

LAUNCHERS AND RECEIVERS

Launchers are designed to insert the pig into the start of the pipeline and receivers are designed to remove the pig at the end of the pipeline. These devices are commonly referred to as pig traps.

Pigs are used in oil and gas pipelines for a number of reasons. These reasons include, but may not be limited to, cleaning interior pipe walls, inspection, separation of product batches, and dewatering.

Proper use of pig traps prolongs the life of a pipeline, improves safety of operation, reduces operational costs, reduces product loss, and protects our environment.



The purpose of this data sheet is to assist in the proper design and specification of pig traps.

Standard trap components:

- Closure
- Major and minor barrels
- Kicker line
- Detector switch
- Pull port
- Pressure connections
- Vent connections
- Drain connections

Optional trap components:

- Equalization line
- DRA connections
- Valve bypass lines
- Chemical injection port
- Pressure relief valve

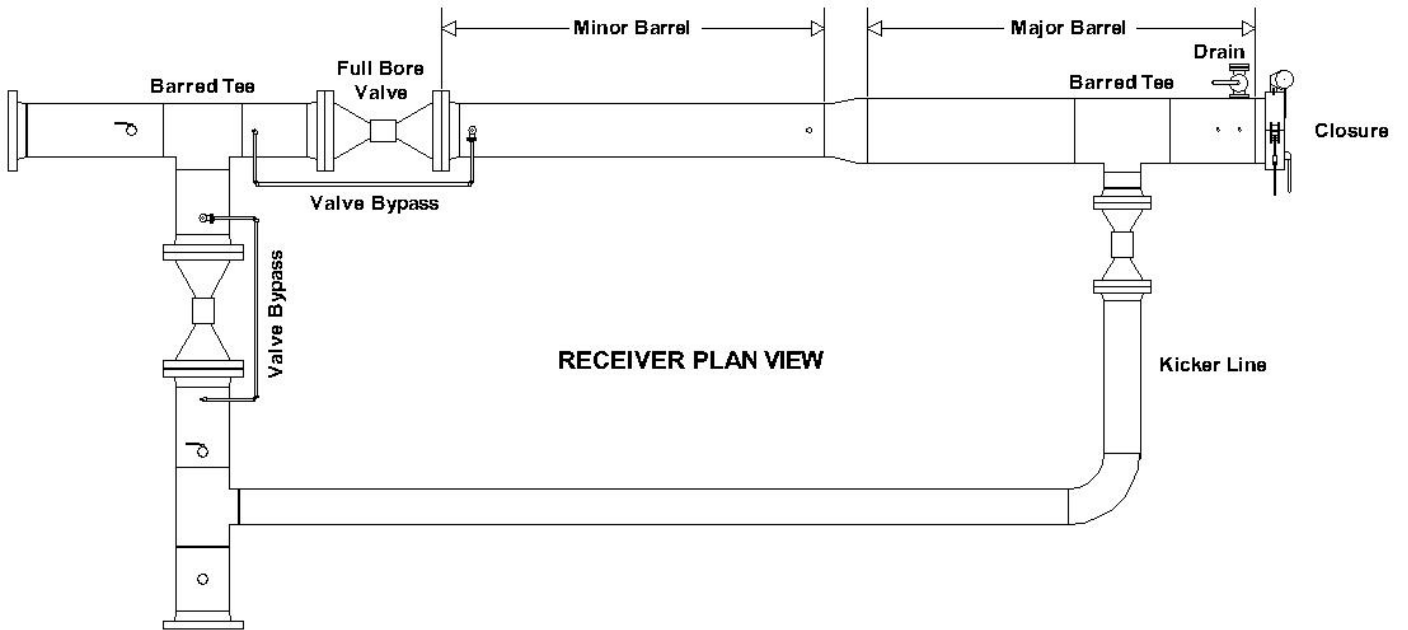
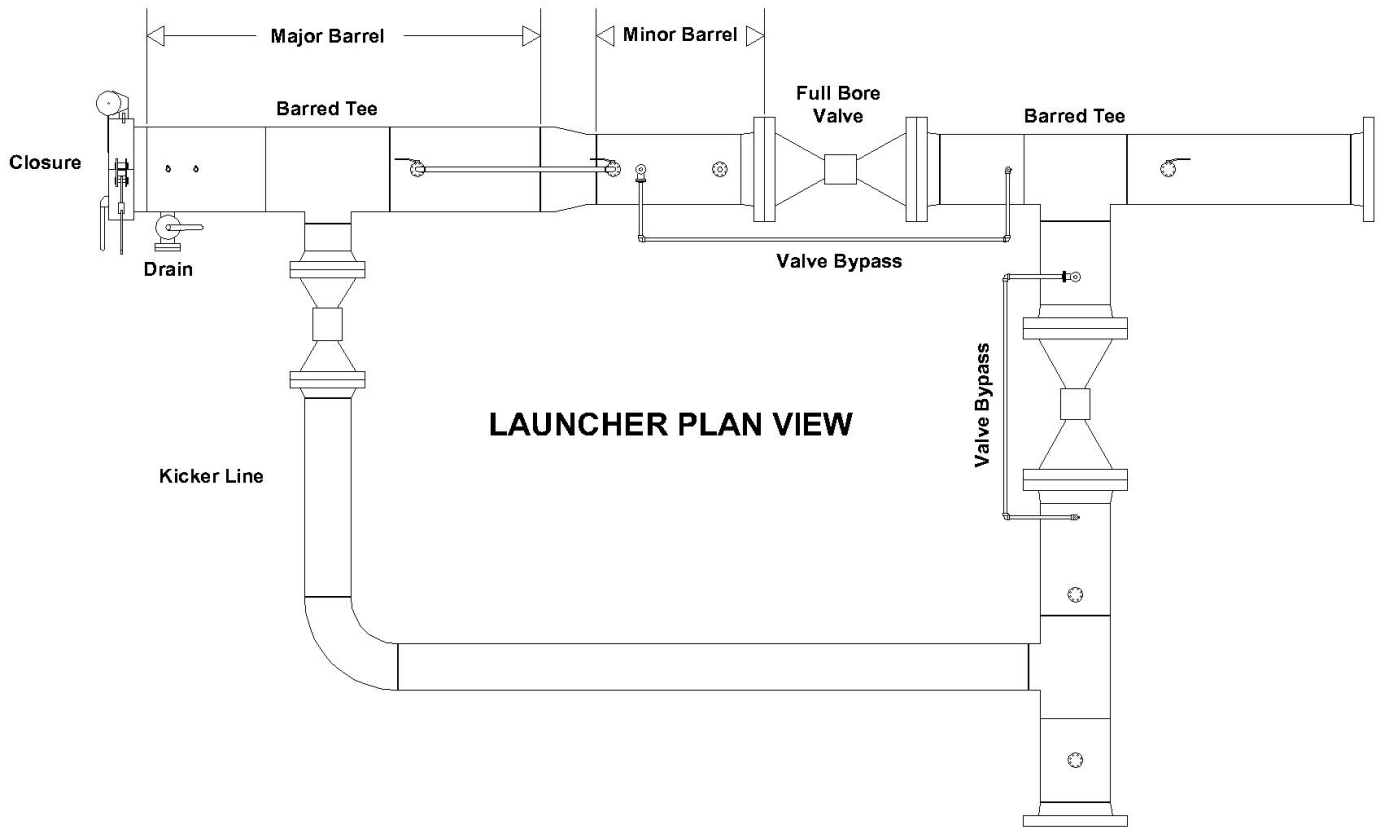
Standard features:

- Design per ANSI B31.3/B31.4/B31.8
- Toolless closure
- 100% NDT
- Sandblast zinc primer
- Full material traceability
- Hydrostatic test

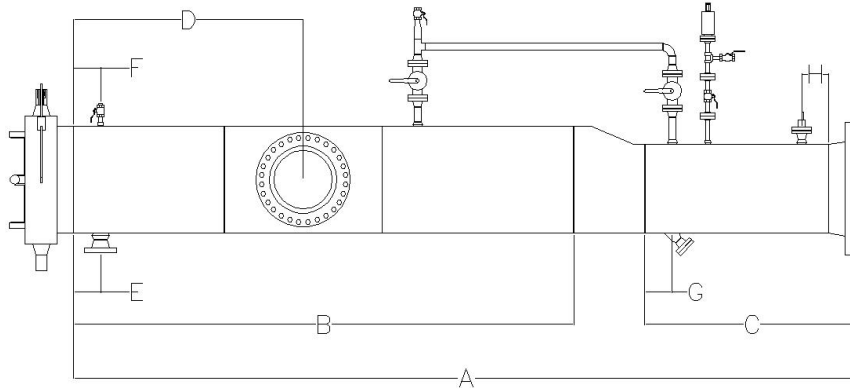
Optional features:

- Alternate closure styles
- 150# - 600# ANSI ratings
- Pipe supports
- Skid mounted assemblies

Trap Components

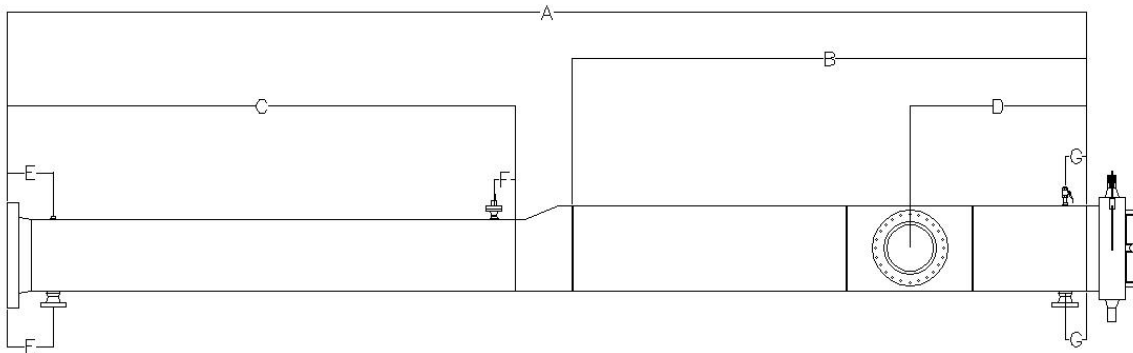


Launcher Dimensions (Inches)



Major Dia.	Minor Dia.	A	B	C	D	E	F	G	H
8"	6"	162	79	77	29	9	9	9	9
10"	8"	245	120	118	31	9	9	9	9
12"	10"	231	114	108	39	9	9	9	9
16"	12"	290	142	134	43	9	9	9	9
20"	16"	270	130	120	51	9	9	9	9
24"	20"	164	79	65	52	9	9	9	9
30"	24"	164	79	61	59	9	9	9	9
36"	30"	243	122	97	59	9	9	9	9
42"	36"	243	126	93	59	9	9	9	9

Receiver Dimensions (Inches)



Major Dia.	Minor Dia.	A	B	C	D	E	F	G
8"	6"	162	79	77	55	9	9	9
10"	8"	245	120	118	95	9	9	9
12"	10"	231	114	108	87	9	9	9
16"	12"	290	142	134	114	9	9	9
20"	16"	270	130	120	100	9	9	9
24"	20"	203	118	65	85	9	9	9
30"	24"	231	146	61	111	9	9	9
36"	30"	314	193	97	153	9	9	9
42"	36"	308	191	93	146	9	9	9

Connection Sizes (Inches)

CONNECTION	PIPE DIAMETER (in)								
	6"	8"	10"	12"	16"	20"	24"	30"	36"
MAJOR BARREL CLOSURE	10"	12"	14"	16"	20"	24"	30"	36"	42"
KICKER LINE	4"	4"	6"	6"	8"	12"	12"	20"	20"
PRESSURE GAUGE	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
GAS VENT	2"	2"	2"	2"	2"	2"	2"	2"	2"
PRESSURE RELIEF	1"	1"	1"	1"	1"	1"	1"	1"	1"
EQUALIZATION	1"	2"	2"	2"	2"	2"	2"	2"	2"
PIG DETECTOR	2"	2"	2"	2"	2"	2"	2"	2"	2"
PULL PORT	--	2"	2"	2"	2"	2"	2"	2"	2"
DRAIN	2"	2"	3"	3"	4"	4"	4"	4"	4"

BETSCO Design Features

1. The closure, designed according to ASME BPVC Section VIII division 1, will be quick opening/quick closing capable of being operated by a single person.
2. The closure will be provided with a pressure warning device which prevents opening when the barrel is pressurized. The closure will also be provided with a hinge or davit capable of supporting the door during the opening and closing operation.
3. The wall thickness for a trap will be in accordance with pipeline design code.
4. The I.D. of the major barrel will be at least 3 ½" larger than the I.D. of the minor barrel.
5. The reducers on launchers are typically eccentric while they are typically concentric on receivers.
6. Tees in the path of the pig will have bars in the branch section.
7. An equalization line is an optional feature for the launcher. This line will be equipped with a block valve and a throttle valve.
8. Launchers designed for utilizing smart pigs in pipes larger than 8" diameter will have a pull port connection to facilitate the loading of the pig.
9. Two pressure gauges or transmitters will be installed on the trap with one upstream of the reducer and the other downstream of the reducer. The connections will be ¾".
10. There will be two vent connections with one upstream of the reducer and one downstream of the reducer.
11. A pig passage detector will be installed on the minor barrel between the reducer and the trap block valve.
12. For liquid applications, a thermal relief valve should be utilized to prevent pressure build up due to increased fluid temperature.
13. All systems will be provided with datasheets and material test reports.
14. The completed assembly will be hydrostatic tested at 1.5 x MWP for 4 hours.
15. Installation drawings along with operating manuals will be provided in an electronic format.
16. The trap will be provided with a name plate stating the following information: date of manufacture, design code, design conditions, test pressure, body material, fluid, wet weight, shipping weight, and tag #.

APPLICATION SURVEY FORM

Contact Information

Company Name: _____ Contact Name: _____
 Address: _____ Phone #: _____
 _____ Email: _____

Information for trap sizing

Fluid: _____ Density: _____ Viscosity: _____
 Flow Rate: _____ (minimum) and _____ (maximum)
 Operating Pressure: _____ ANSI Rating: _____
 Operating Temperature: _____ Connecting Pipe Size: _____
 Type of Pig(s): _____

Associated Instrumentation

Pressure Gauges (Yes or No): _____ Pressure Transmitters (Yes or No): _____
 Motor Operated Valves (Yes or No): _____ Valve Type: _____
 Pig Detector (Yes or No): _____ Area Electrical Classification: _____

Information for Integrated Solution

Are you interested in an integrated system? (Yes or No): _____
 If you answered yes to the above question, please provide the following information.
 Specify the trap's operational direction (launcher, receiver, bidirectional): _____
 Preferred manufacturer and type of block valves: _____
 Actuator manufacturer and type: _____
 Pig Detector (flag only or flag and signal): _____
 Platform (Yes or No) for block valve operation: _____

Email your completed survey to sales@betsco.com. Someone will respond within 24 hours.