



LeCount Expanding Mandrels

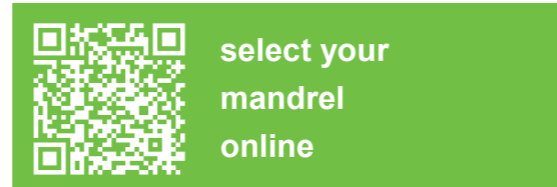
The Original Mandrel

Patented by Charles W. LeCount in 1866, the LeCount® Mandrel is the best-known expanding mandrel in the industry and has been continuously developed by Gleason over the years. LeCount expanding mandrels are primarily intended for inspection applications, but are also a great choice for prototyping and small badge production like OD and face turning or grinding operations. The patented, tool-less design of the expanding mandrel is based on the principle of parallel expanding jaws that slide smoothly to grip the inside diameter of the part. The mandrel itself is then seated between centers. LeCount expanding mandrels are available from 6.5 to 177 mm clamping diameter of the bore.

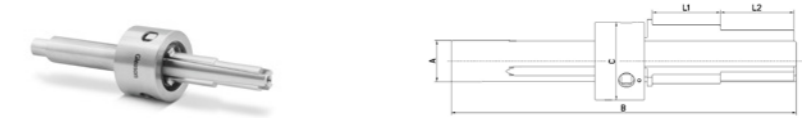
LeCount® Mandrels are divided by type

- Type A, covering a wide range due to its two jaws sections
- Type B, with only one jaw section suits well long parts
- Type C, compact version with a reduced center height and weight
- Type M, ideally suited for very small diameters
- Type G, for production, stronger clamping force, protected against contamination
- Type H, for Hob cutter inspection

Optionally, all mandrels can be equipped with part locators for horizontal positioning, or designed as Pitch Spline Mandrels for parts with splined bores.



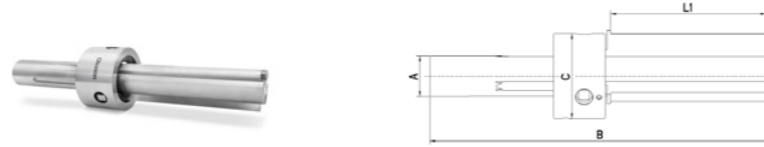
Type A Wide Range



Model	Expansion in mm (inch)		Dimensions in mm (inch)				
	Range	Total	A	B	C	L1	L2
0A	9.53 to 12.70 (0.375 to 0.500)	3.18 (0.125)	14.70 (0.58)	121.9 (4.80)	38.1 (1.50)	12.7 (0.50)	12.7 (0.50)
1A	12.70 to 19.05 (0.500 to 0.750)	6.35 (0.250)	14.70 (0.58)	147.7 (5.81)	38.1 (1.50)	24.9 (0.98)	24.9 (0.98)
2A	19.05 to 25.40 (0.750 to 1.000)	6.35 (0.250)	14.70 (0.58)	147.7 (5.81)	38.1 (1.50)	24.9 (0.98)	24.9 (0.98)
3A	25.40 to 38.10 (1.000 to 1.500)	12.70 (0.500)	28.60 (1.13)	260.4 (10.25)	57.2 (2.25)	60.5 (2.38)	50.3 (1.98)
4A	38.10 to 50.80 (1.500 to 2.000)	12.70 (0.500)	36.50 (1.44)	308.0 (12.13)	76.2 (3.00)	75.7 (2.98)	66.0 (2.60)
5A	50.80 to 63.50 (2.000 to 2.500)	12.70 (0.500)	36.50 (1.44)	308.0 (12.13)	76.2 (3.00)	75.7 (2.98)	66.0 (2.60)
6A	63.50 to 76.20 (2.500 to 3.000)	12.70 (0.500)	36.50 (1.44)	308.0 (12.13)	76.2 (3.00)	72.4 (2.85)	66.0 (2.60)
7A	50.80 to 76.20 (2.000 to 3.000)	25.40 (1.000)	50.40 (1.99)	425.5 (16.75)	95.3 (3.75)	90.2 (3.55)	89.9 (3.54)
8A	76.20 to 101.60 (3.000 to 4.000)	25.40 (1.000)	50.40 (1.99)	425.5 (16.75)	95.3 (3.75)	83.3 (3.28)	89.9 (3.54)
9A	101.60 to 127.00 (4.000 to 5.000)	25.40 (1.000)	50.40 (1.99)	425.5 (16.75)	95.3 (3.75)	83.3 (3.28)	89.9 (3.54)
10A	127.00 to 152.40 (5.000 to 6.000)	25.40 (1.000)	50.40 (1.99)	425.5 (16.75)	95.3 (3.75)	83.3 (3.28)	89.9 (3.54)
11A	152.40 to 177.80 (6.000 to 7.000)	25.40 (1.000)	50.40 (1.99)	425.5 (16.75)	95.3 (3.75)	83.3 (3.28)	89.9 (3.54)
16A	76.20 to 88.90 (3.000 to 3.500)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
17A	88.90 to 101.60 (3.500 to 4.000)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
18A	101.60 to 114.30 (4.000 to 4.500)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
19A	114.30 to 127.00 (4.500 to 5.000)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
20A	127.00 to 139.70 (5.000 to 5.500)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
21A	139.70 to 152.40 (5.500 to 6.000)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
22A	152.40 to 165.10 (6.000 to 6.500)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)
23A	165.10 to 177.80 (6.500 to 7.000)	12.70 (0.500)	50.40 (1.99)	268.40 (10.57)	95.3 (3.75)	44.4 (1.75)	44.4 (1.75)

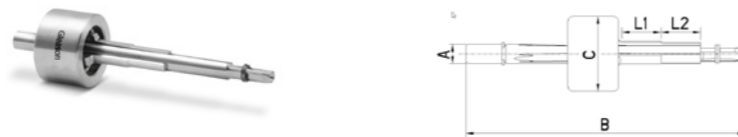
*All specifications subject to change without notice. For requirements beyond specified values consult Applications Engineering.

Type B
Long Jaws



Model No.	Expansion in mm (inch)		Dimensions in mm (inch)			
	Range	Total	A	B	C	L1
0B	11.10 to 12.70 (0.437 to 0.500)	1.60 (0.063)	14.7 (0.58)	121.9 (4.80)	38.1 (1.50)	25.4 (1.00)
3B	15.88 to 19.05 (0.625 to 0.750)	3.18 (0.125)	14.7 (0.58)	147.6 (5.81)	38.1 (1.50)	50.8 (2.00)
4B	19.05 to 22.23 (0.750 to 0.875)	3.18 (0.125)	14.7 (0.58)	147.6 (5.81)	38.1 (1.50)	50.8 (2.00)
5B	22.23 to 26.97 (0.875 to 1.062)	4.78 (0.188)	19.1 (0.75)	217.4 (8.56)	41.3 (1.63)	87.6 (3.45)
6B	26.97 to 31.75 (1.062 to 1.250)	4.78 (0.188)	19.1 (0.75)	217.4 (8.56)	41.3 (1.63)	87.6 (3.45)
7B	31.75 to 38.10 (1.250 to 1.500)	6.35 (0.250)	28.6 (1.13)	260.4 (10.25)	57.2 (2.25)	111.3 (4.38)
8B	38.10 to 44.45 (1.500 to 1.750)	6.35 (0.250)	28.6 (1.13)	260.4 (10.25)	57.2 (2.25)	111.3 (4.38)
9B	44.45 to 50.80 (1.750 to 2.000)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	142.2 (5.60)
10B	50.80 to 57.15 (2.000 to 2.250)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	142.2 (5.60)
11B	57.15 to 63.50 (2.250 to 2.500)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	142.2 (5.60)
12B	63.50 to 69.85 (2.500 to 2.750)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	142.2 (5.60)
13B	69.85 to 76.20 (2.750 to 3.000)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	139.2 (5.48)
14B	76.20 to 82.55 (3.000 to 3.250)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	139.2 (5.48)
15B	82.55 to 88.90 (3.250 to 3.500)	6.35 (0.250)	36.5 (1.44)	308.0 (12.13)	76.2 (3.00)	139.2 (5.48)

Type M
Small Sizes



Model No.	Expansion in mm (inch)		Dimensions in mm (inch)				
	Range	Total	A	B	C	L1	L2
1MA	6.35 to 7.95 (0.250 to 0.313)	1.60 (0.063)	6.1 (0.24)	88.9 (3.50)	24 (0.95)	12.7 (0.50)	12.7 (0.50)
2MA	7.95 to 9.55 (0.313 to 0.375)	1.60 (0.063)	7.5 (0.30)	88.9 (3.50)	24 (0.95)	12.7 (0.50)	12.7 (0.50)
1MB	6.35 to 7.15 (0.250 to 0.281)	0.80 (0.032)	6.1 (0.24)	88.9 (3.50)	24 (0.95)	25.4 (1.00)	
2MB	7.15 to 7.95 (0.281 to 0.313)	0.80 (0.032)	6.1 (0.24)	88.9 (3.50)	24 (0.95)	25.4 (1.00)	
3MB	7.95 to 8.75 (0.313 to 0.344)	0.80 (0.032)	7.5 (0.30)	88.9 (3.50)	24 (0.95)	25.4 (1.00)	
4MB	8.75 to 9.55 (0.344 to 0.375)	0.80 (0.032)	7.5 (0.30)	88.9 (3.50)	24 (0.95)	25.4 (1.00)	

*All specifications subject to change without notice. For requirements beyond specified values please consult Applications Engineering.

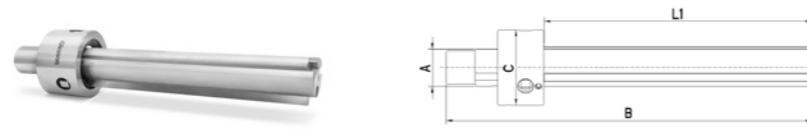
Type C
Compact Design



Model No.	Expansion in mm (inch)		Dimensions in mm (inch)			
	Range	Total	A	B	C	L1
3C	15.88 to 19.05 (0.625 to 0.750)	3.18 (0.125)	14.7 (0.58)	111.3 (4.38)	38.1 (1.50)	34.5 (1.36)
4C	19.05 to 22.23 (0.750 to 0.875)	3.18 (0.125)	14.7 (0.58)	111.3 (4.38)	38.1 (1.50)	34.5 (1.36)
5C	22.23 to 25.40 (0.875 to 1.000)	3.18 (0.125)	14.7 (0.58)	111.3 (4.38)	38.1 (1.50)	34.5 (1.36)
6C	25.40 to 30.18 (1.000 to 1.188)	4.78 (0.188)	19.1 (0.75)	139.7 (5.50)	41.3 (1.63)	44.5 (1.75)
7C	30.18 to 34.93 (1.188 to 1.375)	4.78 (0.188)	19.1 (0.75)	139.7 (5.50)	41.3 (1.63)	44.5 (1.75)
8C	34.93 to 39.67 (1.375 to 1.562)	4.78 (0.188)	19.1 (0.75)	139.7 (5.50)	41.3 (1.63)	44.5 (1.75)
9C	39.67 to 44.45 (1.562 to 1.750)	4.78 (0.188)	28.6 (1.13)	173.0 (6.81)	57.2 (2.25)	54.6 (2.15)
10C	44.45 to 50.80 (1.750 to 2.000)	6.35 (0.250)	28.6 (1.13)	173.0 (6.81)	57.2 (2.25)	54.6 (2.15)
11C	50.80 to 57.15 (2.000 to 2.250)	6.35 (0.250)	28.6 (1.13)	173.0 (6.81)	57.2 (2.25)	51.1 (2.01)
12C	57.15 to 63.50 (2.250 to 2.500)	6.35 (0.250)	36.5 (1.44)	201.7 (7.94)	76.2 (3.00)	66.6 (2.62)
13C	63.50 to 69.85 (2.500 to 2.750)	6.35 (0.250)	36.5 (1.44)	201.7 (7.94)	76.2 (3.00)	66.6 (2.62)
14C	69.85 to 76.20 (2.750 to 3.000)	6.35 (0.250)	36.5 (1.44)	201.7 (7.94)	76.2 (3.00)	63.5 (2.50)
15C	76.20 to 82.55 (3.000 to 3.250)	6.35 (0.250)	36.5 (1.44)	201.7 (7.94)	76.2 (3.00)	63.5 (2.50)
16C	82.55 to 88.90 (3.250 to 3.500)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
17C	88.90 to 95.25 (3.500 to 3.750)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
18C	95.25 to 101.60 (3.750 to 4.000)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
19C	101.60 to 107.95 (4.000 to 4.250)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
20C	107.95 to 114.30 (4.250 to 4.500)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
21C	114.30 to 120.65 (4.500 to 4.750)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
22C	120.65 to 127.00 (4.750 to 5.000)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
23C	127.00 to 133.35 (5.000 to 5.250)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
24C	133.35 to 139.70 (5.250 to 5.500)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
25C	139.70 to 146.05 (5.500 to 5.750)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
26C	146.05 to 152.40 (5.750 to 6.000)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
27C	152.40 to 158.75 (6.000 to 6.250)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
28C	158.75 to 165.10 (6.250 to 6.500)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
29C	165.10 to 171.45 (6.500 to 6.750)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)
30C	171.45 to 177.80 (6.750 to 7.000)	6.35 (0.250)	50.4 (1.99)	268.4 (10.57)	95.3 (3.75)	88.9 (3.50)

*All specifications subject to change without notice. For requirements beyond specified values please consult Applications Engineering.

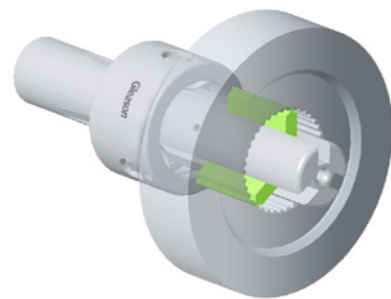
Type H
Hob Inspection



Model No.	Expansion in mm (inch)		Dimensions in mm (inch)			
	Range	Total	A	B	C	L1
7H	31.62 to 32.00 (1.245 to 1.260)	0.38 (0.015)	28.6 (1.13)	280.2 (11.03)	57.2 (2.25)	204.5 (8.05)
8H	31.88 to 32.26 (1.255 to 1.270)	0.38 (0.015)	28.6 (1.13)	280.2 (11.03)	57.2 (2.25)	204.5 (8.05)
9H	37.97 to 38.35 (1.495 to 1.510)	0.38 (0.015)	28.6 (1.13)	280.2 (11.03)	57.2 (2.25)	204.5 (8.05)
10H	39.88 to 40.26 (1.570 to 1.585)	0.38 (0.015)	28.6 (1.13)	280.2 (11.03)	57.2 (2.25)	204.5 (8.05)
11H	37.97 to 38.35 (1.495 to 1.510)	0.38 (0.015)	36.5 (1.44)	347.0 (13.66)	76.2 (3.00)	255.3 (10.05)
12H	39.88 to 40.26 (1.570 to 1.585)	0.38 (0.015)	36.5 (1.44)	347.0 (13.66)	76.2 (3.00)	255.3 (10.05)
13H	49.91 to 50.29 (1.965 to 1.980)	0.38 (0.015)	36.5 (1.44)	347.0 (13.66)	76.2 (3.00)	255.3 (10.05)
14H	50.67 to 51.05 (1.995 to 2.010)	0.38 (0.015)	36.5 (1.44)	347.0 (13.66)	76.2 (3.00)	255.3 (10.05)
15H	59.87 to 60.25 (2.357 to 2.372)	0.38 (0.015)	36.5 (1.44)	347.0 (13.66)	76.2 (3.00)	255.3 (10.05)

*All specifications subject to change without notice. For requirements beyond specified values please consult Applications Engineering.

Options for all Mandrels



Internal Spline in Bore

LeCount Pitch Spline Mandrels apply the same working principle as standard LeCount Standard Mandrels, except that a radiused geometry is ground into the contact surface of the three jaws, and the angular position of the jaws is altered as needed. LeCount Pitch Spline Mandrels can be made to contact the major and minor diameter of a part's splined bore.



Part Locators

A part locator allows the operator to support the part while loading the mandrel and to position a part on the mandrel consistently without having to re-adjust subsequent parts of the same type. The part locator is attached to the mandrel with spring-loaded detents. Note that part locators cannot be added to existing mandrels in use, as this feature must be taken into account during mandrel production.

Type G
Production Applications



Model No.	Expansion in mm (inch)		Dimensions in mm (inch)			
	Range	Total	A	B	C	L1
1G	25.40 to 28.58 (1.000 to 1.125)	3.18 (0.125)	22.86 (0.900)	279.40 (11.000)	59.69 (2.350)	43.82 (1.725)
2G	28.58 to 31.75 (1.125 to 1.250)	3.18 (0.125)	22.86 (0.900)	279.40 (11.000)	59.69 (2.350)	69.60 (2.740)
3G	31.75 to 34.93 (1.250 to 1.375)	3.18 (0.125)	22.86 (0.900)	279.40 (11.000)	59.69 (2.350)	69.60 (2.740)
4G	34.93 to 38.10 (1.375 to 1.500)	3.18 (0.125)	22.86 (0.900)	279.40 (11.000)	59.69 (2.350)	69.60 (2.740)
5G	38.10 to 44.45 (1.500 to 1.750)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.04 (2.600)
6G	44.45 to 50.80 (1.750 to 2.000)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.04 (2.600)
7G	50.80 to 57.15 (2.000 to 2.250)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.68 (2.625)
8G	57.15 to 63.50 (2.250 to 2.500)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.68 (2.625)
9G	63.50 to 69.85 (2.500 to 2.750)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.68 (2.625)
10G	69.85 to 76.20 (2.750 to 3.000)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.68 (2.625)
11G	76.20 to 82.55 (3.000 to 3.250)	6.35 (0.250)	36.47 (1.436)	342.90 (13.500)	76.20 (3.000)	66.68 (2.625)

*All specifications subject to change without notice. For requirements beyond specified values please consult Applications Engineering.



Complete Solutions from One Source



Gleason

info@gleason.com
www.gleason.com

