



August 29, 2018

## Trends in Pipeline Safety: Preventing Third Party Damage

Western Regional Gas Show



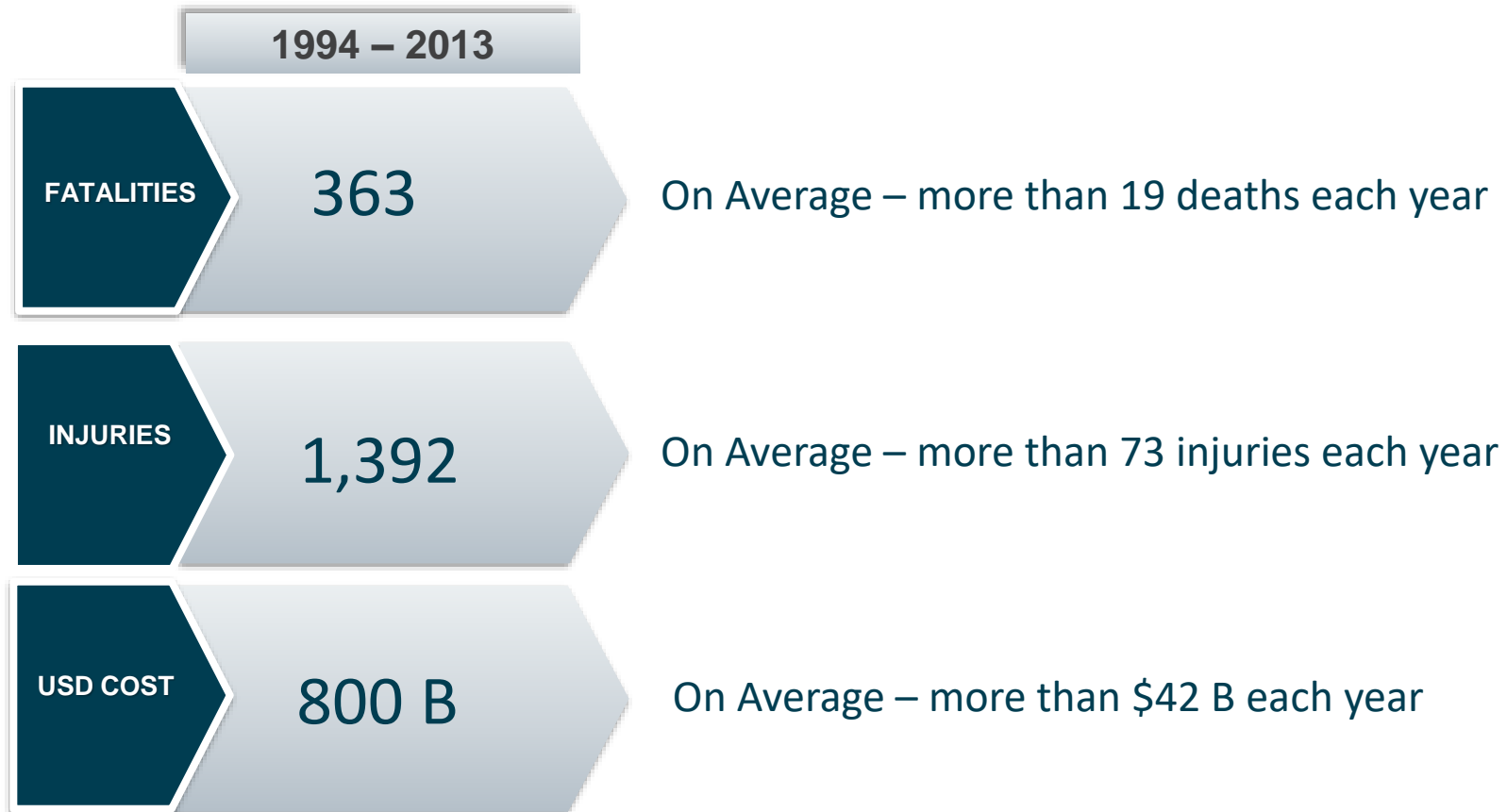
# Agenda

- 1 • The Cost of Third Party Damage
- 2 • Mitigation of Third Party Damage with OVERPIPE
- 3 • OVERPIPE Benefits / Features
- 4 • OVERPIPE Market Penetration

# The cost of third party damage, pipeline strikes

US natural gas pipeline accidents deemed significant 1994-2013

## The Stats...



Source: Pipeline and Hazardous Materials Safety Administration (PHMSA), a US DOT agency

# Are we reducing 3<sup>rd</sup> Party Strikes

Yes, Are we still hurting people? Yes....



# How often does third party damage occur?

## According to The Denver Post:

In Colorado, gas line damage from digging happens as often as four times a day. Getting punished for it is much more rare.

Even after 1,300 damages to pipelines in 2015, no civil penalties or sanctions were issued because it's up to pipe owners to file civil lawsuits

## Not every excavation damage is catastrophic

“There are approximately 379,000 excavation damages in 2016 which cost United States in excess of \$1.5 billion\* USD”

DIRT, United States, 2016

## How do we keep them our High Consequence Areas safe?

# TACTICS TO AVOID PIPELINE STRIKES

## Warnings & Mechanical Protection



- Detour Pipeline \$\$\$\$\$
- Go Deeper \$\$\$\$\$
- Increase the Wall Thickness \$\$\$\$\$
- Use more surface warnings (no mechanical protection)
- Install Concrete \$\$\$ / Install Metal Plates \$\$\$\$\$

# WHAT IS THE IMPACT RESISTANCE? IMPACT RESISTANCE TESTING

Impact resistance strength of the HDPE Plate higher than concrete slabs



# HDPE PLATE INSTALLATION

Quicker! Cheaper! Safer!

Total Installation, compared to traditional methods



Efficiency 6:1



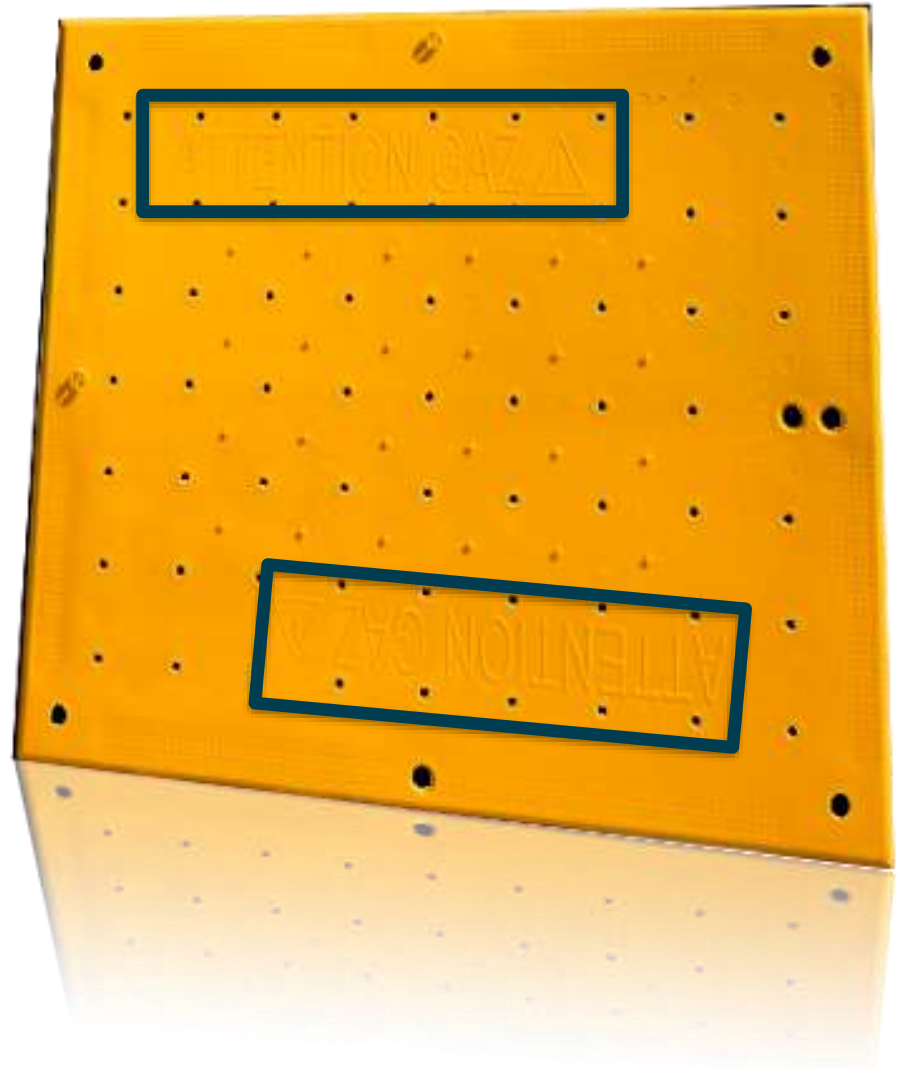


# SAFETY FEATURES

## Plate: Customizable Warning Message

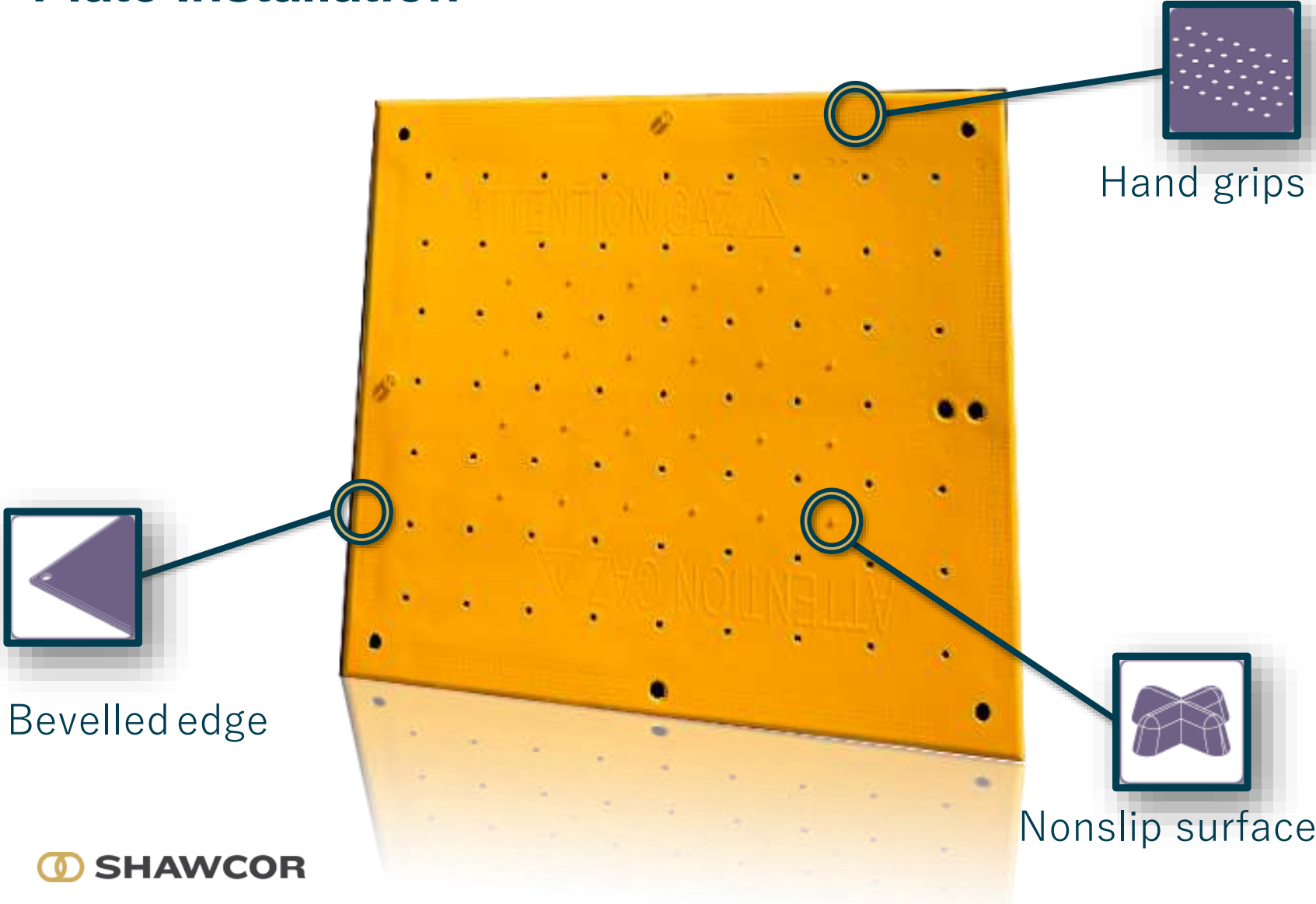
Possible Examples:

- Company Logo
- “Danger Gas Pipeline Below”
- Phone Number to call
- “Why didn’t you call first...”



# SAFETY FEATURES

## Plate Installation

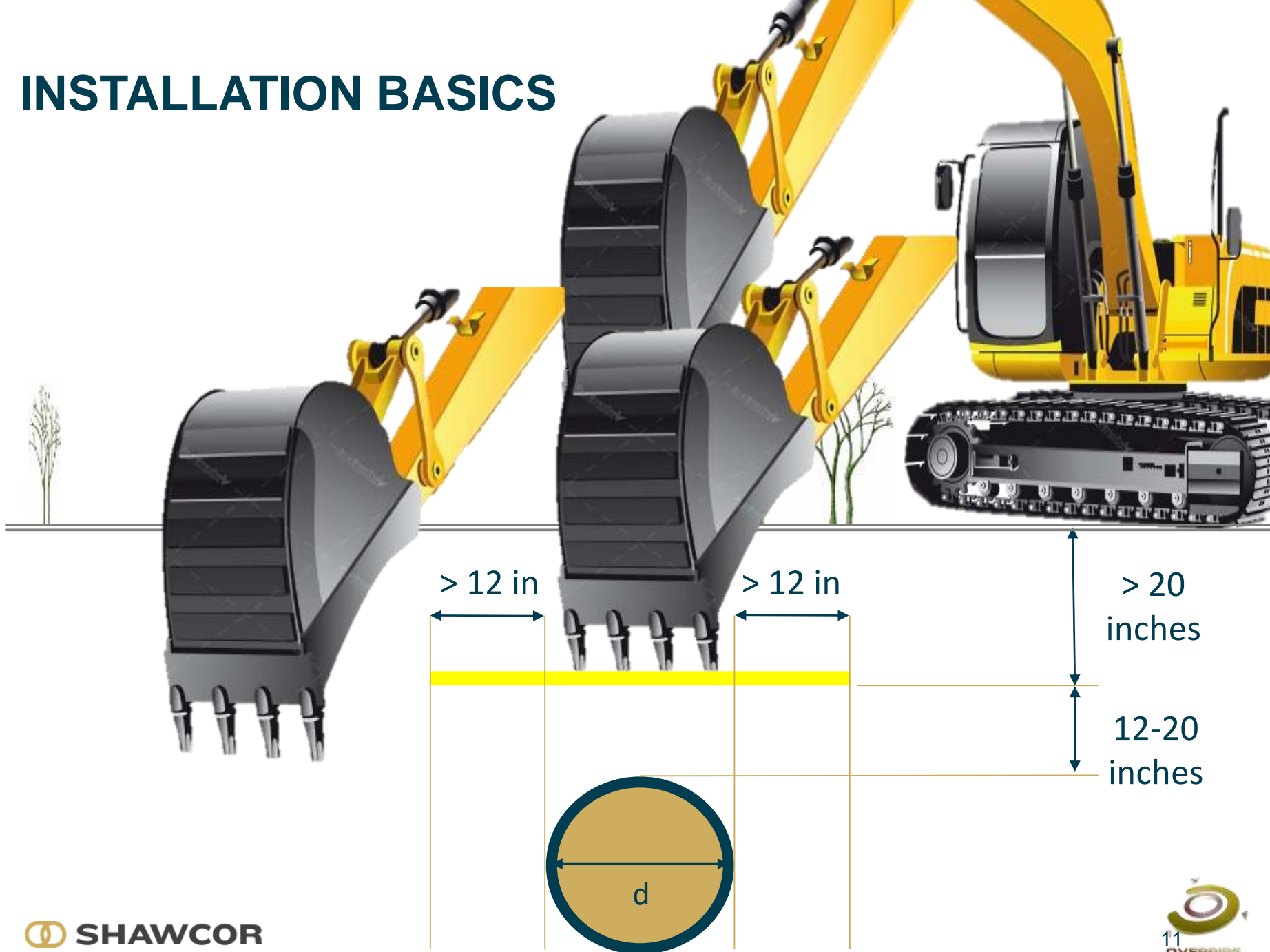


Bevelled edge

Hand grips

Nonslip surface

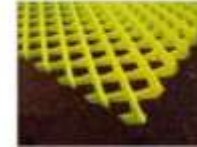
# INSTALLATION BASICS



# What if you want to cover an entire Pipeline?

Strategic Pipelines / Shallow Coverage / etc....

OVERPIPE Mesh – Elastic & Mechanical



# SAFETY FEATURES

## Mesh: Customizable Warning Message

Possible Examples:

- Company Logo
- “Danger Gas Pipeline Below”
- Phone Number to call
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# OVERPIPE GEOGRAPHICAL REACH



# OVERPIPE END USER LIST





## SAFEGUARD YOUR PIPELINES WITH OVERPIPE® HDPE PLATES.

Plates are used as an additional safeguard against unintended strikes in high consequence areas.

Slabs are installed above the pipeline to provide mechanical protection against a 32ton excavator.

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