

*Engineering
Your
Competitive
Edge[®]*



***CONSTRUCTION
DRILLING SYSTEMS***



We Are Proven.

In drilling... and road planing, and trenching

Kennametal tools are the toughest, strongest, and longest lasting in the mining and construction industries. Our carbide-tipped cutting tools feature Kennametal's exclusive macrocrystalline tungsten carbide for superior cutting performance in the most demanding applications. Our toolholder blocks and drums are renowned for their exceptional durability and wear resistance.

For 50 years, Kennametal customers have relied on us to provide them with cutting edge technology and technical support and service that is unmatched in the mining and construction industries. We provide complete tooling solutions that optimize productivity...to keep you, our customers, competitive and profitable!



That's why Kennametal is The Construction Tool Authority.

Kennametal Inc. encourages the safe use of its products.

To help avoid personal injury or damage to tools, please follow these guidelines:

- Wear approved personal protection equipment, including eye and ear protection, steel-toed shoes, hard hat, and vest.
- Make sure tools are properly seated and securely retained.
- Do not strike tools with metal objects. Carbide tips could shatter.
- Exercise care when removing tools.
- Inspect tools daily. Do not use dull, cracked, burred, or bent tools.
- Operate all machines with safety in mind. Stand clear of machines in use, and make sure protective guards are in place.
- Do not change tools when the auger is moving or still engaged.

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NOTE: Tool images in this catalog are not shown to scale.

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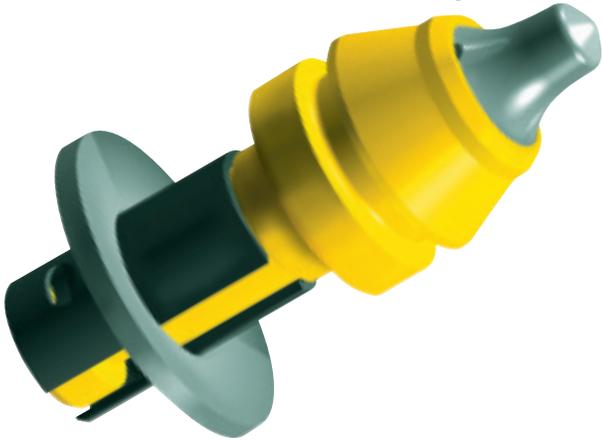
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ROAD PLANING INNOVATIONS

Kennametal is the world's leading supplier of premium-quality conical tools, blocks, and related accessories for asphalt and concrete cutting jobs!



Request your **FREE** copy of catalog B04-2!

Our New RP-Series Tools have an extra-heavy, extra-hard body for optimum wear life and an easy-to-install retainer for exceptional bore protection!



SOIL STABILIZATION INNOVATIONS



Kennametal offers a vast variety of carbide-edged blades, all-steel blades, conicals, and toolholders for your soil stabilization and asphalt reclamation needs!



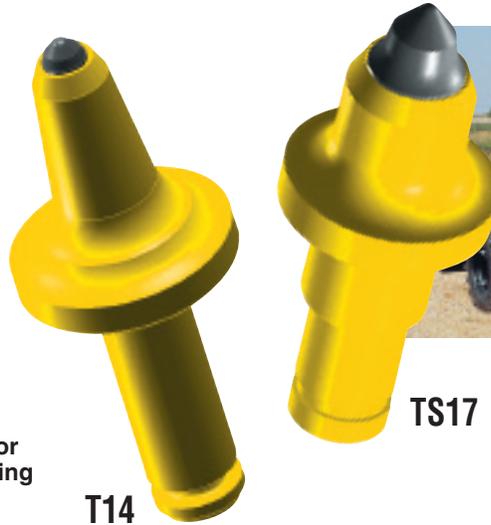
Request your **FREE** copy of catalog B04-2!



TRENCHING INNOVATIONS



We provide unbeatable tool/block combinations to optimize your trenching chain, concrete saw, and force-feed grinder capabilities!



T and TS trenching tools — for maximum trenching and sawing productivity and profitability!



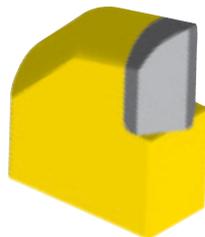
Request your **FREE** copy of catalog B03-5!

DRILLING INNOVATIONS

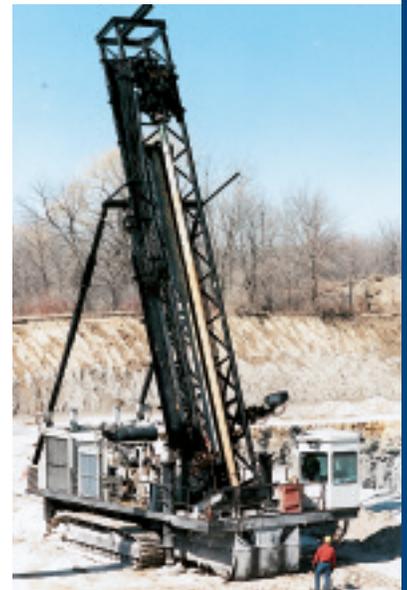
Our long-life tools and cutting systems get your high holemaking and boring costs under control!



Kenclaw™ surface drilling tools produce blast and water-well holes at least twice as fast versus conventional teeth — with less dust, too!



Our new directional drilling tools yield superior cost savings, long tool life, and unparalleled impact strength — in even the most challenging operating conditions!

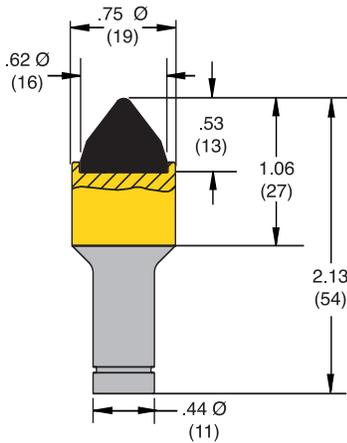


CM Series — Cutting Tools and Blocks

.44" Shank

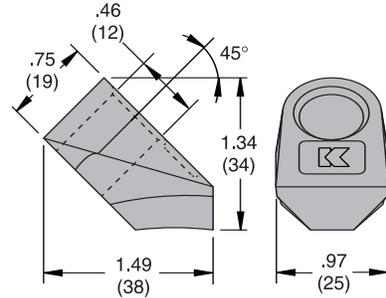
CM42 1010778

For drilling in soft to medium conditions.



CMB4 block 1012281

Accepts CM42 cutting tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



.55" Shank

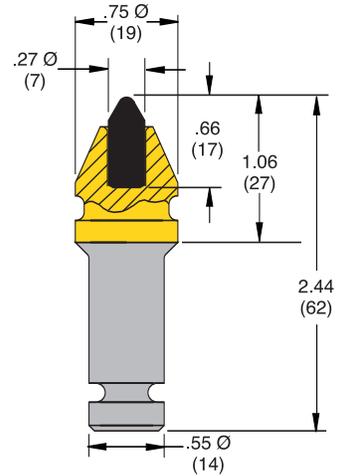
CM4 snap ring 1012223

For CM42 tools.



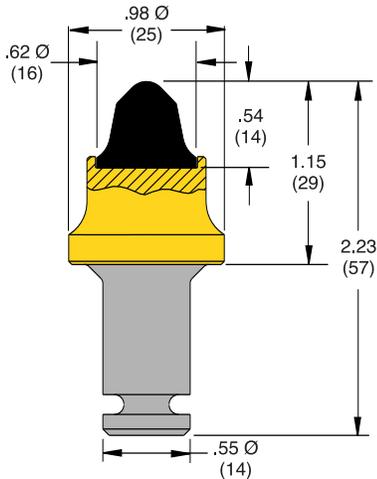
CM61 1094015

For drilling in medium to hard conditions. Small-diameter tip designed for increased penetration.



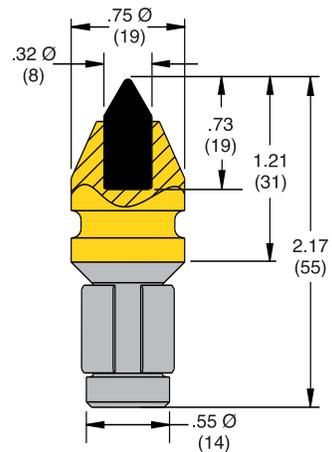
CM63 1795208

For drilling in medium to hard conditions. The wide collar provides maximum block protection.



CM64 1877503

For drilling in medium to hard conditions. Small-diameter tip and slender nose profile for increased penetration. LR-style retainer for easy installation and removal.

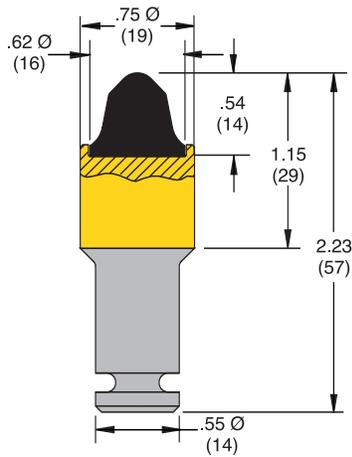




.55" Shank

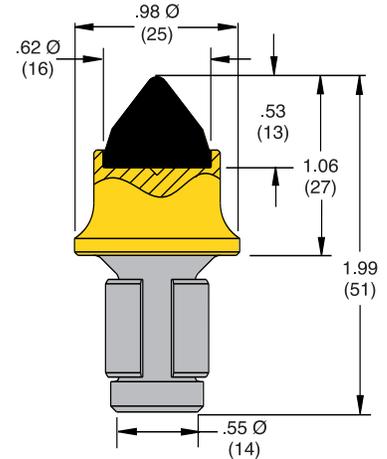
CM62 1611510

For drilling in medium to hard conditions.



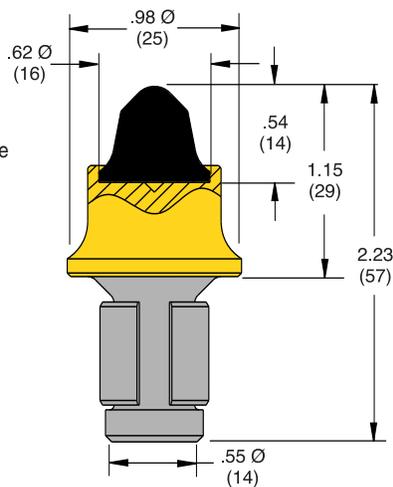
CM66 1920103

For drilling in soft to medium conditions. Sharp tip profile for better penetration.



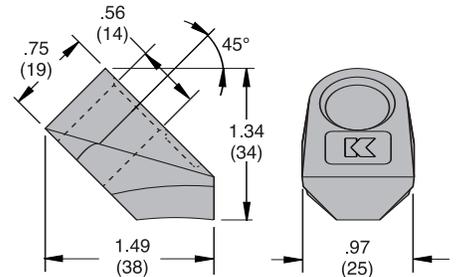
CM65 1876905

For drilling in medium to hard conditions. Flanged carbide tip for better wear resistance in abrasive cutting.



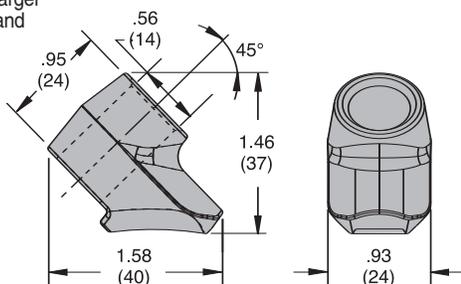
CMB6 block 1321008

Accepts CM61, CM62, and CM63 cutting tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



CMB6L block 1898353

For use with CM66 and CM65 cutting tools. Features cannon-style face for improved tool rotation and larger base for stability and weld strength.



CM6L lock ring 1595671

Hardened lock ring for CM61, CM62, and CM63 tools.



CM6H hair pin retainer 1777806

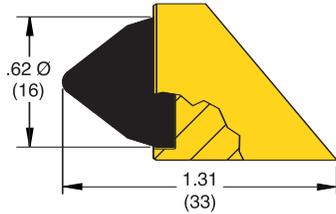
For CM61, CM62, and CM63 tools.



CM Series and BR Tools

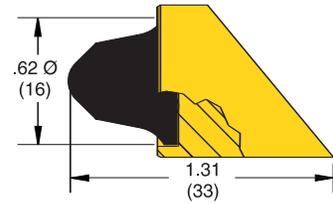
BR1 1800063

General-purpose design for use on all back reamers in all cutting conditions.



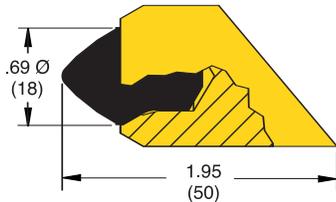
BR2 1858633

High-penetration tip for use on all back reamers in all cutting conditions.



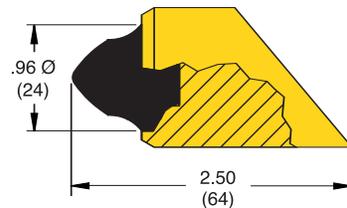
BR3 1858622

Designed for use on medium to large back reamers in hard cutting conditions.



BR4 1858634

Large-cap design for use on medium to large back reamers on high-horsepower machines in very abrasive conditions.



New CM Series Tooling!



CM65

- *CM65 features cap-style, flanged solid carbide tip for better wear resistance in hard cutting conditions.*
- *CM66 features a sharp tip-style profile that provides excellent penetration in medium cutting conditions.*
- *Both tools have a long retainer for better block bore protection.*
- *Wide-collar body style gives maximum block face protection.*



CM66



tool	code	old tool name	packaging			container weight		pieces per pallet	pallet weight		stock status
			type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
CM42	1010778	CMM4	bucket	200	50	34.96	15.89	10,000	1798.06	817.30	stock
CM64	1877503		bucket	200	50	33.01	15.00	10,000	1700.06	773.00	stock
CM62	1611510	CMM6RT	bucket	200	50	39.80	18.09	10,000	2040.06	927.30	stock
CM63	1795208	CMM6RTF	bucket	200	50	40.99	18.63	10,000	2099.68	954.40	stock
CM61	1094015	CMM5	bucket	200	50	37.16	16.89	10,000	2099.68	954.40	stock
CM65	1876905	CMM6FLR	bucket	200	50	41.12	18.69	10,000	2106.06	957.30	stock
CM66	1920103	CMM4FLR	bucket	200	50	41.12	18.69	10,000	2106.06	957.30	stock
BR1	1800063		bucket	300	50	31.01	14.10	15,000	1600.61	727.55	stock
BR2	1858633		bucket	300	50	31.01	14.10	15,000	1600.61	727.55	stock
BR3	1858622		bucket	150	50	45.98	20.90	7,500	2349.22	1067.83	stock
BR4	1858634		bucket	80	50	47.38	21.54	4,000	2419.16	1099.62	stock
blocks											
CMB4	1012281	CMMB2	bucket	200	50	19.29	42.44	10,000	2172.06	987.30	stock
CMB6	1321008	CMMB6	bucket	200	50	16.89	37.16	10,000	1908.06	867.30	stock
CMB6L	1898353	CMMB7	bucket	150	50	31.01	14.10	7,500	1600.61	727.55	stock

Go in the **RIGHT** (or left, up, or down...) direction with our newest directional drilling tools!

Our new BR weld-on tools:

- are specifically designed for directional drilling back reamers to protect them from everyday wear in abrasive conditions, thus reducing tool inventory and tool replacement costs
- feature solid carbide tips and solid steel bodies for superior wear resistance to enhance back reamer tool life
- provide extra penetration and debris evacuation in all cutting applications



Slim tip style for all cutting conditions!



High-penetration tip for use on all back reamers in all cutting conditions!



Broad tip for better penetration in hard cutting conditions!

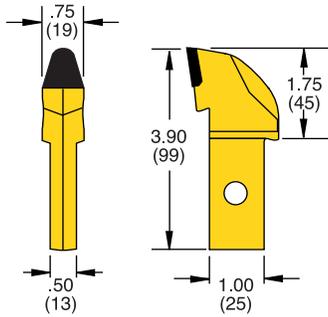


Large-cap design for use on high-horsepower machines in very abrasive conditions!

Core Barrel Series – Cutting Tools and Blocks

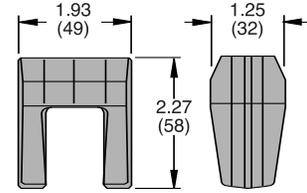
CJ2 1011207

For boring holes in extremely hard ground. Roll pin retainer.



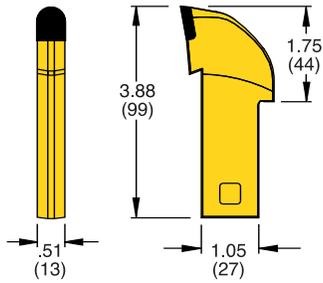
CJ2 block 1012369

Accepts CJ2 cutting tools only. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



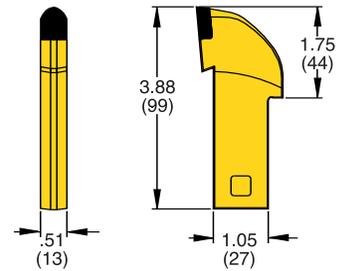
U7 1011213

For boring in soft to hard conditions. Normally welded to core barrel.



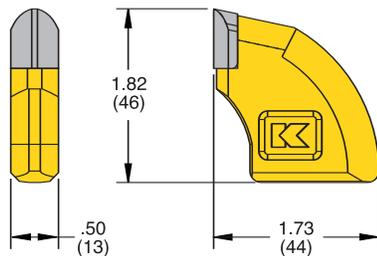
U7L 1011181

For high penetration in hard-rock core barrel applications.



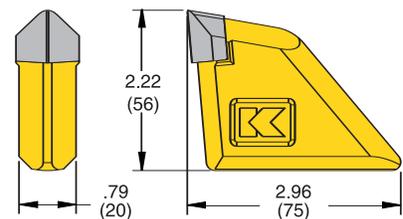
DT50 1086101

For drilling in soft to hard rock and concrete. Carbide tip is 1/2" wide.



DT87 1086378

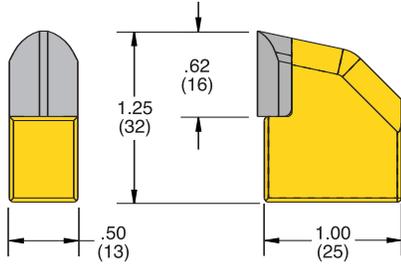
For drilling in hard rock and concrete. Carbide tip 7/8" wide.





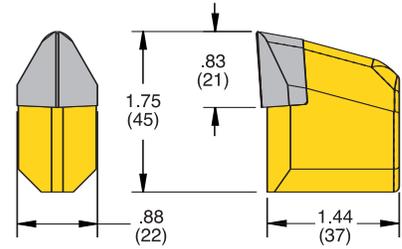
RT1 1784646

For drilling in soft to medium hard rock. Carbide tip is 1/2" wide.



RT2 1844257

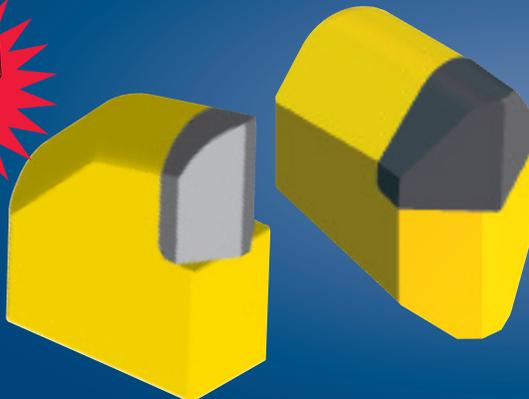
For drilling in soft to hard conditions. Carbide tip is 7/8" wide.



Packaging Information

tool	code	packaging			container weight		pieces per pallet	pallet weight		stock status
		type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
CJ2	1011207	bucket	50	50	33.75	15.34	2500	1737.56	789.80	stock
U7	1011213	bucket	50	50	29.35	13.34	2500	1517.56	689.80	stock
U7L	1011181	bucket	50	50	29.57	13.44	2500	1528.56	694.80	stock
RT1	1784646	bucket	200	50	34.08	15.49	10000	1754.06	797.30	stock
RT2	1844257	bucket	100	50	25.00	11.35	5000	1299.00	590.30	stock
DT50	1086101	bucket	150	50	40.68	18.49	7500	2084.06	947.30	stock
DT87	1086378	bucket	50	50	43.43	19.74	2500	2221.56	1009.80	stock
blocks										
CJ2	1012369	bucket	30	50	21.54	9.79	1500	1127.06	512.30	stock

Premier New Cutting Tools... For PROVEN, Premium Performance!



- customized especially for directional drilling
- superior impact strength for long-lasting tool life
- shorter versions of standard longer tool sizes for greater breakage resistance

Kenclaw™ and MilClaw™

***Kenclaw and MilClaw drills
blast holes and water wells
with twice the speed of
standard cutting tools!***

Kenclaw™

The cutting tools in the Kenclaw are ideally suited for soft to medium formations. They are the best choice for unconsolidated formations in which the drill will encounter alternating layers of soft clay and sand rock, or hard shale that might cause a drag cutting tool to over torque and possibly stall. The cutting tools are available in a wide range of sizes from 3 1/2" to 24" diameter. They feature numerous options, including multistage reamers, hole openers, circulating pilot tools, and special jet circulation configurations.



MilClaw™

The MilClaw features triangular, multistage bodies that provide better support for the tools in harder formations. MilClaw cutting tools are available in sizes ranging from 6 1/2" to 24" and are best suited for medium-soft to medium-hard formations.

Custom Work

For all custom work on the Kenclaw and MilClaw systems, call Kennametal at 800/458-3608.

Rebuilds

We offer complete rebuilds of your Kenclaw and MilClaw systems. Contact your Kennametal representative for details, or call 800/458-3608.

Custom Designs

The Kenclaw and the MilClaw can be furnished with your choice of pin or box threads. Other modifications include different pilot cutting tools, breakout flats and larger sizes, and different conical cutting tools and holders.



Kenclaw Features

- no bearings
- cuts a variety of formations from clay to medium shale rock (up to 6,000 psi rock)
- rapid penetration rates — the speed of a typical drag cutting tool and the toughness of a soft-formation rock cutting tool
- suitable for air or fluid drilling
- average tool cutting life ranges from 500 ft. (152 meters) to 2,000 ft. (610 meters), depending on formations being drilled

Kenclaw Drilling System

code	description	size		a.p.i. pin size	pilot tool	C23 cutters	weight	
		inch	mm				lbs.	kg.
1825003	K3 7/8 2 3/8 API	3 7/8	98,4	2 3/8" regular pin	CP15	*3 CM42	8	3.6
1825004	K4 2 3/8 API	4	101,6	2 3/8" regular pin	CP15	*3 CM42	8	3.6
1825005	K4 1/8 2 3/8 API	4 1/8	104,5	2 3/8" regular pin	CP15	*3 CM42	8	3.6
1825006	K4 1/4 2 3/8 API	4 1/4	104,8	2 3/8" regular pin	CP15	*3 CM42	9	4.1
1012268	K4 1/2 20 2 3/8 API	4 1/2	108	2 3/8" regular pin	CP15	3	9	4.1
1825007	K4 5/8 2 3/8 API	4 5/8	117,5	2 3/8" regular pin	CP15	3	9	4.1
1777124	K4 3/4 20 2 7/8 API	4 3/4	120,7	2 7/8" regular pin	CP15	3	12	5.4
1825008	K4 7/8 2 7/8 API	4 7/8	123,8	2 7/8" regular pin	CP15	3	12	5.4
1825009	K5 2 7/8 API	5	127	2 7/8" regular pin	CP15	3	18	8.2
1825010	K5 1/8 2 7/8 API	5 1/8	130,2	2 7/8" regular pin	CP15	3	18	8.2
1825011	K5 1/4 2 7/8 API	5 1/4	133,4	2 7/8" regular pin	CP15	4	18	8.2
1825012	K5 1/2 2 7/8 API	5 1/2	139,7	2 7/8" regular pin	CP15	4	18	8.2
1012260	K5 5/8 20 3 1/2 C	5 5/8	142,9	3 1/2" regular pin	CP18	4	18	8.2
1825033	K5 3/4 3 1/2 API	5 3/4	146,1	3 1/2" regular pin	CP18	4	18	8.2
1012261	K6 20 3 1/2 C	6	152,4	3 1/2" regular pin	CP18	5	21	9.5
1825034	K6 1/4 3 1/2 API	6 1/4	158,8	3 1/2" regular pin	CP18	5	21	9.5
1012263	K6 1/2 20 3 1/2 C	6 1/2	165,1	3 1/2" regular pin	CP18	5	21	9.5
1012264	K6 3/4 20 3 1/2 C	6 3/4	171,5	3 1/2" regular pin	CP18	5	22	10.0
1825035	K7 3 1/2 API	7	177,8	3 1/2" regular pin	CP18	6	28	12.7
1012267	K7 1/2 20 3 1/2 C	7 1/2	190,5	3 1/2" regular pin	CP18	6	28	12.7
1777126	K7 7/8 20 4 1/2 API	7 7/8	200	4 1/2" regular pin	CP18	7	34	15.4
1825036	K8 1/2 4 1/2 API	8 1/2	215,9	4 1/2" regular pin	CP18	8	40	18.1
1012265	K8 3/4 20 4 1/2 C	8 3/4	222,3	4 1/2" regular pin	CP18	8	40	18.1
1012266	K9 20 4 1/2 C	9	228,6	4 1/2" regular pin	CP18	8	40	18.1
1825037	K9 1/2 6 5/8 API	9 1/2	241,3	6 5/8" regular pin	CP18	9	51	23.1
1608784	K9 7/8 20 6 5/8 API	9 7/8	250,8	6 5/8" regular pin	CP18	9	57	25.9
1777125	K10 5/8 87 6 5/8 API	10 5/8	269,9	6 5/8" regular pin	CP18	9	70	31.8
1825038	K11 1/2 6 5/8 API	11 1/2	292,1	6 5/8" regular pin	CP18	11	90	40.8
1117344	K12 1/4 87 6 5/8 API	12 1/4	311,2	6 5/8" regular pin	CP18	12	110	49.9
1825039	K14 3/4 6 5/8 API	14 3/4	374,7	6 5/8" regular pin	APEX DB	16	150	68.0
1825040	K17 1/2 6 5/8 API	17 1/2	444,5	6 5/8" regular pin	APEX DB	24	210	95.2
1825041	K19 6 5/8 API	19	482,6	6 5/8" regular pin	APEX DB	34	300	136.1

*CM cutting tools

Kennametal strongly recommends the use of a ribbed stabilizer on top of the Kenclaw.

Surface Drilling Tools

MilClaw Features

- large chippings for blast-hole stemming
- no bearings
- cuts various formations from clay to soft limestone (up to 10,000 psi rock)
- rapid penetration rates - the speed of a typical drag cutting tool and the toughness of a medium-formation rock cutting tool
- carbide cutters rotate in their blocks (toolholders) to promote a self-sharpening action and to reduce torque on the drillstring
- economical/replaceable carbide tools are easy to change on site
- average cutting tool life is from 2,000 ft. (610 meters) to 10,000 ft. (3048 meters), depending on the formation being drilled
- best suited for unconsolidated formations where layers of soft and hard formations are encountered
- suitable for air or fluid circulation
- manufactured from 4142 HR heat-treated alloy steel

MilClaw Drilling System

code	description	size		a.p.i. pin size	pilot tool	C23 cutters	weight	
		inch	mm				lbs.	kg.
1825047	MC6 1/2 3 1/2 API	6 1/2	161,5	3 1/2" regular pin	CP18	6	35	15.9
1777022	MC6 3/4 3 1/2 API	6 3/4	171,5	3 1/2" regular pin	CP18	6	35	15.9
1825048	MC7 3 1/2 API	7	177,8	3 1/2" regular pin	CP18	6	45	20.4
1825049	MC7 1/2 4 1/2 API	7 1/2	190,5	4 1/2" regular pin	CP18	7	51	23.1
1777021	MC7 7/8 4 1/2 API	7 7/8	200	4 1/2" regular pin	CP18	7	51	23.1
1825050	MC8 1/2 4 1/2 API	8 1/2	215,9	4 1/2" regular pin	CP18	8	60	27.2
1825051	MC8 3/4 4 1/2 API	8 3/4	222,3	4 1/2" regular pin	CP18	8	60	27.2
1825073	MC9 4 1/2 API	9	228,8	4 1/2" regular pin	CP18	9	65	29.5
1825074	MC9 1/2 6 5/8 API	9 1/2	241,3	6 5/8" regular pin	CP18	9	69	31.3
1825075	MC9 3/4 6 5/8 API	9 3/4	247,9	6 5/8" regular pin	CP18	9	80	36.3
1777020	MC9 7/8 6 5/8 API	9 7/8	250,8	6 5/8" regular pin	CP18	9	88	29.9
1825079	MC10 6 5/8 API	10	254	6 5/8" regular pin	CP18	11	100	45.4
1777018	MC10 5/8 6 5/8 API	10 5/8	271,1	6 5/8" regular pin	CP18	13	109	49.4
1825080	MC10 3/4 6 5/8 API	10 3/4	273,5	6 5/8" regular pin	CP18	13	109	49.4
1777016	MC12 1/4 6 5/8 API	10 7/8	276,2	6 5/8" regular pin	CP18	14	115	52.2
1825082	MC10 7/8 6 5/8 API	11 5/8	295,3	6 5/8" regular pin	CP18	14	128	48.1
1825094	MC11 5/8 6 5/8 API	12 1/4	311,1	6 5/8" regular pin	CP18	14	132	59.9
1825095	MC14 6 5/8 API	14	255,6	6 5/8" regular pin	APEX DB	17	150	68.0
1825096	MC14 3/4 6 5/8 API	14 3/4	274,7	6 5/8" regular pin	APEX DB	20	165	74.8
1825097	MC17 1/2 6 5/8 API	17 1/2	444,5	6 5/8" regular pin	APEX DB	24	225	192.0

Kennametal strongly recommends the use of a ribbed stabilizer on top of the MilClaw.

Operating Instructions for Kenclaw and MilClaw

Recommended operating feeds and speeds depend on the type of formation being drilled. When drilling into soft formations, you may have to hold back on the drill rod because the MilClaw will penetrate faster than you can clean the hole.

When drilling into harder formations, it is recommended you use about 1500 lbs. of down pressure and rotate at approximately

60 rpm to 100 rpm. These figures are estimates and may have to be adjusted, based on your actual drilling operations.

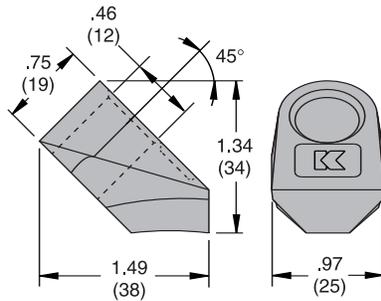
To ensure maximum footage from the MilClaw cutting tool, it is very important that the tools are rotating freely in their blocks before starting each hole.



Light Drilling

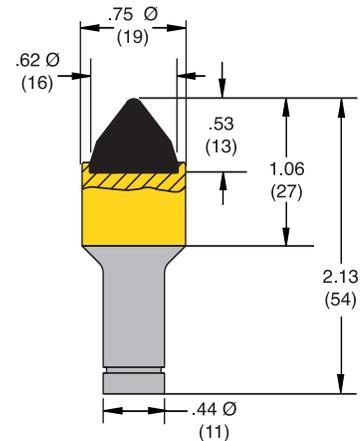
CMB4 block 1012281

- accepts Kennametal CM42 cutting tool
- also accepts our CM64 tool if a 3/8" spacer is added under the block to provide clearance for the retention nut
- easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire



CM42 1010778

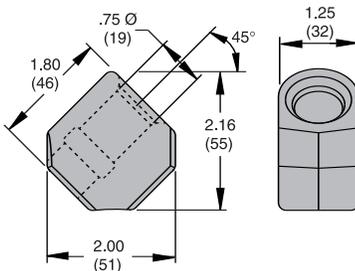
- basic system cutting tool
- double-angle carbide tip prolongs tool life
- requires a CM4 snap ring retainer (included with cutting tool)



Medium Drilling

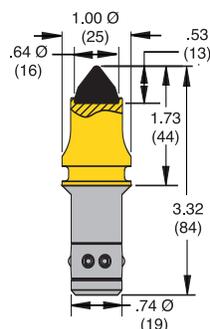
C20 block 1012273

- accepts our C23 cutting tools
- easily welded with a 7018 or 8018 low-hydrogen rod
- no preheating required



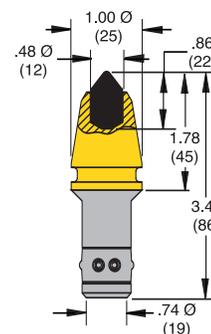
C23 1010758

For asphalt or abrasive applications.



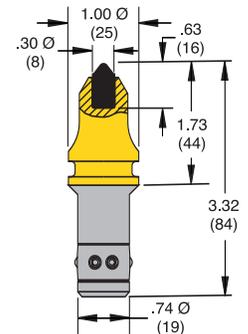
C21HD 1010789

For drilling hard rock or concrete.



C21 1010748

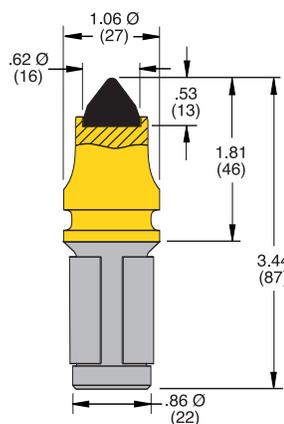
For most cutting applications. Especially good in soft to medium-hard material.



Heavy Drilling (See page 24 for four additional C87 tools and blocks.)

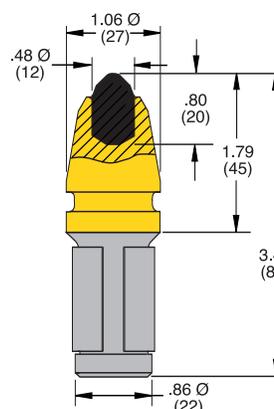
SL02 1010797

For asphalt or abrasive applications.



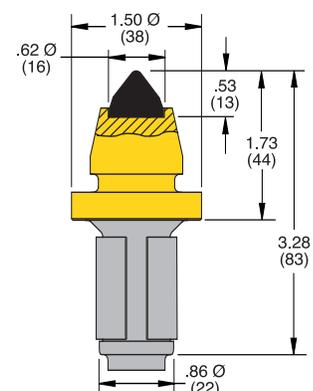
SL04 1010795

For drilling hard rock or concrete.



SM02 1010817

For asphalt or abrasive applications.



All conical tools on this page are supplied with a retainer.

Surface Drilling Tools

Claw Drilling System

Drills blast holes and water wells nearly twice as fast as standard cutting tools, particularly in unconsolidated ground and soft to medium-hard rock. Produces larger chips and less dust, with less gage down pressure. Strategically located air holes evacuate the cuttings. All of this means more production, less downtime, and a greatly reduced total cost.

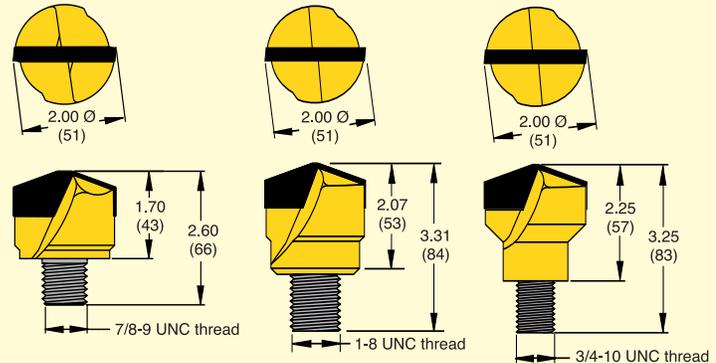
Our claw system is actually several Kennametal cutting tools in one! One of four pilot tools: a CP15 for 4 1/2"- and 4 3/4"-diameter systems; a CP17 for 4 1/2"- and 4 3/4"-diameter systems; a CP16 for 5"- to 5 1/2"-diameter systems; or a CP18 for 6"-diameter and larger systems, with a CP18 pilot chuck... plus a number (depending upon the diameter of the hole you want to drill) of our self-sharpening, carbide-tipped C23 conicals. All cutting tools are easy to install and, when necessary, a snap to change.

Recommended Rotation Speeds and Down Pressures*

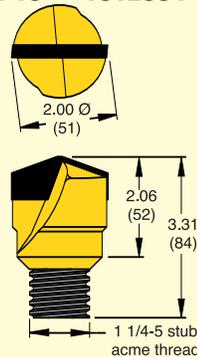
system sizes** (inches in dia.)	API pin †	maximum rpm	pull down pressure
4-1/2	2-3/8	160	300
4-3/4	2-7/8	155	300
5	2-7/8	153	300
5-1/8	2-7/8	153	300
5-1/4	2-7/8	153	300
5-1/2	2-7/8	138	400
5-5/8	3-1/2	138	400
5-3/4	3-1/2	138	400
5-7/8	3-1/2	138	400
6	3-1/2	128	500
6-1/8	3-1/2	128	500
6-1/4	3-1/2	122	500
6-3/8	3-1/2	122	500
6-1/2	3-1/2	116	500
6-5/8	3-1/2	116	500
6-3/4	3-1/2	113	500
6-7/8	3-1/2	113	500
7	3-1/2	109	600
7-1/8	3-1/2	109	600
7-1/4	3-1/2	105	600
7-3/8	3-1/2	105	600
7-1/2	3-1/2	101	600
7-5/8	4-1/2	101	600
7-3/4	4-1/2	98	700
7-7/8	4-1/2	98	700
8	4-1/2	95	700
8-1/8	4-1/2	95	700
8-1/4	4-1/2	95	700
8-3/8	4-1/2	95	700
8-1/2	4-1/2	90	800
8-5/8	4-1/2	90	800
8-3/4	4-1/2	90	800
8-7/8	4-1/2	90	800
9	4-1/2	85	800
9-1/8	6-5/8	85	800
9-1/4	6-5/8	85	800
9-3/8	6-5/8	85	800
9-1/2	6-5/8	80	900
9-5/8	6-5/8	80	900
9-3/4	6-5/8	80	900
9-7/8	6-5/8	80	900
10	6-5/8	76	900
12	6-5/8	64	1400
15	6-5/8	50	1400

pilot cutting tools

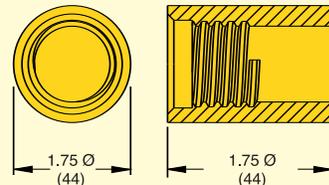
CP15 1324059 CP16 1012300 CP17 1012301



CP18 1012304



CP18 1012287 pilot chuck



shown:
C6 1/2-10NS assembly

pilot assemblies ...for vertical and horizontal boring

- C6 1/2 10NS 1012251 comes equipped with C3 conicals and a CP18 pilot tool.
- C6 1/2 20NS 1012334 comes equipped with C23 conicals and a CP18 pilot tool.
- C6 1/2 87NS 1012254 comes equipped with C387LR conicals and a CP18 pilot tool.

*Whenever possible, drill rotation speeds should be kept at maximum rpm or below. This will result in maximum tool life.

Also, do not apply excessive down pressure when operating the Kenclaw system. Tool damage could occur.

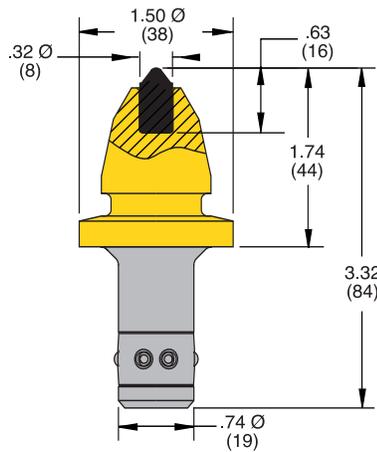
**Other sizes available upon request.

† Other API pin sizes can be ordered as required.



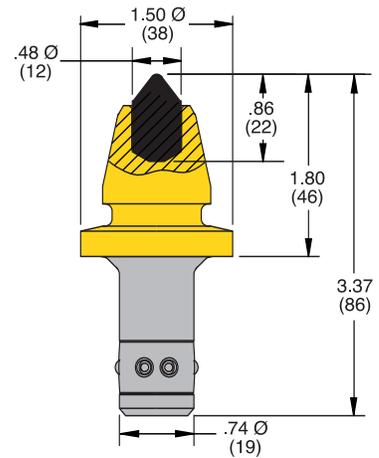
C21F 1253752

For drilling in soft to medium-hard conditions. Wide collar for maximum block protection.



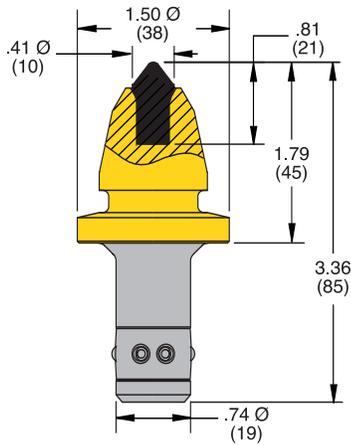
C21FHD 1253751

For drilling in extremely hard rock and concrete. Wide collar for maximum block protection.



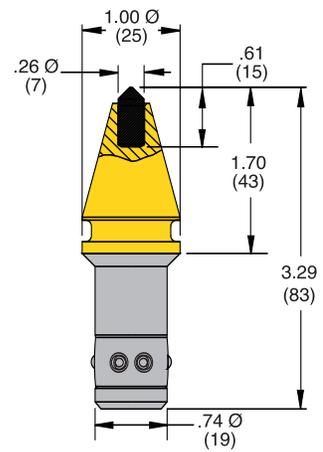
C21F11NB 1253937

For drilling in medium-hard abrasive conditions. Wide collar for maximum block protection.



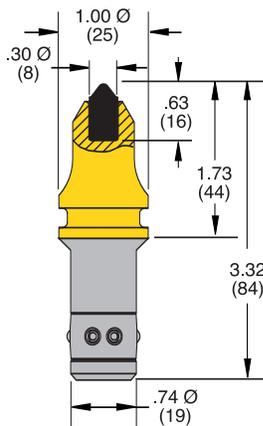
C24 1010302

For drilling soft material. Sharp tip nose for high penetration.



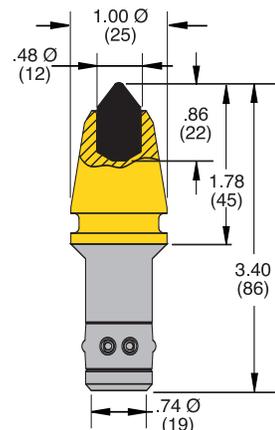
C21 1010748

For most cutting applications. Especially good in soft to medium-hard material.



C21HD 1010789

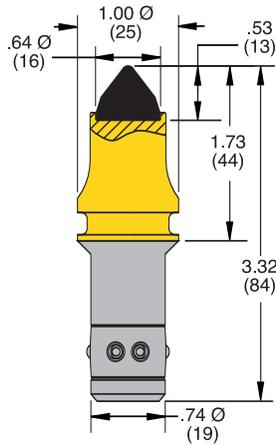
Heavy-duty design. For augering in extremely hard rock and concrete.



.74" Shank Series – Cutting Tools and Blocks

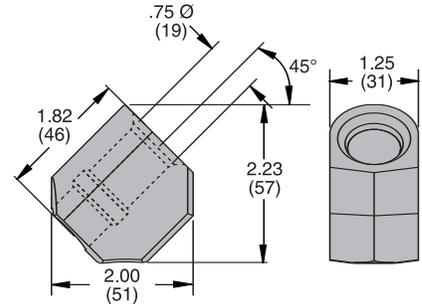
C23 1010758

For drilling and core-barreling in soft to medium-hard rock with abrasive cutting conditions.



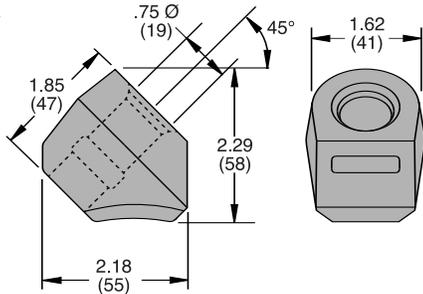
C20 block 1012273

Accepts .74" shank series tools. Thinner width allows closer block placement in restricted areas. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



C20HD block 1012276

Accepts .74" shank series tools. Heavier block design than the C20 block. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



C21F



- Extra-wide collar provides superb block face protection.

C21FHD



- Solid carbide tips in two different styles offer better penetration and higher impact strength in soft to hard cutting conditions.
- Dimpled retainer gives excellent holding power in the block in high-rpm machines.

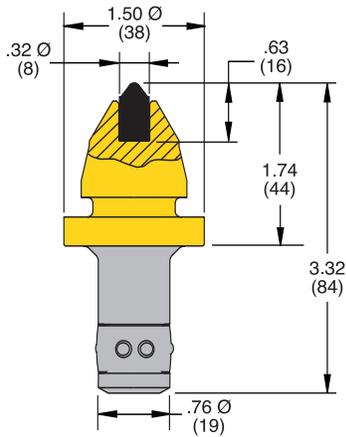
Packaging Information

tool	code	packaging			container weight		pieces per pallet	pallet weight		stock status
		type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
C21F	1253752	bucket	50	50	28.58	12.99	2500	1479.06	672.30	stock
C21FHD	1253751	bucket	50	50	30.01	13.64	2500	1550.56	704.80	stock
C21F11NB	1253937	bucket	50	50	29.57	13.44	2500	1528.56	694.80	stock
C21	1010748	bucket	75	50	30.45	13.84	3750	1572.56	714.80	stock
C21HD	1010789	bucket	75	50	38.04	17.29	3750	1952.06	887.30	stock
C23	1010758	bucket	75	50	31.77	14.44	3750	1638.56	744.80	stock
C24	1010302	bucket	75	50	29.46	13.39	3750	1523.06	692.30	stock
blocks										
C20HD	1012276	bucket	25	50	30.50	13.87	1250	1575.31	716.50	stock
C20	1012273	bucket	40	50	29.41	13.37	2000	1520.86	691.30	stock



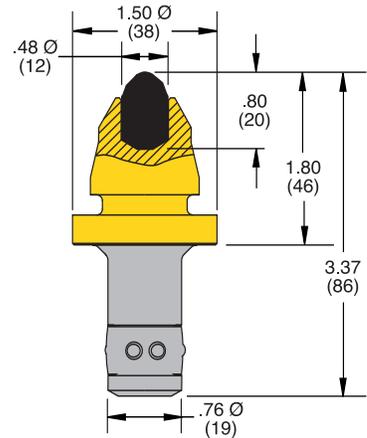
RS15 1528384

For drilling in soft to medium conditions.



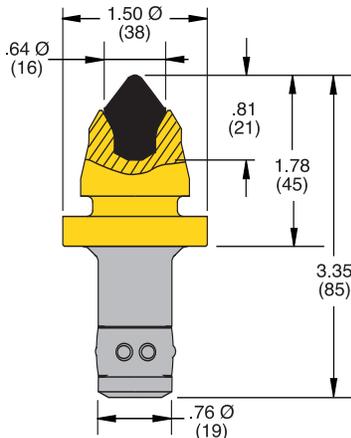
RS16 1156102

For drilling in hard rock and concrete. Double-angle tip provides maximum impact strength.



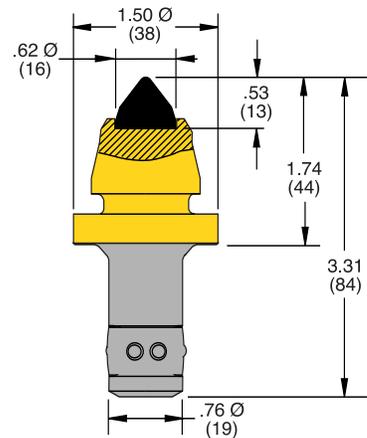
RS17 1156107

Unique NB tip design protects steel body in abrasive conditions, yet is ideal in moderately hard cutting conditions.



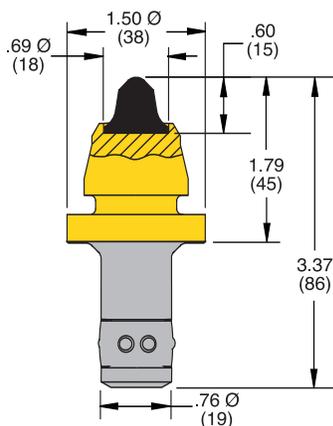
RS18 1107032

For drilling in soft to medium conditions. Sharp tip for improved penetration.



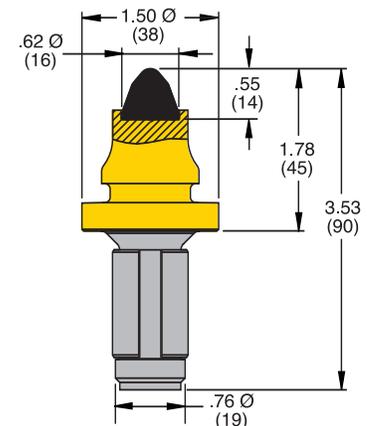
RS14 1156160

For drilling in soft to medium conditions. Large carbide base diameter prohibits steel wash.



C3KBF 1010862

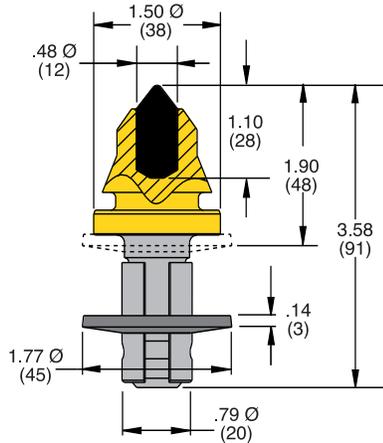
For all types of asphalt and abrasive material. Wide tip has high fracture resistance.



.76" Shank Series – Cutting Tools and Blocks

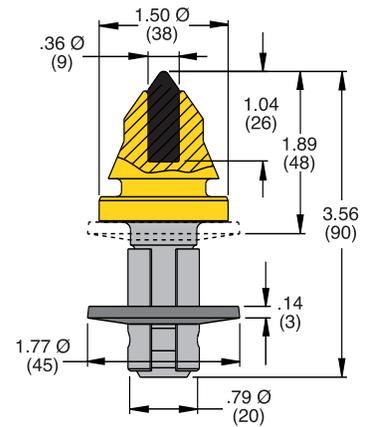
RP21 1825565

For high-impact and abrasive applications. Deep recessed carbide provides long wear life. Washer provides block face protection and improves rotation. Full sleeve retainer protects entire bore.



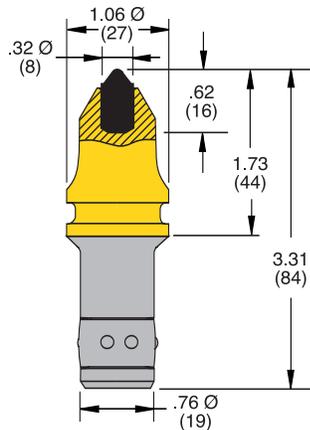
RP22 1781714

For high-impact and abrasive applications. Deep recessed carbide provides long wear life. Washer provides block face protection and improves rotation. Full sleeve retainer protects entire bore.



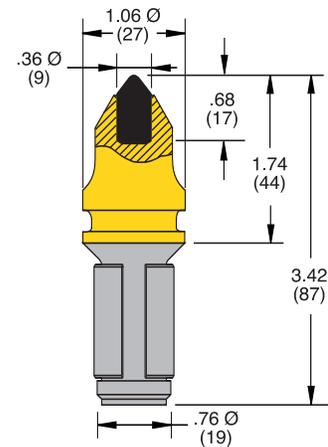
RL11 1010772

For cutting soft to medium-hard materials with good penetration. Dimpled retainer for increased holding power in grooved blocks.



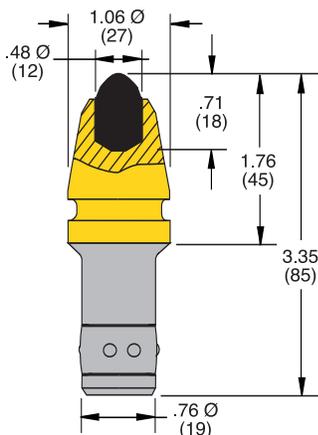
RL06 1010830

For soft to medium-hard cutting conditions. Long retainer for better block bore protection.



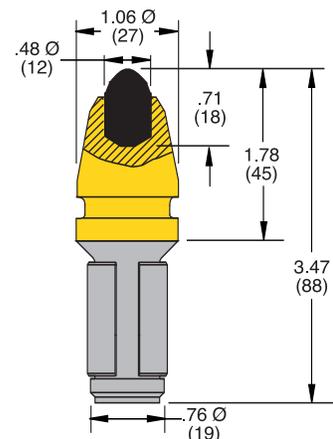
RL10 1010784

For drilling concrete and rock cutting. Double-angle tip provides maximum impact strength.



RL07 1010782

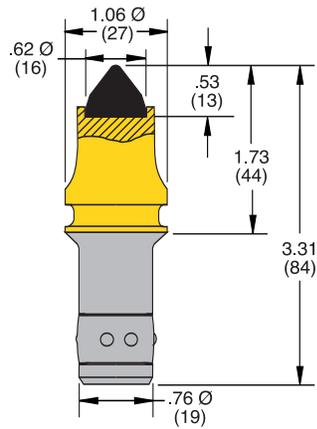
For drilling concrete and rock cutting. Long retainer for better block bore protection.





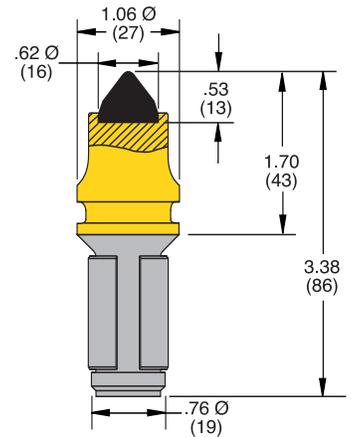
**RL09
1010770**

For cutting in abrasive conditions. Dimpled retainer provides increased holding power in grooved blocks.



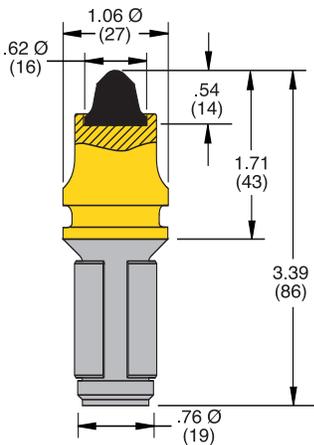
**RL08
1010767**

For cutting in abrasive conditions. Long retainer for better block bore protection.



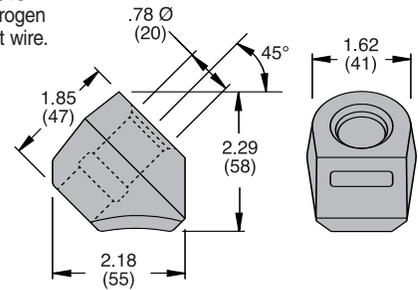
**RL04
1010851**

For all types of asphalt and abrasive materials.



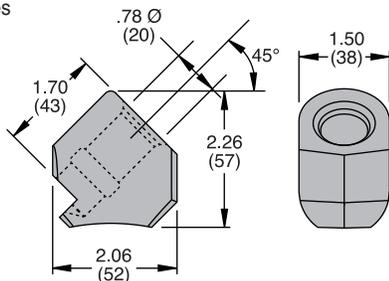
**C10HD block
1012289**

Extra-heavy-duty design. Accepts all .76" series tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



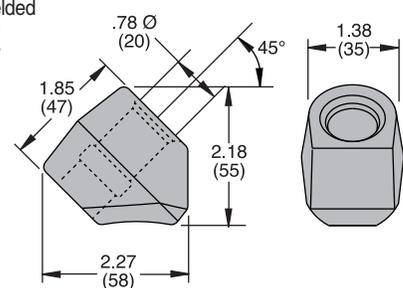
**C10H block
1012280**

Heavy-duty design. Has machined step for non-rotating tools. Accepts all .76" series tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



**C10 block
1012278**

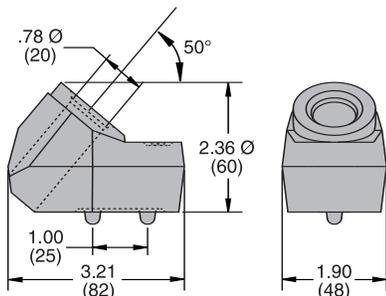
Has a narrower face than the C10H style. Accepts all .76" series tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



.76" Shank Series – Blocks and Packaging Information

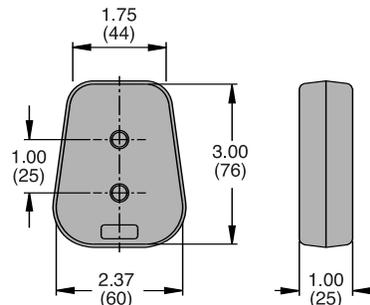
C10AMC block 1012285

Accepts only long-retainer tools. Block has two pins to ensure accurate location during drum retooling. Base, with mating holes for block pins, welds onto drum. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



C10AM/LG base 1012364

Used with C10AMC block. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



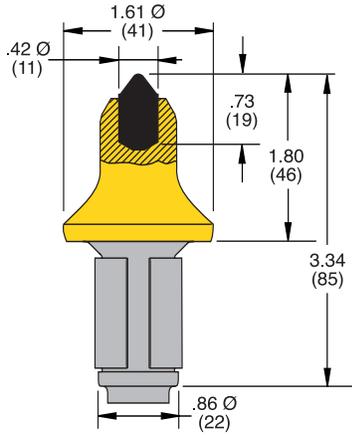
Packaging Information

tool	old tool name	code	packaging			container weight		pieces per pallet	pallet weight		stock status
			type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
RS15	C1BFSR	1528384	bucket	50	50	29.90	13.59	2500	1545.06	702.30	stock
RS16	C1HDBFSR	1156102	bucket	50	50	31.00	14.09	2500	1600.06	727.30	stock
RS17	C1BFSR16	1156107	bucket	50	50	31.00	14.09	2500	1600.06	727.30	stock
RS18	C3BFSR	1107032	bucket	50	50	31.00	14.09	2500	1600.06	727.30	stock
RS14	C3BFSR17.5	1156160	bucket	50	50	30.01	13.64	2500	1550.56	704.80	stock
RL11	C1	1010772	bucket	75	50	34.74	15.79	3750	1787.06	812.30	stock
RL06	C1LR	1010830	bucket	75	50	37.05	16.84	3750	1902.56	864.80	stock
RL10	C1HDSR	1010784	bucket	75	50	39.36	17.89	3750	2018.06	917.30	stock
RL07	C1HDLR	1010782	bucket	70	50	38.19	17.36	3500	1959.76	890.80	stock
RL09	C3SR94	1010770	bucket	75	50	34.00	15.45	3750	1750.00	795.50	stock
RL08	C3LR	1010767	bucket	75	50	37.00	16.82	3750	1900.00	863.60	stock
RL04	C3KLR AM722RT	1010851	bucket	75	50	37.00	16.82	3750	1900.00	863.60	stock
C3KBF		1010862	bucket	50	50	31.00	14.09	2500	1600.06	727.30	stock
RP21		1781713	box	50	54	36.06	16.39	2700	1853.06	842.30	stock
RP22		1781714	box	50	54	34.96	15.89	2700	1798.06	817.30	stock
blocks											
C10HD		1012289	bucket	25	50	30.89	14.04	1250	1594.56	724.80	stock
C10		1012278	bucket	35	50	33.19	15.09	1750	1709.51	777.05	stock
C10H		1012280	bucket	35	50	33.11	15.05	1750	1705.66	775.00	stock
C10AMC		1012285	bucket	20	50	32.98	14.99	1000	1699.06	772.30	stock
C10AM/LG base		1012364	bucket	30	50	55.53	25.24	1500	2826.56	1284.80	stock



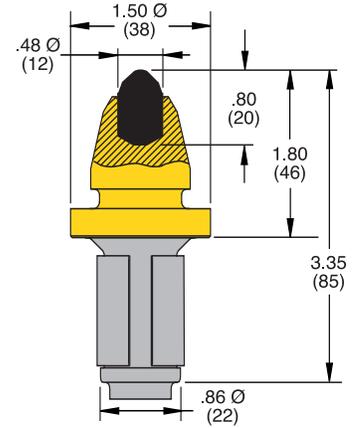
**SM05
1322258**

For drilling hard rock or concrete. Slim nose profile for maximum penetration. No puller groove.



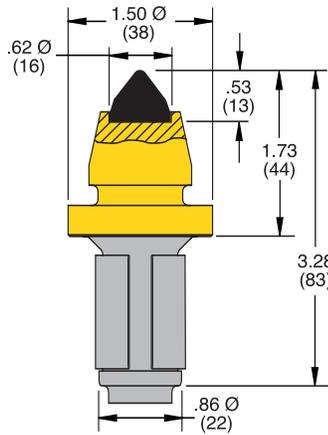
**SM06
1010815**

For drilling hard rock or concrete. Double-angle tip for maximum impact strength.



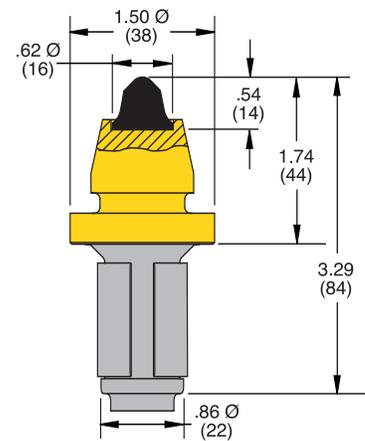
**SM02
1010817**

For asphalt or abrasive applications. Sharp tip for improved penetration.



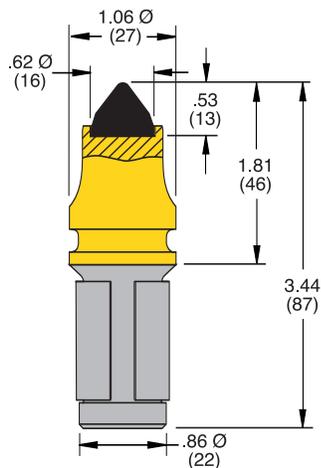
**SM01
1010860**

For asphalt or abrasive cutting conditions with moderate impact.



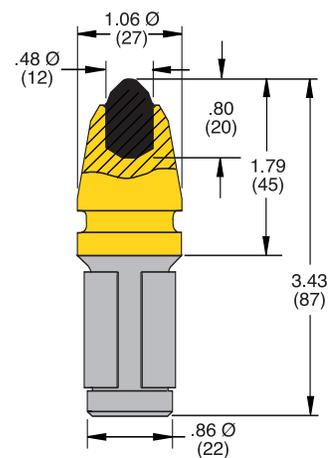
**SL02
1010797**

For asphalt or abrasive applications. Sharp tip for improved penetration.



**SL04
1010795**

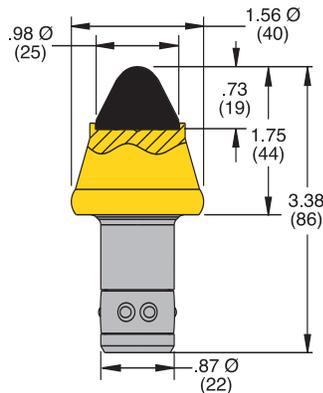
For drilling hard rock or concrete. Double-angle tip for maximum impact strength.



.86" Shank Series – Cutting Tools and Blocks

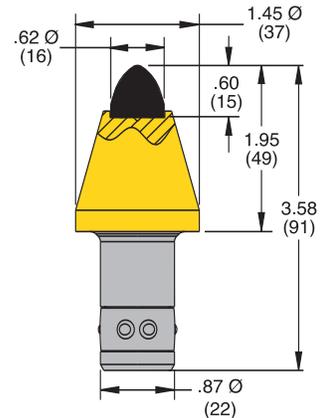
C87KCSBSR 1010937

Used with Kenclaw drilling system. Large-diameter carbide tip provides maximum abrasion resistance. Large nose radius is well suited for impact.



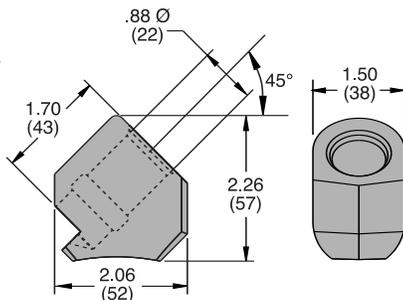
C87DSSR 1010935

Used with Kenclaw drilling system. Sharper bullet profile provides increased penetration in medium to hard rock.



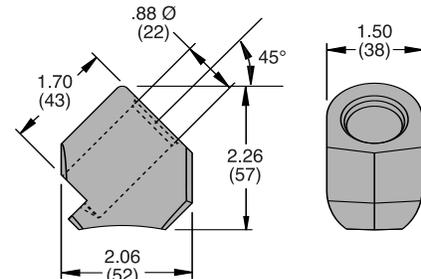
C87G block 1012234

Heavy-duty design with machined step for non-rotating tools. Has a .875"-diameter bore. Accepts .86" series cutting tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



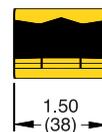
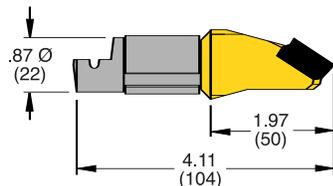
C87B block 1012275

Has a machined step to accept AR150 87 tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.

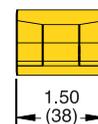
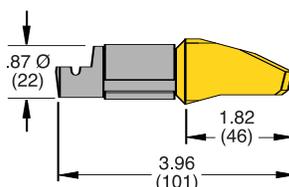


carbide-edged AR150 87 or all-hardened-steel AR150 87ST

For asphalt and other soft to medium-hard abrasive conditions. Available cutting faces: carbide-edged or all-hardened-steel. Carbide-edged tool has a 1.50" cutting face width for added block protection. Swept-back carbide edge provides exceptional tool life. Non-rotating, not self-sharpening. Requires an LR87 retainer, which is supplied with the tool.



AR150 87 1012240

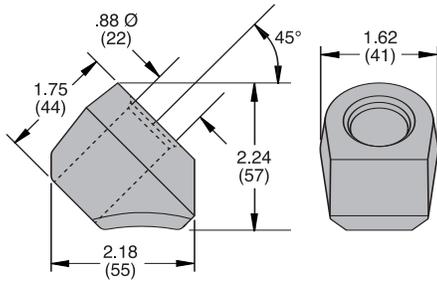


AR150 87ST 1012241



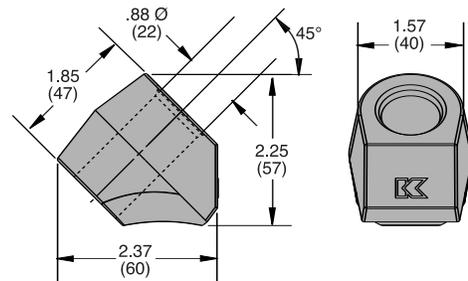
C87E block 1012365

Extra-heavy-duty design with machined shoulder in bore to provide extended tool life. Accepts SL and SM series conicals. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



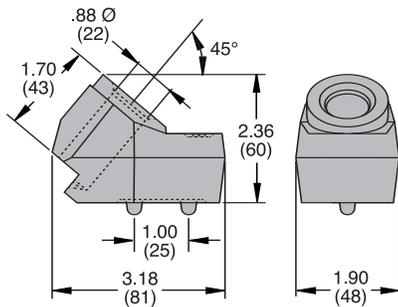
C87HDS block 1012290

Extra-heavy-duty design with machined shoulder in bore for extended tool life. Accepts SL and SM series conicals. Will not accept tools with external rear retainers. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



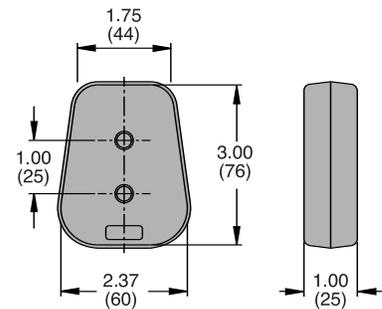
C87RL block 1012298

Block accepts SL and SM series conicals and has two pins to ensure accurate tool location during drum retooling. (Like C87B, has machined step for non-rotating tools.) All blocks easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



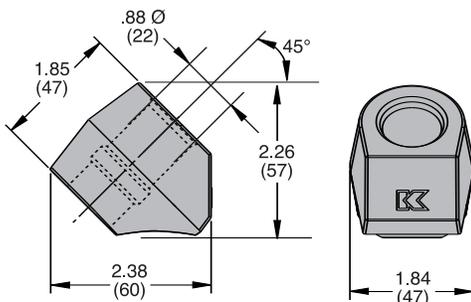
C10AM/LG base 1012364

Used with C87RL block. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



C87HDG block 1972929

Extra-heavy-duty design with machined shoulder in bore for extended tool life. Accepts C87KCSBSR and C87DSSR conicals. Will not accept tools with external rear retainers. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



.86" Shank Series – Packaging Information

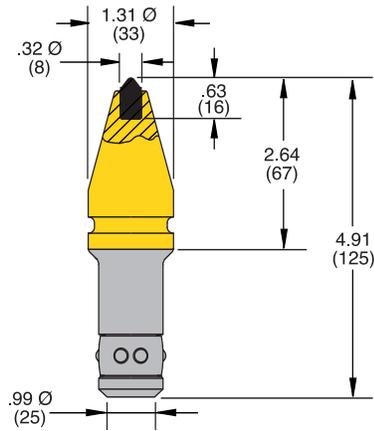
tool	old tool name	code	packaging			container weight		pieces per pallet	pallet weight		stock status
			type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
SM05	C87FLR	1322258	bucket	50	50	32.98	14.99	2500	1699.06	772.30	stock
SM06	C87BF	1010815	bucket	50	50	34.52	15.69	2500	1776.06	807.30	stock
SM01	C387KBF	1010860	bucket	50	50	33.97	15.44	2500	1748.56	794.80	stock
SM02	C387BF	1010817	bucket	50	50	33.97	15.44	2500	1748.56	794.80	stock
SL02	C387LR	1010797	bucket	70	50	38.80	17.64	3500	1990.00	904.50	stock
SL04	C87LR	1010795	bucket	60	50	37.00	16.82	3000	1900.00	863.60	stock
C87KCSBSR		1010937	bucket	50	50	41.78	18.99	2500	2139.06	972.30	stock
C87DSSR		1010935	bucket	50	50	39.58	17.99	2500	2029.06	922.30	stock
AR150-87		1012240	bucket	40	50	37.95	17.25	2000	1947.66	885.30	stock
AR150-87ST		1012241	bucket	40	50	35.49	16.13	2000	1824.46	829.30	stock
blocks											
C87B		1012275	bucket	25	50	22.81	10.37	1250	1190.31	541.05	stock
C87HDS		1012290	bucket	25	50	31.71	14.42	1250	1635.81	743.55	stock
C87HDG		1972929	bucket	25	50	31.71	14.42	1250	1635.81	743.55	stock
C87E		1012365	bucket	25	50	29.02	13.19	1250	1501.06	682.30	stock
C87RL		1012298	bucket	20	50	30.78	13.99	1000	1589.06	722.30	stock
C87G		1012234	bucket	35	50	32.57	14.81	1750	1678.71	763.05	stock
C10AM/LG base		1012364	bucket	30	50	55.53	25.24	1500	2826.56	1284.80	stock





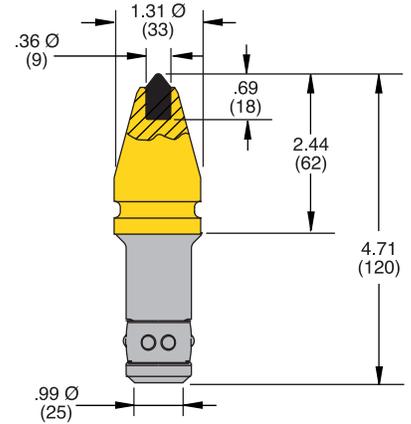
C32 1010296

For drilling most soils and broken or laminated rock. Sharp nose profile for maximum penetration.



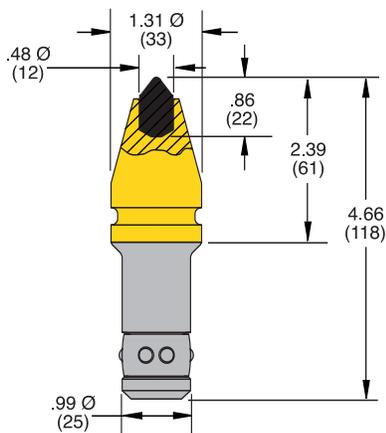
C31 1010304

For drilling in soft to hard rock and concrete. Slender nose profile for increased penetration.



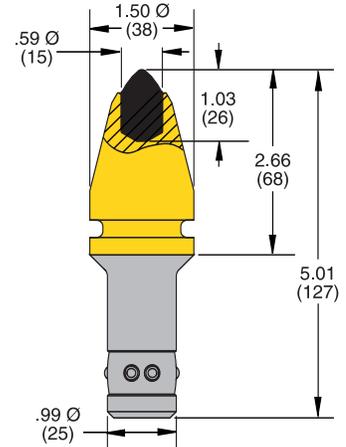
C31HD 1010787

Heavy-duty design for drilling and tunnel boring in extremely hard rock and concrete.



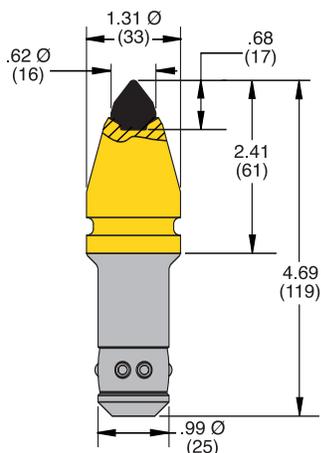
U40HD 1010414

For augering and tunnel boring in extremely hard rock and concrete. Ballistic-style tip provides high impact strength.



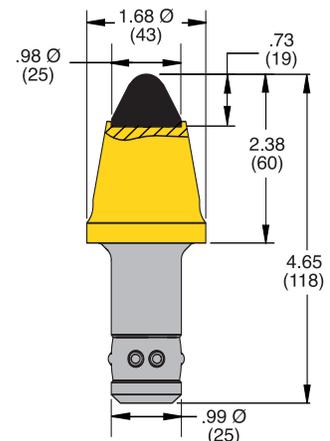
AUC40KH 1010396

For augering in soft to medium-hard cutting conditions where abrasive cutting washes away steel.



CH31SR 1010960

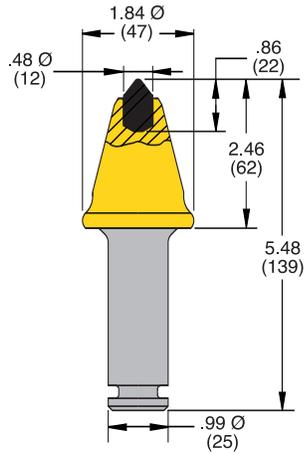
For drilling in soft to medium-hard cutting conditions. Large cap tip design provides maximum abrasion resistance.



1" Shank Series – Cutting Tools and Blocks

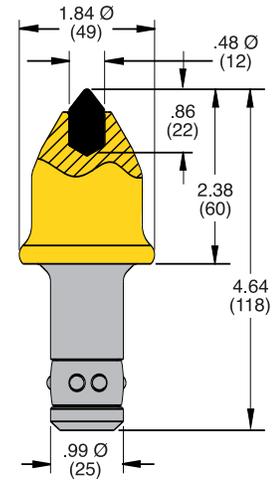
C31RHD 1010806

Heavy-duty design for drilling concrete and soft to medium-hard rock. Sharp nose profile for maximum penetration.



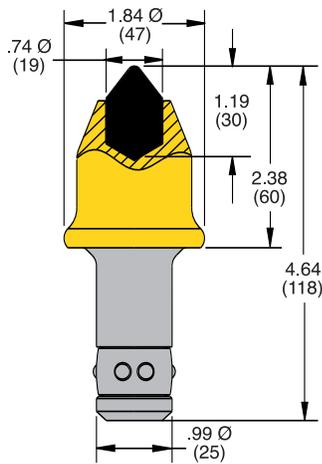
C31FSRHD 1939780

For drilling in concrete and soft to medium hard rock. Narrow tip diameter enables better penetration.



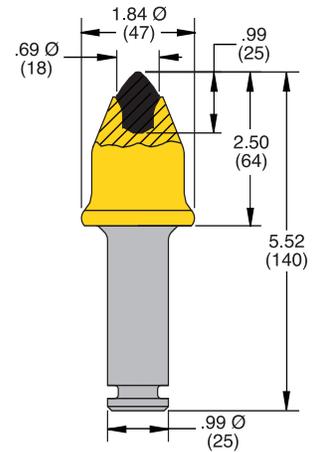
C34FSR 1939793

For drilling in hard and extremely abrasive rock. Dimple retainer enables easy installation and removal.



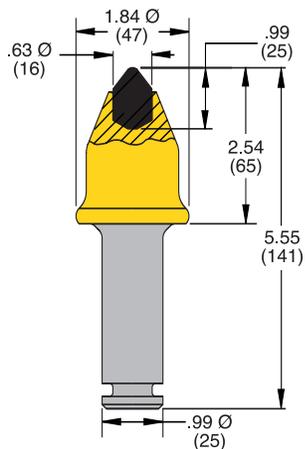
C36R 1013155

For medium to hard drilling where abrasive conditions cause excessive steel wear.



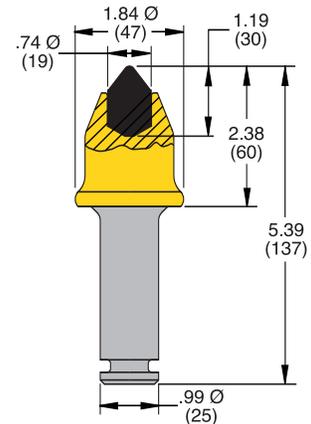
C35R 1094018

For drilling in medium to hard conditions.



C34R 1010799

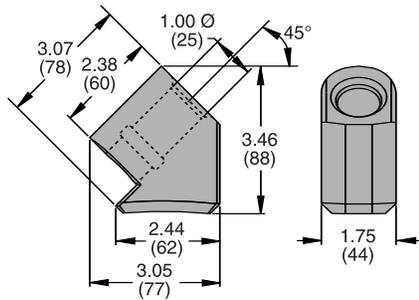
For drilling in hard and extremely abrasive rock.





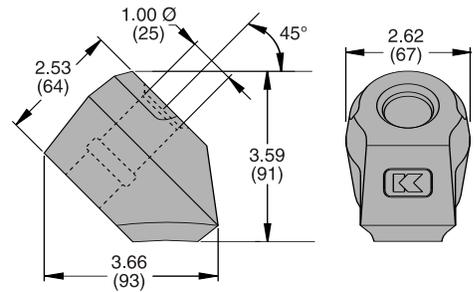
C30 block 1012279

Accepts our C31, C31HD, C32, U40HD, AUC40KH, and CH31SR, C31FSRHD, and C34FSR cutting tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



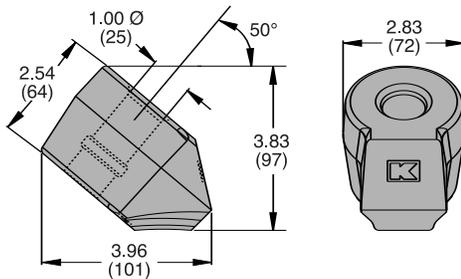
C30H/U40H block 1011585

Heavy-duty design. Accepts all 1"-shank cutting tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



C30HDW50 block 1315629

Heavy-duty version of the C30H block. Accepts all 1"-shank tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire.



Our C31FSRHD Conical Features...



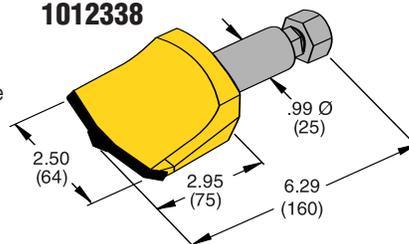
- Full-size steel body with beveled design for better performance when drilling concrete and hard rock.
- Excellent penetration from narrow, solid carbide tip.
- Dimpled short retainer for secure holding power in high-rpm machines.

Versatile Tooling System

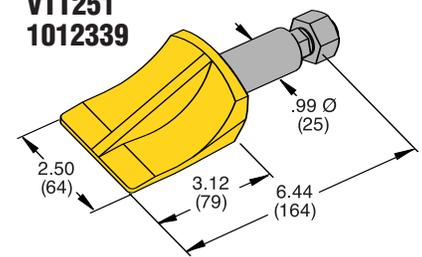
VT tooling system

A versatile tooling system that enables interchangeability between flat cutting tools, both steel and carbide, and any of our C30 series conical tools. Cutting tools can be used in combination because the gage height requirement is the same for either style. Flat cutting tools are indexable for use at varying angles (increments of 15°). (Serrations are used on the back end of the VT30HP block and the VTT30 lock washer. The hex through the bore of the lock washer mates with a hex on the shank of the flat cutting tool.) (Protected by U.S. Patent No. 5,007,685.) Thread size is 5/8"-11 UNC.

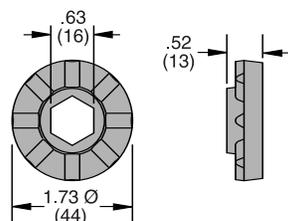
VTT250 1012338



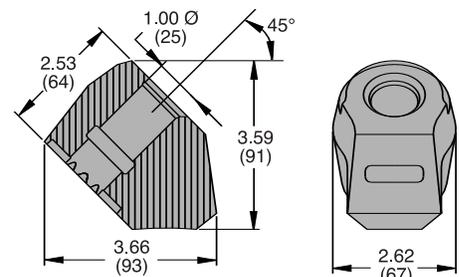
VTT251 1012339



VTT30 lock washer 1012669



VT30HP block 1012673



1" Shank Series – Packaging Information

tool name	code	type of flange	packaging			container weight		pieces per pallet	pallet weight		stock status
			type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
C31FSRHD	1939780	medium	bucket	25	50	24.73	11.24	1250	1286.56	584.80	stock
C34FSR	1939793	medium	bucket	25	50	30.21	13.73	1000	1560.49	709.30	stock
C31RHD	1010806	medium	bucket	15	50	23.22	10.56	750	1211.21	550.55	stock
C35R	1094018	medium	bucket	15	50	26.06	11.85	750	1353.11	615.05	stock
C36R	1013155	medium	bucket	15	50	26.06	11.85	750	1353.11	615.05	stock
C34R	1010799	medium	bucket	15	50	26.06	11.85	750	1353.11	615.05	stock
C31	1010304	small	bucket	25	50	27.53	12.52	1250	1426.81	648.55	stock
C31HD	1010787	small	bucket	25	50	27.70	12.59	1250	1435.06	652.30	stock
U40HD	1010414	small	bucket	25	50	35.18	15.99	1250	1809.06	822.30	stock
AUC40KH	1010396	small	bucket	25	50	27.31	12.42	1250	1415.81	643.55	stock
C32	1010296	small	bucket	25	50	28.08	12.77	1250	1454.31	661.05	stock
CH31SR	1010960	small	bucket	25	50	35.84	16.29	1250	1842.06	837.30	stock
VTT250	1012338	wide	bucket	10	50	25.80	11.73	500	1340.00	609.10	stock
VTT251	1012339	wide	bucket	10	50	20.30	9.23	500	1065.00	484.10	stock
blocks											
C30HDW50	1315629		bucket	6	50	29.58	13.44	300	1529.00	695.00	stock
C30H/U40H	1011585		bucket	8	50	33.36	15.16	400	1717.98	780.90	stock
VT30HP	1012673		bucket	8	50	32.53	14.79	300	1676.62	762.10	stock
C30	1012279		bucket	12	50	30.22	13.74	600	1561.34	709.70	stock

Our TS Series tools are PROVEN in drilling through extremely hard rock and concrete!

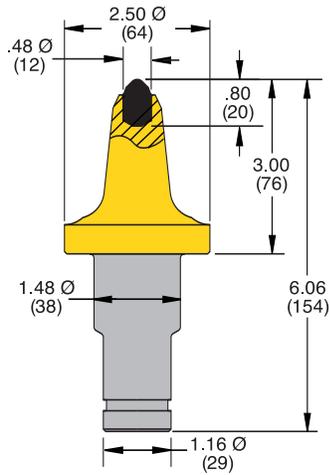
- Extra heavy-duty collar for maximum block protection and load distribution.
- Quality Kennametal carbide combined with enhanced geometry provides tools that withstand the most extreme cutting conditions.
- Large selection of tools to maximize performance in most drilling applications.
- TS6 is available with hardfacing for superior wear resistance.





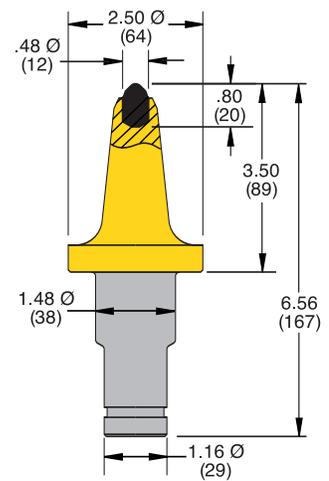
**TS1
1317522**

For drilling in soft to medium-hard cutting conditions. Sharp nose profile for maximum penetration.



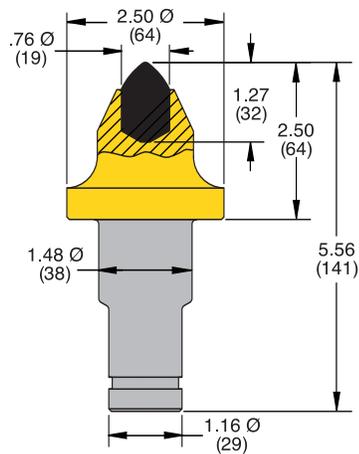
**TS2
1317521**

For drilling in soft to medium-hard cutting conditions. Sharp nose profile for maximum penetration. Extra long gage length for added penetration.



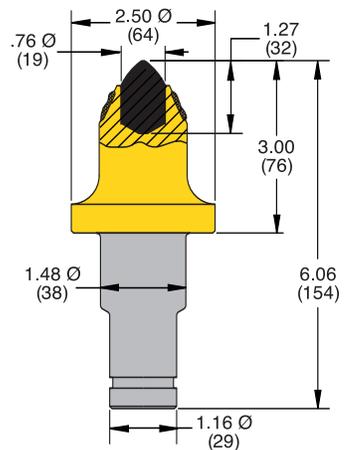
**TS5
1317519**

For drilling and tunnel boring in extremely hard rock and concrete.



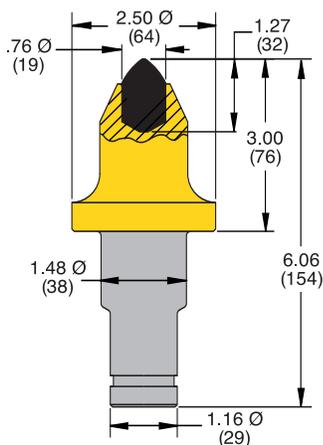
**TS6
1534892**

For drilling extremely hard and abrasive rock and concrete. Hardfacing provides maximum abrasion resistance.



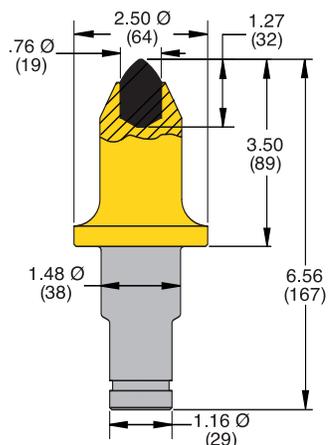
**TS7
1317517**

For drilling and tunnel boring in extremely hard cutting conditions.



**TS8
1318426**

For drilling and tunnel boring in extremely hard cutting conditions.

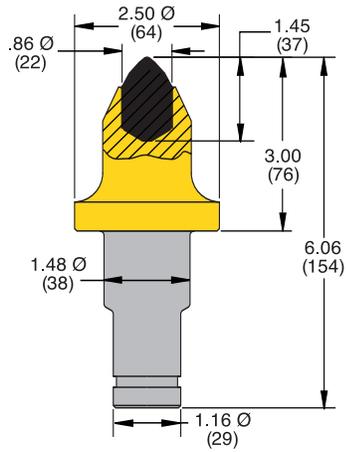


All conical tools on this page are supplied with a KR112 snap ring.

Step Shank Series – Cutting Tools and Blocks

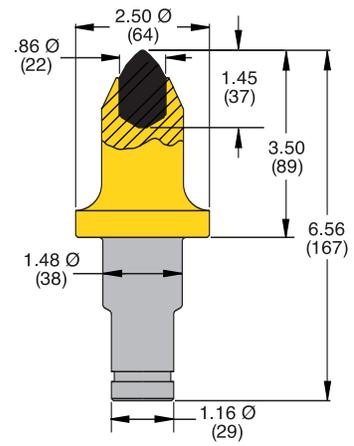
TS10 1610156

For drilling and tunnel boring in extremely hard rock and concrete.



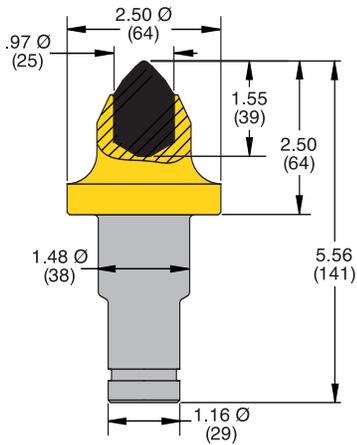
TS11 1532879

For drilling and tunnel boring in extremely hard rock and concrete.



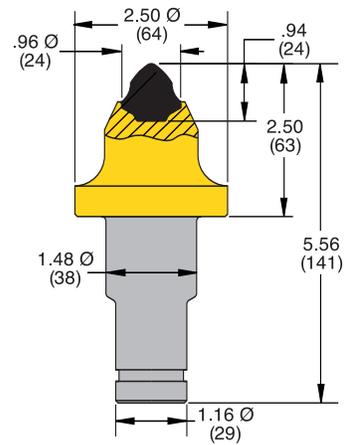
TS12 1317514

For drilling and tunnel boring in extremely hard rock and concrete. Longer carbide tip for longer tool life.



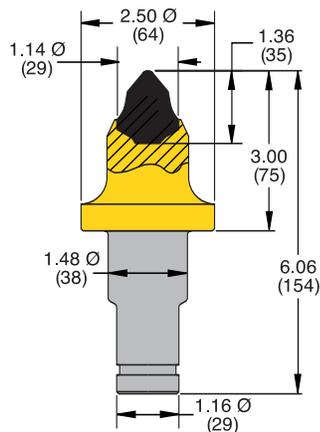
TS14 1532880

For drilling in soft to medium-hard abrasive cutting conditions.



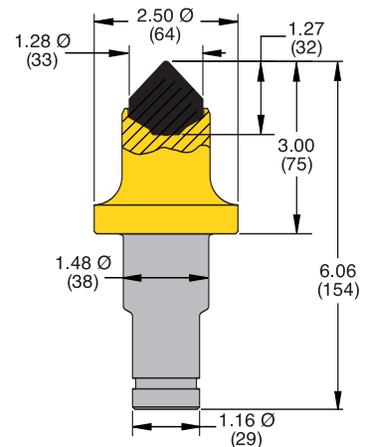
TS17 1723623

For drilling in soft to medium-hard abrasive cutting conditions.



TS18 1317523

For drilling in soft to medium-hard abrasive cutting conditions. Slim tip profile for better penetration.

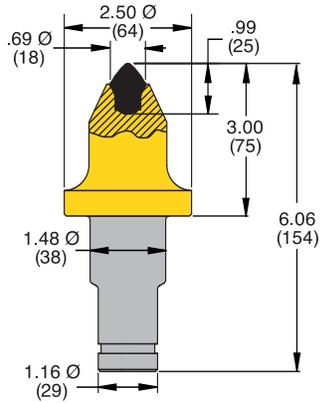


All conical tools on this page are supplied with a KR112 snap ring.



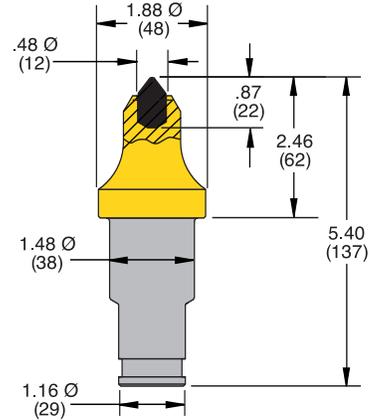
TS19 1750422

For medium to hard drilling conditions where abrasive conditions cause steel wash.



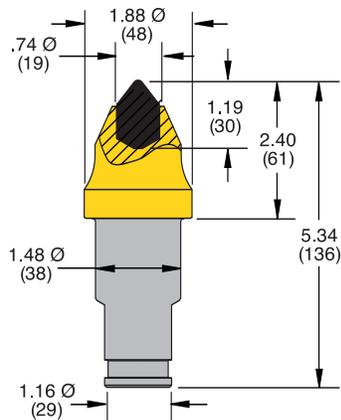
C6 1010740

For soft cutting conditions. Also available in 1/2" or longer gage.



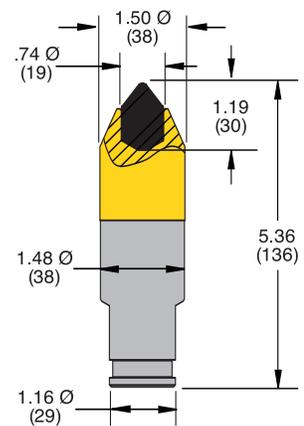
C7 1010742

For extremely hard cutting conditions. Also available in 1/2" and 1" longer gage.



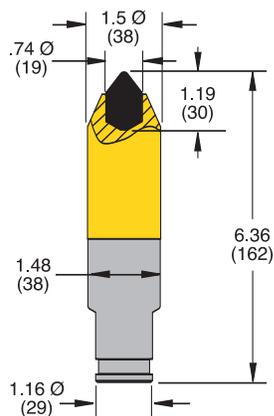
C4 1010761

For most cutting conditions. No collar.



C4 1 1010776

For most deep cutting applications. No collar.

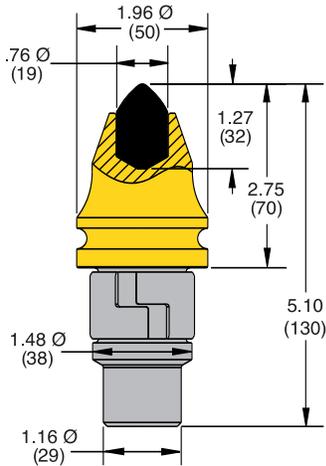


All conical tools on this page are supplied with a KR112 snap ring.

Step Shank Series – Cutting Tools and Blocks

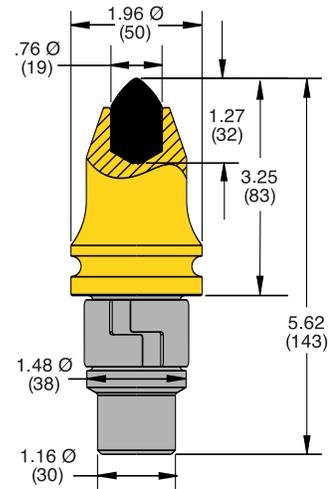
DS01 1880696

For drilling and tunnel boring in medium to extremely hard rock and concrete.



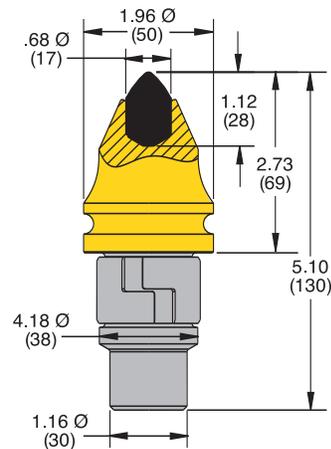
DS02 1918734

For drilling and tunnel boring in medium to extremely hard rock and concrete. Longer gage length for better penetration.



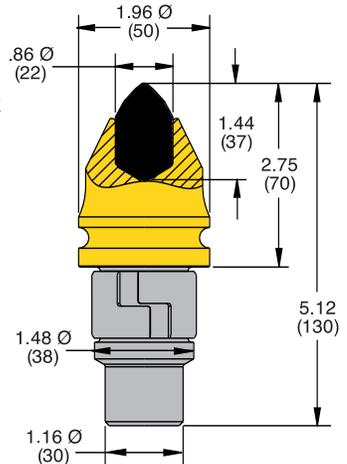
DS04 1918736

For drilling and tunnel boring in medium to hard rock.



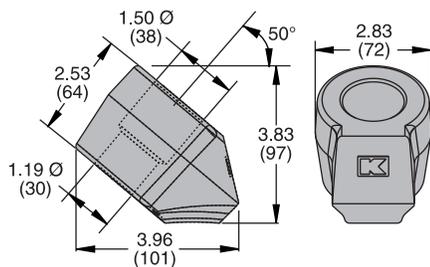
DS05 1918738

For drilling and tunnel boring in the most extreme hard rock and concrete.



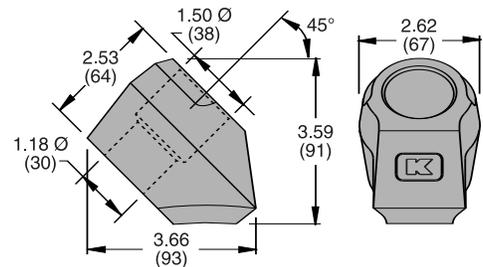
C4HDW50 block 1229333

Heavy-duty design accepts all step shank tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire. Also available as a special order tool with a hardface block face: tool name C4HDW50HF, code 1568464.



C4/U43H block 1011578

Heavy-duty design accepts all step shank tools. All blocks are easily welded with a 7018 or 8018 low-hydrogen rod or equivalent wire. Accepts all step shank tools.





new tool name	old tool name	code	packaging			container weight		pieces per pallet	pallet weight		stock status
			type	pieces per container	containers per pallet	lbs.	kg.		lbs.	kg.	
TS1	15P23	1317522	bucket	12	50	26.21	11.91	600	1360.70	618.50	stock
TS2	15P25	1317521	bucket	8	50	24.62	11.19	400	1281.06	582.30	stock
TS5	15P42J C7WC	1317519	bucket	10	50	27.65	12.57	500	1432.86	651.30	stock
TS6	15P43HF	1534892	bucket	10	50	28.62	13.01	500	1481.26	673.30	stock
TS7	15P43J 15P43L 15P43	1317517	bucket	10	50	27.65	12.57	500	1432.86	651.30	stock
TS8	15P46J 15P46L	1318426	bucket	8	50	25.82	11.74	400	1341.34	609.70	stock
TS10	15P54	1610156	bucket	10	50	29.22	13.28	500	1510.96	686.80	stock
TS11	15P56	1532879	bucket	8	50	25.67	11.67	400	1333.42	606.10	stock
TS12	15P6	1317514	bucket	10	50	28.23	12.83	500	1461.46	664.30	stock
TS14	15C44	1532880	bucket	10	50	27.41	12.46	500	1420.76	645.80	stock
TS17	15C74	1723623	bucket	10	50	29.61	13.46	500	1530.76	695.80	stock
TS18	15C42	1317523	bucket	10	50	30.80	14.00	500	1590.16	722.80	stock
TS19		1750422	bucket	10	50	28.58	12.99	500	1479.06	672.30	stock
C6		1010740	bucket	15	50	32.43	14.74	750	1671.56	759.80	stock
C7		1010742	bucket	15	50	35.40	16.09	750	1820.06	827.30	stock
C4 1		1010776	bucket	15	50	39.72	18.06	750	2036.21	925.55	stock
C4		1010761	bucket	15	50	32.63	14.83	750	1681.46	764.30	stock
DS01		1880696	bucket	15	50	35.50	16.14	750	1825.01	829.55	stock
DS02		1918734	bucket	12	50	39.17	17.81	600	2008.82	913.10	stock
DS04		1918736	bucket	15	50	34.61	15.73	750	1780.46	809.30	stock
DS05		1918738	bucket	12	50	30.51	13.87	600	1575.86	716.30	stock
blocks											
C4HDW50		1229333	bucket	6	50	26.82	12.19	300	1391.06	632.30	stock
C4/U43H		1011578	bucket	8	50	29.41	13.37	400	1520.86	691.30	stock

NEW *New DS Tools for Extreme Drilling Conditions!*
Setting the Drilling Standard!

Our new DS step shank tools have what it takes to get you through the hardest rock and concrete:

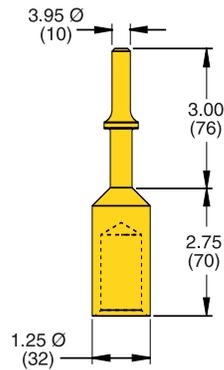
- New sleeve-style internal retainer improves rotation and increases bore life. It also enables quick and easy tool changes, and eliminates the hassles of external retainers!*
- Specially designed tip sizes to maximize cutting capabilities, no matter what your machine type!*
- Solid carbide tip made from Kennametal's exclusive carbide, in new geometries designed for superior performance in extremely hard cutting conditions!*



KIT 1 1012243

air-hammer installation tool

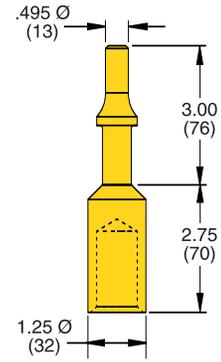
For installation of conical tools into blocks. Design prevents carbide from contacting punch - and thus no carbide fracturing - during installation. Fits all light-duty pneumatic guns that have a .395" chuck.



KIT 1 HD 1012244

air-hammer installation tool

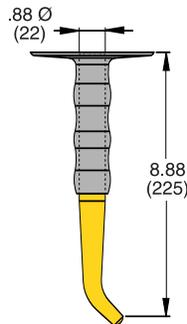
For installation of conical tools into blocks. Design prevents carbide from contacting punch - and thus no carbide fracturing - during installation. Fits all heavy-duty pneumatic guns that have a 1/2" chuck.



KHP2 1012247

hammer punch

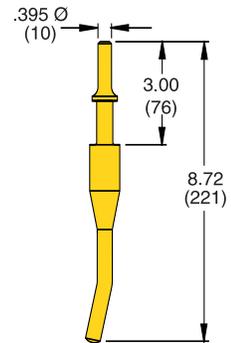
For removal of conical tools from blocks. Hardened tip provides long life. Used in conjunction with a hammer. A plastic hand protector is added for safety.



KAHP 1 1012245

air-hammer punch

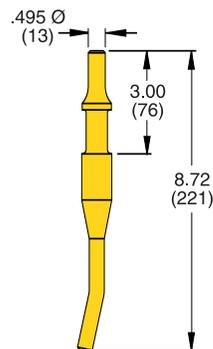
For removal of conical tools from blocks. Hardened tip provides long life. Fits all light-duty pneumatic guns that have a .395" chuck.



KAHP 1HD 1012246

air-hammer punch

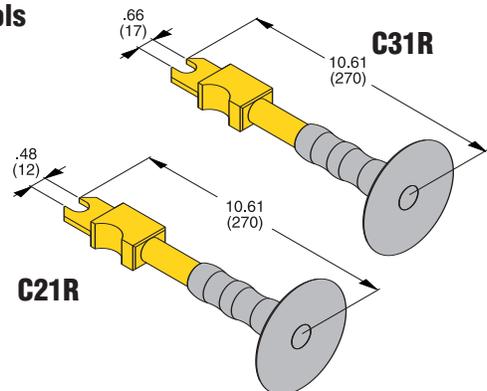
For removal of conical tools from blocks. Hardened tip provides long life. Fits all heavy-duty pneumatic guns that have a 1/2" chuck.



C31R C21R retainer removal tools

For removal and installation of C31R and C21R metal lock rings. A plastic hand protector is added for safety.

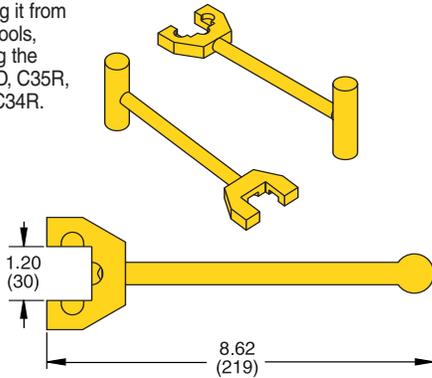
1012347 1012348



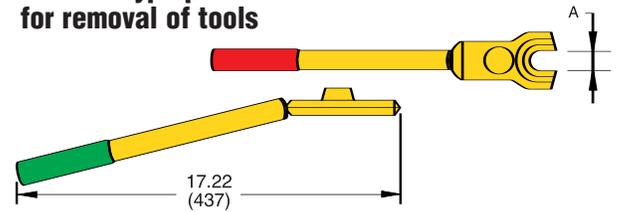


C34WR puller 1609121

For placing C34WR retainer onto or removing it from cutting tools, including the C31RHD, C35R, C36R, C34R.



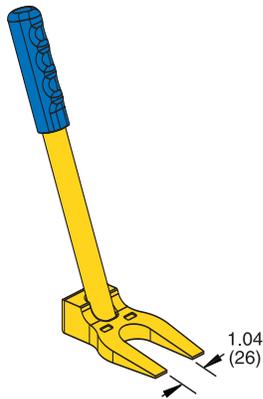
hammer-type pullers for removal of tools



description	for	A	handle color
C30 HP puller 1011982	C30 tools	1.15 (29,21)	blue
C20 HP puller 1011984	C20 tools	.84 (21,34)	black
C123 puller 1012016	RS, RL, SM, SL tools	.91 (23,11)	green
RP puller 1761401	RP tools	1.02 (26,00)	red

U70 puller 1012104

For removing collar tools with a 3/4" to 1" shank diameter.



K150 puller 1012106

For removing step shank tools with collars and DS tools.



KR112 snap ring 1011979

For C4 system cutting tools.



CM4 snap ring 1012223

For CM42 cutting tools.



Cutting Tool Accessories

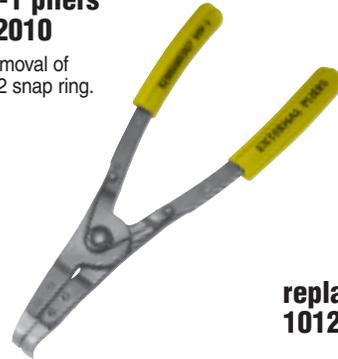
C31R metal lock ring 1012065

For C31RHD, C34R, C35R, and C36R cutting tools.



KRP-1 pliers 1012010

For removal of KR112 snap ring.



replaceable tips 1012012



KRP-4 pliers 1012047

For removal of KR112 snap ring.



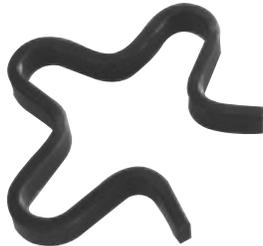
C3BW Washer 1226994

Hardened washer for use with .76" shank tools to maintain block face chamfer.



C34WR retainer 1554817

Easy on, easy off retainer for 1" shank external retainer tools (C31RHD, C34R, C35R, and C36R).



CM6H hairpin retainer 1554817

For CM62, CM61, and CM63 tools



CM6L lock ring 1595671

Hardened lock ring for CM61, CM62, and CM63 tools.



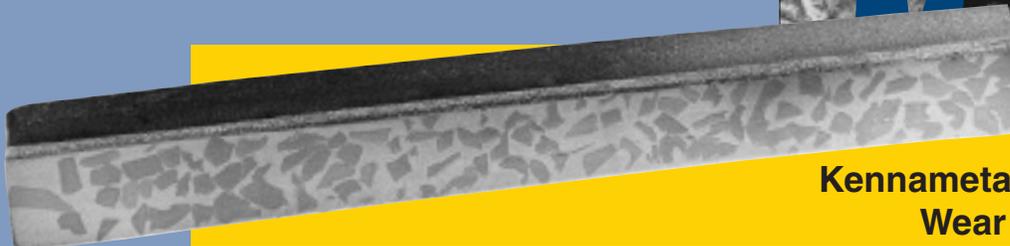
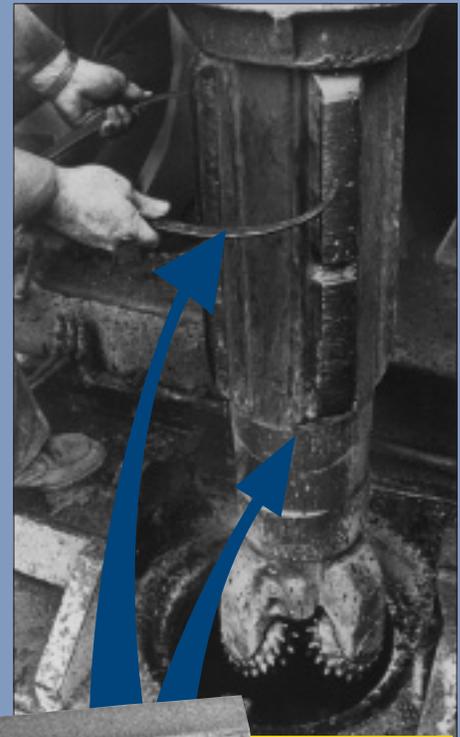


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Your drilling equipment operates in the toughest conditions. Protect it with Kennametal KenCast, a composite material that combines the exceptional wear resistance of Kennametal cemented tungsten carbide with the toughness and practicality of air-hardened steel.

KenCast comes in a variety of standard sizes, is easily welded to your equipment, and is more breakage-resistant than brazed carbide tiles.

In a field test against more traditional carbide button-style wear bars, Kennametal KenCast material outlasted the button-type carbide 4 to 1! Our carbide castings cover more of the wear surface than button-style bars, thus providing better wear resistance.



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Wear Bar**

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