

The  
**MADISON SUBURBAN UTILITY DISTRICT**  
of Davidson County, Tennessee

**REFERENCE GUIDE  
FOR INSTALLATION REQUIREMENTS  
OF REDUCED PRESSURE BACKFLOW PREVENTERS'  
DRAIN SIZE**

3/4" thru 1" RPZ:			
Relief Valve Opening =	1"		
GPM Flow @ 125 psi =	130 gpm		
Drain Size Required =	3" drain w/6" x 3" bell reducer		for splash cup & minimum 4" air gap
1 1/4" thru 2" RPZ:			
Relief Valve Opening =	2"		
GPM Flow @ 125 psi =	300 gpm		
Drain Size Required =	6" drain w/8" x 6" bell reducer		for splash cup & minimum 4" air gap
2 1/2" thru 3" RPZ:			
Relief Valve Opening =	2"		
GPM Flow @ 125 psi =	400 gpm		
Drain Size Required =	6" drain w/8" x 6" bell reducer		for splash cup & minimum 4" air gap
4" thru 6" RPZ:			
Relief Valve Opening =	3"		
GPM Flow @ 125 psi =	700 gpm		
Drain Size Required =	8" drain w/10" x 8" bell reducer		for splash cup & minimum 4" air gap
8" thru 10" RPZ:			
Relief Valve Opening =	4"		
GPM Flow @ 125 psi =	900 gpm		
Drain Size Required =	10" drain w/12" x 10" bell reducer		for splash cup & minimum 4" air gap

\*Note: If floor drain is not large enough, drain line for backflow preventer must be piped to the outside or backflow installed outside just past the meter w/freeze protection housing. When drain line is piped to the outside, a varmont screen & draft control will be required.

Typical Flow Rates as Sized  
by Floor Drain Manufacturers

2" =	55 gpm
3" =	112 gpm
4" =	170 gpm
5" =	350 gpm
6" =	450 gpm
8" =	780 gpm

(3/20/00)