COLLECTING PSI DURING AN IRRIGATION ASSESSMENT

KRIS LOOMIS
CID/CLIA/CLIA-D
REASONS TO NEED TO CHECK PSI

• Verify system is running at optimal psi
• Verify system is running at least minimal psi
• Compare psi at highest to lowest elevation in system
• Compare psi at beginning and end of run
• Locate a problem
• Evaluate general system operation
• Any other reasons? Discuss
WHAT ARE YOU DOING NOW?

• Discuss how people are gathering PSI reading in the field
DIFFERENT WAYS TO COLLECT PSI

• The traditional way—Pitot tube with gauge
• Guess—Does it look low or high?
• DIY contraptions—Perhaps useful, but is it all purpose?
• The new way—A rubber tipped PSI Testing tool
TRADITIONAL WAY TO COLLECT PSI

• Pitot tube with gauge attached
  • Advantages
    • Precise, direct flow to gauge
    • Does not have to completely seal to be useful
  • Disadvantages
    • Creates loss of flow
    • Requires a goof plug to seal after use
    • Makes a mess
GUESSING AND DIY

• If your system is having issues, guessing is never a good way to test PSI.
  • If it works, it works, but is it efficient and consistent?

• DIY methods
  • If you build a contraption to test PSI, have a way to validate your findings with a known method.
  • You may need more than one tool if you are dealing with integrated emitter tubing vs online emitters.
THE NEW WAY

• A gauge fashioned with a flexible rubber tip
  • The tip is strong yet supple
  • Not sharp, more pocket friendly
  • Durable, it can stretch to fit over larger woodpecker style emitter outlets
  • Fits over single outlet integrated emitter tubing
  • A great alternative to poking holes with a pitot tube and having to fix them
REASONS TO GIVE IT A TRY WITH TAPE TUBING PRODUCTS

- Goof plugs do not always do the trick
- Pitot tube can poke through other side, creating the need for a coupling
- Thin mil products are extremely PSI sensitive
- Tape tubing typically have long runs, need beginning and end PSI
- Terrain changes can causing psi losses and gains that need to be verified
WORKS WITH VARIOUS TYPES OF EMISSION DEVICES
INTEGRATED, OPEN-ENDED, BARBED
INTEGRATED, MULTI-SIZE
WHEN WILL I NEED IT?

• When you need to troubleshoot a problem
• Is your adjustable psi regulator working?
• Is your preset regulator doing its job?
• Is your VFD pump set correctly?
• Are you using a variable flow product? You’ll need to know what psi you are running
• I have a clog in a subsurface line and need to find the problem
HOW TO MAKE YOUR OWN

• 1/8” Mipt x Rubber tip
• 1/4” x 1/8” Bell reducer
• Liquid filled gauge
QUESTIONS, COMMENTS, LAB

• Kris Loomis
• CID/CLIA/CLIA-D
• KrisLoomis@icloud.com
• (707) 799-3621