



EXPLORATION DRILLING CONSUMABLES

Core drilling and reverse circulation
NQ and HQ focus | Extended size families

SELECTION AND QUOTATION CATALOGUE 2026

Edition 1 | 18 October 2026

Product families subject to technical and supplier confirmation at quotation.

Range and ordering guide

This catalogue sets out the proposed STT range for mineral exploration drilling. It covers the consumables, wear parts and supporting tools needed to request a complete quotation for diamond coring or reverse circulation drilling. NQ and HQ are the main focus.

Pages	Product range
3	Core size reference and compatibility
4-5	Core springs and matched recovery components
6-7	Diamond core bits and bit selection
8	Reaming shells and casing cutting tools
9-11	Core barrels, head assemblies and wireline retrieval spares
12	Drill rods, casing and adaptors
13-15	RC bits, hammer wear parts, rods and sample circuit
16	Drilling fluids, thread compounds and lubricants
17-18	Water circuit and CS/CT14 rig service consumables
19	Core and RC sample handling
20	Starter kits and replenishment planning
21	Incoming inspection and component identification
22	Quotation request form
23	Proposed item codes and product index
24	Technical references and catalogue conditions

How to order. Send the family code, complete system designation, manufacturer or matching part number, quantity and site delivery location. A photo of the old part beside a scale helps identification; threads, tapers and seal details still need dimensional confirmation.

Commercial status. Codes in this edition are proposed STT enquiry references, not confirmed stock numbers. No stockholding, dealership, country of origin, delivery time or selling price is represented. A quotation confirms the actual supplier, specification, quantity, pack size and terms.

Core sizes and compatibility

Core diameter is the recovered sample size. Bit outside diameter is the cutting diameter. Reaming diameter is listed separately. Values below are nominal reference dimensions in millimetres; they do not define manufacturing tolerances, threads or component interchangeability.

System	Core diameter	Bit outside diameter	Reaming diameter
BQ	36.4	59.6	59.9
NQ	47.6	75.3	75.7
HQ	63.5	95.6	96.1
PQ	85.0	122.0	122.6
NQ3 / NQTT	45.1	75.3	75.7
HQ3 / HQTT	61.1	95.6	96.1
PQ3 / PQTT	83.1	122.0	122.6

Reference values follow the Boart Longyear bit guide. Reaming diameters are rounded from its inch values where applicable. Confirm the selected supplier's metric set diameter and allowable gauge tolerance on the quotation.

Match the complete system

Check	Required confirmation
Double or triple tube	NQ and NQ3 recover different core diameters. HQ and HQ3 also differ. Order lifters, cases, rings and liners for the complete designation.
Piloted and face discharge	Match the bit, lifter case and water-routing arrangement as a system.
Tube length	State nominal run length and actual assembly length. Do not assume 1.5 m and 5 ft, or 3 m and 10 ft, are interchangeable.
Rod connection	Record the exact manufacturer thread family and revision. Similar outside diameters do not establish thread compatibility.
Head generation	Conventional latch, roller latch, quick-descent and pump-in arrangements need their own parts identification.

[1] Nominal bit dimensions. Compatibility requirements are STT quotation checks.

Core springs and core lifters

A core spring, also called a core lifter, grips the sample during core breaking and retrieval. Order it together with the matching lifter case and retaining or stop ring. The gripping profile, taper and core size must suit the selected barrel design.

STT family code	Product and purpose	Order specification
CL	Standard core lifter	BQ, NQ, HQ or PQ; barrel make; actual core diameter; supplier profile designation.
CLF	Fluted core lifter	System and profile; requested flutes or serrations; matching case reference.
CL3	Triple tube core lifter	NQ3, HQ3 or PQ3; liner system; matching bit and lifter case.
CLTK	Thin kerf core lifter	Full thin-kerf designation; supplier drawing or sample; no substitution by nominal N or H size alone.
CLC	Core lifter case	System; thread; taper; body length; standard or piloted flow arrangement.
SR	Stop or retaining ring	Full system; groove fit; ring section; supplier reference.
CLK	Matched recovery set	One compatible lifter, case and stop ring per set; exact contents on quotation.

Details to send with an enquiry

Photograph the lifter, case and ring separately. Record free-state lifter inside and outside diameters, length, slot width and taper direction. For the case, record thread designation, overall length, taper and ring groove geometry. These are identification measurements; supplier drawings govern the working fit.

Replace based on condition

Investigate rounded or damaged gripping surfaces, cracks, loss of spring action, distorted slots and poor seating. Check the case for taper wear, thread damage and an enlarged or damaged ring groove. A slipping lifter may also indicate incorrect core size or a system mismatch.

[2,3] Core lifter system context. Inspection and ordering fields are STT selection guidance.

NQ and HQ recovery parts

Specify the recovery family explicitly. The same N or H hole family can contain different sample diameters and different lower-end components. Use the matrix below as an enquiry checklist, not as a universal interchangeability chart.

Family	Core mm	Lifter enquiry	Case enquiry	Ring enquiry
NQ	47.6	STT-EX-CL-NQ	STT-EX-CLC-NQ	STT-EX-SR-NQ
HQ	63.5	STT-EX-CL-HQ	STT-EX-CLC-HQ	STT-EX-SR-HQ
NQ3	45.1	STT-EX-CL3-NQ3	STT-EX-CLC-NQ3	STT-EX-SR-NQ3
HQ3	61.1	STT-EX-CL3-HQ3	STT-EX-CLC-HQ3	STT-EX-SR-HQ3

Each enquiry still requires manufacturer, revision and exact part reference. A proposed code identifies the request; it does not certify fit or availability.

STT family code	Product and purpose	Order specification
IT	Inner tube	NQ/HQ family; system generation; nominal and actual length; thread and end details.
ITS	Inner tube stabilizer	Outer assembly reference; guide diameter; length; material specification.
LIN	Split inner liner	NQ3/HQ3; half-set or full set; length; liner and ejection system.
EJP	Core ejection piston	Triple tube assembly; piston diameter; seal arrangement; compatible liner.
EJS	Ejection seal kit	Piston reference; seal sizes; material; fluid compatibility.
FDC	Face discharge recovery components	Bit, lifter case and tube arrangement matched to supplier system.

Preamsembled recovery package

Request a lifter, case and stop ring as a matched package, plus the required inner tube and stabilizer. For triple tube work, add the correct split liner and ejection components. State whether seals and small retaining parts must be included.

[1-3] System distinctions and recovery components.

Diamond core bits

Select the bit by formation, abrasiveness, fracture condition, sample-recovery objective and the drilling system. The outside size alone does not define the correct bit. Ask for the supplier's matrix recommendation and operating sheet for the exact product.

STT family code	Product and purpose	Order specification
DBI	Impregnated diamond core bit	System; core and outside set diameters; matrix designation; crown height; waterways; thread.
DBS	Surface set diamond core bit	System; formation; diamond size and grade; crown profile; face and gauge arrangement.
DBT	TSP core bit	Thermally stable polycrystalline cutting structure; system; cutter layout and supplier application range.
DBP	PDC core bit	Core size; outside gauge; cutter layout; formation suitability; impact exposure.
DBC	Tungsten carbide core bit	Size; cutting profile; supplier-approved soft-formation application; thread.
DB3	Triple tube diamond core bit	NQ3/HQ3/PQ3; correct core ID; compatible case and fluid-discharge design.
DBTK	Thin kerf diamond bit	Complete thin-kerf specification; bit dimensions; rod/barrel compatibility.
DBFD	Face discharge bit option	Discharge arrangement; compatible lifter case; requested core protection.

Crown and waterway options

Request the actual usable crown height, segment layout, waterway style and supplier gauge specification. A taller crown is an option to compare, not a guarantee of longer life. Confirm fluid requirements and whether the design suits the available rig power, pump and ground conditions.

Quote description example. STT-EX-DBI-HQ; HQ double-tube impregnated core bit; nominal 63.5 mm core and 95.6 mm cutting OD; matrix to suit the supplied geology; supplier to confirm crown, waterways, thread and operating range.

[1,4,5] Bit types and matrix selection references. Example is an STT enquiry description.

Bit selection and performance review

Ground description	Selection discussion	Information to provide
Hard and relatively non-abrasive	Ask about a matrix that exposes cutting diamonds adequately.	Lithology; representative core; existing bit model; penetration and wear history.
Abrasive formation	Ask about wear-resistant matrix and gauge protection.	Abrasive minerals; diameter loss; crown loss per run; shell condition.
Broken or fractured formation	Discuss crown support, impact exposure and core protection.	Fracture frequency; lost returns; core loss; vibration history.
Soft or unconsolidated formation	Compare suitable cutting structure with sample protection and hole support.	Clay, sand or gravel content; washout; casing plan; required core quality.
Mixed formation	Seek a compromise or a planned bit-change strategy.	Layer sequence; dominant formation; depth intervals; access to replacement stock.

Record actual drilling performance

For each bit, record serial or batch, hole and depth interval, metres drilled, drilling hours, measured gauge, crown wear, fluid returns and recovery. Log RPM, weight on bit and flow as measured on the rig. Use the exact supplier's limits rather than a generic NQ or HQ settings table.

Observed issue	Checks before selecting a replacement
Low penetration or polished face	Review matrix suitability and actual operating conditions with the bit supplier.
Rapid crown or gauge loss	Check formation abrasiveness, flushing, vibration and matching shell gauge.
Uneven wear or damaged segments	Review alignment, impact loading, barrel condition and handling damage.
Poor core recovery	Check the complete lifter system, core diameter, discharge arrangement and formation condition.

Cost comparison. Compare bit purchase cost divided by metres drilled, then include downtime and the value of sample recovery. Evaluate trials in comparable ground; metres per bit cannot be promised from catalogue size alone.

[4,5,6] Selection principles and product-specific operating guidance.

Reaming shells and casing tools

A reaming shell is selected with the bit and outer barrel to maintain the required hole gauge. Casing cutting tools are selected around the casing string and the intended passage diameter for the next drilling assembly.

STT family code	Product and purpose	Order specification
RS	Diamond reaming shell	System; actual set diameter; length; thread; gauge protection.
RSE	Extended or stabilized reaming shell	Supplier configuration; stabilization length; compatible inner-tube extension.
RSD	Double shell arrangement	Complete supplier assembly; spacing; tube extensions and inner assembly length.
CS	Diamond casing shoe	Casing designation; connection; cutting OD; clear ID required for following tools.
CB	Casing bit	Casing size; core or cutting arrangement; supplier application; passage requirements.
CA	Casing advancer wear set	Advancer make/model; system drawing; cutters; seals; retainers.
SH	Rod shoe or special shoe	Rod/casing interface; cutting and clearance diameters; supplier approval.
ITX	Inner tube extension	Match extended shell or double shell arrangement; thread and finished length.

Required dimensional checks

Confirm the selected bit OD against the shell set diameter and the supplier's tolerance. Confirm that each following assembly passes through the casing and shoe. Record thread form, shoulder position and tool length rather than using a casing trade name as the only identifier.

Replacement triggers

Check gauge wear, damaged cutting pads, cracks, loose or missing cutting elements, thread damage and wash erosion. Use the supplier's discard limits. Do not rebuild or hardface a load-carrying or diamond-set component without an approved repair procedure.

[1,2,7] Dimensional reference and reaming product families.

Core barrel tubes and couplings

STT family code	Product and purpose	Order specification
OT	Outer tube	BQ/NQ/HQ/PQ; system; nominal and actual length; thread; straightness requirements.
IT	Inner tube	System; double/triple tube; length; end connection; assembly reference.
ITC	Inner tube coupling	Thread and shoulder dimensions; tube reference; supplier specification.
LC	Locking coupling	Barrel make and head arrangement; latch engagement profile; thread.
AC	Adaptor coupling	Both connection specifications; overall length; landing features.
LR	Landing ring	System generation; ring geometry; landing location and head reference.
STB	Stabilizer or wear bush	Assembly; fitted dimensions; material and wear limits.
TP	Thread protector	Exact pin/box connection; material; storage or transport duty.
BA	Complete barrel assembly	System; run length; head; inner and outer assemblies; items excluded.

Order the assembly bill of materials

For a complete barrel, list head assembly, inner tube, matched recovery components, outer tube, locking/adaptor couplings and stabilizers. State whether the bit and reaming shell are included. Triple tube assemblies require their own liner and ejection equipment.

Specify new supply or a replacement part for an existing assembly. For replacement tubes, use a supplier drawing or approved sample to establish connections and working length. A nominal tube length is not a complete manufacturing specification.

[2,3,7] Component families. Exact construction depends on the chosen manufacturer.

Core barrel head assembly spares

The head carries the latching, suspension and bearing functions of the inner assembly. Identify the complete head part number and revision before ordering internal parts. Names and arrangements vary between conventional, roller-latch, quick-descent and pump-in systems.

STT family code	Product and purpose	Order specification
HAS	Head service seal set	Head model/revision; elastomers; fluid and temperature requirements.
HBR	Bearing set	Bearing references; dimensions; thrust/radial arrangement; compatible head.
HSP	Spindle and suspension parts	Head drawing; spindle; nuts; washers; bearing seats.
HLT	Latch set	Conventional or roller style; pins; bushes; spring arrangement.
HLP	Latch pins and bushes	Drawing or OEM reference; diameters; fitted length; material specification.
HLS	Latch and compression springs	Head model; spring dimensions; supplier spring specification.
HSV	Shutoff valve or indicator parts	Valve type; head generation; seat and seal details.
HST	Spearpoint assembly	Overshot compatibility; profile; retaining hardware.
HPN	Pins clips and retainers	Exact type; section; diameter; groove fit; quantity per head.

Define the kit contents

A seal kit, latch kit and complete head overhaul kit contain different parts. Request an itemized list and quantities before approval. Identify parts excluded from the kit, particularly bearings, spearpoints and structural head components.

Service acceptance. Follow the manufacturer's inspection, assembly and functional checks. Free movement alone does not demonstrate correct latching. Use the approved test method and discard criteria for the selected head.

Wireline retrieval wear parts

STT family code	Product and purpose	Order specification
OSA	Complete overshoot	Head/spearpoint system; surface or underground service; manufacturer model.
OSJ	Overshot jaws or lifting dogs	Overshot reference; profile; pivot and spring details.
OSP	Overshot pins and springs	Model; pin fit; spring specification; retainers.
OSS	Overshot swivel and bearing set	Assembly reference; bearing and swivel arrangement.
OSR	Release sleeve or release parts	Overshot model; release mechanism; supplier procedure.
WRC	Wireline cable	Drum/winch suitability; diameter; construction; length; load certificate.
WRS	Cable socket or termination kit	Cable construction; approved termination design; working load and assembly instructions.
WRCG	Cable guide or sheave liner	Sheave model; groove profile; cable compatibility; material.
WRT	Wireline retrieval service kit	Exact overshoot and termination references; itemized contents.

Compatibility and load information

Request the rated working load and manufacturer instructions for the full retrieval assembly. Confirm cable, socket, swivel, overshoot and head compatibility. A cable diameter or an overshoot size does not establish the working load of the assembled system.

Inspection and storage

Inspect cable condition, terminations, lifting profiles, swivels, pins and retaining parts to the selected manufacturer's criteria. Keep retrieval components clean and protected from impact. Remove damaged parts from service and identify them to prevent accidental reuse.

These are drilling retrieval components. Any proposed lifting use outside the approved drilling arrangement needs its own verified load rating and procedure.

[7] Wireline retrieval product families. Ratings must come from the actual supplied equipment.

Drill rods casing and adaptors

Rod and casing strings are reusable tools that require planned replacement. The full connection specification controls compatibility and performance. Identify standard wall, thin wall, reinforced or other proprietary configurations accurately.

STT family code	Product and purpose	Order specification
DR	Wireline drill rod	Rod family; manufacturer; length; connection; wall configuration; operating limits.
DRA	Rod adaptor or crossover	Both pin/box ends; thread drawings; shoulder; flow bore; torque/load requirement.
DC	Drill casing	Casing series; OD/ID; wall; length; connection and intended duty.
DCC	Casing coupling	Matching casing connection; shoulder; length; material specification.
DRS	Drive sub or saver sub	Drive head connection; rod end; bore; wrench flats; torque requirement.
WS	Water swivel wear set	Swivel make/model; spindle reference; seals and bearings; rated duty.
RP	Rod wiper	Rod OD range; holder fit; material and fluid compatibility.
RTP	Rod and casing protectors	Pin/box; exact connection; shipping and storage duty.
RTG	Thread inspection gauge	Exact thread system; gauge type; calibration and acceptance standard.

Receiving and traceability

Request material and heat-treatment evidence to the agreed purchase specification for critical threaded parts. Record supplier, batch and product reference. Inspect end damage, thread condition, length and straightness against the accepted drawing or supplier standard.

Do not mix thread systems based on apparent fit. Breakout torque, service torque and maximum string loads must come from the approved equipment and connection data.

[8] Proprietary rod connection context. Procurement checks are STT requirements to agree at order.

RC drill bits and cutting options

RC bits must match the installed hammer and its sample-return arrangement. Specify bit diameter, complete shank designation, face design and button configuration. The size of the rig does not identify the hammer shank.

STT family code	Product and purpose	Order specification
RCB	Tungsten carbide button RC bit	Hammer make/model; shank; actual bit OD; face profile; button style.
RCBS	Spherical button option	Supplier designation; ground/abrasion data; bit and gauge layout.
RCBC	Ballistic or conical button option	Manufacturer application approval; impact and fracture conditions.
RCBF	Alternative face profile	Concave, flat or other offered profile; flushing/sample-return configuration.
RCBP	PCD button option	Exact supplier design; application and availability confirmation.
RCR	RC reaming or hole-opening tool	Hammer/string interface; pilot hole; finished gauge; supplier-engineered arrangement.
RBG	Bit gauge inspection tool	Nominal diameter range; measurement method and calibration.

Quotation size field

Specify the required diameter in millimetres. If the site identifies the bit in inches, include that reference as well and have the supplier confirm the actual set diameter. Do not substitute a close metric size without checking the shroud, hole gauge and sampling arrangement.

Condition assessment

Record gauge loss, button damage, shank wear, cracks and face condition. Submit photographs and the measured used diameter with replacement enquiries. Regrinding or repair must follow the bit supplier's method and discard limits.

[9,10] Hammer-dependent RC bit selection and available cutting options.

RC hammer wear and service parts

STT family code	Product and purpose	Order specification
RSH	Bit shroud or collar	Hammer model; bit OD; shroud OD/ID; retention style; wear allowance.
RST	Hammer sample tube	Hammer generation; length; end profiles; bore; seals and retaining parts.
RSS	Sample tube seals	Tube and hammer reference; seal geometry; material; temperature range.
RCK	Check valve service kit	Hammer reference; valve; spring; seat; seals as supplied.
RCH	Chuck or driver sub	Hammer and bit shank; thread; wear surfaces; supplier specification.
RCRN	Bit retaining rings	Hammer reference; section; diameter; matched set.
RHP	Piston	Exact hammer model and revision; matched internal dimensions.
RHW	Wear sleeve or outer cylinder	Hammer body reference; thread; OD and wall specification.
RHB	Backhead and connector parts	Hammer model; drill string connection; sample circuit interface.
RHK	Hammer overhaul kit	Itemized parts; revision; consumable and structural parts separated.

Do not combine similar looking internals

Verify the hammer serial plate, body markings and original parts list. Matching outer diameter does not prove that pistons, tubes, sleeves or retainers are interchangeable. Request the manufacturer's wear limits and maintenance manual with the selected parts.

Order the sample tube, shroud, seals and bit as a compatible group where the supplier requires it. Identify which dimensions are measured on new components and which are taken from worn parts.

[10,11] RC product and sample-tube system references. Component availability varies by hammer.

RC rods and sample circuit parts

STT family code	Product and purpose	Order specification
RDR	Dual wall RC rod	Make; length; outer connection; inner tube bore; end sealing arrangement.
RIT	RC rod inner tube	Rod make/model; length; end seats; seals and retainers.
RIC	Inner tube connector	Connection profile; length; inner bore; seal arrangement.
RIS	Rod inner tube seal kit	Rod generation; seal size; material; quantity per rod.
RDA	RC crossover adaptor	Outer pin/box connections plus continuous inner sample path; both system references.
RDS	RC saver sub	Rotary head and rod interface; sample bore; torque and load requirements.
RHS	Sample hose	Bore; length; abrasion duty; operating pressure/vacuum; bend radius; couplings.
RHE	Sample elbow or bend	Bore; bend radius; wall/liner; end connections; wear duty.
RCY	Cyclone wear liner	Cyclone make/model; material; dimensions; mounting and outlet arrangement.
RSL	Splitter wear liner and seals	Splitter model; sample ratio arrangement; contact material; fit.

Keep the sample path identified

Record each bore and connection from the hammer tube to the sample outlet. Changes to elbows, hoses, seals, cyclones and splitters can affect sample transfer and cleaning. Have the supplier confirm the assembled arrangement rather than selecting parts independently by hose diameter.

Separate clean spare sample-contact parts from used items. Use the site's sampling and cleaning procedure when changing liners or hoses. Catalogue inclusion does not demonstrate a specific sampling accuracy.

[9-11] RC pipe and sample-circuit context. Detailed interfaces require supplier drawings.

Drilling fluids and lubricants

STT family code	Product and purpose	Order specification
FLV	Polymer viscosifier	Water quality; ground; target fluid properties; mixing method; pack size.
FLS	Shale or clay stabilizer	Formation; fluid system; compatibility; environmental requirements.
FLC	Core recovery additive	Ground and recovery problem; proposed fluid system; supplier selection.
FLL	Lost circulation material	Loss condition; minimum passage and waterways; particle size; treatment approval.
FLTL	Torque reducing lubricant	Rod/string duty; fluid compatibility; injection or mixing system.
FLD	Drilling fluid thinner	Existing mud chemistry; required correction; supplier treatment sheet.
FLF	Drilling foam	Air/RC application; water conditions; compressor and lubricant compatibility.
FLA	Air tool or hammer lubricant	Hammer and lubricator specification; climate; approved viscosity.
TC	Rod and casing thread compound	Connection manufacturer approval; make-up procedure; environment; pack size.
FLCN	Cleaning and flushing product	Surface/material compatibility; residue limits; site sampling requirements.

Required supply information

Request a current safety data sheet, technical sheet, batch, shelf life, storage requirements and actual pack size. Confirm products with the site's environmental and sampling requirements. Do not describe a product as approved or environmentally safe without the supplier's current evidence.

Dosage depends on the exact product, water and ground conditions. Use the supplier's mixing and treatment instructions. Different products sold as polymer, foam or lubricant are not automatically substitutes.

[12] Chemical categories. Generic descriptions do not promise supply of any named brand.

Water circuit and pump consumables

STT family code	Product and purpose	Order specification
PMP	Water pump service set	Pump make/model; serial; pressure/flow duty; itemized kit.
PPK	Plunger or piston packing	Pump model; plunger diameter; fluid and temperature; packing arrangement.
PVK	Pump valve kit	Suction/discharge valve references; seats; springs; seals.
PPL	Pump plunger	Pump reference; dimensions; coating/material; matched packing.
STR	Suction strainer	Port size; mesh; flow; material; water conditions.
WFE	Water filter element	Housing reference; micron rating; flow and pressure rating.
WHS	Water hose assembly	Working pressure; bore; length; temperature; fluid; hose and coupling standard.
WCN	Water circuit connector	Thread or coupling standard; seal style; pressure rating; material.
WSK	Water swivel seal kit	Swivel model/serial; pressure; shaft reference; bearing and seal arrangement.
PG	Pressure gauge and adaptor	Range; pressure rating; connection; media; required calibration.

Pressure rating and assembly evidence

Confirm the maximum working duty for the full hose assembly, including end fittings and seals. Request assembly identification and test evidence to the agreed purchase specification. Match the gauge range and connection to the actual circuit.

For a leaking swivel or pump, provide the model plate, photographs and service manual reference before selecting seals. Where a worn shaft or plunger affects sealing, a seal-only repair may not resolve the problem.

STT enquiry specification checklist. Equipment ratings and service limits must be supplier verified.

17 / RIG MODEL AND SERIAL VERIFICATION REQUIRED

CS and CT14 service consumables

This section accepts enquiries for Atlas Copco / Epiroc Christensen CS-series and CT14 drilling rig service consumables. It does not establish interchangeability across CS models, CS14 variants or CT14 production revisions. Confirm the full machine model and serial number.

STT family code	Product and purpose	Order specification
RFIL	Engine and hydraulic filters	Rig serial; engine serial; filter housing and original element references.
RBEL	Drive belts	Engine/accessory model; belt profile; effective length; matched-set requirement.
RSEAL	Cylinder seal kit	Cylinder part number; bore/rod sizes; seal profiles; operating duty.
RHOSE	Hydraulic hose assembly	Circuit; measured length; routing; pressure; end connections; abrasion protection.
RCHJ	Chuck jaws or inserts	Rotary head/chuck reference; rod OD range; insert profile; supplier material.
RCLJ	Rod clamp jaws or inserts	Clamp/holder model; rod/casing range; mounting geometry.
RWB	Mast guide wear pads	Mast/carriage reference; dimensions; fixing pattern; wear-pad material.
RWP	Water swivel packing	Swivel model; spindle; packing and bearing references.
RGS	Gas spring or support unit	Original part reference; force rating; stroke; ends; approved application.

Information needed before a quote

Supply rig plate and serial photo; component plate or casting reference; existing part number; clear photographs; quantity; symptoms and required service date. For engine consumables, supply the engine details separately from the rig plate.

The proposed STT codes are enquiry families. No OEM part number, service interval or fitment is invented here. OEM and aftermarket options must be described accurately on the quotation, with any substitution expressly identified.

[13] Christensen model context. All service fitment remains serial and component dependent.

Core and RC sample handling

STT family code	Product and purpose	Order specification
CBX	Core tray or box	NQ/HQ or actual core OD; channel dimensions; length; material; stack/lid system.
CBL	Core box lids	Exact tray brand/model; fastening and stacking arrangement.
CBK	Core blocks and depth markers	Channel fit; material; marking method; quantity.
CTL	Core box labels	Site label format; adhesive; weather and chemical resistance; barcode requirement.
CSL	Split core liner or sleeve	Actual core OD; length; material; preservation and logging requirements.
SBG	RC sample bags	Sample mass/volume; material; size; closure; printed or plain.
SBT	Calico bags and sample tickets	Bag size; numbering; ticket set; laboratory acceptance.
SPS	Sample security seals	Numbering; tamper evidence; closure fit; quantity.
CLN	Sample circuit cleaning spares	Brushes; approved cleaner; wear liners; site contamination control procedure.
CHP	Chip trays	Compartment count; sample interval; lid; numbering and identification.

Sample identification

State hole ID, from/to depth, tray or bag number and the site's sample-number convention. Confirm whether labels must be handwritten, preprinted or barcoded. Trial the label adhesive and ink on the actual tray and field conditions before a bulk order.

Select bag capacity and materials with the receiving laboratory and site sampling plan. Keep duplicates, blanks and standards under the site's quality-control procedure; their frequency is not defined by this product catalogue.

[14] Core storage product context. Label and bag specifications are customer-defined.

Starter kits and replenishment

The bundles below are proposed quotation structures. Quantities are starting assumptions for discussion, not consumption forecasts. Final quantities depend on metres planned, ground, number of rigs, existing spares and supplier lead time.

Proposed kit	Illustrative contents	Confirm before ordering
NQ or HQ recovery kit	10 lifters; 5 cases; 10 stop rings; all in one verified system.	Profile; head/barrel supplier; double or triple tube; quantities.
Diamond bit trial kit	3 bits covering agreed matrix options; 1 matching reaming shell.	Ground samples; exact bit IDs; trial plan; operating sheets.
Barrel service kit	One specified head seal set; latch wear set; bearing set; stabilizer.	Head revision; itemized contents; excluded structural parts.
Triple tube handling kit	Matched split liner set; ejection piston and seals; compatible recovery set.	Length; tube system; approved ejection arrangement.
RC cutting and return kit	2 compatible bits; 2 shrouds; 1 sample tube; seal and retainer sets.	Hammer model; shank; bit and shroud gauge; revision.
Rig service kit	Filter set; selected belts; identified packing; agreed hoses.	Rig and engine serials; component references; service scope.

Reorder method

Record consumption per rig and per drilling interval. Separate planned wear from loss or failure. A practical reorder point is expected usage during supply lead time plus an agreed buffer. Update the buffer when ground conditions or delivery times change.

For seasonal or imported supply, obtain a supplier lead-time quotation before choosing minimum stock. Store chemical batches by shelf life and keep size families in clearly labelled bins.

STT proposed kit quantities and inventory method; not supplier recommendations.

Incoming checks and part identification

Product group	Record on receipt
Bits and shells	Supplier model; system; actual gauge; crown/face style; thread; batch; purchase specification.
Core lifters and cases	Complete size designation; profile; taper and case reference; ring match; supplier batch.
Tubes and adaptors	Drawing revision; threads; length; straightness and dimensional report where specified.
Head and retrieval parts	Manufacturer/model; part reference; revision; kit quantities; load data where applicable.
RC wear parts	Hammer/shank reference; diameter; sample path; retention arrangement; supplier wear limits.
Seals and hoses	Part reference; material; dimensions; fluid compatibility; working duty; certificates as ordered.
Chemicals	Product name; SDS/TDS; batch; expiry; pack size; storage and treatment instructions.
Sample supplies	Size; numbering sequence; tray/liner fit; closure; labelling and contamination requirements.

Reverse engineering enquiries

Where an original part number is unavailable, provide a sample or an approved drawing. Identify which surfaces are worn. Recover the design dimensions, tolerances, material, heat treatment and inspection requirements before manufacturing a replacement. Measurements from a worn sample are not automatically production dimensions.

Minimum identification photographs

Include an overall image, both ends, all markings, thread close-ups and a photograph beside a scale. For seals, show the cross-section and measure the housing as well as the used seal. For springs, include free dimensions and the approved load-deflection requirement.

Issue a controlled part record after fitment is confirmed. Link the accepted supplier reference, drawing revision and batch to the final stock item.

STT proposed receiving and identification workflow.

21 / COPY THIS CHECKLIST INTO AN ENQUIRY

Request for quotation

Customer and project	Details to complete
Company / contact	
Email / telephone	
Delivery location and country	
Rig model / serial	
Drilling method / system	Core or RC; NQ/HQ/NQ3/HQ3 or hammer make/model
Formation and hole depth	
Existing supplier / part numbers	
Required delivery date	

Line	STT family / exact part	Size and specification	Qty / unit
1			
2			
3			
4			
5			

Attach: nameplate photos, component photos, existing parts list, drawings and thread details where available. State whether genuine OEM, aftermarket or either may be quoted.

Quotation to confirm: exact make and reference; compatibility basis; price and currency; tax treatment; pack size; minimum quantity; lead time; freight; delivery terms; certificates; warranty; substitutions and exclusions.

STT Engineering Solutions

Email: info@stteng.co.za

Telephone: 060 935 6542

Send the full system designation and photographs with the request.

Proposed product coding and index

Proposed format: STT-EX-[family]-[system]-[variant]. Family references below link the catalogue to a quotation. A final stock code must identify one approved specification, supplier reference and revision. This catalogue does not create or update ERP stock records.

Family codes	Product group	Page
CL CLF CL3 CLTK CLC SR CLK	Core lifters and matched recovery sets	4
IT ITS LIN EJP EJS FDC	Inner tubes and triple tube recovery parts	5
DBI DBS DBT DBP DBC DB3 DBTK DBFD	Diamond and alternative core bits	6
RS RSE RSD CS CB CA SH ITX	Reaming shells and casing tools	8
OT IT ITC LC AC LR STB TP BA	Core barrel assembly parts	9
HAS HBR HSP HLT HLP HLS HSV HST HPN	Head assembly wear parts	10
OSA OSJ OSP OSS OSR WRC WRS WRCG WRT	Wireline retrieval parts	11
DR DRA DC DCC DRS WS RP RTP RTG	Rods casing and connections	12
RCB RCBS RCBC RCBF RCBP RCR RBG	RC cutting tools	13
RSH RST RSS RCK RCH RCRN RHP RHW RHB RHK	RC hammer wear and service parts	14
RDR RIT RIC RIS RDA RDS RHS RHE RCY RSL	RC string and sample return	15
FLV FLS FLC FLL FLTL FLD FLF FLA TC FLCN	Fluids and lubricants	16
PMP PPK PVK PPL STR WFE WHS WCN WSK PG	Water circuit and pump parts	17
RFIL RBEL RSEAL RHOSE RCHJ RCLJ RWB RWP RGS	CS and CT14 rig service enquiries	18
CBX CBL CBK CTL CSL SBG SBT SPS CLN CHP	Sample handling products	19

Code clarification. FLTL identifies the fluid lubricant family; WFE identifies water filter elements. RCR is reserved for RC reaming tools. IT is one inner-tube family appearing in both recovery and barrel sections.

Proposed STT coding only. All final variants require controlled specification records.

References and catalogue conditions

Primary manufacturer references checked on 18 October 2026. These sources support product families and nominal technical context; they do not confirm STT stockholding, dealership, fitment or supply agreements. Links below open the referenced material.

- [1] Boart Longyear Longyear Bits Guide 2023.1
- [2] Boart Longyear Wireline core lifter cases
- [3] Fordia Core lifter system case study
- [4] Boart Longyear Impregnated bit overview
- [5] Dimatec Application ranges
- [6] Dimatec Operating parameters
- [7] Boart Longyear Exploration underground product range
- [8] Boart Longyear Wireline core retrieval systems
- [9] Epiroc Reverse circulation bits and pipes
- [10] Mincon Reverse circulation drilling products
- [11] Mincon Exploration drilling and sample tube systems
- [12] Matex Diamond drilling products
- [13] Epiroc Christensen CS14 customer application
- [14] Core Case Core storage product range

Catalogue conditions

This edition is a selection and quotation reference, not a manufacturing drawing or an operating manual. Unspecified dimensions, tolerances, materials, heat treatment, performance ratings and wear limits remain subject to the actual supplier's data. Confirm the complete assembly before approving an order.

Manufacturer names and system designations identify reference equipment and remain the property of their owners. No affiliation or authorization is implied. Illustrative kit quantities and proposed STT codes are original catalogue planning content. Prices, availability, certification and delivery terms are established on quotation.

STT Engineering Solutions
info@stteng.co.za | 060 935 6542
Edition 1 | 18 October 2026