

Materials List for:

# A Coupled Experiment-finite Element Modeling Methodology for Assessing High Strain Rate Mechanical Response of Soft Biomaterials

Rajkumar Prabhu<sup>1</sup>, Wilburn R. Whittington<sup>2</sup>, Sourav S. Patnaik<sup>1</sup>, Yuxiong Mao<sup>2</sup>, Mark T. Begonia<sup>1</sup>, Lakiesha N. Williams<sup>1</sup>, Jun Liao<sup>1</sup>, M. F. Horstemeyer<sup>2</sup>

<sup>1</sup>Department of Agricultural and Biological Engineering, Mississippi State University

<sup>2</sup>Center for Advanced Vehicular Systems, Mississippi State University

Correspondence to: Rajkumar Prabhu at [praj@cavs.msstate.edu](mailto:praj@cavs.msstate.edu)

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## Materials

Name	Company	Catalog Number	Comments
High pressure 316 stainless steel threaded pipe fitting, 1/2 male x 1/4 female pipe size, hex reducing bushing	McMaster-Carr		2
Type 316 stainless steel threaded pipe fitting, 3/4 male x 1/4 female, hex reducing bushing 150 psi	McMaster-Carr		2
Easy-maintenance type 316SS ball valve, with 316 stainless steel ends, 1/2" NPT female	McMaster-Carr		2
Easy-maintenance type 316SS ball valve, with 316 stainless steel ends, 3/4" NPT female	McMaster-Carr		2
ASME-code stainless steel pop-safety valve, 1/4 NPT male, 300 psi	McMaster-Carr		2
Precision extreme-pressure 316SS pipe fitting, 1/2 x 1/2 pipe size, 1-7/8" length, hex nipple	McMaster-Carr		8
type 316 stainless steel threaded pipe fitting, 1/2 pipe size, tee, 150 psi	McMaster-Carr		2
Test gauge with safety case, polyester case, standard, dry, 600 psi	McMaster-Carr		2
Digital gauge, plastic case, 2-1/2" dial, 1/4 bottom connection, 300 psi	McMaster-Carr		2
Type 316 stainless steel 37 degree flared tube fitting, adapter for 1/4" tube OD x 1/8" NPT male pipe	McMaster-Carr		12
303 stainless steel 37 degree JIC swivel fitting for 3/16" ID	McMaster-Carr		12
High-pressure chemical hose, 3/16" ID, 0.312" OD, 3,000 psi	McMaster-Carr		6
High-Purity Gas Regulator Single-Stage, Nitrogen, 0-125 psi, CGA #580	McMaster-Carr		2
Hose for Nitrogen Gas, Argon, and Oxygen Brass Fem Fittings, PTFE Hose, 3' L, 1/4" ID, 3,600 psi	McMaster-Carr		2

Name	Company	Catalog Number	Comments
Extreme-Pressure 316 SS Threaded Pipe Fitting 1/4 x 1/4 Pipe Size, Hex Nipple	McMaster-Carr		4
Extreme-Pressure 316 SS Threaded Pipe Fitting 3/4 x 3/4 Pipe Size, Hex Nipple	McMaster-Carr		2
Extreme-Pressure 316 SS Threaded Pipe Fitting 1/4 Male x 1/8 Female Pipe Size, Hex Bushing	McMaster-Carr		2
Standard Brass Compression Tube Fitting Adapter for 1/4" Tube OD x 1/4" NPTF Male Pipe	McMaster-Carr		4
Kobalt 1/4 in Mini Regulator with Gauge	Lowe's		2
1/4" x 25 ft polyethylene tubing	Lowe's		2
1-1/2" Diameter Polycarbonate (PC) Rod	McMaster-Carr		2
LTV-35 4-Way Valve Mead Fluid Dynamics	Motion Industries		2
Pneumatic double action actuator	Valtronic		2
Stainless Steel Ball Valve 1/2"	Valtronic		2
Buckeye pressure vessel	Buckeye		2
SR-4 General Purpose FAE-25-35SX Strain Gages	Micro-Measurement Vishay Precision Group		2
M-M Signal Conditioning Amplifier 2310A	Micro-Measurement Vishay Precision Group		1
Laser ROLS-W optical sensor	Monarch Instruments		1