



IKS FOR INDUSTRIES Co.
شركة آي كيه السعودية للتصنيع



COMPANY PROFILE

**Your Trusted Business Partner in the
Kingdom of Saudi Arabia**

ABOUT IKS:

IKS for Industries is a Saudi JV-based Company and has a manufacturing facility at Dammam second industrial city, IKS vision to be the premier pipe and pipeline intervention solutions and technologies in Saudi and the Middle East.

IKS provides pipeline scraping products and services to the Oil & Gas Industry as well as polyurethane-based products for non-metallic subsea and mining applications.

IKS is a leading manufacturer of pipeline scraping and subsea products in the region.

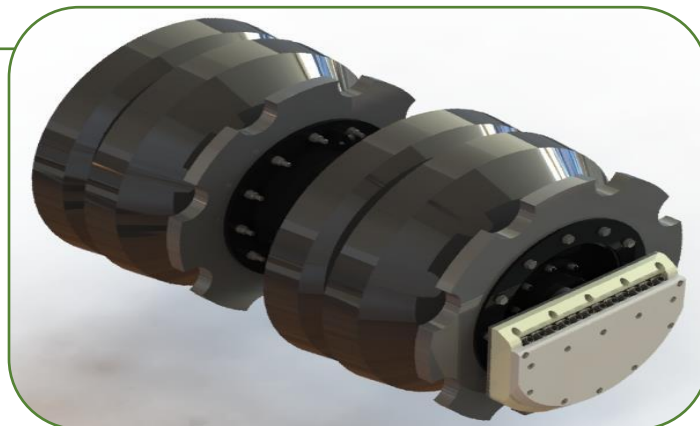
Through our 5000 sq meter state of the art facility in Dammam 2nd Industrial City, We design and manufacture our products putting pipeline integrity as first priority while considering client needs and operational environment.

The company is currently the major supplier of engineered pipeline scrapers in the region with ongoing contracts with major NOC's and strategic partners with most all local service providers.

Our quality, swift delivery, local Engineering support, and state of the art PU casting capabilities have remarkably contributed to the success of our clients and strategic partners in achieving the objectives of pipeline scraping, pre-commissioning, and ILI programs.

In addition, IKS is aligned with major companies in KSA to develop and localize other PU based products in line with IKTVA and vision 2030.

Through strategic alliances with IK Group and other pipeline services providers, IKS offers pipeline services, like door closure maintenance, FWT, Joint testers, freeze plugs, pipeline isolation engineered clamps, subsea repair, scraper tracking & signaling, In line inspection and pipeline pre-commissioning and commissioning.



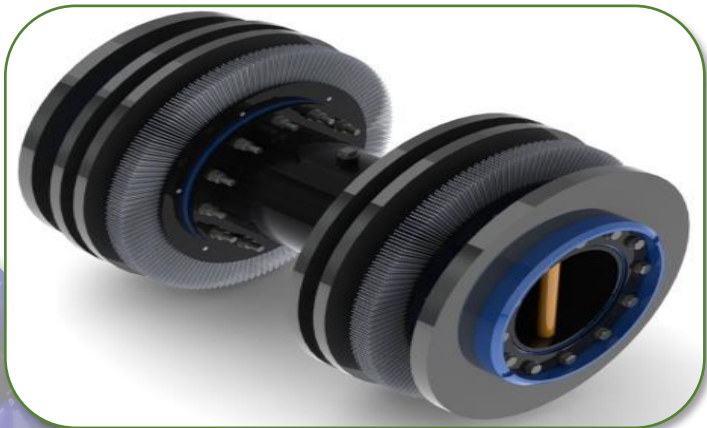
BIDI BRUSH SCRAPERS

Designed to remove debris and deposits from the pipeline, IKS's range of Bi-directional Brush Scrapers offer excellent cleaning qualities.

The range is comprehensive 2" through to 60", with a variety of body constructions available. In sizes 2" up to 14" a spindle (bolt) body can be offered or alternatively the complete range up to 60" can be supplied as a multi bolt design.

The standard model is supplied with six polyurethane discs: two support/guide discs which assist loading and centralization in the pipeline, four sealing discs which seal/drive and two circular brushes which scrape.

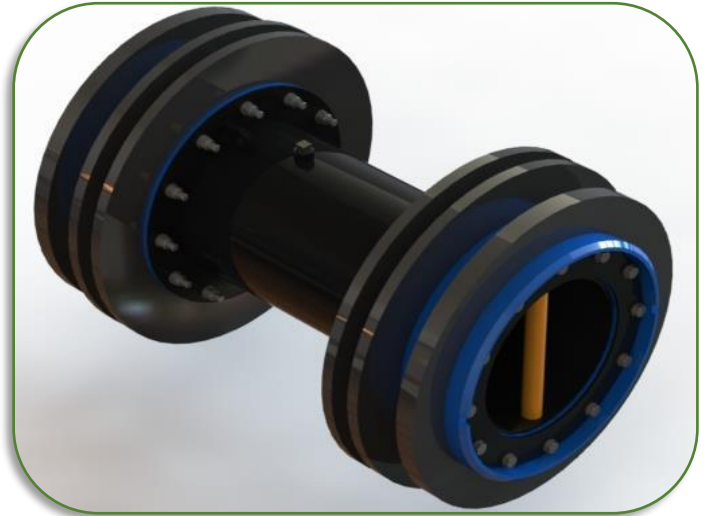
All brush Scrapers are supplied with by-pass ports which allows removed debris to be flushed.



BI-DI DISC SCRAPERS

Designed to be used for the displacement of water or air during hydrostatic testing of a pipeline IKS's range of Bi-directional disc/scrapper offer excellent high sealing qualities.

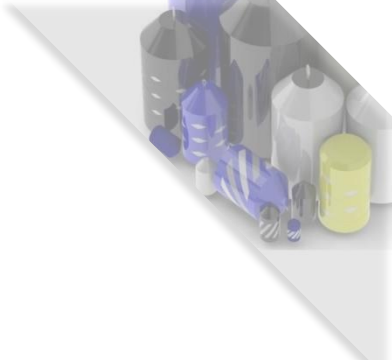
The range is comprehensive 2” through to 60”, with a variety of body constructions available. In sizes 2” up to 14” a spindle (bolt) body can be offered or alternatively the complete range up to 60” can be supplied as a multi bolt design.



The standard model is supplied with six polyurethane discs: two support/guide discs which assist loading and centralization in the pipeline and four sealing discs which drive, seal and scrape.

The scraping action of the sealing discs has proved successful in removing light deposits from the pipe wall; this cleaning ability is enhanced by the addition of brushes, plough blades or pin wheel discs. Other design options include the attachment of magnets (for debris collection), gauge plates and transmitter housings.

Extra sealing and guide discs can be added if the scraper is to be used over long distance (150km) or the pipeline conditions are particularly arduous.



BI-DI GAUGING SCRAPERS

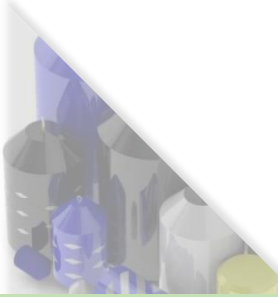
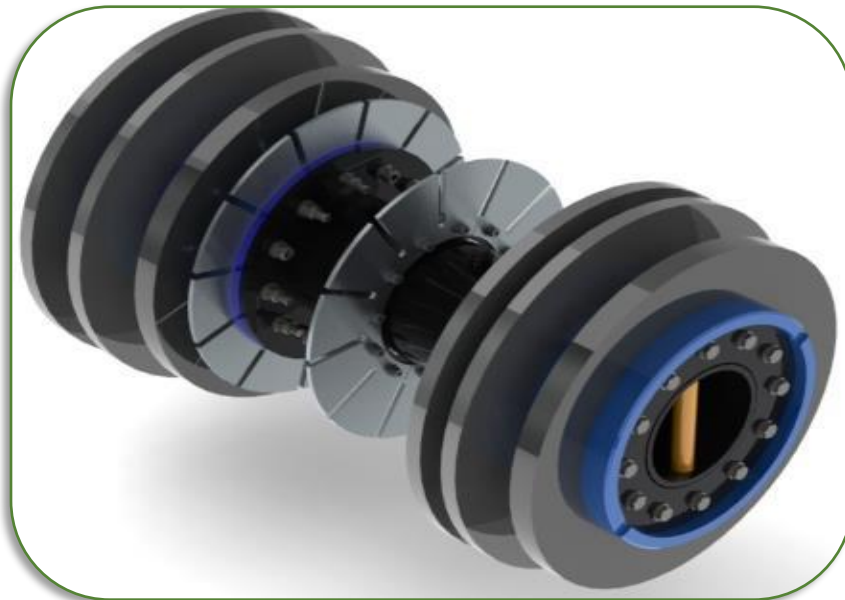
Designed to prove the pipeline is laid as specified the gauging Scraper is one of the most important inspection tools available.

IKS's range of Bi-directional gauging scrapers offers the contractor an excellent tool. The range is comprehensive 2" through to 60", with a variety of body constructions available.

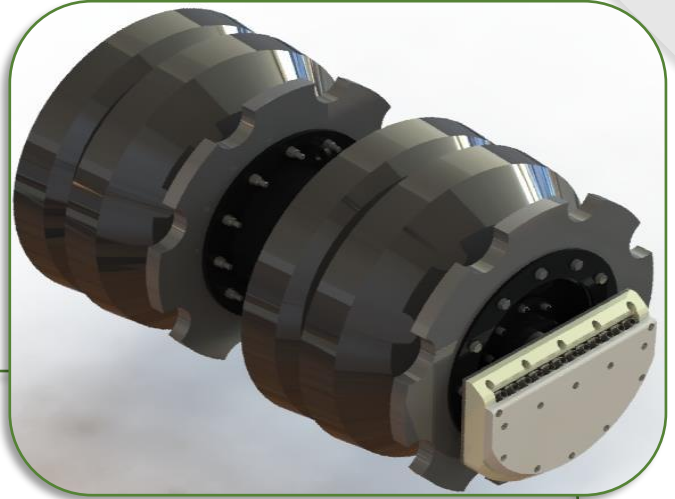
In sizes 2" up to 14" a spindle (bolt) body can be offered or alternatively the complete range up to 60" can be supplied as a multi bolt design. The standard model is supplied with six polyurethane discs: two support/guide discs which assist loading and centralization in the pipeline and four sealing discs which drive, seal and scrape.

The gauge plates are manufactured from aluminum with different thicknesses and machined to the Clients specified order; this is normally between 90% and 95% of the pipeline bore.

Gauge plates can be solid or segmented. Extra sealing and guide discs can be added if the scraper is to be used over long distance (150km) or the pipeline conditions are particularly arduous.



JETTING SCRAPERS



Designed for use in pipelines where large-amounts of debris and deposits may be present, IKS's range of jetting head scrapers offer excellent cleaning qualities. Also are used to spray corrosion inhibitor with full 360 coverage.

Available in size 6" through to 60", the standard model is supplied as a multi bolt design with six polyurethane discs: two support/guide discs, four sealing discs and jetting head assembly.

The scraper performs as any utility scraper does until it encounters a restriction, this causes the differential pressure across the scraper to increase, and liquid is forced out through the adjustable nozzles flushing the debris away, the scraper then continues in the normal fashion.

A pressure relief valve can be fitted to regulate the jetting flow if required.

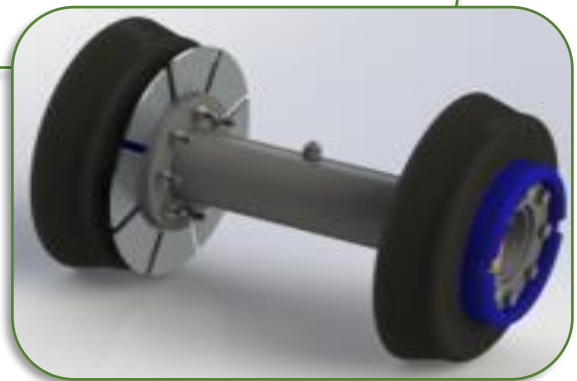


STANDARD CUP SCRAPERS

Designed for cleaning, batching, and gauging, IKS's cup Scraper is still a universally popular style of Scraper. The cup design is derived from the hydraulic piston seal and aggressively scrapes the pipeline bore while maintaining a good seal.

The range is comprehensive 2" through to 60" with 2, 3 or 4 cup models and a variety of body constructions available.

In sizes 2" up to 14" a spindle (bolt) body can be offered or alternatively, the complete range up to 60" can be supplied as a multi bolt design.



CONICAL CUP SCRAPERS

These Scrapers are especially suitable when encountering pipe ovality and varying pipe wall thickness. Designed for cleaning, batching and gauging, IKS's conical cup Scrapers allow maximum flexibility while maintaining a positive seal.

The range is comprehensive 2" through to 60" with 2, 3 or 4 cup models and a variety of body constructions available. In sizes 2" up to 14" a spindle (bolt) body can be offered or alternatively the complete range up to 60" can be supplied as a multi bolt design.

Other design options include the attachment of gauging plates, cleaning brushes, transmitter housings and magnets (for debris collection).



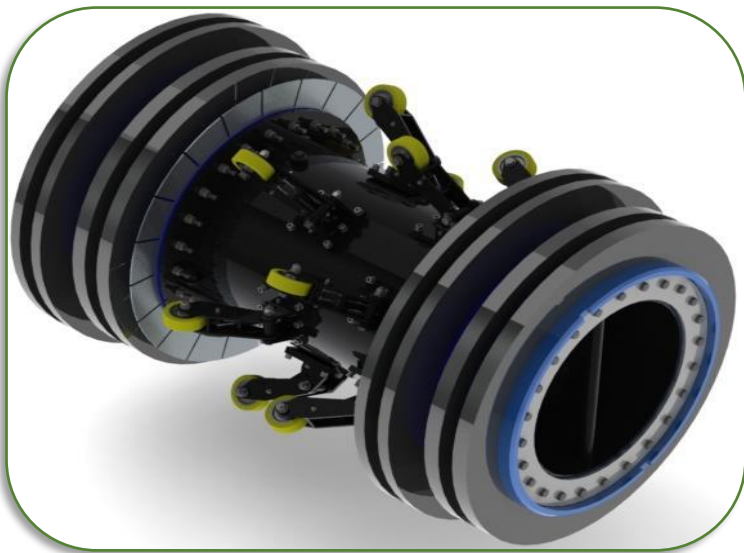
WHEEL MOUNTED SCRAPERS

Designed to remove debris and deposits from the pipeline, IKS's range of wheel mounted scrapers offer excellent cleaning qualities over long distance pipelines.

The range for wheel mounted scrapers is 30" through to 60", for smaller diameters we offer extra support discs.

The standard model is supplied with six polyurethane discs: two support/guide discs which assist loading and centralization in the pipeline, four sealing discs which seal/drive and suspension wheel units.

All wheel mounted scrapers are supplied with by-pass ports which allows removed debris to be flushed clear of the discs and brushes.



The scrapers can be supplied with carbon steel wire bristle with a stainless-steel option. For pipelines with internal coatings, we can offer polypropylene or nylon bristles. Other design options include the attachment of magnet boxes (for debris collection) and gauge plates for pipeline proving.

Extra sealing and guide discs can be added if the scraper is to be used over a long distance (150km) or the pipeline conditions are particularly arduous. Alternatively, guide discs can be removed (opposite) if the pipelines are short.

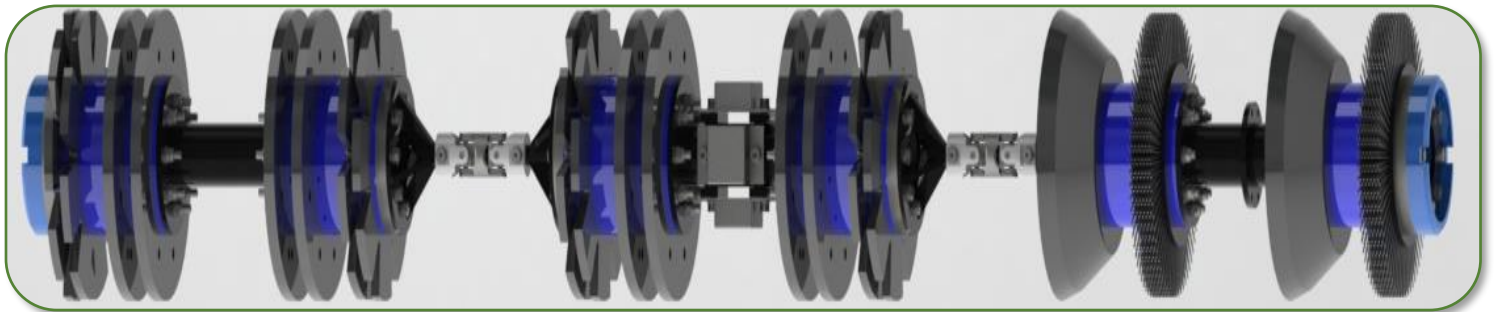


SPECIAL / CUSTOM SCRAPERS

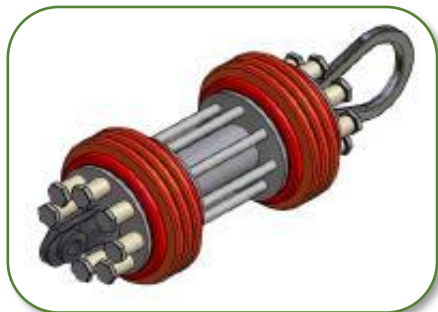
For more complex requirements we design, develop and test specialist scraping tools. This is often a requirement for operations in complex and demanding pipelines, where our design and service engineers, work closely with clients to design and engineer the best fit scraping solution.

Special scrapers which we design as well as manage during scraping campaigns include:

- Multi-diameter scrapers
- articulated scrapers
- Welding plugs
- J-tube high friction messenger wire scrapers/plugs



Using special scrapers developed this way enables innovative and highly effective solutions to be provided, as well as ensuring safe and efficient passage of the scraper through a pipeline.

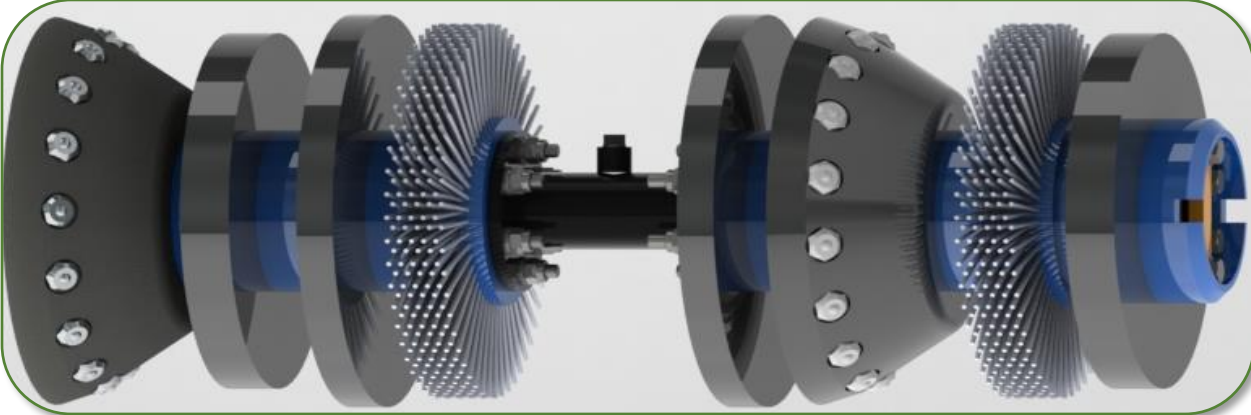




DE-COKING / DESCALING SCRAPERS

Aggressive scraping of the hardest of pipeline deposits, IKS's range of de-coking scrapers offer 360° internal pipeline coverage and are custom made to suit your specific pipeline details.

As standard available sizes 2" through to 12"



FOAM SCRAPERS

IKS is the leading foam Scrapers manufacturer in the Kingdom and are able to manufacture over 30 different styles of foam scraper with sizes ranging from ½” to 64”:

Low density: 24 - 32 kg/m³

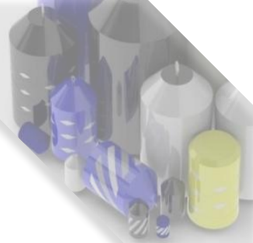
Medium density: 80 - 12kg/m³

High density: 128 – 160 kg/m³

Foam is versatile, flexible, and often suited to pipeline systems where scraping has not taken place before. Foam scrapers can perform excellent on bore restrictions and significant changes in pipe ID.



Made of lightweight open-cell polyurethane foam, foam scrapers can be coated with polyurethane for more durability and can incorporate with anything from silicon carbide grit, nylon bristle, steel wire brushes to metal studs for heavy-duty cleaning. All our scrapers can be adapted to include gauge plates, transmitter housing, and magnets or manufactured to be extra-long, bi-directional.



SCRAPER REFURBISHMENT & SPARES

IKS offers a comprehensive range of replacement spare parts for scrapers:

Polyurethane components	Cleaning brushes (both circular and spring mounted)	
Magnet boxes	Aluminum gauge plates (slotted or standard)	Cups (conical or standard)
Bumper noses	Base body tubes	Spacer discs



Our polyurethane cups and discs have been used for many years in a wide range of scraping operations. They can be tailored to all types of pipeline scrapers and can be manufactured to suit any internal diameter. Bolt holes and center holes can be manufactured to meet client requirements.

In addition to the supply of spare parts, IKS can rebuild or refurbish all types of pipeline scrapers at our workshop in the 2nd Industrial City-Dammam-Saudi Arabia.

IKS also assists with scraping operations and storage of all types of scrapers.



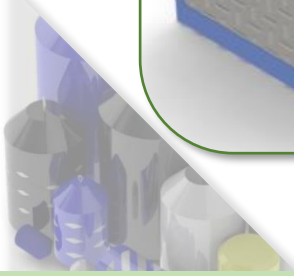
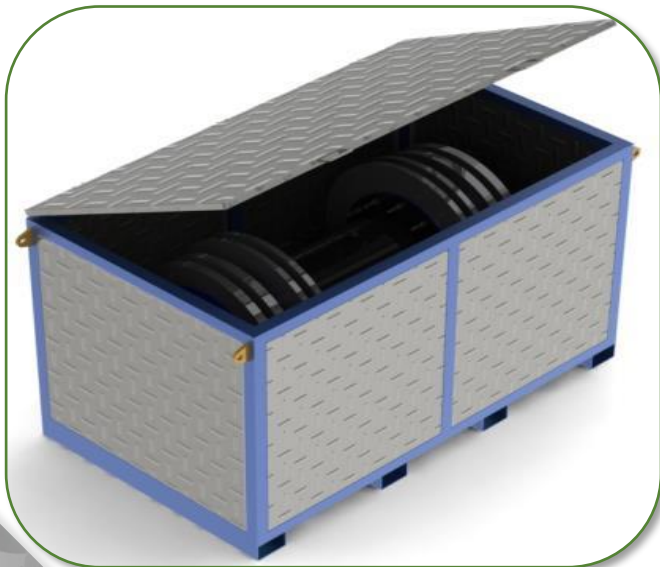


SCRAPER CONTAINERS / BOXES



IKS offers a range of scraper container/boxes for easy offshore or onshore transport and storage.

The containers are purposely built to fit the scrapers and have a crib guide to protect the scraper discs from damage under transportation.



SCRAPER LAUNCHING & RETRIEVING

The safest and fastest way to load and retrieve scrapers in a pipeline. This tool is designed, tested, and manufactured specifically for use in oil and gas pipelines.

IKS's launching and retrieving tools comes into two series; "Light Duty Series" which are made from durable, high strength, and non-spark aluminum applicable for use in small-medium sizes pipelines. For medium-large sizes pipelines "Heavy Duty Series" is the best option which are made from durable, high strength carbon steel treated with anti-spark coating.

Features & Benefits:

- Limited flexibility ensures hitting target every time.
- Drilled with exacting tolerances for a precision fit.
- Additional pole(s) can be utilized for added length.
- Collapsible, adjustable wheeled bipod suited for range of pipeline sizes.
- Indexed parts allow the operator to know hook orientation for a trouble-free catch each time.
- The most durable and safest tool to use in a natural gas environment.
- Easy to transport.





SCRAPER TRACKING & LOCATING

Routine scraping can present several challenges and the risk of a scraper becoming lost or stuck should always be considered. Until located, lost, or stuck scrapers can result in considerable downtime and significant extra expense.

ELECTROMAGNETIC TRANSMITTERS

Electromagnetic transmitters allow for precise validation of a stuck scraper's location and as a contingency method of confirming the launch and receipt of pipeline scrapers.

OEL can provide a wide range of ATEX-certified EM transmitters designed to work in potentially explosive environments such as FPSOs, platforms, refineries, and other locations where equipment must be protected from creating ignition or explosion.



ELECTROMAGNETIC RECEIVERS

OEL's range of EMRx receiver systems allows for quick and exact tracking and locating of scrapers fitted with electromagnetic transmitters. The location of a stuck scraper can easily be identified with onshore, ATEX, and subsea options.

Detection through very heavy walled receivers/launchers, pipeline bundles, or Pipe-in-Pipe is possible.

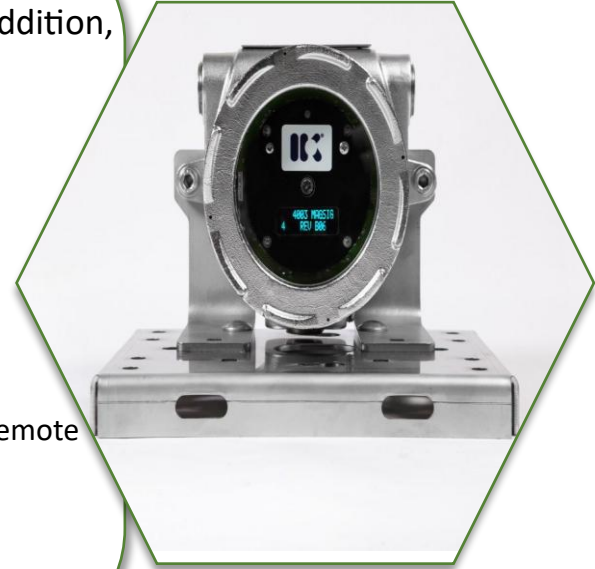


MAGNETIC PIG SIGNALLERS

OEL's range of compact pig signalers is for use on onshore pipelines in addition to offshore platforms and FPSOs. In addition, a subsea magnetic signaler rated at 3000m is available.

Features and benefits:

- Removes uncertainty of pig passage
- Time and cost-saving
- ATEX and UL CSA-certified models are available.
- The acoustic link option allows the vessel to "listen."
- for pig receipt from the launch site (subsea version only)
- Multiple communication options including local indication and remote signaling.
- Up to 100 logged events
- Graphical display and high-brightness LED
- Single control button and intuitive menu system



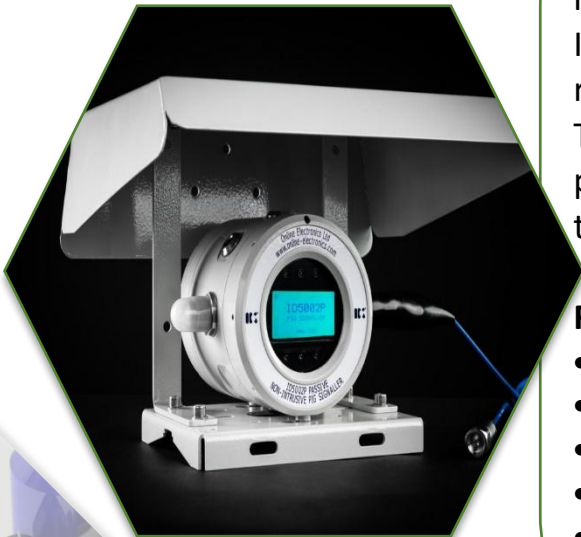
ULTRASONIC PIG SIGNALLERS

The ID5000 Active Pig Signaler signals the passage of pigs in liquid pipelines with the need for magnets or transmitters. The ID5000A can also be used to confirm the location of pigs in the receiver and for wax or debris analysis.

The ID5001 and ID5002 Passive Signalers signal the passage of pig in any medium without the need for magnets or transmitters.

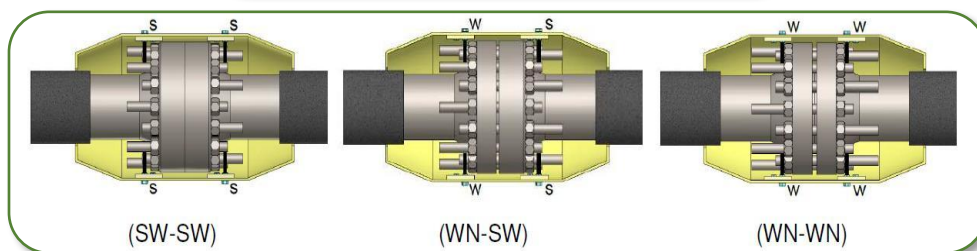
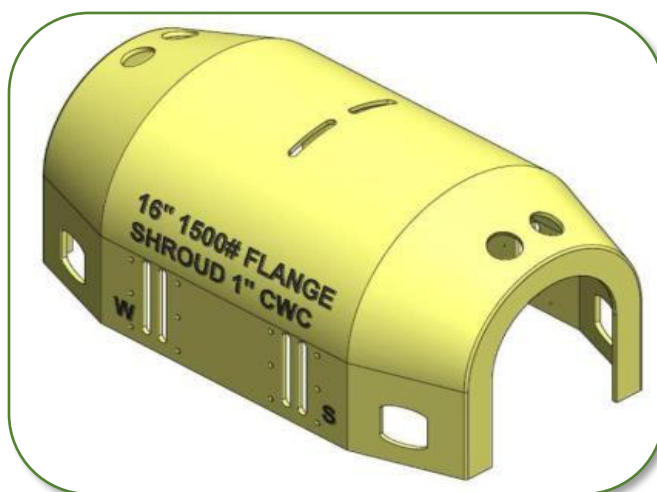
Features and benefits:

- Removes uncertainty of pig passage.
- Time and cost saving.
- ATEX-certified and intrinsically safe models available.
- Up to 100 logged events.
- Main housing can be mounted remotely up to 10 meters from the sensor for use on buried pipelines or where access is limited.



NON-METALLIC SUBSEA FLANGE

The Non-Metallic Subsea Flange Shroud has an anti-snag design to prevent any anchor wire from being caught by the projected stud lengths of the flange. The shroud sits on the seabed covering the entire flange assembly. Made of non-metallic materials, thermoset polyurethane polymers where the polymer structure is designed to suit the submerged seawater environment, for a design life of 25 years. Lightweight, diver/ROV friendly, and positive specific gravity (1.30 – 1.50 composite PU polymer structure).



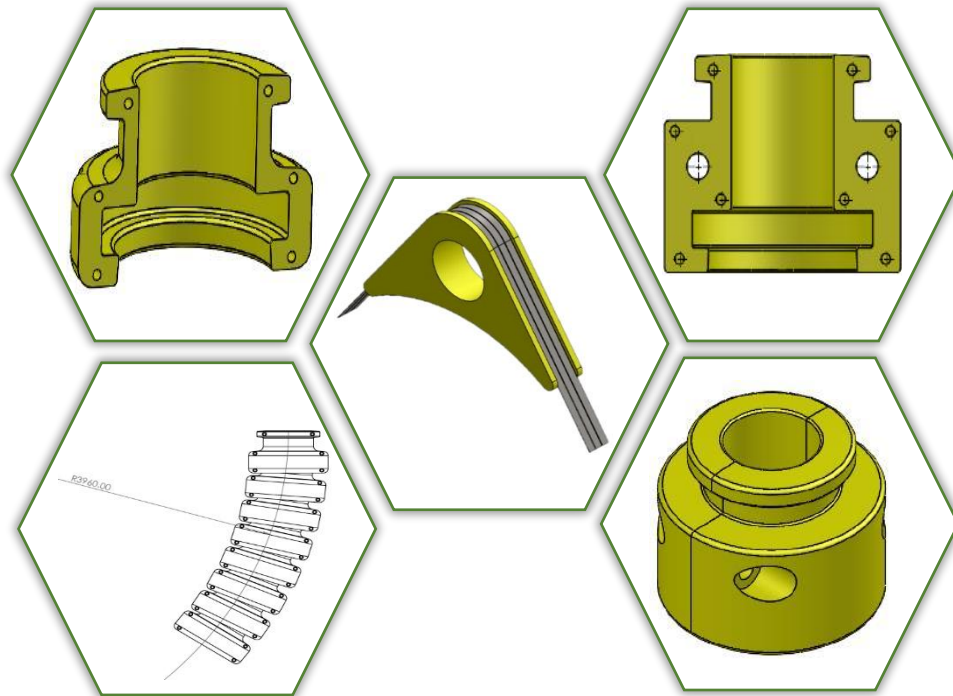
Features:

1. Efficient and cost-effective design eliminates sharp and weak edges.
2. Composite PU polymer with high strength, resilience, and resistance to brine water and aquatic organisms.
3. Double slots are designed to serve many flange arrangements.
4. Lightweight and easy installation.
5. PU-coated slotted plated for reinforcing during installation.
6. Ease of molding and large production.

Subsea, Umbilical's, Risers & Flowline Protection Solutions S.U.R.F.

IKS provides non-metallic urethane-based protection systems for subsea flowlines, umbilical's, and power/communication cables.

The polymer structure is carefully designed and tuned to suit the application requirements and needs, in terms of polymer tensile/compression strengths, elasticity/rigidity, and resistance to brine water and harsh environment. Designed to meet client requirements in design and expected loads complying with API-17L1 and API-17L2.



- Bend Restrictors.
- Bend Strain Reliever, Static & Dynamic.
- Passive J-Tube Seals.
- Piggyback Clamps & Saddles

POLYURETHANE SCREENS

Utilizing PU screening media for your crushing circuit to maximize equipment availability, reducing kWh usage, maintenance, and downtime costs.

IKS provides services to your screening process, solutions specifically designed to your process feed with the objective of optimizing the overall screen efficiency, undersize recovery, and screen performance, minimizing recirculation load, and the wear-life of the screens.

Polyurethane screens include:

- PU side tensioning screen panels (direct installation)
- PU modular screens
- Flip-Flow
- Client-specific design and requirements



Non-Metallic Solutions for Mining Processes

IKS provides non-metallic urethane-based solutions for each of the critical unit operations in the mining processes.

The polymer structure is carefully designed and tuned to suit the application requirements and needs, in terms of the medium abrasiveness, process working temperature, compatibility, and resistance of the polymer.

Urethane finds its best utilization in:

1. Liners for chutes, steel panels bonding, crushers, and grinding mills, pump body and impellers, internal lining for the piping system, and fittings.
2. Urethane sleeves for pinch valves.
3. Flootation cells impellers.
4. Size separation equipment e.g. cyclones and screens.
5. Conveyor scrapers and rollers (pulley).

SERVICES

IN-LINE INSPECTION SOLUTIONS

- Cleaning and gauging
- Caliper inspection
- MFL inspection
- TFI inspection (Transverse Field Inspection)
- Ultrasonic inspection UTWM
- Ultrasonic crack detection UTCD
- EMAT inspection
- Tubing inspection
- Pipeline integrity
- External MFL surface inspection
- Flow lines inspection ITAG
- XYZ mapping
- Combo inspection

PRESSURE AND VACUUM SERVICES

- Vacuum services.
- Steam services.
- Water Services.
- Chemical cleaning.
- Maintenance scraping.
- Tank cleaning.
- Heat exchanger cleaning.
- Potable water supply.



NITROGEN SERVICES

- Accelerated cool-downs.
- Purging and displacement.
- Helium and sonic leak detection.
- Pneumatic testing.
- Pipe freezing.
- Upstream downhole.
- Drying and preservation.



PRE-COMMISSIONING SERVICES

- Engineering
- Steam Blowing
- Air Blowing
- Chemical cleaning
- Oil flushing
- Oxygen line cleaning
- Fluid heating
- Fluid pumping
- Filtration
- Hydro milling
- Pigging and testing



CEMICALS

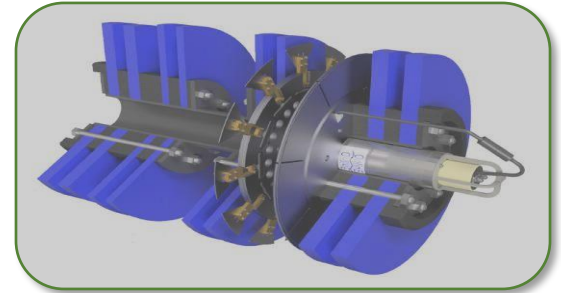
- Degassing
- NORM decontamination





UNPIGGABLE PIPELINE SOLUTIONS

With their versatile product and service range, the IKS have the ability to change any pipeline from unpiggable to piggable. The first step is to understand why you want to pig as this helps define the type of pigs that are necessary and as a consequence identifies the extent of the unpiggable problem.



PIPELINE ACCESS

Lack of pipeline access can be defined a number of ways. The layout can be poorly thought out with little available space or pig traps have not been fitted.

There are many pipeline access solutions from hydrocarbon displacement with hi-friction pigs to piggable plugs to IK's AOGV that allow for an isolation to be created with zero production losses.

PIPELINE GEOMETRY

Typically, a combination of features can create challenging pipeline geometry. This can range from simple cases such as 3D bends with full bore tees in smaller diameters to the more complex including non- return valves, subsea connectors with differing internal dimensions to the pipe or flowline, dual diameter pipelines and wye pieces. Existing pipelines, third party damage or landslips onshore or offshore can require careful assessment before pigging.

To assess the pipeline Pathfinder can provide a caliper-like survey. Alternatively, a SMART Gauge plate can facilitate the identification of a pipeline reduction location and can communicate this through the pipeline.

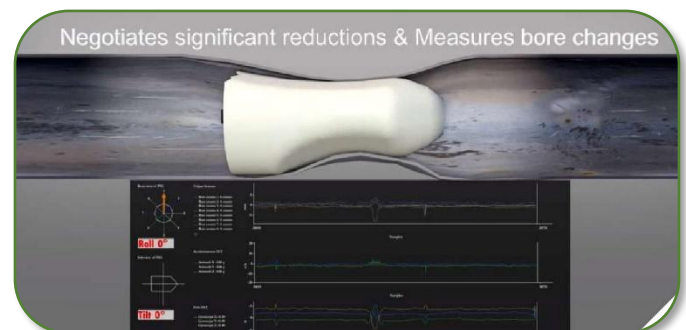
DEBRIS

Piggability can be impacted by debris in the system that can inhibit an inspection tool's ability to inspect effectively, or it can lead to production issues.

A pigging program can be developed which may start with running assessment tools prior to determining the best process for cleaning the pipeline.

ASSURANCE

Concerns over locating pigs and knowing that the pig has passed certain is often a point of concern. OEL's range of pig tracking and pig signalers can provide the assurance that the operation is progressing or if this is not the case, can be used to determine where any pig is located with this information being communicated via a multitude of platforms.



IKS FOR INDUSTRIES

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IKS LOCATION CO-ORDINATES

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