



# RIDGID

## Pipe Patching

Product Overview  
August 1, 2022





# Introduction

## RIDGID | Pipe Patching

Business Group: Underground Technologies

Sales Regions: USCA

Sales Class: P10, P11, P12, P13, P14, P15

Discount Codes: RDC & RDS

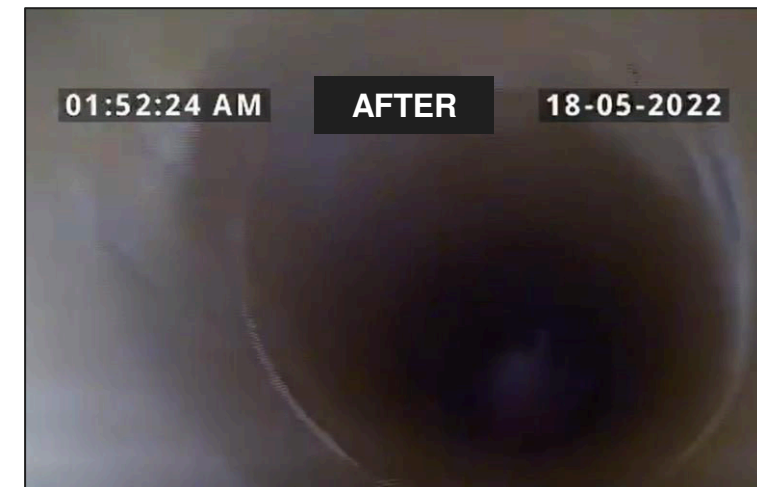
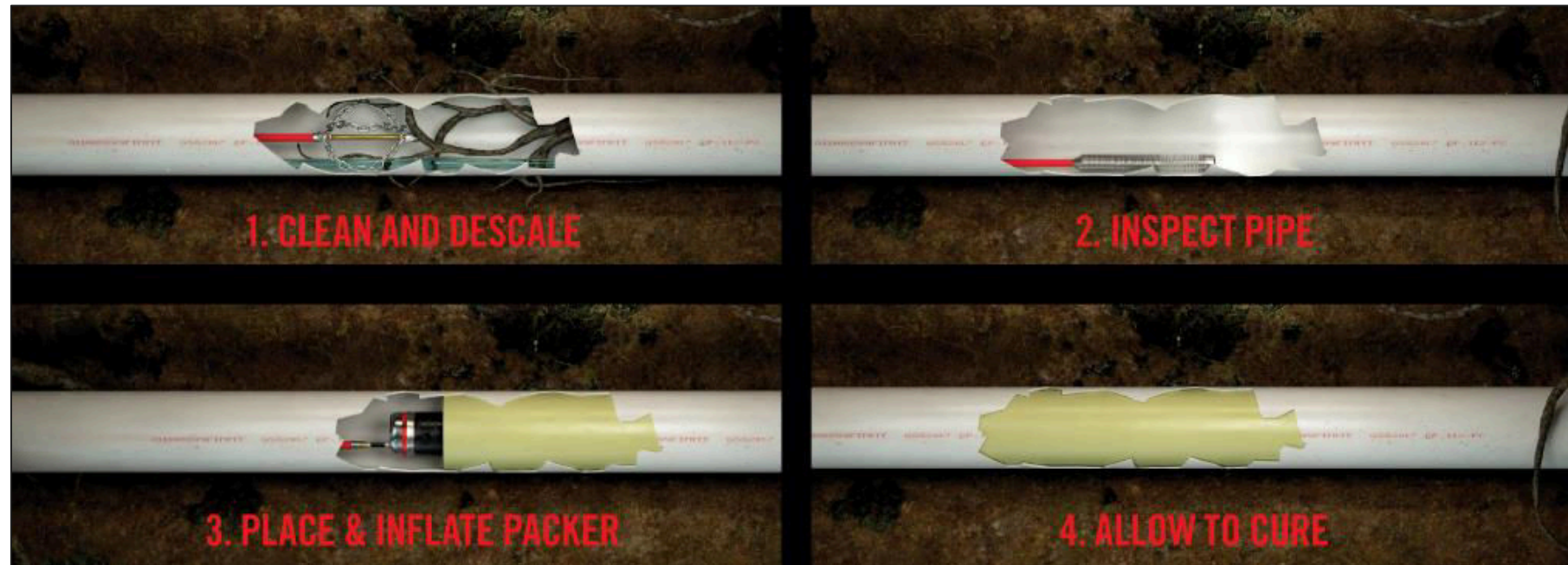
## RIDGID ENTERS THE PIPE REHABILITATION MARKET WITH VERSATILE PIPE PATCHING SYSTEM, KITS & ACCESSORIES.

- Up to 6 ft trenchless pipe repairs in 2" to 6" lines.
- Durable, fiberglass patches are rated up to 50-year life expectancy under normal conditions when fully cured.
- Low cost of entry and high return on investment compared to digging & full relining.
- Short learning curve for installers.
- Versatile system can perform patches in p-traps, bends, transitions and straight sections of pipe with a single kit.
- Perfectly complements Drain Cleaning & Sewer Inspection businesses.



# What is Pipe Patching?

For years, CIPP (Cured in Place Pipe) patching has been used globally as a structural repair in short sections of broken and damaged pipe. Patching, while a great standalone additional service offering, is also seen as a gateway into full length lining due to the relatively low initial cost and high return on investment combined with a short learning curve for installers. Patching is considered the best way to enter the CIPP market for those reasons.





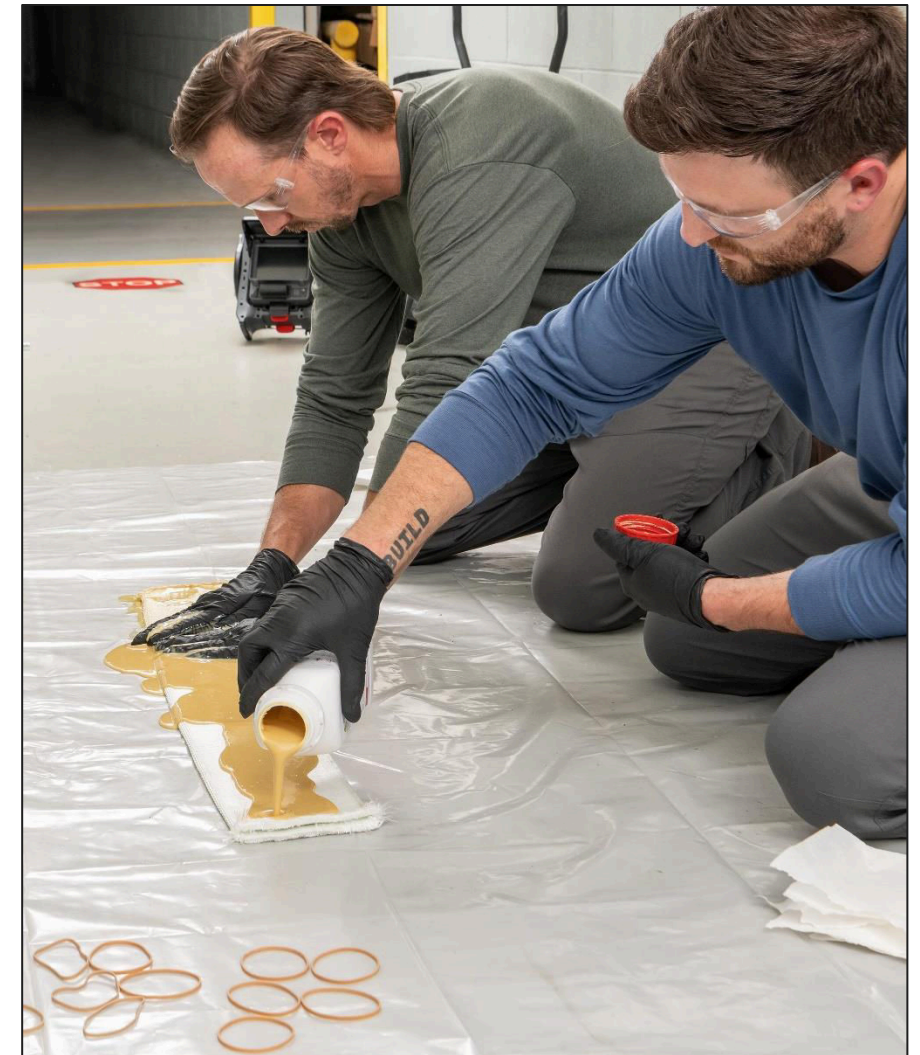
# General Process Overview

**★ NOTE** – Different packers & patch kits may require different installation steps. Refer to Operator’s Manual & Installation Video for full Step by Step instructions.

Inspect line, confirm patch location, & prep packer.

Confirm you can get packer to patch location.

Wet out fiberglass patch.





## General Process Overview Cont.

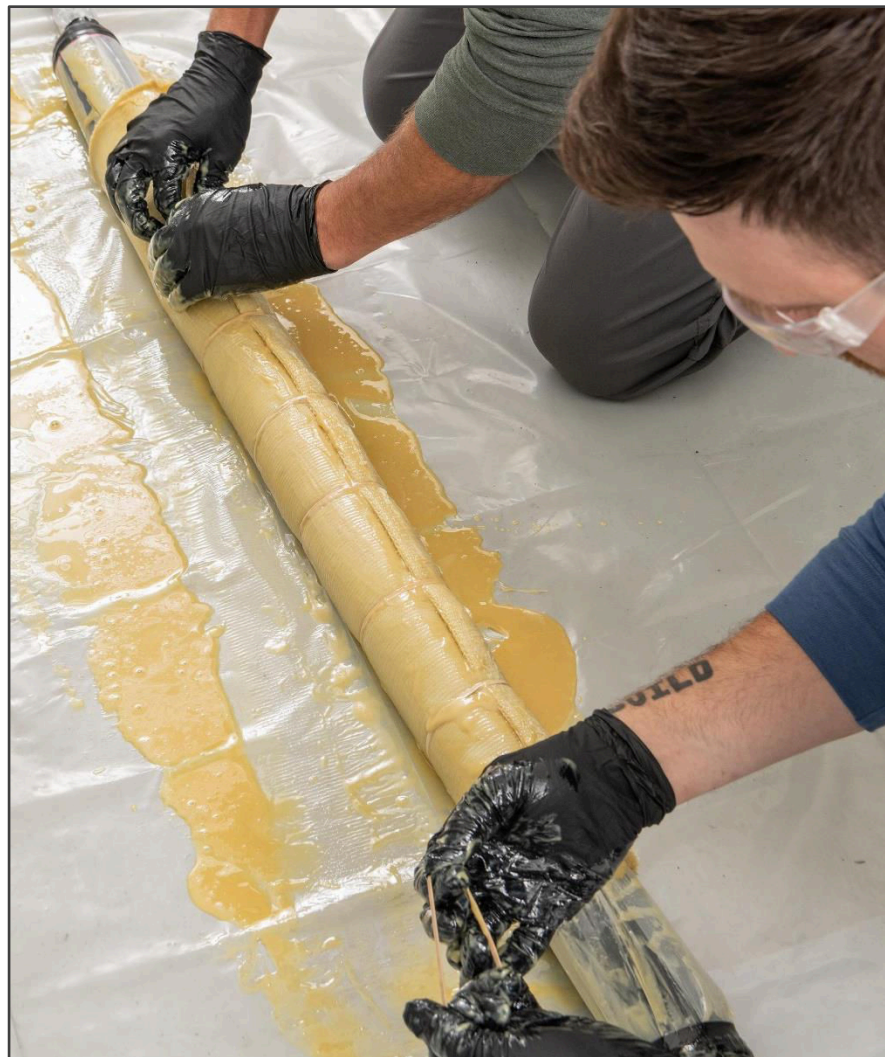


**NOTE** – Different patches may require different installation steps. Refer to Operator's Manual & Installation Video for full Step by Step instructions.

**Place fiberglass patch onto packer.**



**Use elastic bands to secure patch to packer.**



**Push or pull packer into place, inflate, and allow time to cure.**





# Residential, Commercial & Industrial Applications



Pipe Patching  
**minimizes  
customer  
disruption** with:

Landscaping

Fauna

Business  
Productivity

Tenants

Machinery Setup  
& Teardown



# Pipe Patching strategically links our Underground Technologies businesses with existing customers.

## Clean



## Inspect







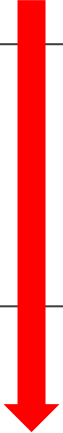











## Patch





# FlexShaft or Water Jetter & Camera are the main tools needed to begin Pipe Patching – RIDGID provides a complete solution!

Pipe Size	Drain Cleaner	Camera	Starter System	
2"	 <p>K9-102</p>	 <p>KJ-1350</p>	 <p>microReel Compact Mini Standard RM200</p>	 <p>74658</p>
3"	 <p>K9-204</p>	 <p>KJ-1350</p>		 <p>74663</p>
3-4"	 <p>K9-204</p>	 <p>KJ-1750</p>		 <p>74673</p>
4-6"	 <p>K9-306</p>	 <p>KJ-3100</p>		 <p>74683</p>



# Product Assortment

## Starter Systems – 4 SKUs



## Patch Kits – 6 SKUs



## Containment Kits – 4 SKUs



## Packers, Air Push Rods & Accessories – 28 SKUs





# Starter Systems

The RIDGID Pipe Patch Starter System **includes the equipment needed to begin a Pipe Patching business.**

- **Versatile System** - Includes versatile packers, air push rods & necessary components that accommodate p-traps, bends, transitions & straight sections.
- **New, Incremental Revenue Stream** - Comprehensive system includes the equipment necessary to begin a Pipe Patching business. Perfectly complements businesses already participating in drain cleaning and inspection.
- **Reliable, Long-Lasting Repair** - Durable, fiberglass patch is rated for small sections of damaged pipe and meets ASTM F1216 requirements; cured patches are rated up to 50-year life expectancy under normal conditions.



Catalog #	Description
74658	Pipe Patch Starter System - 2" Pipe x 32" Repair
74663	Pipe Patch Starter System - 3" Pipe x 32" Repair
74673	Pipe Patch Starter System - 3-4" Pipe x 3' Repair
74683	Pipe Patch Starter System - 4-6" Pipe x 3' Repair





# Starter System Components



Catalog No.	Description	Packer Multiple	Air Push Rod 74773	Air Regulator 74783	Pull Rope 74823	Containment Kit Multiple	Std to Lockable Air Adapter 74818	100 ft Air Hose 74828	"D" Ring Multiple	Quick Link 74873	Ball Guide Multiple	Carry Bag 74853	Patch Kit Multiple
74658	Pipe Patch Starter System - 2" Pipe x 32" Repair	1 (74743)	Integrated	1	1	1 (74723)	1	1	2 (75368)	2	1 (74893)	0	1 (74693)
74663	Pipe Patch Starter System - 3" Pipe x 32" Repair	1 (74748)	5	1	1	1 (74728)	1	1	2 (75368)	2	1 (74893)	1	1 (74698)
74673	Pipe Patch Starter System - 3-4" Pipe x 3' Repair	1 (74753)	10	1	1	1 (74733)	1	1	2 (74848)	2	1 (74803)	1	1 (74703)
74683	Pipe Patch Starter System - 4-6" Pipe x 3' Repair	1 (74763)	10	1	1	1 (74743)	1	1	2 (74848)	2	1 (74803)	1	1 (74713)

*Sold Separately*



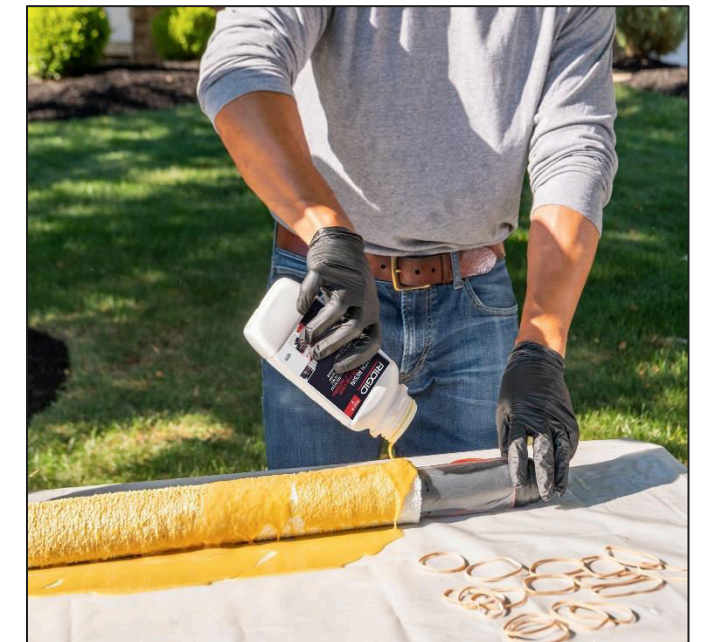
# Patch Kits

The RIDGID Pipe Patch Kits enable quick and efficient fiberglass patch repairs with **all required consumables and components packaged together for one-time use.**

- **Organic Mineral Resin** - Two-part silicate resins come pre-measured in clearly labeled bottles. Simply mix and shake both compounds to begin wet out process.
- **Work & Resin Set Times** - Up to 15 minutes of work time and minimum of 90 minutes of resin set time at 65° Fahrenheit.
- **Cleanup & Protection** - Table covering & packer sleeves protect workspace and Packer from resin and environmental hazards such as scale and other debris.



Catalog #	Description
74693	Pipe Patch Kit - 2" Pipe x 32" Repair
74698	Pipe Patch Kit - 3" Pipe x 32" Repair
74703	Pipe Patch Kit - 3-4" Pipe x 3' Repair
74708	Pipe Patch Kit - 3-4" Pipe x 6' Repair
74713	Pipe Patch Kit - 4-6" Pipe x 3' Repair
74718	Pipe Patch Kit - 4-6" Pipe x 6' Repair





# Patch Kit Components





# Patch Kit Packaging



A) Step by Step Checklist – Patching guide helps you move through the process and provides space to mark down times and temperatures.

B) QR Code - Quick lookup of product information, specification guide, instruction manual, etc.

C) Specification Guide – Detailed information on pipe configuration compatibility, PSI, working times, required temperatures, etc.

D) “Use By” Date – Notes when resin bottles were packaged thus starting the 365-day shelf life. These dates will also be marked on the resin bottles.



# Packers

The RIDGID Pipe Patch Packers can be pushed or pulled into place through **multiple pipe configurations such as straights, bends, transitions and p-traps.**

- **Durable** - Silicone-coated rubber can be used on over 100 patches when properly maintained.
- **Easy Navigation** – Integrated fiberglass push rod provides rigidity to help navigate Packer down the line.
- **Inflation** - Packers inflate from the center outwards - thus, pushing standing water away from the patch location.
- **Repairable** - Packers can be fully repaired or rebuilt.



Catalog #	Description
74743	Pipe Patch Packer - 2" Pipe x 43" Length
74748	Pipe Patch Packer - 3" Pipe x 43" Length
74753	Pipe Patch Packer - 3-4" Pipe x 4' Length
74758	Pipe Patch Packer - 3-4" Pipe x 7' Length
74763	Pipe Patch Packer - 4-6" Pipe x 4' Length
74768	Pipe Patch Packer - 4-6" Pipe x 7' Length

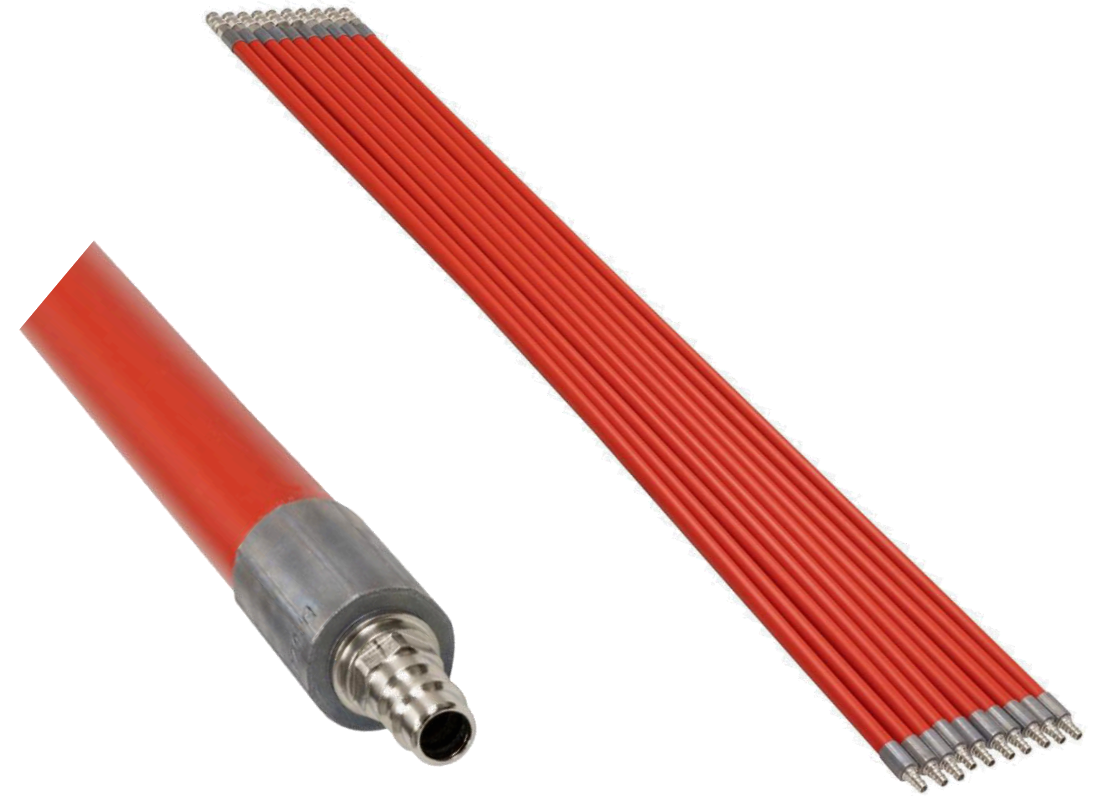




# Air Push Rods

The RIDGID Pipe Patch Air Push Rods are super flexible and feature lockable fittings so you can **push and rotate the Packer into precise placement.**

- **Flexible** – Navigates the Packer through tight bends and transitions.
- **Lockable Fittings** - Lockable, hexagonal fittings prevent Air Push Rods from disjoining when pushing the Packer down the line.
- **Synchronized Rotation** – Hexagonal fittings allow Packer to rotate making it easier to push through tight bends and transitions.
- **Universal** - Compatible with 3", 3-4" & 4-6" RIDGID Pipe Patch Packers.
- **Incremental** – 5 ft increments can be joined together for longer pipe applications up to 100 ft.



**Distributors must order in quantities of 5.** These will come in a standard pack. Air Push Rods are individually UPCed for sales of 1.

Catalog #	Description
74773	Pipe Patch Air Push Rod - 5' Length





# Containment Kits

The RIDGID Pipe Patch Containment Kits **protect the Packer from overinflation** when the line is severely damaged, or part of the Packer is exposed during installation.

- **Reusable** - Containment Kits can be reused for multiple patches.
- **Straight Sections** - Use Containment Tube when containment is required in straight sections.
- **P-Traps, Bends & Transitions** - Use Containment Liner when containment is required in p-traps, bends, and transitions.



Containment Tube



Containment Liner



★ Not all patches require containment. **If unsure, it is better to use the containment kit.**

Catalog #	Description
74723	Pipe Patch Containment Kit for 2" Packer
74728	Pipe Patch Containment Kit for 3" Packer
74733	Pipe Patch Containment Kit for 3-4" Packer
74738	Pipe Patch Containment Kit for 4-6" Packer

**Applications Requiring Containment**

- Pipe damage is greater than 1" in diameter
- Multiple holes in a small location
- Pipe is fragile or brittle
- Part of packer is exposed (i.e. out of the pipe)
- Part of the packer is unsupported such as in a sanitary tee or Y fitting





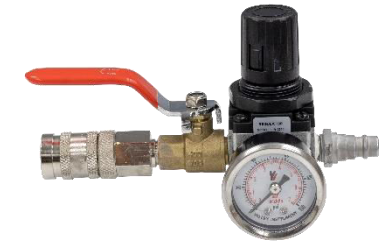
# Accessories

RIDGID offers a **wide variety of Pipe Patching Accessories** to make you as efficient as possible on the jobsite.

- **Carry Bag** - Save yourself time by carrying multiple Packers, Air Push Rods & Accessories in a single trip.
- **Air Regulator** - Helps maintain Packer operating pressure during resin set time.
- **Ball & Spring Leader Guide** - Helps navigate Packer around tight bends and p-traps.
- **Flexible Adapter**- Provides additional flexibility between Packer & Air Push Rods.
- **"D" Ring** - Attach to front or rear of Packer allowing you to pull Packer into place or remove from the line after pushing.
- **Quick Links** - Save yourself time and mess by prepping your Pull Rope with a Quick Link during the wet out process. Simply attach to the "D" Ring to connect Pull Rope to the Packer.
- **Pull Rope** - Navigate tough pipe configurations by pulling Packer into place & remove Packer after patch is complete.



Carry Bag



Air Regulator



Ball & Spring Leader Guide



Flexible Adapter



"D" Ring



Quick Link



Pull Rope

Catalog #	Description
21 SKUs - See Table @ End of Presentation	



# Product Specifications

Starter Systems

	2" Starter System + 2" Patch Kit	3" Starter System + 3" Patch Kit	3-4" Starter System + 3-4" Patch Kit	4-6" Starter System + 4-6" Patch Kit
Pipe Capacity	2"	3"	3-4"	4-6"
Packer Length	43"	43"	4 ft	4 ft
Maximum Patch Length	32"	32"	3 ft	3 ft
Packer Encroachment Zone	3"	3"	5"	5"
Packer Operating Pressure	43 psi	60 psi	50 psi	36 psi
22°, 45° & Long Radius 90° Elbows	✓	✓	✓	✓
Short Radius 90° Elbows & P-Traps	✓	✓	4" only	6" only
Pipe Size Transitions	X	X	3-4"	4-6"
Air Push Rod Compatibility	10 ft Integral	Adjustable (100 ft Max)	Adjustable (100 ft Max)	Adjustable (100 ft Max)
Air Push Rod Pressure Rating	43 psi	60 psi	50 psi	36 psi
Maximum Push Rod Pressure	217 psi	217 psi	217 psi	217 psi

Patch Kits

Resin Working Time	15 minutes @ 68°F	15 minutes @ 68°F	15 minutes @ 68°F	15 minutes @ 68°F
Resin Set Time	90 minutes	90 minutes	90 minutes	90 minutes
Final Cure Time	4 hours	4 hours	4 hours	4 hours
Resin Shelf Life	1 Year	1 Year	1 Year	1 Year
Resin Storage Temperature	41°F - 113°F	41°F - 113°F	41°F - 113°F	41°F - 113°F
Resin Application Temperature	41°F - 68°F	41°F - 68°F	41°F - 68°F	41°F - 68°F
Liner Material	Fiberglass	Fiberglass	Fiberglass	Fiberglass
Cured Patch Thickness	0.16"	0.16"	0.16"	0.16"
Cured Patch Tensile Strength	34,889 psi (241 N/mm <sup>2</sup> )	34,889 psi (241 N/mm <sup>2</sup> )	34,889 psi (241 N/mm <sup>2</sup> )	34,889 psi (241 N/mm <sup>2</sup> )