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### Operating Instructions for HDCBX-360-3 Paint Spray Coater

The HDCBX-360-3 Paint SpinCoater is designed to spray a various array of coatings on the interior of pipe.

The paint pump and the spincoater require a total of 150 CFM @ 100 psig of clean dry air to operate efficiently. A pressure tank may be used in place of the Bulldog pump if the paint viscosity is less than 20 seconds through a Zahn II cup.

The paint pump forces the coating through the spray gun and paint hose to the spinning head on the spincoater. The paint is slung by centrifugal force produced by the spinning head in a 360 degree pattern. The volume of paint directed to the spray head can be adjusted by the pressure on the paint pump or by the pre orifice used in the back pressure orifice assembly. The wet film thickness of the paint is controlled by the speed that the spincoater is moved through the pipe.

**NOTE:** Before spraying, flush the pump fluid section with solvent that is compatible with the paint to be sprayed.

After spraying, the pump fluid section must be flushed with compatible solvent and stored with a lubricant oil to preserve the pump packings. Do not store the pump dry.

The HDCBX-360-3 spincoater air motor should be connected to an air source and run with lubricating oil prior to and after use. Wet, dirty air will cause excessive wear and shorten the life of the air motor.

The following equipment is required to operate the HDCBX-360-3 tool.

- 836-523 – Binks 5 gal paint tank
- 71-3304 – Binks 50' x 3/8" paint hose
- W-5038C – 50' x 3/8" air hose
- Air motor control valve
- Paint motor control valve
- W-2538C – 25' x 3/8" air hose
- 71-3303 – 25' x 3/8" paint hose





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### **Spraying steps to follow:**

- Determine the area of the I.D. of the pipe to be coated in square feet. Ask your paint supplier the coverage of the paint in mils per square foot. Using these numbers will yield the amount of paint required to coat the surface. Very little paint will be lost to overspray. Figure 95% paint to metal efficiency.
- The spincoater may be pulled through the pipe at the rate of one foot per second. Divide the amount of paint required to coat the pipe by the length of the pipe. This will yield the flow rate of paint required at the spincoater to paint the pipe moving the spincoater at one foot per second.
- Install the pre orifice in the back pressure orifice assembly
  - For thin to medium viscosity paint: (urethanes, enamels, epoxies)

2" – 12"	0.018" orifice	705-180
10" – 24"	0.030" orifice	705-300
18" – 48"	0.039" orifice	705-390
  - For thick viscosity paint: (coal tar, high solids)

2" – 12"	0.030" orifice	705-300
18" – 48"	0.039" orifice	705-390

**NOTE:** This is a sample guide, some paints may require a different orifice combination.

- Connect the fluid hose from the pump surge chamber to the spray gun and from the back pressure tip assembly to the spincoater manifold. Make sure the connections are tight.
- Connect the air hose from the air source to the paint pump and the spincoater. The paint pump should have a minimum 3/4" airline and the spincoater should have a minimum 3/8" air line.
- Adjust the carriage on the HDCBX-360 to fit the pipe to be sprayed. Be sure the carriage will pass loosely and freely through the entire section of the pipe.
- Insert the spincoater through the pipe until the head protrudes out the other end.
- Remove the spray head of the spincoater.
- Use the spray gun to open and close the flow of paint
- Open the airline to the paint pump. Increase the air pressure on the pump until the coating comes out of the manifold on the front of the spincoater. Adjust the flow rate to the calculated flow rate. (Use a stopwatch and a container of known volume)
- Reattached the spray head to the spincoater
- Open the airline to the air motor on the spincoater. Set the regulator to 60 psig. Paint atomization is controlled by the speed of the sprayhead. To increase atomization, increase the regulator pressure and /or thin the paint. To decrease atomization, decrease the regulator pressure.

**NOTE:** Always start the spray head spinning before allowing paint to flow to the spray head.

**CAUTION:** Observe O.S.H.A. Standards and wear proper respiratory and eye protective equipment

- Pull trigger on spray gun to allow paint flow.
- Pull the spincoater through the pipe at one foot per second.
- Release the spray gun trigger as the spincoater exits the pipe.
- Turn off the air supply to the air motor on the spincoater.

After the coating operation is completed, flush the pump with a compatible solvent, lubricate the air motor on the spincoater and store it in clean condition.



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## **HDCBX-360-3: Spray Coater with a 3" Head** *Ideal for a 5"-12" ID pipe*

	<b>Part #</b>	<b>Description</b>
1	HDCBX-3	Spray head
2	HDCBX-LA	Large arbor
3	HDCBX-LC	Locking nut
4	HDCBX-CCS-112	Centering sheave
5	HBC01131	Centering carriage
6	HDCBX-XS	Extra small manifold
7	HDCBX-150-112	Air Motor
8	HBS01095	Coupling
9	CBX-205	Threaded extension
10	HBS01092	Locking nut
11	HBS01092	Locking nut
12	HDCBXMF	Manifold fitting
13	512018	.018" Preorifice
13B	512031	.031" Preorifice
13C	512039	.039" Preorifice
14	CP-4928-A	Back pressure assembly

