

Pressure Restricting Hose Valve / Model AHV – 100 & 200



- Sizes available (Nominal)** : 1 1/2"- 2 1/2"
- Working pressure** : 20.6 bar (300 psi)
- Finish** : Polished Brass
- Connections** : Female threaded NPT inlet and male threaded NST outlet
- Specifications** : Used with fire hose rack assembly or fire department outlet connection

How to use the valves?

The valves are capable of adjustment to provide range of the outlet pressure under flowing condition only.

Determining the proper outlet pressure

1-The valves are reducing the downstream water pressure under flowing (residual) condition only. The valve should not be set to provide less than minimum pressure required by NFPA14 while flowing 250gpm for 2 1/2" size and 100gpm for 1 1/2" size. NFPA 14-2016 Edition requires that standpipe systems shall be hydraulically designed to provide the required water flow rate at minimum residual pressure of 100psi at the outlet of hydraulically most remote 2 1/2" hose connection and 65psi at the outlet of hydraulically most remote 1 1/2" hose station. Outlet pressures which do not correspond to NFPA 14 requirements must be authorized by local fire department. There will be a pressure drop due to friction between the outlet and the nozzle. The amount of this loss should be calculated by qualified personnel, to assure that the nozzle receives water pressure sufficient to design needs. Note that some fire hose nozzles may not operate properly when valve outlet pressure is set at the 100psi minimum authorized in the 2016 Edition of NFPA 14. The installer should consult with the fire authorities concerning pressure needed by their equipment. The outlet pressure indicated in the tables are at the outlet of valve.

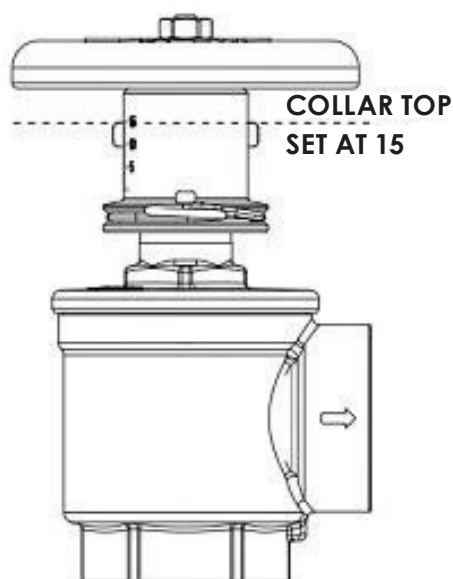
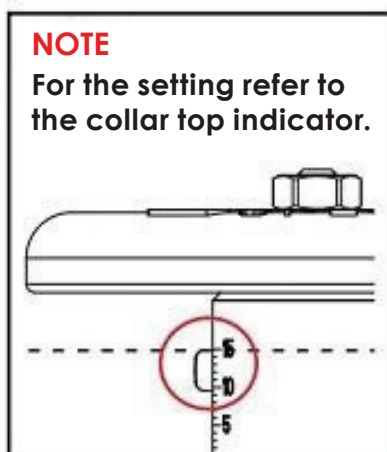
2-To determine the pressures at the hose nozzle, the hydraulic calculation information provided in NFPA Fire Protection Handbook should be followed.

3-The valves are designed and listed to reduce inlet pressures under flowing conditions; see the enclosed graphs. Authorities having jurisdiction should be consulted to confirm that the outlet pressures and flowrates are acceptable.

FIRE HOSE VALVES

Installation

- 1-Pipe unions or rubber gasket fittings are to be installed immediately upstream and downstream of valve to permit easy replacement.
- 2-Connect the valve to the piping.
- 3-Select setting number from proper graph.
- 4-Close valve hand-tight.
- 5-Loosen set screw in collar.
- 6-Rotate indicator cap until top collar reaches selected setting number.
- 7-Tighten set screw in collar. Valve is now set
- 8-To override pressure restriction, pull spring clip.



Nominal Valve Size, Inch	Valve Setting	Inlet Pressure psi (kPa)	Flow Rate gpm (lpm)	Outlet Pressure psi (kPa)	Nominal Valve Size, Inch	Valve Setting	Inlet Pressure psi (kPa)	Flow Rate gpm (lpm)	Outlet Pressure psi (kPa)
1 1/2"	5	50 (345)	105 (397)	8.8 (61)	2 1/2"	5	50 (345)	155 (587)	8.4 (55)
		100 (690)	161 (609)	13.8 (95)			100 (690)	236 (893)	13.0 (90)
		150 (1035)	204 (772)	17.3 (119)			150 (1035)	305 (1155)	17.3 (119)
		200 (1380)	242 (916)	20.1 (139)			200 (1380)	360 (1363)	20.9 (144)
		250 (1725)	276 (1045)	22.9 (158)			250 (1725)	407 (1541)	24.4 (168)
	10	50 (345)	192 (727)	14.5 (100)		10	50 (345)	225 (852)	12.2 (84)
		100 (690)	285 (1079)	22.4 (154)			100 (690)	335 (1268)	19.2 (132)
		150 (1035)	358 (1355)	29.8 (205)			150 (1035)	418 (1582)	25.3 (174)
		200 (1380)	420 (1590)	34.8 (240)			200 (1380)	524 (1984)	33.8 (233)
		250 (1725)	475 (1798)	41.5 (286)			250 (1725)	592 (2241)	40.9 (282)
	15	50 (345)	209 (791)	12.4 (85)		15	50 (345)	385 (1457)	22.7 (157)
		100 (690)	307 (1162)	19.7 (136)			100 (690)	584 (2211)	39.4 (272)
		150 (1035)	383 (1450)	26.4 (182)			150 (1035)	715 (2707)	54.5 (376)
		200 (1380)	440 (1666)	33.5 (231)			200 (1380)	817 (3093)	68.0 (469)
		250 (1725)	496 (1878)	41.3 (285)			250 (1725)	963 (3645)	100 (689)
					20	50 (345)	399 (1510)	31.6 (218)	
				100 (690)		611 (2313)	58.6 (404)		
				150 (1035)		791 (2994)	81.5 (562)		
						200 (1380)	963 (3645)	100 (689)	