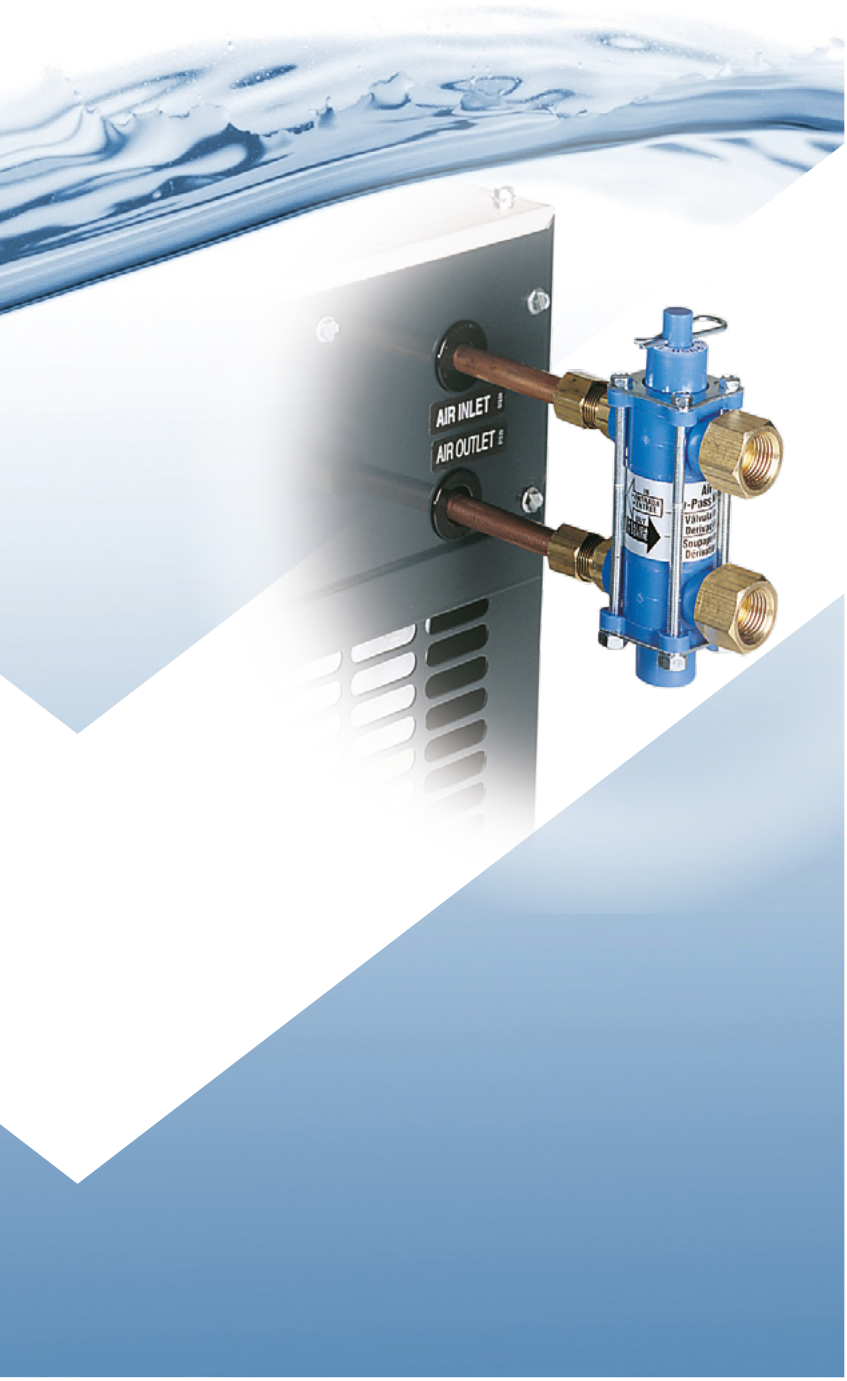
Hankison™

Air/Liquid Bypass Valves

Models 1701-1, 170-2 and 1701-3



Automatically Depressurize Your Unit

With the Hankison By-Pass Valve you can service your system components and still use the system. The By-Pass Valve eliminates the expensive installation costs and space limitations of conventional three valve by-pass systems. It can be used with gases and liquids compatible with nylon Buna N and brass.

Easy to Install

- No need for separate valves and fittings to braze them into proper sequence
- All parts are enclosed in one integral unit
- Compression fittings utilize a reusable rubber ferrule
- Metal to plastic design makes fittings completely rotatable and eliminates leakage
- Compact design permits ease of installation

Two Types to Choose From

1701-1 – Non-Bleed Type

When this model is in by-pass mode, the component being by-passed remains pressurized.

1701-2 and 1701-3 – Bleed Type

When these models are placed in the by-pass mode, the component being by-passed automatically depressurizes through a bleed hole in the valve.

Air/Liquid Bypass Valve Product Specifications

Model	Maximum Working Pressure		Maximum Operating Temperature		Connections		Dimensions						Weight	
							A		B		C			
	psig	bar	ºF	ºC	Dryer Side	Service Side	in	mm	in	mm	in	mm	lbs	kg
1701-1	200	14.0	120ºF	49ºC	3/8" Tube	3/8" NPT	4 5/8	117	3 1/4	83	2	51	0.5	0.23
1701-2	200	14.0					4 5/8	117	3 1/4	83	2	51	0.5	0.23
1701-3	200	14.0					4 5/8	117	3 1/4	83	2	51	0.5	a

Flow vs. Pressure Drop

Table 1 indicates the pressure drop through both channels of the by-pass valve at various flows at 100 psig (7 bar). For pressures other then 100 psig (7 bar) multiply pressure drop from Table 1 at the required flow by the pressure correction factor from Table 2 that corresponds to your system's operating pressure.

For example: With the valve on line and flow at 5 scfm and system pressure at 125 psig, find corrected pressure drop by multiplying 0.19 from Table 1 by 0.82 from Table 2. The pressure drop at these conditions is (0.19 x 0.82) = 0.16 psid. To find pressure drop through valve in by-pass mode divide corrected pressure drop by 2. In this case pressure drop in the by-pass mode would be 0.08 psid.

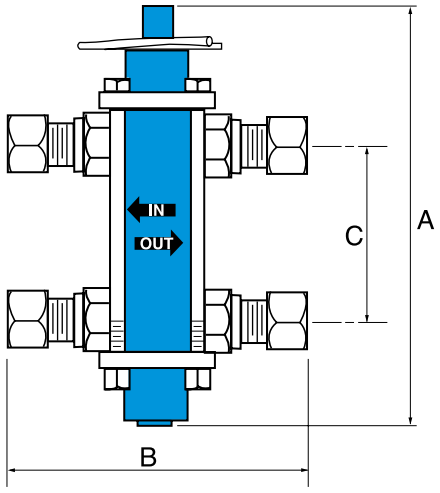
Table 1 – Flow vs. Pressure Drop @ 100 psig

Flow								
scfm	5	7.5	10	15	20	25	30	35
nm³/h	0.14	0.21	0.28	0.42	0.57	0.71	0.85	0.99

Pressure Drop								
psig	0.19	0.45	0.85	2.1	3.9	6.3	9.3	13.0
bar	0.01	0.03	0.06	0.15	0.27	0.44	0.65	0.91

Table 2 – Pressure Correction Factors

System Pressure	psig	40	50	60	80	100	125	150	175	200
	nm³/h	2.8	3.5	4.2	5.6	70	8.8	10.5	12.3	14.1
Multiplier		2.1	1.8	1.5	1.2	1.0	0.82	0.70	0.60	0.53



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Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region.

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