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# PIG PASSAGE INDICATORS



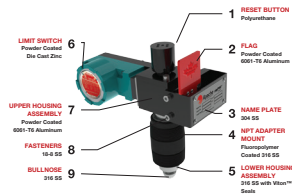
## **pigPRO™ Info**

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## **pigPRO™**

*Series 67 and  
Series 67 Flanged*  
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## **Material List**

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## **pigPRO™**

*Series 67 Extraction  
Kit*  
Pg. 1-11

SERIES	INDICATOR	SEAL MATERIAL
1. In-line	1. Visual/Manual	1. Viton™ (FPM)
2. In-line	2. Electrical	1. Viton™ (FPM)
3. In-line	3. Visual/Manual	1. Viton™ (FPM)
4. In-line	4. Electrical	1. Viton™ (FPM)
5. In-line	5. Visual/Manual	1. Viton™ (FPM)
6. In-line	6. Electrical	1. Viton™ (FPM)
7. In-line	7. Visual/Manual	1. Viton™ (FPM)
8. In-line	8. Electrical	1. Viton™ (FPM)
9. In-line	9. Visual/Manual	1. Viton™ (FPM)
10. In-line	10. Electrical	1. Viton™ (FPM)

CONNECTION TYPE	CONNECTION MATERIAL	EXTENSION	WALL THICKNESS
1. 2" NPT Flange (for 6000 TOC)	1. 316L	1. 2'-0"	01 - 0.005" to 1.125"
2. 2" NPT Flange (for 6000 TOC)	2. 316L	2. 2'-0"	02 - 1.125" to 1.875"
3. 2" NPT Flange (for 6000 TOC)	3. 316L	3. 2'-0"	03 - 1.875" to 2.125"
4. 2" NPT Flange (for 6000 TOC)	4. 316L	4. 2'-0"	04 - 2.125" to 2.375"
5. 2" NPT Flange (for 6000 TOC)	5. 316L	5. 2'-0"	05 - 2.375" to 2.625"
6. 2" NPT Flange (for 6000 TOC)	6. 316L	6. 2'-0"	06 - 2.625" to 2.875"
7. 2" NPT Flange (for 6000 TOC)	7. 316L	7. 2'-0"	07 - 2.875" to 3.125"
8. 2" NPT Flange (for 6000 TOC)	8. 316L	8. 2'-0"	08 - 3.125" to 3.375"
9. 2" NPT Flange (for 6000 TOC)	9. 316L	9. 2'-0"	09 - 3.375" to 3.625"
10. 2" NPT Flange (for 6000 TOC)	10. 316L	10. 2'-0"	10 - 3.625" to 3.875"

<b>53-0000-00</b>			
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## **Part # Selection**

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## **pigPRO™**

*Flange Mount &  
Extension Pole*  
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## **pigPRO™**

*Series 53*

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## **Non-Intrusive**

*Bandit*

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## **pigPRO™**

*Series 55*

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## **Non-Intrusive**

*Full Stainless*

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## **pigPRO™**

*Series 57*

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## **Non-Intrusive**

*Portable Bandit*

Pg. 1-15

# Pig Passage Indicators

## pigPRO™ Series

### The Intrusive Pig Signaler

The Apache pigPRO™ are manufactured in our Edmonton, Alberta, Canada facility. From Canadian workmanship to the patented fluid seal design, our pigPRO™ are depended upon by pipeline operators the world over.

**When you see the pigPRO™ name,  
we guarantee it will indicate more than just quality.**

#### Detecting cleaning pigs, accurately and reliably.

At Apache, we want to make certain that when a customer is pigging a pipeline, they will always know when the pig has passed a critical point in the pipeline.

To achieve that, we designed the pigPRO™ Series, a patented line of intrusive pig passage indicators that reliably detect the precise location of a cleaning pig as it travels within the pipeline network.

#### How does it work?

The pigPRO™ indicator is permanently installed on pig launchers and receivers, or very close to a pump station. By doing so, operators are notified the instant that the pig has left the launcher or arrived in the receiver.

The system is fitted with a plunger that is then inserted into the pipe, physically penetrating the pipe bore. When a pipeline cleaning pig passes, it actuates the plunger, which activates either a visual or electrical indicator, or both. The instant that the indicator is displayed, the pipeline cleaner's precise location is revealed.

The Apache pigPRO™ are an INTRUSIVE model as the plunger penetrates the pipe bore. The protruding PLUNGER is actuated by the passage of a pipeline cleaner thereby activating an indicator.

- Bi-directional activation is a standard feature of all our indicator types
- All indicators are manufactured for a specific operating pressure and wall thickness
- Can be flange mounted or mounted using a 2" NPT thread-o-let
- All pigPRO™ can be modified to mount into most competitor's T.O.L.

#### Components:

Apache's unique patented FLUID SEAL DESIGN does not allow paraffin or other debris to obstruct the operational mechanisms thus ensuring positive indication of the pig's passage. There are no gears in the trigger mechanism and all materials conform to NACE standard MR0175 / ISO 15156.

# Pig Passage Indicators

## pigPRO™ Series

### The Intrusive Pig Signaler

**Easily installed without disrupting production**

Every model in the pigPRO™ series is easily installed, even while the pipeline is on-stream. So preparing for critical pipeline cleaning doesn't disrupt critical production.

**Reduces operational risk**

The pigPRO™ features fewer moving parts for ease of installation. The hemispherical design of the pigPRO™ helps eliminate these issues, saving you time and money. To ensure that the indicator is properly adjusted for the individual pipeline, hemispherical plunger sensitivity adjustment and penetration adjustment are standard features.

**Bi-directional activation**

Every pigPRO™ indicator is bi-directional, so it is triggered by a pig traveling in either direction. Although a pig is rarely required to travel in the opposite direction of the flow in a pipeline while it is on-stream, this capability can be useful when servicing offline pipelines.

**Debris or no debris, pigPRO™ performs**

Most pig indicators simply cannot operate accurately to indicate pig passage when wax or debris are present in a pipeline. That's not the case with the pigPRO™, which operates reliably regardless of wax or debris. It's specially designed to prevent debris from obstructing its operational mechanisms, so a passing pig is always indicated.

**Universal, adaptable**

Our ability to retrofit to most mounts makes the Apache pigPRO™ completely versatile.

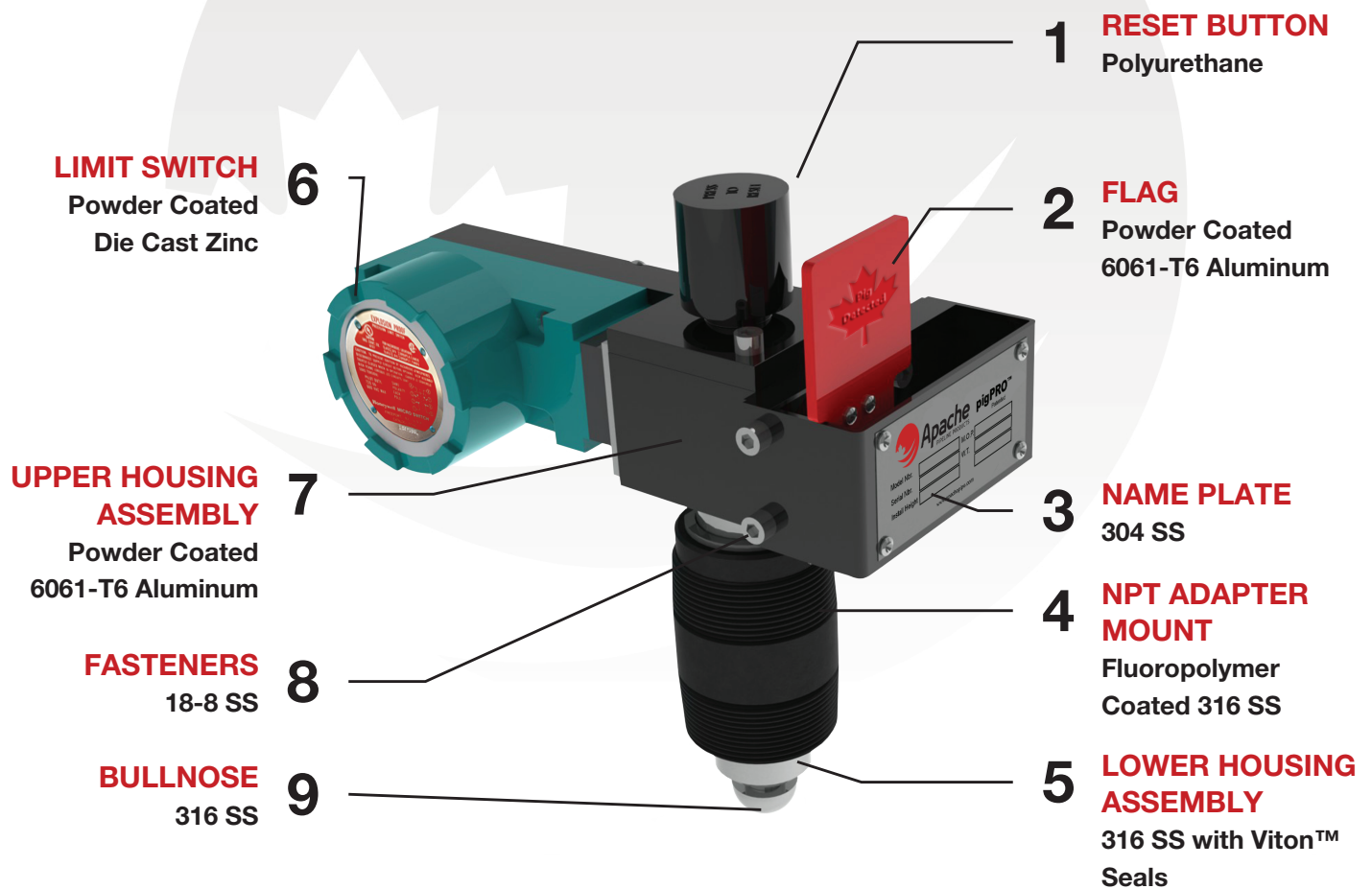
**Primary system components**

Every Apache pigPRO™ pig passage indicator includes a thread-mounting nipple, standard lower housing with fluorocarbon O-rings, and a hemispherical plunger with a flag assembly.

**Designed for easy adjustment onsite, even while on-stream.**

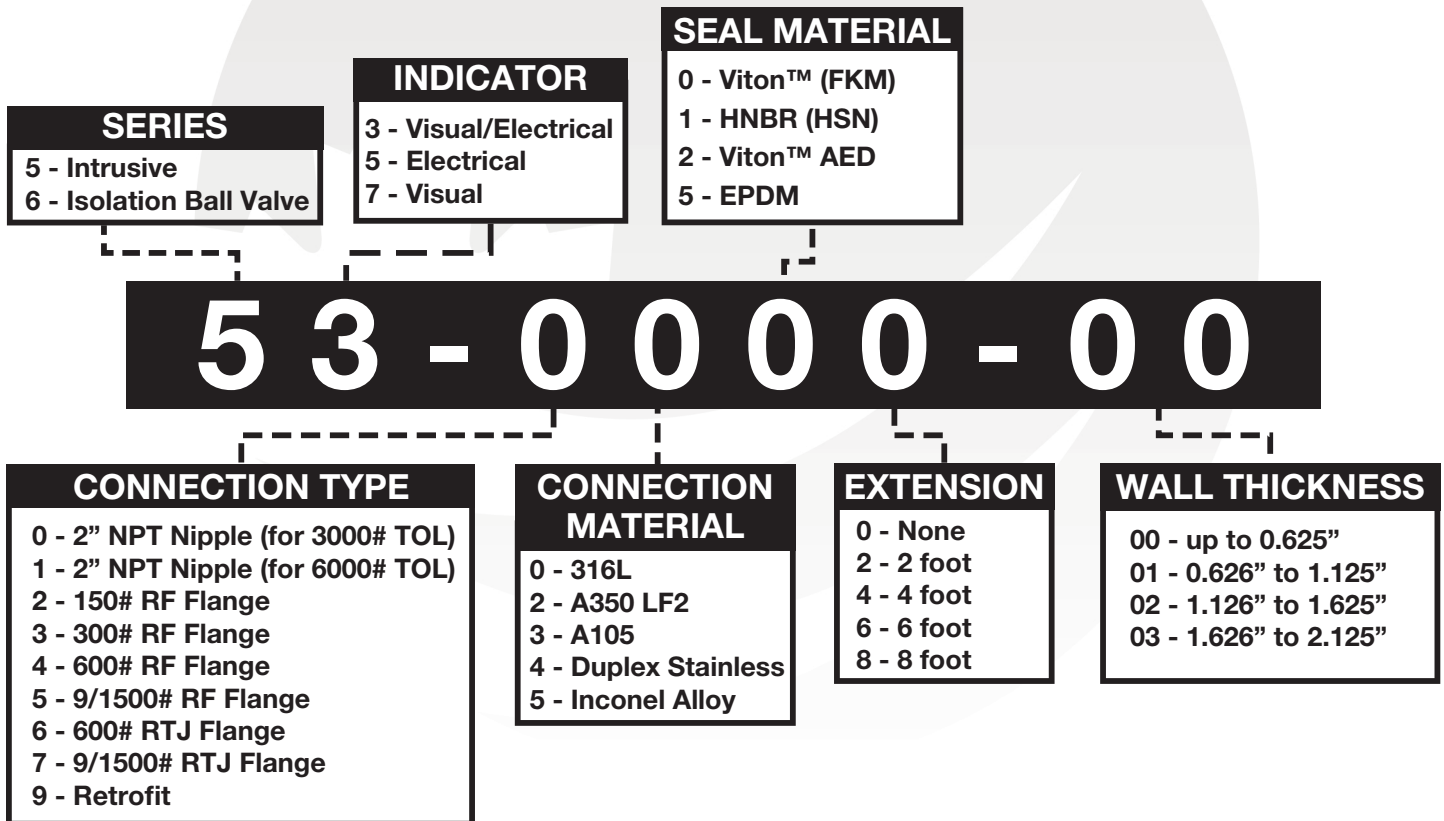


# Material List



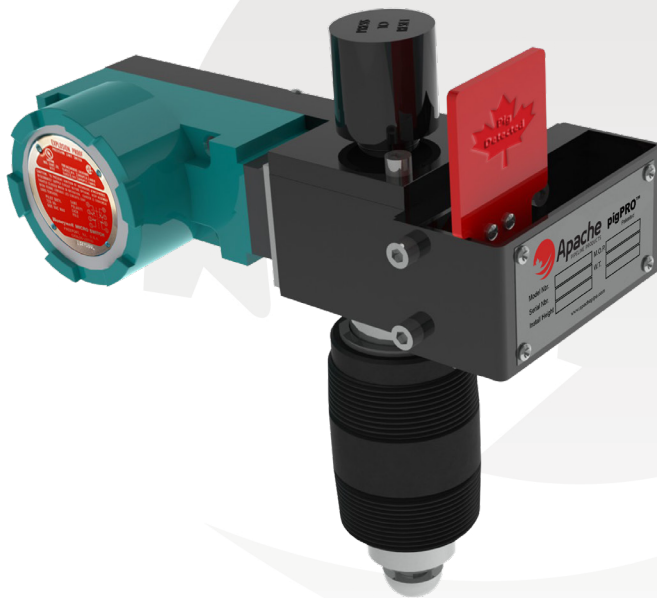
*Optional Materials Available*

# Part Number Selection



# Series 53

*Visual/Electrical Indication, Manual/Auto Reset*



**The Series 53 is a combination visual and electrical indicator with manual and automatic reset.**

Offering both visual and electrical indicator capabilities and manual and automatic reset features, the Series 53 is the most versatile member of Apache's pigPRO™ Series, a patented line of intrusive pig passage indicators that reliably detect the precise location of a cleaning pig as it travels within the pipeline network. When a cleaning pig passes the system's intruding plunger, it activates the plunger and triggers a visual flag indicator, signaling the pig's location.

## Features & Benefits:

The Series 53 includes a thread mounting nipple, standard lower housing with fluorocarbon O-Rings, hemispherical plunger with a flag assembly and weather sealed & explosion proof limit switch. The switch employed on this model is NEMA rated, UL listed and CSA certified to suit most applications.

## Options:

Flange Mount models are designed to connect to existing flanged connections and are available in ANSI Class 150, 300, 600 or 900/1500 flanges.

## Extension Pole:

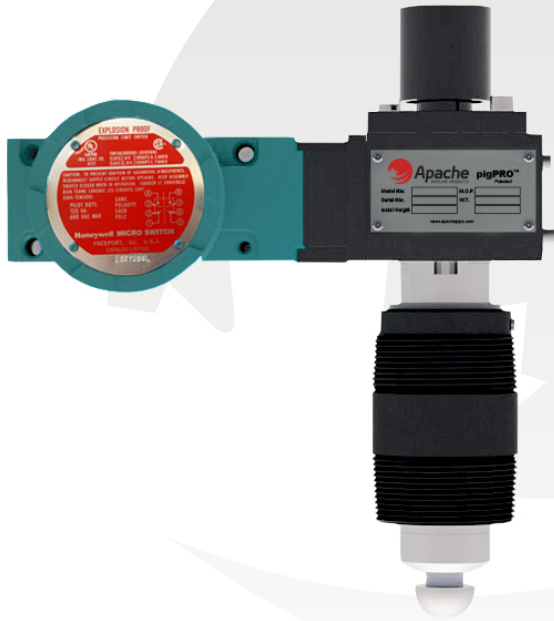
Aluminum extensions can be attached to enable detection of the pigs passage on buried pipelines. All pressure sealing components remain below the extension module. Available in lengths 2' to 10'.

Check  
out our  
videos!



# Series 55

*Electrical Indication, Auto Reset*



**The Series 55 is an electrical indicator with automatic reset.**

With its optional manual and automatic reset capabilities, the Series 55 is a highly sought after member of Apache's pigPRO™ Series, a patented line of intrusive pig passage indicators that reliably detect the precise location of a cleaning pig as it travels within the pipeline network. When a cleaning pig passes the system's intruding plunger, it activates the plunger and triggers a visual flag indicator, signaling the pig's location.

## Features & Benefits:

The Series 55 includes a thread mounting nipple, standard lower housing with fluorocarbon O-Rings, hemispherical plunger and weather sealed & explosion proof limit switch. The switch employed on this model is NEMA rated, UL listed and CSA certified to suit most applications.

## Options:

Flange Mount models are designed to connect to existing flanged connections and are available in ANSI Class 150, 300, 600 or 900/1500 flanges.

## Extension Pole:

Aluminum extensions can be attached to enable detection of the pigs passage on buried pipelines. All pressure sealing components remain below the extension module. Available in lengths 2' to 10'.

Check  
out our  
videos!



# Series 57

*Visual Indication, Manual Reset*



**The base model Series 57 is a visual flag indicator with manual reset.**

It is a popular member of Apache's pigPRO™ Series, a patented line of intrusive pig passage indicators that reliably detect the precise location of a cleaning pig as it travels within the pipeline network. When a cleaning pig passes the system's intruding plunger, it activates the plunger and triggers a visual flag indicator, signaling the pig's location.

## Features & Benefits:

Our most popular pigPRO™, the base model Series 57 includes a thread mounting nipple, standard lower housing with fluorocarbon O-Rings, hemispherical plunger with a flag assembly.

## Options:

Flange Mount models are designed to connect to existing flanged connections and are available in ANSI Class 150, 300, 600 or 900/1500 flanges.

## Extension Pole:

Aluminum extensions can be attached to enable detection of the pigs passage on buried pipelines. All pressure sealing components remain below the extension module. Available in lengths 2' to 10'.

Check  
out our  
videos!



# Series 67

*Visual Indication, Manual Reset  
Can Be Serviced on Flowing, Pressurized Pipelines*



**The Series 67 is a visual flag indicator with manual reset and comes standard with an isolation ball valve.**

The Series 67 adds safety and servicing options to our existing line intrusive pig passage indicators. Like other available models in the patented pigPRO™ Series, it reliably detects the precise location of a cleaning pig as it travels within the pipeline network. When a pig passes the intruding plunger, it activates the plunger and triggers a visual flag indicator, signaling the pig's location.

Incorporating a customized ball valve with an extended lower housing into the design of our Series 67 pigPRO™ allows for a safe and simple isolation of the pig passage indicator from pipeline pressure for inspection, maintenance or repair. Complete removal and re-installation on any pressurized line is easy using the Extraction Kit and does not require specialized hot tap professionals or equipment.

The extraction kit contains a pressure relief tool and a custom built extraction cap and jack tube specifically designed for the Series 67 pigPRO™. Other items include O-Rings, fasteners, lubricant and hex key wrenches. All of this is provided in a protective industrial case.



\*Extraction Kit sold separately\*

## Features & Benefits:

The integral isolation feature of the Series 67 means the cost, time and safety concerns of de-pressurizing and draining a line are eliminated. Now the pig passage indicator can be isolated, removed, repaired and reinstalled while the pipeline is flowing and pressurized. Preventative maintenance, inspection or repair are easily accomplished without specialized equipment or crews.

## Extension Pole:

Aluminum extensions can be attached to enable detection of the pigs passage on buried pipelines. All pressure sealing components, including the isolation ball valve, remain below the extension module. Available in lengths of 2' to 10'.

Check  
out our  
videos!





# Series 67 Flanged

*Visual Indication, Manual Reset, Flanged Adapted  
Can Be Serviced on Flowing, Pressurized Pipelines*

**The Series 67 is a visual flag indicator with manual reset and comes standard with a flanged isolation valve.**



The Series 67 adds safety and servicing options to our existing line intrusive pig passage indicators. Like other available models in the patented pigPRO™ Series, it reliably detects the precise location of a cleaning pig as it travels within the pipeline network. When a pig passes the intruding plunger, it activates the plunger and triggers a visual flag indicator, signaling the pig's location.

Incorporating a customized flanged isolation valve with an extended lower housing into the design of our Series 67 pigPRO™ allows for a safe and simple isolation of the pig passage indicator from pipeline pressure for inspection, maintenance or repair. Complete removal and re-installation on any pressurized line is easy using the Extraction Kit and does not require specialized hot tap professionals or equipment.

*The extraction kit contains a pressure relief tool and a custom built extraction cap and jack tube specifically designed for the Series 67 pigPRO™. Other items include O-Rings, fasteners, lubricant and hex key wrenches. All of this is provided in a protective industrial case.*



## Features & Benefits:

*\*Extraction Kit sold separately\**

The integral isolation feature of the Series 67 means the cost, time and safety concerns of de-pressurizing and draining a line are eliminated. Now the pig passage indicator can be isolated, removed, repaired and reinstalled while the pipeline is flowing and pressurized. Preventative maintenance, inspection or repair are easily accomplished without specialized equipment or crews.

Includes a flanged isolation valve, extended lower housing with fluorocarbon O-Rings, and hemispherical plunger with a flag assembly.

## Extension Pole:

Aluminum extensions can be attached to enable detection of the pigs passage on buried pipelines. All pressure sealing components, including the isolation ball valve, remain below the extension module. Available in lengths of 2' to 10'.

Check  
out our  
videos!





# pigPRO™ Series 67 Extraction Kit



The Extraction Kit has the unique tools, fasteners, and soft goods to allow a technician to remove the Series 67 pigPRO™ and then reinstall it onto a pressurized pipeline.

The extraction kit contains custom built extraction cap and jack tube specifically designed for the Series 67 pigPRO™ and a pressure relief tool. It contains required soft goods ( O-Rings) that are installed in the lower housing. The kit contains fasteners, lubricant and hex key wrenches as well as spare fasteners. It is provided in an industrial case so that all parts will be available when needed.

Item	Description	Qty
1	3/8" Hex Flat Socket Head Cap Screws	2
3	Jack Tube	1
18	Extraction Cap	1
20	Hex Bar	1
24	O-Ring 221 Viton®	2
30	3/8" Lock Washers	6
31	3/8" Socket Head Cap Screws	6
32	1/2" Hex Head Cap Screws	8
	Pressure Relief Tool (PRT)	1
	Lubriplate No. 105 White Lithium Grease	1
	Hex Key Wrench Size 1/8"	1
	Hex Key Wrench Size 7/32"	1
	Hex Key Wrench Size 5/16"	1

*\*Note that items 1 and 32 have a quantity of 2 designated as spare items.*

**TECHNICIAN'S WRENCHES:** To extract the lower housing assembly, the technician will need to turn the 1" hex bar. To do this a 24" breaker bar wrench with a 1" socket is recommended but several other wrenches will work including a large ratchet, flat wrench, crescent adjustable wrench etc.

Hex bolts that are included have a 3/4" head so a 3/4" flat wrench or small crescent adjustable wrench is needed. As these tools are readily available, these are not included in the extraction kit and must be supplied by the technician doing the work.

# Flange Mount

Flange Mount models are designed to connect to existing flanged connections.

**Available in ANSI Class 150, 300, 600 or 900/1500 flanges.**



# Extension Pole

Aluminum extensions can be attached to enable detection of the pig's passage on buried pipelines.

All pressure sealing components remain below the extension module.

Available in lengths 2 to 10'.

**Extension poles can be used with any Apache pigPRO™**



## CD52 Bandit



### Features & Benefits:

The CD52 Bandit provides quick and easy non-intrusive pig passage detection of any pig and transmitter moving between 0.1 and 20 meters per second. Non-intrusive means less maintenance and corrosion, and no possibilities of pipeline leaks.

**Quick and Easy Installation:** No hot-tapping required. The CD52 Bandit can be installed in minutes by any field technician.

Sensing means of the CD52 Bandit consist of a set of patented, non-intrusive proprietary noise-canceling antennas invented by CDI specifically for pig passage detection. This antenna system gives the Bandit its ability to reject nearby magnetic noise and halt costly false-positive triggering. A small, safe, permanent magnet or active transmitter installed on a pig is all it takes to put the Bandit to work!

Remote Signaling of a passage is easy with built-in flashing LCD visual display and dry-contact relays. These normally-open or normally-closed relays may be used in conjunction with existing SCADA systems to integrate the CD52 Bandit into a pipeline control and signalling network. An optional array of four high-luminosity LEDs can be seen over distances as great as 100 meters (328 feet).

### Options Available:

- Sunshade helps protect the Bandit from intense sunlight by reducing overall temperature inside, thus prolonging the life of the electronic components. 316 stainless steel construction guarantees long life in a harsh pipeline environment.
- Heater system recommended for operation below -22°F (-30°C).
- LineStat satellite radio for transmitting passage time, date, and GPS location via email or SMS message.
- Remote Indicator System provides passage indication up to 328 ft (100 meters).

## CD52 Bandit - Full Stainless



### Features & Benefits:

The CD52 family of products provide quick and easy non-intrusive pig passage detection of any pig moving between 0.01 and 20 meters per second. Non-intrusive means less maintenance and corrosion, and no possibilities of pipeline leaks.

Sensing means of the CD52-316SS consist of a set of patented, non-intrusive proprietary noise-canceling antennas invented specifically for pig passage detection. This antenna system gives the CD52-316SS its ability to reject nearby magnetic noise and halt costly false-positive triggering.

Field proven - We have been manufacturing our patented CD52 family of pig signalers for a decade. With thousands of systems installed around the globe, the CD52 family has a reliable performance record in burning deserts, frozen tundras, and every environment in between. Many of our customers are large oil and gas producers who rely upon the CD52 family of equipment to set valves, control pump stations, and communicate with SCADA systems.

Remote signaling of a passage is easy with a built-in flashing LCD visual display and dry-contact relays. These normally-open or normally-closed relays may be used in conjunction with existing SCADA systems to integrate the CD52-316SS into a pipeline control and signaling network.

### Options Available:

- Sun Shade - Protection from intense sunlight.
- Heater System - Recommended for operation below -22°F (-30°C).
- Stainless Steel Tags - Tags engraved with customer information.
- Remote Indicator System (RIS) - Provides visual passage indication up to 328ft (100m).
- LineStat satellite radio for transmitting passage time, date, and GPS location via email or SMS message.



Stainless Steel Sun Shade

## CD52 Bandit - Portable



### Features & Benefits:

The CD52 Portable Bandit offers the added flexibility of quick takedown and relocation wherever/whenever a temporary signaler is needed.

**Suspend Mode** - A simple pushbutton temporarily suspends Portable Bandit operation for removal and repositioning.

**Compact & Light** - At only 13 in. [330 mm] tall, 21 lb. [9.5 kg], and a lower CG than the Bandit, the Portable Bandit is easily picked up and secured in its own low-profile carrying case for transport to the next job site.

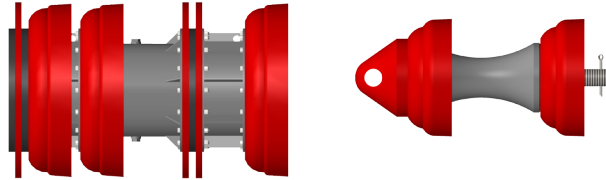
Non-intrusive pig passage detection of any pig and transmitter moving between 0.01 and 20 meters per second means less maintenance and corrosion, and no possibilities of pipeline leaks.

Sensing Means of the CD52 Portable Bandit consist of a set of patented, non-intrusive proprietary noise-canceling antennas invented by CDI specifically for pig passage detection. This antenna system gives the Bandit its ability to reject nearby magnetic noise and halt costly false-positive triggering. A small, safe, permanent magnet or active transmitter installed on a pig is all it takes to put the Bandit to work!

### Options Available:

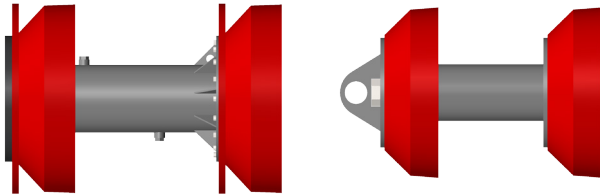
- Sunshade helps protect the Portable Bandit from intense sunlight by reducing overall temperature inside, thus prolonging the life of the electronic components. The 316 stainless steel construction guarantees long life in a harsh pipeline environment.
- Stainless steel antenna & mounting plate.
- Pelican™ case.

# STEEL MANDREL PIGS



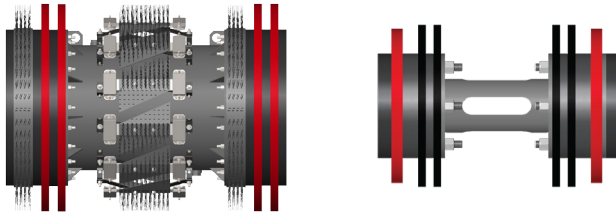
## **Scraper Cup**

Pg. 2-2 to 2-43



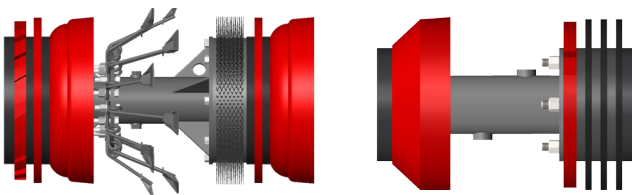
## **Conical Cup**

Pg. 2-44 to 2-59



## **Bi-Directional**

Pg. 2-60 to 2-71



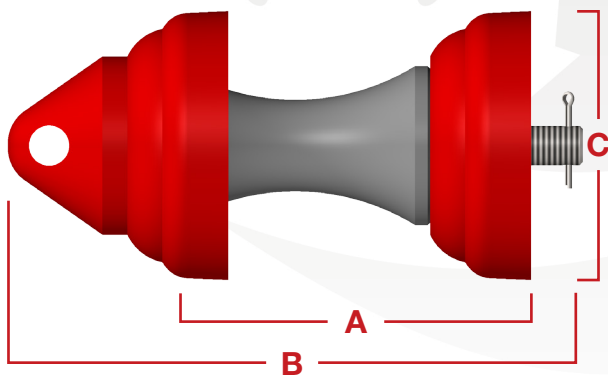
## **Specialty**

Pg. 2-72 to 2-79

## UC2

2-4" (51-102mm)

The UC2 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC2 is equipped with two Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
2"	3.125	5.375	2.125	70-3802-02
3"	4.500	7.250	3.375	70-3802-03
4"	5.625	8.625	4.375	70-3802-04

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

### Options Available:

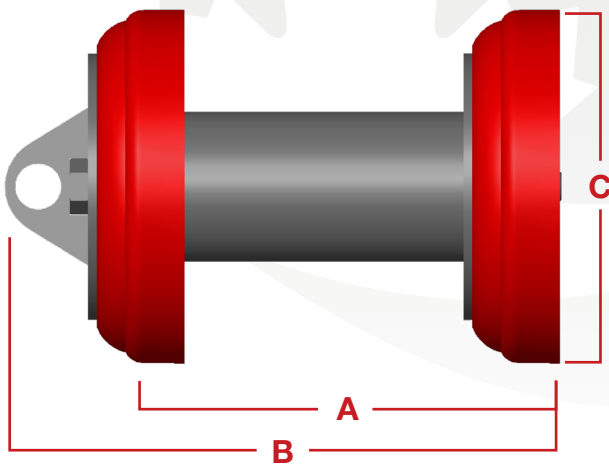
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.
- Radial Brush available in 3" and 4". See page (pitPRO) 5-24 for additional information.



## UC2

6-14" (152-356mm)

The UC2 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC2 is equipped with two Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
6"	8.000	11.750	6.375	70-3802-06
8"	10.375	13.625	8.500	70-3802-08
10"	12.875	16.625	10.625	70-3802-10
12"	15.125	19.375	12.750	70-3802-12
14"	17.625	21.875	13.875	70-3802-14

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

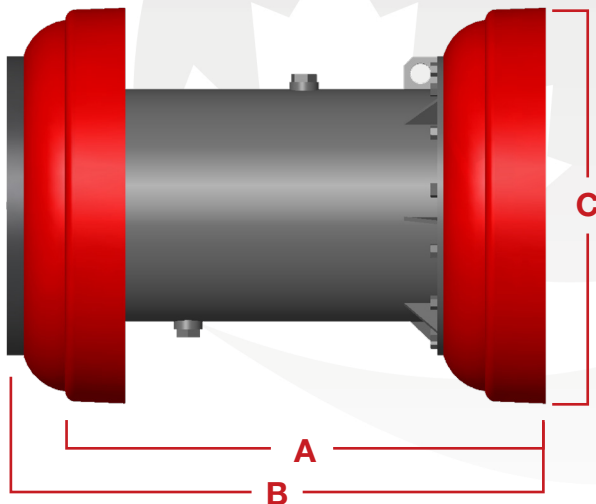
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UC2

16-48" (406-1219mm)

The UC2 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC2 is equipped with two Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
16"	19.000	22.020	16.000	70-3802-16
18"	20.500	23.625	17.875	70-3802-18
20"	22.875	26.375	19.875	70-3802-20
22"	25.125	28.875	21.875	70-3802-22
24"	27.750	31.375	23.875	70-3802-24
26"	29.875	34.000	25.875	70-3802-26
28"	32.250	36.500	28.000	70-3802-28
30"	34.125	38.875	29.875	70-3802-30
32"	36.375	41.000	32.000	70-3802-32
34"	38.625	43.125	34.000	70-3802-34
36"	40.625	45.750	36.000	70-3802-36
42"	47.375	52.750	42.125	70-3802-42
48"	51.500	57.500	47.750	70-3802-48

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

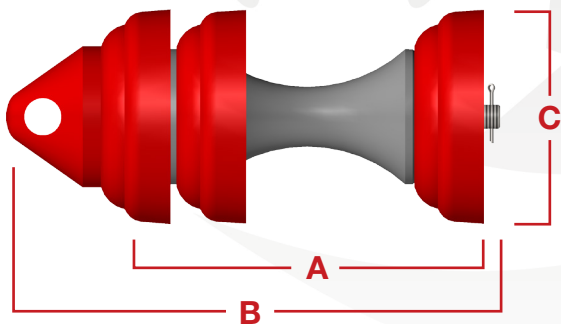
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UC3

2-4" (51-102mm)

The UC3 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC3 is equipped with three Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
2"	4.000	5.875	2.125	70-3803-02
3"	5.875	8.250	3.375	70-3803-03
4"	7.125	10.125	4.375	70-3803-04

Designed to negotiate 3D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

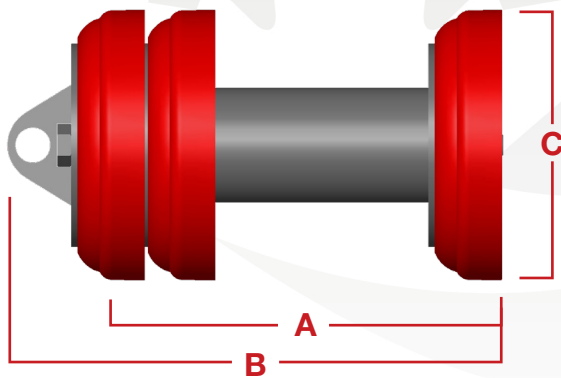
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.
- Radial Brush available in 3" and 4". See page (pitPRO) 5-24 for additional information.

## UC3

6-14" (152-356mm)

The UC3 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC3 is equipped with three Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
6"	10.000	13.750	6.375	70-3803-06
8"	12.500	16.250	8.500	70-3803-08
10"	15.625	19.425	10.625	70-3803-10
12"	18.500	22.625	12.750	70-3803-12
14"	21.500	25.750	13.875	70-3803-14

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

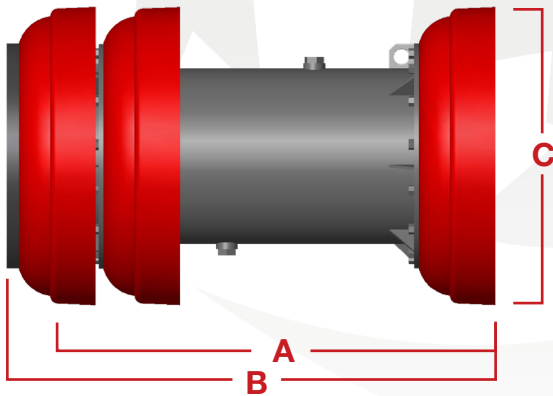
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UC3

16-48" (406-1219mm)

The UC3 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC3 is equipped with three Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
16"	24.250	27.250	16.000	70-3803-16
18"	25.875	29.000	17.875	70-3803-18
20"	28.875	32.375	19.875	70-3803-20
22"	31.625	35.375	21.875	70-3803-22
24"	34.500	38.000	23.875	70-3803-24
26"	37.125	41.375	25.875	70-3803-26
28"	40.000	44.375	28.000	70-3803-28
30"	43.000	47.625	29.875	70-3803-30
32"	45.250	50.000	32.000	70-3803-32
34"	47.500	52.125	34.000	70-3803-34
36"	49.625	54.750	36.000	70-3803-36
42"	57.000	62.375	42.125	70-3803-42
48"	62.250	68.125	47.750	70-3803-48

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

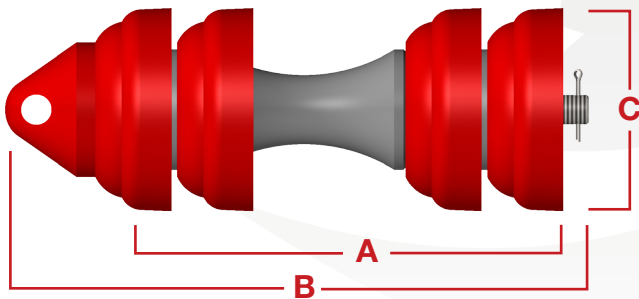
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UC4

2-4" (51-102mm)

The UC4 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC4 is equipped with four Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
2"	5.000	6.875	2.125	70-3804-02
3"	7.250	9.750	3.375	70-3804-03
4"	8.750	11.625	4.375	70-3804-04

Designed to negotiate 3D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

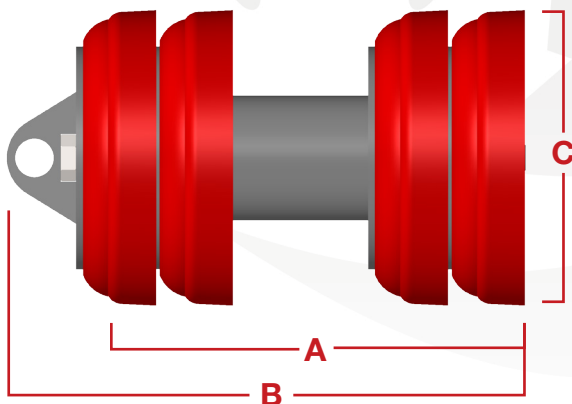
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.
- Radial Brush available in 3" and 4". See page (pitPRO) 5-24 for additional information.

## UC4

6-14" (152-356mm)

The UC4 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC4 is equipped with four Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
6"	9.000	12.750	6.375	70-3804-06
8"	12.250	16.250	8.500	70-3804-08
10"	14.875	18.625	10.625	70-3804-10
12"	18.375	22.500	12.750	70-3804-12
14"	21.375	25.625	13.875	70-3804-14

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

### Options Available:

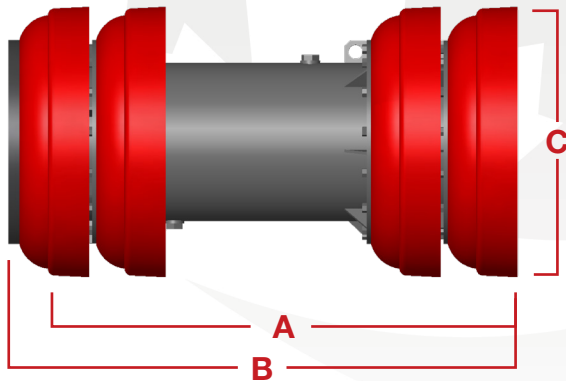
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.



## UC4

16-48" (406-1219mm)

The UC4 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UC4 is equipped with four Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
16"	26.500	29.500	16.000	70-3804-16
18"	29.250	31.375	17.875	70-3804-18
20"	33.500	36.875	19.875	70-3804-20
22"	38.125	42.000	21.875	70-3804-22
24"	41.250	45.000	23.875	70-3804-24
26"	44.375	48.625	25.875	70-3804-26
28"	47.875	52.125	28.000	70-3804-28
30"	51.875	56.500	29.875	70-3804-30
32"	54.125	58.875	32.000	70-3804-32
34"	56.500	61.000	34.000	70-3804-34
36"	58.625	63.750	36.000	70-3804-36
42"	66.750	72.125	42.125	70-3804-42
48"	73.000	78.875	47.750	70-3804-48

Designed to negotiate 1.5D and greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

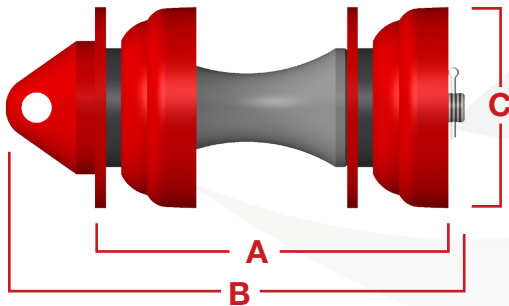
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## DCD

2-4" (51-102mm)

The DCD is an effective pig for batching and separating. The DCD is equipped with two sealing discs and two Series C cups. These multiple sealing components create a positive seal between dissimilar fluids, while providing a larger sealing surface area.



Size	A	B	C	Part #
2"	4.125	5.875	2.125	70-6830-02
3"	6.000	7.750	3.375	70-6830-03
4"	7.250	9.625	4.375	70-6830-04

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

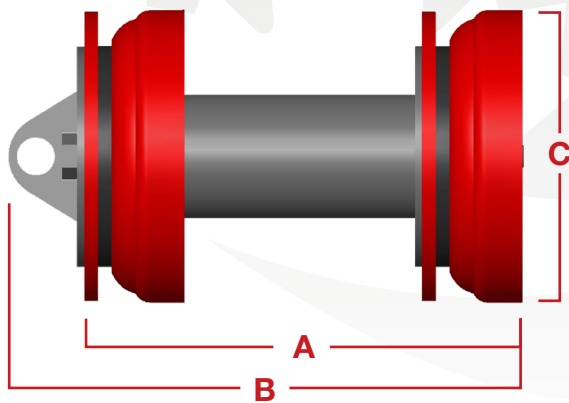
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.
- Radial Brush available in 3" and 4". See page (pitPRO) 5-24 for additional information.

## DCD

6-14" (152-356mm)

The DCD is an effective pig for batching and separating. The DCD is equipped with two sealing discs and two Series C cups. These multiple sealing components create a positive seal between dissimilar fluids, while providing a larger sealing surface area.



Size	A	B	C	Part #
6"	9.375	12.250	6.375	70-6830-06
8"	13.375	16.250	8.500	70-6830-08
10"	15.875	19.000	10.625	70-6830-10
12"	19.125	21.875	12.750	70-6830-12
14"	19.625	22.375	13.875	70-6830-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

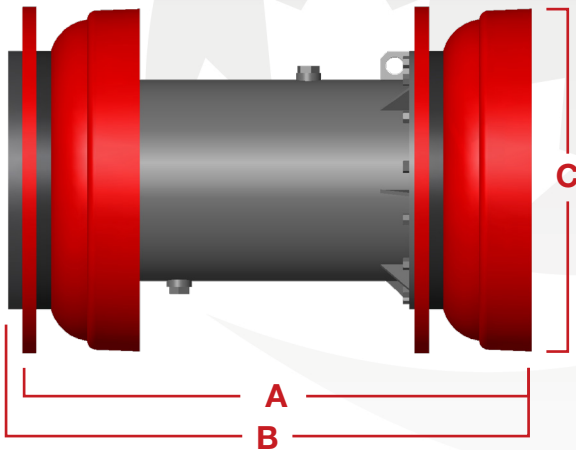
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## DCD

16-48" (406-1219mm)

The DCD is an effective pig for batching and separating. The DCD is equipped with two sealing discs and two Series C cups. These multiple sealing components create a positive seal between dissimilar fluids, while providing a larger sealing surface area.



Size	A	B	C	Part #
16"	24.000	25.000	16.000	70-6830-16
18"	25.625	26.625	17.875	70-6830-18
20"	28.875	29.875	19.875	70-6830-20
22"	31.375	32.375	21.875	70-6830-22
24"	34.375	35.375	23.875	70-6830-24
26"	37.000	38.000	25.875	70-6830-26
28"	39.875	41.000	28.000	70-6830-28
30"	42.250	43.375	29.875	70-6830-30
32"	44.750	46.000	32.000	70-6830-32
34"	46.875	48.125	34.000	70-6830-34
36"	49.875	51.250	36.000	70-6830-36
42"	57.250	58.750	42.125	70-6830-42
48"	62.750	64.500	47.750	70-3804-48

### Features & Benefits:

Designed to negotiate 1.5D or greater bends.

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe walls.
- Every DCD 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

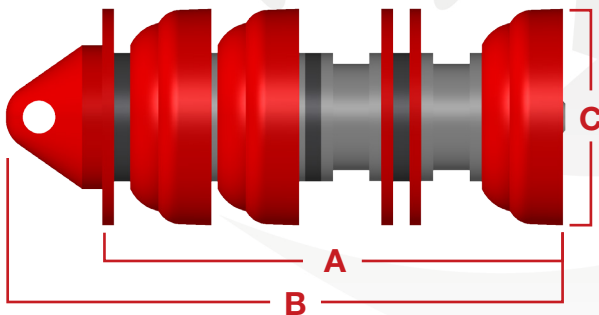
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## XF

3-4" (76-102mm)

The XF is primarily used for batching dissimilar fluid. With its standard three cup – three sealing disc design, the XF pig provides a positive seal between fluids for efficient batching and separating. It is typically used for longer distance operations.



Size	A	B	C	Part #
3"	7.125	8.750	3.375	70-6786-03
4"	8.125	10.625	4.375	70-6786-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

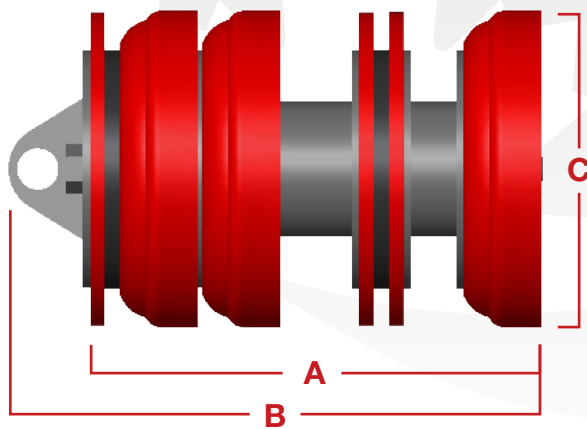
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.
- Radial Brush available. See page (pitPRO) 5-24 for additional information.

## XF

6-14" (152-356mm)

The XF is primarily used for batching dissimilar fluid. With its standard three cup – three sealing disc design, the XF pig provides a positive seal between fluids for efficient batching and separating. It is typically used for longer distance operations.



Size	A	B	C	Part #
6"	10.250	12.500	6.375	70-6786-06
8"	11.500	13.875	8.500	70-6786-08
10"	15.125	18.000	10.625	70-6786-10
12"	18.000	20.875	12.750	70-6786-12
14"	20.625	23.375	13.875	70-6786-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

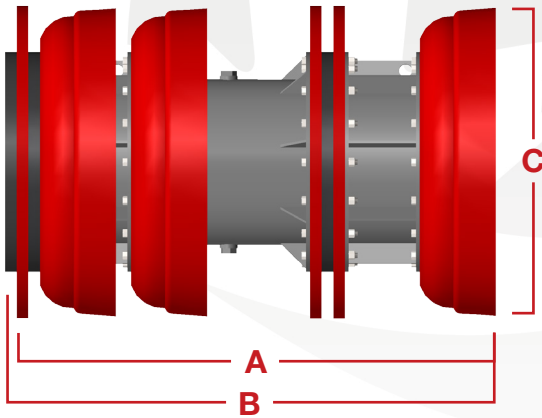
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## XF

16-48" (406-1219mm)

The XF is primarily used for batching dissimilar fluid. With its standard three cup – three sealing disc design, the XF pig provides a positive seal between fluids for efficient batching and separating. It is typically used for longer distance operations.



Size	A	B	C	Part #
16"	24.300	25.300	16.000	70-6786-16
18"	27.528	28.528	17.875	70-6786-18
20"	30.015	31.015	19.875	70-6786-20
22"	31.525	32.525	21.875	70-6786-22
24"	35.454	36.454	23.875	70-6786-24
26"	36.119	37.119	25.875	70-6786-26
28"	44.075	45.200	28.000	70-6786-28
30"	46.406	47.531	29.875	70-6786-30
32"	54.190	55.440	32.000	70-6786-32
34"	54.360	55.610	34.000	70-6786-34
36"	56.514	57.889	36.000	70-6786-36
42"	62.170	63.670	42.190	70-6786-42
48"	71.934	73.684	47.750	70-6786-48

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every XF 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

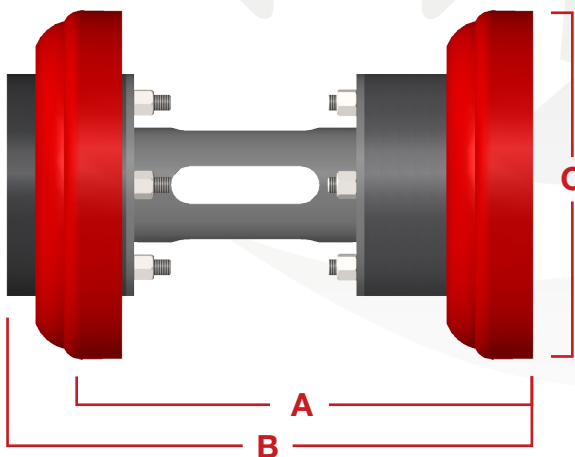


## UT-UC2

### 6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

The UT-UC2 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UT-UC2 is equipped with two Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
6"	9.880	11.440	6.375	70-3812-06
8"	12.260	14.030	8.500	70-3812-08
10"	14.110	16.020	10.625	70-3812-10
12"	17.280	19.570	12.750	70-3812-12
14"	19.920	22.570	13.880	70-3812-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

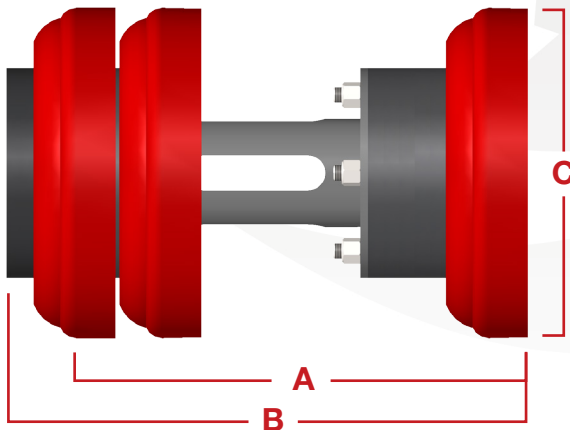
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UT-UC3

6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

The UT-UC3 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UT-UC3 is equipped with three Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
6"	10.410	11.970	6.375	70-3813-06
8"	12.920	14.690	8.500	70-3813-08
10"	14.870	16.790	10.625	70-3813-10
12"	18.150	20.440	12.750	70-3813-12
14"	21.440	21.370	13.880	70-3813-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

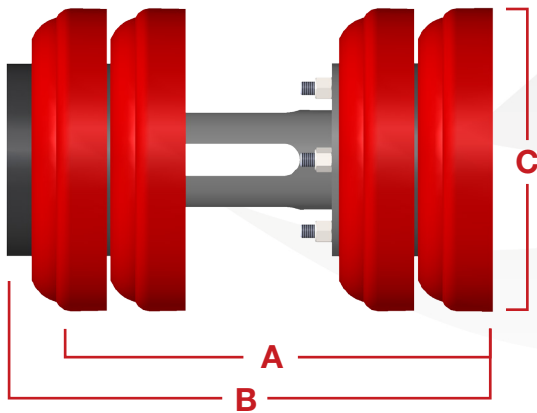
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UT-UC4

6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

The UT-UC4 is typically used in light cleaning during the construction phase. However, it can be used in all phases of pipeline cleaning. The UT-UC4 is equipped with four Series C cups specifically designed to perform efficiently and reliably.



Size	A	B	C	Part #
6"	10.568	12.120	6.375	70-3814-06
8"	13.084	14.851	8.500	70-3814-08
10"	15.132	17.060	10.625	70-3814-10
12"	18.387	20.678	12.750	70-3814-12
14"	22.342	24.990	13.880	70-3814-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

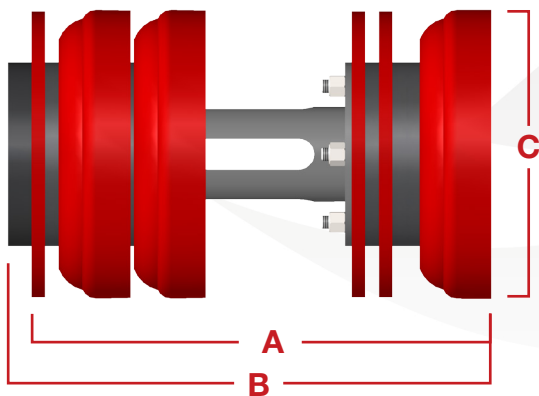
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UT-XF

6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

The UT-XF is primarily used for batching dissimilar fluid. With its standard three cup – three sealing disc design, the UT-XF pig provides a positive seal between fluids for efficient batching and separating. It is typically used for longer distance operations.



Size	A	B	C	Part #
6"	11.970	12.720	6.375	70-6796-06
8"	14.940	15.690	8.500	70-6796-08
10"	16.910	17.790	10.625	70-6796-10
12"	20.810	21.690	12.750	70-6796-12
14"	24.465	25.340	13.875	70-6796-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

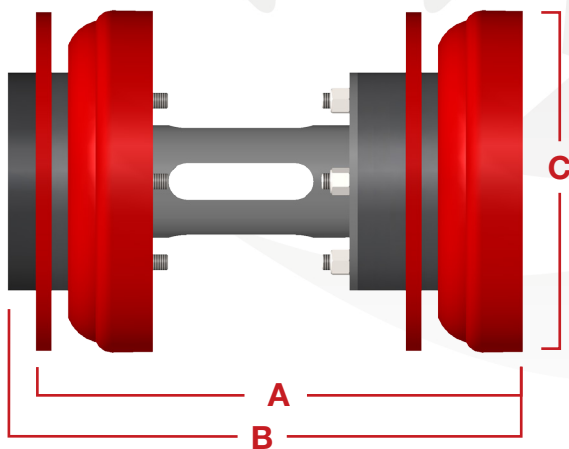
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UT-DCD

### 6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

The UT-DCD is an effective pig for batching and separating. The UT-DCD is equipped with two sealing discs and two Series C cups. These multiple sealing components create a positive seal between dissimilar fluids, while providing a larger sealing surface area.



Size	A	B	C	Part #
6"	10.690	11.440	6.375	70-6840-06
8"	13.280	14.030	8.500	70-6840-08
10"	15.150	16.020	10.625	70-6840-10
12"	18.700	19.570	12.750	70-6840-12
14"	21.690	22.570	13.880	70-6840-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups and discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

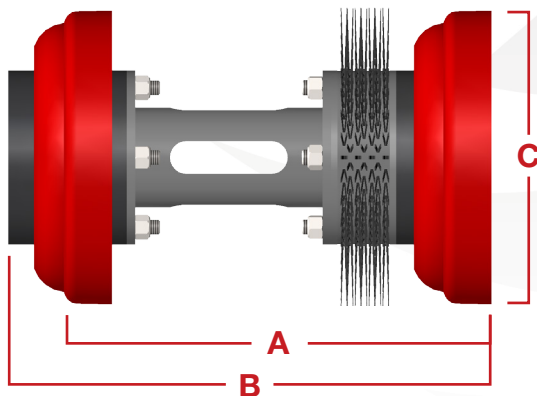
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UTR-SC2R

6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

Apache developed the UTR-SC2R to give smaller gathering lines a moderate cleaning. The UTR-SC2R pig is equipped with a brush and two Series C cups. Brush options vary between sizes of pig. The UTR-SC2R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
6"	9.760	11.310	6.375	60-3078-06
8"	12.140	13.900	8.500	60-3078-08
10"	14.480	16.400	10.625	60-3078-10
12"	18.030	20.320	12.750	60-3078-12
14"	20.670	22.310	13.875	60-3078-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

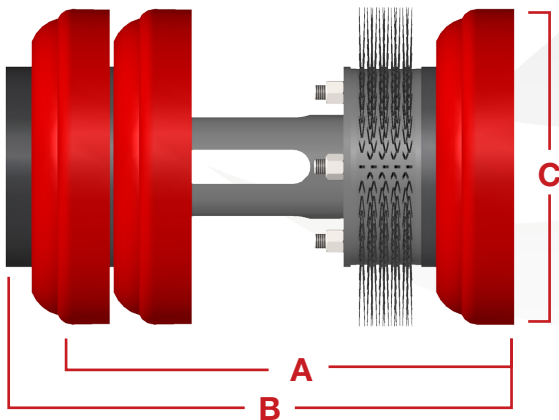
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UTR-SC3R

6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

Apache developed the UTR-SC3R to give smaller gathering lines a moderate cleaning. The UTR-SC3R pigs can be equipped with a brush and three Series C cups. Brush options vary between sizes of pig. The UTR-SC3R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
6"	10.290	11.840	6.375	60-3079-06
8"	12.800	14.560	8.500	60-3079-08
10"	15.240	17.160	10.625	60-3079-10
12"	18.900	21.190	12.750	60-3079-12
14"	22.190	24.840	13.875	60-3079-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

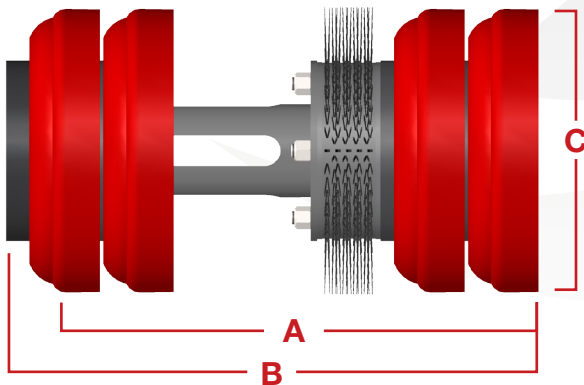


## UTR-SC4R

6-14" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

Apache developed the UTR-SC4R to give smaller gathering lines a moderate cleaning. The UTR-SC4R pigs are equipped with a brush and four Series C cups. Brush options vary between sizes of pig. The UTR-SC4R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
6"	12.375	13.875	6.375	60-3080-06
8"	15.500	17.250	8.500	60-3080-08
10"	18.000	20.000	10.625	60-3080-10
12"	22.250	24.500	12.750	60-3080-12
14"	26.250	28.875	13.875	60-3080-14

*Designed to negotiate 3D or greater bends.*

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

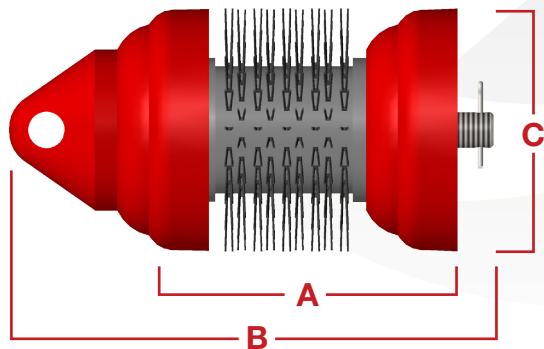
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## SC2R

3-4" (76-102mm)

Apache developed the SC2R to give smaller gathering lines a moderate cleaning. The SC2R pigs are equipped with a brush and two Series C cups. Brush options vary between sizes of pig. The SC2R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
3"	4.00	6.750	3.375	60-3075-03
4"	5.125	8.125	4.375	60-3075-04

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with pitPRO™ steel brush.

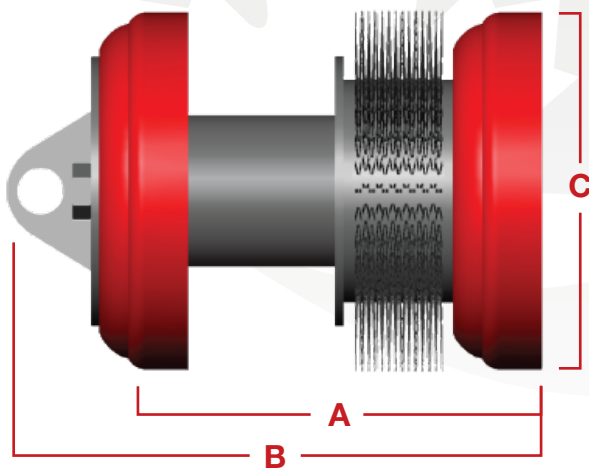
### Options Available:

- Aluminum Mandrel.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.

## SC2R

6-14" (152-356mm)

Apache developed the SC2R to give smaller gathering lines a moderate cleaning. The SC2R pigs are equipped with a brush and two Series C cups. Brush options vary between sizes of pig. The SC2R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
6"	8.380	12.210	6.380	60-3075-06
8"	9.760	14.210	8.500	60-3075-08
10"	11.720	16.710	10.630	60-3075-10
12"	14.860	18.960	12.750	60-3075-12
14"	16.830	21.130	13.880	60-3075-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with radial brush or other circular brushes.

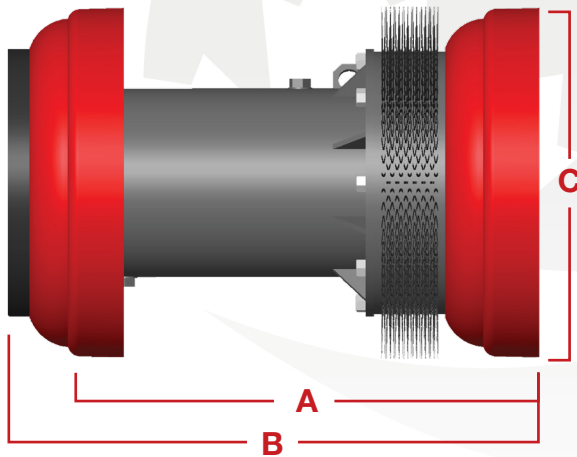
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## SC2R

16-48" (406-1219mm)

Apache developed the SC2R to give smaller gathering lines a moderate cleaning. The SC2R pigs are equipped with a brush and two Series C cups. Brush options vary between sizes of pig. The SC2R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
16"	19.302	22.265	16.000	60-3075-16
18"	23.713	26.895	17.875	60-3075-18
20"	26.161	29.617	19.875	60-3075-20
22"	28.338	31.100	21.875	60-3075-22
24"	30.964	34.678	23.875	60-3075-24
26"	33.124	37.343	25.875	60-3075-26
28"	35.471	39.815	28.000	60-3075-28
30"	37.431	42.079	29.875	60-3075-30
32"	39.620	44.310	32.000	60-3075-32
34"	41.860	46.430	34.000	60-3075-34
36"	43.871	48.987	36.000	60-3075-36
42"	50.636	55.985	42.188	60-3075-42
48"	56.531	62.467	47.750	60-3075-48

### Features & Benefits:

Designed to negotiate 1.5D or greater bends.

- Equipped with Series C cups. Made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with pitPRO™ steel brush.
- Every SC2R 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

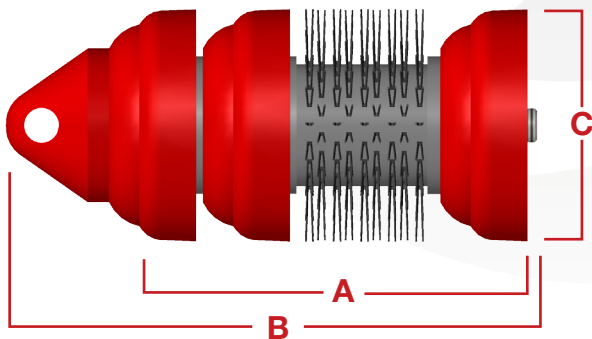
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## SC3R

3-4" (76-102mm)

Apache developed the SC3R to give smaller gathering lines a moderate cleaning. The SC3R pigs are equipped with a brush and three Series C cups. Brush options vary between sizes of pig. The SC3R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
3"	5.375	7.750	3.375	60-3076-03
4"	6.750	9.625	4.375	60-3076-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with pitPRO™ steel brush.

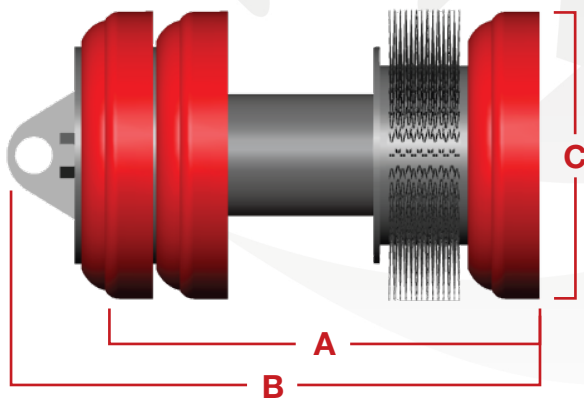
### Options Available:

- Aluminum Mandrel.
- Aluminum Gauge Plates in standard styles. See page 6-4 for additional information.

## SC3R

6-14" (152-356mm)

Apache developed the SC3R to give smaller gathering lines a moderate cleaning. The SC3R pigs are equipped with a brush and three Series C cups. Brush options vary between sizes of pig. The SC3R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
6"	7.913	11.705	6.375	60-3076-06
8"	11.797	15.205	8.500	60-3076-08
10"	12.981	16.955	10.625	60-3076-10
12"	15.729	19.940	12.750	60-3076-12
14"	17.722	20.974	13.875	60-3076-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups. Made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with radial brush or other circular brushes.

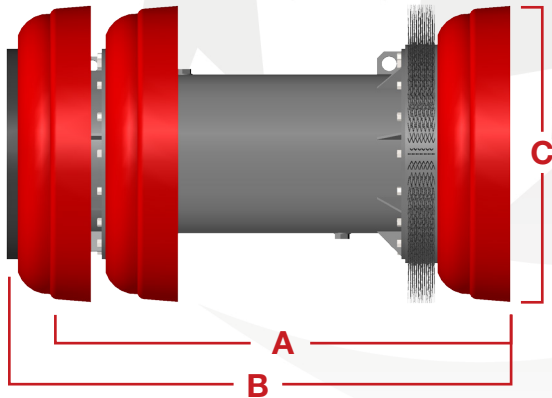
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## SC3R

16-48" (406-1219mm)

Apache developed the SC3R to give smaller gathering lines a moderate cleaning. The SC3R pigs are equipped with a brush and three Series C cups. Brush options vary between sizes of pig. The SC3R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
16"	27.555	30.518	16.000	60-3083-16
18"	29.096	32.278	17.875	60-3083-18
20"	32.184	35.640	19.880	60-3083-20
22"	34.888	38.650	21.875	60-3083-22
24"	37.740	41.454	23.875	60-3083-24
26"	40.400	44.619	25.875	60-3083-26
28"	43.321	47.575	28.000	60-3083-28
30"	46.258	50.906	29.875	60-3083-30
32"	48.500	53.190	32.000	60-3083-32
34"	50.790	55.360	34.000	60-3083-34
36"	52.898	58.014	36.000	60-3083-36
42"	60.320	65.669	42.188	60-3083-42
48"	65.498	71.434	47.750	60-3083-48

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with Radial Brush.
- Every SC3R 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

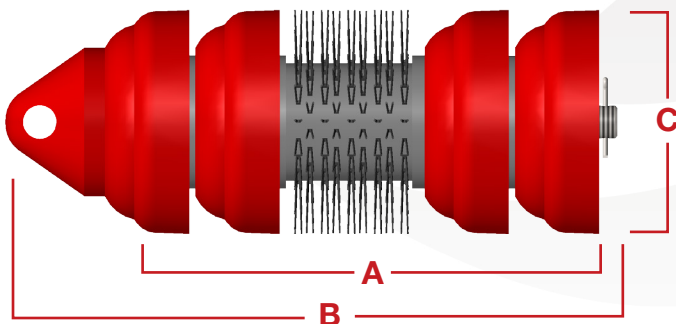
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.



## SC4R

3-4" (76-102mm)

Apache developed the SC4R to give smaller gathering lines a moderate cleaning. The SC4R pigs are equipped with a brush and four Series C cups. Brush options vary between sizes of pig. The SC4R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
3"	6.625	9.250	3.375	60-3077-03
4"	8.250	11.125	4.375	60-3077-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with pitPRO™ steel brush.

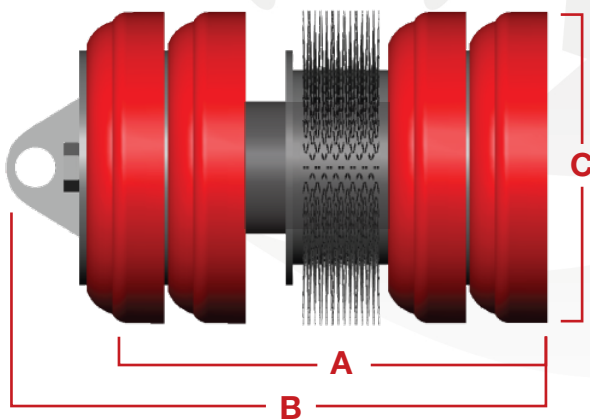
### Options Available:

- Aluminum Mandrel.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.

## SC4R

6-14" (152-356mm)

Apache developed the SC4R to give smaller gathering lines a moderate cleaning. The SC4R pigs are equipped with a brush and four Series C cups. Brush options vary between sizes of pig. The SC4R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
6"	8.750	12.000	6.375	60-3077-06
8"	10.875	14.375	8.500	60-3077-08
10"	13.875	18.000	10.625	60-3077-10
12"	16.875	21.375	12.750	60-3077-12
14"	18.375	23.000	13.875	60-3077-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with radial brush or other circular brushes.

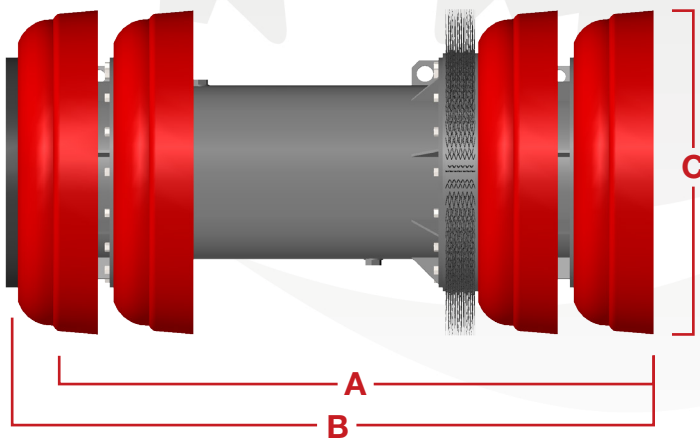
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## SC4R

16-48" (406-1219mm)

Apache developed the SC4R to give smaller gathering lines a moderate cleaning. The SC4R are equipped with a brush and four Series C cups. Brush options vary between sizes of pig. The SC4R was designed to negotiate sharp bends to make it an efficient cleaning tool.



Size	A	B	C	Part #
16"	32.808	35.771	16.000	60-3077-16
18"	34.479	37.661	17.875	60-3077-18
20"	38.207	41.663	19.875	60-3077-20
22"	41.438	45.200	21.875	60-3077-22
24"	44.516	48.230	23.875	60-3077-24
26"	47.676	51.895	25.875	60-3077-26
28"	51.171	55.425	28.000	60-3077-28
30"	55.085	59.733	29.875	60-3077-30
32"	57.380	62.070	32.000	60-3077-32
34"	59.720	64.290	34.000	60-3077-34
36"	61.925	67.041	36.000	60-3077-36
42"	70.004	75.353	42.188	60-3077-42
48"	76.215	82.151	47.750	60-3077-48

### Features & Benefits:

Designed to negotiate 3D or greater bends.

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with circular brushes.
- Every SC4R 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

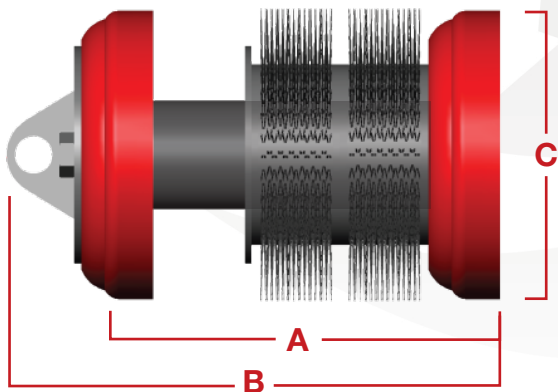
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## DC2R

6-14" (152-356mm)

The DC2R provides efficient cleaning capability. The DC2R features two Series C cups and two circular brushes. These multiple sealing components create a positive seal, while providing a bigger surface area resulting in improved cleaning ability.



Size	A	B	C	Part #
6"	7.750	11.500	6.375	60-3082-06
8"	11.625	15.250	8.500	60-3082-08
10"	14.125	19.500	10.625	60-3082-10
12"	18.125	22.750	12.750	60-3082-12
14"	20.125	24.375	13.875	60-3082-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

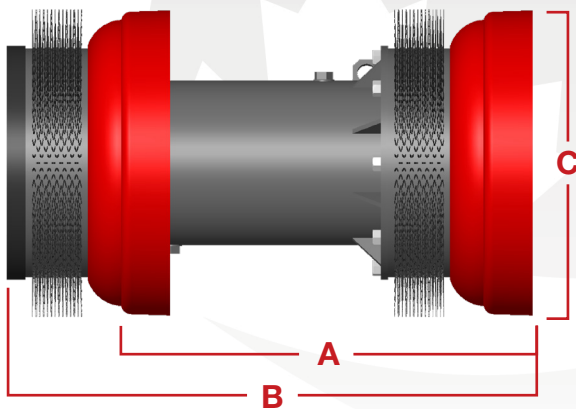
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## DC2R

16-48" (406-1219mm)

The DC2R provides efficient cleaning capability. The DC2R features two Series C cups and two circular brushes. These multiple sealing components create a positive seal, while providing a bigger surface area resulting in improved cleaning ability.



Size	A	B	C	Part #
16"	22.250	28.500	16.000	60-3082-16
18"	23.750	30.125	17.875	60-3082-18
20"	26.125	32.875	19.875	60-3082-20
22"	28.375	35.375	21.875	60-3082-22
24"	31.000	37.875	23.875	60-3082-24
26"	33.125	40.500	25.875	60-3082-26
28"	35.500	43.000	28.000	60-3082-28
30"	37.375	45.375	29.875	60-3082-30
32"	39.625	47.500	32.000	60-3082-32
34"	41.875	49.625	34.000	60-3082-34
36"	43.875	52.250	36.000	60-3082-36
42"	50.625	59.250	42.125	60-3082-42
48"	54.750	64.000	47.750	60-3082-48

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with circular brushes.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

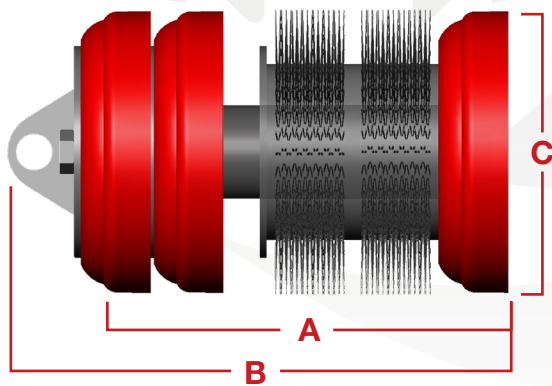
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## DC3R

6-14" (152-356mm)

The DC3R provides efficient cleaning capability. The DC3R features three Series C cups and two circular brushes. These multiple sealing components create a positive seal, while providing a bigger surface area resulting in improved cleaning ability.



Size	A	B	C	Part #
6"	9.750	13.750	6.375	60-3083-06
8"	13.750	18.000	8.500	60-3083-08
10"	16.875	20.625	10.625	60-3083-10
12"	21.500	25.750	12.750	60-3083-12
14"	24.000	28.250	13.875	60-3083-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

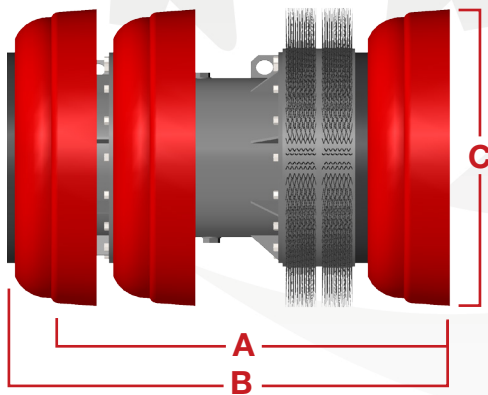
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## DC3R

16-48" (406-1219mm)

The DC3R provides efficient cleaning capability. The DC3R features three Series C cups and two circular brushes. These multiple sealing components create a positive seal, while providing a bigger surface area resulting in improved cleaning ability.



Size	A	B	C	Part #
16"	20.750	23.750	16.000	60-3083-16
18"	21.125	24.250	17.875	60-3083-18
20"	25.000	28.375	19.875	60-3083-20
22"	26.625	30.375	21.875	60-3083-22
24"	29.000	32.750	23.875	60-3083-24
26"	31.000	35.125	25.875	60-3083-26
28"	34.000	38.250	28.000	60-3083-26
30"	35.500	40.125	29.875	60-3083-30
32"	39.000	43.750	32.000	60-3083-32
34"	41.500	46.125	34.000	60-3083-34
36"	42.125	47.250	36.000	60-3083-36
42"	49.625	55.000	42.125	60-3083-42
48"	56.750	62.625	47.750	60-3083-48

### Features & Benefits:

Designed to negotiate 3D or greater bends.

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with circular brushes.
- Every DC3R 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

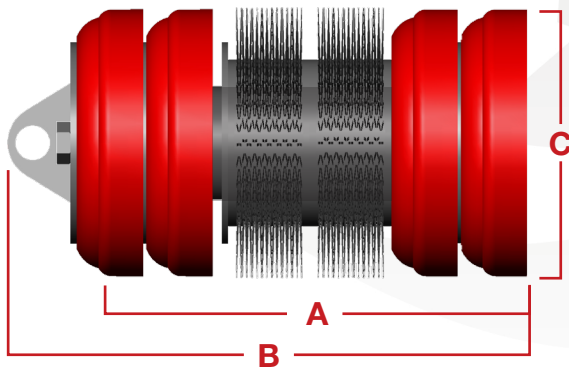
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.



## DC4R

6-14" (152-356mm)

The DC4R provides efficient cleaning capability. The DC4R features four Series C cups and two circular brushes. These multiple sealing components create a positive seal, while providing a bigger surface area resulting in improved cleaning ability.



Size	A	B	C	Part #
6"	9.625	12.875	6.375	60-3084-06
8"	12.250	15.750	8.500	60-3084-08
10"	15.250	19.500	10.625	60-3084-10
12"	18.625	23.125	12.750	60-3084-12
14"	20.125	24.750	13.875	60-3084-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.

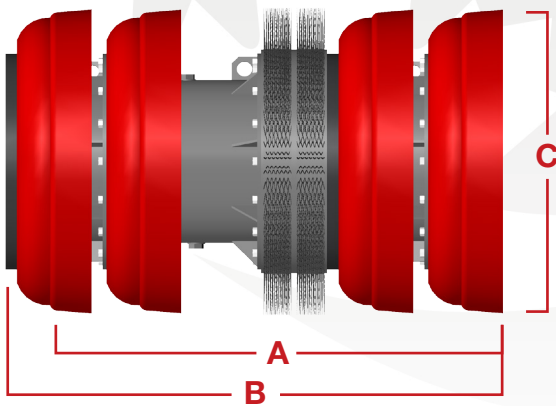
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## DC4R

16-48" (406-1219mm)

The DC4R provides efficient cleaning capability. The DC4R features four Series C cups and two circular brushes. These multiple sealing components create a positive seal, while providing a bigger surface area resulting in improved cleaning ability.



Size	A	B	C	Part #
16"	32.750	35.750	16.000	60-3084-16
18"	33.500	36.625	17.875	60-3084-18
20"	35.375	38.750	19.875	60-3084-20
22"	36.500	40.375	21.875	60-3084-22
24"	38.750	42.500	23.875	60-3084-24
26"	38.125	42.375	25.875	60-3084-26
28"	41.750	46.000	28.000	60-3084-28
30"	44.375	49.000	29.875	60-3084-30
32"	47.875	52.500	32.000	60-3084-32
34"	50.500	55.000	34.000	60-3084-34
36"	51.125	56.250	36.000	60-3084-36
42"	59.250	64.625	42.125	60-3084-42
48"	67.500	73.375	47.750	60-3084-48

### Features & Benefits:

Designed to negotiate 5D or greater bends.

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with circular brushes.
- Every DC4R 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

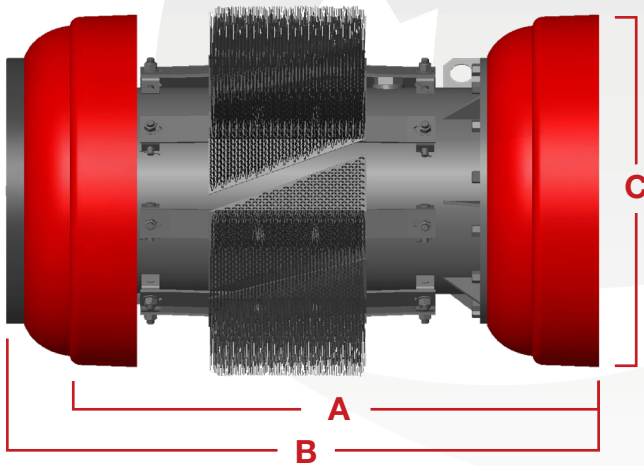
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UC2X

16-48" (406-1219mm)

The UC2X performs aggressively as it is equipped with block brushes to clean and scrape pipelines. The two-cup design of the UC2X provides a basic level of clean while the brushes assist in ensuring the removal of rust, scale and other contaminants adhering to the pipe wall.



Size	A	B	C	Part #
16"	19.052	22.020	16.000	60-3522-16
18"	20.463	23.645	17.875	60-3522-18
20"	24.911	28.370	19.875	60-3522-20
22"	25.088	28.850	21.875	60-3522-22
24"	27.714	31.428	23.875	60-3522-24
26"	29.875	34.093	25.875	60-3522-26
28"	32.222	36.475	28.000	60-3522-28
30"	34.181	38.830	29.880	60-3522-30
32"	36.370	41.060	32.000	60-3522-32
34"	38.610	43.180	34.000	60-3522-34
36"	40.621	45.740	36.000	60-3522-36
42"	47.386	52.740	42.190	60-3522-42
48"	51.531	57.470	47.750	60-3522-48

### Features & Benefits:

Designed to negotiate 3D or greater bends.

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Equipped with circular brushes.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

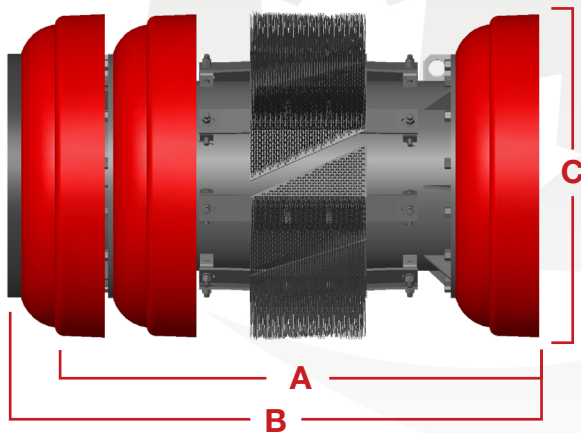
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Urethane Plow Blades. Designed to replace XB Brush. See page 5-21.

## UC3X

16-48" (406-1219mm)

The UC3X performs aggressively as it is equipped with block brushes to clean and scrape pipelines. The three-cup design of the UC3X provides a basic level of clean while the brushes assist in ensuring the removal of rust, scale and other contaminants adhering to the pipe wall.



Size	A	B	C	Part #
16"	24.305	27.268	16.000	60-3523-16
18"	25.846	29.022	17.875	60-3523-18
20"	30.934	34.390	19.875	60-3523-20
22"	31.638	35.400	21.875	60-3523-22
24"	34.490	38.204	23.875	60-3523-24
26"	37.151	41.369	25.875	60-3523-26
28"	40.008	44.656	29.875	60-3523-28
30"	43.008	47.656	29.875	60-3523-30
32"	45.250	49.940	32.000	60-3523-32
34"	47.540	52.110	34.000	60-3523-34
36"	49.648	54.764	36.000	60-3523-36
42"	57.070	62.419	42.188	60-3523-42
48"	62.248	68.180	47.750	60-3523-48

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

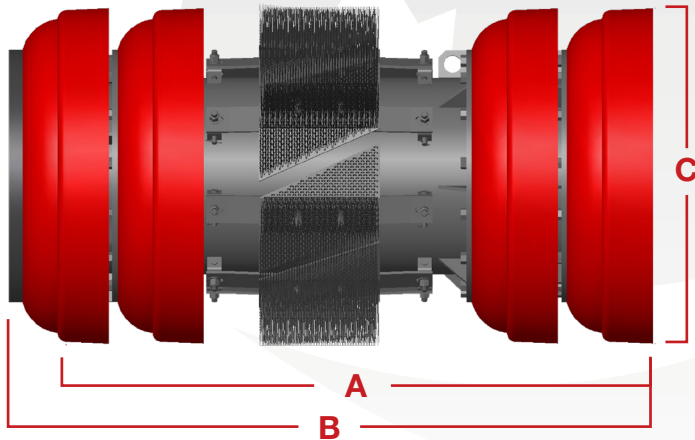
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Urethane Plow Blades. Designed to replace XB Brush. See page 5-21.

## UC4X

16-48" (406-1219mm)

The UC4X performs aggressively as it is equipped with block brushes to clean and scrape pipelines. The four-cup design of the UC4X provides an aggressive level of clean while the brushes assist in ensuring the removal of rust, scale and other contaminants adhering to the pipe wall.



Size	A	B	C	Part #
16"	29.560	32.520	16.000	60-3524-16
18"	31.230	34.410	17.875	60-3524-18
20"	36.960	40.041	19.875	60-3524-20
22"	37.190	40.950	21.880	60-3524-22
24"	41.270	44.980	23.880	60-3524-24
26"	44.430	48.650	25.875	60-3524-26
28"	47.920	52.180	28.000	60-3524-28
30"	51.840	56.480	29.875	60-3524-30
32"	54.130	58.820	32.000	60-3524-32
34"	56.470	61.040	34.000	60-3524-34
36"	58.670	63.790	36.000	60-3524-36
42"	66.750	72.100	42.188	60-3524-42
48"	72.970	78.900	47.750	60-3524-48

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every UC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

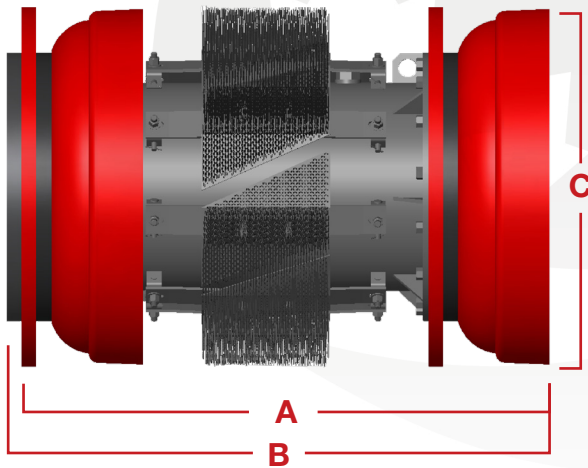
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Urethane Plow Blades. Designed to replace XB Brush. See page 5-21.



## DCDX

16-48" (406-1219mm)

The DCDX features two sealing discs, two Series C cups and block brushes. Multiple Sealing components provide a larger surface area and greater sealing capability. The DCDX aggressively cleans pipelines and is typically used in longer distance operations.



Size	A	B	C	Part #
16"	24.000	25.000	16.000	60-3700-16
18"	25.625	26.625	17.875	60-3700-18
20"	30.875	31.875	19.875	60-3700-20
22"	31.375	32.375	21.875	60-3700-22
24"	34.375	35.375	23.875	60-3700-24
26"	37.125	38.125	25.875	60-3700-26
28"	39.875	41.000	28.000	60-3700-28
30"	42.250	43.375	29.875	60-3700-30
32"	44.750	46.000	32.000	60-3700-32
34"	46.875	48.125	34.000	60-3700-34
36"	49.875	51.250	36.000	60-3700-36
42"	57.250	58.750	42.125	60-3700-42
48"	62.750	64.500	47.750	60-3700-48

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with Series C cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Large wearing surface of the cup promotes longer life while the edge holds firmly against the pipe wall.
- Every DCDX 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

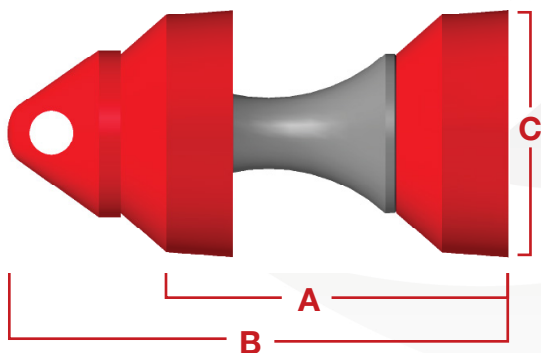
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Urethane Plow Blades. Designed to replace XB Brush. See page 5-21.

## UM2

3-4" (76-102mm)

The two-cup design of the UM2 provides a positive seal between fluids for efficient batching. The UM2 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
3"	4.625	6.750	3.375	70-5802-03
4"	5.875	8.625	4.250	70-5802-04

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

### Options Available:

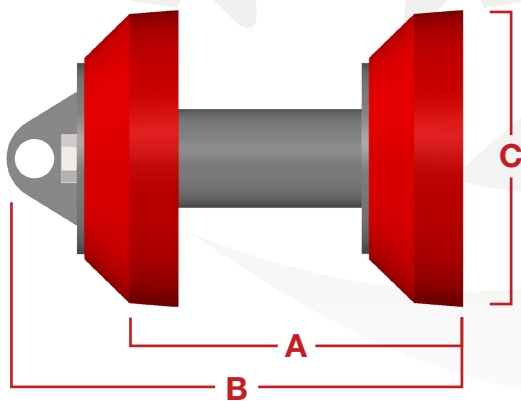
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.



## UM2

6-14" (152-356mm)

The two-cup design of the UM2 provides a positive seal between fluids for efficient batching. The UM2 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
6"	7.220	10.590	6.500	70-5802-06
8"	9.490	13.100	8.380	70-5802-08
10"	11.810	16.170	10.500	70-5802-10
12"	13.070	17.670	12.500	70-5802-12
14"	15.470	20.180	14.000	70-5802-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

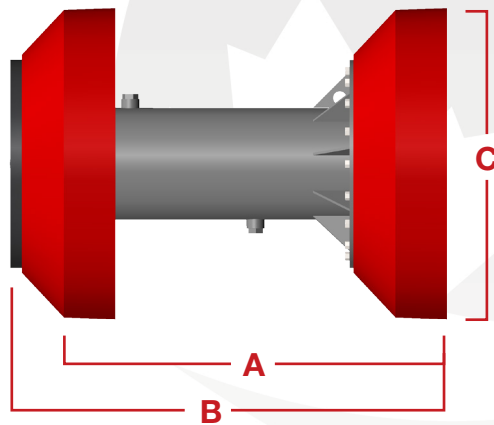
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UM2

16-48" 406-1219mm)

The two-cup design of the UM2 provides a positive seal between fluids for efficient batching. The UM2 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
16"	21.011	24.056	15.875	70-5802-16
20"	25.710	29.320	20.000	70-5802-20
22"	29.180	33.077	22.000	70-5802-22
24"	29.509	33.889	24.000	70-5802-24
30"	36.695	41.854	29.875	70-5802-30
36"	45.782	52.296	36.000	70-5802-36
42"	54.159	61.396	42.000	70-5802-42
48"	60.328	68.668	48.000	70-5802-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every UM 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

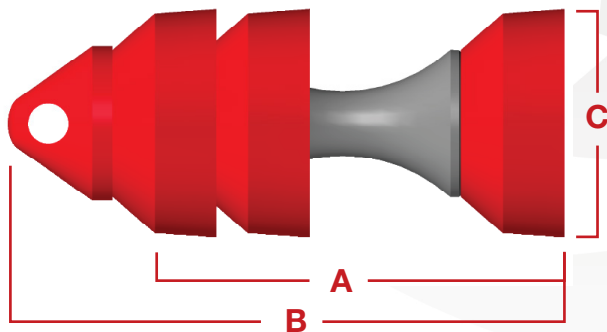
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UM3

3-4" (76-102mm)

The three-cup design of the UM3 provides a positive seal between fluids for efficient batching. The UM3 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
3"	6.375	8.500	3.375	70-5803-03
4"	7.625	10.375	4.250	70-5803-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with three Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

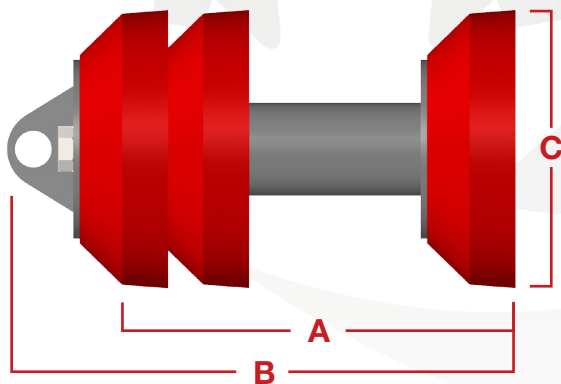
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.

## UM3

6-14" (152-356mm)

The three-cup design of the UM3 provides a positive seal between fluids for efficient batching. The UM3 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
6"	9.230	12.710	6.500	70-5803-06
8"	11.990	15.610	8.380	70-5803-08
10"	14.880	19.240	10.500	70-5803-10
12"	16.640	21.240	12.500	70-5803-12
14"	19.540	24.250	14.000	70-5803-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with three Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

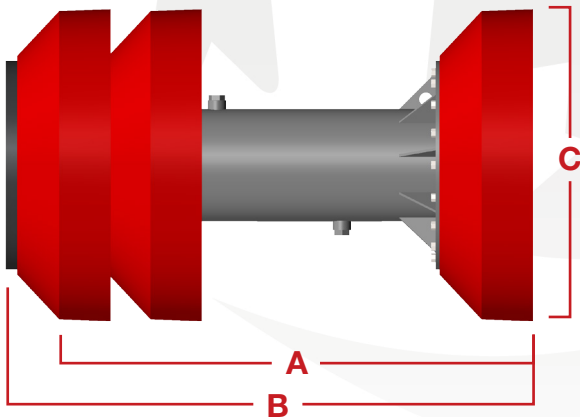
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UM3

16-48" (406-1219mm)

The three-cup design of the UM3 pig provides a positive seal between fluids for efficient batching. The UM3 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
16"	25.020	28.070	15.875	70-5803-16
20"	31.716	35.330	20.000	70-5803-20
22"	35.818	39.715	22.000	70-5803-22
24"	36.468	40.848	24.000	70-5803-24
30"	45.460	50.619	29.875	70-5803-30
36"	56.182	62.696	36.000	70-5803-36
42"	66.305	73.542	42.000	70-5803-42
48"	74.601	82.941	48.000	70-5803-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with three Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every UM 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

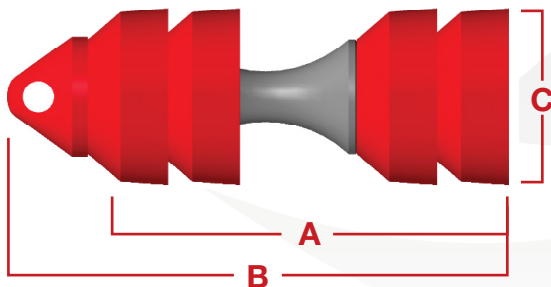
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UM4

3-4" (76-102mm)

The four-cup design of the UM4 provides a positive seal between fluids for efficient batching. The UM4 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
3"	8.000	10.125	3.375	70-5804-03
4"	9.375	12.000	4.250	70-5804-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Equipped with four Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

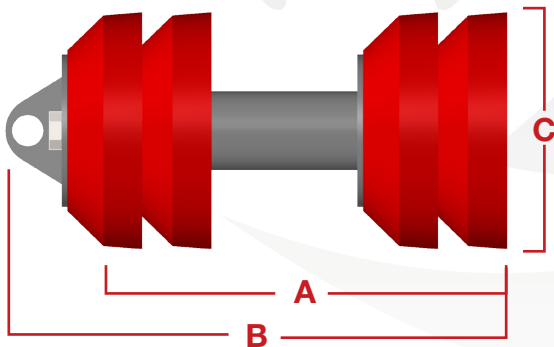
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.

## UM4

6-14" (152-356mm)

The four-cup design of the UM4 provides a positive seal between fluids for efficient batching. The UM4 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
6"	11.240	14.710	6.500	70-5804-06
8"	14.500	18.110	8.380	70-5804-08
10"	17.950	22.310	10.500	70-5804-10
12"	20.210	24.810	12.500	70-5804-12
14"	23.610	28.320	14.000	70-5804-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with four Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

### Options Available:

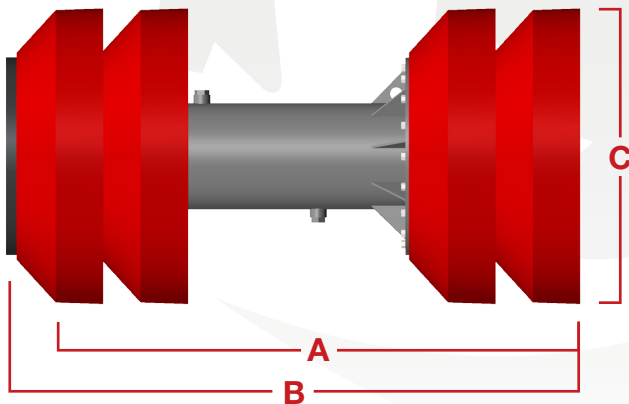
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.



## UM4

16-48" (406-1219mm)

The four-cup design of the UM4 provides a positive seal between fluids for efficient batching. The UM4 is also capable of providing a light clean to the interior pipe wall.



Size	A	B	C	Part #
16"	29.033	32.078	15.875	70-5804-16
20"	37.727	41.341	20.000	70-5804-20
22"	42.456	46.353	22.000	70-5804-22
24"	43.427	47.807	24.000	70-5804-24
30"	54.225	59.384	29.875	70-5804-30
36"	66.582	73.096	36.000	70-5804-36
42"	78.451	85.688	42.000	70-5804-42
48"	88.875	97.214	48.000	70-5804-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with four Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every UM 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

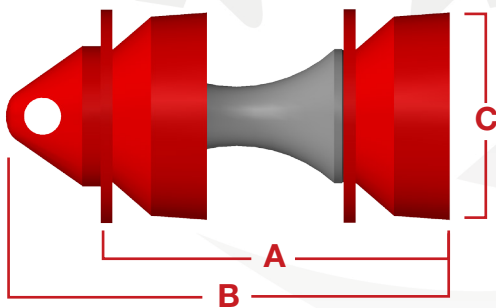
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## DMD

3-4" (76-102mm)

Every DMD is equipped with two sealing discs and two Series M cups. These components allow for a seal between dissimilar fluids while providing a bigger surface area. As a result, its sealing capacity, scraping capability are greatly improved.



Size	A	B	C	Part #
3"	5.625	7.125	3.375	70-6850-03
4"	7.125	9.125	4.250	70-6850-04

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups and two sealer discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

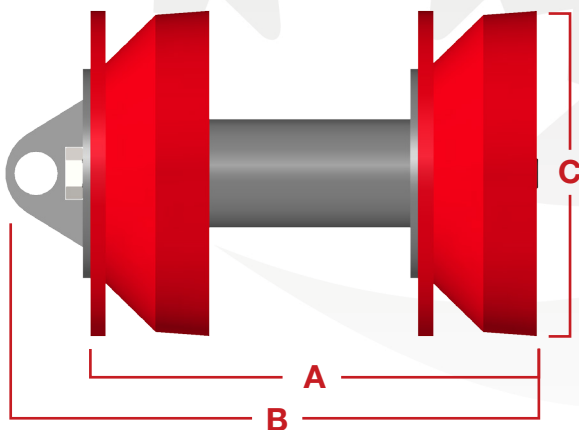
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.

## DMD

6-14" (152-356mm)

Every DMD is equipped with two sealing discs and two Series M cups. These components allow for a seal between dissimilar fluids while providing a bigger surface area. As a result, its sealing capacity, scraping capability are greatly improved.



Size	A	B	C	Part #
6"	9.125	12.750	6.500	70-6850-06
8"	11.875	15.000	8.375	70-6850-08
10"	14.375	17.250	10.500	70-6850-10
12"	16.125	18.875	12.500	70-6850-12
14"	18.625	21.375	14.000	70-6850-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups and two sealer discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.

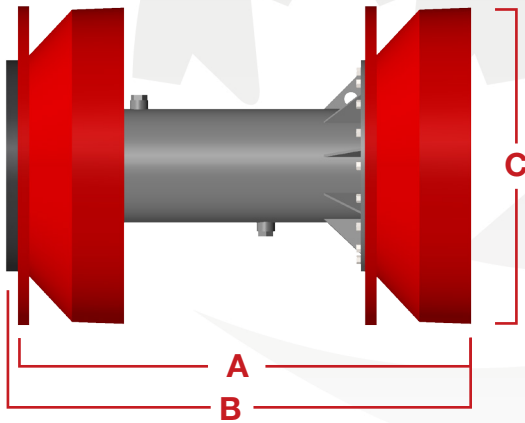
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## DMD

16-48" (406-1219mm)

Every DMD is equipped with two sealing discs and two Series M cups. These components allow for a seal between dissimilar fluids while providing a bigger surface area. As a result, its sealing capacity, scraping capability are greatly improved.



Size	A	B	C	Part #
16"	24.500	25.500	15.875	70-6850-16
20"	30.000	31.000	20.000	70-6850-20
22"	33.875	34.875	22.000	60-6850-22
24"	34.875	35.875	24.000	70-6850-24
30"	43.000	44.125	29.875	70-6850-30
36"	53.625	55.000	34.000	70-6850-36
42"	62.875	64.375	42.000	70-6850-42
48"	70.375	72.125	48.000	70-6850-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups and two sealer discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every DMD 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

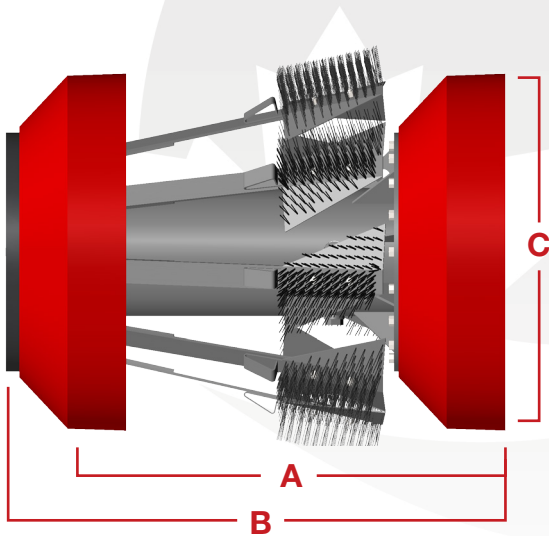
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UM2X

16-48" (406-1219mm)

The two-cup design of the UM2X pig provides a positive seal between fluids for efficient batching. In comparison to the UM2, the UM2X includes block brushes to upgrade it to a moderate cleaning pig.



Size	A	B	C	Part #
16"	21.011	24.056	15.875	60-5142-16
20"	26.108	29.437	18.000	60-5142-20
22"	30.055	33.952	22.000	60-5142-22
24"	29.509	33.889	24.000	60-5142-24
30"	36.695	41.854	29.875	60-5142-30
36"	45.782	52.296	36.000	60-5142-36
42"	54.159	61.396	42.000	60-5142-42
48"	60.328	68.668	48.000	60-5142-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every UM 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

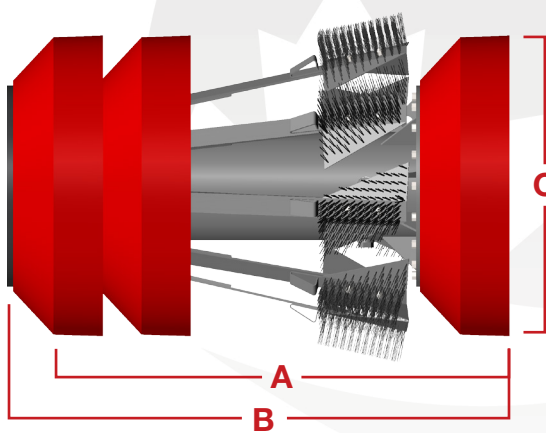
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UM3X

16-48" (406-1219mm)

The three-cup design of the UM3X provides a positive seal between fluids for efficient batching. In comparison to the UM3, the UM3X includes block brushes to upgrade it to a moderate cleaning pig.



Size	A	B	C	Part #
16"	25.020	28.070	15.875	60-5143-16
20"	31.716	35.330	20.000	60-5143-20
22"	35.818	39.715	22.000	60-5143-22
24"	36.468	40.848	24.000	60-5143-24
30"	45.460	50.619	29.875	60-5143-30
36"	56.182	62.686	36.000	60-5143-36
42"	66.305	73.542	42.000	60-5143-42
48"	74.601	82.941	48.000	60-5143-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with three Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every UM 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

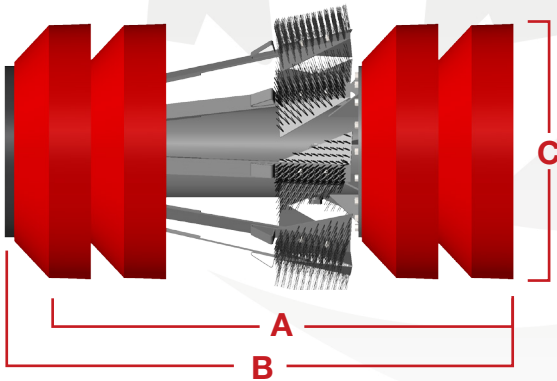
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UM4X

16-48" (406-1219mm)

The four-cup design of the UM4X provides a positive seal between fluids for efficient batching. In comparison to the UM4, the UM4X includes block brushes to upgrade it to a moderate cleaning pig.



Size	A	B	C	Part #
16"	29.033	32.078	15.875	60-5144-16
20"	34.380	37.709	18.000	60-5144-20
22"	46.353	42.456	22.000	60-5144-22
24"	43.427	47.807	24.000	60-5144-24
30"	54.225	59.384	29.875	60-5144-30
36"	66.582	73.096	36.000	60-5144-36
42"	78.451	85.688	42.000	60-5144-42
48"	88.874	97.214	48.000	60-5144-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with four Apache Series M cups made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every UM 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

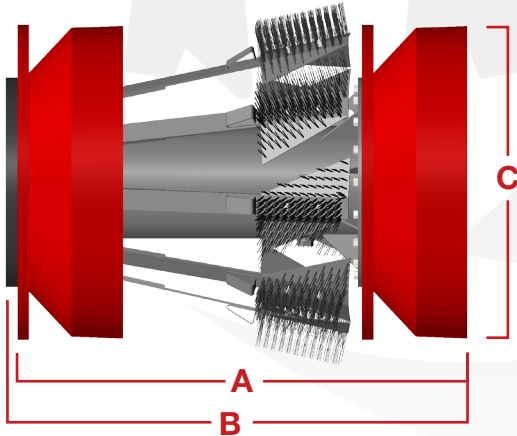
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.



## DMDX

16-48" (406-1219mm)

Every DMDX is equipped with two sealing discs, two Series M cups and block brushes. These components allow for a seal between dissimilar fluids while providing a bigger surface area. As a result, its sealing capacity, scraping capability are greatly improved. The DMDX differs itself from the DMD as the added brushes enhance cleaning ability.



Size	A	B	C	Part #
16"	24.556	25.556	15.875	60-6900-16
20"	30.069	31.069	20.000	60-6900-20
22"	33.827	34.827	22.000	60-6900-22
24"	34.889	35.889	24.000	60-6900-24
30"	42.979	44.104	29.875	60-6900-30
36"	53.671	55.046	36.000	60-6900-36
42"	62.896	64.396	42.000	60-6900-42
48"	70.418	72.169	48.000	60-6900-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with two Apache Series M cups and two sealer discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- The Conical M cup can traverse pipeline anomalies of up to 20% without damaging inline auxiliary equipment.
- Every DMDX 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

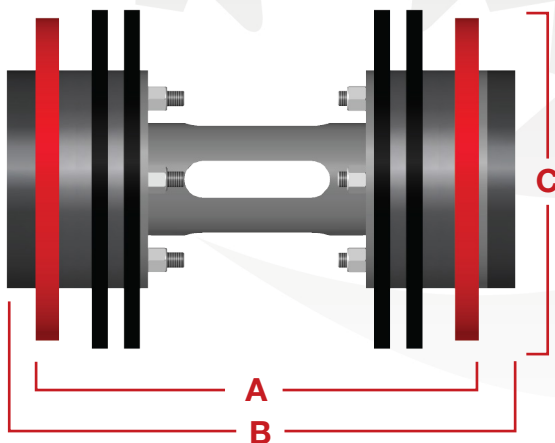
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## UT-ED

6-12" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

When it comes to displacing air and water during hydrostatic testing carried out during construction, the UT-ED gets the job done, quickly and efficiently. With its bi-directional design, it can travel in either direction.



Size	A	B	C	Part #
6"	7.250	11.750	6.375	70-7066-06
8"	8.880	14.130	8.375	70-7066-08
10"	10.240	15.740	10.500	70-7066-10
12"	12.750	19.000	12.500	70-7066-12
14"	15.120	21.370	13.880	70-7066-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

### Options Available:

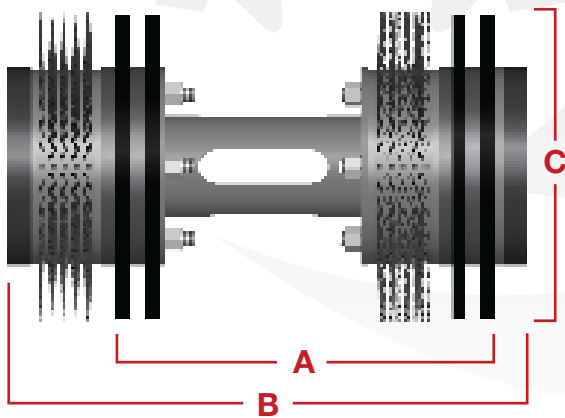
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## UTR-EDR

### 6-12" (152-356mm)

The UT mandrel was designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.

The UT-EDR is equipped with sturdy circular flange brushes that forcefully scrub away residue and debris. The UT-EDR provides a moderate cleaning before pipeline testing leaving it ready for assessment. The UT-EDR is also functions as a bidirectional pig.



Size	A	B	C	Part #
6"	9.000	12.000	6.375	60-7160-06
8"	11.250	15.375	8.375	60-7160-08
10"	13.125	18.000	10.500	60-7160-10
12"	16.625	22.500	12.500	60-7160-12
14"	18.990	15.865	13.875	60-7160-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Equipped with discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

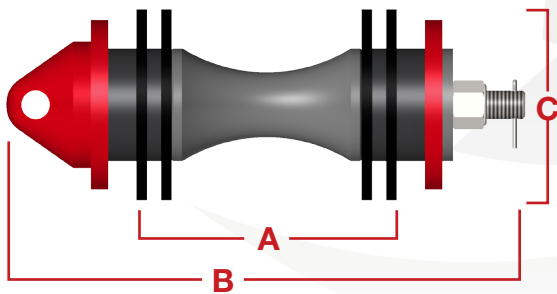
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## ED

2-4" (50-356mm)

When it comes to displacing air and water during hydrostatic testing carried out during construction, the ED gets the job done, quickly and efficiently. With its bi-directional design, it can travel in either direction.



Size	A	B	C	Part #
2"	3.375	6.875	2.188	70-7056-02
3"	4.625	9.250	3.375	70-7056-03
4"	5.875	11.125	4.375	70-7056-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Provides an effective seal when separating dissimilar fluids or dewatering during hydrostatic testing
- Equipped with two guide discs and four sealing discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- With repeated use, sealing discs can experience wear and tear. The ED pig will reverse direction, without compromising its sealing capabilities.

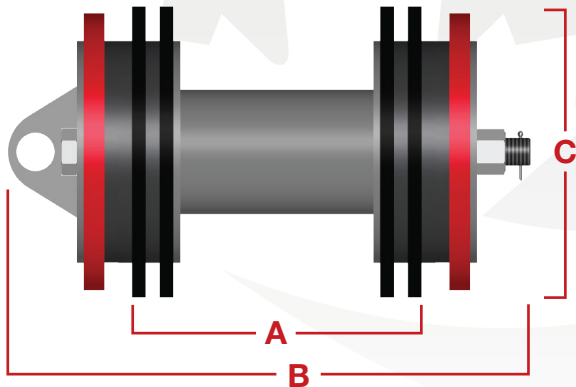
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.

## ED

6-14" (76-356mm)

When it comes to displacing air and water during hydrostatic testing carried out during construction, the ED gets the job done, quickly and efficiently. With its bi-directional design, it can travel in either direction.



Size	A	B	C	Part #
6"	6.000	13.250	6.375	70-7056-06
8"	7.500	15.250	8.375	70-7056-08
10"	10.500	19.00	10.500	70-7056-10
12"	12.250	21.250	12.500	70-7056-12
14"	14.500	23.500	13.875	70-7056-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Provides an effective seal when separating dissimilar fluids or dewatering during hydrostatic testing
- Equipped with two guide discs and four sealing discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- With repeated use, sealing discs can experience wear and tear. The ED pig will reverse direction, without compromising its sealing capabilities.

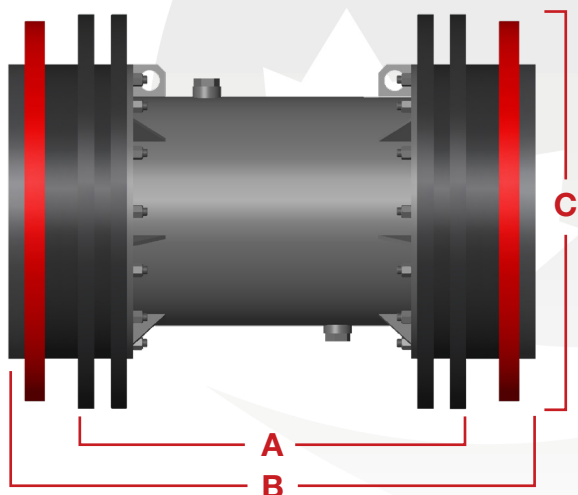
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## ED

16-48" (406-1219mm)

When it comes to displacing air and water, the ED pig gets the job done, quickly and efficiently. With its bi-directional design, it can travel in either direction.



Size	A	B	C	Part #
16"	15.000	22.250	15.875	70-7056-16
18"	17.000	24.250	17.875	70-7056-18
20"	19.250	27.250	20.000	70-7056-20
22"	21.500	29.500	22.000	70-7056-22
24"	23.750	32.250	24.125	70-7056-24
26"	25.750	34.250	26.125	70-7056-26
28"	27.750	37.500	28.250	70-7056-28
30"	29.750	39.500	30.250	70-7056-30
32"	32.000	42.750	32.375	70-7056-32
34"	33.500	44.250	34.375	70-7056-34
36"	35.250	47.000	36.500	70-7056-36
42"	41.250	54.250	42.125	70-7056-42
48"	46.500	61.750	48.875	70-7056-48

### Features & Benefits:

Designed to negotiate 1.5D or greater bends.

- Provides an effective seal when separating dissimilar fluids or dewatering.
- Equipped with two guide discs and four sealing discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- With repeated use, sealing discs can experience wear and tear. The ED pig will reverse direction, without compromising its sealing capabilities.
- Every ED 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

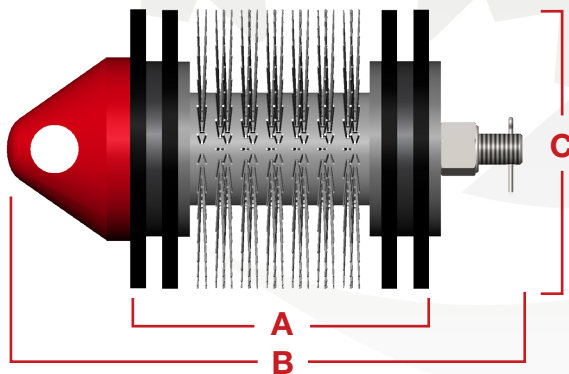
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## EDR

3-4" (76-102mm)

The EDR is equipped with sturdy circular flange brushes that forcefully scrub away residue and debris. The EDR provides a moderate cleaning before pipeline testing leaving it ready for assessment. The EDR is also functions as a bidirectional pig.



Size	A	B	C	Part #
3"	3.530	6.220	3.375	60-7150-03
4"	4.690	8.100	4.375	60-7150-04

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Provides an effective seal when separating dissimilar fluids or dewatering during hydrostatic testing
- Equipped with four sealing discs made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- With repeated use, sealing discs can experience wear and tear. The EDR pig will reverse direction, without compromising its sealing capabilities.

### Options Available:

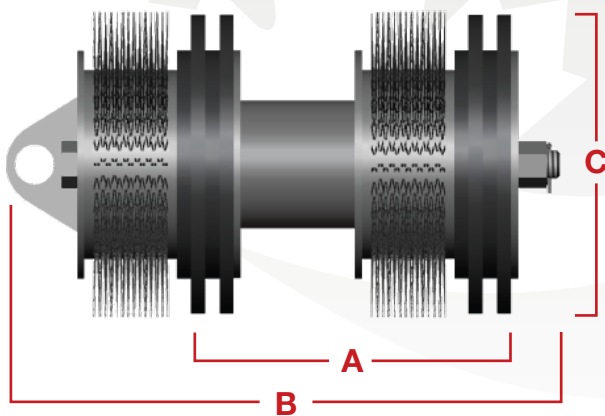
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.



## EDR

6-14" (152-356mm)

The EDR is equipped with sturdy circular flange brushes that forcefully scrub away residue and debris. The EDR provides a moderate cleaning before pipeline testing leaving it ready for assessment. The EDR is also functions as a bidirectional pig.



Size	A	B	C	Part #
6"	7.750	14.205	6.375	60-7150-06
8"	9.875	17.205	8.375	60-7150-08
10"	13.370	21.210	10.500	60-7150-10
12"	14.120	22.710	12.500	60-7150-12
14"	18.375	27.455	13.875	60-7150-14

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Bidirectional without compromising sealing capabilities.
- Equipped with four sealing discs, made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Equipped with radial flange brushes for additional cleaning power.

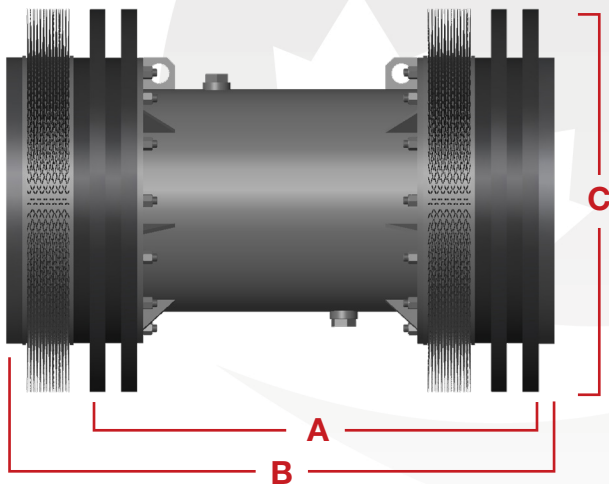
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## EDR

16-48" (406-1219mm)

The EDR is equipped with sturdy circular flange brushes that forcefully scrub away residue and debris. The EDR provides a moderate cleaning before pipeline testing leaving it ready for assessment. The EDR is also functions as a bidirectional pig.



Size	A	B	C	Part #
16"	19.000	25.000	15.875	60-7150-16
18"	21.000	27.000	17.875	60-7150-18
20"	23.375	29.500	20.000	60-7150-20
22"	25.625	31.750	22.000	60-7150-22
24"	28.000	34.250	24.125	60-7150-24
26"	30.000	36.250	26.125	60-7150-26
28"	32.125	38.750	28.250	60-7150-28
30"	34.125	40.750	30.250	60-7150-30
32"	36.500	43.500	32.375	60-7150-32
34"	38.000	45.000	34.375	60-7150-34
36"	39.875	47.250	36.500	60-7150-36
42"	46.000	53.750	42.125	60-7150-42
48"	51.500	60.000	48.875	60-7150-48

### Features & Benefits:

Designed to negotiate 1.5D or greater bends.

- Bidirectional without compromising sealing capabilities.
- Equipped with four sealing discs, made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Equipped with radial flange brushes for additional cleaning power.
- Every EDR 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

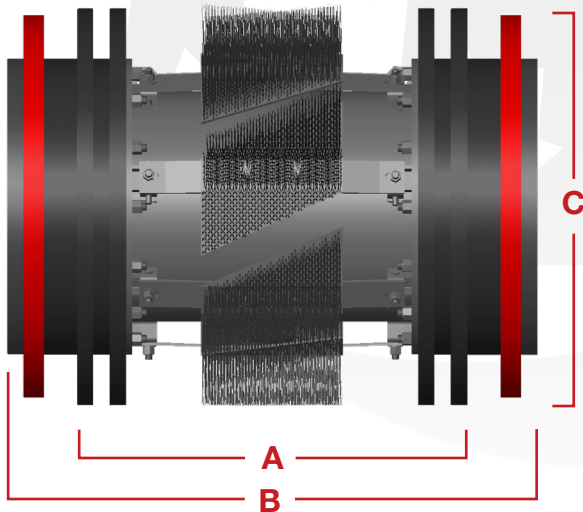
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

## EDX

16-48" (406-1219mm)

The EDX provides one of the most aggressive cleans while offering bidirectional capabilities. Forcefully scrub away residue and debris from the pipe wall and have your lines ready for assessment. The four sealing, two guide discs form a quadruple seal that virtually eliminates any product bypass.



Size	A	B	C	Part #
16"	18.000	25.250	15.875	60-7228-16
18"	18.000	25.250	17.875	60-7228-18
20"	23.000	31.000	20.000	60-7228-20
22"	26.250	34.250	22.000	60-7228-22
24"	27.750	36.250	24.125	60-7228-24
26"	27.750	36.250	26.125	60-7228-26
28"	27.750	37.500	28.125	60-7228-28
30"	29.750	39.500	30.250	60-7228-30
32"	32.000	42.750	32.375	60-7228-32
34"	33.500	44.250	34.375	60-7228-34
36"	35.250	47.000	36.500	60-7228-36
42"	41.250	54.250	42.125	60-7228-42
48"	46.500	61.750	48.875	60-7228-48

### Features & Benefits:

*Designed to negotiate 3D and greater bends.*

- Equipped four sealing and two guide discs. Made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Every EDX 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

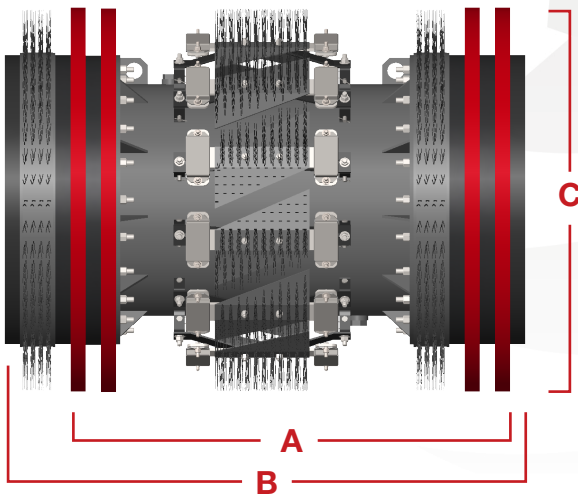
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information
- Urethane Plow Blades – See page 6-21 for additional information.

## EDXR

16-48" (406-1219mm)

The EDXR is one of the most aggressive bi-directional cleaning pig Apache has to offer. Available in single body or dual body configuration, the EDXR consists of four sealer discs, two RB brushes, XB brush, and two rows of magnets. The sturdy brushes forcefully scrub away residue and debris to aggressively clean the line before testing.



Size	A	B	C	Part #
16"	22.000	28.000	15.875	60-7350-16
18"	22.000	28.000	17.875	60-7350-18
20"	27.125	33.250	20.000	60-7350-20
22"	30.375	36.500	22.000	60-7350-22
24"	32.000	38.250	24.125	60-7350-24
30"	34.125	40.750	30.250	60-7350-30
36"	39.875	47.250	36.500	60-7350-36
42"	46.000	53.750	42.125	60-7350-42
48"	51.500	60.000	48.875	60-7350-48

Designed to negotiate 3D or greater bends.

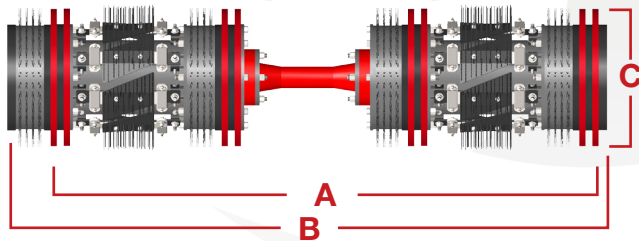
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

# EDXR Dual Body

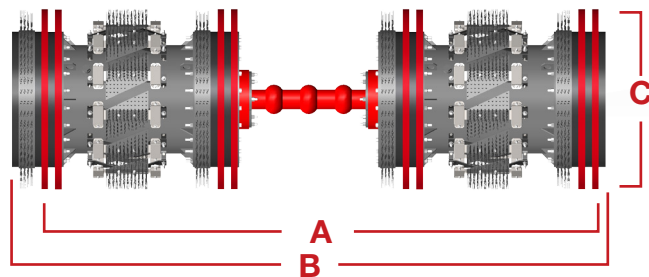
16-48" (406-1219mm)

The EDXR is one of the most aggressive cleaning pig Apache has to offer. Available in single body or dual body configuration, the EDXR consists of four sealer discs, two RB brushes, XB brush, and two rows of magnets. The sturdy brushes forcefully scrub away residue and debris to aggressively clean the line before testing.



## EDXR DUAL BODY SMALL

Size	A	B	C	Part #
16"	63.250	69.250	15.875	60-7390-16
18"	63.250	69.250	17.875	60-7390-18
20"	73.625	79.750	20.000	60-7390-20
22"	80.125	86.250	22.000	60-7390-22
24"	83.500	89.750	24.125	60-7390-24



## EDXR DUAL BODY LARGE

Size	A	B	C	Part #
30"	101.500	108.125	30.250	60-7390-30
36"	113.250	120.625	36.500	60-7390-36
42"	125.625	133.375	42.125	60-7390-42
48"	136.875	145.875	48.875	60-7390-48

Designed to negotiate 3D or greater bends.

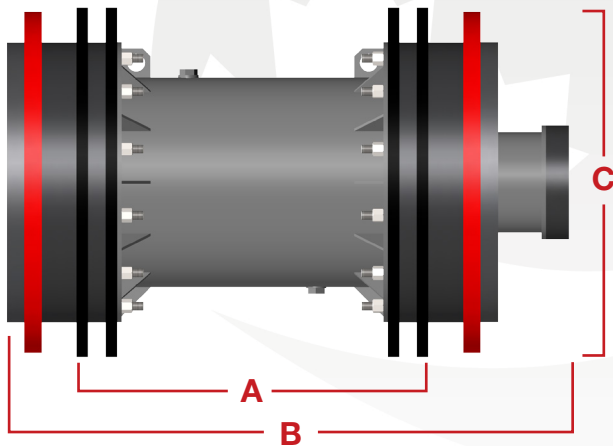
### Options Available:

- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information.

# MDK

16-48" (406-1219mm)

The rugged MDK pig features an inner and outer mandrel. The inner mandrel withstands the battering inflicted during the construction process, leaving the exterior disc carrying mandrel untouched. Equipped with two guide discs and four sealing discs, the MDK has quadruple the sealing capability. The MDK is a pig preferred by mainline contractors.



Size	A	B	C	Part #
16"	15.000	28.250	16.000	70-7776-16
20"	19.000	34.750	20.000	70-7776-20
24"	23.000	38.500	24.000	70-7776-24
30"	30.250	48.375	30.000	70-7776-30
36"	35.000	52.500	36.000	70-7776-36
42"	41.500	65.625	41.125	70-7776-42
48"	49.500	76.625	49.000	70-7776-48

*Designed to negotiate 1.5D or greater bends*

\*Please note - all MDK pigs/components are on a metric bolt pattern.

## Features & Benefits:

- Equipped four sealing and two guide discs. Made from Reliathane, Apache's special blend of wear-resistant polyurethane.
- Every MDK 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

## Options Available:

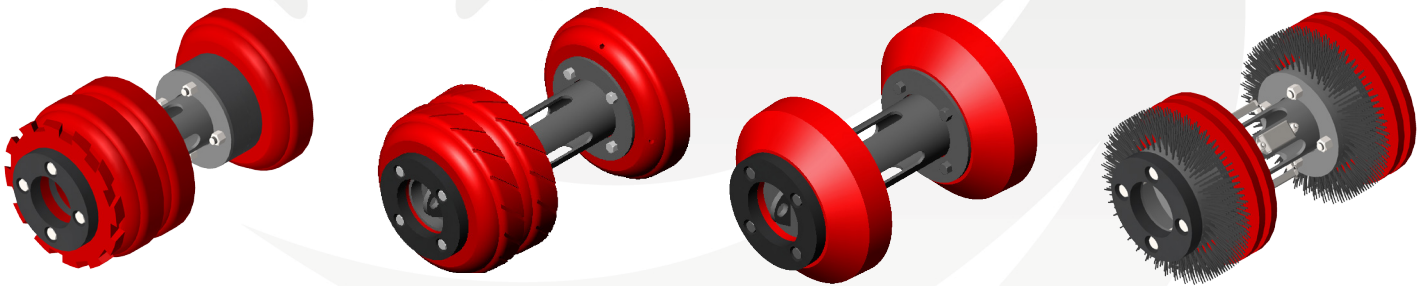
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information



# UT Mandrel Option

6-14" (52-356mm)

The UT mandrel is designed to house a transmitter located in the center of the slotted universal mandrel. It can also accommodate virtually any configuration of cup, disc and brush. This allows the pig to clean and batch many dissimilar fluids.



## Features & Benefits:

- The UT is the only small diameter steel mandrel pig we manufacture that features a transmitter cavity in the middle of the mandrel to accommodate electronic pig tracking equipment.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment, preventing damage.
- To maximize durability, all discs are made from Reliathane, Apache's special blend of wear-resistant polyurethane.

## Options Available:

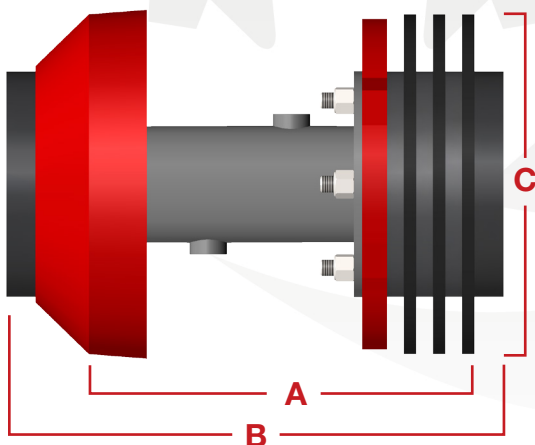
- CARVER discs. See page 5-20 for additional information.
- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.



# UT-FP

8-14" (203-356mm)

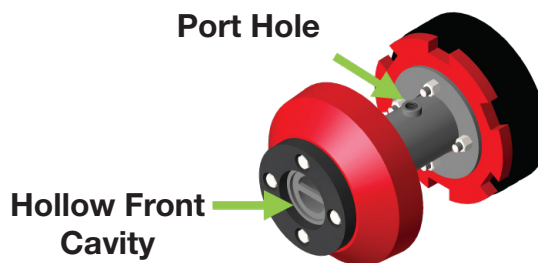
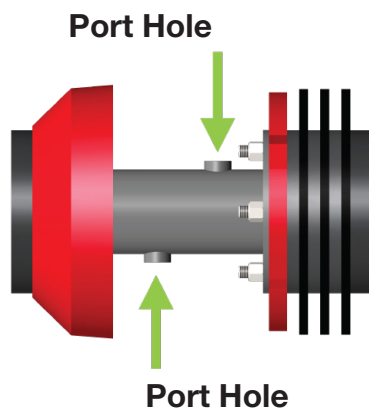
The UT-FP filming pig was designed to apply a film of inhibitor with 360-degree coverage on the interior pipe wall. The UT-FP features a hollow front mandrel with two port holes located on either side. The inhibitor becomes trapped between the front conical cup and the back three soft filming discs and support disc, leaving a film of inhibitor.



Size	A	B	C	Part #
8"	11.400	13.510	TBD	70-5801-08
10"	14.060	14.940	TBD	70-5801-10
12"	15.100	17.820	TBD	70-5801-12
14"	17.230	20.070	TBD	70-5801-14

\*TBD - Determined by the Wall Thickness(es)/ ID of the pipeline.

Designed to negotiate 1.5D or greater bends



Inhibitor travels through the hollow front mandrel and two port holes located on either side of the mandrel, ultimately leaving a film of protective corrosion inhibitor on the pipe wall.

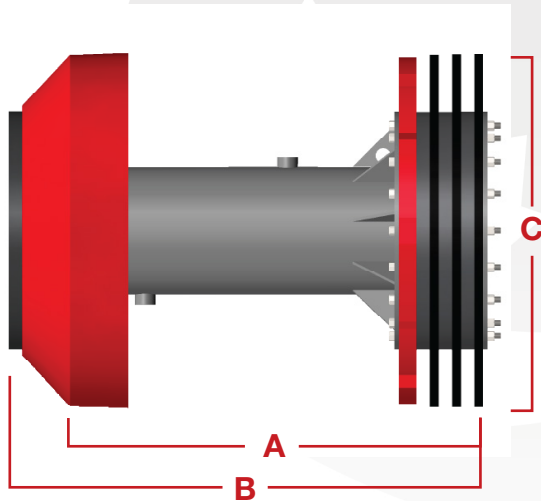
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videos!



## UM-FP

16-42" (406-1067mm)

The 16-42" UM Filming pig features a hollow front mandrel with two port holes in the center of the mandrel. This allows inhibitor to travel through the hollow front mandrel and two port holes located on either side. Inhibitor becomes trapped between the front conical cup, back three soft filming discs and support disc, leaving a film of inhibitor.

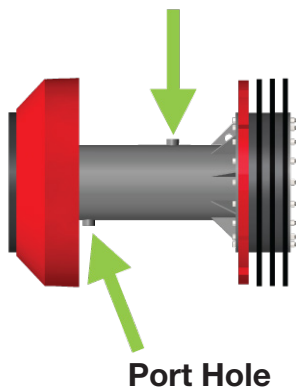


Size	A	B	C	Part #
16"	21.340	24.760	TBD	70-5801-16
20"	25.057	29.260	TBD	70-5801-20
22"	28.491	32.763	TBD	70-5801-22
24"	28.330	33.080	TBD	70-5801-24
30"	34.860	40.390	TBD	70-5801-30
36"	44.386	51.275	TBD	70-5801-36
42"	50.534	58.146	TBD	70-5801-42

\*TBD - Determined by the Wall Thickness(es)/ ID of the pipeline.

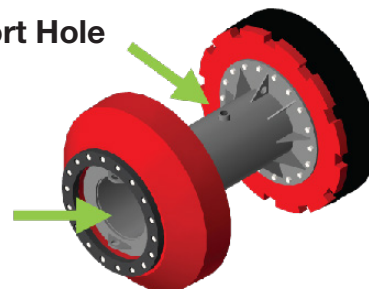
Designed to negotiate 1.5D or greater bends

Port Hole



Port Hole

Hollow Front Cavity



Inhibitor travels through the hollow front mandrel and two port holes located on either side of the mandrel, ultimately leaving a film of protective corrosion inhibitor on the pipe wall.

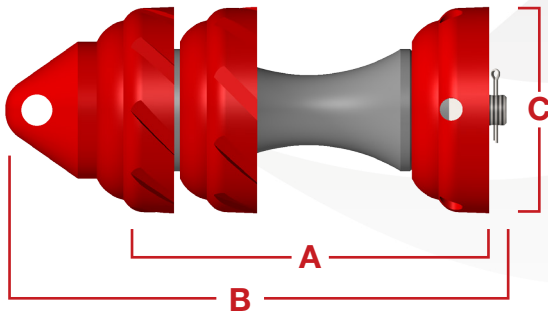
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## JC3

2-4" (76-102mm)

The JC3 combines all of the advantages of the Apache Series C cup with the force of jetting action, essentially power-washing the pipeline. The grooves in the cup's surface create five times the cleaning surface making it possible to jet away suspending and stubborn wax, sand or other debris.



Size	A	B	C	Part #
2"	4.000	5.875	2.125	70-4803-02
3"	5.875	8.250	3.375	70-4803-03
4"	7.125	10.125	4.375	70-4803-04

Designed to negotiate 3D or greater bends.

### Features & Benefits:

- Every JC pig is equipped with two JC Series cups and one rear ported Series C cup. These cups are made with Reliathane, Apache's special blend of wear-resistant polyurethane.
- Jetted cups are very effective in low flow applications.

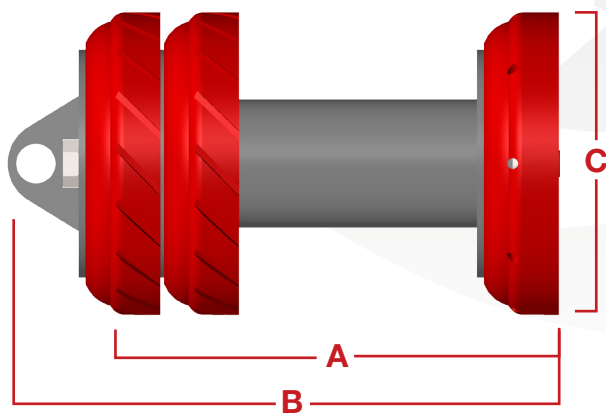
### Options Available:

- Aluminum Gauge Plates in standard style. See page 6-4 for additional information.
- Radial Brush available in 3" and 4". See page (pitPRO) 5-24 for additional information.

## JC3

6-14" (152-356mm)

The JC3 combines all of the advantages of the Apache Series C cup with the force of jetting action, essentially power-washing the pipeline. The grooves in the cup's surface create five times the cleaning surface making it possible to jet away suspending and stubborn wax, sand or other debris.



Size	A	B	C	Part #
6"	10.038	13.705	6.375	70-4803-06
8"	12.547	16.205	8.500	70-4803-08
10"	15.619	19.422	10.625	70-4803-10
12"	20.250	22.740	12.750	70-4803-12
14"	21.544	25.850	13.875	70-4803-14

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Every JC pig is equipped with two JC Series cups and one rear ported Series C cup. These cups are made with Reliathane, Apache's special blend of wear-resistant polyurethane.
- Jetted cups are very effective in low flow applications.

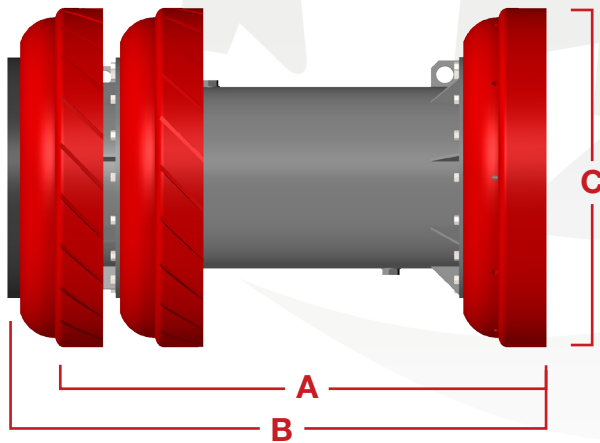
### Options Available:

- Aluminum Gauge Plates in standard or slotted styles. See page 6-4 for additional information.
- Radial Brush options available. See page 5-23 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.

## JC3

16-48" (406-1219mm)

The JC3 combines all of the advantages of the Apache Series C cup with the force of jetting action, essentially power-washing the pipeline. The grooves in the cup's surface create five times the cleaning surface making it possible to jet away suspending and stubborn wax, sand or other debris.



Size	A	B	C	Part #
16"	24.385	27.362	16.000	70-4803-16
18"	25.934	29.133	17.875	70-4803-18
20"	28.935	32.390	19.875	70-4803-20
22"	31.664	35.400	21.875	70-4803-22
24"	34.490	38.200	23.875	70-4803-24
26"	37.151	41.369	25.875	70-4803-26
28"	41.145	45.325	28.000	70-4803-28
30"	43.047	47.656	29.875	70-4803-30
32"	45.380	49.940	32.000	70-4803-32
34"	47.540	52.110	34.000	70-4803-34
36"	49.708	54.764	36.000	70-4803-36
42"	57.302	62.419	42.188	70-4803-42
48"	62.424	68.184	48.250	70-4803-48

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Every JC pig is equipped with two JC Series cups and one rear ported Series C cup. These cups are made with Reliathane, Apache's special blend of wear-resistant polyurethane.
- Jetted cups are very effective in low flow applications.
- Every JC 16" – 48" pig is manufactured with by-pass ports. These ports feature threaded plugs that can be removed.
- Standard bumper noses cushion the pig and help to protect in-line auxiliary equipment.

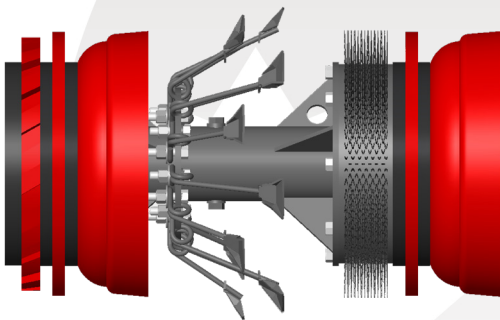
### Options Available:

- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional information.
- Radial and Block Brush options available. See pages 5-23 to 5-26 for additional information.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment. See page 6-5 for additional information.
- Rattlers. See page 6-5 for additional information

# Knife Pig 3D & 5D

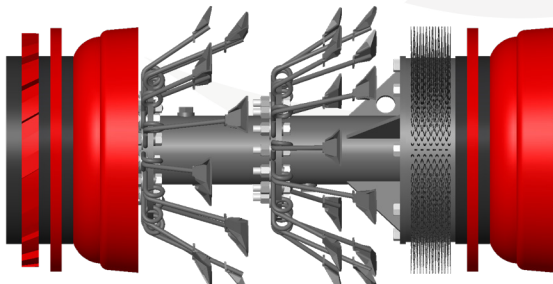
16-48" (406-1219mm)

Heavy Duty durable metal/carbide scraping knives provide the ultimate clean. Individually mounted knives distribute force evenly to the pipe wall. 3D tools provide about 70% knife coverage cleaning coverage.



## 3D Tool

(One Row of Knives, 70% Coverage)



## 5D Tool

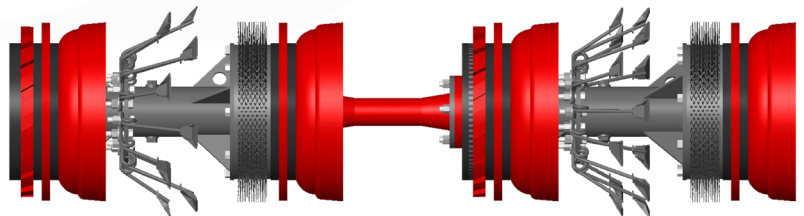
(Two Rows of Knives, 100% Coverage)

### Features & Benefits:

- Extremely aggressive cleaning/scraping
- 3D tools provide about 70% knife coverage
- Single row provides 3D capabilities
- CARVER discs. See page 5-20 for additional information.
- Radial Brush. See page 5-23 for additional information.

### Options Available:

- Aluminum Gauge Plates in standard styles or slotted styles. See page 6-4 for additional info.
- Magnets to collect metallic debris. See page 6-2 for additional information.
- Transmitter Cavity to accommodate electronic tracking equipment.
- Rattlers. See page 6-5 for additional information
- Knuckle joint to tether two pigs.



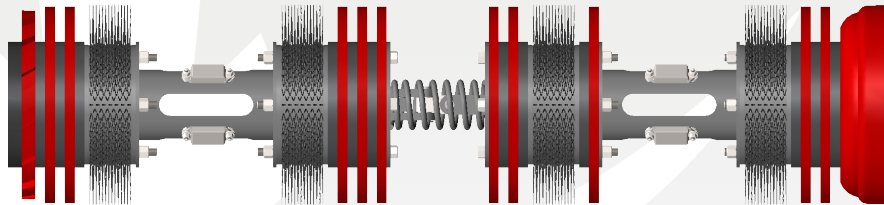
## Dual Body

# Dual Body Configuration

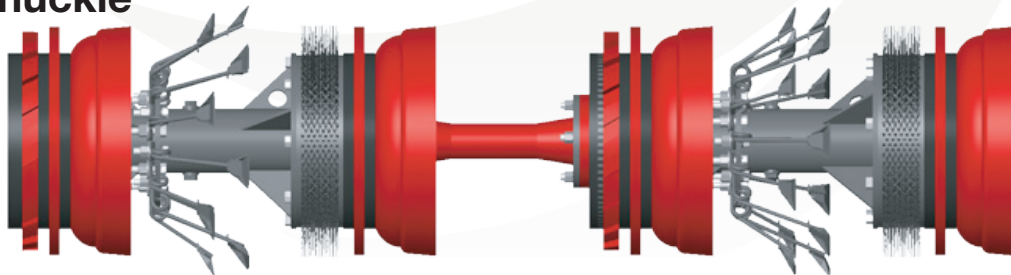
6-48" (203-1219mm)

Apache offers a dual body configuration on steel body pigs ranging from 8" to 48". Apache knuckle joints change in style based on the diameter of the pig. A dual body configuration provides double the cleaning capabilities with a single run and ensures both pigs are held together as they travel through the pipeline.

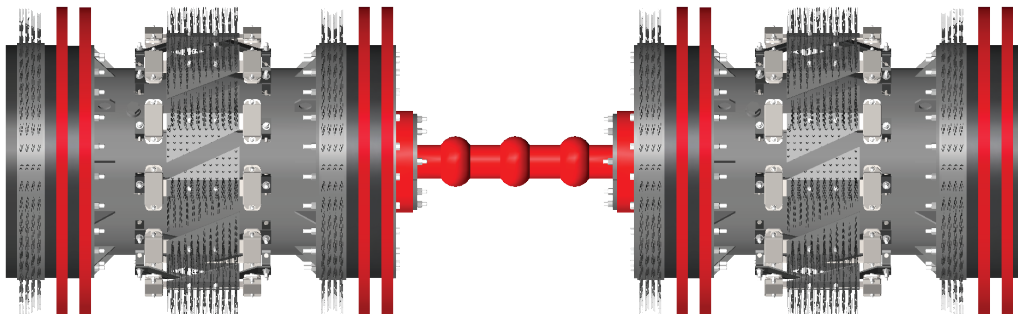
## 6"-14" Knuckle



## 16"-24" Knuckle



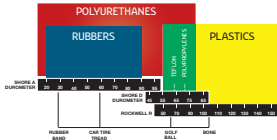
## 30"-48" Knuckle



Knuckle style changes based on the size of pig.

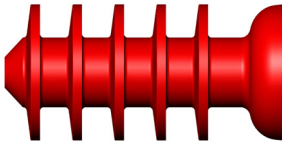


# ALL URETHANE



## Durometer Chart

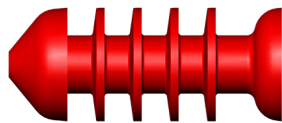
Pg. 3-2



### Purger I

2 - 36"

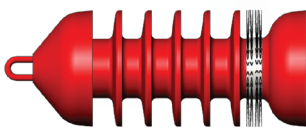
Pg. 3-3



### Purger II

2 - 24"

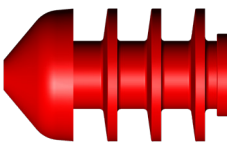
Pg. 3-4



### 5 Disc Purger II

3 - 16"

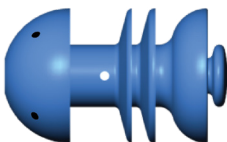
Pg. 3-5



### Purger VP

2 - 16"

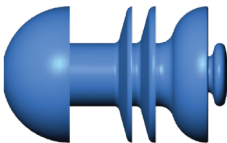
Pg. 3-6



### Tsunami FP

3 - 6"

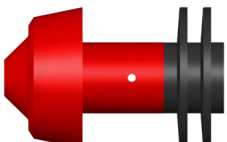
Pg. 3-7



### Tsunami VP

3 - 6"

Pg. 3-8



### Hurricane FP

3 - 12"

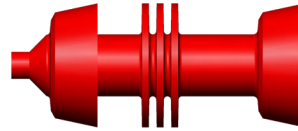
Pg. 3-9



### Hurricane LP

3 - 12"

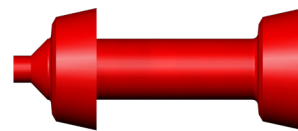
Pg. 3-10



### Hurricane I

3 - 12"

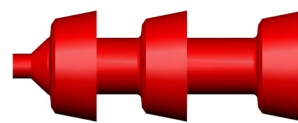
Pg. 3-11



### Hurricane II

3 - 12"

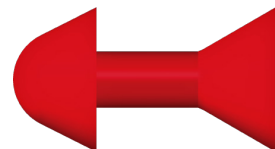
Pg. 3-12



### Hurricane III

3 - 12"

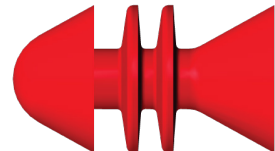
Pg. 3-13



### Tornado I

2 - 4"

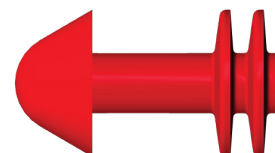
Pg. 3-14



### Tornado II

2 - 4"

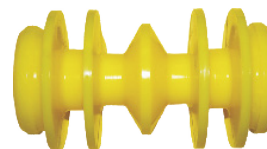
Pg. 3-15



### Tornado III

2 - 4"

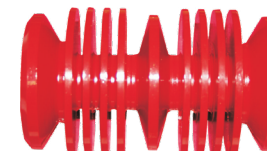
Pg. 3-16



### VIPRS®

2 - 10"

Pg. 3-17



### SUD®

2 - 10"

Pg. 3-18

**60-63 DUROMETER**  
Very soft and pliable

**70-75 DUROMETER**  
Somewhat firm, but quite flexible

**80-85 DUROMETER**  
Firm with fair flexibility  
Most common for solid-cast pigs

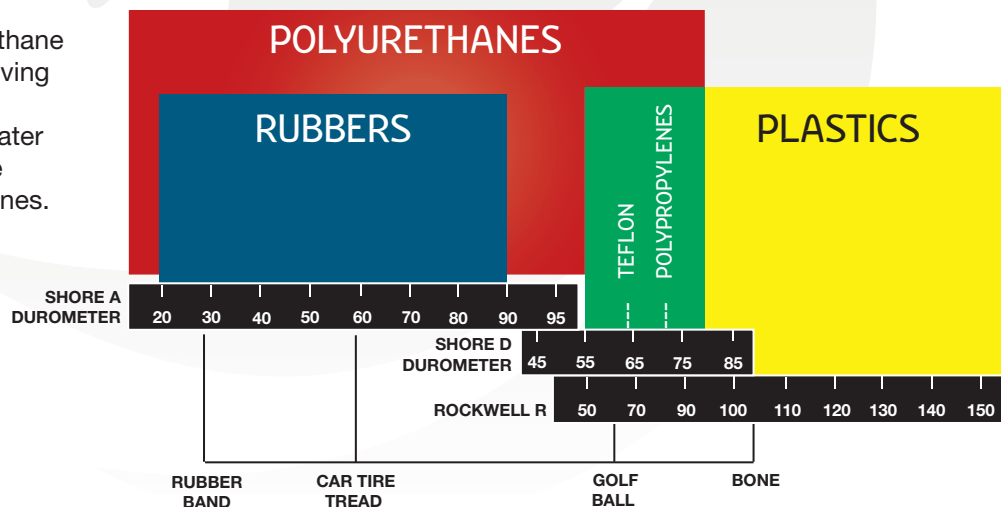
# Durometer

What does “durometer” mean and why is it important? Pipeline pigs play many roles. From cleaning and removing debris to separating and batching dissimilar fluids, they’re essential tools of the trade, especially for maintaining pipelines. And because no two tasks – or pipeline - are exactly alike, the characteristics of the best pig for the job will vary.

For example, a long section of pipeline choked with debris will require much more aggressive cleaning and scraping by a rugged, hardwearing pig that can withstand the rigors of the process, as opposed to a shorter line in need of light cleaning.

A key characteristic of a pig lies in the type of material from which it is made. This is where “durometer” comes in. Durometer is the term used for one of several measures of the hardness of a material. We define hardness as a material’s resistance to permanent indentation. To illustrate, in the world of polyurethane pipeline pigs, the hardness scale used is called the “Shore A”. Our polyurethanes typically range from 60 to 90 on the Shore A Scale. That said, we can easily expand that range for special applications should a customer require it.

Compared with rubber, polyurethane is a harder, stronger product, giving it the ability to handle harsher conditions, higher load and greater impact. The chart illustrates the unique properties of polyurethanes.



With regard to pipeline pigs, each durometer has advantages and disadvantages. Each of the descriptive headings below also indicates Apache’s standard color for each durometer.

**60-63 Durometer:** Very soft and pliable; good for passing through restrictions and turning tight radius bends; can be used in non-steel pipelines (fiberglass, HDPE or lined pipe); less effective for cleaning and scraping due to its softness; a shorter pig lifespan due to wear and tear; lower resistance to extreme conditions, such as high hydrogen sulfide gas or chemicals. Pigs in this durometer are great for low pressure applications.

**70-75 Durometer:** Somewhat firm, but quite flexible; moderate cleaning and scraping effectiveness; medium-wear resistance.

**80-85 Durometer:** The most common durometer used for solid-cast pigs; firm with fair flexibility; very effective for cleaning and scraping; high level of wear resistance; moderate resistance to hydrogen sulfide gas or chemicals.

**90-95 Durometer:** Very hard with little to no flexibility; rarely used for solid cast pigs; primarily used for custom urethane applications (i.e. rollers, bumpers and spacers).

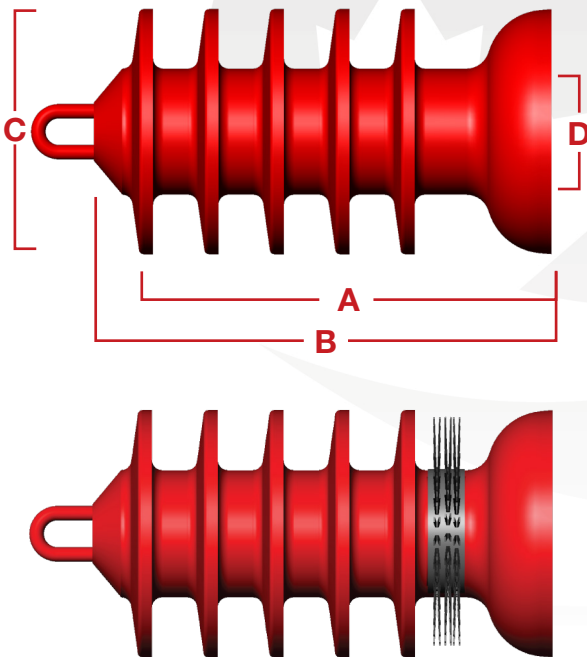
## Options Available:

- Food grade.
- High temperature material.

## Purger I™

2-36" (51-914mm)

The Purger™ Series pig is a tough, all urethane pipeline pig that requires absolutely no maintenance and is an excellent pig for product evacuation. The Purger I™ is also an efficient batching, cleaning and displacement pig. Its multi-disc design ensures that sealing elements are always centered in the pipeline, resulting in consistent wear over time.



Size	A	B	C	D	Part #
2"	4.500	5.000	2.250	0.500	71-0185-02
3"	6.750	7.500	3.375	1.000	71-0185-03
4"	7.500	8.500	4.375	1.250	71-0185-04
6"	11.500	13.250	6.375	1.500	71-0185-06
8"	15.250	17.000	8.625	3.000	71-0185-08
10"	17.500	19.750	10.625	3.875	71-0185-10
12"	20.500	23.000	12.500	4.750	71-0185-12
14"	23.500	26.000	14.250	5.750	71-0185-14
16"	25.750	28.500	16.375	6.750	71-0185-16
18"	29.000	35.000	18.000	7.750	71-0185-18
20"	29.500	33.750	20.000	7.875	71-0185-20
22"	32.750	37.250	22.000	9.000	71-0185-22
24"	35.750	39.750	24.000	9.875	71-0185-24
30"	44.000	52.000	30.000	12.875	71-0185-30
36"	48.500	61.000	36.000	18.625	71-0185-36

\*Part numbers shown are for 85 Durometer (62 and 72 also available)

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Lightweight.
- Improved sealing as a hollow core allows pressure to expand the body.
- Multiple seals.
- Standard hollow core for a transmitter.

### Options Available:

- Solid core.
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Magnets. Trip magnets available for sizes 4"-36".
- Rattler for 12" – 36" sizes only.
- Custom lengths available on request.

**60-63 DUROMETER**  
 Very soft and pliable

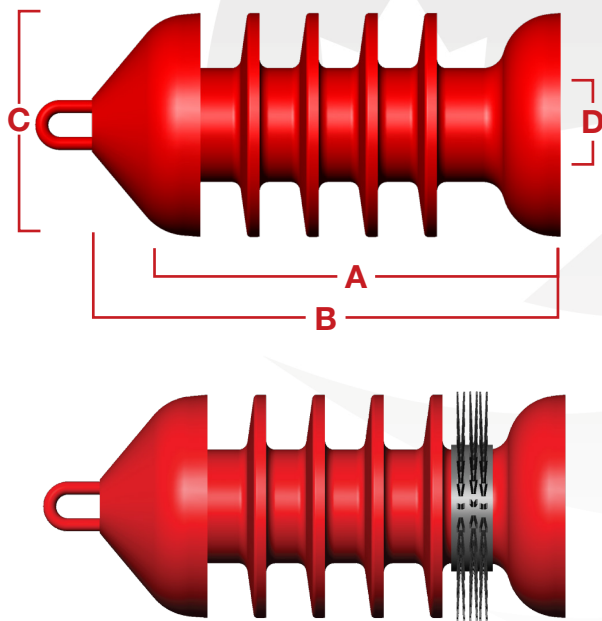
**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs

## Purger II™

2-24" (51-610mm)

The Purger™ Series pig is a tough, all urethane pipeline pig that requires absolutely no maintenance and is an excellent pig for product evacuation. The difference between the Purger I™ and Purger II™ is the added cup to the front of the pig for added effectiveness.



Size	A	B	C	D	Part #
2"	4.250	5.375	2.250	0.500	71-0285-02
3"	6.750	8.375	3.375	1.000	71-0285-03
4"	7.500	9.500	4.375	1.250	71-0285-04
6"	11.500	15.000	6.375	1.500	71-0285-06
8"	15.500	19.250	8.625	3.000	71-0285-08
10"	18.250	22.000	10.625	3.875	71-0285-10
12"	22.000	26.500	12.500	4.750	71-0285-12
14"	24.000	31.000	14.250	5.750	71-0285-14
16"	24.500	33.000	16.375	6.750	71-0285-16
18"	27.000	36.000	18.000	8.750	71-0285-18
20"	30.375	39.000	20.000	7.875	71-0285-20
22"	33.625	43.000	22.000	9.000	71-0285-22
24"	36.750	46.000	24.000	9.875	71-0285-24

\*Part numbers shown are for 85 Durometer (62 and 72 also available)

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Lightweight.
- Improved sealing as hollow core allows pressure to expand the body.
- Multiple seals.
- Standard hollow core for a transmitter.

### Options Available:

- Solid core.
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Magnets. Trip magnets available for sizes 4"-36". See page 6-3.
- Rattler for 12" – 36" sizes only.
- Custom lengths available on request.

**60-63 DUROMETER**  
Very soft and pliable

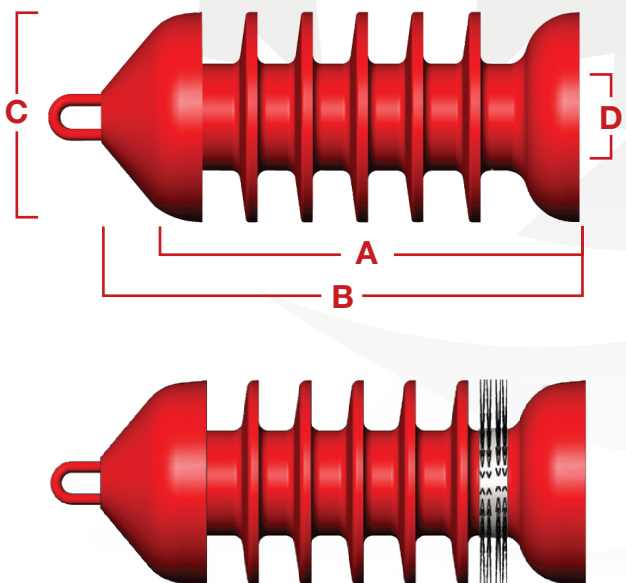
**70-75 DUROMETER**  
Somewhat firm, but quite flexible

**80-85 DUROMETER**  
Firm with fair flexibility. Most common for solid-cast pigs

## 5 Disc Purger II™

### 3-16" (76-406mm)

The Apache 5 Disc Purger II™ was designed to have five sealer discs and two cups. The additional components enhance sealing, cleaning and batching over the standard Purger I™ and Purger II™.



Size	A	B	C	D	Part #
3"	7.800	9.500	3.400	1.000	71-0685-03
4"	8.600	10.800	4.370	1.250	71-0685-04
6"	13.600	16.900	6.370	1.500	71-0685-06
8"	17.200	22.000	8.650	3.000	71-0685-08
10"	20.000	25.200	10.680	3.875	71-0685-10
12"	23.200	29.700	12.500	4.750	71-0685-12
14"	27.500	33.750	14.250	5.750	71-0685-14
16"	30.000	37.357	16.375	6.750	71-0685-16

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Lightweight.
- Improved sealing as hollow core allows pressure to expand the body.
- Multiple seals.
- Standard hollow core for a transmitter.

### Options Available:

- Solid core.
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Magnets. Trip magnets available for sizes 4"-36". See page 6-3.
- Rattler for 12" – 36" sizes only.
- Custom lengths available on request.

**60-63 DUROMETER**  
 Very soft and pliable

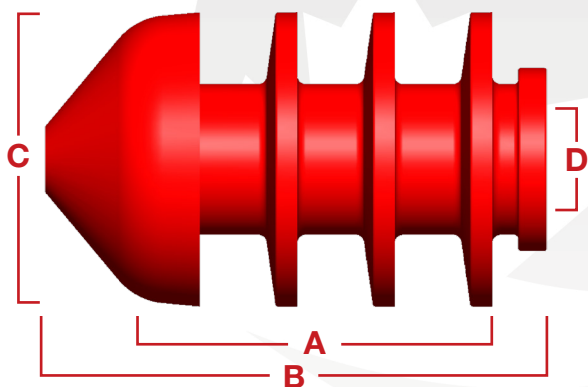
**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs

## Purger VP™

2-12" (51-305mm)

The Purger VP™ can be launched and received by nearly any pigging valve on the market today. As it moves steadily through the line, the discs clean away debris and residue from the pipe wall.



Size	A	B	C	D	Part #
2"	2.375	4.000	2.250	-	71-0985-02S
3"	3.750	5.750	3.375	-	71-0985-03S
4"	3.875	7.375	4.375	-	71-0985-04S
6"	5.750	10.250	6.375	-	71-0985-06S
8"	8.375	14.750	8.500	2.875	71-0985-08
10"	9.250	15.250	10.500	3.875	71-0985-10
12"	11.250	18.500	12.500	4.500	71-0985-12

*\*Part numbers shown are for 85 Durometer (62 and 72 also available)*

Note: Sizes 2" - 6" come standard as solid core, but are available in hollow core as well. Sizes 8" - 12" come standard as hollow core.

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Lightweight.
- Improved sealing as hollow core allows pressure to expand the body.
- Can be utilized in Argus™, Masterflo™, and Meridian™ valves.

### Options Available:

- Solid core available in 8" - 12".
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Custom lengths available on request.

**60-63 DUROMETER**  
Very soft and pliable

**70-75 DUROMETER**  
Somewhat firm, but quite flexible

**80-85 DUROMETER**  
Firm with fair flexibility. Most common for solid-cast pigs

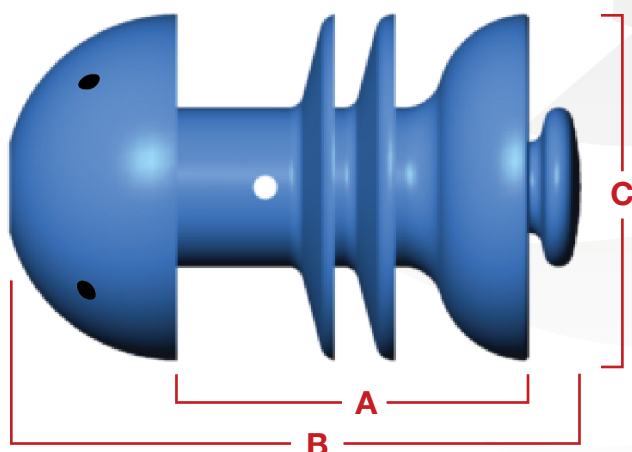


## Tsunami FP

3-6" (76-152mm)

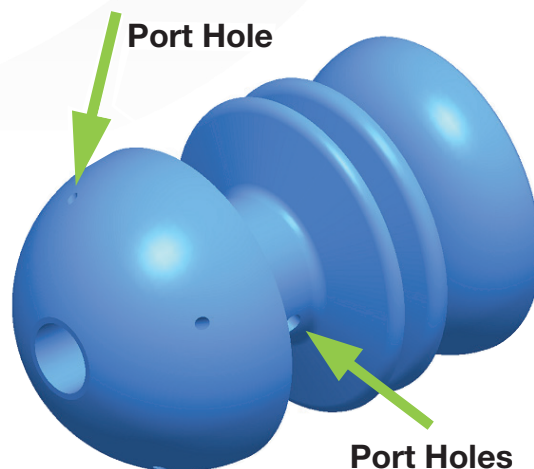
The Tsunami FP was designed to apply inhibitor 360-degrees around the interior pipe wall. The Tsunami FP features a port holes on the front cup as well as the sides of the body. It also has a hollow core to allow the inhibitor to travel through the body.

The Tsunami FP is designed to be pliable and is typically made from 70 Shore A durometer Reliathane. It also may be launched in a pigging valve.



Size	A	B	C	Part #
3"	3.38	5.70	4.10	75-0472-03
4"	4.38	7.50	5.40	75-0472-04
6"	6.38	10.50	7.40	75-0472-06

Designed to negotiate 1.5D or greater bends.



### How It Works:

Inhibitor travels through the hollow front vanity and port holes, ultimately leaving a film of protective corrosion inhibitor on the pipe wall.

### Features & Benefits:

- Lightweight - no metal components.
- Multiple seals provide excellent product interface.
- Can be utilized in Argus™, Masterflo™ and Meridian™ valves.

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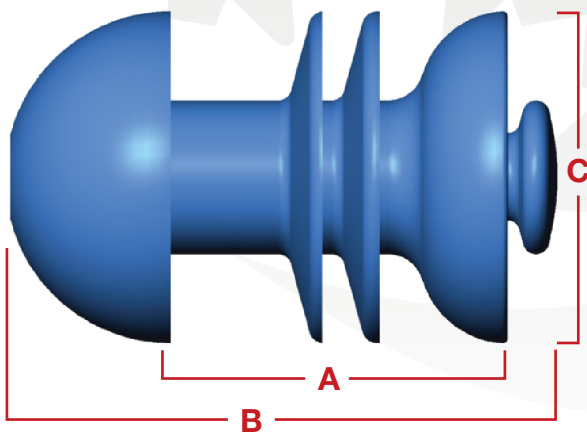


## Tsunami VP

### 3-6" (76-152mm)

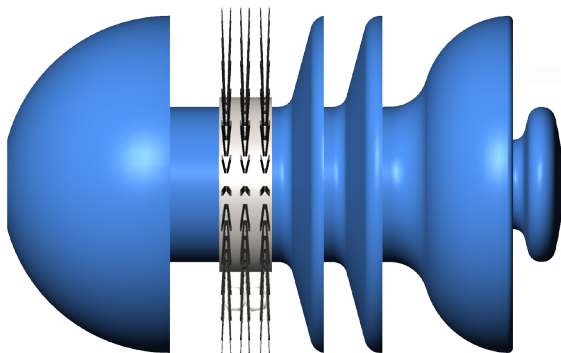
Looking for a way to optimize your pipeline maintenance program? Apache has the answer. It's called the Tsunami VP, and it's the latest addition to our series of solid-cast urethane pigs. The "VP" stands for "valve pig". This means that it is specially designed so that it can be launched and received by nearly any pigging valve on the market today. As it moves steadily through the line, clearing away troublesome debris and residue, rest assured that the line is being thoroughly cleaned, and the Tsunami VP will arrive in the receiver on schedule.

The Tsunami VP is designed to be pliable and is typically made from 70 Shore A Durometer Reliathane.



Size	A	B	C	Part #
3"	4.10	5.70	3.38	75-0572-03
4"	5.40	7.50	4.38	75-0572-04
6"	7.40	10.50	6.38	75-0572-06

Designed to negotiate 1.5D or greater bends.



### Features & Benefits:

- Lightweight - no metal components.
- Multiple seals provide excellent product interface.
- Can be utilized in Argus™, Masterflo™ and Meridian™ valves.

### Options Available:

- Wrap Brushes in the following types and trim materials:
  1. Trim types - flat wire.
  2. Trim material - carbon steel or stainless steel.

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videos!

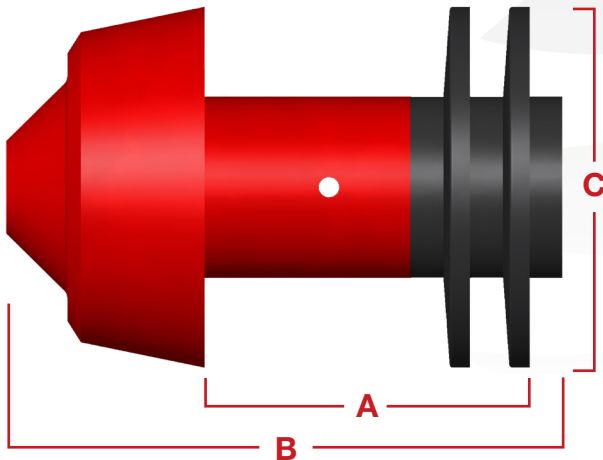


# Hurricane FP

3-12" (76-305mm)

The Hurricane filming and lead pig combination makes for efficient filming system.

The Hurricane Lead Pig (LP) acts as the lead pig of a double-pig train. It carries inhibitor or biocide treatment, allowing minimal by-pass. The inhibitor is contained between the LP and the Hurricane Filming Pig (FP). As the train moves through the line, the FP leaves a film of inhibitor on the pipe wall.



Size	A	B	C	Part #
3"	2.500	4.875	3.375	74-0462-03
4"	3.625	6.250	4.375	74-0462-04
6"	5.375	8.750	6.500	74-0462-06
8"	7.625	11.750	8.500	74-0462-08
10"	9.625	14.125	10.625	74-0462-10
12"	10.125	15.375	12.500	74-0462-12

Designed to negotiate 1.5D or greater bends.

## Features & Benefits:

- Lightweight – no metal components.
- Can be launched in most common pigging valves.

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videos!

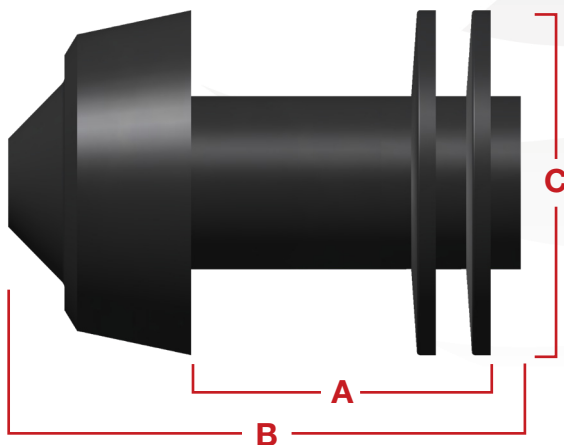


# Hurricane LP

3-12" (76-305mm)

The Hurricane filming and lead pig combination makes for efficient filming system.

The Hurricane Lead Pig (LP) acts as the lead pig of a double-pig train. It carries inhibitor or biocide treatment, allowing minimal by-pass. The inhibitor is contained between the LP and the Hurricane Filming Pig (FP). As the train moves through the line, the FP leaves a film of inhibitor on the pipe wall.



Size	A	B	C	Part #
3"	2.500	4.875	3.375	74-0572-03S
4"	3.625	6.250	4.375	74-0572-04S
6"	5.375	8.750	6.500	74-0572-06S
8"	7.625	11.750	8.500	74-0572-08S
10"	9.625	14.125	10.625	74-0572-10S
12"	10.125	15.375	12.500	74-0572-12S

*Designed to negotiate 1.5D or greater bends.*

## Features & Benefits:

- Lightweight – no metal components.
- Can be launched in most common pigging valves.
- Standard hollow core to house electronic transmitter.

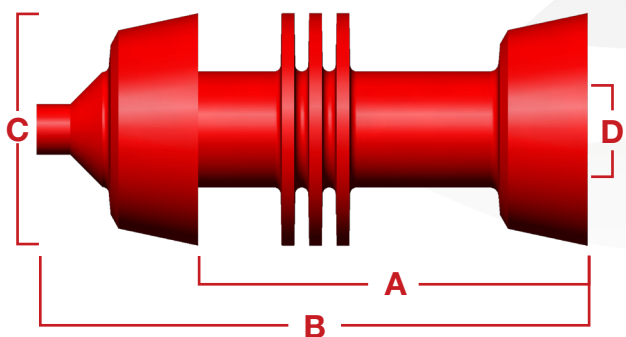
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out our  
videos!



# Hurricane I

## 3-12" (76-305mm)

The Hurricane I is an all urethane cup-disc pig. It is lightweight and versatile. Strategically placed cups and discs make it possible for the Hurricane to navigate through restrictions in valves and pass through tees.



Size	A	B	C	D	Part #
3"	5.750	7.750	3.375	1.000	74-0185-03
4"	7.375	9.625	4.500	1.500	74-0185-04
6"	10.125	13.125	6.500	2.000	74-0185-06
8"	13.125	17.500	8.625	2.875	74-0185-08
10"	16.000	20.500	10.750	3.750	74-0185-10
12"	20.500	23.000	12.625	4.625	74-0185-12

\*Part numbers shown are for 85 Durometer (62 and 72 also available)

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Solid-cast urethane.
- Lightweight.
- Standard hollow cavity to house transmitter.

### Options Available:

- Solid core.
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Magnets. See page 6-2.

**60-63 DUROMETER**  
Very soft and pliable

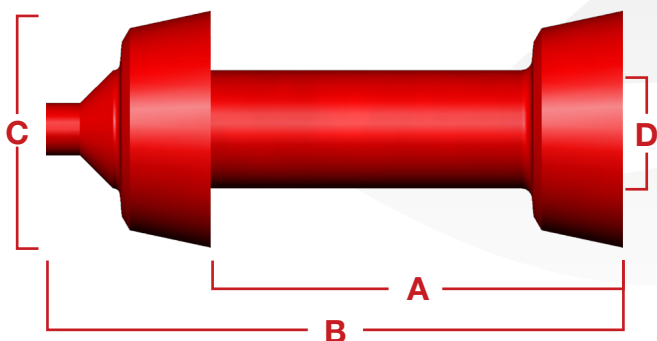
**70-75 DUROMETER**  
Somewhat firm, but quite flexible

**80-85 DUROMETER**  
Firm with fair flexibility. Most common for solid-cast pigs

# Hurricane II

## 3-12" (76-305mm)

The Hurricane II is an all urethane pig designed to be lightweight and versatile. Strategically placed cups and discs make it possible for the Hurricane to navigate through restrictions in valves and pass through tees.



Size	A	B	C	D	Part #
3"	6.250	7.875	3.375	1.000	74-0285-03
4"	8.000	9.750	4.500	1.500	74-0285-04
6"	10.750	13.000	6.500	2.000	74-0285-06
8"	14.000	16.750	8.625	2.875	74-0285-08
10"	16.000	20.500	10.750	3.750	74-0285-10
12"	20.500	23.000	12.625	4.625	74-0285-12

\*Part numbers shown are for 85 Durometer (62 and 72 also available)

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Solid-cast urethane.
- Lightweight.
- Standard hollow cavity to house transmitter.

### Options Available:

- Solid core.
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Magnets. See page 6-2.

**60-63 DUROMETER**  
 Very soft and pliable

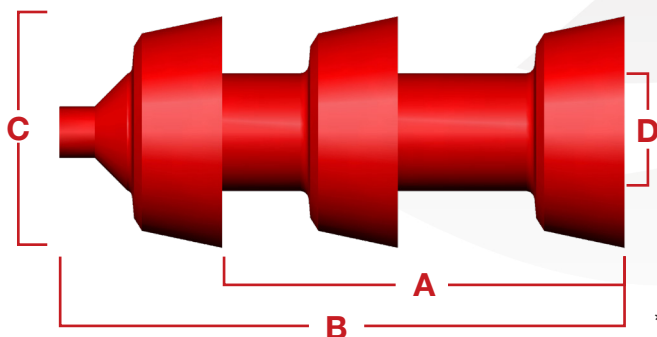
**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs

## Hurricane III

3-12" (76-305mm)

The Hurricane I is an all urethane pig designed to be lightweight and versatile. Strategically placed cups and discs make it possible for the Hurricane to navigate through restrictions in valves and pass through tees. The additional cup gives it additional cleaning power over the Hurricane II.



Size	A	B	C	D	Part #
3"	5.750	7.750	3.750	1.000	74-0385-03
4"	7.125	9.625	4.500	1.500	74-0385-04
6"	9.875	12.500	6.500	2.000	74-0385-06
8"	12.375	16.250	8.625	2.875	74-0385-08
10"	15.750	20.750	10.750	3.750	74-0385-10
12"	20.500	23.000	12.625	4.625	74-0385-12

\*Part numbers shown are for 85 Durometer (62 and 72 also available)

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Solid-cast urethane.
- Lightweight.
- Standard hollow cavity to house transmitter.

### Options Available:

- Solid core.
- Variety of durometers.
- Wrap brushes. See page 5-22.
- Magnets. See page 6-2.

**60-63 DUROMETER**  
 Very soft and pliable

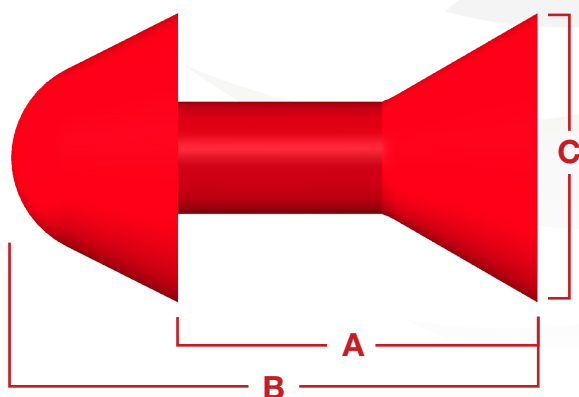
**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs

## Tornado I

2-4" (51-102mm)

The Tornado I is compact pig designed for small diameter pipelines such as those found in crude oil gathering systems. The unique cup design permits this pig to travel through short radius bends. The Tornado I is designed for use in both non-metallic pipe and steel lines. Typically the Tornado's strength lies in proving a line in a pipe network prior to operational pigging.



Size	A	B	C	Part #
2"	3.000	4.500	2.125	72-0185-02S
3"	4.125	5.875	3.250	72-0185-03S
4"	4.875	7.250	4.375	72-0185-04S

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Solid cast urethane.
- Lightweight.

### Options Available:

- Available in different durometers.

**60-63 DUROMETER**  
 Very soft and pliable

**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

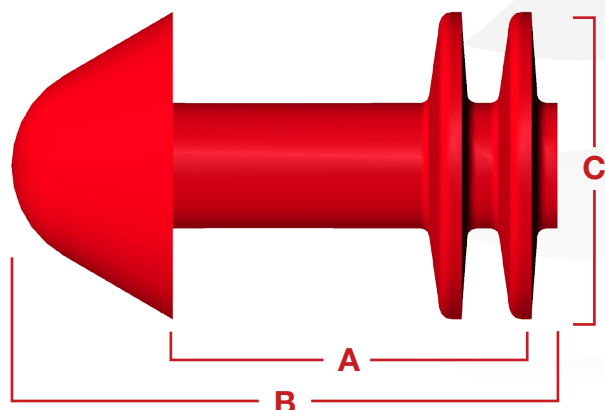
**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs



## Tornado II

2-4" (51-102mm)

The Tornado II is compact pig designed for small diameter pipelines such as those found in crude oil gathering systems. The unique cup design permits this pig to travel through short radius bends. The Tornado II is designed for use in both non-metallic pipe and steel lines. Typically the Tornado's strength lies in proving a line in a pipe network prior to operational pigging. The discs on the Tornado II helps provide a better seal over the Tornado II.



Size	A	B	C	Part #
2"	3.000	4.500	2.125	72-0285-02S
3"	4.125	5.875	3.250	72-0285-03S
4"	4.875	7.250	4.375	72-0285-04S

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Solid-cast urethane.
- Lightweight.

### Options Available:

- Available in different durometers.

**60-63 DUROMETER**  
 Very soft and pliable

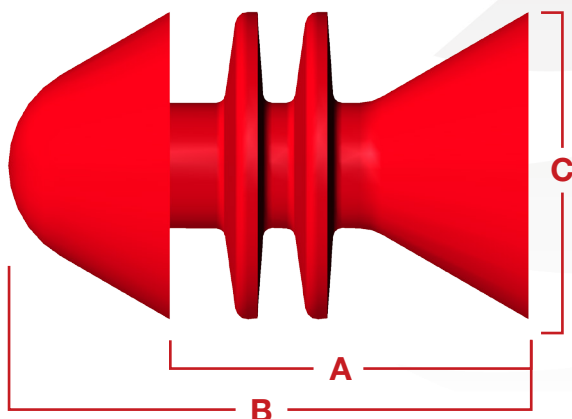
**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs

## Tornado III

2-4" (51-102mm)

The Tornado III is compact pig designed for small diameter pipelines such as those found in crude oil gathering systems. The unique cup design permits this pig to travel through short radius bends. The Tornado III is designed for use in both non-metallic pipe and steel lines. Typically the Tornado's strength lies in proving a line in a pipe network prior to operational pigging. The combination of discs and two cups make it superior to all other Tornado pigs.



Size	A	B	C	Part #
2"	3.000	4.500	2.125	72-0385-02S
3"	4.125	5.875	3.250	72-0385-03S
4"	4.875	7.250	4.375	72-0385-04S

Designed to negotiate 1.5D or greater bends.

### Features & Benefits:

- Solid-cast urethane.
- Lightweight.

### Options Available:

- Available in different durometers.

**60-63 DUROMETER**  
 Very soft and pliable

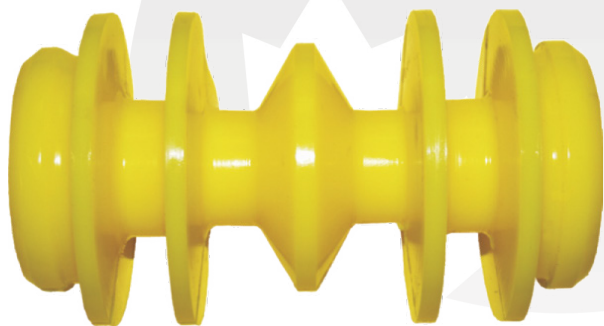
**70-75 DUROMETER**  
 Somewhat firm, but quite flexible

**80-85 DUROMETER**  
 Firm with fair flexibility. Most common for solid-cast pigs

## VIPRS® Pig

2-10" (51-254mm)

The VIPRS® was designed to act as an effective squeegee while being able to traverse elbows with a radius as sharp as 1.5D. It will batch and remove liquid at pressures as low as 15PSI. The VIPRS® will accommodate variations in pipe IDs of the same nominal size.



### Applications:

- Terminal loading lines.
- Chemical processing.
- Petrochemical.
- Wood pulp and paper.
- Food and beverage.
- Water and wastewater treatment plants.
- Packaging, loading, process and product lines, piping.

### Features & Benefits:

- Less wasted product means reduced BOC load charges.
- Reduced power costs mean greater efficiencies of flow and pressure.
- Cleaner product as a result of decreased product intermix.
- Reduced overtime through more efficient, faster clean-up.

### Options Available:

- Trip Magnets for non- intrusive pig indicators.
- Available in polyurethane compounds for pipe and tubing sizes through 12" Nitrile, Viton® and other compounds available on request.
- Food grade material available.

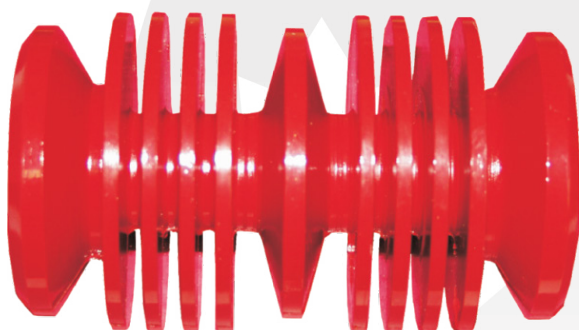
Size	Pipe I.D.	Description	Seal Discs O.D.	Overall Length
2"	1.870"	For SS Tubing	1.900"	3.400"
2"	2.067"	For S/40	2.100"	3.400"
2"	2.157"	For S/10	2.200"	3.400"
2.5"	2.370"	For SS Tubing	2.400"	4.600"
2.5"	2.637"	For S/10	2.700"	4.600"
3"	2.870"	For SS Tubing	2.900"	5.500"
3"	3.068"	For S/40	3.100"	5.500"
3"	3.260"	For S/10	3.300"	5.500"
3"	n/a	For S/5	3.400"	5.500"
4"	3.834"	For SS Tubing	3.900"	6.380"
4"	4.026"	For S/40	4.100"	7.500"
4"	4.260"	For S/10	4.320"	7.500"
6"	5.782"	For SS Tubing	5.900"	9.500"
6"	6.357"	For S/10	6.450"	9.500"
10"	n/a	For S/40	10.340"	17.360"

Designed to negotiate 1.5D or greater bends.

## SUD® Pig

### 2-10" (51-254mm)

The SUD® was designed to act as an effective squeegee while being able to traverse elbows with a radius as sharp as 1.5D. It will batch and remove liquid at pressures as low as 15PSI. The SUD® will accommodate variations in pipe IDs of the same nominal size.



#### Applications:

- Terminal loading lines.
- Chemical processing.
- Petrochemical.
- Wood pulp and paper.
- Food and beverage.
- Water and wastewater treatment plants.
- Packaging, loading, process and product lines, piping.

#### Features & Benefits:

- Less wasted product means reduced BOC load charges.
- Reduced power costs mean greater efficiencies of flow and pressure.
- Cleaner product as a result of decreased product intermix.
- Reduced overtime through more efficient, faster clean-up.

#### Options Available:

- Trip Magnets for non- intrusive pig indicators.
- Available in polyurethane compounds for pipe and tubing sizes through 12" Nitrile, Viton® and other compounds available on request.
- Food grade material available.

Size	Pipe I.D.	Description	Seal Discs O.D.	Overall Length
2"	1.870"	For SS Tubing	1.900"	3.800"
2"	2.067"	For S/40	2.100"	3.800"
2"	2.157"	For S/10	2.200"	3.800"
2.5"	2.370"	For SS Tubing	2.400"	4.600"
2.5"	2.469"	For S/40	2.500"	4.600"
2.5"	2.637"	For S/10	2.700"	4.600"
3"	2.870"	For SS Tubing	2.900"	5.500"
3"	3.068"	For S/40	3.150"	5.500"
3"	3.260"	For S/10	3.300"	5.500"
3"	n/a	For S/5	3.400"	5.500"
4"	3.834"	For SS Tubing	3.900"	7.750"
4"	4.026"	For S/40	4.150"	7.750"
4"	4.260"	For S/10	4.300"	7.750"
4"	4.334"	For S/5	4.460"	7.750"
6"	5.782"	For Tubing	5.900"	10.760"
6"	6.065"	For S/40	6.200"	10.760"
6"	6.357"	For S/10	6.400"	10.760"
8"	7.981"	For S/40	8.150"	15.420"
8"	8.329"	For S/10	8.450"	15.420"
8"	n/a	For S/5	8.625"	n/a
10"	n/a	For S/5 or S/10	10.220"	17.180"
12"	n/a	For S/40	12.250"	16.930"

Designed to negotiate 1.5D or greater bends.



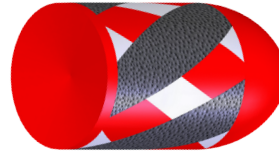
# FOAM



## Foam Pigs

2 - 60"

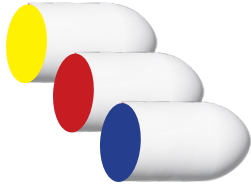
Pg. 4-2



## MDWB

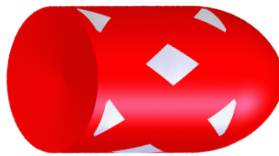
2 - 60"

Pg. 4-9



## Foam Diameters

Pg. 4-3



## MDCC

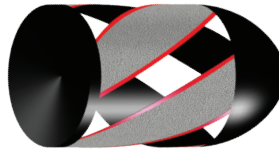
2 - 60"

Pg. 4-10

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	60"
1/2"	✓																									
3/4"		✓																								
1"			✓																							
1 1/4"				✓																						
1 1/2"					✓																					
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48"																									✓	
60"																										✓

## Selecting A Foam Pig

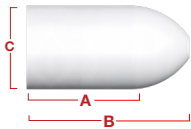
Pg. 4-4



## MDPB

2 - 60"

Pg. 4-11



## Foam Sizes

Pg. 4-5



## MDFC

2 - 60"

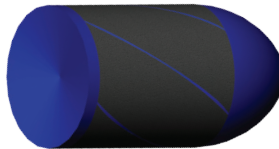
Pg. 4-12



## SLS

1 - 48"

Pg. 4-6



## Porcupine

2 - 60"

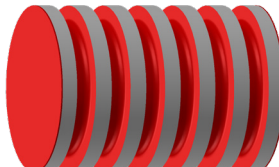
Pg. 4-13



## MLS

1 - 48"

Pg. 4-7



## ProVex FD™

2 - 42"

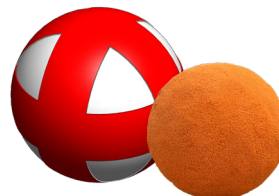
Pg. 4-14



## MDBS

2 - 60"

Pg. 4-8



## Foam Spheres & Balls

Pg. 4-15

# Foam Pigs

2-60" (51-1524mm)

Versatile. Economic. Field-proven. Known as the most common and cost-effective pigging solution for pipeline cleaning, Apache offers its line of multi-faceted foam pigs and spheres.

Not only do they remove liquids in natural gas pipelines, this specialist line reduces wax build-up in crude oil pipelines, de-waters lines following hydrostatic testing, dries pipelines, and provides light to moderate cleaning.



## Features & Benefits:

- To perform effectively, all Apache foam pigs and spheres are manufactured from the highest quality open cell polyurethane foam. This special composition of polyurethane is very durable. It resists abrasion, making it hard wearing, offering maximum flexibility for use in a wide range of applications.
- Foam pigs are exceptionally flexible, which is critical to their ability to operate in a variety of the most complex pipeline networks. They can easily negotiate short radius bends, miter bends, tees, and multi-diameter lines.
- The basic foam pig design can be customized to include a number of tough urethane coatings. For example, by simply adding aggressive wire brushes into urethane coating, the pig acts as a durable, efficient cleaner for hard pipe scale applications.
- Apache offers a number of different profiles of foam pigs, each with its individual characteristics. Here are just a few of them:
  - Double Dish - Ideal for bi-directional operations and evacuating liquids.
  - Double Nose - Perfect for bi-directional operations and in multi-diameter pipeline.
  - Foam Balls - Excellent for bi-directional operations, and navigating short radius bends for drying, wiping and scraping.

## Options Available:

- Polypropylene handling rope for one or both ends of the pig for easy handling.
- Transmitter housing to accommodate electronic tracking equipment.
- Custom designs and sizes are available. Please contact Apache for more details.

**Light Density**  
3-4 lb/ft<sup>3</sup>

**Medium Density**  
5-7 lb/ft<sup>3</sup>

**Hard Density**  
8-10 lb/ft<sup>3</sup>

1575 - 90 Ave Edmonton, AB Canada T6P 0E2

Ph: 780.416.4850 | Fax: 780.416.4829 | [apachepipe.com](http://apachepipe.com) | Email: [sales@apachepipe.com](mailto:sales@apachepipe.com)



## Outside Diameter of Bare, Uncoated Foam Pigs

No two pipelines are alike. So when it comes to developing a custom foam pig solution to meet your needs, Apache offers some basic guidelines about foam pig diameter.

Apache recommends that the diameter of foam pigs be no less than 5% larger than the inside diameter of the pipe. Foam pigs are designed to navigate short radius bends and traverse up to a 35% anomaly in pipe bore.

At Apache, we manufacture foam pigs from 2" to 60". Our diameter range is in line with all standard pipe sizes, and features a finished diameter tolerance of  $\pm 2\%$ . Bear in mind that applying a coating of polyurethane to the outside surface of a foam pig will increase the diameter by 0.125" to 0.250".

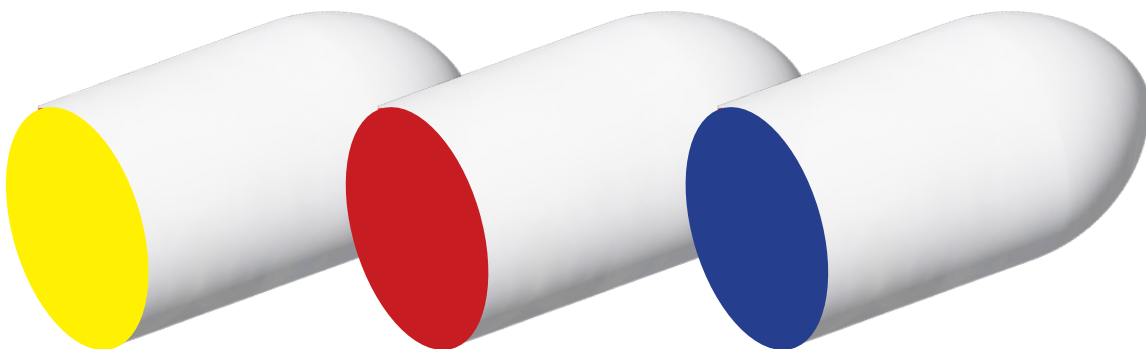
If you would like us to develop a custom solution for you, just get in touch.

### Available Diameters:

**2", 3", 4", 5", 6", 7", 8", 10" & 12"**  
**Available in  $+\frac{1}{4}$ " or  $+\frac{1}{2}$ "**

**14" to 60"**  
**Even Sizes Only**

Other diameters are available on a custom order basis.




**Light Density**  
3-4 lb/ft<sup>3</sup>

**Medium Density**  
5-7 lb/ft<sup>3</sup>






**Hard Density**  
8-10 lb/ft<sup>3</sup>

# Selecting A Foam Pig

3 = Excellent    2 = Good    1 = Fair    0 = Poor

Style	Density (lb/ft <sup>3</sup> )	Description	Function	Dewatering or Fill	Drying	Light to Moderate Cleaning	Heavy Cleaning & Scraping	Liquid Displacement	Paraffin Displacement
	Heavy 8-10	HDBS Heavy Density Bare Squeegee	Heavy Drying	3	2	1	0	2	1
	Heavy 8-10	HDCC Heavy Density Criss Cross	Heavy Wiping	2	2	3	2	1	2
	Heavy 8-10	HDWB Heavy Density Wire Brush	Heavy Scraping	0	0	2	3	0	2
	Heavy 8-10	HDSC Heavy Density Silicone Carbide	Heavy Scraping	0	0	2	2	0	2
	Heavy 8-10	Porcupine Total Wire Brush	Max Scraping	0	0	2	3	0	3
	Medium 5-7	ProVex FD™	Liquid Removal Drying	3	3	3	0	3	3
	Medium 5-7	MDBS Medium Density Bare Squeegee	Regular Drying	3	2	1	0	2	1
	Medium 5-7	MDCC Medium Density Criss Cross	Regular Wiping	2	2	1	1	1	1
	Medium 5-7	MDWB Medium Density Wire Brush	Regular Scraping	0	0	3	2	0	2
	Medium 5-7	MDSC Medium Density Silicone Carbide	Regular Scraping	0	0	3	2	0	2
	Medium 5-7	MDPB Medium Density Plastic Brush	Regular Scraping in Lined or Plastic Pipe	0	0	3	3	0	2
	Light 3-4	LDBS Light Density Bare Squeegee	Light Drying	0	3	0	0	0	0
	Light 1-2	SLS Super Light Swab	Light Drying	0	3	0	0	0	0
	Light 2-3	MLS Medium Light Swab	Light Drying	0	3	0	0	0	0

## Options:

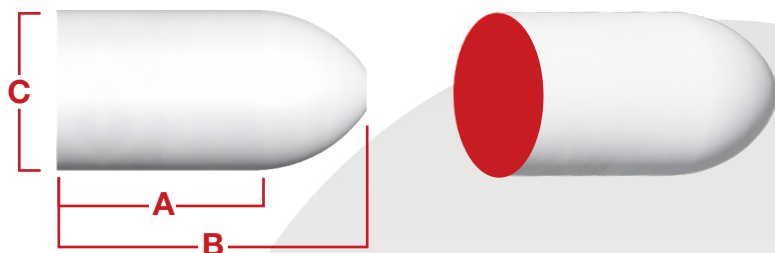
	Handling Rope	Polypropylene rope for one or both ends of the pig for easy handling.
	Full Coat	Regular Scraping
	Double Dish	Ideal for bi-directional operations and evacuation of liquids.
	Foam Balls	Bi-directional, short radius bends for drying, wiping and scraping.
	Transmitter Cavity	Standard and customized cavity for encasing transmitters for pig tracking.

## Additional Information:

- Foam pigs are used to remove liquids in natural gas pipelines, reduces wax build-up in crude oil lines, de-waters lines following hydrostatic testing, dries pipelines and provides light to heavy cleaning & scraping.
- 5 lb -vs- 8 lb Foam -- Higher density foam is typically used for longer runs and more aggressive cleaning.
- Medium Density pigs are able to negotiate a 25% restriction in pipe bore.
- Economical, maintenance free, and disposable.
- Pressure on concave rear is designed to create more force on pipe wall to prevent by-pass.

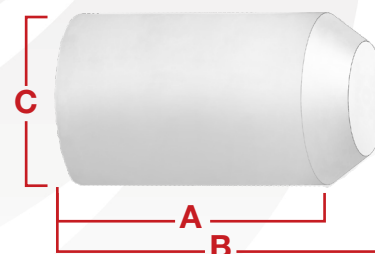
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Size	A	B	C
2"	2.500	4.000	2.000
2-1/4"	2.875	4.500	2.250
2-1/2"	3.250	4.875	2.500
2-3/4"	3.500	5.375	2.750
3"	3.750	5.750	3.000
3-1/4"	4.125	6.250	3.250
3-1/2"	4.500	6.750	3.500
3-3/4"	4.750	7.250	3.750
4"	5.000	7.750	4.000
4-1/4"	5.375	8.375	4.250
4-1/2"	5.625	9.000	4.500
4-3/4"	6.000	9.250	4.750
5"	6.375	9.750	5.000
5-1/4"	6.625	10.250	5.250
5-1/2"	7.000	10.750	5.500
5-3/4"	7.375	11.250	5.750
6"	7.625	11.750	6.000
6-1/4"	7.875	12.250	6.250
6-1/2"	8.500	12.875	6.500
6-3/4"	8.625	13.250	6.750
7"	8.875	13.750	7.000
7-1/4"	9.250	14.250	7.250
8"	10.125	15.500	8.000
8-1/4"	10.375	16.125	8.250
8-1/2"	10.750	16.375	8.500

Size	A	B	C
10"	12.500	19.500	10.000
10-1/4"	12.875	20.000	10.250
10-1/2"	13.250	20.500	10.500
12"	15.000	23.375	12.000
12-1/4"	15.325	23.875	12.250
12-1/2"	15.750	24.375	12.500
14"	17.500	24.500	14.000
16"	20.000	28.000	16.000
18"	22.500	31.500	18.000
20"	25.000	35.000	20.000
22"	27.500	38.500	22.000
24"	30.000	42.000	24.000



Sizes 26" to 60" use our Tapered Nose Pig design.

Size	A	B	C
26"	39.00	45.00	26.00
28"	42.00	48.50	28.00
30"	45.00	52.00	30.00
32"	48.00	55.50	32.00
34"	51.00	59.00	34.00
36"	54.00	62.50	36.00
38"	57.00	66.00	38.00
40"	60.00	69.50	40.00
42"	63.00	73.00	42.00
48"	72.00	83.50	48.00
52"	74.00	86.00	52.00
56"	76.50	88.50	56.00
60"	90.00	104.50	60.00

\*Custom Sizes Available Upon Request

## SLS

1-48" (25-1219mm)

The Apache SLS (super light swab) is a lightweight open cell foam pig designed for absorption and drying pipelines.

The soft density allows the SLS to easily navigate restrictions and be used in varying wall thicknesses and pipeline ID's. Commonly coated on one end with our tough polyurethane elastomer.



"A" represents sealing surface

Size	A	B
1"	2.25	1.5
2"	3.75	2.5
3"	5.75	3.5
4"	6.75	4.5
6"	9.75	6.5
8"	12.75	8.5
10"	15.75	10.5
12"	18.75	12.5
16"	24.75	16.5
20"	30.75	20.5
24"	36.75	24.5
30"	45.75	30.5
34"	51.75	34.5
36"	54.75	36.5
42"	63.75	42.5
48"	72.75	48.5

### Features & Benefits:

- Drying.
- Works in all piping systems.

### Options Available:

- Handling ropes available on one or both ends.
- Custom OD's and lengths.
- Bi-directional (coated on both ends).

## MLS

1-48" (25-1219mm)

The Apache MLS (medium light swab) is a lightweight open cell foam pig designed for absorption and drying pipelines.

The MLS is slightly firmer than the SLS, allowing that style to hold up better and do some light cleaning. Commonly coated on one end with our tough polyurethane elastomer.



"A" represents sealing surface

Size	A	B
1"	2.25	1.5
2"	3.75	2.5
3"	5.75	3.5
4"	6.75	4.5
6"	9.75	6.5
8"	12.75	8.5
10"	15.75	10.5
12"	18.75	12.5
16"	24.75	16.5
20"	30.75	20.5
24"	36.75	24.5
30"	45.75	30.5
34"	51.75	34.5
36"	54.75	36.5
42"	63.75	42.5
48"	72.75	48.5

### Features & Benefits:

- Drying.
- Works in all piping systems.

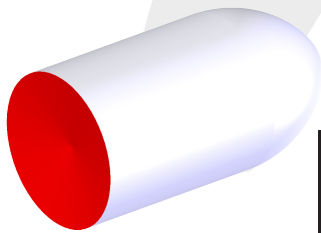
### Options Available:

- Handling ropes available on one or both ends.
- Custom OD's and lengths
- Bi-directional (coated on both ends)

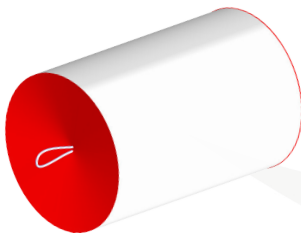
# MDBS & MDBS DD

2-60" (51-1524mm)

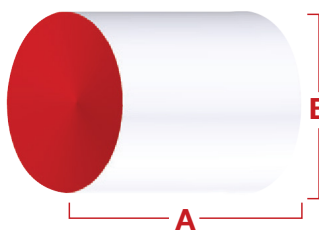
The Apache MDBS (medium density bare squeegee) and MDBS DD (medium density bare squeegee, double dish) are lightweight open cell foam pigs designed for light cleaning and drying pipelines. The double dish is ideal for bi-directional operations and evacuation of liquids. The medium density helps both styles navigate restrictions. MDBS Foam Pigs are the most cost effective, versatile design of pipeline cleaner in the market today.



**MDBS**  
Medium Density  
Bare Squeegee



**MDBS DD**  
Medium Density  
Bare Squeegee  
Double Dish



"A" represents sealing surface. This dimension is the same for both styles.

## Features & Benefits:

- Drying.
- Light cleaning.
- Dewatering.
- Works in all piping systems.

## Options Available:

- Handling rope.
- Trans-Cavity.
- Custom sizes available.
- Also available in light density (yellow) and hard density (blue).

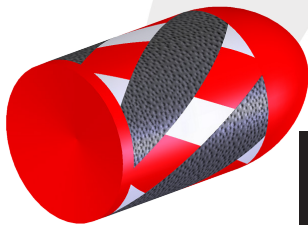
Size	A	B
2"	2.500	2.000
	2.875	2.250
	3.250	2.500
	3.500	2.750
3"	3.750	3.000
	4.125	3.250
	4.500	3.500
	4.750	3.750
4"	5.000	4.000
	5.375	4.250
	5.625	4.500
	6.000	4.750
5"	6.375	5.000
	6.625	5.250
	7.000	5.500
	7.375	5.750
6"	7.625	6.000
	7.875	6.250
	8.500	6.500
	8.625	6.750
7"	8.875	7.000
	9.250	7.250
8"	10.125	8.000
	10.375	8.250
	10.750	8.500

Size	A	B
10"	12.500	10.000
	12.875	10.250
	13.250	10.000
12"	15.000	12.000
	15.325	12.250
	15.750	12.500
14"	17.500	14.000
16"	20.000	16.000
16.25"	20.375	16.250
16.50"	20.375	16.500
18"	22.500	18.000
20"	25.000	20.000
22"	27.500	22.000
23.50"	30.500	23.500
24"	30.000	24.000
26"	39.000	26.000
30"	45.000	30.000
32"	48.000	32.000
34"	51.000	34.000
36"	54.000	36.000
40"	60.000	40.000
42"	63.000	42.000
48"	72.000	48.000
56"	76.500	56.000
60"	90.000	60.000

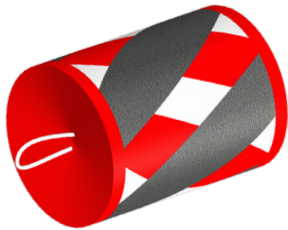
## MDWB & MDWB DD

2-60" (51-1524mm)

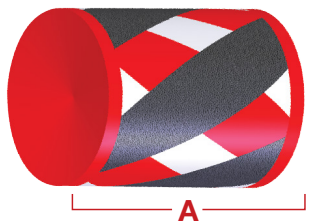
The Apache MDWB (medium density wire brush) and MDWB DD (medium density wire brush, double dish) are light weight open cell foam pigs designed for cleaning and scraping pipelines. The Double Dish is ideal for bi-directional operations and evacuation of liquids. The medium density helps both styles navigate restrictions. MDWB Foam pigs are one of the most cost effective, durable designs of pipeline cleaners in the market today.



**MDWB**  
Medium Density  
Wire Brush



**MDWB DD**  
Medium Density  
Wire Brush  
Double Dish



"A" represents sealing surface. This dimension is the same for both styles.

### Features & Benefits:

- Scraping.
- Cleaning.

### Options Available:

- Handling rope.
- Trans-Cavity.
- Custom sizes available.
- Also available in light density (yellow) and hard density (blue).

Size	A	B
2"	2.500	2.000
	2.875	2.250
	3.250	2.500
	3.500	2.750
3"	3.750	3.000
	4.125	3.250
	4.500	3.500
	4.750	3.750
4"	5.000	4.000
	5.375	4.250
	5.625	4.500
	6.000	4.750
5"	6.375	5.000
	6.625	5.250
	7.000	5.500
	7.375	5.750
6"	7.625	6.000
	7.875	6.250
	8.500	6.500
	8.625	6.750
7"	8.875	7.000
	9.250	7.250
8"	10.125	8.000
	10.375	8.250
	10.750	8.500

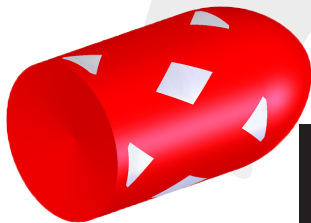
Size	A	B
10"	12.500	10.000
	12.875	10.250
	13.250	10.000
12"	15.000	12.000
	15.325	12.250
	15.750	12.500
14"	17.500	14.000
16"	20.000	16.000
16.25"	20.375	16.250
16.50"	20.375	16.500
18"	22.500	18.000
20"	25.000	20.000
22"	27.500	22.000
23.50"	30.500	23.500
24"	30.000	24.000
26"	39.000	26.000
30"	45.000	30.000
32"	48.000	32.000
34"	51.000	34.000
36"	54.000	36.000
40"	60.000	40.000
42"	63.000	42.000
48"	72.000	48.000
56"	76.500	56.000
60"	90.000	60.000



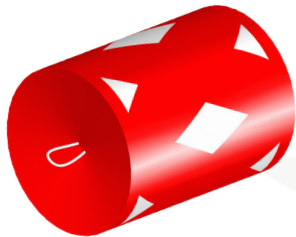
## MDCC & MDCC DD

2-60" (51-1524mm)

The Apache MDCC (medium density criss cross) and MDCC DD (medium density criss cross, double dish) are lightweight open cell foam pigs designed for cleaning and drying pipelines. The Double Dish is ideal for bi-directional operations and evacuation of liquids. The medium density helps both styles navigate restrictions. MDCC Foam pigs are one of the most cost effective, durable designs of pipeline cleaners in the market today.



**MDCC**  
Medium Density  
Criss Cross



**MDCC DD**  
Medium Density  
Criss Cross  
Double Dish



"A" represents sealing surface. This dimension is the same for both styles.

### Features & Benefits:

- Cleaning.
- Dewatering.
- Works in all piping systems.

### Options Available:

- Handling rope.
- Trans-Cavity.
- Custom sizes available.
- Also available in light density (yellow) and hard density (blue).

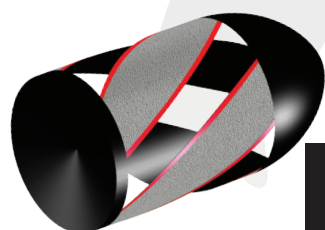
Size	A	B
2"	2.500	2.000
	2.875	2.250
	3.250	2.500
	3.500	2.750
3"	3.750	3.000
	4.125	3.250
	4.500	3.500
	4.750	3.750
4"	5.000	4.000
	5.375	4.250
	5.625	4.500
	6.000	4.750
5"	6.375	5.000
	6.625	5.250
	7.000	5.500
	7.375	5.750
6"	7.625	6.000
	7.875	6.250
	8.500	6.500
	8.625	6.750
7"	8.875	7.000
	9.250	7.250
8"	10.125	8.000
	10.375	8.250
	10.750	8.500

Size	A	B
10"	12.500	10.000
	12.875	10.250
	13.250	10.000
12"	15.000	12.000
	15.325	12.250
	15.750	12.500
14"	17.500	14.000
16"	20.000	16.000
16.25"	20.375	16.250
16.50"	20.375	16.500
18"	22.500	18.000
20"	25.000	20.000
22"	27.500	22.000
23.50"	30.500	23.500
24"	30.000	24.000
26"	39.000	26.000
30"	45.000	30.000
32"	48.000	32.000
34"	51.000	34.000
36"	54.000	36.000
40"	60.000	40.000
42"	63.000	42.000
48"	72.000	48.000
56"	76.500	56.000
60"	90.000	60.000

# MDPB & MDPB DD

2-60" (51-1524mm)

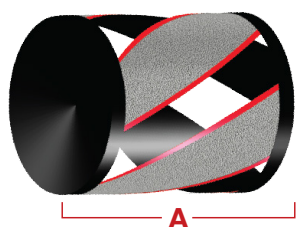
The Apache MDPB (medium density plastic brush) and MDPB DD (medium density plastic brush, double dish) are lightweight open cell foam pigs designed for cleaning and drying pipelines. The Double Dish is ideal for bi-directional operations and evacuation of liquids. MDPB foam pigs are one of the most cost effective, durable designs of pipeline cleaners in the market today. Most commonly used in internally coated or lined pipelines.



**MDPB**  
Medium Density  
Plastic Brush



**MDPB DD**  
Medium Density  
Plastic Brush  
Double Dish



**B** "A" represents sealing  
surface. This dimension is  
the same for both styles.

## Features & Benefits:

- Cleaning.
- Dewatering.
- Works in all piping systems.

## Options Available:

- Handling rope.
- Trans-Cavity.
- Custom sizes available.
- Also available in light density (yellow) and hard density (blue).

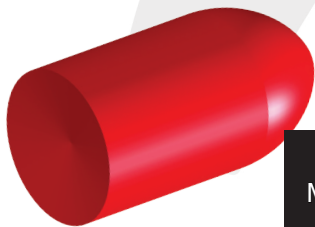
Size	A	B
2"	2.500	2.000
	2.875	2.250
	3.250	2.500
	3.500	2.750
3"	3.750	3.000
	4.125	3.250
	4.500	3.500
	4.750	3.750
4"	5.000	4.000
	5.375	4.250
	5.625	4.500
	6.000	4.750
5"	6.375	5.000
	6.625	5.250
	7.000	5.500
	7.375	5.750
6"	7.625	6.000
	7.875	6.250
	8.500	6.500
	8.625	6.750
7"	8.875	7.000
	9.250	7.250
8"	10.125	8.000
	10.375	8.250
	10.750	8.500

Size	A	B
10"	12.500	10.000
	12.875	10.250
	13.250	10.000
12"	15.000	12.000
	15.325	12.250
	15.750	12.500
14"	17.500	14.000
16"	20.000	16.000
16.25"	20.375	16.250
16.50"	20.375	16.500
18"	22.500	18.000
20"	25.000	20.000
22"	27.500	22.000
23.50"	30.500	23.500
24"	30.000	24.000
26"	39.000	26.000
30"	45.000	30.000
32"	48.000	32.000
34"	51.000	34.000
36"	54.000	36.000
40"	60.000	40.000
42"	63.000	42.000
48"	72.000	48.000
56"	76.500	56.000
60"	90.000	60.000

## MDFC & MDFC DD

2-60" (51-1524mm)

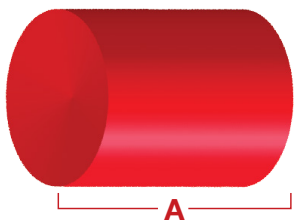
The Apache MDFC (medium density full coat) and MDFC DD (medium density full coat, double dish) are lightweight open cell foam pigs designed for cleaning and drying pipelines. The Double Dish is ideal for bi-directional operations and evacuation of liquids. The medium density helps both styles navigate restrictions. MDFC Foam pigs are one of the most cost effective, durable designs of pipeline cleaners in the market today.



**MDFC**  
Medium Density  
Full Coat



**MDFC DD**  
Medium Density  
Full Coat  
Double Dish



**B** "A" represents sealing surface. This dimension is the same for both styles.

### Features & Benefits:

- Cleaning.
- Dewatering.
- Works in all piping systems.

### Options Available:

- Handling rope.
- Trans-Cavity.
- Custom sizes available.
- Also available in light density (yellow) and hard density (blue).

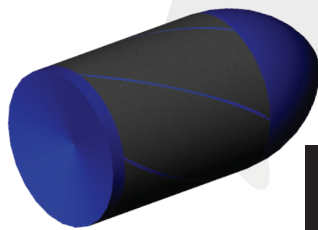
Size	A	B
2"	2.500	2.000
	2.875	2.250
	3.250	2.500
	3.500	2.750
3"	3.750	3.000
	4.125	3.250
	4.500	3.500
	4.750	3.750
4"	5.000	4.000
	5.375	4.250
	5.625	4.500
	6.000	4.750
5"	6.375	5.000
	6.625	5.250
	7.000	5.500
	7.375	5.750
6"	7.625	6.000
	7.875	6.250
	8.500	6.500
	8.625	6.750
7"	8.875	7.000
	9.250	7.250
8"	10.125	8.000
	10.375	8.250
	10.750	8.500

Size	A	B
10"	12.500	10.000
	12.875	10.250
	13.250	10.000
12"	15.000	12.000
	15.325	12.250
	15.750	12.500
14"	17.500	14.000
16"	20.000	16.000
16.25"	20.375	16.250
16.50"	20.375	16.500
18"	22.500	18.000
20"	25.000	20.000
22"	27.500	22.000
23.50"	30.500	23.500
24"	30.000	24.000
26"	39.000	26.000
30"	45.000	30.000
32"	48.000	32.000
34"	51.000	34.000
36"	54.000	36.000
40"	60.000	40.000
42"	63.000	42.000
48"	72.000	48.000
56"	76.500	56.000
60"	90.000	60.000

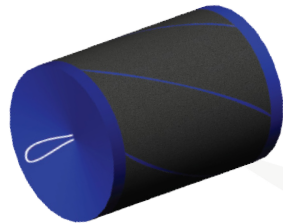
# Porcupine

## 2-60" (51-1524mm)

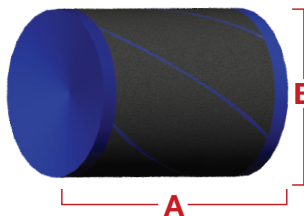
The Apache Porcupine pigs are heavy density foam pigs designed for scraping pipelines. The Double Dish is ideal for bi-directional operations. Porcupine foam pigs are one of the most cost effective, durable designs of pipeline cleaners in the market today.



**PORCUPINE**



**PORCUPINE  
Double Dish**



"A" represents sealing surface. This dimension is the same for both styles.

### Features & Benefits:

- Cleaning.
- Excellent for gas pipelines.
- Works in all piping systems.

### Options Available:

- Handling rope.
- Trans-Cavity.
- Custom sizes available.
- Also available in light density (yellow) and hard density (blue).

Size	A	B
2"	2.500	2.000
	2.875	2.250
	3.250	2.500
	3.500	2.750
3"	3.750	3.000
	4.125	3.250
	4.500	3.500
	4.750	3.750
4"	5.000	4.000
	5.375	4.250
	5.625	4.500
	6.000	4.750
5"	6.375	5.000
	6.625	5.250
	7.000	5.500
	7.375	5.750
6"	7.625	6.000
	7.875	6.250
	8.500	6.500
	8.625	6.750
7"	8.875	7.000
	9.250	7.250
8"	10.125	8.000
	10.375	8.250
	10.750	8.500

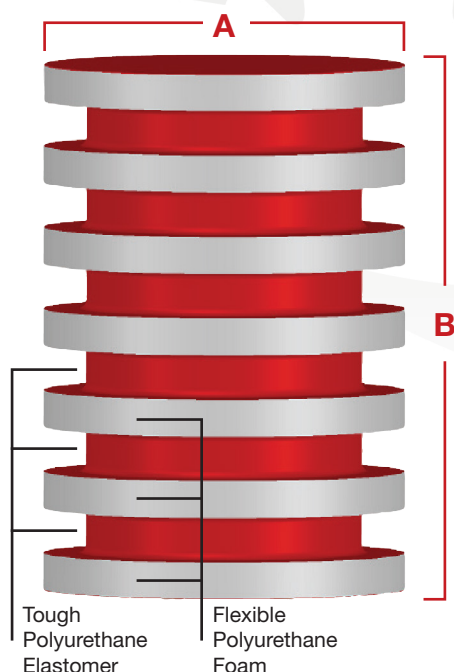
Size	A	B
10"	12.500	10.000
	12.875	10.250
	13.250	10.000
12"	15.000	12.000
	15.325	12.250
	15.750	12.500
14"	17.500	14.000
16"	20.000	16.000
16.25"	20.375	16.250
16.50"	20.375	16.500
18"	22.500	18.000
20"	25.000	20.000
22"	27.500	22.000
23.50"	30.500	23.500
24"	30.000	24.000
26"	39.000	26.000
30"	45.000	30.000
32"	48.000	32.000
34"	51.000	34.000
36"	54.000	36.000
40"	60.000	40.000
42"	63.000	42.000
48"	72.000	48.000
56"	76.500	56.000
60"	90.000	60.000

## ProVex FD™ Pig

2-42" (51-1067mm)

Versatile. Effective. Field-proven. To remove liquids from a pipeline, Apache offers the multi-faceted ProVex FD™ pig. Known throughout the pipeline industry as the ultimate pigging solution for achieving a liquid-free line, the durable ProVex FD™ is a particularly versatile bi-directional pig.

Not only does it remove liquids in natural gas lines, the ProVex FD™ successfully reduces wax build-up in crude oil pipelines, dewateres lines following hydrostatic testing, and executes nitrogen purging. In fact, it's one of the most multi-purpose pigs on the market today.



Size	A	B	Part #
2"	2.30"	3.38"	85-8002-00
3"*	3.00"	4.86"	85-8103-00
	3.40"	4.86"	85-8003-00
4"*	4.00"	6.63"	85-8104-00
	4.50"	6.63"	85-8004-00
6"	6.50"	9.50"	85-8006-00
8"	8.50"	11.25"	85-8008-00
10"	10.50"	14.50"	85-8010-00
12"	12.50"	17.76"	85-8012-00

Size	A	B	Part #
14"	14.00"	22.38"	85-8014-00
16"	16.00"	24.00"	85-8016-00
18"	18.00"	18.25"	85-8018-00
20"	20.00"	31.00"	85-8020-00
24"	24.00"	35.50"	85-8024-00
30"	30.00"	41.25"	85-8030-00
34"	34.00"	51.31"	85-8034-00
36"	36.00"	51.31"	85-8036-00
42"	42.00"	63.25"	85-8042-00

\*3" and 4" sizes are for low flow applications or non metallic pipelines.

With its single piece construction, the ProVex FD™ pig easily negotiates 1.5D bends, allowing it to move reliably through piping systems.

### Features & Benefits:

- Made from tough, flexible foam, the ProVex FD™ uses an engineered series of molded channels that provide multiple wiping discs. Each channel is coated with durable Apache Reliathane polyurethane elastomer to form a cutting edge on each disc, facilitating longer runs.
- It is bi-directional, so that it can run in either direction.

### Options Available:

- Polypropylene handling rope for one or both ends of the pig for easy handling.
- Transmitter housing to accommodate electronic tracking equipment.
- Also available in light density (yellow) and hard density (blue).

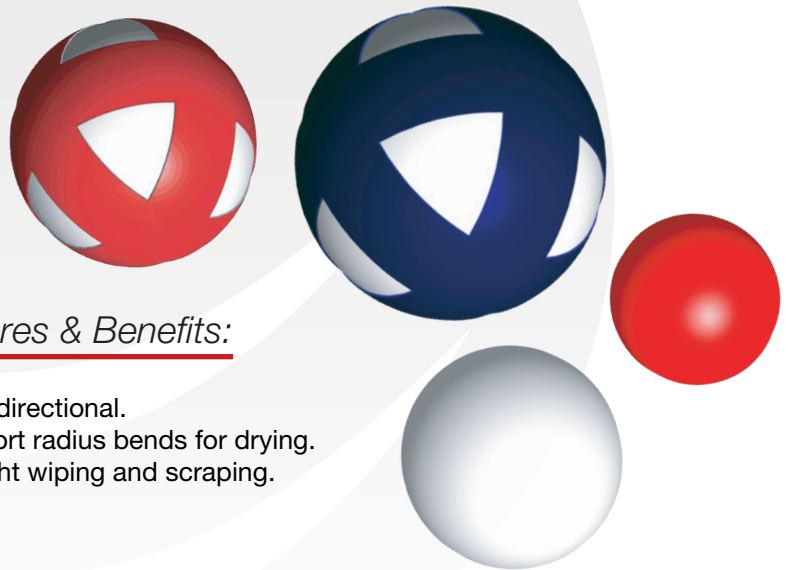


# Foam Spheres

Apache foam balls are fabricated from the highest quality open cell polyurethane foam. The flexible nature of these pigs allows for the negotiation of both short radius bends and unexpected reductions in pipe bore. Solid urethane spheres are available in a variety of different durometers.

**FOAM PIG BALLS AND URETHANE SPHERES ARE THE MOST COST EFFECTIVE AND VERSATILE PIPELINE CLEANERS ON THE MARKET TODAY.**

Sizes Available:			
2.00"	3.00"	4.00"	6.00"
2.25"	3.25"	4.25"	8.50"
2.50"	3.50"	4.50"	10.50"



## Options Available:

- Bare Foam:
  - 8 - 10lb/ft<sup>3</sup> (128 - 160kg/m<sup>3</sup>).
  - 5 - 7lb/ft<sup>3</sup> (80 - 112kg/m<sup>3</sup>).
  - 1 - 2lb/ft<sup>3</sup> (16 - 32kg/m<sup>3</sup>).
- Criss Cross Foam Balls.
- Wire Brush Foam Balls.
- Full Coat Foam Balls.
- Silicone Carbide.

## Features & Benefits:

- Bi-directional.
- Short radius bends for drying.
- Light wiping and scraping.

# Clean Out Balls

## Applications:

- Lay flat water lines.
- Irrigation lines.
- Concrete truck lines.
- Manure lines.



Size	Part #
2.30"	02-SPNG-0230
3.50"	02-SPNG-0350
4.50"	02-SPNG-0450
6.30"	02-SPNG-0630
7.87"	02-SPNG-0787
8.66"	02-SPNG-0866
10.24"	02-SPNG-1024
11.00"	02-SPNG-1100
12.30"	02-SPNG-1230
14.00"	02-SPNG-1400

# REPLACEMENT PARTS

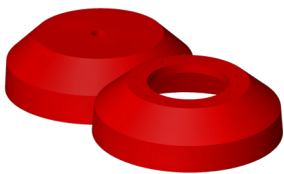
## CUPS



**C - Scraper**  
2-14" Pg. 5-2  
16-48" Pg. 5-3



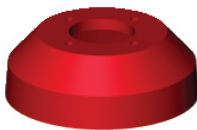
**JC - Jetted**  
2-14" Pg. 5-4  
16-48" Pg. 5-5



**M - Conical**  
3-14" Pg. 5-6  
16-48" Pg. 5-7

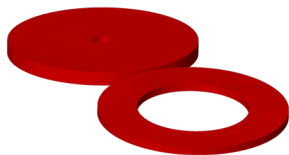


**UT-C Cup**  
6 - 14"  
Pg. 5-8

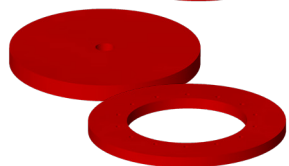


**UT-M Cup**  
6 - 14"  
Pg. 5-9

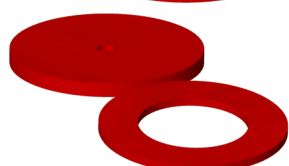
## DISCS



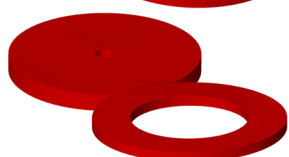
**C - Sealer**  
3-14" Pg. 5-10  
16-48" Pg. 5-11



**C - Guide**  
3-14" Pg. 5-12  
16-48" Pg. 5-13



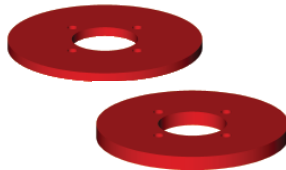
**M - Sealer**  
3-14" Pg. 5-14  
16-48" Pg. 5-15



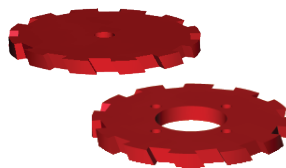
**M - Guide**  
3-14" Pg. 5-16  
16-48" Pg. 5-17



**MDK**  
16 - 48"  
Pg. 5-18



**UT Sealer/Guide Disc**  
6 - 14"  
Pg. 5-19



**CARVER Disc**  
3 - 48"  
Pg. 5-20



**Butterfly Disc & Plow Blade**  
3 - 10"  
Pg. 5-21

## BRUSHES



**Wrap Brush**  
*Model BB*  
Pg. 5-22



**Circular Flange**  
*Model RB*  
Pg. 5-23



**Circular Flange**  
*pitPRO™*  
Pg. 5-24



**Block Brush**  
*Model XB*  
Pg. 5-25



**Block Brush**  
*Integrity XB*  
Pg. 5-26



# Scraper Cup

## 2-14" (51-356mm)

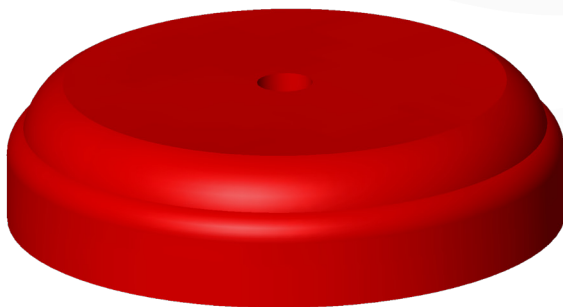
Durable. Reliable. Effective.

The unique design of the Series C cup offers the cleaning advantages of a scraper cup and the flexibility inherent in a conical cup.

To provide a longer cup life, Apache made certain that the wear surface of the cup is three times larger than any other scraper cup on the market. Plus, the pressure of the pipeline product presses the cutting edge firmly against the pipe wall, ensuring an optimum seal.

Another advantage is that the flex area between the shank and the cleaning surface allows the cup to traverse reductions in the pipe bore caused by buckling of, or anomalies in, the pipeline. This means that runs go as planned, without delay.

As with all of Apache products, the Series C cup was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.



Size	O.D	I.D	Part #
2"	2.125	0.50	91-3015-02
3"	3.375	0.50	91-3015-03
4"	4.375	0.50	91-3015-04
6"	6.375	1.00	91-3015-06
8"	8.500	1.00	91-3015-08
10"	10.625	1.00	91-3015-10
12"	12.750	1.00	91-3015-12
14"	13.875	1.00	91-3015-14

### Options Available:

- Custom I.D. and bolt patterns available on request.
- Different durometers available on request.
- High temperature material.

# Scraper Cup

## 16-48" (406-1219mm)

Durable. Reliable. Effective.

The unique design of the Series C cup offers the cleaning advantages of a scraper cup and the flexibility inherent in a conical cup.

To provide a longer cup life, Apache made certain that the wear surface of the cup is three times larger than any other scraper cup on the market. Plus, the pressure of the pipeline product presses the cutting edge firmly against the pipe wall, ensuring an optimum seal.

Another advantage is that the flex area between the shank and the cleaning surface allows the cup to traverse reductions in the pipe bore caused by buckling of, or anomalies in, the pipeline. This means that runs go as planned, without delay.

As with all of Apache products, the Series C cup was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.



Size	O.D	I.D	Part #
16"	16.000	8.750	91-3015-16
18"	17.875	10.875	91-3015-18
20"	19.875	10.875	91-3015-20
22"	21.875	10.875	91-3015-22
24"	23.875	14.125	91-3015-24
26"	25.875	14.125	91-3015-26
28"	27.875	16.125	91-3015-28
30"	29.875	16.125	91-3015-30
32"	32.000	20.125	91-3015-32
34"	34.000	20.125	91-3015-34
36"	36.000	22.125	91-3015-36
42"	42.125	24.125	91-3015-42
48"	48.500	32.125	91-3015-48

### Options Available:

- Custom I.D. and bolt patterns available on request.
- Different durometers available on request.
- High temperature material.

# Jetted Cup

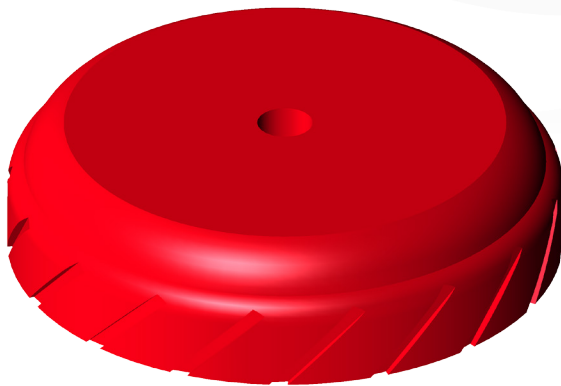
2-14" (51-356mm)

Put simply, the Jetted cup is a jetting, scraping cleaning machine.

It works extremely well in oil, gas and products pipelines. For example, it efficiently breaks up large volumes of accumulated pipeline wax by directing bypass product through it's jetted grooves. Debris is suspended in the turbulent flow and transferred ahead of the pig. It's a great option for low flow applications, along with removal of sand and other debris.

The design of the jetting grooves on the lip of the cup promote the pig to rotate as it travels, ensuring even wear of the cup. This increases cup life and reduces operating costs.

The turbulence created dislodges the debris collected around either the cups or discs, and transfers it ahead of the pig. As a result, these grooves in the cup's surface create five times the scraping surface, making it possible to aim a calibrated amount of fluid to pummel the pipe wall, jetting away – and suspending – stubborn wax, sand or other debris.



Size	O.D	I.D	Part #
2"	2.125	0.50	91-3998-02
3"	3.375	0.50	91-3998-03
4"	4.375	0.50	91-3998-04
6"	6.375	1.00	91-3998-06
8"	8.500	1.00	91-3998-08
10"	10.625	1.00	91-3998-10
12"	12.750	1.00	91-3998-12
14"	13.875	1.00	91-3998-14

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# Jetted Cup

16-48" (406-1219mm)

Put simply, the Jetted cup is a jetting, scraping cleaning machine.

It works extremely well in oil, gas and products pipelines. For example, it efficiently breaks up large volumes of accumulated pipeline wax by directing bypass product through it's jetted grooves. Debris is suspended in the turbulent flow and transferred ahead of the pig. It's a great option for low flow applications, along with removal of sand and other debris.

The design of the jetting grooves on the lip of the cup promote the pig to rotate as it travels, ensuring even wear of the cup. This increases cup life and reduces operating costs.

The turbulence created dislodges the debris collected around either the cups or discs, and transfers it ahead of the pig. As a result, these grooves in the cup's surface create five times the scraping surface, making it possible to aim a calibrated amount of fluid to pummel the pipe wall, jetting away – and suspending – stubborn wax, sand or other debris.



Size	O.D	I.D	Part #
16"	16.000	8.750	91-3998-16
18"	17.875	10.875	91-3998-18
20"	19.875	10.875	91-3998-20
24"	23.875	14.125	91-3998-24
26"	25.875	14.125	91-3998-26
30"	29.875	16.125	91-3998-30
34"	34.000	20.125	91-3998-34
36"	36.000	22.125	91-3998-36
42"	42.125	24.125	91-3998-42
48"	48.500	32.125	91-3998-48

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# Conical Cup

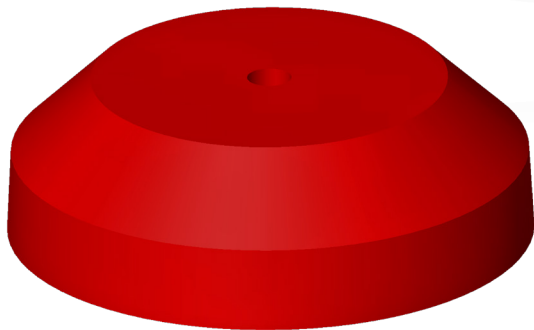
3-14" (76-356mm)

Given that anomalies are a fairly common feature of a pipeline scheduled for maintenance, it's reassuring that pigs mounted with Series M conical cups are engineered to elongate and can traverse pipeline anomalies of up to 20% without damaging the pig. This means that runs go as planned, without delay.

As with all of Apache products, the Series M cup was specifically developed to perform, efficiently and reliably during batching operations. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

The heavy design and large wearing surface provide an excellent and effective seal in displacement and batching operation while still offering unsurpassed flexibility

To enhance cup life, conical cups are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D	I.D	Part #
3"	3.375	0.500	91-5010-03
4"	4.375	0.500	91-5010-04
6"	6.500	1.000	91-5010-06
8"	8.375	1.000	91-5010-08
10"	10.500	1.000	91-5010-10
12"	12.500	1.000	91-5010-12
14"	14.000	1.000	91-5010-14

## Options Available:

- Custom I.D. and bolt patterns available on request.
- Different durometers available on request.
- High temperature material.

# Conical Cup

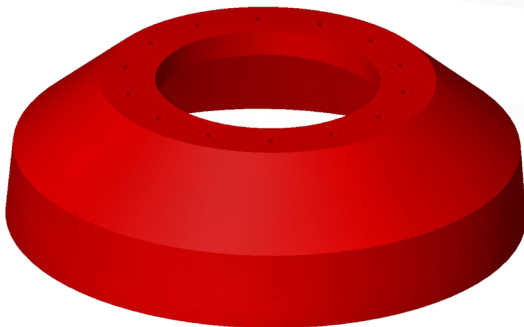
16-48" (406-1219mm)

Given that anomalies are a fairly common feature of a pipeline scheduled for maintenance, it's reassuring that pigs mounted with Series M conical cups are engineered to elongate and can traverse pipeline anomalies of up to 20% without damaging the pig. This means that runs go as planned, without delay.

As with all of Apache products, the Series M cup was specifically developed to perform, efficiently and reliably during batching operations. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

The heavy design and large wearing surface provide an excellent and effective seal in displacement and batching operation while still offering unsurpassed flexibility

To enhance cup life, conical cups are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D	I.D	Part #
16"	15.875	6.750	91-5010-16
18"	18.000	8.375	91-5010-18
20"	20.000	8.375	91-5010-20
22"	22.000	10.375	91-5010-22
24"	24.000	10.375	91-5010-24
26"	26.000	12.375	91-5010-26
28"	28.000	12.375	91-5010-28
30"	29.875	15.375	91-5010-30
32"	32.000	15.375	91-5010-32
34"	34.000	17.375	91-5010-34
36"	36.000	17.375	91-5010-36
38"	38.000	20.375	91-5010-38
40"	40.000	20.375	91-5010-40
42"	42.000	20.375	91-5010-42
48"	48.125	24.375	91-5010-48

## Options Available:

- Custom I.D. and bolt patterns available on request.
- Different durometers available on request.
- High temperature material.

## UT-C Cup

### 6-14" (152-356mm)

The unique design of the UT-C cup offers the cleaning advantages of a scraper cup and the flexibility inherent in a conical cup. To provide a longer cup life, the wear surface of the cup is three times larger than any other UT-style cup on the market. The pressure of the pipeline product presses the cutting edge firmly against the pipe wall, ensuring an optimum seal. The flex area between the shank and the cleaning surface allows the cup to traverse reductions in the pipe bore caused by buckling of, or anomalies in the pipeline.

As with all of Apache products, the Series C cup was specifically developed to perform, efficiently and reliably during batching operations. To enhance durability, it's made from Reliathane, Apache's special blend wear-resistant polyurethane.

To enhance cup life, conical cups are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D.	I.D.	Part #
6"	6.375	2.500	91-4015-06
8"	8.500	3.000	91-4015-08
10"	10.625	3.625	91-4015-10
12"	12.750	4.625	91-4015-10
14"	13.845	4.625	91-4015-14

#### Options Available:

- Different durometers available on request.
- High temperature material.
- Custom I.D/O.D bolt pattern and thickness available on request.



## UT-M Cup

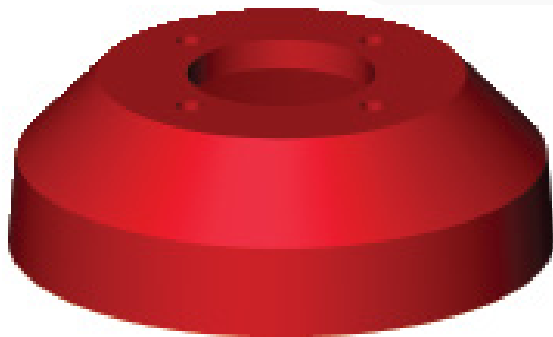
### 6-14" (152-356mm)

Given that anomalies are a fairly common feature of a pipeline scheduled for maintenance, it's reassuring that pigs mounted with Series M UT cups are engineered to elongate and can traverse pipeline anomalies of up to 20% without damaging the pig. This means that runs go as planned, without delay.

As with all of Apache products, the Series M cup was specifically developed to perform, efficiently and reliably during batching operations. To enhance durability, it's made from Reliathane, Apache's special blend wear-resistant polyurethane.

The heavy design and large wearing surface provide an excellent and effective seal in displacement and batching operation while still offering unsurpassed flexibility.

To enhance cup life, conical cups are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D.	I.D.	Part #
6"	6.500	2.500	91-5010-06
8"	8.375	3.000	91-5010-08
10"	10.500	3.625	91-5010-10
12"	12.500	4.625	91-5010-12
14"	14.000	4.625	91-5010-14

#### Options Available:

- Different durometers available on request.
- High temperature material.
- Custom I.D/O.D bolt pattern and thickness available on request.

# Sealer Discs

3-14" (76-356mm)

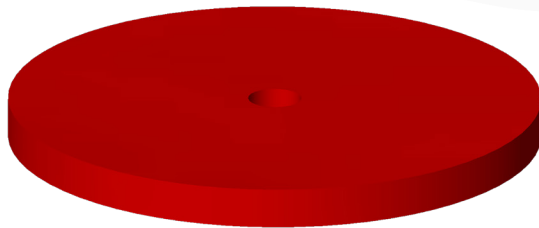
Durable. Reliable. Effective.

Apache sealer discs are also extremely versatile and can perform in bi-directional or uni-directional applications.

To meet your unique requirements, simply order custom dimensions, durometer or material composition of the discs. Standard 72 durometer discs are used for sealing and have the ability to flip over easily for bi-directional travel. 86 durometer discs are used for scraping and cleaning the line.

As with all of Apache products, the Series C disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, sealer discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D	I.D	Part #
3"	3.375	0.500	91-3210-03
4"	4.375	0.500	91-3210-04
6"	6.375	1.000	91-3210-06
8"	8.375	1.000	91-3210-08
10"	10.500	1.000	91-3210-10
12"	12.500	1.000	91-3210-12
14"	13.875	1.000	91-3210-14

## Options Available:

- 72 durometer or 86 durometer.
- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

# Sealer Discs

## 16-48" (406-1219mm)

Durable. Reliable. Effective.

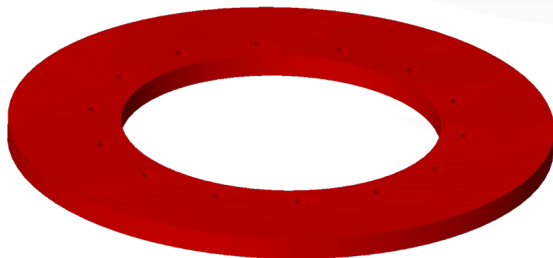
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To meet your unique requirements, simply order custom dimensions, durometer or material composition of the discs. Standard 72 durometer discs are used for sealing and have the ability to flip over easily for bi-directional travel. 86 durometer discs are used for scraping and cleaning the line.

As with all of Apache products, the Series C disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, sealer discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.

*\*Series C parts mount on different style pigs than our Series M.*



Size	O.D	I.D	Part #
16"	15.875	8.750	91-3210-16
18"	17.875	10.875	91-3210-18
20"	20.000	10.875	91-3210-20
22"	22.000	10.875	91-3210-22
24"	24.125	14.125	91-3210-24
26"	26.125	14.125	91-3210-26
28"	28.250	16.125	91-3210-28
30"	30.250	16.125	91-3210-30
32"	32.375	20.125	91-3210-32
34"	34.375	20.125	91-3210-34
36"	36.500	22.125	91-3210-36
38"	38.500	22.125	91-3210-38
40"	40.625	22.125	91-3210-40
42"	42.125	24.125	91-3210-42
48"	48.875	32.125	91-3210-48

### Options Available:

- 72 durometer or 86 durometer.
- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

# Guide Discs

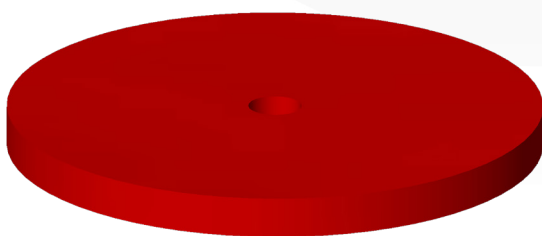
3-14" (76-356mm)

Durable. Reliable. Effective.

Apache guide discs are extremely versatile and can perform in bi-directional or uni-directional applications.

As with all of Apache products, the Series C disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, guide discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D	I.D	Part #
3"	3.000	0.500	91-3220-03
4"	4.000	0.500	91-3220-04
6"	6.000	1.000	91-3220-06
8"	8.000	1.000	91-3220-08
10"	10.000	1.000	91-3220-10
12"	12.000	1.000	91-3220-12
14"	13.750	1.000	91-3220-14

## Options Available:

- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

# Guide Discs

16-48" (406-1219mm)

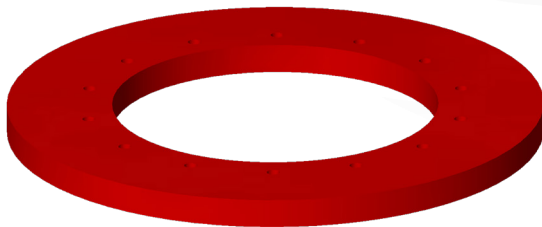
Durable. Reliable. Effective.

Apache guide discs are extremely versatile and can perform in bi-directional or uni-directional applications.

As with all of Apache products, the Series C disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, guide discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.

\*Series C parts mount on different style pigs then our Series M.



Size	O.D	I.D	Part #
16"	15.250	8.750	91-3220-16
18"	17.250	10.875	91-3220-18
20"	19.250	10.875	91-3220-20
22"	21.250	10.875	91-3220-22
24"	23.250	14.125	91-3220-24
26"	25.250	14.125	91-3220-26
28"	27.250	16.125	91-3220-28
30"	29.250	16.125	91-3220-30
32"	31.250	20.125	91-3220-32
34"	33.250	20.125	91-3220-34
36"	35.250	22.125	91-3220-36
38"	37.250	22.125	91-3220-38
40"	39.250	22.125	91-3220-40
42"	41.250	24.250	91-3220-42
48"	47.250	32.125	91-3220-48

## Options Available:

- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

# Sealer Discs

3-14" (76-356mm)

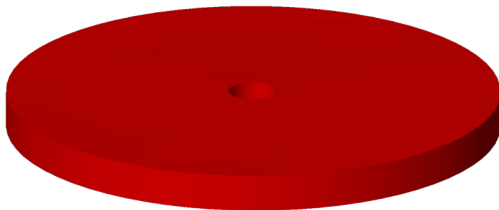
Durable. Reliable. Effective.

Apache sealer discs are extremely versatile and can perform in bi-directional or uni-directional applications.

To meet your unique requirements, simply order custom dimensions, durometer or material composition of the discs. Standard 72 durometer discs are used for sealing and have the ability to flip over easily for bi-directional travel. 86 durometer discs are used for scraping and cleaning the line.

As with all of Apache products, the Series M disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, sealer discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D	I.D	Part #
3"	3.375	0.500	91-5210-03
4"	4.375	0.500	91-5210-04
6"	6.375	1.000	91-5210-06
8"	8.375	1.000	91-5210-08
10"	10.500	1.000	91-5210-10
12"	12.500	1.000	91-5210-12
14"	13.875	1.000	91-5210-14

*\*Part numbers shown are for 85 Durometer (72 also available)*

## Options Available:

- 72 durometer or 86 durometer.
- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

# Sealer Discs

16-48" (406-1219mm)

Durable. Reliable. Effective.

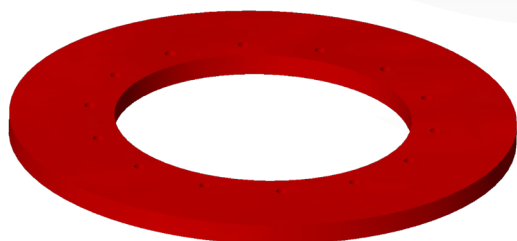
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*\*Series M parts mount on different style pigs than our Series C.*



Size	O.D	I.D	Part #
16"	15.875	6.750	91-5210-16
18"	17.875	8.375	91-5210-18
20"	20.000	8.375	91-5210-20
22"	22.000	10.375	91-5210-22
24"	24.125	10.375	91-5210-24
26"	26.125	12.375	91-5210-26
28"	28.250	12.375	91-5210-28
30"	30.250	15.375	91-5210-30
32"	32.375	15.375	91-5210-32
34"	34.375	17.375	91-5210-34
36"	36.500	17.375	91-5210-36
38"	38.500	20.875	91-5210-38
40"	40.625	20.875	91-5210-40
42"	42.125	20.875	91-5210-42
48"	48.875	24.875	91-5210-48

## Options Available:

- 72 durometer or 86 durometer.
- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

*\*Part numbers shown are for 85 Durometer (72 also available)*



# Guide Discs

3-14" (76-356mm)

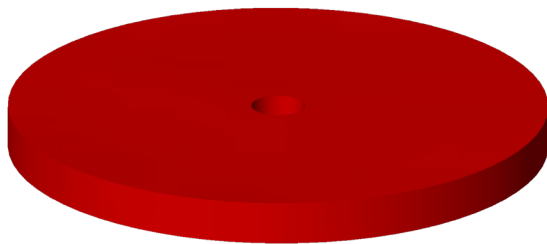
Durable. Reliable. Effective.

Apache guide discs are extremely versatile and can perform in bi-directional or uni-directional applications.

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As with all of Apache products, the Series M disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, guide discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Size	O.D	I.D	Part #
3"	3.000	0.500	91-5220-03
4"	4.000	0.500	91-5220-04
6"	6.000	1.000	91-5220-06
8"	8.000	1.000	91-5220-08
10"	10.000	1.000	91-5220-10
12"	12.000	1.000	91-5220-12
14"	13.250	1.000	91-5220-14

## Options Available:

- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

# Guide Discs

16-48" (406-1219mm)

Durable. Reliable. Effective.

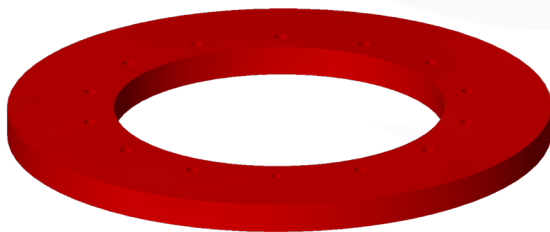
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\*Series M parts mount on different style pigs than our Series C.



Size	O.D	I.D	Part #
16"	15.250	6.750	91-5220-16
18"	17.250	8.375	91-5220-18
20"	19.250	8.375	91-5220-20
22"	21.250	10.375	91-5220-22
24"	23.250	10.375	91-5220-24
26"	25.250	12.375	91-5220-26
28"	27.250	12.375	91-5220-28
30"	29.250	15.375	91-5220-30
32"	31.250	15.375	91-5220-32
34"	33.250	17.375	91-5220-34
36"	35.250	17.375	91-5220-36
38"	37.250	20.875	91-5220-38
40"	39.250	20.875	91-5220-40
42"	41.250	20.875	91-5220-42
48"	47.250	24.875	91-5220-48

## Options Available:

- Wear-resistant additives.
- Custom I.D./O.D. bolt pattern and thickness available on request.
- High temperature material.

## Sealer Disc

16-48" (406-1219mm)

As with all of Apache products, the Series MDK disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, guide discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



Apache sealer discs are also extremely versatile and can perform in bi-directional or uni-directional applications.

Size	O.D	I.D	# Holes	Part #
16"	16.000	8.750	12	91-7200-16
20"	20.000	10.875	12	91-7200-20
24"	24.000	14.125	12	91-7200-24
30"	30.000	18.125	12	91-7200-30
36"	36.000	22.250	12	91-7200-36
42"	43.120	26.250	12	91-7200-42
48"	49.000	28.250	12	91-7200-48

*\*Part numbers shown are for 72 Durometer (85 also available)*

## Guide Disc

16-48" (406-1219mm)

The Series MDK sealer disc consists of a metric bolt pattern and features 12 holes.

As with all of Apache products, the Series MDK disc was specifically developed to perform, efficiently and reliably. To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane.

To enhance disc life, guide discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.



These discs center the sealing discs in the line, which allows the four sealing discs in the center to form a quadruple seal during displacement.

Size	O.D	I.D	# Holes	Part #
16"	15.250	8.750	12	91-7205-16
20"	19.250	10.875	12	91-7205-20
24"	23.250	14.125	12	91-7205-24
30"	29.300	18.125	12	91-7205-30
36"	35.000	22.250	12	91-7205-36
42"	40.750	26.250	12	91-7205-42
48"	46.630	28.250	12	91-7205-48

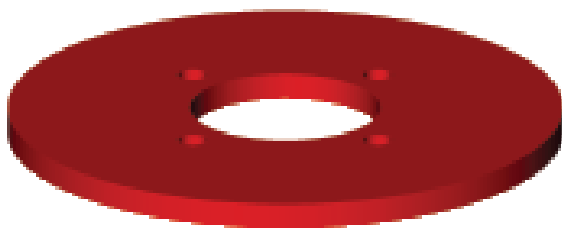
# UT Sealer/Guide Disc

6-14" (152-356mm)

Durable. Reliable. Effective. Apache sealer and guide discs are extremely versatile and can perform in bi-directional or uni directional applications. All UT style cups, discs, and sealers come with a standard bolt pattern and are designed solely for the Universal Transmitter Mandrel. Standard 72 durometer discs are used for sealing and have the ability to flip over easily for bi-directional travel. 86 durometer discs are used for scraping and cleaning the line. Guide discs are utilized to centralize and support the pig during any phase of pipeline operation.

To enhance durability, it's made from Reliathane, Apache's special blend of wear-resistant polyurethane. To enhance disc life, sealer discs are available with a variety of wear-resistant additives. In fact, Apache developed a proprietary chemical resistant urethane to help protect against conditions, such as hydrogen sulphide, encountered in severe environments.

To meet your unique requirements, simply order custom dimensions, durometer or material composition of the discs.



**SEALER DISC**

Size	O.D.	I.D.	Part #
6"	6.375	2.500	91-4210-06
8"	8.375	3.000	91-4210-08
10"	10.500	3.625	91-4210-10
12"	12.500	4.625	91-4210-12
14"	13.875	4.625	91-4210-14



**GUIDE DISC**

Size	O.D.	I.D.	Part #
6"	6.375	2.500	91-4210-06
8"	8.375	3.000	91-4210-08
10"	10.500	3.625	91-4210-10
12"	12.500	4.625	91-4210-12
14"	13.875	4.625	91-4210-14

\*Sealer disc available in 70 Durometer.

## Options Available:

- Different durometers available on request.
- High temperature material.

## CARVER Disc

3-48" (76-1219mm)

The diagonal grooves provide unmatched cleaning capabilities as the numerous edges scrape the pipe wall removing wax, scale and other pipeline debris. Similar in design to Apache's Jetted cup, the cavity between the carving edges permits bypass and creates turbulent flow which allows fluid to pass along the wall of the pipe to jet away wax, sand and other debris.



Size	O.D	I.D	Part #
3"	3.000	0.50	91-3230-03
4"	4.000	0.50	91-3230-04
6"	6.000	1.00	91-3230-06
8"	8.000	1.00	91-3230-08
10"	10.000	1.00	91-3230-10
12"	12.000	1.00	91-3230-12
14"	13.250	1.00	91-3230-14

Size	O.D	I.D	Part #
16"	15.250	8.750	91-3230-16
20"	19.250	10.875	91-3230-20
24"	23.250	14.125	91-3230-24
30"	29.250	16.125	91-3230-30
36"	35.250	22.125	91-3230-36
42"	41.250	24.125	91-3230-42
48"	47.250	32.125	91-3230-48

## UT CARVER Disc

6-14" (152-356mm)

The diagonal grooves provide unmatched cleaning capabilities as the numerous edges scrape the pipe wall removing wax, scale and other pipeline debris. Similar in design to Apache's Jetted cup, the cavity between the carving edges permits bypass and creates turbulent flow which allows fluid to pass along the wall of the pipe to jet away wax, sand and other debris.



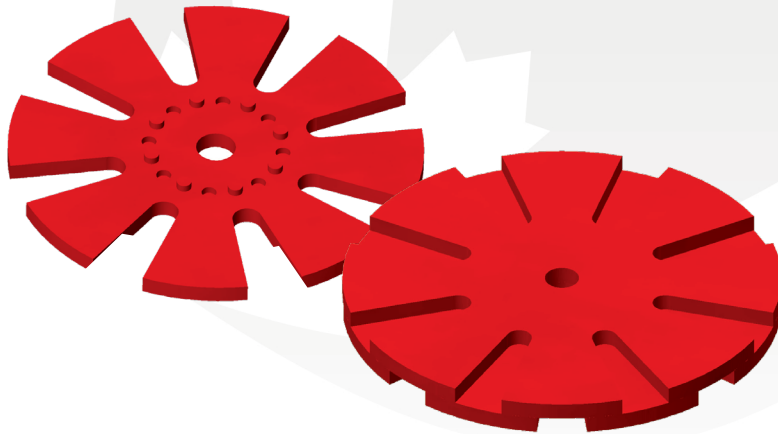
Size	O.D	Part #
6"	6.000	91-4230-06
8"	8.000	91-4230-08
10"	10.000	91-4230-10
12"	12.000	91-4230-12
14"	13.250	91-4230-14

This CARVER disc was specifically designed to fit UT Mandrel style pig bodies.

## Butterfly Disc

3-10" (76-254mm)

Apache Butterfly Discs allow the operator to run pigs in pipelines with changes in inside diameter and can be used in both Bi-Directional and Uni-Directional applications. The durometer or composition of the discs can vary to meet any special requirements.



### Transition Size:

3" to 4"

4" to 6"

6" to 8"

8" to 10"

Size	Part #
3" x 4"	91-3580-03
4" x 6"	91-3580-04
6" x 8"	91-3580-06
8" x 10"	91-3580-08

*\*Other Sizes Available On Request*

## Plow Blade

*Available for most 16-48"*  
*Apache Pigs*

Plow Blades are used in replacement of flat wire or pencil block brush for applications where a liner is present for paraffin or debris removal



# Wrap Brush - Model BB

Look no further. Apache offers a comprehensive range of wrap brushes for your cleaning needs. All Apache Wrap Brushes mount around a pig body and secure themselves between sealing elements with fasteners. Used commonly on solid cast, all urethane pigs, the wrap brush can be quickly and easily installed.

Effective. Reliable. Durable.



**Model BB Flat**

Size	Part #
3"	94-0100-03
4"	94-0100-04
6"	94-0100-06
8"	94-0100-08
10"	94-0100-10
12"	94-0100-12
14"	94-0100-14
16"	94-0100-16
18"	94-0100-18
20"	94-0100-20
22"	94-0100-22
24"	94-0100-24

## Features & Benefits:

### **FLAT**

- Effective when moderate to heavy cleaning is required.
- Provides 360 degree coverage with tandem installation.
- Easily negotiates bends and anomalies in the pipe bore.

### **PENCIL**

- Individual wires reach into pipeline pits, cleaning them thoroughly.
- Extremely durable, so it can be used repeatedly.

## Options Available:

- Carbon Steel or Stainless Steel trim material available for Flat wire profile.
- Plastic material available for Flat only.
- Custom trim lengths available on request.
- Custom-manufactured to suit all pig requirements.



## Circular Flange - Model RB

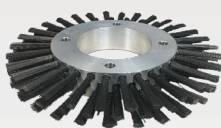
Effective. Reliable. Durable. Our Model RB brush is the best general purpose pipeline cleaning solution today. With years of experience, Apache will even custom-design the optimal brush for you. The RB Brush mounts to a pig body's flange by either single or multiple bolts. Brush trims are secured to a strong, custom-made plate, not pre-perforated sheets.



**Centre Hole RB**  
6-14" Flat



**Bolt Pattern RB**  
16-56" Flat



**UT-RB Pencil**  
6"-14"

### Features & Benefits:

#### FLAT

- Effective when moderate to heavy cleaning is required.
- Provides 360 degree coverage installation.
- Excellent for bidirectional applications.
- Act as centering guide in the pipeline.
- Can be stacked for more aggressive cleaning.
- Easily negotiates bends and anomalies in the pipe bore.

#### PENCIL

- Individual wires reach into pipeline pits, cleaning them thoroughly.
- Generally used before ILI runs to ensure a 360 degree clean.
- Extremely durable, so it can be used repeatedly.
- Available in Carbon Steel or Stainless Steel trim.
- Available in sizes ranging from 6" - 56"-plus.
- Its flexibility and ability to negotiate varying internal diameters make the pencil brush an excellent choice for cleaning multi diameter pipelines.

### Options Available:

- Custom trim lengths available on request.
- Trim Material – Carbon Steel, Stainless Steel & Plastic (Flat only).
- Flanges that carry the pencil brushes can be manufactured to use shorter trim lengths for scale or other problems that require a short strong brush with less flexibility.
- Alternatively, pencil brushes can feature longer trim to clean a pipeline that is, for example, partially obstructed by wax or dents or has design issues that call for the brush to flex, then resume cleaning.
- Can be custom-manufactured to suit all pig requirements.

#### CENTRE HOLE

Carbon Steel		
Size	Flat Wire*	Pencil Wire**
6"	94-0940-06	94-0941-06
8"	94-0940-08	94-0941-08
10"	94-0940-10	94-0941-10
12"	94-0940-12	94-0941-12
14"	94-0940-14	94-0941-14

\* Available in SS or Plastic Trim

\*\* Available in SS

#### CIRCULAR BOLT PATTERN

Carbon Steel		
Size	Flat Wire*	Pencil Wire**
6"	94-0950-06	94-0951-06
8"	94-0950-08	94-0951-08
10"	94-0950-10	94-0951-10
12"	94-0950-12	94-0951-12
14"	94-0950-14	94-0951-14
16"	94-0940-16	94-0941-16
18"	94-0940-18	94-0941-18
20"	94-0940-20	94-0941-20
22"	94-0940-22	94-0941-22
24"	94-0940-24	94-0941-24
26"	94-0940-26	94-0941-26
28"	94-0940-28	94-0941-28
30"	94-0940-30	94-0941-30
32"	94-0940-32	94-0941-32
34"	94-0940-34	94-0941-34
36"	94-0940-36	94-0941-36
42"	94-0940-42	94-0941-42
48"	94-0940-48	94-0941-48
56"	94-0940-56	94-0941-56

\* Available in SS or Plastic Trim

\*\* Available in SS

# Circular Flange - pitPRO™

3-16" (76-406mm)

Effective. Reliable. Durable. Our newest model of cleaning brush delivers incredible cleaning performance with outstanding durability.

With its high-density polyethylene core that features 304 stainless steel pencil brushes, the pitPRO™ pencil brush is a highly effective cleaning brush.



Size	Pattern	
	Centre Hole	UT Bolt Pattern
3"	94-0150-03	n/a
4"	94-0150-04	n/a
6"	94-0150-06	94-0152-06
8"	94-0150-08	94-0152-08
10"	94-0150-10	94-0152-10
12"	94-0150-12	94-0152-12
14"	94-0150-14	94-0152-14
16"	n/a	94-0152-16

\*18" to 56" Available On Request.

## Features & Benefits:

- Available in stock sizes ranging from 3" to 16".
- Cleans powerfully, removing wax and scale.
- Individual wires reach into pipeline pits, cleaning them thoroughly.
- Extremely durable, so it can be used repeatedly.
- Its flexibility and ability to negotiate varying internal diameters make the pitPRO™ the great choice for cleaning multi diameter pipelines.

## Options Available:

- Custom trim lengths available on request .
- Custom OD's and flange sizes available.
- We can design a solution for you by simply adjusting wire diameter and length, and the number of brushes on the pig.

# Block Brush - Model XB

Effective. Reliable. Durable. Designed to mount on a fixed or cantilever spring, the XB brush maintains a continuous scraping force for the removal of rust, scale and other contaminants adhering to the pipe wall. Trims are secured to a strong, custom-made plate, not pre-perforated sheets.

## Features & Benefits:

### FLAT

- Excellent for moderate to heavy cleaning.
- Cleans powerfully, removing wax and scale.
- Effective in multi diameter pipelines.
- Navigate through pipeline anomalies.
- Model XB fits 16" to 48" pigs (XB-S for 16"-18").

### PENCIL

- Excellent for moderate to heavy cleaning.
- Each wire acts with independent force, entering the pit and removing debris.
- Best choice for cleaning multi diameter pipelines.
- Navigate through pipeline anomalies.
- Model XB fits 16" to 48" pigs (XB-S for 16"-18").



**Model XB Flat**



**Model XB Pencil**



**Model XB Nylon**



**Model XB  
Cantilever Assembly**



**Model XB  
Fixed Assembly**

Pig Size	Model	Material			
		Flat Wire	Flat Wire - SS	Flat Nylon	Pencil Wire
16" - 18"	XB-S	94-0400-00	94-0404-00	94-0408-00	94-0409-20
20" - 48"	XB	94-0410-00	94-0414-00	94-0418-00	94-0419-20

## Options Available:

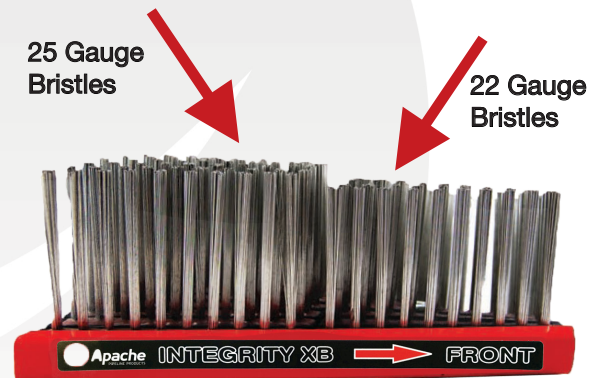
- Trim Material – Carbon Steel, Stainless Steel, Nylon & Polypropylene (Flat only).
- Custom trim lengths and diameters are available.
- XB fitted to a fixed spring assembly.
- XB fitted to a cantilever-style spring.

## Block Brush - Integrity XB

20-48" (508-1219mm)

Apache designed the Integrity XB specifically to help operators thoroughly clean any internal pits in preparation for ILI runs or Inhibitor applications.

Proven as a proficient and aggressive cleaning tool for day to day operations, it utilizes unique Pencil Brush Technology. Each front bristle features stiff 22 gauge memory wire bristles for heavy scraping and longer, flexible 25 gauge bristles at the rear for deep cleaning. High grade tinned hardened & tempered steel memory wire provide excellent cleaning performance & corrosion resistance.



Size	Part #
20" - 56"	94-0419-50

### Features & Benefits:

- 360° coverage of rebound memory wire.
- For use in 20" through 56" pipelines.
- Premier brush for pre-inspection cleaning and pre-inhibitor applications.
- Each brush uses more than 7,000 hardened, tempered steel wires to deliver outstanding cleaning performance.
- To enhance cleaning effectiveness and brush life, all parts are corrosion resistant. The back plate is powder coated, every individual steel wire is tin-coated, and the base consists of high-grade urethane.
- Designed to remove deposits from internal pits while insuring excellent general purpose cleaning.
- Pit cleaning bristles improve effectiveness of corrosion inhibitors.

### Options Available:

- Custom trim lengths and diameters are available.
- The innovative, Integrity XB is truly unique. If you would like us to provide a customized Integrity XB brush for you, just let us know.

# OPTIONS & ACCESSORIES



## **Magnets**

Pg. 6-2



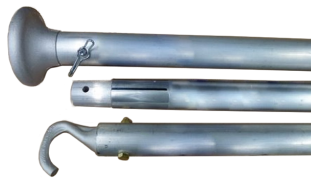
## **Other Accessories**

Pg. 6-5



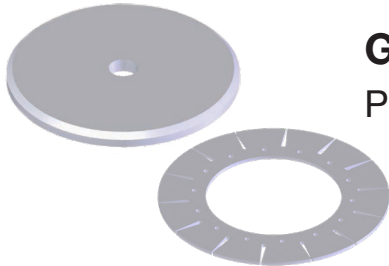
## **CD52 Trip Magnets**

Pg. 6-3



## **Pig Pole/Pusher Combo**

Pg. 6-6



## **Gauge Plates**

Pg. 6-4



## **Environmental Bags**

Pg. 6-7



## Magnets

The addition of magnets to a pig is often used to remove iron-sulfides and ferrous debris in gas and hydrocarbon pipelines. Brushes can often be used in conjunction with magnets to assist in the ferrous debris being removed from the pipe wall. The resulting ferrous debris can then be collected with the magnets mounted on the pig. Magnets can also be utilized to trip a magnetic non-intrusive pig signaler (CD52 Bandit). Detection devices are looking for a change in magnetic field to indicate to an operator when a pig has passed a critical section in the line or has arrived at the launcher/receiver.



### Neodymium Iron Boron magnets

**Temperature Rating: 100°C / 212°F suggested maximum**

Type	Pig Size	Part Number
Cased, Small Block	6-14"	95-0113-14
Cased, Large Block	16-56"	95-0113-48
Circular Rare Earth Magnet	3-4"	95-1382-14



**Ferrous  
Debris  
Collection**

## CD52 Trip Magnets

There are three compact and powerful magnets for use with the CD52 Bandit Non-Intrusive Pig Passage Signaler. These magnets may be attached to or placed inside almost any type of pipeline pig and detected at both low and high speeds by the CD52 system.

### CD52-M0

- The CD52-M0 Trip Magnet is designed to be used in very small pipelines ranging from 3/4" to 4"
- The CD52-M0 is an magnet assembly with a jacket and without a mounting stud.
- Max Operating Temp: 200°C
- Magnet Type: Neodymium

### CD52-M1

- The CD52-M1 Trip Magnet is designed to be used in pipelines 4" to 12" to indicate passages to the CD52 Bandit system.
- The CD52-M1 is an epoxy-encased magnet with a PVC jacket and a 1/2-13 UNC mounting stud.
- Max Operating Temp: 200°C
- Magnet Type: Neodymium

### CD52-M2

- The CD52-M2 Trip Magnet is designed to be used in pipelines 14" to 30" to indicate passages to the CD52 Bandit system.
- The CD52-M2 is an epoxy-encased magnet with a PVC jacket and a 1/2-13 UNC mounting stud.
- Max Operating Temp: 200°C
- Magnet Type: Neodymium

### CD52-M3

- The CD52-M3 Trip Magnet is designed to be used in pipelines 32" to 48" to indicate passages to the CD52 Bandit system.
- The CD52-M3 is an epoxy-encased magnet with a aluminum jacket and a 1/2-13 UNC mounting stud.
- Max Operating Temp: 200°C
- Magnet Type: Neodymium

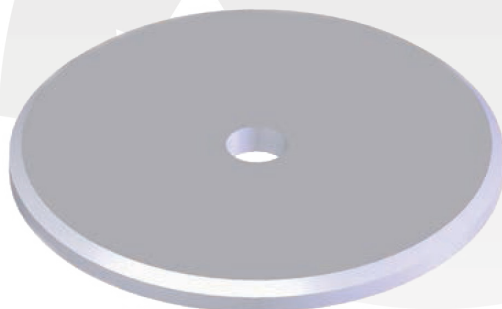




## Gauge Plates

2-48" (51-1219mm)

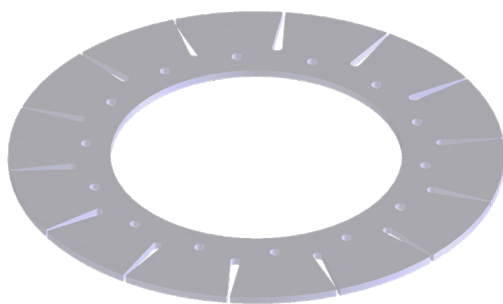
Gauge plates are used to check ovality of the I.D. of pipelines. Typically used in either progressive pigging applications or new pipeline construction. Gauge plates are usually cut to 95% of pipe I.D., but can be custom made to any O.D.



### 2" - 14" Standard Plates

- 1/4" Thick.
- Bevelled Edge.
- Non-Slotted.

Size	I.D. (in)
2"	0.563
3"	0.563
4"	0.563
6"	1.063
8"	1.063
10"	1.063
12"	1.063
14"	1.063



### 16" - 48" Standard Plates

- 3/8" Thick.
- Non-Bevelled.
- Slotted.
- Various bolt patterns and I.D.s available.

Size	I.D. (in)	# Holes
16"	8.750	8
18"	10.875	8
20"	10.875	12
22"	10.875	12
24"	14.125	14
26"	14.125	14
28"	16.125	16
30"	16.125	16
32"	20.125	24
34"	20.125	18
36"	20.125	22
38"	22.125	24
40"	22.125	24
42"	24.125	24
48"	32.125	24

*\*Plates are also available with the MDK metric bolt pattern.*

## Other Accessories

Apache can manufacture Pig Sizing Rings to any customer supplied dimensions, quickly and cost effectively. Sizing Rings are used to slide over a worn used pipeline pig to be utilized as an indication that the pig needs to be replaced by the operator. These rings should not be used as a go-no-go and only part of the operators decision making process if the used pig needs to be discarded.



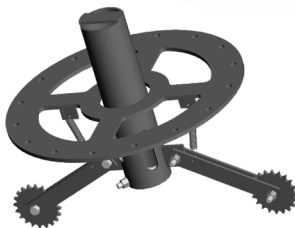
### **2" - 14" Sizing Rings**

- No handles.

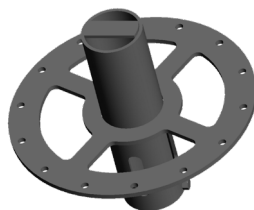


### **16" - 48" Sizing Rings**

- Four (4) handles.



### **Transmitter Cavity with Rattlers**



### **Transmitter Cavity**

*Custom design for any transmitter*

# Pig Pole/Pusher Combo

**THE ONLY TOOL ON THE MARKET THAT HAS BEEN DESIGNED,  
MANUFACTURED, AND TESTED SPECIFICALLY FOR THIS PURPOSE.**

The Pigg'in' Poles consist of three sections pinned together for a total length of 18'. One end of the pole has a four-inch round ram, making it easy to seat the pig, and the other end has a hook for easy pig retrieval. An optional handle makes handling the pigs even easier. The poles are made of all aluminum, so they never create sparks. The rams, hooks, and poles are all attached using pins and can be separated into 6 foot lengths for easy transportation.



**SAFE PIG RETRIEVAL IN  
FLAMMABLE GAS PIPELINES**



## Piggin' Poles

Sizes 3" - 24"

Standard set of pigg'in' poles includes:

- 3 x 6' Poles
- 3 x Locking Pins
- 1 x Ram
- 1 x Aluminum Alloy Hook

### Features & Benefits:

- Manufactured from durable, high strength, non-spark producing aluminum.
- Limited flexibility ensures hitting the target every time.
- Drilled with exacting tolerances for a precision fit.
- Additional pole(s) can be utilized for added length.
- Wheeled dolly can be used to increase stability.
- Indexed parts allow the operator to know hook orientation for a trouble-free catch each time.
- Modular components allow for multiple attachments and special orders.
- The most durable and safest tool to use in a natural gas environment.
- Multiple lengths available for different barrel lengths.

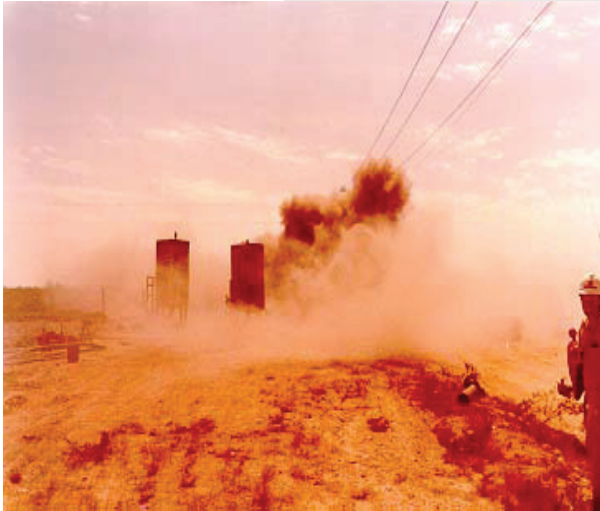
Custom sizes available upon request.

## Hoggin' Poles

For launching & retrieving 24" And Larger Pigs

- #1 Pole.
- #2 Pole (Extension Pole).
- Hook (Plastic Coated Steel).
- Ram.
- Push/Pull Adapter.
- Locking Pin.
- Dolly (2 Wheel).

## ENVIRONMENTAL CONTAINMENT BAGS



**This?**



**Or This?**

Environmental Containment Bags eliminate pollution arising from pigging a pipeline with air or nitrogen by trapping and containing dust particles as small as five microns, along with mill scale and construction debris. The heavy-duty polyester bags are secured around the discharge pipe with a drawstring type closure.

Operation is continuous and no change in standard pigging practice is required. Reinforced pulling and lifting handles facilitate positioning and subsequent emptying of the bag into the bed of dump trucks or other type containers for disposal. They can also double as a pig catching bag.

Size	Package Dimensions
12" x 10'	19" x 6" x 5"
12" x 25'	19" x 9" x 8"
12" x 50'	20" x 14" x 11"
24" x 50'	39" x 14" x 10"
48" x 50'	81" x 13" x 12"

**Bags come in  
10, 25, 50 or 100 ft blanks.**

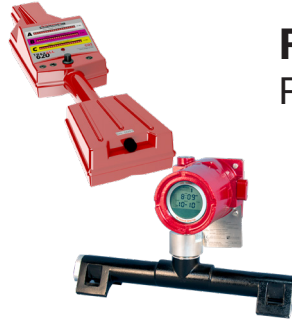
**Custom sizes available upon request.**



# TRACKING



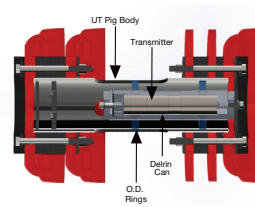
**Receivers**  
Pg. 7-2



**RENTALS**  
Pg. 7-7



**Transmitters**  
Pg. 7-3 to 7-5



**Transmitter Housing**  
Pg. 7-8



**Delrin Cans**  
Pg. 7-6



# Receivers

## TRAXALL 500 & 501

The TRAXALL 500 and TRAXALL 501 receivers differ in their ability to support add-on accessories. The TRAXALL 501 system monitors the 22 Hz transmitter frequency and supports the use of remote electromagnetic antennas and strobe lights with two external connectors while the 500 system does not. TRAXALL 500 is CDI's lowest-cost receiver.

Signal strength is intuitively indicated on a horizontal row of scrolling LEDs, while a single knob adjusts the reception sensitivity of each frequency.

## TRAXALL 620

With TRAXALL 620, up to three transmitter frequencies are represented as scrolling rows of LEDs. The 620 works with CDI's transmitter family and the new TRAXALL X-Series multi-frequency transmitters, as well as transmitters from competitive systems. The TRAXALL 620 supports the use of remote electromagnetic antennas and strobe lights.

## TRAXALL 720

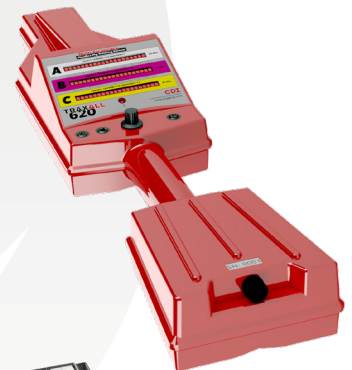
The TRAXALL 720 tracks two programmable frequencies as well as 22Hz and MFL. A high-speed GPS system is built in, allowing arbitrary points of interest to be waypointed and stored in memory as GPS coordinates. Trackpointing records breadcrumb trails showing routes taken to and from hard-to-find locations.

Bluetooth communication allows remote viewing of the system from a vehicle in inclement weather. LineStat provides the 720 with the capability to autonomously monitor for pig passages and send remote notifications as emails or text messages. LineStat requires no cellular telephone network, and functions anywhere in the world.

## TRAXALL 770

The TRAXALL 770 tracks as many as 7 different transmitter frequencies simultaneously along with MFL, with a unique color assignment for each on the bright, wide temperature display. A high-speed GPS system is built in, allowing arbitrary points of interest to be waypointed and stored in memory as GPS coordinates. Trackpointing records breadcrumb trails showing routes taken to and from hard-to-find locations.

Bluetooth communication allows remote viewing of the system from a vehicle in inclement weather. LineStat provides the 770 with the capability to autonomously monitor for pig passages and send remote notifications as emails or text messages. LineStat requires no cellular telephone network, and functions anywhere in the world.



## OPTIONS





# Transmitters

## X-Series Programmable Multi-frequency Transmitters

X-Series Transmitters are TRAXALL-compatible electromagnetic pipeline pig-tracking devices offering both programmable frequency and power control through CDI's proprietary FieldLink wireless communications system.

Frequency Control allows you to configure the transmitter to one of TRAXALL's seven colorized frequencies, or 22 Hz legacy frequency for backward compatibility with CDI's CD42 receiver or competitive receivers.

Power Control allows the operator to directly manage a trade-off between transmitter range vs. battery life. You can set output power to maximum for short runs/long range, or reduce output power for long runs/long battery life. Requires USB for programming.

FieldLink is CDI's proprietary wireless communications network. Each X100 transmitter comes with a built-in radio frequency antenna. By connecting an optional radio frequency USB key, any Windows PC or laptop can be used to configure a transmitter.



## CD42 22Hz Transmitters

CDI Transmitters are manufactured in-house to exacting tolerances, operate on the principles of magnetics, and emit electromagnetic fields at a frequency near 22Hz.

The 22Hz Transmitters have pressure housings that allow them to be mounted directly in or on a pipeline pig and can withstand pressures of up to 2,500 PSI.

Most transmitters have an on-board computer that allows you to switch between two pulse modes and continuous, or, if tracking a train of pigs, the transmitter can be programmed to create any number of unique and easily identifiable patterns.

22Hz Transmitters are available in a wide variety of sizes to fit every application.

Pressure switch modules and flange kits are also available for most models.



Delrin Can Available.  
See page 7-6.

## Transmitters

Feature	CD42-T1A	X200-2AA	X200-3AA	X300-3C	X300-4C
Recommended Diameters	8" - 28"	6" - 24"	8" - 28"	8" - 28"	12" and larger
Length	10.19" (259mm) 11.00" (279mm)	5.00" (127mm)	7.07" (179mm)	7.74" (196mm)	9.61" (244mm)
Diameter	2.00" (51mm) 3.00" (76mm)	1.125" (28.5mm)	1.125" (28.5mm)	1.74" (44mm)	1.74" (44mm)
Pressure	2,500 PSI (172 bar)	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*
Range (Alkaline)	45' (13.7m)	37' (11.3m)	49' (14.9m)	62' (18.9m)	67' (20.5m)
Range (Lithium)	65' (19.8m)	42' (12.8m)	56' 17.1m)	75' (22.98m)	83' (25.3m)
Run Time (Pulse)	500 hrs	500 hrs	500 hrs	1,000 hrs	1,000 hrs
Run Time (Constant)	125 hrs	188 hrs	188 hrs	288 hrs	288 hrs
Available in ATEX	No	Coming Soon	Coming Soon	Yes	Yes
Programmable Patterns	No	Yes	Yes	Yes	Yes
Programmable Frequencies	No	Yes	Yes	Yes	Yes
Pressure Activation Available	Yes	Yes	Yes	Yes	Yes
Battery Cell Count	6 AA	2 AA	3 AA	3 C	4 C

Feature	CD42-T3	X100-4N	X100-5N	X200-2AA	X200-3AA
Recommended Diameters	2" - 8"	6" - 12"	6" - 14"	6" - 24"	8" - 28"
Length	6.3" (160mm)	5.7" (145mm)	6.9" (175mm)	5.0" (127mm)	7.07" (179mm)
Diameter	0.875" (22.2mm)	0.995" (25.3mm)	0.995" (25.3mm)	1.125" (28.5mm)	1.125" (28.5mm)
Pressure	2,500 PSI (172 bar)	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*
Range (Alkaline)	30' (9.1m) *T3 Lithium Only	28' (8.5m)	30' (9.1m)	37' (11.3m)	49' (14.9m)
Range (Lithium)	30' (9.1m) *T3 Lithium Only	28' (8.5m)	30' (9.1m)	42' (12.8m)	56' (17.1m)
Run Time (Pulse)	110 hrs	16 hrs	16 hrs	500 hrs	500 hrs
Run Time (Constant)	N/A	5 hrs	5 hrs	188 hrs	188 hrs
Available in ATEX	No	Coming Soon	Coming Soon	Coming Soon	Coming Soon
Programmable Patterns	No	Yes	Yes	Yes	Yes
Programmable Frequencies	No	Yes	Yes	Yes	Yes
Pressure Activation Available	No	Yes	Yes	Yes	Yes

\*Titanium Version to 7,500 PSI (517 bar) available.

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# Transmitters

Feature	CD42-T4	X100-1N	X100-2N	X100-3N
Recommended Diameters	2" - 8"	2" - 8"	3" - 10"	4" - 12"
Length	3.0" (76mm)	1.96" (50mm)	3.35" (49.7mm)	4.53" (115mm)
Diameter	1.375" (35mm)	0.995" (25.3mm)	0.995" (25.3mm)	0.995" (25.3mm)
Pressure	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*
Range (Alkaline)	23' (7m)	22' (6.7m)	24' (7.3m)	26' (7.9m)
Range (Lithium)	N/A	N/A	N/A	N/A
Run Time (Pulse)	65 hrs	16 hrs	16 hrs	16 hrs
Run Time (Constant)	N/A	5 hrs	5 hrs	5 hrs
Available in ATEX	No	No	Coming Soon	Coming Soon
Programmable Patterns	No	Yes	Yes	Yes
Programmable Frequencies	No	Yes	Yes	Yes
Pressure Activation Available	Yes	Yes	Yes	Yes

Feature	CD42-T2	X300-5C	X400-4D	X400-5D
Recommended Diameters	30" and larger	14" and larger	14" and larger	16" and larger
Length	12.85" (326mm)	11.5" (293mm)	11.5" (291mm)	13.83" (351mm)
Diameter	4.375" (111mm)	1.74" (44mm)	2.5" (63.5mm)	2.5" (63.5mm)
Pressure	2,500 PSI (172 bar)	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*	2,500 PSI (172 bar)*
Range (Alkaline)	92' (28m)	74' (22.6m)	75' (22.9m)	77' (23.5m)
Range (Lithium)	99' (30.2m)	91' (27.7m)	99' (30.2m)	110' (33.5m)
Run Time (Pulse)	375 hrs	1,000 hrs	1,344 hrs	1,344 hrs
Run Time (Constant)	100 hrs	288 hrs	336 hrs	336 hrs
Available in ATEX	No	Yes	Yes	Yes
Programmable Patterns	No	Yes	Yes	Yes
Programmable Frequencies	No	Yes	Yes	Yes
Pressure Activation Available	No	Yes	Yes	Yes

\*Titanium Version to 7,500 PSI (517 bar) available.

# Delrin Cans

## ELECTRONIC TRANSMITTER PROTECTION

Our Delrin Cans feature a threaded cap with hex head and pressure vent. In addition to the pressure vent built into the cap there is a bleed bolt threaded into the cap designed as the primary pressure relief. Delrin Cans come standard with grooves to accommodate various sizes of rings for a secure fit in any size transmitter cavity. OD rings allow the same Delrin/transmitter combination to be quickly and easily modified to fit in a variety of pig and/or cavity sizes.



Size	Part Number
2.0" Assembly	95-2010-20
2.5" Assembly	95-2010-25
3.0" Assembly	95-2010-30
3.5" Assembly	95-2010-35

### FOUR STANDARD SIZES TO FIT MOST CDI TRANSMITTERS:

- 2.0" OD fits CD42-T3, X200-2AA, X100-1N, X100-2N.
- 2.5" OD fits CD42-T4, CD42-T0.
- 3.0" OD fits X300-2C, CD42-T1A, X300-3C, X300-4C.
- 3.5" OD fits X400-3D, X400-3D ATEX.

*\*\*ID's can be customized upon request to fit all CDI transmitter sizes.*

### Features & Benefits:

- Explosive de-compressive O-rings for bleed bolt and cap.
- Threaded base for securing to various pig cavities.
- Hexagonal base of canister body allows the operator to easily secure the canister for cap removal.

# Rentals

NOW AVAILABLE TO RENT



## Equipment Available:

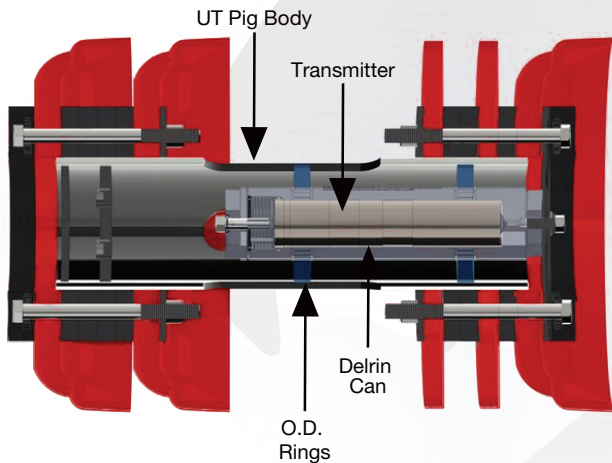
- X100-1N Transmitter
- X300-2C Transmitter
- X400-3D Transmitter
- CD42-T0 22Hz Transmitter
- CD42-T1A 22Hz Transmitter
- CD42-T3 22Hz Transmitter
- CD42-T4 22Hz Transmitter
- Swamp Antenna
- TRAXALL 770 Receiver
- TRAXALL 720 with Linestat Receiver
- TRAXALL 620 Receiver
- SoniTrack XLR
- CD52-P Portable Bandit Detector
- Delrin Cans
- Strobe Light

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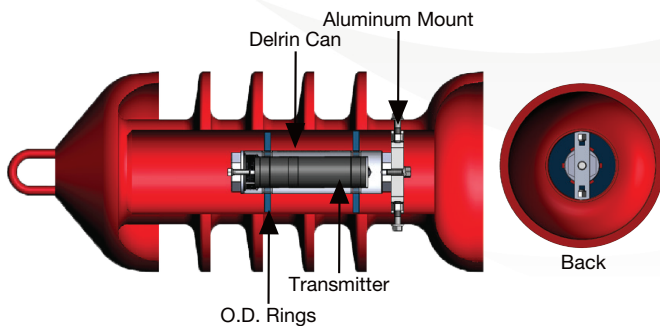
*world class world wide*

# Transmitter Housing



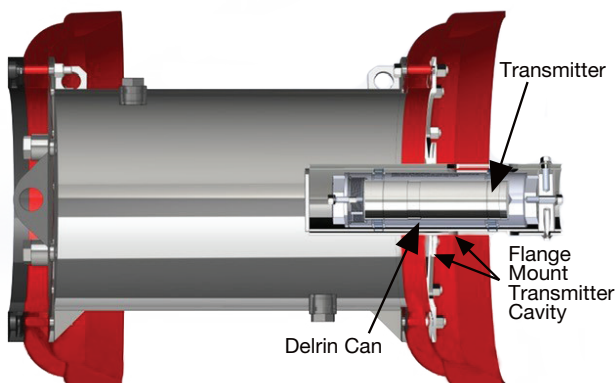
## UNIVERSAL TRANSMITTER MANDREL 6"-14"

The UT Mandrel design allows a transmitter to be housed with or without a Delrin can in the center of the steel body. Engineered slots in the mandrel minimize signal loss and provide improved range.



## SOLID CAST HOLLOW CORE URETHANE PIGS 8"- 36"

All hollow core, solid cast, urethane pigs from 8" - 36" can have a transmitter mounted inside the hollow core using Delrin Can, custom sized and slotted O.D. Rings and an Aluminum Mounting plate. Fasteners on the mounting plate include Nyloc type hex nuts which provide self-locking and anti-vibration features.



## STEEL MANDREL PIGS 16" - 48"

All steel bodied pigs from 16" - 48" can have a transmitter housed in our steel transmitter cavity assembly, with a Delrin Can, custom sized O.D. Rings and a threaded bolt to hold the Delrin Can in place.

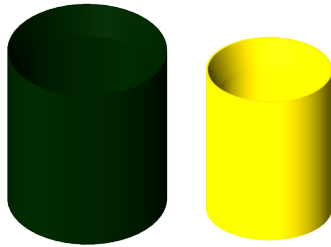


# CUSTOM URETHANE



## **Custom Cast Urethane**

Pg. 8-2



## **Dig Tube Ends**

6 - 8"

Pg. 8-3



## **Bridge Gate Gaskets**

6 - 12"

Pg. 8-4



## Custom Cast Urethane

Urethane products deliver many advantages over conventional elastomers, plastics, and rubbers. They are stronger, tougher, more durable, and more versatile. With greater versatility and durability, polyurethane is the material of choice for some of the most demanding industrial applications.



Custom Cast Urethane Products are available in various sizes, colors, and durometers (hardness).

Our process provides us with the ability to bond a layer of any thickness or diameter of polyurethane to any steel surface.

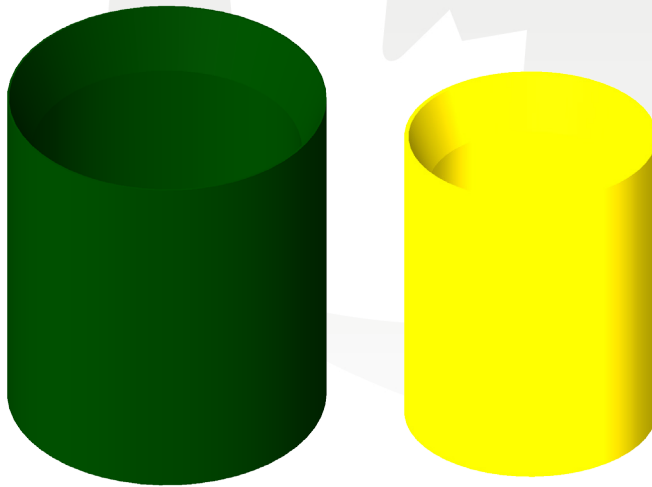
### We can meet your needs for various products such as:

- Sheets
- Parts
- Rollers
- Scrapers
- Pads
- Bumpers
- Design and manufacture molds
- Use existing molds to produce various products

# Dig Tube Ends

6-8" (152-203mm)

Apache's rugged, durable Dig Tube Ends are used on Hydro Vac systems to reduce cost by extending the wear life of the Dig Tube.



**Apache Dig Tube Protectors  
adapt easily to standard  
6" and 8" DIG tubes**

Size	Part Number
6.00"	02-VAC-060
8.00"	02-VAC-080

Custom Color Options Available

# Bridge Gate Gaskets

## 6-12" (152-305mm)

Apache Pipeline Products can design and manufacture most molds, or use existing molds to produce current required products in a variety of custom sizes, shapes and durometers.

Our standard Bridge Gate Gaskets are poured in Reliathane 72 Durometer Shore A Polyurethane material.



Size	Part Number
6.00"	02-APAC-00
8.00"	02-APAC-01
10.00"	02-APAC-02
12.00"	02-APAC-04