



SUPERIOR  
TECHNOLOGY



# GRIPSAFE®ST

## KEY FEATURES & BENEFITS



# GRIPSAFE®ST

HIGH-PRESSURE ISOLATION & TEST PLUGS – REDEFINED

### 1 WORLDS MOST ADVANCED ENGINEERED PIPE PLUG

#### PATENTED TECHNOLOGY SUPERCEDES OLD FASHIONED DESIGN USED FOR THE PAST 65+ YEARS\*

- US & International Patents - 14
- US & International Trademarks - 7
- Other US and Foreign Patents Pending

#### 7 YEARS OF RESEARCH & DEVELOPMENT WITH IN-HOUSE ENGINEERING

- Over 4000 Load & Pressure Tests
- 67 Years of Professional Industrial Design Team Engineering Experience

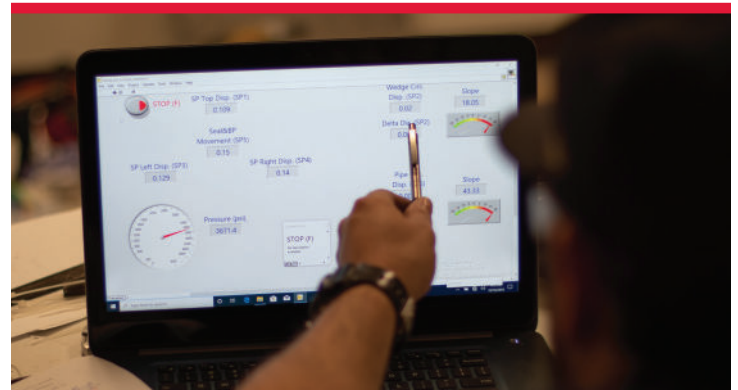
#### PROVEN FIELD SUCCESS SINCE 2017

#### CONFIDENT GRIPSAFE ST WILL BE THE NEW INDUSTRY STANDARD

\*Patent No. 2,855,003 - October 7, 1958; Ellis B. Thaxton

#### DESIGN VALIDATION TESTING

- 2017 - present
- 80 unique test plans conducted on various stocked sizes and schedules, equating to 1000's of repeatable tests



### 2 INDEPENDENTLY ACTUATING WEDGE SYSTEM

#### EQUAL LOADING ACROSS ALL WEDGES ENSURES OPTIMAL SURFACE CONTACT & HOLDING CAPABILITIES

#### OVERCOMES OVALITY (out-of-round pipe)

- Wedges self adjust to find pipe wall

#### SUPERIOR SELF GRIPPING

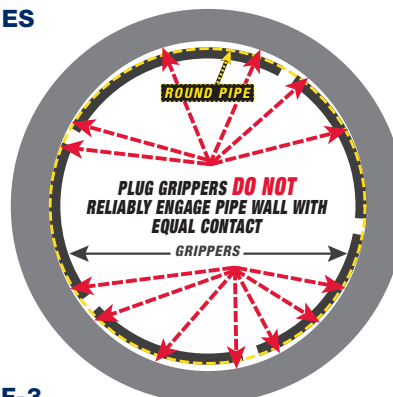
- As force increases, the wedge's hold becomes stronger against the pipe wall

#### NO DAMAGING PRESSURE POINTS

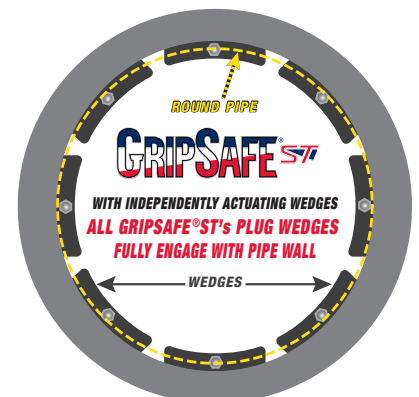
- Force is distributed across entire wedge surface

#### AUTOMATIC GRIPPING UPON INSERTION ON 2-OUT-OF-3 PLUG MODELS

#### Competitive Products

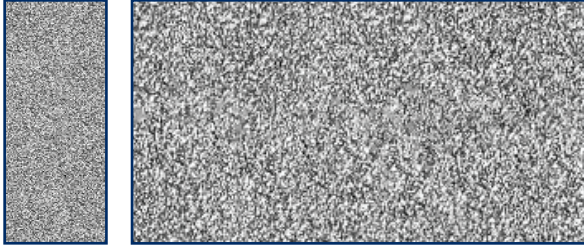


#### GRIPSAFE®ST



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## GRITLOCK® COATED GRIPPING WEDGES



### SECURE GRIPPING WITH PROPRIETARY GRITLOCK® TECHNOLOGY

- Thousands of microscopic points of surface contact
- Highly dense and durable material
- At most, micro indentations are left behind
- Perform thousands of full hydro test cycles without diminished performance

### LEAVES PIPE WITH VIRTUALLY NO SURFACE DAMAGE

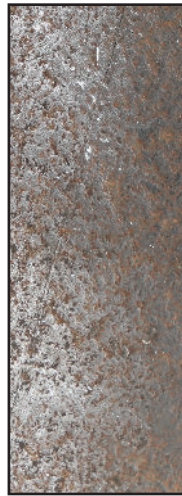
### NON-CONTAMINATING COATING

- Wedges are compatible with any alloy piping\*

## COMPETITIVE WEDGE TESTING

TEST SPECS: SCH 80 PLUGS, ASTM A106 GRADE B STEEL PIPE, PRESSURIZED TO 3,246PSI (FULL HYDROTEST PRESSURE)

### GRIPSAFE ST



GripSafe® ST uses a specially engineered wedge system that grips the pipe securely while leaving virtually no surface scarring.

### COMPETITOR A



### COMPETITOR B



Competitors rely on serrated, jaw-like grippers that bite into the pipe wall to hold the load — degrading pipe integrity and driving added cost and downtime for rework or temporary piping.

\*After use in carbon steel pipe, prevent carbon transfer to passivated stainless steel by swapping the wedges or using a dedicated GripSafe® ST plug never exposed to carbon steel.

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## TRI-PLY® SEALS

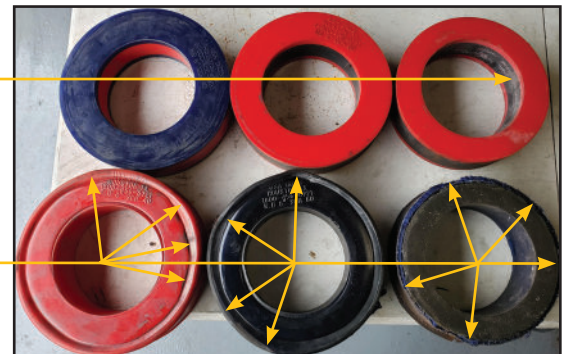
### PATENTED PROPRIETARY SEAL TECHNOLOGY

- Reduces seal creep
- Less torque required to seal
- Proprietary urethane blend maximizes sealing ability
- Wider seal area over competitive designs
- Expansion range up to 3/8" for greater sealing capacity
- Longer seal life



### TRI-PLY VS. TRADITIONAL URETHANE SEAL TESTS

Tri-Ply seals maintain their shape when pushed beyond testing limits



Traditional urethane seals deform and flatten out when pushed beyond testing limits. The flattening point is when seal expansion seizes, leaving the plug at higher risk for ejection at high pressures

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## ALUMINUM & STAINLESS STEEL BODY MATERIALS

### LESS WEIGHT (10" and larger plugs)

- On average GripSafe ST plugs weigh less than competitive products. Significant weight differences exist as plug sizes increase, reaching upwards of 50% weight reductions.

