

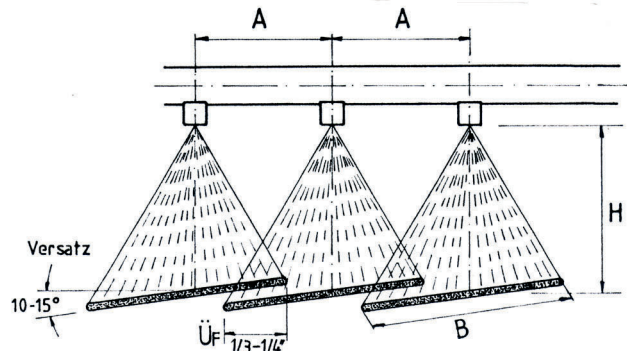
**When installing more than one nozzle, it is important to ensure that their spray cones or fans overlap!**

## 1. Installation of flat fan resp. square full cone nozzles

Flat Fan Nozzles provide a consistent, uniform coverage of the impact area if spray widths overlap by 1/3 to 1/4.

The nozzle outlets should be offset by 5°-15° to the pipe axis.

Distance A = 1/3 - 1/4 from B

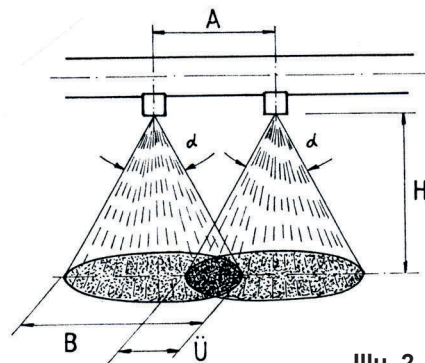


Illu. 1

## 2. Installation of full and hollow cone nozzles

Nozzle distance A should have a size which enables the spray cones to overlap in height H before reaching the area to be sprayed.

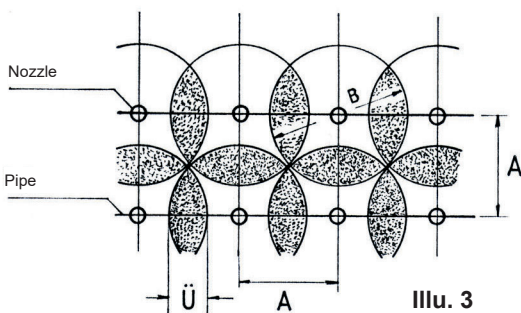
- Ü = overlap of spray angle
- h = overlapping at max. height
- B = spray diameter (actual)
- H = nozzle's installation height
- A = interval between nozzles
- $\alpha$  = spray angle



Illu. 2

## 3. Square or offset installation of full and hollow cone nozzles

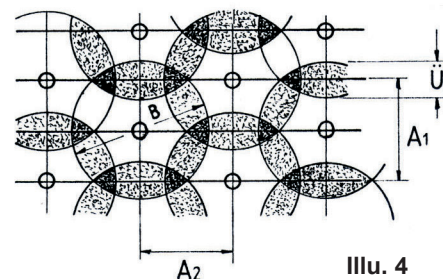
Square arrangement



Illu. 3

Nozzle interval:  $A = \frac{B}{\sqrt{2}}$   
 Overlap:  $\ddot{U} = B - A$

Offset arrangement



Illu. 4

Nozzle interval:  $A_1 = \frac{B}{2} \times \sqrt{3}$   
 Nozzle interval:  $A_2 = \frac{3}{4} B$   
 Overlap:  $\ddot{U} = B - A_1$