

Materials List for:

Visualization of High Speed Liquid Jet Impaction on a Moving Surface

Yuchen Guo¹, Sheldon Green¹

¹Department of Mechanical Engineering, University of British Columbia

Correspondence to: Sheldon Green at Sheldon.Green@ubc.ca

URL: https://www.jove.com/video/52603

DOI: doi:10.3791/52603

Materials

Name	Company	Catalog Number	Comments	
Equipment for Air Cannon Set-Up				
30-gallon air tank	Steel Fab	A10028		
Solenoid actuated poppet valve	Parker Hannifin Corp.	#16F24C2164A3F4C80		
1.5" NPT rubber hose				
Rectangular steel tubing				
Stop mechanism	Customized			
Stainless steel plates	Customized			
Wooden projectile	Customized			
1 kW high-intensity incandescent light	Photographic Analysis Ltd.	T986851		
Light diffuser sheet				
Optic sensor	BANNER	SM312LV		
Equipment for Spinning Disc Set-Up				
Motor	WEG	TEFC-W22		
Bearings				
Disk	Customized			
Fiber optic light source	Fiberoptics Technology Incorporated	MO150AC		
High intensity LED array	Torshare Ltd.	TF10CA		
Vacuum	Ridge Tool Company	WD09450		
Interrupter	Customized			
Shared Equipment for Both Devices				
Phantom v611 high-speed cine camera	Vision Research Inc.	V611		
Phantom v12 high-speed cine camera	Vision Research Inc.	V12		
Zoom 7000 lens	Navitar Inc.	Zoom 7000		
Zoom 6000 lens	Navitar Inc.	Zoom 6000		
Compressed nitrogen tank	Praxair Technology, Inc.			
Pressure regulator	Praxair Technology, Inc.	PRS20124351CGA		
Hose for compressed nitrogen	Swagelok Company	SS-CT8SL8SL8-12		
Hose for liquid	Swagelok Company	SS-7R8TA8TA8		
Accumulator	Accumulators, Inc.	A131003XS		
Solenoid Valve	Solenoid Solutions Inc.	2223X-A440-00		
Pressure transducer	WIKA Instruments Ltd	#50398083		
Nozzle assembly	Customized			



Glycerin		
Poly(ethylene oxide)		