

# **18400 / 78400 Series Pressure Drop Tables (Metric) STANDARD**



PH78400

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**INDEX**  
**(Metric) STANDARD**

	<b>PAGE</b>
<b>Air to Close, Flow to Open</b> <b>Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI PTFE or LE Packing	4
<b>Air to Close, Flow to Open</b> <b>Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	5
<b>Air to Open, Flow to Open</b> <b>Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI PTFE or LE Packing	6
<b>Air to Open, Flow to Open</b> <b>Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	7
<b>Air to Close, Flow to Open</b> <b>Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI PTFE or LE Packing	8
<b>Air to Close, Flow to Open</b> <b>Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	9
<b>Air to Open, Flow to Open</b> <b>Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V & VI PTFE or LE Packing	10
<b>Air to Open, Flow to Open</b> <b>Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	11

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Close, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar
inches	DN	inches	mm	inches	mm					
1	25	0.7	17.78	0.25	6.35	87	6	6 - 14	2.8	49
							6	6 - 14	4.1	230
							10	6 - 14	2.8	238
							10	6 - 14	4.1	431
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	4.1	77
							10	6 - 14	2.8	70
							10	6 - 14	4.1	260
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	4.1	65
							16	6 - 17	4.1	157
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	4.1	52
							23	6 - 16	4.1	100
4	100	2.88	73.152	0.75	19.05	87	23	6 - 18	4.1	46
							52 <sup>(1)</sup>	16	10 - 11	4.1
						16		10 - 11	5.5	79
						20		10 - 11	4.1	92
						20		10 - 11	5.5	155
						84		154	10 - 12	5.5
							314	10 - 12	4.1	103
6	150	4.12	104.65	1	25.4	52 <sup>(1)</sup>	20	10 - 12	5.5	64
							84	314	12-14	5.5
8	200	5.38	136.65	1.25	31.75	52 <sup>(1)</sup>	20	10 - 12	6.9	43
							84	314	12 - 15	6.9

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Close, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar
inches	DN	inches	mm	inches	mm					
1	25	0.7	17.78	0.25	6.35	87	6	6 - 14	4.1	163
							10	6 - 14	2.8	169
							10	6 - 14	4.1	431
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	4.1	63
							10	6 - 14	2.8	249
							10	6 - 14	4.1	218
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	4.1	52
							16	6 - 17	4.1	132
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	4.1	41
							23	6 - 16	4.1	88
4	100	2.88	73.152	0.75	19.05	87	23	6 - 18	4.1	40
							16	10 - 11	5.5	73
							20	10 - 11	4.1	84
						84	20	10 - 11	5.5	142
							154	10 - 12	5.5	54
							314	10 - 12	4.1	95
6	150	4.12	104.65	1	25.4	52 <sup>(1)</sup>	20	10 - 12	5.5	60
							84	314	12-14	5.5
8	200	5.38	136.65	1.25	31.75	52 <sup>(1)</sup>	20	10 - 12	6.9	41
							84	314	12 - 15	6.9

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Open, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar	
inches	DN	inches	mm	inches	mm						
1	25	0.7	17.78	0.25	6.35	88	6	38 - 45	3.8	194	
							10	38 - 45	3.8	431	
1.5	40	1	25.4	0.25	6.35	88	6	38 - 45	3.8	60	
							10	38 - 45	3.8	222	
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	3.8	49	
							16	34 - 45	3.8	132	
3	80	2.25	57.15	0.62	15.748	88	16	35 - 45	3.8	40	
							23	35 - 45	3.8	84	
4	100	2.88	73.152	0.75	19.05	88	23	33 - 45	3.8	36	
							53 <sup>(1)</sup>	16	25 - 28	4.1	80
								16	25 - 28	5.5	160
								20	25 - 28	2.8	159
							85	154 <sup>(1)</sup>	25 - 28	4.1	96
								314	25-28	4.1	39
314 <sup>(1)</sup>	25 - 28	2.8	176								
6	150	4.12	104.65	1	25.4	53 <sup>(1)</sup>	20	25 - 29	4.1	97	
							85 <sup>(1)</sup>	314	25 - 29	4.1	108
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	20	25-30	4.1	45	
							85 <sup>(1)</sup>	314	25-30	4.1	50

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Open, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar
inches	DN	inches	mm	inches	mm					
1	25	0.7	17.78	0.25	6.35	88	6	38 - 45	3.8	138
							10	38 - 45	3.8	395
1.5	40	1	25.4	0.25	6.35	88	6	38 - 45	3.8	45
							10	38 - 45	3.8	186
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	3.8	35
							16	34 - 45	3.8	111
3	80	2.25	57.15	0.62	15.748	88	23	35 - 45	3.8	74
4	100	2.88	73.152	0.75	19.05	53 <sup>(1)</sup>	16	25 - 28	2.8	75
							16	25 - 28	4.1	111
							16	25 - 28	5.5	147
							20	25 - 28	2.8	146
							85 <sup>(1)</sup>	314	2.8	161
6	150	4.12	104.65	1	25.4	53 <sup>(1)</sup>	20	25-29	4.1	92
						85 <sup>(1)</sup>	314	25-29	5.5	92
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	20	25-30	4.1	43
						85 <sup>(1)</sup>	314	25-30	5.5	43

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Close, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar
inches	DN	inches	mm	inches	mm					
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	3.4	140
							6	6 - 14	4.1	316
							10	6 - 14	2.8	281
							10	6 - 14	4.1	431
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	4.1	186
							16	6 - 17	2.8	106
							16	6 - 17	4.1	431
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	4.1	256
							23	6 - 16	2.8	94
							23	6 - 16	4.1	431
4	100	2.88	73.152	0.75	19.05	87	16	6 - 18	4.1	154
							23	6 - 18	3.4	111
							23	6 - 18	4.1	390
						52	12	10 - 11	4.1	65
							12	10 - 11	5.5	270
							16	10 - 11	3.4	172
							16	10 - 11	4.1	335
							16	10 - 11	5.5	431
							20	10 - 11	2.8	241
							20	10 - 11	4.1	431
							20	10 - 11	5.5	431
						84	154	10 - 12	4.1	228
							154	10 - 12	5.5	431
							314	10 - 12	2.8	212
314	10 - 12	4.1	431							
314	10 - 12	5.5	431							
6	150	4.12	104.65	1	25.4	87	23	6 - 18	4.1	172
							12	10 - 12	5.5	75
						52	12	10 - 12	6.9	237
							16	10 - 12	4.1	124
							16	10 - 12	5.5	383
							20	10-12	2.8	42
							20	10 - 12	4.1	431
							20	10 - 12	5.5	431
							20	10 - 12	5.5	261
						84	154	10 - 12	6.9	431
							314	12 - 14	4.1	431
314	12 - 14	5.5	431							
314	12 - 14	5.5	431							
8	200	5.38	136.65	1.25	31.75	52	12	10 - 12	6.9	46
							16	10 - 12	5.5	77
							16	10 - 12	6.9	77
							20	10 - 12	4.1	124
							20	10 - 12	5.5	124
							20	10 - 12	6.9	124
						84	154	10 - 12	5.5	66
							154	10 - 12	6.9	66
							314	12 - 15	4.1	168
							314	12 - 15	5.5	168
314	12 - 15	6.9	168							

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Close, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar	
inches	DN	inches	mm	inches	mm						
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	4.1	175	
							10	6 - 14	2.8	160	
							10	6 - 14	4.1	431	
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	4.1	147	
							16	6 - 17	2.8	54	
							16	6 - 17	4.1	354	
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	4.1	149	
							23	6 - 16	2.8	40	
							23	6 - 16	4.1	288	
4	100	2.88	73.152	0.75	19.05	87	16	6 - 18	4.1	88	
							23	6 - 18	4.1	223	
							84	12	10 - 11	5.5	155
								16	10 - 11	3.4	98
								16	10 - 11	4.1	192
								16	10 - 11	5.5	380
						20		10 - 11	2.8	138	
						20		10 - 11	4.1	431	
						84	20	10 - 11	5.5	431	
							154	10 - 12	4.1	130	
							154	10 - 12	5.5	309	
							314	10 - 12	2.8	122	
314	10 - 12	4.1	431								
314	10 - 12	5.5	431								
6	150	4.12	104.65	1	25.4	87	23	6 - 18	4.1	99	
							84	12	10 - 12	6.9	92
								16	10 - 12	4.1	71
								16	10 - 12	5.5	148
								20	10 - 12	4.1	238
								20	10 - 12	4.1	238
						20		10 - 12	5.5	238	
						84	154	10 - 12	5.5	126	
							154	10 - 12	6.9	126	
							314	12 - 14	4.1	270	
							314	12 - 14	5.5	323	
							8	200	5.38	136.65	1.25
16	10 - 12	6.9	44								
20	10 - 12	4.1	86								
20	10 - 12	5.5	86								
20	10 - 12	6.9	86								
84	154 <sup>(1)</sup>	10 - 12	5.5	77							
	154 <sup>(1)</sup>	10 - 12	6.9	268							
	314	12 - 15	4.1	116							
	314	12 - 15	5.5	116							
	314	12 - 15	6.9	116							

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

# 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Open, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V & VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar
inches	DN	inches	mm	inches	mm					
1.5	40	1	25.4	0.25	6.35	88	10	38 - 45	3.8	156
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	3.8	64
							16	34 - 45	3.8	179
3	80	2.25	57.15	0.62	15.748	88	16	35 - 45	3.8	103
							23	35 - 45	3.8	212
4	100	2.88	73.152	0.75	19.05	88	23	33 - 45	3.8	153
							12	25 - 28	2.8	142
						53 <sup>(1)</sup>	12	25 - 28	4.1	245
							12	25 - 28	5.5	348
							16	25 - 28	2.8	344
							16	25 - 28	4.1	431
							16	25 - 28	5.5	431
							20	25 - 28	2.8	431
						85	154 <sup>(1)</sup>	25 - 28	2.8	264
							154 <sup>(1)</sup>	25 - 28	4.1	411
154 <sup>(1)</sup>	25 - 28	5.5	431							
314	25 - 28	2.8	165							
6	150	4.12	104.65	1	25.4	88	23	33 - 45	3.8	52
							12	25 - 29	4.1	144
						53 <sup>(1)</sup>	12	25 - 29	5.5	237
							16	25 - 29	2.8	232
							16	25 - 29	4.1	381
							16	25 - 29	5.5	431
							20	25 - 29	2.8	431
							20	25 - 29	4.1	431
						85	154 <sup>(1)</sup>	25 - 29	2.8	160
							154 <sup>(1)</sup>	25 - 29	4.1	287
							154 <sup>(1)</sup>	25 - 29	5.5	414
							314	25-29	2.8	72
							314	25-29	4.1	72
314 <sup>(1)</sup>	25 - 29	2.8	431							
314 <sup>(1)</sup>	25 - 29	4.1	431							
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	12	25 - 30	4.1	72
							16	25 - 30	2.8	205
							16	25 - 30	4.1	428
							16	25 - 30	5.5	431
							20	25 - 30	2.8	431
						85 <sup>(1)</sup>	20	25 - 30	4.1	431
							154	25 - 30	2.8	97
							154	25 - 30	4.1	287
							314	25 - 30	2.8	431
							314	25 - 30	4.1	431

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (Metric)

Air to Open, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure Bar	Shutoff Pressure Drop Bar
inches	DN	inches	mm	inches	mm					
1.5	40	1	25.4	0.25	6.35	88	6	38 - 45	3.8	136
							10	38 - 45	3.8	431
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	3.8	112
							16	34 - 45	3.8	297
3	80	2.25	57.15	0.62	15.748	88	16	35 - 45	3.8	117
							23	35 - 45	3.8	241
4	100	2.88	73.152	0.75	19.05	88	16	33 - 45	3.8	40
							23	33 - 45	3.8	175
						53 <sup>(1)</sup>	12	25 - 28	2.8	162
							12	25 - 28	4.1	280
							12	25 - 28	5.5	398
							16	25 - 28	2.8	393
							16	25 - 28	4.1	431
							16	25 - 28	5.5	431
						85	20	25 - 28	2.8	431
							154 <sup>(1)</sup>	25 - 28	2.8	301
							154 <sup>(1)</sup>	25 - 28	2.8	431
							154 <sup>(1)</sup>	25 - 28	5.5	431
314	25 - 28	2.8	189							
6	150	4.12	104.65	1	25.4	88	23	33 - 45	3.8	52
							53 <sup>(1)</sup>	12	25 - 29	4.1
						12		25 - 29	5.5	237
						16		25 - 29	2.8	232
						16		25 - 29	4.1	381
						16		25 - 29	5.5	431
						20		25 - 29	2.8	431
						85 <sup>(1)</sup>	20	25 - 29	4.1	282
							154	25 - 29	2.8	160
							154	25 - 29	4.1	287
							154	25 - 29	5.5	414
						314	25 - 29	2.8	431	
314	25 - 29	4.1	431							
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	12	25 - 30	4.1	72
							16	25 - 30	2.8	205
							16	25 - 30	4.1	428
							16	25 - 30	5.5	431
							20	25 - 30	2.8	431
							20	25 - 30	4.1	431
						85 <sup>(1)</sup>	154	25 - 30	2.8	97
							154	25 - 30	4.1	287
							314	25 - 30	2.8	431
							314	25 - 30	4.1	431

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

**18400 / 78400 Series  
Pressure Drop Tables  
(US) STANDARD**

**INDEX  
(US) STANDARD**

	<b>PAGE</b>
<b>Air to Close, Flow to Open Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI PTFE or LE Packing	4
<b>Air to Close, Flow to Open Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	5
<b>Air to Open, Flow to Open Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI PTFE or LE Packing	6
<b>Air to Open, Flow to Open Unbalanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	7
<b>Air to Close, Flow to Open Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI PTFE or LE Packing	8
<b>Air to Close, Flow to Open Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	9
<b>Air to Open, Flow to Open Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V & VI PTFE or LE Packing	10
<b>Air to Open, Flow to Open Balanced Trim</b> Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V Flexible Graphite Packing	11

## 18400 / 78400 Series Pressure Drop Tables (US)

Air to Close, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi
inches	DN	inches	mm	inches	mm					
1	25	0.7	17.78	0.25	6.35	87	6	6 - 14	40	717
							6	6 - 14	60	3329
							10	6 - 14	40	3458
							10	6 - 14	60	6250
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	60	1113
							10	6 - 14	40	1016
							10	6 - 14	60	3770
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	60	946
							16	6 - 17	60	2274
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	60	750
							23	6 - 16	60	1457
4	100	2.88	73.152	0.75	19.05	87	23	6 - 18	60	668
							52 <sup>(1)</sup>	16	10 - 11	60
						16		10 - 11	80	1150
						20		10 - 11	60	1330
						20		10 - 11	80	2243
						84		154	10 - 12	80
							314	10 - 12	60	1495
6	150	4.12	104.65	1	25.4	52 <sup>(1)</sup>	20	10 - 12	80	930
							84	314	12-14	80
8	200	5.38	136.65	1.25	31.75	52 <sup>(1)</sup>	20	10 - 12	100	623
							84	314	12 - 15	100

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (US)

Air to Close, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi
inches	DN	inches	mm	inches	mm					
1	25	0.7	17.78	0.25	6.35	87	6	6 - 14	60	2365
							10	6 - 14	40	2457
							10	6 - 14	60	6250
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	60	920
							10	6 - 14	40	3617
							10	6 - 14	60	3156
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	60	750
							16	6 - 17	60	1916
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	60	600
							23	6 - 16	60	1273
4	100	2.88	73.152	0.75	19.05	87	23	6 - 18	60	577
							16	10 - 11	80	1056
							20	10 - 11	60	1221
						84	20	10 - 11	80	2059
							154	10 - 12	80	787
							314	10 - 12	60	1373
6	150	4.12	104.65	1	25.4	52 <sup>(1)</sup>	20	10 - 12	80	875
							84	314	12-14	80
8	200	5.38	136.65	1.25	31.75	52 <sup>(1)</sup>	20	10 - 12	100	594
							84	314	12 - 15	100

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (US)

Air to Open, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi	
inches	DN	inches	mm	inches	mm						
1	25	0.7	17.78	0.25	6.35	88	6	38 - 45	55	2810	
							10	38 - 45	55	6250	
1.5	40	1	25.4	0.25	6.35	88	6	38 - 45	55	864	
							10	38 - 45	55	3219	
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	55	706	
							16	34 - 45	55	1908	
3	80	2.25	57.15	0.62	15.748	88	16	35 - 45	55	580	
							23	35 - 45	55	1221	
4	100	2.88	73.152	0.75	19.05	88	23	33 - 45	55	520	
							53 <sup>(1)</sup>	16	25 - 28	60	1157
								16	25 - 28	80	2327
								20	25 - 28	40	2302
							85	154 <sup>(1)</sup>	25 - 28	60	1395
								314	25-28	60	562
314 <sup>(1)</sup>	25 - 28	40	2548								
6	150	4.12	104.65	1	25.4	53 <sup>(1)</sup>	20	25 - 29	60	1408	
							85 <sup>(1)</sup>	314	25 - 29	60	1563
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	20	25-30	60	648	
							85 <sup>(1)</sup>	314	25-30	60	730

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

## 18400 / 78400 Series Pressure Drop Tables (US)

Air to Open, Flow to Open

Unbalanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi
inches	DN	inches	mm	inches	mm					
1	25	0.7	17.78	0.25	6.35	88	6	38 - 45	55	1996
							10	38 - 45	55	5733
1.5	40	1	25.4	0.25	6.35	88	6	38 - 45	55	659
							10	38 - 45	55	2695
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	55	510
							16	34 - 45	55	1607
3	80	2.25	57.15	0.62	15.748	88	23	35 - 45	55	1066
4	100	2.88	73.152	0.75	19.05	53 <sup>(1)</sup>	16	25 - 28	40	1090
							16	25 - 28	60	1613
							16	25 - 28	80	2136
							20	25 - 28	40	2114
							85 <sup>(1)</sup>	314	25 - 28	40
6	150	4.12	104.65	1	25.4	53 <sup>(1)</sup>	20	25-29	60	1335
						85 <sup>(1)</sup>	314	25-29	80	1335
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	20	25-30	60	619
						85 <sup>(1)</sup>	314	25-30	80	619

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

# 18400 / 78400 Series Pressure Drop Tables (US)

Air to Close, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V and VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi
inches	DN	inches	mm	inches	mm					
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	50	2031
							6	6 - 14	60	4580
							10	6 - 14	40	4081
							10	6 - 14	60	6250
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	60	2696
							16	6 - 17	40	1539
							16	6 - 17	60	6250
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	60	3708
							23	6 - 16	40	1358
							23	6 - 16	60	6250
4	100	2.88	73.152	0.75	19.05	87	16	6 - 18	60	2232
							23	6 - 18	50	1615
							23	6 - 18	60	5648
						52	12	10 - 11	60	938
							12	10 - 11	80	3918
							16	10 - 11	50	2496
							16	10 - 11	60	4856
							16	10 - 11	80	6250
							20	10 - 11	40	3489
							20	10 - 11	60	6250
							20	10 - 11	80	6250
						84	154	10 - 12	60	3300
							154	10 - 12	80	6250
							314	10 - 12	40	3080
314	10 - 12	60	6250							
314	10 - 12	80	6250							
6	150	4.12	104.65	1	25.4	87	23	6 - 18	60	2494
							12	10 - 12	80	1083
						52	12	10 - 12	100	3433
							16	10 - 12	60	1795
							16	10 - 12	80	5559
							20	10-12	40	610
							20	10 - 12	60	6250
							20	10 - 12	80	6250
						84	154	10 - 12	80	3782
							154	10 - 12	100	6250
							314	12 - 14	60	6250
							314	12 - 14	80	6250
8	200	5.38	136.65	1.25	31.75	52	12	10 - 12	100	667
							16	10 - 12	80	1121
							16	10 - 12	100	1121
							20	10 - 12	60	1801
							20	10 - 12	80	1801
							20	10 - 12	100	1801
						84	154	10 - 12	80	955
							154	10 - 12	100	955
							314	12 - 15	60	2439
							314	12 - 15	80	2439
314	12 - 15	100	2439							

## 18400 / 78400 Series Pressure Drop Tables (US)

Air to Close, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V

Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi	
inches	DN	inches	mm	inches	mm						
1.5	40	1	25.4	0.25	6.35	87	6	6 - 14	60	2543	
							10	6 - 14	40	2322	
							10	6 - 14	60	6250	
2	50	1.5	38.1	0.38	9.652	87	10	6 - 17	60	2135	
							16	6 - 17	40	785	
							16	6 - 17	60	5138	
3	80	2.25	57.15	0.62	15.748	87	16	6 - 16	60	2167	
							23	6 - 16	40	585	
							23	6 - 16	60	4173	
4	100	2.88	73.152	0.75	19.05	87	16	6 - 18	60	1279	
							23	6 - 18	60	3235	
							12	10 - 11	80	2244	
						84	16	10 - 11	50	1414	
							16	10 - 11	60	2781	
							16	10 - 11	80	5516	
							20	10 - 11	40	1998	
							20	10 - 11	60	6250	
							20	10 - 11	80	6250	
							154	10 - 12	60	1890	
						154	10 - 12	80	4484		
						87	314	10 - 12	40	1764	
							314	10 - 12	60	6250	
314	10 - 12	80	6250								
6	150	4.12	104.65	1	25.4		87	23	6 - 18	60	1430
								12	10 - 12	100	1339
						84	16	10 - 12	60	1029	
							16	10 - 12	80	2153	
							20	10 - 12	60	3457	
							20	10 - 12	60	3457	
							20	10 - 12	80	3457	
							154	10 - 12	80	1830	
							154	10 - 12	100	1830	
							314	12 - 14	60	3919	
314	12 - 14	80	4683								
8	200	5.38	136.65	1.25	31.75	52	16	10 - 12	80	642	
							16	10 - 12	100	642	
							20	10 - 12	60	1245	
							20	10 - 12	80	1245	
							20	10 - 12	100	1245	
						84	154 <sup>(1)</sup>	10 - 12	80	1117	
							154 <sup>(1)</sup>	10 - 12	100	3886	
							314	12 - 15	60	1687	
							314	12 - 15	80	1687	
							314	12 - 15	100	1687	

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

# 18400 / 78400 Series Pressure Drop Tables (US)

Air to Open, Flow to Open

Balanced Trim

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V & VI

PTFE or LE Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi
inches	DN	inches	mm	inches	mm					
1.5	40	1	25.4	0.25	6.35	88	10	38 - 45	55	2257
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	55	928
							16	34 - 45	55	2596
3	80	2.25	57.15	0.62	15.748	88	16	35 - 45	55	1491
							23	35 - 45	55	3073
4	100	2.88	73.152	0.75	19.05	88	23	33 - 45	55	2224
							12	25 - 28	40	2062
							12	25 - 28	60	3557
						53 <sup>(1)</sup>	12	25 - 28	80	5052
							16	25 - 28	40	4986
							16	25 - 28	60	6250
							16	25 - 28	80	6250
							20	25 - 28	40	6250
							20	25 - 28	40	6250
						85	154 <sup>(1)</sup>	25 - 28	40	3825
							154 <sup>(1)</sup>	25 - 28	60	5963
							154 <sup>(1)</sup>	25 - 28	80	6250
314	25 - 28	40	2398							
6	150	4.12	104.65	1	25.4	88	23	33 - 45	55	760
							12	25 - 29	60	2083
						53 <sup>(1)</sup>	12	25 - 29	80	3430
							16	25 - 29	40	3370
							16	25 - 29	60	5528
							16	25 - 29	80	6250
							20	25 - 29	40	6250
							20	25 - 29	60	6250
						85	154 <sup>(1)</sup>	25 - 29	40	2324
							154 <sup>(1)</sup>	25 - 29	60	4160
							154 <sup>(1)</sup>	25 - 29	80	5996
							314	25 - 29	40	1037
							314	25 - 29	60	1037
							314 <sup>(1)</sup>	25 - 29	40	6250
314 <sup>(1)</sup>	25 - 29	60	6250							
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	12	25 - 30	60	1044
							16	25 - 30	40	2972
							16	25 - 30	60	6203
							16	25 - 30	80	6250
							20	25 - 30	40	6250
						85 <sup>(1)</sup>	20	25 - 30	60	6250
							154	25 - 30	40	1406
							154	25 - 30	60	4155
							314	25 - 30	40	6250
							314	25 - 30	60	6250

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.

# 18400 / 78400 Series Pressure Drop Tables (US)

**Air to Open, Flow to Open  
Balanced Trim**

Leakage: Per IEC 534-4 and ANSI/FCI 70.2 Class V  
Flexible Graphite Packing

Valve Size		Orifice Diameter		Travel		Actuator Type	Actuator Size	Bench Range	Supply Pressure psi	Shutoff Pressure Drop psi
inches	DN	inches	mm	inches	mm					
1.5	40	1	25.4	0.25	6.35	88	6	38 - 45	55	1977
							10	38 - 45	55	6250
2	50	1.5	38.1	0.38	9.652	88	10	34 - 45	55	1617
							16	34 - 45	55	4310
3	80	2.25	57.15	0.62	15.748	88	16	35 - 45	55	1697
							23	35 - 45	55	3497
4	100	2.88	73.152	0.75	19.05	88	16	33 - 45	55	576
							23	33 - 45	55	2540
						53 <sup>(1)</sup>	12	25 - 28	40	2355
							12	25 - 28	60	4062
							12	25 - 28	80	5769
							16	25 - 28	40	5694
							16	25 - 28	60	6250
							16	25 - 28	80	6250
						85	20	25 - 28	40	6250
							154 <sup>(1)</sup>	25 - 28	40	4368
							154 <sup>(1)</sup>	25 - 28	40	6250
							154 <sup>(1)</sup>	25 - 28	80	6250
314	25 - 28	40	2736							
6	150	4.12	104.65	1	25.4	88	23	33 - 45	55	760
							53 <sup>(1)</sup>	12	25 - 29	60
						12		25 - 29	80	3430
						16		25 - 29	40	3370
						16		25 - 29	60	5528
						16		25 - 29	80	6250
						20		25 - 29	40	6250
						85 <sup>(1)</sup>	20	25 - 29	60	4094
							154	25 - 29	40	2324
							154	25 - 29	60	4160
							154	25 - 29	80	5996
							314	25 - 29	40	6250
314	25 - 29	60	6250							
8	200	5.38	136.65	1.25	31.75	53 <sup>(1)</sup>	12	25 - 30	60	1044
							16	25 - 30	40	2972
							16	25 - 30	60	6203
							16	25 - 30	80	6250
							20	25 - 30	40	6250
							20	25 - 30	60	6250
						85 <sup>(1)</sup>	154	25 - 30	40	1406
							154	25 - 30	60	4155
							314	25 - 30	40	6250
							314	25 - 30	60	6250

**Note 1:** Double-acting actuator with spring return is required to achieve shutoff pressure drops indicated. Volume tank is required.