

## 3D Construction printing company:

<b>d C e v e l o p m e n t &amp; n e t</b>	Year of establishment	2006								
	Year of entering into construction 3D-Printing	2008								
	Number of employees	Less than 10	Less than 25	Less than 50	Less than 100	Less than 500	Less than 1000	More than 1000	Unknown/Undefined	
	Targeted market	Printers	Printer parts	Materials	Furniture/ Sculptures	Building components	Building projects	Other	Unknown/Undefined	
	Development stage of printers	Conceptual	Partially working prototypes	Working prototypes	Commercial products	Other	Unknown/Undefined			
	Development stage of printed materials	Conceptual	Partially usable prototypes	Usable prototypes	Commercial products	Other	Unknown/Undefined			
	Largest print up to date (size)	Less than 1m <sup>3</sup>	Less than 5m <sup>3</sup>	Less than 10m <sup>3</sup>	Less than 25m <sup>3</sup>	Less than 50m <sup>3</sup>	Less than 100m <sup>3</sup>	More than 100m <sup>3</sup>	Unknown/Undefined	
	Largest print up to date (category)	Minor test prints	Furniture/ Sculptures	Building elements	Less than 50m <sup>2</sup> buildings	Less than 100m <sup>2</sup> buildings	More than 100m <sup>2</sup> buildings	Multiple storey building	Other	Unknown/Undefined

<b>T e c h n o l o g y</b>	Additive Manufacturing technology type	Material Extrusion	Suspended Material Extrusion	Binder Jetting	Other	Unknown/ Undefined			
	Form Freedom	2D freedom	2.5D freedom	3D freedom	Full 3D freedom	Other	Unknown/ Undefined		
	Fabrication location	In situ	On-site prefabrication	Off-site prefabrication	Other	Unknown/ Undefined			
	Fabrication approach	Direct fabrication	Semi-direct fabrication	Component fabrication	Formwork fabrication	Stay-in-place formwork fabrication	Other	Unknown/ Undefined	

P r i n t e r	Movement system	Cartesian gantry	Delta gantry	Robotic arm	Mobile robotic vehicle	Cable suspension	Other	Unknown/ Undefined		
	Maximum printing volume	Less than 1m <sup>3</sup>	Less than 5m <sup>3</sup>	Less than 10m <sup>3</sup>	Less than 25m <sup>3</sup>	Less than 50m <sup>3</sup>	Less than 100m <sup>3</sup>	More than 100m <sup>3</sup>	Unknown/ Undefined	
	Deposition method	Single nozzle	Multiples nozzles	Nozzle array	Other	Unknown/ Undefined				
	Material deposition system	Pressure	Extrusion	Mechanical movement	Gravity deposition	Sintering/ Welding	Other	Unknown/ Undefined		
	Material feeding system	Manual	Included, semi- automated	Included, fully automated	Separate, semi- automated	Separate, fully automated	Other	Unknown/ Undefined		
	Nozzle diameter	Less than 1mm	Less than 5mm	Less than 10mm	Less than 25mm	Less than 50mm	Less than 100mm	More than 100mm	Unknown/ Undefined	
	Printer Software	XX	YY	...	...	...	...	Other	Unknown/ Undefined	
	Printer Firmware	XX	YY	...	...	...	...	Other	Unknown/ Undefined	
	Printer Hardware	XX	YY	...	...	...	...	Other	Unknown/ Undefined	
	Theoretical printing speed	Less than 0.1m <sup>3</sup> /h	Less than 0.5m <sup>3</sup> /h	Less than 0.1m <sup>3</sup> /h	Less than 2m <sup>3</sup> /h	Less than 5m <sup>3</sup> /h	Less than 10m <sup>3</sup> /h	Less than 20m <sup>3</sup> /h	More than 20m <sup>3</sup> /h	Unknown/ Undefined
	Actual printing speed	Less than 0.1m <sup>3</sup> /h	Less than 0.3m <sup>3</sup> /h	Less than 0.5m <sup>3</sup> /h	Less than 1m <sup>3</sup> /h	Less than 2m <sup>3</sup> /h	Less than 5m <sup>3</sup> /h	Less than 10m <sup>3</sup> /h	More than 10m <sup>3</sup> /h	Unknown/ Undefined
	Accuracy	Less than 5mm	Less than 10mm	Less than 50mm	Less than 100mm	More than 100mm	Unknown/Undefined			
	Printer (dis)assembly speed	Less than 1 hour	Less than 10 hours	Less than 24 hours	Less than 2 days	More than 2 days	Other	Unknown/ Undefined		
	Price per printer unit	Less than 10.000\$	Less than 50.000\$	Less than 100.000\$	Less than 250.000\$	Less than 500.000\$	More than 500.000\$	Unknown/ Undefined		

M a t e r i a l	<b>Material possibilities</b>	Single material	Multiple materials	Structure/ Support material	Other	Unknown/ Undefined					
	<b>Material type</b>	Traditional concrete	Alternative concrete	Clay	Soil	Plastic	Metal	Resin	Other	Unknown/ Undefined	
	<b>Price</b>	Less than 50\$/m <sup>3</sup>	Less than 100\$/m <sup>3</sup>	Less than 150\$/m <sup>3</sup>	Less than 300\$/m <sup>3</sup>	Less than 500\$/m <sup>3</sup>	Less than 1000\$/m <sup>3</sup>	Less than 2000\$/m <sup>3</sup>	More than 2000\$/m <sup>3</sup>	Unknown/ Undefined	
	<b>Compression strength</b>	Less than 5MPa	Less than 15MPa	Less than 25MPa	Less than 50MPa	Less than 100MPa	Less than 200MPa	More than 200MPa	Unknown/ Undefined		
	<b>Tensile strength</b>	Less than 1MPa	Less than 3MPa	Less than 5MPa	Less than 10MPa	More than 10MPa	Unknown/ Undefined				
	<b>Material verification</b>	Conceptual	Prototype	Partially tested	Extensively tested	Certified	Other	Unknown/ Undefined			
	<b>Material setting time</b>	Less than 1 hour	Less than 10 hours	Less than 24 hours	Less than 2 days	Less than 5 days	Less than 10 days	More than 10 days	Other	Unknown/ Undefined	
	<b>Raw material price</b>	Less than 50\$/m <sup>3</sup>	Less than 100\$/m <sup>3</sup>	Less than 150\$/m <sup>3</sup>	Less than 300\$/m <sup>3</sup>	Less than 500\$/m <sup>3</sup>	Less than 1000\$/m <sup>3</sup>	Less than 2000\$/m <sup>3</sup>	More than 2000\$/m <sup>3</sup>	Unknown/ Undefined	
	<b>Raw material availability (in construction)</b>	Industry standard	Extensively used	Partially used	Niche usage	Not used	Other	Unknown/ Undefined			
	<b>Material usability time</b>	Less than 15 minutes	Less than 60 minutes	Less than 2 hours	Less than 5 hours	Less than 10 hours	More than 10 hours	Other	Unknown/ Undefined		