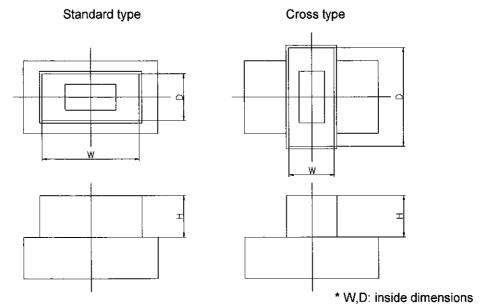
Applicable Manufacture Conditions for Custom Nozzles and Air Hood for HAKKO 485

HAKKO CORPORATION

Our custom nozzles for the HAKKO 485 are subject to the following manufacture conditions:

1. Nozzle type

Custom nozzles can be manufactured in either of the following two types:



2. Maximum solder flow capacity

A maximum solder flow capacity of 40,000mm³ is available depending on the capacity of the solder flow motor used.

Maximum capacity = $W \times D \times H = 40,000 \text{mm}^3$ (HMAX.=50mm)

3. Nozzle size (standard type)

1) When the standard table is used (opening size: $110(W) \times 80(D)$):

Nozzles can be manufactured in sizes of up to 100 (W) x 70(D).

Nozzles can be manufactured in sizes of the least W x D = 50 mm²

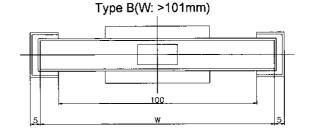
(WMIN. = 5mm, DMIN. = 4mm)



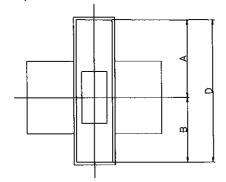
2) When a custom table is used (maximum opening size: 150 (W) x 120(D): Nozzles can be manufactured in sizes of up to 140 (W) x 110 (D).

In either of cases 1) and 2), above, if the width exceeds 82mm, some means is required to prevent solder from overflowing.

Type A(W:82 to100mm)



- 4. Dimensions of nozzle (cross type)
 - 1) When the standard table is used:



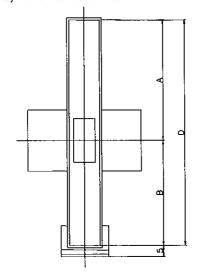
$$D = A + B$$

A = 35mm max.

B = 35mm max.

Nozzles can be manufactured in sizes of the least $WxD=50 \text{ mm}^2$

2) When a custom table is used:



$$D = A + B$$

A = 60mm max.

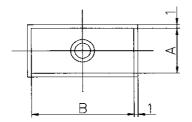
B = 50mm max. (If this is 46mm or more, some means is required to prevent overflow.)

* When D is 91 to105mm, B should be 45mm.



- 5. A nozzle larger than these maximum dimensions that could be used with the table removed may have been manufactured in the past. However, we will not manufacture such nozzles for reasons of safety.
- 6. Depending on the environment (temperature setting and size of nozzle), solder can be coagulated by declining the temperature of solder flow outlet.

7. Dimensions of air hood



- A: Min. 7mm
- B: Dimensions of nozzle

Established on Dec. 11, 1997

Revised on Oct. 15, 2007

