

SYSTEM FOR SELECTIVE LASER MELTING SLM 125HL

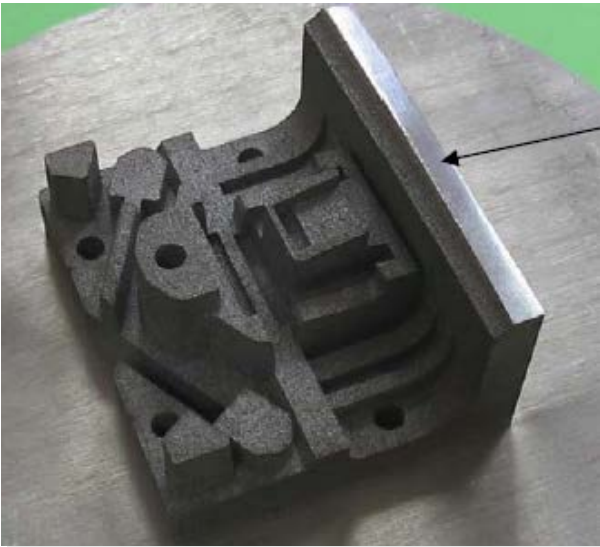
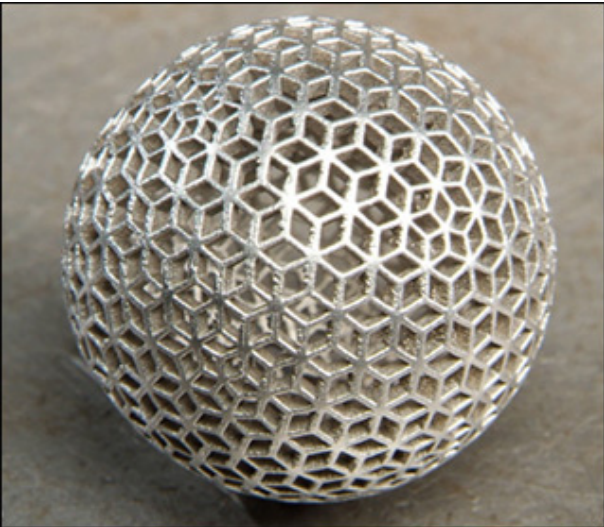


Main characteristics

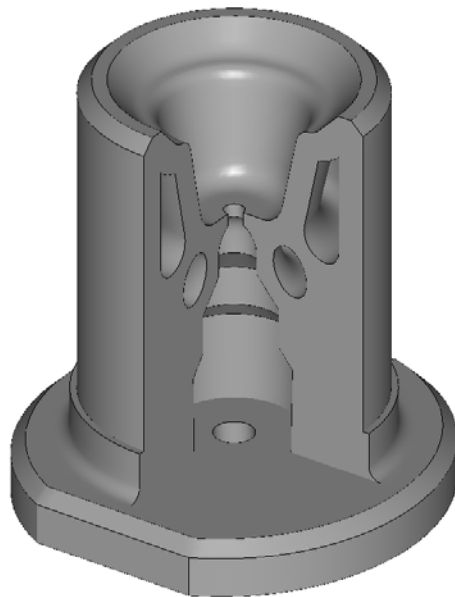
- Build envelope (X/Y/Z): 125 x125 x 75 mm
- Layer thickness: 20 до 75 μm
- Min. wall thickness: 140 μm
- Variable spot diameter: 85 до 130 μm
- Parts from different materials: 1.2709, 1.4404 (316L), 1.2344 (H 13), 1.4542 (17-4PH), Al Si12, Al Si10 Mg, Al Si7 Mg, Al Si9 Cu3, Al Mg4.5Mn0.4, Inconel 625, Inconel 718, Inconel HX (2.4665), CoCr, Ti

ACHIEVED RESULTS WITH THE SYSTEM FOR SELECTIVE LASER MELTING SLM 125HL

DIRECT PRODUCING OF METAL PROTOTYPES

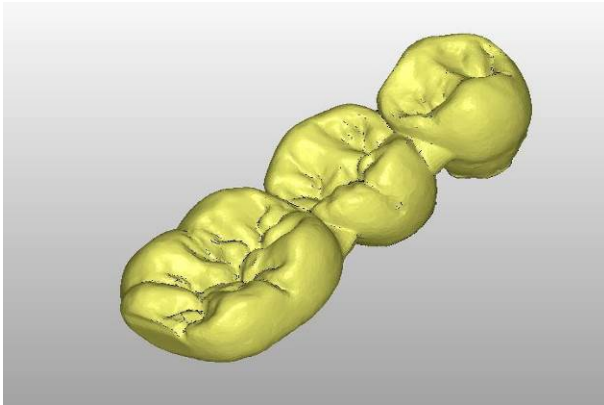


DIRECT PRODUCING OF DIES, MOULDS AND INSERTS - RAPID TOOLING – DIRECT BUILDING OF UNLIMITED COMPLICATED GEOMETRY DIES AND MOULDS INCLUDING COOLING CHANELS

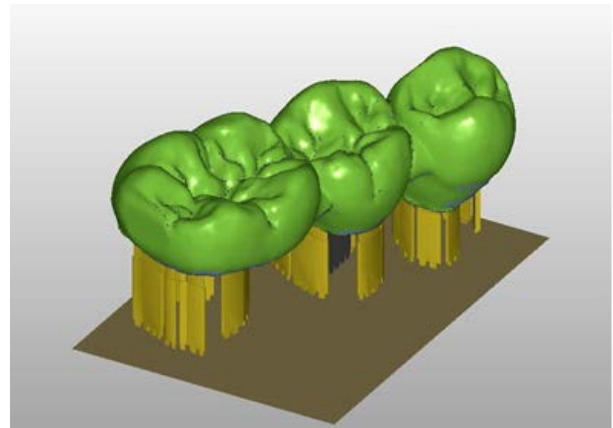


SOME IMPLEMENTED IN LAB "CAD/CAM/CAE IN INDUSTRY" PROJECTS FOR VALIDATION OF TECHNOLOGY FOR DIRECT PRODUCING OF METAL PARTS, INCLUDED IN DEFENDED IN 2015 PhD DISSERTATION OF VICTOR MITOV ON "THE STUDY OF TECHNOLOGY FOR RAPID DEVELOPMENT OF DENTAL IMPLANTS", TUTORS: PROF. GEORGI TODOROV, ASSOC. PROF. NIKOLAY NIKOLOV

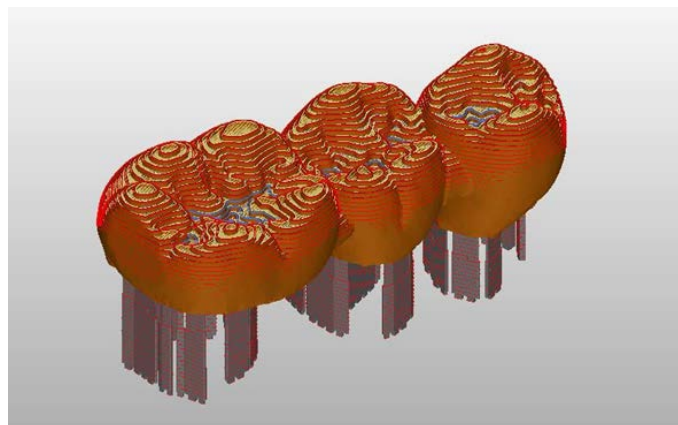
CONSTRUCTION OF DENTAL IMPLANT OF TYPE "BRIDGE"



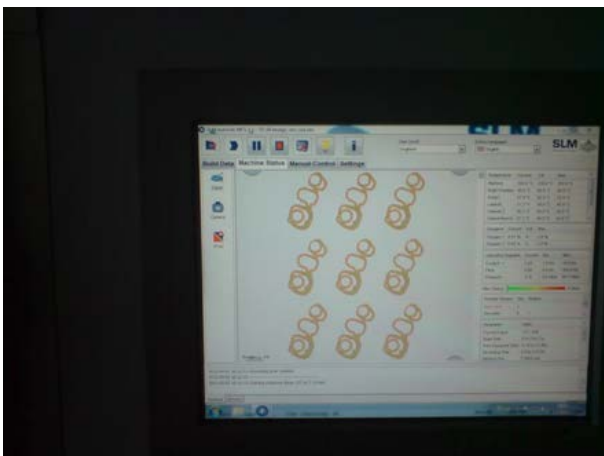
Input model



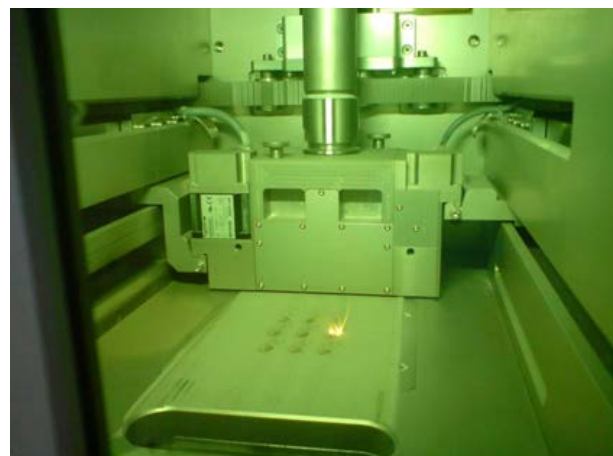
The prepared model in axonometric projection with support structure



The model with support structure, separated by layers



Desktop of the machine introduced experimental series



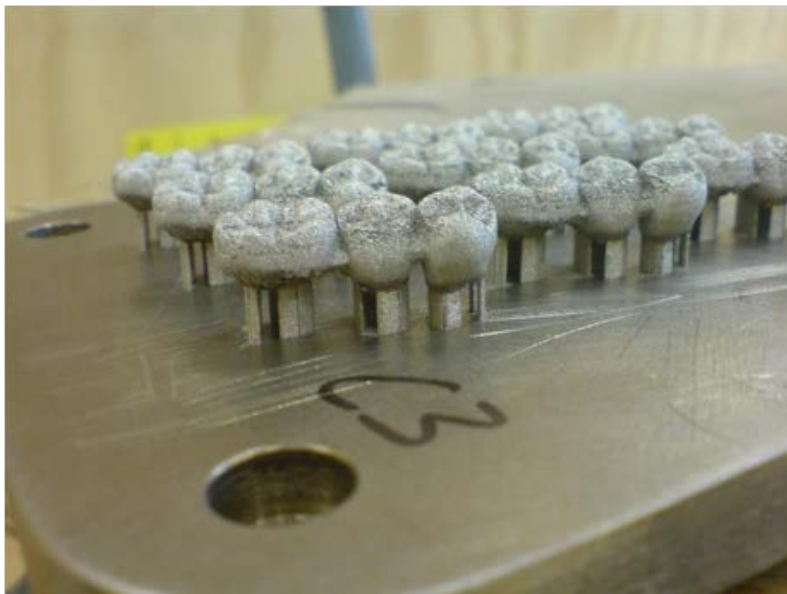
The working area of the machine in operation



The finished models free of raw material

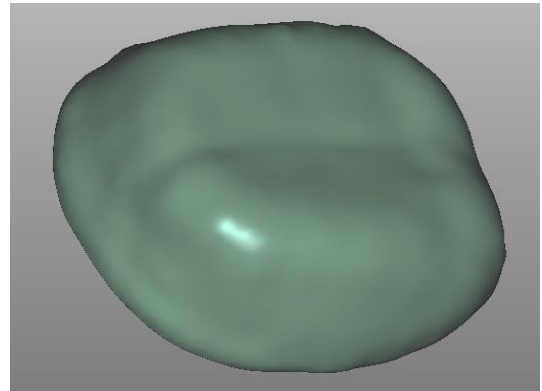
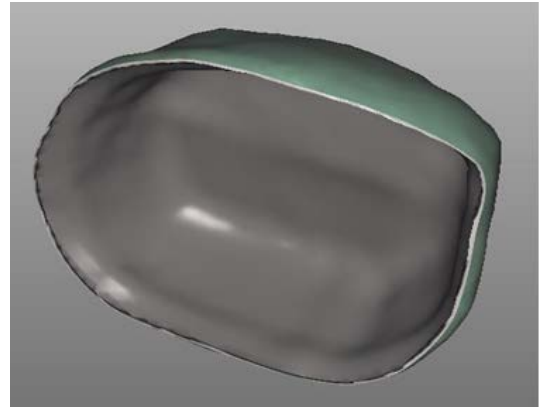
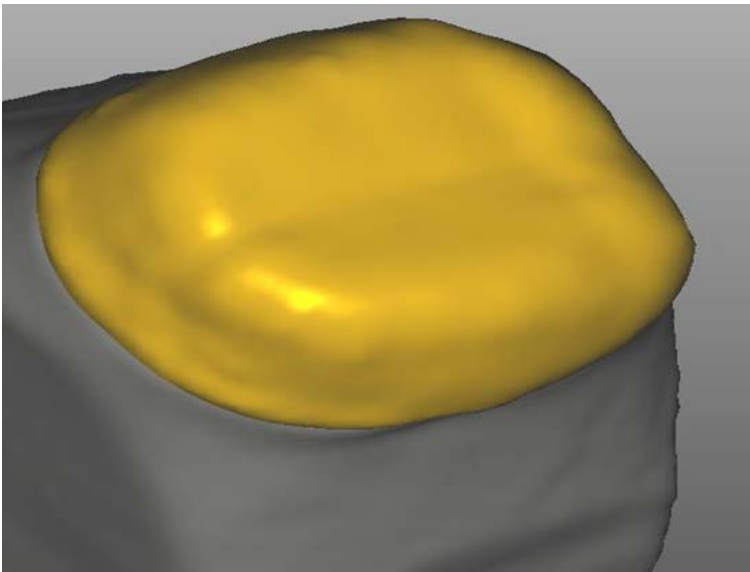


The finished models



The finished models

CONSTRUCTION OF DENTAL IMPLANT OF TYPE "CROWN"



Creation of the anatomical crown and the prepared models

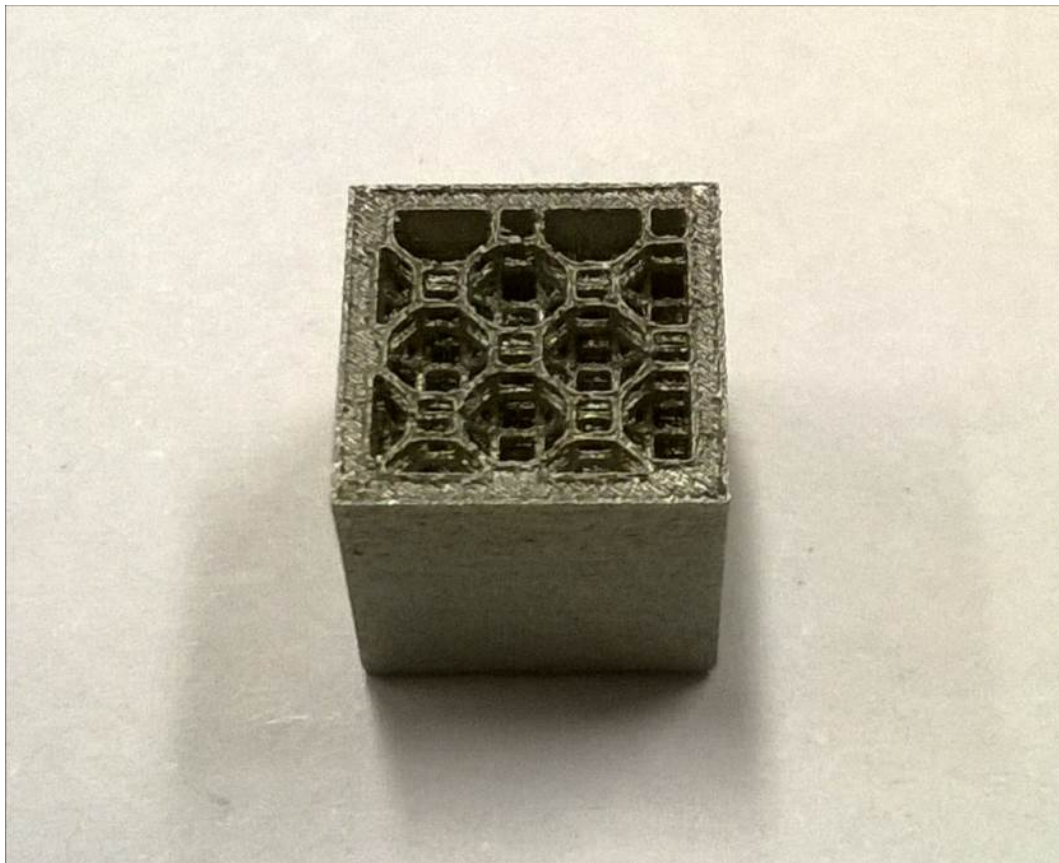


The manufactured by SLM 125HL system model with support material and the model after finishing treatment

OTHER IMPLEMENTED IN LAB "CAD/CAM/CAE IN INDUSTRY" PROJECTS FOR VALIDATION OF TECHNOLOGY FOR DIRECT METAL PARTS PRODUCTION



Manufactured by SLM 125HL system subperiosteal dental implant



Manufactured by SLM 125HL system a ultra-lightweight Ti structure of type "Artificial bone"