

## Nozzle Data Sheet for:

# Chip Scale Packages & Flip Chip (6mm & smaller)



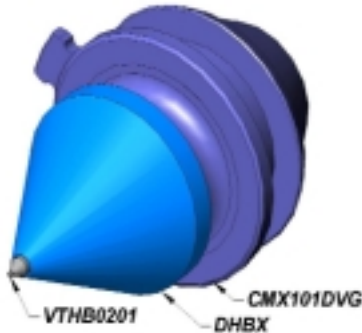
Component Identification: MBGA, CSP, C4 & Flip Chip  
 Nozzle Designation: NMX Gas Nozzles  
 Heating Methodology: Heat Through

- Four different nozzles can be created from one nozzle body CMX101DVG. Attach any of four different Nozzle Cones to create a different version.
- Custom vacuum tips are available in various different sizes and types. They can be replaced when broken, worn, or clogged and can be changed to different sizes without replacing the entire nozzle.
- Conduction only tips are currently available for 0201, 0402, and 0604 type components. Special tips have also been developed for larger lead-less chip carriers and ceramic filters.
- For Onyx 32/29 owners with the micro force table option you can rework flip chip and  $\mu$ BGA devices with custom sized conduction only tips. This eliminates adjacent component reflow due to convection.
- Ultra fine heat flow is provided by our Differential Flow Control DFC porting which allows a large volume gas to flow thru the nozzle with only a small portion of it, approximately 30%, being directed to the device on the NMX090DVG, NMX188DVG and the NMX257DVG cones

### Conduction Only

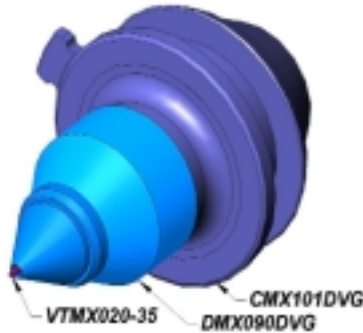
0201, 0402, 0604, 0806  
 uBGA's & Flip Chip

When used with uForce Table option on ONYX32



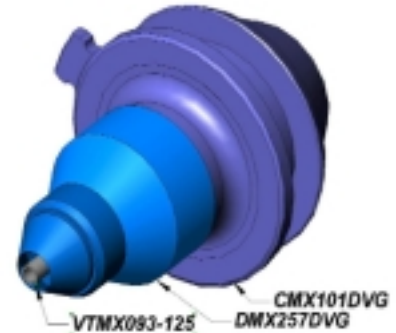
### NMX090DVG

Convection O .090 exhaust  
 0402, 0604, 0806, up to 3mm  
 LLC's and ceramic filters ect



### NMX257DVG

Convection O 0.257" exhaust  
 3mm to 6mm components  
 LLC's and ceramic filters ect



Nozzle #	Description		
CMX101DVG	Micro Tool Nozzle Body		
DMX257DVG	Micro Tool Nozzle Cone	0.257" Exhaust opening	
DMX188DVG	Micro Tool Nozzle Cone	0.188" Exhaust opening	
DMX090DVG	Micro Tool Nozzle Cone	0.090" Exhaust opening	
DHBX	Micro Tool Nozzle Cone Conduction only		
NMX257DVG	Micro Tool Nozzle Body and Cone	0.257" exhaust opening	
NMX188DVG	Micro Tool Nozzle Body and Cone	0.188" exhaust opening	
NMX090DVG	Micro Tool Nozzle Body and Cone	0.090" exhaust opening	
NHBX	Micro Tool Nozzle Body and Cone Conduction only		
VTMX020-35	Vacuum tip	.020 ID x .035OD	Use with NMX090DVG
VTMX030-45	Vacuum tip	.030 ID x .045OD	Use with NMX090DVG
VTMX050-060	Vacuum tip	.030 ID x .045OD	Use with NMX090DVG
VTMX060-075	Vacuum tip	.060 ID x .075 OD	Use with NMX257DVG
VTMX093-125	Vacuum tip	.093 ID x .125 OD	Use with NMX257DVG
VTHB0201	0201 Hot Bar Conduction tip		Use with NHBX
VTHB0402	0402 Hot Bar Conduction tip		Use with NHBX
VTHB0604	0604 Hot Bar Conduction tip		Use with NHBX
VTHB0806	0806 Hot Bar Conduction tip		Use with NHBX