

Pneumatic Driven Gas Boosters

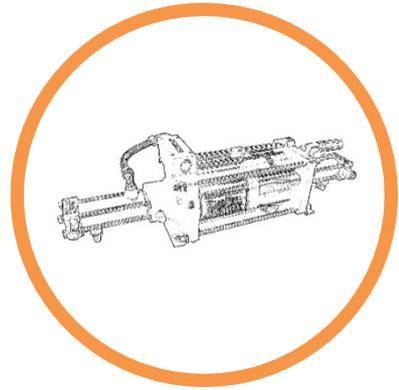
关注公众号

气动气体增压泵



CATALOG

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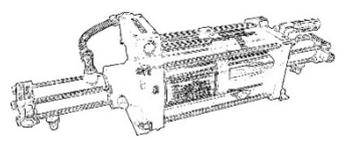
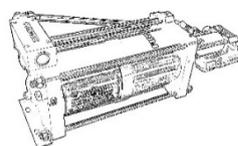
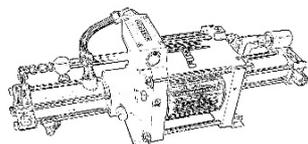
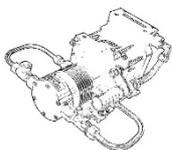


上海兆帕流体动力有限公司（MPAPOWER®）成立于2004年，深耕流体控制领域20年。我们作为中国工业控制测量和控制标准化技术委员，参与国家标准建设，做出了应有的贡献。

我们专注于压力和流量的精密控制，通过持续的应用创新，提供真空到700MPa超高压的系统集成解决方案，覆盖气、液（水、油）及冷媒、NMP、二氧化碳、氢气、氧气等各类特殊介质，满足静压、爆破及脉冲试验、冷媒集中供料、高洁净度晶圆清洗、高压液相色谱装柱、气体注射成型高压气体精密注入、灭火剂充瓶回收、加氢、充氧等多方位需求，集研发、生产、安装、维保服务于一体，实现客户需求的“端到端”闭环服务。在售后服务方面，凭借充足的库存零件级的维修能力，确保快速响应的售后服务。

产品定位中高端市场，坚持“技术+质量”双驱动，不为追求低价而牺牲品质。我们重视核心技术研发，坚持关键核心技术自主研发的理念，依托多年积累的国际先进技术经验，整合全球技术与供应链资源，掌握核心部件到整机的Know-Why到Know-How的自主设计开发制造能力。我们通过自主研发与产业链深度协同，坚守国际品质标准，打造自有品牌MPAPOWER®以实现从零件到整机的国产化替代，产品品质性能均对标国际一流水准。凭借从零件到整机的技术自主可控、本地化供应和服务快速对接等差异化优势，MPAPOWER®为各行业客户提供更高性价比的国产化解决方案。

我们的优势在于技术领先的基础元件和多年行业深耕的经验积累，灵活的非标定制能力和快速的交付能力，广泛服务航空航天、石油化工、核能核电、船舶重工、煤炭矿山、化工电力、家电、汽车零部件、生物医药、半导体和新能源等高端领域。



Air Driven Gas Boosters

FROM 600 PSI TO 25,000 PSI

■ MPAPOWER gas boosters are an excellent alternative to high pressure stationary type compressors. These boosters offer a compact, lightweight design that requires no electrical power or lubrication, thereby providing a more flexible and efficient source for delivering high pressure gas.

■ MPAPOWER gas boosters will compress gases such as nitrogen and argon up to 25,000 psi, while oxygen can be compressed up to 5,000 psi using special seals and cleaning procedures. A wide variety of other gases can be compressed including hydrogen, natural gas, ethylene, nitrous oxide, neon, carbon dioxide, carbon monoxide and breathing air. Consult MPAPOWER for special seals, venting, or cleaning requirements for these gases.

■ In applications where high output pressures are required and the gas supply pressure is low, MPAPOWER gas boosters can be operated in series. MPAPOWER supplies these booster combinations in 2, 3 or 4 stage arrangements as complete packages. To achieve higher gas flows, two or more boosters can work in parallel as a unit. Consult MPAPOWER for more information on these special applications.

Features

- Pressures to 25,000 psi for most gases and 5,000 psi for oxygen
- Easy to install and operate
- Compact, lightweight design
- Single or double acting and two stage models
- No electrical power required
- Requires no lubrication
- Boosters are contaminant free
- Units can be operated in series or parallel
- Variety of pressure and compression ratios available
- Low pressure gas reclaim from storage bottles

Applications

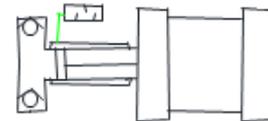
- Breathing air systems for scuba and fire department tanks
- Gas pressure and leak testing
- Charging of accumulators
- Boosting gas pressures from nitrogen generators
- Nitrogen injection for molding machines
- Leak detection systems
- Low pressure autoclaving
- Typical Gases – air, nitrogen, helium, oxygen, carbon dioxide, nitrous oxide, neon, argon, hydrogen, carbon monoxide, methane, ethylene and natural gas



CONFIGURATION

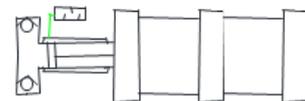
SINGLE
ACTIONG
ONE STAGE
ONE AIR
CYLINDER

MPAPOWER offers 5 gas boosters in the single acting, one stage one air cylinder configuration. These booster models include the AMG 4, AMG 7, AMG 15, AMG 30, and AMG 75. One stage single acting boosters are the smallest and lightest of the MPAPOWER gas booster family, yet capable of output pressures up to 11,250 psi.



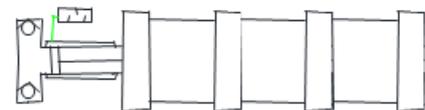
SINGLE
ACTIONG
ONE STAGE
TWO AIR
CYLINDER

MPAPOWER offers 4 models in double air head, single acting one stage configuration. These boosters include AMG 14, AMG 32, AMG 62, and AMG 152. These boosters are ideal for low flow high pressures conditions.



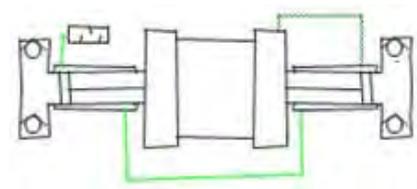
SINGLE
ACTIONG
ONE STAGE
THREE AIR
CYLINDER

MPAPOWER offers 1 model in three air head, single acting one stage configuration, AMG 225. This booster is suitable for low flow but high pressures demanded, the pressure is up to 22,500psi.



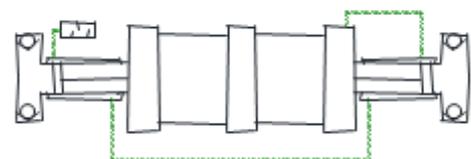
DOUBLE
ACTIONG
ONE STAGE
ONE AIR
CYLINDER

MPAPOWER offers 6 models in one air cylinder, one stage two acting configuration. These boosters include AMG 4D, AMG 7D, AMG 15D, AMG 30D, AMG 75D and 8AMG 5D.



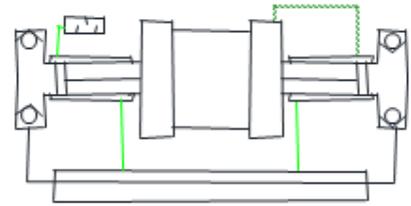
DOUBLE
ACTIONG
ONE STAGE
TWO AIR
CYLINDER

For high pressure applications or where air drive pressure is low, MPAPOWER offers 4 double acting one stage boosters with a double air head. These models include AMG 14D, AMG 32D, AMG 62D, and AMG 152D. These boosters provide twice the delivery flows of single acting boosters.



DOUBLE
ACTIONG
TWO
STAGE

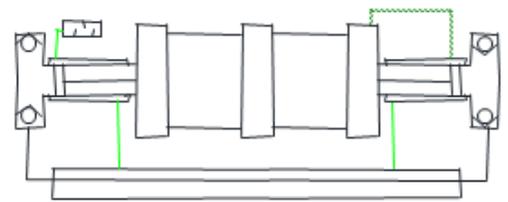
Double acting two stage one air cylinder gas boosters provide higher pressure than single stage boosters. This Category include AMG 7-15, AMG 7-30, AMG 15-30, AMG 15-75, and AMG 30-75.



ONE AIR
CYLINDER

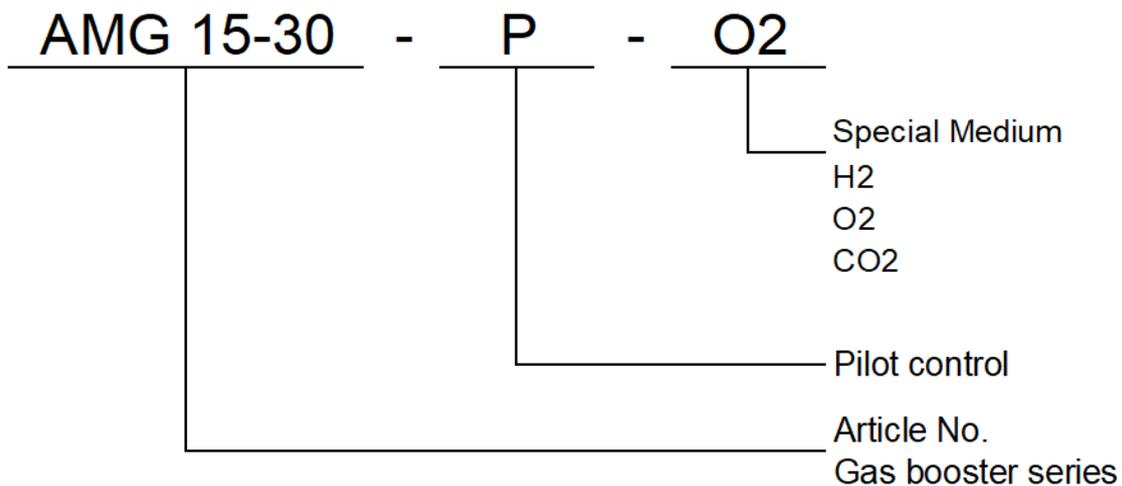
DOUBLE
ACTIONG
TWO
STAGE

For the greatest combination of pressure and compression ratios the double acting two stage double air head models are ideal. There are five double air head – two stage boosters, AMG 14-32, AMG 14-62, AMG 32-62, AMG 32-152 and AMG 62-152. These boosters provide maximum flow in low air drive and gas supply pressure conditions.



ONE AIR
CYLINDER

TYPE CODING CONFIGURATION

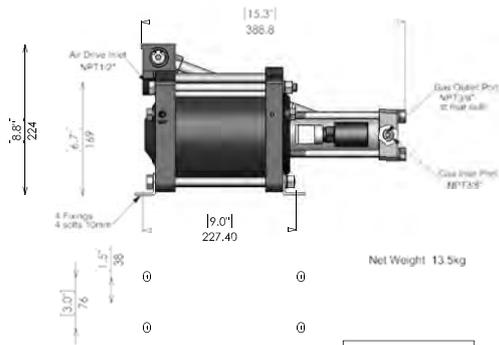


1. Two-stage model: Supply pressure also limited by factor x air drive (Pa) to avoid interstage stall
2. If outlet pressure exceeds Maximum first stage pressure and supply pressure simultaneously exceeds pressure limit, install inter-stage relief valve set at this pressure.
3. Suggested Cycling Speeds for Maximizing Seal Life: 60 CPM.

No.	Description	ArticleNo.	Outlet Stall pressure Formula	Maximum Rated		For Hydrogen		For Oxygen		Min. Gas Supply Pressure	
				Gas Outlet		Pressure Limited					
				PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
01	SINGLE ACTIONG	AMG 7	7*Pa	1,050	72	1,050	72	1,050	72	25	1.7
02	ONE STAGE	AMG 15	15*Pa	2,250	155	2,250	155	2,250	155	50	3.5
03	ONE AIR CYLINDER	AMG 30	30*Pa	4,500	310	4,500	310	4,500	310	100	7
04		AMG 75	75*Pa	11,250	775	11,250	775	5,000	345	250	17
05	SINGLE ACTIONG	AMG 14	14*Pa	2,100	144	2,100	144	2,100	144	25	1.7
06	ONE STAGE	AMG 32	30*Pa	4,500	310	4,500	310	4,500	310	50	3.5
07	TWO AIR CYLINDER	AMG 62	60*Pa	9,000	620	9,000	621	4,500	310	100	7
08		AMG 152	150*Pa	20,000	1,380	15,000	1,035	5,000	345	250	17
09	SINGLE ACTIONG ONE STAGE THREE AIR CYLINDER	AMG 225	225*Pa	22,500	1,551	15,000	1,035	-	-	250	17
10	DOUBLE ACTIONG ONE STAGE ONE AIR CYLINDER	AMG 4D	4*Pa+Ps	1,250	86	1,250	86	1,250	86	ATM	ATM
11		AMG 7D	7*Pa+Ps	2,500	172	2,500	172	2,500	172	25	1.7
12		AMG 15D	15*Pa+Ps	5,000	345	5,000	345	5,000	345	50	3.5
13		AMG 30D	30*Pa+Ps	9,000	620	9,000	621	5,000	345	100	7
14		AMG 75D	75*Pa+Ps	20,000	1,380	15,000	1,035	5,000	345	250	17
15	DOUBLE ACTIONG ONE STAGE	AMG 14D	14*Pa+Ps	5,000	345	5,000	345	5,000	345	25	1.5
16	ONE AIR CYLINDER	AMG 32D	30*Pa+Ps	5,000	345	5,000	345	5,000	345	50	3.5
17		AMG 62D	60*Pa+Ps	9,000	620	9,000	621	5,000	345	100	7
18		AMG 152D	150*Pa+Ps	25,000	1,725	15,000	1,035	-	-	250	17
19	DOUBLE ACTIONG TWO STAGE ONE AIR CYLINDER	AMG 4T	4Pa+Ps	1,250	86	1,250	86	1,250	86	1/4ATM	1/4ATM
20		AMG 7-15	15*Pa+2*Ps	5,000	345	4,500	310	4,500	310	25	1.7
21		AMG 7-30	30*Pa+4*Ps	9,000	620	9,000	621	5,000	345	25	1.7
22		AMG 15-30	30*Pa+2*Ps	9,000	620	9,000	621	5,000	345	50	3.5
23		AMG 15-75	75*Pa+5*Ps	20,000	1,380	15,000	1,035	5,000	345	50	3.5
24		AMG 30-75	75*Pa+2.5*Ps	20,000	1,380	15,000	1,035	5,000	345	100	7
25	DOUBLE ACTIONG TWO STAGE	AMG 14-32	30*Pa+2*Ps	5,000	345	5,000	345	5,000	345	25	1.7
26	TWO AIR CYLINDER	AMG 14-62	60*Pa+4*Ps	9,000	620	9,000	621	5,000	345	25	1.7
27		AMG 32-62	60*Pa+2*Ps	9,000	620	9,000	621	5,000	345	100	7
28		AMG 32-152	150*Pa+5*Ps	25,000	1,725	15,000	1,035	-	-	100	7
29		AMG 62-152	150*Pa+2.5*Ps	25,000	1,725	15,000	1,035	-	-	100	7
30	DOUBLE ACTIONG TWO STAGE ONE AIR CYLINDER	8AMG 5D	5*Pa+Ps	2,500	173	2,500	173	2,500	173	50	3.5
31		8AMG 14D	14*Pa+Ps	5,000	345	5,000	345	5,000	345	100	7
32		8AMG 30D	30*Pa+Ps	5,000	345	5,000	345	5,000	345	250	17.2
33		8AMG 60D	60*Pa+Ps	9,000	620	9,000	620	5,000	345	300	20.7
34		8AMG 150D	150*Pa+Ps	20,000	1,380	-	-	-	-	300	20.7
35	DOUBLE ACTIONG TWO STAGE TWO AIR CYLINDER	8AMG 5-14	14*Pa+2.8*Ps	2,500	172	2,500	172	2,500	173	25	1.7
36		8AMG 5-30	30*Pa+6*Ps	5,000	345	5,000	345	5,000	345	25	1.7
37		8AMG 14-30	30*Pa+2.1Ps	5,000	345	5,000	345	5,000	345	100	7
38		8AMG 14-60	60*Pa+4.3*Ps	9,000	620	9,000	620	5,000	345	100	7
39		8AMG 30-60	60*Pa+2*Ps	9,000	620	9,000	620	5,000	345	250	17.2
40		8AMG 30-150	150*Pa+5*Ps	20,000	1,380	-	-	-	-	250	17.2
41		8AMG 60-150	150*Pa+2.5Ps	20,000	1,380	-	-	-	-	500	34.5
No.	Description	ArticleNo.	Outlet Stall pressure Formula	Maximum Rated		For Hydrogen		For Oxygen		Min. Gas Supply Pressure	
				Gas Outlet		Pressure Limited					
				PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR

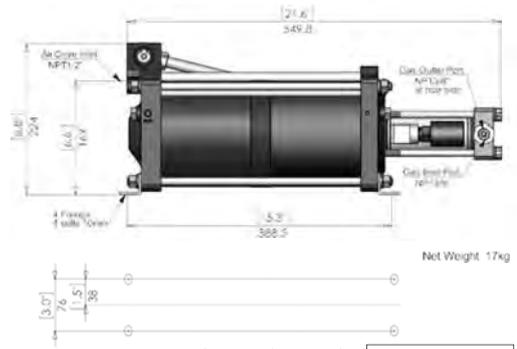
Max. Gas Supply Pressure		Displacement Volume		Connection		Weight	Product Images	No.
PSIG	BAR	Cu. In.	ML	INLET	OUTLET	LB(Kg)		
1,050	72	13.2	216.3	3/8NPT	3/8NPT	30(14)		01
2,250	155	6.2	101.6			27(12)		02
4,500	310	3.1	50.8			27(12)		03
11,250	775	1.2	19.6	9/16UNF	1/4HP	27(12)		04
2,100	144	13.2	216.3	3/8NPT	3/8NPT	38(18)		05
4,500	310	6.2	101.6			35(16)		06
9,000	620	3.1	50.8			35(16)		07
20,000	1,380	1.2	19.6	9/16UNF	1/4HP	35(16)		08
22,500	1,551	1.2	19.6	9/16UNF	1/4HP	40(18)		09
1,250	86	19.3	316.3	3/8NPT	3/8NPT	31(14)		10
2,500	172	26.4	432.6			35(16)		11
5,000	345	12.4	203.2			35(16)		12
9,000	620	6.2	101.6	38(17)	13			
20,000	1,380	2.4	39.2	9/16UNF	1/4HP	39(18)		14
5,000	345	26.4	432.6	3/8NPT	3/8NPT	49(22)		15
5,000	345	12.4	203.2			49(22)		16
9,000	620	6.2	101.6			49(22)		17
25,000	1,725	2.4	39.2	9/16UNF	1/4HP	49(22)		18
1,250	86	10	164	3/8NPT	3/8NPT	25(11)		19
<6*Pa	13.2	216.3	40(18)			20		
<2*Pa	13.2	216.3	40(18)			21		
<15*Pa	6.2	101.6	39(18)	22				
<3.5*Pa	6.2	101.6	39(18)	1/4HP	23			
<20*Pa	3.1	50.8	39(18)	24				
<12*Pa	13.2	216.3	3/8NPT	3/8NPT	49(22)		25	
<4*Pa	13.2	216.3			49(22)		26	
<30*Pa	6.2	101.6			49(22)		27	
<7.6*Pa	6.2	101.6	1/4HP	49(22)	28			
<40*Pa	3.1	50.8	49(22)	29				
2,500	173	70.8	1160	1/2NPT	3/8NPT	110(50)		30
5,000	26.8	439	3/8NPT	3/8NPT	110(50)	31		
5,000	12.4	203	3/8NPT	3/8NPT	110(50)	32		
9,000	6.2	102	3/8NPT	3/8NPT	110(50)	33		
20,000	2.4	39	1/4HP	1/4HP	110(50)	34		
<2.8*Pa	35.4	580	1/2NPT	3/8NPT	120(55)		35	
<Pa	35.4	580	1/2NPT	3/8NPT	120(55)		36	
<12*Pa	13.4	220	3/8NPT	3/8NPT	120(55)		37	
<4.3*Pa	13.4	220	3/8NPT	3/8NPT	120(55)		38	
<30*Pa	6.2	102	3/8NPT	3/8NPT	120(55)		39	
<7.6*Pa	6.2	102	3/8NPT	1/4HP	120(55)		40	
<37*Pa	3.1	51	3/8NPT	1/4HP	120(55)		41	
Max. Gas Supply Pressure		Displacement Volume		Connection		Weight	Product Images	No.
PSIG	BAR	Cu. In.	ML	INLET	OUTLET	LB(Kg)		

DIMENSIONS



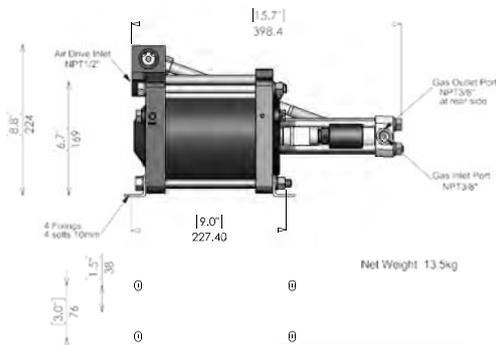
Net Weight 13.5kg

AMG 7



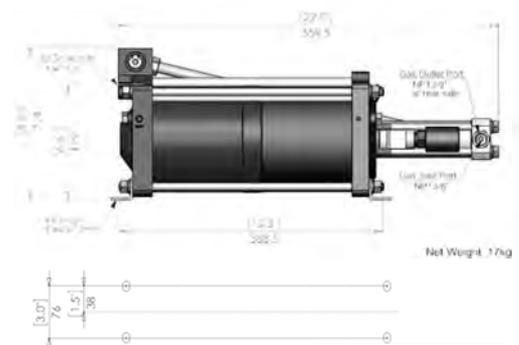
Net Weight 17kg

AMG 14



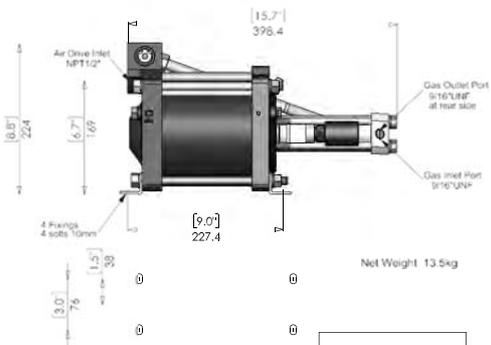
Net Weight 13.5kg

AMG 15/30



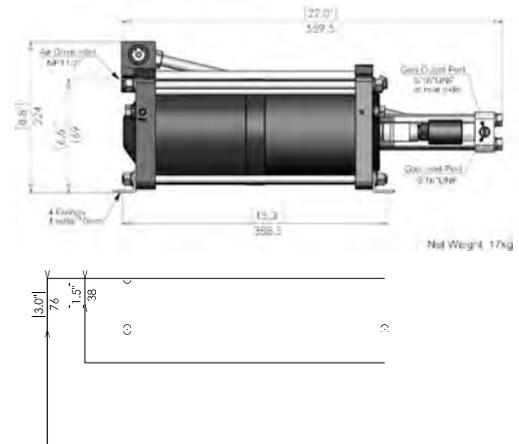
Net Weight 17kg

AMG 32/62



Net Weight 13.5kg

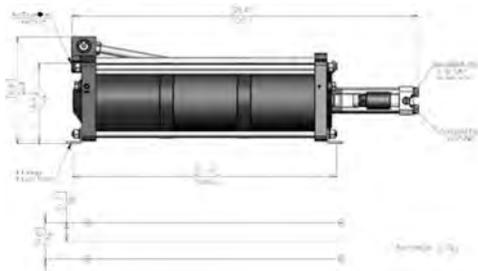
AMG 75



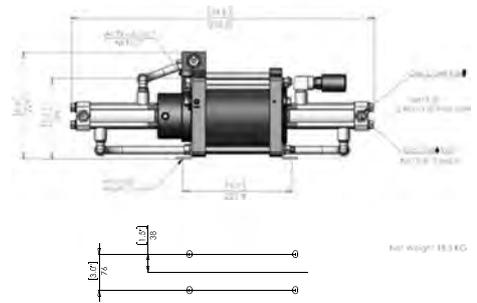
Net Weight 17kg

AMG 152

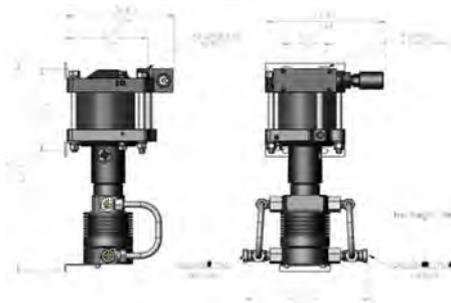
DIMENSIONS



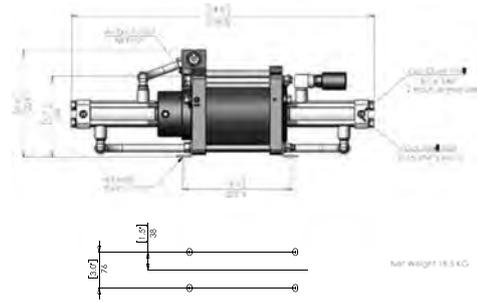
AMG 225



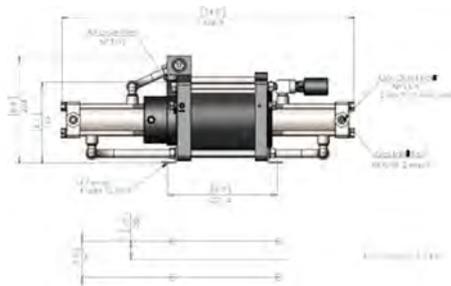
AMG 15D/30D



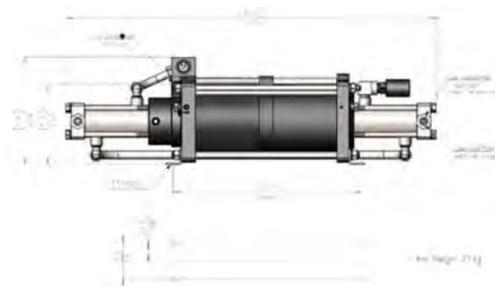
AMG 4D



AMG 75D

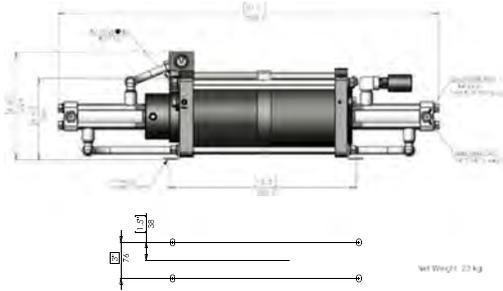


AMG 7D

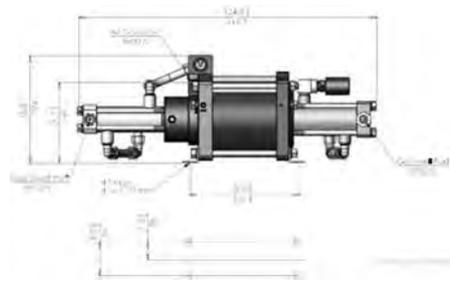


AMG 14D

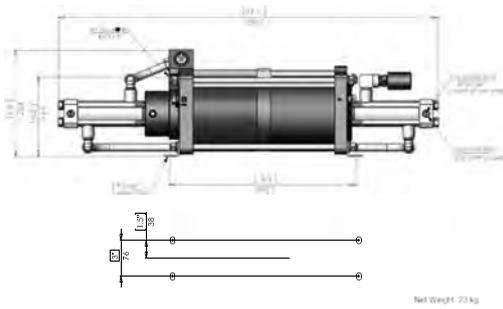
DIMENSIONS



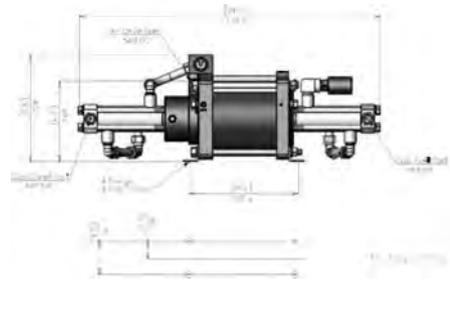
AMG 32D/62D



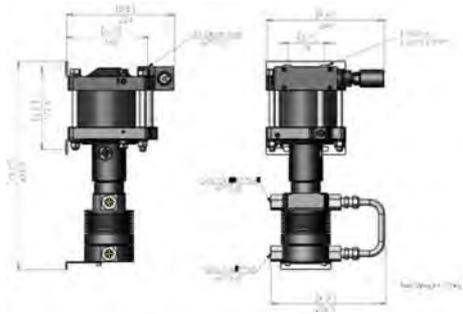
AMG 7-15/7-30



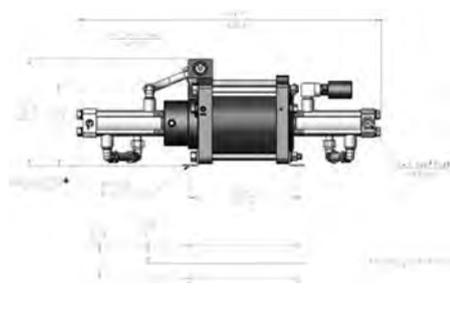
AMG 152D



AMG 15-30

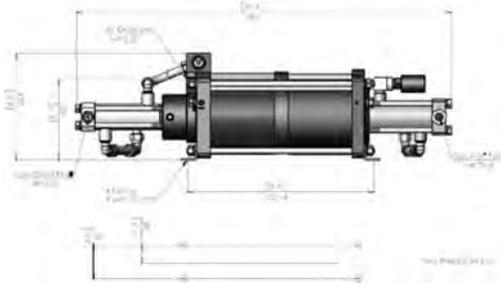


AMG 4T

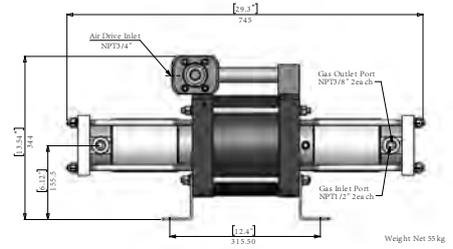


AMG 15-75/30-75

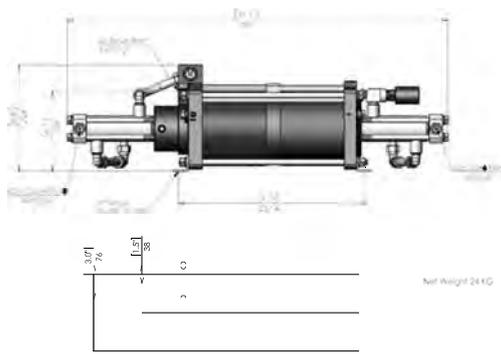
DIMENSIONS



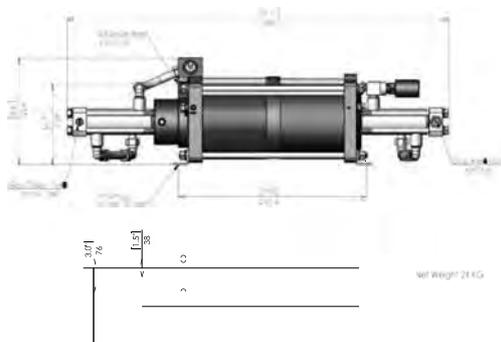
AMG 14-32/14-62



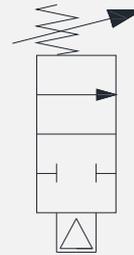
AMG 5D



AMG 32-62



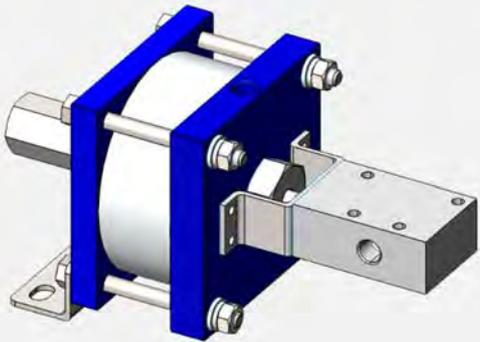
AMG 32-152/62-152



压力开关-弹簧

型号 Model	压力范围 psi	外形尺寸 mm	压力接口 (Port)	控制接口 (port)
2APV41-0	100-400	192x45x35	FNPT1/4	RC1/8
2APV41-1	300-800	192x45x35	FNPT1/4	RC1/8
2APV41-2	600-2,000	192x45x35	FNPT1/4	RC1/8
10APV41-0	1,800-4,000	192x45x35	FNPT1/4	RC1/8
10APV41-1	3,500-6,500	192x45x35	FNPT1/4	RC1/8
10APV41-2	6,000-1,1500	192x45x35	FNPT1/4	RC1/8

- 1、弹簧调节
- 2、工作温度：-10~60°C
- 3、控制气压：<0.8MPa
- 4、开关回差：约最高压力值的10%



压力开关-气控

型号 Model	压力范围 psi	比例 (Ratio)	压力接口 (Port)	控制接口 (port)
15APV-150	2,200-15,000	150:1	9/16-18UNF (1/4HP)	RC1/8
25APV-250	3,500-25,000	255:1	9/16-18UNF (1/4HP)	RC1/8

- 1、气压比例控制
- 2、工作温度：-10~60°C
- 3、控制气压：<0.8MPa
- 4、开关回差：约最高压力值的5~10%



气动气体增压系统

- 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，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、灭火剂和烷烃类各种气体增压等；
- 最高增压压力达25,000psi；
- 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；
- 可根据要求实现压力和流量的手动或自动调节；
- 可根据要求设计制造移动式或固定式等多种结构。



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