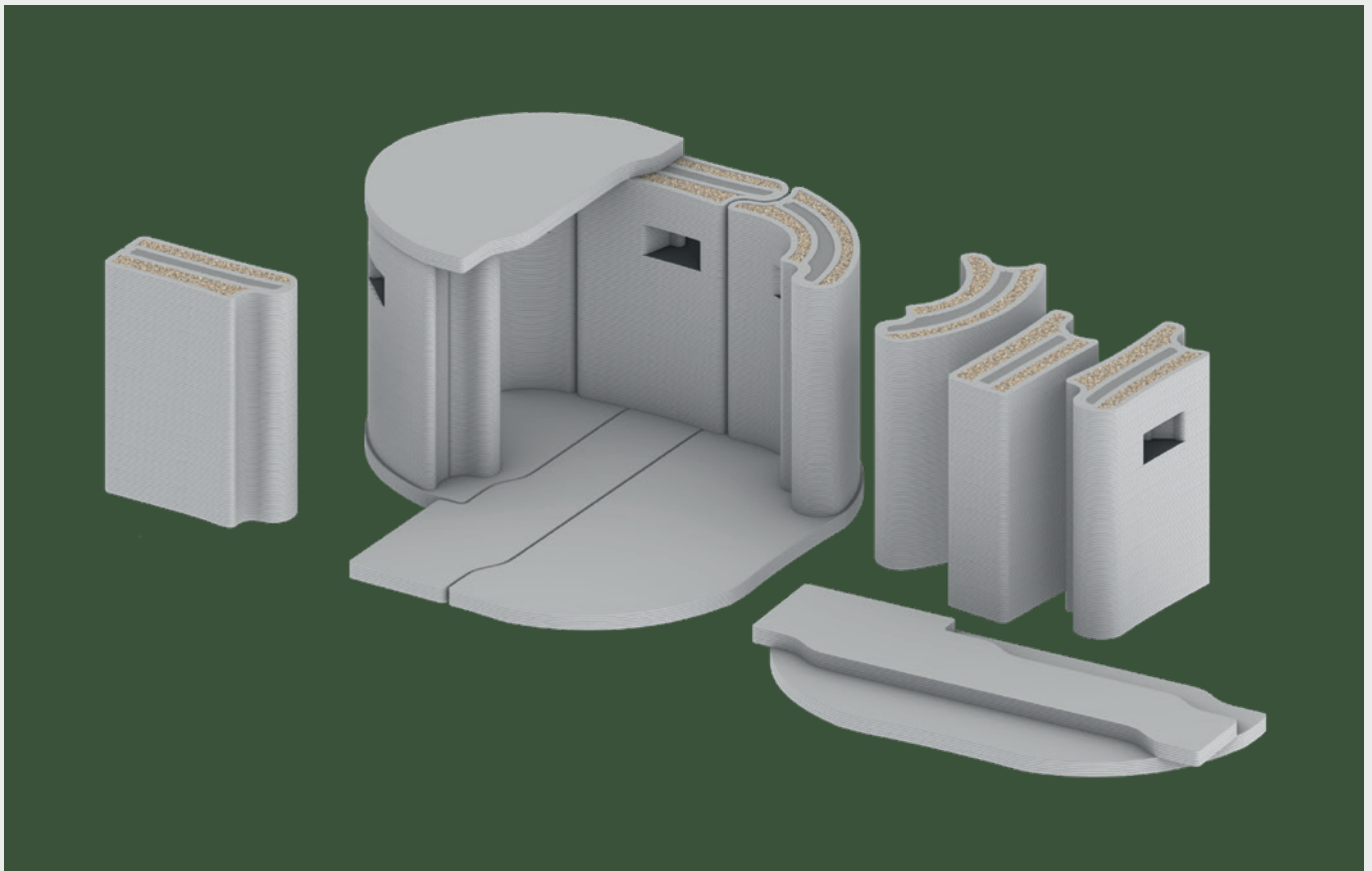


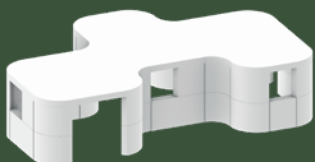
# Modular Defense System

A globally unique system of defense, military and security elements manufactured using 3D concrete printing technology.

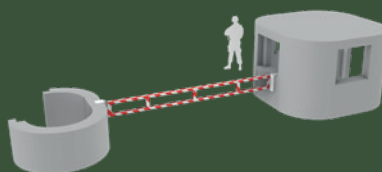


Endless possibilities for assembling defensive objects thanks to a specially designed system of modules and locks.

**Barracks  
Modules**



**Control stations  
& Check Points**

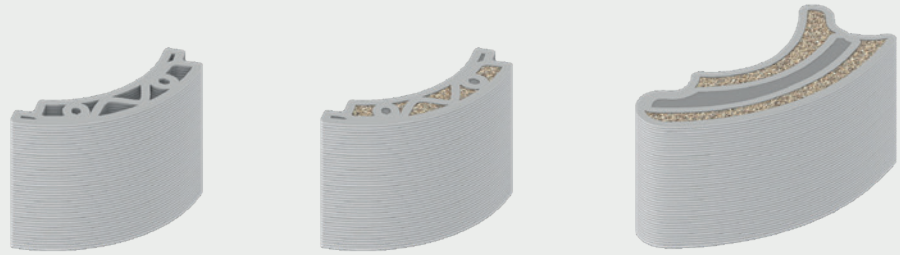


**Protective  
barriers**



## Classes Of Resistance

The creation of structures of different resistant classes, determined by specific safety requirements and in accordance with the NATO Standardization Agreement (STANAG), is possible due to the customizability of individual parts.



**A3**

**A4**

**A5**

	Assault /Sniper Rifle 7.62 mm AP	Heavy Machine Gun 12.7 mm	Heavy Machine Gun 14.5 mm
Height range	0.5–3 m	0.5–3 m	0.5–3 m
Width	1.3 m	1.3 m	1.85 m
Total wall thickness	0.3 m	0.3 m	0.6 m

Calculated volume and weight for 1 m of height

3D printed volume	0.32 m <sup>3</sup>	0.32 m <sup>3</sup>	0.5 m <sup>3</sup>
Volume of filler	■	Sand 0.2 m <sup>3</sup>	Gravel 4–8 mm 0.45 m <sup>3</sup>
Volume of filler	■	■	RF concrete 0.25 m <sup>3</sup>
Print time	20 min	20 min	30 min
Transport weight	800 kg	800 kg	1,700 kg
Total weight	800 kg	1,280 kg	2,350 kg

## World's First 3D Printed Air Base Fortification

We printed the first fortification for the NATO air force base in 2022. Our delivery consisted of two defensive structures that provide the garrison with defensive points in case of an unexpected attack, raid, or other similar threat. Two defensive structures consist of eight wall panels, three ceiling panels, and three floor panels each. The embrasures were placed in special positions according to the requirements of the Czech Army.

