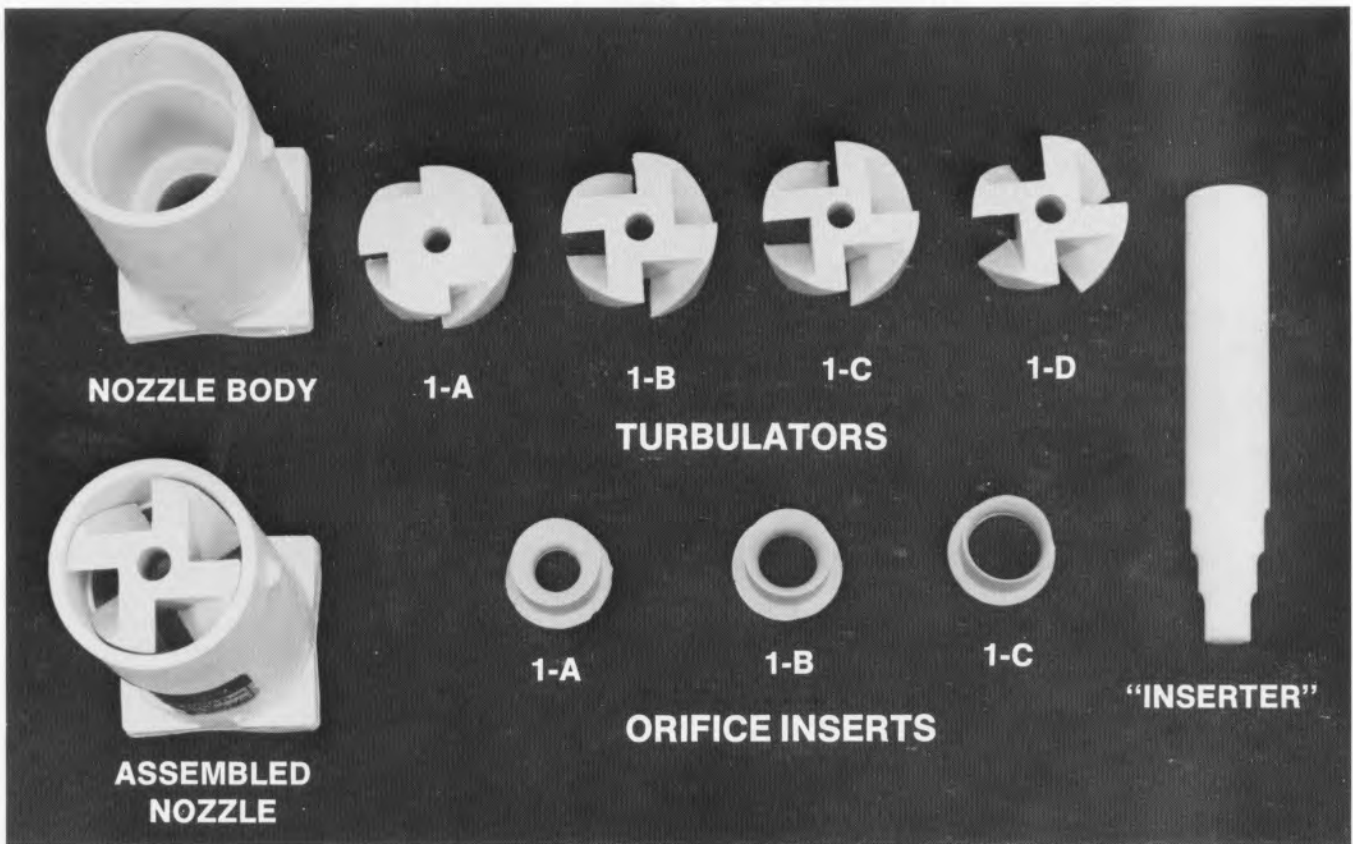


 **BRENTWOOD
INDUSTRIES, INC.**

dek-SPRAY[®]
Nozzles



NOZZLE COMPONENTS



The Brentwood 'Solid Rectangle' spray nozzle consists of a standard plastic body and a choice of four different plastic turbulators and orifice inserts. The result is four different water capacities. In order of increasing capacity, the nozzles are 1-A, 1-B, 1-C, and 1-D. The 1-D nozzle does not use an orifice insert but utilizes the full orifice of the nozzle body.

The standard plastic used for manufacturing the nozzle body is ABS, which is suitable for service at temperatures up to 180°F. Each nozzle is supplied with its own silicone gasket, plastic turbulator and orifice insert, forming the 'nozzle assembly.' Adaptors are available as shown on page 3.

The 'inserter' shown in the top photo is a special nylon tool for inserting and removing the orifice insert.

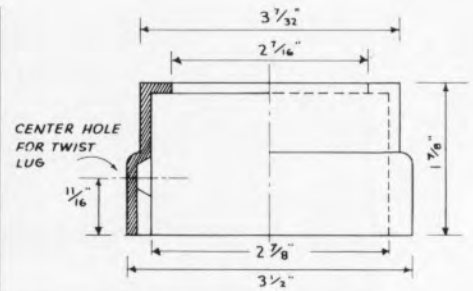


Nozzle Assembly

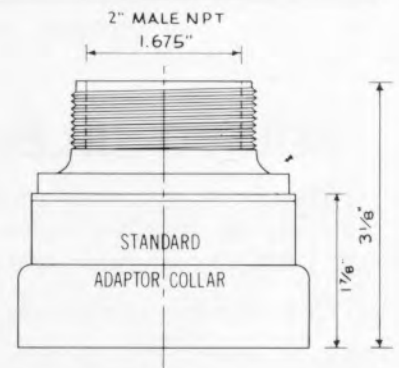
AVAILABLE ADAPTORS FOR THE BRENTWOOD dek-SPRAY®

STANDARD ADAPTOR COLLAR

Noryl®, PVC or ABS



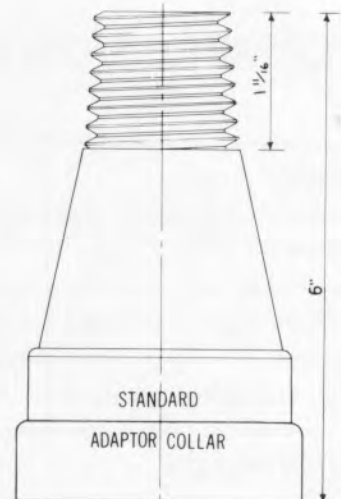
STANDARD 2" MALE THREADED ADAPTOR in ABS



SPECIAL 1 1/2" TAPERED MALE THREADED ADAPTOR in ABS



SPECIAL 1 1/2" TAPER THREAD



Uniform distribution
 Less weight and cost in piping system.
 One nozzle does the job of 10-20 conventional nozzles.
 Reduces frequency of clogging.
 Made of corrosion resistant plastic.

Wide spray angle
 Easy twist-lock installation and removal needs no tools.
 Water capacity can be readily changed within single nozzle body.



Proper nozzle selection ... means uniform coverage and more efficient cooling.

HOW TO SELECT THE PROPER NOZZLE AND SPACING

- 1) Divide fill area into squares or as near to squares as possible; between 18" x 18" and 48" x 48". Count one nozzle per square.
- 2) Calculate the gpm/nozzle.
- 3) Go to the "nozzle capacity" chart. For the chosen flow rate draw a horizontal line across the page. Every nozzle whose performance line is

intersected between 2 and 10 psi is suitable for that flow rate.

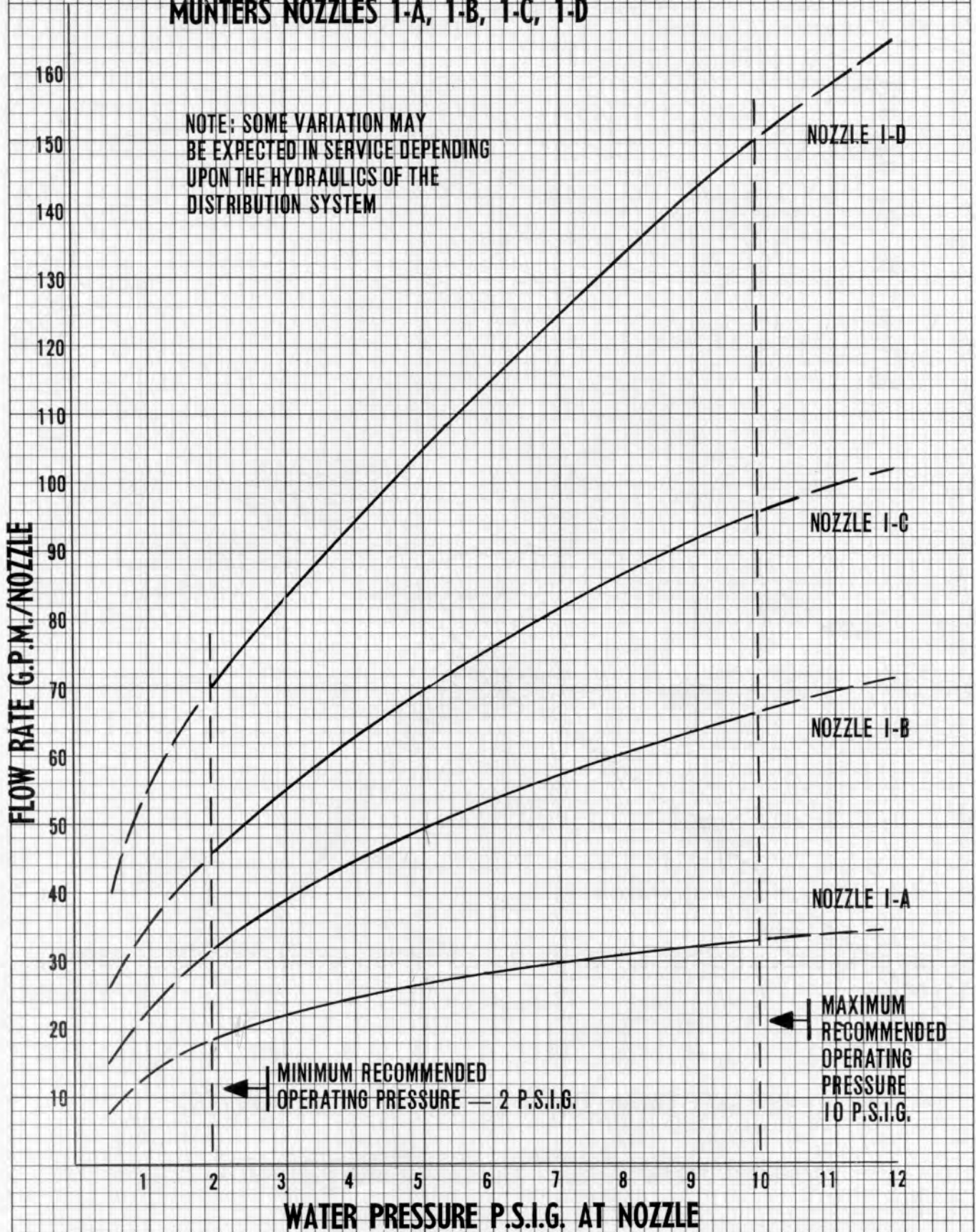
- 4) Turn to the corresponding coverage charts and determine the distance from fill to nozzle which is required to cover the chosen area, with the available pressure. Actual nozzle elevation should be increased to allow a 1" to 2" overlap of spray patterns.

EXAMPLES OF CALCULATIONS

	Example No. 1	Example No. 2	Example No. 3	Example No. 4
Tower Area	9' x 18'	20' x 20'	26' x 30'	10' x 10'
Tower GPM	1296	4000	9000	600
Coverage (inches)	36" x 36"	30" x 30"	36" x 36"	24" x 24"
No. nozzles	18	64	90	25
GPM/Nozzle	72	62.5	100	24
Nozzle Size	1-C	1-C	1-D	1-A
Pressure (PSIG)	5.5	4.1	4.7	4
Distance from Nozzle to Fill (inches)	11.4	9.5	8.5	10.5

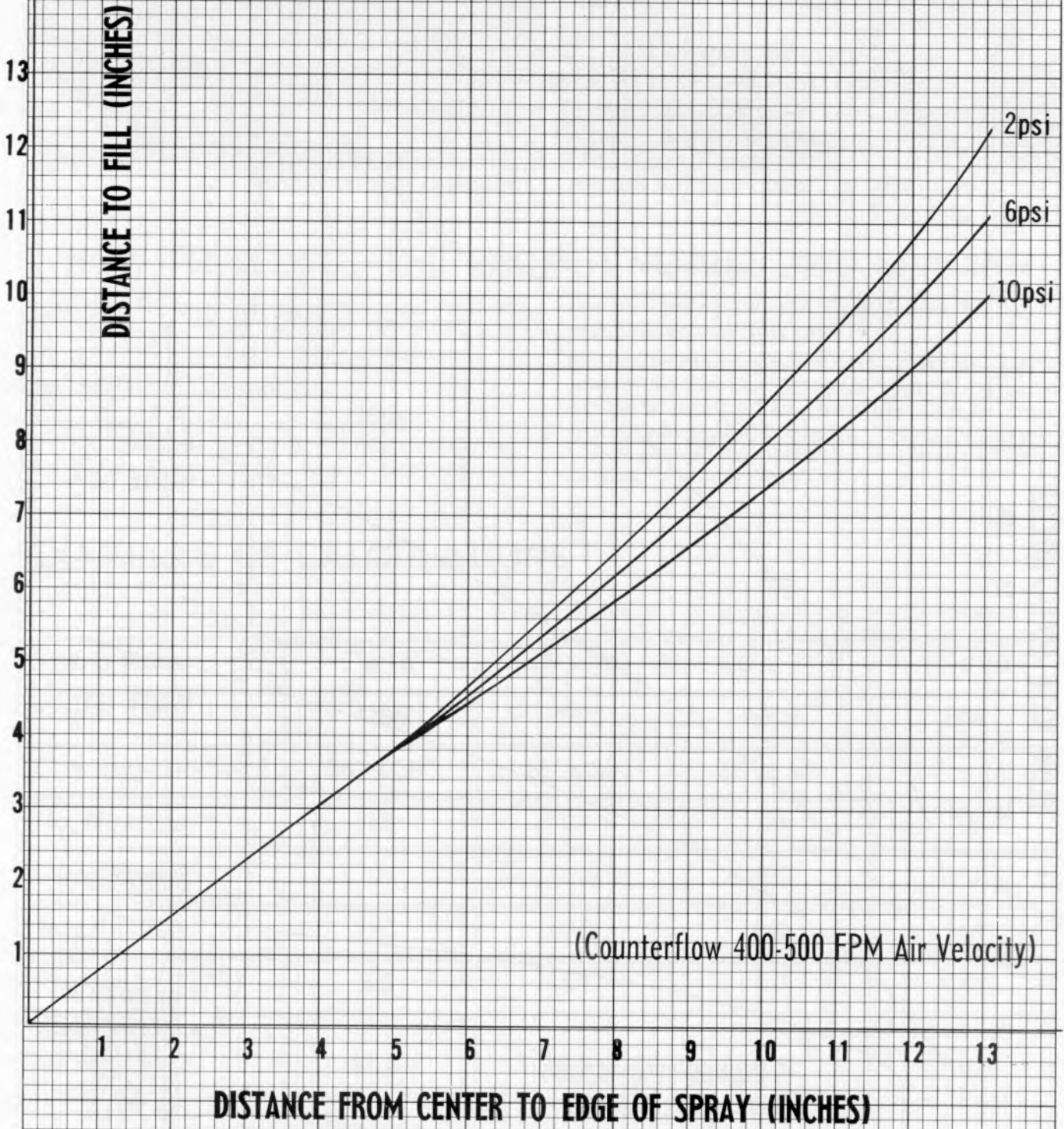
NOZZLE CAPACITY

MUNTERS NOZZLES 1-A, 1-B, 1-C, 1-D



1-A NOZZLE

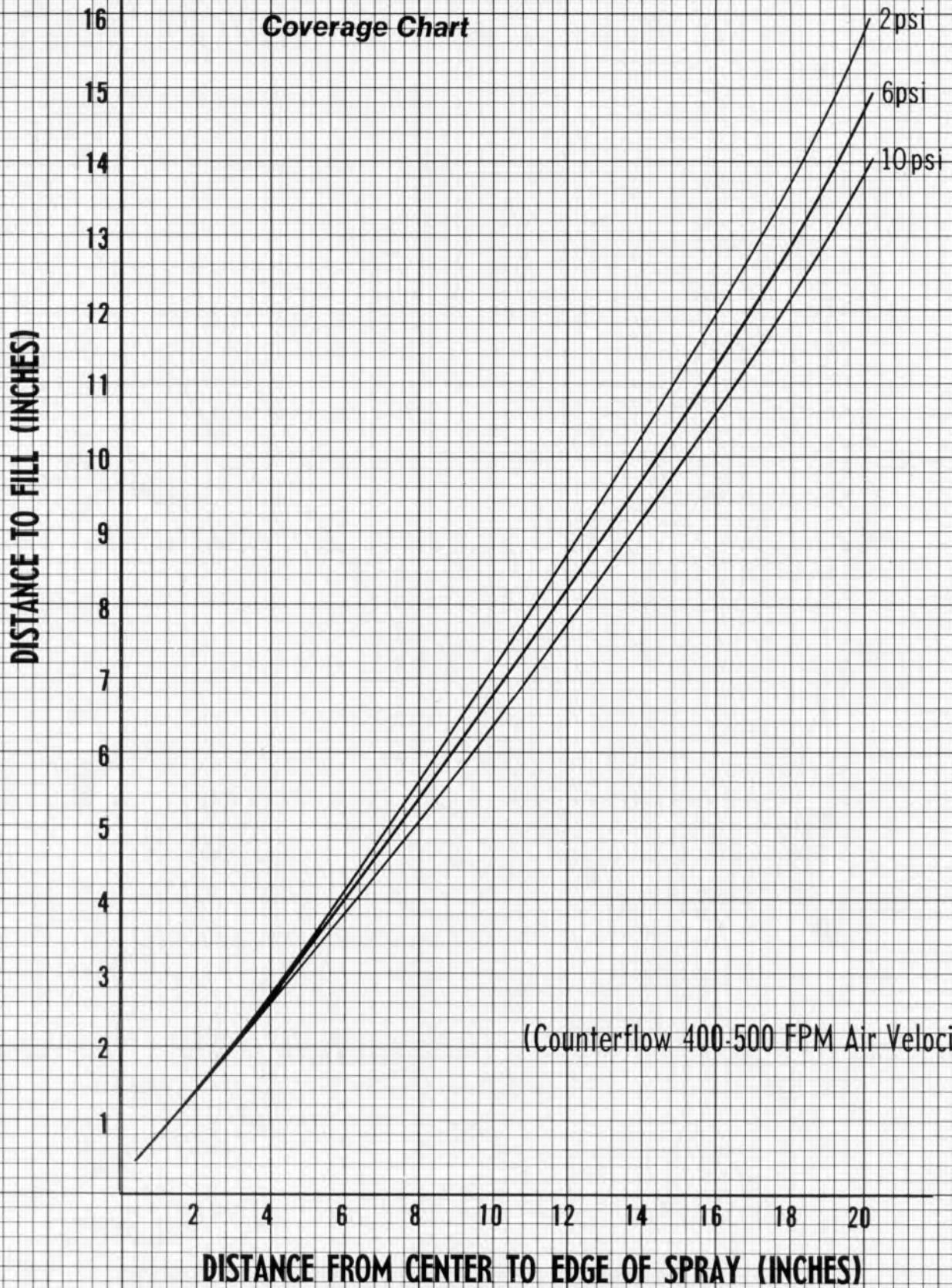
Coverage Chart



(Counterflow 400-500 FPM Air Velocity)

1-B NOZZLE

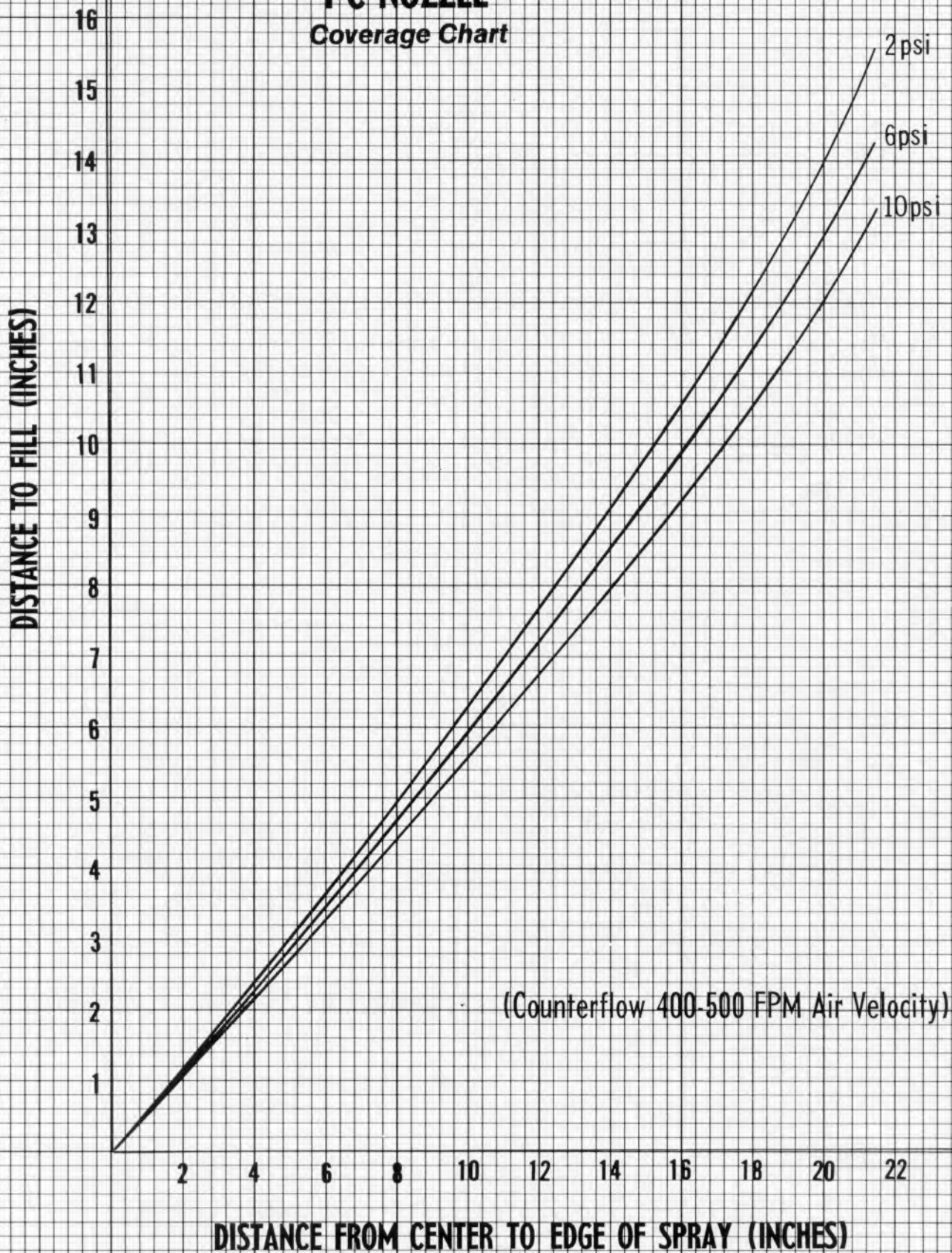
Coverage Chart



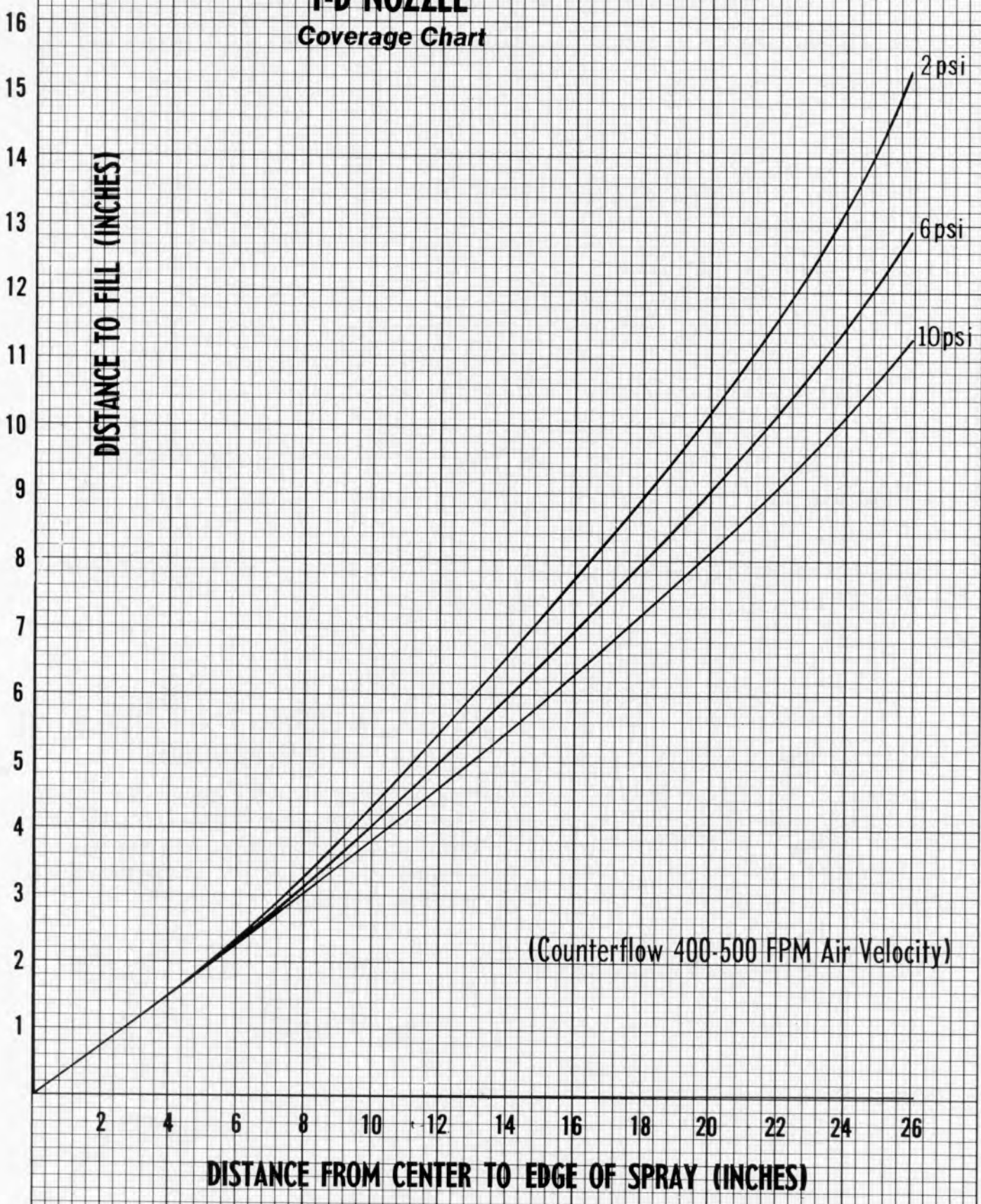
(Counterflow 400-500 FPM Air Velocity)

1-C NOZZLE

Coverage Chart



1-D NOZZLE Coverage Chart



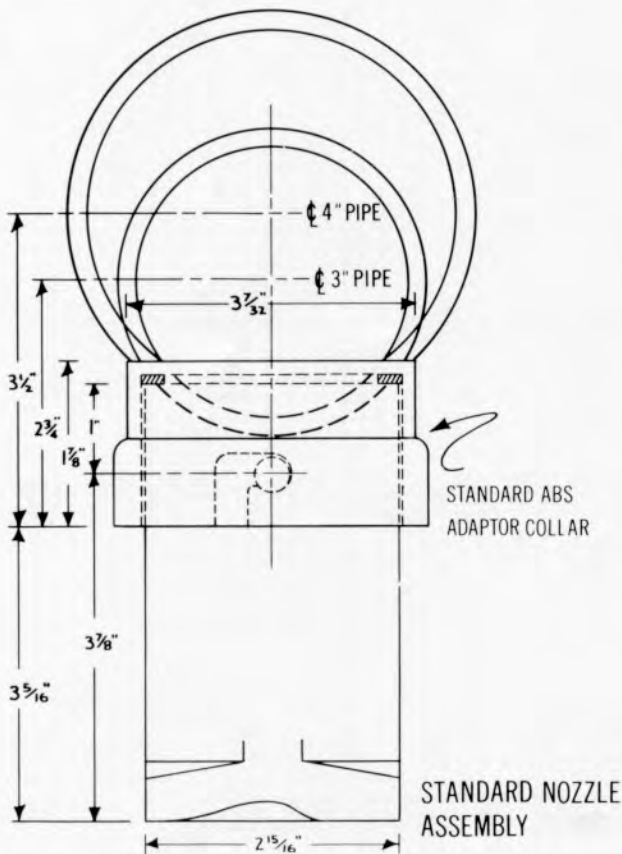
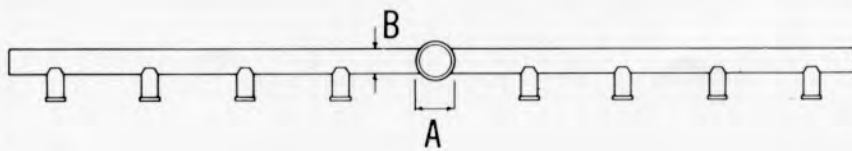
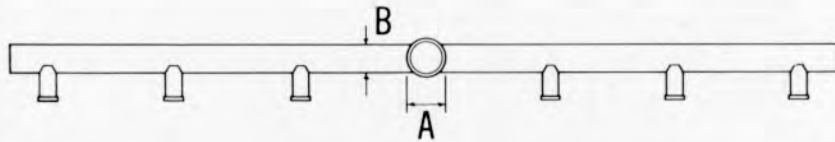
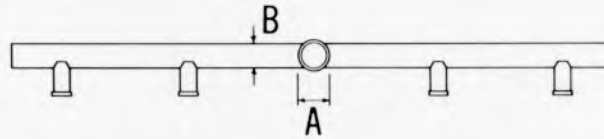
SIZING THE PIPING SYSTEM

The dimensional data given below should be used as a guide in selecting the minimum diameter of the plastic piping system. These sizes will minimize pressure losses and keep nozzle pressures uniform.

Nozzle Size	A	B
1-A	3"	3"
1-B	4"	3"
1-C	5"	4"
1-D	6"	4"

1-A	4"	3"
1-B	5"	4"
1-C	6"	4"
1-D	8"	5"

1-A	4"	3"
1-B	6"	4"
1-C	8"	5"
1-D	8"	6"

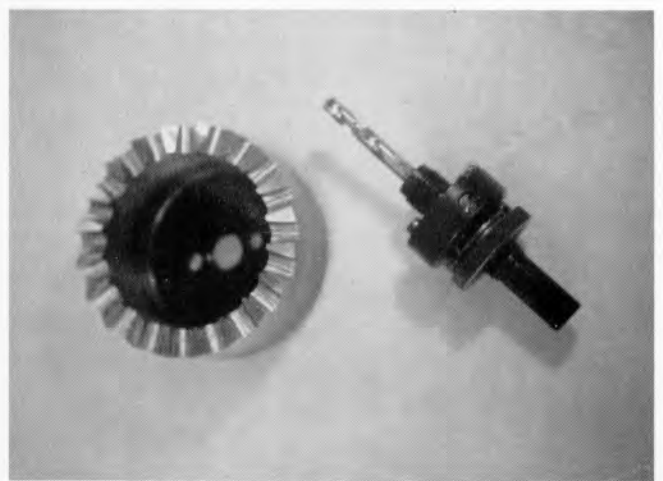


CRITICAL NOZZLE DIMENSIONS

The distance from the center line of the pipe to the tip of the nozzle will vary with the diameter of the pipe and the type of adaptor. Check page two for the difference in dimension of the adaptors.

INSTALLATION OF STANDARD ADAPTOR

Brentwood will supply a special heavy duty cutting tool which will fit any drill press. This tool is designed to rapidly and accurately cut the proper opening in a three or four inch pipe.



When drilling the adaptor collar holes in the plastic pipe, make certain that the cutter is positioned exactly at a 90° angle with the centerline of the pipe.



The best way to join the standard adaptor collar to the pipe is by the solvent welding method. It is cheap, quick and convenient. ABS solvent can be purchased at any hardware store. Follow the directions on the container, but, at the same time, make sure to use plenty of solvent, and work fast before it evaporates.



Every adaptor collar has a small notch at the top corner called the 'alignment groove.' It must be aligned such that it is parallel with the center line of the pipe. This will assure the proper positioning of the nozzle such that its square spray pattern will fall in line with those adjacent to it.

