Materials List for AMS-02 TRD Gas System

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Size Code: A: Area(cm^2)
V: Volume (cm^3)
W: Weight (gm)
0: 0 - 1
1: 1 – 10
2: 10 – 100
3: 100 – 1000
4: 1000 – 10000, etc.

Item	Type	Use and Location	Size Code	Comments
1	Stainless Steel	Piping, straps, support structure, pressure vessels, manifolds	A4,V4,W4	
2	Aluminum Alloy	Support Structure, Body of Marotta Valves, Electrical connectors, Mounting for Manifold Valves	A4,V4,W4	
3	Nylon?	Wire Tiedowns	A2,V1,W2	
4	Viton	O-Ring, pump diaphragm	A1,V1,W1	
5	Tygon	Tubing for pump	A1,V1,W1	
6	Glue?	Manifolds.		
7	Buna-N	Seal for solenoid Valve	A1,V1,W1	Marotta MV100
8	Nylon	Seat for solenoid Valves	A1,V1,W1	Marotta MV100
9	Copper	Conductor for wiring, solenoid valve, flipper valves, pump	A2,V3,W3	
10	Copper Nickel CuNi18Zn20 F34	Tubing from TRD to Valves	W4	
11	Mu Metal Or Vacoflux 50	Magnetic Shielding for Manifold Valves	W4	Mu Metal: Ni78Fe13Cu5Mo4 Carpenter Specialty Alloys, Crawley, West Sussex, UK VacoFlux 50: Vacuum Schmelze D63412 Hanau, Germany
12	Filter Material?	Filters?	A2,V2,W2	TBD
13	Carbon Fiber Composite	Pressure Vessels	A4,V4,W4	See Arde Documentation
14	Ryton (PPS)	Manifold Valve Body	W3	Burkert Valve
15	Polyamide (PA)	Manifold Valve Coil Body	W4	Burkert Valve
16	Kryotox	Lubricant for Solenoid Valves	W1	Marotta MV100
17	Xenon	Gas Supply	W5	Gas/liquid
18	CO_2	Gas Supply	W4	Gas/liquid