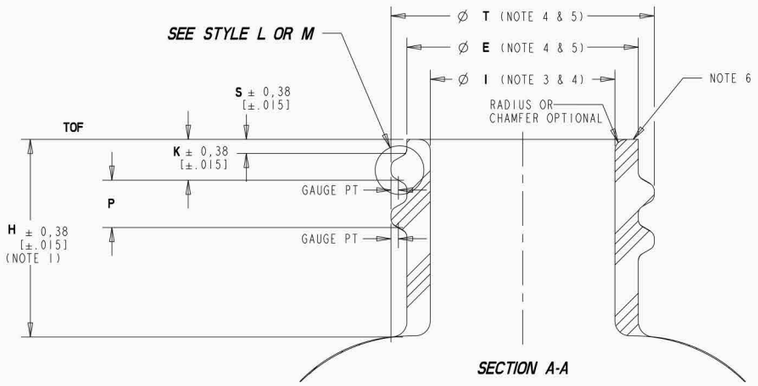
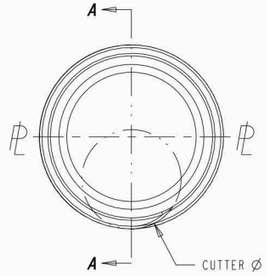
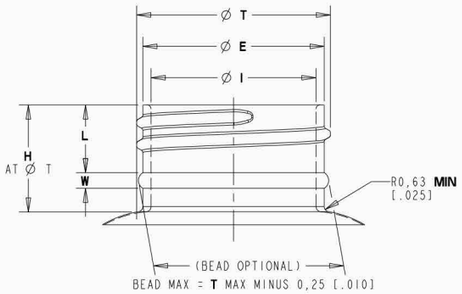
FINISH REV	DATE	DESCRIPTION	BY
000	76/07/04	ORIGINAL SP410 SPECIFICATION	JM
001	99/03/10	SPECIFICATION CONVERTED TO STANDARDIZED FORMAT	JM



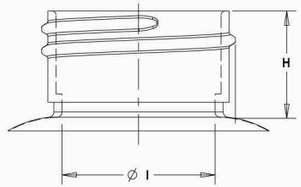
SECTION A-A



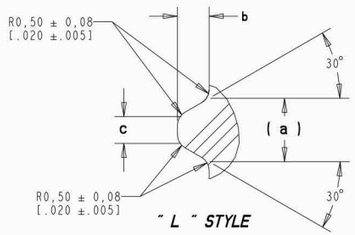
TYPICAL ORIENTATION



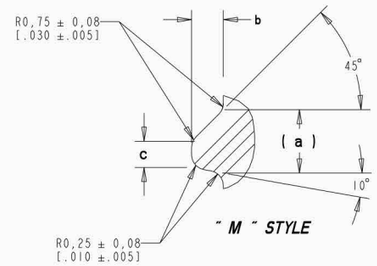
BEAD FINISH



BEADLESS FINISH
(UNDERCUT OPTIONAL)



" L " STYLE



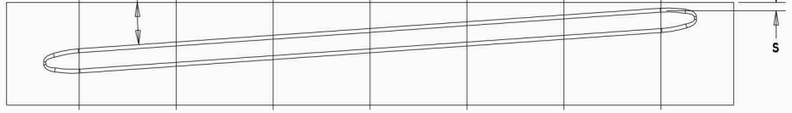
" M " STYLE

L STYLE
GENERAL PURPOSE THREAD
(Plastic or Metal Closures)

THDS/IN	(a)	b	c
6	2,39 [.094]	1,19 [.047]	1,02 [.040]
8	2,13 [.084]	1,07 [.042]	0,91 [.036]

M STYLE
MODIFIED BUTTRESS THREAD
(Plastic Closures)

THDS/IN	(a)	b	c
6	2,39 [.094]	1,19 [.047]	0,99 [.039]
8	2,13 [.084]	1,07 [.042]	0,89 [.035]



THREAD DEVELOPMENT
SHOWN FROM OUTSIDE OF FINISH

- A MINIMUM OF 1-1/2 FULL TURNS (540°) OF FULL DEPTH THREAD SHALL BE MAINTAINED
- RIGHT HAND THREAD

SP-410 FINISH FOR PLASTIC BOTTLES

mm	T (NOTE 4 & 5)	E (NOTE 4 & 5)	I (NOTE 3 & 4)	H ± 0,38 [±.015] (NOTE 1)	K ± 0,38 [±.015]		P	S ± 0,38 [±.015]	L (NOTE 2)	W (NOTE 2)	GAUGE PT	HELIX ANGLE β	CUTTER Ø	THD'S PER INCH
	MEAN	MEAN	MIN	MEAN	L STYLE	M STYLE	MEAN	MEAN	MIN	MAX				
18	17,68 ± 0,20 [.696 ±.008]	15,54 ± 0,20 [.612 ±.008]	8,26 [.325]	13,28 [.523]	2,74 [.108]	2,97 [.117]	3,18 [.125]	0,94 [.037]	9,17 [.361]	2,13 [.084]	0,50 [.020]	3°30′	9,53 [.375]	8
20	19,69 ± 0,20 [.775 ±.008]	17,55 ± 0,20 [.691 ±.008]	10,26 [.404]	14,07 [.554]	2,74 [.108]	2,97 [.117]	3,18 [.125]	0,94 [.037]	9,17 [.361]	2,13 [.084]	0,50 [.020]	3°07′	9,53 [.375]	8
22	21,69 ± 0,20 [.854 ±.008]	19,56 ± 0,20 [.770 ±.008]	12,27 [.483]	14,86 [.585]	2,74 [.108]	2,97 [.117]	3,18 [.125]	0,94 [.037]	9,55 [.376]	2,13 [.084]	0,50 [.020]	2°49′	9,53 [.375]	8
24	23,67 ± 0,20 [.932 ±.008]	21,54 ± 0,20 [.848 ±.008]	13,11 [.516]	16,41 [.646]	2,97 [.117]	3,20 [.126]	3,18 [.125]	1,17 [.046]	11,10 [.437]	2,13 [.084]	0,50 [.020]	2°34′	9,53 [.375]	8
28	27,38 ± 0,25 [1.078 ±.010]	24,99 ± 0,25 [.984 ±.010]	15,60 [.614]	17,98 [.708]	3,23 [.127]	3,45 [.136]	4,24 [.167]	1,17 [.046]	11,76 [.463]	2,39 [.094]	0,60 [.024]	2°57′	12,70 [.500]	6

NOTES:
1. DIMENSION **H** IS MEASURED FROM THE TOP OF FINISH (TOF) TO THE POINT WHERE DIAMETER **T**, EXTENDED PARALLEL TO THE CENTERLINE, INTERSECTS THE SHOULDER.
2. CONTOUR OF BEAD, UNDERCUT OR SHOULDER IS OPTIONAL. IF BEAD IS USED, BEAD DIA. AND **L MIN** MUST BE MAINTAINED
3. UNLESS OTHERWISE SPECIFIED, **I MIN** APPLIES TO THE FULL LENGTH OF THE OPENING.
4. CONCENTRICITY OF **I MIN** WITH RESPECT TO DIAMETERS **T** AND **E** IS NOT INCLUDED. **I MIN** IS SPECIFIED FOR FILLER TUBE ONLY.
5. **T** AND **E** DIMENSIONS ARE THE AVERAGE OF TWO MEASUREMENTS TAKEN 90° APART. THE LIMITS OF OVALITY WILL BE DETERMINED BY THE CONTAINER SUPPLIER AND CONTAINER CUSTOMER, AS NECESSARY.
6. CONSIDERATION MUST BE GIVEN TO THE TOP OF FINISH WIDTH FOR THE SEALING SYSTEM BEING USED.
7. FINISH TO BE SPECIFIED AS FOLLOWS: THREAD STYLE, FINISH IDENTIFICATION AND DRAWING NUMBER. EXAMPLE: M28SP410
8. REFER TO DRAWING #1168216 FOR VOLUNTARY STANDARD PET FINISH DIMENSION NOMENCLATURE.

GENERAL TOLERANCES	METRIC MILLIMETRES	[IMPERIAL] [INCHES]
	X,X ±0,3	[.XX ±0.01]
	X,XX ±0,13	[.XXX ±0.005]
	X° ±2°	
	X°X' ±0°15'	

DESCRIPTION
SP-410
VOLUNTARY STANDARD

DWN	J.MAY	DATE	99/03/10

THIS DRAWING IS MAINTAINED BY
3PLASTICS INJECTION MOLDING SYSTEMS LTD.
WEBSITE: WWW.3PLASTICS.COM
CONTACT FOR SUPPORT:
E-MAIL: sales@3plastics.com

FINISH No SP410

DRAWING No 1165380-1