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Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Company: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The single acting spring return air cylinder picture below requires 1 cubic foot of compressed air and actuates to full stroke in 3 seconds. If the cylinder actuates 2 x per minute, what is the peak and average flow?



1. The operator for the end use tool pictured below has complained of lower torque and has opened the regulator to full header pressure, yet the problem still exists. The regulator is holding pressure on its gauge when he pulls the trigger on the tool. Which two yellow flag locations would be the correct measurement points to identify the problem?



1. A demand event results in a 200 scfm airflow rate being supplied from the system’s air storage volume which is 1,000 gallons. What is the pressure drawdown rate in psi/sec that will result?
2. A system operates with 100 scfm demand deficit for 30 seconds of time. If the system pressure must be no lower than 90 psig and at the beginning of the event the pressure is 100 psig, what size receiver is necessary?
	1. Use the MEASUR Tool for “Receiver Tank Sizing”
3. What is the pneumatic capacitance of a 2000-gallon receiver at sea-level 14.7 psia
	1. Answer should be in cubic foot/psi
4. Use the MEASUR Tool for this one: A 55-gallon bag is placed over a leak and takes 10 minutes to fill up. What size leak is it in scfm?