

Company Profile

Vee Kay Vikram & Company (VKVC) is involved in manufacturing and providing pipeline engineering and polyurethane products. Including Pigging Products, Pipeline Equipment, Pipeline Repair and Maintenance Products, Surge Relief and Pipeline Valves, Floats and Buoys, and Pigging Services.

VKVC established in 1969 by an ex-ONGC petroleum production engineer, has rapidly expanded its product range from elastomer products for oil-well drilling to pipe-line products for use in upstream and downstream transportation and refinery operations, as well as providing pipeline cleaning services for new and aged pipelines. VKVC offers Pipeline Engineering Products, Polyurethane Products & Pigging Products.

VKVC is an API, ASME certified unit with approvals from Major Oil companies worldwide. VKVC has separate departments for manufacturing:

- 1) Pressure Vessels.
- 2) Polyurethane & Rubber Products.
- 3) Pipeline Maintenance Product viz Clamps & Sleeves.
- 4) Quick Opening Closures & Signals.
- 5) Pig Handling Systems.
- 6) Casing Insulators & Insulation Joints.

The departments have support from VKVC In-House CNC operated plate Cutting, Machining Units. Metal & Plastic Testing Laboratory, Non-Destructive Testing Laboratory & Surface Preparation / Paint Unit.

In-House availability of total product process resource helps VKVC maintain tight production schedules.

VKVC Design and Engineering team is available to fulfill all design requirements for critical Onshore & Offshore Pipeline Projects. VKVC's Quality Management System has been assessed and found to comply with the requirements of ISO 9001:2000.

VKVC is a Member of Pigging Products and Services Association, UK, since 2002.



Certifications





Quality Policies

We want satisfied clients. That is why the highest quality of our work is our corporate objective. This also applies to the quality of the work carried out by our associates.

Our clients are the true judges of our quality. Their verdict on our services and products is decisive. Clients not only assess the quality of our services, but also our adherence to the promised schedules.

Inquiries, offers and complaints must always be dealt with promptly and thoroughly.

Each and every member / employee in the organization / company contributes towards achieving our quality goals. It is therefore the responsibility of every employee to ensure that their work is of the highest standard.

Each & every member / employee of the company / organization must periodically assess their work during the period, Record the findings & steps taken to improve or rectify.

All our clients retain VKVC for their future Project, Repair and Maintenance requirements.

Resources

VKVC has state of Art CNC Machining Units & Plasma Cutting Unit, Automatic Polyurethane Dispensers, Rubber Internal mixers, all available In-House.

Manpower is trained, experienced and motivated to operate the machines efficiently.



VKVC Services Team Operation

- Pipeline pressure testing with Water or Nitrogen
- Cleaning and Pigging of Pipelines
- Pigging of Non-Piggable Pipelines
- Turnkey on-line or off-line chemical and mechanical cleaning
- Pig Tracking and Stuck Pig Removal
- Gel Pigging
- Commissioning, decommissioning and abandonment
- Volatile liquid removal from gas pipelines
- Water or amine removal from liquid for Natural Gas Pipelines
- Integrated services with Nitrogen suppliers
- Water Treatment services for discharge
- Offshore pipeline repair projects
- Hot Tapping for Instrumentation
- Pipelined Pipeline Sleeve installation and welding
- On Line Leak Sealing with Clamps
- Composite wrap applications
- Installation of Intrusive and Non-Intrusive Pig Signals and Instrumentation



VKVC Pressure Vessel division is an experienced steel fabricator with ASME 'U', 'UM' & NB 'R' code stamp approved.

Pig Launchers and Pig Receivers are installed on Pipelines to launch and receive Pipeline Pigs, Pipeline spheres and Pipeline inspection tools. Pig Launchers & Pig Receivers offer a safe and effective means of inserting and removing pipeline Pigs to and from Pipelines. VKVC fabricates pig launchers and pig receivers as per client specifications. They are suitable for on-shore, offshore, subsea and process Plant applications. We offer EN 10204 3.1 & EN 10204 3.2 Certification as required.



We fabricate Pig Launchers and Pig Receivers having range from simple barrel pig Launchers and Receivers to complete skid mounted units with associated equipment including inter lock actuated valves, quick opening closures with instrumentation, pig signalers and control systems. We offer Jib Cranes and Pig Handling system with our Barrels.



We follow the following design standards

- ASME "U" Stamp Division 1 & 2
- ASME VIII
- NACE with HIC / SSC and any other specific tests
- BS 5500
- ASME B31.3, B31.4, B31.8
- Sizes: 2" NB to 56" NB
- Class: ANSI 150 to ANSI 2500
- Material: Carbon steel & Stainless steel

We have in-house facility for Internal Inconel / Stainless Steel Cladding. We also offer internally Epoxy Coated Pig Barrels.

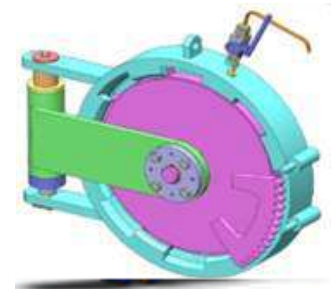
VKVC will design pig launcher and receiver systems which are 'tailor-made' to meet specific operational requirements.

VKVC manufactures extension Pig Barrels to extend major barrel length of Existing Pig Barrels. Extension Pig Barrels consist of one quick opening closure and one adaptor to hook up the extension Barrel to existing Pig Barrel QOEC. VKVC has extended major barrel length of Pig Barrels to enable launch / Receive of multiple pigs and inspection tools.

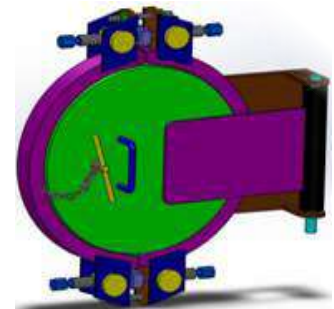
VKVC Quick Opening End Closure

Technical Specification

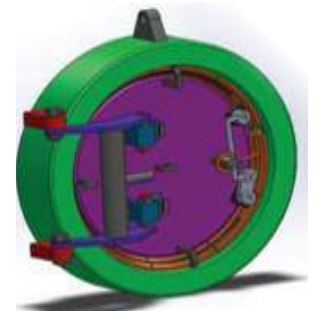
Available Sizes	2" To 60"
Class Rating	ASME150# Through To 2500#
Design Codes	ASME Sec-VIII Div-1,UG-35(2) PD 5500 ASME "U" Stamp ,FEA Can Be Provided. Sizes 60" Longer and Pressure Rating Over 2500# Can Be Provide
Closure Orientation	Horizontal & Vertical
Vessel/Ttrap Design Codes	ASME B31.3 ASME B31.4 ASME B31.8 ASME Sec. VIII Div.1 Etc...
Types Of Connection	Butt Welded, Flanged Ended
Material Of Construction	ASTM A/SA 350 Lf2 Cl.1 Or 2 ASTM A/SA 105 ASTM A/SA 516 Gr.70 ASTM A 694 F GR.42/46/52/56/60/65/70 Stainless Steel Grade 304l or 316l Duplex , Super Duplex
Elastomeric Sealing	Buna-N, Viton Other Material Options Available on Request.
Standard Closure Finish	Red Oxide Primer (Standard) any other Coating Can be Provided on Request.



Rotary



Clamp Ring

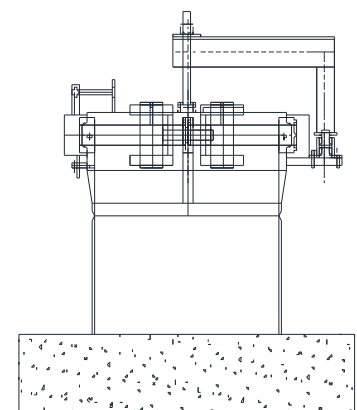
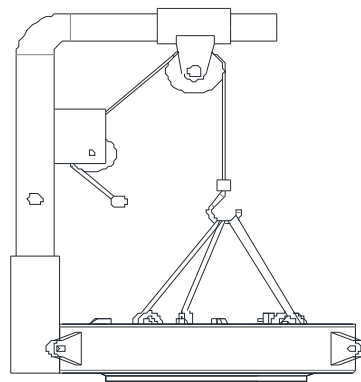
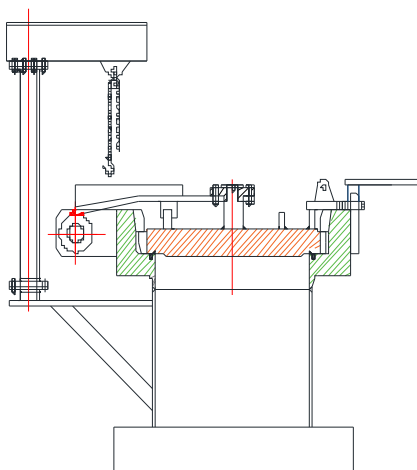


Ring Lock

Available Additional Features (on Request) :

- Mechanical Sequential Key Interlock
- Limit Switch
- Inconel / Stainless Steel Weld Overlay
- Hydraulic Operating System
- Worm Gear Operation.

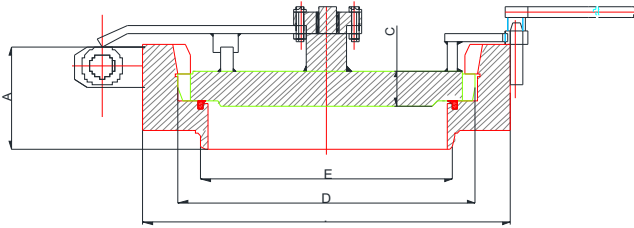
Vertical Closure Arrangement



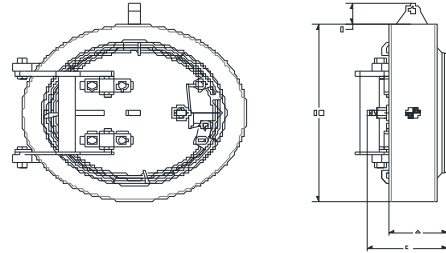
VKVC QOEC With Devit Arm

VKVC Quick Opening End Closure

ROTARY (SCHLZ) QOEC



RING LOCK QOEC



Size		DIMENSION DETAIL					
Inch	mm	A	B	C	D	Swing Radius(R)	Approx Weight(kg)

CLASS #150

2"	60.30	80	173	125	60.30	220	66
3"	88.90	95	195	145	88.90	240	72
4"	114.30	105	300	218	114.30	318	107
6"	168.30	110	313	250	168.30	360	109
8"	219.10	115	390	324	219.10	444	146
10"	273.10	120	450	383	273.10	513	176
12"	323.90	125	510	428	323.90	558	216
14"	355.60	130	550	458	355.60	588	293
16"	406.40	130	610	508	406.40	638	339
18"	457.00	135	650	550	457.00	700	372
20"	508.00	135	710	607	508.00	757	419
22"	559.00	140	750	662	559.00	832	465
24"	610.00	145	790	698	610.00	868	508

CLASS #300

2"	60.30	80	173	125	60.30	220	66
3"	88.90	95	195	145	88.90	240	72
4"	114.30	125	300	218	114.30	318	122
6"	168.30	125	313	250	168.30	360	120
8"	219.10	130	390	324	219.10	444	165
10"	273.10	140	450	383	273.10	513	210
12"	323.90	147	520	428	323.90	558	266
14"	355.60	155	550	458	355.60	588	352
16"	406.40	170	610	508	406.40	638	430
18"	457.00	175	650	550	457.00	700	474
20"	508.00	190	710	607	508.00	757	576
22"	559.00	210	750	662	559.00	832	663
24"	610.00	215	790	698	610.00	868	720

CLASS #600

2"	60.30	80	173	125	60.30	220	66
3"	88.90	95	195	145	88.90	240	73
4"	114.30	125	300	218	114.30	318	124
6"	168.30	142	350	273	168.30	383	139
8"	219.10	160	400	324	219.10	444	198
10"	273.10	172	470	383	273.10	513	261
12"	323.90	185	520	428	323.90	558	329
14"	355.60	198	550	458	355.60	588	441
16"	406.40	203	610	508	406.40	638	525
18"	457.00	220	650	550	457.00	700	607
20"	508.00	240	710	607	508.00	757	745
22"	559.00	250	750	646	559.00	816	840
24"	610.00	260	790	698	610.00	868	932

Size		DIMENSION DETAIL					
Inch	mm	OD	A	C	D	Swing Radius(R)	Approx Weight(kg)

CLASS #150

2"	60.30	173	80	150	65	180	62
3"	88.90	195	95	170	65	200	70
4"	114.30	300	105.5	180	65	278	78
6"	168.30	313	110.5	185	65	320	85
8"	219.10	375	129	204	65	404	90
10"	273.10	400	134	210	65	473	95
12"	323.90	429	150	235	65	518	100
14"	355.60	443	150	259	100	548	105
16"	406.40	497	156	273	100	598	118
18"	457.00	553	156	283	100	660	145
20"	508.00	620	178	318	100	717	218
22"	559.00	673	181	324	100	792	258
24"	610.00	720	194	359	100	828	309

CLASS #300

2"	60.30	173	80	150	65	180	62
3"	88.90	195	95	170	65	200	70
4"	114.30	300	105.5	180	65	278	78
6"	168.30	313	110.5	185	65	320	85
8"	219.10	375	129	204	65	404	90
10"	273.10	400	134	210	65	473	95
12"	323.90	429	150	235	65	518	100
14"	355.60	443	150	259	100	548	105
16"	406.40	497	156	273	100	598	118
18"	457.00	553	156	283	100	660	145
20"	508.00	620	178	318	100	717	218
22"	559.00	673	181	324	100	792	258
24"	610.00	720	194	359	100	828	309

CLASS #600

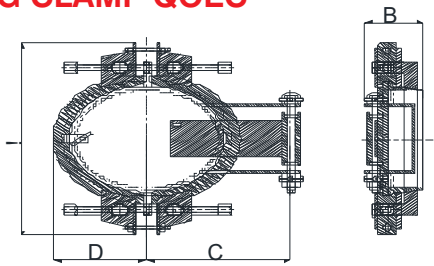
2"	60.30	173	80	150	65	180	64
3"	88.90	195	95	170	65	200	72
4"	114.30	300	110.5	185	65	378	88
6"	168.30	350	115.5	190	65	343	92
8"	219.10	375	129	204	65	404	96
10"	273.10	400	134	210	65	473	100
12"	323.90	442	168	254	65	518	113
14"	355.60	483	185	305	100	548	150
16"	406.40	550	194	318	100	598	214
18"	457.00	613	207	334	100	660	275
20"	508.00	667	225	365	100	717	345
22"	559.00	725	234	378	100	792	439
24"	610.00	800	250	415	100	828	580



Note:-
All Dimensions are in mm Unless
Otherwise Specified. Dimensions
are Subject to Change without Notice.
Weights are Approximate.

VKVC Quick Opening End Closure

RING CLAMP QOEC



Size		DIMENSION DETAIL					
Inch	mm	A	B	C	D	Swing Radius(R)	Approx Weight(kg)

CLASS #150

2"	60.30	473	150	165	90	205	64
3"	88.90	495	170	175	100	225	70
4"	114.30	600	180	225	150	325	105
6"	168.30	613	185	245	160	355	107
8"	219.10	690	204	290	195	435	144
10"	273.10	750	210	330	225	505	174
12"	323.90	810	235	360	255	515	214
14"	355.60	850	259	380	275	555	291
16"	406.40	910	273	410	305	615	337
18"	457.00	950	283	450	325	675	370
20"	508.00	1010	318	480	355	735	417
22"	559.00	1050	324	520	375	795	463
24"	610.00	1090	359	540	395	835	506

CLASS #300

2"	60.30	498	150	165	90	205	65
3"	88.90	520	170	175	100	225	71
4"	114.30	625	180	225	150	325	121
6"	168.30	638	185	245	160	355	135
8"	219.10	715	204	290	195	435	164
10"	273.10	775	210	330	225	505	209
12"	323.90	845	235	365	260	525	265
14"	355.60	875	259	380	275	555	351
16"	406.40	935	273	410	305	615	429
18"	457.00	975	283	450	325	675	473
20"	508.00	1035	318	480	355	735	575
22"	559.00	1075	324	520	375	795	662
24"	610.00	1115	359	540	395	835	719

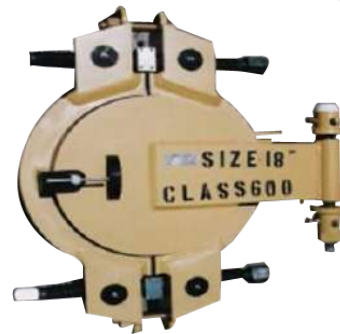
CLASS #600

2"	60.30	523	150	165	90	205	66
3"	88.90	545	170	175	100	225	73
4"	114.30	650	185	225	150	325	124
6"	168.30	700	190	260	175	385	139
8"	219.10	750	204	295	200	445	198
10"	273.10	820	210	340	235	525	261
12"	323.90	870	254	365	260	530	329
14"	355.60	900	305	380	275	555	441
16"	406.40	960	318	410	305	615	525
18"	457.00	1000	334	450	325	675	607
20"	508.00	1060	365	480	355	735	745
22"	559.00	1100	378	520	375	795	840
24"	610.00	1140	415	540	395	835	932

Note:-

All Dimensions are in mm Unless Otherwise Specified. Dimensions are Subject to Change without Notice.

Weights are Approximate.



Clamp Ring Type



Ring/Band Lock Closures



Rotary Self Lock Closure



Vertical Closures

Scrapper / Flow Tees

Scrapper / Flow Tees are used to ensure a safe passage to Pipeline Pigs across branch connections.

VKVC designs, manufactures Barred Tees, Jacket type Scrapper / Flow Tees, Self Draining plant tees.

Scrapper / Flow Tees are manufactured as per Client design and material requirements. VKVC range is from 3"NB to 48"NB, ANSI 150# to ANSI 1500# and Carbon Steel / Stainless Steel material.

VKVC Hydro tests all the Flow Tees Prior to dispatch.



Pig Handling Equipment

Pig Handling Equipment is used for insertion and retrieval of Pipeline Pigs from Pig Launcher / Pig Receiver. Pig Trolleys offer safe and convenience of operation conditions.

VKVC produce pig trolleys and Jib cranes to suit specific requirements. VKVC pig trolleys range from basic trays to assist manual pig handling of small diameter pigging tools through to fully adjustable trays with manual or pneumatic / hydraulic winches for Pulling / pushing large diameter pigging tools.

They can be provided with Hydraulic Height Adjustment Units.

Typical features of VKVC Pig Trolleys include:

- Robust construction
- Hydraulic height adjustment
- Safety locking mechanisms

We also offer mobile Pigging Trolleys



Pig Signalers (Intrusive Type)

Pipeline Pig Signalers are used to signal of Pipeline pigs through a pipeline. They are provided the passage at both the pig launching and pig receiving stations and Critical locations on the Pipeline.

VKVC provides a wide range of Pig Signals with options of mounting. We offer Flange / and welded Boss mounting.

VKVC Pig Signals can be mounted with Limit Switches, for remote Signaling. Isolation Valves and Jacking Tool is available to remove Pig Signal under pressure. Extended stem is available for mounting signal on underground pipeline with an over ground visual indicator.

VKVC Provides Signals for Fitment on any type of mounting to replace old signals. All VKVC Signals are Pneumatically Tested, Hydrostatic tested and Function tested with Pigs for proper functioning.



Pig Signaller

1. DESCRIPTION

VKVC intrusive pig Signallers are used to indicate passage of pig. They can be set to suit varying thicknesses of line pipe. All Signallers are pressure and functionally tested prior to dispatch.

2. Pig Signaller base is designed as per ASME B31.8/ASME B31.4/ASME SEC VIII DIV.1. VKVC offers following options for Pig Signallers:

1. Options for Base Mounting:

- a) Flange + Weld-O-Let
- b) Flange + Pipe + Sweepolet
- c) Flange + Pipe + Sockolet
- d) Welded Boss
- e) Flange + Pipe + RF Pad
- f) Flange + Pipe + Thredoilet

Class	Standout Height (flange + weld-o-let)	Standout Height (welded Boss)
150#	106 mm	80 mm
300#	112 mm	80 mm
600#	121 mm	80 mm
900#	167 mm	80 mm
1500#	167 mm	80 mm
2500#	192 mm	80 mm

2. Options for Pig Signaller Type:

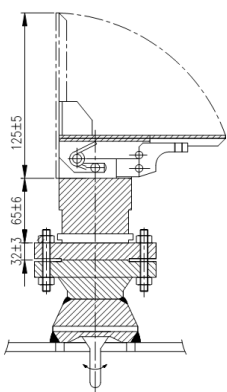
- a) With Valve, with Limit Switch (MEVW)
- b) With Valve, without Limit Switch (MVW)
- c) Without Valve, with Limit Switch (MEW)
- d) Without Valve, without Limit Switch (MW)

3. Other Option for Pig Signaller:

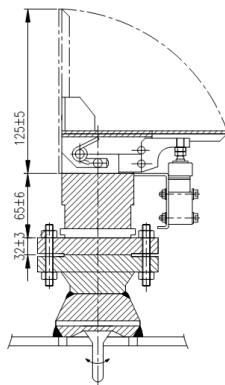
- a) With Extension

2. WORKING PIG SIGNALLER MODELS:

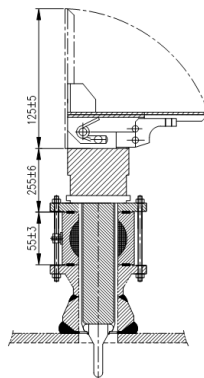
1. MW



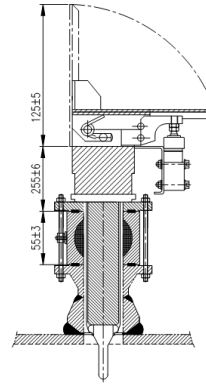
2. MEW



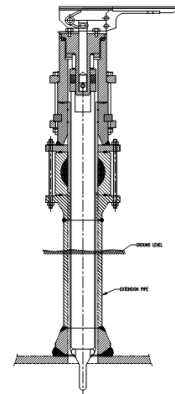
3. MVW



4. MEVW



5. With Extension (upto 3000 mm available)



MATERIAL (BODY): 1. STAINLESS STEEL (SS 316/SS 304)

MATERIAL OFFERED FOR BASE MOUNTING:

- 1. ASTM A 105/ASTM A 516 GR.70
- 2. ASTM A 350 Lf2
- 3. ASTM A 182 F316/316L/304
- 4. ASTM A 694 F 42/46/52/60/65/70

OTHER MATERIAL: MONEL BRONZE INCONEL

Note:

1) Each Signaller Is Specifically Designed To Provide Safe Operation At The Pressure/temperature Rating Shown On The Name Plate & To Comply With The Design Conditions Stated.

2) Special Requirements Shall Fulfilled as per Availability.





INTRODUCTION

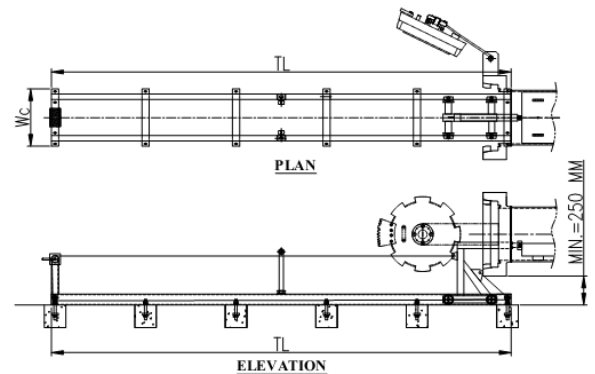
- **VKVC Pig Handling Systems** are required to insert Pipeline Pig into Pig Launcher or remove pig from Pig Receiver.
- Are manually or hydraulically operated.
- Are designed as per client specific requirement & project requirements.
- Are designed for convenient and safe Pig Handling, reducing chances of damaging Pigs and QOEC.
- Can be used for Intelligent as well as Utility pigs.

VKVC PIG HANDLING SYSTEM FEATURES

1. Quick Convenient Pig Insertion and Removal.
2. Spark free components.
3. Handling system can be used in multiple pig trap installed in a single line.

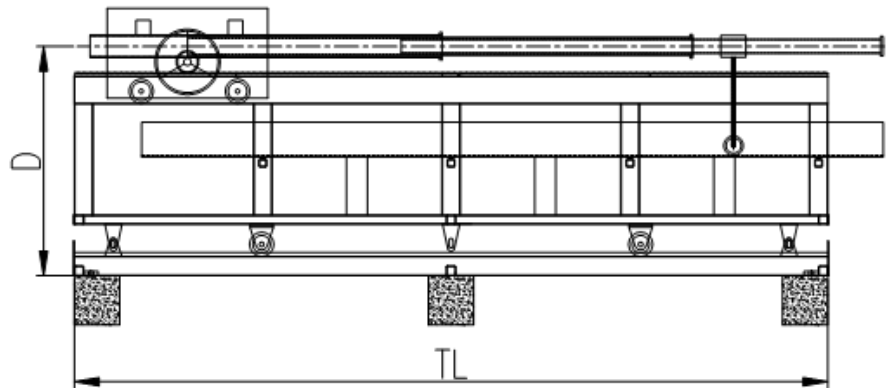
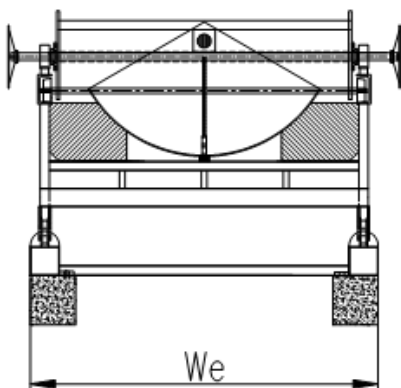
PIG HANDLING SYSTEM TABLE OF DIMENSIONS

Sr. No.	Size of Handling System	Total Length of Hsys TL (mm)	Width WE (mm)	Width WC (mm)
1	4" x 6"	3300	400	800
2	6" x 8"	3300	430	800
3	8" x 10"	4600	480	800
4	10" x 12"	4800	540	800
5	12" x 16"	4800	620	800
6	14" x 16"	5300	620	800
7	16" x 18"	5600	670	800
8	18" x 20"	5660	720	800
9	20" x 24"	5660	820	1200
10	24" x 28"	6300	920	1200
11	28" x 32"	6605	1020	1200



NOTE:

1. For other sizes, dimensions shall be provided on receipt of inquiry / order.
2. All dimensions are nominal and are in mm. Dimensions are subject to change without notice.
3. Additional dimensions can be provided on request.
4. D = Centre Height is maintained as per Pig Barrel Height.



Jib Crane

VKVC Jib Cranes are used for Loading/Unloading Pigs near Pig Handling Systems. They are also used for removing filter elements from vertical filters.

The Cranes have a double bearing swivel to ensure that the Jib Crane can be rotated easily.

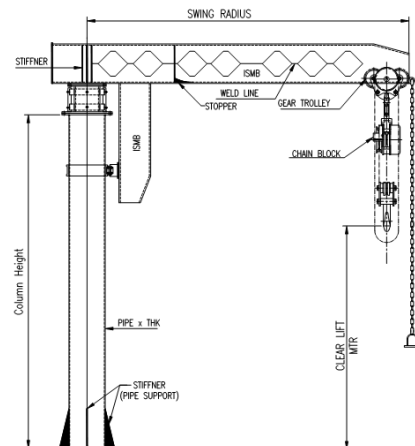
Technical Features:

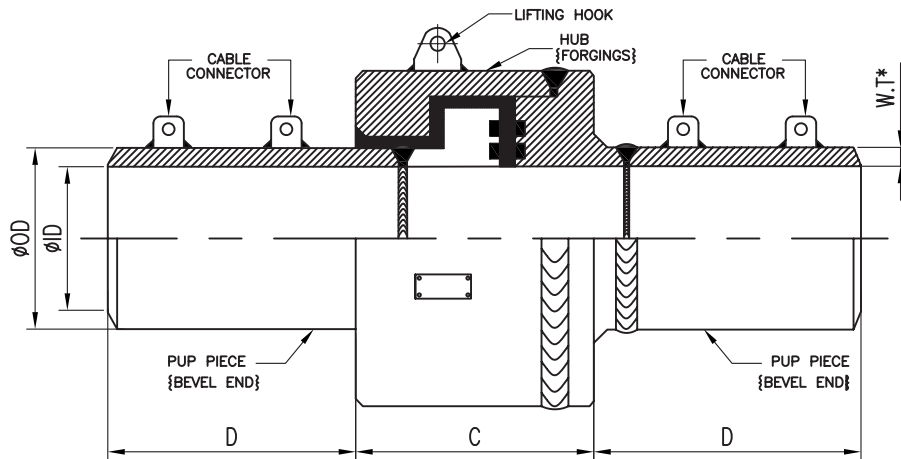
Available Range	: 0.5 ton to 10 ton	Other Structure Material	: A-36 OR Equivalent
Design Code	: ASTM/BS/ASME/GOST/IS	Load Test	: 1.5 times rated Load at VKVC Works.
Swing Angle Of Jib Crane	: 360°	Operation	: Manual or Electric
Column Material	: API 5L/A-36	Braking System	: Manual



DIMENSIONS OF STANDARD JIB CRANES

Sr. No.	Capacity (MT)	Pig Size	Swing Radius (MTR)	Column Height (MTR)	Clear Lift (MTR)
1	0.5	4"-8"	1-3	3-5	2.5-4
2	1	10"-16"	2.5-5	3-5	2.5-4
3	2	18"-24"	2.5-5	3-5	2.5-4
4	3	26"-30"	2.5-5	3-5	2.5-4
5	4	32"-40"	2.5-5	3-5	2.5-4
6	5	-	2.5-5	3-5	2.5-4
7	7	-	2.5-5	3-5	2.5-4
8	10	-	2.5-5	3-5	2.5-4





DIMENSIONS OF STANDARD INSULATING JOINTS

Size ØA		ANSI #150			ANSI #300			ANSI #600		
INCH	(DN)	ØB (MM)	C	D	ØB (MM)	C	D	ØB (MM)	C	D
2"	60.3	122	100	350	121	95	350	121	105	350
4"	114.3	176	130	350	185	140	350	192	146	350
6"	168.3	240	137	350	248	161	350	240	158	350
8"	219.1	287	137	350	316	158	350	308	176	350
10"	273.1	356	140	500	356	185	500	372	185	500
12"	323.9	412	142	500	412	176	500	414	204	500
14"	355.6	457	171	500	455	200	500	455	232	500
16"	406.4	508	198	500	508	216	500	550	230	500
18"	457.2	550	174	500	562	220	500	584	240	500
20"	508	610	175	500	610	236	500	650	253	500
22"	559	672	202	500	670	252	500	710	285	500
24"	610	720	205	500	736	258	500	762	330	500

VKVC Insulating Joints available in different variety of connecting configurations with Bevel ends / Flanged ends / Threaded ends.

BEVEL END



THREADED END



FLANGE END



All dimensions are in mm. (Dimensions are subjected to change without notice)

*Inner Diameter & wall thickness of Insulating Joint Pups shall be match with Inner Diameter & Wall thickness of Line pipe

VKVC Insulating Joint / Monolithic Coupling / Monolithic Insulating Joints are suitable for use with Petrochemicals, Oil, Gas, LPG and Water services.

Technical Features

- Available Sizes : 2" - 52" (Higher Sizes available on request)
- Available Ratings : ANSI #150 – ANSI #1500 (Higher ratings available on request)
- Design Code : ASME Sec. VIII Div.1 for Body & ASME B31.4/B31.8 for Pups
- Hydrostatic Test : At 1.3 times Design Pressure minimum
- Pneumatic Test : At 5 Bar minimum
- End connections : Butt welds or Flanged End (RF / RTJ)
- Insulation Resistance : 6 MOHM minimum
- Dielectric Strength Test : At 5 KV Minimum (current leakage not > 5mA.) 50 Hz
- Material Certification : EN 10204 3.1 / EN 10204 3.2
- Coating : Epoxy Coating External / Internal (3LPE, Fusion bond Epoxy coating available on request)
- Holiday & Vacuum Test : Performed

Materials

- Pup Piece : API 5L / ASTM A 106 GR.B / ASTM A 333 GR.6 (LTCS)
- Body : ASTM A 105 / ASTM A 694 / ASTM A 350 LF2 (LTCS)
- Sealing : FLUOROELASTOMER / FKM / FFKM

Non Destructive Testings

- MPI : 100% Forged surface shall be Wet MPI tested
- RT : 100 % Radiography Test of Butt welds
- LPT : 100% of Fillet welds
- MPI : 100% Bevel Ends MPI tested

Pipeline Pigs

Pigs are devices used to primarily clean Pipelines over the years they have been developed to do different functions.

VKVC is an experienced and renowned manufacturer of Pipeline Pigs.

The reputation has been established over many years of manufacturing and supplying pipeline pigs to operators and contractors in the oil, gas and process industries. Quality, Reliability and Innovation are the main Pillars of our Company.

VKVC works closely with operators to design and produce Pigs which offer the best solution to the pipelines where they are to be used. To achieve this, VKVC utilizes its design chemistry and engineering expertise to develop Pigs tools that are tailored to meet the specific requirements of each pipeline.

VKVC manufactures a full range of utility pigs including:

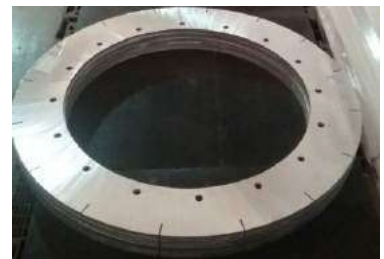
Metal Bodied Pigs



Special Purpose / Tailor made Pigs



Foam Pigs



Solid Cast Pigs

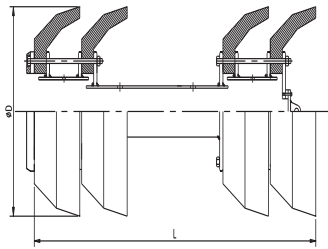


With our expert knowledge & feedback from experience of pipeline pigging and our design and development capability, we also develop Specialty Pigs for specific pipelines operations.

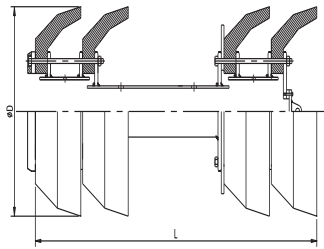
Our Pigs are used by operators through the construction to decommissioning cycle of a Pipeline, which includes Pipeline Cleaning.

VKVC provides the widest range of Cup Dimensions for each Pipeline size. Cups outer Diameters are available at increments of 6mm / 0.25" for each size of Pipeline, for progressive Pigging of Pipelines.

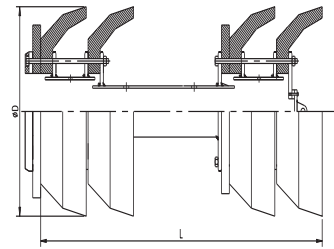
4C-FOUR	CUP4CG-FOUR CUP GAUGE PLATE	4CGD-FOUR CUP GUIDE DISC	4CSB-FOUR CUP SPRING LOADED BRUSH
4CM-FOUR CUP MAGNET	4CMB-FOUR CUP COMBO PIG		



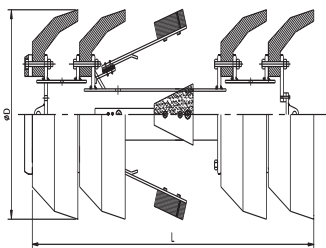
Four Cup Batching Pig
4C



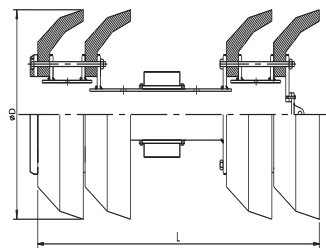
Four Cup Gauging Pig
4CG



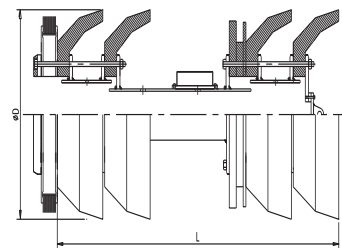
Four Cup Batching Pig With Guide Disc
4CGD



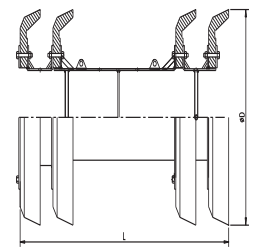
Four Cup Cleaning Pig
14" to 48"
4CSB



Four Cup Magnetic Pig
4CM



Four Cup Combo Pig
4CMB



46" & 48" CUP PIG
4C

CUP PIGS-TABLE OF DIMENSIONS

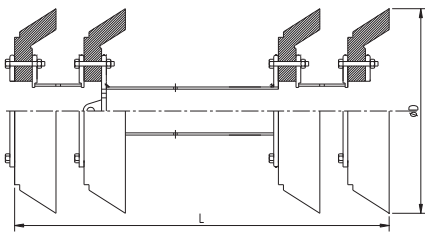
Pig Size (inches)	D (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
			M3	Approx. (Kg)
4"	114	175	0.004	3
6"	165	265	0.010	3.84
8"	220	330	0.021	6.12
10"	275	405	0.038	11.16
12"	325	490	0.062	15.36
14"	356	535	0.080	23.52
16"	408	635	0.122	30
18"	460	685	0.165	67.2
20"	512	760	0.224	98.4
22"	569	840	0.302	122.4
24"	615	915	0.381	142.8
26"	660	990	0.472	171.6
28"	714	1065	0.590	200.4
30"	765	1180	0.746	238.8
32"	812	1220	0.865	272.4
34"	870	1300	1.053	316.8
36"	920	1370	1.237	367.2
38"	970	1450	1.451	406.8
40"	1020	1525	1.682	501.6
42"	1067	1605	1.932	543.6
46"	1170	1755	2.528	602.4
48"	1225	1825	2.883	667.2

Notes:

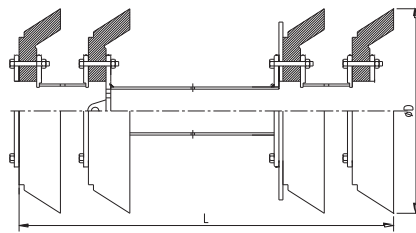
1. The Pigs negotiate 3D and above 90° bends for 4" to 12" dia pipelines.
2. The Pigs negotiate 1.5D and above 90° bends for 14" and above dia pipelines.
3. The Pigs negotiate Full Bore Barred/Flow Tees.
4. The Pigs negotiate Full Bore Gate/Ball Valves.
5. 4 Cup pig may be run as an effective Separation or De-watering tool.
6. Conversion kit allows this pig to be simply converted into a three or four cup pig.
7. Adequate by-pass facilities are built into the pigs to allow Velocity Control and Increase Cleaning Efficiency.
8. Heavy duty conical cups ensure effective sealing, long run performance and the flexibility to negotiate localized bore restrictions (indentations) of up to 20%.
9. VKVC Pig ideal for Construction and pigging and Operational pigging.
10. VKVC pigs are suitable for use with transmitters of all make. Please inform / provide transmitter mounting details with order.
11. 46" & 48" NB Pigs are Incorporating Regular + Conical features.

Four Cup Pigs

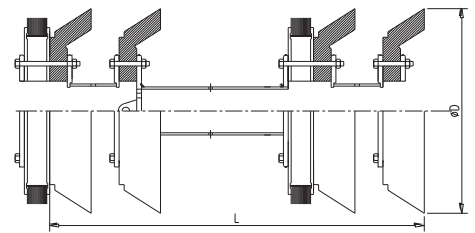
4C-FOUR CUP	4CG-FOUR CUP GAUGE PLATE	4CB-FOUR CUP WITH BRUSH	4CSB-FOUR CUP SPRING LOADED BRUSH
4CM-FOUR CUP MAGNET	4CMB-FOUR CUP COMBO PIG		



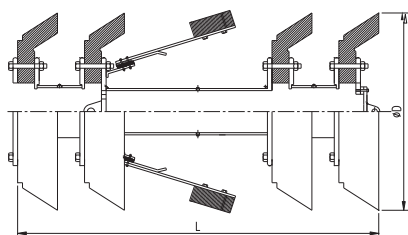
Four Cup Batching Pig
4C



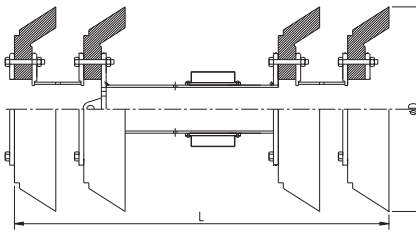
Four Cup Gauging Pig
4CG



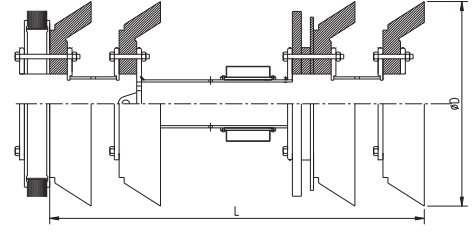
Four Cup Pig With Circular Brush
4CB



Four Cup Cleaning Pig
14" to 48"
4CSB



Four Cup Magnetic Pig
4CM



Four Cup Combo Pig
4CMB

CUP PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	D (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
			M3	Approx. (Kg)
4"	114	175	0.004	3.12
6"	165	265	0.010	3.84
8"	220	330	0.021	6.12
10"	275	405	0.038	11.16
12"	325	490	0.062	15.36
14"	356	535	0.080	23.52
16"	408	635	0.122	30
18"	460	685	0.165	69.6
20"	512	760	0.224	98.4
22"	569	840	0.302	121.2
24"	615	915	0.381	138
26"	660	990	0.472	163.2
28"	714	1065	0.590	187.2
30"	765	1180	0.746	220.8
32"	812	1220	0.865	243.6
34"	870	1300	1.053	295.2
36"	920	1370	1.237	333.6
38"	970	1450	1.451	370.8
40"	1020	1525	1.682	418.8
42"	1067	1605	1.932	442.8
46"	1170	1755	2.528	499.2
48"	1225	1830	2.883	541.2

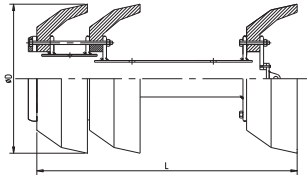


REGULAR CUP

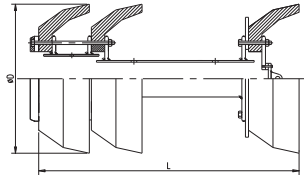


Three Cup Pigs

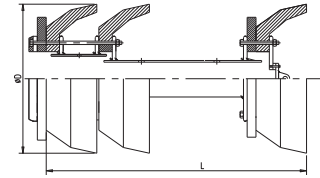
3C-THREE CUP	3CG-THREE CUP GAUGE PLATE	3CGD-THREE CUP GUIDE DISC	3CSB-THREE CUP SPRING LOADED BRUSH
3CM-THREE CUP MAGNET	3CMB-THREE CUP COMBO PIG		



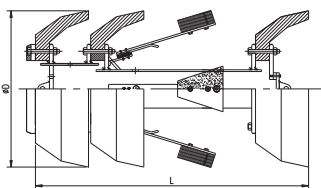
Three Cup Batching Pig
3C



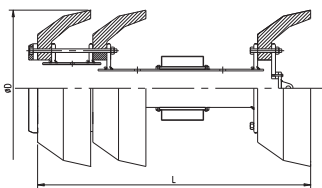
Three Cup Gauging Pig
3CG



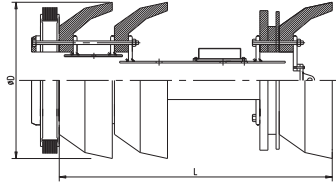
Three Cup Batching Pig With Guide Disc
3CGD



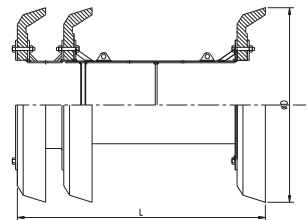
Three Cup Cleaning Pig
14" to 48"
3CSB



Three Cup Magnetic Pig
3CM



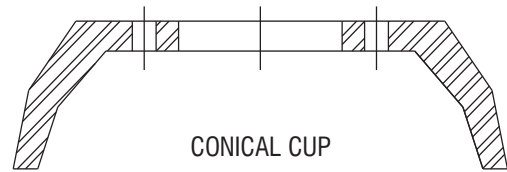
Three Cup Combo Pig
3cmb



46" & 48" CUP PIG
3C

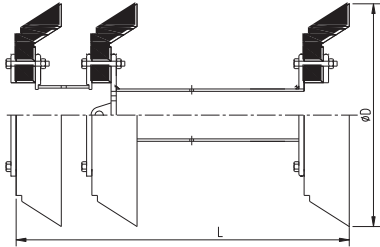
CUP PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	D (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
			M3	Approx. (Kg)
4"	114	175	0.004	3.6
6"	165	265	0.010	4.8
8"	220	330	0.021	7.56
10"	275	405	0.038	11.76
12"	325	490	0.062	16.8
14"	356	535	0.080	24
16"	408	635	0.122	30
18"	460	685	0.165	73.2
20"	512	760	0.224	103.2
22"	569	840	0.302	122.4
24"	615	915	0.381	140.4
26"	660	990	0.472	169.2
28"	714	1065	0.590	193.2
30"	765	1180	0.746	223.2
32"	812	1220	0.865	258
34"	870	1300	1.053	314.4
36"	920	1370	1.237	355.2
38"	970	1450	1.451	387.6
40"	1020	1525	1.682	469.2
42"	1067	1605	1.932	516
46"	1170	1755	2.528	565.2
48"	1225	1822	2.883	620.4

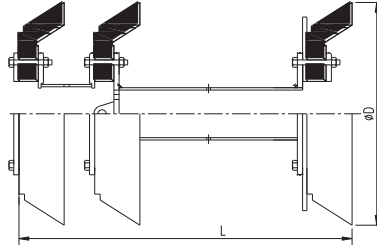


Three Cup Pigs

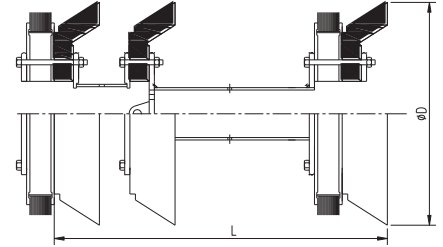
3C-THREE CUP	3CG-THREE CUP GAUGE PLATE	3CB-THREE CUP CIRCULAR BRUSH	3CSB-THREE CUP SPRING LOADED BRUSH
3CM-THREE CUP MAGNET	3CMB-THREE CUP COMBO PIG		



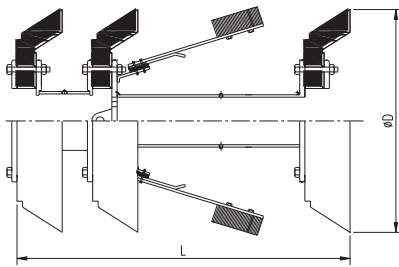
Three Cup Batching Pig
3C



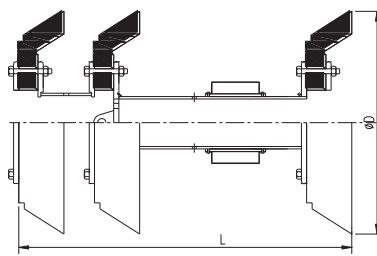
Three Cup Gauging Pig
3CG



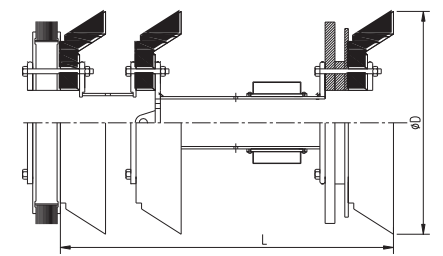
Three Cup Pig With Circular Brush
3CB



Three Cup Cleaning Pig
14" to 48"
3CSB



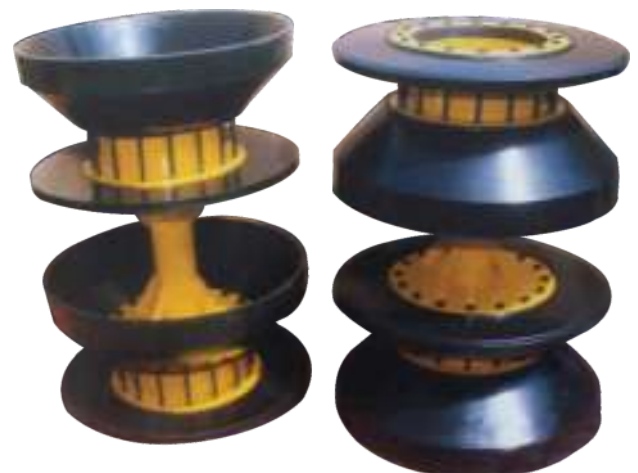
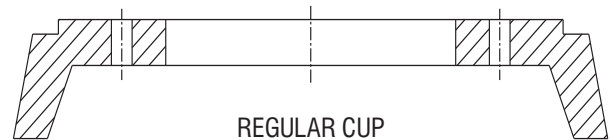
Three Cup Magnetic Pig
3CM



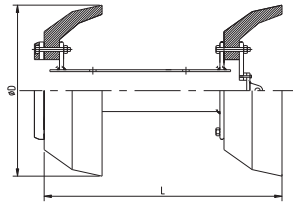
Three Cup Combo Pig
3CMB

CUP PIGS-TABLE OF DIMENSIONS

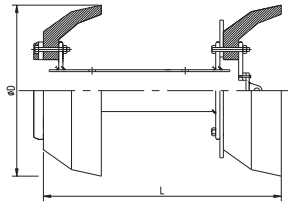
Pig Size (inches)	D (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
			M3	Approx. (Kg)
4"	114	175	0.004	3.6
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24"	615	915	0.381	140.4
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32"	812	1220	0.865	258
34"	870	1300	1.053	314.4
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38"	970	1450	1.451	387.6
40"	1020	1525	1.682	469.2
42"	1067	1605	1.932	516
46"	1170	1755	2.528	565.2
48"	1225	1830	2.883	620.4



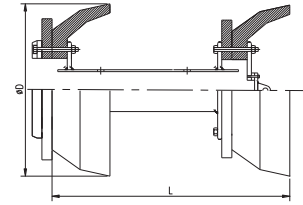
2C-TWO CUP	2CG-TWO CUP GAUGE PLATE	2CGD-TWO CUP GUIDE DISC	2CSB-TWO CUP SPRING LOADED BRUSH
2CM-TWO CUP MAGNET	2CMB-TWO CUP COMBO PIG		



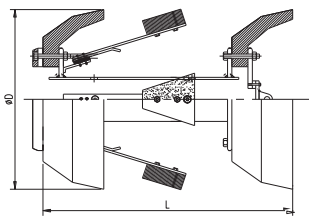
Two Cup Batching Pig
2C



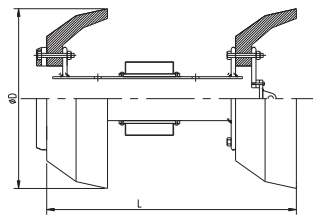
Two Cup Gauging Pig
2CG



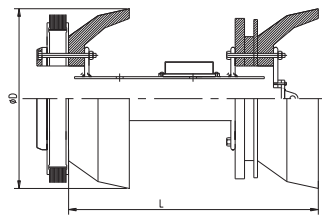
Two Cup Batching Pig with Guide Disc
2CGD



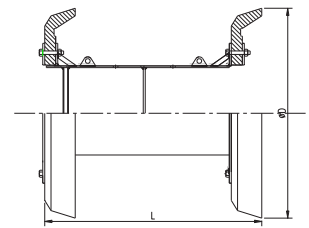
Two Cup Cleaning Pig
14" TO 48"
2CSB



Two Cup Magnetic Pig
2CM



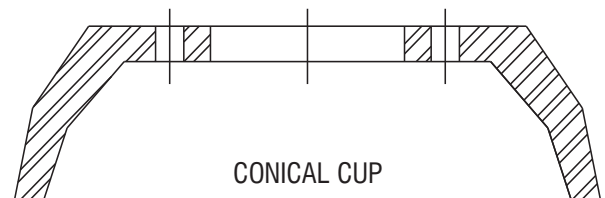
Two Cup Combo Pig
2CMB



46" & 48" Cup Pig
2C

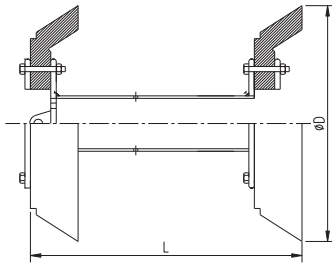
CUP PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	D (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
			M3	Approx. (Kg)
4"	114	175	0.004	3
6"	165	265	0.010	3.6
8"	220	330	0.021	4.8
10"	275	405	0.038	8.76
12"	325	490	0.062	11.28
14"	356	535	0.080	17.52
16"	408	635	0.122	22.8
18"	460	685	0.165	48
20"	512	760	0.224	64.8
22"	569	840	0.302	79.2
24"	615	915	0.381	93.6
26"	660	990	0.472	114
28"	714	1065	0.590	133.2
30"	765	1180	0.746	158.4
32"	812	1220	0.865	178.8
34"	870	1300	1.053	272.4
36"	920	1370	1.237	309.6
38"	970	1450	1.451	346.8
40"	1020	1525	1.682	394.8
42"	1067	1605	1.932	421.2
46"	1170	1755	2.528	480
48"	1225	1825	2.883	523.2

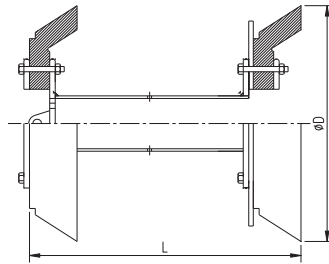


Two Cup Pigs

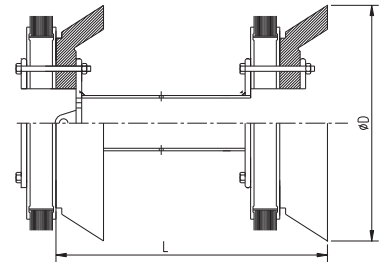
2C-TWO CUP	2CG-TWO CUP GAUGE PLATE	2CB-TWO CUP CIRCULAR BRUSH	2CSB-TWO CUP SPRING LOADED BRUSH
2CM-TWO CUP MAGNET	2CMB-TWO CUP COMBO PIG		



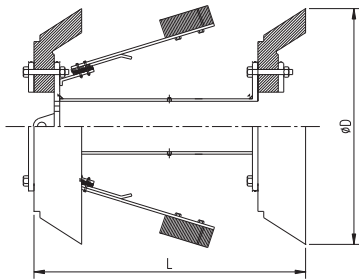
Two Cup Batching Pig
2C



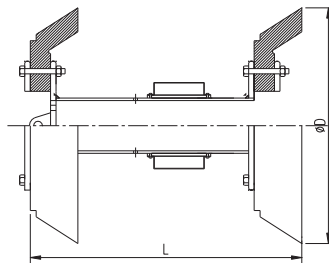
Two Cup Gauging Pig
2CG



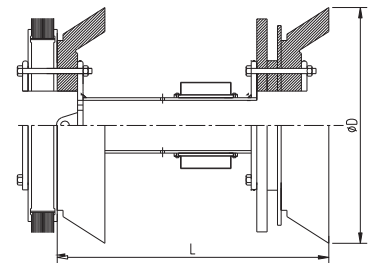
Two Cup Pig With Circular Brush
2CB



Two Cup Cleaning Pig
14" to 48"
2CSB



Two Cup Magnetic Pig
2CM

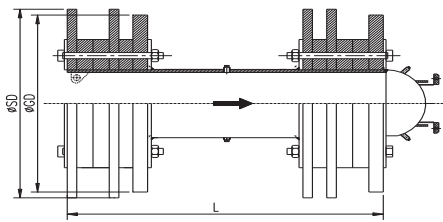


Two Cup Combo Pig
2CMB

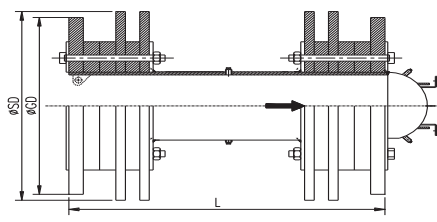
CUP PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	D (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
			M3	Approx. (Kg)
4"	114	175	0.004	3
6"	165	265	0.010	3.6
8"	220	330	0.021	4.8
10"	275	405	0.038	8.76
12"	325	490	0.062	11.28
14"	356	535	0.080	17.52
16"	408	635	0.122	22.8
18"	460	685	0.165	48
20"	512	760	0.224	64.8
22"	569	840	0.302	79.2
24"	615	915	0.381	93.6
26"	660	990	0.472	114
28"	714	1065	0.590	133.2
30"	765	1180	0.746	158.4
32"	812	1220	0.865	178.8
34"	870	1300	1.053	272.4
36"	920	1370	1.237	309.6
38"	970	1450	1.451	346.8
40"	1020	1525	1.682	394.8
42"	1067	1605	1.932	421.2
46"	1170	1755	2.528	480
48"	1225	1830	2.883	523.2

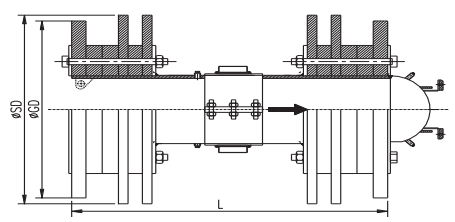




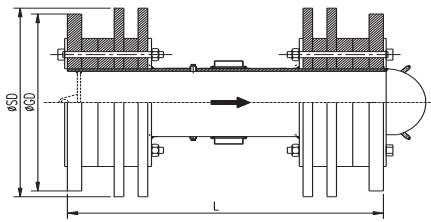
Bi-Directional Pig (Option-1)



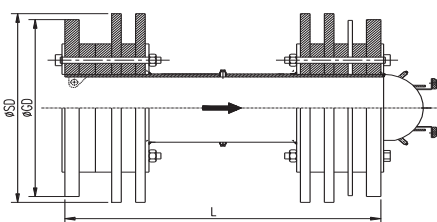
Bi-Directional Pig



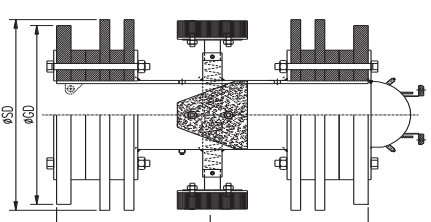
Bi-Directional Magnetic Pig
14" to 48" Pigs Assembly



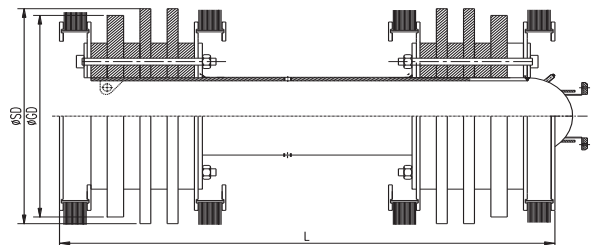
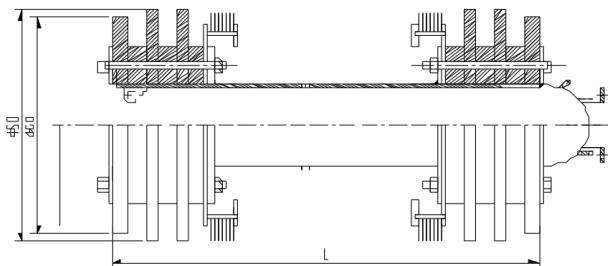
Bi-Directional Magnetic Pig
4" to 12" Pigs Assembly



Bi-Directional Gauging Pig



Bi-Directional Cleaning Pig



Bi-Directional Cleaning Pig
With Circular Brush

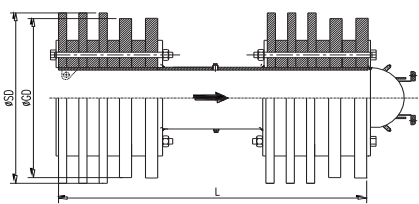
BI-DIRECTIONAL PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	SD (MM)	GD (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
				M3	Approx. (Kg)
4"	114	95	175	0.004	3.24
6"	165	144	265	0.010	3.72
8"	220	205	330	0.021	5.16
10"	270	252	380	0.034	9.24
12"	324	305	480	0.060	11.16
14"	356	335	540	0.081	18.96
16"	410	390	610	0.118	24.72
18"	465	437	705	0.173	72
20"	512	490	765	0.225	108
22"	565	535	840	0.298	136.8
24"	610	585	915	0.375	152.4
26"	660	640	990	0.472	181.2
28"	715	690	1070	0.594	205.2
30"	768	735	1145	0.730	250.8
32"	815	845	1220	0.872	270
34"	870	828	1300	1.053	336
36"	916	892	1370	1.227	375.6
38"	970	925	1450	1.451	422.4
40"	1016	995	1515	1.658	471.6
42"	1070	1042	1620	1.960	516
46"	1170	1125	1755	2.528	632.4
48"	1232	1175	1830	2.916	673.2

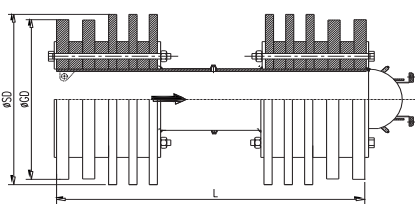
Notes:

1. The Pig shall negotiate 3D and above 90° bends.
2. The Pig shall negotiate Full Bore Barred/Flow tees.
3. The Pig shall negotiate Full Bore Gate/Ball Valves.
4. Bi-directional operational for Cleaning/Gauging/Water filling/Dewatering/Magnetic/Cleaning/Operational pigging.
5. Accuracy correctly or accurately sized Sealing Discs ensures Sealing efficient for long distance runs.
6. Adequate by-pass facilities are built into pig to allow Velocity Control and Increase Cleaning Efficiency.
7. Available with various configurations of Guiding and Sealing discs.
8. Pig is ideal for Construction pigging and for Operational pigging.
9. VKVC pigs are suitable for use with transmitters of any make. Please inform/provide transmitter mounting details with order.
10. Length and cup assembly are indicative only, Subjected to change during assembly.
11. Final Dimensions shall be based on pipeline inner diameter as informed by buyer.

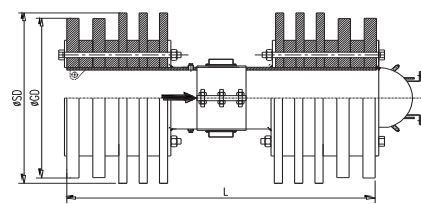
High Seal BI-DI Pigs



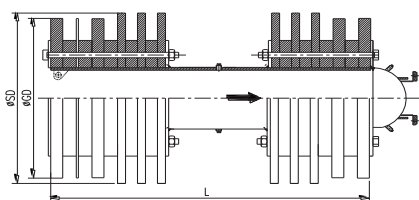
High Seal Bi-Directional Pig (Option-1)



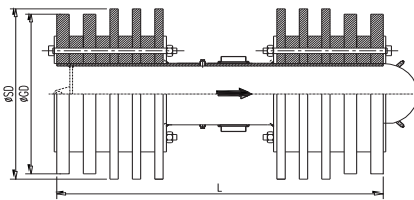
High Seal Bi-Directional Pig



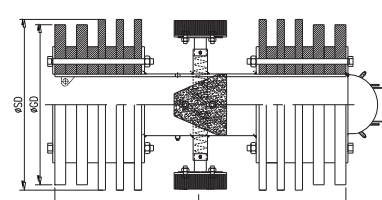
High Seal Bi-Directional Magnetic Pig
14" To 48" Pigs Assembly



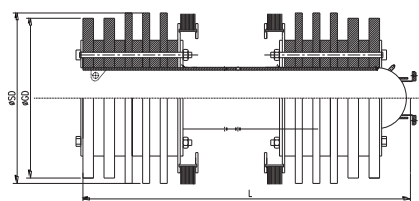
High Seal Bi-Directional Gauging Pig



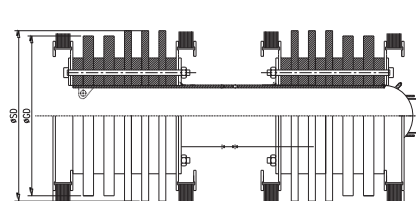
High Seal Bi-Directional Magnetic Pig
4" to 12" Pigs Assembly



High Seal Bi-Directional Cleaning Pig



High Seal Bi-Directional Cleaning Pig
with Circular Brush

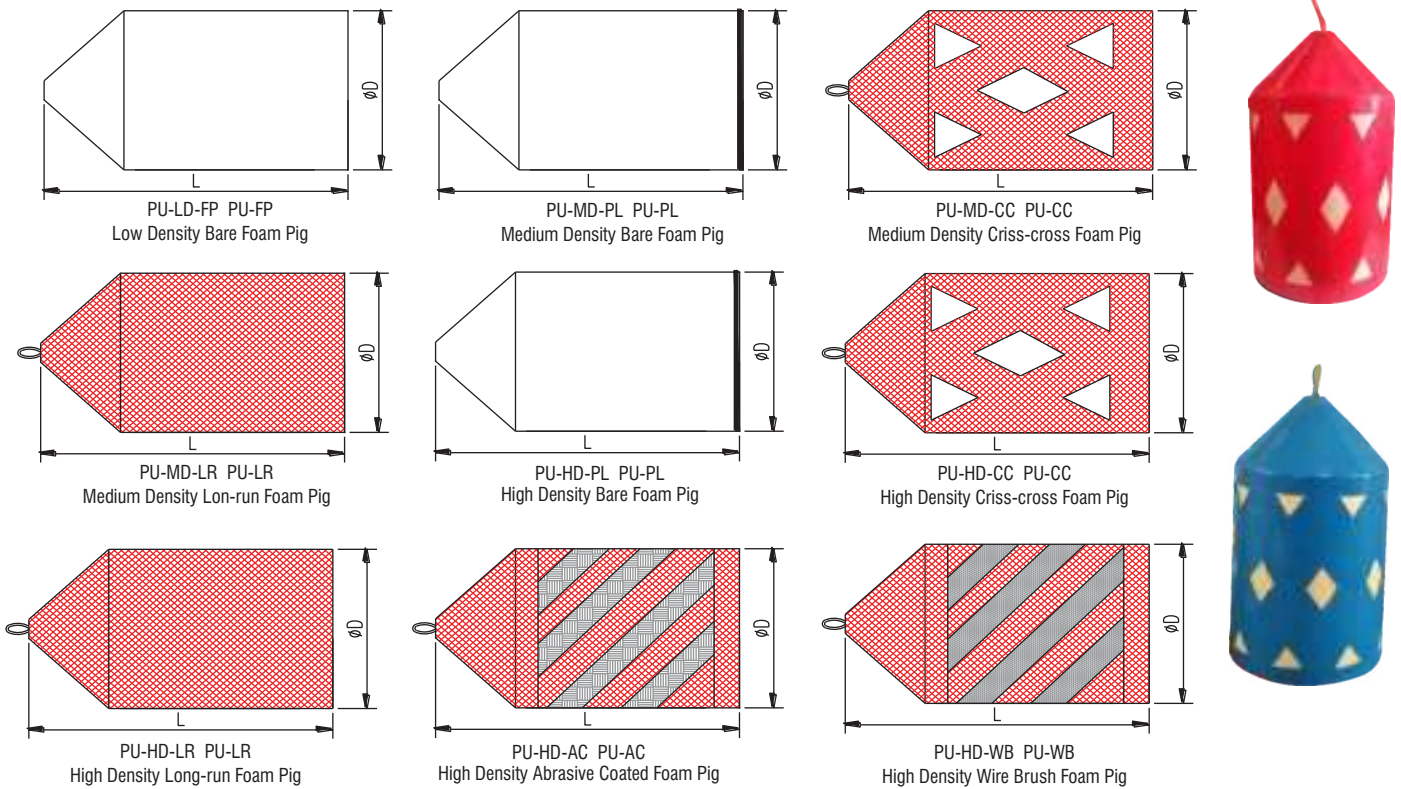


High Seal Bi-directional Cleaning Pig
With Circular Brush

HIGH SEAL BI-DIRECTIONAL PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	SD (MM)	GD (MM)	LENGTH (MM)	Shipping Volume	Shipping Weight
				M3	Approx. (Kg)
4"	114	95	175	0.004	3.51
6"	165	144	265	0.010	4.03
8"	220	205	330	0.021	5.59
10"	270	252	380	0.034	10.01
12"	324	305	480	0.060	12.09
14"	356	335	540	0.081	20.54
16"	410	390	610	0.118	26.78
18"	465	437	705	0.173	78
20"	512	490	765	0.225	117
22"	565	535	840	0.298	148.2
24"	610	585	915	0.375	165.1
26"	660	640	990	0.472	196.3
28"	715	690	1070	0.594	222.3
30"	768	735	1145	0.730	271.7
32"	815	845	1220	0.872	292.5
34"	870	828	1300	1.053	364
36"	916	892	1370	1.227	406.9
38"	970	925	1450	1.451	457.6
40"	1016	995	1515	1.658	510.9
42"	1070	1042	1620	1.960	559
46"	1170	1125	1755	2.528	685.1
48"	1232	1175	1830	2.916	729.3





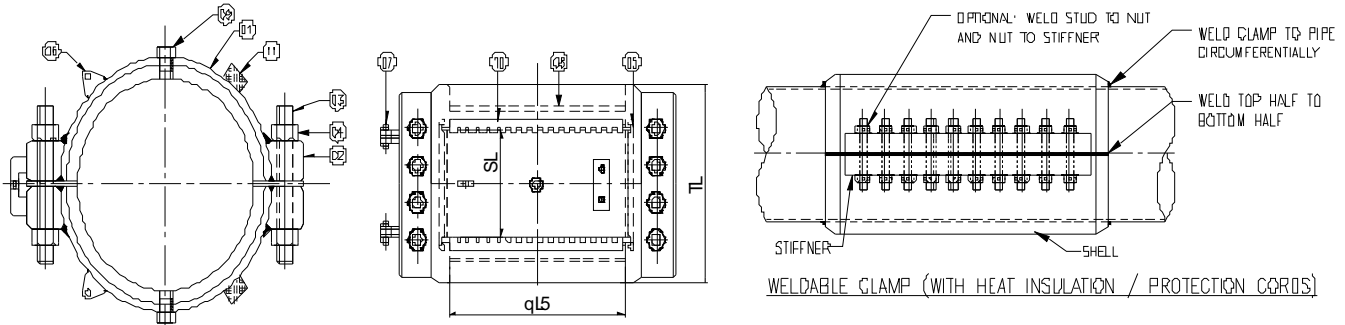
CUP PIGS-TABLE OF DIMENSIONS

Pig Size (inches)	PU-FP		PU-PL,PUCC,PU-LR,PU-AC,PU-WB		Shipping Volume	Shipping Weight
	D (MM)	Length (mm)	D (MM)	M3	M3	Approx.(Kg)
	Low		Medium & High			
2"	65	155	60	155	0.001	0.06
2-1/2"	80	155	75	155	0.002	0.096
3"	90	155	85	155	0.002	0.12
4"	115	205	112	205	0.004	0.24
5"	130	220	125	220	0.006	0.36
6"	170	265	167	265	0.011	0.84
7"	180	280	177	280	0.013	0.96
8"	225	330	219	330	0.022	1.68
10"	270	515	265	515	0.046	3.3
12"	320	615	315	615	0.075	5.76
14"	370	635	364	635	0.101	6.96
16"	415	610	408	610	0.121	10.8
18"	463	685	463	685	0.171	15
20"	520	780	514	780	0.237	21
22"	570	840	567	840	0.307	27.6
24"	620	915	615	915	0.389	34.8
26"	675	990	667	990	0.491	48
28"	720	1066	715	1066	0.603	51.6
30"	780	1155	770	1155	0.752	70.8
32"	820	1391	815	1391	1.005	84
34"	870	1465	868	1465	1.195	106.8
36"	930	1530	925	1530	1.411	123.6
38"	965	1370	960	1370	1.364	136.8
40"	1015	1470	1010	1470	1.613	163.2
42"	1075	2080	1070	2080	2.531	192
44"	1125	1640	1120	1640	2.196	222
46"	1165	1720	1160	1720	2.465	252
48"	1225	1825	1222	1825	9.425	283.2
56"	1425	2100	1420	2100	4.458	458.4
60"	1530	2290	1525	2290	5.586	738

Clamp

Introduction

VKVC Pipeline Leak Repair Clamps are installed to Seal the leaks or to reinforce damaged portion of the Pipeline. VKVC clamps are designed as per ASME SEC. VIII DIV. 1 UG-27 and Basic Engineering Rules.



LEAK REPAIR CLAMP DETAIL (ANSI 150 / ANSI 300 / ANSI 600)

SIZE		ID OF CLAMP ΦID (MM)	SEAL LENGTH SL (MM)	OVERALL LENGTH TL (MM)	APPROX SHIPPING WEIGHT (KG)
INCH	MM				
2"	60.3	64	140	235	40
3"	88.9	93	140	235	50
4"	114.3	119	140	235	60
6"	168.3	173	140	280	90
8"	219.1	224	140	280	120
10"	273.1	278	140	280	210
12"	323.9	329	140	280	225
14"	355.6	361	205	315	305
16"	406.4	411	205	355	350
18"	457	462	205	355	390
20"	508	513	205	355	615
22"	559	564	205	355	650
24"	610	615	205	380	800
26"	660	665	205	380	850
28"	711	716	205	380	920
30"	762	768	205	380	960
36"	914	920	205	425	1150
48"	1219	1225	205	450	1360

For ANSI 900 / ANSI 1500 weights please contact info@vkvc.com

Material Offer by VKVC

Shell	ASTM A 516 GR.70
Stiffner	ASTM A 105
Stud	ASTM A 193 GR.b7
Nut	ASTM A 194 GR.2h
Seal	Buna N / Fluoroelastomer / FKM
Lifting Hook	ASTM A 516 GR.70
Hinge Assembly	ASTM A 516 GR.70
Heat Insulation Cord	PTFE (Teflon)
Vent Plug	ASTM A 105
Protective Sheet	SS 304
Sacrificial Anode	Zinc
Note: Other Material Provided On Request	

NDT Testings

- a MPI on all Fillet Welds
- b UT on all Forgings
- c Radiography Clamps are also available.

Stud Nut Coatings

- a Hot Dip Galvanized
- c PTFE Coated
- b Xylan Coated
- d Fluoro Carbon Coated



Clamp Hydrostatic testing arrangement



VKVC High Pressure Conventional Clamp



Tee Clamp



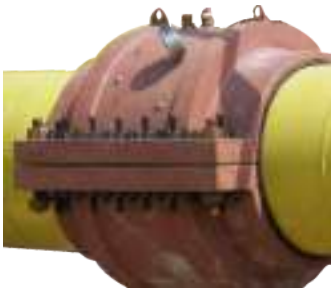
Elbow Clamp



Solid Clamp



Flange Clamp



Encapsulation Clamp for Flange / Insulation Joint



Mechanical Repair Coupling



Pin Hole Clamp (One segment)



Enclosure Clamp



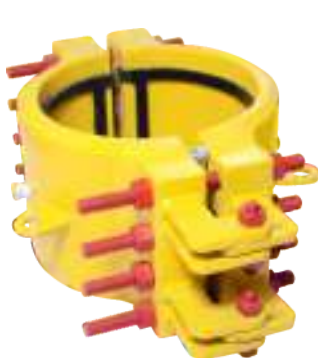
Pin Hole Clamp (Two segment)



MIS-Alignment Flange



Enclosure Clamps upto 6 Meter length



Standard Repair Clamps



45° Elbow Clamp



► For Special Leak Repair Clamps Please Contact VKVC

Reinforcement Sleeve



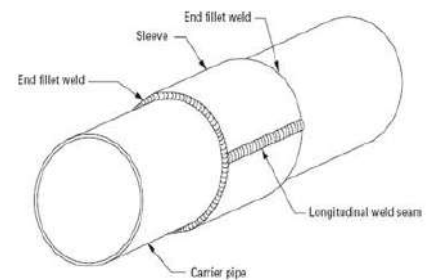
REINFORCEMENT TABLE OF DIMENSIONS

Sleeve Size (Inch)	(DN)	Sleeve ID (mm) +5 -0	Sleeve Std. Thickness (mm)	Available Sleeve Length x Thickness (mm)	Material of Construction
4"	114.3	115.3	6.4	Length	Sleeve
6"	168.3	169.3	6.4	Minimum : 500 mm	API 5L Material
8"	219.1	220.1	6.4	Maximum : 3000 mm	API 5L GR. B
10"	273.1	274.1	9.5	(length	API 5L GR. X 42
12"	323.9	324.9	9.5	Avialable	API 5L GR. X 46
14"	355.6	356.6	9.5	Between 500 mm	API 5L GR. X 52
16"	406.4	407.4	9.5	To 3000 mm In	API 5L GR. X 56
18"	457.2	458.2	9.5	Multiple of	API 5L GR. X 60
20"	508	509	12.7	100 mm)	API 5L GR. X 65
22"	559	560	12.7	Special	API 5L GR. X 70
24"	610	611	12.7	Length / Higher	ASTM MATERIAL
26"	660.4	661.4	12.7	Length	ASTM A 516 GR.60
28"	711.2	712.2	12.7	Available on	ASTM A 516 GR.70
30"	762	763	12.7	Request	ASTM A 333 GR.6 (LTSC)
32"	813	814	19.1	Thickness	
34"	864	865	19.1	As per Standard	
36"	914	915	19.1	Thickness in Table	
38"	965	966	19.1	or	
40"	1016	1017	19.1	As Per Design Code	
42"	1067	1068	19.1	Asme B 31.4 /	Backing Strip
44"	1117.6	1118.6	19.1	Asme B 31.8 Design	ASTM A 36
46"	1168.4	1169.4	19.1	Pressure of Line	
48"	1219	1220	19.1	Pipe / As per Special	
Higher Sizes & Thicknesses Available on Request				Requirements	Special Material Available on Request

Safe & Accepted repair method

VKVC Reinforcing Sleeves are designed to reinforce non-leaking or damaged pipe while the line remains on line.

Line can be reinforced under pressure but the pressure must be reduced to a safe level.

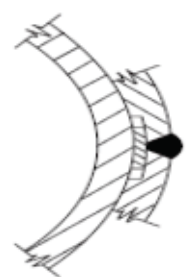


Quality Testing

Reinforcement Sleeve raw material shall be 100% UT tested. After Cold rolling process weld ends shall be 100% UT tested for discontinuity check.

Other NDT procedures on request, subjected to availability.

All material shall be Impact tested.



Backing Strip and Relief Groove

Reinforcement Sleeve Design

VKVC Reinforcing Sleeves are designed as per Clause 404.1.2 of ASME B 31.4 / Clause 841.1.1 of ASME B 31.8. Individual company codes and practices should be observed.

$$\text{Sleeve thickness } T = \frac{P D}{2SFETF} + S_t$$

Where,

P = Design Pressure

S = Specified minimum Yield strength

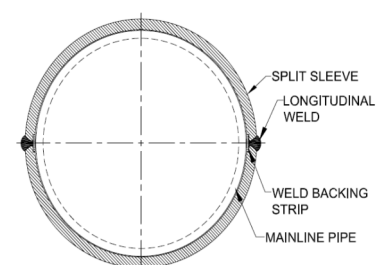
E = Longitudinal Joint factor

S_t = Groove thickness for backing strip

D = Outer diameter of sleeve

F = Design Factor

TF = Temperature Derating factor (only for Gas Lines)



VKVC provides one stop, from drawing design to commissioning, of Process Pigging Systems.

The company's scope includes:

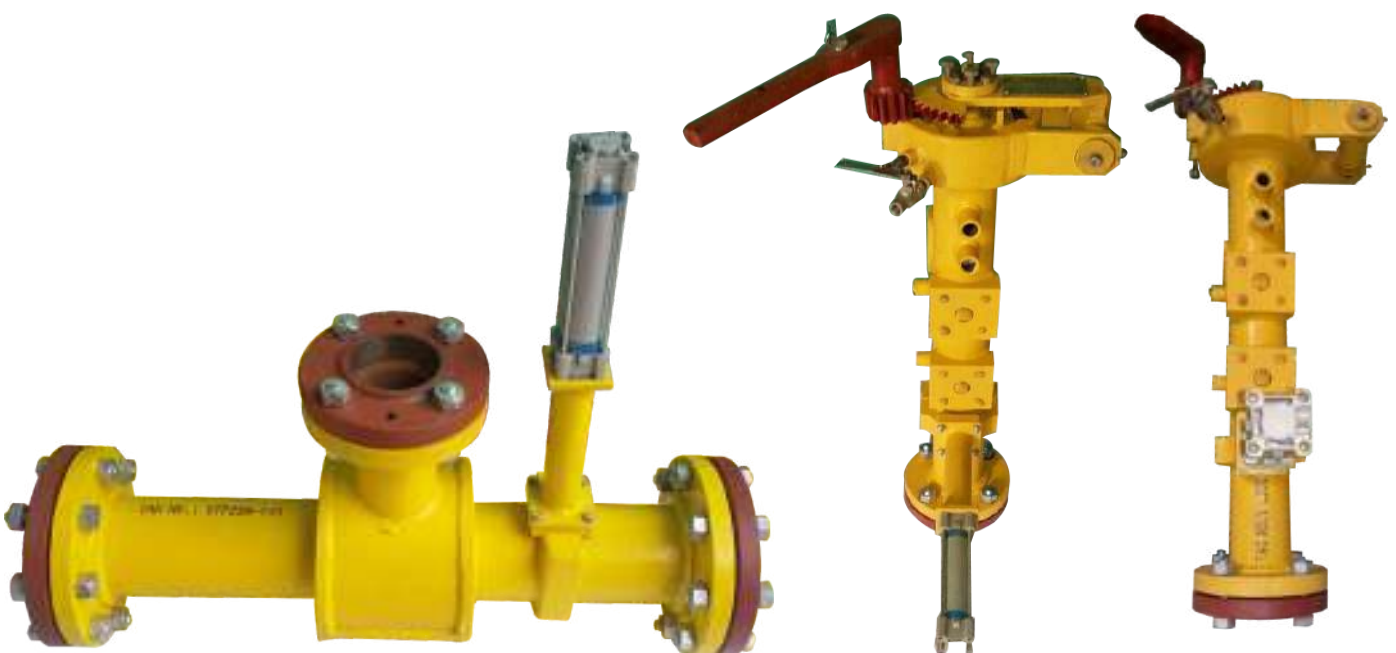
- | | |
|------------------------|--|
| 1) Process Engineering | 6) Installation |
| 2) Piping Layout | 7) Commissioning |
| 3) Designing | 8) Testing |
| 4) Manufacturing | 9) Completion of Plant Pigging System. |
| 5) Supply | |

A unique feature of VKVC Pigging system is its capability to be upgraded when required, of any VKVC manually operated Pigging System, to a fully automated systems with stand-alone PLC or plant wide integrated DCS .

VKVC pigging systems are designed in conformity with ASME 31.3 guidelines and can be manufactured for installation at either industrial or hazardous manufacturing areas.



Process Pigging Flow Thru Tees



Process Pigging Pig Barrels

Process Pigging Systems

VKVC offers the following components in a pigging system:

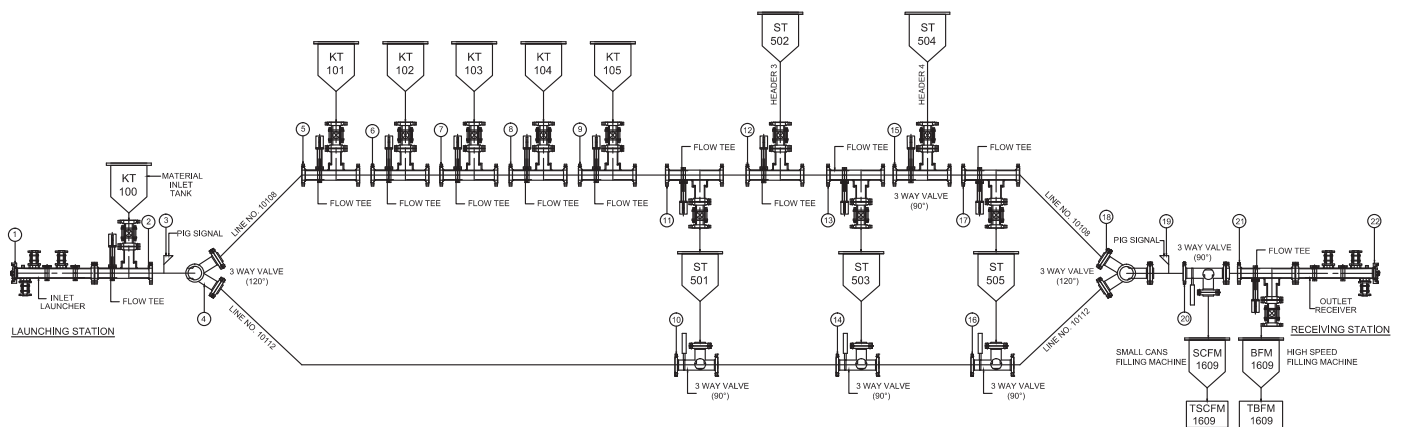
Material Stainless Steel / Carbon Steel.

- | | |
|--|---|
| 1) Quick Opening Closure | 8) Piggable Manifold |
| 2) Pig Barrel | 9) Pigs in Polyurethane, EPDM, Fluoroelastomer, Buna N Neoprene |
| 3) Flow Thru Tee | 10) Internally Polished Coated Pipes, and Bends |
| 4) Intrusive or Non-Intrusive Signals, | 11) Guide Flanges |
| 5) Pig Stop | |
| 6) 'T' port Piggable Ball Valve | |

A well designed Pigging system will save pipe, product, time, manpower and the environment.



Plant Pigging Flow Thru Tees in Hydrotest



VKVC has been designing, manufacturing and servicing pipelines and related parts in the oil & gas and energy industries for almost five decades now.

Our entire facility is equipped with an overhead crane to handle large components and jib cranes for smaller parts. Our facility is staffed with experienced professionals. The entire manufacturing process is backed by rigorous documentation and quality assurance program in accordance with ISO 9001:2000.

VKVC's over 100000 square foot modern manufacturing facility with permission and access to shipment via railways (Kalol & Sabarmati), truck & trailer facility, airport (35km or 22miles) and inland container depot (20km or 12miles).



MACHINING STATIONS

MILLS

3 – Huron Milling Machine

L = 1200mm, W = 450mm

L = 1700mm, W = 450mm

L = 1400mm; W = 450mm

Mecof – Italia Milling Machine

L = 3000mm; W = 1000mm

Two Column Milling Machine



LATHES

- Lathe Machines with capacity from 4-12 feet - 6

CNC MACHINES

- Haas ST40
- HAAS VF 9 XT
- HAAS VF 5XT
 - X axis = 60" (1524mm)
 - Y axis = 26" (660mm)
 - Z axis = 25" (635mm)
 - 4th axis = 32.9" (836mm)
- HAAS VF-9/40
 - X axis = 84" (2134mm)
 - Y axis = 40" (1016mm)
 - Z axis = 30" (762mm)
 - 4th axis = 34" (864mm)
- Jyoti VMC 850
- Jyoti DX 250
- Dalian Fullton – CNC Vertical Lathe – VTL



DRILLING MACHINES

- Hand Drills – 10mm, 12mm – 2
- Drilling Machines – 26, 32, 72mm – 3
- VR. Drill Machine – 50mm
- Rotary Reversible Drill – 1.5 to 13 mm
- Geared Radial Drill – 12 to 65 mm drill
- Hydraulic Press
- Hydraulic Presses 16 X 16, 32 X 32 capacity - 11

HYDRAULIC PRESS

- Hydraulic Presses 16 X 16, 32 X 32 capacity - 11

BAND SAW

- Bosch H.C 01V 6" capacity
- Multicut Band SAW 300mm capacity
- Meghacut band SAW 450mm capacity



TESTING FACILITIES

Polymers

- Tensile Testing Machine
- Abrasion Testing Machine
- Ross Flex Testing Machine
- Compression Testing Machine
- Hardness Tester – 100 shore capacity
- Digital Boroscope

Metallurgical

- Universal Testing Machines
- Bend Test Machine
- ASTM Impact Testing Machine
- Hardness Testing Machine
- Manual Broaching Machine
- Radiography
- Ultrasonic Testing
- Magnetic Particle Inspection
- Dye Penetrant Test



MARKING & IDENTIFICATION EQUIPMENT

- PRYOR Pneumatic Marking/Punching machine
- Han's Yueming Laser Stencilcutting
- Pryor Low Stress Manual Punch Set

Fabrication Facility

VKVC has been designing, manufacturing and servicing the pipeline industry in oil, gas and energy sectors for almost 5 decades now. Our facility is designed to handle and fabricate large components.

Our facility is staffed with experienced professionals. The entire manufacturing process is backed by rigorous documentation and quality assurance program in accordance with ISO 9001:2000.



MANIPULATORS



WELDING EQUIPMENT

- Ador Arc Welding units 400A capacity - 11
- Ador Argon Welding units 400A capacity - 2
- Ador SAW unit 600A capacity
- Ador Champ Arc unit 600A capacity
- Ador Thyroluxe Arc unit 400A capacity
- Ador MIG SAW 600A
- Ador Arc unit 600A
- Ador SAW 1000A
- Ador SAW 1200A
- D&H Arc unit 400A - 4
- D&H SAW unit 1250A
- D&H Supra TIG unit 400A capacity
- Motorized Type Column Boom 2.0 X 2.0
- Welding Positioner 2 ton

WELDING OVEN

- Ovens with 500°C, 300°C, 250°C - 0
- Portable Ovens 5kg, 25kg - 3

LIFTING CRANES

- Cranes with capacity ranging from 2 to 25 ton - 9

RUBBER & PU SHOP

- Rolling Mixing Machine 65 ton, 25HP 980 RPM, 40HP 1470 RPM - 3
- PU Mixing Machine 250kg - 2
- Foam Material mixing 2800 RPM - 2
- Compressor 12.3 kg/cm²
- Hydraulic Press 32" X 32"



HYDRO



- Hydraulic Tighteners 10000psi - 2

PAINT TEST EQUIPMENT

- Digital Adhesion Pull Tester
- Dust Evaluation Test Kit
- Digital Holiday Detector
- Chlor - Test A P160
- Chlor - Test Surface 150

MISCELLANEOUS

- Stabilizer 300V
- Power Stabilizer I/O - 360/415ACV
- Servo Voltage Corrector 5kV
- Sand Blasting Gun - 250, 1/4" M
- Power Generators with 40 & 120kVA capacity
- Compressors 2.97 m³/min - 4
- Screw Jacks 5 ton capacity - 5
- Pressure Gauges 1700psi, 3000psi - 5

TESTING FACILITIES

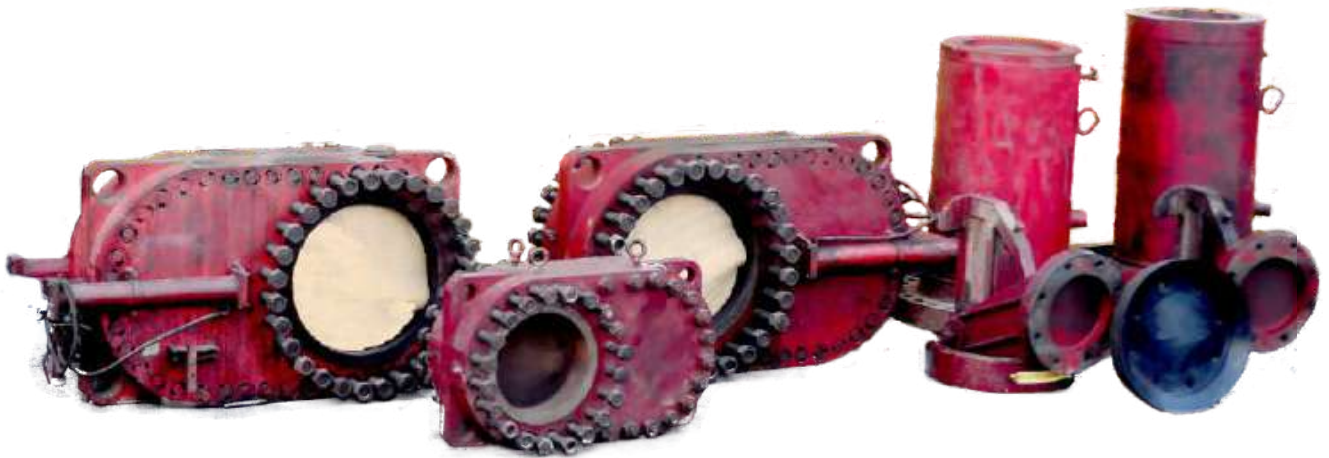
Polymers

- Tensile Testing Machine
- Abrasion Testing Machine
- Ross Flex Testing Machine
- Compression Testing Machine
- Hardness Tester - 100 shore capacity
- Digital Boroscope

Metallurgical

- Universal Testing Machines
- Bend Test Machine
- ASTM Impact Testing Machine
- Hardness Testing Machine
- Manual Broaching Machine
- Radiography
- Ultrasonic Testing
- Magnetic Particle Inspection
- Dye Penetrant Test





VKVC provides hot tap fittings, line stop fittings and threaded fittings. All products are designed according to ASTM B31.4, ASTM B31.8, ASTM B31.3 and ASTM B31.1.

Sandwich Valve

Sandwich Valves use a variety of design features used to assist the linestop operations.

- Sizes available: 2"-60"
- Manual Valve: 4"-20"
- Hydraulic Valve: 22"-60"
- Working Pressure: ANSI 150 | 300 | 600 | 900
- Available: Stainless Steel



O-Rings

- O-rings are available in Viton, Buna 'N'. These O-rings are usable for line stop applications with products: oil, crude oil, diesel, gasoline, GPL, natural gas, hydrocarbons and chemical industrial products.



Fittings

- Hot tap fittings are available in standard, 3-way, nozzle and spherical variants.
- Welding is examined by radiography
- Designed according to customer's hot tapping machines
- ANSI 150 | 300 | 600 | 900



Clamps



- VKVC is a recognized name in all types of pipeline clamps
- Clamps are available in sizes 2"-48"

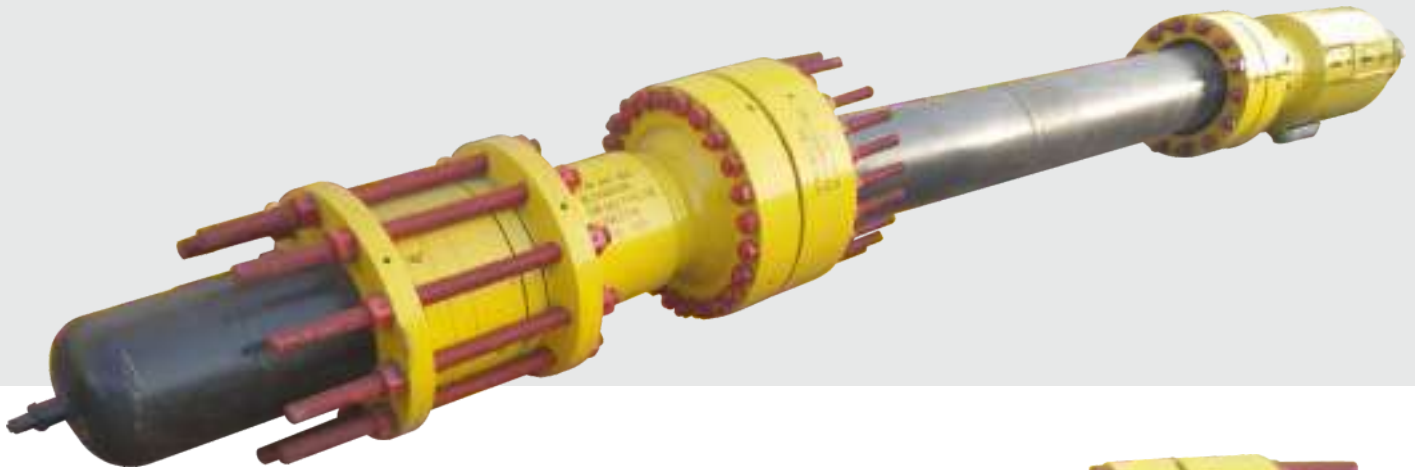


Connectors

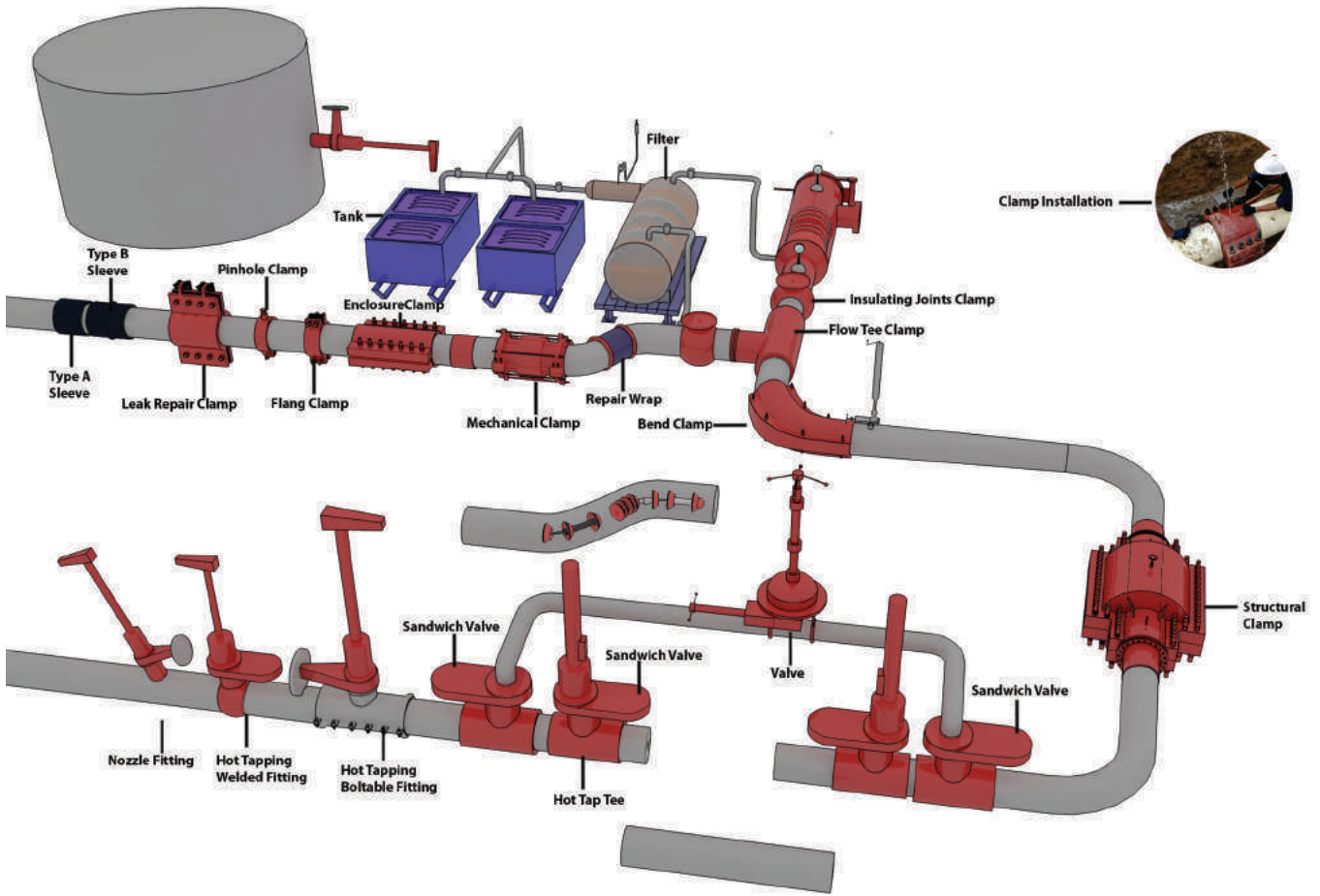
VKVC connectors are designed especially for use in high pressure applications and operations in the Oil & Gas, Petrochemical and Energy Sectors.

Size: 12" NB

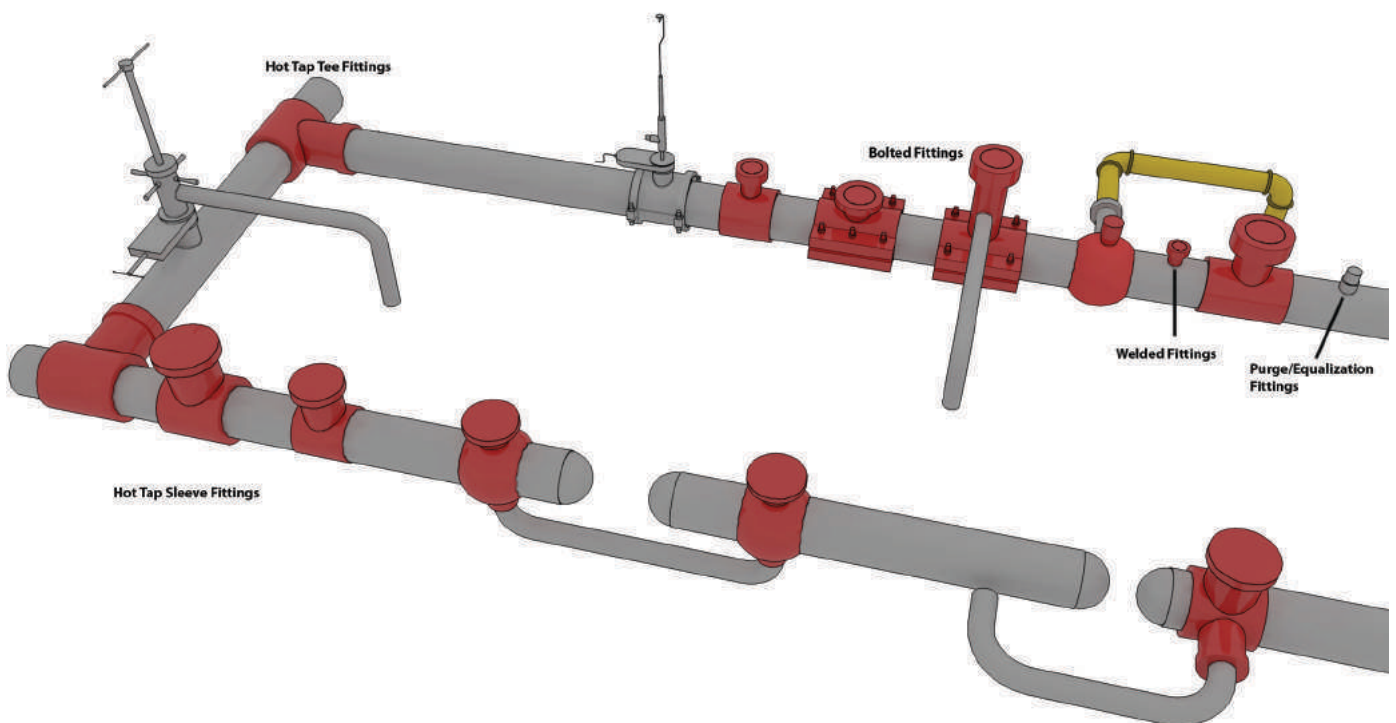
Pressure rating: ANSI 900



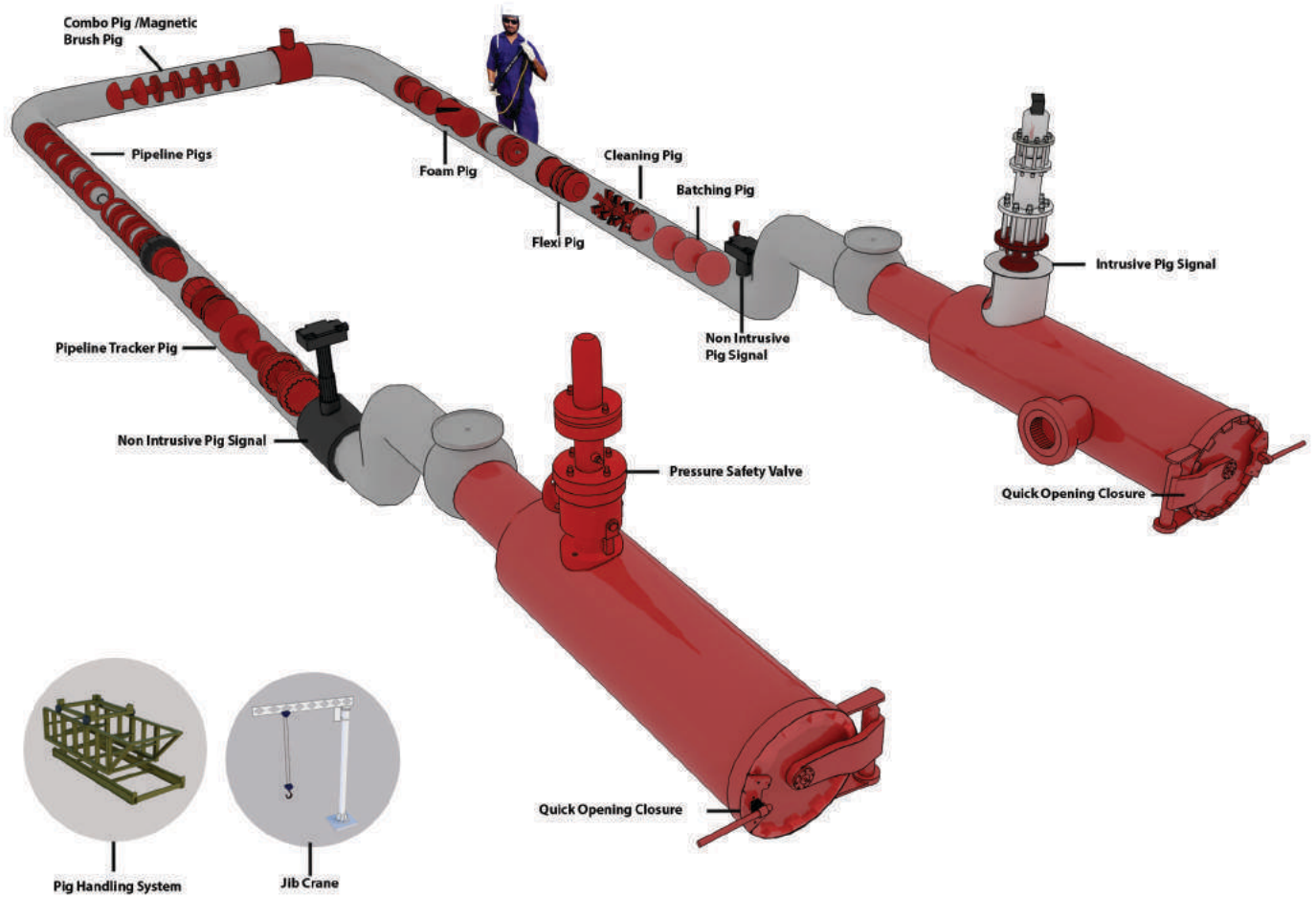
Pipeline Repair Product



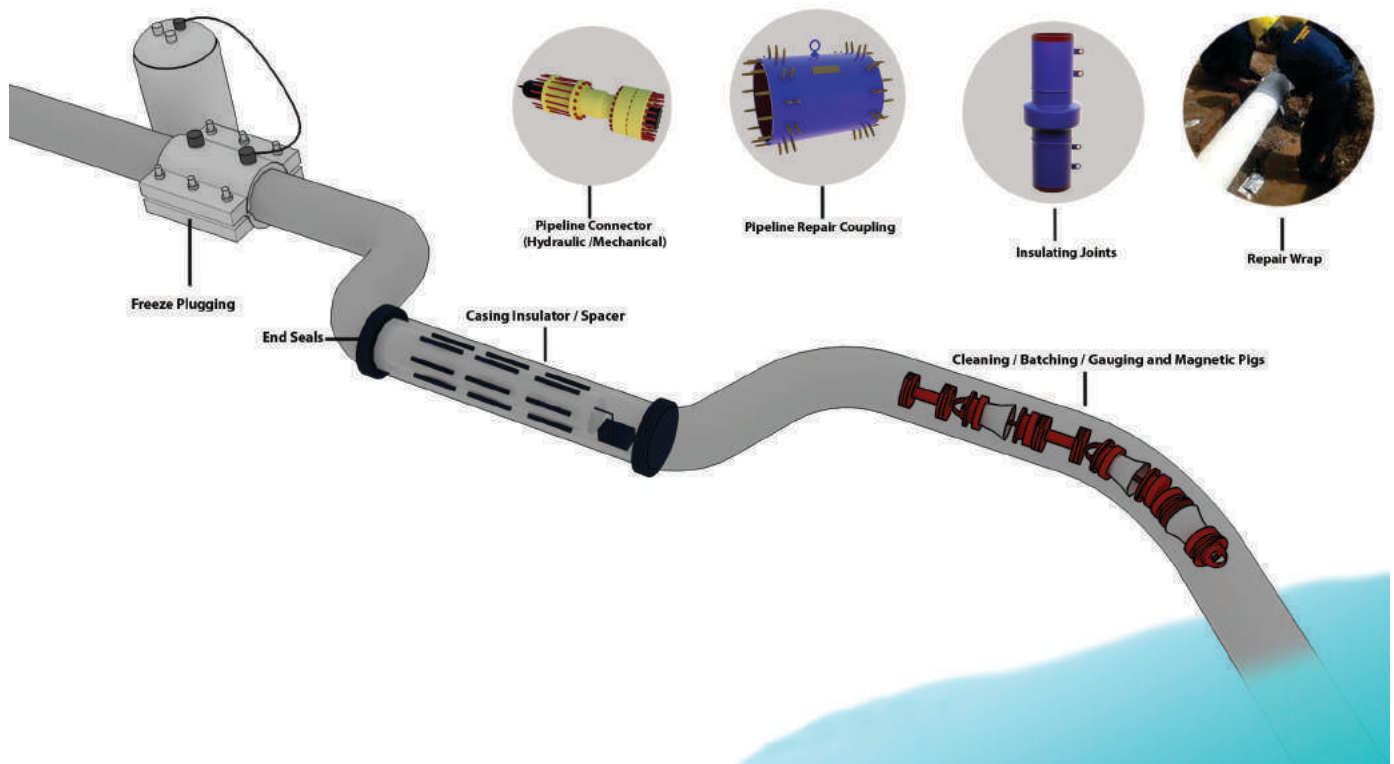
Pipeline Hot Tap Fittings



Pipeline Pigging Equipment



Pipeline Specialised Equipment / Accessories





Project Gallery



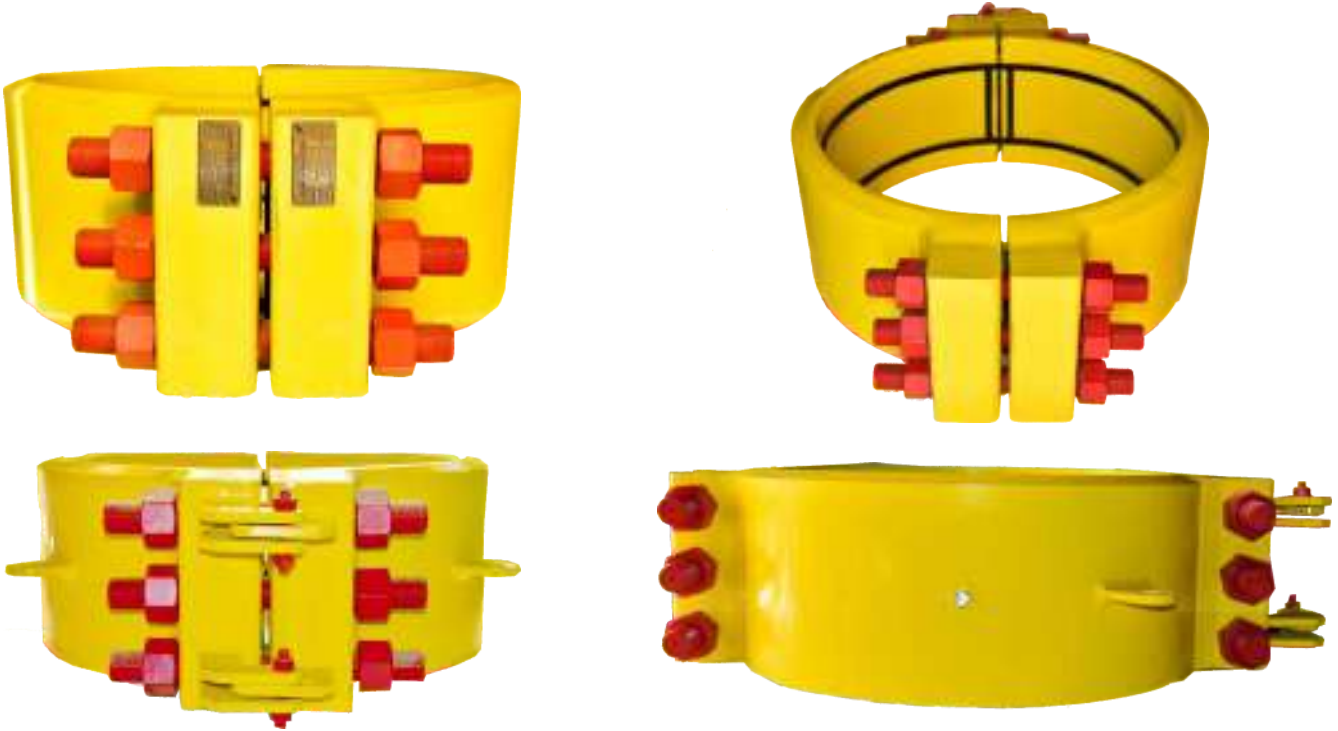
VKVC Launcher with Mobile Pig Handling System suitable for various size Pipelines



Project Gallery

VKVK Encapsulation Clamp installed to Encapsulate an ANSI 600 Clamp From USA.





Clamps



60\"



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