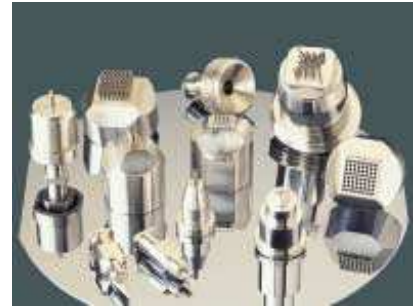


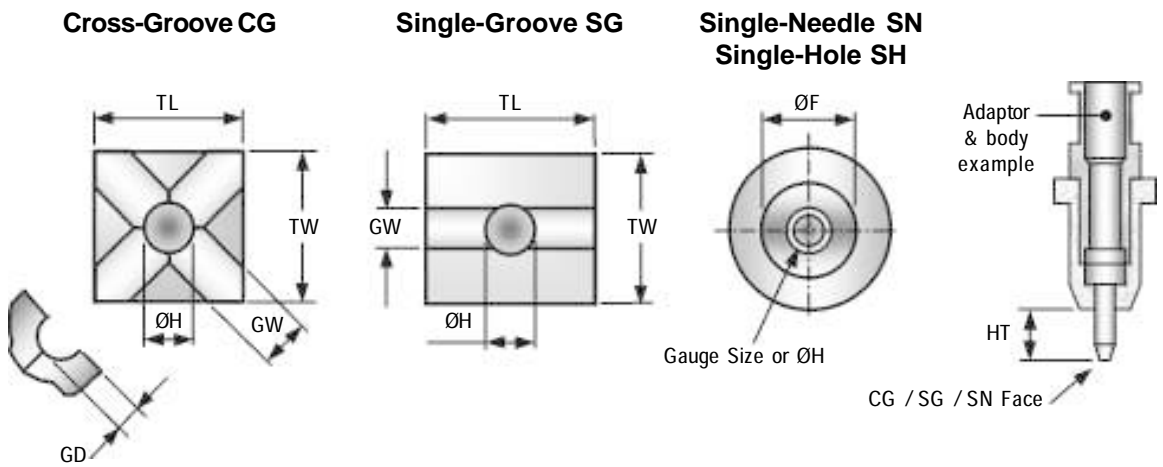
Our Epoxy Dispensing Tools (EDT), for die attach applications, are available in many designs to cater to your dispensing needs. EDT's are used in conjunction with appropriate equipment controlling the air/nitrogen dispensing pressure and time.

Consistent coverage and void free adhesion are the main criteria to be satisfied. In order to achieve these, precise fabrication and optimized tool design must be properly carried out.



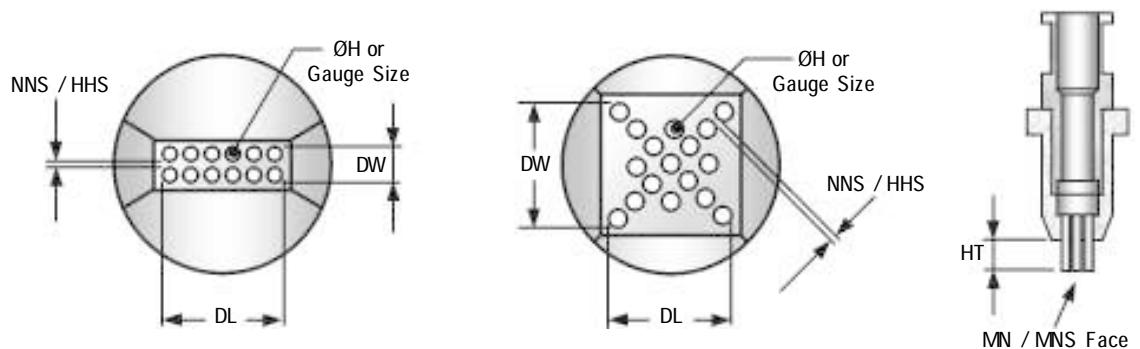
Standard designs

For the range of die size from .008" / 0.20mm to .150" / 3.80mm we recommend groove and single needle/hole type of tool.



Default Nozzle or needle height HT is .100" / 2.50mm. Specify if otherwise required.

For die size from .100" / 2.50mm and above, the multi-needle (MN) or multi-hole (MH) have found wide acceptance in situations where perfect epoxy coverage is required. Any custom hole/needle layout possible if based on available hole or needle dimensions.



**Matrix Design MN (Needle)
Matrix Design MH (Hole)**

- For die above .120" / 3.00mm
- In line pattern for lengthy shape rectangular die

**Star Shape Design MNS (Needle)
Star Shape Design MHS (Hole)**

- For dies greater than .200" / 5.00mm
- Controls epoxy build-up and coverage
- Less voids due to optimized spacing

STANDARD ADAPTOR HEADS (EDT-AH) AND BODY STYLES (EDT-MXX)

<p>MO1 (NEC)</p> <p>(DD max = .275" / 7.0)</p>	<p>MO2</p> <p>(DD max = .334" / 8.5)</p>	<p>MO4</p> <p>(DD max = .551" / 14.0)</p>	<p>MO4D</p> <p>(DD max = .512" / 13.0)</p>
<p>MO6 (ESEC)</p> <p>(DD max = .512" / 13.0)</p>	<p>MO8</p> <p>(DD max = .157" / 4.0)</p>	<p>M13</p> <p>(DD max = .157" / 4.0)</p>	<p>M15 (Alphasem)</p> <p>(DD max = .433" / 11.0)</p>
<p>M15A (Alphasem)</p> <p>(DD max = .079" / 2.0)</p>	<p>M16 (Abacus)</p> <p>(DD max = .236" / 6.0)</p>	<p>M18A (B,C,D,E,F) (Shinkawa)</p> <p>(DD max = 10,14,14,18,22,16mm)</p>	<p>M22 (ASM)</p> <p>(DD max = .315" / 8.0)</p>
<p>M30 (ASM)</p>	<p>M32 (ESEC2008)</p>	<p>M37</p> <p>(DD max = .125" / 3.2)</p>	<p>M58</p> <p>(DD max = 1.063" / 27.0)</p>

Note: DD is the Die Diagonal and corresponds to the maximum size compatible with a specific body type. For larger die, please consult technical support personnel at our nearest office for a suitable type.


EDT STANDARD NEEDLE DIMENSIONS		
Gauge Size	Outer Ø inch / mm	Inner Ø inch / mm
G12	.109 / 2.77	.085 / 2.16
G13	.095 / 2.41	.071 / 1.80
G14	.083 / 2.11	.063 / 1.60
G15	.072 / 1.83	.054 / 1.37
G16	.065 / 1.65	.047 / 1.19
G17	.058 / 1.47	.042 / 1.07
G18	.049 / 1.24	.033 / 0.83
G19	.042 / 1.07	.027 / 0.68
G20	.035 / 0.89	.023 / 0.58
G21	.032 / 0.81	.020 / 0.51
G22	.028 / 0.71	.016 / 0.40
G23	.025 / 0.64	.013 / 0.33
G24	.022 / 0.56	.012 / 0.30
G25	.020 / 0.51	.010 / 0.25
G27	.016 / 0.41	.008 / 0.20
G28	.014 / 0.36	.007 / 0.18
G30	.012 / 0.30	.006 / 0.15

EDT STANDARD HOLES	
Multi Hole Ø inch / mm	Single Hole Ø inch / mm
.049 / 1.24	min. size
.042 / 1.07	.008 / 0.20
.035 / 0.89	
.032 / 0.81	
.028 / 0.71	
.025 / 0.64	

MINIMUM SPACING
Needle Ø to Needle Ø (NNS) .005 / 0.13
Hole Ø to Hole Ø (HHS) .004 / 0.10

AVAILABLE MATERIAL
SS , Brass : MN, MH, MHS, MNS
W : CG, SG, Hole Ø < .014 / 0.35

How To Order : EDT BODY AND TIP


Cross Groove		Tool - Tip - Body - Mat'l -				Dimensions			
		Style	Style	Style	Mat'l	TL x TW	GD - GW - ØH		
Single Groove		EXAMPLE :							EDT - CG - M01 - W - 1.2 x 1.0 - 0.127 - 0.254 - 0.254
									EDT - SG - M04D - W - .047 x .040 - .005 - .010 - .010

Single Hole Single Needle		Tool - Tip - Body - Mat'l -				ØF DL x DW	Hole ØH Gauge size	# Holes/ Needles
		Style	Style	Style	Mat'l			
EXAMPLE :						EDT - SH - M30 - W - 0.80	0.50	-
						EDT - SN - M06 - SS - .050 x .040	G20	-

Multi Hole / Needle Matrix		Tool - Tip - Body - Mat'l -				ØF DL x DW	Hole ØH Gauge size	# Holes/ Needles
		Style	Style	Style	Mat'l			
EXAMPLE :						EDT - MH - M58 - SS - 9.65 x 2.80	1.25	7 x 2
						EDT - MN - M02 - SS - .462 x .167	G18	8 x 3

Multi Hole / Needle Star		Tool - Tip - Body - Mat'l -				ØF DL x DW	Hole ØH Gauge size	# Holes/ Needles
		Style	Style	Style	Mat'l			
EXAMPLE :						EDT - MHS - M18A - SS - .280 x .280	.032	8
						EDT - MNS - M15 - SS - 8.0 x 8.0	G21	20

How To Order : EDT Adaptor Head

Adaptor Head		Tool - Tip - Body		
		Style	Style	Style
EXAMPLE :		EDT - AH - M01		

For custom design or when you need assistance to choose best design, please fill-out the specification form on page 53

Adaptor Heads come with 2 types of Luer locks that can be fitted into common epoxy barrel or syringe Luer locks :

- Standard Flat Luer (no need to specify)
- Double Lead Thread "DLT" Luer (Specify "DLT" after part number)