

Materials List for:

# A Novel Biaxial Testing Apparatus for the Determination of Forming Limit under Hot Stamping Conditions

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URL: <https://www.jove.com/video/55524>

DOI: [doi:10.3791/55524](https://doi.org/10.3791/55524)

## Materials

Name	Company	Catalog Number	Comments
Aluminium Alloy	Smiths Metal	6082	Specimens machining
Laser cutter	LVD Ltd	HELIUS 25/13	Laser cutting specimens
CNC machine	HAAS Automation	TM-2CE	Machine specimens by milling
Vernier caliper	Mitutoyo	575-481	Thickness measurement
Resistance heating uniaxial testing machine	Dynamic System Inc	Gleeble 3800	Thermo-mechanical materials simulator
High flow quench system	Dynamic System Inc	38510	For air cooling
Thermocouples	Dynamic System Inc	K type	
Nozzles	Indexa		Nozzle flared 1/4 inch bore
Welding cables	LAPP Group	H01N2-D	
High-speed camera	Photron	UX50	For DIC testing
Camera lens	Nikon	Micro 200mm	
Lamp	Liliput	150ce	300 W
Laptop	HP	Campaq 2530p	For images recording
Biaxial testing apparatus	Manufactured independently		All parts were designed and machined by authors for biaxial testing
Steel	West Yorkshire Steel	H13	Materials of the biaxial testing apparatus
Image correlation processing software	GOM	ARAMIS	Non-contact measuring system and data post-processing