Title: P14474 Hydrostatic Test Apparatus

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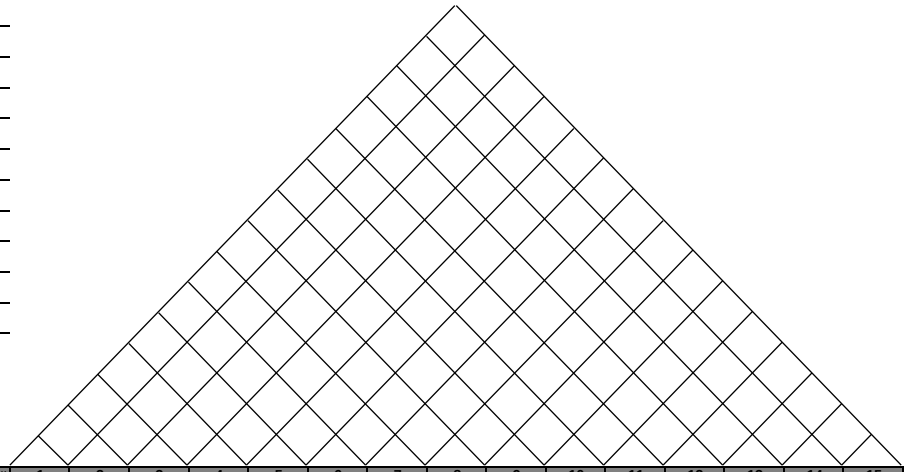
Notes: 3 = From Standards

2 = From Customer Req's

1 = Not Necessary for Functionality



Legend		
⊙	Strong Relationship	9
O	Moderate Relationship	3
▲	Weak Relationship	1
++	Strong Positive Correlation	
+	Positive Correlation	
−	Negative Correlation	
▼	Strong Negative Correlation	
▼	Objective Is To Minimize	
▲	Objective Is To Maximize	
X	Objective Is To Hit Target	

Row #	Max Relationship Value in Row	Relative Weight	Weight / Importance	Quality Characteristics (a.k.a. "Functional Requirements" or "Hows") / Demanded Quality (a.k.a. "Customer Requirements" or "Whats")	1 Withstand Maximum Internal System Pressure	2 Pressure Ramp Rate	3 Maximum Pressure in Enclouse	4 Minimum Pressure in Enclouse	5 Reaction time of Valve	6 Maximum Dimensions	7 Maximum Conduit Trade Size	8 Minimum Conduit Trade Size	9 Hold Time for 4X Max Internal Explosion Pressure	10 Hold Time for 1.5X Max Internal Explosion Pressure	11 Ability to Alter Test Parameters Midtest	12 Number of Analog Outputs for Data Logging	13 Store Peak Pressure Value Before Failure	14 Emergency Stop	15 Test Controllable Outside Explosive Proof Area	Competitive Analysis (0=Worst, 5=Best)
				Direction of Improvement: Minimize (▼), Maximize (▲), or Target (x)	X	X	X	X	▼	▼	X	X	X	X		X				
1	9	9.1	2.0	Programmable Digital Controller		▲	▲	▲	O				▲	▲	⊙	▲	O		O	
2	9	13.6	3.0	Test Automation complies with Standards	O	⊙	⊙	⊙	O		⊙	⊙	⊙	⊙			▲			
3	9	9.1	2.0	Use of Pressure Transducer(s)	⊙	O	O	O								O	▲			
4	9	4.5	1.0	Future Labview Logging Integration		▲							▲	▲		⊙				
5	9	13.6	3.0	Ability to Interface with Current Cooper Product Line	⊙		▲	▲	O		⊙	⊙								
6	9	9.1	2.0	Safe Test Environment	⊙		⊙		▲						O			⊙	⊙	
7	9	13.6	3.0	Ability to Aquire Data from Test												⊙	⊙			
8	9	13.6	3.0	Complete Apparatus for On-Site Testing	▲					⊙									▲	
9	9	13.6	3.0	Control of Pressure, Hold Time, and Ramp Rate		⊙	⊙	⊙	⊙				⊙	⊙	⊙			▲	⊙	
10																				
				Target or Limit Value	10,000	100-600	10,000	>50	<2		1.5"	0.75"	10	10 < t < 60		1				
				Difficulty (0=Easy to Accomplish, 10=Extremely Difficult)	6	9	2	1	7	1	1	1	3	3	5	2	7	2	6	
				Max Relationship Value in Column	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
				Weight / Importance	340.9	286.4	377.3	295.5	240.9	122.7	245.5	245.5	259.1	259.1	231.8	200.0	172.7	95.5	245.5	
				Relative Weight	9.4	7.9	10.4	8.2	6.7	3.4	6.8	6.8	7.2	7.2	6.4	5.5	4.8	2.6	6.8	

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