

G Force

AIR CANNON

HERMAN (NANJING) TECHNICAL & ENGINEERING

Patent Number: ZL 2009 2 0040678.7 ZL 2009 2 0144649.5 ZL 2010 2 0588297.5



Six major characteristics of G force:

1. High-temperature resistance:the components inside the main valve body exclude elastic sealing elements;
2. Self-lubrication:tailor made self-lubricating bearings;
3. Low maintenance:above 300,000 times,of firings easy dismantling or replacement of part
4. Long service life:optimization design for key components and reliability;
5. Strong jet burst:quick release of compressed air;
6. Good compatibility:double adapting flange can be mounted on any brands of air tank;

>> Product Specifications And Using Occasions

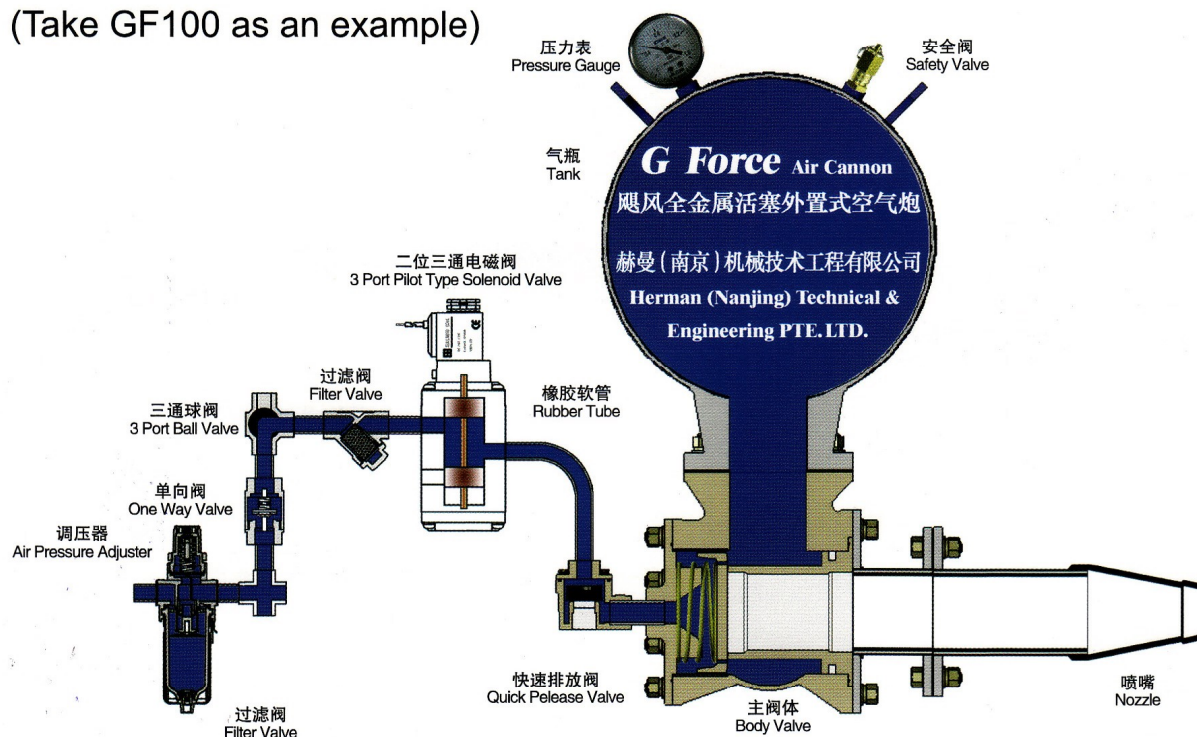
Type	Air tank capacity(L)	Weight (kg)	Work pressure (MPa)	Impact force (N)	Applicable occasions
GF075-0075 GF075A-0075	75	60	0.4-0.8	2240-5020	Applicable to the bins with smaller capacity and cross-sectional area for the storage of smaller proportion and better-liquidity materials
GF075-0100 GF075A-0100	100	70	0.4-0.8	2460-6190	Applicable to the bins with larger capacity and cross-sectional area and medium-sizes bins
GF075-0150 GF075A-0150	150	90	0.4-0.8	3740-7760	Applicable to the bins with larger capacity and cross-sectional area for the storage of larger proportion, poorer liquidity and compact materials
GF100-0075 GF100A-0075	75	70	0.4-0.8	2350-6450	Applicable to the bins with smaller capacity and cross-sectional area for the storage of smaller proportion and better-liquidity materials
GF100-0100 GF100A-0100	100	85	0.4-0.8	2580-7960	Applicable to small and medium-sizes bins for storage of ordinary materials
GF100-0150 GF100A-0150	150	125	0.4-0.8	3950-9850	Applicable to the bins with larger capacity and cross-sectional area for the storage of larger proportion,poorer liquidity and compact materials

>> Product Specifications And Using Occasions

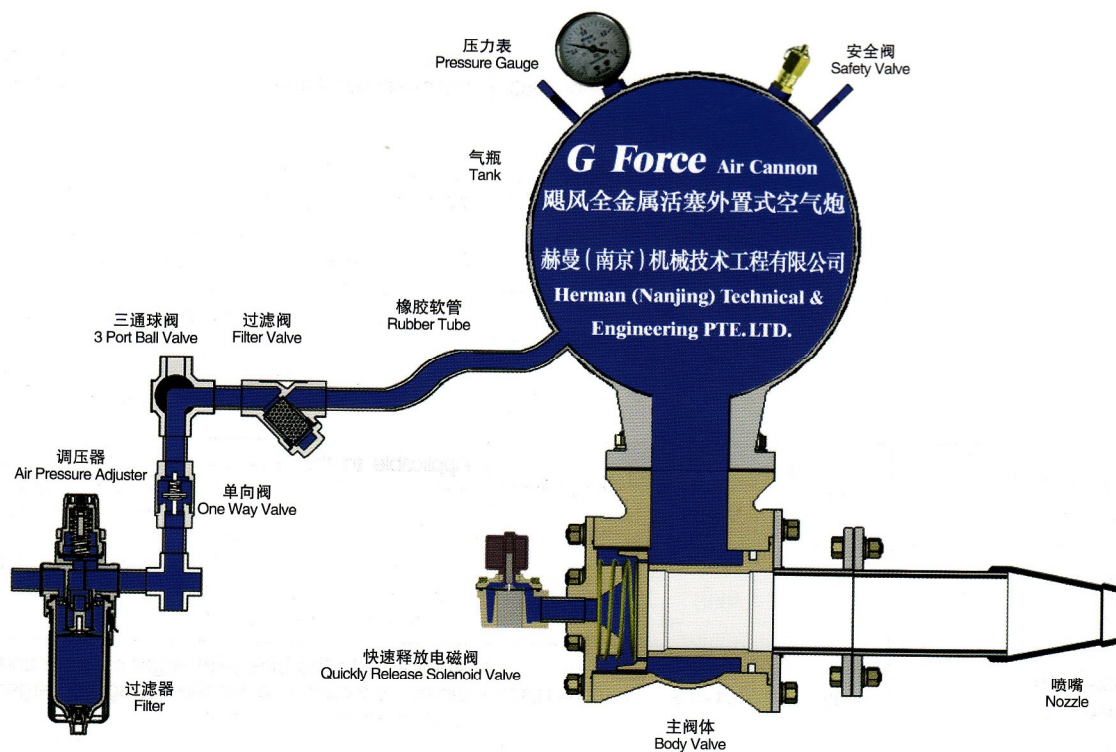
Type	Air tank capacity(L)	Weight (kg)	Work pressure (MPa)	Impact force (N)	Applicable occasions
GF150-0075 GF150A-0075	75	105	0.4-0.8	2860-7660	Applicable to the bins with smaller capacity and cross-sectional area for the storage of smaller proportion and better-liquidity materials
GF150-0100 GF150A-0100	100	115	0.4-0.8	3070-11800	Applicable to the bins with larger capacity and cross-sectional area and medium-sizes bins
GF150-0150 GF150A-0150	150	135	0.4-0.8	4710-14600	Applicable to the bins with larger capacity and cross-sectional area for the storage of larger proportion, poorer liquidity and compact materials
GF100I-0100 GF100IA-0100	100	82	0.4-0.8	2840-8760	Applicable to the bins with larger capacity and cross-sectional area and medium-sizes bins
GF100I-0150 GF100IA-0150	150	95	0.4-0.8	4350-10800	Applicable to the bins with larger capacity and cross-sectional area for the storage of larger proportion, poorer liquidity and compact materials
GF100I-0200 GF100IA-0200	200	135	0.4-0.8	5400-12500	Applicable to the bins with larger capacity and cross-sectional area for the storage of larger proportion, poorer-liquidity
GF100I-0300 GF100IA-0300	300	195	0.4-0.8	6500-15300	Applicable to the bins with larger capacity and cross-sectional area for the storage of larger proportion, poorer-liquidity

>> GF075 / GF100 / GF150 Configuration Diagram

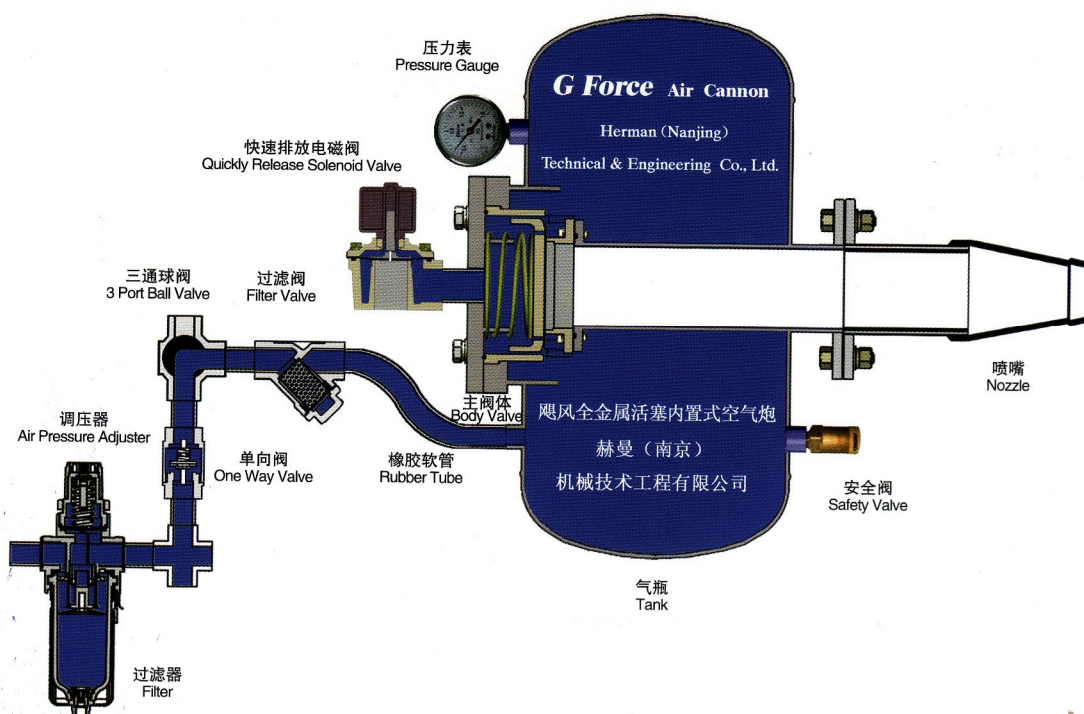
(Take GF100 as an example)



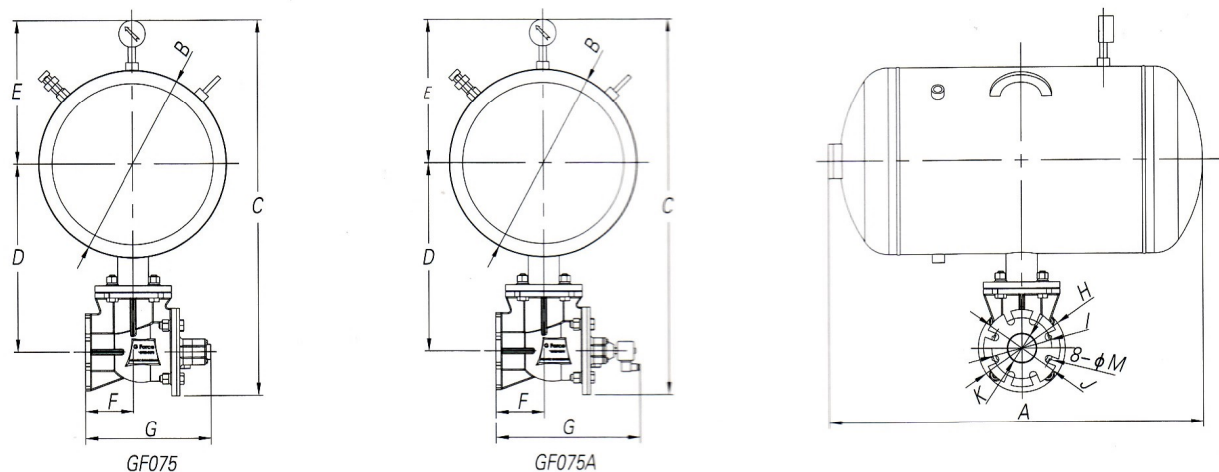
>> GF075A / GF100A Configuration Diagram



>> GF100I Configuration Diagram



>> GF075 / GF075A Shape Configuration Diagram



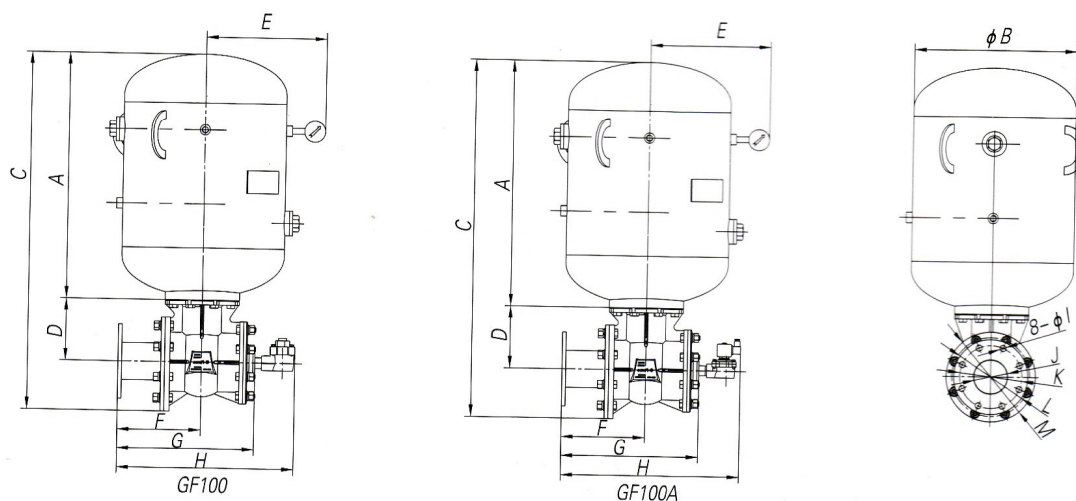
Type	A	B	C	D	E	F	G	H	I	J	K	M
GF075-0075	670	400	900	450	340	120	310	220	145	185	80	18
GF075-0100	910	400	900	450	340	120	310	220	145	485	80	18
GF075-0150	900	500	1000	500	390	120	310	220	145	185	80	18

Note: 1. unit: mm 2. materials: aluminium alloy, alloy steel 3. GF075A size is 330, the rest size is same as GF075

>> List of GF075 / GF075A Parts

Number	Name of part	Code of part	Supply	Self preparation	GF075	GF075A	Note
1	air cannon cleaning-up device	GF075-00-00	√		•	•	
2	rapid discharge valve	GF075-01-00	√		•		
3	1/2" 2-position 3-way solenoid valve	GF100-88-10WX	√		•		
4	coil for 1/2 2-position 3-way solenoid valve	GF100-88-11WX	√		•		
5	electric rapid discharge valve	GF075A-01-00	√			•	
6	1/2 triplet	GF100-88-12WX	√		•	•	
7	Seismic manometer	GF100-88-13WX	√		•		
8	Ordinary manometer	GF100A-88-13WX	√			•	
9	1/2 ball valve	GF100-88-15WX	√		•	•	
10	1/2 one-way valve	GF100-88-16WX	√		•	•	
11	safety valve	GF100-88-02WX	√		•		
12	safety valve(CE)	GF100A-88-02WX	√			•	
13	filter valve	GF100-88-50WX	√		•	•	
14	6mm steel wire rope(soft rope)	GF100-88-03WX	√		•	•	
15	grip holder for steel wire special	GF100-88-04WX	√		•	•	
16	ring for wire rope	GF100-88-05WX		√	•	•	user's choice
17	normal jet pipe	GF075-22-10PT	√		•	•	user's choice
18	adapting flange	GF075-22-12	√		•	•	
19	high temperature sector nozzle	GF075-44-10	√		•	•	user's choice
20	high temperature flat nozzle	GF075-44-10G3	√		•	•	user's choice
21	pressure hose	GF100-88-17WX	√		•	•	
22	mounting plate	GF075-22-11		√	•	•	
23	control cabinet	GF100-88-20WX	√		•	•	user's choice

>> GF100 / GF100A Shape Configuration Diagram



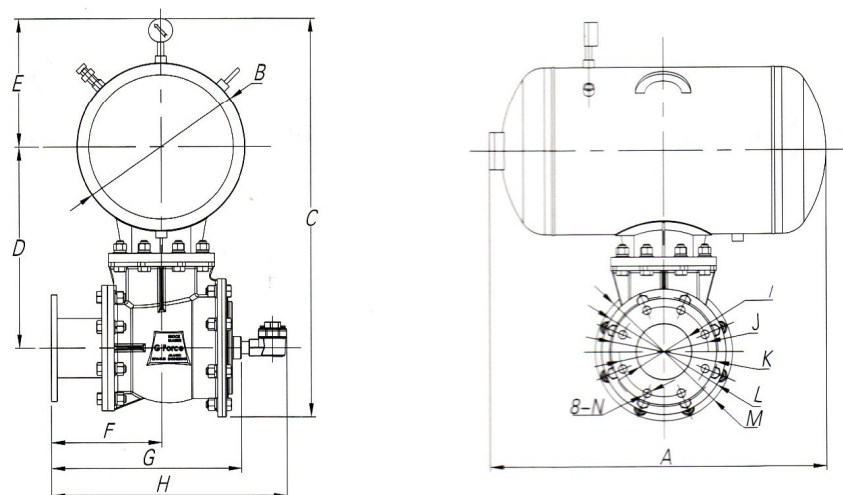
Type	A	B	C	D	E	F	G	H	I	J	K	L	M
GF100-0075	650	400	980	190	321	260	425	540	18	100	180	220	274
GF100-0100	730	500	1100	190	371	260	425	540	18	100	180	220	274
GF100-0150	830	550	1160	190	396	260	425	540	18	100	180	220	274

Note: 1. unit: mm 2. materials: aluminium alloy, alloy steel 3. GF100A size is same as GF100

>> List of GF100 / GF100A Parts

Number	Name of part	Code of part	Supply	Self preparation	GF100	GF100A	Note
1	air cannon cleaning-up device	GF100-00-00	√		•	•	
2	rapid discharge valve	GF100-01-00	√		•		
3	1/2" 2-position 3-way solenoid valve	GF100-88-10WX	√		•		
4	coil for 1/2 2-position 3-way solenoid valve	GF100-88-11WX	√		•		
5	solenoid rapid discharge valve	GF100A-01-00	√			•	
6	1/2 triplet	GF100-88-12WX	√		•	•	
7	Seismic manometer	GF100-88-13WX	√		•		
8	Ordinary manometer	GF100A-88-13WX	√			•	
9	1/2 ball valve	GF100-88-15WX	√		•	•	
10	1/2 one-way valve	GF100-88-16WX	√		•	•	
11	safety valve	GF100-88-02WX	√		•		
12	safety valve(CE)	GF100A-88-02WX	√			•	
13	filter valve	GF100-88-50WX	√		•	•	
14	6mm steel wire rope(soft rope)	GF100-88-03WX	√		•	•	
15	grip holder for steel wire special	GF100-88-04WX	√		•	•	
16	ring for wire rope	GF100-88-05WX		√	•	•	uesr's choice
17	normal jet pipe	GF100-22-10PT	√		•	•	uesr's choice
18	adapting flange	GF100-22-12	√		•	•	
19	high temperature sector nozzle	GF100-44-10	√		•	•	uesr's choice
20	high temperature flat nozzle	GF100-44-10G3	√		•	•	uesr's choice
21	pressure hose	GF100-88-17WX	√		•	•	
22	mounting plate	GF100-22-11		√	•	•	
23	control cabinet	GF100-88-20WX	√		•	•	uesr's choice

>> GF150 Shape Dimension Diagram



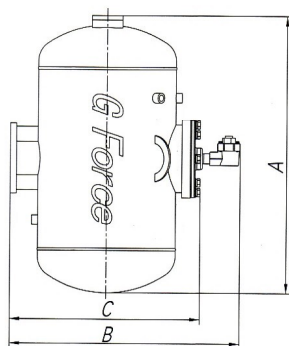
Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N
GF150-0075	670	400	1030	520	330	300	520	640	150	240	285	336	370	22
GF150-0100	720	450	1080	540	350	300	520	640	150	240	285	336	370	22
GF150-0150	900	500	1130	570	380	300	520	640	150	240	285	336	370	22

Note: 1. unit: mm 2. materials: aluminium alloy, alloy steel

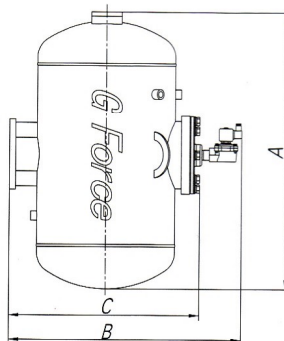
>> List of GF150

Number	Name of part	Code of part	Supply	Self preparation	Note
1	air cannon cleaning-up device	GF150-00-00	√		
2	rapid discharge valve	GF150-01-00	√		
3	1/2" 2-position 3-way solenoid valve	GF100-88-10WX	√		
4	coil for 1/2 2-position 3-way solenoid valve	GF100-88-11WX	√		
5	1/2 triplet	GF100-88-12WX	√		
6	Seismic manometer	GF100-88-13WX	√		
7	1/2 ball valve	GF100-88-15WX	√		
8	1/2 one-way valve	GF100-88-16WX	√		
9	safety valve	GF100-88-02WX	√		
10	Filter valve	GF100-88-50WX	√		
11	6mm steel wire rope(soft rope)	GF100-88-03WX	√		
12	grip holder for steel wire	GF100-88-04WX	√		
13	special ring for wire rope	GF100-88-05WX		√	user's choice
14	normal jet pipe	GF150-22-10PT	√		user's choice
15	adapting flange	GF150-22-12	√		
16	high temperature sector nozzle	GF150-44-10			user's choice
17	high temperature flat nozzle	GF150-44-11	√		user's choice
18	mounting plate	GF100-88-17WX	√		
19	pressure hose	GF150-22-11		√	
20	control cabinet	GF100-88-20WX	√		user's choice

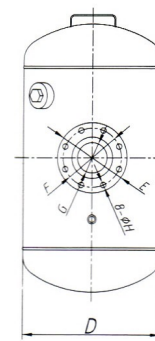
>> GF100I / GF100IA Shape Dimension Diagram



GF100I



GF100IA



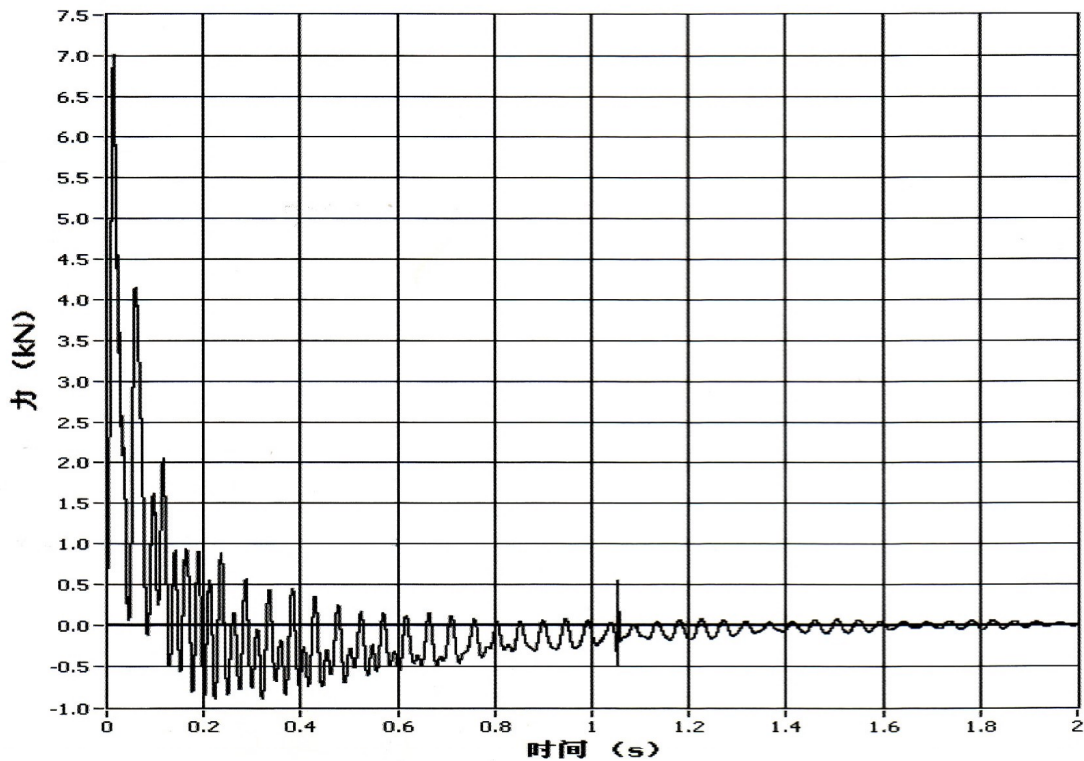
Type	A	B	C	D	E	F	G	H
GF100I-0100	930	750	610	460	220	180	100	18
GF100I-0150	1055	750	610	460	220	180	100	18
GF100I-0200	985	850	710	560	220	180	100	18
GF100I-0300	1090	955	815	660	220	180	100	18

Note: 1. unit: mm 2. materials: aluminium alloy, alloy steel 3. GF100IA size is same as GF100I

>> List of GF100I / GF100IA

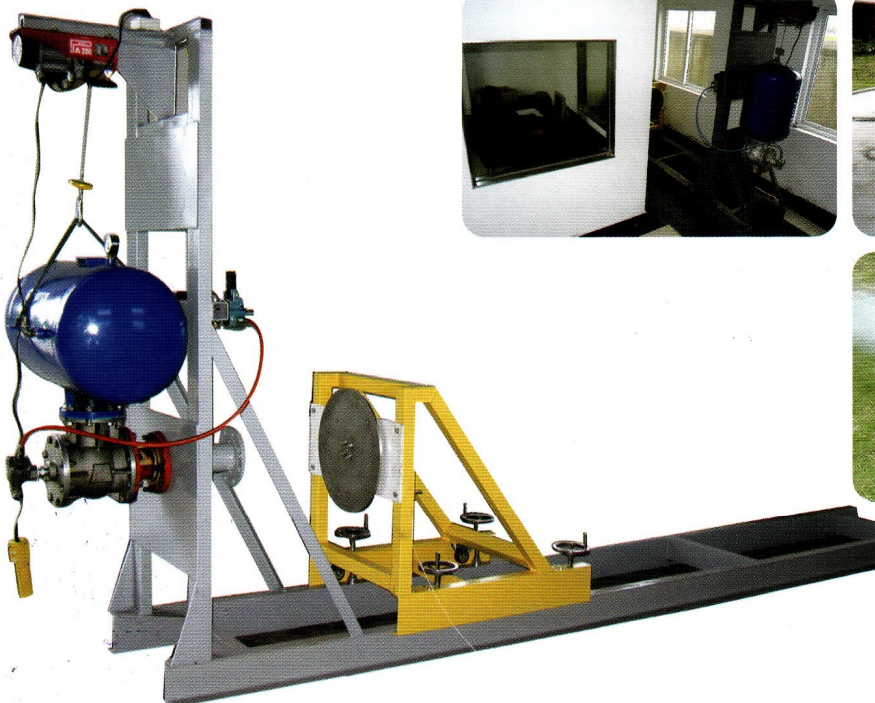
Number	Name of part	Code of part	Supply	Self preparation	GF100	GF100A	Note
1	air cannon cleaning-up device	GF100A-00-00	√		•	•	
2	rapid discharge valve	GF100-01-00	√		•		
3	1/2" 2-position 3-way solenoid valve	GF100-88-10WX	√		•		
4	coil for 1/2 2-position 3-way solenoid valve	GF100-88-11WX	√		•		
5	solenoid rapid discharge valve	GF100A-01-00	√			•	
6	1/2 triplet	GF100-88-12WX	√		•	•	
7	Seismic manometer	GF100-88-13WX	√		•		
8	Ordinary manometer	GF100A-88-13WX	√			•	
9	1/2 ball valve	GF100-88-15WX	√		•	•	
10	1/2 one-way valve	GF100-88-16WX	√		•	•	
11	safety valve	GF100-88-02WX	√		•		
12	safety valve(CE)	GF100A-88-02WX	√			•	
13	filter valve	GF100-88-50WX	√		•	•	
14	6mm steel wire rope(soft rope)	GF100-88-03WX	√		•	•	
15	grip holder for steel wire special	GF100-88-04WX	√		•	•	
16	ring for wire rope	GF100-88-05WX		√	•	•	uesr's choice
17	normal jet pipe	GF100-22-10PT	√		•	•	uesr's choice
18	adapting flange	GF100-22-12	√		•	•	
19	high temperature sector nozzle	GF100-44-10	√		•	•	uesr's choice
20	high temperature flat nozzle	GF100-44-10G3	√		•	•	uesr's choice
21	pressure hose	GF100-88-17WX	√		•	•	
22	mounting plate	GF100-22-11		√	•	•	
23	control cabinet	GF100-88-20WX	√		•	•	uesr's choice

>> G Forcea air cannon technical parameter test curve

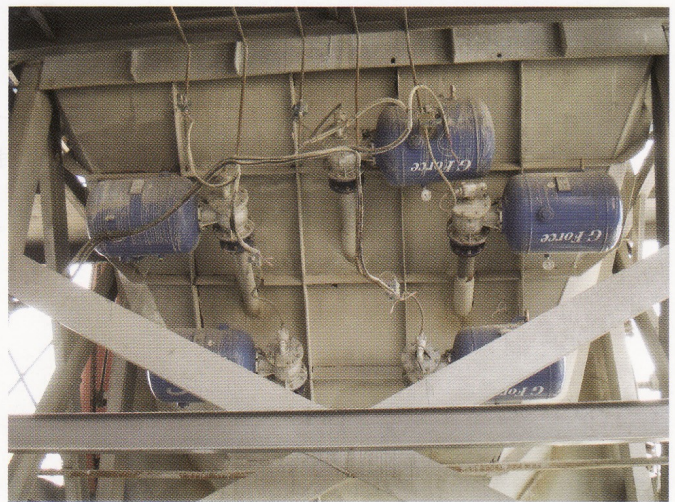
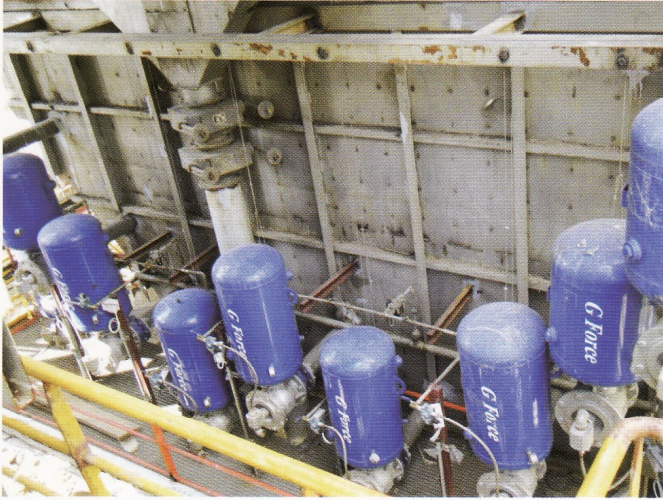


◆ Notes to the test curve

1. Test conditions: the impacted orifice is 1.5m away from the muzzle:
working pressure of the air cannon is 0.5Mpa; ambient temperature is 30.
2. The ordinate and the abscissa on the test curve use "KN" and "second" as measurement unit respectively.
3. It can be seen from the test curve that: The impact force is 7.012KN, effective impact time is 15ms.

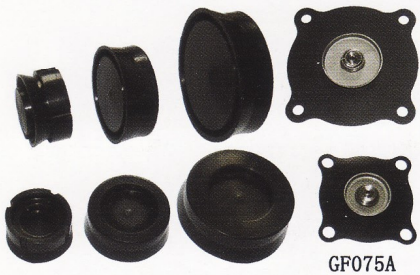


>> Application of G Force Air Cannons



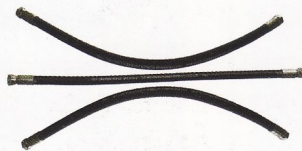
>> Parts of G Force cannon

GF075 GF100 GF150 GF100A/GF100IA

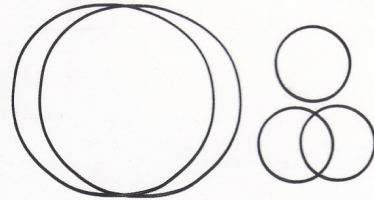


Rapid discharge valve core

Solenoid rapid discharge valve core

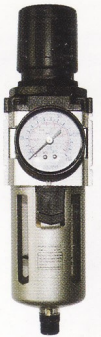


Pressure hose



O Sealing ring

O rapid discharge body valve sealing ring



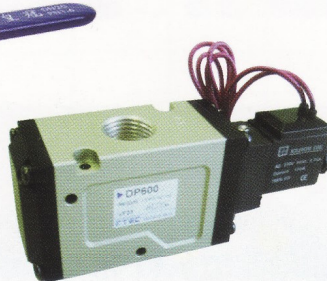
Filter



One Way Valve



3 Way Ball Valve



2-position 3-way Solenoid Valve



Manometer



Safety Valve



Spring



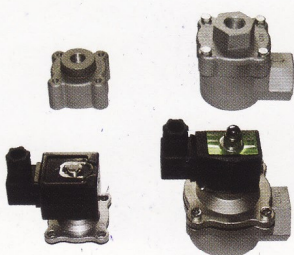
Piston



Dry Bearings



Filter Valve



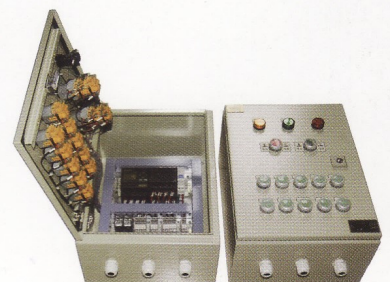
Rapid Discharge Valve



Solenoid Rapid Discharge Valve



Nozzle



Control Cabinet