

HALLBRE EQUIPMENT

Blow Out Prevention Products and Service



Hi-Kalibre

Equipment is a leader in

the international market with a reputation for high quality, innovative products. We specialize in drill stem safety valves, ball valves, tubing safety valves and rotary hydraulic actuators and in 2013, for the first time ever, Hi-Kalibre exports have outpaced our domestic sales.

Our focus is on growth in the international and domestic markets to better serve our customers and provide service and support for the products we deliver. From the frigid Arctic to the desert heat of the Middle East and the tropical waters of the gulf of Mexico, Hi-Kalibre Equipment is there.



For over 28 years

Hi-Kalibre has designed, patented, and manufactured high-quality products with a proud commitment to safety, productivity, and quality for drilling and work-over operations worldwide.

Our valves are in service in every oil producing country in the world, and on the biggest rigs in the world.

In addition to our in-stock standard products, we are also able to engineer and manufacture custom products to your requirements. With many competitors quoting twelve-month manufacturing cycles, Hi-Kalibre's standard delivery timeframe is three months, with the ability to address urgent needs within weeks.

Engineer and manufacture custom products to your requirements

This speed is coupled with a rigorous inspection policy requiring all manufactured components to go through two independent inspection processes, resulting in **200% quality control**.

High Quality Standards and Manufacturing Agility are a Point of Company Pride.

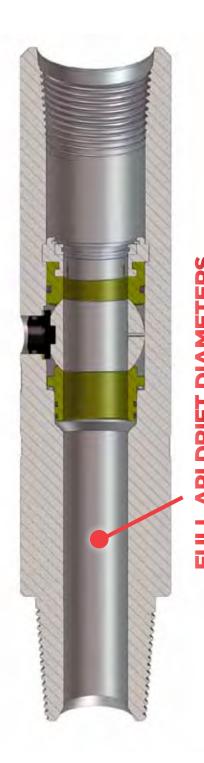
- ISO9001:2008 Certified
- API Spec. 7.1 & API Spec. Q1 applicant
- 100% Traceability on all components
- NACE & NACE-Trim available
- ABS & DNV Certifications available

How Are Hi-Kalibre Equipment Products Different From Other Manufacturers?

- PATENTED UPPER SEAT AND SPLIT RING DESIGNS
 - Provide improved serviceability
 - Ease the equalization of pressure
- PATENTED DUAL BALL TECHNOLOGY
 - Incorporates two independent valves in a single body
 - Maintains independent blow out prevention functionality
 - Reduces stack heights
- BALANCED STEM STOP DESIGN
 - Robust stopping ensures proper ball alignment, reducing wash and improving the valves' service life and reliability
- REDUCED DIAMETER, COATED STEMS
 - Provide low torque operation against all operating pressures
- GAS-TIGHT METAL-TO-METAL SEATS SEAL IN BOTH DIRECTIONS
- COATED BALLS
 - Maintain long term friction reduction
 - Reduce break away torque when opening or closing the valve
- FIELD PROVEN SERVICEABLE DESIGN THAT PROVIDES RELIABLE LONG TERM SERVICE
- PATENTED ROTARY HYDRAULIC ACTUATION CAN BE INCORPORATED FOR REMOTE ACTUATION
- DNV & ABS CERTIFICATION AVAILABLE
- API SPEC. 7-1 CLASS 2 AVAILABLE



DRILL STEM SAFETY VALVES

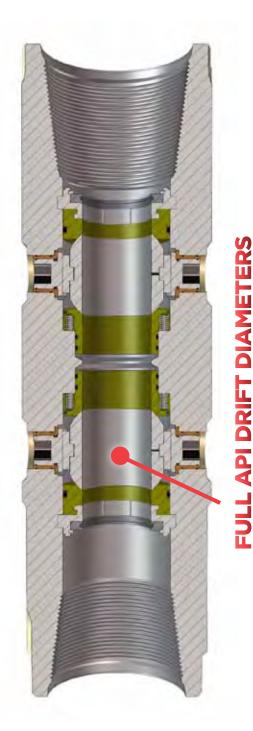




Hi-Kalibre Equipment Drill Stem Safety Valves (DSSV) are widely used for both blow out prevention and mud control during drilling operations. Design features include:

- Full API drift bores.
- Patented upper split ring and seat design for ease of equalization and improved serviceability.
- Patented Dual Ball technology available incorporating two independent valves in a single body (see Top Drive DSSV product page).
- Can be remotely actuated with our patented Rotary Hydraulic Actuator.
- Balanced stem stop design for accurate, robust stopping and proper ball alignment.
- Gas tight, metal to metal sealing in both directions.
- Reduced stem diameters for low torque operation even under maximum pressure.
- NACE trim standard, Full NACE available.
- Available with a wide variety of sizes and end connections.
- Reliable, field proven, serviceable design.
- DNV & ABS certification available.
- API spec. 7-1 class 2 available.

TOP DRIVE DRILL STEM SAFETY VALVES





Hi-Kalibre Equipment Top Drive Drill Stem Safety Valves (DSSV) are widely used for both blow out prevention and mud control during drilling operations. Using our patented Dual Ball Valve, top drive manufacturers can now produce equipment with greatly reduced stack heights while maintaining independent blow out prevention functionality. Design features include:

- Full API drift bores.
- Patented upper split ring and seat design for ease of equalization and improved serviceability.
- Patented Dual Ball technology available, which incorporates two independent valves in a single body.
- Can be remotely actuated with our patented Rotary Hydraulic Actuator.
- Balanced stem stop design for accurate, robust stopping and proper ball alignment.
- Gas tight, metal to metal sealing in both directions.
- Reduced stem diameters for low torque operation even under maximum pressure.
- API Spec 8C tested and compliant configurations available.
- NACE trim standard, Full NACE available.
- Available with a wide variety of sizes and end connections.
- Reliable, field proven, serviceable design.
- DNV & API certification available.
- ABS spec. 7-1 class 2 available.

ROTARY HYDRAULIC ACTUATORS

Our patented Rotary Hydraulic Actuators are designed to operate our Drill Stem Safety Valves (DSSV) for mud saving operations, but additionally can be sized to provide enough torque to function our valves under maximum bore pressures in case of emergency. Using hydraulic racks and pinions, we can provide high torque, compact, rugged actuation solutions for top drive manufacturers. With over 2000 units sold to date, these actuators are designed to provide maintenance free operation in harsh drilling conditions. Combined with our patented Dual Ball Valve technology, we can help top drive manufacturers and operators reduce mud loss during operations, increase drilling uptime, minimize stack height and all without compromising their ability to provide blow out prevention. Design features include:

- Low maintenance, bearing supported hydraulic sealing system accepts hydraulic, or air over hydraulic lines.
- Hydraulic pressure is not required to maintain position.
- Actuator is fail-last design it will not change position unless specifically operated, even under the most severe operating conditions.
- Compact, low profile design.
- High torque hydraulic rack and pinion configuration can be sized to operate valve up to maximum bore pressure if required.
- Rugged exterior mounting system allows the actuator to be stripped from the valve in either direction.
- Available in six sizes and adaptable to a wide variety of DSSVs.
- Reliable, field proven, serviceable design.





TUBING SAFETY VALVES

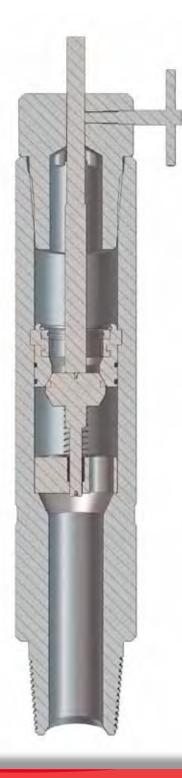




Hi-Kalibre's line of high performance safety valves are used by the well service industry to prevent fluid loss and as protection against well pressure fluctuations. Our unique design allows for positive sealing under load in gas environments, making these valves the superior choice for snubbing applications as well. Design features include:

- Full drift bore design.
- Positive, gas tight sealing in both directions.
- High torque body connection ensures seamless operation in the toughest conditions.
- Low torque operation even when closing or opening under maximum bore pressure.
- Gas tight stem seal even under maximum pull.
- Fully NACE compliant.
- Available with a wide variety of sizes and end connections.
- Reliable, field proven, serviceable design.

INSIDE BLOW OUT PREVENTION

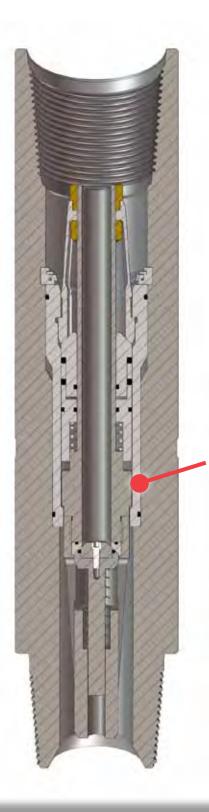




Hi-Kalibre Inside Blow Out Prevention (IBOP) valves are a dart type IBOP used to control or prevent back flow or blow out when the Drill Stem Safety Valve (DSSV) is disconnected from the drill pipe. These valves feature a unique one piece body incorporating our patented upper seat and lock ring design. The one piece body provides strength with the minimum possible stack height, while eliminating cumbersome torque body connections. In turn this makes our valves completely field serviceable. Design features include:

- Patented upper seat and split ring design.
- Field serviceable valve, as valve assembly or disassembly does not require making or breaking a high torque connection.
- Durable urethane low pressure seal backed by high pressure metal to metal seal, spring energized to ensure positive sealing in any condition.
- NACE trim.
- Available in a wide variety of sizes and end connections.
- Reliable, field proven, serviceable design.

DROP IN RETRIEVABLE CHECK VALVES



REPLACEABLE BODY LINER



Hi-Kalibre Drop-In Retrievable (DIR) Check Valves are a dart type check valve incorporating a low pressure soft seal over a high pressure metal to metal sealing mechanism. This offers extended service life and reliability over ball type checks. A replaceable body liner made from long wearing stainless steel protects the internals of the carbon steel body from erosion and incorporates the mating component to the drop-in tool's latching mechanism. This is in contrast to competitors' designs where the entire body must be replaced when erosion and/or corrosion compromise the latching mechanism.

The design of our DIR check valves allows high capacity down hole flow while preventing backflow from the well. The DIR tool is easily deployed or retrieved with the provided tooling, and uses standard wire line connections. Design features include:

- Drop-In check tool is easily deployed and latched with pressure by being pumped down from above.
- Replaceable, field serviceable body liner.
- Low pressure polymer seal backed by high pressure metal to metal seal, spring energized to ensure positive sealing under any conditions.
- Easy to use disassembly and remote retrieval tools provided in lockable tool box which houses the Drop-In check.
- NACE trim.
- Available in a wide variety of sizes and end connections.
- Reliable, field proven, serviceable design.

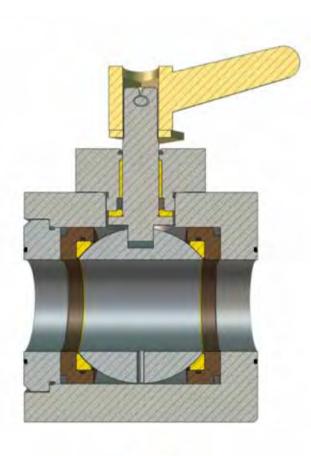
AVAILABLE TUBULAR PRODUCTS BY CONNECTION

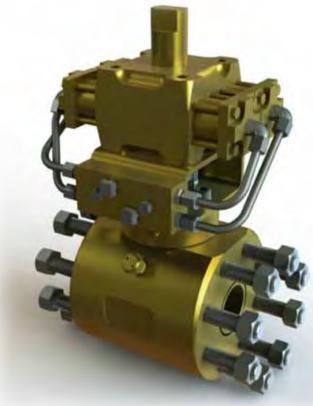
Connections	Drill Stem Safety Valve (DSSV)			Top Drive DSSV (Dual Ball)			Tubing Safety Valve			Internal Blow Out Preventer (IBOP)			Drop-in Retrivable (DIR)		
	5ksi	10ksi	15ksi	5ksi	10ksi	15ksi	5ksi	10ksi	15ksi	5ksi	10ksi	15ksi	5ksi	10ksi	15ksi
2-3/8" EUE							Х	*							
2-3/8" SLH-90							Х	*							
2-7/8" EUE		Х					Х	*							
2-7/8" RTS6							*	Х							
2-7/8" SLH-90	Х	Х								Х					
3-1/2" EUE							Х	*							
3-1/2" H-90		Х									Х				
3-1/2" RTS							Х								
3-1/2" RTS6								Х							
3-1/2" VAM								Х							
3-1/2" XH	Х	Х	*	*	*	*				*	Х	*	*	Х	*
4-1/2 LTC							Х								
4-1/2" EUE							Х	*							
4-1/2" FH		Х	*		Х	*					Х	*		*	*
4-1/2" H-90		Х													
4-1/2" REG	Х	*	*		Х	*					*	*		*	*
4-1/2" XH		Х	*		*	*					Х	*		*	*
4-5/8" CP	Х										Х				
4-5/8" XTC	Х														
5-1/2" FH		Х	Х								Х	*		Х	*
5-1/2" LTC							Х								
5-1/2" REG		Х	*		*	*					*	*		*	*
6-5/8" FH		Х	Χ		Х	Χ					*	*		Х	*
6-5/8" IF		*	Х		*	Х					*	*		*	*
6-5/8" REG		Х	Х		Х	Х					*	*		Х	*
7-5/8" REG		Х	Х		*	Х					*	*		*	*
8-5/8" REG		*	Х		*	Х					*	*		*	*
ADP-26							Х	*	*						
API NC-26	Х	Х	*		*	*				Х	*	*		Х	*
API NC-31	Х	Х	*		*	*					Х	*		*	*
API NC-38	Х	Х	Χ		Х	*					Х	Χ		Х	*
API NC-40	Х	Х	*		Х	*					Х	*		Х	*
API NC-46	Х	Х	*		Х	*					Х	*		Х	*
API NC-50		Х	Х		Х	Х					Х	Х		Х	Х
API NC-61		Х	*		Х	*					*	*		*	*
API NC-70		*	*		Х	*					*	*		*	*
API NC-77		*	Х		*	Χ					*	*		*	*
DS	Х	Х	Х	*	*	*				*	Х	*	*	*	Х
нт	Х	Х	*	*	Х	*				*	Х	*	*	Х	*
VX		*	Х		*	Х					*	*		*	Х
WT		Х	*		*	*					*	*		*	*
хт		Х	Χ		*	*					Х	Х		Х	Х

- Items denoted with "X" are currently available options
- Items denoted with "*" can be made available upon customer request, contact Hi-Kalibre Equipment for more details
- For details on the above products please visit the website or contact Hi-Kalibre Equipment
- Don't see what you're looking for in the table? Contact us, we're always adding to our product line and can even produce custom products to your requirements.



BALL VALVES



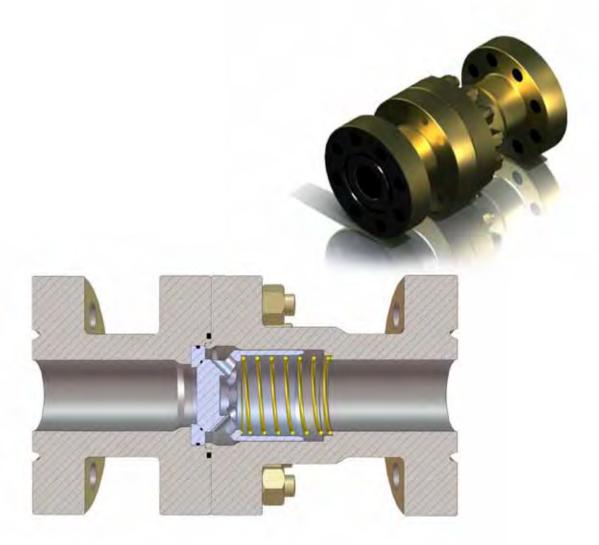




Hi-Kalibre produces our own line of high pressure, high performance quarter turn ball valves. Our rugged, reliable ball valve design is available with a wide variety of flanged and bolted connections for virtually any application. These valves are typically used in ball valve manifolds, choke and kill assemblies, mud line applications and can be hydraulically actuated for remote operation.

- Soft seat design allows both low and high pressure sealing.
- Low torque operation at maximum pressure.
- Forged body and bonnet construction.
- Wide variety of sizes and flanged connection options.
- Fully NACE compliant.
- Reliable, field proven, serviceable design.

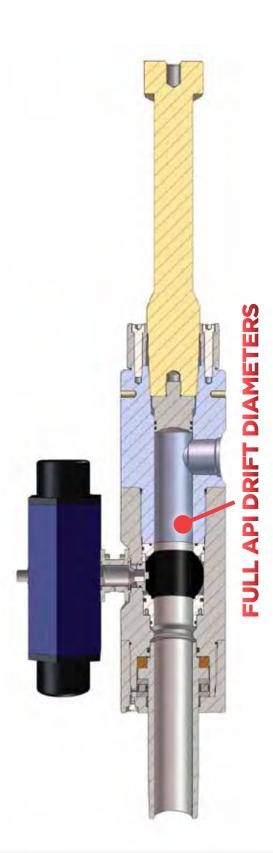
CHECK VALVES



Hi-Kalibre Check Valves are an inline, piston type check which will work in any orientation – horizontal, vertical or slant line. These checks have high volume flow in the forward direction, and produce gas tight sealing in the reverse direction. Design features include:

- Wide variety of size and end connection options.
- Forged body and bonnet construction.
- Durable polymer low pressure seal backed by high pressure metal to metal seal, spring energized to ensure positive sealing in any condition.
- Works in any orientation: horizontal, vertical or slant.
- Fully NACE compliant.
- Available in a wide variety of sizes and end connections.
- Reliable, field proven, serviceable design.

SAFETY SWIVEL™





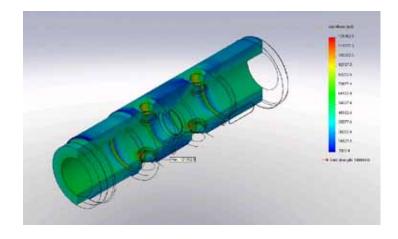
Hi-Kalibre Equipment's patented Safety Swivel ™ is used primarily for gas well service and sand clean out operations. Our innovative combination of our reliable and proven Tubing Safety Valve with an integral swivel is so unique and advantageous to service rig operators that we have patented a method of sand clean out based on it. This technology is licensed to each user and allows sand clean out and service operations to be conducted more efficiently and more safely than ever before. Design features include:

- Design based on our field proven, reliable Tubing Safety Valve technology, featuring:
- Full drift bore design.
- Positive, gas tight sealing in both directions.
- High torque body connection ensures seamless operation in the toughest conditions.
- Low torque operation even when closing or opening under maximum bore pressure.
- Gas tight stem seal even under maximum pull.
- Fully NACE compliant.
- Side-ported or non-ported configurations available.
- Available configuration for workover drilling.
- The addition of an integral, Hi-Kalibre designed swivel removes leak paths from standard operations and makes for reduced overall stack height.
- The patented Safety Swivel ™ arrangement eliminates the need for a second ball valve for fluid control, and allows for function of the valve remotely without disconnection of any lines at any time during operations.
- Tubing Safety Valve is air actuated with fail closed operation.

FACILITIES

Hi-Kalibre Equipment Ltd. is a world leader in the development and manufacture of blow-out prevention equipment for oil and gas drilling and exploration.

For over 28 years, Hi-Kalibre has designed, patented, and manufactured high-quality products with a proud commitment to safety, productivity, and quality.





- Licensed to Practice Engineering with a growing engineering staff
- Full 3D Solid Modeling for the Full Product Line using the latest CAD software
- In-house Advanced FEA and Thermal FEA capability
- Full Engineering analysis of any field failures
- Full CNC and Manual Machine Shops to support small custom and large production machining
- In-house Teflon, Rubber and Urethane component manufacturing.



INTERNATIONAL SALES & SERVICE NETWORK



IR&E in the UAE is an authorized Hi-Kalibre Equipment sales and servicing agent. They are stocking an extensive range of our products while offering full service and pressure test facilities for the MENA region.

Five Star Rig & Supply in Oklahoma, Field-Tec Services in Pennsylvania, and P&H Company Services in Colombia have signed letters of intent with us to provide Hi-Kalibre Equipment's Products and services in their respective regions.

To learn more about any of our affiliates visit their websites or contact Hi-Kalibre Equipment directly.

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