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PIPELINE CLEANING CATALOG

- PROFILE TOOLS
- CLEANING TOOLS
- FOAM TOOLS
- ACCESSORIES

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INTRODUCTION

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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.





PROFILE TOOLS

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.



Minimum passage from OD Minimum bend radius Pressure range Temperature range Traveling distance PU hardness

FEATURES

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

OPTIONS

- 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

STANDARD SPECIFICATIONS

75%
1.5 D
Up to 90 bar
Up to 85°c
Up to 400 km
75 - 85°A shore

• 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



CLEANING TOOLS

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).

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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

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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

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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 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



• Can be fitted with Tool Tracker and Data Logger depending on the tool size



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 100 bar				
Temperature range	Up to 85°c				
Traveling distance	Up to 400 km				
PU hardness	75 - 85°A shore				





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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 36" 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/m ³
Extra Heavy Density	320 kg/m ³



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Two Components Foam Coating Raw Material

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

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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

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

Two Components Foam Coating Raw Material

Items	Units	Component	A Comp	oonent B
Appearance		light green tur	oid Transpa	rent liquid
Viscosity (25°C)	mPas	1000±100	20	00±20
Processing Temperature	°C	25		25
Ration (NCO% and OH dependable)		100/45(by weig	nt) 100/45(k	by weight)
Gel time	min	3-5		3-5
Tack free time	°C/brs	$25^{\circ}C/lbrc$	250	C/lbrc
lack free time	C/IIIS	25 C/1115	25	C/IIIIS
Items	C/III'S	Jnits	Valu	le
Items Hardness (ShoreA, 25°C)	C/TITS	Jnits	25 Valu 85±	ie 3
Items Hardness (ShoreA, 25°C) Elongation	C/IIIS	Jnits %	23 Valu 85± 230	ie 3
Items Hardness (ShoreA, 25°C) Elongation Tensile strength	C/IIIS	Jnits % Mpa	23 Valu 85± 230 14.3	1e 3) 3
Items Hardness (ShoreA, 25°C) Elongation Tensile strength Tear strength	C/TITS	Jnits % Mpa I/mm	23 Valu 85±3 230 14.3 27	ie 3) 3

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ACCESSORIES

TOOL TRACKER

Tool Tracker consists of a transmitter unit mounted on the ILI tool that emits an electromagnetic field that passes through the pipeline and is received on the surface by the receiver.

- Transmitters fit inside or can be towed behind all types & sizes of tools
- Lightweight & easy installation
- Digital display & audible signal for tracking & locating

STANDARD SPECIFICATIONS

Power supply	EL223 lithium battery
Nominal supply voltage	6V
Operation time	200 hrs
Frequency	22 HZ
Operating temperature	-40°C - 80°C
Maximum operating pressure	Up to 100 bar

DATA LOGGER

Time-based recorded profiles: temperature, absolute and differential pressure, 3-axial acceleration.

- Robust and reliable, designed to work in harsh environment
- Single flange mounting, compatible with a full range of PIPECARE tools
- The visualization of the recorded data is done using standard PIPECARE software

STANDARD SPECIFICATIONS

Size	297 mm * Ø78mm
Weight	3 kg
Operation time	200 hrs
Differential pressure	0.3 – 8.6 bar
Operating temperature	-25°C - 90°C
Maximum operating pressure	Up to 100 bar

PARTS

PIPECARE can provide spare Polyurethane (PU) discs designed to fit your tools. The size, thickness, and hardness of PU discs can be customized as required.

PIPECARE also provides additional accessories for cleaning tools that can be fitted on PIPECARE's or your existing tools such as brushes, bolts, hooks, and bumpers.











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PIPECARE CLEANING CATALOG

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