

TRENCHING AND FOUNDATION DRILLING TOOLS

SANDVIK MINING AND ROCK TECHNOLOGY





Sandvik was founded in 1862 by Göran Fredrik Göransson, who was the first in the world to succeed in using the Bessemer method for steel production on an industrial scale.

TOGETHER WE WILL TAKE YOUR BUSINESS FURTHER

For more than 150 years, we have been committed to providing the highest quality products and solutions to the mining industry. Our spirit and business ethics have remained unchanged, and developments in society and the industry have contributed to our innovative solutions.

"Today, the hallmark of great work is innovation and technology. Being second best in this aspect is not an option for us." Today, we continue to conduct business in close cooperation with you and other customers all over the world, with the promise of being a proactive and innovative partner.

We believe that we can make a difference to the successful running of your business. You need to get the best out of your equipment – with no compromise on quality, delivery time or service. As your partners, we will create solutions that make your operations run as effectively as possible.

One thing is certain: our products and solutions will continue to meet the ever-growing needs of the mining industry, and your business.

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PUTTING YOUR SAFETY FIRST

The trenching 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

Safe work procedures should incorporate inspection – before the machine operates, and also through regular monitoring based upon trenching conditions, safety and hazard management systems. Workers should be provided with safety information, instruction and training on transportation, installation, operational care and disposal of trenching 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
- Any site-specific PPE as required

BEFORE OPERATING THE MACHINE

- Block off work area from bystanders.
- Stop operation if bystanders enter the work area.
- Operate only from the operator's station.
- Never drop a boom with a rapidly moving digging chain on the ground.
- Use caution when operating on slopes.
- Try to dig with trencher in a level position.
- Be alert to changes in the work area.
- Watch out for bystanders or changes in weather and soil conditions.
- Keep equipment and bystanders away from the trench after it has been dug.
- The weight could cause a cave-in.
- If chain becomes jammed, never attempt to free it when unit is running.
- Do not operate trencher with chain guards removed.
- Always check for buried utilities before trenching.
- Never try to remove rocks from digging chain with chain running.

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.



HOW TO WORK 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/REMOVAL

Cemented tungsten carbide tipped tools have tough wearresistant edges that may fracture or cause hard objects such as steel hammers to chip when struck during the installation or removal process. During installation, springtensioned clips can become dislodged and a risk of injury exists. Use a brass or copper hammer to reduce this risk. Wear safety glasses and gloves as standard.

USE

- Beware that rotating tools can break or become dislodged during use.
- Personal protective equipment (PPE) such as eyeprotection and suitable clothing should be worn around machinery that uses carbide tipped tools.
- Block off work area from bystanders. Stop operation if bystanders enter the work area.
- Rock cutting generates dust. Some dust is hazardous if inhaled. The use of water spray and suitable PPE is always recommended.
- Machines generate noise; suitable hearing protection is recommended.
- Never drop a boom with a rapidly moving digging chain on the ground.
- 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 trenching conditions, 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.
- Use caution when operating on slopes. The natural vibration of the unit will allow downhill creep. Try to dig with the trencher in a level position.
- Always check for buried utilities before digging.
- Never try to remove rocks from digging chain with chain running.
- Rotating tools can break or be dislodged during use.
 Personal protective equipment such as eye protection and suitable clothing should be worn around machinery using carbide tipped tools. Sandvik recommends introducing a barrier between the cutting drum or board and personnel.

BLOCKS

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.

DEALING WITH WORN PARTS

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

STORING

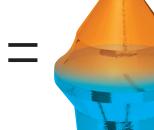
All products should be stored in a dry place and in their original packaging until required for use.

NEW HYBRID DESIGN

BENEFIT FROM THE BEST OF ALL WORLDS

Our hybrid design gives you a blend of the efficient cutting characteristics of our patented CAP designs, combined with the durability and long life of an insert tip. Hybrid tips are developed to work just as well in extremely demanding cutting conditions as they are in any other. 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. Their design improves safety, efficiency and working conditions; leading to increased productivity and lowered production costs.





CAP CARBIDE TIPS

For superior penetration: the larger carbide shoulder provides excellent protection materials where steel against steel wash.

INSERT CARBIDE TIPS

For high-impact conditions, or working with hard wash is not an issue.

THE HYBRID **CARBIDE TIP**

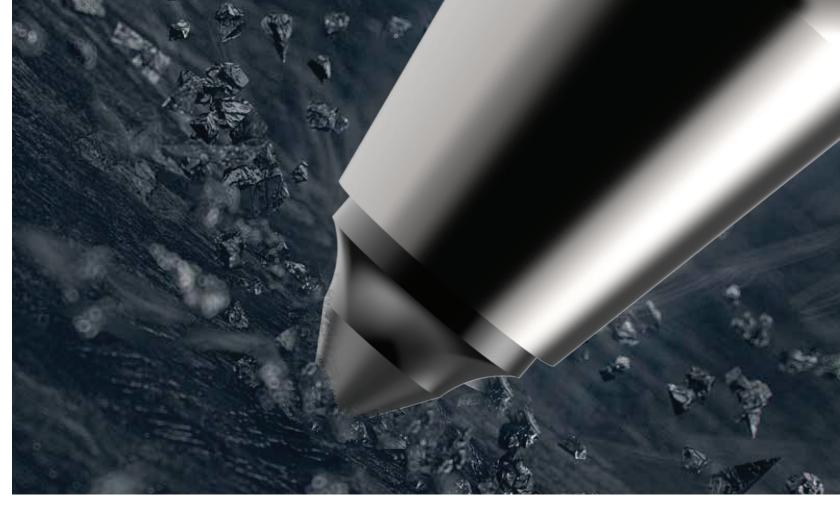
Developed for all cutting requirements - no matter how tough. You won't need to switch tools when your conditions change.

Features our patented Low Energy Profile (LEP) for increased penetration and reduced dust generation.

The tapered bottom design provides more strength where it's needed most, helping to prevent carbide fracture.



Look for the symbol throughout the catalog to find your hybrid pick.



WHY CHOOSE THE HYBRID DESIGN?

DESIGNED WITH SAFETY IN MIND

- Ensure a safe working environment.
- Hybrid tips are designed to help significantly improve working conditions.
- Our tip penetrates better and generates less dust.
- With our robust design, you spend less time changing tools, reducing your exposure.

MAINTAIN THE PRODUCTION PACE

- Hybrid tools are robust, and they feature an optimized profile for speed and productivity.
- Their unique design offers a tool with an efficient "slim" profile, but which outlasts larger tools with wide, blunt designs.
- They offer higher production rates and increased revenue.

INCREASE YOUR UPTIME

- Hybrid tips enable you to focus on cutting, thanks to their sturdy, reliable design.
- The tapered lower portion provides added strength and stability precisely where it's needed, minimizing the risk of breakage.
- The Hybrid tips run for a longer period with significantly fewer interruptions for maintenance, resulting in more time spent doing what you do best.

HANDLES VARYING WORKING CONDITIONS

- The new Hybrid design can deal with the harshest conditions, as well as more forgiving environments.
- Maintain maximum strength, shear resistance and durability in difficult conditions.

CEMENTED CARBIDE: UP FOR ANY TASK

WORLD-LEADING EXPERTISE

We are the world's leading supplier of machines and tool systems for all rock, surface and mineral excavation applications. We deliver millions of tools annually: for small road planing, ice scraping and projects that require roof drilling bits to be used for all types of coal and soft minerals, up to the biggest tunnelling, trenching and surface mining tools.

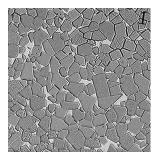
We constantly develop new hard material alloys, which function in today's demanding environments. One of our extensive research projects in this field has resulted in the development of a new generation of carbide grades and larger, stronger and more stable and efficient tools. Demands on tool performance, particularly relating to cemented carbide tip material and its resistance to wear and fracture, become more critical as we progress into harder rock and mineral formations. Larger continuous cutting machines are being used to replace the drill and blast process in many mining projects. This continuous process offers a lower cost per ton of excavated material, ensures worker safety and has a positive effect on the environment.

TOUGHEST IN THE INDUSTRY

This latest generation of patented carbide grades is manufactured using an innovative process technique with completely new raw materials. The process has made it possible to create new, extra-coarse, super-tough alloys with perfectly uniform grain structure. It has also allowed us to better match tip material grade to hard rock and soft rock applications.







Soft rock grade (image magnified)

The creation of this material, with a significantly stronger carbide matrix and a perfect grain size configuration, has contributed to superior toughness and the high-temperature wear resistance required for many operations. Our range of standard grades are cost effective in all general surface and underground applications, and can meet or exceed the performance of competitors' brands. The XT-Grade has proven to be 1.5 to 3 times more effective than anything else on the market in hard-to-extreme tunnelling, trenching and coal mining applications.



CARBIDE TIPS



CARBIDE TIPS



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.



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.



CAP CARBIDE TIPS

Flat bottom cap carbide tips are the preferred general application tip that effectively works in 80% of cutting conditions.



VALVE-SEAT CARBIDE TIPS

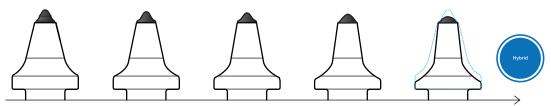
Valve-seat carbide tips have a valve-seat braze joint for increased strength and shear resistance. The tips provide excellent penetration, and the large carbide shoulder gives excellent protection against steel wash. These tips are best suited for use in soft to medium-hard materials or conditions.



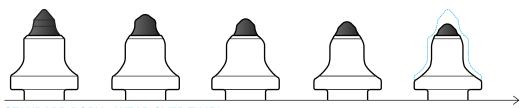
TRISPEC® (TIP-RING COMBINATION)

These tools are equipped with a carbide ring placed slightly below the tip to prevent body wear and maximize carbide tip use. Each tool is available with either an insert or CAP carbide tip. TriSpec® tools reign supreme in high bodywash conditions.

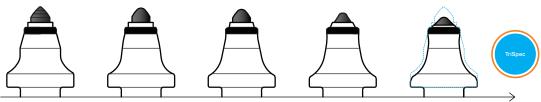
TOOL WEAR



NARROW BODY - WEAR OVER TIME*



STANDARD BODY - WEAR OVER TIME*



TRISPEC BODY - WEAR OVER TIME*

^{*}Results may vary. Based on typical medium abrasiveness.



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.



TRISPEC®

TriSpec® tools are equipped with a carbide ring placed slightly below the tip to prevent body wear and maximize carbide tip use. Each tool is available with either an insert or CAP carbide tip. TriSpec® tools reign supreme in high bodywash conditions.



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.

^{*}Results may vary. Based on typical medium abrasiveness.

CARBIDE TIPS

We offer a wide range of carbide tips to match the various challenges that you might face. All of our tips provide superb penetration and maximum productivity – regardless of whether you work in soft, medium-hard or really hard and demanding conditions.



34.8 mm

(1.37")

CONICAL CARBIDE TIPS

INSERTS



INSERT CARBIDE TIPS

Insert carbide tips are best suited for penetration applications where steel wash is not an issue. These tips are ideal for use in hard, high-impact conditions.







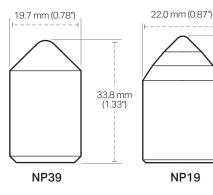














TRISPEC® (TIP - RING COMBINATION)

TriSpec® tools consist of an insert or cap carbide with a carbide ring (highlighted) strategically placed slightly below the tip. The TriSpec ring prevents body wear, maximizing carbide tip use. TriSpec tools are best suited for use in high body-wash conditions.

CONICAL CARBIDE TIPS

HYBRIDS

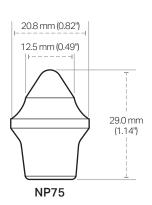


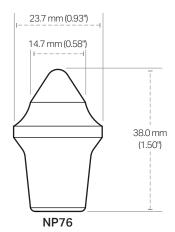
HYBRID TIPS

The Sandvik hybrid tips provide you with the best penetration and impact strength of an insert, with the steel wash protection of a cap.









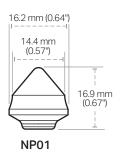
CONICAL CARBIDE TIPS

VALVE-SEATS



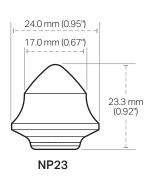
VALVE-SEAT CARBIDE TIPS

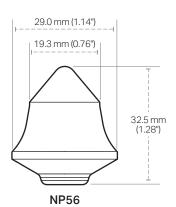
Valve-seat carbide tips have a valve-seat braze joint for increased strength and shear resistance. The tips provide excellent penetration, and the large carbide shoulder gives excellent protection against steel wash. These tips are best suited for use in soft to medium-hard materials or conditions.

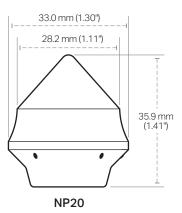












CONICAL CARBIDE TIPS

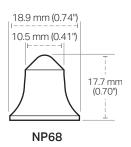
CAPS

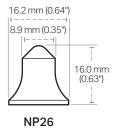


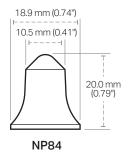
CAP CARBIDE TIPS

Flat bottom cap carbide tips are the preferred general application tip that effectively works in 80% of cutting conditions.

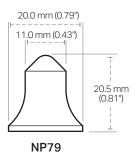












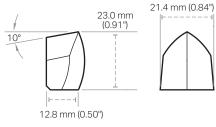
RADIAL CARBIDE TIPS

FOR RADIAL TOOLS

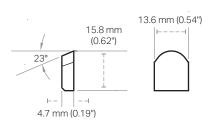


CARBIDE TIPS FOR RADIAL TOOLS

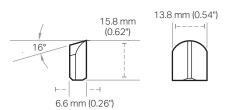
Radial carbide tips are used in tools that do not rotate. They are strategically located at different attack angles for maximum efficiency. The face of each carbide tip is designed with a specific angle for high productivity.







NR50



NR38

CONICAL TOOLS

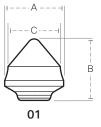
Our conical tools are available in shank diameter sizes of 14 mm through 30 mm and in 38 x 30 step shanks for use on trenching equipment. These tools are manufactured in production facilities in the United States, India, China and Mexico, according to the highest quality standards.

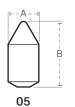


FRICTION RETAINER



- Narrow body for efficient penetration
- Design evenly distributes impact loads through tool shoulder
- Puller groove for easy tool removal
- K97 internal retainer



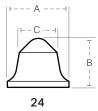


	G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	28.0 mm	16.2 mm	16.9 mm	14.4 mm	H1MA-1428-0169	100	60	6000
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1.10"	0.64"	0.67	0.57"		100		
	30.8 mm	8.3 mm	17.6 mm	N/A	H1MA-1430-0562	100	60	0000
	1.21"	0.33"	0.69"	N/A		100		6000

FRICTION RETAINER



- Standard body
- Wide-flare shoulder provides maximum block and sleeve protection
- K97 internal retainer

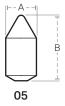


G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
30.5 mm	16.2 mm	12.9 mm	10.0 mm	K11 A 1420 2466	150	60	9000
1.20"	0.64"	0.51"	0.39"	K1LA-1430-2466	150	60	9000

FRICTION RETAINER



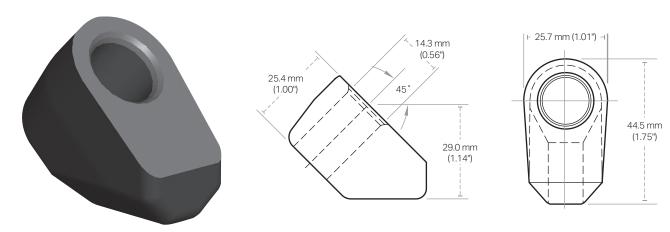
- Sharp nose for increased penetration
- Washer compresses retainer for easier installation and protects block face from wear
- Puller groove for easier tool removal
- Utilizes internal compression sleeve retainer



G	A	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
33.0 mm	8.3 mm	17.6 mm		– H1MW-1432-0562	100	60	6000
1.30"	0.33"	0.69"	N/A	— FITIVIVV-1432-U302	100	60	6000

BLOCKS

14 MM TOOLS



Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3BA-1429-4500	50	60	3000

A standard block

ACCESSORIES

14 MM TOOLS



LARGE PULLERS

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

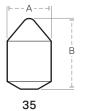
Product Code M8T-0073

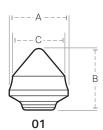
BUMPED RETAINER



- Standard body design
- Design evenly distributes impact loads through tool shoulder
- Puller groove for easy tool removal
- K55 internal retainer

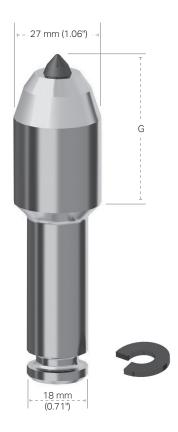






G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
46.8 mm	6.6 mm	15.2 mm	N/A	H2MA 1940 0062	65	60	2000
1.84"	0.26"	0.60"	N/A	H2MA-1849-0962	65	60	3900
44.7 mm	12.1 mm	18.7 mm	N/A	H2MA-1844-3562	65	60	2000
1.76"	0.48"	0.74"	N/A	112MA-1044-3302	05	60	3900
43.9 mm	16.2 mm	16.9 mm	14.4 mm	H2MA 1046 0160	65	60	2000
1.73"	0.64"	0.67"	0.57"	H2MA-1846-0169	00	OU .	3900

EXTERNAL RETAINER



- Heavy-duty body
- Narrow shoulder distributes impact loads evenly
- K91 external retainer

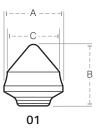


G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
46.6 mm	8.3 mm	17.0 mm	NA	— H3LA-1847-4262	65	60	3900
1.83"	0.33"	0.67"	NA	— H3LA-1047-4202	65	60	3900

EXTERNAL RETAINER



- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- K91 external retainer

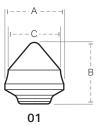


G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
43.2 mm	16.2 mm	16.9 mm	14.4 mm	K3LA-1843-0169	50	60	3000
1.70"	0.64"	0.67"	0.57"		50	bU	3000

BUMPED RETAINER



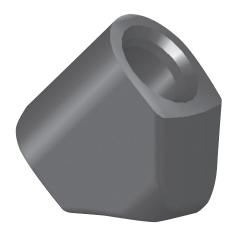
- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- K55 internal retainer

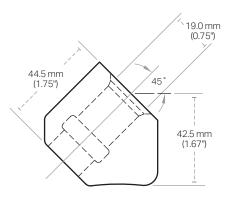


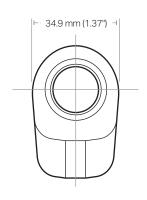
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
43.2 mm	16.2mm	16.9 mm	14.4 mm	V01 A 40 45 0400	50	60	3000
1.71"	0.64"	0.67"	0.57"	K2LA-1845-0169	50	60	3000

BLOCKS

18 MM TOOLS

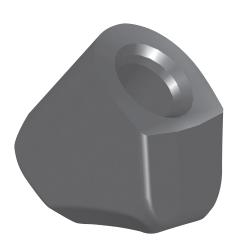


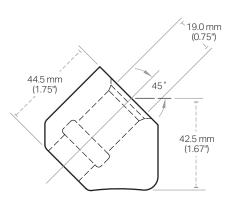


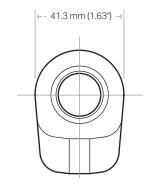


Part Number	Pieces	Boxes	Pieces
Product Code	Per Box	Per Pallet	Per Pallet
B3AA-1843-4500	35	60	2100

A standard block







Part Number	Pieces	Boxes	Pieces	
Product Code	Per Box	Per Pallet	Per Pallet	
B3AH-1843-4500	35	60	2100	

A heavy-duty block

ACCESSORIES

18 MM TOOLS



PULLER

For removal of tools with 18 mm shank.

Product Code M8	BT-0003-19
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INSTALLATION / REMOVAL

For removal of external hairpin retainers.

Product Code	M8T-0061
Floudet Code	10101-0001



CURVED KNOCK-OUT PUNCH

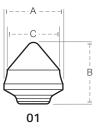
Tool remover with carbide tip for extended life.

Product Code	M8T-0004
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FRICTION RETAINER



- Standard body design
- Design evenly distributes impact loads through tool shoulder
- Puller groove for easy tool removal
- K84 internal retainer



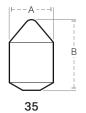
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
42.7 mm	16.2 mm	16.9 mm	14.4 mm	H1MA-1944-0169	60	60	3600
1.68"	0.64"	0.67"	0.57"	HTMA-1944-0109	00	00	3000

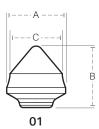
BUMPED RETAINER



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





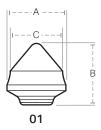


G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
43.9 mm	6.6 mm	15.2 mm	N/A	H2MA-1944-0962	65	60	2000
1.73"	0.26"	0.60"	N/A	HZIMA-1944-0902	05	60	3900
44.7 mm	12.1 mm	18.7 mm	N/A	H2MA-1944-3562	65	60	3900
1.76"	0.48"	0.74"	N/A	HZIMA-1944-5502	05		
44.2 mm	16.2 mm	16.9 mm	14.4 mm	H2MA 1046 0160	65	60	2000
1.74"	0.64"	0.67"	0.57"	H2MA-1946-0169	00	UU	3900

BUMPED RETAINER



- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- K21 internal retainer

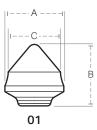


G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
43.2 mm	16.2 mm	16.9 mm	14.4 mm	K2HA-1945-0169	50	60	3000
1.70"	0.64"	0.67"	0.57"	N2HA-1945-0109	50	60	3000

EXTERNAL RETAINER



- Heavy-duty body
- Wide-flare shoulder provides maximum block and sleeve protection
- K91 external retainer

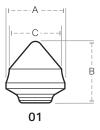


G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
43.2 mm	16.2 mm	16.9 mm	14.4 mm	· K3LA-1943-0169	50	60	3000
1.70"	0.64"	0.67"	0.57"	N3LA-1943-0169	50	00	3000

SELF-LOCKING



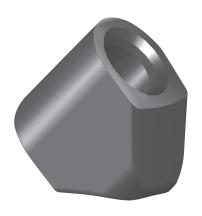
- Standard body
- Wide-flare shoulder provides maximum block and sleeve protection
- Non-rotating
- Self-locking nut ensures maximum retention

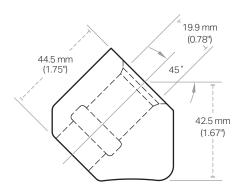


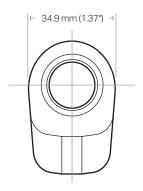
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
43.2 mm	16.2 mm	16.9 mm	14.4 mm	H8LC-1943-0169	40	60	2400
1.70"	0.64"	0.67"	0.57"	ПВLC-1943-0109	40	60	2400

BLOCKS

19 MM TOOLS

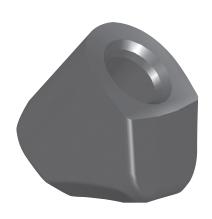


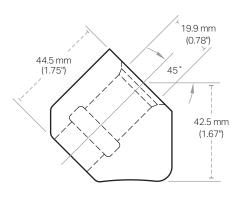


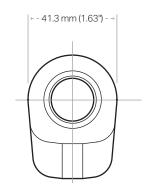


Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3AA-1943-4500	35	60	2100

A standard block



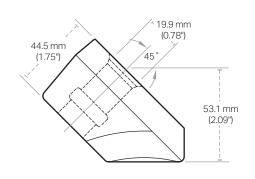


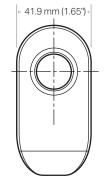


Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3AH-1943-4500	35	60	2100

A heavy-duty block







Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
B3AJ-1953-4500	15	60	900

Block is 0.39 inches (10 mm) taller than standard

ACCESSORIES

19 MM TOOLS



PULLER

For removal of tools with 19 mm shank.

Product Code	M8T-0003-19



INSTALLATION / REMOVAL

For removal of external hairpin retainers.

Product Code	M8T-0061



CURVED KNOCK-OUT PUNCH

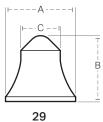
Tool remover with carbide tip for extended life.

Product Code N	18T-0004
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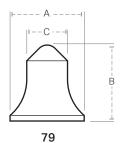
FRICTION RETAINER

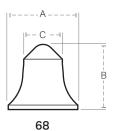


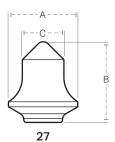
- Unique tool design provides superior rotation
- New lower groove location lasts longer
- Full-sleeve retainer and washer maintain maximum block bore and seat protection
- Improved thicker washer for increased protection and longer life









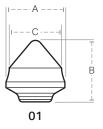


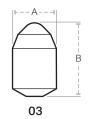
	G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	49.0 mm	17.8 mm	16.7 mm	10.0 mm	V05W 0040 0000	50	0.0	0000
	1.93"	0.70"	0.66"	0.39"	K6FW-2248-2966	50	60	3000
	49.0 mm	18.9 mm	17.7 mm	10.5 mm	VCEW 2240 C0CC	50	60	2000
	1.93"	0.74"	0.70"	0.41"	K6FW-2249-6866	50	60	3000
	49.0 mm	20.0 mm	20.5 mm	11.0 mm	K6FW-2252-7966	50	60	2000
	1.93"	0.79"	0.79"	0.43"	NOFW-2252-/900	50	00	3000
A	49.0 mm	20.0 mm	21.3 mm	12.0 mm	- K6FW-2249-2766	F.O.	60	2000
	21.93"	0.79"	0.84"	0.47"		50	60	3000

FRICTION RETAINER



- Unique tool design provides superior rotation
- New lower groove location lasts longer
- Full-sleeve retainer and washer maintain maximum block bore and seat protection
- Improved thicker washer for increased protection and longer life



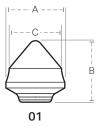


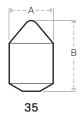
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
44.3 mm	16.2 mm	16.9 mm	14.4 mm	K6FW-2244-0169	50	60	3000
1.74"	0.64"	0.67"	0.57"	- K6FW-2244-0169	50	00	3000
49.0 mm	12.1 mm	19.5 mm	N/A	V6FW 2240 0266	F.O.	60	2000
1.93"	0.48"	0.77"	N/A	K6FW-2249-0366	50	60	3000

BUMPED RETAINER



- Bumped sleeve for improved retention
- Puller Groove to aid in extraction





	G	A	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	46.0 mm	16.2 mm	16.9 mm	14.4 mm	K9MA-2245-0169	50	60	3000
	1.81"	0.64"	0.67"	0.57"	- N9MA-2245-0169	50	00	3000
	45.6 mm	12.1 mm	18.7 mm	NA	KOMA 2245 2562	50	60	2000
	1.80"	0.48"	0.74"	NA	— K9MA-2245-3562	50	60	3000

FRICTION RETAINER



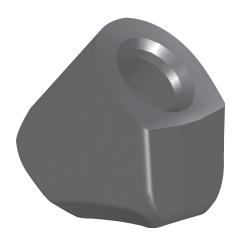
- Non-rotating tool with flat carbide edge for soft to medium-hard conditions
- Used to create combination chains
- Used for soil stabilization
- K85 internal retainer

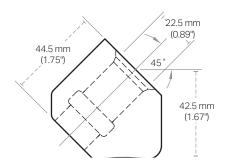


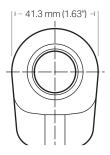
G	A	В	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50.8 mm	38.1 mm	N/A	R6XJ-2251-XX63	40	60	2400
2.00"	1.50"	N/A	NOAU-2201-AA03	40	00	2400

BLOCKS

22 MM TOOLS



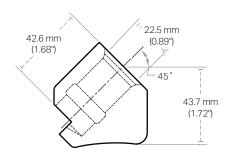


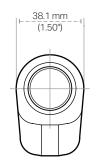


Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3AH-2243-4500	35	60	2100

A heavy-duty block







Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B1XX-2239-4500	35	60	2100

A unique block design used to create a combination chain for rotating and non-rotating tools

ACCESSORIES

22 MM TOOLS



PULLER

For removal of tools with 22 mm shank.

Product Code	
M8T-0003-25AA	



INSTALLATION / REMOVAL

For removal of external hairpin retainers.

Product Code	
M8T-0065	



CURVED KNOCK-OUT PUNCH

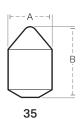
Tool remover with carbide tip for extended life.

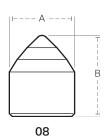
Product Code	
M8T-0004	

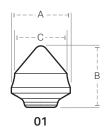
EXTERNAL RETAINER

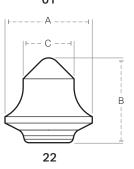


- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- Design evenly distributes impact loads through tool shoulder
- K01 external retainer









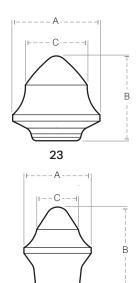
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
63.5 mm	12.1 mm	18.7 mm	N/A	D2DD 2562 2562	15	40	600
2.50"	0.48"	0.74"	N/A	P3PD-2563-3562	15		
63.5 mm	16.2 mm	16.9 mm	14.4 mm	P3PD-2563-0169	15	40	600
2.50"	0.64"	0.67"	0.57"		15		
63.5 mm	18.0 mm	22.3 mm	N/A	P3PD-2563-0862	15	40	600
2.50"	0.71"	0.88"	N/A		15		
63.5 mm	24.0 mm	23.3 mm	14.0 mm	P3PD-2563-2262		40	600
2.50"	0.95"	0.92"	0.55"		15	40	000

EXTERNAL RETAINER

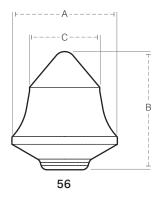


FEATURES:

- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- Design evenly distributes impact loads through tool shoulder
- K01 external retainer



74

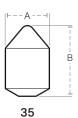


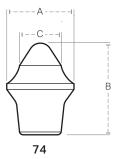
G	A	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
63.5 mm	24.0 mm	23.3 mm	17.0 mm	P3PD-2563-2362	15	40	600
2.50"	0.95"	0.92"	0.67"	F3FD-2303-2302	15	40	000
63.5 mm	29.0 mm	32.5 mm	19.3 mm	D2DD 2562 5662	15	40	600
2.50"	1.14"	1.28"	0.76"	P3PD-2563-5662	15	40	600
63.5 mm	17.7 mm	24.2 mm	11.0 mm	D2DD 2502 7402	15	40	600
2.50"	0.70"	0.95"	0.43"	P3PD-2563-7462	15	40	600

EXTERNAL RETAINER



- Narrow body for efficient penetration
- Wide-flare shoulder provides maximum block and sleeve protection
- Design evenly distributes impact loads through tool shoulder
- K01 external retainer



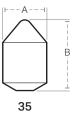


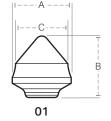
	G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
Hybrid	76 mm	17.7 mm	24.2 mm	11.0 mm	NEW Q3PD-2576-7462	10	40	400
(Nyshid	2.99"	0.70"	0.95"	0.43"	Q3PD-2576-7462	10	40	400
	69.9 mm	12.1 mm	18.7 mm	N/A	Q3PD-2570-3562	15	40	600
_	2.75"	0.48"	0.74"	N/A	Q3FD-2370-3302		40	

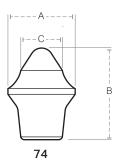
BUMPED RETAINER



- Narrow body for efficient penetration
- Puller groove for easy tool removal
- Design evenly distributes impact loads through tool shoulder
- K66 internal retainer





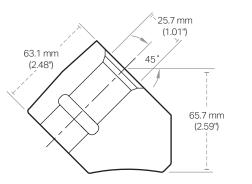


	G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	58.4 mm	12.1 mm	18.7 mm	N/A	P9QA-2560-3562	35	40	1400
	2.30"	0.48"	0.74"	N/A	F 9QA-2300-3302	33	40	1400
	63.6 mm	16.2 mm	16.9 mm	14.4 mm	P9QA-2563-0169	35	40	1400
	2.50"	0.64"	0.67"	0.57"	P9QA-2505-0109	55	40	1400
Hybrid	59.3 mm	17.7 mm	24.2 mm	11.0 mm	DOOA 2560 7462	25	40	1400
	2.33"	0.70"	0.95"	0.43"	P9QA-2560-7462	35	40	1400

BLOCKS

25 MM TOOLS

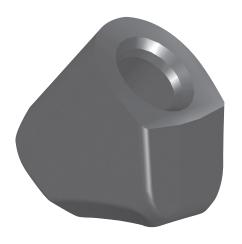


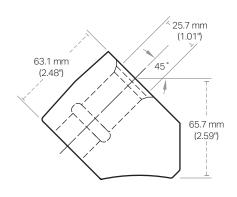


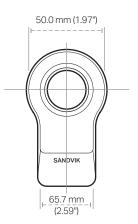


Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3AX-2566-4500	15	60	900

A slim design holder





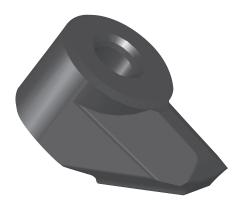


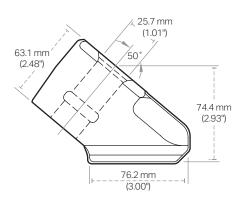
Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3AG-2566-4500	12	60	720

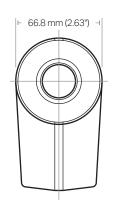
A slim design holder

BLOCKS

25 MM TOOLS



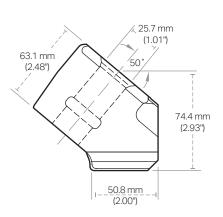


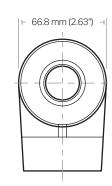


Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3AH-2574-5000	8	60	480

A heavy-duty block that features a "V" design, which provides greater surface-weld area







Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
B3AI-2574-5000	8	60	480

A heavy-duty block with shorter base for compact positioning

ACCESSORIES

25 MM TOOLS



PULLER

For removal of tools with 25 mm shank.

Product Code M8T-0003-25QA

INSTALLATION / REMOVAL

For removal of external hairpin retainers.

30 MM TOOLS



PULLER

For removal of tools with 30 mm shank.

Product Code	M8T-0014-30

INSTALLATION / REMOVAL

For removal of external hairpin retainers.

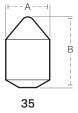
Product Code	M8T-0064
Product Code	NI81-0064

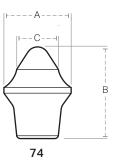
EXTERNAL RETAINER



30 mm (1.18")

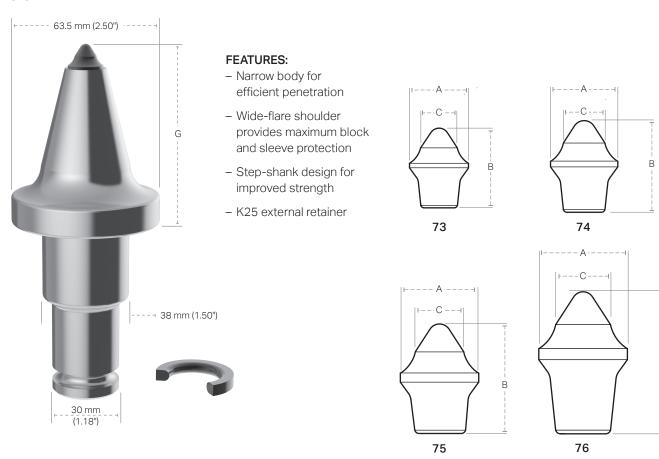
- Narrow body for efficient penetration
- Ideal for cutting drum attachments
- K37 external hairpin retainer





	G)	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	84	4.0 mm	12.1 mm	18.7.0 mm	N/A	OOKY 2004 2562	15	60	000
	3.	.31"	0.48"	0.74"	N/A	Q8KX-3084-3562	15	60	900
	84	4 mm	17.7 mm	24.2 mm	11.0 mm	OOKY 2004 7462	15	60	000
Hybrid	3.	.31"	0.70"	0.95"	0.43"	Q8KX-3084-7462	15	60	900

C-CLIP RETAINER



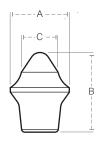
G		Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
76 I	mm	15 mm	20.2 mm	9.2 mm	Q3DD-3876-7362	10	40	400
2.99	99"	0.59"	0.80"	0.36"	Q3DD-3670-7302	10	40	400
76.	.2 mm	17.7 mm	24.2 mm	11.0 mm	Q3DD-3876-7462	10	40	400
3.0	00"	0.70"	0.95"	0.43"	Q3DD-3670-7402	10	40	400
76.	.2 mm	20.8 mm	29.0 mm	12.5 mm	Q3DD-3876-7562	10	40	400
3.0	00"	0.82"	1.14"	0.49"	Q3DD-3670-7302	10	40	400
76.	i.2 mm	23.7 mm	38.0 mm	14.7 mm	Q3DD-3876-7662	10	40	400
3.0	00"	0.93"	1.50"	0.58"	Q3DD-3070-7002	10	-	400

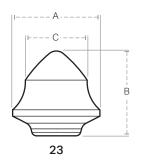
C-CLIP RETAINER

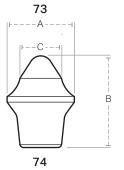


30 mm (1.18")

- Narrow body for efficient penetration
- Wide-flare shoulder provides maximum block and sleeve protection
- Step-shank design for improved strength
- K25 external retainer





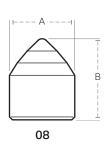


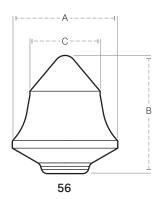
		G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	\	89 mm	17.7 mm	24.2 mm	11.0 mm	NEW	10	40	400
Hybrid		3.50"	0.70"	0.95"	0.43"	Q3DD-3889-7462	10	40	400
		70 mm	15 mm	20.2 mm	9.2 mm	NEW	10	40	400
Hybrid	2.76"	0.59"	0.80"	0.36"	Q3DD-3870-7362	10	40	400	
Hybrid		63 mm	17.7 mm	24.2 mm	11.0 mm	NEW Q3DD-3863-7462	10	40	400
		2.48"	0.70"	0.95"	0.43"	Q3DD-3803-7402	10	40	400
		69.9 mm	24.0 mm	23.3 mm	17.0 mm	Q3DD-3870-2362	10	40	400
	2	2.75"	0.95"	0.92"	0.67"	Q3DD-3670-2362	10	40	400

C-CLIP RETAINER



- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- Step-shank design for improved strength
- K25 external retainer





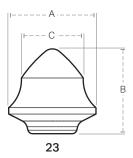
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
69.9 mm	18.0 mm	22.3 mm	N/A	P3DD-3870-0862	10	40	400
2.75"	0.71"	0.88"	N/A	F3DD-3070-0002	10	40	400
69.9 mm	29.0 mm	32.5 mm	19.3 mm	P3DD-3870-5662	10	40	400
2.75"	1.14"	1.28"	0.76"	F 300-3070-3002	10	40	400
76.2 mm	18.0 mm	22.3 mm	N/A	D2DD 2076 0062	10	40	400
3.00"	0.71"	0.88"	N/A	P3DD-3876-0862	10	40	400

SNAP-RING RETAINER



30 mm (1.18")

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

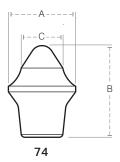


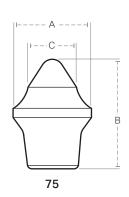
G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
69.9 mm	24.0 mm	23.3 mm	17.0 mm	Q3DS-3870-2362	10	40	400
2.75"	0.95"	0.92"	0.67"	Q3D3-36/U-2362	10	40	400

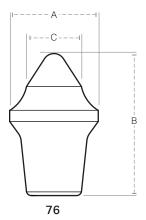
SNAP-RING RETAINER



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

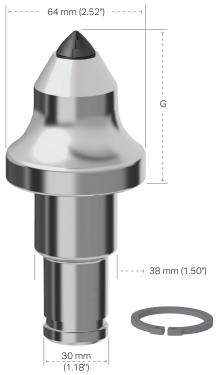




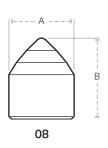


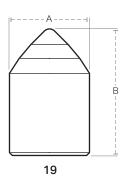
	G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
Hybrid	76.2 mm	17.7 mm	24.2 mm	11.0 mm	Q3DS-3876-7462	10	40	400
Ayond	3.00"	0.70"	0.95"	0.43"	Q3D3-3670-7402	10	40	400
	76.2 mm	20.8 mm	29.0 mm	12.5 mm	Q3DS-3876-7562	10	40	400
Hybrid	3.00"	0.82"	1.14"	0.49"	Q3D3-3670-7302	10	40	400
	76.2 mm	23.7 mm	38.0 mm	14.7 mm	0200 2070 7002	10	40	400
Hybrid	3.00"	0.93"	1.50"	0.58"	Q3DS-3876-7662	10	40	400

SNAP-RING RETAINER



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





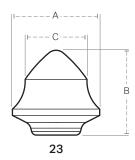
	G	А	В	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	69.9 mm	18.0 mm	22.3 mm	P3DS-3870-0862	10	40	400
	2.75"	0.71"	0.88"	F3D3-3670-0602	10	40	400
A	69.9 mm	22.0 mm	34.8 mm	P3DS-3870-1962	10	40	400
	2.75"	0.87"	1.37"	F 3D3-3670-1902	10	40	400
	76.2 mm	18.0 mm	22.3 mm	P3DS-3876-0862	10	40	400
	3.00"	0.71"	0.88"	F3D3-30/0-0802	10	40	400

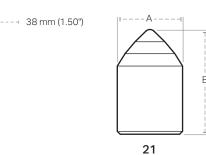
SLEEVE RETAINER

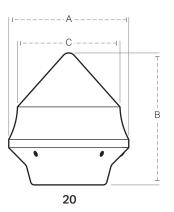


30 mm (1.18")

- Standard body design
- Wide-flare shoulder provides maximum block and sleeve protection
- Step-shank design for improved strength
- SB47SL internal retainer

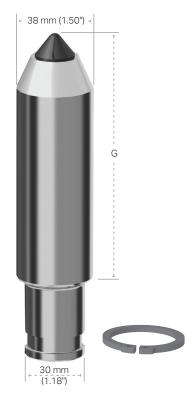




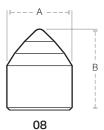


	G	Α	В	С	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	63 mm	24.0 mm	17.0 mm	23.2 mm	NEW Tapy 2002 2002	10	40	400
ISpec	2.48"	0.95"	0.67"	0.92"	T3DX-3863-2362	10	40	400
	64 mm	33.0 mm	35.9 mm	28.2 mm	P3DX-3863-2062	10	40	400
	2.52"	1.30"	1.41"	1.11"	F 3DA-3003-2002	10	70	400
	67.3 mm	18.0 mm	28.8 mm	N/A	P8FX-3868-2162	10	40	400
	2.65"	0.71"	1.13"	N/A	F 01 X-3000-2102	10	40	400
	80.0 mm	18.0 mm	28.8 mm	N/A	P8FX-3880-2162	10	40	400
	3.15"	0.71"	1.13"	N/A	F0FA-308U-2102	10	40	400

NO COLLAR



- Heavy-duty body
- Narrow design distributes impact loads evenly
- K86 external retainer



G	Α	В	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
125.4 mm	18.0 mm	22.3 mm	P0DS-3888-0862	15	40	600
4.94"	0.71"	0.88"	FUD3-3088-U802	10	40	000

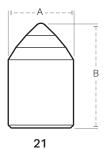
$38 \times 30 \text{ MM TOOL}$

C-CLIP RETAINER



FEATURES:

- Unique TriSpec body design
- Strategically placed carbide ring prevents body wear, maximizing carbide tip use
- Wide-flare shoulder provides maximum block and sleeve protection
- Step-shank design for improved strength
- K25 external retainer



		G	A	В	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
	A	76.2 mm	18.0 mm	28.8 mm	T3DD-3876-2162	10	40	400
TriSpec		3.00"	0.71"	1.13"	1300-3876-2162	10	40	400
	A	64.0 mm	18.0 mm	28.8 mm	T2DD 2002 2102	10	40	400
TriSpec		2.52"	0.71"	1.13"	T3DD-3863-2162	10	40	400

Available in additional carbide and gauge length combinations

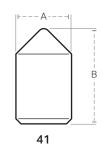
$38 \times 30 \text{ MM TOOL}$

SNAP-RING RETAIINER



FEATURES:

- Unique TriSpec body design
- Strategically placed carbide ring prevents body wear, maximizing carbide tip use
- Wide-flare shoulder provides maximum block and sleeve protection
- Step-shank design for improved strength
- K86 external retainer



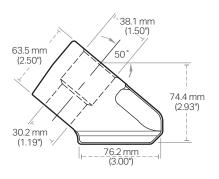
	G	Α	В	Product Code	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
A	70.0 mm	15.3 mm	26.2 mm	- T3DS-3870-4162	10	40	400
TriSpec	2.76"	0.60"	1.03"	- 1305-3870-4162	10	40	400

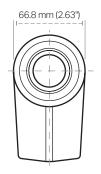
Available in additional carbide and gauge length combinations

BLOCKS

38 × 30 MM TOOLS

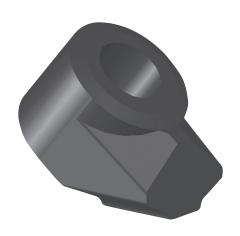


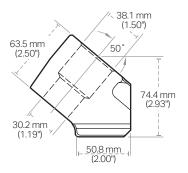


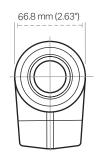


Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3DH-3874-5000	8	60	480

A heavy-duty block that features a "V" design, which provides greater surface-weld area







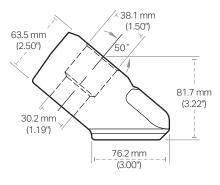
Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3DI-3874-5000	8	60	480

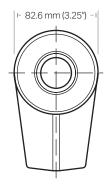
A heavy-duty block with shorter base for compact positioning

BLOCKS

38 × 30 MM TOOLS



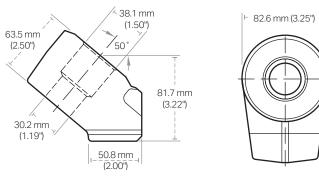




Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3DH-3880-5000	6	60	360

A heavy-duty block that features a "V" design, which provides greater surface-weld area





Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
B3DI-3880-5000	6	60	360

A heavy-duty block with shorter base for compact positioning

ACCESSORIES

38 × 30 MM TOOLS



INSTALLATION / REMOVAL

For removal of external hairpin retainers.

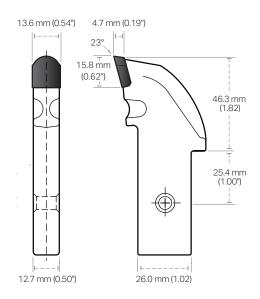
RADIAL TOOLS



FEATURES:

- Protruding nose for better penetration
- Forward attack rake angle
- Roll pin retention or weld on
- Raising forward flange to accept puller

Product Code	Pieces	Boxes Per	Pieces
	Per Box	Pallet	Per Pallet
R1PF-1346-5063	50	45	2250

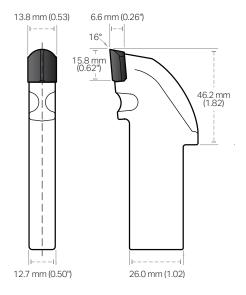




FEATURES:

- Protruding nose for better penetration
- Forward attack rake angle.
- Roll pin retention or weld on
- Raising forward flange to accept puller

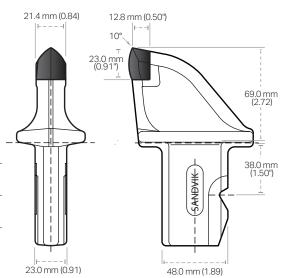
Product Code	Pieces	Boxes Per	Pieces
	Per Box	Pallet	Per Pallet
R1PF-1346-3863	70	45	3150





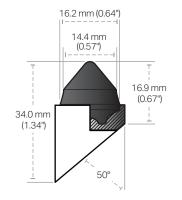
- Heavy-duty body
- Large shoulder for block protection and increased bearing surface

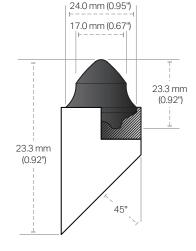
Product Code	Pieces	Boxes Per	Pieces
	Per Box	Pallet	Per Pallet
R1HP-2370-0463	8	45	360

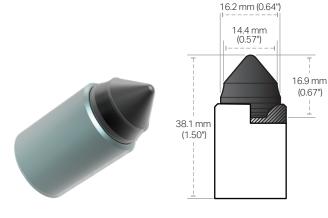


WELD-ON TOOLS









Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
P0XX-1934-0169	100	60	6000

Small carbide-capped tool designed at 50-degree angle for correct approach positioning. Primarily used on backreamers for cutting and wear protection. It is easily replaced by cutting off the worn tool and welding on a new one. This tool can be used in various other applications to reduce wear.

Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
P0XX-2860-2366	100	60	6000

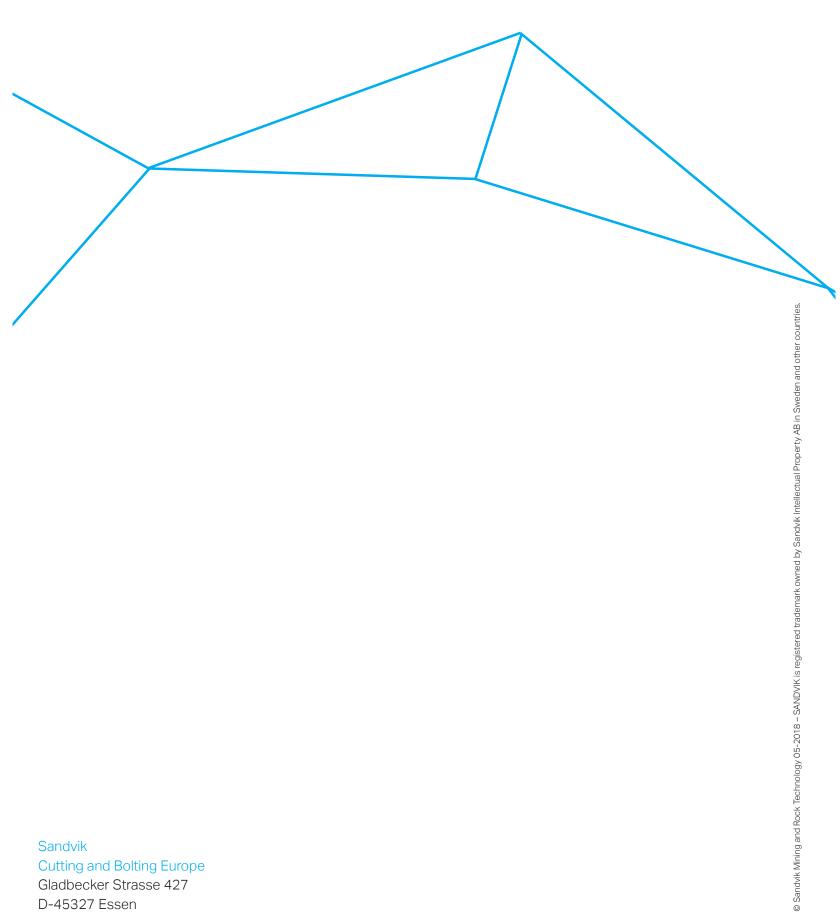
Large carbide-capped tool designed at 45-degree angle for correct approach positioning. A low-energy cap that provides improved penetration, it is primarily used on backreamers for cutting and wear protection. The tool is easily replaced by cutting off the worn unit and welding on a new one. It can be used in various other applications to reduce wear.

Product Code	Pieces	Boxes	Pieces
	Per Box	Per Pallet	Per Pallet
P0XX-1938-0169	100	60	6000

Small carbide-capped tool designed at 90-degree angle for correct approach positioning. Primarily used on soil mixers. It is easily replaced by cutting off the worn tool and welding on a new one. This tool can be used in various other applications to reduce wear.

NOTES

NOTES			



Sandvik Cutting and Bolting Europe

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mgteurope@sandvik.com

