

# THE PPSA BUYERS' GUIDE

A breakdown of the products and services provided by the Members will be found in the following chart. The following is an explanation of some of the less well known terms and items which are listed:

- “Utility pigs” are used for a variety of purposes such as internal pipe wall cleaning, condensate removal, water fill for pressure testing, gauging, dewatering, drying, commissioning etc. There are many different types available for use in uni-directional, bi-directional and multidiameter pipelines. Utility pigs have been divided into the four different forms in which they are made:
  - “Mandrel pigs” are assembled from a number of component parts, and spare parts are available.
  - “Foam pigs” are moulded from polyurethane foam with various configurations of solid polyurethane strips and/or wire bristles, studs etc. permanently bonded to them.
  - “Solid cast pigs” are moulded in one piece – usually from polyurethane.
  - “Spheres” are hollow balls, usually made from polyurethane and inflated to the optimum diameter with water/glycol.
- “Hyperbaric spheres” and “High DP pigs” are used mainly on subsea pipelines as a temporary plug while the two ends of the line are welded together.
- “Pig signals” indicate the passage of a pig. Intrusive types are mechanically actuated via a trigger or plunger which protrudes into the line. Non-intrusive and subsea signals may employ magnetic, ultrasonic or radioactive techniques.
- “Pig locators” are used to locate a pig which may or may not be in motion.
- “Sphere flow tees” are specially designed to allow a sphere to pass an offtake without stalling. They may be called simply “Sphere tees” or “Flow tees”.
- “Sphere lifters” are usually in the form of tongs or suction devices.
- “Pig suspension systems” are designed to keep a pig in the centre of a pipeline. They usually comprise spring-loaded skids or wheels and are used for inline inspection tools, or other relatively heavy pigs, and in multi-diameter pipelines.
- There are two main methods of finding metal loss (corrosion): Magnetic flux leakage (MFL) and ultrasonics (UT). Another emerging technology involves the use of eddy currents.

**Further, more detailed information on pigs and pigging will be found in the PPSA book entitled: “An Introduction to Pipeline Pigging”. Contact [ppsa@ppsa-online.com](mailto:ppsa@ppsa-online.com) for details.**

## BUYERS' GUIDE

Note: Inspection companies can generally arrange for the pipeline to be cleaned/prepared prior to inspection.

- Manufacturer and/or Service Company
- ▲ Distributor

		Alchemy Oilfield Services Ltd	American Pipeline Solutions, Inc	Apache Pipeline Products	Applus RTD	ARR Freeflow Private Limited
PIPELINE PIGS	Mandrel pigs			●		●
	Foam pigs		▲	●		●
	Solid cast pigs			●		●
	Spheres			●		●
	Hyperbaric spheres					
PIPELINE PIGGING COMPONENTS AND EQUIPMENT	High DP (plugging) pigs					
	Pig signals – intrusive		▲	●		●
	Pig signals – non-intrusive			▲		▲
	Pig signals – subsea			●		▲
	Pig locaters – onshore			●		▲
	Pig locaters – offshore			▲		▲
	Pig/sphere traps					●
	Closures & Interlocks					▲
	Pig/sphere launch valves					▲
	Sphere launch pins/flaps					▲
	Sphere flow tees					▲
	Diverter					
	Convergers (Wyes)					
	Pig handling systems					
	Pig Suspension Systems					
Sphere lifters						
PIPELINE PIGGING SERVICES	Testing	●	●			
	Drying	●	●			●
	Commissioning	●	●			●
	Cleaning – general	●	●			●
	Cleaning – pre-inspection	●	●			▲
	Gel pigging	●				
	Slug (batch) inhibition	●				
	Insitu internal line coating					
	Pig tracking/locating		●	▲		●
	Isolating/plugging	●				
Pipeline repair						
IN LINE INSPECTION SERVICES	Metal loss/corrosion (MFL)		●			
	Metal loss/corrosion (UT)					●
	Metal loss/corrosion (other)		●			●
	Geometry		●			●
	Crack detection		●			●
	Leak detection		●			●
	Photographic/video		●			●
	Bend detection					●
	Profile/Mapping		●			●
	Spanning/line cover					●
Smart Utility Pigging		●			●	
CONSULTANCY SERVICES	Feasibility studies					●
	Pig/system design		●	●		●
	Pig development		●	●		●
	Pig testing/trials		●			●
	Defect assessment					●
	Fitness for purpose assess		●			●
Safety		●			●	
INDUSTRIAL PIGGING	Pigs	●	▲	●		
	Components/fittings					
	Controls					
	System Design		●			
Installation		●				

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		Atlantic Oil Services Ltd	Baker Hughes	B.G. Technical	CDI	CEPS a.s.	China Petroleum Pipeline Inspection Tech. Co Ltd	DEXON Technology Public Limited Company PLC	Drinkwater-Products	Elastomeros PVM SAS	Enduro Pipeline Services, Inc	Enermech Ltd	ENTEGRA	Eureka Efektif Sdn Bhd	GD Engineering	Girard Industries	Global Process and Pipeline Services Limited	GOTTSSBERG Leak Detection GmbH & Co KG	Growth Avenue Sdn Bhd
<b>PIPELINE PIGS</b>	Mandrel pigs		●	●			●	●	▲	●	●			●		●			
	Foam pigs		▲	●			●	▲	▲	●	▲			▲		●			
	Solid cast pigs		●	●			●	▲	▲	●	●			▲		●			
	Spheres		▲	●				▲	▲	●	▲			▲		●			●
	Hyperbaric spheres		▲	▲															●
	High DP (plugging) pigs		●	▲					▲	●									●
<b>PIPELINE PIGGING COMPONENTS AND EQUIPMENT</b>	Pig signals – intrusive		▲	▲			●	▲	▲	●	●			▲	●	▲			
	Pig signals – non-intrusive		▲	▲	●			▲	▲	▲	●			▲	●	▲			●
	Pig signals – subsea		▲		●				▲	▲					●	▲			
	Pig locaters – onshore		●	▲	●		●	▲	▲	▲	●			▲	●	▲			●
	Pig locaters – offshore		▲	▲	●			▲	▲		▲			▲	●	▲			
	Pig/sphere traps		●	▲		●	●		▲		▲				●	▲			
	Closures & Interlocks		▲	▲					▲		▲				●	▲			
	Pig/sphere launch valves			▲			●		▲		▲				●	▲			▲
	Sphere launch pins/flaps														●				
	Sphere flow tees																		
	Diverters																		
	Convergers (Wyes)																		
	Pig handling systems		●	▲			●				●				▲		▲		●
	Pig Suspension Systems																		●
Sphere lifters		▲						▲		▲					▲			●	
<b>PIPELINE PIGGING SERVICES</b>	Testing	●	●	●		●	●	●		●		●					●	●	
	Drying	●	●	●		●	●	●		●		●					●	●	
	Commissioning	●	●	●		●	●	●		●	●	●					●	●	●
	Cleaning – general	●	●	●		●	●	●		●	●	●					●	●	●
	Cleaning – pre-inspection	●	●	●		●	●	●		●	●	●	▲	●			●	●	●
	Gel pigging	●	●	●		●	●	●		●	●	●					●	●	●
	Slug (batch) inhibition	●	●	●		●	●	●		●	▲	●					●	●	●
	Insitu internal line coating	●	●	●		●	●	●	▲	●	●	●		▲	●		●	●	●
	Pig tracking/locating	●	●	●	●	●	●	●	▲	●	●	●		▲	●		●	●	●
	Isolating/plugging	●	●	●		●	●	●		●	●	●			▲		●	●	●
Pipeline repair	●	●	●		●	●	●		●	●	●			▲		●	●	●	
<b>IN LINE INSPECTION SERVICES</b>	Metal loss/corrosion (MFL)	●	●	●		▲	●	●		●	●		●	▲			●	●	●
	Metal loss/corrosion (UT)	●	●	●		▲	●	●		▲	●			▲			●	●	●
	Metal loss/corrosion (other)	●	●	●			●	●		▲	●			▲			●	●	●
	Geometry	●	●	●		▲	●	●		●	●		●	▲			●	●	●
	Crack detection	●	●	●		▲	●	●		▲	●			▲			●	●	●
	Leak detection	●	●	●			●	●		▲	●			▲			●	●	●
	Photographic/video	●					●	●		▲	●			▲			●	●	●
	Bend detection	●	●	●		▲	●	●		▲	●		●	▲			●	●	●
	Profile/Mapping	●	●			▲	●	●		▲	●		●	▲			●	●	●
	Spanning/line cover	●	●					●		▲	●						●	●	●
Smart Utility Pigging	●	●	●			●	●		▲	●			▲			●	●	●	
<b>CONSULTANCY SERVICES</b>	Feasibility studies		●	●		●	●		▲	●		●	●	●			●	●	●
	Pig/system design		●	●		●	●	●	▲	●	●		●	●			●	●	●
	Pig development		●	●		●	●	●	▲	●	●		●	●			●	●	●
	Pig testing/trials		●	●		●	●	●	▲	●	●	●	●	●			●	●	●
	Defect assessment	●	●	●		●	●	●	▲	●	●		●	●			●	●	●
	Fitness for purpose assess	●	●			●	●	●	▲	●	●		▲				●	●	●
Safety			●		●	●	●					▲						●	
<b>INDUSTRIAL PIGGING</b>	Pigs		●	●			●	●	▲	●	●					●		●	
	Components/fittings			●			●	▲	▲	●	●							●	
	Controls						●	▲	▲	●	●							●	
	System Design			●			●	●										●	
	Installation			●			●	●										●	

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- Manufacturer and/or Service Company
- ▲ Distributor

		Gulf Petrochemical Services & Trading LLC	Gyra Industrial Technology (Dongguan) Co., Ltd.	Halliburton (Pipeline & Process Services)	IKM Testing AS	Inline Services LLC.	INPIPE PRODUCTS™	Intero Integrity Services BV	Italmatch Chemicals GB Ltd	Jee Ltd	Kleiss & Co. bv	Knapp Poly Pig Inc	Limpro Nacional, SA de CV	Middle East Manufacture of Pipe Cleaning Equipment	Morken Group	NAFTOSERWIS Sp. z o.o.	NDT Global	Online Electronics Ltd	3P Services GmbH & Co. KG
PIPELINE PIGS	Mandrel pigs	▲	▲	▲	▲	●	●				●	●	●	●	▲				
	Foam pigs	▲	▲	▲	▲	●	●				●	●	●	●	▲				
	Solid cast pigs	▲	▲	▲	▲	●	●				●	●	●	●	▲				
	Spheres	▲	▲	▲	▲	●	●				●	●	●	●	▲				
	Hyperbaric spheres		▲	▲	▲	●	●				▲			●	▲				
	High DP (plugging) pigs		▲	▲	▲	●	●					●		●	▲				
PIPELINE PIGGING COMPONENTS AND EQUIPMENT	Pig signals – intrusive	▲		▲	▲	▲	●				▲	▲	▲	●	▲				
	Pig signals – non-intrusive	▲		▲	▲	●	▲				▲	▲	▲	▲	▲			●	●
	Pig signals – subsea			▲	▲	▲	●				▲							●	●
	Pig locaters – onshore	▲		▲	▲	▲	●				▲	▲	▲	▲	▲	●		●	●
	Pig locaters – offshore			▲	▲	▲	●				▲	▲		▲				●	●
	Pig/sphere traps	▲		▲	▲	▲	●				▲			▲	▲				
	Closures & Interlocks	▲		▲	▲	▲	●				▲			▲	▲				
	Pig/sphere launch valves	▲		▲	▲	▲	●				▲			▲	▲				
	Sphere launch pins/flaps	▲		▲	▲	▲	●				▲				▲				
	Sphere flow tees	▲		▲	▲	▲	●				▲				▲				
	Diverters			▲	▲	▲	●				▲								
	Convergers (Wyes)			▲	▲	▲	●				▲								
	Pig handling systems	▲		▲	▲	▲	●				▲			●					
	Pig Suspension Systems	▲		▲	▲	▲	●				▲								
Sphere lifters			▲	▲	▲	●				▲									
PIPELINE PIGGING SERVICES	Testing	●		●	●			●					●						
	Drying	●		●	●			●	●				●		●				
	Commissioning	●		●	●			●	●				●		●				
	Cleaning – general	●	●	●	●	●	●	●	●				●		●				
	Cleaning – pre-inspection	●	●	●	●	●	●	●	●				●		●				●
	Gel pigging		●	●	●		▲	●	●						●				
	Slug (batch) inhibition	●	●	●	●			●	●				●		●				
	Insitu internal line coating	●	●	▲	●			●	●				●		●				
	Pig tracking/locating	●	●	●	●	▲	●	●	●				●		●			●	●
	Isolating/plugging	●	●	●	●	●	●		●						●				
Pipeline repair	●		▲	▲				●		●				●					
IN LINE INSPECTION SERVICES	Metal loss/corrosion (MFL)	▲	●	▲	▲			●			▲			●	●				●
	Metal loss/corrosion (UT)	▲		▲	▲			●			▲			●	●		●		●
	Metal loss/corrosion (other)	▲		▲	▲			●			▲			●	●		●		●
	Geometry		●	▲	▲	●					▲		●		●		●		●
	Crack detection		●	▲	▲			●						●	●		●		●
	Leak detection	▲		▲	▲	●	●	●						●	●		●		●
	Photographic/video		●	▲	●						▲				●		●		●
	Bend detection		●	▲	●	●		●			▲				●		●		●
	Profile/Mapping		●	▲	▲	●		●			▲			●	●		●		●
	Spanning/line cover		●	▲	▲						▲				●		●		●
Smart Utility Pigging	▲	●	▲	▲	●		●			▲				●		●		●	
CONSULTANCY SERVICES	Feasibility studies		●	●	●	●	●			●	●			●	●		●		●
	Pig/system design		●	●	●	●	●	●		●	●			●	●		●		●
	Pig development		●	●	●	●	●	●		●	●			●	●		●		●
	Pig testing/trials		●	●	●	●	●	●		●	●			●	●		●		●
	Defect assessment		●	●	●	●	●	●		●	●			●	●		●		●
	Fitness for purpose assess		●	●	●	●	●	●		●	●			●	●		●		●
Safety	▲	●	●	●	●			●		●				●		●			
INDUSTRIAL PIGGING	Pigs	▲		▲	▲	●	●		●		●		●	●	▲			▲	
	Components/fittings	●		●	▲	●	●						▲	●	▲				
	Controls	●		▲	▲	●	●							●	▲				
	System Design			●	●	●	●	●							▲				
	Installation			●	●		●	●											

**BUYERS' GUIDE P-R OVERLEAF**

**BUYERS' GUIDE**

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- Manufacturer and/or Service Company
- ▲ Distributor

		4Pipe Hidropig Engenharia Industrial LTDA	Pigs Unlimited International LLC	Pigtek Limited	Pipecare Group	Pipeline Engineering (Part of Nylacast Group)	Pipeline Equipment, Inc	Pipeline Innovations Ltd	Pipeline Piggng Products Inc	Pipeline Services LLC (PLS)	PipeWay Engenharia	Pipesurvey International CV	PolyEurope bv	PSI – Pipeline Services International GmbH & Co KG	PT. Farrel Internusa Pratama	PT. Titan Servis Indonesia	PT Tri Mulya Gemilang	RAS Rohrleitungs- und AnlagenService GmbH	Reinhart Hydrocleaning SA	
<b>PIPELINE PIGS</b>	Mandrel pigs	●	●	●	●	●	●		▲	▲	▲	●	●	▲	●	●	▲	●		
	Foam pigs	●	●	▲	●	●	●		●	▲	▲		●	▲	▲	▲	▲	▲		
	Solid cast pigs	●	●		●	●	●		▲	▲	▲		●	▲	▲	▲	▲			
	Spheres	●	●		●	●	●		▲	▲	▲		●		▲	▲	▲			
	Hyperbaric spheres				●	●				▲						▲				
	High DP (plugging) pigs				●	●				▲		●	●			▲				
<b>PIPELINE PIGGING COMPONENTS AND EQUIPMENT</b>	Pig signals – intrusive		▲				●		▲	▲	▲	▲	▲		●	▲	▲			
	Pig signals – non-intrusive	▲	▲						▲	▲	▲	▲	▲		▲	▲		▲		
	Pig signals – subsea	▲	▲						▲	▲	▲	▲	▲		▲	▲				
	Pig locaters – onshore	▲	▲	●	●	▲			▲	▲	▲	▲	▲		▲	▲		▲		
	Pig locaters – offshore	▲	▲		●	▲			▲	▲	▲	▲	▲		▲	▲		▲		
	Pig/sphere traps	●	▲		●		●			▲	▲				●	▲	▲	●		
	Closures & Interlocks		▲		●		●			▲	▲				●	▲	▲			
	Pig/sphere launch valves	▲	▲							▲	▲	▲			▲	▲	▲			
	Sphere launch pins/flaps									▲						▲				
	Sphere flow tees				●		●			▲						▲				
	Diverters									▲						▲				
	Convergers (Wyes)				●					▲						▲				
	Pig handling systems	●		●	●	●	●			▲			●		●	▲			●	
	Pig Suspension Systems			●		●				▲						▲				
Sphere lifters				●	●										▲					
<b>PIPELINE PIGGING SERVICES</b>	Testing	●	▲							●		▲	●	●	●	●	●	●	●	
	Drying	●	▲						●	●		▲	●	●	●	●	●	●	●	
	Commissioning	●	▲		●				●	●		▲	●	●	●	●	●	●	●	
	Cleaning – general	●	▲	●	●	●			●	●		●	▲	●	●	●	●	●	●	
	Cleaning – pre-inspection	●	▲	●	●	●			●	●		●	▲	●	●	●	●	●	●	
	Gel pigging									●		●				●				
	Slug (batch) inhibition				●				●	●		●		●		●		●		
	In situ internal line coating		▲							●		●			●	●	●	●	●	
	Pig tracking/locating	●		●	●	●			●	●	▲	●	▲	●	●	●	●	●	●	
	Isolating/plugging					●				●		●			●	●	●	●	●	
Pipeline repair					●				●		●			●	●	●	●	●		
<b>IN LINE INSPECTION SERVICES</b>	Metal loss/corrosion (MFL)		▲		●					●	●	▲			▲	▲	▲			
	Metal loss/corrosion (UT)				●					●	●	▲			▲	▲	▲			
	Metal loss/corrosion (other)		▲		●					●	●	●			▲	▲	▲			
	Geometry		▲		●			●		●	●	●		●	▲	▲	▲	●		
	Crack detection	▲			●					●		▲			▲	▲	▲			
	Leak detection		▲		●					●				●	▲	▲	▲	●		
	Photographic/video				●					●		●			▲	▲	▲			
	Bend detection		▲		●			●		●	●	●			▲	▲				
	Profile/Mapping		▲		●			●		●	●	●			▲	▲	▲			
	Spanning/line cover				●					●		●			▲	▲				
	Smart Utility Piggng		▲		●			●		●	●	●			▲	▲				
<b>CONSULTANCY SERVICES</b>	Feasibility studies	●	▲	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	
	Pig/system design	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	
	Pig development	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	
	Pig testing/trials	●	▲	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	
	Defect assessment		▲		●	●				●	●	●			●	●	●			
	Fitness for purpose assess		▲		●	●				●	●	●			●	●	●			
	Safety											●				●				
<b>INDUSTRIAL PIGGING</b>	Pigs	●	▲	●	●	●	●	●	●	▲	●	●	●		●	●	▲	●		
	Components/fittings				●	●	●		●	▲					●	●	▲	▲		
	Controls				●	●	●			●					●	●	▲	▲		
	System Design			●	●	●	●			●					●	●	▲			
	Installation				●	●	●			●					●	●				

**BUYERS' GUIDE R-W OVERLEAF**

# BUYERS' GUIDE

Note: Inspection companies can generally arrange for the pipeline to be cleaned/prepared prior to inspection.

- Manufacturer and/or Service Company
- ▲ Distributor

		ROSEN Group	Sancuss Ltd	Shenyang Emt Piping Technology Co., Ltd	Shenyang University of Technology	Sofield Analytic Pipe Asia SDN BHD	STATS Group	T. D. Williamson	Topline Limited	Tracerco Ltd	Trans Asia	Transpipe Integrity Solutions Middle East, FZE	TRAPIL	Yee Kay Vikram & Co. LLP	VP Engineers	WSG Industrial Services b.v.
<b>PIPELINE PIGS</b>	Mandrel pigs	●		●	●	●		●	▲		▲			●	●	▲
	Foam pigs	▲		●	●	▲		●	▲		▲			●	●	▲
	Solid cast pigs	●		●	●	●		●	▲		▲			●	●	▲
	Spheres	▲		●	●	▲		●	▲					●	●	▲
	Hyperbaric spheres	▲		▲	●			●						●	●	▲
	High DP (plugging) pigs	▲		▲										●	●	▲
<b>PIPELINE PIGGING COMPONENTS AND EQUIPMENT</b>	Pig signals – intrusive			●	●	▲		●						●	●	▲
	Pig signals – non-intrusive	▲		●	●	▲		●						●		▲
	Pig signals – subsea	▲		●	●	▲		●						●		▲
	Pig locaters – onshore	▲		●	●	▲		●	▲					▲		▲
	Pig locaters – offshore	▲		●	●	▲		●	▲					▲		▲
	Pig/sphere traps	▲		▲	●	●							●	●		●
	Closures & Interlocks	▲		●				●						●		▲
	Pig/sphere launch valves	▲		▲										●		
	Sphere launch pins/flaps	▲												●		
	Sphere flow tees	▲						●						●		
	Diverter	▲												●		
	Convergers (Wyes)	▲												●		
	Pig handling systems	●						●						●		●
	Pig Suspension Systems	●						●						●		●
Sphere lifters	▲						●						●			
<b>PIPELINE PIGGING SERVICES</b>	Testing	●						●	●		●			●		●
	Drying	●						●	●		●		●	●		●
	Commissioning	●						●	●		●			●		●
	Cleaning – general	●			●			●	●		●	●		●		●
	Cleaning – pre-inspection	●			●			●	●		●	●	●	●		●
	Gel pigging	▲	●					●	●		●			●		●
	Slug (batch) inhibition	▲						●	●		●			●		●
	Insitu internal line coating	▲						●	●		●			●		●
	Pig tracking/locating	●			●			●	●	●	●	●	●	●		●
	Isolating/plugging	▲					●	●	●		●			●		●
Pipeline repair	●					●	●	●		●		●	●		●	
<b>IN LINE INSPECTION SERVICES</b>	Metal loss/corrosion (MFL)	●			●	●		●	▲		●	●				▲
	Metal loss/corrosion (UT)	●				●		●	▲		●	●	●			▲
	Metal loss/corrosion (other)	●			●	●		●	▲	●	●	●				▲
	Geometry	●			●	●		●	▲	●	●	●	●	●		●
	Crack detection	●			●	●		●	▲	●	●	●	●	●		▲
	Leak detection	●			●	●		●	▲	●	●	●	●	●		▲
	Photographic/video	●			●	●		●	▲	●	●	●	●	●		●
	Bend detection	●			●	●		●	▲	●	●	●	●	●		●
	Profile/Mapping	●			●	●		●	▲	●	●	●	●	●		▲
	Spanning/line cover	●			●	●		●	▲	●	●	●	●	●		▲
	Smart Utility Pigging	●			●	●		●	▲	●	●	●	●	●		▲
<b>CONSULTANCY SERVICES</b>	Feasibility studies	●			●	●	●	●	●		●		●			●
	Pig/system design	●			●	●	●	●	●		●		●	●		●
	Pig development	●			●	●	●	●	●		●		●	●		●
	Pig testing/trials	●			●	●	●	●	●		●		●	●		●
	Defect assessment	●			●	▲		●	●				●			●
	Fitness for purpose assess	●			●	▲		●	●				●			●
	Safety	●			●	▲		●	●				●			●
<b>INDUSTRIAL PIGGING</b>	Pigs	●	●	●	●	●		●	▲		▲			●		▲
	Components/fittings	▲	●	●	●	●		●	▲		▲			●		▲
	Controls	●						●						●		
	System Design	●			●	●		●						●		▲
	Installation	●			●	●		●						●		●