

JCM Industries, Inc.

NEW - JCM Surge Suppressor

Simple to Install - Easy to Afford - Long Term Cost Savings

Designed to reduce and eliminate pipeline damage associated with

- Water hammer
- Pressure spikes
- Line content velocity changes

Surge Suppressor Benefits:

- Reduces number and costs of repairs
- Extends life expectancy of the system
- Eliminates expensive, treated water loss
- Reduces repair crew man hours
- Increases customer service
- Protects valuable system assets



NEW JCM Surge Suppressor

Patent # 5218987

Piping systems experience breaks for a variety of reasons including old materials, high traffic load, construction or utility excavation, corrosive environment, pipe structure defects, and many others. Each break brings with it individual and multiple complications: exposure of contaminants to the potable system, erosion of subsurface soil base, interruption of emergency, fire protection and medical services. One of the most challenging tasks to water service professionals is how to reduce or prevent service interruptions. A simple method for reducing breaks due to pressure transients (water hammer) is installing JCM Surge Suppressors within the piping system. Surge Suppressors are an economically sound option to extending the life expectancy of any pipeline, especially older, at-risk pipe systems.

Distributed by: PipeMan Products, Inc.

1647 Willow Pass Rd., #240, Concord, CA 94520

Call Toll Free: **1-877-PEPEMAN** (1-877-747-3626)

Direct: 530-221-3600 – Fax: 530-221-3700

Email: Sales@pipemanproducts.com

Web: www.pipemanproducts.com

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Reasons Pipe Systems Experience Failure

Extreme Fluid Velocity Changes

- Pump failure
- Unexpected Power Outages
- Fast Opening/Closing Valves & Hydrants
- Controlled Pump Start-Up & Shut-Down
- Pipeline breaks
- Severe changes in elevation or grade

Dated Materials & Installation Methods

- Cast Iron, Asbestos Cement Pipe and systems older than 60 years
- Mature, High Pressure Pipelines
- Aged and incorrect installation practices
- Aging pipe joint and connection practices and materials
- Postponed replacement/rehabilitation due to budget restrictions

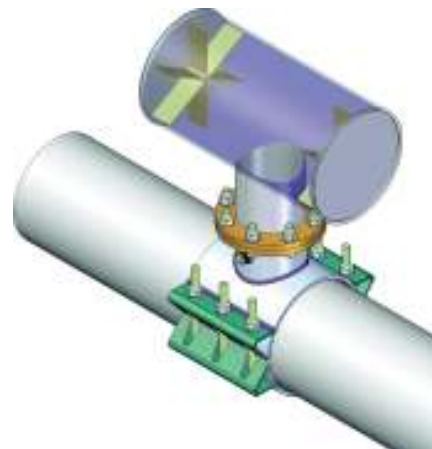
Developing and Rehabilitation Regions

- Systems experiencing unexpected or frequent shut-downs & start-ups
- Industrial and large capacity consumer activity
- Modern demands on aging systems
- Increased pressures to accommodate growing demands

Simple installation with tapping sleeve, mechanical joint tee or any flanged or MJ connection

Stainless Steel Construction - for long term service

Can be installed during routine pipe repair or maintenance



JCM 800 Series Surge Suppressor

| Model Number | 841 SS Flange | 842 CS Flange | 843 SS MJ | 844 CSMJ |
|------------------------|-----------------|-----------------|------------------|------------------|
| Body Material | Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel |
| Connection Material | Stainless Steel | Carbon Steel | Stainless Steel | Carbon Steel |
| Connection Type | Flange | Flange | Mechanical Joint | Mechanical Joint |
| Connection Standard | ANSI/AWWA C207 | ANSI/AWWA C207 | ANSI/AWWA C111 | ANSI/AWWA C111 |
| Fitting Overall Height | 18" | 18" | 22" | 22" |
| Fitting Overall Width | 24" | 24" | 24" | 24" |
| Outside Diameter | 12.75 | 12.75 | 12.75 | 12.75 |
| Approximate Weight | 85 lbs | 85 lbs | 85 lbs | 85 lbs |

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Testimonials for JCM Surge Suppressors Water Hammer Mitigation Devices Protecting Water Distribution Systems

The following testimonials from JCM Surge Suppressor users are provided with their permission. Additional users list follows.

La Grange Highlands - Cook County, Illinois

"Now if you're talking about a big system, the only thing I could recommend is to try and isolate a problem area, make your big system a small system as a test area ... and give that a try."

"I think word of mouth is more important than any kind of report you can come up with ... I would be listening more to someone who has experience with it ... so I think that's a hands-on operator getting advice from another hands-on operator."

"I could immediately see a decline of main breaks after my first installations. I continued to install two or three each year when changing mains, installing hydrants, or at breaks in the more vulnerable areas."

".. Before we put the suppressor in ... when the pump would turn on or turn off.. you could see the gauge bounce ... and now you don't see that gauge move at all. So I know there's nothing going on in the system ... compared to what used to be."

"Future plans include installation of two additional suppressors this year. I'm impressed with the success of these installations."

*Jeff Sheppler
Water Superintendent
(708) 246-5657*

Village of Hodgkins – Cook County, Illinois

"We were averaging anywhere from 20 to 30 breaks a year and was costing us a lot of money ... we started installing them in our systemat this point in time we probably average one a year on the old system and we haven't had any on the new system ..."

"They worked almost instantly after we put the first ones in."

"We have been able to upgrade more of our system ... put in new mains where we needed to and upgrade our fire hydrants"

"We just last year spent one hundred ten thousand dollars on electronic radio read meters and a computer system so we don't have to go out and read meters. We'd saved enough money to pay for this right out of the budget with no financing."

"I know it saved us hundreds of thousands of dollars in the past ten years. We finally have money in our budget to do other things with and not pay (for) all these repairs."

*Jim Barnes
Water Superintendent since 1992
(708) 579-6700*



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JCM 800 Series Surge Suppressor Specifications

| Model Number | 841 SS Flange | 842 CS Flange | 843 SS MJ | 844 CSMJ |
|-----------------------------------|---|---|---|---|
| Body Material | Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel |
| Connection Material | Stainless Steel | Carbon Steel | Stainless Steel | Carbon Steel |
| Connection Type | Flange | Flange | Mechanical Joint | Mechanical Joint |
| Connection Standard | ANSI/AWWA C207 | ANSI/AWWA C207 | ANSI/AWWA C111 | ANSI/AWWA C111 |
| Fitting Overall Height | 18" | 18" | 22" | 22" |
| Fitting Overall Width | 24" | 24" | 24" | 24" |
| Outside Diameter | 12.75 | 12.75 | 12.75 | 12.75 |
| Approximate Weight | 85 lbs | 85 lbs | 85 lbs | 85 lbs |
| Test Pressure | 600 psi | 600 psi | 600 psi | 600 psi |
| Connection Pattern | Eight (8) 6" bolts | Eight (8) 6" bolts | Six (6) 6" bolts | Six (6) 6" bolts |
| Accessories Required | Tapping Sleeve, Tee, Cut-in Tee | Tapping Sleeve, Tee, Cut-in Tee | Tapping Sleeve, Tee, Cut-in Tee | Tapping Sleeve, Tee, Cut-in Tee |
| Body Material ASTM | ASTM A312 | ASTM A312 | ASTM A312 | ASTM A312 |
| Body Material | 304 Stainless Steel | 304 Stainless Steel | 304 Stainless Steel | 304 Stainless Steel |
| End Cap Plate | 5/16" Stainless Plate | 5/16" Stainless Plate | 5/16" Stainless Plate | 5/16" Stainless Plate |
| End Cap Reinforcement | 3 gusset pattern | 3 gusset pattern | 3 gusset pattern | 3 gusset pattern |
| Passivation | Citric Acid Aestivation | Citric Acid Aestivation | Citric Acid Aestivation | Citric Acid Aestivation |
| Test Port | 3000# with Plug Production Feature Only | 3000# with Plug Production Feature Only | 3000# with Plug Production Feature Only | 3000# with Plug Production Feature Only |
| Connection Material ASTM | ASTM 312 | ASTM 312 | ASTM 312 | ASTM 312 |
| Connection Material | 304 Stainless Steel | 304 Stainless Steel | 304 Stainless Steel | 304 Stainless Steel |
| Connection Inside Diameter | 6" | 6" | 6" | 6" |

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JCM 800 Series Surge Suppressors

The solution to pipe failures caused by the effects of water hammer

Pressure Transients (i.e. water hammer) caused by

- End User Changes – customer service demands
- Abnormal Shutdowns – system shutdowns, power failures, frequently operating pumps
- Volatile Pressure Changes – opening fire hydrant, devastating pipeline break or damage

Systems at Risk

- Aging, Older Systems – pipelines installed more than 50 years ago
- High Risk Pipes – old pit cast, cast iron, asbestos cement, 60+ year old pipe failing frequently
- Outdated Installation Practices – leadite joints,

Water hammer – creates an uncontrolled “shock wave” through the pipeline which has a direct impact on joints, connections, bends, turns, fitting connections and weak sections of the system. Sudden, drastic changes in operating pressure can push the system to exceed its rated pressure capabilities and strike the weakest areas.

This “jolt” through the system compares to an aging adult jumping to the ground from the tailgate of a pickup truck. Upon landing, the impact of feet hitting the ground sends a force of pressure up through the foot, ankle, knee, hip, lower back up to the jaw line. Any of these “shock absorbers” that are stressed, overburdened or weak due to age can experience a “failure” of sprain, strain, crack, break and even blow out. The infrastructure of mature, older water systems at the end of their life expectancy are no different – joints are older and less flexible, pipe integrity is diminished due to time and corrosion, chance of recovery from force trauma without injury is remote.

Taking preventative measures is the solution to preventing future damage and failures. Several devices are suitable for reducing the effects of pressure transients including Air Release Valves, check valves, pressure relief valves, slow valve closure times and many others. JCM now offers the Model 800 Series Surge Suppressors for installation on existing pipelines to reduce and eliminate the affects of water hammer. Simple, economical installations in the pipe system can reduce break frequency, service interruptions, risk of contamination, unaccounted water loss, and operating costs.

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