

A2-MT

Assembly Instruction

Features

The maximum permitted contact force from Machine nozzle is 4 -Mpa
 The A2MT series can be designed for a single nozzle application or a multi-drop application utilizing a hot runner manifold.

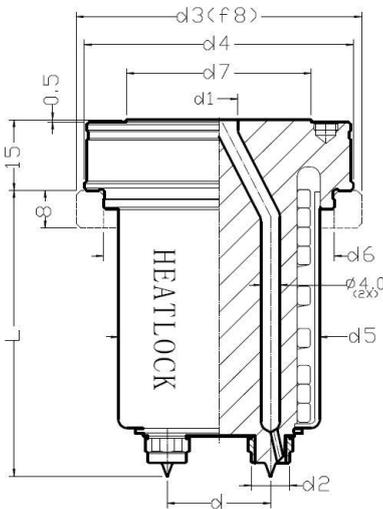
The coil heater is designed to provide uniform heat distribution along the length of the nozzle. A concentration of heater windings at both end of the nozzle compensate for heat losses that occur between the nozzle and mould steel.

Assembly method:

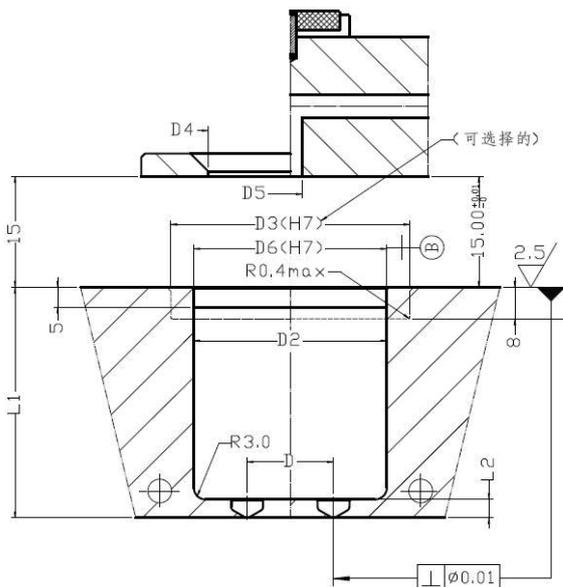
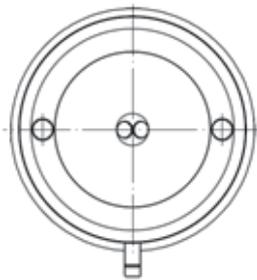
Pay attention to length L1. L1 is calculated by adding the nozzle length to the nozzle theoretical heat expansion. Nozzle heat expansion values may be found in table 1.

When using the A2MT in a single drop application, make sure that the back of the nozzle does not touch the locating ring. Contract with the locating ring will allow heat from the nozzle to dissipate into the world.

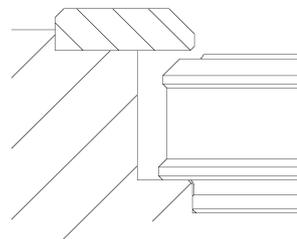
If the force at which the machine nozzle is pressed against the sprue bushing in greater than that casued by the injection force on the front area of the bushing , no additional force is required to keep the bushing in place axially



Dwg. 1



Dwg. 2

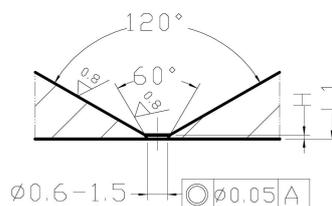
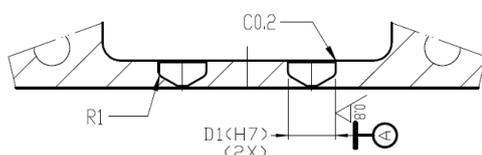


Dwg. 3

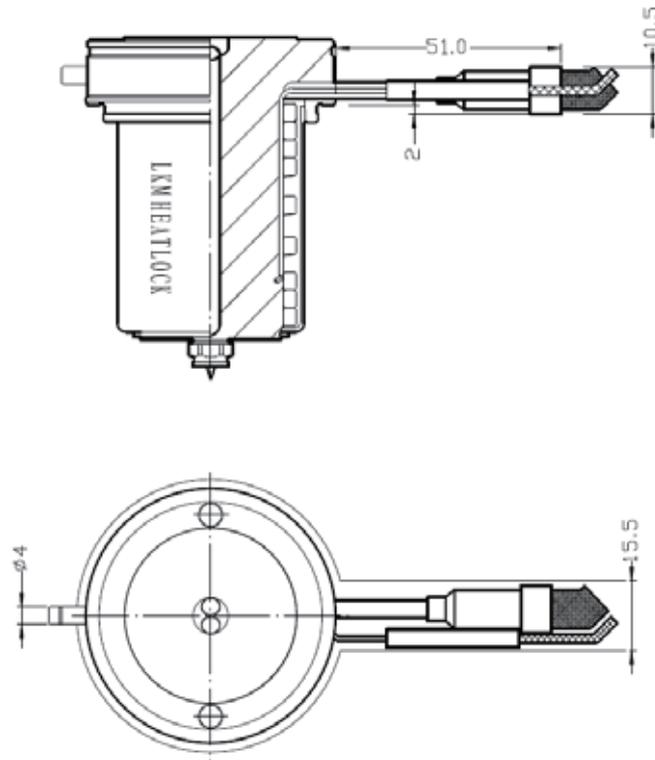
A2MT Series

Series	L	L1	d	d1	d2	d3	d4	d5	d6	d7	L2	D	D1	D2	D3	D5	D6	D7	D8
A2MT04040102	40	40.13	40	8	8	T50	48	34	39	32	7.5	10	8	8	T50	39	39	34	13
A2MT04080102	80	80.23																	
A2MT04060162	60	60.18	16	8	8	T54	52	38	44	34.5	7.5	16	8	8	T54	44	44	37	13
A2MT04080162	80	80.23																	
A2MT04060164	60	60.18																	
A2MT04080164	80	80.23																	

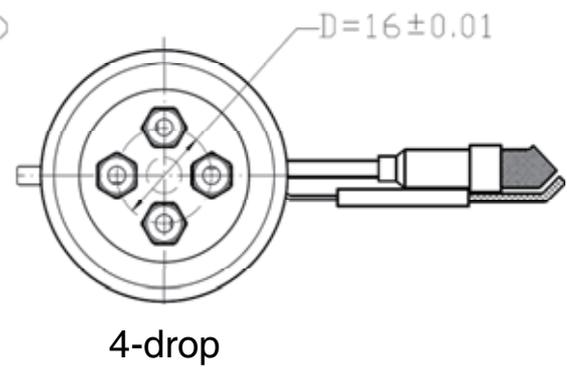
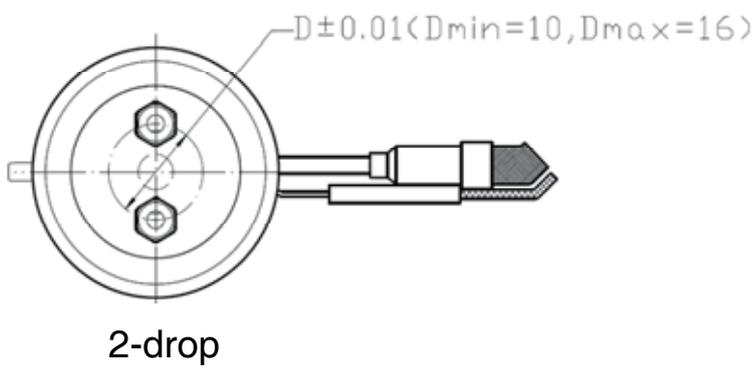
(table 1)



Nozzle Structure



gate demonstration
(bottom view)



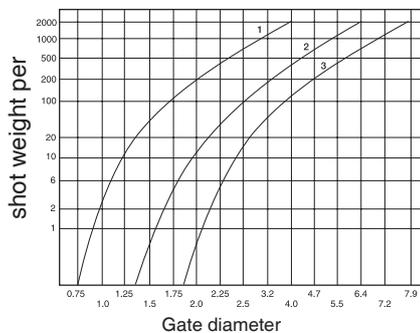
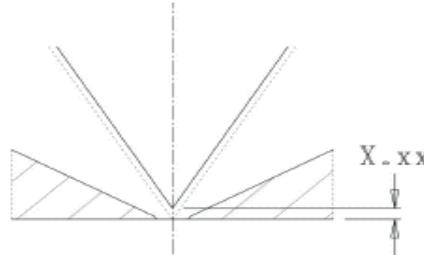
*CC distance (D) or non-standard nozzle length can be made according to customer requirement.

Length of nozzle

Heat expansion of the nozzle must be considered in order to ensure minimum vestige on the part. Expansion values (X.xx) various temperatures and nozzle lengths are illustrated in the table below:

Heat expansion data ($L1=L+X.XX$)

Length \ Temperature	40	60	80
200	0.11	0.16	0.2
250	0.15	0.2	0.26
300	0.18	0.25	0.32
350	0.21	0.29	0.37



1. Low viscosity: PS, PE, PP
 2. Medium viscosity: ABS, SAN, PA, POM
- Note: for filled materials, gate diameter should increase 20%

The diagram above is a guideline for gate diameters needed for various plastics and shot weights. Note: If the gate diameter is too small, an unnecessary high bushing temperature will have to be set for the gate not to freeze between shots. The suggested figures are approximate. Gate dimensions may be influenced by the shape of the part and the design of the mould, etc.

The balance between shot weight, injection speed, mould temperature, temperature opposite the gate, cooling around the gate, and injection pressure are all factors that affect gate size. A small gate freezes quicker than a large one. When injection moulding with very short cycle times and short injection times, it may be necessary to design gate cooling so that the gate area does not overheat.

If the sprue bushing is feeding a runner which has a gate into a cavity, it may be suitable to make the bushing gate larger than actual necessary in order to reduce pressure drop and shear.

If an electric sprue bushing is used, this will reduce the length of flow in cold steel therefore allowing the reduction of the cross section of the cold runner. This is important in order to get the shortest possibility of cycle time. Start with a smaller gate than indicated in the table.

Wiring instruction

Attention: Wiring of connector must be the same with its corresponding controller wiring.

Heater can not be connected in parallel with T/C
6 pin connector, HEATLOCK connections as right:

1. Connect (1)(2)with heater
2. Connect T/C wire (black/red)with (4)
3. Connect T/C wire (white/blue)with (5)
4. Connect mould with ground wire&insert

5 pin connector, HEATLOCK connections as right

1. Connect (1)(4)with heater
2. Connect T/C wire (black/red)with (2)
3. Connect T/C wire (white/blue)with (3)
4. Connect mould with ground wire&insert

Instructions for replacement of heater or T/C

Attention: For best performance use HEATLOCK original components.

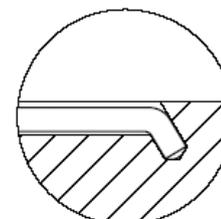
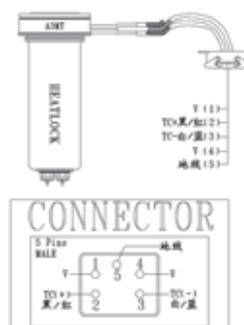
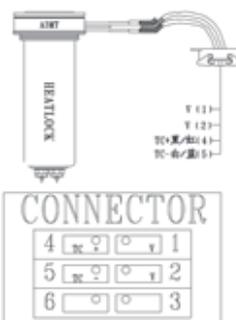
Disassembly:

1. Open lock ring
2. Remove reflector, open it carefully since it works like a spring
3. Carefully slide heater off of nozzle.
4. Remove T/C

Assembly:

Opposite processing to disassembly If necessary , replace T/C by inserting new T/C into small hole at the end of slot, ensure that the tip is in full contact with the bottom of the bore before bending the T/C along the slot.

Install heater onto nozzle ensuring that the T/C is not displaced. Bundle the heater and T/C together using high temperature adhesive tape.



Torque table of nozzle assembly	
Size	Torque(N)
size3	20
size4	25

(table 2)