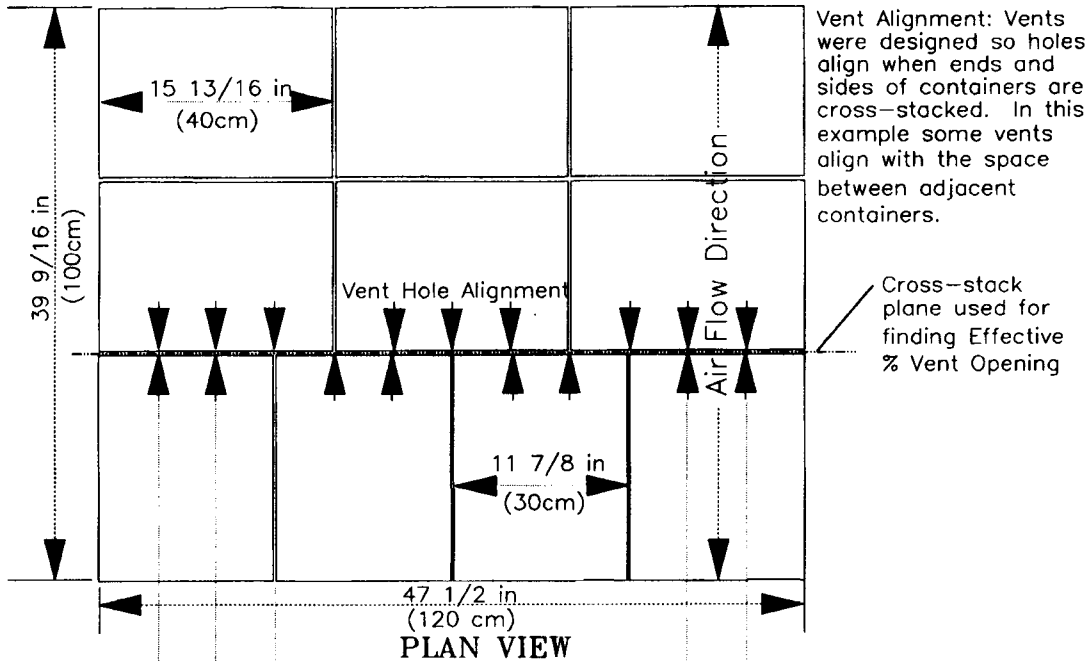
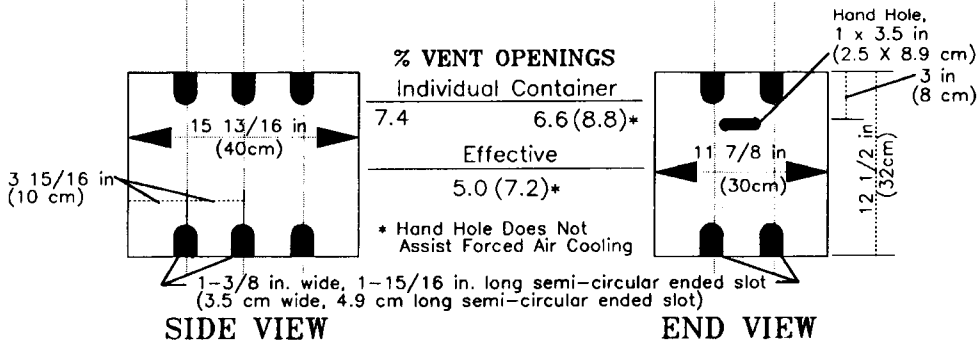


40 X 30 cm MUM PEPPER CONTAINER

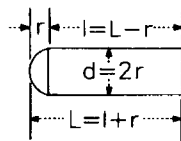


Vent Alignment: Vents were designed so holes align when ends and sides of containers are cross-stacked. In this example some vents align with the space between adjacent containers.

Cross-stack plane used for finding Effective % Vent Opening



Area of Round-ended Slot



$$\text{Area Slot} = \text{Area Rectangle} + \text{Area Semi-Circle}$$

$$= (L-r)d + 1/2(\pi d^2/4) = ld + 1/2(\pi r^2)$$

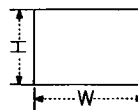
For example using the side view above (Metric units):

$$\text{Area Slot} = [(4.9 - (3.5)/2)](3.5) + 1/2[\pi(3.5^2/4)]$$

$$\text{Area Slot} = 15.8 \text{ cm}^2$$

$$\text{Total Vent Area} = 6(\text{Area Slot}) = 94.8 \text{ cm}^2$$

Area of Container Face



$$\text{Area Face} = \text{Area Rectangle} = \text{Width} \times \text{Height} = WH$$

For example using the side view above (Metric units):

$$\text{Area Face} = (40)(32) = 1280 \text{ cm}^2$$

% Vent Opening Area

$$\% \text{ Vent Opening} = \frac{\text{Total Vent Area}}{\text{Area Face}} 100$$

For example using the side view above (Metric units):

$$\% \text{ Vent Opening} = (94.8/1280)100 = 7.4\%$$

$$\% \text{ Effective Vent Opening} = (12)(15.8)/(3)(1280)100 = 5.0\%$$

Figure 9. 40 x 30 cm MUM pepper container showing dimensions, percent vent openings, and pallet stacking configuration.