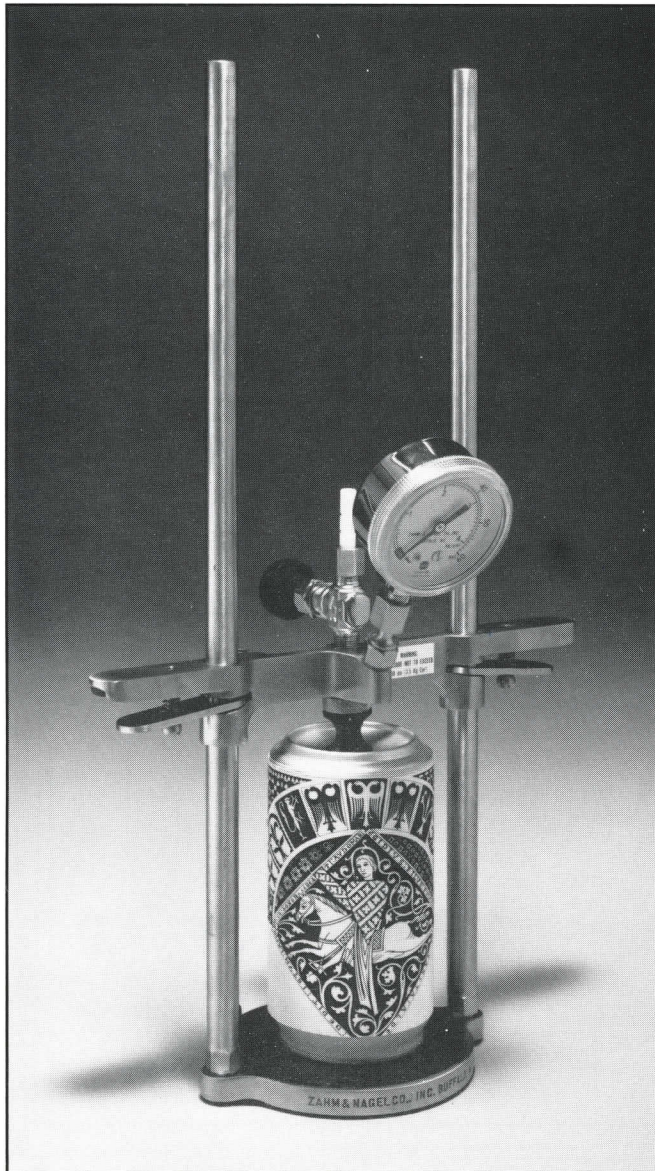


Zahm Modified Piercing Device (Series 11000)



The Series 11,000 Piercing Device is a modified Zahm New Style Air Tester (Series 5000) with the burette (5003-25), burette clamp (5006), support rod (5016), level bottle & stand (5047/5050) & connection tubing (5052) omitted. This instrument is used where a separately mounted burette is preferred for air testing or where a fast, simple closure piercing unit is required to measure pressure. Where samples are tested at room or known temperature, gas pressure can be quickly obtained to determine CO₂ gas volumes. Refer to the line drawing and parts list on page 53 of this manual for ordering replacement parts.

This instrument comes completely assembled with a 2" Dia. dual scale (0-60 psi & 0-4.2 kg/cm²) pressure gauge. If the gauge is not required it may be removed and the 1/8 NPT gauge plug (11004) inserted in its place. The standard Whitey™ valve (5056) may be replaced with a straight hose cock (11003) if a hose connection is required. All replacement parts are the same as those found on the Zahm New Style Air Tester (Series 5000).

Operating Instructions

WARNING: EYE PROTECTION MUST BE WORN WHILE OPERATING THIS INSTRUMENT.

NOTE: Before using this instrument it should be tested for any gas leaks that may occur at the various connections. This may be accomplished by pressurizing the instrument and applying a soapy water solution to the various connections. A bubble will form if any leaks are occurring. The instrument may also be pressurized, submerged in a glass tank of water, and leaks detected in this manner.

Operation:

- 1 Place the bottle or can to be tested on the base pad (5022) and lower the cross bar (5024) to the point where the rubber seal (5045) just touches the top of the container. The cross bar is lowered by depressing the lock plates (5026) on each side of the cross bar and pushing downwards.
- 2 With the lock plates still depressed, push rapidly downward with both hands on the cross bar until the container is pierced.
- 3 Release the lock plates. The cross bar will remain locked in place with the rubber seal compressed to prevent leaking at the point of piercing.

Be careful not to trip the lock plates after piercing as only a slight upward pressure on the lock plates will release the cross bar.

- 4 Hold the instrument at the bottom of the base with the right hand while the left hand holds the guide rod (5017). Shake the instrument with a rapid back and forth motion until maximum gauge pressure has been obtained. Record this pressure if volumes of CO₂ gas will be determined.
- 5 Bleed off the pressure in the container by opening the Whitey valve (5056).
- 6 Depress the lock plates and raise the cross bar high enough to remove the container.

DETERMINATION OF VOLUMES OF CO₂ GAS.

Immediately after the container has been removed from the instrument a certified laboratory thermometer should be inserted into the container and the temperature recorded. Once the temperature and pressure have been recorded the operator should refer to one of the gas volumes charts found on pages 24 & 25 of this manual.

Cleaning of the Instrument:

When the tests have been completed the instrument should be cleaned as follows:

- 1 Open the Whitey valve and attach a water hose to the nipple of the Whitey valve. Backflush with warm water for several minutes.
- 2 Remove the pressure gauge from the gauge adapter (5039), rinse in warm water and dry.

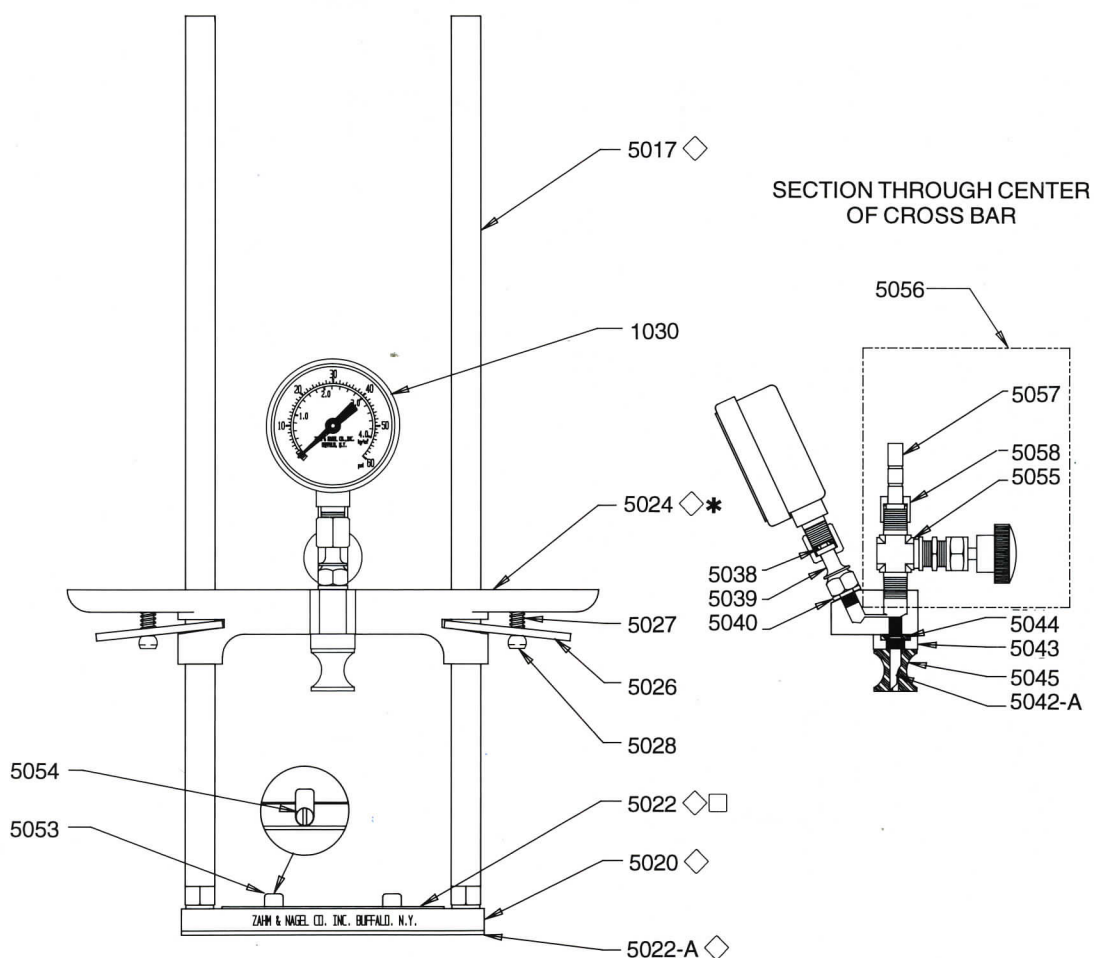
Calibration of Pressure Gauge:

The pressure gauge should be tested for accuracy at the beginning of each shift. Procedures for re-calibration are sent with the instrument and are available upon request from Zahm & Nagel Co.

**SERIES
11000**

Parts List

◆ PARTS LISTED ARE FOR 1 LITRE SIZE. REFER TO PRICE LIST FOR 2 LITRE SIZE.



P/N	DESCRIPTION	P/N	DESCRIPTION	P/N	DESCRIPTION
11001	ZAHM MODIFIED PIERCING DEVICE - 1 LITRE SIZE	5039	GAUGE ADAPTER	5057	HOSE NIPPLE
1030	PRESSURE GAUGE	5040	ADAPTER GASKET	5058	NIPPLE NUT
5017	GUIDE ROD (2 REQ'D)	5042A	PIERCING NEEDLE .703" OAL PIERCING POINT	5059	REPLACEMENT PARTS FOR WHITEY VALVE
5020	BASE - 1 LITRE	5043	PACKING NUT	5059-1	HANDLE
5022	BASE PAD (TOP) - 1 LITRE	5044	NUT GASKET	5059-2	STEM
5022A	BASE PAD (BOTTOM) - 1 LITRE	5045	RUBBER SEAL	5059-3	PACKING NUT
5024	CROSS BAR - 1 LITRE	5053	CAN STOP (2 REQ'D)	5059-4	PANEL NUT
5026	LOCK PLATE (2 REQ'D)	5054	CAN STOP SCREW (2 REQ'D)	5059-5	TEFLON* WASHER
5027	LOCK SPRING (2 REQ'D)	5055	WHITEY VALVE	5059-6	TOP GLAND
5028	LOCK SCREW (2 REQ'D)	5056	WHITEY VALVE W/5057 NIPPLE & 5058 NUT	5059-7	BOTTOM GLAND
5038	GAUGE GASKET			5059-8	BODY

*Teflon is a Dupont registered Trade Mark