



TUV NORD

COMPANY PROFILE AND PRODUCTS INFORMATION



VANAZ ENGINEERS LIMITED

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THE COMPANY

Vanaz Engineers Limited was established in the year 1948 in Mumbai with a manufacturing setup to produce quality press tools, dies and fixtures.

The company expanded its activities to copper and copper alloy forgings in 1960. Specialised heat treated aluminum and aluminum alloy forging was pioneered in India by Vanaz.

Diversification was rapid in the field of cylinder valves and pressure regulators for LPG, oxygen, carbon-di-oxide, chlorine and other gases in the year 1963.

Pune unit of Vanaz started in year 1968.

VANFOG-Fog generating machine for pest control, fumigation and agricultural applications was developed in 1974.

Self closing type cylinder valves and suitable pressure regulators were developed in 1979.

Deorukh unit of Vanaz was started in 1981.

The R & D Department of Vanaz has been recognised by The Department of Science & Technology, New Delhi. since 1985.

Vanaz entered the automobile sector in 1990 with manufacturing of **Synchroniser Rings** which is an import substitute component.

Vanaz became ISO 9001 company in September 1998.

Vanaz is proud to manufacture the first indigenous **CNG kit** for Autorickshaws duly approved by VRDE and ARAI in the year 2000.

FACILITIES AT PUNE UNIT

Vanaz has a well established factory unit at Pune. The premises were constructed over a period of time, as the need for expansion grew.

Today, the establishment has

Shop Floor, machine shop, R & D6975 sq.m.

Administrative Block1020 sq.m.

Staff Welfare facilities, canteen650 sq.m.

THE MANUFACTURING DEPARTMENT:

Die Casting Department with facilities for pressure and Gravity die casting in zinc & aluminium. Equipped with German make Hot Chamber and "HMT" Cold Chamber pressure die casting machines.

Forging Department with 150T to 750T presses for forging of copper, copper alloys and aluminium alloys along with trimming presses of various capacities. Post Heat Treatment facilities with electric furnaces are available for Die casting and Forging departments.

Large machine shop using capstans, Single and multi spindle automats and CNC lathes.

Assembly sections are well laid out with standard and specially designed and developed facilities for testing of end products.

Tool room includes facilities like CNC die sinking machine and spark erosion machine. Complete requirement of tools for the entire manufacturing process is fulfilled inhouse.

OTHER ANCILLARY DEPARTMENTS:

Inspection Department for Quality checks of components and finished products.

Laboratory equipped with modern facilities like Atomic Absorption Spectrometer & Metallurgical microscope with micrograph printing. The raw material is checked for physical and chemical properties, before being sent for further processing.

Maintenance Department carries out periodic preventive maintenance of most of the installed machines.

Research and Development Department, is situated in a separate building. It is equipped with CNC machines and is manned by qualified and experienced personnel. This is the innovative power house of VANAZ which has helped us grow over the period of time and pioneer our new products.

DOMESTIC REGULATORS

Vanaz is the pioneer manufacturer of domestic pressure regulators in India. We have supplied more than 25 million regulators since 1963.


These regulators are mainly used for household purpose and are suitable for single burner / two burner gas stoves as well as grill cum cooking ranges having total consumption of 500 ltr / hr of LPG.

R - 0602 is Meter Regulator mainly developed for Natural gas distribution through pipeline. In addition to pressure control system, it is having built in low-pressure cut off valve, which ensures the working safety.

Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 <p>R-0101</p>	0.5 - 17 Kg/cm ²	30 mbar (300 mm w.c.)	0.5 Nm ³ / hr	Inlet: Union Nut 21.8×14 TPI (LH) Outlet: Nozzel to suit 1/4" hose pipe	LPG
 <p>R-0302</p>	0.5 - 4 Kg/cm ²	30 mbar (300 mm w.c.)	0.5 Nm ³ / hr	1/2" BSPT (INT)	Natural Gas
 <p>R-0602</p>	35 - 100 mbar (350 - 1000 mm w.c.)	20 - 30 mbar (200 - 300 mm w.c.)	6 Nm ³ / hr	3/4" BSP (INT) or 3/4" BSPT (INT)	Natural Gas
 <p>R-1805</p>	0.5 - 17 Kg/cm ²	30 mbar (300 mm w.c.)	0.5 Nm ³ / hr	Inlet: To suit 22 mm dia S.C. valve Outlet: Nozzel to suit 1/4" I.D. hose pipe	LPG



ADAPTORS

Self closing valves as per IS:8737 are having outlet connections as a plain collar diameter, which needs a specific device to connect threaded fittings of regulator/pig tails to these valves. Adaptors are used for these purpose. The adaptors are to be fitted on the valve which makes leak proof coupling between valve outlet & adaptor inlet. By rotating the knob of the adaptor the Self Closing valve spindle gets pressed and flow through adaptor starts at unreduced pressure. Vanaz adaptors are having brass forged body for high pressure chamber. The outlet connection is an integral part of the brass forged body and so the life of adaptors is considerably more. Each adaptor is fitted with non return valve at the outlet side which restricts the reverse flow through the outlet of adaptor.

Type	Working Pressure Range	Inlet Connection	Outlet Connection	Gas
 <p>R-1703 R-1711 R-1712</p>	0.5 - 17 Kg/cm ²	To suit self closing valve of collar dia. as per IS: 8737 R-1703 Ø 25.6 mm R-1711 Ø 19.0 mm R-1712 Ø 22.0 mm	21.8 x 14 TPI (L.H) Ext.	LPG

FILTERS





Filter must be fitted prior to the regulators on the upstream side, to ensure that only clean / dust free gas is entering the regulator. The presence of dust / dirt in pipeline results in malfunctioning of the regulator because of damage caused to the regulator seat and rubber sealing pad. Also movement of the linkage is restricted due to the deposition of dust / dirt on the moving parts and affects performance of the regulator. Hence the use of filter is strongly recommended.

Type of Filter	Max. Working Pressure	Flow Capacity	Type & End Connection	Gas
 <p>F-0101 F-0104 F-0105</p>	20 bar	100 Nm ³ / hr	F - 0101 1" BSP (INT)	LPG / Natural Gas
		150 Nm ³ / hr	F - 0104 1.5" BSP (INT)	
		200 Nm ³ / hr	F - 0105 2" BSP (INT)	
 <p>F-0107 F-0102 F-0108</p>	20 bar	100 Nm ³ / hr	F - 0107 1" NB flanged end	LPG / Natural Gas
		150 Nm ³ / hr	F - 0102 1.5" NB flanged end	
		200 Nm ³ / hr	F - 0108 2" NB flanged end	

ADJUSTABLE PRESSURE REGULATORS (FOR LOW FLOWRATE REQUIREMENTS)

These regulators are having wider outlets pressure range. The outlet pressure can be easily adjusted by rotating the knob of spring adjusting screw. By rotating the knob anticlockwise the outlet pressure is reduced & by rotating it clockwise the outlet pressure is increased.

R - 2101 & R - 2111 are mainly used for gas cutting or welding purpose. These regulators have built in safety relief valve and flow control needle valve at the outlet. R - 2202 is mainly used as adjustable pressure regulator for LPG / Natural Gas in canteen, restaurants & for small furnaces. R - 2105 is suitable for high pressure application.





Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 <p>R-2101</p>	1 - 161 Kg/cm ²	0.5 - 8 Kg/cm ²	25 Nm ³ / hr	Inlet: To suit outlet of std. cyl. valves as per IS: 3224 Outlet: Nozzel to suit 6 mm I.D hose pipe.	Oxygen, Hydrogen, Air, Nitrogen, Argon
 <p>R-2105</p>	10 - 161 Kg/cm ²	5 - 125 Kg/cm ²	25 Nm ³ / hr	Inlet: To suit outlet of std. cylinder valves as per IS: 3224 Outlet: 3/8" BSP (INT) or 1/4" BSP (INT)	Oxygen, Hydrogen, Air, Nitrogen, Argon
 <p>R-2111</p>	1 - 55 Kg/cm ²	0.2 - 2 Kg/cm ²	25 Nm ³ / hr	Inlet: 5/8" BSP Ext. (LH) with Bullnose Outlet: Nozzle to suit 6 mm I.D. hose pipe	Acetylene
 <p>R-2202</p>	0.5 - 17 Kg/cm ²	0.2 - 2 Kg/cm ²	20 Nm ³ / hr	Inlet: 21.8×14 TPI L.H. Union nut Outlet: 1/4" BSP (INT)	LPG

Note: Regulator R - 2204 is available with specifications similar to that of R - 2202 except inlet connections. The inlet connection for R - 2204 is similar to that of Adaptor R - 1703, so it can be directly mounted on LPG cylinder.

ADJUSTABLE PRESSURE REGULATOR FOR HIGH FLOWRATES.



These regulators are having wider outlet pressure range. The outlet pressure can be easily adjusted by rotating the knob of spring adjusting screw. By rotating the knob anticlockwise the outlet pressure is reduced & by rotating it clockwise the outlet pressure is increased.

These regulators are mainly used as first stage pressure regulator in the LPG / Natural gas pressure reducing system.

Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 R-2301	1 - 17 Kg/cm ²	0.5 - 10 Kg/cm ²	100 Nm ³ / hr	1" BSP (INT)	LPG, Natural Gas
 R-2304	1-17 Kg/cm ²	0.5 - 10 Kg/cm ²	250 Nm ³ / hr	1.5"/2" BSP (INT)	LPG, Natural Gas
 R-2316 R-2317	1 - 17 Kg/cm ²	0.5 - 10 Kg/cm ²	250 Nm ³ / hr	For R-2316 40 mm NB flanged end. For R-2317 50 mm NB flanged end.	LPG, Natural Gas
 R-6412	1 - 17 Kg/cm ²	0.5 - 10 Kg/cm ²	600 Nm ³ / hr	3" BSP (INT) or flanged end as per requirement.	LPG, Natural Gas



ADJUSTABLE REGULATORS FOR HIGH PRESSURE & HIGH FLOWRATES.

Regulators R - 2307 & R 2310 are mainly used in "Soft Drink Industries" for CO₂ gas pressure reducing system. They are also used in steel industries for high pressure oxygen lancing purpose and for pressure reducing systems for high pressure Gas manifolds.

Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 R-2307	200 Kg/cm ²	0.5 - 30 Kg/cm ²	150 Nm ³ / hr	1" BSP (INT)	Oxygen, Natural Gas, Nitrogen, Hydrogen, Carbondioxide
 R-2310	200 Kg/cm ²	0.5 - 50 Kg/cm ²	300 Nm ³ / hr	Inlet: 1.5" BSP (EXT) Outlet: 1.5" BSP (EXT)	Oxygen, Natural Gas, Nitrogen, Hydrogen, Carbondioxide

SERVICE REGULATORS

These regulators are used in pressure reducing system for Natural gas. They are used to reduce the natural gas pressure from 4 Kg/cm² to 75 mbar before supplying it to the domestic feeder line. These regulators are having built in slam shut off valve and creep relief valve (safety relief valve). These regulators are available in two models R-4405 & R-4403 depending upon flow requirements.

Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 R-4405	0.5 - 4 Kg/cm ²	200 - 750 mmwc	30 Nm ³ / hr	Inlet: 1/2" BSP (INT) Outlet: 3/4" BSP (INT)	Natural Gas, LPG
 R-4403	0.5 - 4 Kg/cm ²	200 - 750 mmwc	60 Nm ³ / hr	3/4" BSP(INT) or 1" BSP (INT)	Natural Gas, LPG

PRESET PRESSURE REGULATORS

These regulators are having preset outlet pressure. However the outlet pressure can be slightly adjusted by rotating the spring adjusting screw.

The Industrial Pressure Regulator R - 4109 is available with 4 different types of preset outlet pressures. These are suitable for canteen, restaurants & small industrial furnaces.

R - 4110 / R - 4301 are a low pressure medium flow pressure regulators, mainly used for industrial furnaces & other gas appliances. R - 4202 regulator is mainly suitable for Natural Gas.

Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Max Flow Rate	End Connection	Gas
	1 - 17 Kg/cm ²	(a) 0.03 Kg/cm ²	8 Nm ³ / hr	Inlet: 21.8×14 TPI (L.H) Union Nut Outlet: 1/2" BSP (INT)	LPG
		(b) 0.3 Kg/cm ²	28 Nm ³ / hr		
		(c) 0.7 Kg/cm ²	28 Nm ³ / hr		
		(d) 1 Kg/cm ²	28 Nm ³ / hr		
	1 - 17 Kg/cm ²	0.03 - 0.3 Kg/cm ²	40 Nm ³ / hr	Inlet: 1/2" BSP (INT) Outlet: 3/4 BSP (INT)	LPG, Natural Gas
	1 - 17 Kg/cm ²	0.03 - 0.3 Kg/cm ²	40 Nm ³ / hr	1" BSP (INT)	LPG, Natural Gas
	1 - 17 Kg/cm ²	0.03 Kg/cm ²	10 Nm ³ / hr	1/2" BSP (INT) or 1/2" BSPT (INT)	Natural Gas
		0.5 Kg/cm ²	30 Nm ³ / hr		





PRE-SET PRESSURE REGULATORS (FIXED INLET PRESSURE)

These regulators are low pressure high flow precision control pressure regulators and are mainly used as second stage pressure regulators. These are also used in medium to bigger size furnaces. These regulators control the outlet pressure very precisely.

Type of Regulator	Max Inlet Pressure	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 R-6111	1.5 Kg/cm ²	0.03 - 0.15 Kg/cm ² (30 -150mbar)	60 Nm ³ / hr	1.5" - 2" BSP (INT) or flanged end as per ANSI / BS Std.	LPG / Natural Gas
 R-6106	1.5 Kg/cm ²	0.01 - 0.1 Kg/cm ² (10 - 100 mbar)	120 Nm ³ / hr	1.5" - 2" BSP (INT) or flanged end as per ANSI / BS Std.	LPG, Natural Gas
 R-6107	1.5 Kg/cm ²	0.01 - 0.05 Kg/cm ² (10 - 50 mbar)	150 Nm ³ / hr	1.5" - 2" BSP (INT) or flanged end as per ANSI / BS Std.	LPG, Natural Gas
 R-6410	1.5 Kg/cm ²	0.03 - 0.1 Kg/cm ² (30 - 100 mbar)	600 Nm ³ / hr	3" BSP (INT) or flanged end as per ANSI / BS Std.	LPG, Natural Gas



PRE-SET PRESSURE REGULATORS (VARIABLE INLET PRESSURE)

These regulators are low pressure high flow pressure regulators. These are mainly used where the inlet pressure is varying in a wider range. These regulators are suitable for medium size to bigger size furnaces.

Type of Regulator	Inlet Pressure Range	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 R-5102	1 - 5 Kg/cm ²	0.03 - 0.15 Kg/cm ² (30-150mbar)	60 Nm ³ / hr	1.5" - 2" BSP or flanged end as per ANSI or BS Std.	LPG, Natural Gas
 R-5103	1 - 5 Kg/cm ²	0.02 - 0.1 Kg/cm ² (20 - 100 mbar)	120 Nm ³ / hr	1.5" BSP (INT) or 2" BSP (INT) flanged end as per ANSI / BS Std.	LPG, Natural Gas
 R-5104	1 - 5 Kg/cm ²	0.01 - 0.05 Kg/cm ² (10 - 50 mbar)	150 Nm ³ / hr	1.5" BSP (INT) or 2" BSP (INT) or flanged end as per ANSI / BS Std.	LPG, Natural Gas
 R-5105	1 - 5 Kg/cm ²	0.03 - 0.1 Kg/cm ² (30 - 100 mbar)	600 Nm ³ / hr	3" BSP (INT) or flanged end as per ANSI / BS Std.	LPG, Natural Gas



ZERO GOVERNORS

Zero Governors are used to supply gases at atmospheric pressure to the mixing chambers. These are mainly used for the furnaces in glass industry. They are very sensitive and precisely maintain the required outlet pressure.

Type of Governor	Max Inlet Pressure	Outlet Pressure	Gas Flow Rate	End Connection	Gas
 R-6204	0.5 Kg/cm ²	± 25mmwc (±2.5mbar)	30 Nm ³ / hr	1.5" - 2" BSP (INT)	LPG/ Natural Gas
 R-6205	0.5 Kg/cm ²	± 50mmwc (±5mbar)	150 Nm ³ / hr	3" NB flanged as per ANSI / 150 rating	LPG/ Natural Gas

GAS METERS




Domestic Gas Meter is a diaphragm operated positive displacement type, Gas meter, It is suitable mainly for Natural Gas and LPG. There are two different models M-0104 & M-0107. The meter M-0107 is having steel casing and it meets the fire resistance requirements as per BS:4161 part 5, 1990.

Type of Gas Meter	Working Pressure Range	Flow Capacity	End Connection	Gas
 M-0104	20-50 mbar	Qmax-2.5 Nm ³ / hr Qmin- 0.016 Nm ³ / hr	3/4" BSP (EXT)	LPG/ Natural Gas
 M-0107	20-50 mbar	Qmax-2.5 Nm ³ / hr Qmin- 0.016 Nm ³ / hr	3/4" BSP (EXT)	LPG/ Natural Gas

SPECIAL PURPOSE PRESSURE REGULATORS.

The regulators R-2402, R-4108 are mainly used for ammonia gas. The trim parts for these regulators are of stainless steel. R-4108 is preset type regulator & is mainly used as second stage pressure regulator. R-2402 is adjustable pressure regulator & is mainly used as first stage pressure regulator.

R-2703 is a fine control adjustable pressure regulator which is used when precision pressure control is required for instrumentation purpose like Air-Guages. We also manufacture regulators suitable for corrosive gases like Cl_2 , SO_2 etc.

Type of Regulator	Max Inlet Pressure	Outlet Pressure Range	Gas Flow Rate	End Connection	Gas
 <p>R-2402</p>	22 Kg/cm ²	0.5-4 Kg / cm ²	25 Nm ³ / hr	1/2" BSP (Union Nut)	Ammonia
 <p>R-4108</p>	1-5 Kg/cm ²	(a) 30 - 150 mbar (b) 0.15 - 0.3 mbar (c) 0.3 - 0.7 mbar (d) 0.7 -1 mbar	10 Nm ³ / hr 30 Nm ³ / hr 30 Nm ³ / hr 30 Nm ³ / hr	Inlet: 1/2" BSP (INT) Union Nut Outlet: 1/2"BSP (INT)	Ammonia
 <p>R-2703</p>	2 - 10 Kg/cm ²	1.75 + 0.05 Kg / cm ²	1Nm ³ / hr	1/8"NPT (INT)	Nitrogen & Air

WE CAN SUPPLY THE PRESSURE REGULATORS FOR ANY GASES SUITABLE FOR FOLLOWING SPECIFICATIONS

Inlet Pressure : 17 Kg / cm² max. for LPG

200 Kg / cm² max. for CNG & Industrial Gases like O₂, H₂, CO₂, N₂ etc.



Outlet Pressure : From few mm WC of vacuum to 50 Kg / cm²

Flowrate : 2500 Nm³ / hr (max.)

Pipeline Size : 6mm N.B. (1/4" N.B.) to 150 mm N.B. (6" N.B.)



SLAM SHUT-OFF VALVE

Slam Shut-off valve is installed immediately after the filter & prior to the Regulator. It normally remains open, incase the outlet pressure of the regulator exceeds the premissible limits, the slam shut off valve senses it through the impulse line & immediately shuts off the flow to downstream. When the regulator is repaired, the slam shut off valve is to be opened manually by pulling the knob. Once the flow starts through the slam shut off valve it will remain open till the outlet pressure of the regulator is within limits.

Type	Working Pressure	Shut Off Pressure Setting	End Connection	Medium
 V-4306	20 Kg / cm ²	0.05-0.5 bar	1" or 2" BSP both side as per requirement.	LPG Natural Gas Carbondioxide Hydrogen, Air
 V-4307	20 Kg / cm ²	0.05-0.5 bar	3" or 4" BSP both side as per requirement.	LPG Natural Gas Carbondioxide Hydrogen, Air



NON-RETURN VALVE

We are manufacturing two types of Non-Return valves. V-6301 is having metal to metal seat and is suitable for high pressure applications upto 200 Kg/cm² V-6304 is having soft seat. It is suitable for maximum working pressure of 20Kg/cm². We can supply Non return Valves for all gases. The material of construction depends on the nature of media/gas for which it is to be used.

Type	Maximum Working Pressure	End Connection	Medium
 V-6301	200 bar	1/2"-2" BSP INT / EST as per requirement	CNG, Nitrogen Oxygen, Air Hydrogen Carbondioxide
 V-6304	20 bar	1/2"-2" BSP INT / EXT as per requirement	Natural Gas, LPG, etc.

SAFETY RELIEF VALVE

Two types of safety-Relief valves are available. The V-7713 is having metal to metal seat and is suitable for high pressure applications upto 200Kg/cm² V-7732 is having soft seat. It is suitable for maximum set pressure of 1 Kg/cm². We can supply Safety Relief valves for all types of gases. The material of construction depends on the nature of media/gas for which it is to be used.

Type	Maximum Set Pressure	End Connection	Medium
 <p>V-7732</p>	1 bar	1/2"-2" BSP as per requirement	LPG, Natural Gas
 <p>V-7713</p>	200 bar	1/2"-2" BSP as per requirement	CNG, LPG, Carbondioxide, Nitrogen, Air etc.



FLAME ARRESTORS

Flame arrestors are used to arrest the flame from reaching the highly dense area of fuel, in case of backfire & thus avoids accident & explosions.

Type	Maximum Working Pressure	End Connection	Medium
 <p>V-9102</p>	17 bar	1/2" BSP INT / EXT as per requirement	LPG, Natural Gas
 <p>V-9106</p>	17 bar	1" - 2" BSP INT/ EXT as per requirement	LPG, Natural Gas



NEEDLE VALVES

Needle valves are used as flow control device. We manufacture two types of Needle valves, suitable for high pressure applications upto 250 Kg/cm². V-6104 is having inlet & outlet at right angle. V-6105 is having inlet & outlet in straight line. We can supply needle valves for all gases. The material of construction depends on the nature of gas for which it is to be used.

Type	Working Pressure	End Connection	Medium
 <p>V-6105</p>	250 Kg / cm ²	1/4"-1/2" BSP INT / EXT threaded as per requirement	CNG, Chlorine Hydrogen, Air
 <p>V-6104</p>	250 Kg / cm ²	1/8" - 3/8" BSP (EXT) 1/8" - 3/8" BSP (INT) as per requirement	CNG, Chlorine Hydrogen, Air

LINE VALVES





Line valves are used as isolation valves. There are two types of Line valves. V-4905 is low pressure valve, with soft seat & is suitable upto pressure of 20 Kg/cm². V-4913 is having brass forged body and metallic seat. It is suitable for high pressure application i.e. 200 Kg/cm².

Type	Working Pressure	End Connection	Medium
 <p>V-4905</p>	20 Kg / cm ²	3/4" BSP / 1" BSP INT as per requirement.	LPG, Natural Gas
 <p>V-4913</p>	200 Kg / cm ²	1" BSP INT / EXT or 1.5" BSP EXT as per requirement	Nitrogen, Oxygen, CNG, Hydrogen, Carbondioxide, Air.

HIGH PRESSURE GAS CYLINDER VALVES

These Valves conform to the Indian Standard Specification IS:3224 (equivalent to BS:341, Part I) for Cylinder valves, in every respect. These valves are duly approved by Chief Controller of Explosives - Nagpur. All raw materials are fully tested for their chemical composition before being put to use. Simple construction & interchangeability of components make maintenance and repairs easy & fast. All valve bodies are of forged construction duly Heat treated / Stress relieved. The valve bodies have **High strength, Superior wear resistance and High impact values.**

Rigorous Quality checks. Forged valve blanks are tested from every lot for actual physical values before machining. Each valve is tested at its full working pressure before despatch. All valves are soft to work because of good surface finish.

Type	Name of Gas	Test Pressure	Working Pressure	Outlet Thread
	Chlorine Fluorocarbon	35 Kg / cm ²	20 Kg / cm ²	External 5/8" BSP outlet No. 5 as per IS:3224:1979
	Compressed Natural Gas (CNG)	200 Kg / cm ²	200 Kg / cm ²	External 5/8" BSP L.H. outlet No. 2 as per IS:3224:1979
	Oxygen/Acetylene/Hydrogen	161 Kg / cm ²	Oxygen / Hydrogen 161Kg / cm ² Acetylene 30 Kg / cm ²	Oxygen: Internal 5/8" BSP Outlet No.3 as per IS: 3224:1979 Acetylene & Hydrogen Internal 5/8" BSP L.H. Outlet No. 2, as per IS:3224:1979
	Carbon Dioxide	155 Kg / cm ²	105 Kg / cm ²	External 21.8mm x 1.814 pitch Whitworth profile outlet No. 7 as per IS:3224:1979

Valves are available in all the stub Threads to suit British, American and DIN specifications. Valves for corrosive and poisonous gases like, SO₂, NH₃, phosgene are also available.

GAS TRAINS FOR PRESSURE REDUCING SYSTEM

A gas train consist of Filter, Slam-shut off valve, pressure regulator, safety relief valve & flame arrestor. Filter helps to remove the dust/dirt particles in the gas which may damage the regulator parts. The slam shut off valve normally remains open. In case the outlet pressure of the regulator exceeds the permissible limits, the slam shut off valve senses it through the impulse line & instantly shuts off the supply to the downstream system. The safety relief valve is provided for additional safety. It is to be set at higher pressure than the slam shut off valve pressure so that the safety relief valve will operate only when slam shut off valve fails to operate. The outlet of the safety relief valve is vented well above the roof.



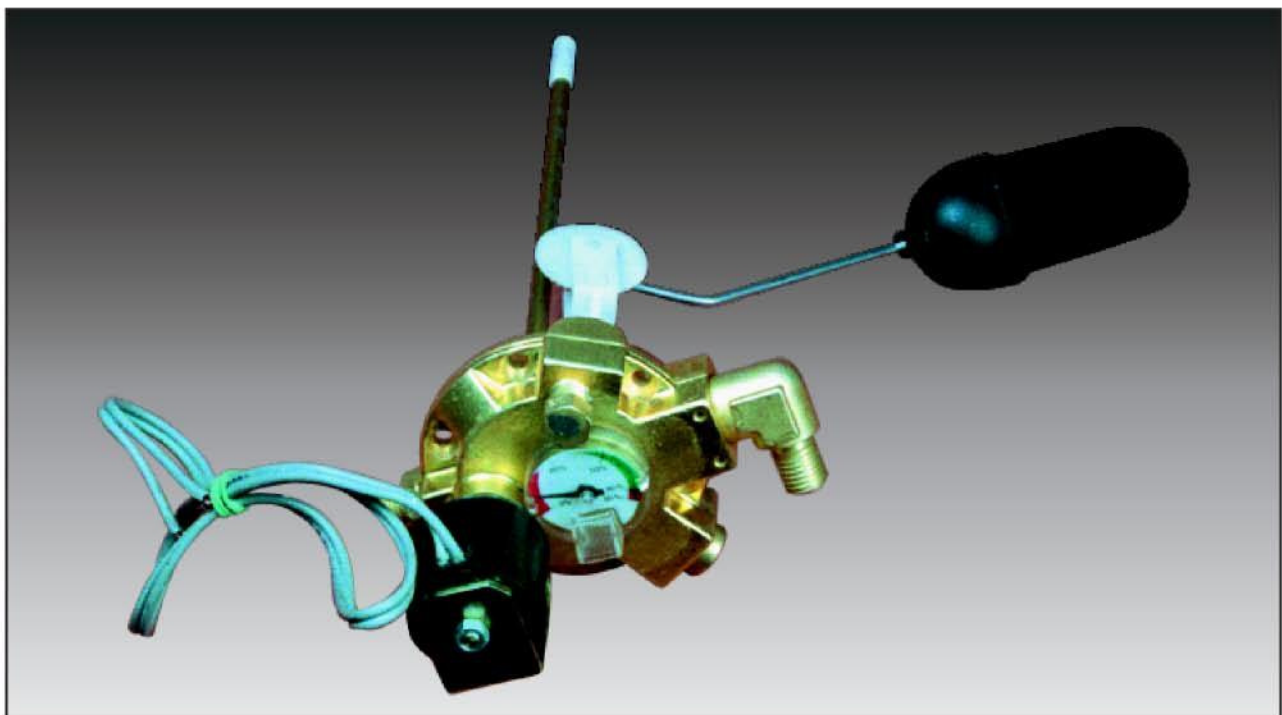
Single Stage Pressure Reducing System



Two Stage Pressure Reducing System

MULTI FUNCTION VALVES FOR AUTO-LPG TANKS

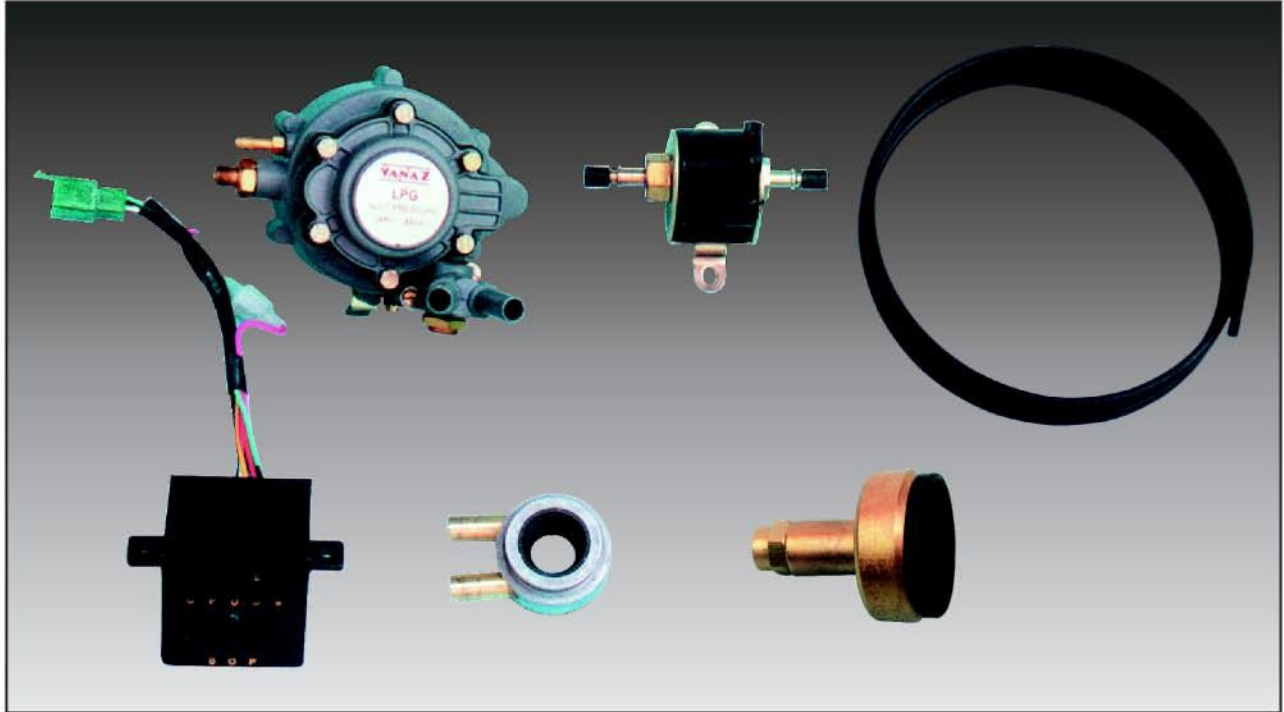
The Government Of India has given the approval for the use of LPG as an Automobile Fuel with fixed LPG tanks in vehicles. VANAZ has indigenously developed the multi function valves for all types of Auto-LPG tanks. These valves conform to IS:15100 : 2001 and are duly approved by Chief Controller of Explosives - Nagpur.



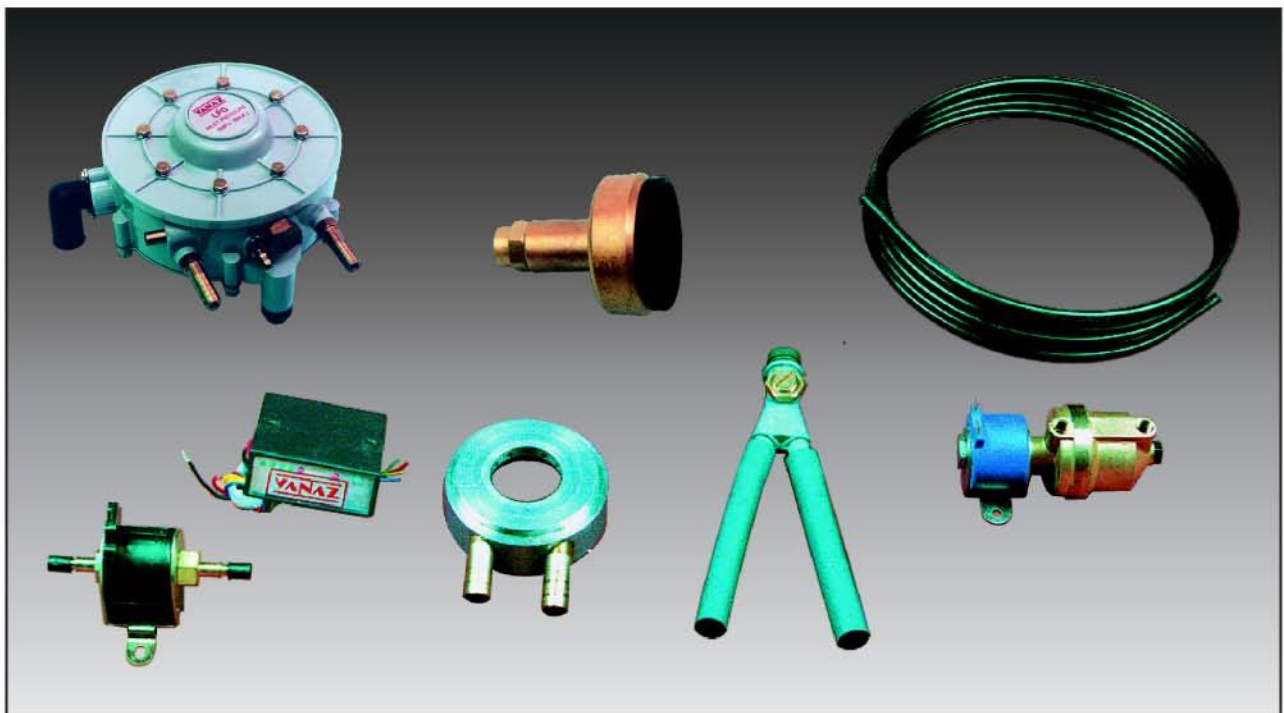
LPG CONVERSION KIT

Liquified petroleum gas is also an alternate environment friendly fuel like CNG which curbs down air pollution. In India, the availability of CNG is restricted only to the two metros-Delhi & Mumbai. Due to easy availability & transportability of LPG, the government has permitted its use as an automobile fuel. Vanaz has developed LPG kits for 2-wheelers, 3-wheelers, 4-wheelers i.e. for all types of vehicles.

LPG CONVERSION KIT FOR THREE WHEELERS



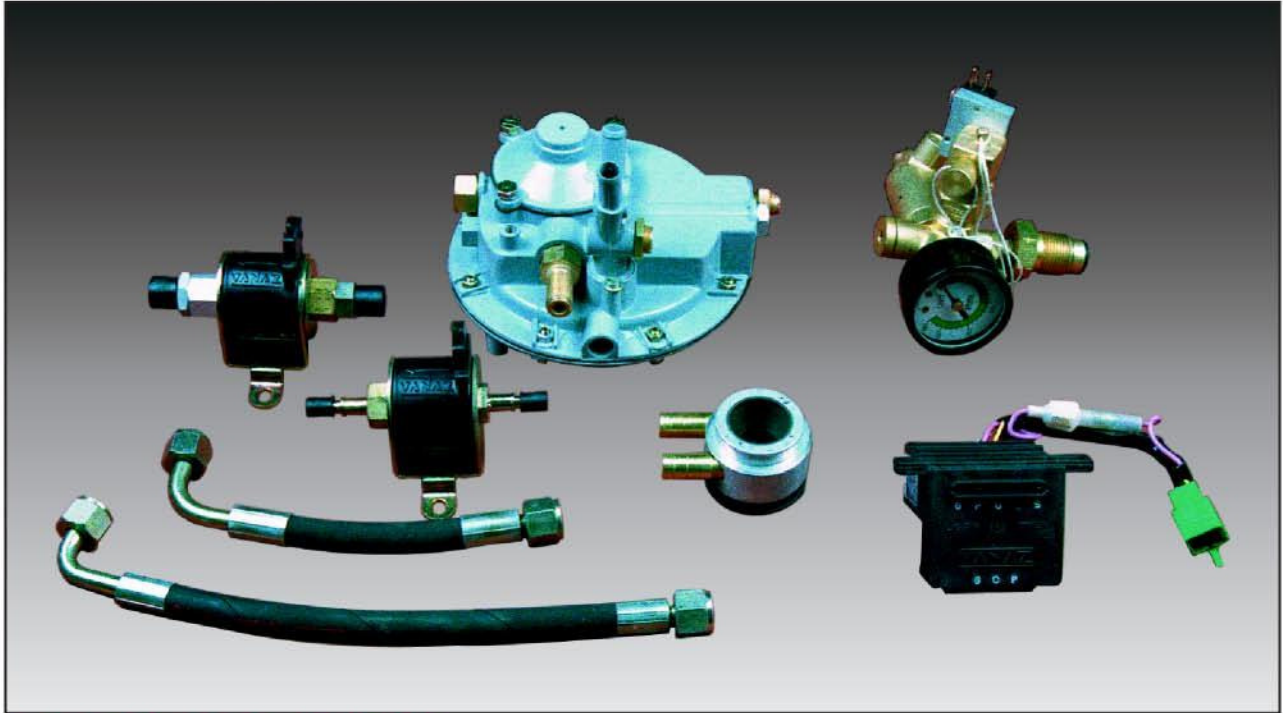
LPG CONVERSION KIT FOR FOUR WHEELERS



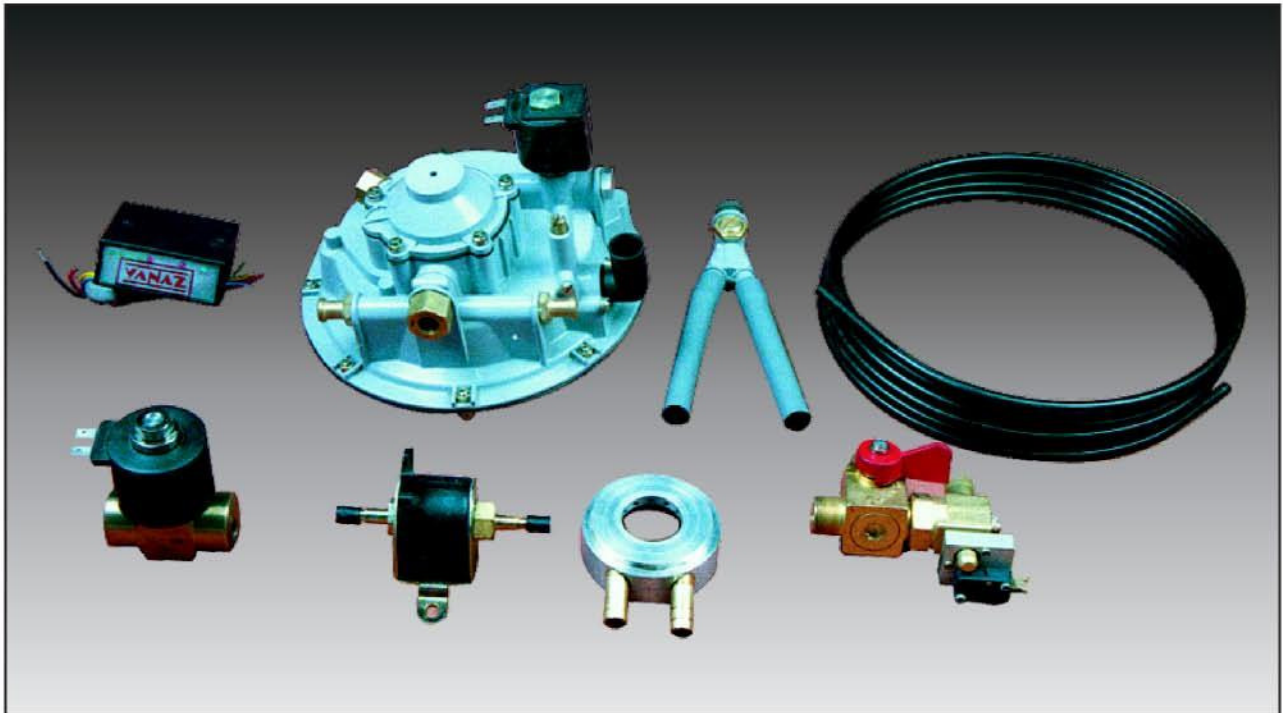
CNG CONVERSION KIT

The air pollution due to automotive exhaust has increased to such an extent that this problem has been given top priority as per the directives of the supreme court. The main constituents of automotive exhausts are carbon monoxides, unburnt hydrocarbon, nitroxides etc. Using CNG as a fuel, the percentage of carbonmonoxide and unburnt hydrocarbon is considerably reduced. The mandatory verdict of the court for conversion of the commercial fleet of vehicles to the **compressed natural gas** mode has drastically curbed air pollution in the two metros-Delhi and Mumbai. Vanaz has contributed in this environment friendly movement by being the first indigenous manufacturer of CNG kit for 3-wheelers. Besides this, Vanaz has developed CNG kits for 4-wheelers and heavy vehicles with open loop system as well as with closed loop (lambda control) system.

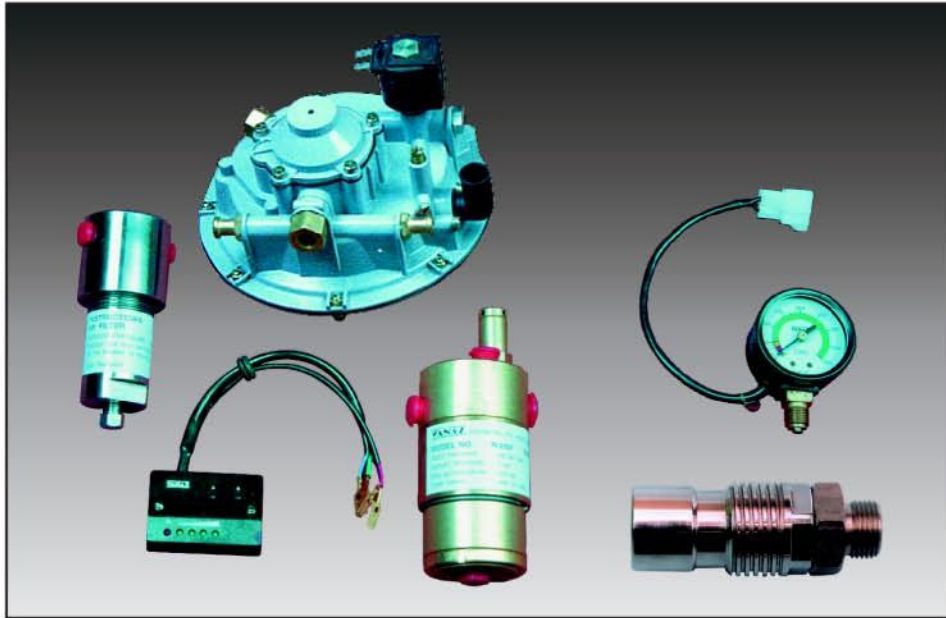
CNG KIT FOR THREE WHEELERS



CNG KIT FOR FOUR WHEELERS



CNG KIT FOR HEAVY VEHICLES



SYNCHRONISER RINGS

The Synchroniser rings are used in synchromesh gear boxes in automobiles for smooth shifting of gear from one speed to another on a running vehicle.



Vanaz has specialisation in synchroniser rings. Till date we have produced more than 5 million of synchroniser rings for various vehicles like Tata trucks, Lcv's Tata Sumo, Tata Safari, Bajaj Tempo's Trax and Matador etc.

FORGINGS



Forging Capacity :

- 8.0 Kg. for Copper and copper alloys
- 4.0 Kg. for aluminium alloys.

Non Ferrous forgings with complicated or integrated profiles is the expertise of VANAZ. The forging department is equipped with forging presses upto 750 tonnes capacity. Forgings in Copper, Brasses, Bronzes and Aluminium alloy is our speciality. Post heat treatment facilities with electric furnaces are available for forged and pressure die cast components.

PRESSURE DIE CASTINGS



Pressure Die Casting Capacity :

- 1.95 Kg. for Zinc alloys.
- 1.60 Kg. for Aluminium alloys.

The Die Casting Department is equipped with German make Hot chamber and HMT cold chamber Pressure Die Casting Machines of 160 tonnes capacity.

VANFOG: Fog Generating Machine

MULTI-PURPOSE USES

Insecticides spraying for plant & Crop protection.

Pest control like anti-malaria operations.

Fumigation of warehouses, ship holds, flour mills, factories etc.

Flame thrower applications for weed killing or burning rubbish heaps

Flame thrower application for heating large surfaces, paint removal etc.

VANFOG Technical Data

Pulse Jet Engine

Weight : Empty-11.0 Kg.
Full-15.5 Kg

No moving parts

Lenght : 1475 mm

9 volts supply for the ignition coil

Width : 280 mm

Petrol tank capacity 1.0 litre, gives

Height : 340 mm

Engine run of 60 min.

Insecticide tank of 4.5 ltrs

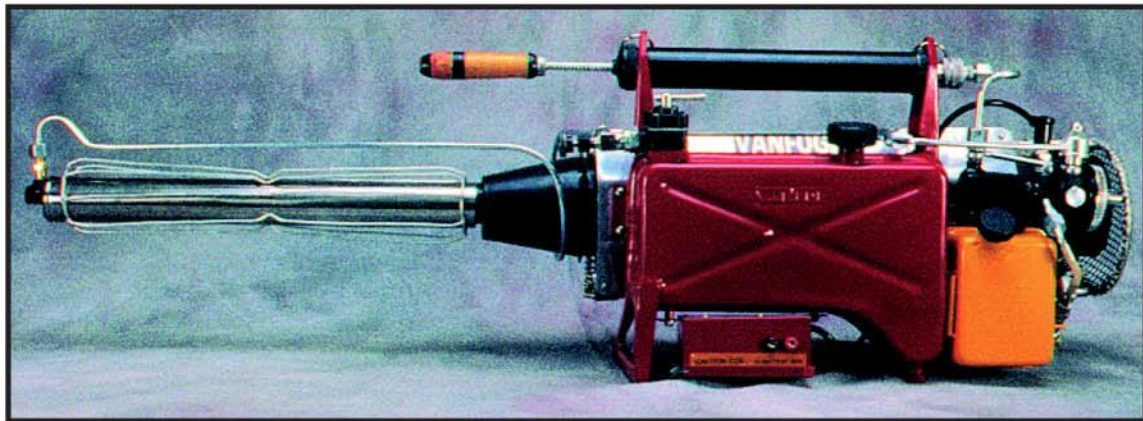
Special Accessories :

Capacity

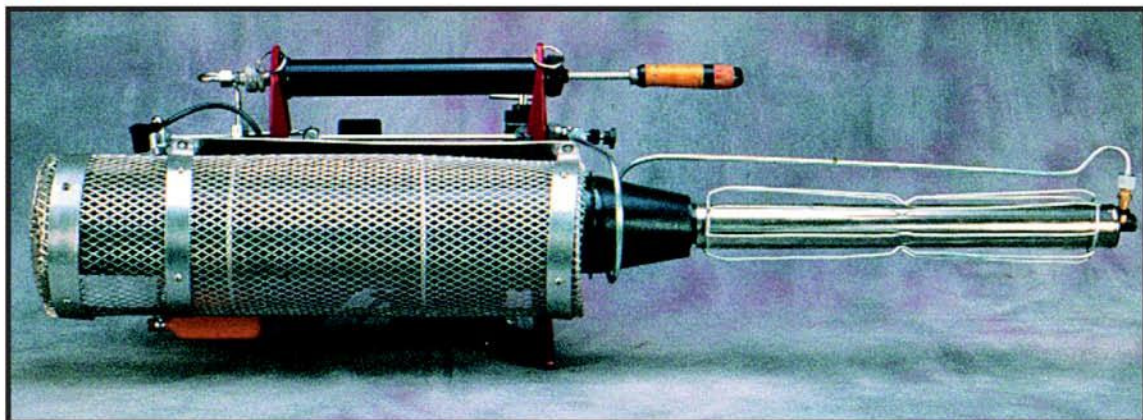
Flame Thrower

Rectifier Unit.

Front View



Rear View



The Establishment



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