



CTE INDUSTRIES LTD.

**QUALITY DESIGNED CASING
TOOLS FOR ENHANCED
CEMENTING OPERATIONS**

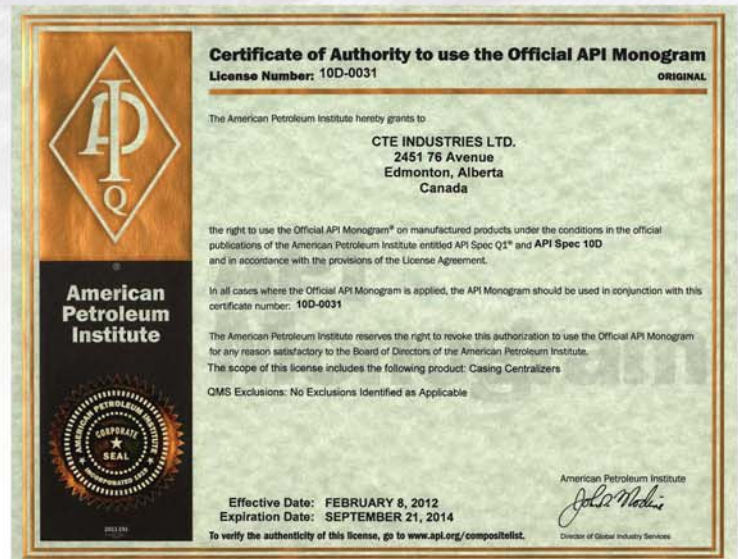
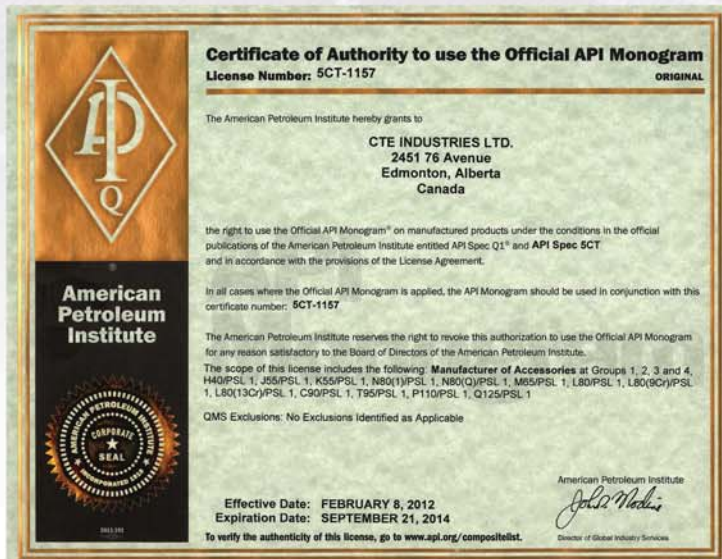
PRODUCT CATALOG



CERTIFICATIONS & LICENSES

CTE's quality system has been developed to meet all requirements for certification with API Q-1 and ISO 29001. The documentation system that has been implemented at our modern facility will allow for traceability from the design stage through to production and delivery. CTE can meet the demand of customers requiring total traceability.

Customer satisfaction is CTE's primary goal, achieved through a strong focus on Safety, the Environment and Quality Assurance.



- API 5CT (API 5CT-1157)
- API 10D (API 10D-0031)

SAFETY CERTIFICATIONS

- ISNetworld
- Comply Works
- COR Safety

“QUALITY FOCUSED...

...CUSTOMER DRIVEN”



FLOAT EQUIPMENT

CTE Industries Ltd. "CTE" offers a complete range of high performance innovative Float Equipment for your downhole cementing operations.

A variety of Float Shoes and Float Collars have been designed for various downhole operating conditions. The series 300 and 330 Float Equipment uses High Flow (HF) Valves that are designed for increased flow rates. These valves offer large flow areas across the valve to help reduce valve erosion over the dart portion of the valve.

CTE uses only PDC drillable valves which are offered in Float Equipment ranging in sizes from 4 1/2" - 20". CTE valves are manufactured with composite materials that have been engineered to provide maximum strength, thus providing excellent wear and temperature properties while still maintaining drillable properties. While this same material offers durability during the cementing process, CTE valves are designed for ease of drill out which effectively reduces costly rig time.

Standard features include Float Shoes that offer a composite integral protective nose for casing sizes ranging from 4 1/2" - 9 5/8". While casing sizes of 10 3/4"- 20" offer a standard cement nose.



Series 300 Float Collar HF Valve

Further options offered upon request include Side Ports, Down Jets, Up Jets, and a selection of Aluminum Noses. Additional optional features include automatic filling valves to allow the casing to fill as it is being run. Conversion of the autofill valve to a check valve is attainable by pumping fluid at a predetermined rate to convert the valve.

The series 300 Float Shoes, 320 Guide Shoes and 330 Float Collars are available in sizing from 4 1/2" to 20" casing.



Series 320 Guide Shoe



Series 300 Float Shoe HF Valve



Series 300 Double Valve Float Shoe with Down Jets & Aluminum Spade Nose



FLOAT EQUIPMENT



Series 304 Double Valve Float Shoe with Down Jets & Aluminum Spade Nose



Series 304 Single Valve Float Shoe with Straight Carbide Reaming Pads & Aluminum Offset Eccentric Nose



Series 304 Single Valve Float Shoe with Diamond Carbide Reaming Pads & Aluminum Offset Eccentric Nose



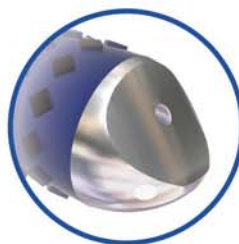
Series 304 Double Valve Float Shoe with Straight Carbide Reaming Pads & Aluminum Offset Eccentric Nose

The Series 304 Float Shoes are designed for demanding downhole applications and are ideal for well bore conditions with severe doglegs, high build rates, and extended horizontal runs. The series 304 selection of float shoes accompanied with one of a variety of aluminum eccentric noses offer downhole solutions when dealing with wellbore conditions that involve ledges or sloughing. These float shoes are specifically designed for reaming and reciprocating applications.. Four styles of noses are offered: Bullet, Eccentric, Spade & Cone.



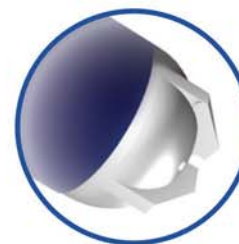
Bullet Noses

For use when casing rotation cannot be performed or is not anticipated.



Eccentric / Cone Nose

Used when casing rotation can be performed and hole finding functionality is a prime consideration.



Spade Noses

Used when casing rotation can be performed and reaming is required / considered

Reaming pads with carbide cutters are offered as an option to enhance the equipment's functionality when swelling or sloughing is encountered. The reaming pads are offered in either straight bladed or diamond patterns, of which, both are designed to neutral reaming characteristics, High flow valves to API 5CT requirements are standard for the 304 Series equipment with high temperature HSN valves available. Double valves, side ports and auto fill options can also be incorporated in to the shoes.



FLOAT EQUIPMENT

CTE offers two series of equipment for inner string cementing operations.

The Stab In Series is comprised of the 301 Stab In Float Shoes, the 331 Stab In Float Collar and the 361 Stab In Stinger. The shoes and collars both utilize the HF valve to ensure a positive seal in high pump rate operations.

The Latch In Series is comprised of the 302 Latch In Float Shoe, the 332 Latch In Float Collar and the 362 Latch In Stinger. The HF valves are also used in this series of equipment.

The stinger receptacle is drillable as it is made from aluminum alloy with composite plastic receptacle available as an option for all series. Double valves are available for both shoes and collars. Side ports, down jets or up jets are also available for all series of inner string equipment.

The inner string cementing equipment is available in size 9 ⁵/₈" to 20" casing



Series 301
Stab In Float Shoe



Series 331
Stab In Float Collar



Series 361
Stab In Stinger



Series 302
Stab In Float Shoe



Series 332
Stab In Float Collar



Series 362
Stab In Stinger



CEMENTING PLUGS

The **Series 600 and 605 Non Rotating Quick Drill Top and Bottom Cementing Plugs** are composed of a **large plastic core which accounts for the majority of the plugs mass**. Surrounding the core of the plug are moulded wiper fins that assist in displacing the cement as well as clean the respective casing of any un-needed debris. The Non Rotating Quick Drill Top and Bottom plugs are manufactured with mating integral teeth to lock both top and bottom plugs together as well as lock to the lading plate situated in either the Float Shoe or Float Collar. This is for ease of drill out and to eliminate spinning.

The Series 610 and 615 Top and Bottom Plugs are conventional plugs with plastic cores that can be drilled out with PDC and conventional drill bits.



Series 600
Non Rotating Quick
Drill Top Plug



Series 605
Non Rotating Quick
Drill Bottom Plug



Series 610
Top View



Series 610
Top Plug



Series 615
Bottom Plug



Series 615
Top View



CEMENTING AIDS

The **Series 945 Thread Lok Kit** provides a **complete two-component epoxy system that includes base resin, a catalyst and an applicator**. It is designed for use on all threaded joints and is especially applicable on drill casings and other pipe where the effective prevention and avoidance of joint-loosening and casing backing-off is required.

Application Information

The catalyst is emptied into the can containing the base epoxy resin and the two are thoroughly mixed. The applicator is used to completely cover the threads with the mixture, and the joint is then made up. A workable consistency averages 75 minutes. Complete cure occurs in 24 hours, after which connections may be broken by heating to 550°F (288°C).



Thread Lok 945

Casing O.D. In inches	Approx. Number of Joints each 1/2 lb Thread Lok kit will lock
4 1/2	10
5 1/2	5
6 1/2 or 7	4
7 5/8 or 8 5/8 or 9 5/8	3
10 3/4 or 11 5/8 or 13 5/8	2
16 or 20	1

Advantages

- Complete Kit with instructions
- Easy Application
- Adheres to Any Clean Surface
- Prevents Back - off
- Resistant to Acids, Solvents & Water
- Non - Corrosive
- Non - Conductive
- Economical

Thread Lok 945 Packaging Information

Item #	Unit Size	Quantity	Net Wt.	Ship Wt.
900A-22	8oz Kit	12/case	6 lbs	9 lbs
900B-22	16oz Kit	6/case	6 lbs	9 lbs

Color: Gray
Pot Life: 75 minutes (avg.)

Do Not Use Thread Lok 945 with Oxygen Lines

Dangerous to skin and eyes. Use rubber or plastic gloves and goggles. Mix in well ventilated area. Can will become hot to the touch when catalyst is mixed in. Always wear gloves to shield hands from heat.



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