

ABOUT THE CAD-CAM ENGINEERING FOR LUXURY UPHOLSTERED FURNITURE

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Abstract

Design and engineering luxury upholstered furniture uses modern soft CAD-CAM manufacturing to ensure quality and increase labor productivity.

Key words: Luxury upholstery furniture, CAD-CAM

INTRODUCTION

The CAD-CAM assumes aided design product such as: 2D, 3D structure determination in assemblies and parts, classification benchmarks, estimate calculated in real time, machining.



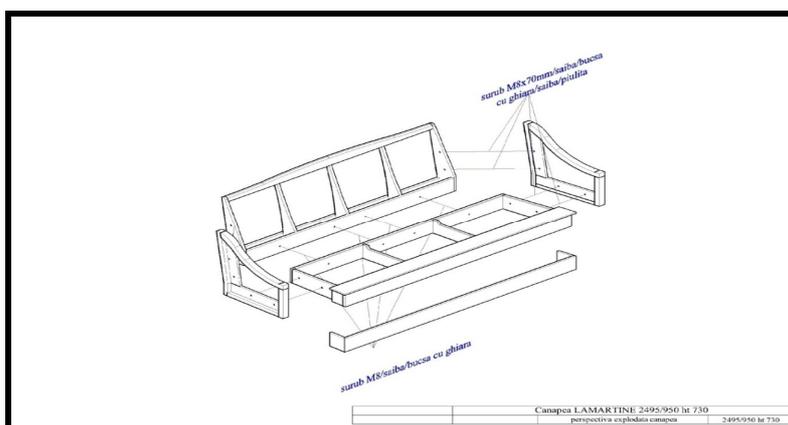
Imag. 1. Luxury upholstered sofa made in CAD-CAM system.

MATERIAL AND METHOD

Research on developing CAD-CAM design and manufacturing luxury upholstered furniture held in SC JRL EDITION ARAD in the months May-June 2014.

dimensiunile din baza de date				2500	870	800	24/6/14
FISA TEHNOLOGICA				dimensiuni finale			
reper	Canapea LAMARTINE denumire	ch. diverse material	1 buc.	2495 Lung.	950 lat.	730 gr.	OBSERVATII
SUBANSAMBLU BRAT CANAPEA				2	766	690	55
R.1	LEGATURA SUPERIOARA BRAT	ch. diverse	2	808	116	55	inaltime brate (fata) 374
R.2	LEGATURA INFERIOARA BRAT	ch. diverse	2	598	55	35	grosime legaturii 25
R.3	LEGATURA FATA BRAT	ch. diverse	2	329	55	45	grosime placaj 12
R.4	LEGATURA SPATE BRAT	ch. diverse	2	695	58	55	mai mica legatura spate fata de legatura fata 148
R.5	PLACAJ CUPLARE BRAT SPATAR	placaj 18mm	2	511	100	18	grosime placaj garnisa 18
R.6	PLACAJ CUPLARE BRAT RAMA SEZUT	placaj 18mm	2	598	100	18	latime placaj 12mm 175
SUBANSAMBLU RAMA SEZUT (fara garnisa)				1	2443	162	669
R.7	LEGATURA FATA RAMA SEZUT	ch. diverse	1	2443	150	25	luft intre garnisa si rama sezut 2
R.8	LEGATURA SPATE RAMA SEZUT	ch. diverse	1	2295	150	25	luft intre rama spatat si rama sezut 10
R.9	LEGATURA STANGA-DREAPTA RAMA SEZUT	ch. diverse	2	620	162	25	latime legatura fata-spate 150
R.10	LEGATURA INTERMEDIARA RAMA SEZUT	ch. diverse	2	619	150	25	NUMAR DE LEGATURI INTERMEDIARE 2
R.11	PLACAJ FATA GARNISA	placaj 18mm	1	2495	150	18	
R.12	PLACAJ CAPETI GARNISA	placaj 18mm	2	175	150	18	
R.13	PLACAJ 12mm	placaj 12mm	1	2495	175	12	
R.14	ADAOS LATERAL LEGATURA ST.-DR. RAMA SEZUT	ch. diverse	2	130	150	30	
SUBANSAMBLU RAMA SPATAR				1	2293	251	730
R.15	LEGATURA SUPERIOARA RAMA SPATAR	ch. diverse	1	2210	90	30	
R.16	LEGATURA INFERIOARA FATA RAMA SPATAR	ch. diverse	1	2245	130	25	
R.17	LEGATURA INFERIOARA SPATE RAMA SPATAR	ch. diverse	1	2222	100	25	
R.18	LEGATURA STANGA-DREAPTA RAMA SPATAR	ch. diverse	2	690	251	25	
R.19	LEGATURA INTERMEDIARA RAMA SPATAR	ch. diverse	3	640	218	25	

Imag. 2. Nomenclature of parts for 3 seater sofa.



Imag.3. AutoCAD 3D skeleton sofa with 3 seats.

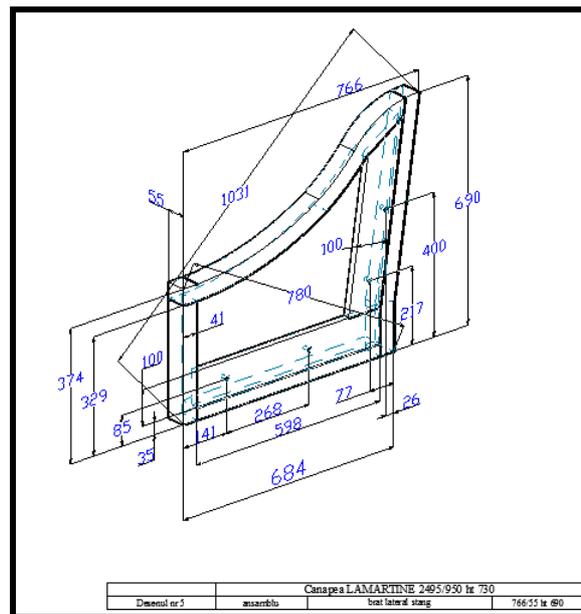
We illustrate in this article design a timber frame sofas 3 seater, 2D and 3D drawings.

He watched representation system changes in real-time which appear to change size parts to customer or other reasons.

Dimensional variation of the product should also be reflected in the nomenclature of items.



Imag. 4. 3 seater sofa.



Imag. 5. Side sofa

This represents tabular landmark names, sizes gross net size, the number of landmarks. Any modification of a subset must be found in its constituent parts dimensions.

The novelty of our research is reflected in the automatic calculation of the dimensions of subassemblies and parts in CAD-CAM application designed by us. It enables real-time design, at the request of the customer, the size of parts being fixed instantly.

Also, parts can be processed dimensional and shape more accurately by CAD-CAM machining is possible in sub-degree angle.

RESULTS AND DISCUSSIONS

Were obtained si3D more accurate 2D drafting nomenclature possibility landmarks in real time in order to launch the product in manufacturing upholstered.

CONCLUSIONS

The research performed were obtained 2D and 3D drawings more accurate lists of active parts in real time devices were removed and patterns and have obtained more precise processing resulted in savings of expensive material.

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