector, once installed the Internal Latch Lock cannot be accidentally changed and does not interfere with waterline connectors or externally mounted components.



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