Maximize your cutting productivity

Cutting tools catalogue 2025

SANDVIK

Table of content

Putting your safety first

The mining industry continues to demand even higher levels of safety and productivity. In order to meet these requirements, we work continuously to develop safer products, and to produce comprehensive manuals on the safe and effective use of our products.

It's all about everyone's health
Helping you to ensure a safer workplace and healthier workforce is of the utmost importance to us. The wellbeing of any person coming into contact with our equipment is paramount. Therefore, we strive to identify and assess potential risk factors that could threaten the health of you and your employees.
All products in this catalogue are designed to meet safety requirements.

Be aware of all safety procedures
We ask that you start by obeying all instructions given. Never work under an unsupported roof or close to potential pinch point locations. Beware of the potential hazards of a loose roof and ribs. Beware of possible coal burst. The use of temporary roof support is recommended. Scale down roof and ribs prior to bolting. It is important to bolt early in the mining process – as soon as it is safely and practically possible.
Safe work procedures should incorporate inspection – before the machine operates, and also through regular monitoring based upon mining conditions, safety and hazard management systems. Workers should be provided with safety information, instruction and training on transportation, installation, operational care and disposal of drilling tools.

Dress right from head to toe
You must wear appropriate personal protective equipment (PPE) at all times. This is what we strongly recommend to help avoid injury:

— Safety helmet
— Hearing protection
— Safety glasses
— Protective, high visibility clothing
— Respiratory protection
— Safety boots
— Safety gloves
— Any site-specific PPE as required

Make a risk analysis before you start
Pay attention to safety when planning all of your work. Before you start, always take the time to go through all operations. Identify any potential risks and take appropriate measures to avoid them.
If necessary, seek expert advice on how to help minimize risks. Finally, make sure that you have the right resources to perform all tasks in the safest manner possible.

Working with safety in mind

Lifting
Use the correct safe lifting practices when working with heavy items. Consider your body position, the awkwardness of the item, and its weight. Are two people required for the job, or is a lifting device needed? Be aware that tools can fall out of their containers during lifting.

Installation
Cemented tungsten carbide tipped tools have tough, wear-resistant edges. These can fracture or cause hard objects, such as steel hammers, to chip when struckduring the installation or removal process.
During installation, spring-tensioned clips can become dislodged, leading to the risk of crushing a finger. Use a brass or copper hammer to reduce this risk. Wear safety glasses and gloves as standard.

Use
- Do not come into contact with any rotating components. This to reduce the risk of entanglement.
- Beware that rotating tools can break or become dislodged during use.
- Personal protective equipment (PPE) such as eye protection and suitable clothing should be worn around machinery which uses carbide tipped tools.
- We recommend that you set up a barrier between the cutting drum and the mines personnel. Do this either by placing flexible shielding next to the cutting drum to catch flying objects from the cutting area, or through appropriate PPE.
- Rock cutting generates dust. Some dust is hazardous if inhaled. The use of water spray or exhaust ducting and suitable PPE is always recommended.
- Rock cutting generates noise: suitable hearing protection is recommended.
- The cutting of rock, particularly pyrites and sandstone, can generate heat that may ignite methane in the mine, which in turn can lead to an explosion. Selection of the correct pick design can significantly minimize the risk of frictional ignition during the cutting cycle. Our range contains a variety of designs that minimize this risk: they are suitable for continuous/bolter miners, road headers and long wall shearers.
- A blunt, worn, bent, cracked or damaged pick or pick block can significantly increase the risk of frictional ignition and must be replaced immediately. Safe work and operational procedures should incorporate an inspection of the machine picks and pick blocks before use, and regular monitoring and review, based upon mining conditions, mine health and safety management systems requirements and hazard management plans. Workers should be provided with safety information, instructions, and training on the transport, installation, operational care and use, service and maintenance and removal of machine picks and pick blocks.
- Inspect tools before use and at regular intervals. If they are loose, dull, bent, cracked, burred, or otherwise unsuitable, DO NOT USE THEM! Replace them.

Blocks/sleeves
Do not use these if they are cracked, bent, or damaged. The use of tools in holders with excessively worn bores can cause loss of the cutting tool while it is in use, thereby creating a dangerous situation.

Boards
Do not use boards if they are cracked, bent or damaged. The use of tools in boards with excessively worn bores can cause loss of the cutting tool while it is in use, thereby creating a dangerous situation.

Grinding
Our rock tools have drill bits with cemented carbide tips. Cemented carbide is made up of tungsten carbide and cobalt. Grinding tips will produce hazardous substances and particles. These can be inhaled or swallowed, or come into contact with the skin or eyes. Wear protective gloves, protective clothing and eye protection. In case of inadequate ventilation wear respiratory protection. In particular, avoid dry grinding.

Dealing with worn parts
Worn parts should be removed and disposed of appropriately. Your used tools can be recycled. Please contact your local Sandvik Mining representative for support and further information **about how to recycle tools.**

Storing
All products should be stored in a dry place and in their original packaging until required for use.

Health and safety information

Routes of exposure
Grinding or heating hardmetal blanks or hardmetal products will produce dust or fumes with dangerous ingredients that can be inhaled or swallowed, or which might come in contact with the skin or eyes.

Acute toxicity
The dust is toxic by inhalation. Inhalation may cause irritation and inflammation in the airways. Skin contact can cause irritation and rash. Sensitized people may experience an allergic reaction.

Chronic toxicity
Repeated inhalation of aerosols containing cobalt may cause obstruction in the airways. Prolonged inhalation of increased concentrations may cause lung fibrosis or lung cancer. Cobalt is a potent skin sensitizer. Repeated or prolonged contact can cause sensitization.

Classification
Following hazard classification according to GHS/CLP applies to the hardmetal powder (3 % ≤ Co < 10 %):

— Acute Inhalation 3, H331: toxic if inhaled
— Carcinogenicity 1B, H350i, may cause cancer by inhalation
— Repr. 2, H361f; Suspected of damaging fertility
— STOT RE 1, H372: causes damage to lungs through prolonged or repeated exposure through inhalation
— Resp. Sens. 1B, H334: may cause allergy or asthma symptoms or breathing difficulties if inhaled
— Skin Sens. 1, H317: may cause an allergic skin reaction
— Aquatic Acute 1, H400: very toxic to aquatic life
— Aquatic Chronic 2, H411: toxic to aquatic life, with long lasting effects

Precautionary statements
— Do not breathe the dust
— Wear protective gloves/protective clothing/eye protection
— In case of inadequate ventilation, wear respiratory protection
— Avoid release into the environment
— Beware of the dangers from fluid injection

IF INHALED: if breathing is difficult, remove the victim to fresh air and keep them at rest in a position comfortable for breathing. If they are experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.

Sandvik rock tools: a sustainable choice

Sandvik is committed to contributing to a sustainable world. This commitment is summarized by our sustainability agenda for 2030 with goals in four areas: “Make the Shift”.

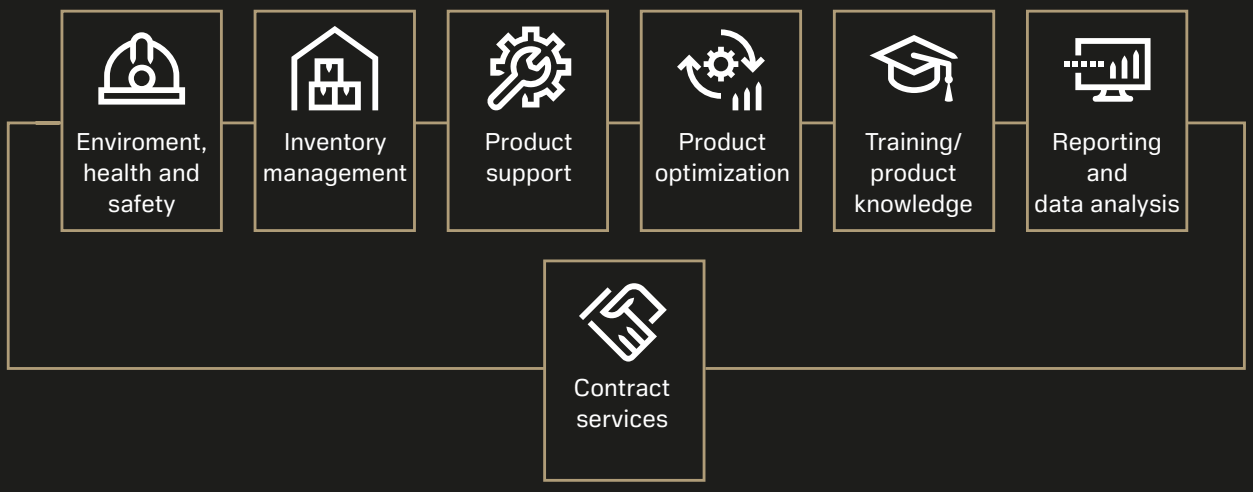
Global carbide recycling
Sandvik Rock Tools is world-leading in recycling cemented carbide. We view our customers’ waste problem as an opportunity. By finding ways to make our own and our customers’ businesses more energy efficient and environmentally friendly, we can grow together with high ethics and brand recognition.

The benefits are great with making tools from recycled solid carbide:
— 70 % less energy
— 40 % less CO_2 emissions

Optimized logistics chain
Sandvik Rock Tools work closely with both customers and suppliers to optimize the entire logistics chain in order to reduce our global footprint. Between 2017 and 2019, Sandvik Rock Tools reduced its airfreight with 140 %, and in all transportation we have reduced the CO2 emissions with more than 33 %!

Rock tools services

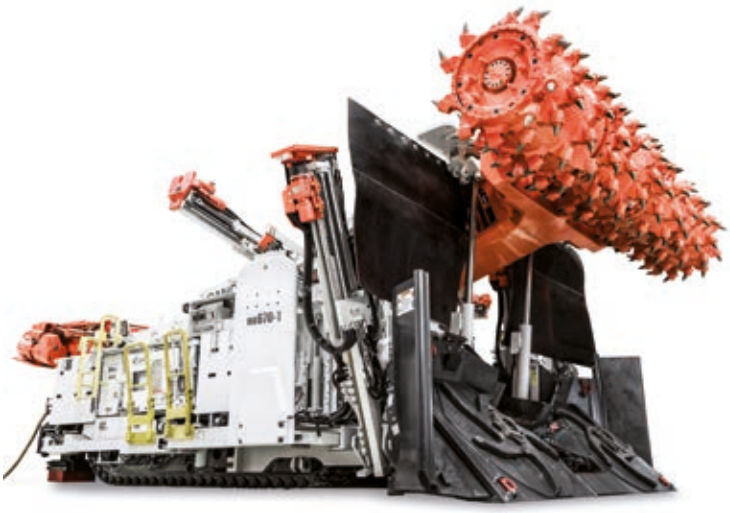
Sandvik is a world-leader in the supply of mining and rock excavation tools and equipment. In addition to supplying your operation with the premium brand of rock tools, our range of added services and digital solutions support your drilling operations, everyday – all year round. And we can also take full responsibility for the supply and life cycle management of your tools with our Rock Tools Contract Services. Overall, we do everything we can to ensure you get maximum life, productivity and performance from your rock tools, so that you can achieve the lowest total drilling costs. With Sandvik Rock Tools Services, you will never work alone.



Mechanical cutting that keeps business moving

Our comprehensive range of mechanical cutting equipment will keep your operations moving forward. With optimized cutting technology and equipment designs you can expect higher productivity, longer service life and lower operating costs.

Bolter miners
Sandvik MB series bolter miners are electrically powered, track-mounted continuous mining machines designed to excavate roadways and install roof bolts simultaneously. They are safer, uniquely efficient, high-capacity solutions for both rapid entry development in longwall mining and full-scale production in room-andpillar mining. Since the cutter drum is mounted on a hydraulically actuated sliding frame, it is able to sump into the face independently of the mainframe and tracks. And since the roof and rib bolters are mounted on the stationary mainframe, they can be operated throughout the cutting cycle.
According to country regulations the machines can be delivered with FLP (flameproof) certifications from various international approval authorities.



Continous miners
Our electrically-powered, track-mounted continuous miners are designed to cut coal and soft minerals continuously, eliminating the need for drill-and-blast. Using advanced cutting technology, they cut and gather the material simultaneously and convey it into shuttle cars, haul trucks or a continuous haulage system. Extremely productive and reliable, they are used for full-scale production in room-andpillar operations.
According to country regulations the machines can be delivered with FLP (flameproof) certifications from various international approval authorities.

Roadheaders
Sandvik roadheaders are extremely powerful rock-cutting machines designed to excavate roadways, tunnels and chambers continuously without using explosives. They are equipped with powerful, geometrically optimized, transverse cutter heads proven to give the best cutting performance in a wide range of rock formations. Powered electro-hydraulically, they emit no fumes and are used extensively in coal mining, mineral mining and underground construction projects, where their ability to excavate the desired profile without causing harmful vibrations is highly valued for both environmental and safety reasons. The roadheaders are available as PLC (programmable logical controlled) or hydraulically controlled machine.
According to country regulations the machines can be delivered with FLP (flameproof) certifications from various international approval authorities.

Borer miners
The Sandvik borer miner MF type is a boring type, variable height and width machine that cuts and delivers material to auxiliary haulage equipment in a truly continuous operation. The machine can be used to drive entries, mine rooms and extract pillars headings as rapidly as haulage equipment can remove material to the main haulage way. The instantaneous advance rate of the machine can be as high as 23.5 mt per minute or 0.5 meters per minute (borer miner MF420).

We have a wide range of rigs available. Please contact your local representation for more information.

The industry's most powerful carbide grades

Sandvik was the first company in history to manufacture rock tools with cemented carbide. We are now very proud to gather our most powerful carbide grades under one name: PowerCarbide.

Our PowerCarbide consists of the grades DP55, DP65, GC80, SH69, SH70, SH75, XT49, XT53, XT70 and XT90, representing the very best materials technology we have to offer – regardless of drilling operation.

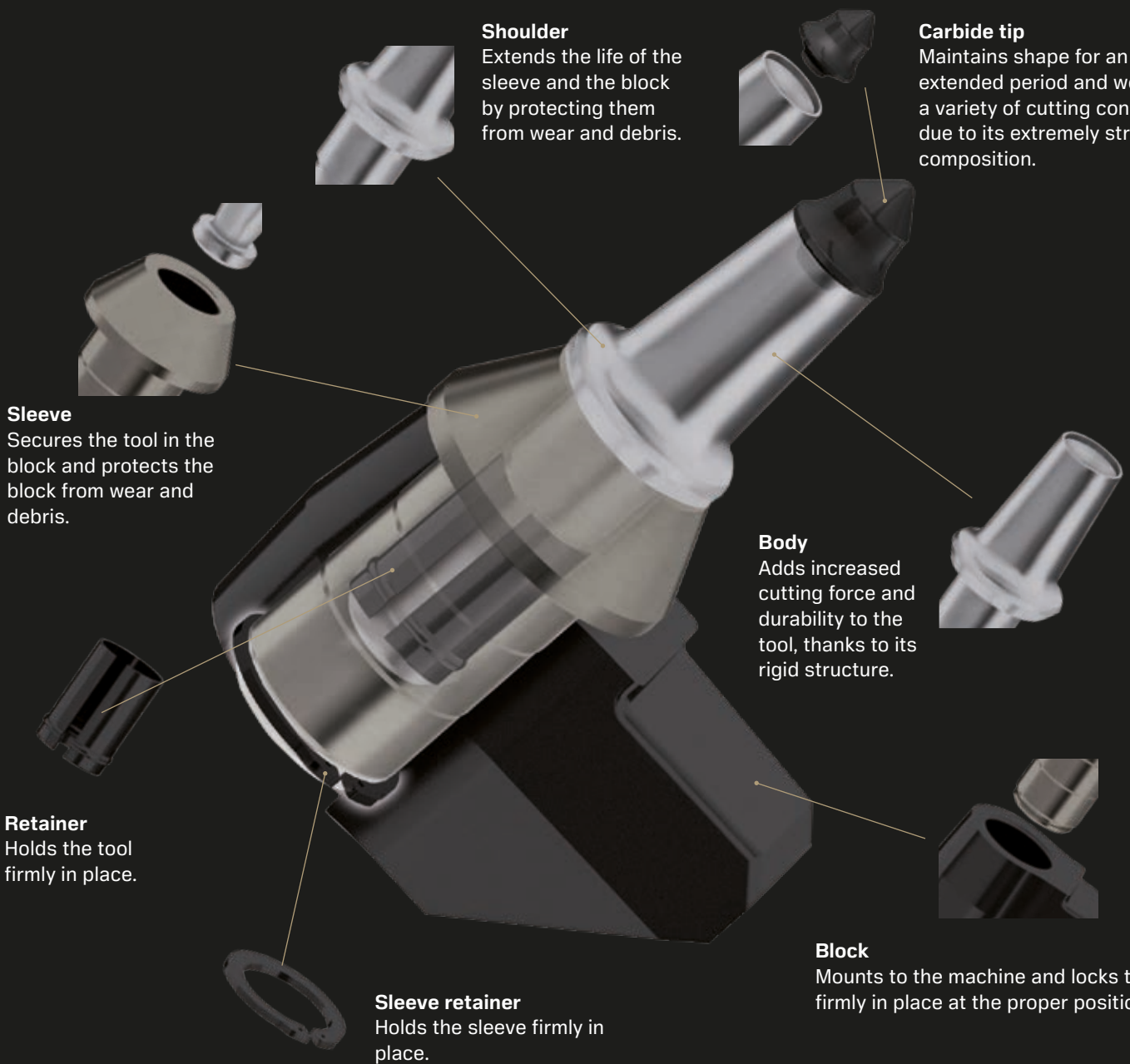
We have more R&D capacity for cemented carbide development than anyone else in the industry. Controlling the entire chain, all the way from our own tungsten mine to the production of drill bits, is a unique enabler for developing rock tools.

Our global carbide recycling system is exclusive for the industry and contributes to a sustainable future and the most advanced range of carbides allows us to supply our customers with the ideal solution, tailored to their conditions.

XT70 and XT90
The XT70 is a grade perfect for cutting in hard and abrasive rock, and offers the best high temperature wear resistance of all hard metal grades for longest pick wear life. The XT90 works at its best in hard to very hard but less abrasive minerals. It is also a snakeskin stopper. The toughest cutting grade.

Conical mining tool systems

Find the perfect tool for you
The key to achieving maximum productivity is having the right tool. We offer a wide selection of advanced conical mining tools that can effectively match your application. Our tool system consists of high-quality components which help you to achieve greater efficiency. To find the best tool for your machine and your job, take a look at our detailed Tool Selection Guide on page 28.



Shoulder
Extends the life of the sleeve and the block by protecting them from wear and debris.

Carbide tip
Maintains shape for an extended period and works in a variety of cutting conditions due to its extremely strong composition.

Sleeve
Secures the tool in the block and protects the block from wear and debris.

Body
Adds increased cutting force and durability to the tool, thanks to its rigid structure.

Retainer
Holds the tool firmly in place.

Block
Mounts to the machine and locks the tool firmly in place at the proper position.

Sleeve retainer
Holds the sleeve firmly in place.

Carbide tips

Hybrid

CAP

Insert

Hybrid
Our hybrid tip combines the best properties of our CAP and insert carbide tips. They are best suited for medium to hard materials where steel wash can be an issue. They include a flared nose, valve seat braze joint and extended base to provide excellent penetration while maintaining maximum strength, shear resistance and durability in difficult conditions.

CAP
Our market leading CAP carbide tips are best suited for soft to medium-hard materials and applications. A valve seat braze joint increases strength and shear resistance. These tips offer superior penetration, and the larger carbide shoulder provides excellent protection against steel wash.

Insert
Insert carbide tips prevail in high impact conditions or when you are working with hard materials. These industry-leading tips are ideal for penetration applications where steel wash is not an issue.

Components

Slender

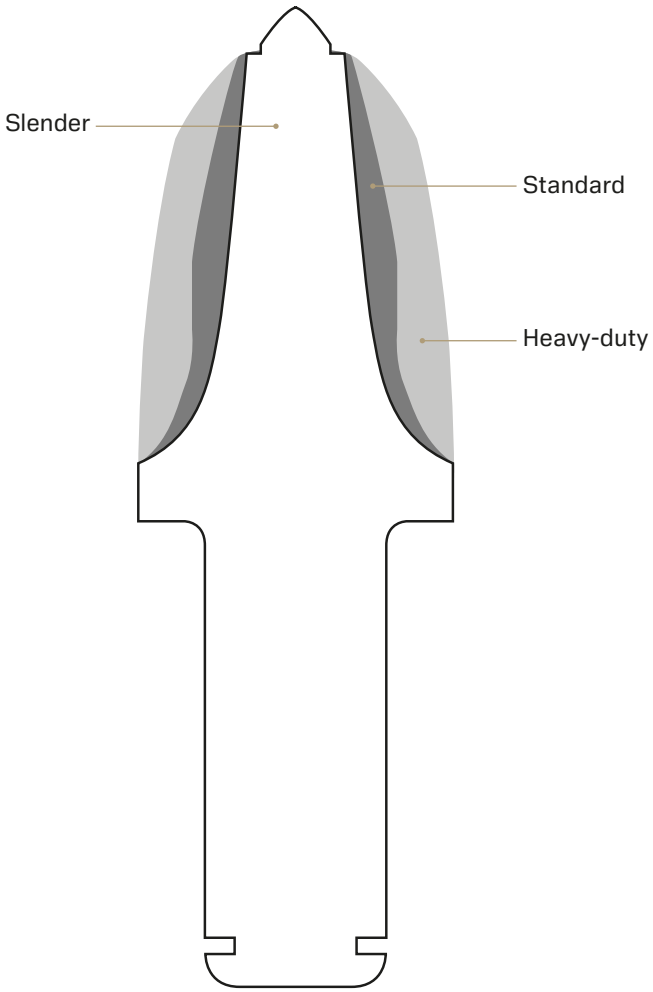
Standard

Heavy-duty

Tool bodies
We offer the following range of body types to match your machine and application:

— Slender: provides better breakout and penetration while producing fewer fines
— Standard: provides a powerful combination of penetration and durability
— Heavy-duty: provides greater strength and maximum durability

These body types are available in solid and/or finned body styles to meet your requirements and personal preferences. We also offer versions with step shanks to match your machine specifications.



Chamfer/standard

Puller

Wide

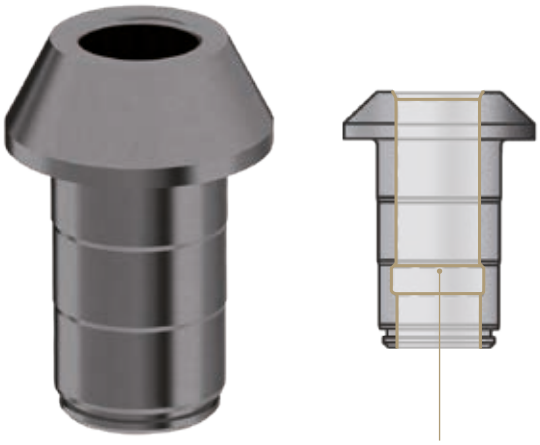
The tool shoulder is designed to extend the wear life of the sleeve and block by deflecting material and debris away, and by reducing build-up at the base of the tool. Our standard shoulder design provides excellent sleeve and block protection, but for extreme applications and environments our wide shoulder design delivers an increased level of protection.

Simplified tool replacement
Our full line of puller and extractor accessories makes it easy for you to change tools.

Retainers

Bumped/raised retainer
An internal retainer made of either metal or plastic that fits on the tool shaft and has a raised section which snaps into a groove within the sleeve, creating a positive lock for better retention.

Friction retainer
We have numerous internal friction retainers which hold the tool in the sleeve, and which are determined by the sleeve design.



Sleeves
Sleeves extend block life by minimizing its exposure to wear, protecting it from material and debris. The block's shape, style and measurements determine the type of sleeve that is required for your machine. Your block also determines whether you should use a slip-fit sleeve that uses an external retainer to hold it in place, or a press-fit sleeve, which does not require a retainer.

External retainer
External retainers provide maximum tool retention and are placed on the grooves at the end of the tools after they are placed in their sleeves. There are many different styles of external retainers available: hairpin, hose clamp, and snap-ring. All of these retainers are available in metal, with some also available in plastic. We can provide accessories to help you install and remove these retainers.

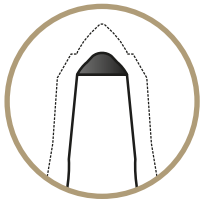
Blocks
Blocks are welded to the machines, holding the sleeves and tools in their proper positions. A block is protected by the sleeve and the shoulder of the tool, which help to extend its life and minimize the need for replacement.

What to consider when working with tools

Check the water spray system (proper flow and pressure, plugged nozzles, etc.).

Check tool rotation.

Change sleeves before they display excessive wear. Wallowed bores will inhibit tool rotation and retention.



Change tools before they fail. A broken tool used during operation can damage the entire system, and any tools that replace it. Consult the tool wear guide on next page.

Make sure that you are using the right tool for your conditions. Consult the tool selection guide on page 28, or contact your local Sandvik representative to help find the best equipment for your needs.

Tool performance and life
To get the most out of your tools, please make sure that they are checked thoroughly and maintained well.

Tool selection parameters
The guidelines below provide a suggested reference to help you choose between tools. Many other factors affect tool performance, including the drum condition, water flow, rock abrasivity and machine power. The best way to find the tools that suits your requirements is by contacting your local Sandvik representative.

Hardness classification for rock

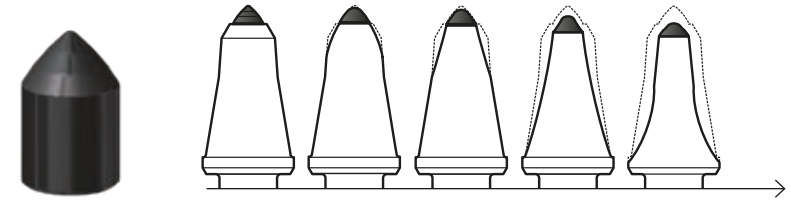
Description	Compressive strength (MPA)
Soft	σ_c <30
Medium	20 < σ_c < 50
Hard	40 < σ_c < 80
Extreme	70 < σ_c

Abrasivity classifications for rock

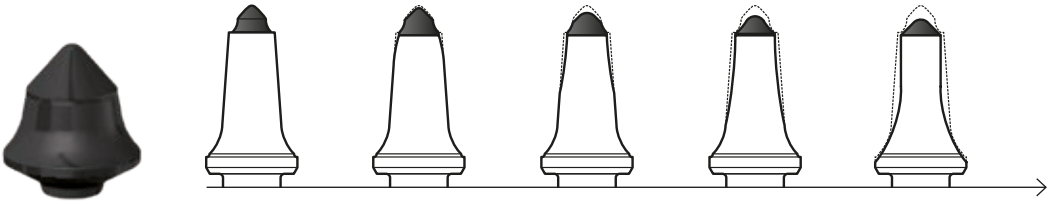
Description	Cherchar abrasivity index value (CAI)
Low	CAI < 1.0
Moderate	1.0 < CAI < 2.0
High	2.0 < CAI < 3.0
Extreme	3.0 < CAI

Warning
Cemented carbide tipped tools have extremely hard and wear-resistant edges that may fracture, or cause less hard objects (such as steel hammers) to chip when struck during installation or removal.

Tool wear



Wear over time*



Wear over time*

*Results may vary. Based on typical medium abrasiveness.

Maximized use and optimized safety

XT-Grade

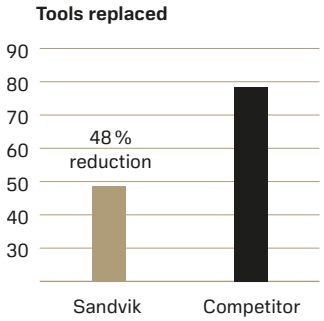
Hybrid

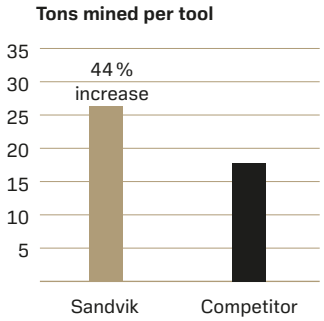
XT-Grade
Our XT-Grade (XT = Extra Tough), with its high wear resistance and optimized toughness, has proven to be 1.5 to 3 times more effective than other products on the market for hard-to-extreme tunnelling, trenching and coal mining applications.

Hybrid
The new hybrid tools offer a blend of efficient cutting from the Sandvik patented cap design with the durability and long life of our insert style tip. Eliminating the need to stop and change tools. They are robust and feature an optimized profile for speed and productivity.

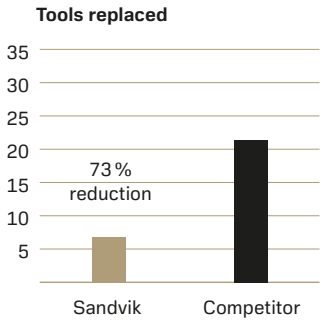
No ground conditions are too togh

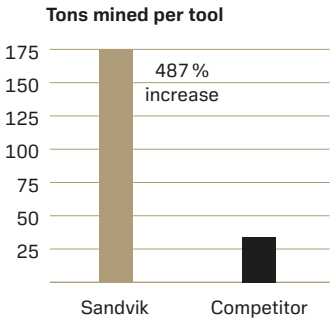
Medium rock
Coal with hard shale and sandstone
— Condition: 762 mm (30") coal with 762 mm (30") hard shale and sandstone inclusions
— Mining: coal with continuous miner
— Method: room and pillar
— Sandvik tool: Q8KX-3084-5790 (XT-Grade)
— Competitor tool: standard grade (best equivalent with similar geometry)





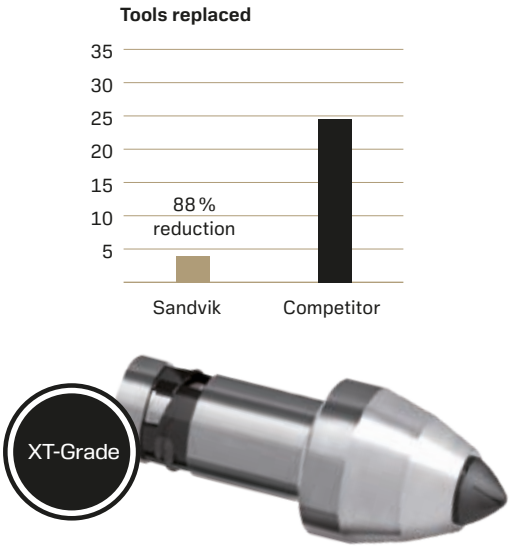
Medium rock
Coal with hard shale and sulfur balls
— Condition: 1,651 mm (65" coal with 1,092 mm (43") hard shale and sulfur balls (carbonate nodules)
— Mining: coal with continuous miner
— Method: room and pillar
— Sandvik tool: Q8KX-3084-5062 (standard grade)
— Competitor tool: standard grade (best equivalent with similar geometry)





Medium rock
Coal with hard shale, sandstone and hard soapstone
— Condition: 127 mm (5") coal with 457 mm (18") medium shale, 305 mm (12") sandstone, 305 mm (12") hard soapstone (steatite)
— Mining: coal with continuous miner
— Method: room and pillar
— Sandvik tool: Q8KF-3084-5762 (standard grade)
— Competitor tool: standard grade (best equivalent with similar geometry)

Extreme hard rock
— Condition: silver with quartz veins and flintstone
— Mining: silver with a road header
— Method: room and pillar
— Sandvik tool: Q7AU-3870-1790 (XT-Grade)
— Competitor tool: standard grade (best equivalent with similar geometry)



Mining

Tool selection guide

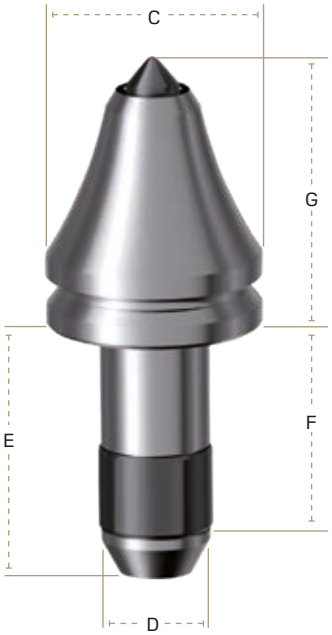
Choosing the right tool for the job
Use this chart to educate and familiarize yourself with our tool types and numbering system, along with appropriate applications, conditions and power requirements.

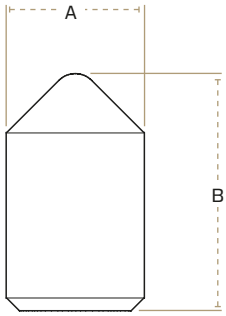
Product	Cutting condition				Retainer type			Tip type	Additional feature	Page
	Soft	Medium	Hard	Extreme	Friction	Bumped	External			
25 mm										
P8JA-2563-3262		•			•			Insert-NP32	Puller groove	30
30 mm										
P8AA-3084-5062			•			•		CAP-NP50		33
P8KD-3084-2162			•				•	Insert-NP21		35
P8KD-3084-2362			•				•	CAP-NP23		35
P8KD-3084-5162		•					•	Insert-NP51		35
Q2AA-3077-3962H			•			•		Insert-NP39	Hard facing	31
Q2AA-3077-4162			•			•		Insert-NP41	Extended shank	31
Q2AA-3077-5162			•			•		Insert-NP51	Extended shank	31
Q6AA-3084-2362			•			•		CAP-NP23		34
Q6JA-3077-5162		•			•			Insert-NP51		40
Q6XX-3090-5662			•				•	CAP-NP56	Extended shank, puller groove	39
Q6XZ-3090-7690				•			•	Hybrid-NP76	XT-Grade, washer, puller groove	38
Q8KD-3070-4962			•				•	Insert-NP49		35
Q8KD-3070-5662			•				•	CAP-NP56		35
Q8KD-3070-7562		•					•	Hybrid-NP75		35
Q8KD-3070-7690				•			•	Hybrid-NP76	XT-Grade	35
Q8KD-3085-4562		•					•	CAP-NP45		35
Q8KD-3085-5662			•				•	CAP-NP56		35
Q8KF-3084-5762		•					•	CAP-NP57	Finned body	35
Q8KX-3070-5690				•			•	CAP-NP56	XT-Grade	35
Q8KX-3084-1862	•						•	CAP-NP18		35
Q8KX-3084-5762		•					•	CAP-NP57		35
Q8KX-3084-7462		•					•	Hybrid-NP74		35
Q8KZ-3084-7462		•					•	Hybrid-NP74	Washer	36
Q8KZ-3084-7562			•				•	Hybrid-NP75	Washer	36
Q8MR-3070-4962			•				•	Insert-NP49	Extended shank	37
Q8TA-3070-5662			•			•		CAP-NP56	Puller groove	31
Q8TA-3070-7690				•		•		Hybrid-NP76	XT-Grade, puller groove	31
Q8TA-3089-4562		•				•		CAP-NP45	Puller groove	31
Q8TA-3089-4662	•					•		CAP-NP46	Puller groove	31
Q8TA-3089-4962			•			•		Insert-NP49	Puller groove	31
Q8TA-3089-7690				•		•		Hybrid-NP76	XT-Grade, puller groove	31
Q8TW-3090-7490				•		•		Hybrid-NP74	XT-Grade, washer, puller groove	32
Q8TW-3090-7590				•		•		Hybrid-NP75	XT-Grade, washer, puller groove	32
35 mm										
Q3JA-3589-4062W			•			•		Insert-NP40	Hard facing	43
Q3JA-3589-1762W			•			•		Insert-NP17	Hard facing	43
Q6MR-3500-2362			•				•	CAP-NP23	Puller groove	41

Product	Cutting condition				Retainer type			Tip type	Additional feature	Page
	Soft	Medium	Hard	Extreme	Friction	Bumped	External			
Q6MR-3500-4562			●				●	CAP-NP45	Puller groove	41
Q6MR-3500-4962			●				●	Insert-NP49	Puller groove	41
Q6MR-3580-2362			●				●	CAP-NP23	Puller groove	41
Q6MR-3580-3962			●				●	Insert-NP39	Puller groove	41
Q7AR-3502-2162		●				●		Insert-NP21		42
Q7AR-3502-2462	●					●		CAP-NP24		42
Q7AR-3502-5662			●			●		CAP-NP56		42
Q7AR-3589-1762			●			●		Insert-NP17		42
Q7AR-3589-1762H			●			●		Insert-NP17	Hard facing	42
Q7AR-3589-1770H				●		●		Insert-NP17	XT-Grade, hard facing	42
Q7AR-3589-3962			●			●		Insert-NP39		42
Q7AR-3589-6662			●			●		Insert-NP66		42
Q7AR-3589-6662H			●			●		Insert-NP66	Hard facing	42
Q7JA-3502-2162		●				●		Insert-NP21		43
Q7JA-3502-2362			●			●		CAP-NP23		43
Q7JA-3502-3962			●			●		Insert-NP39		43
Q7JA-3589-0862		●				●		Insert-NP08		43
Q7JA-3589-1762			●			●		Insert-NP17		43
Q7JA-3589-2162		●				●		Insert-NP21		43
Q7JA-3589-3962			●			●		Insert-NP39		43
Q7JH-3589-1762			●			●		Insert-NP17		43
Q7JK-3502-0862			●			●		Insert-NP08		44
Q7JW-3502-7462		●			●			Hybrid-NP74	Full length friction clip, washer	46
Q7JX-3502-5662			●		●			CAP-NP56		45
Q7MR-3502-7462		●					●	Hybrid-NP74		41
Q7MR-3502-7662			●				●	Hybrid-NP76		41
Q7ZR-3589-1962			●			●	●	Insert-NP19		47
Q7ZR-3589-1962H			●			●	●	Insert-NP19	Hard facing	47
Q7ZR-3589-1762H			●			●	●	Insert-NP17	Hard facing	47
43 mm x 35 mm										
Q5FZ-4314-5662			●		●			CAP-NP56	Full length friction clip, washer	48
Q3XA-4337-1762			●			●		Insert-NP17		49
Q3XA-4389-1762			●			●		Insert-NP17		49
Q3XA-4389-1762H			●			●		Insert-NP17	Hard facing	49
Q3XA-4389-1762W			●			●		Insert-NP17	Hard facing	49
Q3XA-4389-1962			●			●		Insert-NP19		49
Q3XA-4389-4062W			●			●		Insert-NP40	Hard facing	49
Q3XA-4389-6662			●			●		Insert-NP66		49
Q3XA-4389-6662H			●			●		Insert-NP66	Hard facing	49
Q3XG-4389-1762			●			●		Insert-NP17		49
Q3XH-4390-1770				●		●	●	Insert-NP17	XT-Grade, hard facing, dual retention	50
Crusher Picks										
P3CA-3863-0862			●				●	Insert-NP08	Washer	52
P3CL-3863-0862			●				●	Insert-NP08		52
P4LX-5235-1762			●				●	Insert-NP17		51
P7LX-5435-1762W			●				●	Insert-NP17	Washers, nut	51
Q4LX-5235-1762			●				●	Insert-NP17	Washer, nut (fine thread)	51
Q9LX-4524-2162			●				●	Insert-NP21	Washers, nylock nut	52
Radial Picks										
R1NG-3005-2262			●		●			Radial Insert-NR22	Radial tool	54

25 mm tool

Friction retainer

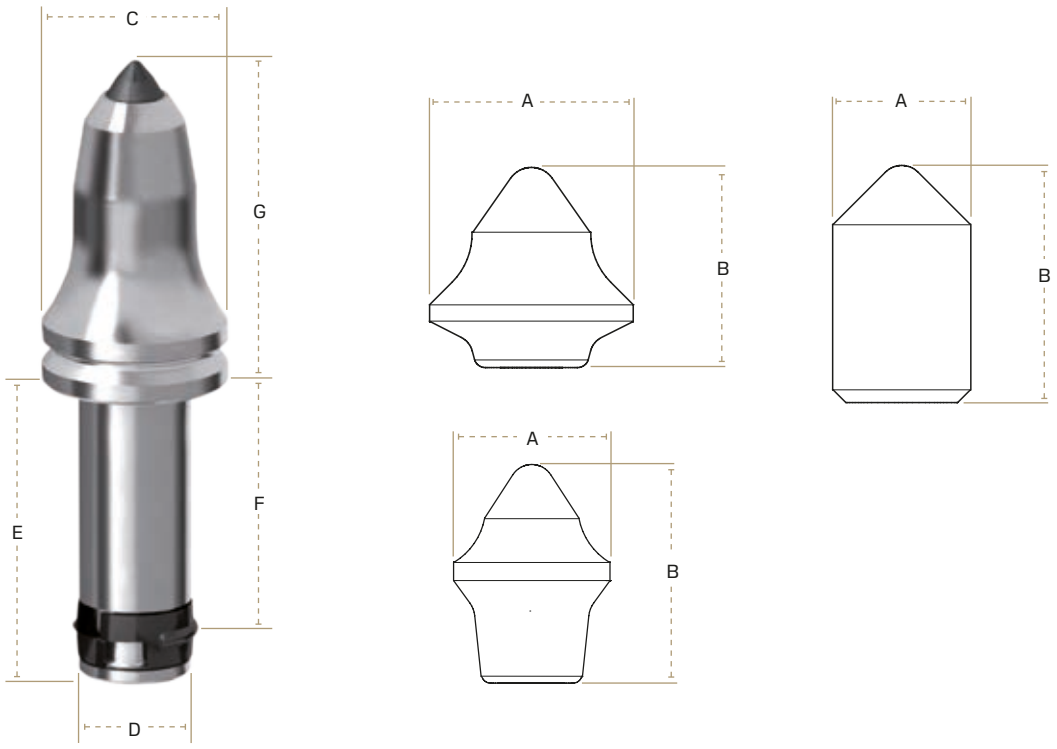




Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Medium	12 mm	22 mm	50 mm	25 mm	58 mm	48 mm	63 mm	P8JA-2563-3262	25	60	1,500

30 mm tool

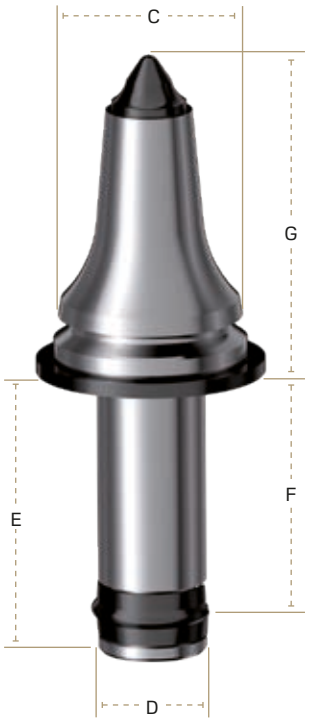
Bumped retainer – 68 mm to C/G

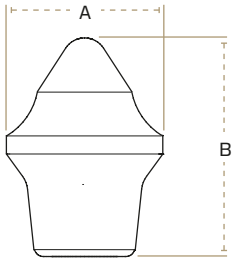


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	29 mm	33 mm	50 mm	30 mm	80 mm	68 mm	70 mm	Q8TA-3070-5662	15	60	900
Extreme	24 mm	34 mm	50 mm	30 mm	80 mm	68 mm	70 mm	Q8TA-3070-7690	15	60	900
Soft	20 mm	21 mm	50 mm	30 mm	80 mm	68 mm	89 mm	Q8TA-3089-4662	12	60	720
Medium	24 mm	24 mm	50 mm	30 mm	80 mm	68 mm	89 mm	Q8TA-3089-4562	12	60	720
Hard	16 mm	27 mm	50 mm	30 mm	80 mm	68 mm	89 mm	Q8TA-3089-4962	12	60	720
Extreme	24 mm	34 mm	50 mm	30 mm	80 mm	68 mm	89 mm	Q8TA-3089-7690	12	60	720
Hard	15 mm	26 mm	50 mm	30 mm	94 mm	68 mm	77 mm	Q2AA-3077-4162	12	60	720
Hard	16 mm	22 mm	52 mm	30 mm	94 mm	68 mm	77 mm	Q2AA-3077-5162	12	60	720
Hard	20 mm	34 mm	52 mm	30 mm	94 mm	68 mm	77 mm	Q2AA-3077-3962H	12	60	720

30 mm tool

Bumped retainer with washer – 68 mm to C/G

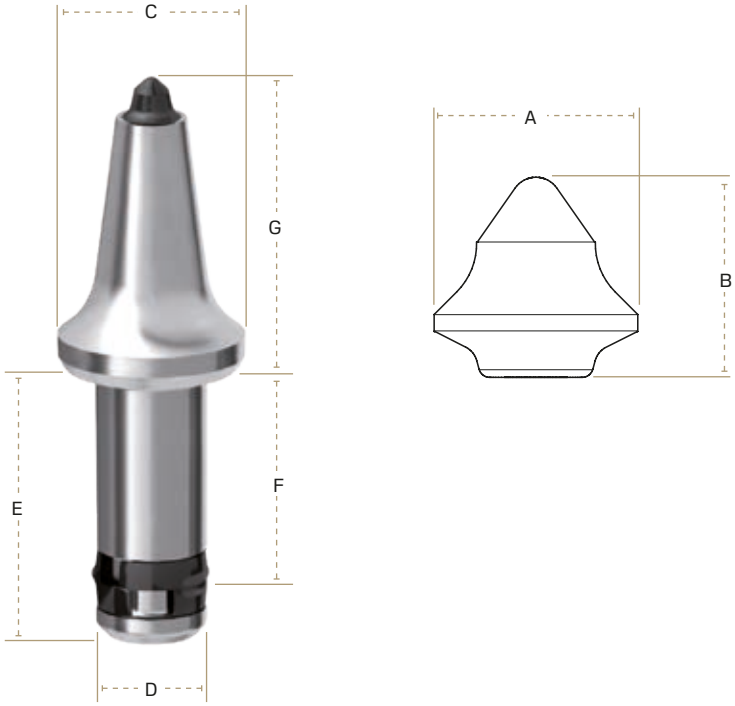




Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	18 mm	24 mm	54 mm	30 mm	80 mm	68 mm	90 mm	Q8TW-3090-7490	12	60	720
Extreme	21 mm	29 mm	54 mm	30 mm	80 mm	68 mm	90 mm	Q8TW-3090-7590	12	60	720

30 mm tool

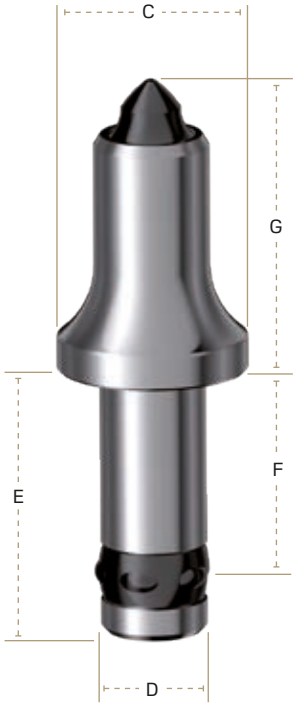
Bumped retainer – 58 mm to C/G

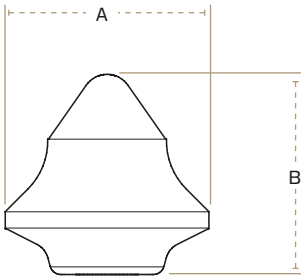


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	22 mm	29 mm	56 mm	30 mm	74 mm	58 mm	84 mm	P8AA-3084-5062	15	60	900

30 mm tool

Bumped retainer – 58 mm to C/G

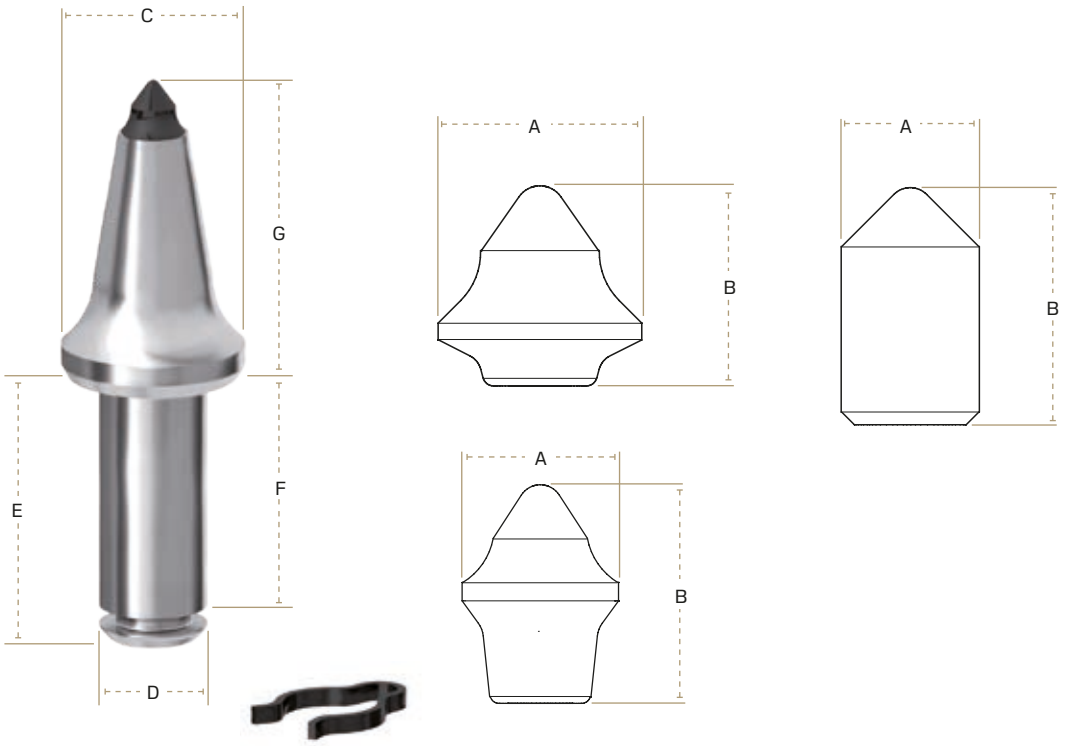




Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	24 mm	24 mm	54 mm	30 mm	76 mm	58 mm	84 mm	Q6AA-3084-2362	15	45	630

30 mm tool

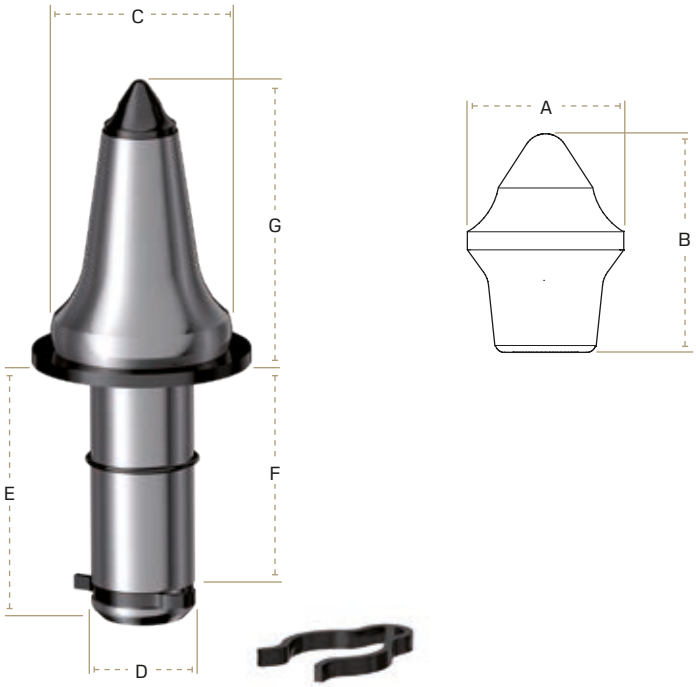
External retainer – to suit 65 mm long sleeves



Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	24 mm	38 mm	56 mm	30 mm	74 mm	65 mm	70 mm	Q8KD-3070-7690	15	60	900
Hard	16 mm	27 mm	50 mm	30 mm	80 mm	65 mm	70 mm	Q8KD-3070-4962	15	60	900
Hard	29 mm	33 mm	50 mm	30 mm	74 mm	65 mm	70 mm	Q8KD-3070-5662	15	60	900
Medium	21 mm	29 mm	56 mm	30 mm	74 mm	65 mm	70 mm	Q8KD-3070-7562	15	60	900
Medium	24 mm	24 mm	50 mm	30 mm	80 mm	65 mm	85 mm	Q8KD-3085-4562	15	60	900
Hard	29 mm	33 mm	50 mm	30 mm	80 mm	65 mm	85 mm	Q8KD-3085-5662	15	60	900
Extreme	29 mm	33 mm	55 mm	30 mm	74 mm	65 mm	70 mm	Q8KX-3070-5690	15	60	900
Medium	18 mm	21 mm	55 mm	30 mm	74 mm	65 mm	84 mm	Q8KX-3084-5762	15	60	900
Soft	16 mm	20 mm	51 mm	30 mm	74 mm	65 mm	84 mm	Q8KX-3084-1862	15	60	900
Medium	18 mm	24 mm	55 mm	30 mm	74 mm	65 mm	84 mm	Q8KX-3084-7462	15	60	900
Medium	18 mm	21 mm	55 mm	30 mm	76 mm	65 mm	84 mm	Q8KF-3084-5762	15	60	900
Hard	18 mm	29 mm	55 mm	30 mm	74 mm	65 mm	84 mm	P8KD-3084-2162	15	60	900
Medium	16 mm	22 mm	56 mm	30 mm	74 mm	65 mm	84 mm	P8KD-3084-5162	15	60	900
Hard	24 mm	24 mm	55 mm	30 mm	74 mm	65 mm	84 mm	P8KD-3084-2362	15	60	900

30 mm tool

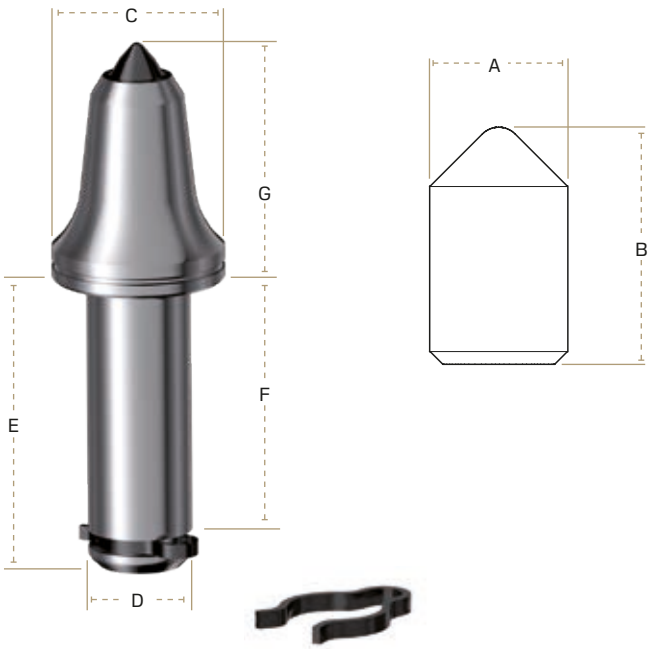
External retainer with washer – to suit 65 mm long sleeves



Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	21 mm	29 mm	53 mm	30 mm	76 mm	65 mm	84 mm	Q8KZ-3084-7562	15	60	900
Medium	18 mm	24 mm	53 mm	30 mm	76 mm	65 mm	84 mm	Q8KZ-3084-7462	15	60	900

30 mm tool

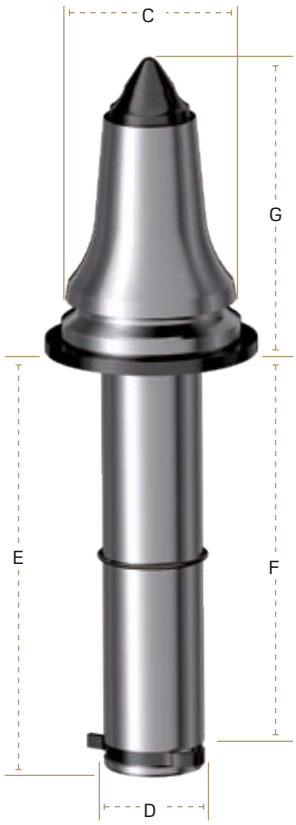
External retainer – to suit 75 mm long sleeves

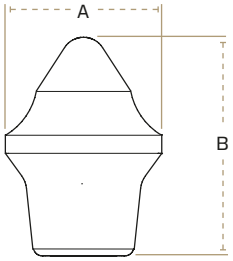


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	16 mm	27 mm	50 mm	30 mm	85 mm	74.5 mm	70 mm	Q8MR-3070-4962	15	60	900

30 mm tool

External retainer with washer – to suit 120 mm long sleeves

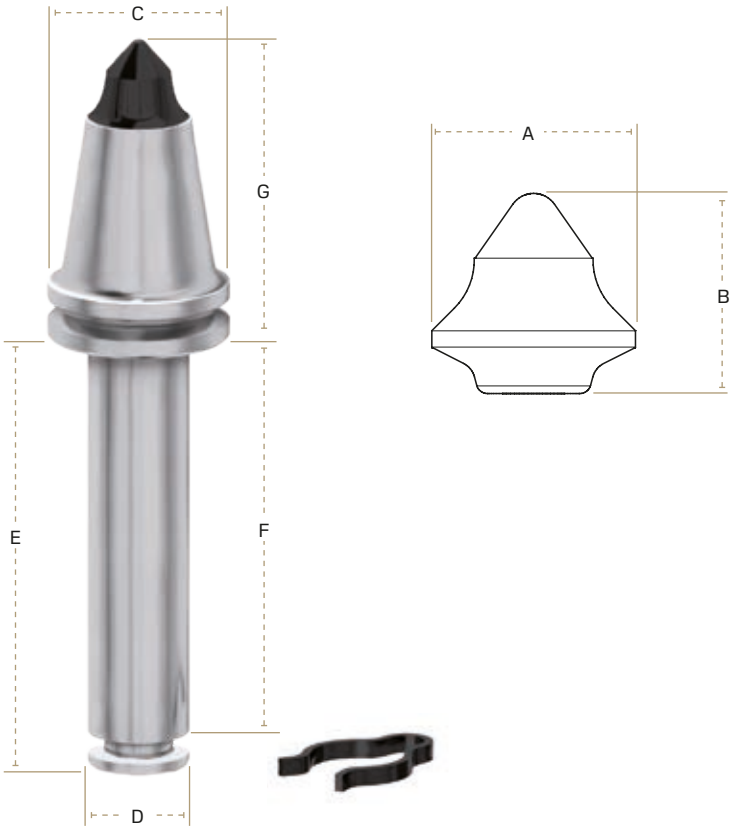




Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	24 mm	38 mm	54 mm	30 mm	128 mm	120 mm	90 mm	Q6XZ-3090-7690	8	60	480

30 mm tool

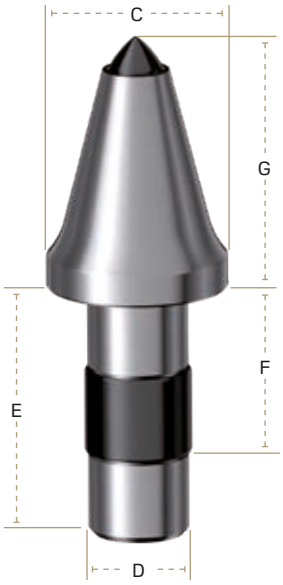
External retainer – to suit 120 mm long sleeves

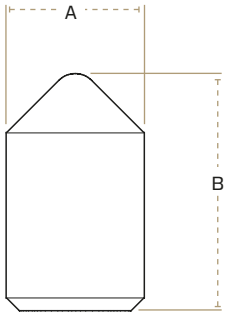


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	29 mm	33 mm	54 mm	30 mm	130 mm	120 mm	90 mm	Q6XX-3090-5662	8	36	288

30 mm tool

Friction retainer – to suit 120 mm long sleeves

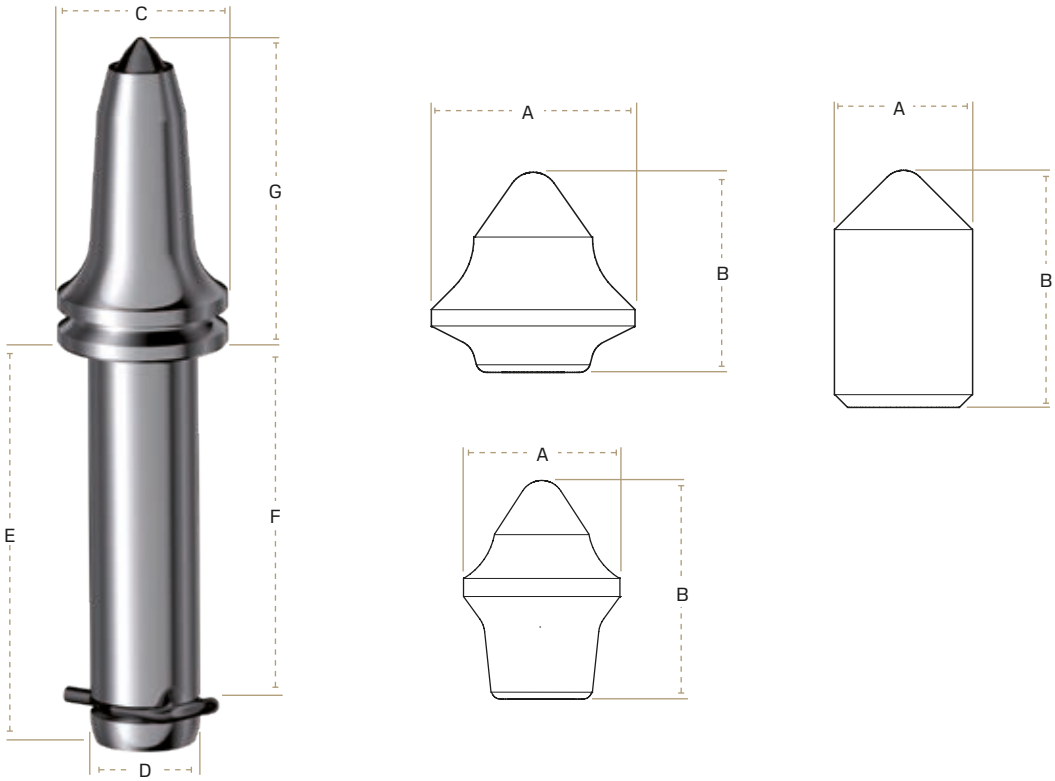




Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Medium	16 mm	22 mm	54 mm	30 mm	76 mm	52 mm	77 mm	Q6JA-3077-5162	15	45	630

35 mm tool

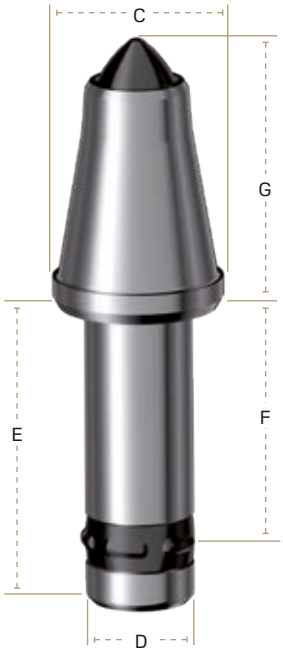
External retainer

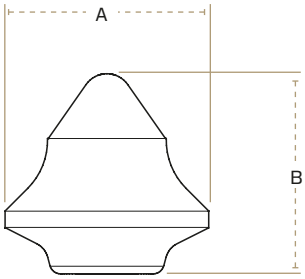


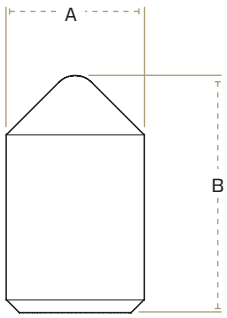
Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	16 mm	27 mm	54 mm	35 mm	130 mm	115 mm	100 mm	Q6MR-3500-4962	8	60	480
Hard	24 mm	24 mm	54 mm	35 mm	130 mm	115 mm	100 mm	Q6MR-3500-2362	8	60	480
Hard	24 mm	24 mm	54 mm	35 mm	130 mm	115 mm	100 mm	Q6MR-3500-4562	8	60	480
Hard	24 mm	24 mm	54 mm	35 mm	130 mm	115 mm	80 mm	Q6MR-3580-2362	8	60	480
Hard	20 mm	34 mm	54 mm	35 mm	130 mm	115 mm	80 mm	Q6MR-3580-3962	8	60	480
Hard	24 mm	38 mm	55 mm	35 mm	132 mm	115 mm	102 mm	Q7MR-3502-7662	8	60	480
Medium	18 mm	24 mm	55 mm	35 mm	132 mm	115 mm	102 mm	Q7MR-3502-7462	8	60	480

35 mm tool

Bumped retainer – 77 mm to C/G



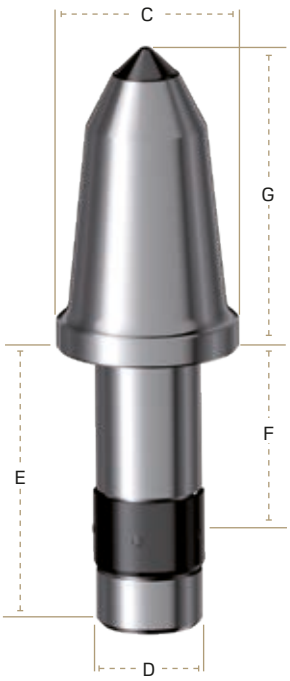


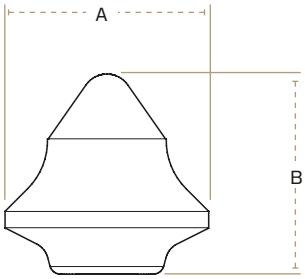


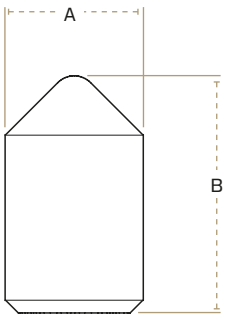
Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	25.6 mm	30 mm	55 mm	35 mm	98 mm	77 mm	89 mm	Q7AR-3589-6662	8	45	360
Hard	25.6 mm	30 mm	55 mm	35 mm	98 mm	77 mm	89 mm	Q7AR-3589-6662H	8	45	360
Hard	26 mm	35 mm	55 mm	35 mm	98 mm	77 mm	89 mm	Q7AR-3589-1762H	8	45	360
Hard	26 mm	35 mm	55 mm	35 mm	98 mm	77 mm	89 mm	Q7AR-3589-1762	8	45	360
Extreme	26 mm	35 mm	55 mm	35 mm	98 mm	77 mm	89 mm	Q7AR-3589-1770H	8	45	360
Hard	19.7 mm	33.8 mm	60 mm	35 mm	94 mm	77 mm	89 mm	Q7AR-3589-3962	8	45	360
Medium	18 mm	29 mm	60 mm	35 mm	94 mm	77 mm	102 mm	Q7AR-3502-2162	8	45	360
Hard	29 mm	33 mm	55 mm	35 mm	98 mm	77 mm	102 mm	Q7AR-3502-5662	8	45	360
Soft	16 mm	17 mm	55 mm	35 mm	98 mm	77 mm	102 mm	Q7AR-3502-2462	8	45	360

35 mm tool

Bumped retainer – 62 mm to C/G



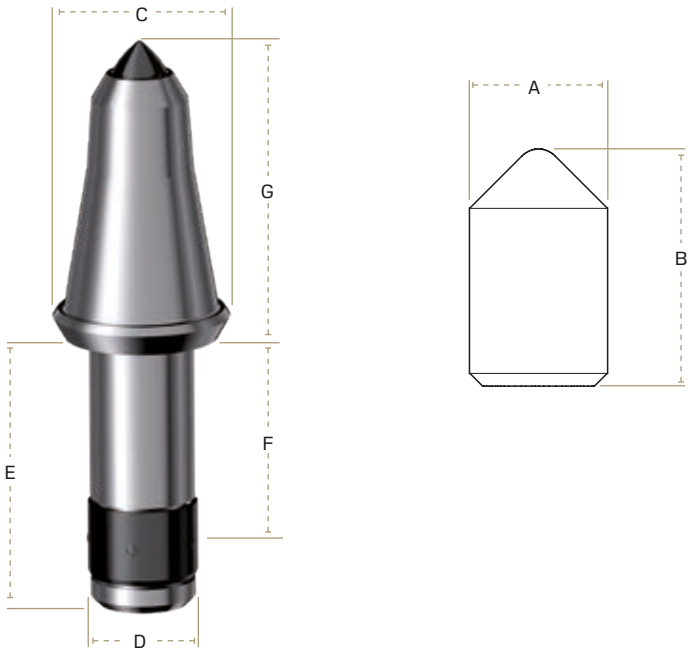




Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	19.7 mm	33.8 mm	60 mm	35 mm	94 mm	62 mm	102 mm	Q7JA-3502-3962	8	45	360
Hard	24 mm	24 mm	60 mm	35 mm	94 mm	62 mm	102 mm	Q7JA-3502-2362	8	45	360
Medium	18 mm	29 mm	60 mm	35 mm	94 mm	62 mm	102 mm	Q7JA-3502-2162	8	45	360
Medium	18 mm	22 mm	55 mm	35 mm	94 mm	62 mm	89 mm	Q7JA-3589-0862	8	45	360
Hard	26 mm	35 mm	55 mm	35 mm	94 mm	62 mm	89 mm	Q7JA-3589-1762	8	45	360
Medium	18 mm	29 mm	55 mm	35 mm	94 mm	62 mm	89 mm	Q7JA-3589-2162	8	45	360
Hard	19.7 mm	33.8 mm	60 mm	35 mm	94 mm	62 mm	89 mm	Q7JA-3589-3962	8	45	360
Hard	26 mm	35 mm	55 mm	35 mm	94 mm	62 mm	89 mm	Q7JH-3589-1762	8	45	360
Hard	30.4 mm	38 mm	65 mm	35 mm	94 mm	62 mm	89 mm	Q3JA-3589-4062W	8	45	360
Hard	26 mm	35 mm	65 mm	35 mm	94 mm	62 mm	89 mm	Q3JA-3589-1762W	8	45	360

35 mm tool

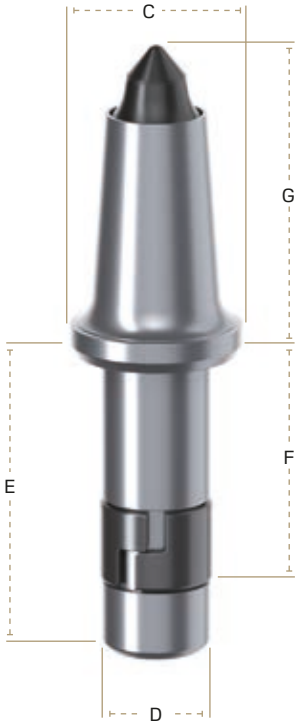
Bumped retainer – 69 mm to C/G

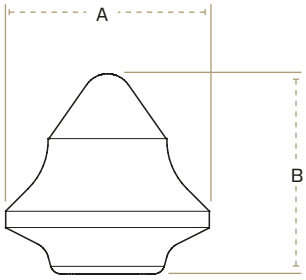


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	18 mm	22 mm	60 mm	35 mm	92 mm	69 mm	102 mm	Q7JK-3502-0862	8	45	360

35 mm tool

Friction retainer

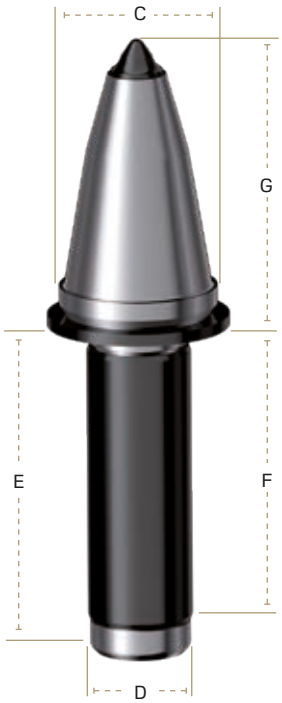


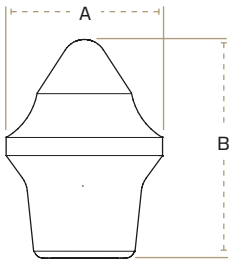


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	29 mm	33 mm	55 mm	35 mm	98 mm	76 mm	102 mm	Q7JX-3502-5662	8	60	480

35 mm tool

Full length friction retainer with washer

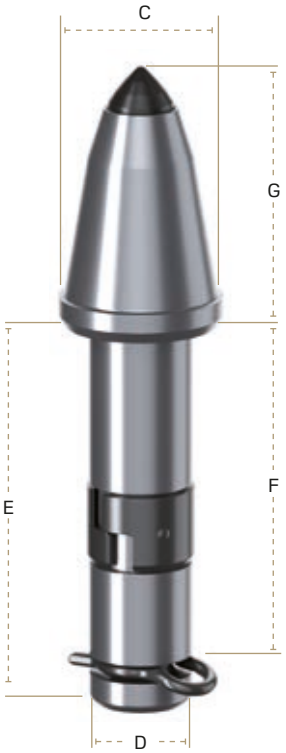


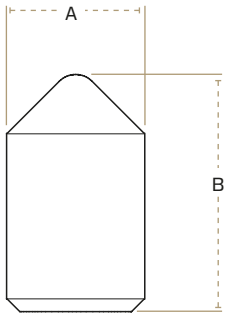


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Medium	18 mm	24 mm	55 mm	35 mm	117 mm	106 mm	102 mm	Q7JW-3502-7462	8	60	480

35 mm tool

Dual retention

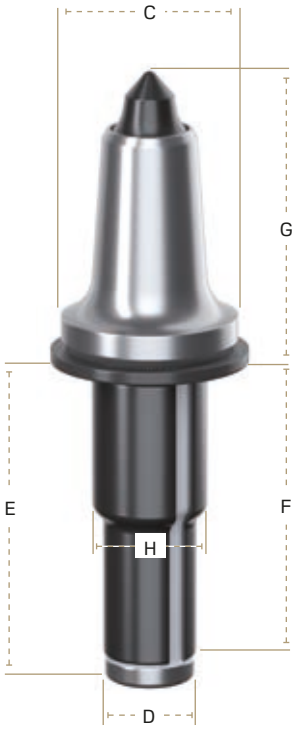


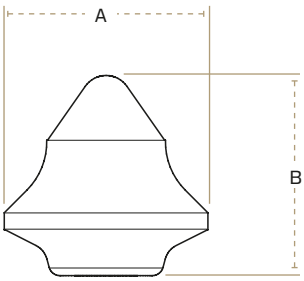


Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	22 mm	34.8 mm	55 mm	35 mm	132 mm	155 mm	89 mm	Q7ZR-3589-1962	8	60	480
Hard	22 mm	34.8 mm	55 mm	35 mm	132 mm	155 mm	89 mm	Q7ZR-3589-1962H	8	60	480
Hard	26 mm	35 mm	55 mm	35 mm	132 mm	155 mm	89 mm	Q7ZR-3589-1762H	8	60	480

43 mm x 35 mm tool

Full length friction retainer with washer

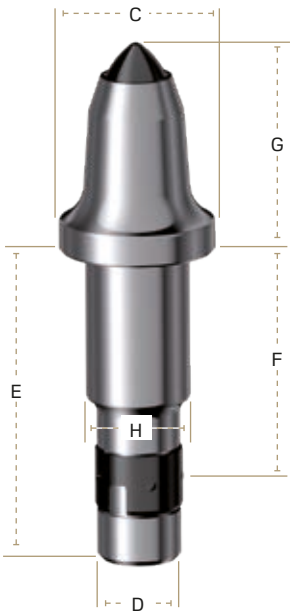


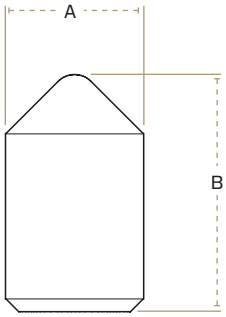


Cutting conditions	A	B	C	D	E	F	G	H	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	29 mm	33 mm	68 mm	35 mm	128 mm	124 mm	114 mm	43 mm	Q5FZ-4314-5662	5	45	225

43 mm x 35 mm tool

Bumped retainer

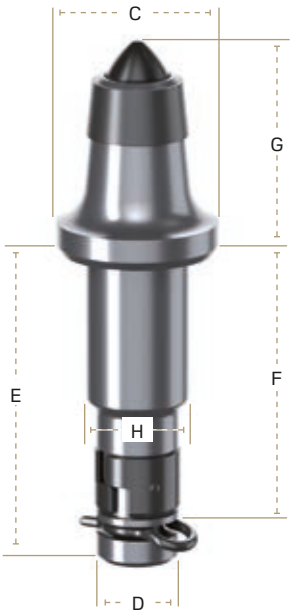


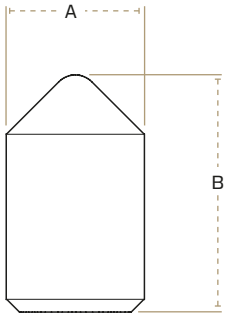


Cutting conditions	A	B	C	D	E	F	G	H	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	26 mm	35 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-1762	5	45	225
Hard	22 mm	34.8 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-1962	5	45	225
Hard	26 mm	35 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-1762H	5	45	225
Hard	25.6 mm	30 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-6662	5	45	225
Hard	25.6 mm	30 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-6662H	5	45	225
Hard	26 mm	35 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XG-4389-1762	5	45	225
Hard	26 mm	35 mm	68 mm	35 mm	133 mm	98 mm	137 mm	43 mm	Q3XA-4337-1762	5	45	225
Hard	30.4 mm	38 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-4062W	5	45	225
Hard	26 mm	35 mm	65 mm	35 mm	133 mm	98 mm	89 mm	43 mm	Q3XA-4389-1762W	5	45	225

43 mm x 35 mm tool

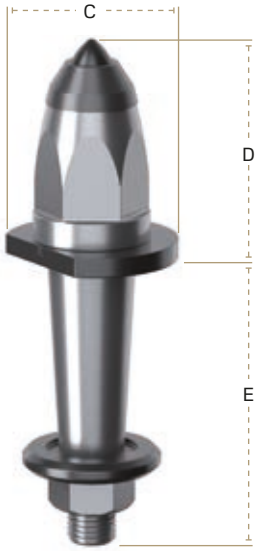
Dual retention with hard facing





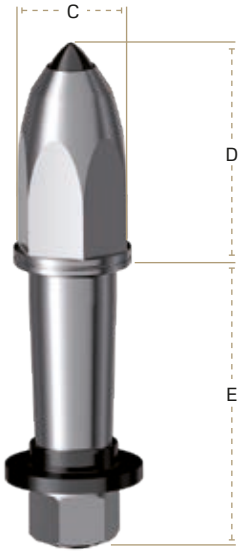
Cutting conditions	A	B	C	D	E	F	G	H	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	26 mm	35 mm	68 mm	35 mm	133 mm	115 mm	90 mm	43 mm	Q3XH-4390-1770	5	45	225

Crusher picks

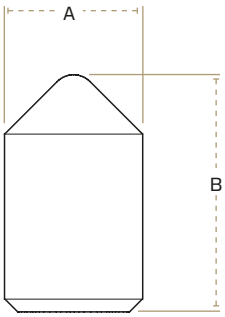


P7LX-5435-1762W

P4LX-5235-1762

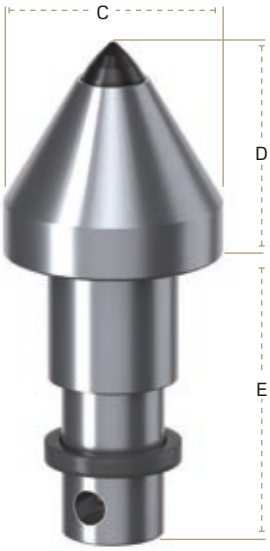


Q4LX-5235-1762

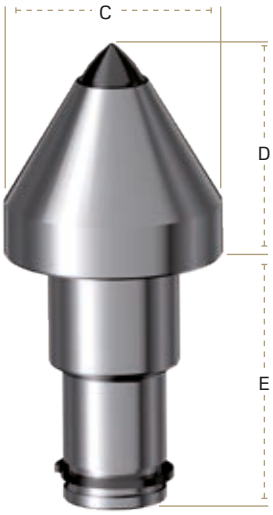


Cutting conditions	Retention method	Thread size	A	B	C	D	E	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	Nut	M30	26 mm	35 mm	105 mm	135 mm	180 mm	P7LX-5435-1762W	1	–	–
Hard	Nut	M36	26 mm	35 mm	70 mm	135 mm	172 mm	P4LX-5235-1762	1	–	–
Hard	Nut	13/8 (12 TPI)	26 mm	35 mm	70 mm	135 mm	172 mm	Q4LX-5235-1762	1	–	–

Crusher picks

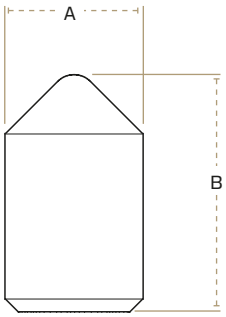


P3CA-3863-0862



P3CL-3863-0862

Q9LX-4524-2162



Cutting conditions	Retention method	Thread size	A	B	C	D	E	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	Roll pin	–	18 mm	22 mm	63 mm	63 mm	84 mm	P3CA-3863-0862	10	60	600
Hard	C-clip	–	18 mm	22 mm	63 mm	63 mm	73 mm	P3CL-3863-0862	10	60	600
Hard	Nylock nut	M30	18 mm	29 mm	80 mm	124 mm	110 mm	Q9LX-4524-2162	1	–	–

Blocks

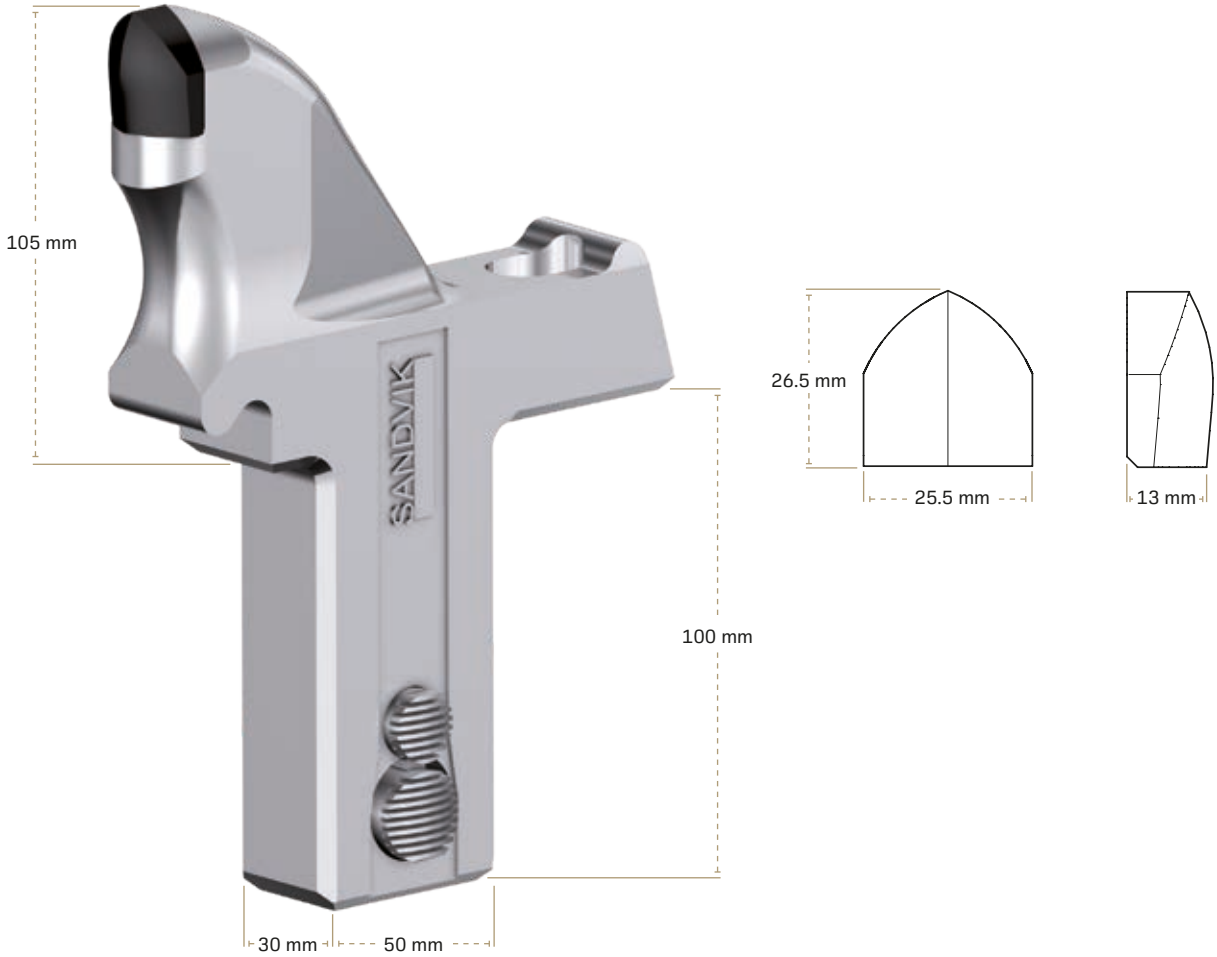
Part number	Pieces per box	Boxes per pallet	Pieces per pallet
B3TA-5549-9000	2	45	90

To suit P7LX-5435-1762W

Part number	Pieces per box	Boxes per pallet	Pieces per pallet
B3BA-5249-9000	2	45	90

To suit P4LX-5235-1762 and Q4LX-5235-1762

Radial picks

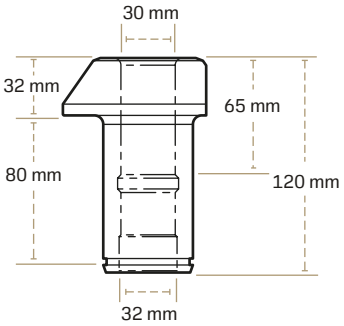


Application: radial used in coal.

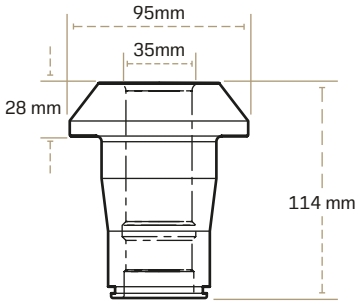
Cutting conditions	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	R1NG-3005-2262	4	60	240

Replacement sleeves

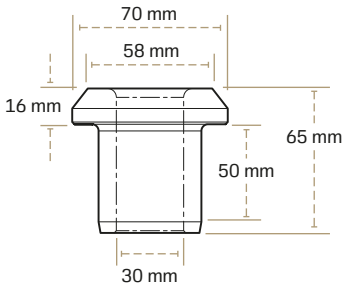
For use with conical tools
The sleeve extends block life by minimizing its exposure to wear and protecting it from material and debris. The block shape, style and measurements determine the type of sleeve that is required for your machine. Your block also determines whether you should use a slip-fit sleeve that uses an external retainer to hold it in place or a press-fit sleeve which does not require a retainer.



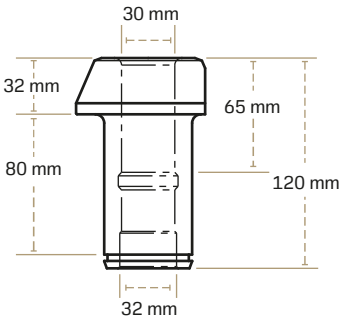
C4PX-3032-5000
Loose-fit sleeve to suit Sandvik miner-bolter, oversize head.



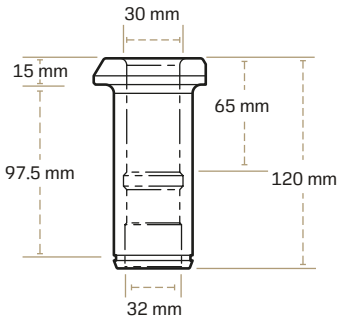
C4AK-3528-6100
Sleeve to suit J35 block.



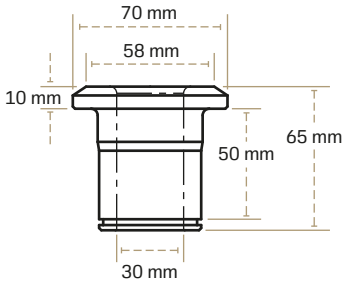
C4BB-3016-4600
Press-fit sleeve to suit Joy® J30 block.



C4PA-3032-5000
Loose-fit sleeve, compatible with ABM25 block.

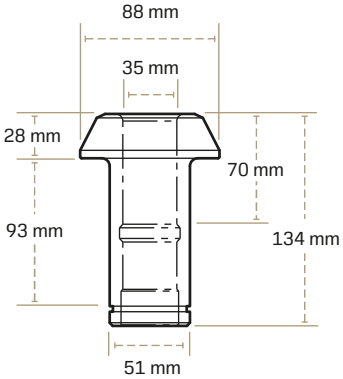


C4PK-3015-4500
Compatible with ABM20 block.

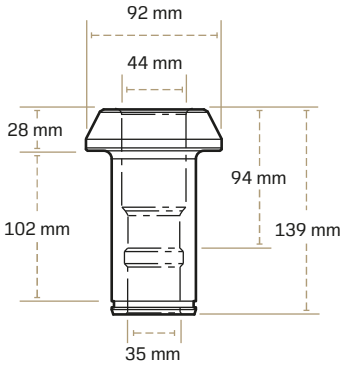


C4BU-3010-4700
Replacement sleeve for Joy® J30 block.

® Registered mark of Joy Manufacturing Company



C4AA-3528-5100
Compatible with MG400 and 500 series shearers.



C4LA-4328-5700
Compatible with MG650 and 750 series shearers.

Accessories

Collar ring – rotate
To suit P4LX-5235-1762 and Q4LX-5235-1762.

Part number	Tool series
M8C-0082	–

Collar ring – locking
To suit P4LX-5235-1762 and Q4LX-5235-1762.

Part number	Tool series
M8C-0083	–

Clip removal/install tool
To remove hair pin clip.

Part number	Tool series
M8T-0068	–

Pick puller
For removal of conical tools from sleeves.
Hardened tip provides long life.

Part number	Tool series
M8T-0023	30 mm and 35 mm tool
M8T-0024	38 mm tool

Pick puller
For removal of conical tools from sleeves.

Part number	Tool series
M8T-0049	50 mm and 54 mm collar picks

Accessories

Slide hammer
Sleeve removal slide hammer. To suit ABM 20 and 25.

Part number	Tool series
M8T-0051	30 mm and 35 mm sleeves

Hydraulic sleeve puller
30 mm, 25 ton hydraulic sleeve puller.

Part number	Tool series
M8T-0045	J30 and S30

Spares kit
Repair kit for the M8T-0045.

Part number	Tool series
M8T-0048	For M8T-0045

Hydraulic sleeve puller
30 mm, 25 ton hydraulic sleeve puller.

Part number	Tool series
M8T-0055	J35

Accessories

Hydraulic sleeve puller
To suit C4PA-3032-5000 sleeve.

Part number	Tool series
M8T-0069	–

Hydraulic large headed sleeve puller
To suit C4PX-3032-5000 sleeve.

Part number	Tool series
M8T-0079	–

Construction

Sandvik road planing tools: longer service life, less failures

With Sandvik's full range of road planing tools, removing worn road surfaces has never been as easy. Much of its market leading features depend on the outstanding cemented carbide grades featured throughout the product range. Depending on the road surface, you can find a carbide tip that will provide you with longer service life and outperforming dependability, ensuring high productivity and increased sustainability in your road planing operations.

Conical tools

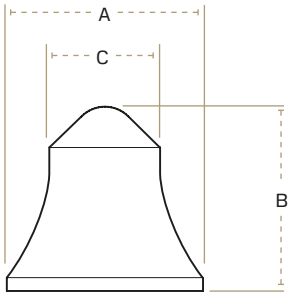
Our conical tools are available in shank diameter sizes of 19 mm through 30 mm and in 38 x 30 step shanks for use on construction equipment. These tools are manufactured in production facilities in China and India, according to the highest quality standards.

19 mm tool

Friction retainer

Features

— Unique tool design provides superior rotation
— Puller groove for easy extraction
— Full sleeve retainer and washer maintain maximum block bore and seat protection
— Improved thicker washer for increased protection and longer life



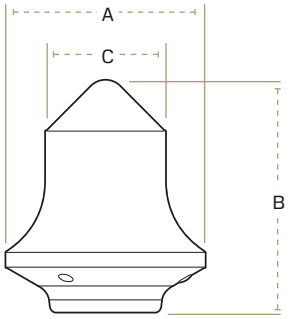
A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
17.8 mm	16.7 mm	10.0 mm	49 mm	K6FW-1949-2966	50	60	3,000
18.9 mm	17.7 mm	10.5 mm	49 mm	K6FW-1949-6866	50	60	3,000

19 mm tool

Friction retainer

Features

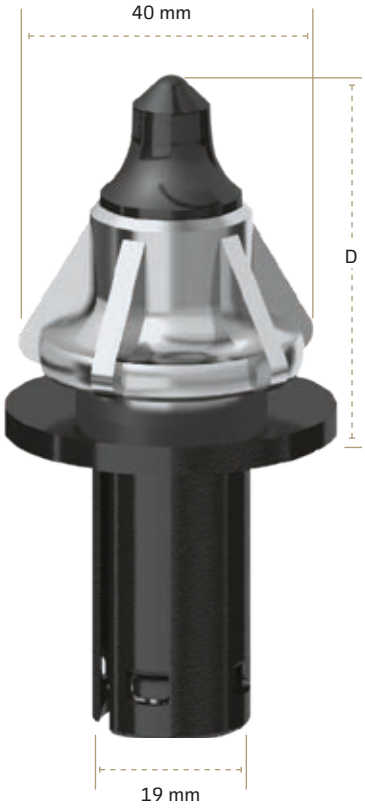
— Unique tool design provides superior rotation
— Puller groove for easy extraction
— Full sleeve retainer and washer maintain maximum block bore and seat protection
— Improved thicker washer for increased protection and longer life



A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
20 mm	21.3 mm	12 mm	49 mm	K6FW-1949-2766	50	60	3,000

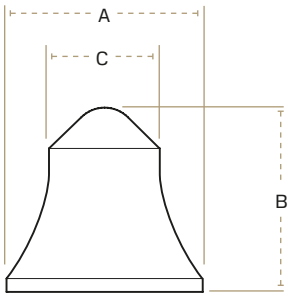
19 mm tool

Friction retainer



Features

— Unique finned body design for enhanced rotation
— Full sleeve retainer and washer maintain maximum block bore and seat protection
— Improved thicker washer for increased protection and longer life



A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
18.9 mm	17.7 mm	10.5 m	49 mm	K6RW-1949-6866	50	60	3,000

Sandvik System 2000®: for the toughest of road conditions

The Sandvik System 2000® road grading maintenance system is designed to fit most motor graders and can handle a variety of applications, such as gravel road reclamation and maintenance, asphalt road planing and removal of potholes and washboards on gravel and dirt roads. The cemented carbide tools in the System 2000® are developed to cut the road instead of scraping it, as a conventional blade would. Thanks to its market leading wear resistance, the Sandvik System 2000® can handle the toughest of road conditions!

22 mm tool system

38.1 mm (1.50") tool spacing

Standard boards – 38.1 mm (1.50") tool spacing

Length	Bolt size	Tool capacity	Part number
914 mm (3 ft)	5/8"	24	S1BA-2236-1930
914 mm (3 ft)	3/4"	24	S1BB-2236-1930
1,219 mm (4 ft)	5/8"	32	S1BA-2248-1930
1,219 mm (4 ft)	3/4"	32	S1BB-2248-1930

End protectors*

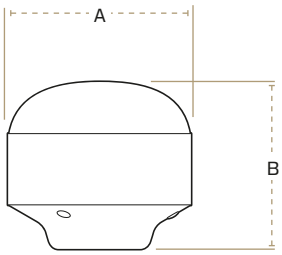
Length	Bolt size	Tool capacity	Part number
Left	–	–	S4PX-2203-1030
Right	–	–	S5PX-2203-1030

*For 22 mm boards only

22 mm tool system

Features

— “Gear Tooth” washer protects board mating face
— Hex tail allows tool to be spun to clean out fines giving better tool rotation
— Retainer compressed for easy installation

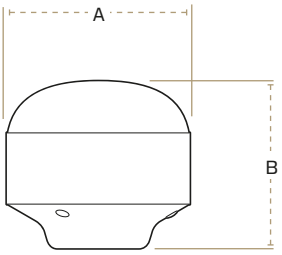


Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	16.2 mm	14.8 mm	43 mm	K1AW-2244-2869	50	60	3,000

22 mm tool system

Features

— “Gear Tooth” washer protects board mating face
— Retainer compressed for easy installation



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	16.2 mm	14.8 mm	43 mm	K1LW-2244-2869	50	60	3,000

25 mm tool system

43.7 mm (1.72") tool spacing

Heavy-duty boards – 43.7 mm (1.72") tool spacing

Length	Bolt size	Tool capacity	Part number
914 mm (3 ft)	3/4"	21	S1CB-2536-2530
1,219 mm (4 ft)	3/4"	28	S1CB-2548-2530

End protectors* – 43.7 mm (1.72") tool spacing

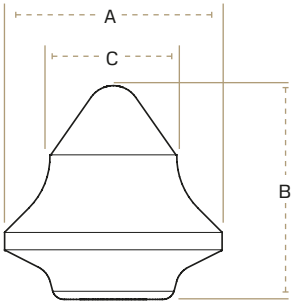
Length	Bolt size	Tool capacity	Part number
Left	N/A	N/A	S4PX-2504-2530
Right	N/A	N/A	S5PX-2504-2530

*For 25 mm boards only

25 mm tool system

Features

— “Gear Tooth” washer protects board mating face
— Retainer compressed for easy installation



Cutting conditions	A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	29 mm	33 mm	19 mm	57 mm	K1LW-2557-5662	30	60	1,800

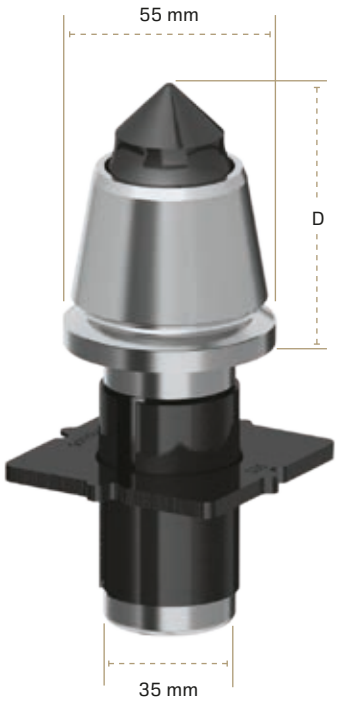
35 mm tool system

63.5 mm (2.50") tool spacing

Super-duty boards* – 63.5 mm (2.50") tool spacing

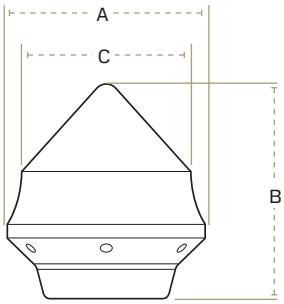
Length	Bolt size	Tool capacity	Part number
1,219 mm (4 ft)	1"	19	S1FC-3548-4435

*For use on extra-large motor graders only



Features

— "Gear Tooth" washer protects board mating face
— Retainer compressed for easy installation



Cutting conditions	A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	33 mm	35.9 mm	28.2 mm	74 mm	Q7JZ-3574-2062	8	60	480

Accessories

Curved knock-out punch
Tool remover with carbide tip for extended life.

Part number	Part number
N/A	M8T-0004

Magnetic protractor
Provides proper board alignment, so tools are at the correct angle to cut.

Part number	Part number
N/A	M8T-0058

Sandvik roadheader and trenching tools

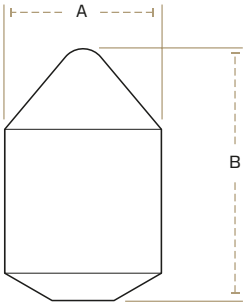
Sandvik offers a full line of cutting tools and accessories for the trenching and surface mining industries. The tools are specifically designed to increase productivity and sustainability and consist of a hardened steel body/shank and the world’s toughest cemented carbide tip – developed fully by Sandvik. With its outstanding service life, your Sandvik trenching tools will truly stand the test of time.

Picks – 19 mm tool

Bumped retainer

Features

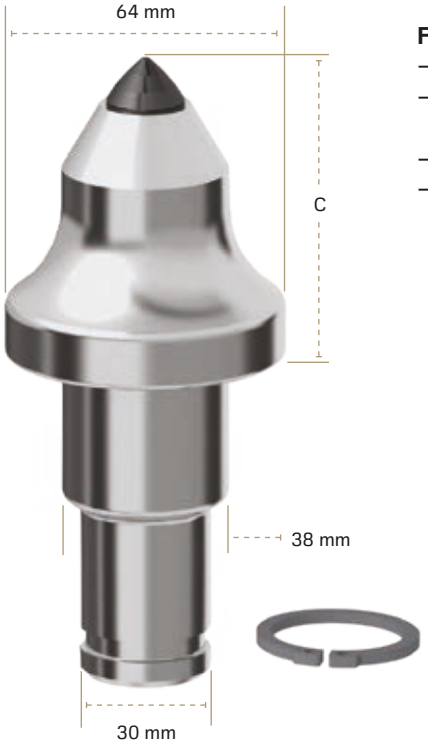
— Narrow body for efficient penetration
— Design evenly distributes impact loads through tool shoulder
— Puller groove for easy tool removal
— K21 internal retainer



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
N/A	12.1 mm	18.7 mm	44.7 mm	H2MA-1944-3562	65	60	3,900

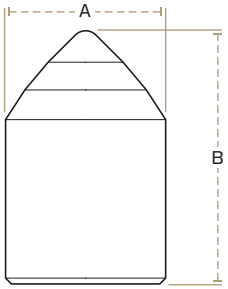
Picks – 38 mm x 30 mm tool

Snap-ring retainer



Features

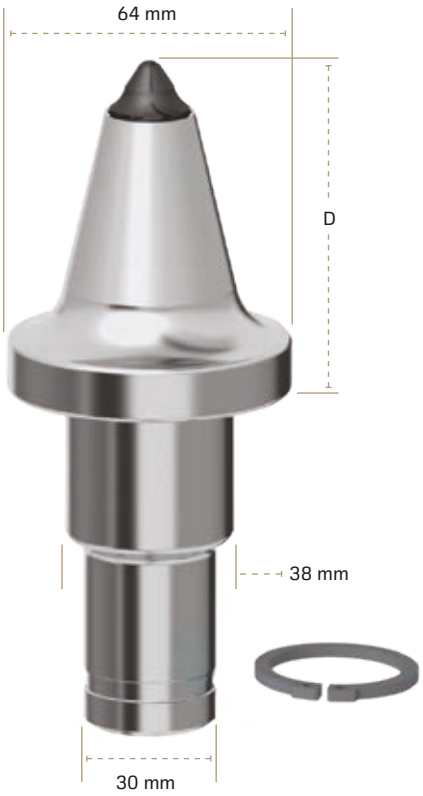
— Standard body design
— Wide-flare shoulder provides maximum block and sleeve protection
— Step-shank design for improved strength
— K86 external retainer



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	18 mm	28.8 mm	68 mm	P3DS-3868-2162	10	45	450
Hard	22 mm	34.8 mm	69.9 mm	P3DS-3870-1962	10	40	400
Hard	18 mm	28.8 mm	76 mm	P3DS-3876-2162	10	45	450
Hard	19.7 mm	33.8 mm	76 mm	P3DS-3876-3962	10	45	450
Hard	22 mm	34.8 mm	76 mm	P3DS-3876-1962	10	45	450
Hard	26 mm	35 mm	76 mm	P3DS-3876-1762	10	40	400

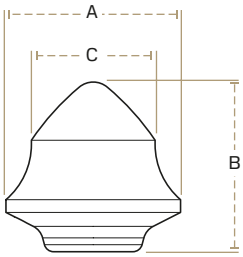
Picks – 38 mm x 30 mm tool

Snap-ring retainer



Features

— Narrow body for efficient penetration
— Wide-flare shoulder provides maximum block and sleeve protection
— Step-shank design for improved strength
— K86 external retainer



Cutting conditions	A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	24 mm	23.3 mm	17 mm	69.9 mm	Q3DS-3870-2362	10	40	400
Hard	20 mm	24 mm	12 mm	77 mm	Q3DS-3877-4362	10	60	600

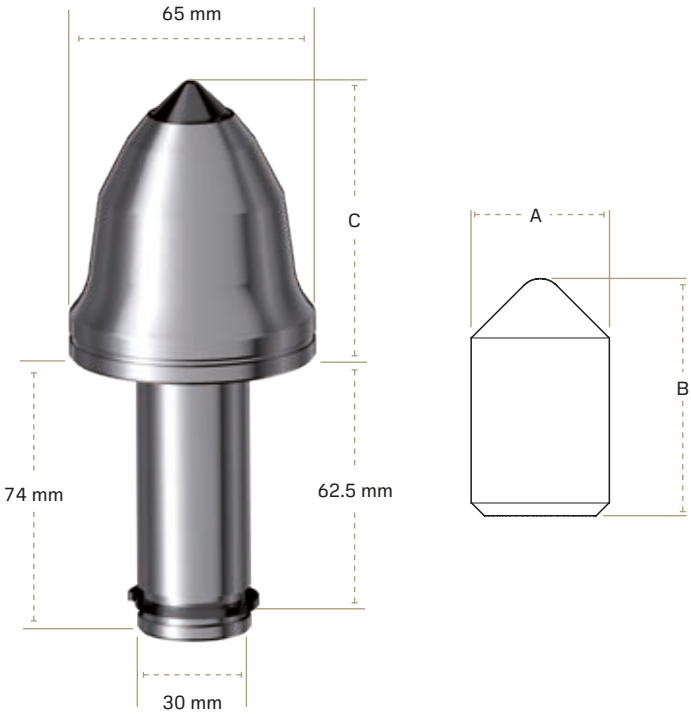
Picks – 25 mm tool

External retainer

Cutting conditions	A	B	C	D	E	F	G	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Medium	18 mm	21 mm	13 mm	48 mm	66 mm	54 mm	70 mm	Q7MF-2569-5762	25	60	1,500

Roadheader picks – 30 mm tool

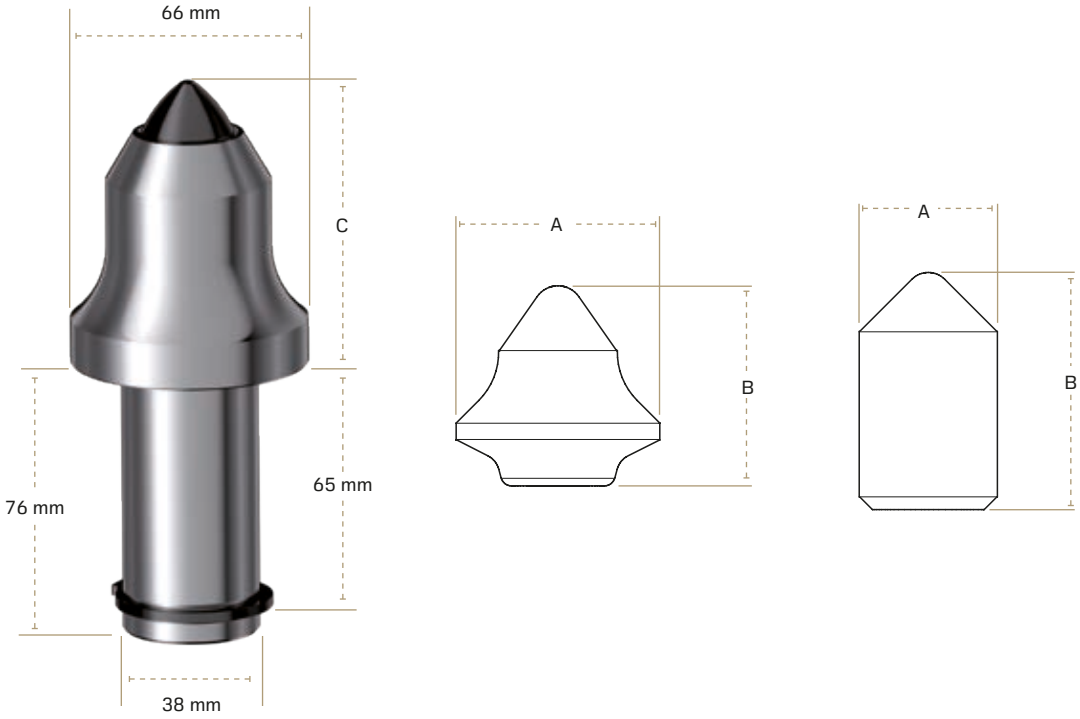
External retainer



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	19.7 mm	33.8 mm	75 mm	P5KS-3075-3962	12	45	540

Roadheader picks – 38 mm tool

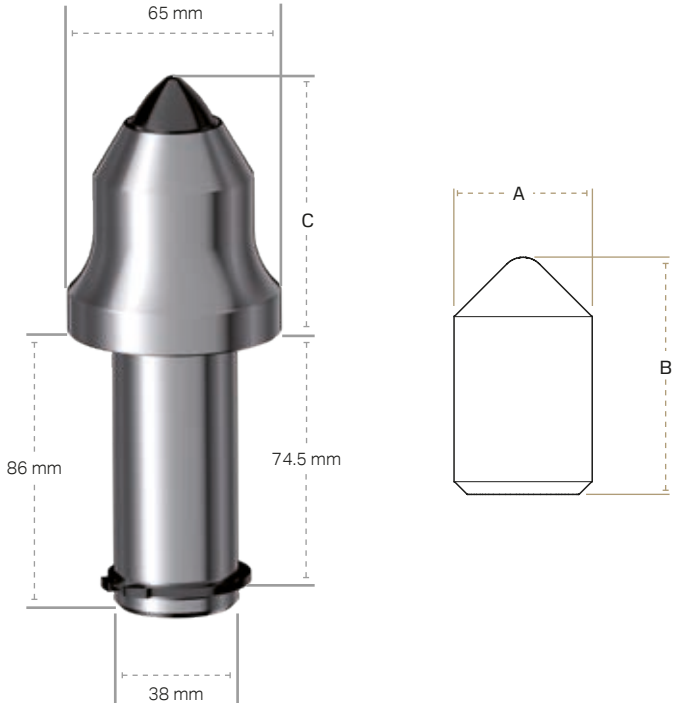
External retainer



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	26 mm	35 mm	80 mm	P5MS-3880-1762	9	45	405
Hard	26 mm	35 mm	80 mm	P5MS-3880-1762H	9	45	405
Extreme	26 mm	35 mm	80 mm	P5MS-3880-1770	9	45	405
Hard	22 mm	34.8 mm	80 mm	P5MS-3880-1962	9	45	405
Hard	22 mm	34.8 mm	80 mm	P5MS-3880-1962H	9	45	405
Hard	26.6 mm	30 mm	80 mm	P5MS-3880-6662	9	45	405
Hard	29 mm	33 mm	80 mm	P5MS-3880-5662	9	45	405

Roadheader picks – 38 mm tool

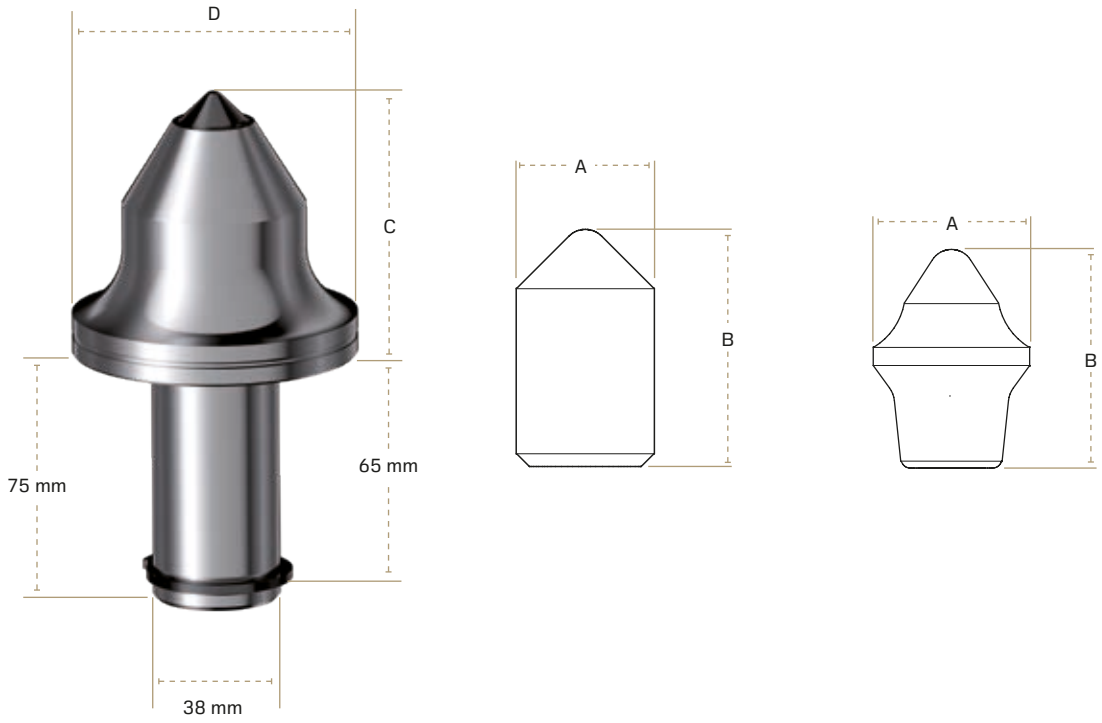
External retainer



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	26 mm	35 mm	80 mm	P5MR-3880-1762	9	45	405
Extreme	26 mm	35 mm	80 mm	P5MR-3880-1770	15	60	900

Roadheader picks – 38 mm tool

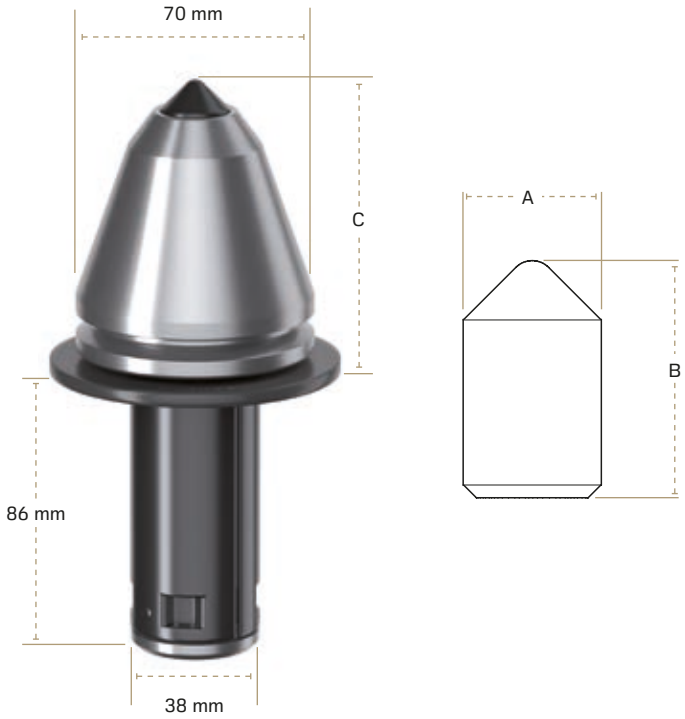
External retainer



Cutting conditions	A	B	C	D	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	19.7 mm	33.8 mm	80 mm	85 mm	P2MS-3880-3962	6	60	360
Hard	22 mm	34.8 mm	80 mm	85 mm	P2MS-3880-1962	6	60	360
Extreme	24 mm	38 mm	80 mm	85 mm	P2MS-3880-7690	6	60	360
Hard	26 mm	35 mm	80 mm	85 mm	P2MS-3880-1762	6	60	360
Extreme	26 mm	35 mm	80 mm	85 mm	P2MS-3880-1770	6	60	360
Hard	30.4 mm	38 mm	80 mm	80 mm	P7MS-3880-4062	6	60	360

Roadheader picks – 38 mm tool

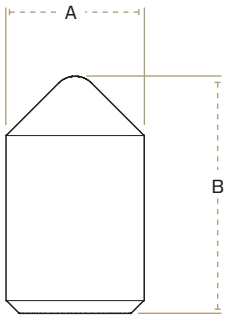
Full length bumped retainer with washer

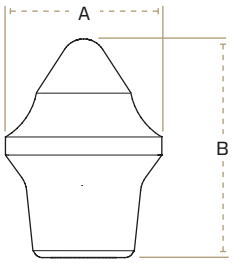


Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	19.7 mm	33.8 mm	85 mm	P4JW-3885-3962	6	60	360

Roadheader picks – 38 mm tool

Bumped retainer





Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Hard	19.7 mm	25 mm	85 mm	P4AA-3885-1562	6	60	360
Hard	19.7 mm	33.8 mm	85 mm	P4AA-3885-3962	6	60	360
Extreme	24 mm	38 mm	85 mm	P4AA-3885-7690	6	60	360

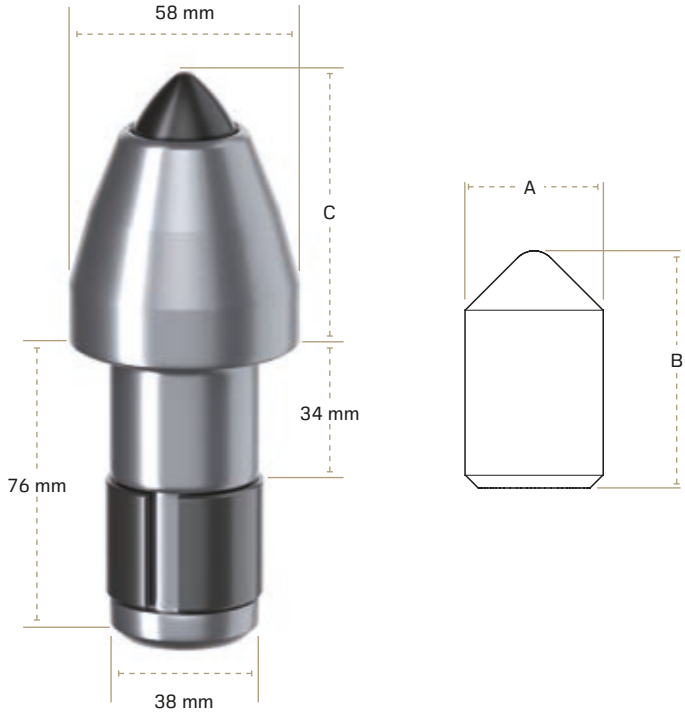
Roadheader picks – 38 mm tool

Bumped retainer

Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	22 mm	34.8 mm	70 mm	Q7AU-3870-1970	10	60	600
Hard	22 mm	34.8 mm	70 mm	Q7AU-3870-1962	10	60	600
Extreme	26 mm	35 mm	70 mm	Q7AU-3870-1770	10	60	600

Roadheader picks – 38 mm tool

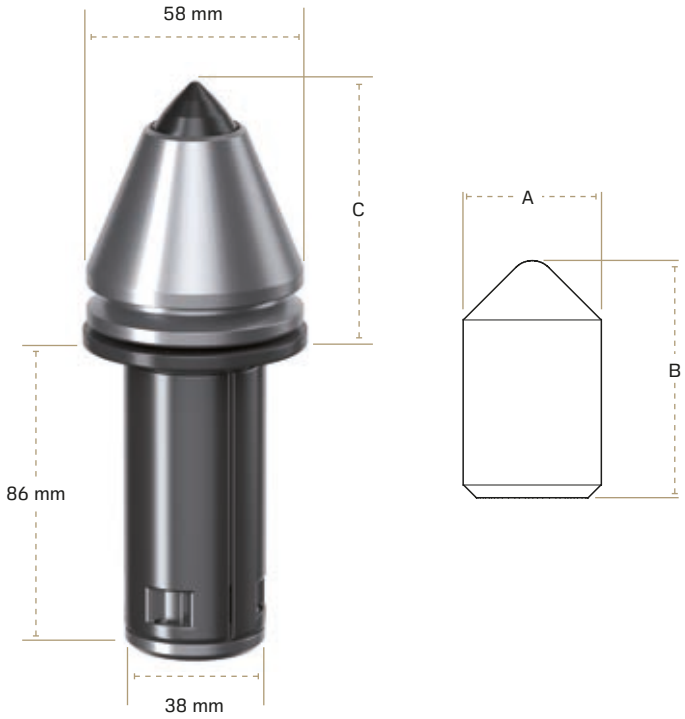
Friction retainer



Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	26 mm	35 mm	70 mm	P7JU-3870-1770	10	60	600

Roadheader picks – 38 mm tool

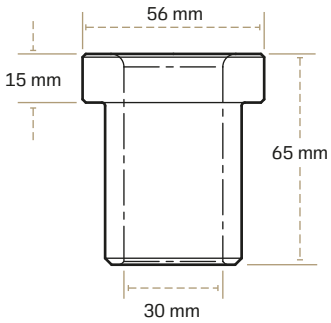
Full length friction retainer with washer



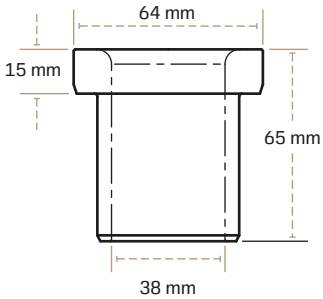
Cutting conditions	A	B	C	Part number	Pieces per box	Boxes per pallet	Pieces per pallet
Extreme	22 mm	34.8 mm	70 mm	P7JW-3870-1970	10	60	600
Extreme	26 mm	35 mm	70 mm	P7JW-3870-1770	10	60	600

Replacement sleeves

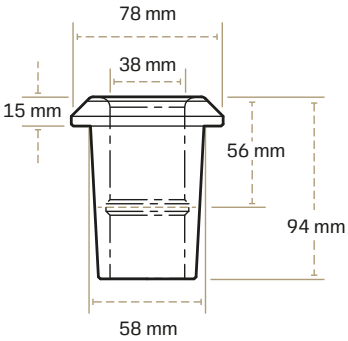
For use with conical tools
The sleeve extends block life by minimizing its exposure to wear and protecting it from material and debris. The block shape, style and measurements determine the type of sleeve that is required for your machine. Your block also determines whether you should use a slip-fit sleeve that uses an external retainer to hold it in place or a press-fit sleeve which does not require a retainer.



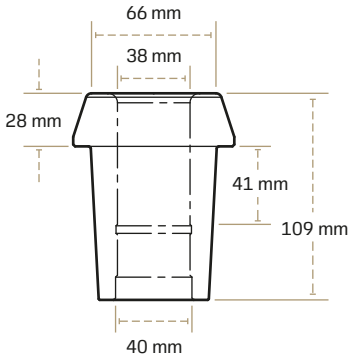
C3BB-3015-4200
Press-fit sleeve, compatible with Mitsui Miike S200 block.



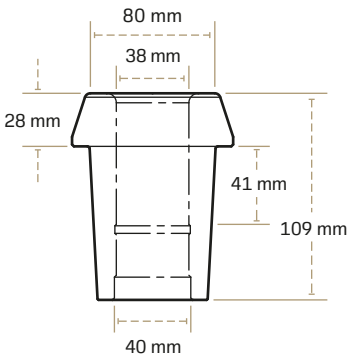
C4BB-3815-4800
Press-fit sleeve, compatible with Mitsui Miike S300 block.



C4NS-3815-5700
Press-fit sleeve, compatible with MT720 block.



C4AS-3828-6700
Press-fit sleeve, compatible with MT720 and MT520 block.



C4AS-3828-67LD
Press-fit sleeve, compatible with MT720 and MT520 block.

Accessories

Large pullers
For removal of conical tools from blocks.
Hardened tip provides long life.

Part number	Tool series
M8T-0024	38 mm pick puller

Removal tool
For removal of conical tools from blocks.

Part number	Tool series
M8T-0076	70 mm collar, pick removal tool
M8T-0082	58 mm collar, pick removal tool


SANDVIK

Drilling

How to work with safety in mind

Lifting procedures
Use the correct safe lifting practices when working with heavy items. Consider your body position, the awkwardness of the item, and its weight. Are two people required for the job, or is a lifting device needed?

Strapping
Rods are bundled up with strapping. Take extra care when cutting this strapping. Personal injuries can occur in this situation.

Installation/replacing worn bits
Cemented tungsten carbide tipped bits have tough, wear-resistant edges. These can fracture or cause hard objects, such as steel hammers, to chip when struck during the installation or removal process. The use of the correct hand tools is strongly recommended. New bits should be screwed down tightly by hand. Do not use the rotation of the drill rig to install the bits.

Extension drilling
Extension drilling poses potential hazards. There is a risk of crush injury during the guidance of one drill rod onto another. Correct uncoupling procedures must be utilized. The use of the correct hand or machine tool to uncouple the bottom rod from the drill string is recommended. Striking or bending the rods to facilitate uncoupling is not permitted.

Mesh entanglement
Two wing bits can become entangled in steel mesh. Do not use drill bits and rods as mesh alignment devices. They are only to be used for the intended purposes. Drill bit designs that reduce the risk of mesh entanglement are available.

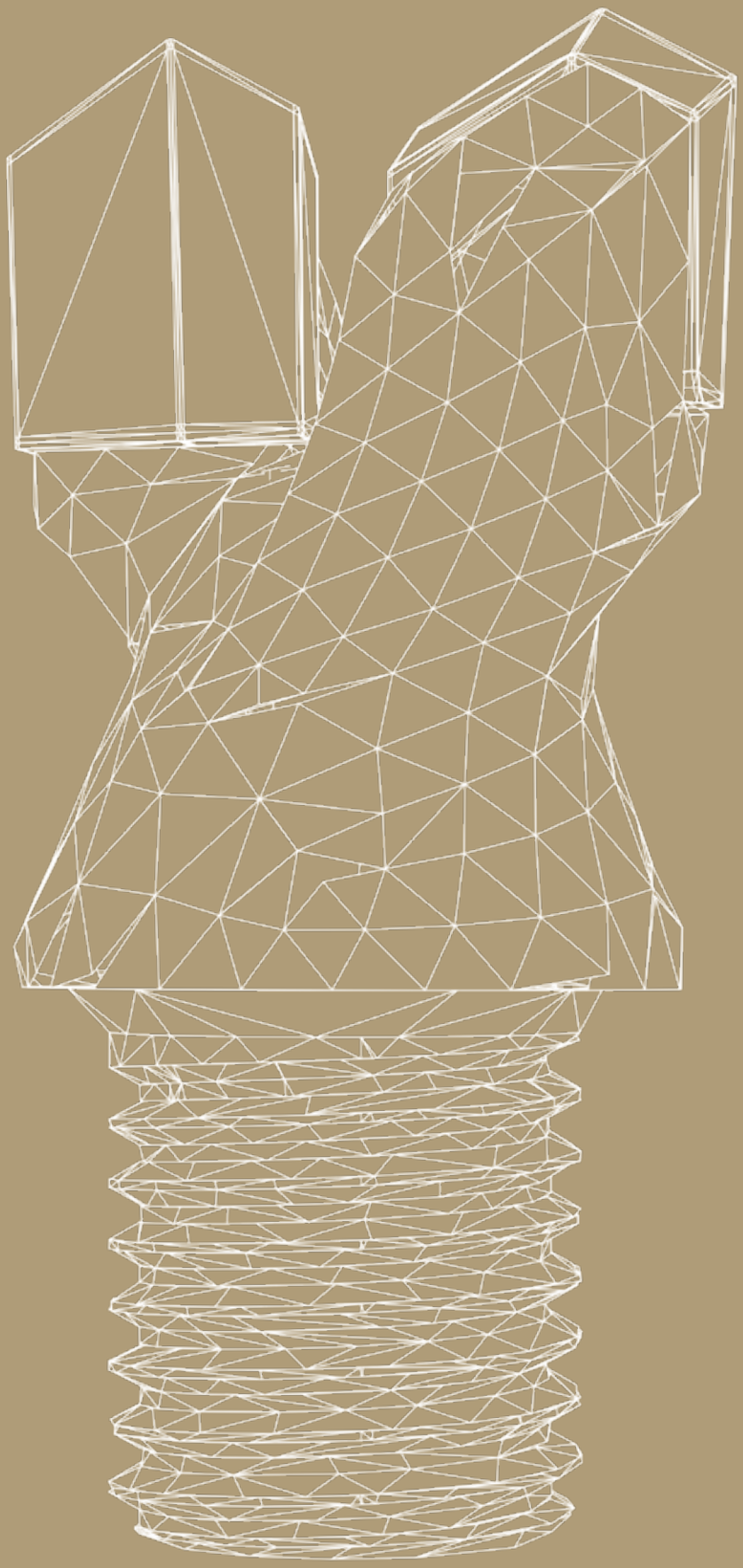
Grinding
Our rock tools have drill bits with cemented carbide tips. Cemented carbide is made up of tungsten carbide and cobalt. The grinding of these tips will produce hazardous substances and particles. These can be inhaled, swallowed or come in contact with the skin or eyes. Wear protective gloves, protective clothing and eye protection. In case of inadequate ventilation, wear respiratory protection. Avoid dry grinding in particular.

Dealing with worn parts
Worn parts should be removed and disposed of appropriately. Your used tools can be recycled. Please contact your local Sandvik Mining representative for support and further information about how to recycle tools.

Storing
All products should be stored in a dry place and in the original packaging until they are required for use.

Use

- Do not come into contact with any rotating components. This is to reduce the risk of entanglement.
- Personal protective equipment such as eye protection and suitable clothing should be worn around machinery using carbide tipped drill bits.
- The drilling of rock will generate dust. Some dust is hazardous if inhaled. The use of water flushing or vacuum dust collection, and suitable PPE, is recommended.
- Drilling also generates noise. Recommended hearing protection must be worn.
- The drilling of rock, especially pyrites and sandstone, can generate heat that may ignite methane in the mine, which can potentially lead to an explosion. A blocked, blunt, worn, bent, cracked or damaged drill bit or rod can significantly increase the risk of frictional ignition, and must be replaced immediately. In particular, an insufficient supply of cooling water can lead to the ignition of methane. Safe work and operational procedures must include an inspection of the drilling bit and rod before use. Regular monitoring and reviewing should be carried out, based upon mining conditions, mine health and safety management systems requirements, and hazard management plans. Workers must be provided with safety information: instruction and training on transportation, installation, operational care and use, service and maintenance, as well as the removal of drill bits and rods.
- During positioning of the drill bit and rod, prior to drilling, there is a risk that the column strength of the drill rod can be exceeded. This can cause the rod to buckle, and pin a hand against the wall or rig. Approach pressures should be adjusted so that the columnar buckling load of the exposed length of drill rod is not exceeded. During drilling, proper balance between thrust and rotation must be maintained. For each drill rod system, refer to specific technical bulletins for the recommended operational requirements and thrust loading diagrams. A bent or broken rod must not be used.
- During drilling, the rod may be ejected from the drill chuck. Please utilize “twist locking” chucks where available.
- Inspect drill bits and rods before use and at regular intervals. If they are loose, blocked, dull, bent, cracked, worn, burred, or otherwise unsuitable, DO NOT USE THEM! Replace them. Beware of the risk of creating a spark by incorrect removal methods.
- Correct storage of drilling consumables when they are not in use is important. Rods, in particular, can get caught on moving machinery.



Proper care means efficient operation

Transportation and storage
During transportation, bits and cemented carbide components must be carefully packed in order to prevent damage to the cemented carbide. Even though cemented carbide is very resistant to impact against other materials, it is easily damaged by collisions with other components made from the same material.

Machine settings and practices
Correct machine settings and good drilling practices are important factors in the service life of your drilling tools. Good management and maintenance also play a crucial role for your productivity and profitability.

Real power when you need it the most

Drilling is at the very heart of the mine: it is critical that every consideration is given to using products that ensure high quality and high reliability. Developments in underground mining point towards increased productivity and operator safety, which make drilling performance more important then ever. In this context, our range of drilling tools provides a perfect system. With satisfactory results achieved, it should be seen as your first choice.

Drill bits
Our drill bits use unique carbide grades developed through years of experience and testing. Drill bit bodies make use of precision hardened Nickel Molybdenum steel and compound curve body designs, in order to maximize both cutting efficiency and excellent removal of cuttings. Our drill bits provide perfect cutting capabilities – for any application, in all drilling conditions.

Drill rods
Our drill rods are manufactured from high strength alloy steel and are available in either hexagonal or round forms. The drive ends are fully forged, and the drill rods are heat treated for maximum durability and safety.
Drill rods are available in varying lengths and designed for use on hydraulic rigs fitted to continuous miners, miner bolters and mobile drill rig machines.

Accessories
We manufacture and supply a comprehensive range of drilling accessories which are suitable for use in the installation of strata support products. These accessories include special spanners for the safe and efficient installation of rock bolts, and drill chuck extension spanners, which allow you to adapt your existing equipment to the rapidly-changing underground mining environment.

Extension drilling systems
We manufacture a complete range of extension drilling systems – both conventional, and direct drive. Every part is manufactured from high strength alloy steel and suitable for the installation of secondary support strata control products. Our patented Direct Drive Extension Drilling System is far superior to conventional drilling systems for four important reasons: it's safer, faster, easier and smarter.

State-of-the-art miner bolter
Sandvik MB series bolter miners are electrically powered, track-mounted continuous mining machines designed to excavate roadways and install roof bolts simultaneously. They are safe, efficient, high-capacity solutions, suitable for rapid entry developments in long wall mining, and full-scale production in room-and-pillar mining. Since the cutter drum is mounted on a hydraulically actuated sliding frame, it is able to sump into the face independently of the mainframe and tracks. Since the roof and rib bolters are mounted on the stationary mainframe, they can be operated throughout the cutting cycle.

Flameproof mobile bolter
Flameproof (FLP) roof bolters are specifically designed for coal mining applications, to meet special flameproof requirements. We provide FLP 4/6 head mobile bolters, FLP twin boom mobile bolters and long wall face bolters.
With maintenance and LCC in mind, a new roof bolter design provides a new level of serviceability. The roof bolter is designed for strata support and is machine mounted. With features such as stainless steel wear inserts and a fully upgraded drill head, the new roof bolter provides operators with increased reliability and serviceability. Modular and strategic design considerations mean that it is now easier to repair and service drill rig components on site.

Explore superior drilling performance

Our drill bits are fitted with our own cemented carbide tips, offering superior life and drilling productivity. The bit bodies are manufactured in one-piece cast Nickel Molybdenum steel, and also feature optimized bit design geometry to ensure efficient and consistent drilling performance. The drill bits are available in sizes ranging from 27 mm diameter to 72 mm diameter, to best accommodate the varying requirements of strata support installation in underground coalmines.

Drill bits

Our drill bits use unique carbide grades developed through years of experience and testing. We use the most appropriate grade in combination with concentric and eccentric geometries, along with positive and negative rake angles, to provide differing drilling capabilities for any application.
Drill bit bodies utilise compound curve designs to maximise cutting efficiencies and cuttings removal.

Three grades of tungsten carbide are available:

39	Toughest grade
55	General purpose grade
71	Most wear resistant grade

The last two digits in the part numbers show the tungsten carbide grade.

Two wing positive rake bit

Two wing negative rake bit

Modified spade bit

Full spade bit

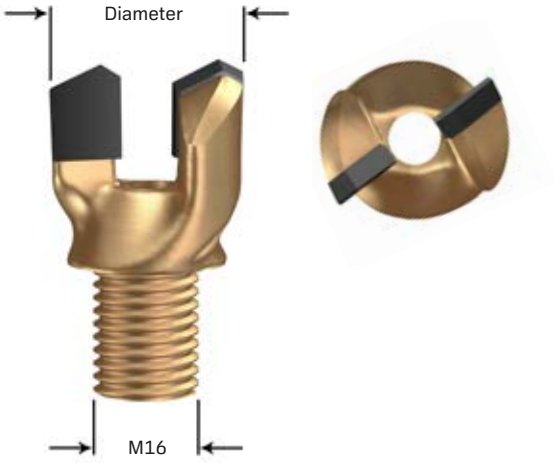
Most aggressive

Least agressive

Operational requirements
— Drill motor speed ≤ 650 rpm
— Flushing water pressure ≤ 25 bar
— Rotational torque ≤ 350 Nm

Two wing drill bit – D4MB

27 mm

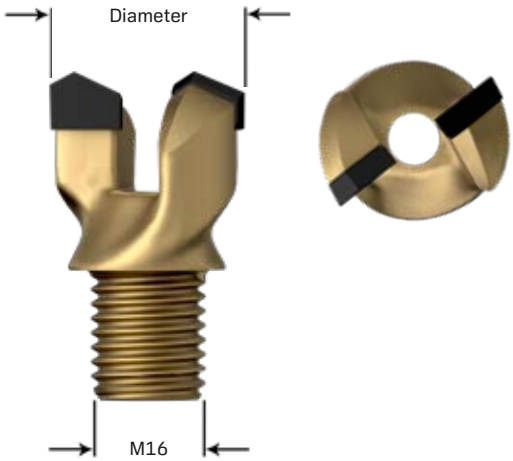


Features
- 16 mm thread
- Two wing eccentric design provides aggressive cutting geometry
- Negative rake gives added cutting edge strength
- First choice general-purpose bit

Cutting diameter	Thread size	Part number	Quantity/bucket
27 mm	16 mm	D4MB-1627-2639	100
27 mm	16 mm	D4MB-1627-2655	100
27 mm	16 mm	D4MB-1627-2671	100

New carbide tip design

27 mm to 29 mm

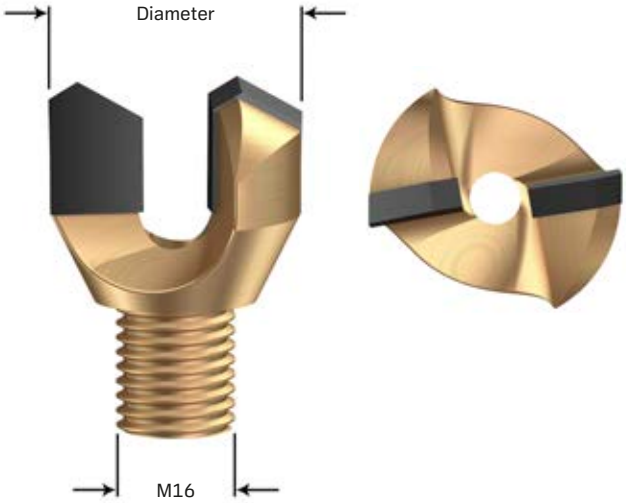


Features
- 16 mm thread
- Two wing eccentric design provides aggressive cutting geometry
- Negative rake gives added cutting edge strength
- First choice general-purpose bit

Cutting diameter	Thread size	Part number	Quantity/bucket
27 mm	16 mm	D4MB-1627-4439	100
27 mm	16 mm	D4MB-1627-4455	100
28 mm	16 mm	D4MB-1628-4439	100
29 mm	16 mm	D4MB-1629-4439	100

Two wing drill bit – D4MB

32 mm to 38 mm

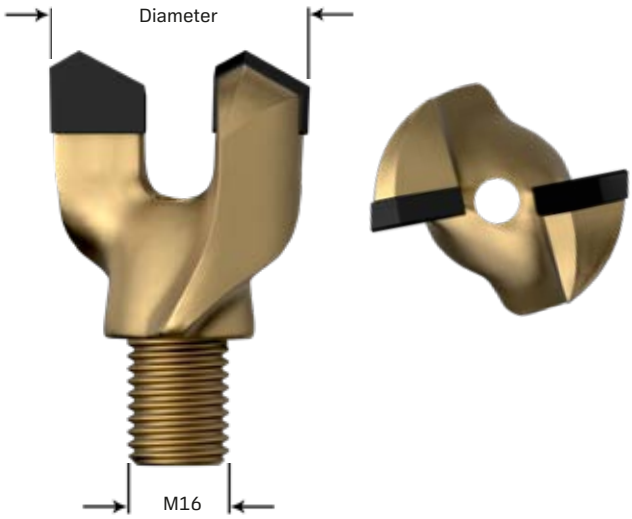


Features
- 16 mm thread
- Two wing eccentric design provides aggressive cutting geometry
- Negative rake gives added cutting edge strength
- First choice general-purpose bit

Cutting diameter	Thread size	Part number	Quantity/bucket
32 mm	16 mm	D4MB-1632-0955	50
35 mm	16 mm	D4MB-1635-0955	50
38 mm	16 mm	D4MB-1638-0955	50

Two wing drill bit

40 mm to 45 mm

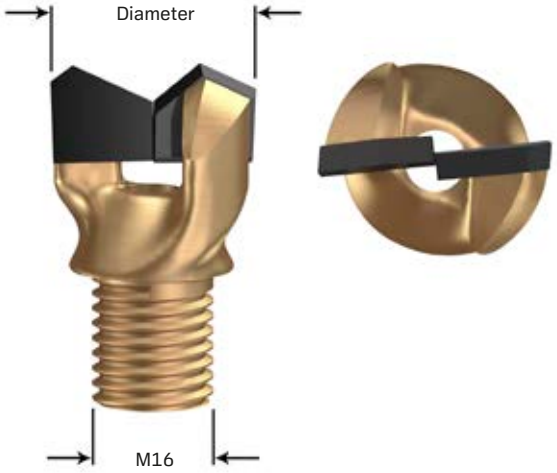


Features
- 16 mm thread
- Two wing eccentric design provides aggressive cutting geometry
- Negative rake gives added cutting edge strength
- First choice general-purpose bit

Cutting diameter	Thread size	Part number	Quantity/bucket
40 mm	16 mm	D4MB-1640-4555	25
41 mm	16 mm	D4MB-1641-4555	25
42 mm	16 mm	D4MB-1642-4555	25
43 mm	16 mm	D4MB-1643-4555	25
45 mm	16 mm	D4MB-1645-4555	25

Tess two wing drill bit – D4MB

27 mm to 28 mm



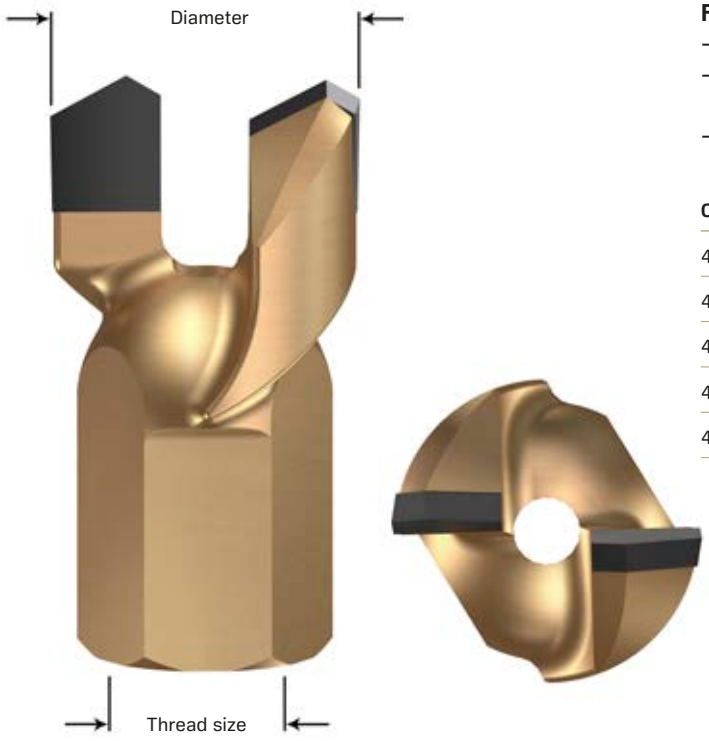
Features

— 16 mm thread
— Two wing, negative rake eccentric design ensures efficient cutting
— Tips meet in the middle of the bit to minimize risk of mesh entanglement

Cutting diameter	Thread size	Part number	Quantity/bucket
27 mm	16 mm	D4MB-1627-9255	100
28 mm	16 mm	D4MB-1628-9255	100

Two wing drill bit – D4RB

42 mm to 45 mm



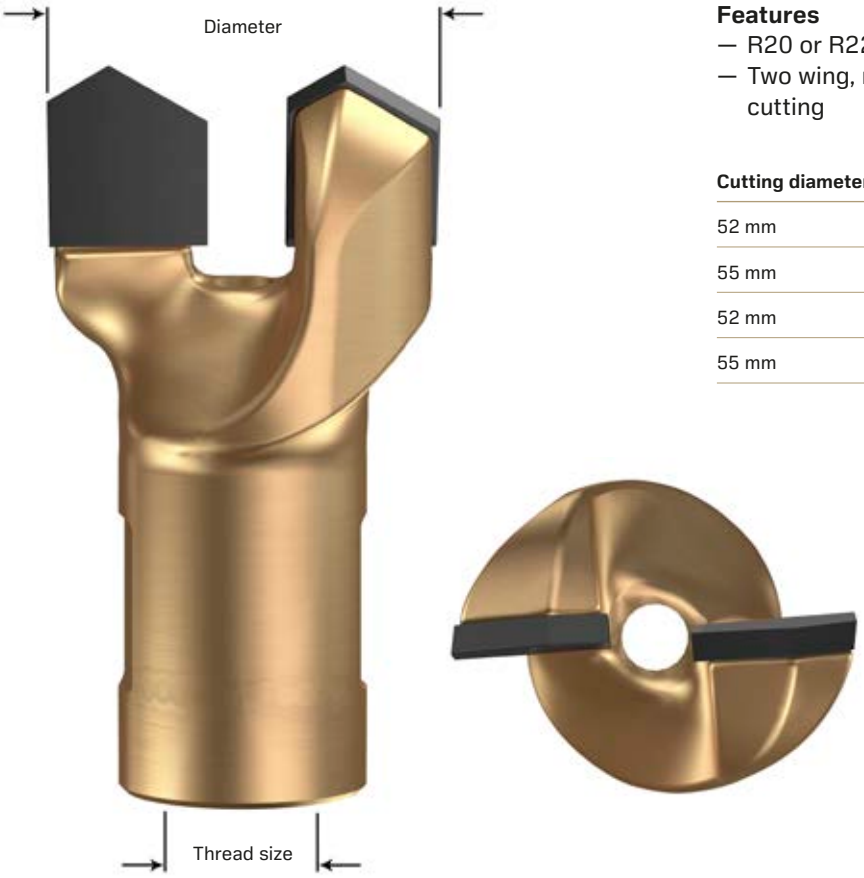
Features

— R20 or R22 female rope thread
— Two wing, negative rake eccentric design ensures efficient cutting
— Hexagonal shaped body assists removal

Cutting diameter	Thread size	Part number	Quantity/bucket
45 mm	R18	D4RB-1845-4555	20
42 mm	R20	D4RB-2042-9155	20
45 mm	R20	D4RB-2045-9155	20
42 mm	R22	D4RB-2242-9155	20
45 mm	R22	D4RB-2245-9155	20

Two wing drill bit – D4RB

52 mm to 55 mm



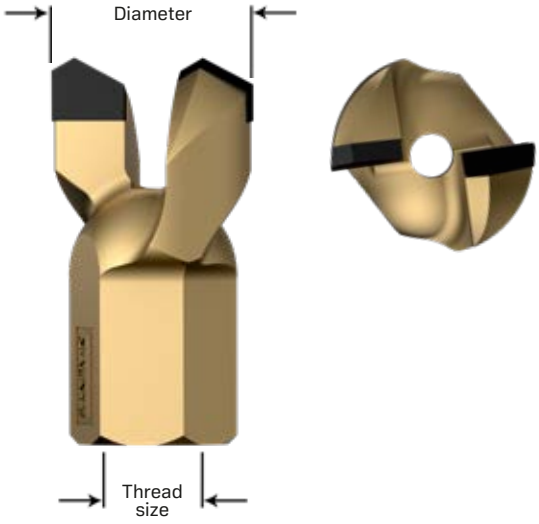
Features

— R20 or R22 female rope thread
— Two wing, negative rake eccentric design ensures efficient cutting

Cutting diameter	Thread size	Part number	Quantity/bucket
52 mm	R20	D4RB-2052-3255	10
55 mm	R20	D4RB-2055-3255	10
52 mm	R22	D4RB-2252-3255	10
55 mm	R22	D4RB-2255-3255	10

Two wing drill bit – D4QB to suit ED rods

42 mm



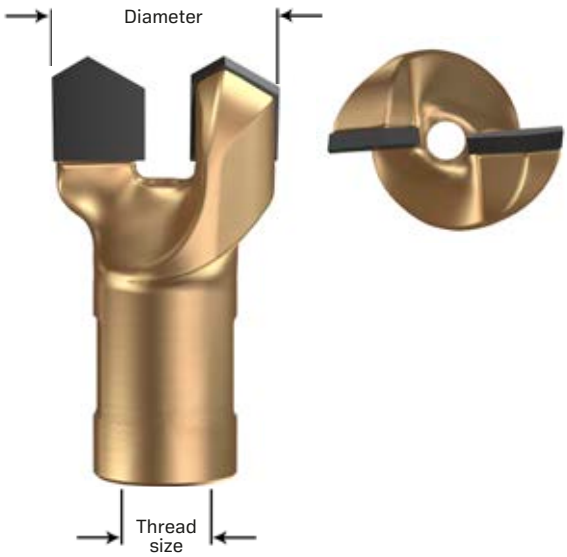
Features

— R20-ED and R22-ED female rope thread
— Two wing negative rake eccentric design ensures efficient cutting
— Hexagonal shaped body assists remova

Part number	Cutting diameter	Thread size	Quantity/bucket
D4QB-2042-4555	42 mm	R20-ED (to suit ED drill rods)	20
D4QB-2242-4555	42 mm	R22-ED (to suit ED drill rods)	20

Two wing drill bit – D4QB to suit ED rods

52 mm to 55 mm



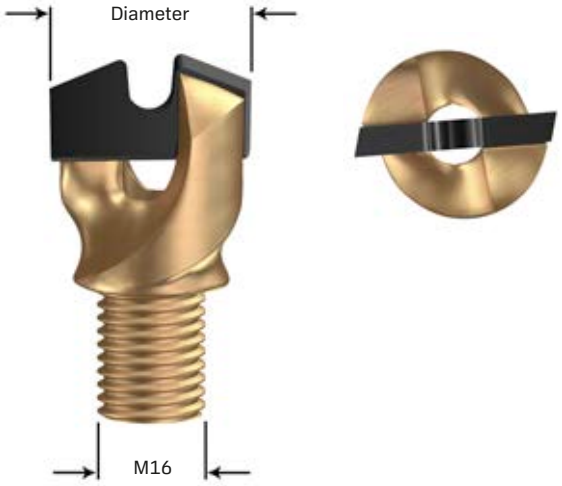
Features

— R20-ED female rope thread
— Two wing, negative rake eccentric design ensures efficient cutting

Part number	Cutting diameter	Thread size	Quantity/bucket
D4QB-2055-3255	55 mm	R20-ED (to suit ED drill rods)	10

Modified spade drill bit – D9MB

27 mm to 38 mm

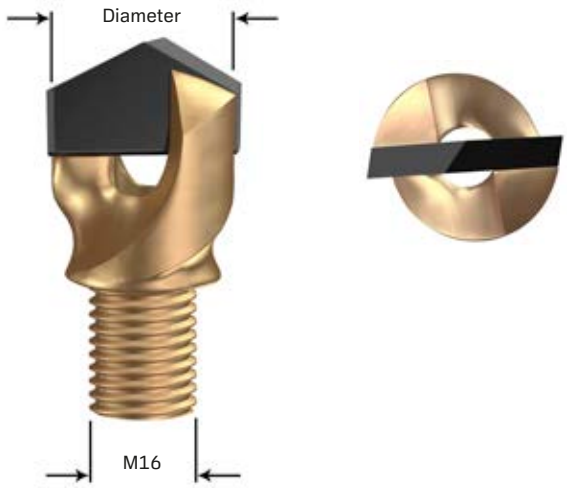


Features
- 16 mm thread
- Notched tip gives strength of one-piece carbide, plus faster drilling than full spade
- Good general-purpose bit

Part number	Cutting diameter	Thread size	Quantity/bucket
D9MB-1627-2871	27 mm	16 mm	100
D9MB-1628-2871	28 mm	16 mm	100
D9MB-1638-2871	38 mm	16 mm	50

Spade drill bit – D9MB

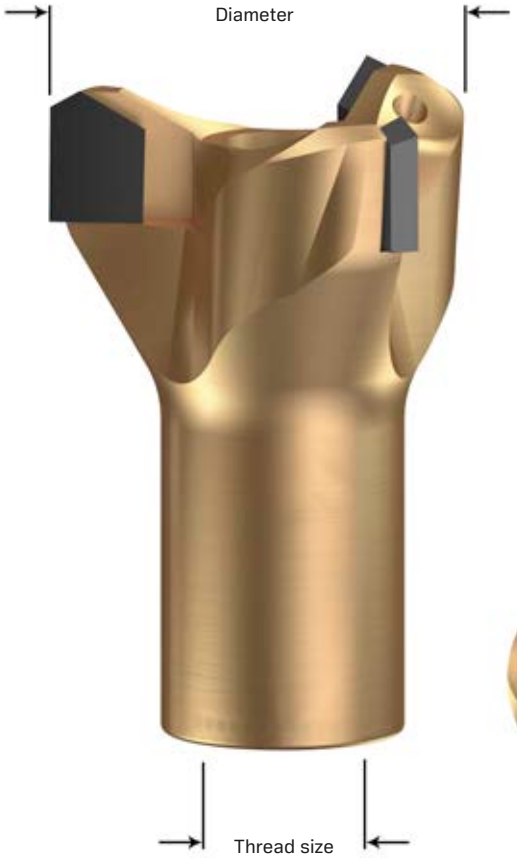
27 mm to 29 mm



Features
- 16 mm thread
- Strongest design roof bit
- Typically used in hard drilling conditions

Part number	Cutting diameter	Thread size	Quantity/bucket
D9MB-1627-2971	27 mm	16 mm	100
D9MB-1628-2971	28 mm	16 mm	100
D9MB-1629-2971	29 mm	16 mm	100

3 wing reamer bit – E5RC



Features
- R20 or R22 female rope thread
- Three wing design
- Uses standard M16 roof bit as a pilot

Part number	Cutting diameter	Thread size	Quantity/bucket
E5RC-2064-0955	64 mm	R20	5
E5RC-2264-0955	64 mm	R22	5
E5RC-2272-9155	72 mm	R22	5

Two wing PCD drill bit – D4MP

27 mm to 28 mm

Features

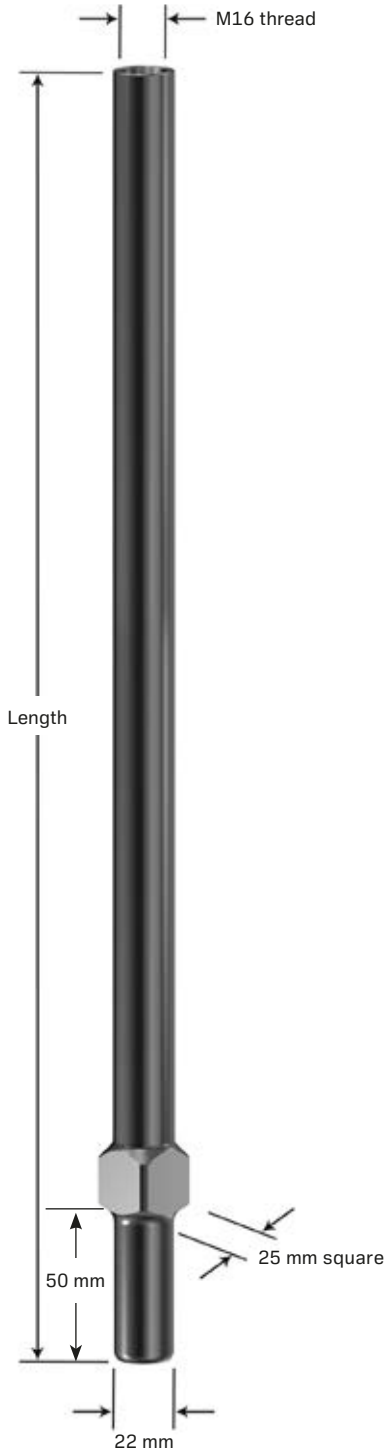
— Reduced cutting forces
— Efficient flushing delivered to each tip
— Enhanced performance, ensuring smooth drilling operations
— Improved body design
— Reduced downtime with fewer tool changes

Part number	Cutting diameter	Thread size	Quantity/bucket
D4MP-1627-9090	27 mm	16 mm	10
D4MP-1628-9090	28 mm	16 mm	10

Drill rods for optimal durability and safety

Our drill rods are manufactured from high strength alloy steel, and are available in either hexagonal or round form. The drive ends are fully forged and the drill rods heat treated for maximum durability and increased safety. These drill rods are available in numerous lengths, ranging from 600 mm to 3,000 mm, and are suitable for use on hydraulic and pneumatic drill rigs fitted to continuous miners, miner bolters and mobile drill rig machines, as well as on hand-held bolting rigs.

Round drill rod – 22R/7

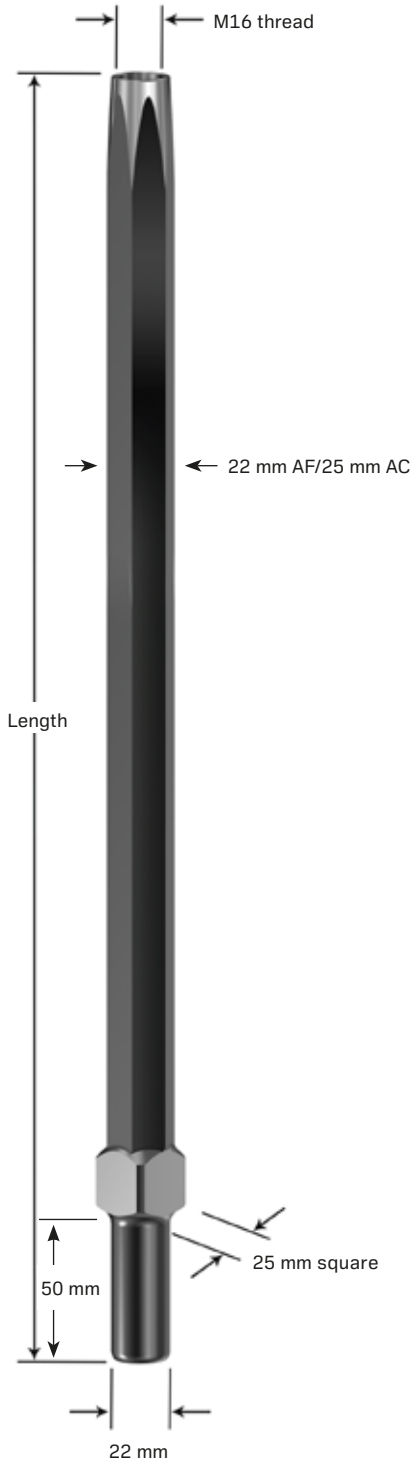


Features
- 22 mm diameter
- 25 mm male square drive end × M16 female bit end
- 12 mm flushing hole through rod minimizes the risk of blockage

Rods

Part number	Length
22R/7/0600/6	600 mm
22R/7/0900/6	900 mm
22R/7/1250/6	1,250 mm
22R/7/1350/6	1,350 mm
22R/7/1375/6	1,375 mm
22R/7/1550/6	1,550 mm
22R/7/1650/6	1,650 mm
22R/7/1850/6	1,850 mm
22R/7/1950/6	1,950 mm
22R/7/2150/6	2,150 mm
22R/7/2200/6	2,200 mm
22R/7/2250/6	2,250 mm
22R/7/2300/6	2,300 mm
22R/7/2350/6	2,350 mm
22R/7/2450/6	2,450 mm
22R/7/2500/6	2,500 mm
22R/7/2700/6	2,700 mm

Hex drill rod – 22/7



Features
— 22 mm AF
— 25 mm square drive end × M16 female bit end
— 6 mm flushing hole through rod

Rods

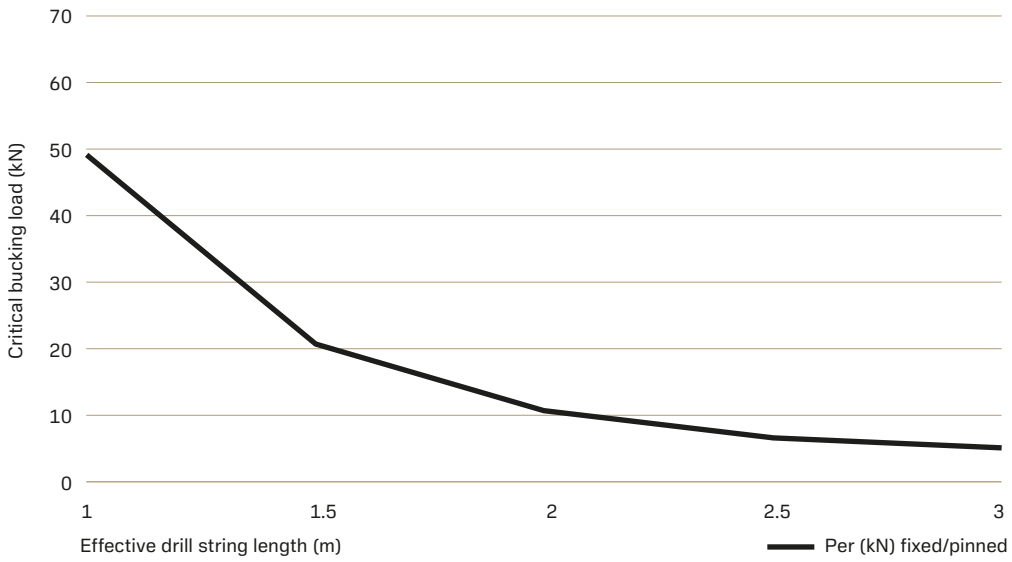
Part number	Length
22/7/0600/6	600 mm
22/7/0900/6	900 mm
22/7/1200/6	1,200 mm
22/7/1250/6	1,250 mm
22/7/1550/6	1,550 mm
22/7/2150/6	2,150 mm

Buckling loads

The critical buckling load is shown for each rod section. Euler's formula $F=\frac{\pi^2 EI}{(KL)^2}$ is used to calculate the critical buckling load, with a K factor of 0.7 (the drive end is assumed to be fixed and the bit end is assumed to be pinned; this simulates the end conditions when collaring a hole from a rigid machine mounted drill rig).

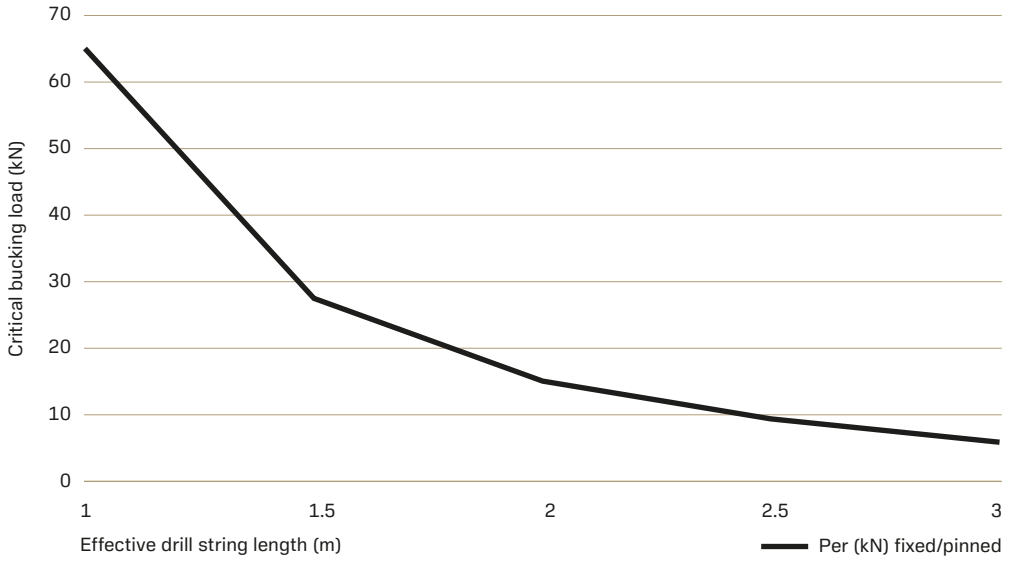
22R, DD18 and DD20 drill rods

Buckling load of 22 mm round drill rods



22/7, HR20 and HR25 Drill rods

Buckling load of 22 mm hexagon drill rods



The most complete range on the market

We manufacture a genuinely comprehensive range of extension drilling systems, made of high strength alloy steel, and suitable for the installation of secondary support strata control products. Our Direct Drive Extension Drilling System, available in the ED20 system, the lightweight DD18 and DD20 systems, and the heavy duty DD22 system, offers you increased productivity and safety. Our extension drilling product range includes drill chuck drive adaptors, drill bit adaptors and extension drill rods in varying lengths. The extension drilling systems are used for drilling holes from 27 mm in diameter to 72 mm in diameter.

Direct Drive drilling systems

Sandvik's Direct Drive Drilling System is far superior to conventional drilling systems for four main reasons: it's safer, faster, easier and smarter.

Safer
- No need to uncouple threads by hand when used on most modern drill rigs ("hands-off")
- No threaded connection close to the chuck and operator

Faster
- Overall cycle times reduced by 40 % compared to conventional drilling systems

Easier
- No uncoupling required upon installation of extra rods
- Half the number of coupling operations

Smarter
- Modular chucks with replaceable stainless steel reinforced water seals
- The 22 mm system incorporates a non-return valve, maintaining the water column and allowing faster recommencement of drilling

Extension drilling Direct Drive – DD18 system

Features
— Lightweight Direct Drive extension rod system
— R18 male/female connections
— Suitable for hole diameters from 27 mm to 45 mm

Bit adaptors

Part number	Overall length	Description
DD18F-M16-0150	150 mm	Bit adaptor, R18 female × M16 female
DD18F-M16-1000	1,000 mm	Bit adaptor, R18 female × M16 female

Extension rods

Part number	Effective length	Description
DD18MF-1000	1,000 mm	DD rod R18 male/female connection
DD18MF-2000	2,000 mm	DD rod R18 male/female connection

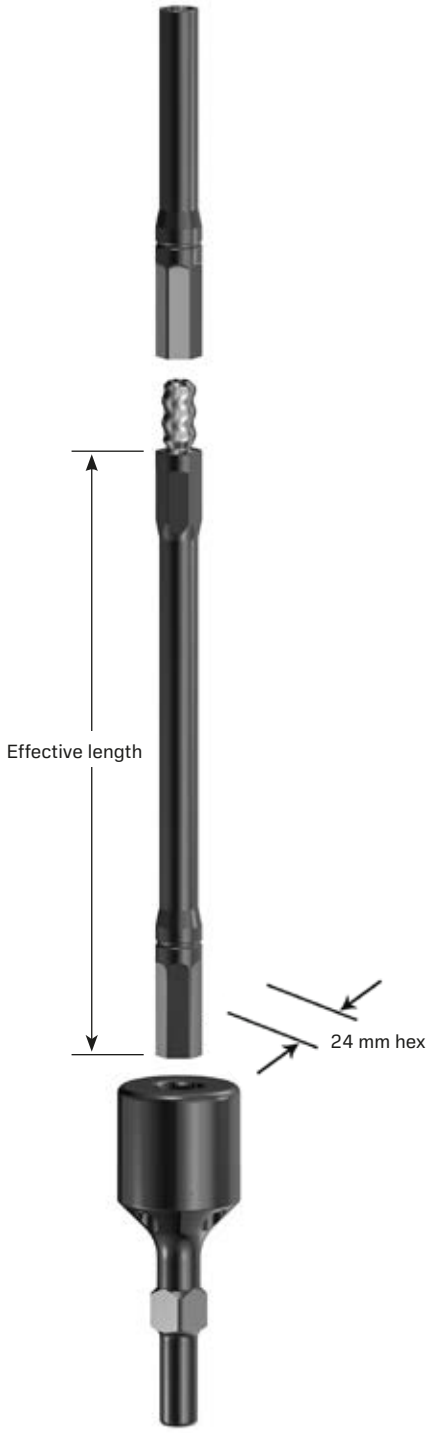
Drive adaptor

Part number	Overall length	Description
RR18M-22/7-0150	150 mm	Drive adaptor R18 male × 25 mm square drive

Chuck adaptor (Blue)

Part number	Description
DD18-22/7-22HF	25 mm square drive male × 22 mm female hex connection

Extension drilling Direct Drive – DD20 system



Features

— The Direct Drive 20 System can be used as a stand-alone system or with existing R20 extension rods, drive adaptors and bit adaptors
— 24 AF Hex on the male end allows for easy uncoupling
— Collared design allows for maximum locking engagement between rods
— Collared design allows shielding of the 24 AF Hex to help reduce wear
— A large range of effective lengths is available, to suit your drilling needs
— Heat treatment process ensures the highest strength and integrity of the product
— For use in drilling holes between 27 mm and 55 mm in diameter

Bit adaptors

Part number	Overall length	Description
DD20F-M16-0100	100 mm	Bit adaptor R20 female × M16 female
DD20F-M16-1000	1,000 mm	Bit adaptor R20 female × M16 female
DD20F-M16-2000	2,000 mm	Bit adaptor R20 female × M16 female

Extension rods

Part number	Effective length	Description
DD20MF-1000	1,000 mm	DD rod R20 male/female connection
DD20MF-2000	2,000 mm	DD rod R20 male/female connection

Drive adaptor

Part number	Overall length	Description
RR20M-22/7-S200	200 mm	Drive adaptor R20 male × 25 mm square drive
RR20M-22/7-0200	200 mm	Drive adaptor R20 male × 25 mm square drive
DD20M-22/7-1000	1,000 mm	Drive adaptor R20 male × 25 mm square drive

Chuck adaptor (Yellow)

Part number	Description
DD20-22/7-24HF	25 mm square drive male × 24 mm female hex connection

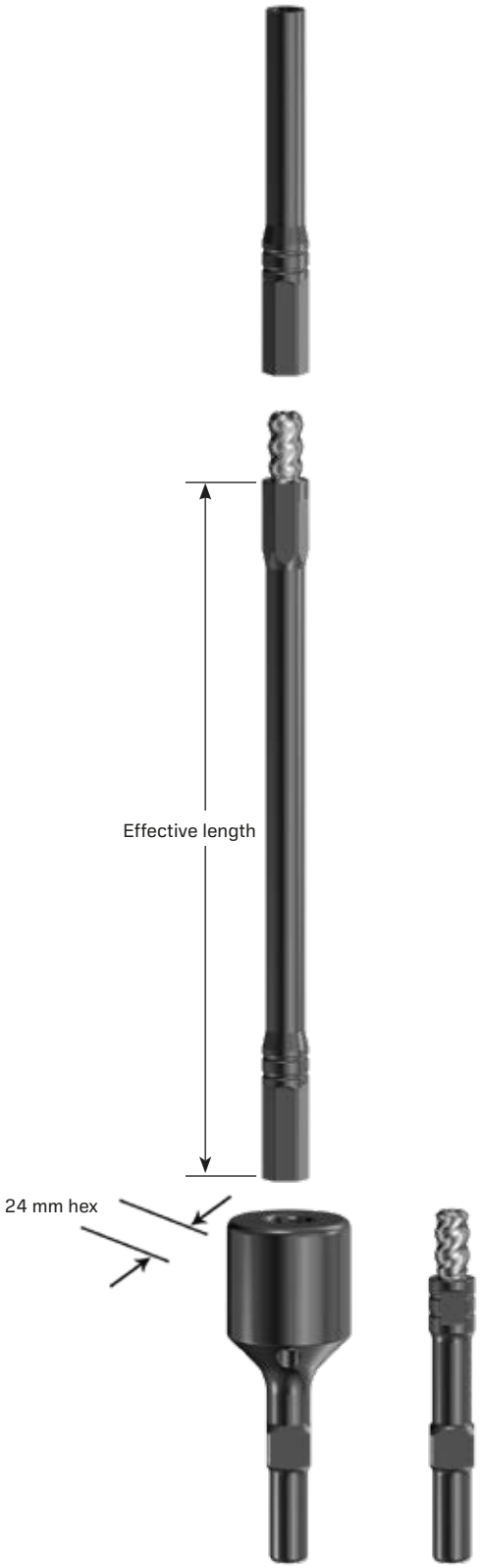
Our extension rod beats the clock it’s about time

Sandvik’s new extension drilling easy disconnect – ED20 system, increases productivity, safety and saves you time – lots of time. Designed to disconnect safely and easily by hand, it is changed in seconds rather than minutes. So you spend less time on unnecessary tasks and more on the things that matter.

The ED20 system – disconnected in seconds rather than minutes (patent pending).

Extension drilling easy disconnect – ED20 system

(patent pending)



Features

— New design with optimized anti-locking thread.
— The high helix thread design is faster to uncouple by eliminating the use of tools
— New thread design increases fatigue life
— Collared design allows for maximum locking engagement between rods
— Collared design allows shielding of the 24 AF Hex to help reduce wear
— Heat treatment process ensures the highest strength and integrity of the product
— For use in drilling holes between 27 mm and 55 mm in diameter

Bit adaptors

Part number	Effective length	Description
ED20F-M16-0100	100 mm	Bit adaptor R20-ED female × M16 female
ED20F-M16-1000	1,000 mm	Bit adaptor R20-ED female × M16 female
ED20F-DD20M-100	100 mm	Bit adaptor R20-ED female × R20 male

Extension rods

Part number	Effective length	Description
ED20MF-0500	500 mm	ED rod, R20-ED male/female connections
ED20MF-1000	1,000 mm	ED rod, R20-ED male/female connections
ED20MF-1500	1,500 mm	ED rod, R20-ED male/female connections
ED20MF-2000	2,000 mm	ED rod, R20-ED male/female connections

Drive adaptor

Part number	Overall length	Description
ED20M-22/7-S200	200 mm	Drive adaptor R20-ED male × 25 mm square drive
ED20M-22/7-1000	1,000 mm	Drive adaptor R20-ED male × 25 mm square drive

Chuck adaptor (Yellow)

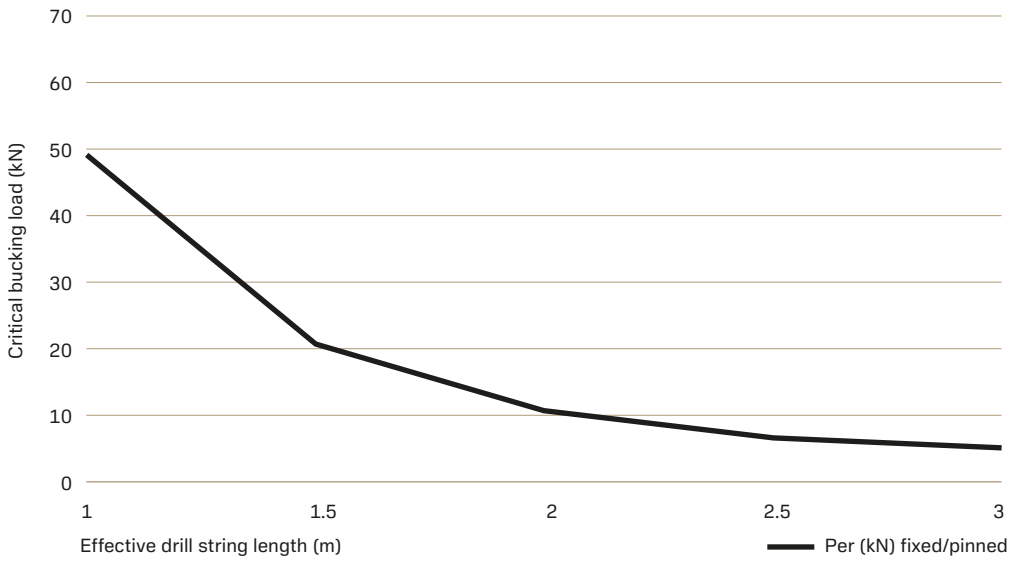
Part number	Description
DD20-22/7-24HF	25 mm square drive male × 24 mm female hex connection

Buckling loads

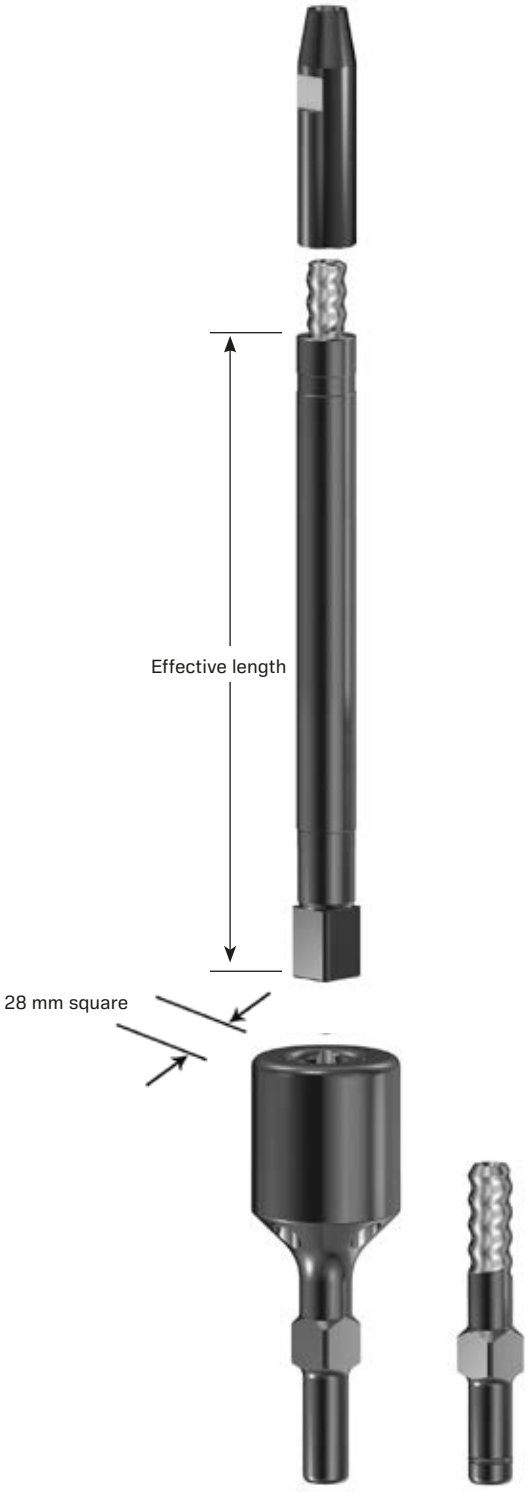
The critical buckling load is shown for each rod section. Euler's formula $F=\frac{\pi^2 EI}{(KL)^2}$ is used to calculate the critical buckling load, with a K factor of 0.7 (the drive end is assumed to be fixed and the bit end is assumed to be pinned; this simulates the end conditions when collaring a hole from a rigid machine mounted drill rig).

ED20, 22R, DD18 and DD20 drill rods

Buckling load of 22 mm round drill rods



Extension drilling Direct Drive – DD22 system



Features

— Heavy duty system for hole sizes 42 to 64 mm plus
— Non-return valve in each rod, to maintain the water column and enable you to continue drilling faster
— Heat treated threads
— R22 male/female connections
— R22 male connection allows use of D4RB drill bits for strongest drilling combination

Bit adaptors

Part number	Overall length	Description
RR22F-R20m-0100	100 mm	Extension rod adapter, R22 female × R20 male connections
RR22F-M16-0070	70 mm	Bit adaptor R22 female × M16 female

Extension rods

Part number	Effective length	Description
DD22MF-1000	1,000 mm	DD rod, R22 male/female connections
DD22MF-2000	2,000 mm	DD rod, R22 male/female connections

Drive adaptor

Part number	Overall length	Description
RR22M-22/6-0200	200 mm	Drive adaptor R22 male × 25 mm square drive, 22 mm round material
HR22M-22/7-0200	200 mm	Drive adaptor R22 male × 25 mm square drive, 22 mm round material

Chuck adaptor (White)

Part number	Description
DD22-22/7-28SF	25 mm square drive male × 28 mm female square connection

Extension drilling easy disconnect – ED22 system

(patent pending)

Features

- New design with optimized anti-locking thread.
- The high helix thread design is faster to uncouple by eliminating the use of tools
- New thread design increases fatigue life
- Collared design allows for maximum locking engagement between rods
- Collared design allows shielding of the 24 AF Hex to help reduce wear
- Heat treatment process ensures the highest strength and integrity of the product
- Heavy duty system for drilling holes between 42 mm and 64 mm plus in diameter

Bit adaptors

Part number	Effective length	Description
ED22F-M16-0070	90 mm	Bit adaptor R22-ED female × M16 female
ED22F-DD22M-100	100 mm	Bit adaptor R22-ED female × R22 male

Extension rods

Part number	Effective length	Description
ED22MF-1000	1,000 mm	ED rod, R22$_3$ED male/female connections
ED22MF-2000	2,000 mm	ED rod, R22-ED male/female connections

Drive adaptor

Part number	Overall length	Description
ED22M-22/6-0200	200 mm	Drive adaptor R22-ED male × 25 mm square drive

Chuck adaptor (White)

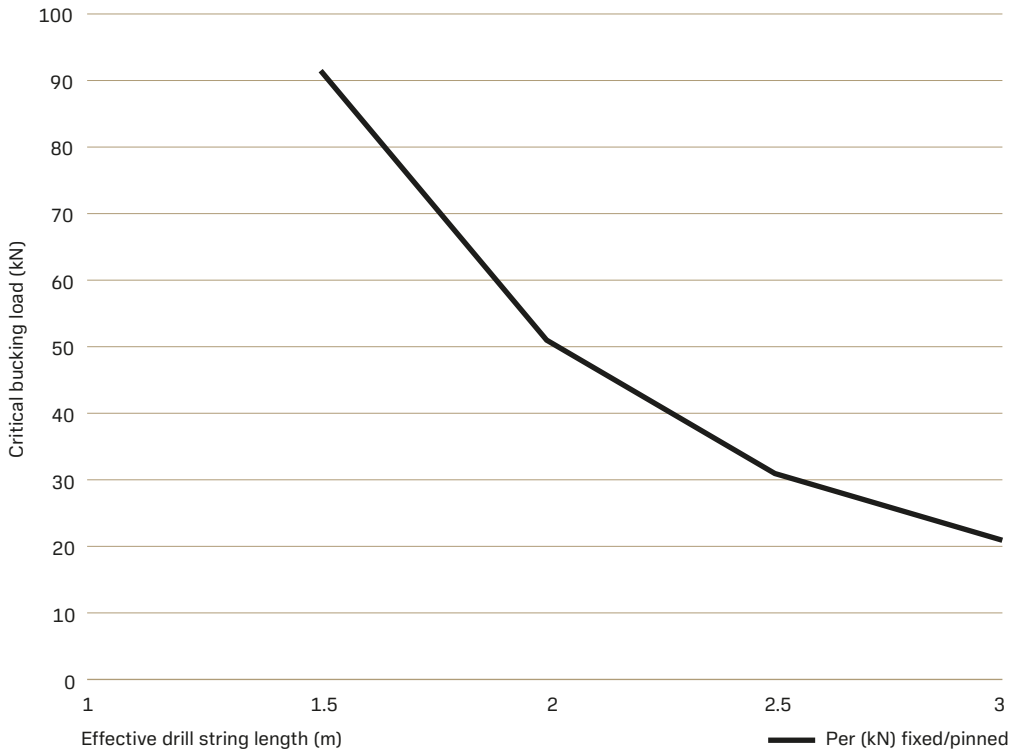
Part number	Description
DD20-22/7-24HF	25 mm square drive male × 24 mm female hex connection

Buckling loads

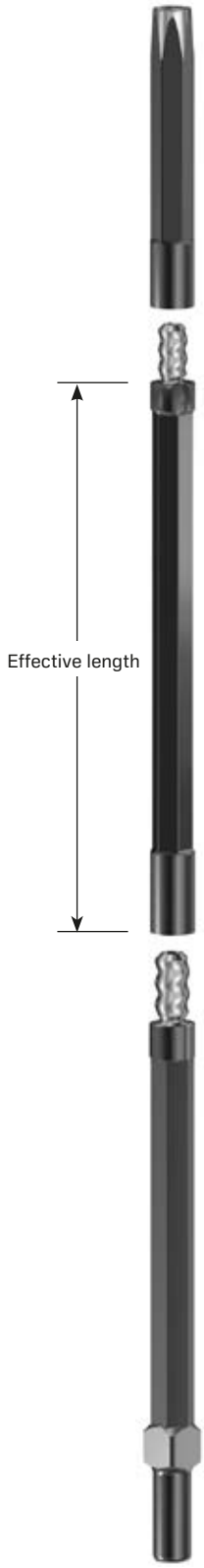
The critical buckling load is shown for each rod section. Euler's formula $F=\frac{\pi^2 EI}{(KL)^2}$ is used to calculate the critical buckling load, with a K factor of 0.7 (the drive end is assumed to be fixed and the bit end is assumed to be pinned; this simulates the end conditions when collaring a hole from a rigid machine mounted drill rig).

ED22 and DD22 drill rods

Buckling load of 32 mm round drill rods



Extension drilling – HR20 system



Features
- Hex extension drill rod
- 22 mm AF
- R20 male/female connections
- Suitable for hole diameters from 27 mm to 64 mm

Bit adaptors

Part number	Overall length	Description
HR20F-M16-0150	150 mm	Bit adaptor, R20 female × M16 female, 22 mm hex material

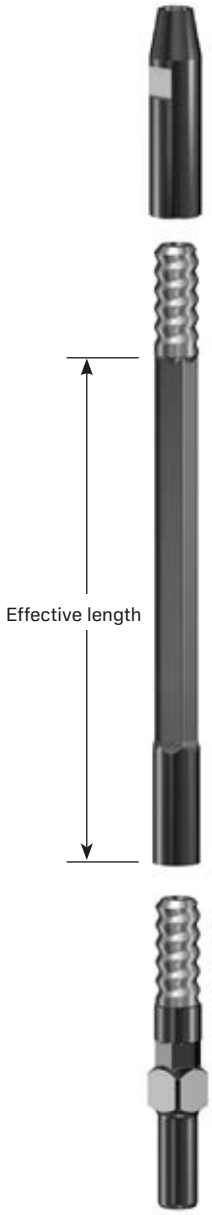
Extension rods

Part number	Effective length	Description
HR20MF-1000	1,000 mm	Hex extension rod, R20 male/female

Drive adaptor

Part number	Overall length	Description
HR20M-22/7-0350	350 mm	Drive adaptor R20 male × 25 mm square drive, 22 mm hex material
HR20M-22/7-1000	1,000 mm	Drive adaptor R20 male × 25 mm square drive, 22 mm hex material

Extension drilling – HR25 system



Features
- Hex extension drill rod
- 22 mm AF
- R25 male/female connections
- Suitable for hole diameters 45 mm to 72 mm

Bit adaptors

Part number	Overall length	Description
RR25F-M16-0070	70 mm	Bit adaptor, R25 female × M16 female, 32 mm round material

Extension rods

Part number	Effective length	Description
HR25MF-1000	1,000 mm	Hex extension rod, R25 male/female

Drive adaptor

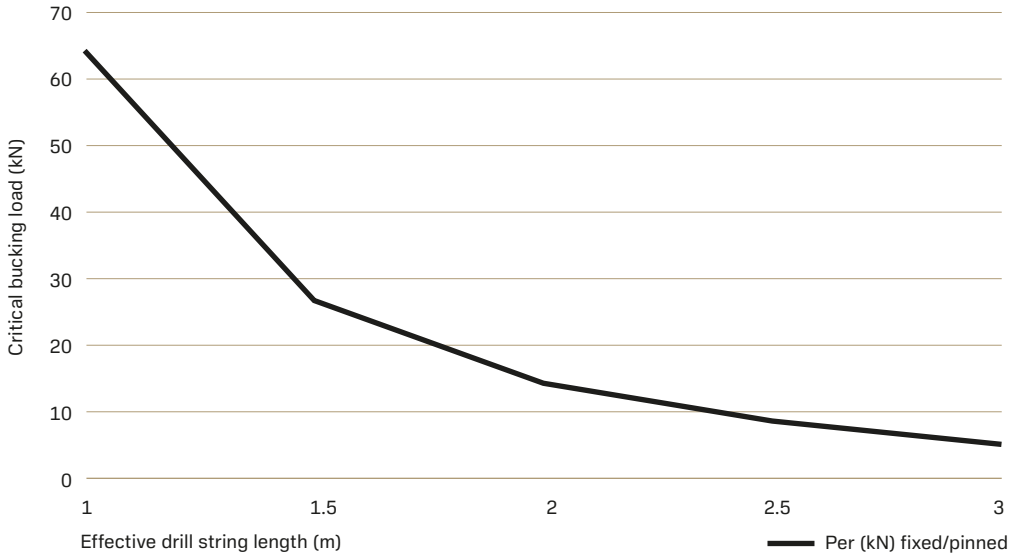
Part number	**Overall length**	**Description**
RR25M-22/7-0200	200 mm	Drive adaptor R25 male × 25 mm square drive

Buckling loads

The critical buckling load is shown for each rod section. Euler's formula $F=\frac{\pi^2 EI}{(KL)^2}$ is used to calculate the critical buckling load, with a K factor of 0.7 (the drive end is assumed to be fixed and the bit end is assumed to be pinned; this simulates the end conditions when collaring a hole from a rigid machine mounted drill rig).

22/7, HR20 and HR25 drill rods

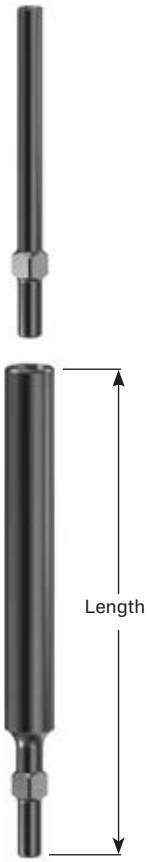
Buckling load of 22 mm hexagon drill rods



Accessories

Tools to assist with the installation of strata support products

Extension spanners



Extension spanner, 25 mm square drive male × 25 mm square drive female, heavy-duty use

Part number	Length
22/7-MF-0200	200 mm
22/7-MF-0300	300 mm
22/7-MF-0450	450 mm
22/7-MF-0600	600 mm
22/7-MF-0800	800 mm
22/7-MF-1000	1,000 mm
22/7-MF-1200	1,200 mm

Accessories

Tools to assist with the installation of strata support products

Spanner, roof bolt
Premium hardened steel socket with 25 mm square drive × 36 mm AF socket end. To include water flushing hole, add W to end of part number e.g. “SP/6/17/0300W”.

Part number	Length
SP/6/17/0300	300 mm
SP/6/17/0450	450 mm
SP/6/17/0450W	450 mm
SP/6/17/0600	600 mm
SP/6/17/0600W	600 mm
SP/6/17/1000	1,000 mm

Spanner,
3/4" female square drive
Spanner, 3/4" female square drive end × 36 mm AF socket end, 300 mm length.

Part number
SP/23/17/0300

Spanner, tightening
25 mm square drive end x 36 AF 35 mm deep socket end. To include water flushing hole, add W to end of part number.

Part number	Length
SP/6/19/0160	160 mm
SP/6/19/0180W	180 mm

Roof bit removel spanner
Suitable for use with 27 mm and 28 mm drill bits.

Part number
M8T-0081

Spanner, Megabolt
25 mm square drive end × 59 mm AF 30 mm deep socket end, suit Megabolt, c/w flushing hole.

Part number	Length
SP/6/59/240/TWH	240 mm

Adaptor
Bit adaptor to extend drill rods with M16 thread.

Part number
M16M-M16F-0150

10093-1/12.24-web Wi