

# DY130

## GIRBAU DYEING SYSTEM

The DY130 is a 3D Parts Coloring System that automatically and effectively dyes printed parts and objects produced with HP Jet Fusion 3D printers. Specifically engineered to dye post-process 3D printed parts, the DY130 delivers consistent, color-uniform results using pre-set programs. Operators simply load the parts, select a program and press start. The DY130 automatically dyes and rinses using a perfected blend of water temperature, water levels, colorant and rotation action. The Girbau Intelli Control allows easy program customization to meet customer specific process requirements.



### PRODUCT OVERVIEW

#### EFFICIENCY & COST SAVINGS

Designed to simplify and reduce costs associated with the dyeing process, the DY130 automatically colors multiple 3D printed parts or objects, with minimal supervision. The DY130 completes most coloring operations within 90 minutes. Afterwards, the parts are removed from the machine and allowed to air dry. In addition to dye bath mixing and the dyeing process, the DY130 performs a cleaning cycle to clean the machine, pumps and tank. This removes all dye residue and prepares the machine for the next dye batch.

#### SUITABLE APPLICATIONS

The DY130 coloring process is recommended to enhance the look and feel of printed objects, including visible parts, covers and figurines. However, it is not recommended for objects used next to the skin and the process is not tested on all possible applications.

#### RECOMMENDATIONS

This dyeing process is an easy and automatic option for achieving color uniformity on 3D parts, including all cavities and details. The process is also repeatable.

Avoid physical marks produced by movement of the objects during the drying process by using a laundry bag to separate pieces of different weights. For best results, bag similarly sized objects together.

Many parts can be dyed simultaneously. However, because the process takes place in water, the parts will absorb some water, which may slightly change their dimensional and mechanical properties. Warpage of thin and flexible parts is possible.

#### SITE REQUIREMENTS

- Water supply. Using a hot water supply installation can reduce the time to mix a dye bath.
- A water softener is not required, but it is recommended to improve bath stability and final rinse and dry results.
- Utility power connections, see spec sheet for specifics
- Municipal drain or holding tanks. Depending on the dye used, wastewater produced by this process should be disposed of according to local regulations if the maximum permissible limits for effluent discharge are exceeded.
- The work area must be well ventilated and operators should wear protective equipment.

#### CONSUMABLES

This consumable has been tested successfully by HP:

- G-DYE black powder dye

#### WHAT DO YOU NEED?

Recommended equipment

- Girbau DY130 Coloring System1
- Laundry bags
- Dye solution or powder; HP recommends G-DYE black powder dye

PRODUCTION WORKFLOW					PROCESS
	Place into laundry bags	Dyeing process	Drying	Sandblasting / shot peening (optional)	Prepare dyeing solution
Operation Time	5 min/batch	0 min/bath	10 min/batch	30 sec - 5 min/piece	5 min/5 batch
Process Time	5 min/batch	1.30 hours/batch*	2 - 3 hours/batch	30 sec - 5 min/piece	40 min/5 batch

\* When the dye bath has been temperature conditioned prior to the start of the dyeing process. Consecutive dyeing will yield similar times.

# DY130

## GIRBAU DYEING SYSTEM

### PRODUCT SPECS

Drum Volume <i>cu ft</i>	4.4
Drum Diameter <i>inch</i>	24.4
Drum Length <i>inch</i>	16.4
Static Force Transmitted <i>lbs</i>	897
Dynamic Force Transmitted <i>lbs</i>	150
Frequency of Dynamic Force <i>Hz</i>	16.8
Kinetic Energy <i>N*m</i>	29.72
Sound Level <i>dbA</i>	70
Width <i>inch</i>	32.6
Depth <i>inch</i>	57.7
Height <i>inch</i>	74.1
Weight <i>lbs</i>	1,199.3
Door Opening <i>inch</i>	12.9
Floor to Door <i>inch</i>	44.4
Shipping Dimensions <i>inch</i>	33.7 x 60 x 81.2
Shipping Weight <i>lbs</i>	1,287.5
Motor Power <i>kW</i>	0.42
Water Connection <i>inch</i>	3/4
Recommended Water Pressure <i>PSI</i>	7-87
Flow <i>gal/min</i>	16
Available Voltages / Wire Conductor / Amp	
Electric Auxiliary Heat	208/60/1, 2W+G, 40
Electric Auxiliary Heat	240/60/1, 2W+G, 50
Electric Auxiliary Heat	208-240/60/3, 3W+G, 40

\* Specifications subject to change without notice or obligation. Contact Girbau North America at (800) 256-1073 for dimensions not shown or for clarification.

