

3D Concrete Printing Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global 3D concrete printing market size reached US\$ 1,244.4 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 42,323.3 Million by 2028, exhibiting a CAGR of 72.1% during 2023-2028.

3D concrete printing, also known as cementitious 3D construction printing (3DCP), refers to a form of additive manufacturing used to fabricate buildings and construction components. It employs state-of-the-art 3D printing technology, advanced machinery, and novel concrete mixtures to create customized and complex designs, shapes, and structures. It involves depositing layers of 3D printed concrete on the previously pumped layers through the nozzle of the printing equipment until the desired structure is formed. In recent years, 3D concrete printing has rapidly gained traction across the construction industry as it helps streamline the entire process, reduce overall costs, minimize material wastage, enhance productivity, save time and improve construction quality.

3D Concrete Printing Market Trends:

3D concrete printing offers higher accuracy, efficiency, improved speed of construction, lower labor costs, and greater design flexibility than traditional construction techniques. As a result, the escalating demand for customized and cost-efficient buildings represents the primary factor driving the market growth. Besides this, the growing need for affordable housing across the globe due to rapid urbanization, expanding population, and inflating consumer disposable incomes is augmenting the product demand. Additionally, 3D concrete printing assists in fabricating lightweight construction components, including panels, roofs, and walls, while ensuring structural integrity and reducing handling and transportation costs. Along with this, the rising demand for

complex building structures and architectural flexibility is propelling the market growth. Furthermore, the market growth is favored by several favorable initiatives and extensive investments by governments of various countries in infrastructure development projects owing to the increasing number of national and international events. Moreover, with the advancements in 3D printing technology, innovative concrete mixes have been introduced, such as ready-mix, limecrete, shotcrete, high-density, and precast concrete, which are accelerating product adoption rates. Other factors, including the expanding construction industry, rapid industrialization, and ongoing research and development (R&D) activities, are also creating a favorable market outlook.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global 3D Concrete Printing market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on product type, concrete type, printing type and end use.

Breakup by Product Type:

- Walls
- Floors and Roofs
- Panels and Lintels
- Staircases
- Others

Breakup by Concrete Type:

- Ready-mix
- High-density
- Precast
- Shotcrete
- Others

Breakup by Printing Type:

- Gantry System
- Robotic Arm

Breakup by End Use:

Residential Building
Commercial Building
Infrastructure
Others

Breakup by Region:

North America
United States
Canada
Asia-Pacific
China
Japan
India
South Korea
Australia
Indonesia
Others
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Apis Cor, COBOD International A/S, CyBe Construction B.V., DUS Architects, Foster + Partners, Heidelbergcement AG, Holcim Ltd, Sika AG, Skanska AB, Universe Architecture, XtreeE and Yingchuang Building Technique Co. Ltd.

Key Questions Answered in This Report

1. What was the size of the global 3D concrete printing market in 2022?
2. What is the expected growth rate of the global 3D concrete printing market during 2023-2028?
3. What are the key factors driving the global 3D concrete printing market?
4. What has been the impact of COVID-19 on the global 3D concrete printing market?
5. What is the breakup of the global 3D concrete printing market based on the printing type?
6. What is the breakup of the global 3D concrete printing market based on the end use?
7. What are the key regions in the global 3D concrete printing market?
8. Who are the key players/companies in the global 3D concrete printing market?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL 3D CONCRETE PRINTING MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY PRODUCT TYPE

- 6.1 Walls
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Floors and Roofs
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast
- 6.3 Panels and Lintels

- 6.3.1 Market Trends
- 6.3.2 Market Forecast
- 6.4 Staircases
 - 6.4.1 Market Trends
 - 6.4.2 Market Forecast
- 6.5 Others
 - 6.5.1 Market Trends
 - 6.5.2 Market Forecast

7 MARKET BREAKUP BY CONCRETE TYPE

- 7.1 Ready-mix
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 High-density
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast
- 7.3 Precast
 - 7.3.1 Market Trends
 - 7.3.2 Market Forecast
- 7.4 Shotcrete
 - 7.4.1 Market Trends
 - 7.4.2 Market Forecast
- 7.5 Others
 - 7.5.1 Market Trends
 - 7.5.2 Market Forecast

8 MARKET BREAKUP BY PRINTING TYPE

- 8.1 Gantry System
 - 8.1.1 Market Trends
 - 8.1.2 Market Forecast
- 8.2 Robotic Arm
 - 8.2.1 Market Trends
 - 8.2.2 Market Forecast

9 MARKET BREAKUP BY END USE

- 9.1 Residential Building

- 9.1.1 Market Trends
- 9.1.2 Market Forecast
- 9.2 Commercial Building
 - 9.2.1 Market Trends
 - 9.2.2 Market Forecast
- 9.3 Infrastructure
 - 9.3.1 Market Trends
 - 9.3.2 Market Forecast
- 9.4 Others
 - 9.4.1 Market Trends
 - 9.4.2 Market Forecast

10 MARKET BREAKUP BY REGION

- 10.1 North America
 - 10.1.1 United States
 - 10.1.1.1 Market Trends
 - 10.1.1.2 Market Forecast
 - 10.1.2 Canada
 - 10.1.2.1 Market Trends
 - 10.1.2.2 Market Forecast
- 10.2 Asia-Pacific
 - 10.2.1 China
 - 10.2.1.1 Market Trends
 - 10.2.1.2 Market Forecast
 - 10.2.2 Japan
 - 10.2.2.1 Market Trends
 - 10.2.2.2 Market Forecast
 - 10.2.3 India
 - 10.2.3.1 Market Trends
 - 10.2.3.2 Market Forecast
 - 10.2.4 South Korea
 - 10.2.4.1 Market Trends
 - 10.2.4.2 Market Forecast
 - 10.2.5 Australia
 - 10.2.5.1 Market Trends
 - 10.2.5.2 Market Forecast
 - 10.2.6 Indonesia
 - 10.2.6.1 Market Trends

- 10.2.6.2 Market Forecast
- 10.2.7 Others
 - 10.2.7.1 Market Trends
 - 10.2.7.2 Market Forecast
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.1.1 Market Trends
 - 10.3.1.2 Market Forecast
 - 10.3.2 France
 - 10.3.2.1 Market Trends
 - 10.3.2.2 Market Forecast
 - 10.3.3 United Kingdom
 - 10.3.3.1 Market Trends
 - 10.3.3.2 Market Forecast
 - 10.3.4 Italy
 - 10.3.4.1 Market Trends
 - 10.3.4.2 Market Forecast
 - 10.3.5 Spain
 - 10.3.5.1 Market Trends
 - 10.3.5.2 Market Forecast
 - 10.3.6 Russia
 - 10.3.6.1 Market Trends
 - 10.3.6.2 Market Forecast
 - 10.3.7 Others
 - 10.3.7.1 Market Trends
 - 10.3.7.2 Market Forecast
- 10.4 Latin America
 - 10.4.1 Brazil
 - 10.4.1.1 Market Trends
 - 10.4.1.2 Market Forecast
 - 10.4.2 Mexico
 - 10.4.2.1 Market Trends
 - 10.4.2.2 Market Forecast
 - 10.4.3 Others
 - 10.4.3.1 Market Trends
 - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
 - 10.5.1 Market Trends
 - 10.5.2 Market Breakup by Country

10.5.3 Market Forecast

11 SWOT ANALYSIS

- 11.1 Overview
- 11.2 Strengths
- 11.3 Weaknesses
- 11.4 Opportunities
- 11.5 Threats

12 VALUE CHAIN ANALYSIS

13 PORTERS FIVE FORCES ANALYSIS

- 13.1 Overview
- 13.2 Bargaining Power of Buyers
- 13.3 Bargaining Power of Suppliers
- 13.4 Degree of Competition
- 13.5 Threat of New Entrants
- 13.6 Threat of Substitutes

14 PRICE ANALYSIS

15 COMPETITIVE LANDSCAPE

- 15.1 Market Structure
- 15.2 Key Players
- 15.3 Profiles of Key Players
 - 15.3.1 Apis Cor
 - 15.3.1.1 Company Overview
 - 15.3.1.2 Product Portfolio
 - 15.3.2 COBOD International A/S
 - 15.3.2.1 Company Overview
 - 15.3.2.2 Product Portfolio
 - 15.3.3 CyBe Construction B.V.
 - 15.3.3.1 Company Overview
 - 15.3.3.2 Product Portfolio
 - 15.3.4 DUS Architects
 - 15.3.4.1 Company Overview

- 15.3.4.2 Product Portfolio
- 15.3.5 Foster + Partners
 - 15.3.5.1 Company Overview
 - 15.3.5.2 Product Portfolio
- 15.3.6 Heidelbergcement AG
 - 15.3.6.1 Company Overview
 - 15.3.6.2 Product Portfolio
 - 15.3.6.3 Financials
- 15.3.7 Holcim Ltd
 - 15.3.7.1 Company Overview
 - 15.3.7.2 Product Portfolio
 - 15.3.7.3 Financials
 - 15.3.7.4 SWOT Analysis
- 15.3.8 Sika AG
 - 15.3.8.1 Company Overview
 - 15.3.8.2 Product Portfolio
 - 15.3.8.3 Financials
- 15.3.9 Skanska AB
 - 15.3.9.1 Company Overview
 - 15.3.9.2 Product Portfolio
 - 15.3.9.3 Financials
 - 15.3.9.4 SWOT Analysis
- 15.3.10 Universe Architecture
 - 15.3.10.1 Company Overview
 - 15.3.10.2 Product Portfolio
- 15.3.11 XtreeE
 - 15.3.11.1 Company Overview
 - 15.3.11.2 Product Portfolio
- 15.3.12 Yingchuang Building Technique Co. Ltd.
 - 15.3.12.1 Company Overview
 - 15.3.12.2 Product Portfolio

List Of Tables

LIST OF TABLES

Table 1: Global: 3D Concrete Printing Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: 3D Concrete Printing Market Forecast: Breakup by Product Type (in Million US\$), 2023-2028

Table 3: Global: 3D Concrete Printing Market Forecast: Breakup by Concrete Type (in Million US\$), 2023-2028

Table 4: Global: 3D Concrete Printing Market Forecast: Breakup by Printing Type (in Million US\$), 2023-2028

Table 5: Global: 3D Concrete Printing Market Forecast: Breakup by End Use (in Million US\$), 2023-2028

Table 6: Global: 3D Concrete Printing Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 7: Global: 3D Concrete Printing Market: Competitive Structure

Table 8: Global: 3D Concrete Printing Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: 3D Concrete Printing Market: Major Drivers and Challenges

Figure 2: Global: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017-2022

Figure 3: Global: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 4: Global: 3D Concrete Printing Market: Breakup by Product Type (in %), 2022

Figure 5: Global: 3D Concrete Printing Market: Breakup by Concrete Type (in %), 2022

Figure 6: Global: 3D Concrete Printing Market: Breakup by Printing Type (in %), 2022

Figure 7: Global: 3D Concrete Printing Market: Breakup by End Use (in %), 2022

Figure 8: Global: 3D Concrete Printing Market: Breakup by Region (in %), 2022

Figure 9: Global: 3D Concrete Printing (Walls) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 10: Global: 3D Concrete Printing (Walls) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 11: Global: 3D Concrete Printing (Floors and Roofs) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 12: Global: 3D Concrete Printing (Floors and Roofs) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 13: Global: 3D Concrete Printing (Panels and Lintels) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 14: Global: 3D Concrete Printing (Panels and Lintels) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 15: Global: 3D Concrete Printing (Staircases) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 16: Global: 3D Concrete Printing (Staircases) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 17: Global: 3D Concrete Printing (Other Product Types) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 18: Global: 3D Concrete Printing (Other Product Types) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 19: Global: 3D Concrete Printing (Ready-mix) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 20: Global: 3D Concrete Printing (Ready-mix) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 21: Global: 3D Concrete Printing (High-density) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 22: Global: 3D Concrete Printing (High-density) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 23: Global: 3D Concrete Printing (Precast) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 24: Global: 3D Concrete Printing (Precast) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 25: Global: 3D Concrete Printing (Shotcrete) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 26: Global: 3D Concrete Printing (Shotcrete) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 27: Global: 3D Concrete Printing (Other Concrete Types) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 28: Global: 3D Concrete Printing (Other Concrete Types) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 29: Global: 3D Concrete Printing (Gantry System) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 30: Global: 3D Concrete Printing (Gantry System) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 31: Global: 3D Concrete Printing (Robotic Arm) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 32: Global: 3D Concrete Printing (Robotic Arm) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 33: Global: 3D Concrete Printing (Residential Building) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 34: Global: 3D Concrete Printing (Residential Building) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 35: Global: 3D Concrete Printing (Commercial Building) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 36: Global: 3D Concrete Printing (Commercial Building) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 37: Global: 3D Concrete Printing (Infrastructure) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 38: Global: 3D Concrete Printing (Infrastructure) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 39: Global: 3D Concrete Printing (Other End Uses) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 40: Global: 3D Concrete Printing (Other End Uses) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 41: North America: 3D Concrete Printing Market: Sales Value (in Million US\$),

2017 & 2022

Figure 42: North America: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 43: United States: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 44: United States: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 45: Canada: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 46: Canada: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 47: Asia-Pacific: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 48: Asia-Pacific: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 49: China: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 50: China: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 51: Japan: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 52: Japan: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 53: India: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 54: India: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 55: South Korea: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 56: South Korea: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 57: Australia: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 58: Australia: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 59: Indonesia: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 60: Indonesia: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 61: Others: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 62: Others: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 63: Europe: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 64: Europe: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: Germany: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 66: Germany: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 67: France: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 68: France: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: United Kingdom: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 70: United Kingdom: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 71: Italy: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 72: Italy: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 73: Spain: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 74: Spain: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 75: Russia: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 76: Russia: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 77: Others: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 78: Others: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 79: Latin America: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 80: Latin America: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 81: Brazil: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 82: Brazil: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 83: Mexico: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 84: Mexico: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 85: Others: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 86: Others: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 87: Middle East and Africa: 3D Concrete Printing Market: Sales Value (in Million US\$), 2017 & 2022

Figure 88: Middle East and Africa: 3D Concrete Printing Market: Breakup by Country (in %), 2022

Figure 89: Middle East and Africa: 3D Concrete Printing Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 90: Global: 3D Concrete Printing Industry: SWOT Analysis

Figure 91: Global: 3D Concrete Printing Industry: Value Chain Analysis

Figure 92: Global: 3D Concrete Printing Industry: Porter's Five Forces Analysis

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