

PRESSURE REGULATOR AND VALVE SELECTION GUIDE

Technical Bulletin #208I

Scope: This document is a reference guide to help customers determine an appropriate AP Tech valve and regulator to be used in process gas systems. For information and specifications related to the specific model, please refer to the catalog data sheet.

General Notes and Definitions

Source Regulator: Pressure regulator closest to the gas source cylinder or vessel (first regulator in the system)

Source Valve: Valves upstream (inlet side) of the source regulator

Distribution Regulator: Any regulator downstream (outlet side) of the source regulator

Distribution Valve: Any valve downstream (outlet side) of the source regulator

Valve Recommendation: Valve model recommendations limited for sake of brevity. Different models with same basic size and rating may also be used. Example: 3600, 3650 and 3657 may be used in place of 3625.

1225/1210: Two stage regulation required, two regulators in series

1200S: Red indicates heating required, refer to PN 407

Conditions: Standard conditions of temperature and pressure

Inlet Pressure Assumption: Source¹ 150 psig (10 bar) or vapor pressure of liquified gas
Distribution² 30 psig (2 bar) unless low vapor pressure gas

Outlet Pressure Assumption: Minimum outlet pressure > 10 psig (0.7 bar)

¹Source pressure for non-liquified gas assumed at worst case for an empty cylinder

²Distribution assumed to be typical usage, specific operating conditions may require different selection

Caution: Read and understand definitions prior to utilizing the guide's recommendations.

Caution: Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory, such as this Technical Bulletin. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.

Caution: One may achieve higher or lower flow capacities than stipulated in this guide due to the parameters and conditions of a specific application and system design.

Caution: Please consult the factory for recommendations beyond the scope of this document or if any doubt exists.

GENERAL NOTES

SOURCE VALVE GUIDELINE

Process Gas	Maximum Flow (slpm)	Source Valves AP, AZ or AK	Maximum Flow (slpm)	Distribution Valves AP, AZ or AK	Maximum Flow (slpm)	Source Regulator AP, AZ or AK	Maximum Flow (slpm)	Distribution Regulator AP, AZ or AK
Acetylene* (C ₂ H ₂)	230	3000 3625	25	3550 3625	3	1500S*	3	1000S
	280	4000 3625	45	4550 4625	50 75	1400TS* 1200S*	6 50 75	1000S HF 1400TS 1200S
			400	3700 3800			95 95	1200S HF 1300S
Air	185	3000 3625	90	3550 3625	30	1500S	30	1000S
	225	4000 3625 3100	160	4550 4625 3800	100 200 800	1900S 1400TS 1200S HR	50 150 400 600 600	1000S HF 1400TS 1200S 1200S HF 1300S
	550	3130	890	3700 3800				
	475	3125						
Ammonia (NH ₃)	250	3550 3625	100	3550 3625	5	1500S	5	1000S
	450	4550 4625	225	4550 4625	50 75 400	1400TS 1200S 1200S	30 60 125	1000S HF 1400TS 1200S
	1000	3113 3125	1000	3700 3800	600 1100	1200S HF 9100S	250 250 500 1000	1200S HF 1300S 1200S FC 9100S
Argon (Ar)	200	3000 3625	80	3550 3625	10	1500S	10	1000S
	350	4000 3625	150	4550 4625	100 300 600	1900S 1900S HF 1200S HR	25 50 100	1000S HF 1400TS 1200S
	1000	3130 3125	800	3700 3800			200 200 400 1000	1200S HF 1300S 1200S FC 9100S

Model number applies to all applicable series - AP, AZ and AK
Example: 1000 means AP, AZ and AK 1000

Red highlight denotes heating required to achieve stated flow.
*15 psig maximum source regulator outlet pressure

Process Gas	Maximum Flow (slpm)	Source Valves	Maximum Flow (slpm)	Distribution Valves	Maximum Flow (slpm)	Source Regulator	Maximum Flow (slpm)	Distribution Regulator
	AP, AZ or AK		AP, AZ or AK		AP, AZ or AK			AP, AZ or AK
	SOURCE VALVE GUIDELINE		DISTRIBUTION VALVE GUIDELINE		SOURCE REGULATOR GUIDELINE			DISTRIBUTION REGULATOR GUIDELINE
Arsine (AsH ₃)	140	3550 3625	55	3550 3625	5	1500S 1400TS	5	1000S 1000S HF
	240	4550 4625	95	4550 4625	40		20	
Arsine Mixtures (Nitrogen Balance)	185	3000 3625	90	3550 3625	15	1500S 1900S	15	1000S 1000S HF
	225	4000 3625	160	4550 4625	50 150	1400TS	50 150	1400TS
Boron Trichloride (BCl ₃)	20	4550 4625	15	4550 4625	6	1402TSA	0.4 6	1101SH 1402TSA
Boron Trichloride Mix (Nitrogen Balance)	185	3000 3625	90	3550 3625	15	1500S 1400TS	15	1000S 1000S HF
	225	4000 3625	160	4550 4625	60		30 60	1400TS
Boron Trifluoride (BF ₃)	115	3000 3625	60	3550 3625	5	1500S 1400TS	5	1000S 1000S HF
	145	4000 3625	100	4550 4625	25		10 25	1400TS
Boron 11 Trifluoride (11BF ₃)	115	3000 3625	60	3550 3625	5	1500S 1400TS	5	1000S 1000S HF
	145	4000 3625	100	4550 4625	25		10 25	1400TS
Butadiene (C ₄ H ₆)	60	4550 4625	60	4550 4625	3	1500S 1400T	3	1000S 1000S HF
					40		5	
Butane (normal) (C ₄ H ₁₀)	60	4550 4625	60	4550 4625	3	1500S 1400T	3	1000S 1000S HF
					40		5	
Butene-1 (C ₄ H ₈)	65	4550 4625	60	4550 4625	3	1500S 1400TS	3	1000S 1000S HF
					50		5	
Carbon Dioxide (CO ₂)	500	3000 3625	75	3550 3625	3	1500S 1400TS	8	1000S 1000S HF
	700	4000 3625	140	4550 4625	75 150	1200S VS	20 40	1400TS
		3113 3125	750	3700 3800	500	1225S VS & 1200S HF VS	100 160	1200S 1200S HF
	2500				1000	9030S VS & 9100S VS	160 160 325 800	1300S 1200S FC 9100S
Carbon Monoxide (CO)	185	3000 3625	90	3550 3625	5	1500S 1900S	5	1000S 1000S HF
	225	4000 3625	160	4550 4625	50	1400TS	15 50	1400TS
Carbonyl Fluoride (COF ₂)	115	3000 3625	60	3550 3625	5	1500S 1400TS	3	1000S 1000S HF
	200	4000 3625	100	4550 4625	25		10	
Chlorine (Cl ₂)	75	3550 3625	50	3550 3625	3	1500SH 1400TS	5	1000SH 1000SH HF
	150	4550 4625	100	4550 4625	50 75	1200SH	15 30	1400TS
	300	3113 3125	400	3700 3800	200	1200SH HF	75 125 125 250	1200SH 1200SH HF 1300S 1200SH FC
Chlorine Trifluoride (ClF ₃)	20	4550 4625	15	4550 4625	6	1402TSA	0.5 6	1101S 1402TSA
Diborane Mixtures (Nitrogen Balance)	185	3000 3625	90	3550 3625	5	1700S 2700S	10	1000S 1000S HF
	225	4000 3625	160	4550 4625	225		20	
Dichlorosilane (SiH ₂ Cl ₂)	20	4550 4625	20	4550 4625	7	1402TSA	1 7	1001S 1402TSA

Model number applies to all applicable series - AP, AZ and AK
Example: 1000 means AP, AZ and AK 1000

Red highlight denotes heating required to achieve stated flow.
*15 psig maximum source regulator outlet pressure

Process Gas	Maximum Flow (slpm)	Source Valves	Maximum Flow (slpm)	Distribution Valves	Maximum Flow (slpm)	Source Regulator	Maximum Flow (slpm)	Distribution Regulator
		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK
Diethyltelluride (Te(C ₂ H ₅) ₂)	70	3000 3625	35	3550 3625	3	1500S 1900S	3	1000S 1000S HF
	85	4000 3625		4550 4625		5 25		1400TS
Difluoroethylene (C ₂ H ₂ F ₂)	140	3000 3625	55	3550 3625	3	1500S 1400TS	3	1000S 1000S HF
	200	4000 3625		4550 4625		50 75		1200S
Dimethylsilane (C ₂ SiH ₆)	14	4550 4625	7	4550 4625	3	1500S 1400TS	3	1000S 1400TS
	150	3700 3800		3700 3800		50 75		1200S
Disilane (Si ₂ H ₆)	14	4550 4625	7	4550 4625	1	1000S 1402TSA	1	1000S 1402TSA
	380	3000 3625		3550 3625		3		1500S 1400TS
Ethylene (C ₂ H ₄)	485	4000 3625	160	4550 4625	75	1200S	50 75	1400TS 1200S
	Consult Factory	Consult Factory		Consult Factory		Consult Factory		Consult Factory
Fluorine (F ₂)	185	3000 3625	90	3550 3625	5	1500SH 1400TS	5	1000SH 1000SH HF
	225	4000 3625		4550 4625		25		1400TS
Fluorine Mixtures (10%, 500 psig) (Nitrogen Balance)	10	3550 3625	4	3550 3625	1	1000S 1402TS	1	1000S 1402TS
	18	4550 4625		4550 4625		7		
Germane (GeH ₄)	185	3000 3625	90	3550 3625	10	1500S 1900S	10	1000S 1000S HF
	225	4000 3625		4550 4625		20 50		1400TS
Germane Mixtures (Nitrogen Balance)	55	4550 4625	40	4550 4625	3	1500S 1400TS	3	1000S 1000S HF
	15	4550 4625		4550 4625		50		1400TS
Halocarbon 12 (CCl ₂ F ₂)	15	4550 4625	15	4550 4625	5	1400TSA	0.5 5	1101S 1402TSA
	140	3000 3625		3550 3625		3		1500S 1400TS
Halocarbon 12B2 (CBr ₂ F ₂)	170	4000 3625	70	4550 4625	50	1400TS	50	1400TS
	110	3550 3625		3550 3625		3		1500S 1400TS
Halocarbon 13 (CClF ₃)	190	4550 4625	65	4550 4625	50	1400TS	50	1400TS
	110	3550 3625		3550 3625		3		1500S 1400TS
Halocarbon 13B1 (CBrF ₃)	200	4000 3625	100	4550 4625	80	1900S HF 1200S HR	30 60	1400TS 1200S
	600	3130 3125		3700 3800		500		
Halocarbon 14 (CF ₄)	25	4550 4625	15	4550 4625	5	1402TSA	0.5 0.5 5	1101S 1001S 1402TSA
	115	3000 3625		3550 3625		10		1500S 1400TS
Halocarbon 21 (CHCl ₂ F)	140	4000 3625	250	4550 4625	50	1400TS	50	1400TS
	115	3000 3625		3550 3625		10		1500S 1400TS
Halocarbon 23 (CHF ₃)	140	4000 3625	250	4550 4625	50	1400TS	50	1400TS

SOURCE VALVE GUIDELINE

DISTRIBUTION VALVE GUIDELINE

SOURCE REGULATOR GUIDELINE

DISTRIBUTION REGULATOR GUIDELINE

Model number applies to all applicable series - AP, AZ and AK
Example: 1000 means AP, AZ and AK 1000

Process Gas	Maximum Flow (slpm)	Source Valves	Maximum Flow (slpm)	Distribution Valves	Maximum Flow (slpm)	Source Regulator	Maximum Flow (slpm)	Distribution Regulator			
		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK			
Halocarbon 32 (CH ₂ F ₂)	140	3000	55	3550	3	1500S	3	1000S			
		3625		3625		50		1400TS	6	1000S HF	
	175	4000		4550		75		1200S	50	1400TS	
		3625		4625					75	1200S	
Halocarbon 114 (C ₂ ClF ₄)	30	4550	25	4550	7	1402TSA	0.5	1101S			
		4625		4625					1	1000S	
									7	1402TSA	
Halocarbon 115 (C ₂ ClF ₆)	60	4550	40	4550	3	1500S	3	1000S			
		4625		4625		50		1400TS	5	1000S HF	
						75		1200S	50	1400TS	
Halocarbon 116 (C ₂ F ₆)	60	3000	40	3550	3	1500S	3	1000S			
		3625		3625		50		1400TS	10	1000S HF	
	100	4000		4550		75		1200S	25	1400TS	
		3625		4625		125		1200S HF	50	1200S	
	275	3113		3700				90	1200S HF		
		3125		3800				90	1300		
			175	1200S FC							
					450	9100S					
Halocarbon 125 (C ₂ HF ₅)	180	4550	70	4550	3	1500S	3	1000S			
		4625		4625		25		1400TS	5	1000S HF	
						75		1200S	25	1400TS	
Halocarbon 134A (C ₂ H ₂ F ₄)	55	4550	40	4550	3	1500S	3	1000S			
		4625		4625		50		1400TS	5	1000S HF	
		3100		3800		75		1200S	50	1400TS	
	350	3700		3800					75	1200S	
Halocarbon R218 (C ₃ F ₈)	35	3550	20	3550	3	1500S	3	1000S			
		3625		3625		50		1400TS	5	1000S HF	
Halocarbon C318 (C ₄ F ₈)	60	4550	40	4550	75	1200S	50	1400TS			
		4625		4625					75	1200S	
Helium (He)	25	4550	20	4550	6	1402TSA	1	1101S			
		4625		4625					6	1402TSA	
	750	3000		250		3550		125	1500S	65	1000S
	1000	3625		450		3625		500	1900S	125	1000S HF
Hexafluoropropane (C ₃ H ₂ F ₆)		4000	2500	4550	625	1900S HF	275	1400TS			
		3625		4625		2000		1200S HR	625	1200S	
	2500	3130		3700					900	1200S HF	
		3125		3800					900	1300	
									1200	1200S FC	
									2500	9100S	
Hexafluoropropylene (C ₃ F ₆)	20	4550	15	4550	6	1402TSA	6	1402TSA			
		4625		4625							
Hydrogen (H ₂)	60	4550	40	4550	3	1500S	3	1000S			
		4625		4625		50		1400TS	5	1000S HF	
						75		1200S	50	1400TS	
									75	1200S	
Hydrogen Bromide (HBr)	800	3000	300	3550	125	1500S	65	1000S			
		3625		3625		500		1900S	125	1000S HF	
	1600	4000		4550		625		1900S HF	275	1400TS	
		3625		4625		900		2700S	625	1200S	
Hydrogen Bromide (HBr)	3000	3130	3000	3700	1200	1200S HR	900	1200S HF			
		3125		3800					900	1300S	
									1200	1200S FC	
									3000	9100S	
Hydrogen Bromide (HBr)	155	3000	55	3550	1	1500SH	1	1000SH			
		3625		3625		30		1400TS	2	1000SH HF	
	190	4000		4550		50		1200SH	30	1400TS	
	3625	4625				50	1200SH				

Model number applies to all applicable series - AP, AZ and AK
Example: 1000 means AP, AZ and AK 1000

Red highlight denotes heating required to achieve stated flow.

Process Gas	Maximum Flow (slpm)	Source Valves	Maximum Flow (slpm)	Distribution Valves	Maximum Flow (slpm)	Source Regulator	Maximum Flow (slpm)	Distribution Regulator
	AP, AZ or AK		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK	
Hydrogen Chloride (HCl)	350	3000 3625	75	3550 3625	2	1500SH	8	1000SH
	500	4000	150	4550	90	1400TS	20	1000SH HF
	2000	3625	850	4625	150	1200SH	40	1400TS
		3113	850	3700	600	1225SH & 1210SH HF	85	1200SH
		3125	850	3800	2000	9030S & 9110S	160	1200SH HF
160						160	1300S	
							300	1200SH FC
							800	9100S
Hydrogen Chloride Mixtures (Nitrogen Balance)	210	3000 3625	105	3550 3625	10	1500SH	10	1000SH
	265	4000	190	4550	20	1900SH	20	1000SH HF
		3625	190	4625	40	1400TS	40	1400TS
Hydrogen Fluoride (HF)	20	4550 4625	20	4550 4625	5	1402TSA	5	1402TSA
Hydrogen Selenide (H ₂ Se)	125	3550 3625	55	3550 3625	5	1500S	5	1000S
	215	4550 4625	95	4550 4625	40	1400TS	20	1000S HF
		40					40	1400TS
Hydrogen Selenide Mixtures (Nitrogen Balance)	185	3000 3625	90	3550 3625	10	1500S	10	1000S
	225	4000 3625	160	4550 4625	20	1900S	20	1000S HF
		50				50	1400TS	50
Hydrogen Sulfide (H ₂ S)	210	3000 3625	80	3550 3625	5	1500S	5	1000S
	260	4000 3625	140	4550 4625	40	1400TS	10	1000S HF
		40					40	1400TS
Krypton (Kr)	105	3000 3625	50	3550 3625	20	1500S	20	1000S
	130	4000 3625	90	4550 4625	60	1400TS	30	1000S HF
		60					60	1400TS
Methane (CH ₄)	245	3000 3625	120	3550 3625	10	1500S	10	1000S
	295	4000 3625	210	4550 4625	20	1900S	20	1000S HF
		40				40	1400TS	40
Methanol (CH ₃ OH)	70	4550 4625	40	4550 4625	3	1500S	3	1000S
					50	1400TS	5	1000S HF
Methyl Bromide (CH ₃ Br)	25	4550 4625	15	4550 4625	5	1402TSA	5	1402TSA
Methyl Chloride (CH ₃ Cl)	60	4550 4625	45	4550 4625	1	1000S	10	1402TSA
					10	1402TSA		
Methylsilane (CH ₃ SiH ₃)	200	3550 3625	70	3550 3625	3	1500S	3	1000S
	350	4550 4625	120	4550 4625	50	1400TS	5	1000S HF
		75				75	1200S	75
Methyl Fluoride (CH ₃ F)	400	3000 3625	120	3550 3625	5	1500S	5	1000S
	490	4000 3625	200	4550 4625	50	1400TS	10	1000S HF
		50					50	1400TS
Neon (Ne)	215	3000 3625	110	3550 3625	20	1500S	20	1000S
	260	4000 3625	190	4550 4625	40	1900S	40	1000S HF
		100				300	1200S HR	100
Nitrogen (N ₂)	250	3000 3625	100	3550 3625	50	1500S	25	1000S
	400	4000 3625	200	4550 4625	200	1900S	50	1000S HF
		150				250	1900S HF	150
	1000	3130 3125	1000	3700 3800	350	2700	250	1200S
		1000				1000	1200S HR	300
							300	1300S
							400	1200S FC
							1000	9100S

SOURCE VALVE GUIDELINE

DISTRIBUTION VALVE GUIDELINE

SOURCE REGULATOR GUIDELINE

DISTRIBUTION REGULATOR GUIDELINE

Model number applies to all applicable series - AP, AZ and AK
Example: 1000 means AP, AZ and AK 1000

Process Gas	Maximum Flow (slpm)	Source Valves	Maximum Flow (slpm)	Distribution Valves	Maximum Flow (slpm)	Source Regulator	Maximum Flow (slpm)	Distribution Regulator
		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK
Nitrogen Dioxide (NO ₂)	60	4550 4625	60	4550 4625	4	1500S 1400T	4	1000S
					45		6	1000S HF
Nitrogen Trifluoride (NF ₃)	75	3000	60	3550	5	1500S	6	1000S
		3625		3625	60	1400TS	15	1000S HF
	100	4000	110	4550	150	1400TS	30	1400TS
		3625		4625	150	2700S	75	1200S
	350	3130 3125	500	3700 3800	400	1200S HR 9030 & 9110	125	1200 S HF
				1000		125	1300S	
						250	1200S FC	
						600	9100S	
Nitric Oxide (NO)	310	3000	75	3550	3	1500S	3	1000S
		3625		3625	50	1400TS	6	1000S HF
	380	4000 3625	125	4550 4625	75	1200S	50	1400TS
						75	1200S	
Nitrous Oxide (N ₂ O)	300	3000VS	70	3550	3	1500S VS	8	1000S
		3625VS		3625	60	1400TS VS	20	1000S HF
	500	3002VS	140	4550	100	1200S VS	35	1400TS
		3625VS		4625	150	1200S VS HF	85	1200S
	1500	3113VS 3125VS	750	3700 3800	500	1225S VS & 1200S VS HF 9030S VS & 9100S VS	160	1200S HF
				1000		160	1300S	
						320	1200S FC	
						800	9100S	
Octafluorocyclopentene (C ₅ F ₈)	15	4550 4625	15	4550 4625	5	1402TSA	0.3	1101S
							5	1402TSA
Oxygen (O ₂)	250	3000	75	3550	10	1500S	10	1000S
		3625		3625	80	1900S	25	1000S HF
	400	4000	150	4550	150	1900S HF	50	1400TS
		3625	1000	4625 3700 3800	1000	1200S HR	120	1200S
						200	1200S HF	
						200	1300S	
						400	1200S FC	
						1000	9100S	
Perfluoropropane* (C ₃ F ₈)	70	3550	35	3550	2	1500S	2	1000S
		3625		3625	20	1400TS	4	1000S HF
	125	4550 4625	60	4550 4625			20	1400TS
Perfluorobutadiene (C ₄ F ₆)	25	4550 4625	25	4550 4625	5	1402TSA	0.5	1101S
							5	1402TSA
Phosphine (PH ₃)	320	3000	80	3550	5	1500S	5	1000S
		3625		3625	40	1400TS	10	1000S HF
	390	4000 3625	145	4550 4625				
Phosphine Mixtures (Nitrogen Balance)	185	3000	90	3550	10	1500S	10	1000S
		3625		3625	20	1900S	20	1000S HF
	225	4000 3625	160	4550 4625				
Phosphorous Pentafluoride (PF ₅)	15	3000	5	3550	10	1500S	10	1000S
		3625		3625	20	1900S	20	1000S HF
	19	4000	9	4550				
		3625		4625				
	41	3130 3125	52	3700 3800				
Propane (C ₃ H ₈)	65	3550	42	3550	3	1500S	3	1000S
		3625		3625	50	1400TS	5	1000S HF
	115	4550 4625	75	4550 4625		1200S	50	1400TS

SOURCE VALVE GUIDELINE

DISTRIBUTION VALVE GUIDELINE

SOURCE REGULATOR GUIDELINE

DISTRIBUTION REGULATOR GUIDELINE

Model number applies to all applicable series - AP, AZ and AK
 Example: 1000 means AP, AZ and AK 1000

Red highlight denotes heating required to achieve stated flow.
 *Same as Halocarbon R218

Process Gas	Maximum Flow (slpm)	Source Valves	Maximum Flow (slpm)	Distribution Valves	Maximum Flow (slpm)	Source Regulator	Maximum Flow (slpm)	Distribution Regulator			
	AP, AZ or AK		AP, AZ or AK		AP, AZ or AK		AP, AZ or AK				
Propene (C ₃ H ₆)	185	3550	75	3550	3	1500S	3	1000S			
		3625		3625				1400TS	5	1000S HF	
	320	4550		4550		50		1400TS	50	1400TS	
Silane (SiH ₄)	150	3000	75	3550	5	1500S	10	1000S			
		3625		3625				1400TS	25	1000S HF	
	250	4000		4550		40		2700S	50	1400TS	
		3625		4625		60		1200S	120	1200S	
	600	3130		750		3700		100	1200S HF	200	1200S HF
	3125		3800	500	1225S & 1200S HF	200	1300S				
							400	1200S FC			
							1000	9100S			
Silane Mixtures (Nitrogen Balance)	185	3000	90	3550	10	1500S	10	1000S			
		3625		3625				1900S	20	1000S HF	
	225	4000	160	4550	20	1400TS	40	1400TS			
		3625		4625							
Silicon Tetrachloride (SiCl ₄)	10	4550	10	4550	2	1402TSA	0.2	1101S			
		4625		4625					2	1402TSA	
Silicon Tetrafluoride (SiF ₄)	95	3000	45	3550	10	1500S	10	1000S			
		3625		3625				1400TS	20	1000S HF	
	115	4000		4550		40		1400TS	40	1400TS	
		3625	4625								
Sulfur Dioxide (SO ₂)	80	4550	30	4550	1	1000S	6	1402TSA			
		4625		4625				1402TSA			
Sulfur Hexafluoride (SF ₆)	125	3000	35	3550	3	1500S	5	1000S			
		3625		3625				1400TS	12	1000S HF	
	200	4000		4550		40		1200S	25	1400TS	
		3625		4625		60		1200S HF	60	1200S	
	500	3113		400		3700		150	9100S	90	1200S HF
		3125				3800		500		90	1300S
						180	1200S FC				
						400	9100S				
Sulfur Tetrafluoride (SF ₄)	200	4550	80	4550	3	1500S	3	1000S			
		4625		4625				1400TS	5	1000S HF	
					15	1400TS	15	1400TS			
Trichlorosilane (SiHCl ₃)	35	4550	30	4550	10	1402TSA	0.5	1101S			
		4625		4625					10	1402TSA	
Trimethylsilane ((CH ₃) ₃ SiH)	30	4550	25	4550	7	1402TSA	0.5	1101S			
		4625		4625					7	1402TSA	
Tungsten Hexafluoride (WF ₆)	10	4550	10	4550	5	1402TSA	0.3	1101SH			
		4625		4625					5	1402TSA	
Xenon (Xe)	85	3000	40	3550	5	1500S	5	1000S			
		3625		3625				1400TS	10	1000S HF	
	100	4000		4550		25		1400TS	25	1400TS	
		3625	4625								

SOURCE VALVE GUIDELINE

DISTRIBUTION VALVE GUIDELINE

SOURCE REGULATOR GUIDELINE

DISTRIBUTION REGULATOR GUIDELINE

Model number applies to all applicable series - AP, AZ and AK
 Example: 1000 means AP, AZ and AK 1000

Red highlight denotes heating required to achieve stated flow.

Alphabetical Listing by Gas Formula

11BF ₃ Boron 11 Trifluoride	C ₃ H ₈ F ₆ Hexafluoropropane	CH ₃ F Methyl Fluoride	He Helium	SiH ₂ Cl ₂ Dichlorosilane
Ar Argon	C ₃ H ₆ Propene	CH ₃ OH Methanol	HF Hydrogen Fluoride	SiH ₄ Silane
AsH ₃ Arsine	C ₃ H ₈ Propane	CH ₃ SiH ₃ Methylsilane	Kr Krypton	SiHCl ₃ Trichlorosilane
BCl ₃ Boron Trichloride	C ₄ F ₆ Perfluorobutadiene	CH ₄ Methane	N ₂ Nitrogen	SO ₂ Sulfur Dioxide
BF ₃ Boron Trifluoride	C ₄ F ₈ Halocarbon C318	CHCl ₃ Halocarbon 21	N ₂ O Nitrous Oxide	Te(C ₂ H ₅) ₂ Diethyltelluride
B ₂ H ₆ Diborane	C ₄ H ₆ Butadiene	CHF ₃ Halocarbon 23	Ne Neon	WF ₆ Tungsten Hexafluoride
C ₂ ClF ₄ Halocarbon 114	C ₄ H ₈ Butene-1	Cl ₂ Chlorine	NF ₃ Nitrogen Trifluoride	Xe Xenon
C ₂ ClF ₅ Halocarbon 115	C ₄ H ₁₀ Butane (normal)	ClF ₃ Chlorine Trifluoride	NH ₃ Ammonia	
C ₂ F ₆ Halocarbon 116	C ₅ F ₈ Octafluorocyclopentene	CO Carbon Monoxide	NO Nitric Oxide	
C ₂ H ₂ Acetylene	CBrF ₂ Halocarbon 12B2	CO ₂ Carbon Dioxide	NO ₂ Nitrogen Dioxide	
C ₂ H ₄ F ₂ Difluoroethylene	CBrF ₃ Halocarbon 13B1	COF ₂ Carbonyl Fluoride	O Oxygen	
C ₂ H ₂ F ₄ Halocarbon 134A	CCl ₂ F ₂ Halocarbon 12	F ₂ Fluorine	PF ₅ Phosphorous Pentafluoride	
C ₂ H ₄ Ethylene	CClF ₃ Halocarbon 13	GeH ₄ Germane	PH ₃ Phosphine	
C ₂ H ₆ Halocarbon 125	CF Halocarbon 14	H ₂ Hydrogen	SF ₄ Sulfur Tetrafluoride	
C ₂ SiH ₆ Dimethylsilane	CH ₄ F ₂ Halocarbon 32	H ₂ Se Hydrogen Selenide	SF ₆ Sulfur Hexafluoride	
C ₃ F ₆ Hexafluoropropylene	(CH ₃) ₃ SiH Trimethylsilane	H ₂ S Hydrogen Sulfide	Si ₂ H ₆ Disilane	
C ₃ F ₈ Halocarbon R218	CH ₃ Br Methyl Bromide	HBr Hydrogen Bromide	SiCl ₄ Silicon Tetrachloride	
C ₃ F ₈ Perfluoropropane	CH ₃ Cl Methyl Chloride	HCl Hydrogen Chloride	SiF ₄ Silicon Tetrafluoride	