



**SMART ONE**  
**VALVE GATE HOT RUNNER SYSTEM**  
THE SMART WAY TO FILL



**DME**  
**SMART**  
**ONE VALVE GATE**

# DME® **SMART** **ONE VALVE GATE**

## DME Hot Runner - SMART ONE

Cost efficient and capable, the DME SMART ONE gives you all you need in a melt delivery system at an economical price.



### Why the DME SMART ONE?

- A Global offering from DME, providing a common design platform no matter where your molds are built
- 5 different nozzles size to match your application requirements
- A Valve Gate solution available as a Manifold & Components offering, or as a complete Hot Half, ready to interface with your cavity plate
- Valve gate tip styles include Bodiless, Full Body and Full Body with Extended Sprue
- Available with Pneumatic or Hydraulic cylinders
- Actuation options include individual (sequential) or all open/all close
- Cylinder design allows removal/setting of Valve Pins without system disassembly
- Available for 2- to 32-drops, using a naturally-balanced manifold flow path design
- Easily matched with DME Pneumatic or Hydraulic control systems
- Your choice of temperature control connector options
- Field maintainable nozzle heaters and thermocouples, with part availability in North America
- A value offering to provide a competitive edge over other manufacturers
- Ideal for your lower cavitation, less-technical applications
- Designed, Manufactured and Supported by DME North America

### Valve Gate

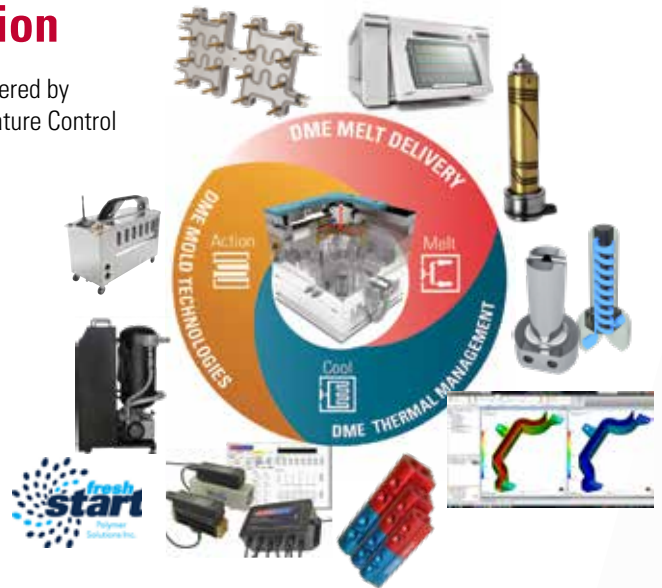
- Good for superior gate cosmetics, sequential part filling and the elimination of trimming and secondary operations
- Available in hydraulic & pneumatic actuation
- For core thermoplastic resins and from small to large parts
- Global manifold platform



# Mold Technologies Package Solution

The **DME SMART ONE** fits right into the complete package solutions offered by DME. Analysis, Hot Runner, Cooling, Mold Bases & Components, Temperature Control and Industrial Supplies.

**From start to finish, top to bottom... it can all be included.**



## Thermal Management Solutions

Add off-the-shelf Conformal Cooling Working in perfect combination with the **DME SMART ONE** is DME's Cooled Gate Bushings. These bushings are a thermal management solution that can be designed into your next project.



## Lifecycle Value Solution

The **DME SMART ONE** is part of the DME complete lifecycle products and services package. DME understands that you need products and services that support you from the design stage, through development, execution and service through the life of the project.



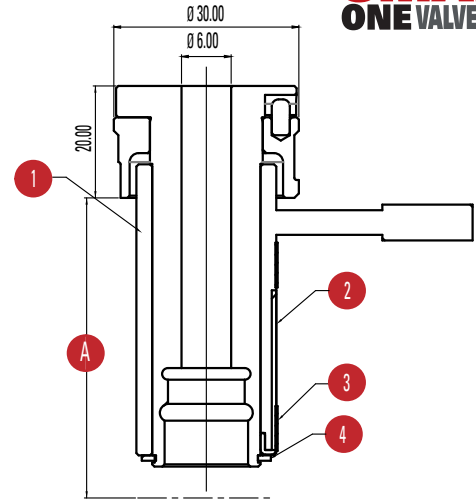
## Your Global Partner

Have an tool from overseas? No problem, **DME SMART ONE** valve gates are built on a common design platform that will fit, no matter where your mold is built.



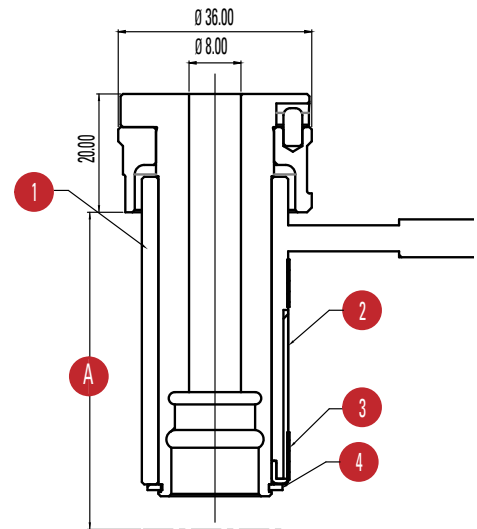
### Smart 12 Valve Gate Series Nozzle Sub-Assembly

A	1 NOZZLE HEATER	WATTS	2 TC	3 TC RETAINER 2 PC.	4 SNAP RING (2-PCS)
60	PCPHT12060B	250	PNJTC10150A	SMTCRC22	PSRSN12001A
70	PCPHT12070B	300			
80	PCPHT12080B	350			
90	PCPHT12090B	350			
100	PCPHT12100B	350			
110	PCPHT12110B	350			
120	PCPHT12120B	400			
130	PCPHT12130B	400			



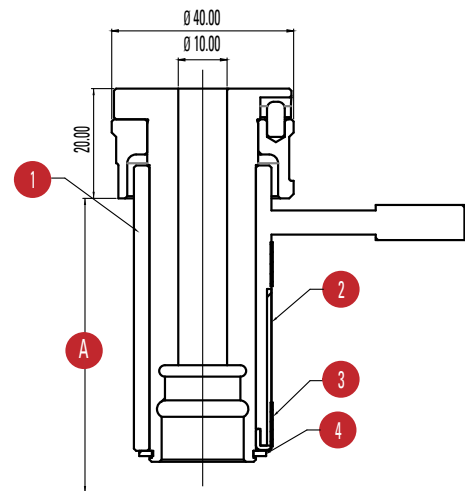
### Smart 15 Valve Gate Series Nozzle Sub-Assembly

A	1 NOZZLE HEATER	WATTS	2 TC	3 TC RETAINER 2 PC	4 SNAP RING (2-PCS)
64	PCPHT15063B	300	PNJTC10250A	SMTCRC22	PSRSN15001A
74	PCPHT15073B	350			
84	PCPHT15083B	400			
94	PCPHT15093B	400			
104	PCPHT15103B	400			
114	PCPHT15113B	400			
124	PCPHT15123B	450			
134	PCPHT15133B	450			
144	PCPHT15143B	450			
154	PCPHT15153B	450			



### Smart 19 Valve Gate Series Nozzle Sub-Assembly

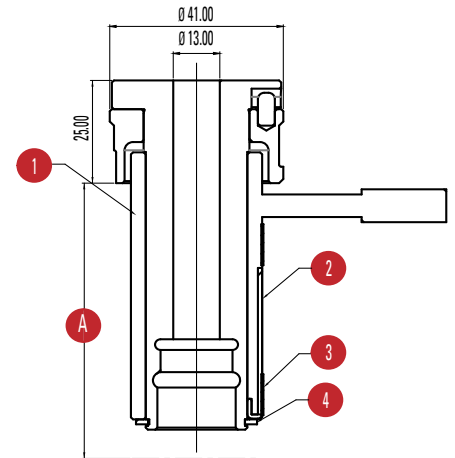
A	1 NOZZLE HEATER	WATTS	2 TC	3 TC RETAINER 2 PC	4 SNAP RING (2-PCS)
82	PCPHT19077B	400	PNJTC10250A	SMTCRC23	PSRSN19001A
97	PCPHT19087B	450			
112	PCPHT19097B	550			
127	PCPHT19107B	700			
142	PCPHT19117B	800			
157	PCPHT19127B	850			
172	PCPHT19137B	850			
187	PCPHT19147B	900			
202	PCPHT19157B	950			
217	PCPHT19167B	950			
232	PCPHT19177B	1000			
247	PCPHT19187B	1050			
262	PCPHT19197B	1100			



## Smart 21 Valve Gate Series Nozzle Sub-Assembly

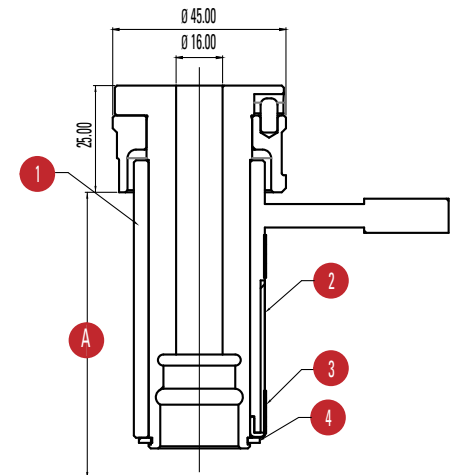


A	1 NOZZLE HEATER	WATTS	2 TC	3 TC RETAINER 2 PC.	4 SNAP RING (2-PCS)
82	PCPHT21082A	650W	PNJTC10350A	SMTCRC23	PSRSN21001A
97	PCPHT21097A	700W			
112	PCPHT21112A	750W			
127	PCPHT21127A	800W			
142	PCPHT21142A	850W			
157	PCPHT21157A	950W			
172	PCPHT21172A	950W			
187	PCPHT21187A	1000W			
202	PCPHT21202A	1000W			
217	PCPHT21217A	1050W			
232	PCPHT21232A	1050W			
247	PCPHT21247A	1100W			
262	PCPHT21262A	1100W			



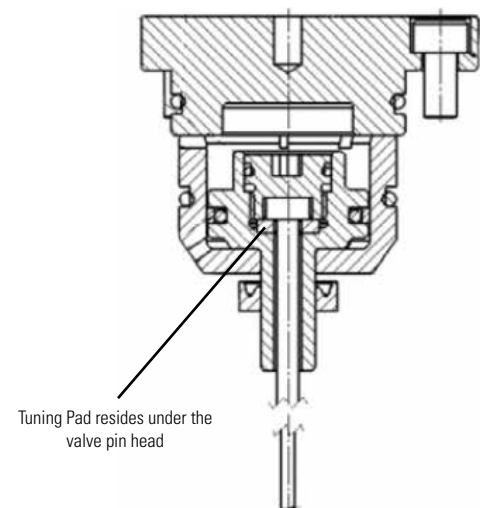
## Smart 24 Valve Gate Series Nozzle Sub-Assembly

A	1 NOZZLE HEATER	WATTS	2 TC	3 TC RETAINER 2 PC.	1 SNAP RING (2-PCS)
82	PCPHT24082A	750	PNJTC10350A	SMTCRC23	PSRSN24001B
97	PCPHT24097A	850			
112	PCPHT24112A	950			
127	PCPHT24127A	1000			
142	PCPHT24142A	1000			
157	PCPHT24157A	1050			
172	PCPHT24172A	1050			
187	PCPHT24187A	1100			
202	PCPHT24202A	1100			
217	PCPHT24217A	1150			
232	PCPHT24232A	1150			
247	PCPHT24247A	1200			
262	PCPHT24262A	1200			

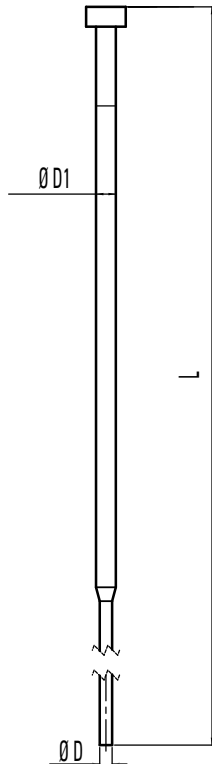


## Pneumatic & Hydraulic Cylinders

SERIES	D-DIA. REF.	SEAL KIT #	VALVE PIN TUNING PAD (Ø)
<b>Smart 12</b>			
30 Series-A	42mm	SM30ASK	PTPSC30025A (Ø11.5)
30 Series-B	70mm	SM30BSK	
<b>Smart 15</b>			
40 Series-A	85mm	SM40ASK	PTPSC40025A (Ø12.0)
40 Series-B	80mm	SM40BSK	
<b>Smart 19</b>			
50 Series-A	100mm	SM50ASK	PTPSC50025A (Ø14.0)
50 Series-B	92mm	SM50BSK	
<b>Smart 21</b>			
65 Series-A	110mm	SM65ASK	PTPSC65025A (Ø16.0)
<b>Smart 24</b>			
80 Series-A	128mm	SM80ASK	PTPSC80025A (Ø17.0)

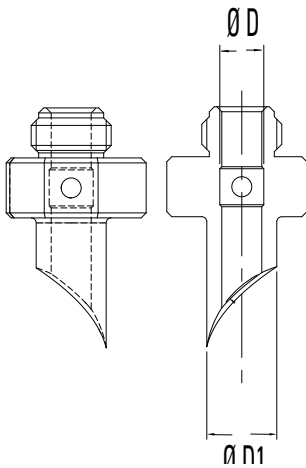


### Valve Pin Dimensions



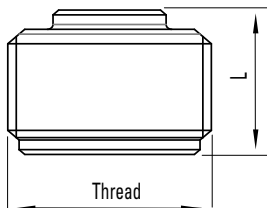
Part Number	Ø D	Ø D1	L (mm)	Tuning Pad
P25VP40210A	2.5	4	210	PTPSC30025A
P25VP40260A			260	
P30VP40230A	3		230	PTPSC40025A
P30VP40280A			280	
P37VP40250A	3.7		250	PTPSC50025A
P37VP40280A			280	
P37VP40330A			330	
P57VP60270A	5.7		6	270
P57VP60320A		320		
P57VP60370A		370		
P57VP60420A		420		
P57VP60450A		450		
P57VP80270A	7.7	8	270	PTPSC80025A
P57VP80320A			320	
P57VP80370A			370	
P57VP80420A			420	
P57VP80450A			450	

### Valve Pin Guide Bushings



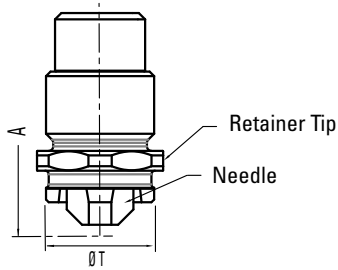
Systems	Part Number	D Dia.	D1 Dia.
SMART12	PGB121524	4	7
SMART15	PGB151927	4	8
SMART19	PGB191830	4	10
SMART21	PGB212034	6	13
SMART24	PGB242335	8	16
	PGB242336	8	18

### Pin Bushing Screws



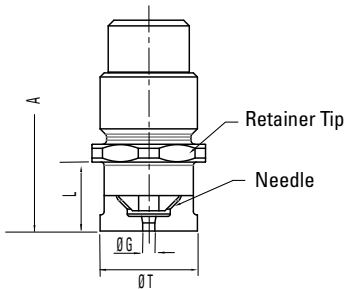
Systems	Part Number	Thread	L
SMART12	PPCMF18015A	M18X1.5	15
SMART15	PPCMF22013A	M22X1.5	13
SMART19			
SMART21	PPCMF24015A	M24X2	15
SMART24	PPCMF27015A	M27X2	

### Valve Gate (Bodiless)



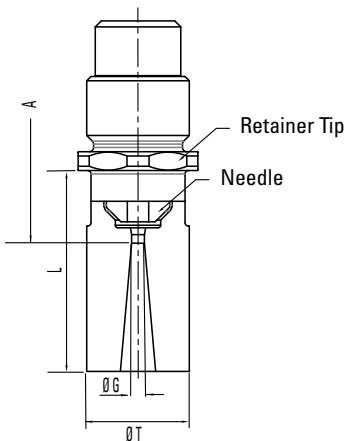
Series	Gate Tip	Needle	Retainer	T Dia.
SMART12	Standard	PAVSN12024A	PRTSN12015A	12
	Wear Resistant	PAVSN12024A-WR		
SMART15	Standard	PAVSN15028A	PRTSN15016A	15
	Wear Resistant	PAVSN15028A-WR		
SMART19	Standard	PAVSN19033A	PRTSN19018A	19
	Wear Resistant	PAVSN19033A-WR		
SMART21	Standard	PAVSN21040A	PRTSN21021A	21
	Wear Resistant	PAVSN21040A-WR		
SMART24	Standard	PAVSN24040A	PRTSN24021A	24
	Wear Resistant	PAVSN24040A-WR		

### Valve Gate (Full Body)



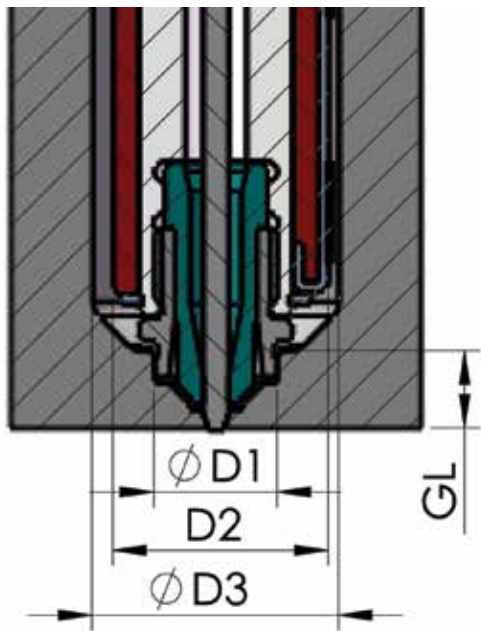
Series	Gate Tip	Needle	Retainer	G Dia.	T Dia.
SMART12	Standard	PAVSN12024A	PRTSN12041VF	1.5	12
	Wear Resistant	PAVSN12024A-WR			
SMART15	Standard	PAVSN15028A	PRTSN15045VF	2.00	15
	Wear Resistant	PAVSN15028A-WR			
SMART19	Standard	PAVSN19033A	PRTSN19050VF	3.00	19
	Wear Resistant	PAVSN19033A-WR			
SMART21	Standard	PAVSN21040A	PRTSN21034VF	3.00	21
	Wear Resistant	PAVSN21040A-WR			
SMART24	Standard	PAVSN24040A	PRTSN24049VF	4.00	24
	Wear Resistant	PAVSN24040A-WR			
	Non-needle		PRTSN24037VF	5.00	20

### Valve Gate (Full Body Extended)

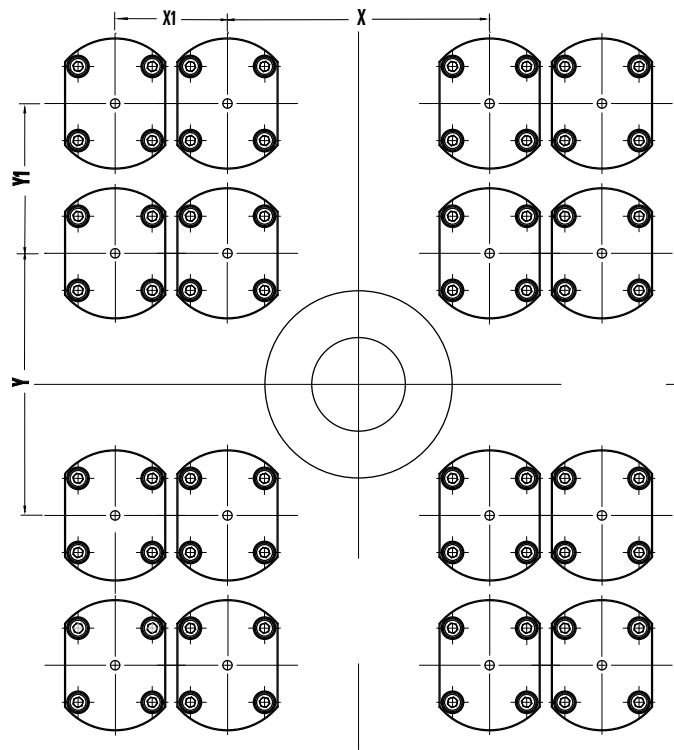


Series	Gate Tip	Needle	Retainer	G Dia.	T Dia.	L
SMART12	Standard	PAVSN12024A	PRTSN12041VF	1.5	12	23.5
	Wear Resistant	PAVSN12024A-WR				
SMART15	Standard	PAVSN15028A	PRTSN15045VF	2.00	15	25.8
	Wear Resistant	PAVSN15028A-WR				
SMART19	Standard	PAVSN19033A	PRTSN19050VF	3.00	19	28.8
	Wear Resistant	PAVSN19033A-WR				
SMART21	Standard	PAVSN21040A	PRTSN21049VF	3.00	21	33.6
	Wear Resistant	PAVSN21040A-WR				
SMART24	Standard	PAVSN24040A	PRTSN24049VF	4.00	24	33.6
	Wear Resistant	PAVSN24040A-WR				

## NOZZLE GATE DETAILS



## MINIMUM DROP PITCH



VALVE GATE SERIES	D1	D2	D3	GL	X1 min	Y1 min	X min	Y min
SMART12	Ø12	Ø20	Ø24	8	54	72	90	84
SMART15	Ø15	Ø23	Ø28	10	61	82	98	92
SMART19	Ø19	Ø27	Ø32	12.6	70	94	106	100
SMART21	Ø21	Ø29	Ø35	17.1	86	112	118	112
SMART24	Ø24	Ø32	Ø38	17.1	104	130	130	124



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