

Tracer Usage Guide

Monitoring: Bottles Pouches Large Containers Small Containers



Take a closer look...

at how DATATRACE gives you the inside story on your product Versatile *DATATRACE* Tracers help manufacturers control temperature, pressure and humidity throughout the production process. From canning tomatoes, processing jams and stabilizing drugs to bottling beverages, freezing fish sticks and packaging plasma, our patented Tracers are on the job in your industry...and dozens of others...everyday. And not only do our Tracers adapt to widely diverse environments, but to virtually any kind of packaging, including bottles, jars, cans, cartons and plastic pouches in widely varied sizes.

For simple, highly accurate and reliable quality control, nobody monitors your products and their environments like *DATATRACE*.

INSIDE CONTAINER MONITORING

OUTSIDE CONTAINER MONITORING (Shown: 1. Basic 2. Including Pressure Tracer)

Crimp-style cap container applications include:

 \rightarrow Beer, soda and other beverage bottles

Container applications include:

- → Beverages and brewery processing
- \rightarrow Fish, meats and poultry
- → Fruits and vegetables
- → Sauces, condiments



We know containers inside and out.

The choice of inside or outside monitoring for metal containers and glass jars with plastic or metal lids is generally determined by the size of the container or, in the case of glass bottles, the neck opening. In either case, using the DATATRACE Tracer is a quick and simple process.

Inside Container Monitoring

A Combination Can Punch and Countersink (C-11 or C-12) is used to punch a hole into either the top or bottom of a can or the metal lid on a glass jar prior to filling. An Internal Retainer (IR6 or IR6-FRB) is then installed and a programmed Tracer is inserted into the spring mounts and snaps into place. That's it. You're ready to fill and seal your container as usual. For best results with all DATATRACE Tracers, allow normal container headspace, especially if the process requires agitation.

Outside Container Monitoring

For external monitoring, the hole is punched into the top, bottom or sidewall of a can or into the glass jar's metal lid before filling as noted above. A Receptacle (C-5 or C-5D) is installed and a Screw Coupling (SCT6 or SCE6) is then inserted into the receptacle. Once the container is filled as usual, install the programmed Tracer through the top of the Screw Coupling. Simply tighten the hex screw and monitoring can begin.

Monitoring containers with crimp-style caps.

Holes for crimp-style containers are always punched through the center of the bottle cap and a modified receptacle (C-5) is inserted. After the container is filled and sealed as usual, a Screw Coupling (SCT6 or SCE6) fits into the receptacle and the Tracer is installed through the top of the coupling before tightening.

VERY SMALL CONTAINER APPLICATIONS INCLUDE:

- → Foods, such as sardines and meat spreads, in small cans
- → Foods in small jars, such as baby foods and fruit
- → Single serving frozen foods

FOOD POUCH APPLICATIONS INCLUDE:

- → Beverages
- → Single serving or "cook-in-bag" pouches

PHARMACEUTICAL POUCH APPLICATIONS INCLUDE:

- \rightarrow Drug IV pouches
- → Plasma
- \rightarrow Saline

THREADED CONTAINER APPLICATIONS INCLUDE:

- → Most liter-sized bottles
- → Various juice, soda and other beverage bottles
- → Medication containers



A big advantage in monitoring very small containers.

DATATRACE Tracers are used outside very small containers when you need highly accurate monitoring and a needle tip is a better fit than a too-large taper tip. Otherwise, the fixturing process is the same as outside monitoring for any other situation.

Monitoring plastic pouches for food and pharmaceuticals.

Food and pharmaceutical pouches are handled in the same manner and with ease. Before filling the pouch, use a Combination Can Punch and Countersink (C-11 or C-12) to create a hole for installing the Receptacle (C-5.1 or C-5.1M), which is designed specifically for plastic pouches. The Screw Coupling (SCT6) is inserted into the receptacle and the pouch is filled as usual. At this point, you simply install the programmed Tracer through the top of the Screw Coupling, tighten it and begin monitoring.

Glass and plastic bottle monitoring made simple.

Monitoring containers with threaded caps.

For threaded containers, the bottle or vial is filled to normal capacity before proceeding. Once filled, the container is capped with a Bottle Receptacle (C-18 or C-18.1). After the Screw Coupling (SCT6 or SCE6) is inserted into the receptacle, a programmed Tracer is installed through the top, the unit is tightened and you're ready to proceed.

RECEPTACLES

All receptacles are machined by Ecklund-Harrison Technologies using stainless steel, brass or Delrin. The receptacle is passed through the punched hole and screw couplings are used to seal the fitting's installation.

- **C-5** This stainless steel, two-piece receptacle is a popular choice for use with metal containers and bottle lids.
- **C-5D** This fitting is the same as the C-5 but is made using Delrin.
- **C-5.1** This two-piece, stainless steel receptacle is designed specifically for plastic pouches.
- **C-5.1M** Also designed for plastic pouches, this receptacle differs from the C-5.1 by requiring only a .25 inch hole which may be punched through the flange by an ordinary .25 inch paper punch. The seal is made using an "O" ring inserted inside the pouch.
- **C-18** This fitting is designed for use with regular and twist-off bottle crowns.
- **C-18.1** Designed for use with ALCOAtype bottle crowns, this receptacle screws onto the cap.

COUPLINGS

Screw couplings use a hex nut to thread into Ecklund receptacles. The Tracer probe is inserted through the hex nut's hole and the nut is tightened a 1/2 to 3/4 turn with a 1/2 inch wrench. Installed properly, the Tracer, coupling and receptacle provide a seal capable of holding a vacuum. However, Teflon tape may be used on the nut if any leaks occur during use.

- **SCT6** Providing the seal between a taper-tip Tracer and the receptacle, the coupling allows the Tracer probe to penetrate the container while the base of the Tracer is located outside the container.
- **SCE6** This coupling works in the same manner as the SCT6 except that it is used with a bullet-tip Tracer.

RETAINERS

- IR6 This internal retainer positions a DATATRACE Micropack[™] Tracer inside a container or attached to another object for monitoring.
- IR6-FRB
 This internal retainer is the same as the IR6 but is used with an FRB (Field Replaceable Battery) Micropack™ Tracer.
- **AD240** An Adhesive Disk, the AD240 positions or attaches a Tracer in low vibration and low shock situations.

GASKETS

Our reusable Ecklund gaskets are designed to maintain quality seals between receptacles and containers. Like all such components, they need to be handled with care and replaced when worn.

- **C-5.10R** This "O" ring gasket is designed for the C5.1M pouch receptacle.
- **C-16** Used with C-5, the gasket has a .75 inch (19mm) outside diameter and a .5625 inch (14.3mm) inside diameter.
- **C-26** Designed for C-5.1, the gasket has a .75 inch (15.9mm) outside diameter and a .375 inch (9.5mm) inside diameter.

ECKLUND TOOLS AND ACCESSORIES

- **C-11** This Combination Can Punch and Countersink can be used on either the can end or side to create a hole and a flat surface for the installation of C-5 receptacles as well as IR6 and IR6-FRB internal retainers. A three-piece "drawthrough" device, the C-11 requires a 1/4 inch pilot hole (see C-15) for the bolt to pass and connect the two punch dies.
- **C-12** The C-12 also enables a C-5 installation, but without requiring a pilot hole.
- **C-15** Used to create a pilot hole for the C-11, this awl has a 1/4 inch (6.4mm) shaft diameter.

PRESSURE FITTINGS

HAN

- The Hansen Fitting is a quickconnect to attach the Pressure Tracer to a pressurized line.
- **HAN2** This Hansen Fitting allows the Pressure Tracer to be mounted outside a container with a 2" tube through a SCE6 Screw Coupling.

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