# UNIVERSAL NOZZLE

(PAT. PEND.)



Resin drooling and stringing at the nozzle tip of the injection cylinder have been an annoying problem in plastic molding. As a molding manufacturer we have done a lot of research to find a solution, and now we have one. Our Universal Nozzle is uniquely designed to prevent resin drooling and stringing. And any kind of resins can be commonly used.

# Types of Nozzle

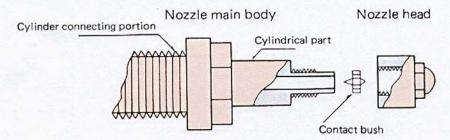
A (standard)

B (combined use for extension bushing)

## Construction (common for A and B nozzles)

- Nozzle main body and nozzle head both made of highly heat-and pressure-resistant steel.
- Gate closing mechanism is a valveless system (Patent pending).
- Various sizes and shapes of nozzle are available for any application.

# Schematic drawing of universal nozzle (model A)



#### **Features**

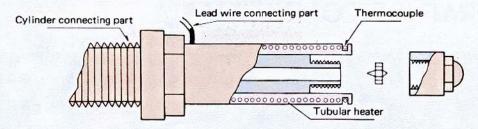
#### Valveless mechanism closes the gate when injection is complete.

- No needle valves and springs are used in this system, yet resin drooling and stringing are stopped completely.
- Common use for all resins has eliminated nozzle replacement, perhaps the most difficult work in the molding operation.
- The resin flows easily through the runners. Because of no needle valve in the material flow to jam things up.
  - \* These features are true for both A and B nozzles.

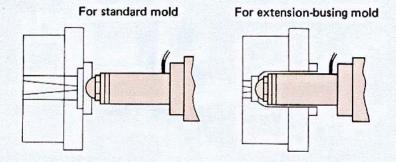
#### Universal nozzle B (combined use for extension bushing)

- The heater is assembled in the nozzle main body. The heater is a tubular with an internal thread where it touches the main body. The heater screws onto the external thread on the cylindrical part of the nozzle body. (Pat. pending)
- The length and thickness of the main body cylindrical part fit ordinary and extension-bushing molds.

### Schematic drawing of universal nozzle (model B)



# Efficient tubular heater



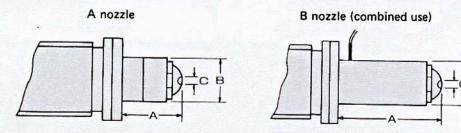
#### **Features**

- A high-precision abrasive-finished tubular heater is fitted to the cylindrical part of the nozzle main body to form a universal nozzle.
- The heat source is embedded in a small steel tube, so it is tough and lasts several times longer than an ordinary heater.
- The nozzle is round and, unlike a band heater, has no clamps on the periphery. So the inside diameter of the inserting hole in the mold is small, and the mold stays rigid.
- This is no need to replace the nozzle when changing the mold from ordinary to extension-bushing type, so set-up is much faster.

# Standard specifications

(Init:mm)

					(Unit:mr		
Spec. Type	A-1	A-2	B-1	B-2	B-3	B-4	
A dimension	72	92	95	102	115	135	
B dimension	<b>ø</b> 35		ø40	ø28	<b>ø</b> 40		
C dimension			ø3				
Heater capacity W			350	300	400	450	
Thermocouple			C.A. or I.C.				



- For A nozzles, the thermocouple and heater should be ordered separately.
- For cylinder mounting part dimensions, specify the molding machine, maker's name and type.
- Ask about custom designs for any application.