

# Introduction

## The Value of SET Valves





# Types of Valves

<b>Description</b>	<b>Typical Applications</b>
Needle	Fine dot or fine line dispensing – Fluid compatibility needs to be considered
Diaphragm	Larger Volume dispensing
Spray	Large Spray pattern for coating
Micro Spray	Fine spray pattern for precise coating
Piston	Thick fluid precise control
High Pressure Spool	Automatic “suck-back” anti-drip feature Thick sealants (Max 17.2MPa fluid inlet pressure)
Conformal	Precision Conformal Coating for moisture-proof material
Jetting	Non contact high speed accuracy



# Needle Valve

## Fluid applications:

- Inks, accelerators, activators, fluxes , electrolytes, epoxies, pastes, oils, water, solvents

## Viscosity Range:

- Water (Low) – Grease (Med, not exceeding 0.7MPa fluid pressure)





# Needle Valve

## Features and Benefits:

- Positive shutoff and zero dead fluid volume
- Micro-deposit output
- Adjustable needle opening for precise fluid control





# Diaphragm Valve

## Fluid Applications:

- Anaerobic, cyanoacrylates, solvents, inks, lubricants, fluxes, conformal coatings, reagents, alcohol, activators, electrolytes, UV glues

## Viscosity Range:

- Water (Low) – Honey/Syrup (Med)







# Diaphragm Valve

## Features & Benefits:

- Inert plastic wetted components for a wide range of chemical compatibility
- Flexible diaphragm for longer valve service life
- Adjustable valve opening for precise fluid flow control





# Spray Valve

## Fluid Applications:

- Lubricants, marking inks, accelerators, liquid fluxes, greases, solvents.

## Viscosity Range:

- Water (low) – Grease (med, not exceeding 0.7MPa fluid Pressure)





# Spray Valve

## Features and Benefits:

- Low Volume Low Pressure (LVLP) design minimizes over spray and misting
- Adjustable needle opening for precise fluid flow control
- Separate actuating and atomizing air inputs for independent control







# Micro Spray Valve

## Fluid Applications:

- Lubricants, marking inks, accelerators, liquid fluxes, greases, solvents.

## Viscosity Range:

- Water (low) – Grease (med, not exceeding 0.7MPa fluid Pressure)
- With a 22-33 gage SET GP needle tip, highly repeatable small amount of dispensing can be achieved without dripping





# Micro Spray Valve

## Features and Benefits:

- Low Volume Low Pressure (LVLP) design minimizes over spray and misting
- Produce uniform spray patterns between 3.0 mm and 20 mm
- Spray pattern can be smaller by more than 60%
- Drip-free shut off





# Piston Valve

## Fluid Applications:

- Epoxies, lubricants, RTV silicones, solder masks, greases, brazing paste, inks, lacquers, electrolytes

## Viscosity Range:

- Water (Low) – Toothpaste (Med/High, Self-leveling)





# Piston Valve

## Features and Benefits:

- Snuff-back for clean material shutoff
- Flexible UHMW diaphragm for longer valve service life
- Adjustable valve opening for precise fluid flow and fine-tuning of snuff-back amount





# High-Flow Piston Valve

## Fluid Applications:

- Conformal coatings, braze paste, anaerobic, cyanocrylates, greases, inks, oils, paints, solder resist, water, white glues, fluxes

## Viscosity Range:

- Water (Low) – Tooth Paste (Med/High, Self leveling)







# High-Flow Piston Valve

## Features and Benefits:

- Snuff-back for clean material shutoff
- Flexible UHMW diaphragm for longer valve service life
- Low maintenance design





# High Pressure Spool Valve

## Fluid Application:

- RTV silicones, greases, sealants, paste, fluxes

## Viscosity Range:

- Thick sealants (Max 17.2MPa fluid inlet pressure)





# High Pressure Spool Valve

## Features and Benefits:

- Opening surge control
- Compact yet rigid, all stainless steel construction
- Adjustable snuff-back cutoff
- Simplified design for easy maintenance
- Advanced polyester elastomer seals for longer valve service life





# Conformal Coating Valve

## Fluid Application:

- Moisture-proof material

## Viscosity Range:

- 30-710cps





# Conformal Coating Valve

## Features and Benefits:

- Square nozzle installed as a standard
- Large coverage of coating with low flow rate
- Ensuring dispensing consistency at start/stop points







# Ultra High-speed Non-contact Jet Dispenser-HYPERDOT

## Features and Benefits:

- Applicable to high viscosity fluids up to 400K mPas
- No dynamic fluid seal to leak
- Only two parts touch the fluid - nozzle plate and diaphragm
- Easy to clean





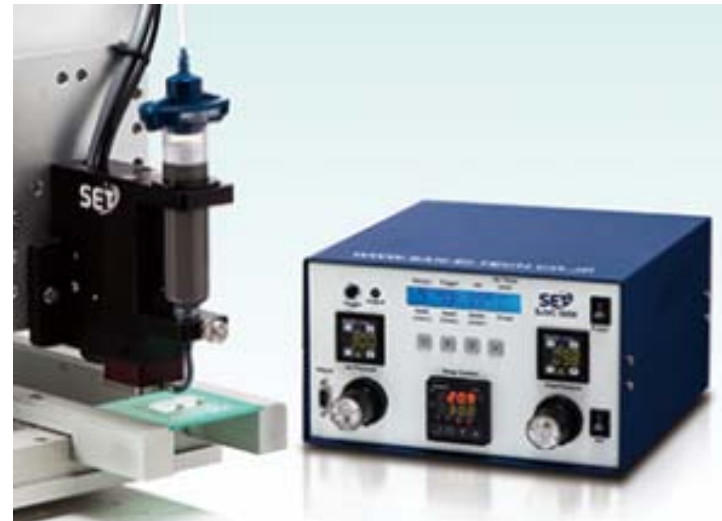
# Ultra High-speed Non-contact Jet Dispenser-HYPERDOT

## Fluid Application:

- Conductive adhesive, Underfill, Lubricant, Sealant, Silver epoxy, Surface mount adhesive, UV-cure adhesive etc...

## Viscosity Range:

- Applicable to high viscosity fluids up to 400K mPas





# Why must I use the SET valves?

- Ease of use
- Low maintenance
- No seal
- Easy to disassemble and assemble
- Easy to clean
- Repeatable quality
- High Cycle Rate
- Compatible with most industrial fluid





# Which valves will meet my needs?

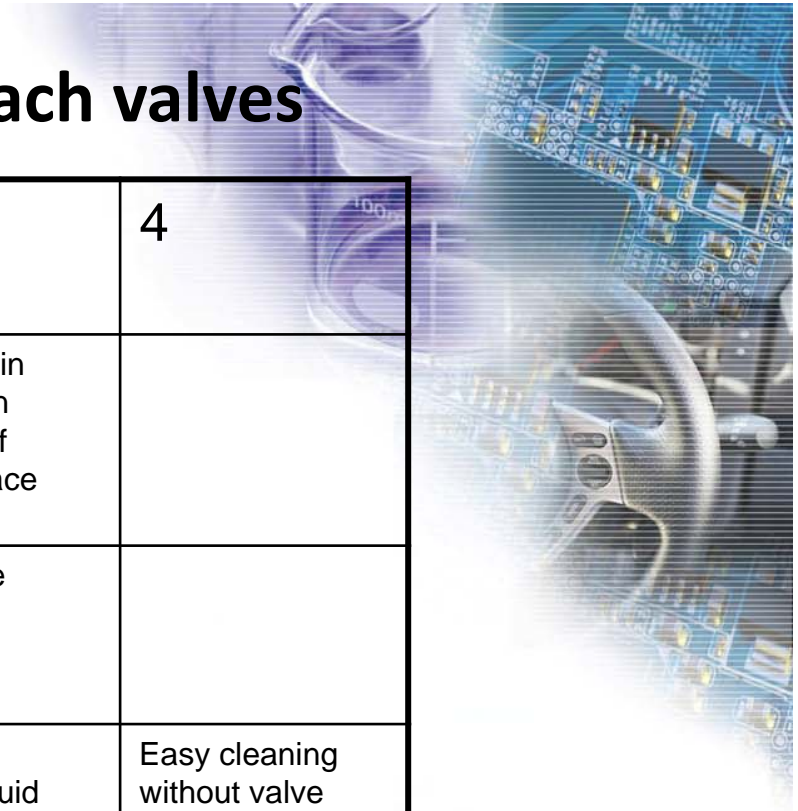
- I need the smallest deposits
  - SV51, SV51MD
  - HYPERDOT
- I need to spray a very thin layer of solvent without mist
  - SV91
  - SV97MS smallest spray area
- I need a very small and light weight valve to be inside a very small space
  - SV12
- I need it for low to medium viscosity fluid
  - SV62, SV62D, SV12
- I need to dispense low viscosity liquid or cyano-acrylate
  - SV62
- I need to fill up the parts in big volume
  - SV35HF
- I need to dispense with a medium –high viscosity fluid
  - SV35DA
- I need to dispense very thick non flow-able and highly viscous fluid like grease and silicone
  - SV46
- I want fast and non –contact dispensing
  - Hyperdot, Novadot





## Unique features in each valves

Valves Series	1	2	3	4
SV12	Smallest valve in the world ideal for CD/DVD replication machine	A Very Light Feather Weight Valve of 85 gram	Very ideal in automation because of saving space	
SV35DA	For low to medium viscosity fluids	Snuff Back help to stop drooling	Excellence chemical resistance	
SV62	For low to medium viscosity fluids  Compact size and weight	<ul style="list-style-type: none"><li>•Snuff Back help to stop drooling , no seals</li><li>• Help to eliminate tailing</li></ul>	<ul style="list-style-type: none"><li>•For Low viscosity fluid sensitive with metal</li></ul>	Easy cleaning without valve demounting
SV35HF	For filling and packaging process with the SV35HF valve of 450ml/sec flow capability	<ul style="list-style-type: none"><li>•Snuff Back help to stop drooling , no seals</li><li>• Help to eliminate tailing</li></ul>	<ul style="list-style-type: none"><li>•For Low viscosity fluid sensitive with metal</li></ul>	Easy cleaning without valve demounting







## Unique features in each valves

Valves Series	1	2	3	4
SV46	Valve is ideal for non-flow able fluid like grease and silicone	Snuff Back help to stop drooling	Strongest valve design for very high fluid pressure to 17.2Mpa	Excellence chemical resistance
SV51 •SV51MD	Provide the smallest dot to from gage 22-33 tip	Zero Dead Fluid volume	Unaffected by entrapped air in fluid	Positive shut off
SV91S series	Spray Valve with low volume and low air pressure for spraying thin fluid	Spray very thin layer without mist and overspray	Spray very thin layer without re-bounce	

A blurred, high-magnification microscopic image of a printed circuit board (PCB) serves as the background. The image shows intricate patterns of copper traces and numerous small, circular components, likely solder joints or vias, arranged in a grid-like fashion. The overall color palette is a mix of light blues, greys, and off-whites, giving it a technical and clean appearance.

## Fluid dispensing Borderless Solution

SAN-EI TECH serves customers in solving any problems associated with dispensing with our unique technical expertise.