# Digi-Dri™

## digital printing

## DIGITAL PRINT DRYERS

## Tired Of Waiting For Your Ink To Dry?

Wide Format Digital Printing has advanced to where the printers can apply ink faster than it can dry in open air. The wide variety of inks and medias available for different applications also increase the need for additional drying. This unique and first of a kind Black Body® portable infrared dryer will conveniently roll up to your printer and gently dry the ink to a full cure.

**The Black Body® Infrared dryer may be the answer to this Large Format Printer problem.**

## Features

- **Immediate drying of most printed media without circulating air.**

- **Available in six sizes: 36", 54", 64", 72", 90" and 108".**

- **Portable from one printer to another - easily rolls into place.**

- **Uniform heat distribution across entire surface.**

- **Safe for all inks and substrates.**

- **Flexible design, compatible with most printers and work centers.**

- **Solid State temperature control.**

- **Efficient Infrared heating element.**

- **High Speed Printing Option: Add a second heater assembly when you are printing fast, or applying a lot of ink.**

- **All 220V Units are CE certified.**

- **Optional Auto Shut Off (#DDAS-O1), Optional Horizontal Adapter (#DDHA).**

### DIGI-DRI™

**Digital Print Dryer**



## BBC INDUSTRIES, INC.

1-800-654-4205 ■ 5 Capper Drive ■ Pacific, MO 63069 USA ■ Fax: 636-343-3952 ■ www.bbcind.com

# Digi-Dri™

## Large Format Dryer

Includes One Heater Assembly, One Controller and Stand. Recommended for Print Speeds Up to 200 Sq. Ft. per Hr.

| Model | Volts | Watts | Amps | Cord & Plug | For Printer Width | Weight |
|---|---|---|---|---|---|---|
| DD36-675-120V-DS | 120 | 675 | 5.6 | 10 ft. 120 Volt Grounded | Up to 36 inches | 58 lbs |
| DD54-1000-120V-DS | 120 | 1000 | 8.3 | 10 ft. 120 Volt Grounded | Up to 54 inches | 63 lbs |
| DD54-1000-220V-DS | 220 | 1000 | 4.5 | 10 ft. No plug provided | Up to 54 inches | 63 lbs |
| DD64-1200-120V-DS | 120 | 1200 | 10.0 | 10 ft. 120 Volt Grounded | Up to 64 inches | 68 lbs |
| DD64-1200-220V-DS | 220 | 1200 | 5.4 | 10 ft. No plug provided | Up to 64 inches | 68 lbs |
| DD72-1350-120V-DS | 120 | 1350 | 11.3 | 10 ft. 120 Volt Grounded | Up to 72 inches | 73 lbs |
| DD72-1350-220V-DS | 220 | 1350 | 6.1 | 10 ft. No plug provided | Up to 72 inches | 73 lbs |

## Second Heater Kit

Includes One Heater Assembly and One Controller. Recommended for Print Speeds Over 200 Sq. Ft. per Hr.

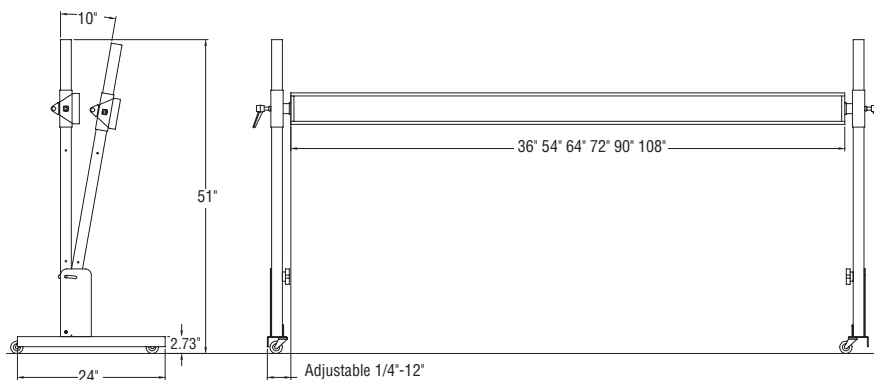| Model | Volts | Watts | Amps | Cord & Plug | For Printer Width | Weight |
|---|---|---|---|---|---|---|
| DDH36-675-120V-DS | 120 | 675 | 5.6 | 10 ft. 120 Volt Grounded | Up to 36 inches | 29 lbs |
| DDH54-1000-120V-DS | 120 | 1000 | 8.3 | 10 ft. 120 Volt Grounded | Up to 54 inches | 34 lbs |
| DDH54-1000-220V-DS | 220 | 1000 | 4.5 | 10 ft. No plug provided | Up to 54 inches | 34 lbs |
| DDH64-1200-120V-DS | 120 | 1200 | 10.0 | 10 ft. 120 Volt Grounded | Up to 64 inches | 39 lbs |
| DDH64-1200-220V-DS | 220 | 1200 | 5.4 | 10 ft. No plug provided | Up to 64 inches | 39 lbs |
| DDH72-1350-120V-DS | 120 | 1350 | 11.3 | 10 ft. 120 Volt Grounded | Up to 72 inches | 44 lbs |
| DDH72-1350-220V-DS | 220 | 1350 | 6.1 | 10 ft. No plug provided | Up to 72 inches | 44 lbs |

## Grande Format Dryer

Includes One Heater Assembly, One Controller and Stand. Recommended for Print Speeds Up To 430 Sq. Ft. per Hr.

| Model | Volts | Watts | Amps | Cord & Plug | For Printer Width | Weight |
|---|---|---|---|---|---|---|
| DD90-1700-120V-DS | 120 | 1700 | 14.2 | 10 ft. 120 Volt Grounded | Up to 90 inches | 103 lbs |
| DD90-1700-220V-DS | 220 | 1700 | 7.7 | 10 ft. No plug provided | Up to 90 inches | 103 lbs |
| DD108-1800-120V-DS | 120 | 1800 | 15.0 | 10 ft. 120 Volt Grounded | Up to 108 inches | 116 lbs |
| DD108-2000-220V-DS | 220 | 2000 | 9.1 | 10 ft. No plug provided | Up to 108 inches | 116 lbs |

## Second Heater Kit

Includes One Heater Assembly and One Controller. Recommended for Print Speeds Up To 860 Sq. Ft. per Hr.

| Model | Volts | Watts | Amps | Cord & Plug | For Printer Width | Weight |
|---|---|---|---|---|---|---|
| DDH90-1700-120V-DS | 120 | 1700 | 14.2 | 10 ft. 120 Volt Grounded | Up to 90 inches | 74 lbs |
| DDH90-1700-220V-DS | 220 | 1700 | 7.7 | 10 ft. No plug provided | Up to 90 inches | 74 lbs |
| DDH108-1800-120V-DS | 120 | 1800 | 15.0 | 10 ft. 120 Volt Grounded | Up to 108 inches | 87 lbs |
| DDH108-2000-220V-DS | 220 | 2000 | 9.1 | 10 ft. No plug provided | Up to 108 inches | 87 lbs |

# Black Body®
## BBC INDUSTRIES, INC.

# Digi-Dri™
## Large format digital inkjet printer dryer

### Assembly and Operating Instructions
for
### "Twin Support Stand" Dryer Assemblies
Catalog numbers ending with -"DS"

Please review all of these instructions in advance of attempting to assemble, install, or operate the equipment to assure that the proper tool's, materials, and personnel are available for safe and successful usage of the dryer.

The Black Body® Digi-Dri™ is packaged in 2 cartons so that it meets the shipping requirements of conventional ground and overnight package delivery services.  Please make sure all cartons have been received before attempting assembly.

The following **assembly** procedure is recommended for this equipment:

1.)     Inspect and identify all of the shipped equipment and parts. Immediately report any suspected lost or damaged items.

      a.) The flat carton includes 2 each "tee"-shaped floor stands that are pre-assembled with casters.

      b.) The triangular shaped carton includes the heater head (with the 2-heater head attachment tubes and lever clamp handles pre-installed at each end), a heat control, and 2-lever handle bolts.

2.)     With the face of the heater head laying flat on a protected surface, twist each lever handle counterclockwise to "unlock" the attachment tube bracket inside of the heater head. After determining that the rectangular portion of each heater head attachment are parallel with one another, "snug" them both in the heater head by rotating the lever clamp handles in the back of the heater head clockwise.

3.)     Loosely thread the 2-lever clamp handles shipped loose in the triangular-shaped tube into the weld nuts located on the side of each rectangular attachment to the support stand.

4.) Lay the 2 "tee"-shaped stands flat on the floor such that when stood up, they are at the approximate distance needed for connecting to each end of the heater head.

NOTE:  Assure that the vertical mast of each "tee"-shaped floor stand is adjusted to be perpendicular to the base; and that the thumb wheel bolt on each tilt bracket are snug.

5.) Locate the heater head on the floor between the 2 "tee"-shaped stands.

6.) Using 2 people (one at each end), install the heater head onto the 2 "tee"-shaped floor stands by:

a.) Have each person hold 1 stand erect with the masts vertical and the bases parallel using 1 hand.
b.) Using their other hand, both people should simultaneously lift the heater head and slide it down onto the top of the vertical stand mast.
c.) Locate the heater head at the desired height above the floor by sliding it up and down on the vertical mast.
d.) Once in place, secure the heater head by tightning the lever clamp handles on the vertical mast.
e.) Using the level located on the top of the heater head, adjust the heater by loosening each lever and adjusting the height until the level is centered. Once the level is centered, retighten the clamp handles.
f.) Rotate the heater head to the desired position by loosening the 2 clamp handles on the heater head and turning the head. Once the heater head is in the desired position, tighten the 2 clamps hands back down.

7.) Slide the heat control down over the top of the upright masts such that it rests upon the heater bracket.

8.) If this installation includes a second heater head, repeat steps (b) thru (f).

9.) Plug the heater head into the receptacle on the heat control, followed by plugging the heat control into the appropriate power source. Route the heat control power cord through the plastic wire guide on the side of the vertical mast and close the clip.

10.) Apply pressure to rotate the rheostat(s) on the heat control(s) from the off position until it clicks. Check that the indicator light

illuminates and the face of the heater begins to heat up by holding your hand about 2" from the heater face.

NOTE: **The heating element heats up quickly and should never be touched while the heater is turned on**. The heating element may emit a slight odor and smoke on the initial start up. This is normal and will disappear after a few moments.

*The Digi-Dri™ is now ready for normal use and operation.*

The following procedures are recommended for normal use and operation of this dryer.

1.)   Position heater head(s) at the location(s) where it (they) will dry the printed product.

NOTE:  The Digi-Dri™ utilizes an infrared heating technology, which means that energy waves are emitted perpendicularly from the flat surface of the heater face. Drying of the ink occurs when these waves are absorbed by the ink and substrate material versus circulated warm air. Care needs to be used when determining a heater location to assure that these waves will be absorbed by the ink and substrate to be cured,  and not other surfaces that could be affected by being warmed.

The face of the heating element(s) should be parallel to the substrate, approximately 3" to 4" away. The Digi-Dri™ will work equally well in all orientations (looking down, up, left, right or any other in between).  The Digi-Dri™ can also cure images from the "back" side of the substrate (the opposite side where the ink is deposited).

Supervise that the media will not contact the face of the heater. In addition to potentially smudging and uncured image, sustained contact could cause the media to overheat and be destroyed.

Using the various lever clamps on the heater head and upright mast, manipulate the stand, heater bracket, and heater to achieve an optimal location.

> NOTE: For "High Speed" (2-heater head) Applications, the vertical mast on the "tee" floor stand can be tilted toward the printer (positioning the head closer to the printer) by adjusting the upright in the bracket at the base of the "tee" floor stand.

2.) Plug each Digi-Dri™ heater (heat controller) into an appropriate power source as described in step #9 of the installation instructions.

3.) Rotate the rheostat(s) on the heat control(s) counter-clockwise from the "OFF" position until it "clicks-on". Adjust power setting(s) to 70% to begin.

Allow approximately 5 minutes for the Digi-Dri™ to initially "warm-up".

> NOTE: The intensity of the heat is controlled by turning the rheostat counter clockwise from the "0" setting.

4.) Observe and test the images as they move across and beyond the heater head. Dependent upon the speed of the printer, type of substrate, room ambient conditions (specifically humidity), and the amount of ink deposited, the rheostat on the control will need to be adjusted.
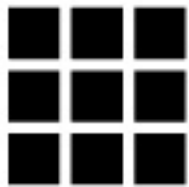
Although the process is not sensitive, care needs to be taken that the edges of the substrate do not curl as the result of the Digi-Dri™ curing the image. If this occurs, reduce the amount of energy emitted by adjusting the heat control down.

As images should be dry after they have passed by the Digi-Dri™, an optimum setting is simply emitting enough energy as needed to cure the image without adding any additional heat.

> NOTE: BBC recommends that a quick reference chart be developed by the user for noting the appropriate settings dependent upon the above noted conditions.

5.) **Turn off the Digi-Dri™ when not in use. Avoid  touching the emitter surface or allowing any materials to come in contact with it.**

Please contact the service department at BBC Industries at 800-654-4205 or Service@bbcind.com with any questions regarding these instructions.
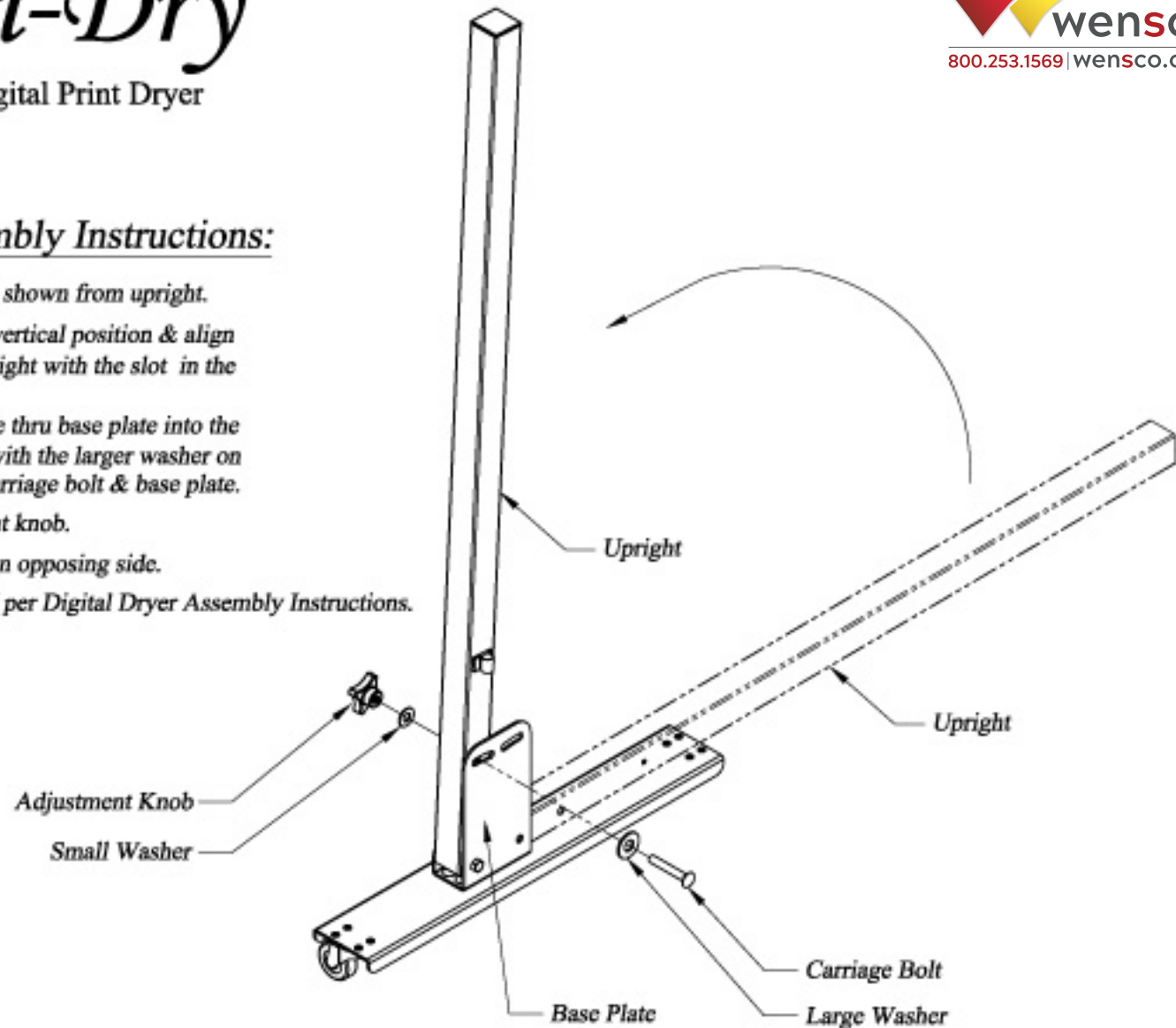
# Digi-Dry
## Digital Print Dryer

## Dual Stand Assembly Instructions:

1. Remove hardware shown from upright.

2. Rotate upright to vertical position & align the hole in the upright with the slot in the base plate.

3. Re-install hardware thru base plate into the upright as shown with the larger washer on the same side as carriage bolt & base plate.

4. Tighten adjustment knob.

5. Repeat steps 1-4 on opposing side.

6. Install heater head per Digital Dryer Assembly Instructions.

Upright

Upright

Adjustment Knob

Small Washer

Carriage Bolt

Large Washer

Base Plate

# Digi-Dry Auto Shut-Off

Slide Auto Shut-Off control unit over leg of your dryer stand closest to the power
cord of the heater and plug the Digi-Dry into receptacle cord of control box.

The Digi-Dry can be used with or without the Auto Shut-Off feature enabled.
- Setting the Dryer Control Switch to " OFF " will turn off power to the dryer.
 - Dryer Control Switch set to " ON " will operate the dryer without the
 Auto Shut-Off enabled (full time on).
    - Set the Temperature Control to desired setting, 0 - 100%.
    - BBC recommends a starting point of 70% and adjust for desired results.

Auto Shut-Off Timer instructions:
- When setting the Timer, the Dryer Control Switch must be set to
 " OFF " or " ON ", not " AUTO ".
- Be sure that the first field on the Timer Setting is set to " N " and the last
 field is set to " M ".
    - The three numbers on the Timer Setting now denote Hrs-Min-Min.
       Ex:  The setting " 1-3-3 " will time as 1 hour, 33 minutes.
- After setting the desired time, switch the Dryer Control Switch to " AUTO ".
 (power to the dryer will be on at this time).
- Switching the Timer Control Switch to " RUN " will begin the Timer count-down.
- The count-down can be paused without resetting the timer by switching
 the Timer Control Switch to the middle " PAUSE " position.  To resume Timer
 count-down, switch the Timer Control Switch back to " RUN ".
- " RESET " will reset the timer to the setting on the Timer Setting and reactivate
 the power to the Dryer.  The heater will again be ON.

Timer Display

Timer Setting

Timer Control Switch

**DRYER   TIMER**

AUTO          MAN

OFF                    PAUSE

Dryer Control Switch

ON            RESET

Temperature Control

Indicator Light