



## NOZZLE SIZE SELECTION GUIDE

### STANDARD GAGE PRECISION NOZZLES

Hub Color	Gage Size	ID/OD (in)	ID/OD (mm)	Base Metal	Available Coatings
Pink	18	0.041 / 0.049	1.039 / 1.240	Phosphor Bronze, Nickel Silver	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
Peach	19	0.034 / 0.042	0.859 / 1.059	Phosphor Bronze	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
Lime Green	20	0.027 / 0.035	0.681 / 0.879	Phosphor Bronze	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
Light Blue	21	0.024 / 0.032	0.610 / 0.810	Phosphor Bronze	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
Lavender	23	0.022 / 0.025	0.564 / 0.635	Phosphor Bronze, Nickel Silver	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
White	25	0.017 / 0.020	0.437 / 0.508	Phosphor Bronze, Nickel Silver	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
Red	27	0.013 / 0.016	0.335 / 0.406	Phosphor Bronze, Nickel Silver	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C
Black	30	0.009 / 0.012	0.234 / 0.305	Phosphor Bronze, Nickel Silver	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK, Parylene Type C

### MICRO PRECISION NOZZLES

Neon Blue	06	.006 / .010	0.159 / 0.244	Nickel Silver	Nickel PTFE, Electroless Nickel, Nickel Polymer Type SLK
Neon Orange	04	.004 / .008	0.108 / 0.208	Nickel Silver	Nickel PTFE, Nickel Polymer Type SLK
Neon Yellow	02	.002 / .007	0.057 / 0.169	Nickel Silver	Contact for Availability

*\*Nominal dimensions apply to uncoated nozzles*



## NOZZLE APPLICATION GUIDE

### NOZZLE VARIANTS

Base Metal/Coating	Key Features	Fluid Type	Industry Applications
Nickel Silver/Uncoated	Lower Cost, Oxidation Resistant, Finish as Deep Drawn, Thinner Wall, Dull Silver Appearance	Epoxies, Silver Epoxies, Silicones, UV Cure Adhesives, Thermal Greases, Adhesives	LED Encapsulation, Electronics, Gasketing, Underfill, Cavity Fill, Patterns
Phosphor Bronze/Uncoated	Lower Cost, Rapid Heat Transfer, High Rigidity, Thinner Wall, Finish as Deep Drawn, Dull Copper Appearance	Epoxies, Silver Epoxies, Silicones, UV Cure Adhesives, Thermal Greases, Adhesives	Electronics, Gasketing, Underfill, Cavity Fill, Patterns, Encapsulation
Phosphor Bronze/Electroless Nickel	Hard, Abrasion Resistant, High Rigidity, Bright Silver Appearance	Epoxies, Silver Epoxies, Silicones, UV Cure Adhesives, Thermal Greases, Adhesives	LED Encapsulation, Electronics, Gasketing, Underfill, Cavity Fill, Patterns
Nickel Silver/Electroless Nickel	Hard, Abrasion Resistant, Bright Silver Appearance	Epoxies, Silver Epoxies, Silicones, UV Cure Adhesives, Thermal Greases, Adhesives	LED Encapsulation, Electronics, Gasketing, Underfill, Cavity Fill, Patterns
Phosphor Bronze/Nickel PTFE	Inert, Hard, Lubricious, Hydrophobic, Abrasion Resistant, High Rigidity, Dark or Dull Silver or Grey Appearance, PTFE Impregnated	Aqueous Fluids, Buffers, Slurries, Biomaterials, Emulsions	Medical, Biomedical Devices, Electronics, Well Deposition
Nickel Silver/Nickel PTFE	Inert, Hard, lubricious, Hydrophobic, Abrasion Resistant, Dark or Dull Silver or Grey Appearance, PTFE Impregnated	Solder Pastes, Epoxies, Adhesives	Medical, Electronics, Fiber Optic Assembly
Phosphor Bronze/Nickel Polymer	USDA/FDA Compliant, Hydrophobic, Oleophobic, Very Hard, Corrosion Resistant, Abrasion Resistant, Non-stick, Wetting Resistant, Good Release, Gold Appearance	Sensitive Adhesive Applications, Emulsions, Buffers, Aqueous Fluids, Abrasive Food Slurries,	Pharmaceuticals, Food Printing, Clinical Diagnostics
Nickel Silver/Nickel Polymer	USDA/FDA Compliant, Hydrophobic, Oleophobic, Hard, Corrosion Resistant, Abrasion Resistant, Non-stick, Wetting Resistant, Good Release, Gold Appearance	Abrasive Food Slurries, Emulsions, Buffers	Pharmaceuticals, Food Printing, Clinical Diagnostics
Phosphor Bronze/Parylene C	USDA/FDA Compliant, Hydrophobic, Oleophobic, Wetting Resistant, Good Release, Transparent, Iridescent Copper Appearance	Aqueous Fluids, Buffers, Biomaterials	Pharmaceuticals, Clinical Diagnostics

\*Phosphor Bronze = UNS C51000, Nickel Silver = UNS C73500