## **3D Concrete Printing for Construction**



**X-Hab 3D's** cutting-edge, mobile 3D Concrete Printing (3DCP) systems revolutionize commercial construction by automating the building process. Whether it's residential, non-residential, prefab, or infrastructure projects, our technology delivers speed, cost savings, and sustainability.

## Why X-Hab 3D?

- Faster Construction: Build up to 70% faster than traditional methods.
- **Cost Efficiency:** Significant reduction in labor, material costs, and waste.
- Enhanced Durability: Structures are fire, storm, pest, and impact-resistant.
- Design Freedom: Create complex, customized structures with ease.
- Sustainability: Lower carbon footprint and energy-efficient solutions.

## **Building Smarter, Faster, Stronger**

- **3DCP Capabilities:** Constructs vertical structures up to 24' high and 14' below grade with unlimited width and length.
- **Rapid Setup:** Ready for operation in less than 2 hours with a 2-3 person crew.
- Portability: Transported fully assembled via heavy-duty pickup and trailer.
- Material Flexibility: Compatible with concrete blends up to 3/8" aggregate.
- Multi-Functionality: Optional tool changer enables gripping, welding, spraying, and scanning and other construction tasks.



## **Designed for Today's Challenges**

X-Hab 3D addresses the skilled labor shortage, supply chain delays, and rising costs with automated solutions that keep projects on track and under budget.

Website: www.xhab3d.com

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# **Versatile Construction Applications**



#### **Residential Construction:**

Customizable single-family and multi-family homes.

#### **Non-Residential Construction:**

- Office buildings, retail spaces, and warehouses.
- Parking structures and industrial facilities.
- Pipes, manholes, and water-retaining structures.

#### Infrastructure:

Retaining walls, culverts, and utility chambers.

#### **Prefab Construction:**

- Modular components for faster assembly on-site.
- Seamless integration with traditional construction methods.

## The X-Hab 3D Advantage

**Faster Time-to-Market:** Accelerate project completion timelines.

**Lower Costs:** Cut labor, material, and waste expenses.

**Higher Quality:** Durable structures with enhanced resistance to extreme conditions.

Innovative Design: Unlock creative possibilities

for unique, customized projects.

**Environmental Benefits:** Reduce carbon emissions and energy consumption.



## We're with You Every Step of the Way

**Training:** Comprehensive hands-on training for operation and maintenance.

Warranty: Full coverage for manufacturing defects.

**24/7 Support:** Round-the-clock virtual technical assistance.

### **About X-Hab 3D**

We are pioneers in 3D concrete printing for the commercial construction industry, empowering builders with advanced technology to achieve better, faster, and more sustainable results.

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# X-Hab 3D: System Specs



| Performance   |   |                                     |   |
|---|---|-------------------------------------|---|
| Print speed   | 0 to 1.97 feet / s (304<br>mm / s)  | Position location accuracy          | 1/4 inch (6.4 mm)   |
| Material flow rate                                    | 1.8 cubic yards / hr.   | Path accuracy                       | 1/8 inch (3.2 mm)   |
| Maximum aggregate size                                | 3/16 inch with M-Tec<br>3DCP+; up to 3/8 inch<br>with larger mixer / pump     | Layer height - range                | 1/2 to 1.5 inches (12.7 to 38.1 mm)   |
| Printable area  | Unlimited width & length;<br>24 feet height and 14<br>feet below grade        | Layer width - range                 | 3/4 - 3.0 inches (19.0 to<br>76.2 mm)                                       |
| Horizontal print reach                                | 16 feet (4.9 meters)  | Compatible 3DCP<br>mixes            | Designed to work with<br>all types of 3DCP mixes<br>within aggregate limits |
| Maximum reach height (robotic arm and lift mechanism) | 24 feet (7.3 meters)  | Time to set up / take<br>down       | Approximately 2 hours   |
| Maximum reach below grade                             | 14 feet (4.3 meters)  | People needed to set up and operate | 2   |
| Material feeding                                      | Standard is manual load<br>bags to silo, compatible<br>with pneumatic options |                                     |   |

| <b>Mobile System Dimensions / Operating Characteristics</b> |                          |                             |                        |  |
|---|--------------------------|-----------------------------|------------------------|--|
| Mobile platform   | 12 x 6 x 8 feet          | Maximum travel incline      | 45% grade              |  |
| Robot arm axes  | 6 baseline, optional 7   | Operating temperature range | 45-90 degrees F.       |  |
| Mobile 3DCP weight  | 12,860 lbs.              | Maximum operating humidity  | 90%                    |  |
| Driving speed   | 3 mph                    | Transport temperature range | 14 - 122 degrees F.    |  |
| Diesel generator size                                       | 38 kW                    | Remote control              | Mobile/mixer/tool path |  |
| External power supply                                       | 3 phase, 480V, 60Hz      | Optional broadband          | Secure links           |  |
| Leveling capability   | Self-leveling outriggers |                             |                        |  |