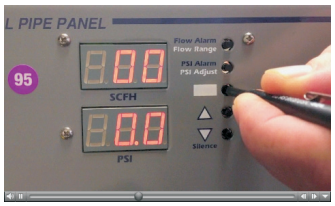
cable pressure AirMAIL
System Studies Incorporated

June, 2013 Issue #15

In This Issue

Digital Panel Videos

If you're using digital panels for your cable pressurization system delivery, you may want to check out our new LED Display Adjustment videos. They take the mystery out of setting panel contact alarms, flow ranges, etc.



http://www.airtalk.com/training5.html

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This *AirMAIL* bulletin is a quick follow-up to one that we emailed just a few months ago. As you'll read, it includes an explanation of PressureWEB's background coloring—specifically how the use of colors pertains to Alarms and Comment Tags.

It also includes Part 2 of an article on why measuring air flow is such an important part of cable pressurization system maintenance. If you missed Part 1, check out *Gazette and AirTalk Reprints* on the System Studies website. The entire article appears under *General Topics*.

Notice also that we now have a new tool available to make working with CA 3131 air pipe a lot easier. If you have any questions about this helpful tool or the contents of this bulletin, just give us a call. We're always available to assist you.

New Half Inch Air Pipe Reamer

We thought about it at length, slept on it, and then thought about it some more. Hey, since we offer air pipe fittings for half inch CA 3131 air pipe and cable pressurization equipment and tools of all types, why not make an air pipe reamer to simplify the job of connecting half inch air pipe, installing Flow Finders, Manifold Assemblies, etc.?

Part No. 9800-3275

Voilà!

Our new Half Inch Air Pipe Reamer enables you to quickly round out the end of a half inch air pipe (CA 3131) prior to inserting coupler components. Its solid steel construction, slight end taper, and cushioned non-slip grip make it easy to insert the end of the tool into the pipe. A marker ring, located one inch from the tapered end, serves as a guide for determining how far the tool needs to be placed into the pipe end to create the optimal circular shape needed.

It measures slightly over 6.5 in, weighs 8.9 oz and serves its intended function more stylishly and easily than any of the random, make-shift items you may have used in the past. Give us a call for pricing and availability information (800.247.8255).

PressureWEB's Comment Tags & Comments Screen

With the release earlier this year of PressureMAP™ Version 28 and its PressureWEB™ 3.02 application, more and more people are now beginning to utilize the full power of PressureWEB. Two of the most useful features added to this latest release are *Device Comments* and *Comment Tags*.

When someone adds a comment or multiple comments for a specific monitoring device in PressureMAP or PressureWEB, a Comment Tag appears in the *Device #* field of PressureWEB's Device Status View display next to the underlined device (see example on next page). The fact that these tags have background colors, as do some of the table cells in the *Device #* column, has resulted in questions from PressureWEB users about alarm designations. Hopefully, the information in this article will straighten things out.

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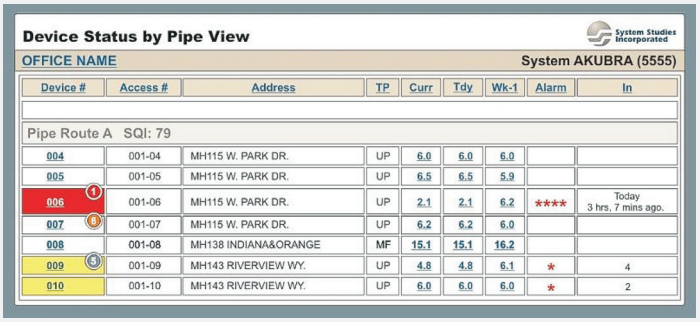


Device Status by Pipe View — System Studies Incorporated

OFFICE NAME — System AKUBRA (5555)

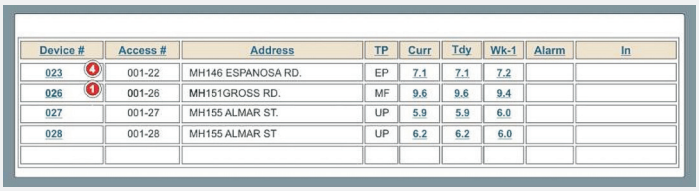
Device #	Access #	Address	TP	Curr	Tdy	Wk-1	Alarm	In
Pipe Route A SQI: 79								
004	001-04	MH115 W. PARK DR.	UP	6.0	6.0	6.0		
005	001-05	MH115 W. PARK DR.	UP	6.5	6.5	5.9		
006 (1)	001-06	MH115 W. PARK DR.	UP	2.1	2.1	6.2	****	Today 3 hrs, 7 mins ago.
007 (0)	001-07	MH115 W. PARK DR.	UP	6.2	6.2	6.0		
008	001-08	MH138 INDIANA&ORANGE	MF	15.1	15.1	16.2		
009 (3)	001-09	MH143 RIVERVIEW WY.	UP	4.8	4.8	6.1	*	4
010	001-10	MH143 RIVERVIEW WY.	UP	6.0	6.0	6.0	*	2

Let's start with the two possible colors used to highlight *Device* # fields. If you see a red background for a device number, this indicates that the device is in alarm. It's either a 4-Star alarm condition or a 3-Star alarm, if 3-Star alarming is enabled. A yellow background color designates a priority dispatch condition (3-Star-if 3-Star alarming is not enabled-2-Star, 1-Star or "R" routine).

Any of these conditions will also cause PressureWEB to display a red-colored alarm indication (****, ***, **, *, R, etc.) in the *Alarm* column. You can click on these links to get a quick summary of the alarm condition. Device readings without a star/R value or a colored background represent static, non-dynamic device readings.

The Comment Tags used in PressureWEB—those small circular or square markers (depending upon browser type)—have three possible background colors. The colors indicate how long ago a device comment was added to the database. The color red indicates that a comment was added within the last week; orange identifies one that was added between one and three weeks ago; gray designates a comment that was entered over three weeks ago.

The fact that the color red is used in PressureWEB to designate alarms and also to provide a quick visual recognition for a recently entered comment is not coincidental. This color is intended to alert you to the fact that something dynamic has occurred in a monitored office. Obviously, alarms are the bigger priority, but if a comment has been added recently, it may also contain important information about an alarm condition. Conversely, a red Comment Tag for a device without a red or yellow background, like the ones shown below, does not have alarm significance. It merely indicates that a comment was recently added.



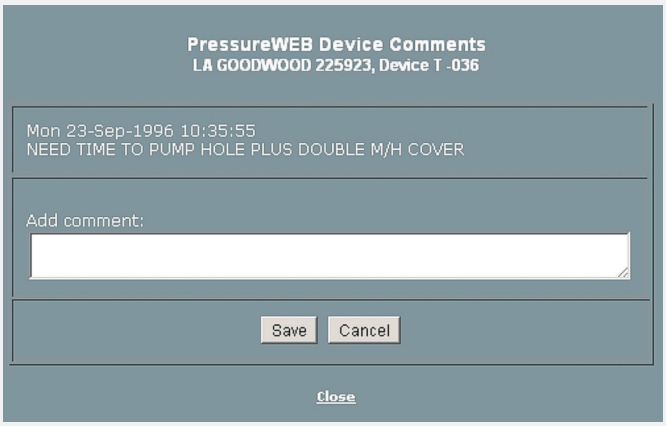
Device #	Access #	Address	TP	Curr	Tdy	Wk-1	Alarm	In
023 (4)	001-22	MH146 ESPANOSA RD.	EP	7.1	7.1	7.2		
026 (1)	001-26	MH151GROSS RD.	MF	9.6	9.6	9.4		
027	001-27	MH155 ALMAR ST.	UP	5.9	5.9	6.0		
028	001-28	MH155 ALMAR ST	UP	6.2	6.2	6.0		

More About Device Comment Tags

The number displayed within the Comment Tag represents how many comments have been entered for a particular device. (The maximum number is eight.) After eight comments have been recorded, each additional one entered will bump the oldest one from the list. It should be mentioned also that comments remain in the database; they cannot be deleted by the user unless he or she has editor privileges. So, be aware that some comments may have been entered years ago via PressureMAP, and company procedures could have changed since then. The information may now be irrelevant.

Adding Your Own Comments

With PressureWEB it's easy to enter comments for a device. If there's an existing comment(s), you can simple click the Comment Tag and a Comments Screen will appear in a popup window (see example). This screen lists the comment(s) that have already been entered for the device and provides a text box where you can type your entry. Comments can consist of two lines of 62 characters each.



PressureWEB Device Comments
LA GOODWOOD 225923, Device T -036

Mon 23-Sep-1996 10:35:55
NEED TIME TO PUMP HOLE PLUS DOUBLE M/H COVER

Add comment:

Save Cancel

Close

If you would like to add a comment for a device where none previously exists, simply click the desired device number to access the *Specific Device Information* display. Located on the main navigation bar of this screen is a *Device Links* menu. Click *View/Add Comments* to display the Comments Screen.

One final word about Comment Tags: your browser will display a text summary when you allow your mouse pointer to hover over the tag. Depending on the type of browser you use, the displayed text will automatically disappear after several seconds or remain visible until you move the mouse pointer. If the displayed text disappears before you finish reading the comment(s), either refresh the browser display or click the tag again.

And finally, if you have ever wondered what the difference is between *Remarks* and *Comments*, think of it this way. Remarks are entered during data entry and are intended to stay with a specific device. Comments tend to be more short-term. They can be added by anyone with access to PressureMAP or PressureWEB, not just individuals with editor privileges. Comments are more frequently updated and, of course, the old ones can get bumped off the list automatically. Both Remarks and Comments provide pertinent and helpful information about a specific monitoring device.

Why Measuring Air Flow Is So Important, Part 2

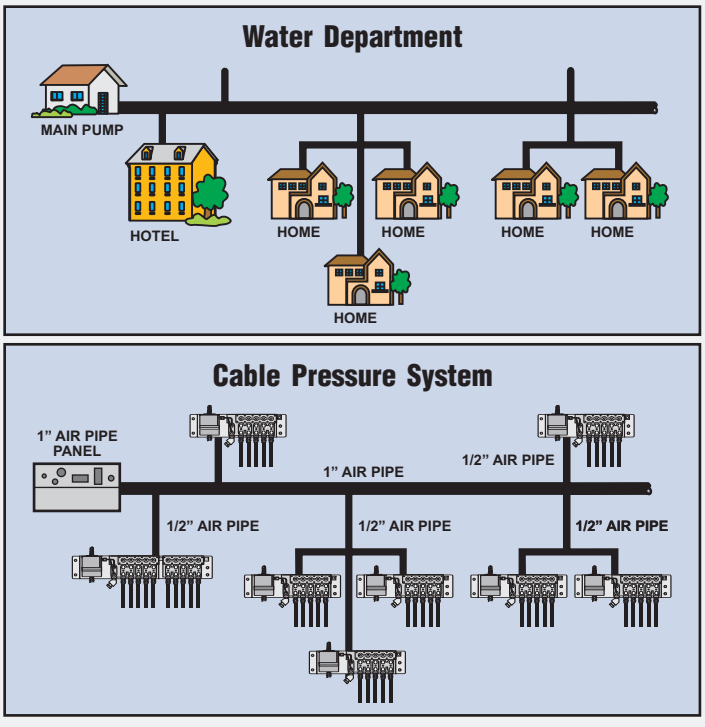
Editor's Note: *In the last AirMAIL issue we described the units of measurement used for air pressure and air flow, and we introduced the analogy of an air pressurization system and a municipal water department. In Part 2, the analogy continues as we address the following questions.*

How Much Cable Can You Feed with an Air Pipe?

When an engineer for a water department installs a new water main, he or she sizes the pipe based on the potential of customers in the area that the pipe will feed. Knowing that an average household uses "x" amount of cubic feet of water, the engineer can size the pipe accordingly. Logically, the more customers there are, the bigger the pipe diameter must be.

When a cable pressure engineer is placing air pipe for a system, he or she faces a similar, but slightly different problem. While the number of pressurized sheath miles being fed varies, the engineer has only one pipe diameter size to use. It has been calculated that the standard 1/2" CA 3131 air pipe used throughout the telephone industry can feed up to 20 sheath miles of pressurized cable. Adequate delivery pressure may be hindered if more than 20 sheath miles of cable are being fed from one pipe. If the total sheath mileage exceeds this requirement, an additional air pipe (rather than a larger diameter) would need to be installed.

You can see from this example that engineering can and does have a major impact on maintaining minimum cable pressures.



What Are the Reasons for Good Flow and Bad Flow?

When you turn your shower on in the morning and all you get is a drip or two of water, you can assume (and correctly too!) that the pressure has dropped in your water line. It's an aggravating situation, one that's the result of three or four possible conditions:

- The main pump pressure at the water department has been turned down.
- The water mains feeding your neighborhood are too small for the number of homes being fed.
- There is a break in the water main feeding your neighborhood.
- Your sprinklers are running full blast.

This example emphasizes an important concept in cable pressurization. Just because a cable has low air pressure, it does not necessarily mean that there is a leak in that particular cable. Low cable pressure can be caused by a number of things.

First of all, the air pressure originating in the central office may be low. Standards dictate that minimum delivery pressure from the central office should be 10.0 PSI. A delivery pressure of 7.0 PSI, for example, just doesn't cut it. It's like having two strikes against you before you even step up to the plate.

Secondly, you might be feeding too many total sheath miles of cable with one air pipe. It's impossible to expect satisfactory water pressure in a large hotel when only a one inch water main is supplying water. The same is true in an air pressure system. It's impossible to expect cables to receive adequate delivery pressure (7.5 PSI minimum) if more than 20 sheath miles of cable are being fed from one air pipe. Unless you use another air delivery source, you just can't expect to maintain 7.0 PSI in the underground if the air pipe feeding these cables is only delivering 5.0 PSI.

Third, an air pipe leak or major cable leak near an air source will reduce cable pressures throughout the cable route. These large, high consumption leaks lower delivery pressure. Until they are found, you can never expect to restore cable pressure in a route.

In a water system, a large leak or break in the main feeder pipe will cause low water pressure at a home, even if no water at that house is being used. A large leak will not only drop delivery pressure to your home, but also to your neighborhood.

Finally, a large leak in a cable (or excessive water usage at a house) will bring down local cable pressure. While this is only one of four possibilities, it is usually the one most often considered when leak locating in a cable pressurization system. This assumption can result in many wasted labor hours. Before you actually begin leak locating, it is absolutely critical for you to determine the reason for low cable pressure. It is not enough to merely identify that a low cable pressure condition exists. You have to examine the possible causes for the low cable pressure.

In the next AirMAIL issue we'll conclude this article on the importance of measuring air flow by looking at the following topics: Using Flow Rates in Leak Locating and Prioritizing Leaks. If you would like to review the first part of the article, log onto AirTalk.com, click the Reference link on the main navigation bar, and select AirMAIL Bulletins.

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