



Definitions and Conditions

Source: Device operated at the pressure from the gas delivery vessel (source pressure).

Line / Point of Use (POU): Device operated at lower pressure than the gas delivery vessel, downstream of the source pressure regulator.

Model number: Applies to both W (UHP welded) and T (HP threaded) models.

1225/1210: Indicates two regulators of the specified models in series (two stage regulation).

Red: Model number in red indicates heating required for this device.

Conditions: 1) Recommendations based upon standard conditions.

2) Source pressure: non-liquified 150 psig minimum or liquified vapor pressure.

3) Line (POU): 30 psig or vapor pressure of liquified gas if source pressure less than 30 psig.

4) Outlet pressure: 10 psig minimum, unless vapor pressure of liquified gas lower than 10 psig.



Understand definitions and conditions prior to using the guide.

The customer is entirely responsible for product selection and it should be based upon the customer's own analysis regardless of any recommendations, published or communicated, by Pure T. Products must also be installed, operated and maintained correctly for safe, problem free usage.

Specific application conditions and system design may enable higher flow rates than indicated or cause flow rates to be less.

Please consult the factory for recommendations not included herein or should there be any questions.

Process Gas	SOURCE		LINE / POU	
	Maximum Flow (slpm)	Regulator	Maximum Flow (slpm)	Regulator
Acetylene* (C ₂ H ₂)	3	1500S*	6	1000S
	50	1400SH*	50	1400SH
	75	1200SH*	75	1200SH
Air			95	1200SH
			95	1300S
	30	1500S	30	1000S
	100	1400SH	50	1000S
	200	1400SH	150	1400SH
	800	1200SH	400	1200SH
Ammonia (NH ₃)			600	1200SH
			600	1300S
	5	1500S	5	1000S
	50	1400SH	30	1000S
	75	1200SH	60	1400SH
	400	1200SH	125	1200SH
	600	1200SH	250	1200SH
	1100	8000S	250	1300S
Argon (Ar)			500	1200SH
			1000	8000S
	10	1500S	10	1000S
	300	1400SH	25	1000S
	600	1200SH	50	1400SH
			100	1200SH
			200	1200SH
			200	1300S
		400	1200SH	
		1000	8000S	

Red indicates heating required for device highlighted.

*Acetylene, 15 psig maximum outlet pressure for source regulator.

Process Gas	SOURCE		LINE / POU	
	Maximum Flow (slpm)	Regulator	Maximum Flow (slpm)	Regulator
Arsine (AsH ₃)	5	1500S	20	1000S
	40	1400SH		
Arsine Mixtures (Nitrogen Balance)	15	1500S	50	1000S
	50	1400SH	150	1400SH
	150	1400SH		
Boron Trichloride (BCl ₃)	6	1403SHA	0.4	1003SA
			6	1403SHA
Boron Trichloride Mix (Nitrogen Balance)	15	1500S	30	1000S
	60	1400SH	60	1400SH
Boron Trifluoride (BF ₃)	5	1500S	10	1000S
	25	1400SH	25	1400SH
Boron 11 Trifluoride (11BF ₃)	5	1500S	10	1000S
	25	1400SH	25	1400SH
Butadiene (C ₄ H ₆)	3	1500S	5	1000S
	40	1400SH		
Butane (normal) (C ₄ H ₁₀)	3	1500S	5	1000S
	40	1400SH		
Butene-1 (C ₄ H ₈)	3	1500S	5	1000S
	50	1400SH		
Carbon Dioxide (CO ₂)	3	1500S	8	1000S
	75	1400SH	20	1000S
	150	1200SH VS	40	1400SH
	500	1225SH VS / 1200SH VS	100	1200SH
	1000	8030S VS / 8000S VS	160	1200SH
			160	1300S
			325	1200SH
		800	8000S	
Carbon Monoxide (CO)	5	1500S	15	1000S
	50	1400SH	50	1400SH
Carbonyl Fluoride (COF ₂)	5	1500S	10	1000S
	25	1400SH		
Chlorine (Cl ₂)	3	1500SVH	15	1000SVH
	50	1400SH	30	1400SVH
	200	1200SVH	125	1200SVH
			125	1300SVH
Chlorine Trifluoride (ClF ₃)	6	1403SHA	250	1200SVH
			0.5	1003SA
			6	1403SHA
Diborane Mixtures (Nitrogen Balance)	5	1700S	10	1000S
			20	1000S
Dichlorosilane (SiH ₂ Cl ₂)	7	1403SHA	1	1003SA
			7	1403SHA
Diethyltelluride (Te(C ₂ H ₅) ₂)	5	1500S	5	1000S
	25	1400SH	25	1400SH
Difluoroethylene (C ₂ H ₂ F ₂)	3	1500S	6	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Dimethylsilane (C ₂ SiH ₆)	3	1500S	3	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Disilane (Si ₂ H ₆)	1	1000S	1	1000S
	7	1403SHA	7	1403SHA
Ethylene (C ₂ H ₄)	3	1500S	5	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Fluorine* (F ₂)	Consult Factory	Consult Factory	Consult Factory	Consult Factory
Fluorine Mixtures* (20%maximum F ₂)	5	Consult Factory	10	1000SVH
	50	Consult Factory	50	1400SVH
Germane (GeH ₄)	1	1003S	1	1003S
	7	1403SH	7	1403SH
Germane Mixtures (Nitrogen Balance)	20	1500S	20	1000S
	50	1400SH	50	1400SH

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*F2 and F2 mixes require system passivation, please consult gas supplier for proper procedures

Process Gas	SOURCE		LINE / POU	
	Maximum Flow (slpm)	Regulator	Maximum Flow (slpm)	Regulator
Halocarbon 12 (CCl ₂ F ₂)	3	1500S	5	1000S
	50	1400SH	50	1400SH
Halocarbon 12B2 (CBr ₂ F ₂)	5	1403SHA	0.5	1003SA
			5	1403SHA
Halocarbon 13 (CCIF ₃)	3	1500S	5	1000S
	50	1400SH	50	1400SH
Halocarbon 13B1 (CBrF ₃)	3	1500S	5	1000S
	50	1400SH	50	1400SH
Halocarbon 14 (CF ₄)	40	1500S	15	1000S
	80	1400SH	60	1400SH
	500	1200SH	250	1300S
			250	1200SH
			500	8000S
Halocarbon 21 (CHCl ₂ F)	5	1403SHA	0.5	1003SA
			5	1403SHA
Halocarbon 23 (CHF ₃)	10	1500S	10	1000S
	50	1400SH	20	1000S
			50	1400SH
Halocarbon 32 (CH ₂ F ₂)	3	1500S	6	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Halocarbon 114 (C ₂ ClF ₄)	7	1403SHA	1	1000SA
			7	1403SHA
Halocarbon 115 (C ₂ ClF ₅)	3	1500S	5	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Halocarbon 116 (C ₂ F ₆)	3	1500S	10	1000S
	50	1400SH	25	1400SH
	75	1200SH	90	1200SH
	125	1200SH	175	1300S
			450	8000S
Halocarbon 125 (C ₂ HF ₂)	3	1500S	5	1000S
	25	1400SH	25	1400SH
	75	1200SH	75	1200SH
Halocarbon 134A (C ₂ H ₂ F ₄)	3	1500S	5	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Halocarbon R218 (C ₃ F ₈)	3	1500S	5	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Halocarbon C318 (C ₄ F ₈)	6	1403SHA	1	1003SA
			6	1403SHA
Halocarbon C1418 (Octafluorocyclopentene) (C ₅ F ₈)	0.2	1003SA	N/A	Regulator not required
	3	1403SHA		
Helium (He)	125	1500S	125	1000S
	625	1400SH	450	1400SH
	2000	1200SH	900	1200SH
			1200	1300S
			2500	8000S
Hexafluoropropane (C ₃ H ₂ F ₆)	6	1403SHA	6	1403SHA
Hexafluoropropylene (C ₃ F ₆)	3	1500S	5	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Hydrogen (H ₂)	125	1500S	125	1000S
	625	1400SH	275	1400SH
	1200	1200SH	900	1200SH
			1200	1300S
			3000	8000S
Hydrogen Bromide (HBr)	1	1500SVH	2	1000SVH
	30	1400SVH	30	1400SVH
	50	1200SVH	50	1200SVH

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Process Gas	SOURCE		LINE / POU	
	Maximum Flow (slpm)	Regulator	Maximum Flow (slpm)	Regulator
Hydrogen Chloride (HCl)	2	1500SVH	20	1000SVH
	90	1400SVH	40	1400SVH
	150	1200SVH	160	1200SVH
	600	1225SVH / 1200SVH	160	1300SVH
			300	1200SVH
Hydrogen Chloride Mixtures (Nitrogen Balance)	10	1500SVH	20	1000SVH
	40	1400SVH	40	1400SVH
Hydrogen Fluoride (HF)	5	1403SHA	5	1403SHA
Hydrogen Selenide (H ₂ Se)	5	1500S	20	1000S
	40	1400SH	40	1400SH
Hydrogen Selenide Mixtures (Nitrogen Balance)	20	1500S	20	1000S
	50	1400SH	50	1400SH
Hydrogen Sulfide (H ₂ S)	5	1500S	10	1000S
	40	1400SH	40	1400SH
Krypton (Kr)	20	1500S	30	1000S
	60	1400SH	60	1400SH
Methane (CH ₄)	20	1500S	20	1000S
	40	1400SH	40	1400SH
Methanol (CH ₃ OH)	3	1500S	5	1000S
	50	1400SH		
Methyl Bromide (CH ₃ Br)	5	1403SHA	5	1403SHA
Methyl Chloride (CH ₃ Cl)	1	1000S	10	1403SHA
	10	1403SHA		
Methylsilane (CH ₃ SiH ₃)	3	1500S	5	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Methyl Fluoride (CH ₃ F)	5	1500S	10	1000S
	50	1400SH	50	1400SH
Neon (Ne)	40	1500S	40	1000S
	300	1200SH	100	1400SH
Nitrogen (N ₂)	50	1500S	50	1000S
	50	1700S	150	1400SH
	250	1400SH	300	1200SH
	1000	1200SH	400	1300S
			1000	8000S
Nitrogen Dioxide (NO ₂)	4	1500S	6	1000S
	45	1400SH		
Nitrogen Trifluoride (NF ₃)	5	1500S	15	1000S
	60	1400SH	30	1400SH
	150	1400SH	125	1200SH
	400	1200SH	125	1300S
			600	8000S
Nitric Oxide (NO)	3	1500S	6	1000S
	50	1400SH	50	1400SH
	75	1200SH	75	1200SH
Nitrous Oxide (N ₂ O)	3	1500S VS	20	1000S
	60	1400SH VS	35	1400SH
	100	1200SH VS	160	1200SH
	150	1200SH VS	160	1300S
	500	1225SH VS / 1200SH VS	320	1300S
	1000	8030S VS / 8000S VS	800	8000S
Oxygen (O ₂)	10	1500S	25	1000S
	400	1400SH	100	1400SH
	1000	1200SH	300	1200SH
			400	1300S
			1000	8000S
Perfluoropropane* (C ₃ F ₈)	2	1500S	4	1000S
	20	1400SH	20	1400SH

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Process Gas	SOURCE		LINE / POU	
	Maximum Flow (slpm)	Regulator	Maximum Flow (slpm)	Regulator
Perfluorobutadiene (C ₄ F ₆)	5	1403SHA	0.5	1003SA
			5	1403SHA
Phosphine (PH ₃)	5	1500S	10	1000S
	40	1400SH		
Phosphine Mixtures (Nitrogen Balance)	10	1500S	20	1000S
	20	1400SH		
Phosphorous Pentafluoride (PF ₅)	20	1500S	20	1000S
Propane (C ₃ H ₈)	3	1500S	5	1000S
	50	1400SH	50	1400SH
Propene (C ₃ H ₆)	3	1500S	5	1000S
	50	1400SH	50	1400SH
Silane (SiH ₄)	5	1500S	25	1000S
	40	1400SH	50	1400SH
	100	1200SH	200	1200SH
	500	1225SH / 1200SH	400	1300S
			1000	8000S
Silane Mixtures (Nitrogen Balance)	20	1500S	20	1000S
	40	1400SH	40	1400SH
Silicon Tetrachloride (SiCl ₄)	2	1403SHA	0.2	1003SA
			2	1403SHA
Silicon Tetrafluoride (SiF ₄)	10	1500S	20	1000S
	40	1400SH	40	1400SH
Sulfur Dioxide (SO ₂)	1	1003SA	6	1403SHA
	6	1403SHA		
Sulfur Hexafluoride (SF ₆)	3	1500S	15	1000S
	40	1400SH	50	1400SH
	150	1200SH	150	1200SH
	500	8000S	180	1300S
			400	8000S
Sulfur Tetrafluoride (SF ₄)	3	1500S	5	1000S
	15	1400SH	15	1400SH
Trichlorosilane (SiHCl ₃)	10	1403SHA	0.5	1003SA
Trimethylsilane ((CH ₃) ₃ SiH)	7	1403SHA	10	1403SHA
			0.5	1003SA
Tungsten Hexafluoride (WF ₆)	5	1403SHA	7	1403SHA
			0.3	1003SVHA
Xenon (Xe)	5	1500S	5	1403SVHA
	25	1400SH	10	1000S
			25	1400SH

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*Same as Halocarbon R218

Alphabetical Listing by Gas Formula

11BF ₃	Boron 11 Trifluoride	C ₃ H ₂ 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 Trifluoride	C ₄ F ₆	Perfluorobutadiene	CH ₄	Methane	N ₂	Nitrogen	SO ₂	Sulfur Dioxide
BF ₃	Boron Trichloride	C ₄ F ₈	Halocarbon C318	CHCl ₂ F	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	Halocarbon C1418	CO	Carbon Monoxide	NO	Nitric Oxide		
C ₂ H ₂	Acetylene	CB ₂ F ₂	Halocarbon 12B2	CO ₂	Carbon Dioxide	NO ₂	Nitric Dioxide		
C ₂ H ₂ F ₂	Difluoroethylene	CB ₂ F ₃	Halocarbon 13B1	COF ₂	Carbonyl Fluoride	O ₂	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 ₅ F	Halocarbon 125	CF ₄	Halocarbon 14	H ₂	Hydrogen	SF ₄	Sulfur Tetrafluoride		
C ₂ SiH ₈	Dimethylsilane	CH ₂ 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		