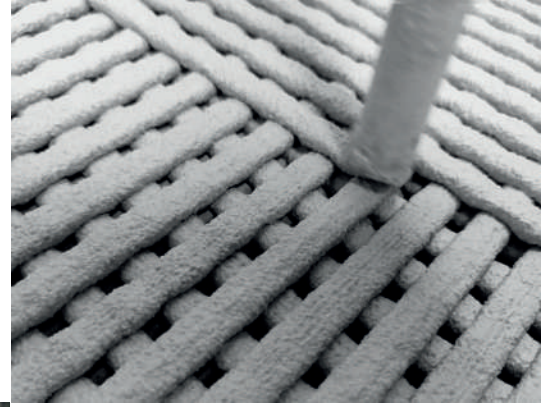




PRINTSTONES

3D PRINTED INDIVIDUAL PAVING BLOCKS AND OBJECTS



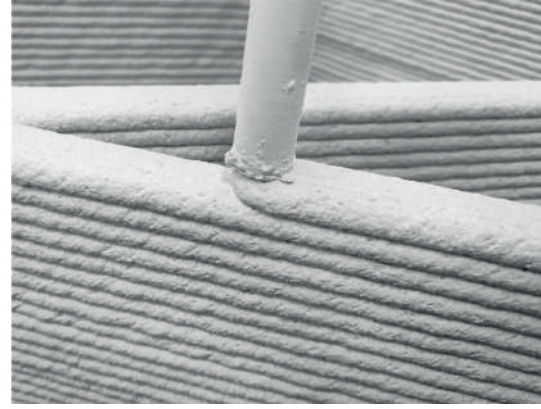
Printstones is an Austrian startup based in Vienna and focuses on the development of 3D printing processes for cementitious materials. Initially targeting the large scale pavement market, Printstones solves a number of pain points in a sector that has seen little innovation in decades.

Printstones works now with several customer groups. Among them are paving companies, public transportation companies, cities and municipalities, garden and office design/improvement companies, construction companies as well as designers and private customers. The main strategic target customer group are concrete precast plants, who produce and sell pavement stone systems as well as garden and street design concrete goods without reinforcement in DACH and EU.



Concrete 3D-printing allows printing a huge variety of different products. Even without reinforcement these could be paving blocks, border stones, concrete plates, bookshelves, facade panels, and many more.

READY-TO-USE CONCRETE 3D PRINTING SYSTEMS



The main product line Printstones is offering customers is a “Digital Concrete Cell” complete solution, which enables the small-scale on-demand production of custom pavement and concrete goods. It consists of hardware (off-site and on-site (in development) printing cells), software (all required packages for a stable and convenient operation of the system), materials for printing and some additional services.

USPs for the customer

Minimum order quantity of one piece

Any shape of the object is possible

Any color is possible + brighter colors

Colors stay bright forever, even in high-traffic zones and aggressive environments

Big variety of top surface texture patterns

No cutting needed, stones and objects always fit boundaries

Lighter stones - more possibilities to use on weight-sensitive areas like roofs

Benefits for the production

Small-scale on-demand production of custom pavement and concrete goods

New product development possibilities - print and test before mass production

Unlimited digital product catalog, no need to produce and store goods to sell

Instant change of shape and color - every object could be unique

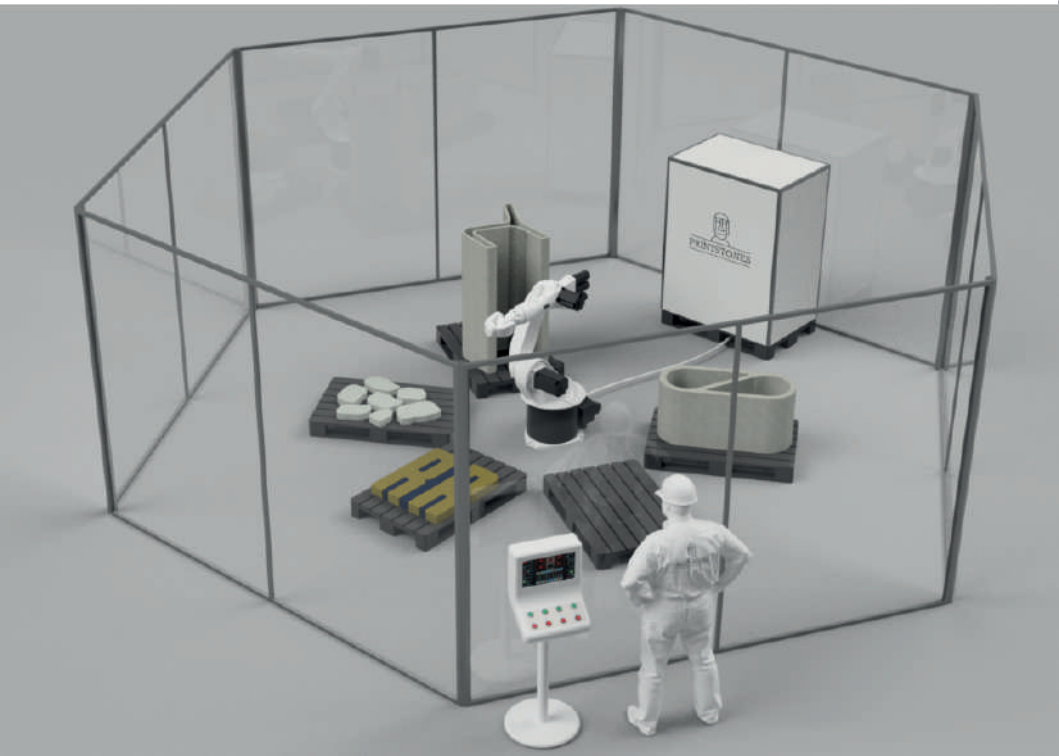
Live dosing and mixing + Dynamic material viscosity control

Less material needed while using infill structure, equals CO2 reduction

Easy to learn and use for operator

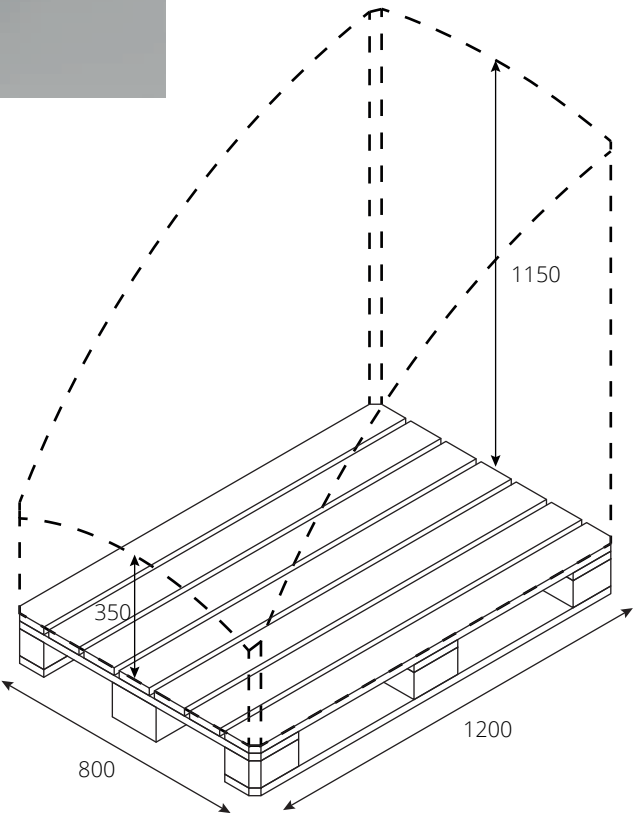
DIGITAL CONCRETE CELL

TECHNICAL SPECIFICATIONS



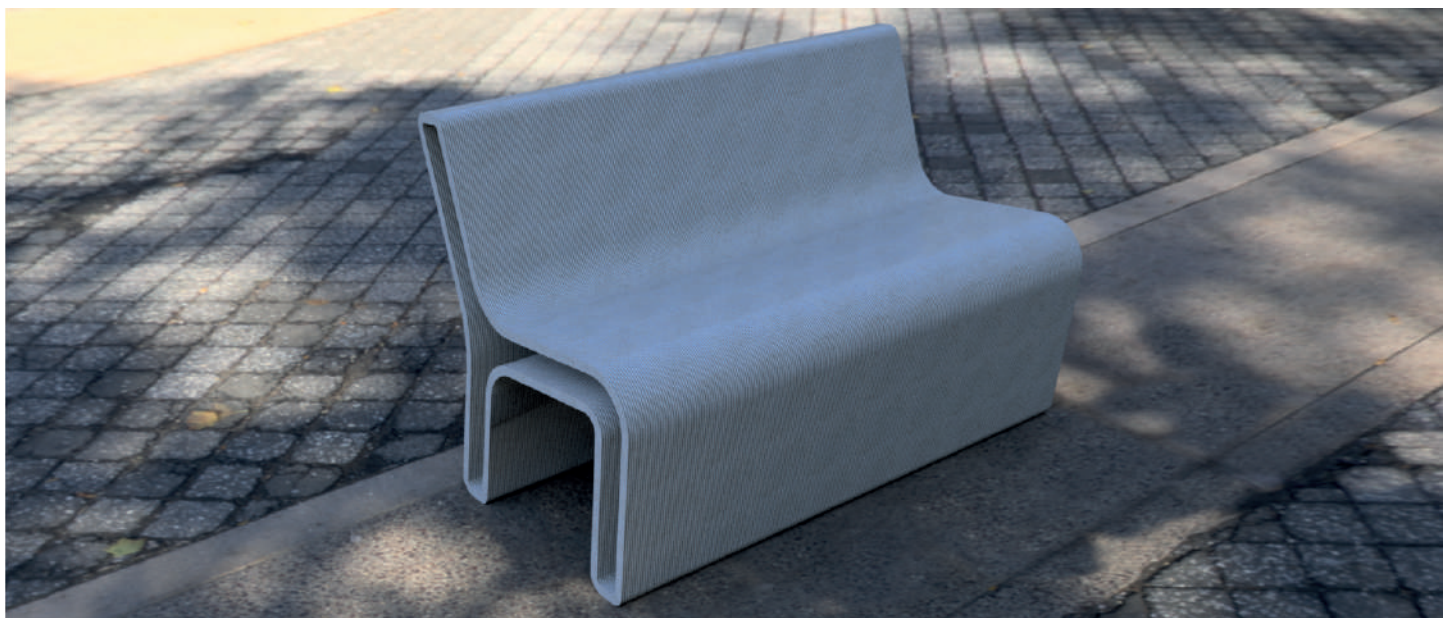
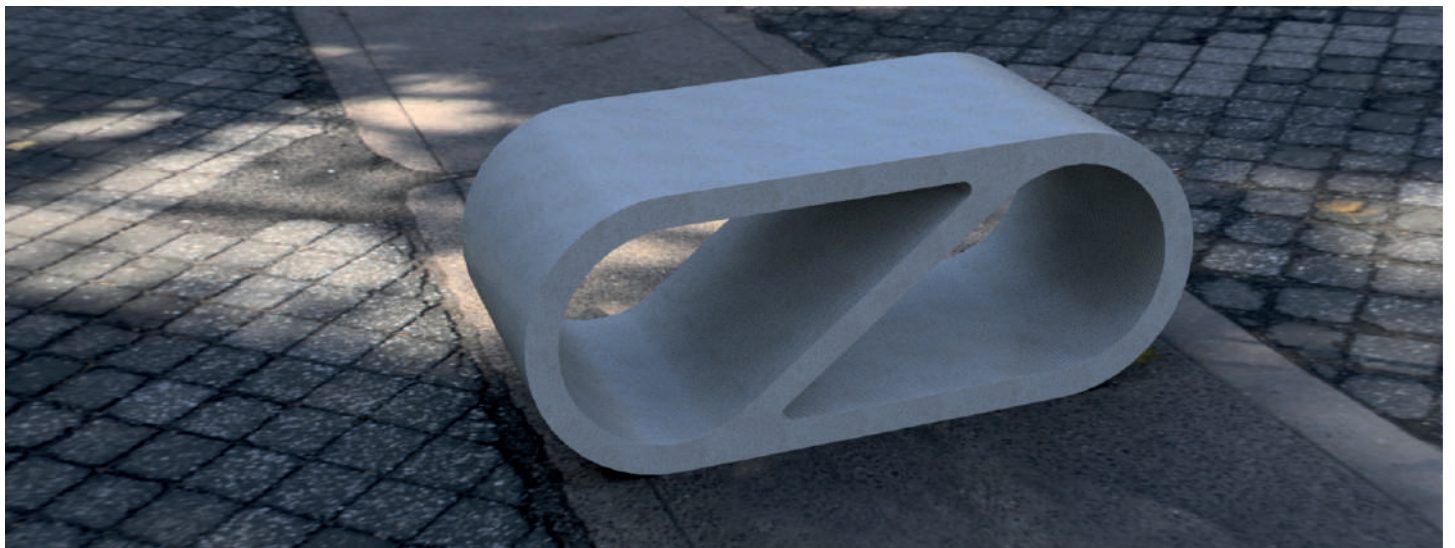
Cell name	Printstones X1
Nozzle diameter	10-20 mm
Layer height	4-8 mm
Infill density	0-100 %
Colors	PS Chart
Inclination from vertical	25°

Material	Concrete
Material weight	2.4 g/cm ³
Compressive strength	~50 MPa
Linear printing speed	100 mm/sec
Volume printing speed	450 cm ³ /min
Pavement printing speed	1 m ² /hour
Build size	EURO Pallet
Build volume	See illustration
Reinforcement	no

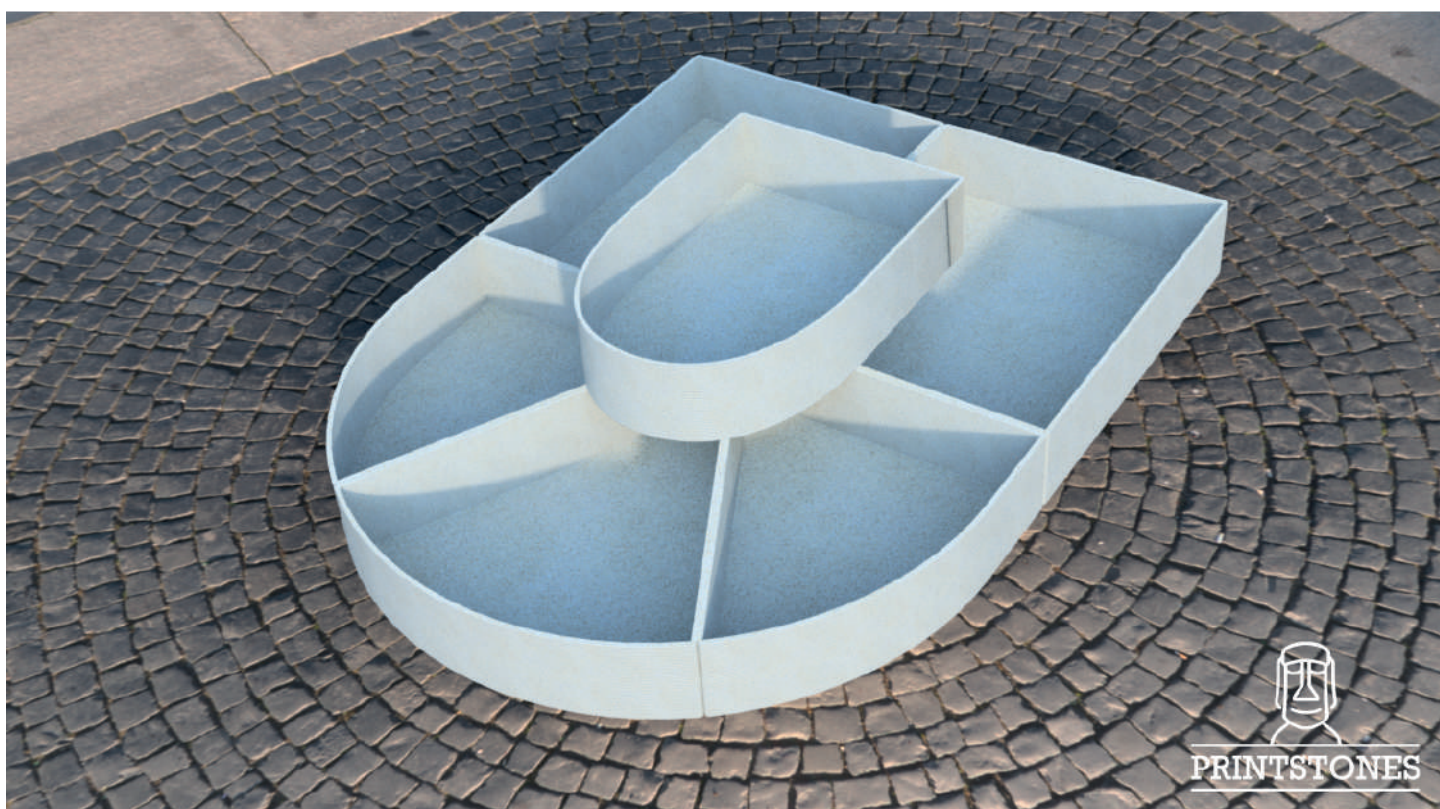


There are several technological features that make Prinstones stand out of the competition. The most important ones for the target customer group are usability of the printing cell, self-cleaning system, live dosing and mixing, dynamic color injection, dynamic material viscosity control, wet milling technique as well as much higher printing resolution in a combination with the 2-dimensional dynamic resolution control.

POSSIBLE APPLICATION AREAS



POSSIBLE APPLICATION AREAS



PRINTSTONES

REFERENCE PROJECTS



ÖBB

On-demand replacement of the station floor stones



Wiener Linien

On-site printing of structural elements for the tram lines



Braun Steine

On-demand production of free-shaped paving blocks, furniture and planters



Weissenböck

On-demand production of free-shaped concrete furniture



City of Vienna

3d-printing of the pavement structures for the Vienna inner-city



Stein Design

On-demand production of special shapes of block pavement and furniture



Heimat Wien

On-demand production of custom concrete shelves and indoor design elements



Vienna Design Week

On-demand production of expo decoration elements and creative sculptures



pavement projects



Printstones GmbH
Gutheil-Schondergasse 8-12
A-1100 Wien, Österreich

office@printstones.eu
+43 660 7271701