# Detect Systems



- PROFILE TOOLS
- CLEANING TOOLS
- FOAM TOOLS
- ACCESSORIES

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# INTRODUCTION

Pipelines must be cleaned for several reasons – to maintain product transport efficiency, to ensure the purity of the product, and to run inline inspection tools successfully.

Debris and sludge may seriously affect the process by reducing the significant pipeline cross-section, which leads to higher consumption of the energy required to propel the same amount of product through the same line.

In case a pipeline is not regularly cleaned, then the purity of oil or gas is affected that consequently harms the downstream facilities and processes.

PIPECARE runs both routine and pre-inspection cleaning campaigns on all kinds of pipelines of the hydrocarbon industry.

The cleaning operations we perform are tailored to particular project conditions, and the equipment is crafted to remove a specific type of sludge, debris, and dust that is found in a particular pipeline.



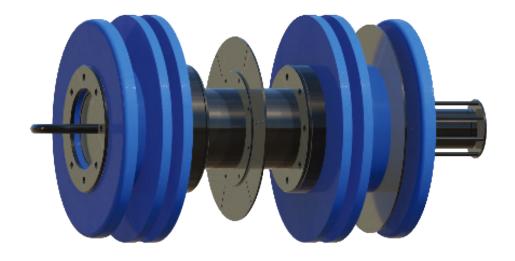


Sizes: 2 to 56 inch

# **DESCRIPTION**

Profile Tools are designed to determine that nothing is protruding inside the pipeline, which might cause an obstruction, and to ensure that the ovality of the pipeline is within accepted tolerances.

Profile tools are usually assembled with four sealing discs (SD), two guiding discs (GD), and two aluminum slotted plates. Gauging Plate (GP) is usually mounted at the rear part of the tool and is machined precisely to a specified diameter, usually 95% of the pipeline's smallest internal diameter. Bend Plate (BP) is mounted on the center of the tool and is usually sized to detect minimum bend radius as and when required.



STANDARD SPECIFICATIONS		
Minimum passage from OD	75%	
Minimum bend radius	1.5 D	
Pressure range	Up to 90 bar	
Temperature range	Up to 85°c	
Traveling distance	Up to 400 km	
PU hardness	75 - 85°A shore	

### **FEATURES**

- Bi-directional configuration
- High wear and abrasion resistance
- Suitable for sweet and sour services

## **OPTIONS**

- We can provide customized configuration based on specific requirements.
- The number of sealing & guiding discs can vary based on requirements
- Can be fitted with Tool Tracker and Data Logger depending on the tool size
- Can be fitted with pluggable bypass
- Can be modified for dual-diameter pipelines
- Gauge and bend plates can be PU coated
- Sizes above 56 inch are available on a specific request





Sizes: 2 to 56 inch

# **DESCRIPTION**

Our cleaning tools are bi-directional, which provide an excellent seal to the pipe wall, which is suitable for cleaning, flooding, dewatering, swabbing, batching, product separation, commissioning, decommissioning, de-Waxing, and isolation. Our tools are usually assembled with four sealing discs (SD) and two guiding discs (GD).



# **FEATURES**

- Bi-directional and single direction configuration
- High wear and abrasion resistance
- Suitable for sweet and sour services

# **OPTIONS**

PIPECARE can provide customized configuration based on specific requirements.

- The number of sealing & guiding discs can vary based on requirements
- Can be fitted with Tool Tracker and Data Logger depending on the tool size
- Can be fitted with pluggable bypass
- Can be modified for dual-diameter pipelines
- Can be fitted with gauging plates, magnets, and brushes
- Sizes above 56 inch are available on request



# **MBCT CLEANING TOOLS**



STANDARD SPECIFICATIONS		
Minimum passage from OD	75%	
Minimum bend radius	1.5 D	
Pressure range	Up to 90 bar	
Temperature range	Up to 85°c	
Traveling distance	Up to 400 km	
PU hardness	75 - 85°A shore	

## **DESCRIPTION**

The presence of dust is a common problem of gas pipelines. It affects gas purity, causes extensive erosion growth in pipelines and piping, and may blockage filters and other downstream facilities' failure.

Removal of a significant amount of dust is a serious challenge as dust particles' abrasive nature causes accelerated wear of polyurethane discs and cups, thus reducing the cleaning tools' performance.

Magnet Brush Cleaning Tools (MBCT) are used to clean the pipelines using flexible and robust steel brushes supported by powerful magnets to improve cleaning performance.

We use specifically-casted, extra-durable self-lubricating consumable parts made of heavy-duty polyurethane to withstand the wear. Strong magnets are installed on the cleaning tools to carry the ferrous debris and front nozzles designed to remove any dust buildup that may clog the tool in the pipeline.

#### **FEATURES**

- Bi-directional and single direction configuration
- single direction by using the same body.
- High wear and abrasion resistance
- Suitable for sweet and sour services

#### **OPTIONS**

PIPECARE can provide customized configuration based on specific requirements.

- Some sealing & guiding discs can vary based on requirements
- Can be fitted with cups
- Can be fitted with Tool Tracker and Data Logger depending on the tool size
- Can be fitted with pluggable bypass
- Can be modified for dual-diameter pipelines
- Can be fitted with blades, magnets, and brushes
- Can be fitted with spring brushes, circular brushes, or nylon brushes
- Sizes above 56inch are available on a specific request





# **UTILITY CLEANING TOOLS**



### **DESCRIPTION**

PIPECARE is a manufacturer and supplier of a wide range of utility cleaning tools. We manufacture uniquely designed tools and solutions adaptable to specific applications. These tools are equipped with polyurethane blades, steel scrapers, and other arrangements, ensuring the effective removal of dust and wax sediments and cleaning of pipelines.

STANDARD SPECIFICATIONS		
Minimum passage from OD	75% TO 80%	
Minimum bend radius	1.5 D	
Pressure range	Up to 90 bar	
Temperature range	Up to 85°c	
Traveling distance	Up to 400 km	
PU hardness	75 - 85°A shore	



#### **SCRAPER CLEANING TOOLS**

Scraper Cleaning Tools are used for heavyduty cleaning of pipeline inner surface, generally from scale or solid mineralized sediments. These tools are equipped with scrapper steel blades.



#### **BRUSH CLEANING TOOLS**

Brush Cleaning Tools are used to clean the pipelines using strong and flexible brushes. These tools are also equipped with polyurethane guiding and sealing discs configured to allow in-line inspection operations in case the flow is reversed.



#### **CUP BRUSH TOOL**

Cup Brush Tools are equipped with steel brushes supported by springs and softer polyurethane cups and used for lighter duty cleaning purposes being also a more flexible tool.



#### **CUP TOOL**

Cup Tools are supported and driven by cups made of a resilient material such as neoprene or polyurethane. At least one of the cups forms a piston-like seal inside the pipeline.





#### **DESCRIPTION**

PIPECARE's foam tools are produced from polyurethane foam with a coating of various types. These tools are compressible, expandable, lightweight, and flexible. Foam tools can negotiate multiple diameter pipelines, abrupt bends, and practically any possible pipeline obstructions. They are generally used for pipeline-proving and initial cleaning.

We can produce all types of density foams limited to 20" size as per our product list. Our production team is currently developing new foam tool technologies to be able to produce bigger sizes.

STANDARD SPECIFICATIONS	
Low-density bare foam tool	2"-36"
Medium-density bare foam tool	2"-36"
Heavy density bare foam tool	2"-36"
Low-density PU coated foam tool	2"-36"
Medium-density PU coated foam tool	2"-36"
Heavy density PU coated foam tool	2"-36"
PU coated with Brush, low-density foam tool	2"-36"
PU coated with Brush, Medium density foam tool	2"-36"
PU coated with Brush, Heavy density foam tool	2"-36"
Power brush foam tool	2"-36"

# **BARE FOAM TOOLS**

Bare foam tools are primarily used for drying and sweeping of loose debris, gauging of internal pipe conditions before extensive in-line inspection, sealing behind a stuck ILI tool, batching operations, and product removal. The tools are constructed from open-cell polyurethane foam with a durable polyurethane elastomer coating on the base. Foam Tools are flexible and bi-directional. They can negotiate all conventional pipeline fittings such as tees, bends, valves, and reduced diameter branches connections.

Description	Value
Low Density	24 kg/m³
Medium Density	80 kg/m³
Heavy Density	128 kg/m³
Extra Heavy Density	320 kg/m³

Nominal I	Diameters	D	L	Min. Bend Radius
Inch	mm	mm	mm	mm
2	50	75	150	1.5D
2.5	65	90	200	1.5D
3	80	100	220	1.5D
4	100	130	250	1.5D
5	125	150	275	1.5D
6	150	190	300	1.5D
7	175	200	320	1.5D
8	200	230	360	1.5D
10	250	290	430	1.5D
12	300	350	560	1.5D
14	350	400	600	1.5D
16	400	450	700	1.5D
18	450	520	750	1.5D
20	500	570	800	1.5D
22	550	620	850	1.5D
24	600	670	900	1.5D
30	750	820	1150	1.5D
32	800	880	1250	1.5D
36	900	980	1350	1.5D



# **BRUSH FOAM TOOLS**

Brush foam tools are used for cleaning pipelines with buildup, rust, mill scale, or debris in new construction and routine maintenance, made of high-density polyurethane foam with a coating of extra abrasion-proof polyurethane rubber, causing the tool to rotate. Steel wire brushes, embedded in the cleaning tool, are set at an angle to give maximum scraping power. Various sizes, shapes, foam types, and coatings are available, allowing you to select the optimal product for your needs.

Description	Value
Low Density	24 kg/m³
Medium Density	80 kg/m³
Heavy Density	128 kg/m³
Extra Heavy Density	320 kg/m³



# **Two Components Foam Coating Raw Material**

ltems	Units	Component A	Component B
Appearance		light green turbid	Transparent liquid
Viscosity (25°C)	mPas	1000±100	200±20
Processing Temperature	°C	25	25
Ration (NCO% and OH dependable)		100/45(by weight)	100/45(by weight)
Gel time	min	3-5	3-5
Tack free time	°C/hrs	25°C/1hrs	25°C/1hrs

Items	Units	Value
Hardness (ShoreA, 25°C)		85±3
Elongation	%	230
Tensile strength	Мра	14.3
Tear strength	N/mm	27
10% Modulus	Мра	7.14
Brush	High carbon s	teel/Alloy steel



# Size Range and Dimensions

Nominal I	Diameters	D	L	Min. Bend Radius
Inch	mm	mm	mm	mm
2	50	75	150	1.5D
2.5	65	90	200	1.5D
3	80	100	220	1.5D
4	100	130	250	1.5D
5	125	150	275	1.5D
6	150	190	300	1.5D
7	175	200	320	1.5D
8	200	230	360	1.5D
10	250	290	430	1.5D
12	300	350	560	1.5D
14	350	400	600	1.5D
16	400	450	700	1.5D
18	450	520	750	1.5D
20	500	570	800	1.5D
22	550	620	850	1.5D
24	600	670	900	1.5D
30	750	820	1150	1.5D
32	800	880	1250	1.5D
36	900	980	1350	1.5D



# **COATED FOAM TOOLS**

Coated foam tools are used for regular wiping and general pipeline cleaning. We have tool models available in light, medium, and heavy density foam.

Our tools are constructed from open-cell polyurethane foam with a durable polyurethane elastomer coating.

Description	Value
Low Density	24 kg/m³
Medium Density	80 kg/m³
Heavy Density	128 kg/m³
Extra Heavy Density	320 kg/m³

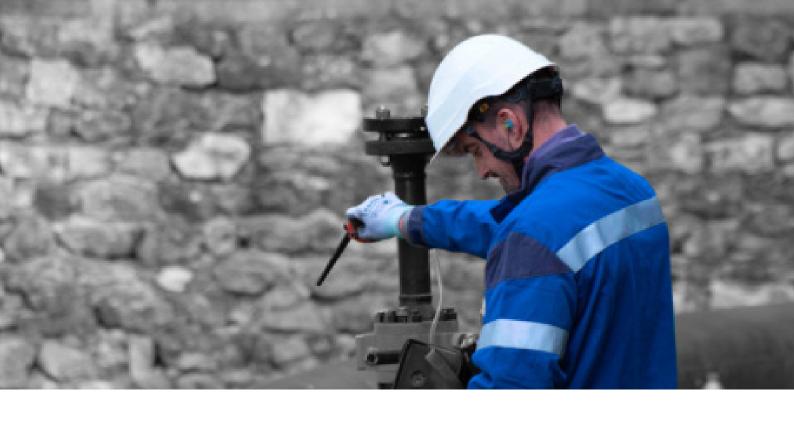




# **Two Components Foam Coating Raw Material**

ltems	Units	Component A	Component B
Appearance		light green turbid	Transparent liquid
Viscosity (25°C)	mPas	1000±100	200±20
Processing Temperature	°C	25	25
Ration (NCO% and OH dependable)		100/45(by weight)	100/45(by weight)
Gel time	min	3-5	3-5
Tack free time	°C/hrs	25°C/1hrs	25°C/1hrs

Items	Units	Value
Hardness (ShoreA, 25°C)		85±3
Elongation	%	230
Tensile strength	Мра	14.3
Tear strength	N/mm	27
10% Modulus	Мра	7.14



# Size Range and Dimensions

Nominal [	Diameters	D	L	Min. Bend Radius
Inch	mm	mm	mm	mm
2	50	75	150	1.5D
2.5	65	90	200	1.5D
3	80	100	220	1.5D
4	100	130	250	1.5D
5	125	150	275	1.5D
6	150	190	300	1.5D
7	175	200	320	1.5D
8	200	230	360	1.5D
10	250	290	430	1.5D
12	300	350	560	1.5D
14	350	400	600	1.5D
16	400	450	700	1.5D
18	450	520	750	1.5D
20	500	570	800	1.5D
22	550	620	850	1.5D
24	600	670	900	1.5D
30	750	820	1150	1.5D
32	800	880	1250	1.5D
36	900	980	1350	1.5D





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# **DETECT SYSTEMS CLEANING CATALOG**

We care about your pipelines.

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