UNITED WORKS

LIQUIFIED PETROLEUM GAS
BURNERS AND EQUIPMENT

United works the pioneers in India's world of LP. Gas, whose designs have now been adopted as a part of the country's standards, has over the last fifty years created the finest and largest range of L.P. Gas burners, controls, fittings and pipeline equipment.

United works' association with the design and development of LP. Gas burners and equipment dates back to 1955 when the first burners, controls and pipeline accessories were manufactured by us in India in collaboration with Shell and U.R.G. of France. We have since established our own research and development facilities in order to develop, test and evaluate new products which are continuously being made available to cater to the more sophisticated requirements of the L.P. Gas industry in India. United works has established itself as a manufacturer of products of the highest standards, with careful regard to quality control and safety.

This Catalogue is designed to show you some of the very extensive range of commercial and industrial L.P. Gas burners, controls and pipeline accessories manufactured by united works. Apart from the products displayed in this catalogue united Works also undertakes the design, development and production of specialised burners, equipment and automated process controls to the individual customers' requirements.

A countrywide distribution network provides a reliable and efficient sales and service facility. Complete turnkey projects are undertaken, whatever their size, starting with consultancy and planning through to manufacture, installation and commissioning, both in the commercial and industrial fields of gas engineering.

The information given in this catalogue is accurate as far as can be reasonably ascertained. However, in the interests of continued improvements, specifications and appearance may be changed without notice.

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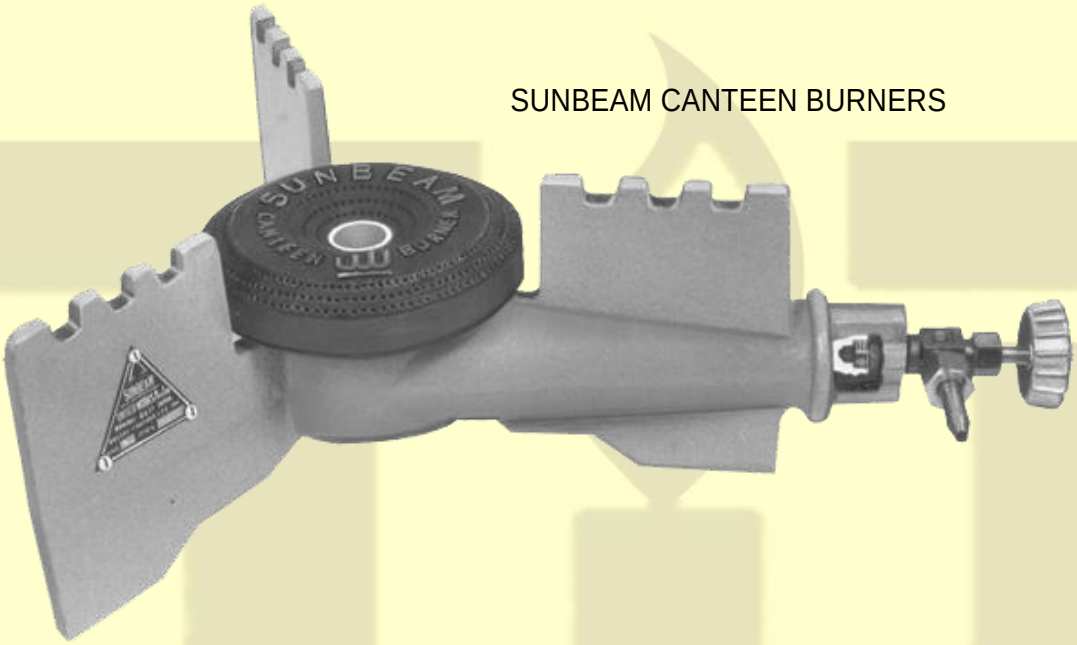
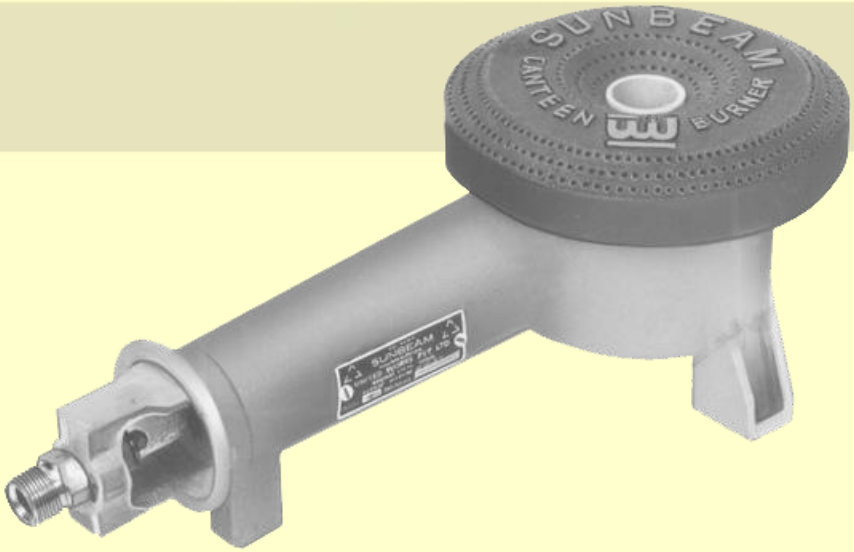
COMMERCIAL AND INDUSTRIAL LIQUID PETROLEUM GAS BURNERS

SUNBEAM CANTEEN BURNERS



Model No.	Details of Model	Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
2	With Centre & Side Flame	kg/cm^2	psig	kgs	Ibs	kcal/hr	btu/hr
		0.035	0.5	0.47	1.05	5,300	21,000

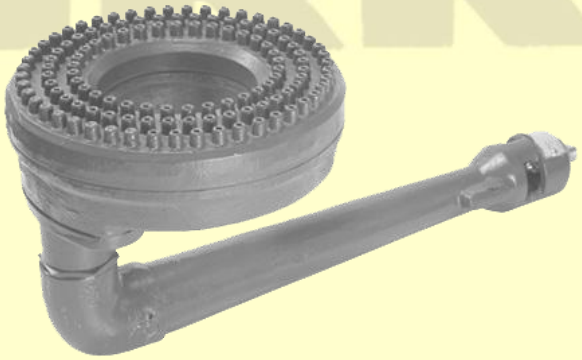


Model No.	Details of Model	Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
4	With Centre & Side Flame for Building into Cooking Ranges	kg/cm^2	psig	kgs	Ibs	kcal/hr	btu/hr
		0.035	0.5	0.47	1.05	5,300	21,000

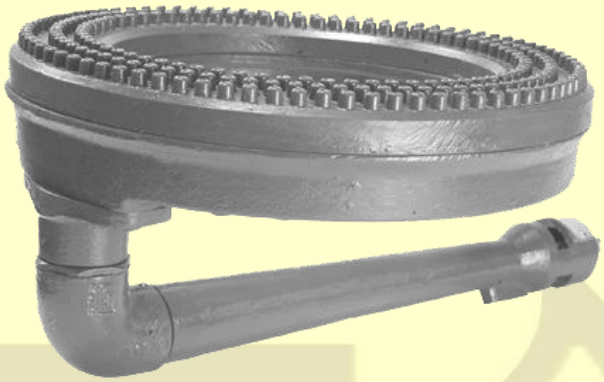
The Sunbeam Canteen Burner with it's patented tangential mixing tube which ensures an even and efficient flame, comes as a complete unit ready for immediate use.

COMMERCIAL AND INDUSTRIAL LIQUID PETROLEUM GAS BURNERS

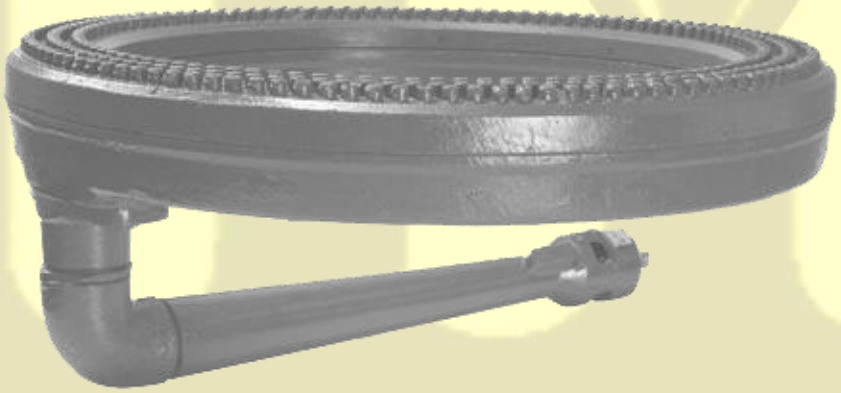
ROTABEAM BURNERS



Model No.	Dimension						Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Outside Diameter		Inside Diameter		Overall Height							
	mm	ins	mm	ins	mm	ins	Kg/cm^2	psig	Kgs	Ibs	Kcal/hr	BTU/hr
R-1	200	8	100	4	200	8	0.035	0.5	0.82	1.80	9000	36000



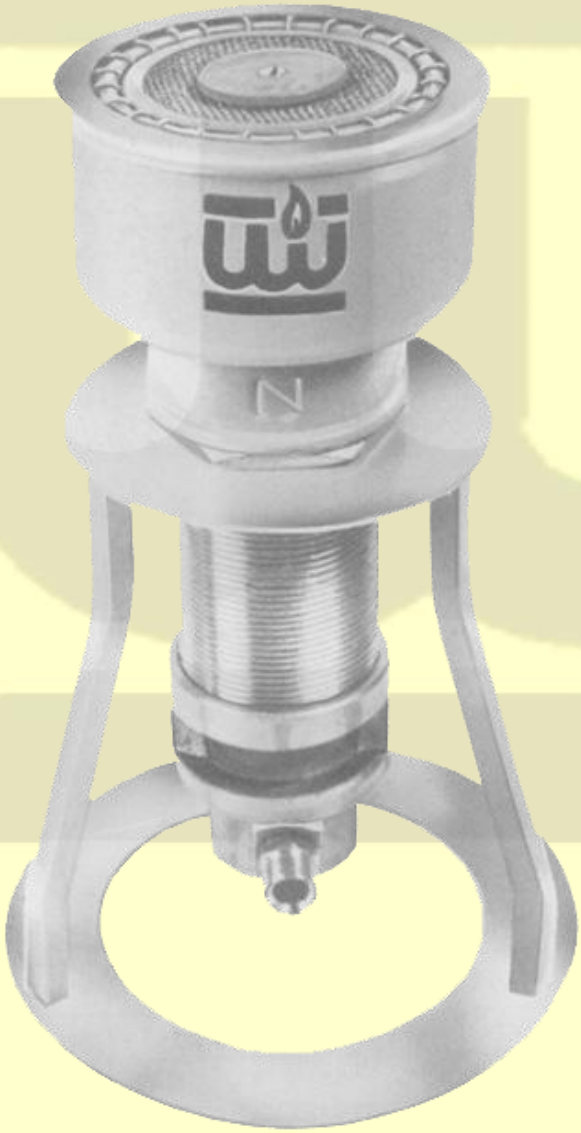
Model No.	Dimension						Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Outside Diameter		Inside Diameter		Overall Height							
	mm	ins	mm	ins	mm	ins	Kg/cm^2	psig	Kgs	Ibs	Kcal/hr	BTU/hr
R-2	350	14	240	9.5	215	8.5	0.035	0.5	1.27	2.80	14000	56000



Model No.	Dimension						Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Outside Diameter		Inside Diameter		Overall Height							
	mm	ins	mm	ins	mm	ins	Kg/cm^2	psig	Kgs	Ibs	Kcal/hr	BTU/hr
R-3	525	21	400	16	215	8.5	0.035	0.5	1.73	3.80	19000	76000

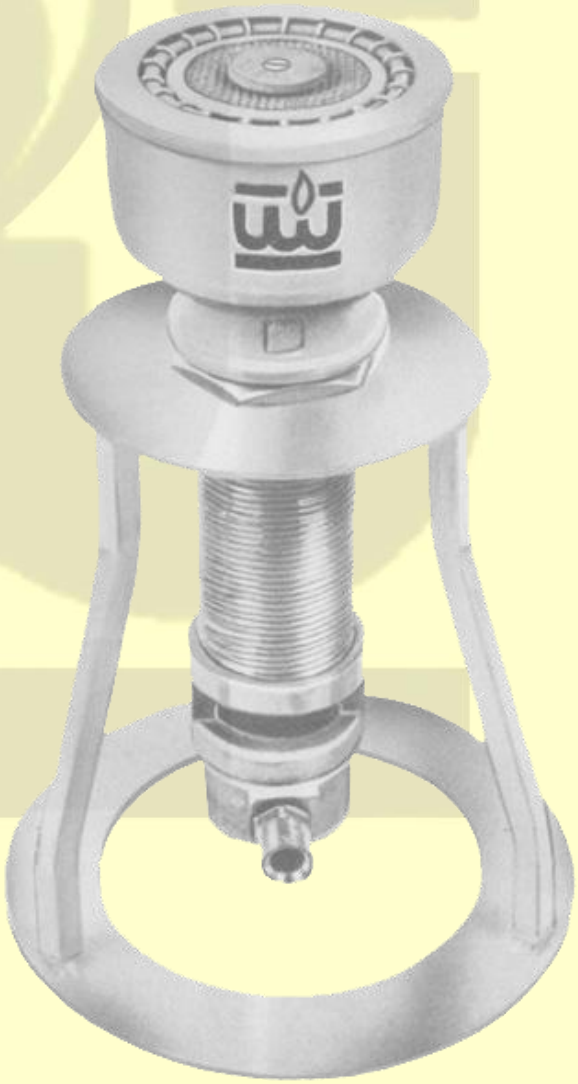
HIGH PRESSURE BURNERS

U.R.G. Burner Model No. T-78
Flame Throwing Torch Burner



Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
T-78	245	9.65	115	4.53	0.3	4.5	3.56	7.8	40,350	1,60,000

U.R.G. Burner Model No. T-50
Flame Throwing Torch Burner

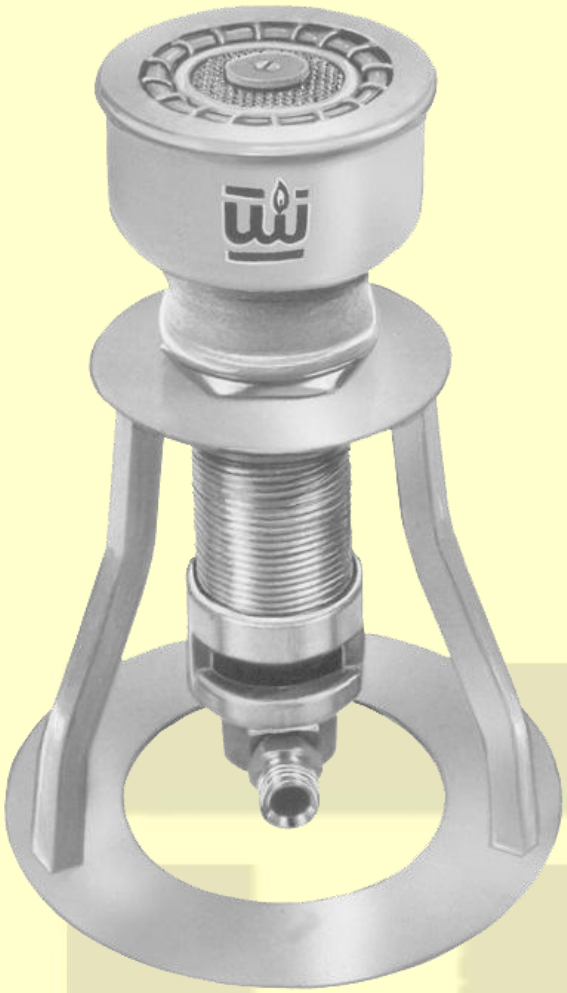


Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
T-50	230	9.05	96	3.78	0.3	4.5	2.24	5.0	25,200	1,00,000

These Burners are recommended to be used at a pressure of 0.3 kg/ cm^2 (4.5psig), however, this may be varied by ± 25%; the heat output being varied accordingly.

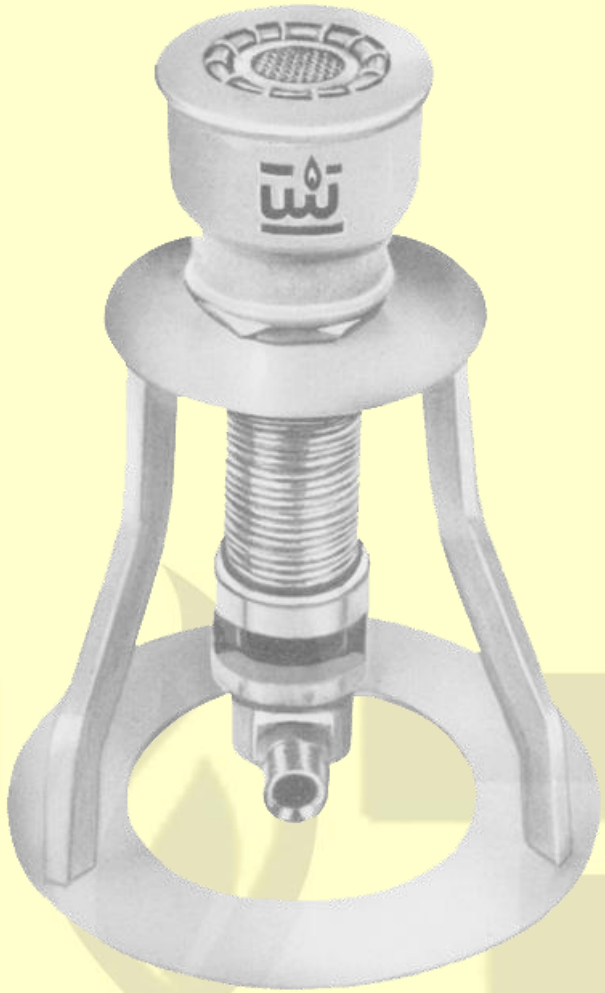
HIGH PRESSURE BURNERS

U.R.G. Burner Model No. T-35
Flame Throwing Torch Burner



Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
T-35	200	7.87	83	3.27	0.3	4.5	1.58	3.5	17,650	70,000

U.R.G. Burner Model No. T-22
Flame Throwing Torch Burner

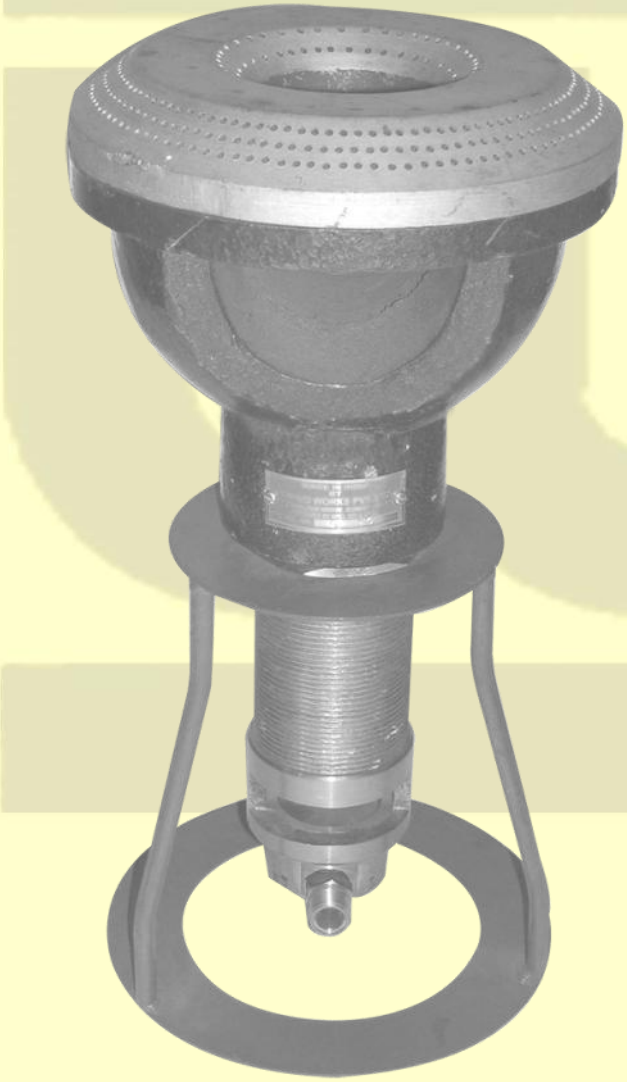


Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
T-22	185	7.28	63	2.48	0.3	4.5	0.9	2.0	10,100	40,000

These Burners are recommended to be used at a pressure of 0.3 kg/ cm^2 (4.5psig), however, this may be varied by ± 25%; the heat output being varied accordingly.

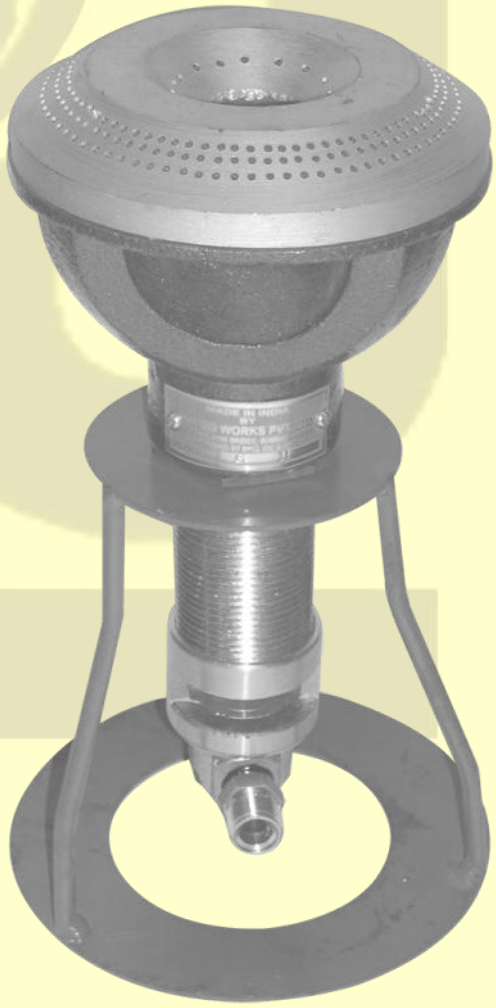
HIGH PRESSURE BURNERS

U.R.G. Burner Model No. G-15
Centre and Side Flame Burner



Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
G-15	320	12,6	180	7.1	0.3	4.5	3.56	7.8	40,350	1,60,000

U.R.G. Burner Model No. G-11
Centre and Side Flame Burner

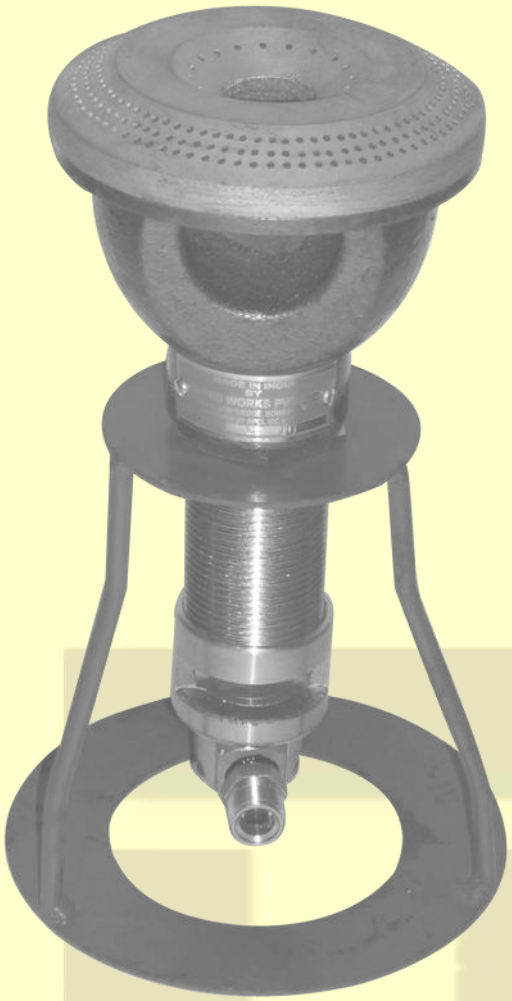


Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
G-11	230	9.05	127	5	0.3	4.5	2.24	5.0	25,200	1,00,000

These Burners are recommended to be used at a pressure of 0.3 kg/ cm^2 (4.5psig), however, this may be varied by ± 25%; the heat output being varied accordingly.

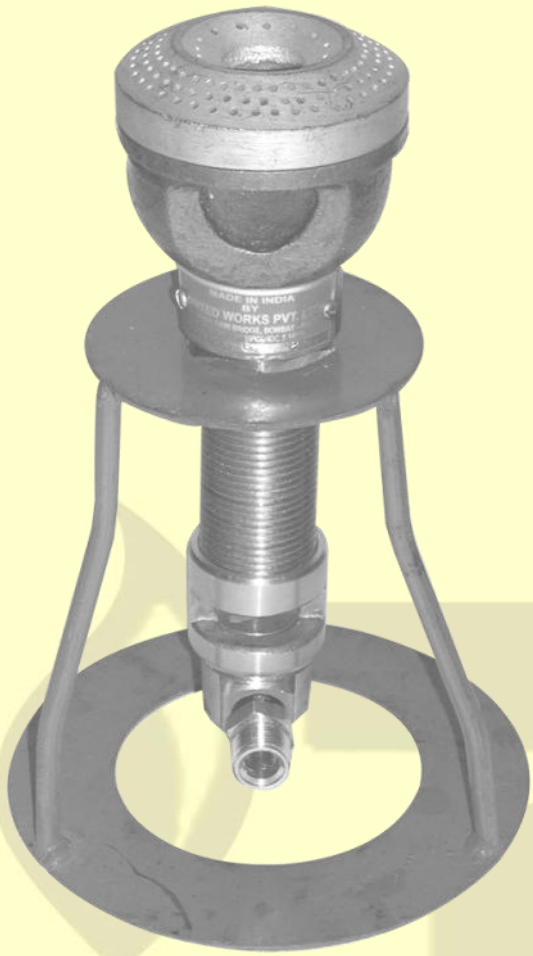
HIGH PRESSURE BURNERS

U.R.G. Burner Model No. G-10
Centre and Side Flame Burner



Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
G-10	230	9.05	115	4.53	0.3	4.5	1.58	3.5	17,650	70,000

U.R.G. Burner Model No. G-8
Centre and Side Flame Burner



Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
G-8	200	8	70	2.75	0.3	4.5	0.9	2.0	10,100	40,000

These Burners are recommended to be used at a pressure of 0.3 kg/ cm^2 (4.5psig), however, this may be varied by ± 25%; the heat output being varied accordingly.

HIGH PRESSURE BURNERS

U.R.G. Burner Model No. M-78
Flame Spreading Ring Burner

U.R.G. Burner Model No. M-50
Flame Spreading Ring Burner

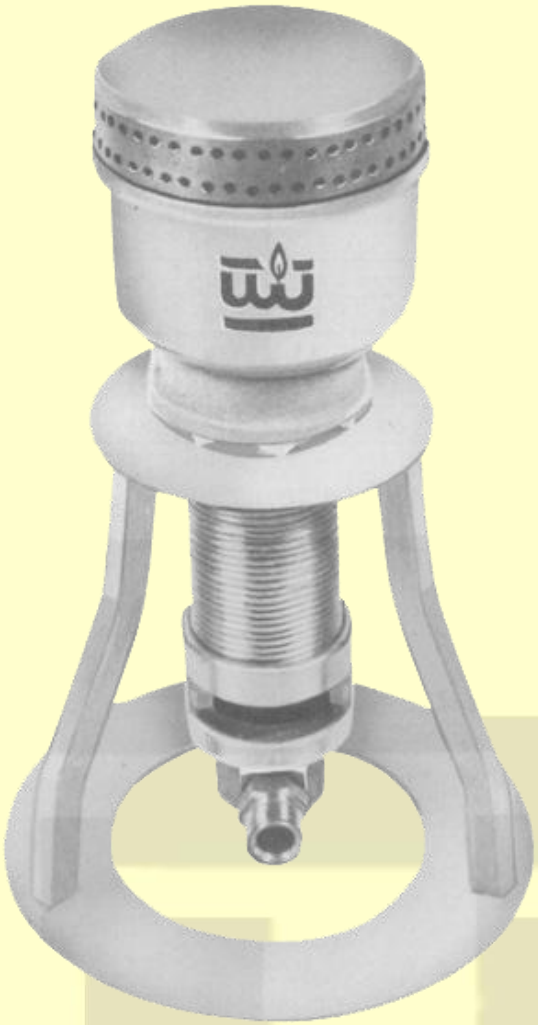
Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
M-78	270	10.63	115	4.53	0.3	4.5	3.56	7.8	40,350	1,60,000

Model No.	Dimensions				Optimum Working Pressure		Consump-tion Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
M-50	250	9.84	96	3.78	0.3	4.5	2.24	5.0	25,200	1,00,000

These Burners are recommended to be used at a pressure of 0.3 kg/ cm^2 (4.5psig), however, this may be varied by ± 25%; the heat output being varied accordingly.

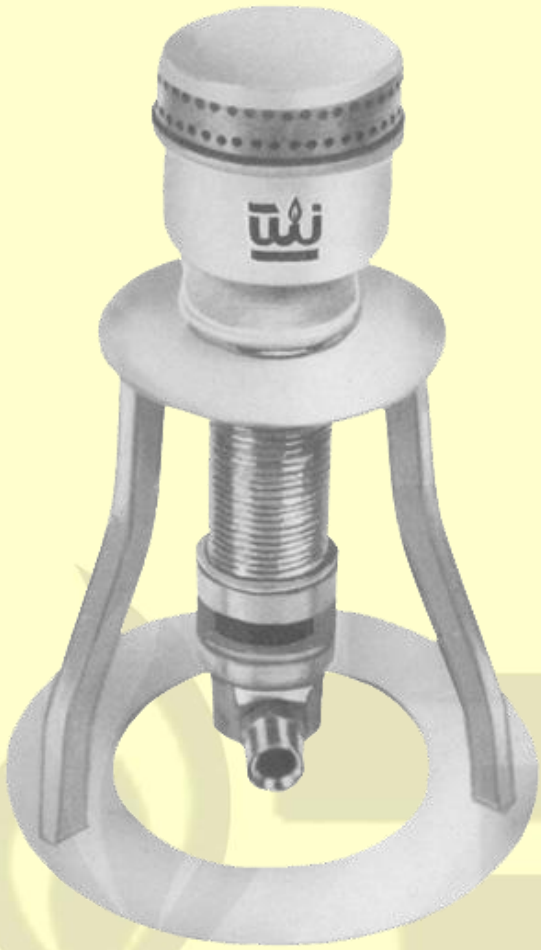
HIGH PRESSURE BURNERS

U.R.C. Burner Model No. M-35
Flame Spreading Ring Burner



Model No.	Dimensions				Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
M-35	200	8.85	83	3.27	0.3	4.5	1.58	3.5	17,650	70,000

U.R.C. Burner Model No. M-22
Flame Spreading Ring Burner



Model No.	Dimensions				Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Length		Head Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/hr	btu/hr
M-22	200	7.87	63	2.48	0.3	4.5	0.9	2.0	10,100	40,000

These Burners are recommended to be used at a pressure of 0.3 kg/ cm^2 (4.5psig), however, this may be varied by ± 25%; the heat output being varied accordingly.

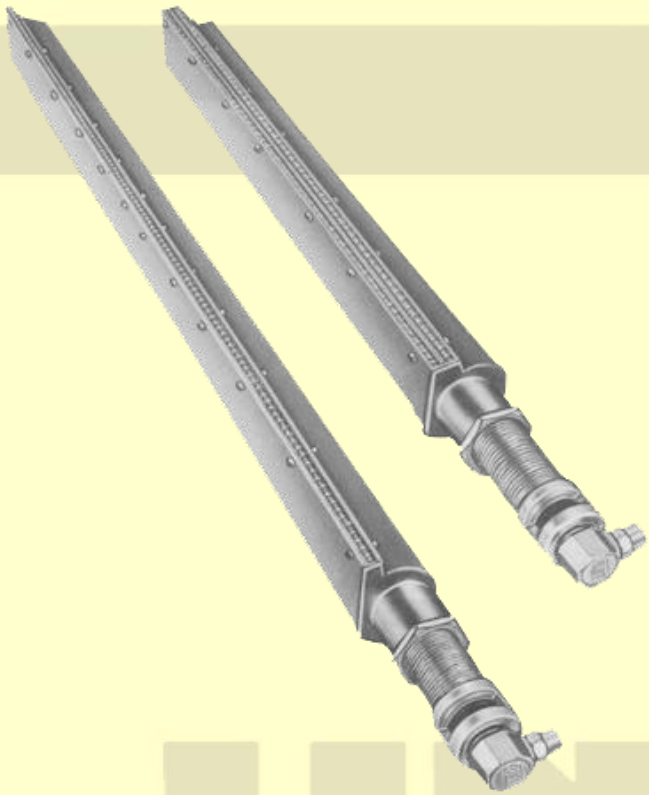
HIGH PRESSURE BURNERS

U.R.G. Burner Model Nos.
V. 300, V. 600, V. 900, V. 1200

Model No.	Ribbon Length		Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	mm	ins	kg/cm^2	psig	kgs	lbs	kcal/hr	btu/hr
V. 300	300	11.81	0.3	4.5	1.58	3.5	17,650	70,000
V. 600	600	23.62	0.3	4.5	1.58	3.5	17,650	70,000
V. 900	900	35.43	0.3	4.5	1.58	3.5	17,650	70,000
V. 1200	1200	47.24	0.3	4.5	1.58	3.5	17,650	70,000

Apart from the standard models listed above this burner can be supplied in any ribbon length upto a maximum of 2100 mm (83 ins).

These burners can be made with bottom or side entry injectors, in the centre of the burners.



U.R.G. Burner Model Nos.
L. 300, L. 600, L. 900, L. 1200

Model No.	Ribbon Length		Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	mm	ins	kg/cm^2	psig	kgs	lbs	kcal/hr	btu/hr
L. 300	300	11.81	0.3	4.5	0.9	2.0	10,100	40,000
L. 600	600	23.62	0.3	4.5	1.58	3.5	17,650	70,000
L. 900	900	35.43	0.3	4.5	1.58	3.5	17,650	70,000
L. 1200	1200	47.24	0.3	4.5	1.58	3.5	17,650	70,000

The information listed above also applies to the equivalent sized twin-ribboned versions of these burners.

The flame height being double that of the single ribboned version.

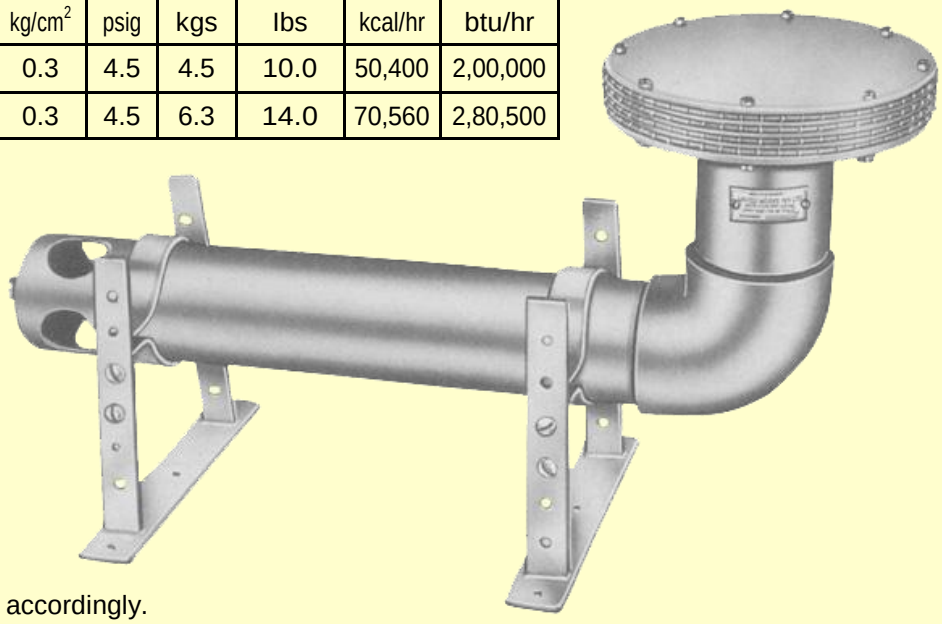
Apart from the standard models listed above both versions of these burners can be supplied in any ribbon length upto a maximum of 2100 mm (83 ins).

These burners can be made with bottom or side entry injectors, in the centre of the burners.

HIGH PRESSURE BURNERS

U.R.G. Burner Model No. M. 100, M. 140
High heat output, Flame Spreading Ring Burner

Model No.	Dimensions						Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Length		Height		Head Diameter							
	mm	ins	mm	ins	mm	ins	kg/cm^2	psig	kgs	lbs	kcal/hr	btu/hr
M. 100	570	22.44	215	8.46	180	7.00	0.3	4.5	4.5	10.0	50,400	2,00,000
M. 140	570	22.44	220	8.66	180	7.00	0.3	4.5	6.3	14.0	70,560	2,80,500



These burners are recommended to be used at 0.3 kg/cm2 (4.5 psig), however, this may be increased by 50% the heat output being varied accordingly.

U.R.G. Fishtall Burner
Model Nos. FT. 150, FT. 230, FT. 300

Model No.	Dimensions				Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Ribbon Length		Burner Height							
	mm	ins	mm	ins	kg/cm^2	psig	kgs	lbs	kcal/hr	btu/hr
FT. 150	150	5.9	190	7.48	0.3	4.5	0.45	1.0	5040	20,000
FT. 230	230	9.06	190	7.48	0.3	4.5	0.68	1.5	7560	30,000
FT. 300	300	11.81	190	7.48	0.3	4.5	0.90	2.0	10,100	40,000

A part from the standard models listed above, these burners can be supplied in any ribbon length from 100 to 400 mm (4" to 15.75").

HIGH PRESSURE BURNERS

U.R.G. Burner Model Nos. S. 20, S. 40, S. 80, S. 160

Model No.	Dimensions				Working Pressure				Consumption Per Hour				Rated Heat Output			
	Length		Head Diameter		Minimum		Minimum		Minimum		Maximum		Minimum		Maximum	
	mm	ins	mm	ins	kg/cm²	psig	kg/cm²	psig	kgs	lbs	kgs	lbs	kcal/hr	btu/hr	kcal/hr	btu/hr
S. 20	210	8.27	33	1.30	0.14	2.0	1.40	20.0	0.68	1.5	1.89	4.2	7560	30000	21100	83600
S. 40	268	10.55	43	1.70	0.14	2.0	1.40	20.0	1.35	3.0	3.83	8.5	15100	60000	42840	170000
S. 80	383	15.08	60	2.36	0.14	2.0	1.40	20.0	2.70	6.0	7.61	16.9	30240	120000	84670	336000
S. 160	483	19.02	79	3.11	0.14	2.0	1.40	20.0	5.40	12.0	15.21	33.8	60500	240000	170000	673000

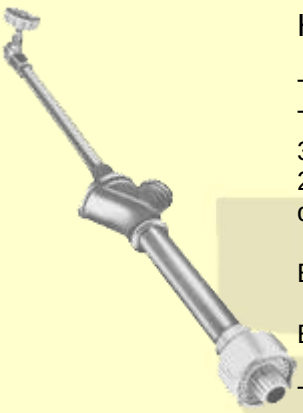
These burners produce long, reducing, low velocity flames for an excellent transfer efficiency in heating dies, moulds, plates, castings and large fabricated components.

These burners can be made in longer lengths.

U.R.G. Burner Model NOS. ST. 2.5, ST. 5, ST. 10, ST. 20, ST. 40, ST. 80, ST. 160.

Model No.	Dimensions				Working Pressure				Consumption Per Hour				Rated Heat Output			
	Length		Head Diameter		Minimum		Maximum		Minimum		Maximum		Minimum		Maximum	
	mm	ins	mm	ins	kg/cm²	psig	kg/cm²	psig	kgs	lbs	kgs	lbs	kcal/hr	btu/hr	kcal/hr	btu/hr
ST. 2.5	149	5.87	28	1.10	0.14	2.0	1.40	20.0	0.09	0.20	0.24	0.53	1000	4000	2660	10550
ST. 5	169	6.65	32	1.26	0.14	2.0	1.40	20.0	0.17	0.37	0.48	1.06	1855	7360	5290	21000
ST. 10	204	8.03	41	1.61	0.14	2.0	1.40	20.0	0.34	0.75	0.95	2.11	3750	14900	10580	42000
ST. 20	250	9.84	48	1.89	0.14	2.0	1.40	20.0	0.68	1.50	1.89	4.2	7560	30000	21100	83600
ST. 40	318	12.52	58	2.28	0.14	2.0	1.40	20.0	1.35	3.00	3.83	8.5	15100	60000	42840	170000
ST. 80	438	17.24	76	2.99	0.14	2.0	1.40	20.0	2.70	6.00	7.61	16.9	30250	120000	84670	336000
ST. 160	540	21.26	88	3.46	0.14	2.0	1.40	20.0	5.40	12.00	15.21	33.8	60500	240000	170000	673000

These burners produce short turbulant oxidising flames ideal for high intensity weld preheating, wherever hydrogen cracking is to be avoided.
It can also be used as an immersion heater or a space heater where secondary air is low.
These burners can be made in longer lengths.



High Velocity Burners Model Nos. H.V.1, H.V. 2.

The high velocity flame throwing torch burner is a new concept in high intensity heating.
The burners' unique floating head allows it to work over a wide range of pressure 0.15 kgs/cm^2 to 3.5 kgs/cm^2 (2 psig to 50 psig), its heat output being varied accordingly from 4300 kcal/hr to 24,000 kcal/hr (17,000 btu/hr to 95000 btu/hr). Its short sharp high intensity flame is ideal for brazing or soldering, preheating and glass working.

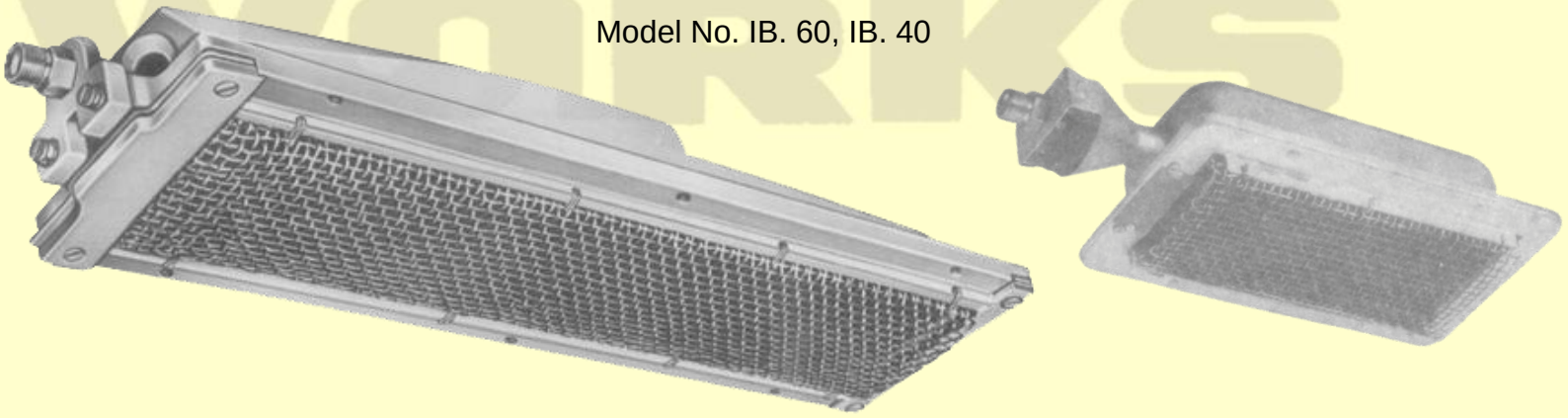
Burner Model No. H.V. 1 fitted with valve for hand operation.

Burner Model No. H.V. 2 without valve.

The burners can be used with blower or compressed air.

INFRA-RED RADIANT BURNER

Model No. IB. 60, IB. 40

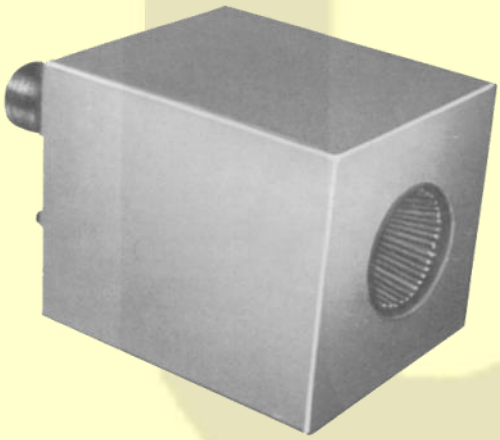


Model No.	Dimensions						Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Length		Width		Height							
	mm	ins	mm	ins	mm	ins	kg/ cm^2	psig	kgs	Ibs	kcal/hr	btu/hr
IB. 60	488	19.0	127	5.0	90	3.5	0.035	0.5	0.38	0.85	4,280	17,000
IB. 40	235	9.0	127	5.0	70	2.75	0.035	0.5	0.15	0.33	1700	6800

Gas operated Infra-Red Radiant Burners, can be adapted to almost all purpose where radiant heat is required, industrial uses include Brooding, Curing, Drying, Food Processing, Metal Fabricating and Finishing, Textile Drying and Weld Pre-heating.

CERAMIC BLOCK FURNACE BURNER

Model No. CFA. 22

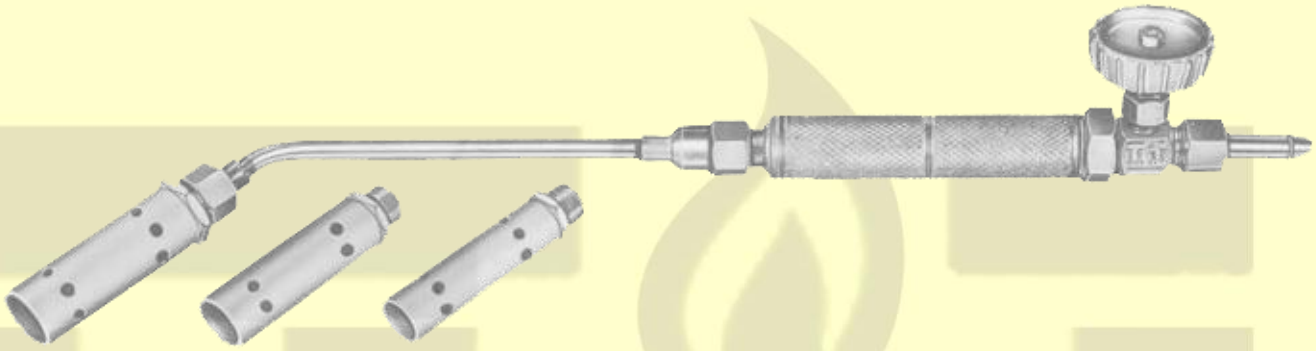


Dimensions							
Length		Height		Width		Air inlet Thread	Gas inlet Thread
mm	ins	mm	ins	mm	ins	2" B.S.P.P.M.	3/8" Cu
360	14.17	220	8.66	220	8.66		

The Ceramic Block Furnace Burner with its short turbulant flame finds application wherever intense space heating is required. The burner block made from high temperature refractory ceramic can be built into the furnace wall, its air and gas connections being accessible from behind.

This burner is capable of delivering heat outputs ranging from I2,600kcal/hr. to 2,52,000 kcal/hr. (50,000 btu/hr. to 1,00,000 btu/hr.) and can be preset to the desired heat level. The burner requires blower air of pressure and capacity proportional to the heat output desired. Ideal applications include Annealing, Heat Treatment, Sintering and Melting.

CYCLONE TORCH BURNER KIT

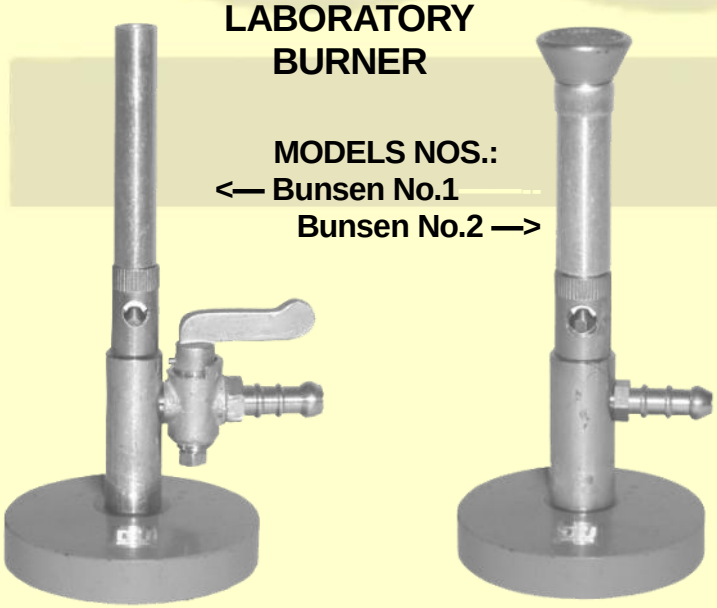


Cyclone Torch Burner No.	Dimensions				Working Pressure				Consumption Per Hour				Rated Heat Output			
	Burner Length		Head Diameter		Minimum		Maximum		Minimum		Maximum		Minimum		Maximum	
	mm	ins	mm	ins	kg/cm^2	psig	kg/cm^2	psig	kgs	lbs	kgs	lbs	kcal/hr	btu/hr	kcal/hr	btu/hr
1	70	2.5	20	0.75	0.14	2.0	1.40	20.0	0.09	0.20	0.24	0.53	1000	4000	2660	10550
2	78	3.0	23	0.90	0.14	2.0	1.40	20.0	0.17	0.37	0.48	1.06	1855	7360	5290	21000
3	78	3.0	26	1.00	0.14	2.0	1.40	20.0	0.34	0.75	0.95	2.11	3750	14900	10560	42000

This hand held torch burner is suitable for heating applications such as Brazing, Pre-heating prior to Welding, Annealing, Pipe Bending, Stress Relieving, Soft Soldering, Hardening and Tempering.

LABORATORY BURNER

MODELS NOS.:
<— Bunsen No.1
Bunsen No.2 —>



Model No.	Dimension				Optimum Working Pressure		Consumption Per Hour		Rated Heat Output	
	Length		Base Diameter							
	mm	ins	mm	ins	kg/ cm^2	psig	kgs	lbs	kcal/ hr	btu/ hr
B-1	150	6.0	80	3	0.035	0.5	0.06	0.13	680	270
B-2	150	6.0	80	3	0.035	0.5	0.1	0.235	1250	4950

These burners can be supplied with taps (Part No. 192)

PILOT BURNERS

Model No.	Dimension				Optimum working Pressure		Consumption Per Hour		Rated Heat Output	
	Length		Diameter							
	mm	ins	mm	ins	Kg/ cm^2	psig	kgs	lbs	kcal /hr	btu/ hr
PL1	92	3.62	16	0.63	0.035	0.5	0.043	0.094	480	1895
PL2	92	3.62	16	0.63	0.3	4.5	0.043	0.094	480	1895

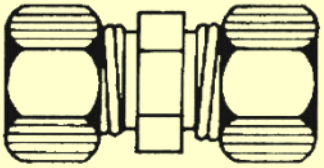
JEWELLERS TORCH

This lightweight Oxy / LPG Jewellers Torch has easy to use controls that can be operated without moving the users firm grip from the Torch handle. The Torch is available with various sizes of copper tips to ensure stability of temperature and output once the initial setting been undertaken.

LOW PRESSURE FITTINGS

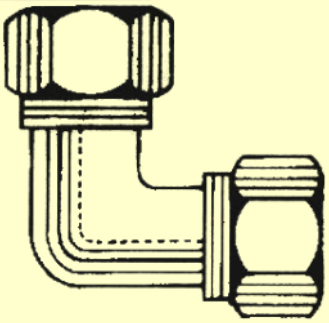
STRAIGHT COUPLINGS

COPPER TO COPPER



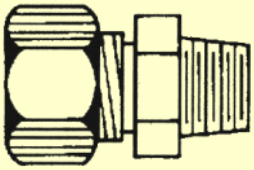
101 3/8" Cu. x 3/8" Cu.

ELBOWS



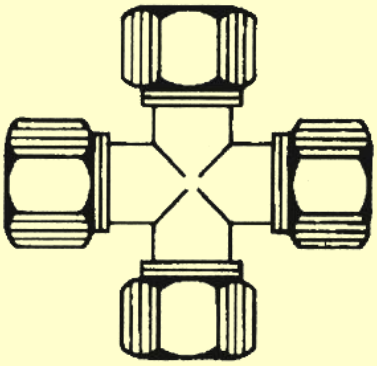
141 3/8" Cu. x 3/8" Cu.

COPPER TO TAPER MALE



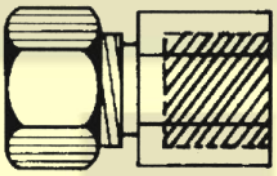
111 3/8" CU. X 3/8" B.S.P.T.M.
113 3/8" CU. X 1/8" B.S.P.T.M.
114 3/8" CU. X 1/4" B.S.P.T.M.
115 3/8" CU. X 1/2" B.S.P.T.M.
118 3/8" CU. X 3/4" B.S.P.T.M.

CROSSES



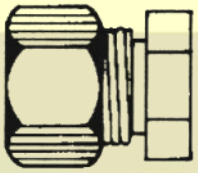
145 3/8" CU. X 3/8" CU. X
3/8" CU. X 3/8" CU.

COPPER TO PARALLEL FEMALE



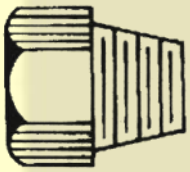
121 3/8" CU. X 1/4" B.S.P.P.F.
122 3/8" CU. X 3/8" B.S.P.P.F
125 3/8" CU. X 3/4" B.S.P.P.F
126 3/8" CU. X 1/8" B.S.P.P.F
127 3/8" CU. X 1/2" B.S.P.P.F

STOP ENDS



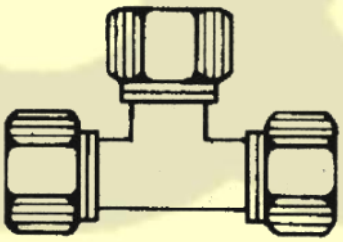
151 3/8" Cu.

153 1/8" B.S.P.T.M.
154 1/4" B.S.P.T.M.
155 3/8" B.S.P.T.M.
156 1/2" B.S.P.T.M.



157 3/8" B.S.P.T.F.
158 1/2" B.S.P.T.F.

TEES



131 3/8" CU. X 3/8" CU. X
3/8" CU.

STANDARD NOZZLES

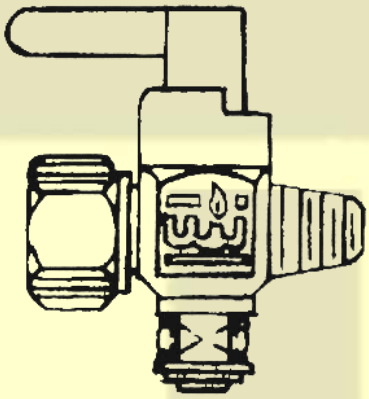
171 1/8" B.S.P.T.M.
172 1/4" B.S.P.T.M
173 3/8" B.S.P.T.M
174 1/2" B.S.P.T.M
175 3/4" B.S.P.T.M

176 1/4" B.S.P.P.F.
177 3/8" B.S.P.P.F.
178 1/2" B.S.P.P.F.
179 3/4" B.S.P.P.F.
180 Bullnose for 3/8" Cu. Nut.

LABORATORY FITTINGS AND NUTS

QUARTER TURN TAPS

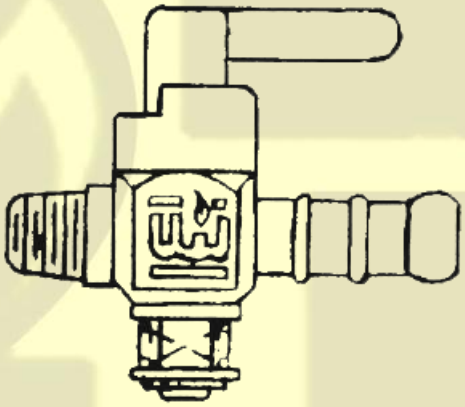
(Suitable for low pressure installation)



191 3/8" Cu. X 3/8" Cu.
195 3/8" Cu. X 1/8" B.S.P.T.M.
196 3/8" Cu. X 1/4" B.S.P.T.M.
197 3/8" Cu. X 3/8" B.S.P.T.M.
198 3/8" Cu. X 1/4" B.S.P.P.F.

QUARTER TURN TAPS

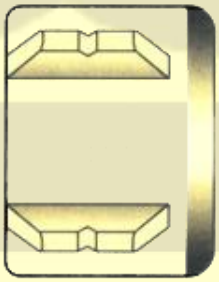
(Suitable for low pressure installation)



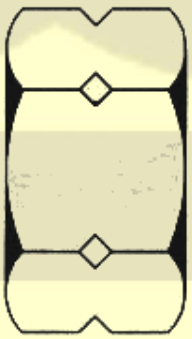
192 1/8" B.S.P.T.M. x Standard Nozzle
193 1/4" B.S.P.T.M. x Standard Nozzle
194 3/8" B.S.P.T.M. x Standard Nozzle
199 3/8" Cu. x Standard Nozzle

NUTS

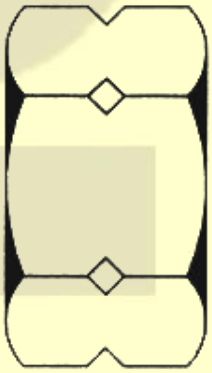
201 3/8" CU.



202 F. Eur. Cyl. Valve, with 5 ribs.

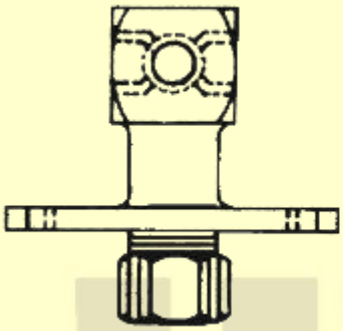


203 F. Eur. Cyl. Valve.

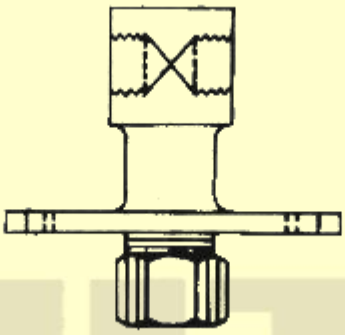


205 1" B.S.P.P.F. Left hand

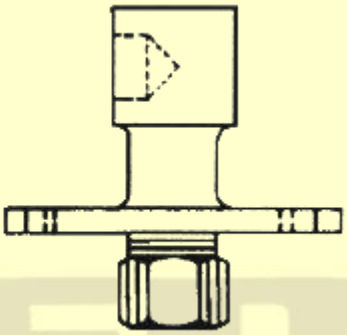
TERMINAL BLOCKS FOR GAS TAPS WITH INLET AT BASE FOR TABLE FITTING



231 3/8" CU. X 4-1/8" B.S.P.P.F.
Four on Four sides
232 3/8" Cu. X 3-1/8" B.S.P.P.F.
Three on Three sides

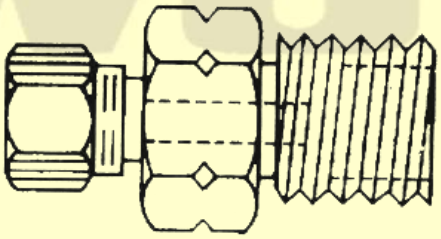


233 3/8" CU. X 2-1/8" B.S.P.P.F.
Two on Two sides (Opposite)
234 3/8" CU. X 2-1/8" B.S.P.P.F.
Two on Two sides (Angle)



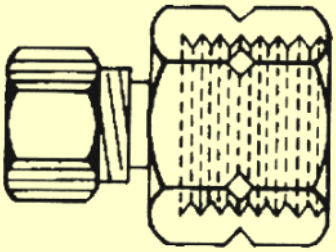
235 3/8" CU. X 1-1/8" B.S.P.P.F.
One on one side

HIGH PRESSURE ADAPTERS

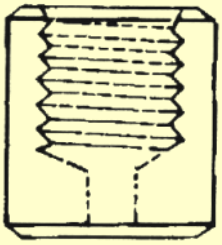


243 3/8" Cu. x M. Eur. Cyl. Valve

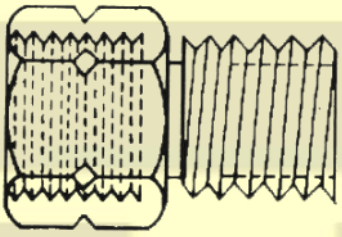
271 3/8" B.S.P.T.M. X 2-1/8" B.S.P.T.F. Angle



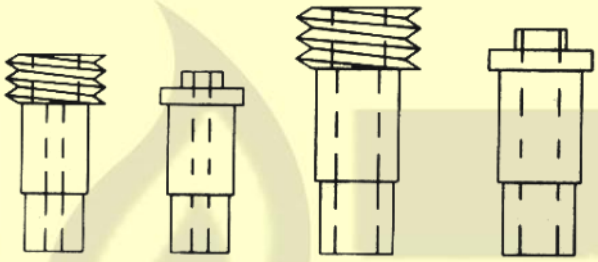
247 3/8" Cu. x F. Eur. Cyl. Valve



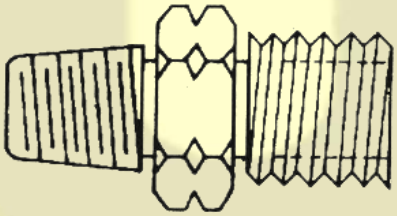
For Butt Brazing/Welding to
High / Low Pressure Pipelines
274 M.S. Adapter 3/8" B.S.P.P.F.



248 3/4" B.S.P.P.F. x M. Eur. Cyl. Valve
249 1/2" B.S.P.P.F. x M. Eur. Cyl. Valve
250 3/8" B.S.P.P.F. x M. Eur. Cyl. Valve
251 1/4" B.S.P.P.F. x M. Eur. Cyl. Valve



For Brazing / Welding into High / Low Pressure Pipelines
For 1/2" Pipe line.
275 M.S. Adapter 3/8" B.S.P.P.M. X MECV.
276 M.S. Adapter 3/8" B.S.P.P.M. x Bullnose for FECV Nut
For 1" Pipe line.
278 M.S. Adapter 3/4" B.S.P.P.M. x 1" B.S.P.P.M. Left Hand
279 M.S. Adapter 3/4" B.S.P.P.M. x Bullnose for 1" Left hand Nut



259 1" B.S.P.T.M. X 1" B.S.P.P.M. (L H.)
260 1" B.S.P.T.M. X M. Eur. Cyl. Valve
261 3/4" B.S.P.T.M. X M. Eur. Cyl. Valve
262 1/2" B.S.P.T.M. X M. Eur. Cyl. Valve
263 3/8" B.S.P.T.M. X M. Eur. Cyl. Valve
264 1/4" B.S.P.T.M. X M. Eur. Cyl. Valve

MULTIPLE NOZZLE

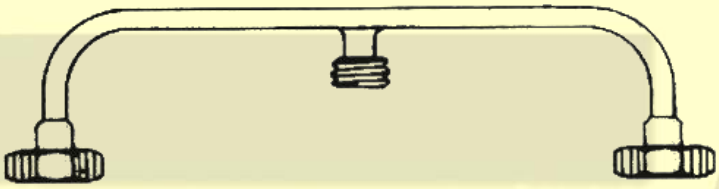
303 Three Way Nozzle

NON RETURN VALVE

305 FECV X MECV

TWO BOTTLE CONNECTIONS, PIGTAILS & COMPACT VALVE ADAPTERS

TWO BOTTLE CONNECTIONS



311 Bent Length 14" Copper
316 Bent Length 14" Mild Steel

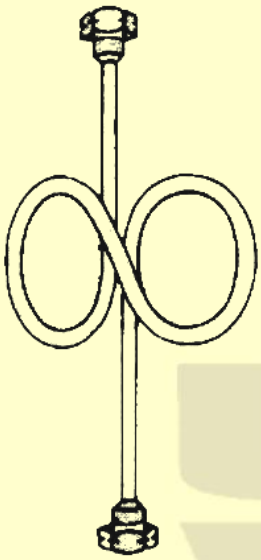
312 Straight Length 18" Cu.
313 Straight Length 12" Cu.
314 Straight Length 9" Cu.
315 Straight Length 6" Cu.

317 Straight Length 18" M.S.
318 Straight Length 12" M.S.
319 Straight Length 9" M.S.
320 Straight Length 6" M.S.

321 Flexible Two Bottle Connection
F.E.C.V. X F.E.C.V. With 1 M.E.C.V. nipple one end.

CYLINDER PIGTAILS

With 2 F.E.C.V. Nuts & Bullnose Connections



<——-COPPER
331 Length 36"
332 Length 48"

FLEXIBLE ——->
342 Length 24"
343 Length 36"
344 Length 48"

BURNER PIGTAILS

With 2-3/8" B.S.P.P.F. Nuts & Bullnose Connections for use between Pressure Line & Burners.

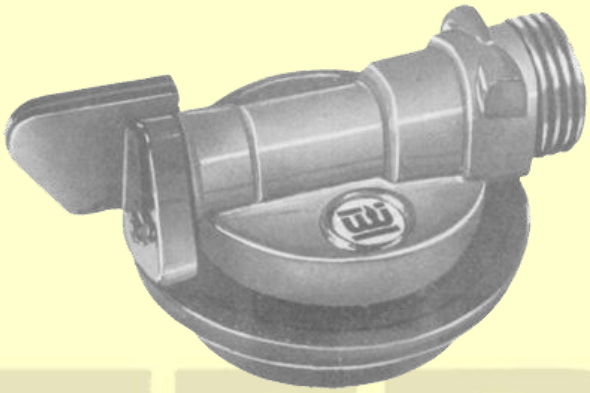
COPPER
333 Length 12"
334 Length 18"
335 Length 24"
336 Length 30"
337 Length 36"
338 Length 42"
339 Length 48"

FLEXIBLE
345 Length 24"
347 Length 36"
349 Length 48"

These Pigtails can be made in any length upto 30 feet.

COMPACT VALVE ADAPTER
TYPE : SIERRA

These diecast multi-point adapters enable the connections of the cylinders fitted with self-closing valves to a high pressure systems through a standard M.E.C.V. thread with unreduced pressure and a high flow rate. The adapters are fitted with a non return valve to ensure that there is no flow of L.P.G. whilst cylinders are being disconnected. The salient features of these adapters is the multi-point locking mechanism which combined with a face seal ensures that the adapter will not leak even if it is loaded off axis. The quick disconnection arrangement couple with a safety interlock ensures that the device can only be disconnected after turning off the gas flow.



Regd. Design NO. Applied for :

356 Compact Valve (25.6 mm) x M.E.C.V.
357 Compact Valve (25.6 mm) x 3/8" Cu.
358 Compact Valve (22 mm) x M.E.C.V.
359 Compact Valve (22 mm) x 3/8" Cu.

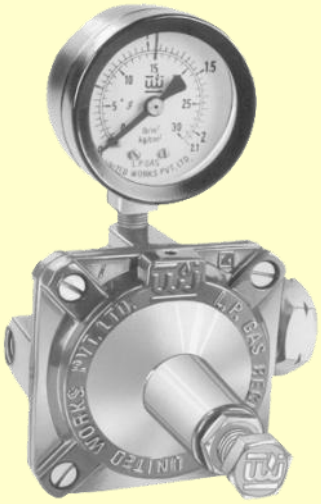
ADJUSTABLE L.P. GAS REGULATORS

L.P. GAS REGULATORS

REG-1

Regd. Design No. Applied for

REG-2



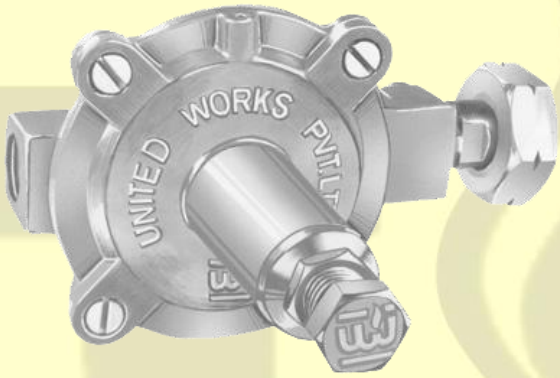
Regd. Design No. 156906/1986

REG-3

Regd. Design No. Applied for

MICRO ADJUSTABLE L.P. GAS REGULATORS

REG-3-M



Regd. Design No. Applied for

Model No.	Thread Size			Inlet Pressure				Delivery Pressure				Flow Rate at 0.3 Kg/cm2	
	Inlet	Outlet	Guage	Maximum		Minimum		Maximum		Minimum			
				kg/cm^2	psig	kg/cm^2	psig	kg/cm^2	psig	kg/cm^2	psig	kgs/hr	lbs/hr
REG-1	F.E.C.V.	$^1/_4$" B.S.P.P.F.	$^1/_8$" B.S.P.P.F.	10.5	150	0.35	5	2.1	30	0.035	0.5	8	17.5
REG-2	F.E.C.V.	$^1/_4$" B.S.P.P.F.	$^1/_8$" B.S.P.P.F.	10.5	150	0.35	5	2.1	30	0.035	0.5	20	44
REG-3	F.E.C.V.	$^3/_8$" B.S.P.P.F.	$^1/_8$" B.S.P.P.F.	10.5	150	0.35	5	2.1	30	0.035	0.5	22	49
REG-3-M	F.E.C.V.	$^3/_8$" B.S.P.P.F.	—	10.5	150	0.35	5	0.35	5	0.035	0.5	22	49

These regulators can be used for first or second stage pressure regulation and are stable over the entire range of delivery pressure.

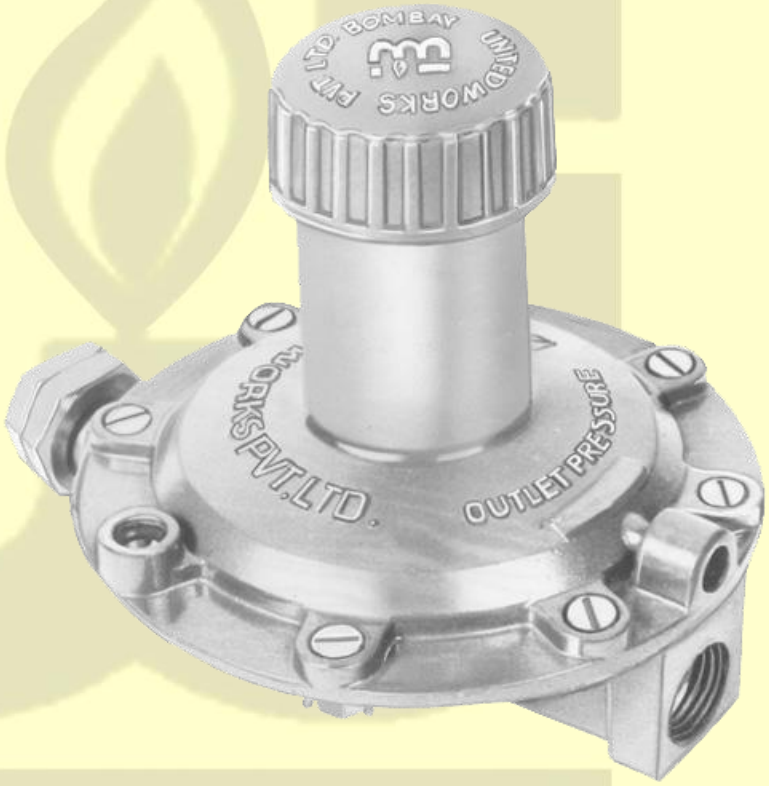
Pressure gauges are available as optional extras.

PRESET L.P. GAS REGULATORS

REG-3

Regd. Design No. Applied for

REG-4

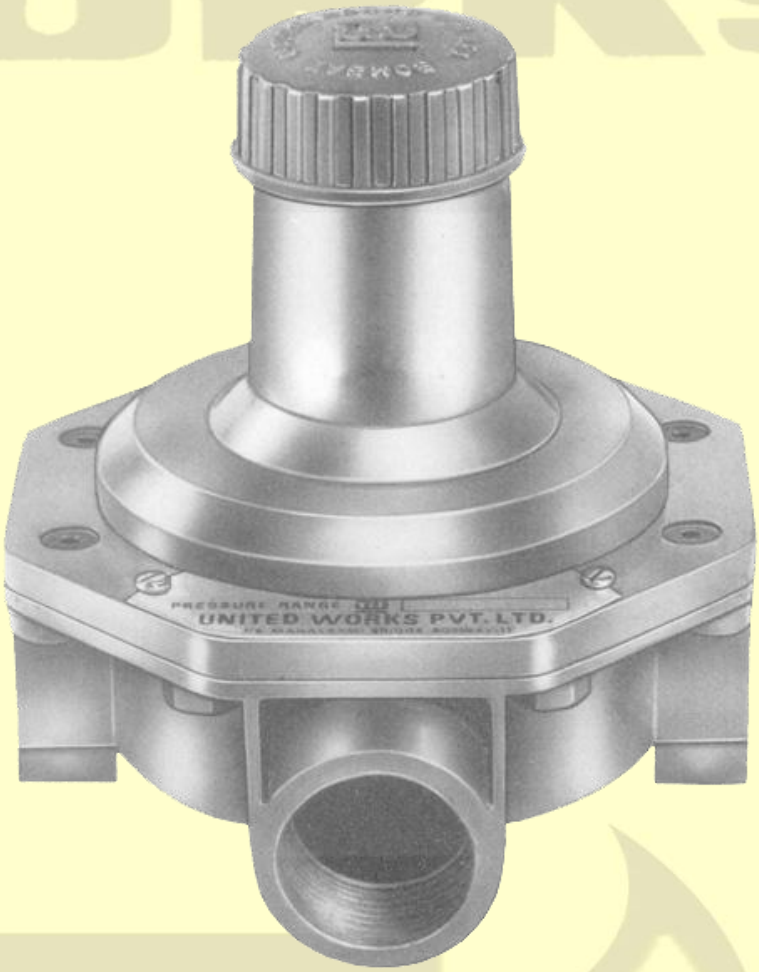


Regd. Design No. Applied for

Model No.	Type	Colour Code	Thread size		Inlet Pressure				Delivery Pressure		Flow Rate	
					Maximum		Minimum					
			Inlet	Outlet	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/hr	lbs/hr
REC-3-B-0.5	2^{nfl} stage	Blue Cap	F.E.C.V.	3/8" BSPPF	2.1	30	035	5	0.035	0.5	1.50	3.30

Model No.	Type	Colour Code	Thread Size		Inlet Pressure				Delivery Pressure		Flow Rate	
					Maximum		Minimum					
			Inlet	Outlet	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/hr	lbs/hr
REG-4-R-15	1st stage	Red	F.E.C.V.	^{1}/2" B.S.P.P.F.	10.5	150	3.5	50	1.05	15	45.5	100.00
RE-4-R-10	1st stage	Red	F.E.C.V.	^{1}/2" B.S.P.P.F.	10.5	150	3.5	50	0.7	10	38.0	84.0
REG-4-R-5	1st stage	Red	F.E.C.V.	^{1}/2" B.S.P.P.F.	10.5	150	3.5	50	0.35	5	32.0	70.5
REG4-G-0.5	1st stage	Green	F.E.C.V.	^{1}/2" B.S.P.P.F.	10.5	150	3.5	50	0.035	0.5	10.0	22.0
REG-4-W-15	2ndstage	White	F.E.C.V.	^{1}/2" B.S.P.P.F.	21.1	30	1.4	20	1.05	15	32.0	70.5
REG-4-W-10	2ndstage	White	F.E.C.V.	^{1}/2" B.S.P.P.F.	21.1	30	1.05	15	0.7	10	30.0	66.0
REG-4-W-5	2ndstage	White	F.E.C.V.	^{1}/2" B.S.P.P.F.	21.1	30	0.7	10	0.35	5	27.0	59.5
REG-4-B-0.5	2ndstage	Blue	F.E.C.V.	^{1}/2" B.S.P.P.F.	21.1	30	0.35	5	0.035	0.5	10.0	22.0

HIGH CAPACITY PRESET L.P. GAS REGULATORS



Regd. Design No. 159605/1988

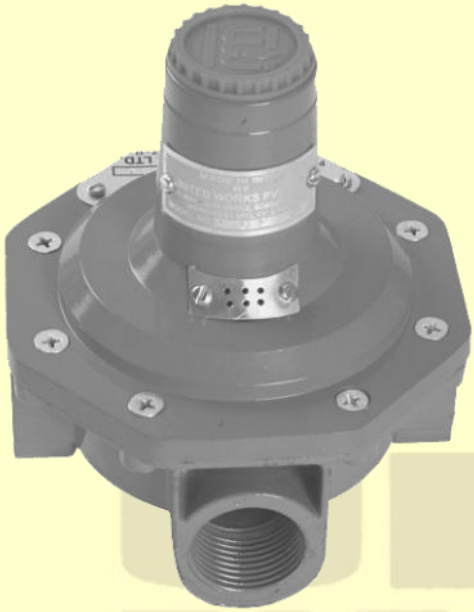
Model No.	Type	Colour Code	Thread Size		Inlet Pressure				Delivery Pressure		Flow Rate	
					Maximum		Minimum					
			Inlet	Outlet	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/hr	lbs/hr
REG-9-R-30	1st stage	Red	1" B.S.P.P.F.	1" B.S.P.P.F.	10.5	150	3.5	50	2.1	30	160	350
REG-9-R-20	1st stage	Red	1" B.S.P.P.F.	1" B.S.P.P.F.	10.5	150	3.5	50	1.4	20	140	300
REG-9-R-15	1st stage	Red	1" B.S.P.P.F.	1" B.S.P.P.F.	10.5	150	3.5	50	1.05	15	120	265
REG-9-R-10	1st stage	Red	1" B.S.P.P.F.	1" B.S.P.P.F.	10.5	150	3.5	50	0.7	10	90	220
REG-9-R-5	1st stage	Red	1" B.S.P.P.F.	1" B.S.P.P.F.	10.5	150	3.5	50	0.35	5	65	140
REG-9-W-15	2ndstage	White	1" B.S.P.P.F.	1" B.S.P.P.F.	21.1	30	1.4	20	1.05	15	90	200
REG-9-W-10	2ndstage	White	1" B.S.P.P.F.	1" B.S.P.P.F.	21.1	30	1.05	15	0.7	10	75	165
REG-9-W-5	2ndstage	White	1" B.S.P.P.F.	1" B.S.P.P.F.	21.1	30	0.7	10	0.35	5	50	110

HIGH CAPACITY ADJUSTABLE L.P.GAS REGULATOR

Reg-9-ADJ & Reg-9-ADJ-VC

Model No.	Thread Size			Inlet Pressure				Delivery Pressure				Flow Rate at 2.1 Kg/cm2 (30psig)	
	inlet	Outlet	Gauge	Maximum		Minimum		Maximum		Minimum			
				Kg/cm^5	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/hr	lbs/hr
Reg-9-ADJ & Reg-9-ADJ-VG	1" BSPPF	1" BSPPF	3/8" BSPPF fitted with a pressure gauge & its isolating valve	10.5	150	0.35	5	2.1	30	0.035	0.5	160	350

OVER PRESSURE SHUT-OFF (O.P.S.O.) VALVE



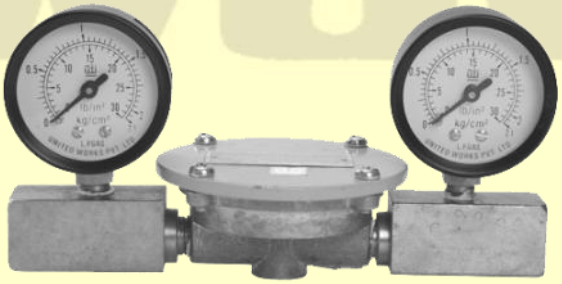
An Over Pressure Shut-Off (O.P.S.O.) valve is a safety device which monitors the gas supply pressure and compares it to it's pre-set level. It can be fitted in both main and branch lines, between first and second stage regulators and between second stage and any other regulators.

In case the regulator before it should fail, the Over Pressure Shut-Off (O.P.S.O.) valve will automatically activate, thereby switching off the gas supply.

When the line pressure before it is brought back to its original level, by releasing the excess gas, the Over Pressure Shut-Off (O.P.S.O.) valve will automatically reset itself and restart supply.

GAS FILTERS

F - 1



F - 2

Gas filters are used to separate dust and other particles such as oils, waxes, tar etc which are all heavy ends in Low and High pressure service lines. These are used to protect the system and the other safety equipment provided on the pipeline. These Gas Filters have negligible pressure loss across their end connections.

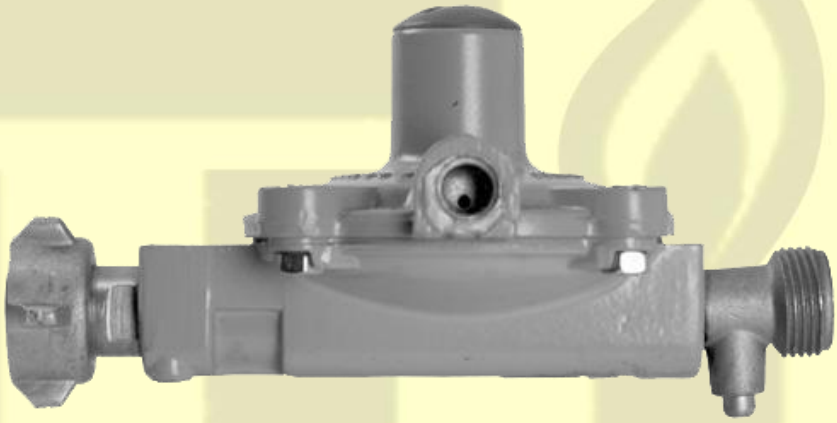
There are two models of filters:
1) Model F-1 which is $^{1}/_{2}$" BSPPF X $^{1}/_{2}$" BSPPF
2) Model F-2 which is 1" BSPPF X 1' BSPPF

Both the models are provided with pressure gauges. As the filter is used and its element gets contaminated with heavy ends, the outlet pressure starts dropping with respect to its inlet pressure. This can be visually read from the two pressure gauges provided on the filter. The element requires changing when there is a drop of 50% or more between its inlet and outlet readings.

The element can be inspected, and replaced without any disconnection from the pipeline.

LOW PRESSURE L.P. GAS REGULATOR WITH UNDER PRESSURE SHUT-OFF (U.P.S.O.) VALVE

REG - 5



Model No.	Type	Colour Code	Thread Size		Inlet Pressure				Delivery Pressure		Flow Rate	
					Maximum		Minimum					
			Inlet	Outlet	Kg/cm^2	psig	Kg/cm^2	psig	gms/cm^2	Ins wc	Kg/hr	lbs/hr
REG-5	2"" stage	Blue Cap	F.E.C.V.	M.E.C.V.	2.1	30	0.035	0.5	30	11	1.50	3.30

These Pressure Regulators are suitable for domestic L P. Gas / Natural Gas installations. They are fitted with an Under Pressure Shut-Off (U.S.P.O.) valve and a pressure relief valve, in the event of an excessive flow of gas, or a drop in it's pressure at the outlet of the regulator, the Under Pressure Shut-Off (U.P.S.O.) valve safely closes the outlet gas supply. When the under pressure condition has been corrected or repaired, the Under Pressure Shut-Off (U.P.S.O.) valve can be reset by pushing the button on the regulator.

AUTOMATIC CHANGEOVER MANIFOLDS

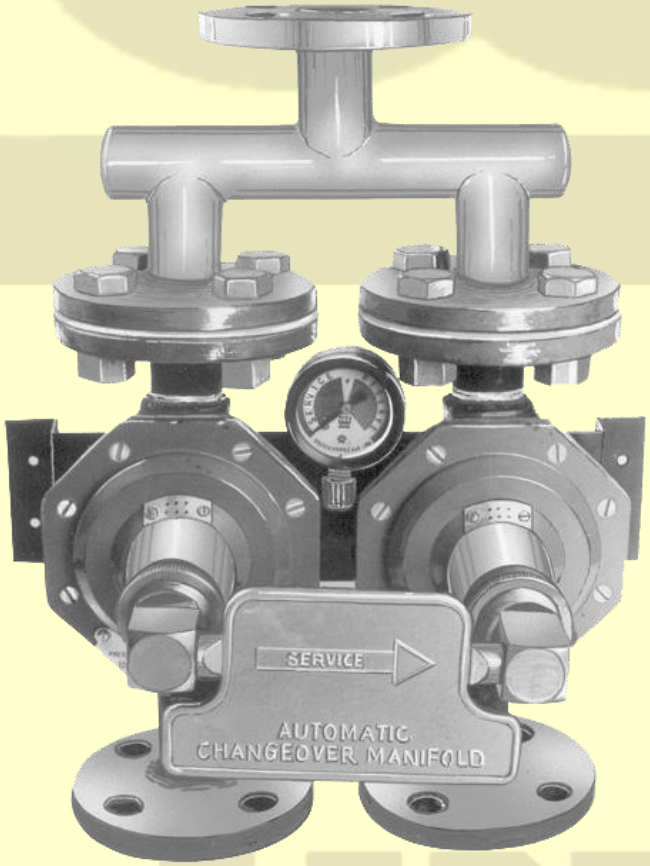
ACM - 3

Model No.	Inlet Connec-tions	Outlet Connec-tions	Mean Delivery Pressure		Mean Flow Rate	
			Kg/cm^2	psig	kg/hr	lbs/hr
ACM-3	M.E.C.V.	M.E.C.V.	1.05	15	26.0	57.0

ACM - 4

Model No.	Inlet Connec-tions	Outlet Connec-tions	Mean Delivery Pressure		Mean Flow Rate	
			Kg/cm^2	psig	kg/hr	lbs/hr
ACM-4	M.E.C.V.	M.E.C.V.	1.05	15	45.5	100.0

ACM - 9



Model No.	Inlet Connec-tions	Outlet Connec-tions	Mean Delivery Pressure		Mean Flow Rate	
			Kg/cm^2	psig	kg/hr	lbs/hr
ACM-9	1" Flanged to B.S. 10 Table 'F'	1" Flanged to B.S. 10 Table 'F'	1.05	15	120	265

The Auto Changeover Manifold is a device to ensure continuous gas delivery switching from the service cylinder bank to reserve cylinder bank automatically when the service cylinder bank is exhausted, it is also a first stage pressure regulator. An indicator is provided with service and reserve markings in green and red colours respectively.

Initially both the gas cylinder banks will be full. The supply of gas will be taken only from the service bank ensuring no gas supply comes from the reserve bank.

As soon as the needle of the indicator reaches the red zone, the supply of gas will start from the reserve bank indicating that the original service bank now acting as a reserve bank is exhausted and needs replacement, in this way the Changeover will take place automatically and an uninterrupted gas supply is ensured.

When the fresh supply of full gas cylinders is fitted to the exhausted bank, rotate the flap of the 'Automatic Changeover Manifold so that the direction of the arrow points towards the current supply bank which is the opposite bank to which the new cylinders have been installed.

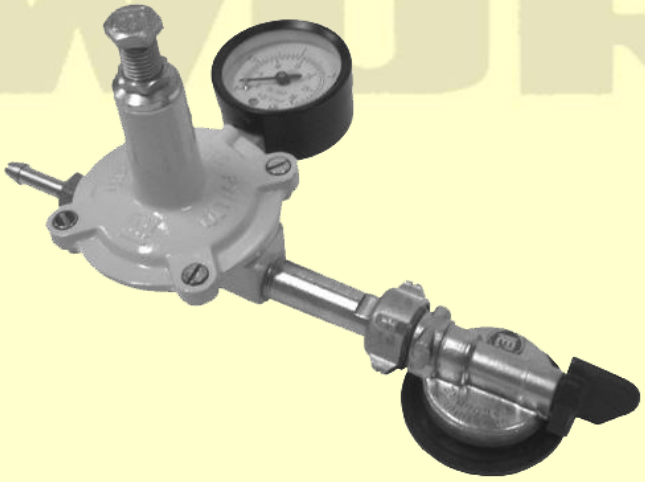
This makes what was the reserve bank, the service bank and the gas will flow through the system until the cylinders in that bank are exhausted.

The process is then repeated for the next change over operation by the Auto Changeover Manifold.

NOTE:

1) **Rotation of the flap prepares the system for the next changeover operation which will take place automatically.**
2) **AS The Automatic Changeover Manifold is a pressure-sensing device, ensure that the requisite numbers of cylinders are connected to the manifolds as per the maximum flow requirement.**

CUTTING GAS REGULATOR SETS



CGR-1 & CGR-2

Cutting Gas Regulator Assemblies are adapted to mount horizontally on Cutting Gas Cylinders. They include valve adapters with a 5 point positive lock, a face seal which is in addition to the joint seal washers, inbuilt non return valves and adjustable pressure regulators 0 to 2 Kg/cm^2 (0 to 30 psig), fitted with easy to read pressure gauges calibrated in Kg/cm^2 and psig.

Model No.	Pressure Gauge Range		Inlet Pressure				Delivery Pressure				Flow Rate at 2.1 Kg/cm^2 (30 psig)	
			Maximum		Minimum		Maximum		Minimum			
	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/hr	lbs/hr
CGR-1	0-2	0-30	10.5	150	0.35	5	2.1	30	0.035	0.5	40	88
CGR-2	0-2	0-30	10.5	150	0.35	5	2.1	30	0.035	0.5	40	88

Model No, CGR-1 - Inlet Connection - To suit 25.6 mm Cylinder Valve. Outlet Connection - To suit 6 mm ID hose
Model No, CGR-2 - Inlet Connection - To suit 22 mm Cylinder Valve. Outlet Connection - To suit 6 mm ID hose

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CGR-3 & CGR-4

Cutting Gas Regulator Assemblies are adapted to mount horizontally on Cutting Gas Cylinders. They include valve adapters with a 5 point positive lock, a face seal which is in addition to the joint seal washers, inbuilt non return valves and adjustable pressure regulators 0 to 2 Kg/cm^2 (0 to 30 psig), fitted with easy to read pressure gauges calibrated in Kg/cm^2 and psig.

Model No.	Pressure Gauge Range		Inlet Pressure				Delivery Pressure				Flow Rate at 2.1 Kg/cm^2 (30 psig)	
			Maximum		Minimum		Maximum		Minimum			
	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/cm^2	psig	Kg/hr	lbs/hr
CGR-3	0-2	0-30	10.5	150	0.35	5	2.1	30	0.035	0.5	40	88
CGR-4	0-2	0-30	10.5	150	0.35	5	2.1	30	0.035	0.5	40	88

Model No, CGR-3 - Inlet Connection - To suit 25.6 mm Cylinder Valve. Outlet Connection - To suit 6 mm ID hose
Model No, CGR-4 - Inlet Connection - To suit 22 mm Cylinder Valve. Outlet Connection - To suit 6 mm ID hose

FLAME ARRESTORS, FLASH BACK ARRESTORS AND L.P.GAS BALL VALVES

Regd. Design No. Applied for

FLAME ARRESTORS

Flame Arresters are safety devices for arresting and extinguishing flames traveling within pipelines containing flammable gases. They operate on the principle of reducing the flames speed, dissipating and absorbing the heat developed by it to lower the temperature to below that of ignition within the arrester. They are also designed to ensure a minimal pressure drop under normal working conditions.

Model No.	Inlet Size	Outlet Size
FA-1	$^1/_2$" Flanged to ANSI #150 R.F.	$^1/_2$" Flanged to ANSI #150 R.F.
FA-2	1" Flanged to ANSI #150 R.F.	1" Flanged to ANSI #150 R.F.
FA-3	$1^1/_2$" Flanged to ANSI #150 R.F.	$1^1/_2$" Flanged to ANSI #150 R.F.
FA-4	2" Flanged to ANSI #150 R.F.	2" Flanged to ANSI #150 R.F.

FLASH BACK ARRESTORS

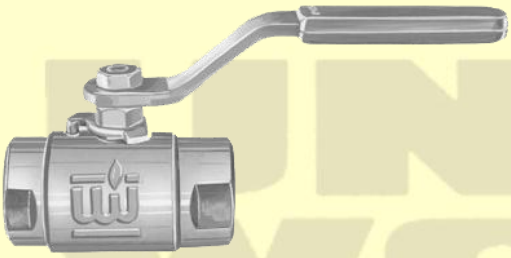
Flash Back Arresters are most commonly used in Oxy - Fuel welding and cutting. They are installed in a pipeline or at the end of the tapping point prior to the torch. They stop the flame from burning back upstream of the pipeline and causing damage or explosions. They are designed to allow free flow of gas through them but to take out the heat of the flame front so as to bring it below the ignition temperature of the burning gas mixture.

Model No.	Inlet Size	Outlet Size
XBA-1	$^1/_2$" B.S.P.P.F.	$^1/_2$" B.S.P.P.F.
XBA-2	1" B.S.P.P.F.	1" B.S.P.P.F.
XBA-3	$1^1/_2$" B.S.P.P.F.	$1^1/_2$" B.S.P.P.F.
XBA-4	2" B.S.P.P.F.	2" B.S.P.P.F.

Regd. Design No. Applied for

L.P. GAS BALL VALVES

These two piece L P. Gas ball Valves have their bodies fabricated from carbon steel and working parts from stainless steel. Seat and gland washers are P.T.F.E.. These valves are full bore, anti-static and fire safe. The lever and spindle have a dual lock system for quarter turn operation.



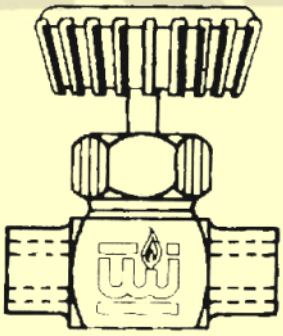
Model No.	Inlet Size	Outlet Size
BLV-1	$^1/_2$" B.S.P.P.F.	$^1/_2$" B.S.P.P.F.
BLV-2	1" B.S.P.P.F.	1" B.S.P.P.F.
BLV-3	$1^1/_2$" B.S.P.P.F.	$1^1/_2$" B.S.P.P.F.
BLV-4	2" B.S.P.P.F.	2" B.S.P.P.F.

VALVES AND MANIFOLDS

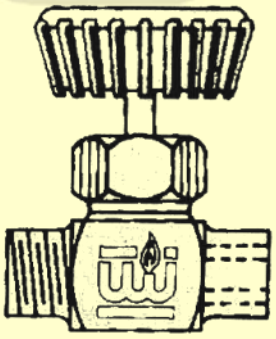
NEEDLE CONTROL VALVES

(Suitable for low and High pressure installation)

361 3/8" CU. X 3/8" CU.
362 3/8" B.S.P.T.M. X 3/8" B.S.P.T.M.
363 3/8" B.S.P.T.M. X 3/8" CU.
364 3/8" CU. X 3/8" B.S.P.T.M.



365 1/4" B.S.P.P.F. X 1/4" B.S.P.P.F.
366 3/8" CU. X 1/4" B.S.P.P.F.

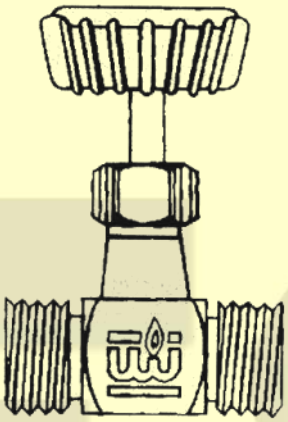


367 3/8" B.S.P.T.M. X 1/4" B.S.P.P.F.
368 1/2" B.S.P.T.M. X 3/8" Cu.
369 3/8" Cu. x 3/8" Cu. with elongated gland and checknut

These Valves can be supplied with elongated spindles.

MAIN LINE AND MANIFOLD SHUT-OFF VALVES

Made in Brass with a Stainless Steel Spindle tested to 350 p.s.i.g.

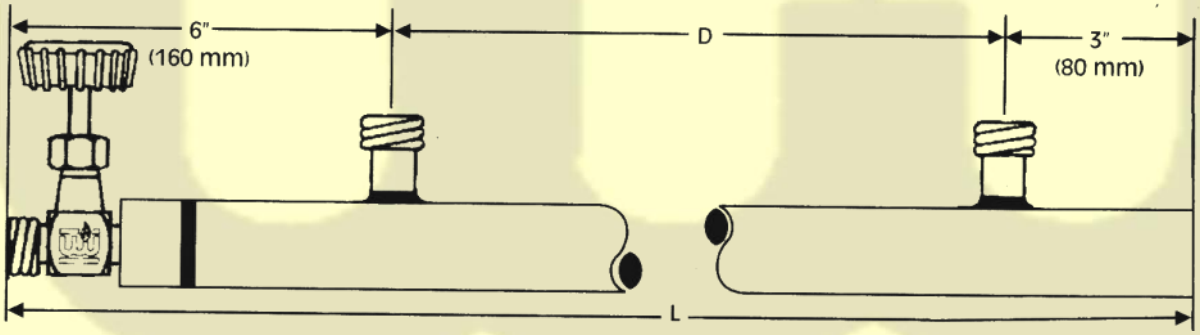


371 M. Eur. Cyl. Valve X M. Eur. Cyl. Valve
372 1/2" B.S.P.T.M. X 1/2" B.S.P.T.M.

374 1/2" B.S.P.T.M. X M. Eur. Cyl. Valve

MANIFOLDS

In sets : 2 Arms with fitted Shut-off Valves



Cylinder Size: 12 /14.2 /17 /19 / 47.5 Kgs.

Manifold Type	D inch	D mm
Standard	14	350
Staggered	8	200

Total Length of Manifold L = Inter Cylinder Spacing D's +9" (240 mm) Manifolds can be made for any number of Cylinders.

LIQUID OFF TAKE (L.O.T) EQUIPMENT

PART NO. 401 LIQUID OFF TAKE (L.O.T.) ADAPTER WITH SELF CLOSING VALVE

Liquid Off Take adapters are used to connect L.O.T. cylinders to L.O.T. pigtails. They are provided with self closing valves which prevent leakage when they are mot fully tightened or disconnected from the L.O.T. cylinders.

Inlet Connection - To suit L.O.T. cylinder
Outlet Connection - 3/8” BSPPF

PART NO. 402 LIQUID OFF TAKE (L.O.T.) NON RETURN VALVE

Liquid Off Take Non-Return Valves ensure flow of liquid LPG in one direction only.

Inlet Connection - M.E.C.V.
Outlet Connection - 1/2” B.S.P.P.F. or 1/2” B.S.P.T.M.

PART NO. 406 LIQUID OFF TAKE (L.O.T.) PIGTAIL

L.O.T. pigtails are used to connect L.O.T. adapters to the L.O.T. Non-Return Valves. Very strong in construction. Working pressure exceeds IS:9573 type 1/ BS EN 1762

Inlet Connection - 3/8” B.S.P.T. male
Outlet Connection - with F.E.C.V. free Nut and bull nose connection.
Length - 900 mm
Working Pressure - 36 Bar

SPANNER FOR RIBBED F.E.C.V. NUT

HEAT MASTER CATERING EQUIPMENT

COOKING PLATFORMS

Cooking platforms, manufactured in sizes according to the customers' specifications as well as the standard sizes listed below, in mild steel with a mild steel or stainless steel top, come complete with adjustable bullet legs and cast iron pan supports together with high or low pressure burners and all internal fittings, required only to be connected to the gas supply. Platform can be made for any number of burners with the burner bays arranged in any configuration.

Sizes per burner bay :

24" wide x 24" deep x 26" high
30" wide x 30" deep x 18" high
36" wide x 36" deep x 18" high

GRIDDLES

Dosa Bhattis, Chappati Plates and Puffers

Model No.	Overall Dimensions			Hot Plate Size	Puffer Plate Size	Burners
	Length	Width	Ht. With Legs			
DB 2715	27	15	30	27X15	—	1 X V600
DB 2724	27	24	30	27x24	—	2 X V600
DB 3924	39	24	30	39X24	—	2 X V900
DB 5124	51	24	30	51X24	—	2 X V1200
DBP 2724	27	24	30	15x24	12X24	2 X V600
DBP 3924	39	24	30	27x24	12x24	2 X V900
DBP 5124	51	24	30	39X24	12x24	2 X V1200

These griddles are available in the sizes listed above and are supplied with 10 mm mild steel griddle plates and 10 mm cast iron drilled puffer plates. Self-levelling tubular legs, burners, control valves & interconnecting tees are also supplied.

TECHNICAL DATA

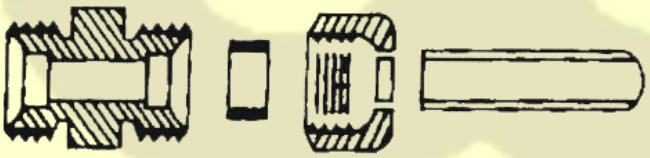
Specifications for the L.P. Gas burners, fittings, accessories and allied equipment are given in the imperial system with their equivalence where possible in the metric system.

Abbreviations

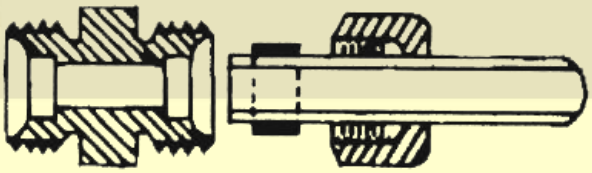
The following abbreviations are used in this catalogue.
Cu. Copper (refer to diagrams below)

B.S.P.T.M. - British standard Pipe Taper Male.
B.S.P.T.F. - British standard Pipe Taper Female.
B.S.P.P.M. - British standard Pipe Parallel Male.
B.S.P.P.F. - British standard Pipe Parallel Female.
M.E.C.V. - Male European Cylinder valve (Lefthand)
F.E.C.V. - Female European Cylinder valve (Lefthand)

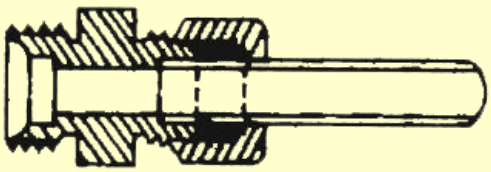
COPPER CONNECTIONS



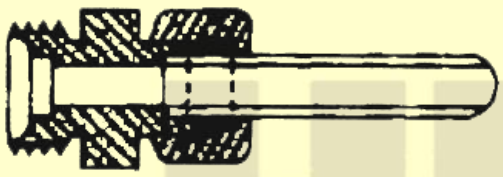
Fitting | Copper Ring | Nut | Copper Tube



Slide the Nut and Ring on to the Tube



Push Tube Hard into the Fitting and
Tighten the Nut Hand Tight



Tighten the Nut with a Spanner,
Holding Fitting with Second Spanner

Common Properties of Commercial L.P. Gas (Vapour at 1 atmosphere, 15.5°C)

	Commercial Propane	Commercial Butane
Density lb / ft^3 Kg / m^3	 0.115 2.0	 0.155 2.6
Specific Volume ft^3 / lb m^3 / kg	 8.6 0.5	 6.5 0.38
Specific gravity (air = 1)	1.5	2.0
Specific Heat, Btu / lb°F (kcal / kg°C) Cp Cv	 0.38 0.34	 0.39 0.35
Calorific value, nett Btu / ft^3 kcal / Nm^3	 2300 22600	 3000 29000

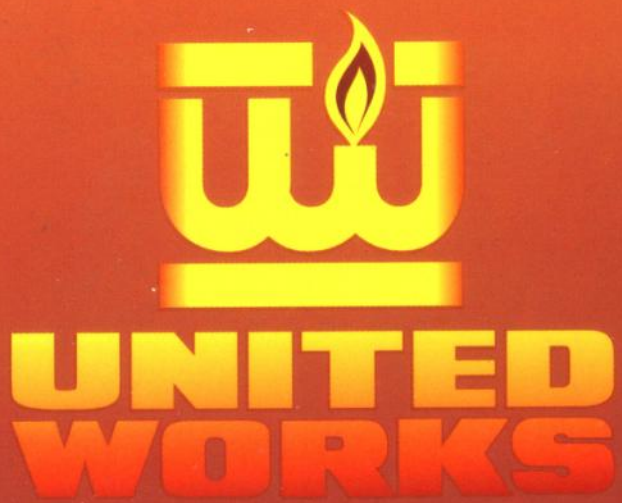
IMPORTANT CONVERSION FACTORS

Pressure : 1 lb/in^2 abs. = 27.68 in w.c. = 2.307 ft. w.c. = 0.070306 kg/cm^2

Energy : 1 Btu = 2.93×10^{-4} kWh = 0.251996 kcal.
1 kcal = 1.1628×10^{-3} kWh = 3.9683 Btu.

Calorific Values of Various Solid and Liquid Fuels.

	Btu / lb	MJ/kg	MJ / ltr
Wood (dry)	8000-9000	18.6 -20.9	-
Lignite	9000-13000	20.9 - 30.2	-
Coal	12000-13000	27.9 - 30.2	-
Coke	12000-12750	27.9 - 29.7	-
Diesel Oil	19600	45.6	39.7
Light Fuel Oil	19900	46.2	39.2
Heavy Fuel Oil	18750	43.6	41.3
Petrol	21300	49.5	34.9
Kerosene	19700	45.8	37.8



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