

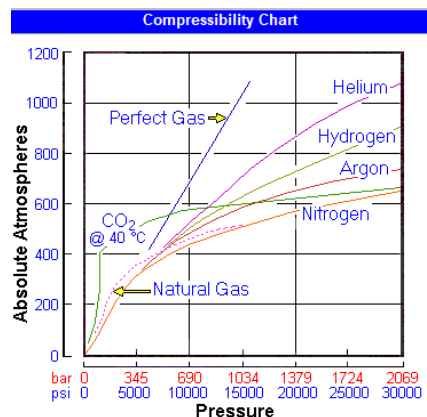
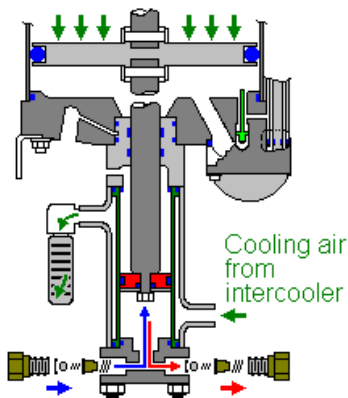


MPAPOW[®]

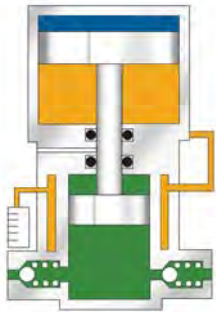
气体增压系统 Gas Booster System

Gas Booster System 气体增压系统

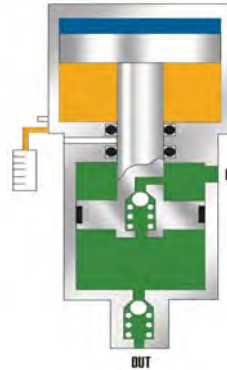
- **MPAPOW[®]**可按要求提供各类气体增压系统，各种压力/各种流量，最高增压压力达269MPa。
- 安全防爆，利用压缩空气作为动力，不需要电源，无火花产生，特别适合需要防爆的场合；
- 无油，自润滑密封结构，气动活塞环及其他气动部件在工作状态时不需要添加润滑油；
- 适用于大部分气体增压，如氮气 (N₂)、氩气 (Ar)、氦气 (He)、氢气 (H₂)、氧气 (O₂)、一氧化碳 (CO)、二氧化碳 (CO₂)、乙烯 (C₂H₄)、呼吸气、天然气、制冷剂、灭火剂和烷烃类等各种气体增压。
- 高压腔体与外界隔离，保证高压腔内的气体介质不被污染。
- 自带冷却，可有效降低压缩发热温度；
- 当达到设定输出压力，大小活塞两端压力平衡，增压泵停止工作，此时不再消耗能量，也没有任何热量产生，具有良好的压力保持特性。当有压力泄漏时，增压泵自动补充压力，频繁启动无任何影响。
- 多级泵组合可满足对不同压力 and 不同流量的要求；
- 可根据要求采用PLC控制，实现压力和流量的精密调节；
- 可根据要求设计制造移动式或固定式等多种结构。



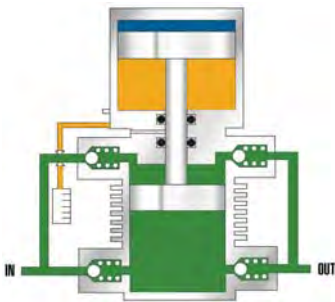
Pneumatic Driven Gas Booster Configurations 气动气体增压泵结构



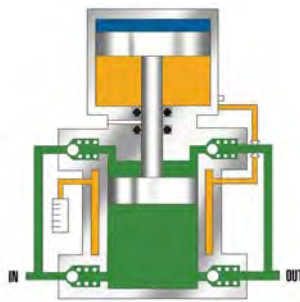
Model AG
Single Stage, Single Acting



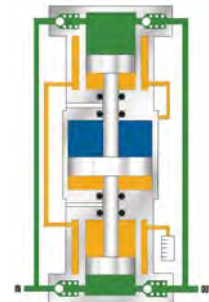
Model AG
Single Stage, Single Acting,
Flow Thru Piston



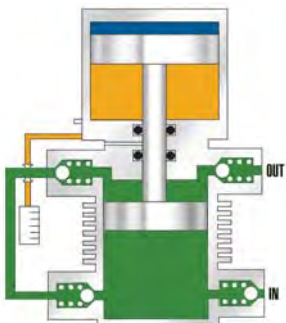
Model AGD
Single Stage, Double Acting,
Cooling Fins



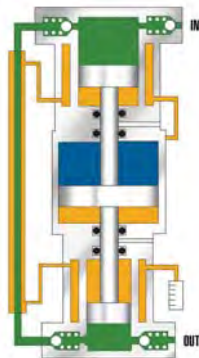
Model AGD-4 (only)
Single Stage, Double Acting,
Cooling Jacket



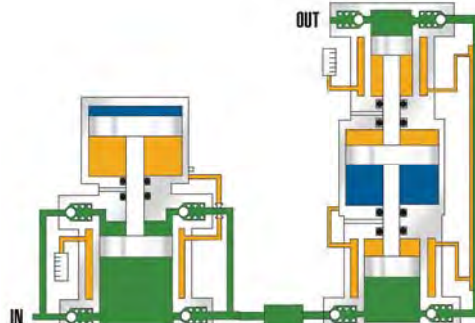
Model AGD
Single Stage, Double Acting,
Cooling Jackets



Model AGT
Two Stage, Cooling Fins



Model AGT
Two Stage, Cooling Jackets



Model AGD-4 feeding into Model AGT-x/x

Multi stage - Two boosters.
More than one booster
of the same ratio may be
used for each stage.



Model Selection Chart

LEGEND: Ps = Gas Supply Pressure, Pa = Drive Pressure, Po = Outlet Pressure

Model Number	Maximum Rated Gas Supply		Min. Gas Supply Pressure		Maximum Rated Gas Outlet						Static Outlet Stall Pressure Formula	Piston Displacement Per Cycle		Gas Inlet/Outlet Connections	Weight LB (KG)	
	PSIG	BAR	PSIG	BAR	Inert Gas		Oxygen		Hydrogen			Cu. In.	ML			
					PSIG	BAR	PSIG	BAR	PSIG	BAR						
Single Acting Single Stage Model AG	4AG-25	4500	310	25	1.7	4500	310	4500	310	N/A	N/A	25 Pa	1.23	20.2	3/8" SAE Both Ports	12 (5)
	AG-4	1250	86	ATM	ATM	1250	86	1250	86	N/A	N/A	4 Pa	10	183.9	3/8" NPT Both Ports	25 (11)
	AG-7	1050	72	25	1.7	1050	72	1050	72	N/A	N/A	7 Pa	13.2	216.3	3/8" NPT Both Ports	30 (14)
	AG-15	2250	155	50	3.5	2250	155	2250	155	N/A	N/A	15 Pa	6.2	101.6	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	27 (12)
	AG-30	4500	310	100	7	4500	310	4500	310	4500	310	30 Pa	3.1	50.8	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	27 (12)
	AG-50	7500	517	100	7	7500	517	5000	345	N/A	N/A	50 Pa	1.90	32.1	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	27 (12)
	AG-82	9000	620	200	14	9000	620	5000	345	9000	620	80 Pa	3.1	50.8	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	35 (16)
	AG-75	11250	775	250	17	11250	775	5000	345	11250	775	75 Pa	1.2	19.6	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	27 (12)
	AG-102	7500	517	100	7	15000	1034	5000	345	N/A	N/A	100 Pa	1.90	32.1	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	35 (16)
	AG-152	20000	1380	250	17	20000	1380	5000	345	15000	1034	150 Pa	1.2	19.6	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	27 (12)
	AG-233	22500	1551	250	17	22500	1551	N/A	N/A	N/A	N/A	225 Pa	1.2	19.6	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	40 (18)
AG-303	39000	2690	500	34	39000	2690	N/A	N/A	N/A	N/A	300 Pa	0.89	14.6	1/4" H/P (BuTech) both ports	44 (20)	
Double Acting Single Stage Model AGD	AGD-1.5	300	21	ATM	ATM	300	21	300	21	N/A	N/A	1.5 Pa+Ps	60	983.2	Inlet Port 3/4" NPT Outlet Port 1/2" NPT	44 (20)
	AGD-4	1250	86	ATM	ATM	1250	86	1250	86	N/A	N/A	4 Pa+Ps	19.3	318.3	3/8" NPT Both Ports	31 (14)
	AGD-7	2500	172	25	1.7	2500	172	2500	172	2500	172	7 Pa+Ps	26.4	432.6	Inlet Port: 3/8" NPT Outlet Port: 3/8" NPT 2 ea. inlet & outlet	35 (16)
	AGD-14	5000	345	25	1.7	5000	345	5000	345	N/A	N/A	14 Pa+Ps	26.4	432.6	Inlet Port: 3/8" NPT Outlet Port: 3/8" NPT	49 (22)
	AGD-15	5000	345	50	3.5	5000	345	5000	345	4000	278	15 Pa+Ps	12.4	203.2	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	35 (16)
	AGD-30	9000	620	100	7	9000	620	5000	345	9000	620	30 Pa+Ps	6.2	101.6	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	38 (17)
	AGD-32	5000	345	50	3.5	5000	345	5000	345	4000	278	30 Pa+Ps	12.4	203.2	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	49 (22)
	AGD-50	15000	1034	100	7	15000	1034	5000	345	N/A	N/A	50 Pa+Ps	3.9	63.9	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	39 (18)
	AGD-82	5000	345	200	14	9000	620	5000	345	9000	620	80 Pa+Ps	6.2	101.6	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	49 (22)
	AGD-75	12000	827	250	17	12000	827	5000	345	15000	1034	75 Pa+Ps	2.4	39.3	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	39 (18)
	AGD-102	15000	1034	100	7	15000	1034	5000	345	15000	1034	100 Pa+Ps	3.9	63.9	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	49 (22)
AGD-152	25000	1724	250	17	25000	1724	N/A	N/A	15000	1034	150 Pa+Ps	2.4	39.3	Interchangeable 3-3/8" SAE or 1/4" H/P both Ports. 2 ea. inlet & outlet	49 (22)	
Two Stage Model AGT	AGT-4	1250	86	1/4 ATM	1/4 ATM	1250	86	1250	86	N/A	N/A	4 Pa+Ps	10	184	3/8" NPT Both Ports	25 (11)
	AGT-7/15	6 Pa to 2500'	6 Pa to 172'	25	1.7	5000	345	5000	345	4000	278	15 Pa+2 Ps	13.2	216.3	Inlet Port: 3/8" NPT Outlet Port: 3/8" SAE or 1/4" H/P (BuTech)	40 (18)
	AGT-7/30	2 Pa to 2500'	2 Pa to 172'	25	1.7	9000	620	5000	345	9000	620	30 Pa+4 Ps	13.2	216.3	Inlet Port: 3/8" NPT Outlet Port: 3/8" SAE or 1/4" H/P (BuTech)	41 (19)
	AGT-14/32	12 Pa to 2500'	12 Pa to 172'	25	1.7	5000	345	5000	345	4000	278	30 Pa+2 Ps	13.2	216.3	Inlet Port: 3/8" NPT Outlet Port: 3/8" SAE or 1/4" H/P (BuTech)	46 (21)
	AGT-14/62	4 Pa to 2500'	4 Pa to 172'	25	1.7	9000	620	5000	345	9000	620	60 Pa+4 Ps	13.2	216.3	Inlet Port: 3/8" NPT Outlet Port: 3/8" SAE or 1/4" H/P (BuTech)	41 (19)
	AGT-15/30	15 Pa to 2500' 5000' (345)	15 Pa to 172'	50	3.5	9000	620	5000	345	9000	620	30 Pa+2 Ps	6.2	101.6	Interchangeable 3/8" SAE or 1/4" H/P (BuTech) Both Ports	39 (18)
AGT-15/50	65 Pa to 2500'	6.5 Pa to 345'	100	7	15000	1034	5000	345	15000	1034	50 Pa+3.3 Ps	6.2	102	Interchangeable 3-3/8" SAE or 1/4" H/P (BuTech) Both Ports	38 (17)	



	Model Number	Maximum Rated Gas Supply		Min. Gas Supply Pressure		Maximum Rated Gas Outlet					Static Outlet Stall Pressure Formula	Piston Displacement Per Cycle		Gas Inlet/Outlet Connections	Weight LB (KG)	
						Inert Gas		Oxygen		Hydrogen						
		PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG		BAR	Cu. In.			ML
Two Stage Model AGT	AGT-15/75	35 Pa to 5000*	35 Pa to 345*	100	7	15000	1034	5000	345	15000	1034	75 Pa+5 Ps	0.2	101.0	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	39 (18)
	AGT-30/50	45 Pa to 9000*	45 Pa to 620*	100	7	15000	1034	5000	345	15000	1034	50 Pa+1.0 Ps	3.1	50.8	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	38 (17)
	AGT-30/75	50 Pa to 9000*	50 Pa to 620*	100	7	15000	1034	5000	345	15000	1034	75 Pa+2.5 Ps	3.1	50.8	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	39 (18)
	AGT-32/02	30 Pa to 2500* 5000* (345)	30 Pa to 172* 5000* (345)	100	7	9000	820	5000	345	9000	820	60 Pa+2 Ps	0.2	101.0	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	40 (22)
	AGT-32/102	35 Pa to 9000*	35 Pa to 620*	100	7	15000	1034	5000	345	15000	1034	75 Pa+3.3 Ps	0.2	101.0	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	40 (22)
	AGT-32/152	7 Pa to 5000*	7 Pa to 345*	100	7	15000	1034	5000	345	15000	1034	150 Pa+5 Ps	0.2	101.0	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	39 (18)
	AGT-02/102	50 Pa to 9000*	50 Pa to 620*	100	7	15000	1034	5000	345	15000	1034	100 Pa+1.0 Ps	3.1	50.8	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	39 (18)
	AGT-02/152	40 Pa to 3600* 9000* (621)	40 Pa to 240* 9000* (621)	100	7	20000	1379	N/A	N/A	15000	1034	150 Pa+2.5 Ps	3.1	50.8	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	40 (22)
	AGT-02/152H	40 Pa to 3600* 9000* (621)	40 Pa to 240* 9000* (621)	100	7	25000	1723	N/A	N/A	N/A	N/A	150 Pa+2.5 Ps	3.1	50.8	Interchangeable 3/8" GAE or 1/4" H/P (BuTech) Both Ports	51 (23)
Double Acting Single Stage 8" Model AGD	8AGD-1	300	21	ATM	ATM	300	21	300	21	N/A	N/A	1.5 Pa+Ps	400	6554.8	3/4" NPT Both Ports	121 (55)
	8AGD-2	300	21	ATM	ATM	300	21	300	21	N/A	N/A	2 Pa+Ps	200	3277	3/4" NPT Both Ports	121 (55)
	8AGD-2.8	800	55	ATM	ATM	800	55	800	55	N/A	N/A	2.8 Pa+Ps	125	2048	1/2" NPT (2 ea) Inlet/Outlet Ports	121 (55)
	8AGD2-2.8	800	55	ATM	ATM	800	55	800	55	N/A	N/A	2.8 Pa+Ps	125	2048	1/2" NPT (2 ea) Inlet/Outlet Ports	150 (71)
	8AGD-5	2500	172	50	3.5	2500	172	2500	172	N/A	N/A	5 Pa+Ps	71.4	1170	Inlet Port 3/4" NPT Outlet Port 1/2" NPT	121 (55)
	8AGD-14	5000	345	50	3.5	5000	345	5000	345	5000	345	14 Pa+Ps	28.7	437.5	Inlet Port 3/4" NPT Outlet Port 1/2" NPT	121 (55)
	8AGD-30	5000	345	50	3.5	5000	345	5000	345	5000	345	30 Pa+Ps	12.4	203.2	1/4" NPT Both Ports	121 (55)
	8AGD-00	9000	620	50	3.5	9000	620	5000	345	9000	345	60 Pa+Ps	0.2	101.0	1/4" NPT Inlet Port, 1/4" HP (BuTech) Port Outlet	121 (55)
	8AGD-150	20000	1378	50	3.5	20000	1378	5000	345	N/A	N/A	150 Pa+Ps	2.4	39.3	1/4" H/P (BuTech) Both Ports	121 (55)
Two Stage AGT Series 8" & 14" Model AGT	8AGT-5/14	2.8 Pa to 2500*	2.8 Pa to 172*	25	1.7	2500	172	2500	172	N/A	N/A	14 Pa+2.8 Ps	35.7	585	Inlet Port 1/2" NPT Outlet Port 1/4" NPT	121 (55)
	8AGT-5/30	1 Pa to 2500*	1 Pa to 172*	25	1.7	5000	345	5000	345	N/A	N/A	30 Pa+0 Ps	35.7	585	Inlet Port 1/2" NPT Outlet Port 1/4" NPT	121 (55)
	8AGT-14/30	12 Pa to 1190* 2500* (172)	12 Pa to 82* 2500* (172)	25	1.7	5000	345	5000	345	4000	278	30 Pa+2.1 Ps	13.2	218.3	Inlet Port 3/8" NPT Outlet Port 1/4" NPT	121 (55)
	8AGT-14/00	4.3 Pa to 2500*	4.3 Pa to 172*	25	1.7	9000	620	5000	345	N/A	N/A	60 Pa+4.3 Ps	13.2	218.3	3/8" NPT Inlet Port 1/4" HP (BuTech) Port Outlet	121 (55)
	8AGT-30/00	30 Pa to 2500* 5000* (345)	30 Pa to 172* 5000* (345)	25	1.7	9000	820	5000	345	9000	620	60 Pa+2 Ps	0.2	101.0	1/4" NPT Inlet Port 1/4" HP (BuTech) Port Outlet	121 (55)
	8AGT-00/150	40 Pa to 3600* 9000* (621)	40 Pa to 240* 9000* (621)	25	1.7	20000	1378	N/A	N/A	N/A	N/A	150 Pa+2.5 Ps	3.1	50.8	1/4" NPT Inlet Port 1/4" HP (BuTech) Port Outlet	121 (55)
	14AGT-125/315	82 Pa to 6000* 15000*	82 Pa to 414* 1024*	1000	6.9	35000	2413	N/A	N/A	N/A	N/A	315 Pa+2.5 Ps	4.44	72.8	3/8" H/P (BuTech) Both Ports	154 (70)
Double Acting Single Stage 14" Model AGD	14AGD-315	35000	2413	1000	6.9	35000	2413	N/A	N/A	N/A	N/A	315 Pa+Ps	3.53	57.	3/8" H/P (BuTech) Both Ports	154 (70)

1. Two-stage model: Supply pressure also limited by factor x air drive (Pa) to avoid interstage stall
 2. If outlet pressure exceeds Maximum 1st stage pressure and supply pressure simultaneously exceeds pressure limit above the line, install interstage relief valve set at this pressure.

Port Information and Additional Notes

- a. Air Drive Inlet Port = 1/2" FNPT all 4" & 5 3/4" Models
- b. Air Drive Inlet Port = 3/4" FNPT all 8" & 14" Models
- c. Refer to pages 19-32 for dimensional drawings of all models
- d. 20 psi minimum air drive pressure for all units
- e. Maximum air drive is 150 psig all models except AG-233, AG-303, AGD-1.5(130 psig)
- f. 130 psig maximum drive pressure for all 8" and 14" models.
- g. Gas Boosters for Hydrogen applications must be specifically certified for use in Hydrogen Application
- h. Each two stage Gas Booster has a maximum allowable inlet gas pressure to avoid a condition known as "Interstage Stall." Refer to the Knowledge Library link on the Haskel website.

Suggested Cycling Speeds for Maximizing Seal Life

AG, AGD, AGT Series	60 CPM
8AG, 8AGT Series	50 CPM
14AGD, 14AGT Series	40 CPM



典型应用

- 各类气体增压，如氮气 (N₂)、氩气 (Ar)、氦气 (He)、氢气 (H₂)、氧气 (O₂)、一氧化碳 (CO)、二氧化碳 (CO₂)、乙烯 (C₂H₄)、呼吸气、天然气、制冷剂、灭火剂和烷烃类等各种气体
- 阀门、管道、压力容器等高压气密检测
- 氦气检漏及回收
- 蓄能器充气
- 潜水和消防呼吸气瓶充气，飞机气瓶充气
- 禁油表和压力传感器的标定
- 超临界物理发泡高压气体精密注入



-----我们可根据不同的工况要求（介质/压力/流量/控制等）提供不同的增压系统。

