



GASTEC PRECISION GAS DETECTOR SYSTEM

NIOSH CERTIFICATION NUMBER TC-84-014

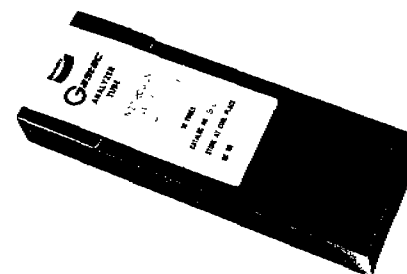
Has been granted
For Carbon Monoxide tube No. 1La for use with the
BENDIX/GASTEC PRECISION PUMP

Effective

September 10, 1973

The introduction of this new system is the result of Bendix/Gastec experience and engineering superiority, combining the two proven most effective components for the precise sampling and detection of toxic gases, vapors . . . (1) accurate readings are made directly on the tube's calibrated scale and (2) a piston-type volumetric pump.

No other system offers this combination of pump and tubes, producing ease of reading and reproducible, reliable results.



Tube No.	Detector Tube	Chemical Formula	T.L.V.	Calibration Scale	Measurable Concentration	Pump Strokes for Measurable Concentration	Reagent Color Change
81	Acetic Acid	CH_3COOH	10 PPM	2-40 PPM	1-80 PPM	1/2 -2	Pink Yellow
151	Acetone	$(\text{CH}_3)_2\text{CO}$	1000 PPM	.01-0.8%	.01-1.6%	1 - 2	Brown Green
171	Acetylene	C_2H_2	1 PPM	0.2-2.0%	0.1-4%	1/2 -2	White Brown
191	Acrylonitrile	CH_2CHCN	20 PPM	10-500 PPM	10-500 PPM	5 Strokes Only	Yellow Orange
3H	Ammonia	NH_3	25 PPM	1.0-16%	0.2-32%	1/2 -5	Pink Blue
3M	Ammonia	NH_3	25 PPM	50-500 PPM	50-1000 PPM	1/2 -1	Purple Yellow
3L	Ammonia	NH_3	25 PPM	2-30 PPM	1-60 PPM	1/2 -2	Purple Yellow
181	Aniline	C_6H_5	5 PPM	2-30 PPM	2-30 PPM	2 Strokes Only	Yellow Green
121	Benzene	C_6H_6	25 PPM	10-200 PPM	10-200 PPM	1 Stroke Only	White Green
142	Butyl Acetate	$\text{CH}_3\text{COOC}_4\text{H}_9$	150 PPM	.01-0.8%	.01-0.8%	2 Strokes Only	Brown Green
2H	Carbon Dioxide	CO_2	5000 PPM	1.0-10%	1.0-20%	1/2 -1	Orange Yellow
2L	Carbon Dioxide	CO_2	5000 PPM	0.1-3.0%	0.1-6.0%	1/2 -1	Orange Yellow
2LL	Carbon Dioxide	CO_2	5000 PPM	300-5000 PPM	300-5000 PPM	1 Stroke Only	White Purple
13	Carbon Disulfide	CS_2	20 PPM	5-50 PPM	5-50 PPM	1 Stroke Only	Pink Yellow

Tube No	Detector Tube	Chemical Formula	I.L.V	Calibration Scale	Measurable Concentration	Pump Strokes for Measurable Concentration	Reagent Color Change	
1H	Carbon Monoxide	CO	50 PPM	0.2-5.0%	0.2-10%	1/2 -1	White	Green
1L	Carbon Monoxide	CO	50 PPM	50-1000 PPM	50-2000 PPM	1/2 -1	Yellow	Brown
1La	Carbon Monoxide Certification TC-84-014	CO	50 PPM	25-600 PPM	8-1200 PPM	1/2 -3	Yellow	Brown
1LL	Carbon Monoxide	CO	50 PPM	5-50 PPM	5-50 PPM	2 Strokes Only	Yellow	Brown
1M	Carbon Monoxide	CO	50 PPM	0.1-2.0%	0.1-4%	1/2 -1	White	Brown
8L	Chlorine	CL ₂	1 PPM	1-30 PPM	0.5-60 PPM	1/2 -2	White	Orange
103	Cyclohexane	C ₆ H ₁₂	300 PPM	0.03-0.6%	0.015-1.2%	1/2 -2	Brown	Green
141	Ethyl Acetate	CH ₃ COOC ₂ H ₅	400 PPM	0.04-1.5%	0.04-1.5%	1 Stroke Only	Brown	Green
112	Ethyl Alcohol (Ethanol)	C ₂ H ₅ OH	1000 PPM	0.1-2.5%	0.05-5%	1/2 -2	Rose	Blue
125	Ethyl Benzene	C ₆ H ₅ C ₂ H ₅	200 PPM	20-250 PPM	10-500 PPM	1/2 -2	White	Brown
161	Ethyl Ether (Ether)	(C ₂ H ₅) ₂ O	400 PPM	0.04-1.0%	0.04-1.0%	1 Stroke Only	Orange	Green
72	Ethyl Mercaptan	C ₂ H ₅ SH	20 PPM	10-120 PPM	5-120 PPM	1 -2	White	Yellow
163	Ethylene Oxide	(CH ₂) ₂ O	50 PPM	0.1-3.0%	0.1-3.0%	1 Stroke Only	Orange	Green
91	Formaldehyde	HCHO	5 PPM	2-20 PPM	2-20 PPM	2 Strokes Only	White	Yellow
101	Gasoline	C _n H _m		0.03-0.6%	0.015-1.2%	1/2 -2	Brown	Green
102H	n-Hexane	C ₆ H ₁₄	500 PPM	0.03-0.6%	0.015-1.2%	1/2 -2	Orange	Green
102L	n-Hexane	C ₆ H ₁₄	500 PPM	50-1200 PPM	50-1200 PPM	1 Stroke Only	Orange	Green
14L*	Hydrogen Chloride	HCL	5 PPM	2-20 PPM	0.2-40 PPM	1/2 -10	Yellow	Purple
12H	Hydrogen Cyanide	HCN	10 PPM	0.05-2%	0.05-2%	1 Stroke Only	Yellow	White
12L	Hydrogen Cyanide	HCN	10 PPM	5-15 PPM	2.5-30 PPM	1/2 -2	Yellow	Pink
4H	Hydrogen Sulfide	H ₂ S	10 PPM	100-1600 PPM	100-3200 PPM	1/2 -1	White	Black
4L	Hydrogen Sulfide	H ₂ S	10 PPM	10-120 PPM	10-240 PPM	1/2 -1	White	Black
4HH	Hydrogen Sulfide	H ₂ S	10 PPM	0.1-2.0%	0.1-2.0%	1 Stroke Only	Blue	Brown
4LL	Hydrogen Sulfide	H ₂ S	10 PPM	5-60 PPM	0.5-6 PPM	1 -10	White	Brown
113	Isopropyl Alcohol (Isopropanol)	(CH ₃) ₂ CHOH	400 PPM	0.04-2.5%	0.02-5%	1/2 -2	Rose	Blue
100A	L.P. Gas	C ₃ H ₈	1000 PPM	0.02-0.8%	0.02-0.8%	1 Stroke Only	Orange	Green
111	Methyl Alcohol (Methanol)	CH ₃ OH	200 PPM	0.02-1.5%	0.01-3%	1/2 -2	Rose	Blue

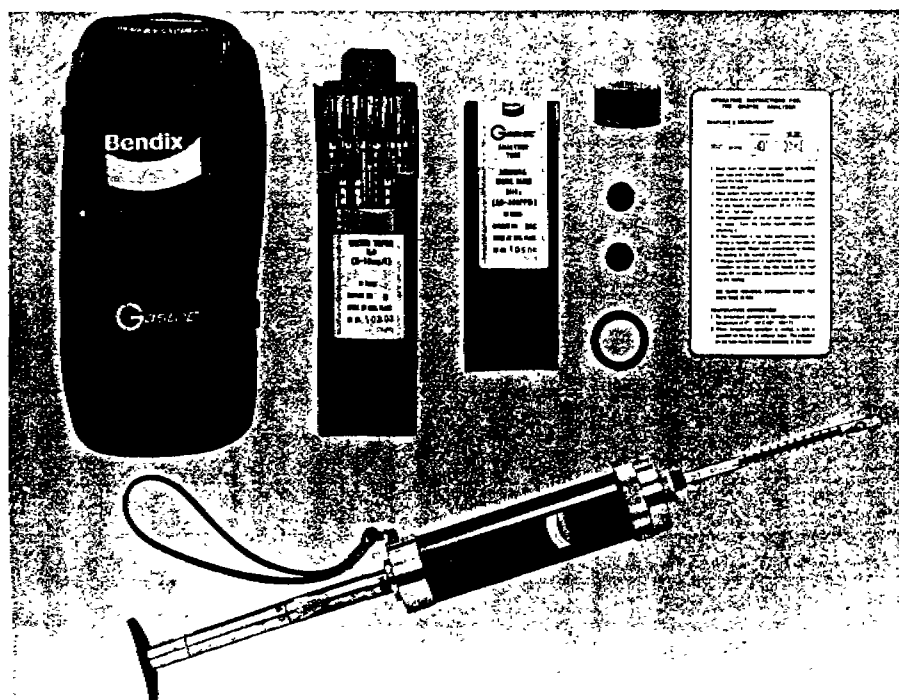
Tube No.	Detector Tube	Chemical Formula	T L V	Calibration Scale	Measurable Concentration	Pump Strokes for Measurable Concentration	Reagent Color Change
136	Methyl Bromide	CH_3BR	15 PPM	10-100 PPM	10-200 PPM	1/2 -1	White Yellow
135	Methyl Chloroform	CH_3CCl_3	350 PPM	100-500 PPM	100-500 PPM	1 Stroke Only	White Orange
152	Methyl Ethyl Ketone	$\text{CH}_3\text{COC}_2\text{H}_5$	200 PPM	0.02-0.6%	0.02-0.6%	2 Strokes Only	Brown Green
153	Methyl Isobutyl Ketone	$\text{CH}_3\text{COCH}_2\text{CH}(\text{CH}_3)_2$	100 PPM	0.01-0.6%	0.01-0.6%	2 Strokes Only	Brown Green
71	Methyl Mercaptan	CH_3SH	10 PPM	5-70 PPM	2.5-70 PPM	1 -2	White Yellow
15L*	Nitric Acid	HNO_3	2PPM	2-20 PPM	0.2-40 PPM	1/2 -10	Yellow Purple
9L	Nitrogen Dioxide	NO_2	5 PPM	30-100 PPM	15-100 PPM	1 -2	White Orange
11L	Nitrogen Oxides	$\text{NO}+\text{NO}_2$	$\text{NO}-25\text{ PPM}$ $\text{NO}_2-5\text{ PPM}$	2-100 PPM	2-100 PPM	1 Stroke Only	White Yellow
18L	Ozone	O_3	0.1 PPM	0.5-3 PPM	.05-3 PPM	1 -10	Blue White
133	Perchloroethylene	$\text{CCL}_2:\text{CCL}_2$	100 PPM	50-200 PPM	5-200 PPM	1 -10	Yellow Pink
16	Phosgene	COCl_2	0.1 PPM	0.1-10 PPM	0.1-90 PPM	1/2 -5	White Red
7	Phosphine	PH_3	0.3 PPM	50-500 PPM	5-1000 PPM	1/2 -10	White Yellow
124	Styrene	$\text{C}_6\text{H}_5\text{CHCH}_2$	100 PPM	20-500 PPM	10-1000 PPM	1/2 -2	White Yellow
5H	Sulfur Dioxide	SO_2	5 PPM	0.5-4.0%	0.05-8.0%	1/2 -10	Orange Green
5M	Sulfur Dioxide	SO_2	5 PPM	100-1800 PPM	100-1800 PPM	1 Stroke Only	Pink Yellow
5L	Sulfur Dioxide	SO_2	5 PPM	5-100 PPM	1-200 PPM	1/2 -5	Pink Yellow
122	Toluene	$\text{C}_6\text{H}_5\text{CH}_3$	200 PPM	20-250 PPM	10-500 PPM	1/2 -2	White Brown
132H	Trichloroethylene	$\text{CHCl}:\text{CCL}_2$	100 PPM	50-200 PPM	50-200 PPM	1 Stroke Only	Yellow Pink
132L	Trichloroethylene	$\text{CHCl}:\text{CCL}_2$	100 PPM	2-25 PPM	1-50 PPM	1/2 -2	Yellow Pink
131	Vinyl Chloride	CH_2CHCl	500 PPM	0.05-1.0%	0.025-2%	1/2 -2	Brown Green
6	Water Vapor	H_2O		2-18 MG/L	1-36 MG/L	1/2 -2	Green Purple
123	Xylene	$\text{C}_6\text{H}_4(\text{CH}_3)_2$	100 PPM	20-250 PPM	10-500 PPM	1/2 -2	White Black

All tubes should be refrigerated below 10 C (50 F)

Each box of Detector Tubes contains Quality Control Number, T.L.V., Shelf Life, and Interferences.

* Since the indication of the tubes is based on water content in the test air, measurement of water content is required before test. Use Water Vapor Tube No. 6.

GENC 000271



Bendix/Gastec offers a wide selection of tubes for sampling a variety of gases and vapors, each displaying a precision, direct reading calibration scale. Every tube and tube box displays a quality control number and chemical symbol and unit of measure as required by the Federal Register, Vol. 38, No. 88, 5/18/73.

The compact Bendix/Gastec Precision Detector System is enclosed in a durable zippered case which can be conveniently carried in a pocket or worn on the belt.

The case provides ample space for the pump, accessories, laminated instruction card and supply of tubes.

Uniformly small grain-size of absorbing media insures uniform flow rate and uniform flow distribution. Sensitive reagent with high reaction rate provides clear line of demarcation of color stain. Controlled inner diameter of tube insures consistently accurate tube readings.

ALL BENDIX/GASTEC TUBES ARE IN STOCK FOR IMMEDIATE SHIPMENT

BENDIX/GASTEC PUMP
GUARANTEED 5 YEARS.



A fifteen foot long extension hose is available as an accessory. This hose is used for taking remote samples from manholes, tanks, conduits or other areas which must be sampled prior to entry.

A deluxe shoulder bag carrying case holds the Detector Pump, a large quantity of tubes and the extension hose.

The Hot Probe (not shown) is used to take a sample of hot gas or vapor, and cool it down before the gas enters the detector tube.

PRICE LIST AND ORDERING INFORMATION

NUMBER	QUANTITY	
Pump Kit	1-5	\$75 00
2417534	6 or more	72 00
Detector Tubes 10 per box		
	1-5	9 85
	6 or more bxs	9 55

THE BENDIX/GASTEC PUMP KIT

INCLUDES Pump, carrying case, spare parts kit, & laminated instruction card

REPLACEMENT PARTS

2417536	Carrying case	8 90
2417538	Spare parts kit contains	8 95
	2 Rubber Tube Holders	
	1 Lubricant	
	1 Piston Ring Seal	
2417539	Instruction Card	1 20
2417535-0023	Lubricant	3 60
2417535-0021	Piston Ring Seal	4 50
2417535-0008	Tube Holder retainer nut	1 50
2417535-0022	Pump Cylinder Seal	1 25
2417535-0007	Rubber Tube Holders	45

ACCESSORIES

2417541	Hot Probe	31 50
2417542	15 foot Extension Hose	39 50
2417540	Shoulder Bag Carrying Case	23 00



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