



# GMO System/General Open Solution

Affordable, basic but essential-featured Hot Runner system  
 Applied for general extensive use  
 Adjustable nozzle length upon request by the customer  
 Various designs of gates in standardized formats  
 Replaceable screw-type tip provide  
 System structure for faster and effective maintenance  
 Abrasion-resistant special Dura tip (optional) provided to deal with glass-containing resins



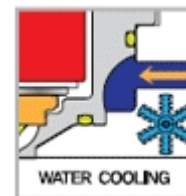
**Exellent Heat Stability**  
 Good Part Quality with Exellent Heat Stability on the gate area



**Quik & Easy Maintenance**  
 Quick & Easy Maintenance with Front Exchange Structure for Heater and T/C

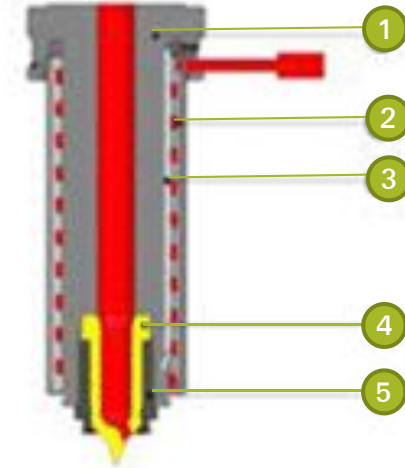


**Wide Range of Selection**  
 Wide range of Selection, Nozzel length  
 Gate Bushes, Tips



**Cooling Gate Bush**  
 Cooling Gate bush is supported

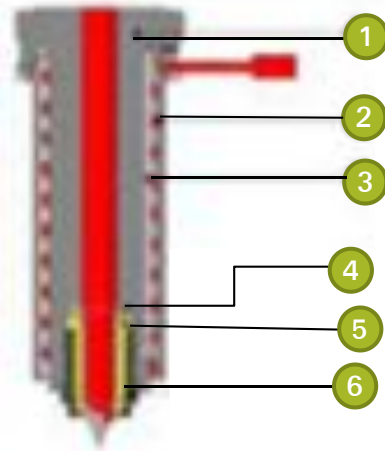
## GMO STRUCTURE



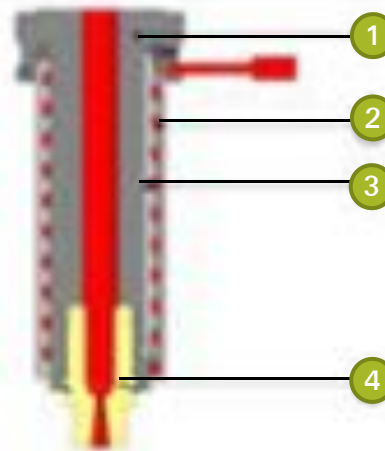
	GMO-CC
1	Nozzel Bady
2	Coil Heater
3	Thermo Couple
4	CC Tip
5	Nozzel Union

# GMO System/General Open Solution

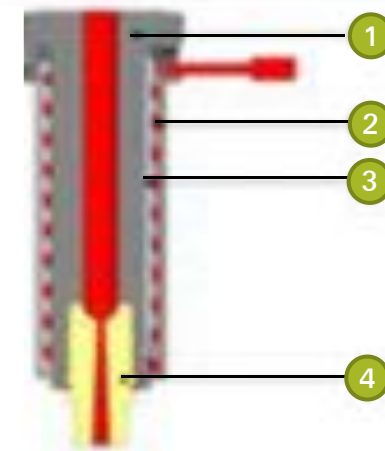
**GMO-CC-Dura**



**GMO-CA**



**GMO-CA-S**



	GMO-CC-Dura	GMO-CA	GMO-CA-S
1	Nozzel Bady	Nozzel Bady	Nozzel Bady
2	Coil Heater	Coil Heater	Coil Heater
3	Thermo Couple	Thermo Couple	Thermo Couple
4	CC Tip (Out)	CA Tip	CA-Special Tip
5	CC Tip (in)		
6	Nozzel Tip Bush		



# GMO System/General Open Solution

**GMO Spec**

TYPE	SIZE	CHANEL DIA	GATE	
			OPEN	
			CC	CA
GMO	20	8	0.8/0.1/1.2/1.5	1.5/2.0
	25	10	1.0/1.5/2.0	2.0/2.5/3.0
	35	12	1.5/2.0/2.5	3.0/3.5/4.0
	45	16	2.0/3.0/4.0	4.0/5.0/6.0

**Minimum Gate Pitch of GMO**

NOZZEL TYPE	N/L and GATE	GATE to GATE
	A	B
GMO-20	50	43
GMO-25	50	53
GMO-35	50	63
GMO-45	55	73

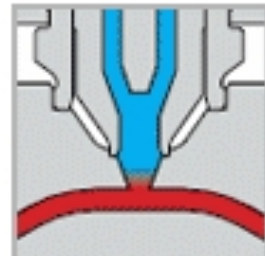
# GMV System/General Valve Solution

Optimized structure for general valve solution to obtain excellent performance and smooth surface  
 Applied for far-ranging uses from general to standard engineering resins  
 Adjustable nozzle length upon request by the customer  
 Various designs of gates provided in standardized formats  
 Replaceable screw-type tip provided  
 System structure for faster and effective maintenance  
 Abrasion-resistant special Dura Tip (optional) provided to deal with glass-containing resins



■ Excellent Heat Stability

Excellent Heat stability and Pin Performance ensures the optimal gate conditions



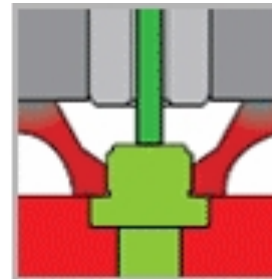
■ Quick Color Change

Quick Color change VC structure on gate area



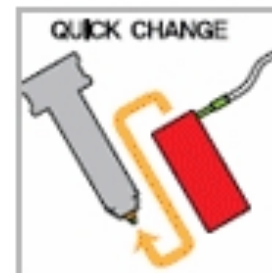
■ Wide Range of Selection

Wide range of selection, Nozzel Length, Gate Buses, Tip and Cylinder



■ Advanced Pin Guide Ring

More advanced special design to strongly Prevent the material leakage and Minimize the heat exchange



■ Quick & Easy Maintenance

Quick & Easy Maintenance with Front Exchange Structure for Heater and T/c

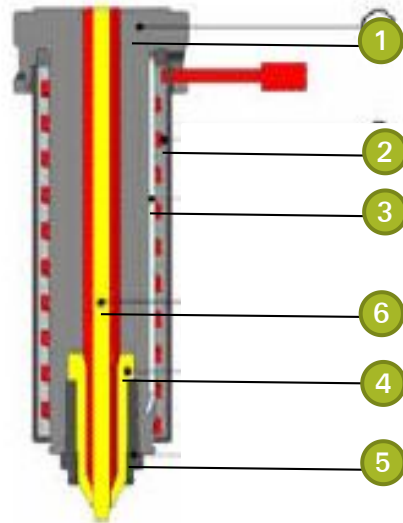
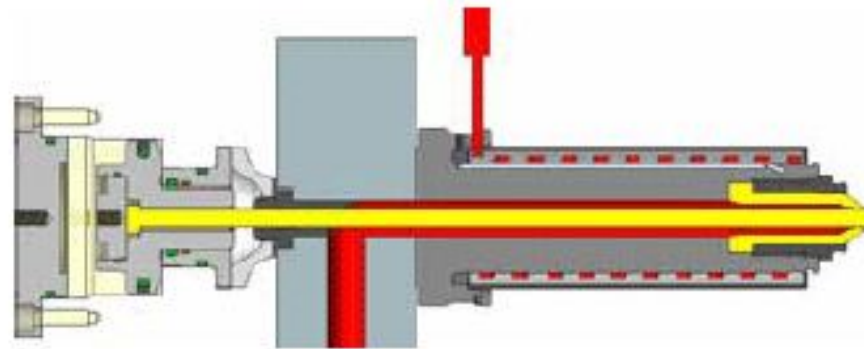


■ Cooling Gate Bush

Cooling Gate bush is supported

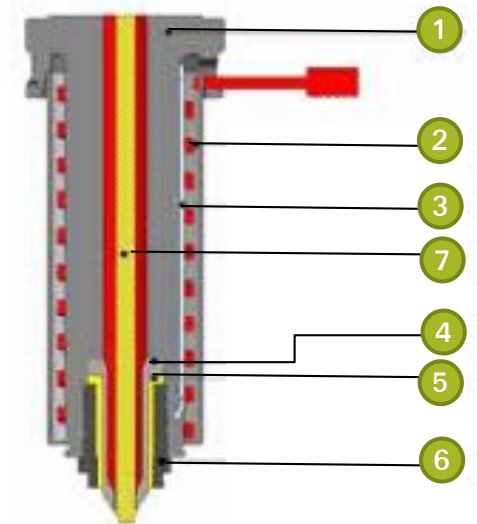
# GMV System/General Valve Solution

**GMV STRUCTURE**



	GMV-VC
1	NOZZEL BADY
2	COIL HEATER
3	THERMO COUPLE
4	VC-TIP
5	NOZZEL UNION
6	VALVE PIN

	GMV-VC-Dura
1	NOZZEL BADY
2	COIL HEATER
3	THERMO COUPLE
4	VC-Dura in TIP
5	VC-Out TIP
6	NOZZEL UNION
7	VALVE PIN

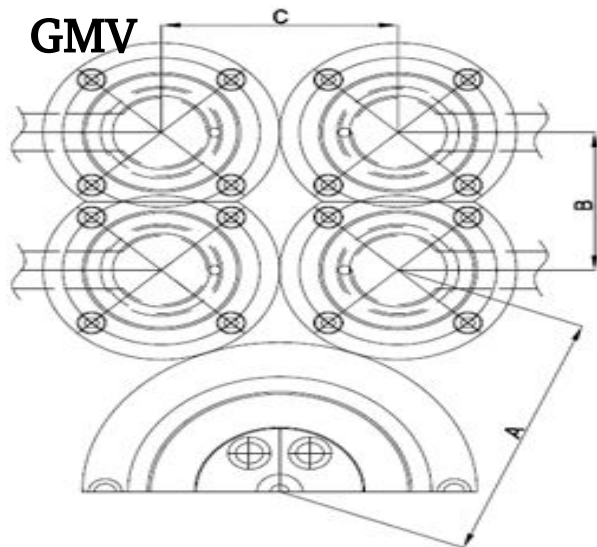


# GMV System/General Valve Solution

## GMV Spec

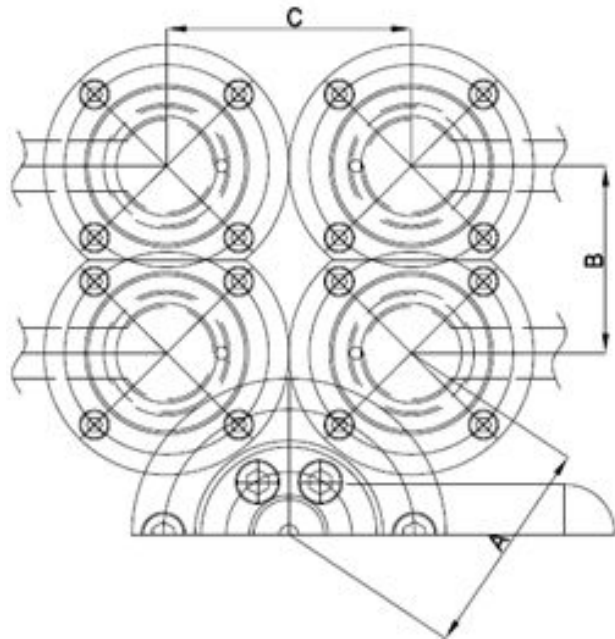
TYPE	SIZE	CHANEL DIA	GATE
		VALVE	VALVE
GMV	20	8	1.2/1.5/2.0
	25	10	1.5/2.0/2.5
	35	12	2.5/3.0/3.5/4.0
	45	22	5.0/6.0/7.0/8.0

## Minimum Gate Pitch of GMV



NOZZEL GATE	N/L-GATE	GATE RECTANGLE	GATE SQUARE
	A	B	C
GMV-20	105	60	80
GMV-25	105	60	80
GMV-35	105	63	80
GMV-45	120	90	110

VALVE TYPE NL 25.35 (With HT)



NOZZEL GATE	N/L-GATE	GATE RECTANGLE	GATE SQUARE
	A	B	C
GMV-20	105	60	80
GMV-25	105	60	80
GMV-35	105	63	80
GMV-45	120	90	110
ENV16	75	60	80

# PET System/PET preform Valve Solution

## Proven PET PREFORM-specific Hot Runner Solution

The best of its kind, feel free to compare with any other PET PREFORM solution in the word ! Unrivaled Hot Runner system organically integrated with general molding techniques. Excellent thermal balance with special insulation on the nozzle body and terminal ends of the gate. Anti-corrosion material applied to major components  
Custom designed from 2-cavity through 48-cavity system



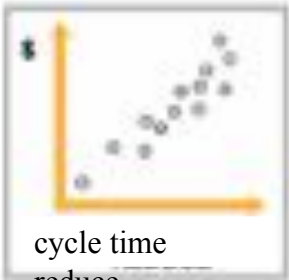
### Proven Preform

Proven Exclusive  
Hot Runner System for Preform



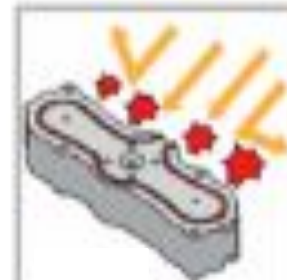
### Total Quality

Total quality based on Quality Experience  
in general Mold, PET Preform Mold  
Hot Runner system



### PRODUCTIVITY

Faster & Better Cycle Time by  
Advanced Cooling Know How



### Durability

Corrosion-resistant material being used  
in the main parts to keep durability

# PET System/PET preform Valve Solution

## Exellent Heat

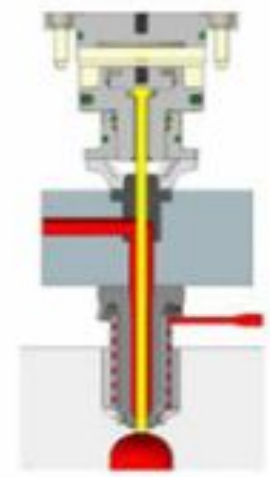
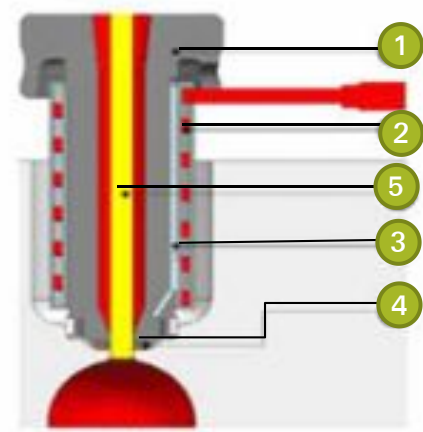
Special Quality insulation applied on the nozzle body and the end of tip to keep the excellent heat stability which results in the excellent part without the impure or whitening issues



Specialized Product Range, 2 cavity to 48 cavity

## PET STRUCTURE

	PET-V V
1	NOZZEL BODY
2	TUBE HEATER
3	THERMO COUPLE
4	QUALITY INSULATION
5	VALVE PIN



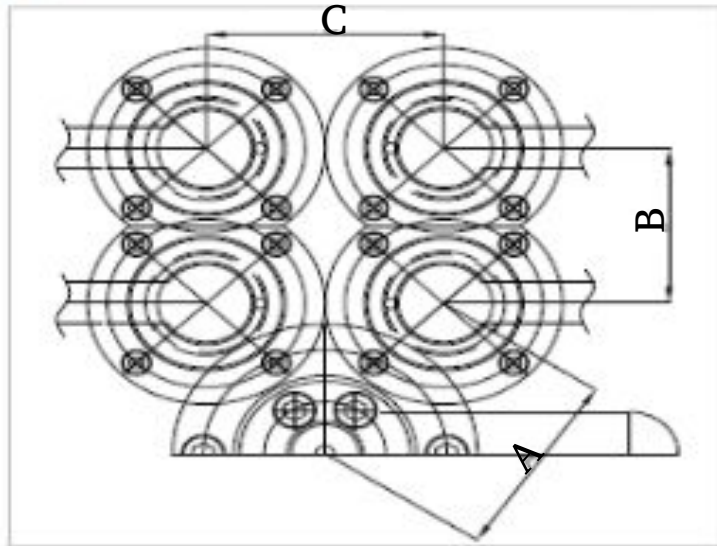
# PET System/PET preform Valve Solution

## PET SPEC

(Unit : mm)

TYPE	SIZE	CHANEL DIA		GATE	
		GATE	VALVE	OPEN	VALVE
PET	19	NA	8	NA	4

## Minimum gate Pitch of PET



VALVE TYPE NL25,35 ( with HT)

NOZZEL SIZE	N/L and GATE	GATE (Rectangular)	GATE (Square)
	A	B	c
Env16-19	75	60	80

# ENV System/ Super Engineering Valve Solution



Excellent thermal and structural balance suitable to engineering resins

Pin guide bush to meet the demand of fast and easy maintenance

Perfect thermal balance with special insulation on the nozzle body and terminal ends of the gate

Smooth surface and enhanced durability of the gate by introducing the straight pins

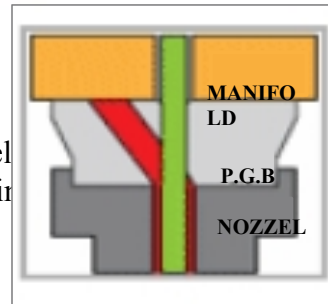
Correct and stable pin operation guaranteed by positioning the pin bush guide under the manifold system not to

Be effected by the thermal expansion of the manifold



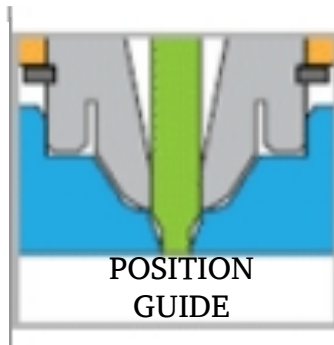
## Excellent Heat Stability

Special insulation structure for excellent Heat Stability to meet any engineering Materials specific needs



## Excellent Pin Guide System

Pin guidance system is positioned under the manifold which results in excellent straight pin operation to make better parts on the gate area and improve the durability of mold.



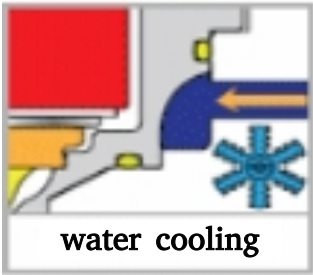
## Straight Pin Excellent Part Quality



## Easy and Quick maintenance

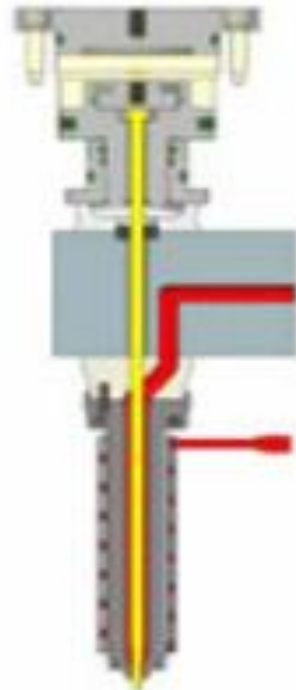
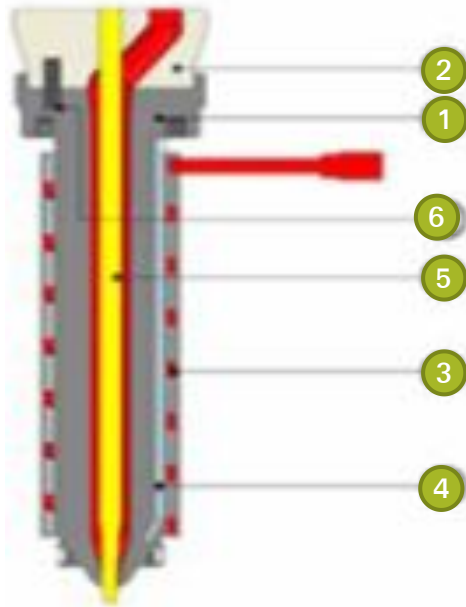
Advance structure for engineering and abrasive materials adopted which result in easy and quick exchange of valve Pin and Pin guide bush

# ENV System/ Super Engineering Valve Solution



## Cooling Gate Bush

Cooling Gate bush is supported



## ENV STRUCTURE

	ENV -VC
1	Nozzel Body
2	Pin Guide Bush
3	Tube Heater
4	Thermo Couple
5	Valve Pin
6	Lock Pin

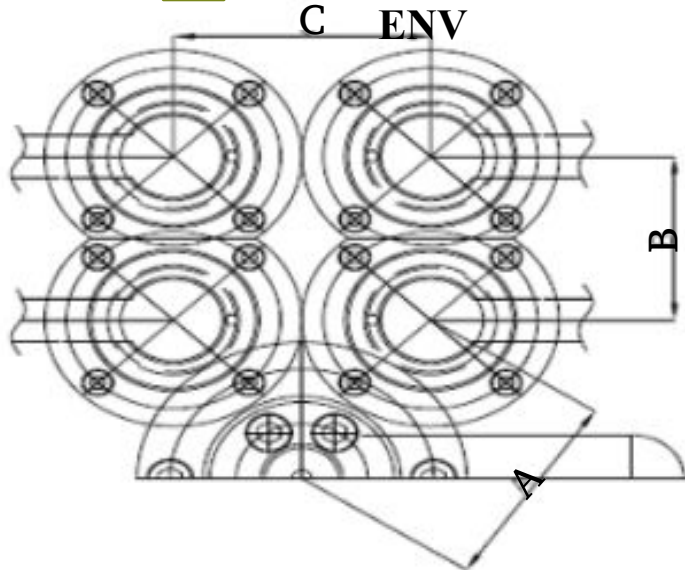
# ENV System/ Super Engineering Valve Solution



## ENV Spec

TYPE	SIZE	CHANNEL DIA		GATE	
		OPEN	VALVE	OPEN	VALVE
ENV	16	NA	7	NA	1.2/1.5/2.0
	19	NA	7	NA	1.2/1.5/2.0

## Minimum Gate Pitch of ENV



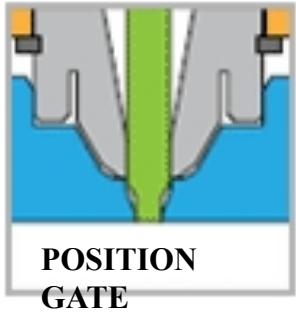
## VALVE TYPE NL 25,35 (With HT)

Nozzel size	N/L AND GATE	GATE (RECTANGULE R)	GATE (SQUARE)
	A	B	C
ENV16-19	75	60	80

# ENV System/ Super Engineering Valve Solution



Single valve solution based on optimized structural, thermal control technique  
Easy & quick maintenance by separating the resin passage from the pin control system. Smooth surface and enhanced durability of the gate by introducing the straight pins



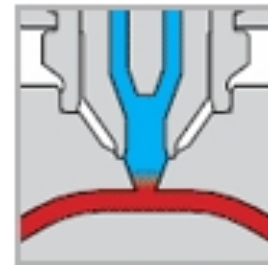
Exellent Part Quality  
Beautiful part quality with  
Exellent Straight Pin Operation



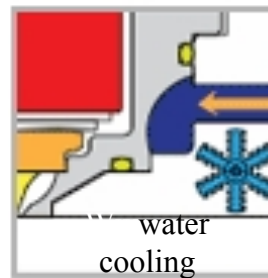
Quick & easy maintenance  
Quick Disassembly by Top cover  
Easy Maintenance with front Exchange  
Structure for Heater and T/C



Durability  
Long Durability by the separate structure  
Between a nozzle and a cylinder



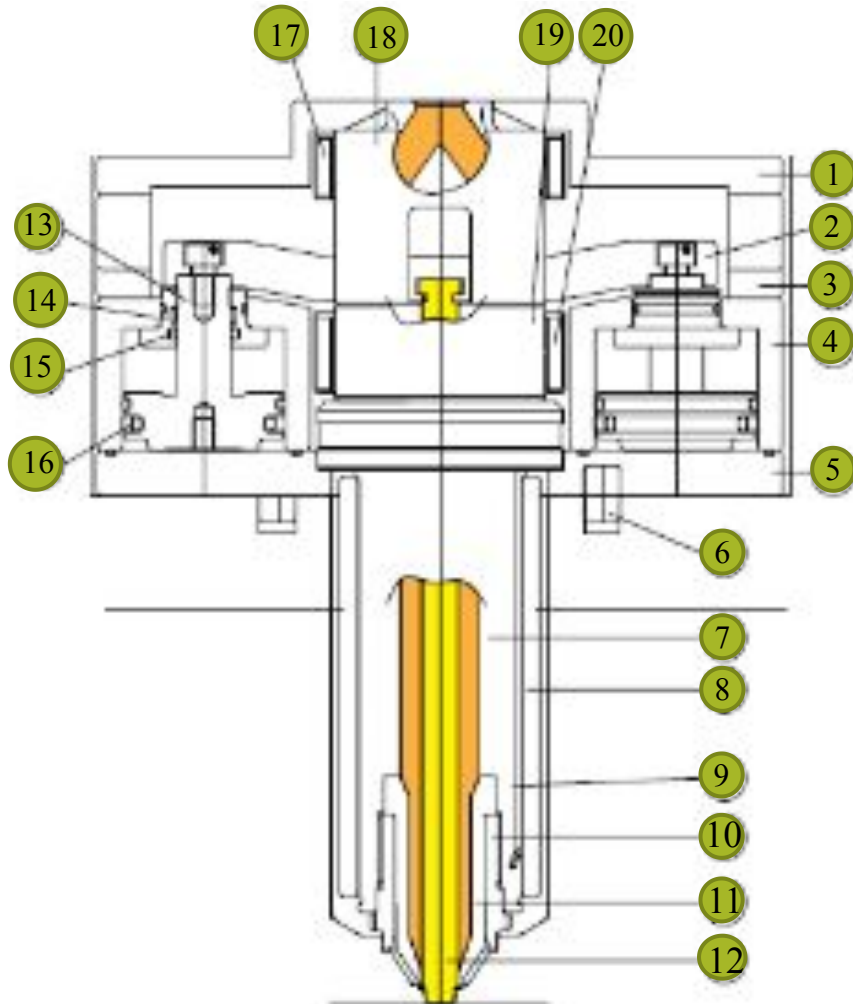
Quick Color Change  
Quick Color change VS structure on the gate area



Cooling Gate Bush  
Cooling Gate Bush is supported

# SNV system/ Single Valve Solution

## SNV System/Single Valve Solution



1	Top Cover
2	Cylinder Guide Bar
3	Housing
4	Cylinder Housing
5	Bottom
6	Lock Pin
7	Nozzle Body
8	Nozzle Coil Heater
9	Nozzle Thermp Couple
10	Nozzle Tip Bush
11	Nozzle Tip
12	Valve pin
13	Piston
14	Piston Bottom
15	Piston Bottom 'O' -ring
16	Piston 'O' ring+ Glyd Ring
17	Head Body Co Tube Heater
18	Head Body
19	Pin Guide Bush
20	Pin Guide Bush Tube Heater



## PMO System/Specialized Packaging Solution

Packaging Solution

Easy installation/Easy Moding?easy Maintenance

Quick and Easy Maintenance with Front Exchange Structure for Heater and T/C

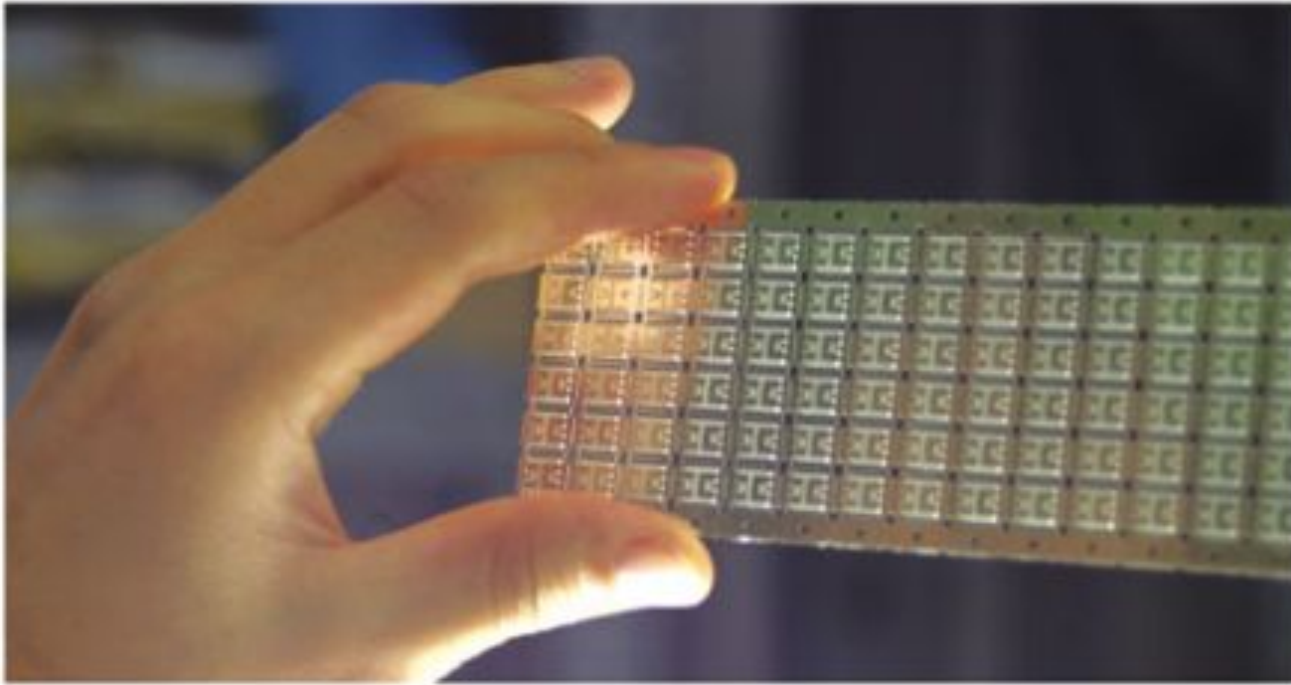
Exellent Heat Stability



## LED System/Customized Super Special System for LED Frame



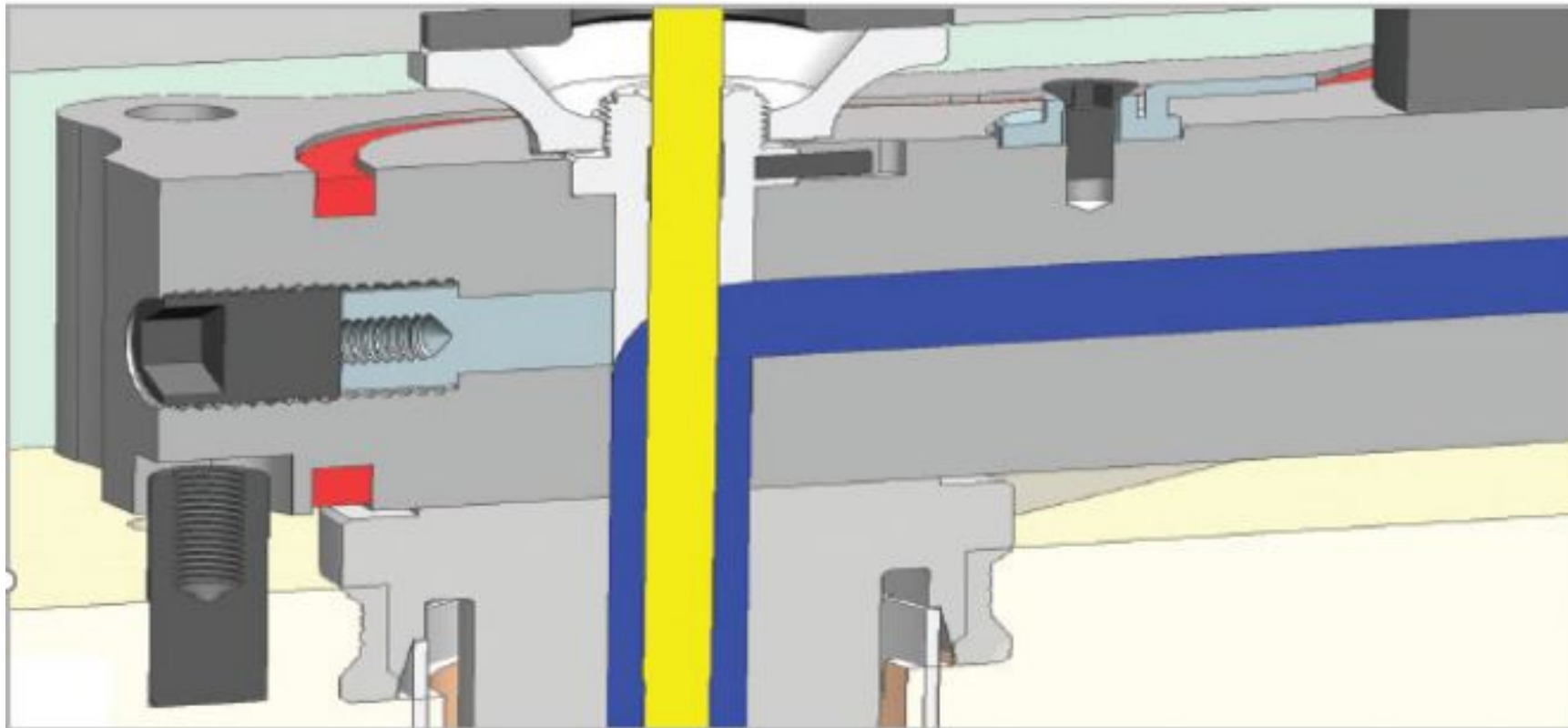
Market leader Teknologi in Hot Runner systems  
Super accurate thermal stability required for LED Lead Frames is Pure White Color and Very Sensitive to small temperature fluctuations  
Thermal stability and balance only is right solution  
All else (mold temperature, mold modification, injection machine control, etc) is just window dressing.



## Advanced Manifold Tecnology

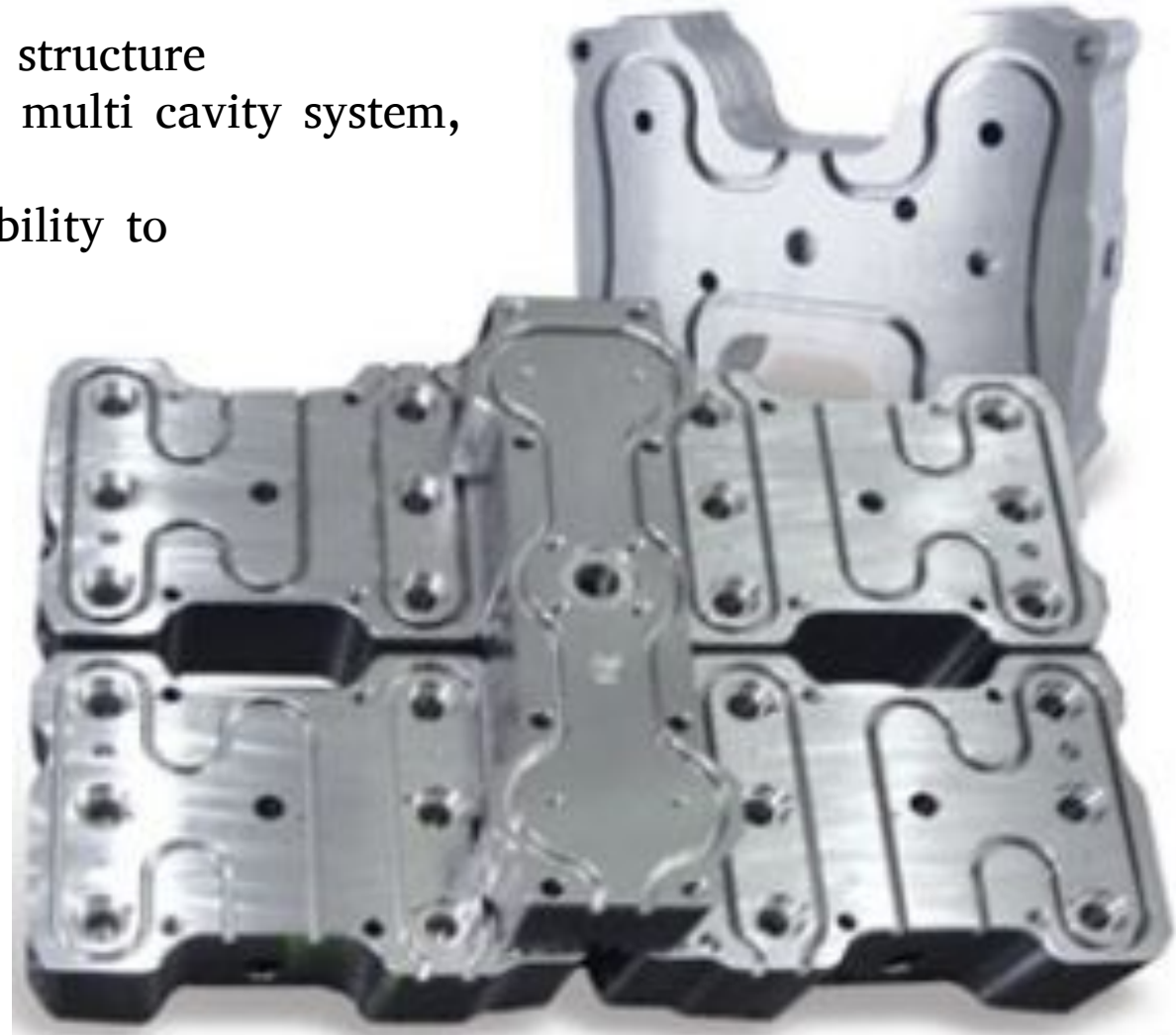
Square Heaters for a wide touch, Quick Start and Energy Saving Technology  
Special fine tuning structure to tightly fix Square Heaters in the manifold  
Exellent thermal balance/Quick Maintenance/Exellent Flexibility for Easy Instalation

Streamlined smooth chanel (Precise Channel & Round PGB for Quick ColorChange) to minimize dead spots



## Advanced Manifold Tecnology

Fluid Dynamical natural balanced channel structure  
Specialized Excellent channel balanced for multi cavity system,  
PET perform 24, 32, 48 cavity  
Different steel materials for the long durability to  
specifications  
of plastic material



## Temperature Controller



- Controlling temperature more accurate heat with adopting new PID algorithm
- Protecting overvoltage and false connection
- Displaying parameters  
(T/C setting, degree F/C indication, operation status, Soft etc)
- Detecting errors (alarm, voltage, heater short, triac short)
- Coolesting Temperature (different and slope compensation)
- Algorithm to prevent triac breakage  
(improve cooling efficiency of heat sink, adopt high power triac)
- Protection function against wiring error, heater short, over voltage, overcurrent
- TC-880 is cartridge type
- When a unit causes problem, just replace the unit cartridge which does not  
Affect whole system operation

## Temperature Controller



TC-3200 series enables integration management easily because temperature controller and sequence injection timer controller and into all-in-one system

Intuitive UI and Various display panels

Managing mold files

Testing Mold

Reporting function

Windows operating system

Controlling 12~256 zones

Mounted Sequence injection timer (1~16 gate option)

Protecting over voltage

Realizing excellent performance with 32 processor

