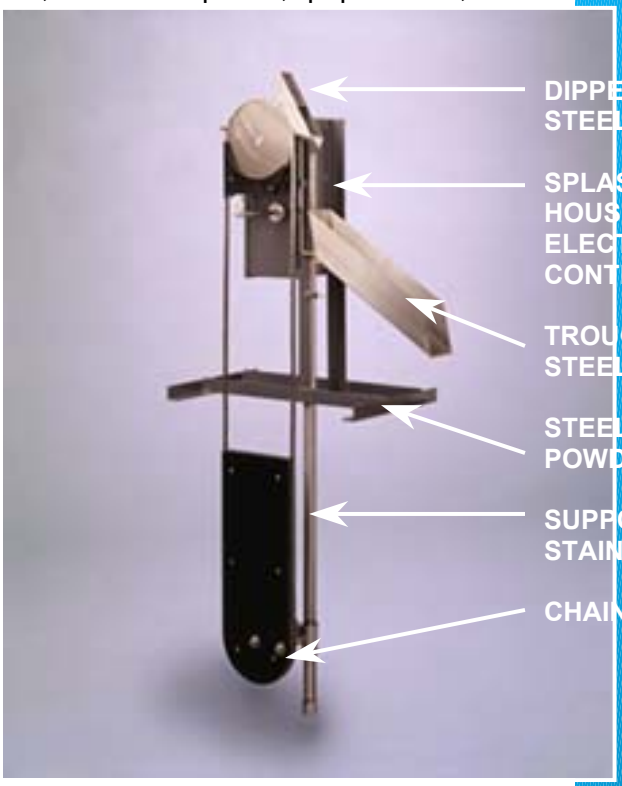
DIPPER-TYPE SAMPLER

For over 35 years the Phipps & Bird Dipper-Type Sampler has proven its dependability in wastewater treatment plants, chemical plants, paper mills, food processing plants, paint manufacturers, textile mills, government facilities and other institutional applications.

- Automatically collects liquid samples from streams, flumes, lagoons, ponds or manholes.
- Performs reliably even under conditions of high levels of suspended solids or trash-laden flows . . . conditions where most pump-type samplers are ineffective.
- Easy to install; little maintenance required.



Features

- 200cc stainless steel Dipper Cup. (Smaller cups available upon request).
- Stainless steel Trough mounted on adjustable support adapts to most types of collection containers.
- Stainless steel Chain with connecting links assures proper length for various depth settings.
- Stainless steel Support Pipe of sufficient length to adjust depth from 25 inches to 10 feet. Longer pipe for greater depth available upon request. (Maximum 20 feet).
- Bakelite Lower Chain Guide. Grooved to ensure proper chain traverse and minimize clogging and corrosion. Similar in principle to chain saw guide.
- Rugged, powder-coated angle iron Frame to support unit on a platform or above a manhole.
- Housing for Motor and Electronic Control package fabricated of steel with powder-coated finish. Rubber gasket seal protects controls against splashing and moisture.
- Switch actuated by Trip bar mounted on Chain automatically stops cycle after sample has been poured into the Trough.
- Stainless steel Sprocket assures steady movement of Chain without slippage.
- A gear drive Motor capable of 9 inch-pounds output torque powers the sprocket. This 12-volt DC shunted Motor develops .001 horsepower at 3,000 RPM and is geared down 340: 1. It is ventilated and has Class ”A” insulation.

Catalog #8392-301

PHIPPS&BIRD
P.O. Box 7475 • Richmond • VA • 23221-0475
Tel: (804) 254-2737 • (800) 955-7621 • Fax: (804) 254-2955
Email: Mail@PhippsBird.com • Web Site: www.phippsbird.com

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The Phipps & Bird DIPPER-TYPE SAMPLER

Controls

- Provides for excursion of the Dipper Cup. Commanded by a momentary electrical signal. At the end of the excursion, the Cup empties into the Trough and the Trip Switch is activated, automatically shutting off the Motor.
- When set in the AUTO mode, an internal Timer originates the command signal. This signal is produced once every 15 minutes. An adjustable Timer is available upon request.
- When switched to REMOTE, the command signal can be created by any momentary closure of the remote terminals, such as could be provided by an accumulator (integrator) connected to a flow meter. This would provide true proportional-to-flow samplings. Terminals for the REMOTE signal input are clearly marked. (Phipps & Bird does not supply flow meters or accumulators: however, the sampler will work with most available models.)
- The MANUAL push-button switch allows the operator to generate a command signal for any special sampling or testing procedure.

Power Supply

- AC. The sampler runs on 120V, 60Hz AC current. Power and grounding terminals are clearly marked.
- DC. The sampler can run on a 12V DC current such as supplied by a standard automobile battery in the event that AC current is not accessible. DC power terminals are clearly marked.

Circuit Breaker Reset

- Should the Chain or Dipper Cup become jammed and unable to complete a traverse, a circuit breaker is provided to shut off the current and protect the Motor and Controls. Once the obstruction has been cleared, pushing the reset button can complete the traverse.

Sampler Setup Requirements

1. Sampler must be positioned directly above flow to be sampled.
2. A minimum depth of 5 inches of water is required for sample collection.
3. Depth from base of sampler Frame to sample collection point should be between 25 inches and 10 feet. (Greater depth possible up to 20 feet.)
4. The base of the Frame occupies and area of 24 inches long by 16 inches wide. Mounting holes for securing the sampler are provided on the frame.
5. A vertical clearance of 3 feet above the base is required for Dipper Cup clearance at the top of the excursion.
6. The minimum space required for access to the flow is a hole 16 inches in diameter. This allows sufficient room for the Lower Guide, Support Pipe, Dipper Cup and Chain.
7. The sample receiving point of the collection vessel should be no more than 20 inches above the base of the frame to allow for proper gravity flow of the sample.
8. For further details on dimensions, request operating instructions from you Phipps & Bird representative.

How to Specify the Dipper-Type Sampler, Catalog #8392-301

Sampler shall be an automatic, electromechanical dipper-type equal to the Phipps & Bird Model #8392-301. It shall be designed with a 200-cc stainless steel dipper mounted on an endless chain carrier powered by a gear drive motor that drives a stainless steel sprocket.

A stainless steel trough, adjustable in height and angel of directions, shall be provided for receiving the sample and directing it into an appropriate collection vessel.

The unit shall be powered by either 115V, 60Hz AC or 12V DC. Motor shall start upon signal from controls and stop upon completion of sample collection.

Controls shall provide for automatic sampling (based on time or flow) upon generation of a momentary electrical command signal created by either an internal timer or a momentary closing of flow meter accumulator contracts (not provided as part of sampler). Internal timer shall be fixed to give signal every 15 minutes. Samples may also be taken upon manual signal. Circuit breaker shall be provided to protect controls and motor from overload due to jamming of chain.

Motor and controls shall be protected in splash-proof housing constructed of steel with a powder-coated finish. All components shall be mounted on welded steel, angle iron frame with powder-coated finish.

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