

Trenching and Surface Miners





Trenching and Surface Miners

At Kennametal, our commitment to your most demanding applications is unparalleled. We have a long history of helping you achieve success and a tradition of exceeding your expectations.

We remain focused on redefining and advancing the earthworks industries through our world-class solutions — delivered by professionals who are committed to the health and profitability of your enterprise.

MISSION Kennametal delivers productivity to customers seeking peak performance in demanding environments by providing innovative custom and standard wear-resistant solutions, enabled through our advanced materials sciences, application knowledge, and commitment to a sustainable environment.





Table of Contents

Trenching and Surface
Miner Overview2-19
42mm Systems 20–29
38/30mm Systems 30–56
30mm Systems 58–68
25mm Systems 70–81
22mm Systems 82–95
19mm–20mm Systems 96–107
11mm-14mm Systems 108-117
Wear Solutions118–120
Index by Order Number122
Index by Catalogue Number 123



The foundation for a successful trenching and surface mining operation is built on rock-steady reliability and progress. Kennametal, the world's leading tooling and services provider, proudly introduces SOLID, our solution-focused platform that yields new levels of performance and productivity. SOLID-engineered tools deliver in the most challenging conditions. For unmatched quality, value, innovation, and application expertise, make Kennametal your SOLID choice.



New Product Innovations and Additions

With leading-edge cutting solutions for trenchers and surface miners, we keep high-value equipment running longer and performing better in demanding environments. Kennametal produces cutting systems, covering terrain levelers to microtrenchers, and everything in between. We continually strive to provide new and innovative solutions for demanding applications.



42mm (SM Series) Platform for Surface Miners

- Hardfacing improves wear protection and allows for better utilisation of carbide tip.
- Kennametal proprietary brazing technology offers improved strength.
- The thick, long LR-42 retainer is designed for quick tool changing and stabilised rotation.
- Wide collar feature protects the block and improves machine productivity.

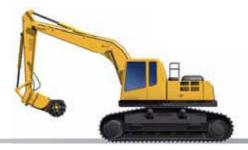


* See pages 20–29 for details.



30mm (KRH Series) Platform Improvements

- Unique heat treatment process reduces steel wear and improves overall life.
- NB tip design provides maximum steel support and longer tool life.
- Proven TR3 retention system. Easy to use with Kennametal installation and removal tool.



* See pages 58–68 for details

(continued)





New Product Innovations and Additions (continued)





14mm (CM Series) Platform Improvements

- New NB tip styles with different profile angles, combined with correct carbide grade, increase penetration and tool life.
 - Offers strong physical lock between steel and carbide, improving abrasion resistance.
 - Outperforms in hard and excessive impact cutting conditions.
- Uses easy-to-install/remove LR55 sleeve retainer for extended bore life.
- Wide collar provides maximum block protection.



* See pages 108-117 for details.



38/30 Platform Improvements

The RockRazor™ quick-change indexable cutting system enables use of a four-position flat spade tool for soft materials, and facilitates quick changes to carbide conicals for harder materials.

- Flexibility to easily change tool styles.
- · Less time changing tools boosts machine productivity.
- Quick-change system results in less downtime.











To maximise productivity and reduce maintenance costs, consider the following for proper tool selection:

1. Material to be cut and cutting conditions.



2. Machine capacity and cutting parameters.



Effect of tooling on machine wear and tear.



			N	lachine Paramete	ers	
				gine power		
Application Examples	Machine	Category/Type	HP	KW	Excavator Size (Ton)	
	188	Walk Behind Trencher	12–26	9–19	_	
Chain TrenchersUnderground networksPipelines	1	Riding Trencher	25–121	19–90	_	
Cables Drainage Irrigation		Small Chain Trencher	120–350	89–261	_	
Water channels Fibre-optic lines		Medium Chain Trencher	275–460	205–343	-	
		Large Chain Trencher	415–950	309–708	_	
Surface Miners		Small Surface Miner	350–963	261–718	_	
Bulk excavation Large trench Surface mining		Medium Surface Miner	600–1200	447–895	_	
Site preparation	L	Large Surface Miner	950–1623	708–1210	-	
• Access networks		Micro Wheel Trencher	42–410	31–306	_	
Optical ground wire Underground cables Long distance networks	-	Rock Wheel/Rock Saw/Concrete Cutter	42–260	31–194	_	
Underground networks Water channels Agricultural drainage		Large Wheel Trencher	325–540	242–403	_	
Irrigation Oil and gas		Bucket Wheel Trencher	225–630	168–470	_	
			10–45	7–34	0.5–15	
	700	Transverse Drum Cutter	55–110	41–82	5–25	
Demolition Attachments	三	Transferse Brain Gatter	140–190	104–142	20–55	
Trenching	>+ +d/		210–540	157–403	30–125	
Refurbishment T	- A 4	Universal Cutter	30–40	22–30	1–10	
Tunneling Demolition	-		60–107	45–80	8–23	
Quarrying		Longitudinal Desire Cutter	40–60	30–45	3–15	
• Mining		Longitudinal Drum Cutter	80–100	60–75	12–40	
Pile head cuttingExcavation workUnderwater works	6	Cutter Wheel	174–295	130–220	18–50	
	9	Chain Cutter	180–200	134–149	25–45	
Horizontal Directional Drilling Utility installation Pipeline		Horizontal Directional Drilling	_	_	_	

4 www.kennametal.com



first choicealternate choice

Cutting Pa	arameters	Series	SM	TS, KSM, & FC	KRH	T & C3	SM, SL & SD	RS & C	СМ	C	М
Width (mm)	Depth (mm)	Shank Size Page(s)	42mm 20–29	38/30mm 30–56	30mm 58–68	25mm 70–81	22mm 82–95	19mm–20mm 96–107	14mm 108–117	13mm-	-11mm 108–117
152–203	762–1219						0	•	0		
152–610	1067–2500					0	0	•	0		
200–710	1100–2500			•		0					
711–1020	305–3660			•	0						
1060–2000	406–7320		0	•							
2200–3353	300–910		•	0							
2500–4100	300–1100		•	0							
4200–4572	650–1100		•	0							
10–130	100–533						0	0	•	0	0
65–305	455–1016						•	0	0	0	
300–900	1270–2000			0	0	•	0	0			
711–1830	1980–3040			•	0	0					
_	_						•				
-	-					•					
_	_				_	•					
_	-				•						
_	_					•					
-	-				•			0	0		
_	_					•					
_	_				•	0	0	0			
-	_					0	•				
-	_					0	•				
_	_							0	0	•	•

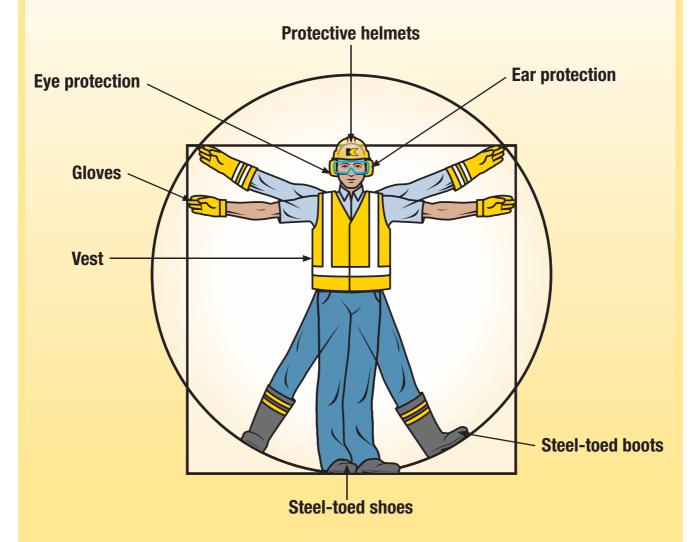
www.kennametal.com 5



Safety Guidelines

Kennametal encourages safe use of its products to help avoid personal injury.

1. Wear-approved personal protection equipment, including eye and ear protection, steel-toed shoes, protective helmets, gloves, and a vest.





Make sure tools are properly seated and securely retained.



3. Exercise care when removing tools.





4. Operate all machines with safety in mind.
Stand clear of machines in use, and make sure protective guards are in place.



6. Allow machine to cool and always wear protective gloves to inspect or touch conicals.



5. Do not change tools when the cutting chain, drum, or wheel is moving or still engaged.



7. Inspect tools daily. Do not use dull, cracked, burred, or bent tools.

IMPORTANT

Many injuries occur during tool change-out in construction and surface mining sites. Kennametal recommends the installer be equipped with the appropriate Personal Protective Equipment (PPE) for each task. Using Kennametal tools to install conicals is recommended. If proper tools are not used, the clip retaining strength could be weakened and could result in lost tool and machine productivity.

Best Practices to Maximise Tool Performance

If you have questions or would like more detailed advice, please contact your Kennamtal Sales Engineers.



- -Never reuse retainers ALWAYS use a new retainer with each new conical.
- -Replace worn-out, blunt, or dull conicals, and worn-out blocks immediately to decrease load on other machine parts.

Benefits:

Increase productivity.

-Conicals must rotate freely in the block. If the conical is stuck, tap with brass or rubber mallet. When installing new tools, clean out the block bore to ensure conical rotates freely.

Benefits:

- Ensure uniform wear on conical.
- Keep conical sharp.



-Always maintain proper tension on trencher chain.

Benefits:

- Longer tool life.
- Increase productivity.

 -Use correct tools when installing conicals — either a Kennametal recommended tool or a brass or lead-filled rubber-coated mallet. Never use a steel hammer or strike tools with metal objects.

Benefits:

· Avoid shattering or damage to carbide tip.

- -Maintain proper collar diameter of the conical.
- -Be sure blocks are welded at the original angle.

Benefits:

- Avoid damaging the block.
- Incorrect block
 placement can result in excessive wear
 on the conical, block, or other machine parts.



-Maintain proper gage length of the conical. Too short of a gage length can affect the width of cut and cause excessive load on other machine components.



-Make sure conicals are retained properly in the block.

Benefits:

Avoid safety hazards.



-Do not use chains, drums, or wheels with missing conicals. This causes excessive load on other conicals and machine components.

Benefits:

• Improve productivity.



-Maintain proper RPM and feed rates as per cutting conditions.

Benefits:

- · Extend tool life.
- Increase productivity.





Selecting Proper Tools and understanding wear progression.

Benefits:

- Increase tool utilisation.
- Avoid catastrophic failure.
- Maximise cutting performance.
- · Reduce machine wear-and-tear.

Selecting the right tip for your machine and application

Plug

- Maximum toughness.
- Physical lock between steel and carbide.
- Conditions: hard rock, chunk rock, shot rock, mixed rock, and dirt.
- Ideal for excessive impact.

Cap

- Maximum abrasion resistance.
- Rely on braze joint strength to hold tip to steel body.
- Conditions: softer, more abrasive material.
- Helps divert material away from steel body, reducing steel wash.
- Areas with uninterrupted cuts. Will not withstand high impact.

NB - Narrow Bottom

- · Combination of a cap and a plug, with superior strength and abrasion resistance.
- Conditions: excels in hard. abrasive material.







Troubleshooting

• The following chart shows typical end-of-life conditions and possible solutions to improve tool life. Please contact your Kennametal Application Expert or Representative with specific questions.



Problem	Possible Cause	Recommended Solution
Carbide Fracture	Hard cutting conditions.Extreme impact.	Contact your Kennametal sales Representative for a full evaluation.
Thermal Cracking	 Hard cutting conditions. Lack of penetration. Grinding of material not conveyed. Excessive heat generation during cutting. 	Contact your Kennametal sales Representative for a full evaluation.
Excessive Carbide Wear	Very abrasive cutting conditions.High rotation speed.Cutting too deep.	Adjust rotation and feed of machine.
Steel Wash	 Grinding of material not conveyed. Abrasive cutting conditions. 	 Contact your Kennametal sales Representative for a full evaluation. NB tip, X-series, hardfacing. Increase feed.
One-Sided Steel/ Wear on Gage	 Conical not rotating. Misaligned blocks. Sticky cutting conditions. Worn blocks. Excess material build-up on tool. 	 Clean the conical for foreign particles. Tap the conical. Contact your Kennametal sales Representative for a full evaluation.
Shank Breakage	 Worn block bore. Worn-out sleeve. Hard cutting conditions. Blunt/missing cutting tip. 	Contact your Kennametal sales Representative for a full evaluation. (continued)

(continued)





(Troubleshooting – continued)

Problem	Possible Cause	Recommended Solution
Shank Bending	 Worn block bore. Worn-out sleeve. Hard cutting conditions. Blunt/missing cutting tip. 	Contact your Kennametal sales Representative for a full evaluation.
Broken Hub/Hub Failure	Worn-out block: lateral play.	Contact your Kennametal sales Representative for a full evaluation.
Retainer Failure	Worn-out block: lateral play.	Contact your Kennametal sales Representative for a full evaluation.
Sleeve Breakage	Hard cutting conditions.Worn-out sleeves.	Contact your Kennametal sales Representative for a full evaluation.



Wear and Tooling Solutions for Your Earthworks Equipment

The Kennametal Earthworks segment serves top-tier companies across varied applications: trenching, surface mining, underground mining, quarrying, highway construction, utility construction, tunneling, recycling, forestry, agriculture, and snow removal. With our superior custom and standard cutting and wear-resistant solutions, we help our clients build and maintain best-in-class operations.

With leading-edge products, from cutter bits and holders to complete custom fabricated cutter drums, we keep high-value equipment running longer and performing better in demanding environments.

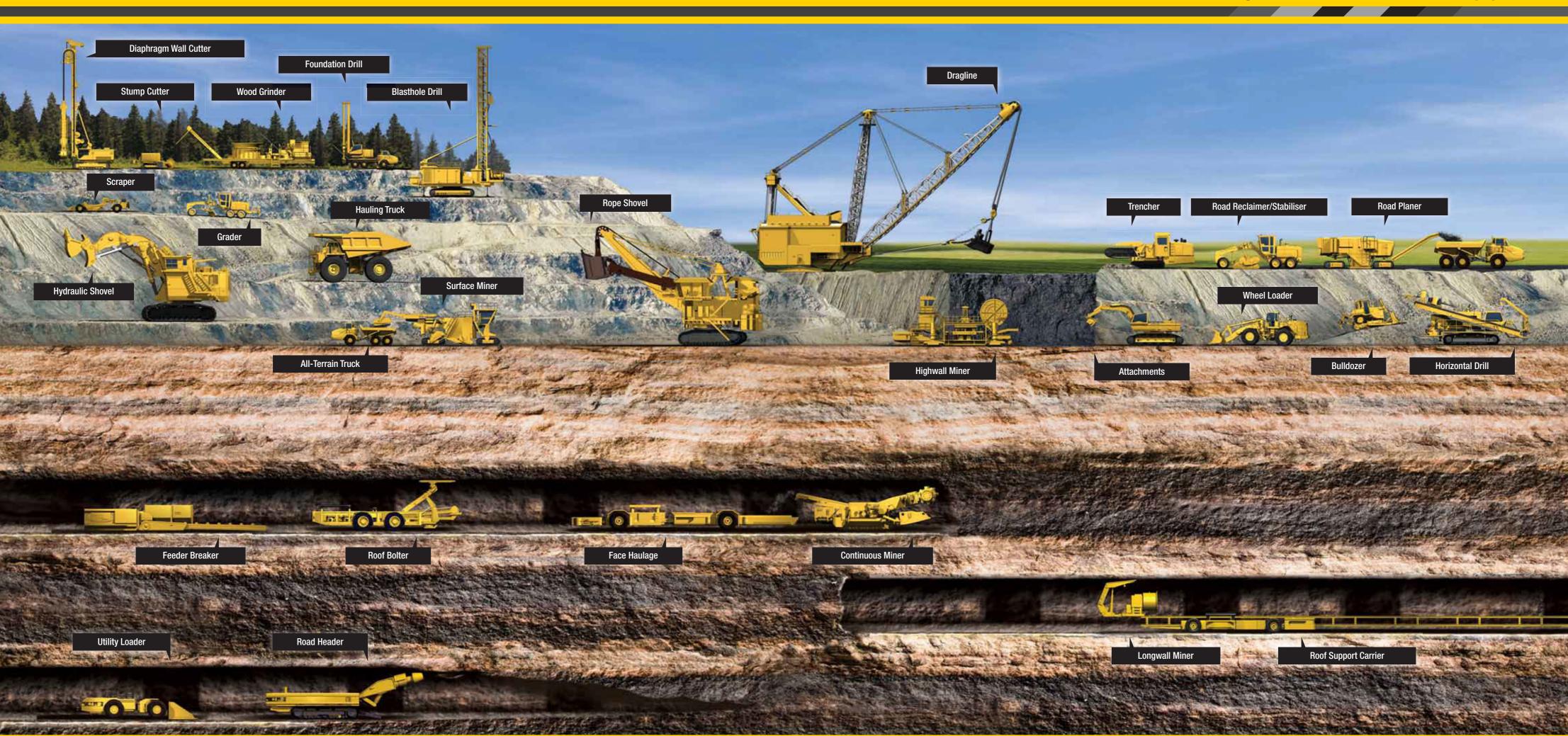
- Underground Mining
- Surface Mining
- Construction
- Specialties



FOR THE MOST DEMANDING APPLICATIONS

To learn more about our wear and tooling solutions for trenching, contact your Kennametal Representative or Authorised Kennametal Distributor today.







Underground Mining	1		**		4.0
	Conicals	Crushers	Radials	Cutting Systems	Drums
Longwall Miner	•		•	•	•
Continuous Miner	•		•	•	•
Highwall Miner	•		•	•	•
Road Header	•			•	•
Roof Bolter					
Feeder Breaker		•			
Face Haulage					
Utility Loader					

		(
	CLAs	Core Breakers	Roof Drill Bits	Augers and Drilling Systems	Wear Solutions	Accessories
Longwall Miner					•	•
Continuous Miner	•	•			•	•
Highwall Miner	•	•			•	•
Road Header						
Roof Bolter			•	•		•
Feeder Breaker					•	
Face Haulage					•	
Utility Loader					•	

Surface Miner/Trenching		6			
	Conicals	Block Systems	Wear Solutions	Accessories	Drums
Surface Miner	•	•	•	•	•
Chain Trenchers	•	•	•	•	
Wheel Trenchers	•	•	•	•	
Demolition Tool	•	•	•	•	
Horizontal Directional Drilling	•	•	•	•	

Road Rehabilitation	Why.		E	A		
	Conicals	Flat Teeth	Cutting Systems	Drums	Accessories	Planer Blades
Road Planer	•		•	•	•	•
Road Reclaimer/Stabiliser	•	•		•	•	•
Attachments	•			•		•
Bulldozer						

				*	4	
	Kicker Plates	Track Pads	Conveyor Rollers	Conveyor Belts	Power Belts	Wear Solutions
Road Planer	•	•	•	•	•	•
Road Reclaimer/Stabiliser	•	•	•	•	•	•
Attachments	•					•
Bulldozer						•

Foundation Drilling	*	(M)	0		1			000
	Auger Pilot Bits	Conicals	Core Barrel	Cutting Systems	Wall Cutters	Wear Solutions	Accessories	Compact
Foundation Drill	•	•	•	•	•	•	•	
Diaphragm Wall Cutter					•			
Horizontal Drill								•

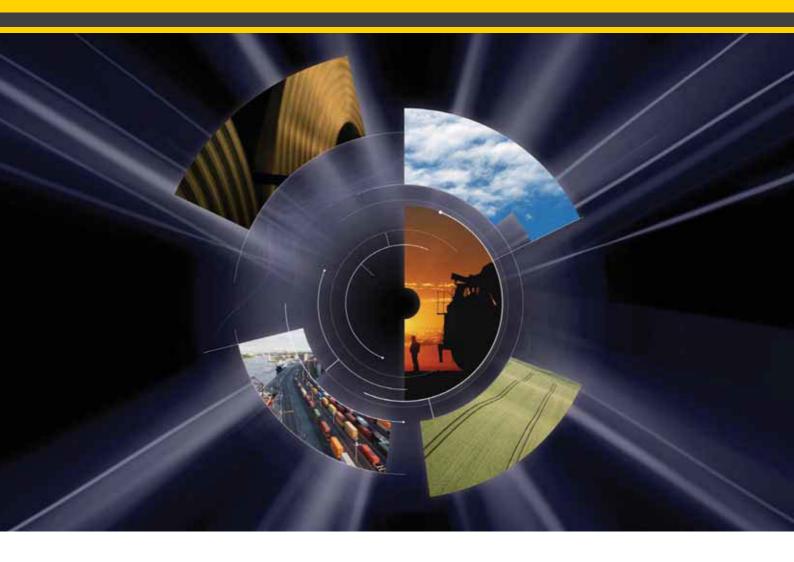
Forestry	(M)		Sin.		
	Conicals	Cutting Systems	Flat Teeth	Grinder Tips	Accessories
Stump Cutter	•	•	•		•
Wood Grinder				•	•











EARTHWORKS

Underground Mining Surface Mining Construction

AEROSPACE & DEFENSE

Aerostructure Aeroengines Defense Applications

ENERGY

Oil & Gas Power Generation Chemical Plastics

TRANSPORTATION

Automotive Shipbuilding Railroad Heavy Vehicles

GENERAL ENGINEERING

Consumer/Household Goods Industrial Goods Medical Tool, Die & Mould





Introduction — Trenching and Surface Miners

At Kennametal, we attack surface mining and trenching with a simple and direct value proposition. The right cutting systems get the job done efficiently and last longer, and more uptime means more business.

Tooling may account for only a fraction of the project cost, but it has an enormous impact on overall production efficiency, quality, and value. The right tools are paramount in improving productivity, and the right partner is just as critical.

Kennametal products are the best in the business, so maximum productivity is realised day after day, year after year. Whether it's mining a pit, digging a trench, sinking foundations, or milling a road, Kennametal people and products strive to meet your needs for successful, safe, and long-lasting production.

Focus Industries:



Oil and Gas



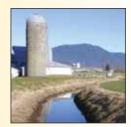
Electricity/
Telecommunications



Power Generation/ Energy



Water and Sewage/ Utilities



Agriculture



Transportation



Surface Mining





Product Icons

Pressed Contact	IHC	IH Treatment	x	X Treatment
HF Treatment		Tool with Puller Groove		Retainer: External
Retainer: Internal		High Productivity		

Cutting Condition Icons

	I				
Icons	Cutting Conditions	Description	Rock Compressive Strength Range (MPa)	Other Possible Characteristics	Rock Type Examples
0	Light	Very-Soft to Soft, Poorly-Compacted, Highly-Weathered, Un-Stratified Rock	0–35	Low Density	Soapstone, Shale, Lignite
0	Medium	Soft to Medium-Hard, Weakly-Compacted, Moderately Weathered, Medium Bedded Rock	20–60		Limestone, Caliche, Bauxite, Anthracite, Marl (MudStone)
0	Heavy	Medium-Hard to Hard, Moderately-Compacted, Slightly Weathered, Medium-Thickly Bedded Rock	50–100		Dolomite, Limestone
	Severe	Very Hard, Well-Compacted, Slightly Weathered, Thickly Bedded Rock	≥80	High Density	Granite, Basalt, Iron Ore (Hematite, Magnetite)
	Abrasive	Generally-High Mohs Index Scale. High Wear Condition	_	Contains Feldspar, Quartz	Sandstone



Block Selector







		Series	SM	TS, KSM, & FC	KRH	T & C3	SM, SL, & SD	RS & C	RS & C	СМ	СМ	СМ
		Shank Size	42mm	38/30mm	30mm	25mm	22mm	20mm	19mm	14mm	13mm	11mm
Catalogue Number	Order Number	Page(s)	20-29	30-56	58-68	70–81	82-95	96–107	96–107	108–117	108–117	108–117
SM42BS*	5059532	28	•									
C4/U43H BLOCK	1011578	52		•								
TH3 BLOCK	2433922	53		•								
TH3S BLOCK	2603270	53		•								
MTB1 BLOCK	3392835	53		•								
MTB2S BLOCK	3504241	54		•								
K30S-TS SYSTEM*	3737342	54		•								
U43XHD-50 BLOCK	2988596	54		•								
U43XHD-P BLOCK	1807656	54		•								
TH3-G-INDEX BLOCK	5031746	52		•								
TH3S-G-INDEX BLOCK	5031772	52		•								
BS30.65 BLOCK	1011569	66			•							
BBS30.65H SYSTEM*	1131591	66			•							
U43XHD 30 BLOCK	1792958	66			•							
TH3-100 BLOCK	2956994	80				•						
C30H/U40H BLOCK	1011585	80				•						
C87 - G	1012234	94					•					
C87HDS - G	1012290	94					•					
C87E - G	1012365	94					•					
SLB01 - G	1858587	94					•					
C3RB BLOCK	1886760	105						•				
C10HD BLOCK	1012289	105						•				
C10 BLOCK	1012278	105						•				
C20/U43NS	1012273	104							•			
C20HD BLOCK	1012276	104							•			
СМВ6	1321008	116								•		
CMB6-L	1898353	116								•		
CMB5 BLOCK	5031028	116									•	
CMB4 BLOCK	1012281	116										•

^{*} Replaceable bushing included.







Accessories Selector

					40	
Internal External Retainer				Installation/P	emoval Tools	
				IIIstallation/H	emovai 100is	
	Retainers		Installati	on Tools	Remov	al Tools
Retainer Type	Catalogue Number	Order Number	Catalogue Number	Order Number	Catalogue Number	Order Number
Internal	LR-42 RETAINER	4072746	-	_	_	-
External	HP CLIP	1304100	_	_	_	_
External	TR3 RETAINER	4073124 NE	UNIVERSAL TR3 PULLER	5500279 NE	UNIVERSAL TR3 PULLER	5500279
External	C15R RETAINER	1803295	C15R RETAINER REMOVAL TOOL	1885470	C15R RETAINER REMOVAL TOOL	1885470
External	KR-112 BE RETAINER	4055765	KRP4 PLIER	1012047	KRP4 PLIER	1012047
External	KR-112 BE RETAINER	4055765	KRP 1/C4 PLIER	1012010	KRP 1/C4 PLIER	1012010
External	KR-112 BE RETAINER	4055765	KRPT1/C4 TIP	1012012	KRPT1/C4 TIP	1012012
External	TR1-D	4065385	W! UNIVERSAL TR3 PULLER	5500279 NE	UNIVERSAL TR3 PULLER	5500279
External	C31R RETAINER	1012065	C31R REMOVER TOOL W/GRIP	1012347	C31R REMOVER TOOL W/GRIP	1012347
Internal	LR87D SP RETAINER	3518626	_	_	C123/U50 HAMMER PULLER	1012016
Internal	LR87 RETAINER	1011935	_	_	C123/U50 HAMMER PULLER	1012016
Internal	LR87D SP RETAINER	3518626	_	_	KHP2 KMTL PUNCH	1012247
Internal	LR87 RETAINER	1011935	_	_	KHP2 KMTL PUNCH	1012247
External	SLR RETAINING RING	1817888	C21R REMOVER TOOL W/ GRIP	1012348	C21R REMOVER TOOL W/ GRIP	1012348
Internal	U43K	1011978	_	_	C20/U43HP BIT PULLER ASSEM	1011984
External	C21R RETAINER	1011961	C21R REMOVER TOOL W/ GRIP	1012348	C21R REMOVER TOOL W/ GRIP	1012348
Internal	C10 RETAINER	1011965	_	-	C123/U50 HAMMER PULLER	1012016
External	C3R RETAINER	1012120	C21R REMOVER TOOL W/ GRIP	1012348	C21R REMOVER TOOL W/ GRIP	1012348
External	3/4 16UNF NUT	1011884	-	-	-	-
External	M16 X 2 STOVER LOCK NUT	1080452	-	_	_	_
Internal	LR76 RETAINER	1011942	-	-	C20/U43HP BIT PULLER ASSEM	1011984
External	CM6L RETAINER	1595671	_	_	_	_
External	CM6H RETAINER	1777806	-	-	_	-
Internal	LR55 RETAINER	1890174	-	-	_	_
Internal	LR51 RETAINER	4080877	-	-	-	-
External	CM4 RETAINER	1012223	_	_	_	_









Series	SM	TS, KSM, & FC	KRH	T & C3	SM, SL, & SD	RS & C	RS & C	СМ	СМ	СМ
Shank Size	42mm	38/30mm	30mm	25mm	22mm	20mm	19mm	14mm	13mm	11mm
Page(s)										
29	•									
29	•									
55, 67		•	•							
55		•								
55, 67		•	•							
55, 67		•	•							
55, 67		•	•							
81				•						
81				•						
95					•					
95					•					
95					•					
95					•					
95					•					
106							•			
106							•			
106						•				
107						•				
107						•				
107						•				
107						•				
117								•		
117								•		
117								•		
117									•	
117										•
										_

NOTE: For highlighted series, use the K150 PAD COATED PULLER for conical removal. For more information, refer to page 56.







42mm Cutting SystemsSurface Miner and Terrain Leveler

More than Scratching the Surface

With blasting, you spend valuable resources cleaning up. With surface miners, you have more control,

Kennametal's surface miner cutting system includes drums, cutting teeth, blocks, and accessories. With these industry-leading products, we keep you productive in the most demanding environments.

which quickly translates into lower costs, greater efficiencies, and most importantly, fewer safety concerns.











Conicals

42mm cutting bits are designed with exceptionally durable bodies and ultimate hardness throughout the entire head. The result? Ultra-high performance over the lifetime of the tool.

The carbide tips are designed for a wide range of cutting conditions — from light to severe. Vary the gage length and the carbide tip to take on an even wider range of ground material and conditions.



Hard Facing — Increases Wear Resistance to Extend Tool Life

- · Protects gage from wear and steel wash.
- Increased wear protection allows better utilisation of the carbide tip.

Head Design — Improved Productivity

- Offered in different gage lengths.
- Slim-line design increases productivity and reduces dust.

Brazing

• Kennametal's proprietary brazing technology offers improved strength.

Wide-Collar Design

Protects the block and improves machine productivity.



- The thick, long design of the LR-42 retainers holds the pick more efficiently, making it very easy to use.
- Hair pin retainers rotate freely, offering fast, easy, and safe installation and removal.





Block Systems

Tough surface mining jobs require tough block systems. These blocks offer a larger, heavy-duty barrel. The J-chamfer was designed with the best angle for gage cutters, giving it 25% more area to weld the block onto the machine. The cannon feature boosts tooth rotation while the flat bottom provides more stability. With the front-to-back forging process, critical dimensions are maintained to ensure cutting bits fit securely in the block and penetrate better, especially in tough cutting conditions.





Induction-Hardened Bore Block

- Offers optimum wear resistance.
- Slim design for easy flow of material.



Replaceable Sleeve for Longer Block Lifecycle

- Press-fit bushing for maximum bore protection.
- Wide collar sleeve protects face of block.



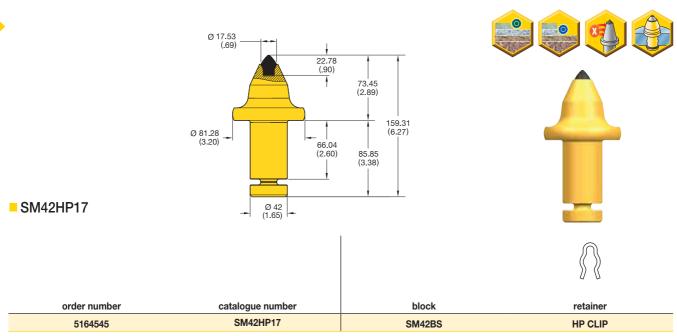


Drums

Kennametal surface miner drums are custom designed with unique lacing patterns for specific applications and cutting conditions, meaning longer, more efficient cutting. All drums are balanced so that they synchronise with your machine resulting in less vibration.



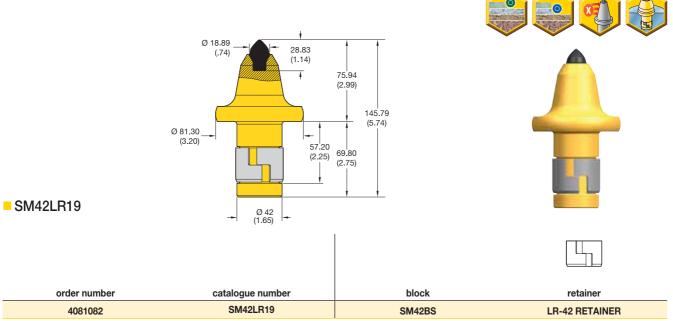




NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding block detailed information can be found on page 28.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

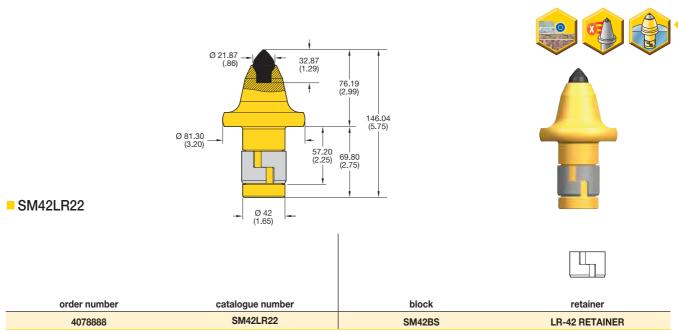
Corresponding block detailed information can be found on page 28.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5164545	SM42HP17	box	10	19.8	43.6	360	713	1570
4081082	SM42LR19	box	10	18.1	39.9	360	652	1436



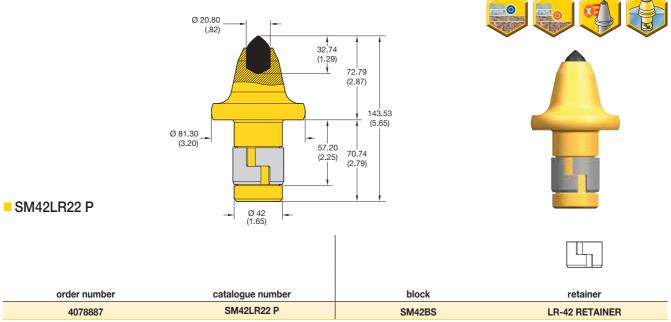




NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding block detailed information can be found on page 28.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding block detailed information can be found on page 28.

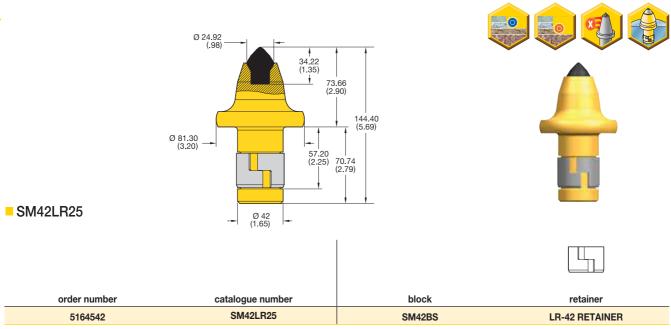
Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4078888	SM42LR22	box	10	18.5	40.8	360	666	1469
4078887	SM42LR22 P	box	10	18.7	41.3	360	673	1487



42mm Systems • Surface Miner and Terrain Leveler

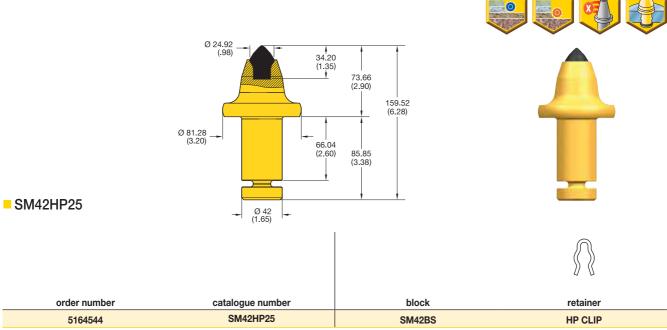




NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding block detailed information can be found on page 28.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

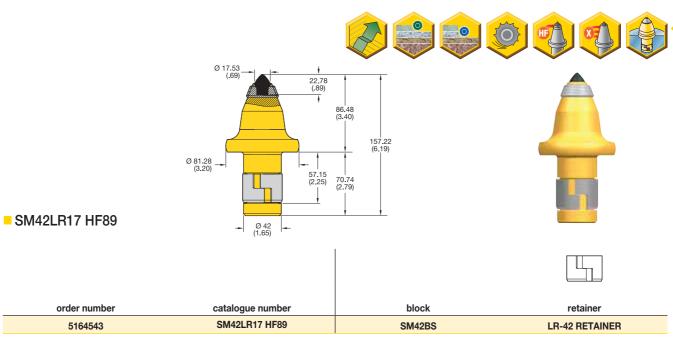
Corresponding block detailed information can be found on page 28.

Packaging Information

					er weight ximate)			weight oximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5164542	SM42LR25	box	10	19.0	41.9	360	684	1508
5164544	SM42HP25	box	10	20.3	44.7	360	731	1609



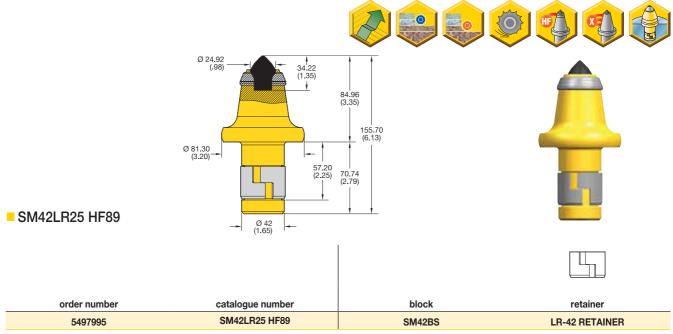




NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding block detailed information can be found on page 28.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

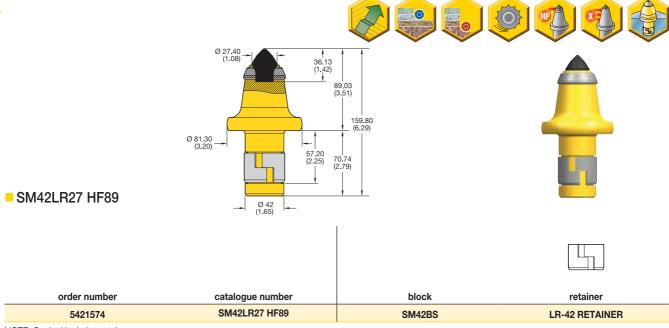
Corresponding block detailed information can be found on page 28.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5164543	SM42LR17 HF89	box	8	16.5	36.2	288	593	1305
5497995	SM42LR25 HF89	box	8	17.2	37.9	288	619	1365







NOTE: Conical includes retainer.

Block and additional retainers sold separately.

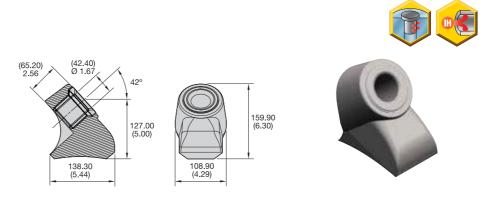
Corresponding block detailed information can be found below.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5421574	SM42LR27 HF89	box	8	17.5	38.6	288	631	1388

Dimensions shown in millimetres and (inches).

42mm Shank Blocks System



SM42BS

order number	catalogue number	bushing
5059532	SM42BS	SM42BS BUSHING





LR-42 Retainer

■ HP Clip Retainer





order number	catalogue number
4072746	LR-42 RETAINER

order number	catalogue number				
1304100	HP CLIP				

42mm Bushing



order number	catalogue number
5052081	SM42BS BUSHING





38/30mm Step Shank Systems Chain Trencher, Bucket Wheel, and Surface Miners

Kennametal designs cutting systems providing productivity and protection. By selecting the right tool at the onset of the job, we can help meet your production goals and also protect machinery from costly downtime. The right tool also helps produce right-sized cut material (spoil), making it easier to deal with.

Chain trenchers offer flexibility of cutting either a narrow or wide trench for laying optical fibre lines, utility drainage, or oil and gas pipelines, to name a few. They are highly effective in medium to light cutting conditions when reusable spoil is needed. The depth of cut can be easily controlled by adjusting the angle of the boom.

Chain trenchers are also utilised for excavating trenches in rock. Compared to drill and blast methods, chain trenchers offer added safety, fewer adverse environmental effects, and cost and efficiency benefits.





RockRazor™ Quick Change Indexable Cutting System



The quick change ability of the RockRazor system offers the flexibility to easily change from one tool style to another, depending on the application. This flexibility reduces machine downtime and allows you to maximise the cutting capabilities of your equipment.



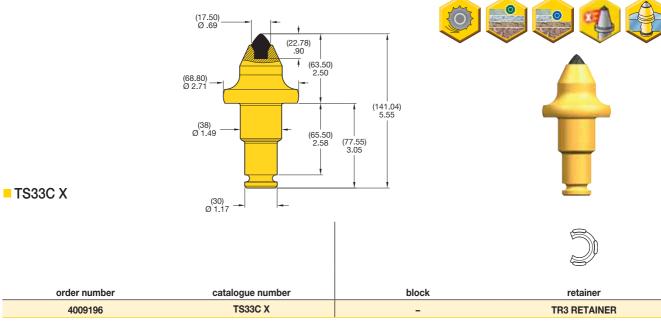
Benefits of Quick Change:

Flexibility to quickly change between non-rotating, four-position flat-spade tools for soft materials to carbide rotating conicals for harder materials.

- Significant cost savings due to reduced downtime during tool changes.
- Less downtime.
- Flexible.
- Efficient.
- · Comprehensive.
- Productive.
- Powerful.



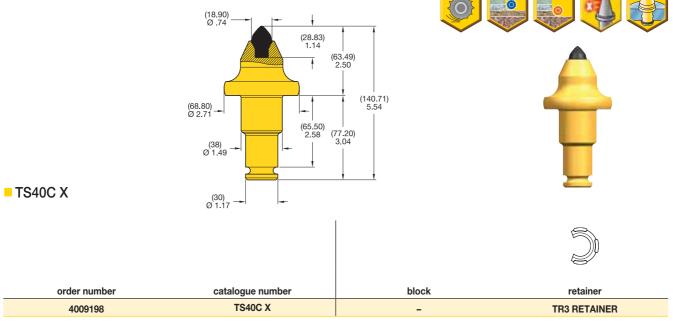




NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

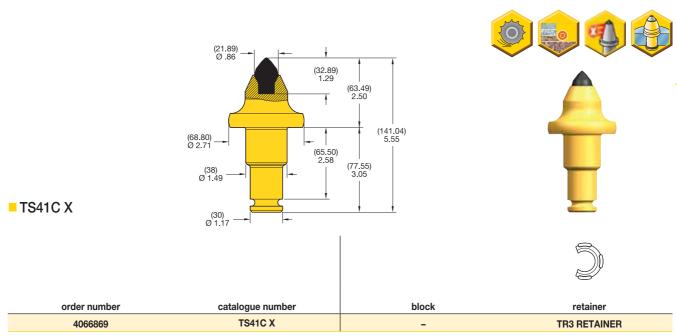
Corresponding blocks can be found on pages 52-54.

Packaging Information

				container weight (approximate)			pallet weight (approximate)	
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4009196	TS33C X	box	15	18.8	41.4	540	675	1490
4009198	TS40C X	box	15	18.8	41.3	540	675	1485

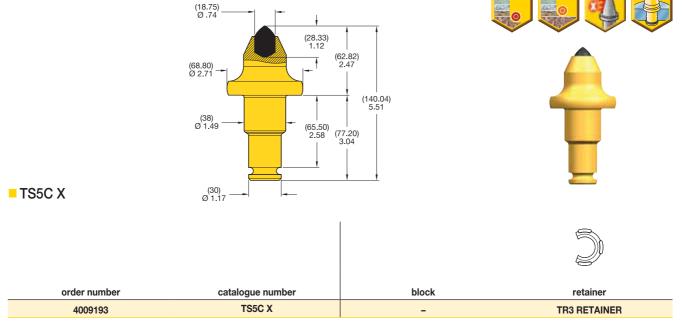






Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately. Corresponding blocks can be found on pages 52-54.

Packaging Information

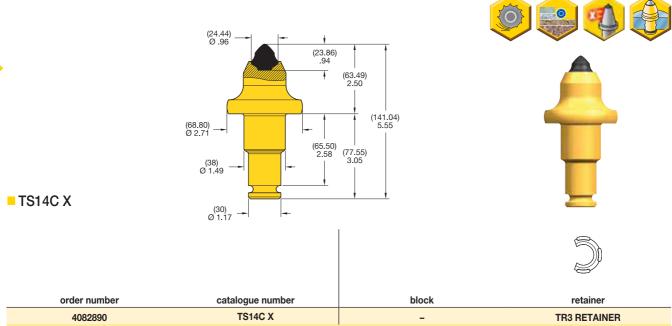
				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066869	TS41C X	box	15	18.9	41.9	540	680	1507
4009193	TS5C X	box	15	19.4	42.5	540	697	1528











NOTE: Conical includes retainer.

Block and additional retainers sold separately.

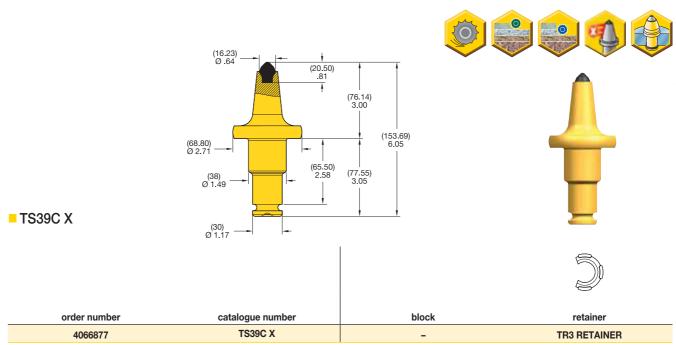
Corresponding blocks can be found on pages 52–54.

Packaging Information

					container weight (approximate)			pallet weight (approximate)		
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs		
4082890	TS14C X	box	15	19.2	42.3	540	691	1523		

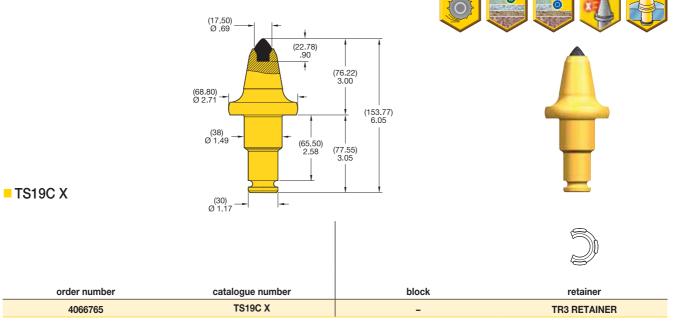






Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

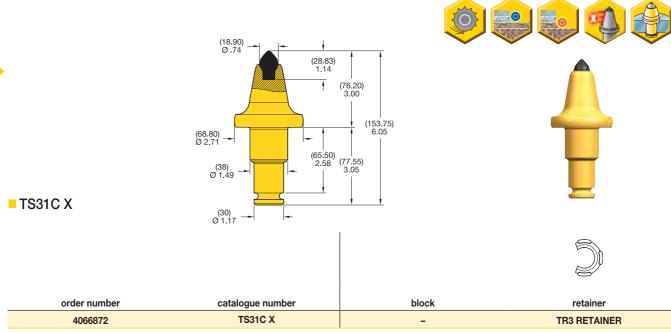
Corresponding blocks can be found on pages 52-54.

Packaging Information

				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066877	TS39C X	box	14	16.1	35.6	504	580	1280
4066765	TS19C X	box	15	19.8	43.5	540	713	1566







Block and additional retainers sold separately.
Corresponding blocks can be found on pages 52–54.

TS32C X

| Catalogue number | Ca

NOTE: Conical includes retainer.

Block and additional retainers sold separately.

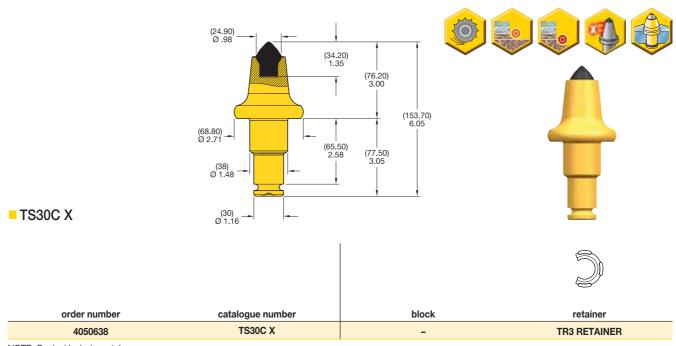
Corresponding blocks can be found on pages 52–54.

Packaging Information

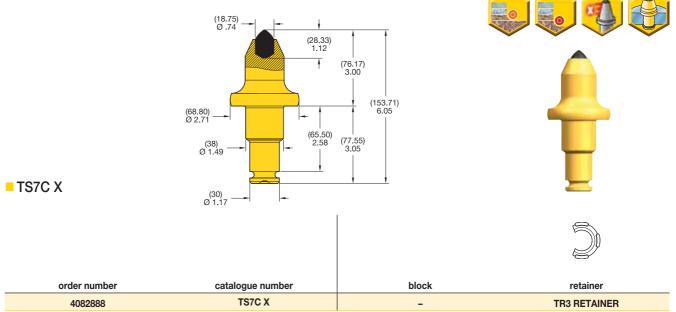
				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066872	TS31C X	box	15	19.8	43.5	540	713	1566
4066821	TS32C X	box	15	20.3	44.6	540	729	1604







Block and additional retainers sold separately.
Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

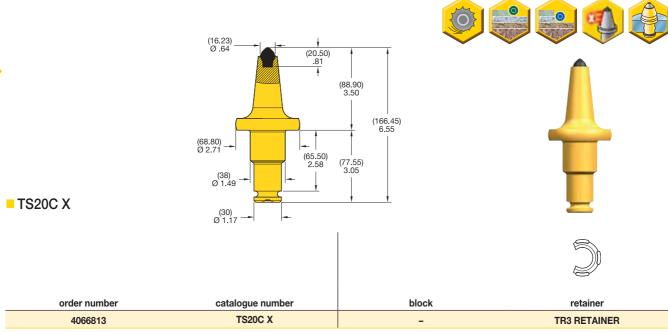
Corresponding blocks can be found on pages 52-54.

Packaging Information

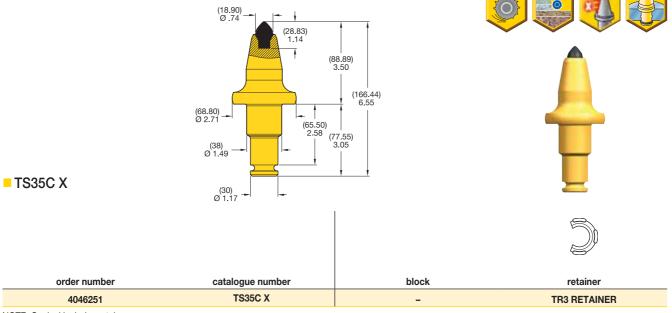
				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4050638	TS30C X	box	14	19.9	43.8	504	716	1578
4082888	TS7C X	box	15	21.2	46.7	540	761	1679







Block and additional retainers sold separately.
Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

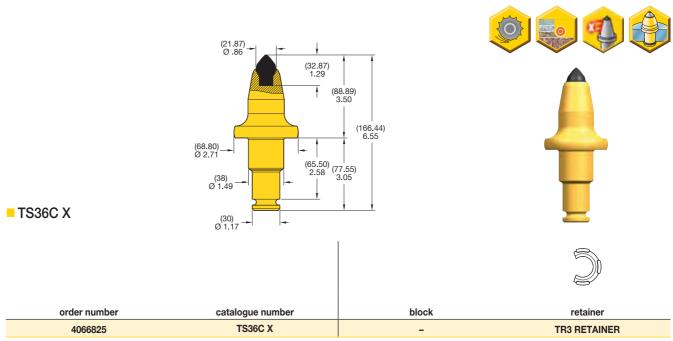
Corresponding blocks can be found on pages 52–54.

Packaging Information

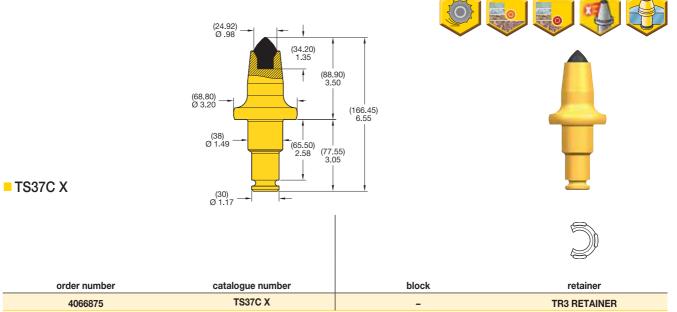
				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066813	TS20C X	box	14	17.4	38.2	504	625	1376
4046251	TS35C X	box	14	20.0	44.2	504	721	1593







Block and additional retainers sold separately.
Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52–54.

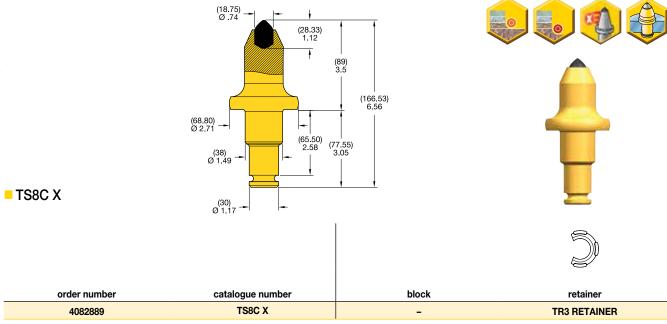
Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066825	TS36C X	box	12	17.5	38.8	432	631	1395
4066875	TS37C X	box	12	18.1	39.8	432	652	1434



38/30mm Step Shank Conicals • C Groove Series 3.5"





NOTE: Conical includes retainer.

Block and additional retainers sold separately.

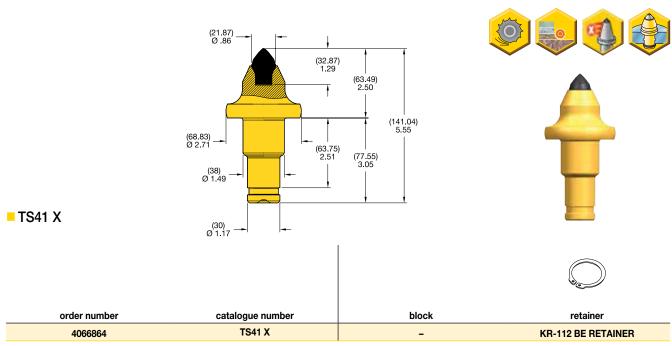
Corresponding blocks can be found on pages 52–54.

Packaging Information

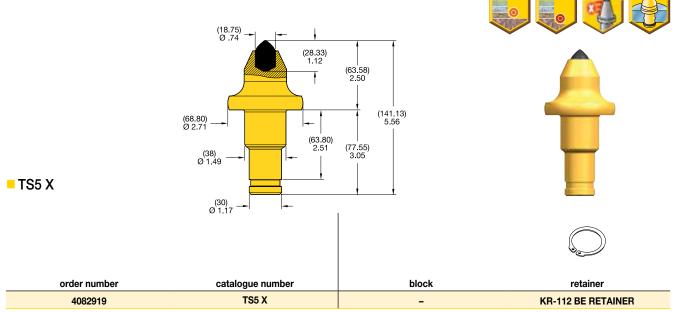
				container weight (approximate)			pallet weight (approximate)	
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4082889	TS8C X	box	12	16.9	37.3	432	609	1344







Block and additional retainers sold separately. Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54.

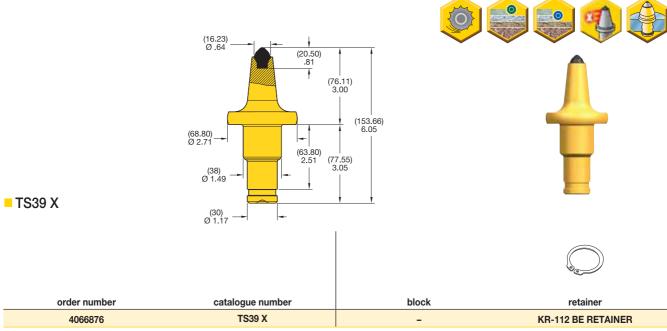
Packaging Information

				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066864	TS41 X	box	15	19.1	42.2	540	686	1517
4082919	TS5 X	box	15	19.5	43.1	540	702	1550

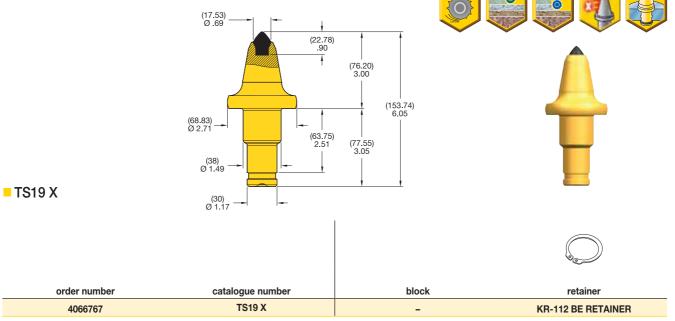








Block and additional retainers sold separately. Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

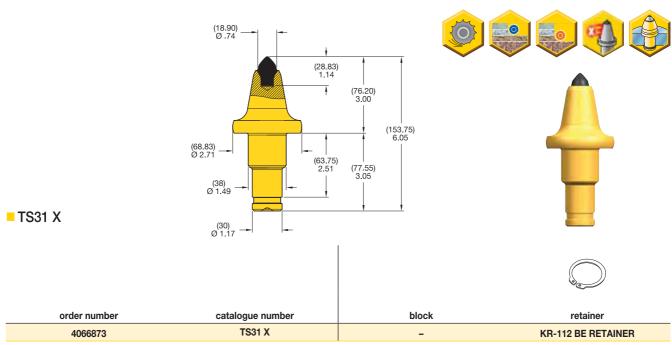
Corresponding blocks can be found on pages 52-54.

Packaging Information

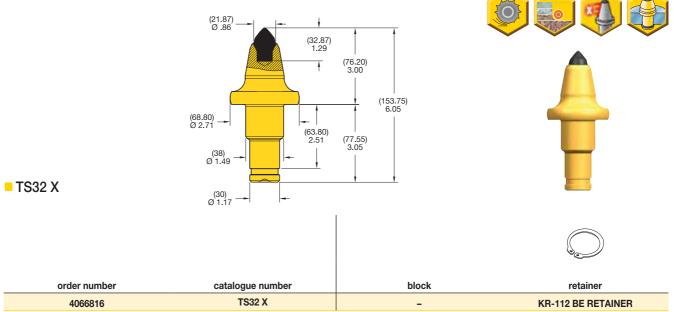
				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066876	TS39 X	box	14	16.2	35.8	504	585	1290
4066767	TS19 X	box	15	20.0	43.8	540	718	1577







Block and additional retainers sold separately. Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52–54.

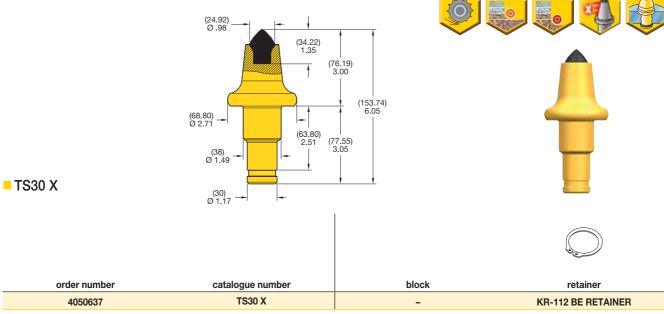
Packaging Information

				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066873	TS31 X	box	15	20.0	43.8	540	718	1577
4066816	TS32 X	box	15	20.3	44.9	540	729	1615



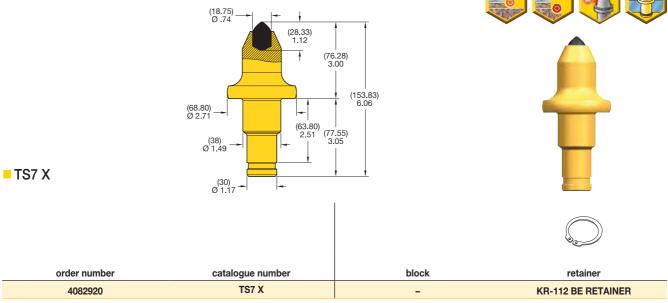






Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54.



NOTE: Conical includes retainer.

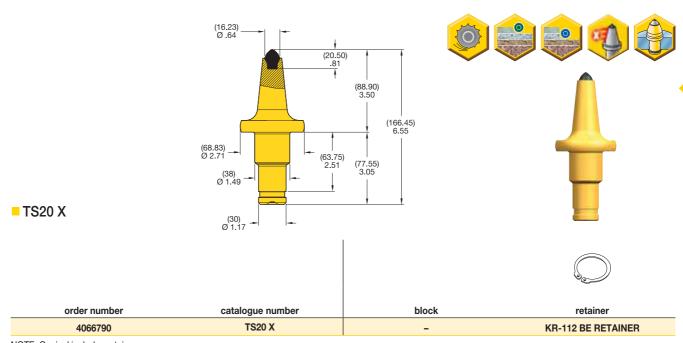
Block and additional retainers sold separately. Corresponding blocks can be found on pages 52–54.

Packaging Information

				container weight (approximate)			pallet weight (approximate)		
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs	
4050637	TS30 X	box	14	20.0	44.1	504	721	1588	
4082920	TS7 X	box	15	21.3	47.0	540	767	1690	

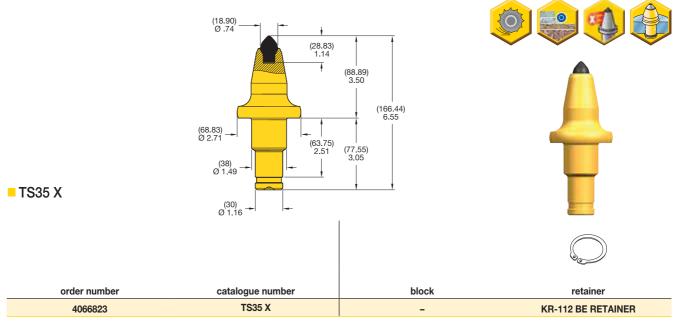






Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54.



NOTE: Conical includes retainer.

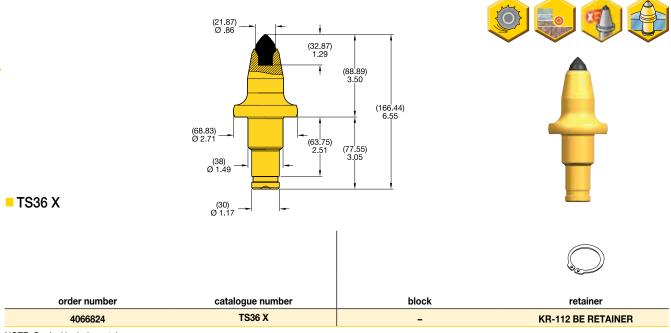
Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52–54.

Packaging Information

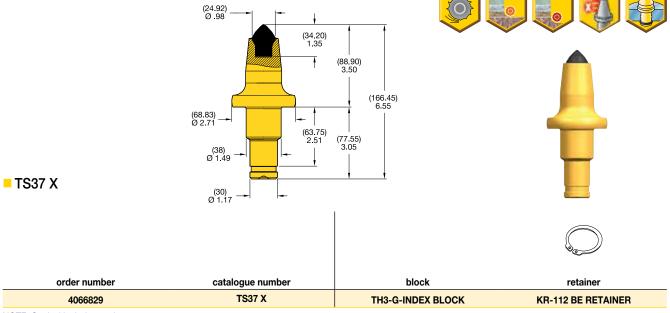
					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066790	TS20 X	box	14	17.5	38.5	504	630	1386
4066823	TS35 X	box	14	20.2	44.5	504	726	1603





Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52–54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

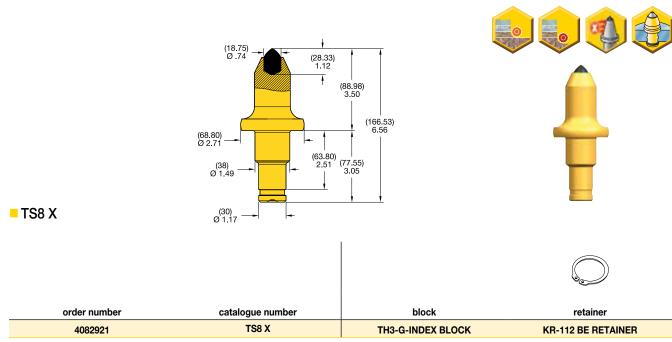
Corresponding blocks can be found on pages 52–54.

Packaging Information

				containe (appro	er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4066824	TS36 X	box	12	17.6	39.0	432	635	1404
4066829	TS37 X	box	12	18.2	40.1	432	657	1443







NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52–54.

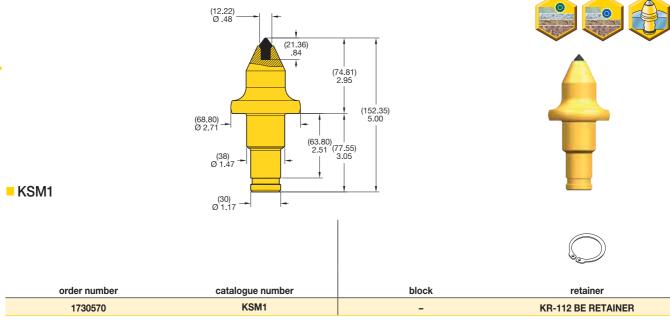
Packaging Information

				containe (appro	er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4082921	TS8 X	box	12	18.5	40.7	432	665	1464



38/30mm Step Shank Conicals • K Groove Series 3.0"

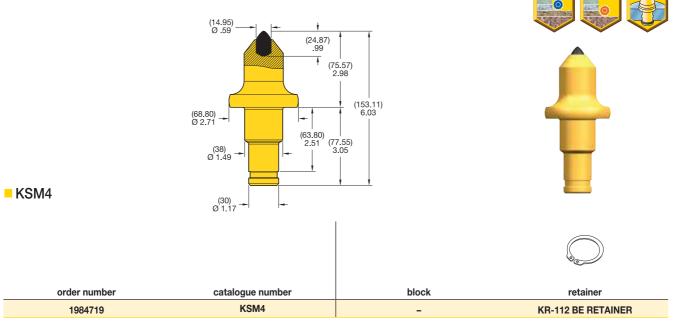




NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Corresponding blocks can be found on pages 52-54.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

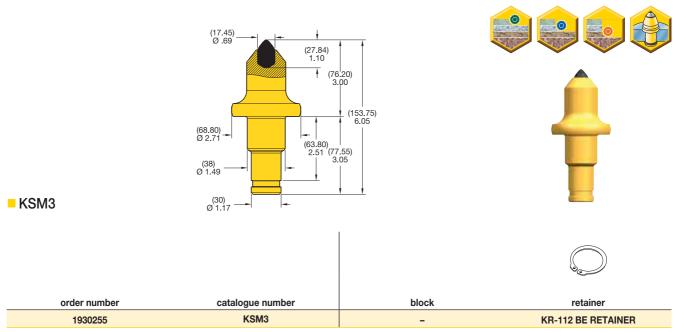
Corresponding blocks can be found on pages 52-54.

Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1730570	KSM1	box	10	13.3	29.4	360	479	1058
1984719	KSM4	bucket	8	11.4	25.0	400	568	1248







Block and additional retainers sold separately.
Corresponding blocks can be found on pages 52–54.

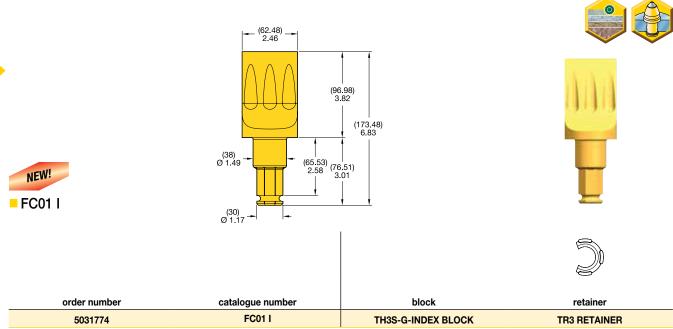
Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1930255	KSM3	box	14	19.9	43.7	504	716	1572



38/30mm Step Shank Conicals • Flat Spade Bit





NOTE: Conical includes retainer.

Block and additional retainers sold separately. Corresponding blocks can be found on pages 52–54.

Packaging Information

					er weight eximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5031774	FC01 I	bucket	6	9.4	20.6	300	468	1032

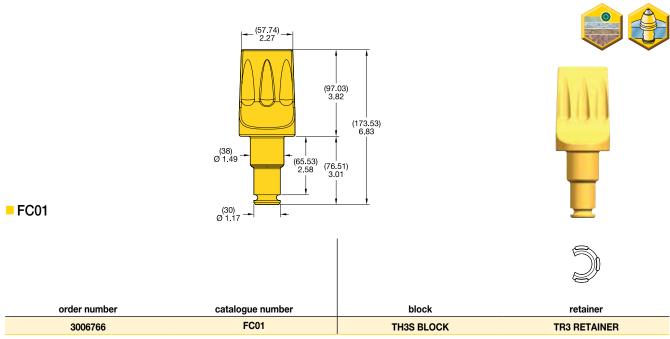
Dimensions shown in (millimetres) and inches.

RockRazor™ Quick Change Indexable Cutting System



The quick change ability of the RockRazor system offers the flexibility to easily change from one tool style to another, depending on the application. This flexibility reduces machine downtime and allows you to maximise the cutting capabilities of your equipment.





NOTE: Conical includes retainer.

Block and additional retainers sold separately.

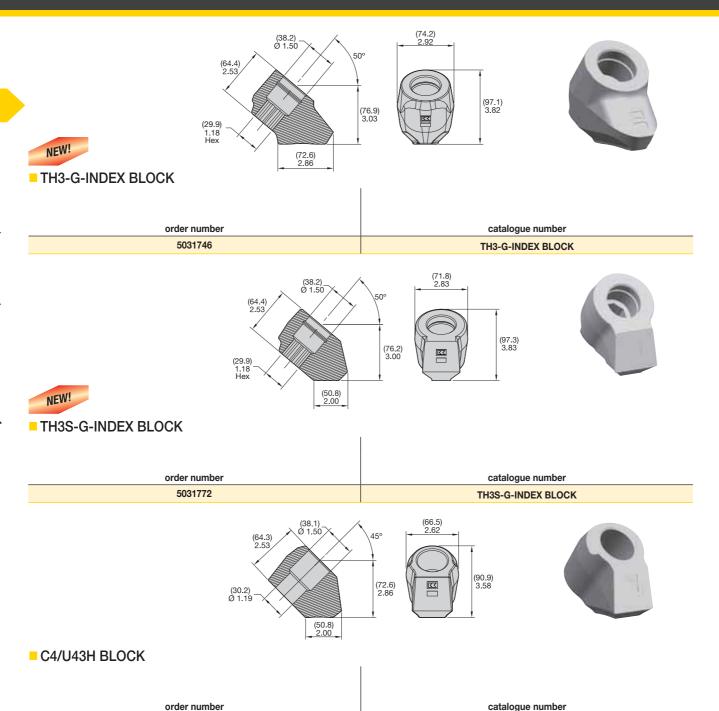
Corresponding blocks can be found on pages 52–54.

Packaging Information

					er weight oximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
3006766	FC01	bucket	6	9.2	20.3	300	462	1017



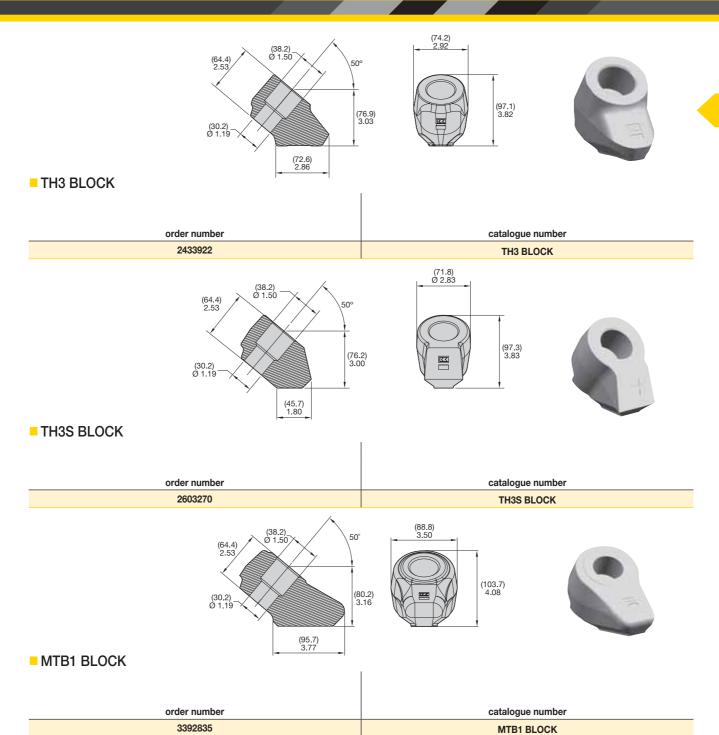




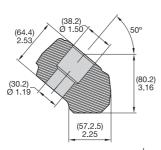
order number	catalogue number
1011578	C4/U43H BLOCK

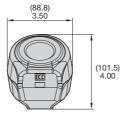










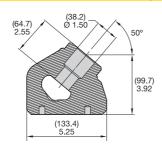


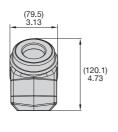


MTB2S BLOCK

order number catalogue number

3504241 MTB2S BLOCK

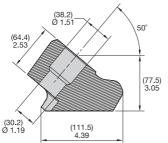






K30S-TS BLOCK

order number catalogue number bushing
3737342 K30S-TS BLOCK TS-K30S IH Bushing



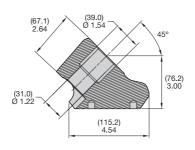


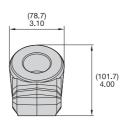


U43XHD-50 BLOCK

order number catalogue number
2988596 U43XHD-50 BLOCK

NOTE: Only compatible with KR-112 BE RETAINER.







U43XHD-P BLOCK

order number	catalogue number
1807656	U43XHD-P BLOCK

NOTE: Only compatible with KR-112 BE RETAINER.





TR3 LOCK RING RETAINER



order number	catalogue number
4073124	TR3 RETAINER

C15R Retainer



order number	catalogue number
1803295	C15R RETAINER

KR-112 BE RETAINER



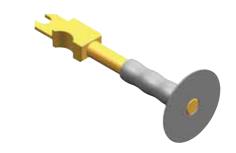
order number	catalogue number
4055765	KR-112 BE RETAINER

UNIVERSAL TR3 PULLER



order number	catalogue number
5500279	UNIVERSAL TR3 PULLER

C15R Removal Tool



order number	catalogue number
1885470	C15R RETAINER REMOVAL TOOL

KRP4 PLIER

- Used on external snap rings.
- Heavy duty.



order number	catalogue number
1012047	KRP4 PLIER



38/30mm Step Shank Accessories



KRP1/C4 Plier

- Used on external snap rings.
- Heavy duty.



order number	catalogue number
1012010	KRP 1/C4 PLIER

TS-K30S IH Bushing



order number	catalogue number
3737341	TS-K30S IH BUSHING

KRPT1/C4 TIP

- Used on external snap rings.
- Replaceable tips.
- Heavy duty.

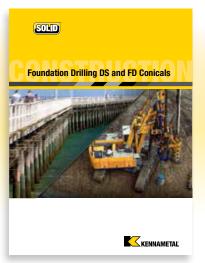


order number	catalogue number
1012012	KRPT1/C4 TIP

K150 PAD COATED PULLER



order number	catalogue number
3043352	K150 PAD COATED PULLER



Looking for conicals not in this catalogue? Additional conicals are available in the Foundation Drilling DS and FD Conicals catalogue, B-15-04356.











30mm Trenching SystemsDemolition Tools and Wheel Trenchers

Demolition machines are used across a wide range of applications, including trenching, tunneling, renovation, road building, and general demolition projects. These machines offer a great alternative for applications where traditional methods are either inadequate or expensive.

Our cutting systems can be used in a wide range of equipment and applications, to maximise productivity, minimise wear, and boost overall performance by:

- Producing extremely accurate profiles in excavation, tunneling work, and surface preparation.
- Producing finely grained excavated material, which can be reused for backfilling.
- Increasing cutting accuracy, thereby reducing risk of damage in and around the site.
- Minimising vibrations, which means reduced equipment fatigue, quieter cutting units (which can be utilised in noise-sensitive zones), and increased safety.







Conicals

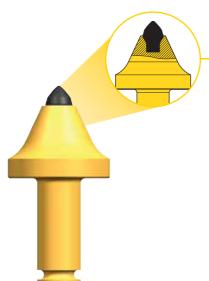
Kennametal utilises state-of-the-art technology and field data to design tools that deliver maximum cutting efficiency. We understand each customer situation is unique. There is no one-size-fits-all solution, which is why we offer numerous conicals, blocks, and accessories.

Demanding environments require strong, tough, and durable tools. Kennametal conicals outperform in these rugged cutting conditions.



X Treatment

- A unique heat treatment process that reduces steel wear and improves overall wear resistance.
- Improves tool life.



Narrow Bottom (NB) Tips — Unique Design to Maximise Cutting Capabilities

- Superior strength by providing maximum steel support and longer sharp profile life.
- Combines abrasive resistance of a cap tip and impact resistance of a plug tip.
- Triple-angle insert carbide for hard conditions.



TR3 Retainers

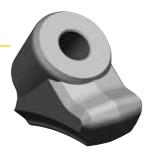
- · Offers extraordinary strength.
- Features specially constructed "ears" that enable simple location and centring, helping ensure operator safety.
- Fast and easy installation and removal.
- Rotates freely.





Blocks

Every Kennametal toolholder is made of heat-treated special alloy steel, providing the right balance of wear resistance and toughness for peak performance. Some toolholders have a special inner hardening (IH) treatment for extra wear resistance in the bore, which provides better tool retention and rotation.





Benefits of Kennametal Blocks:

- · Compact design.
- Hardened bushing protects block face and bore.
- Heavy duty base block for extended life.
- Engineered for unmatched durability.



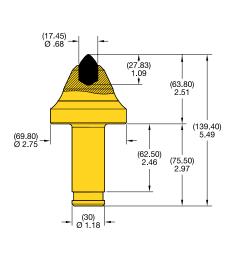






The job can take you into challenging conditions — soil, rock, asphalt, and concrete can be tough on cutting tool systems, so you need a toolholder that is up to the challenge.





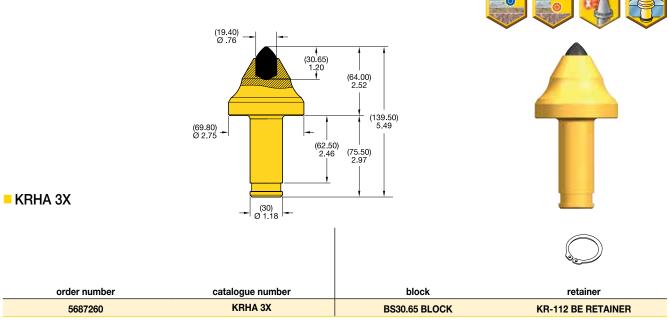


KRHA 2X

catalogue number order number block retainer 5687249 KRHA 2X BS30.65 BLOCK **KR-112 BE RETAINER**

NOTE: Conical includes retainer.

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

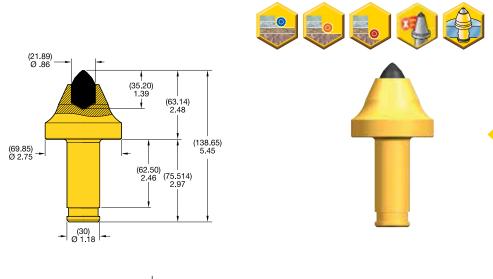
Block and additional retainers sold separately.

Packaging Information

				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5687249	KRHA 2X	box	8	11.0	24.1	480	658	1445
5687260	KRHA 3X	box	8	11.0	24.3	480	662	1459





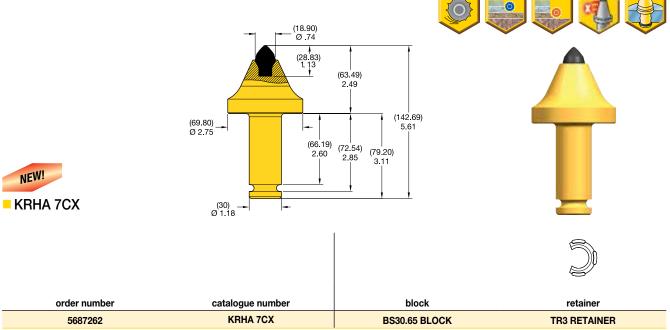


KRHA 5X

order number catalogue number block retainer 5687261 KRHA 5X BS30.65 BLOCK **KR-112 BE RETAINER**

NOTE: Conical includes retainer.

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

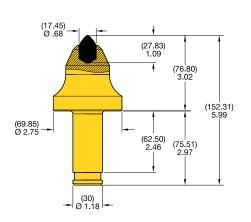
Block and additional retainers sold separately.

Packaging Information

				container weight (approximate)			pallet weight (approximate)		
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs	
5687261	KRHA 5X	box	8	11.3	24.9	480	677	1493	
5687262	KRHA 7CX	box	8	10.1	22.2	480	605	1330	







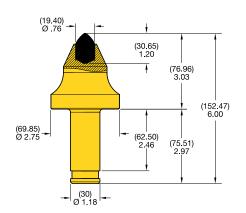


KRHB 2X

catalogue number order number block retainer 5687263 KRHB 2X BS30.65 BLOCK **KR-112 BE RETAINER**

NOTE: Conical includes retainer.

Block and additional retainers sold separately.





KRHB 3X

order number	catalogue number	block	retainer
5687264	KRHB 3X	BS30.65 BLOCK	KR-112 BE RETAINER

NOTE: Conical includes retainer.

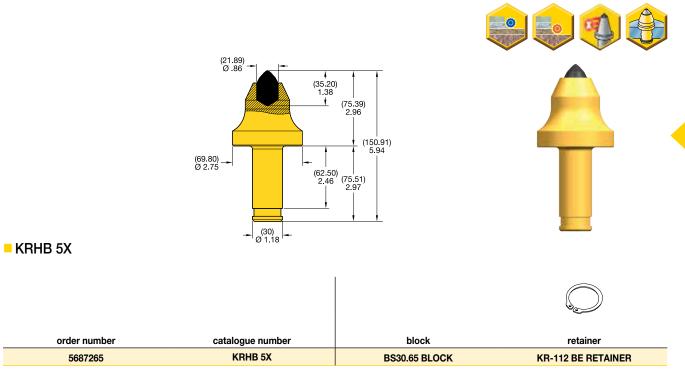
Block and additional retainers sold separately.

Packaging Information

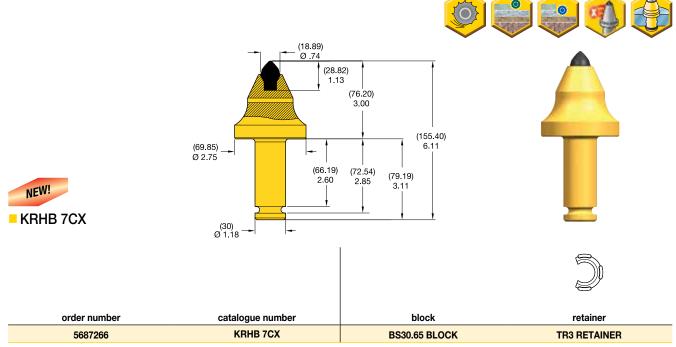
				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5687263	KRHB 2X	box	8	12.4	27.3	480	744	1637
5687264	KRHB 3X	box	8	12.3	27.0	480	739	1622







Block and additional retainers sold separately.



NOTE: Conical includes retainer.

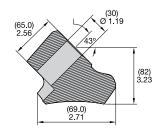
Block and additional retainers sold separately.

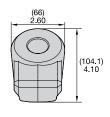
Packaging Information

				container weight (approximate)						weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs		
5687265	KRHB 5X	box	8	12.6	27.7	480	754	1661		
5687266	KRHB 7CX	box	8	11.5	25.4	480	691	1522		







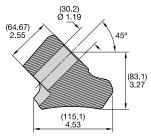


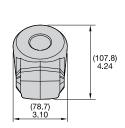


BS30.65 BLOCK

order number catalogue number
1011569 BS30.65 BLOCK

NOTE: Only compatible with KR-112 BE RETAINER.





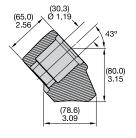


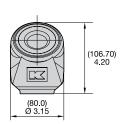
U43XHD 30 BLOCK

order number	catalogue number
1792958	LIASAHD 30 BI OCK

NOTE: Only compatible with KR-112 BE RETAINER.









BBS30.65H SYSTEM

order number	catalogue number
1131591	BBS30.65H SYSTEM





TR3 LOCK RING RETAINER



order number	catalogue number
4073124	TR3 RETAINER

KR-112 BE RETAINER



order number	catalogue number
4055765	KR-112 BE RETAINER

UNIVERSAL TR3 PULLER



order number	catalogue number
5500279	UNIVERSAL TR3 PULLER

KRP4 PLIER

- Used on external snap rings.
- · Heavy duty.



order number	catalogue number
1012047	KRP4 PLIER



KRP1/C4 Plier

- Used on external snap rings.
- Heavy duty.

30mm Systems • Demolition Tools and Wheel Trenchers



order number	catalogue number
1012010	KRP 1/C4 PLIER

KRPT1/C4 TIP

- Used on external snap rings.
- Replaceable tips.
- Heavy duty.



order number	catalogue number
1012012	KRPT1/C4 TIP

BBS30.65H BUSHING



order number	catalogue number
1131754	BBS30.65H BUSHING





Looking for a product not shown in this catalogue?

Check the Kennametal website!



Online product catalogue available 24/7

Visit http://www.kennametal.com/trenching to browse our electronic catalogue any time you're looking for Kennametal's best tooling solutions. It's fast, free, and always available. The online e-catalogue is updated weekly with products and solutions for Road Rehabilitation, Road Milling, Soil Stabilization, Toolholders, and Accessories.













25mm Trenching SystemsWheel and Chain Trenchers

Wheel trenchers offer great application versatility — whether you're digging a shallow utility trench or diving deep into solid rock, these machines are designed for excavation while reducing ditch material left behind.

One of the most versatile machines, rocksaw trenchers, can be used in a variety of applications. Rocksaw trenchers are suitable for both narrow and deep cuts and operate in extreme environmental conditions. Some models are equipped with both an automated cable laying system and an integrated back-filling system for peak efficiency.

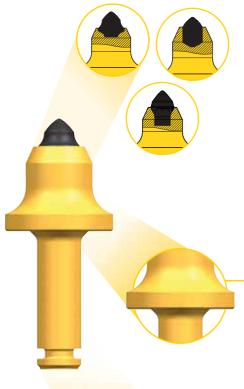








Conicals



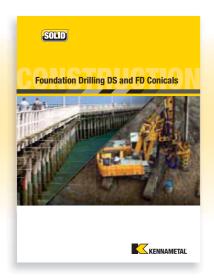
Our 25mm conicals offer several different tip styles, so you can choose the tool that is best for your application:

- Plug tip for maximum toughness.
- Cap tip for maximum abrasion resistance.
- Narrow-bottom tip offers the combination of a cap and a plug, with superior strength and abrasion resistance.

The wide collar feature on T-Series tools (shown) protects the block and improves productivity. If you need maneuverability in tight cutting spaces, the narrow collar C-Series provides maximum flexibility.

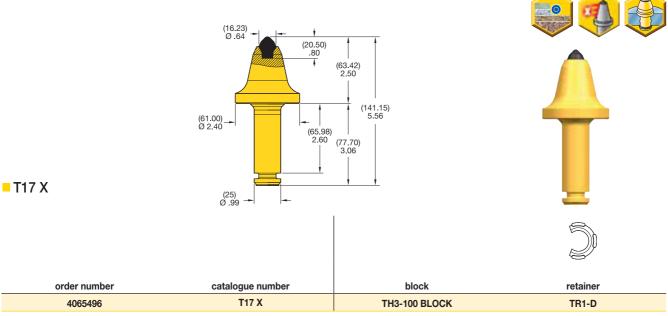


- Fast and easy installation and removal!
- Specially constructed "ears" enable simple location and centring — and ensure operator safety.
- Rotates freely.
- Fits all Kennametal TSC-series tools.

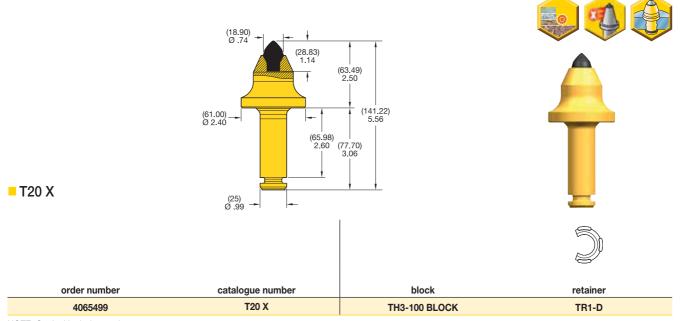


Looking for conicals not in this catalogue?

Additional conicals are available in the Foundation Drilling
DS and FD Conicals catalogue, B-15-04356.



Block and additional retainers sold separately.



NOTE: Conical includes retainer.

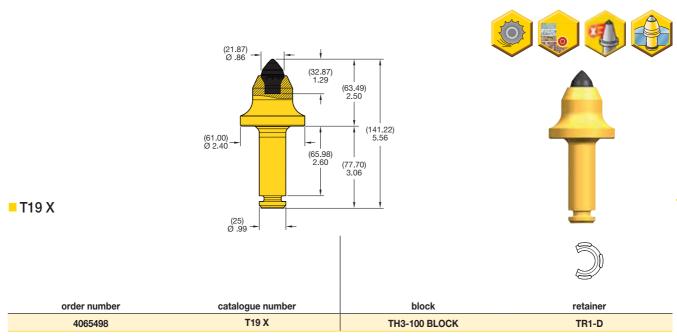
Block and additional retainers sold separately.

Packaging Information

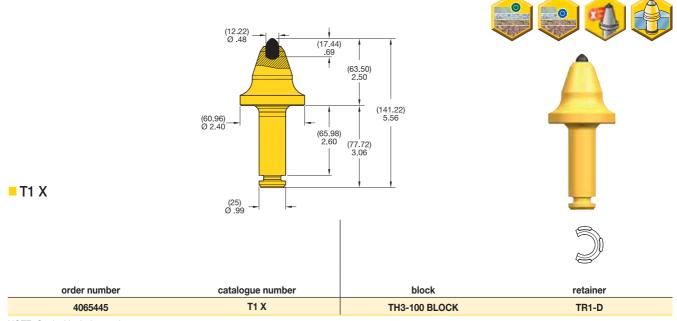
					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4065496	T17 X	box	18	15.8	34.9	648	570	1257
4065499	T20 X	box	18	16.7	36.7	648	603	1322







Block and additional retainers sold separately.



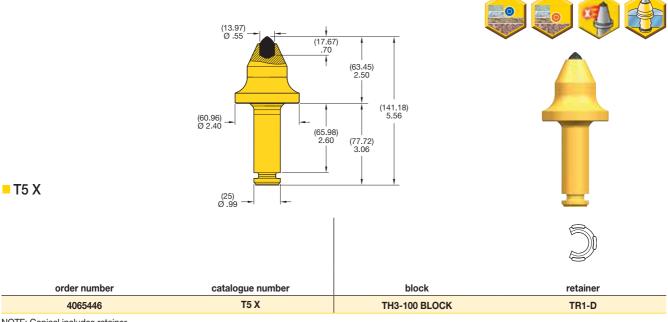
NOTE: Conical includes retainer.

Block and additional retainers sold separately.

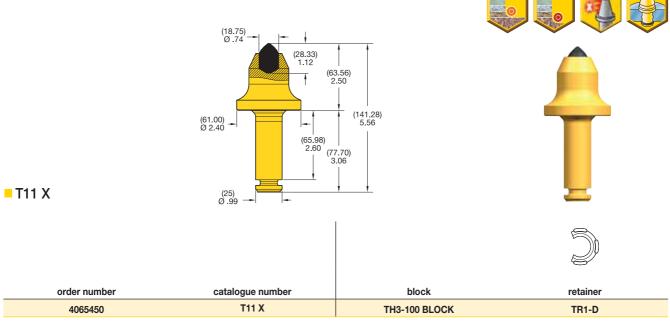
Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4065498	T19 X	box	18	17.1	37.6	648	616	1354
4065445	T1 X	box	18	16.0	35.3	648	577	1270





Block and additional retainers sold separately.



NOTE: Conical includes retainer.

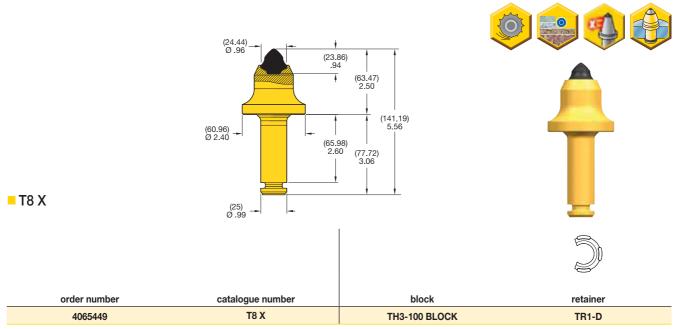
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4065446	T5 X	box	18	16.7	36.7	648	600	1322
4065450	T11 X	box	18	17.3	38.3	648	622	1380





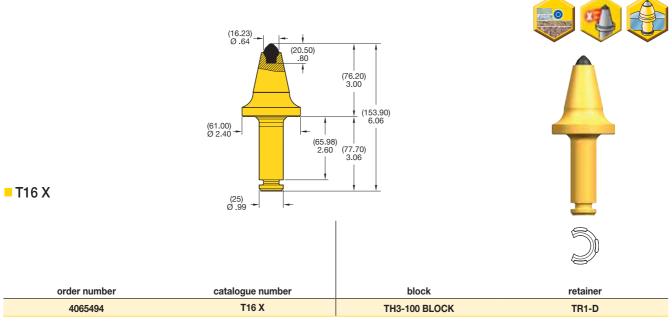


Block and additional retainers sold separately.

Packaging Information

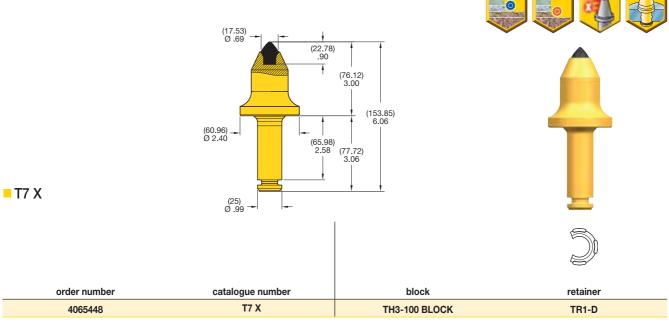
				containe (approx				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4065449	T8 X	box	18	18.4	40.5	648	661	1458





NOTE: Conical includes retainer.

Block and additional retainers sold separately.



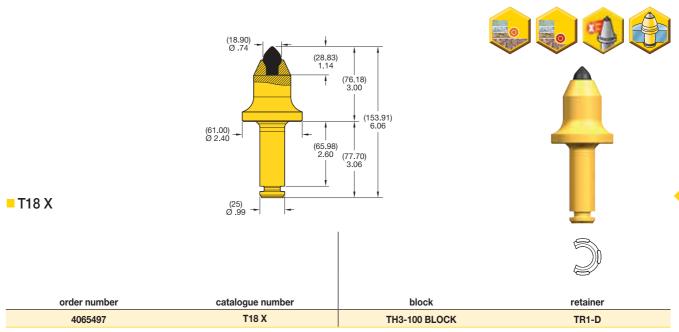
NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4065494	T16 X	box	18	17.1	37.6	648	616	1354
4065448	T7 X	box	18	18.4	40.5	648	661	1458



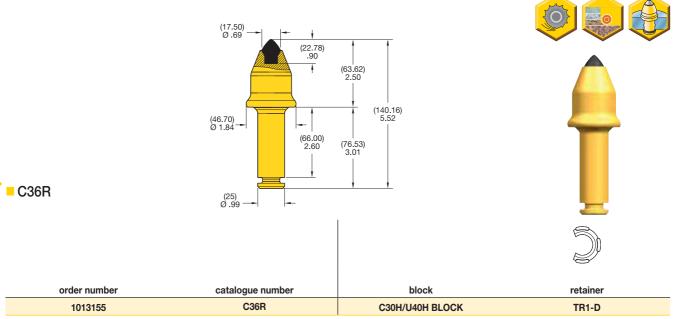


Block and additional retainers sold separately.

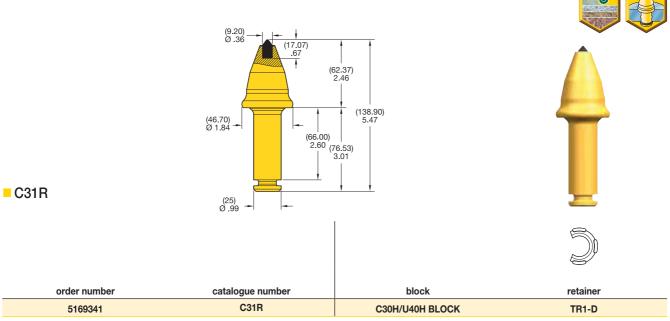
Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4065497	T18 X	box	18	18.7	41.2	648	674	1484





NOTE: Conical includes retainer. Block and additional retainers sold separately.



NOTE: Conical includes retainer.

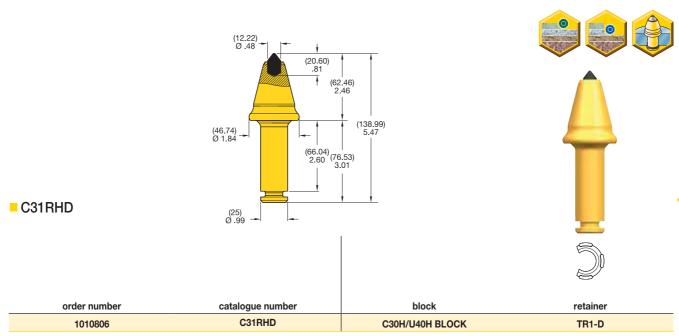
Block and additional retainers sold separately.

Packaging Information

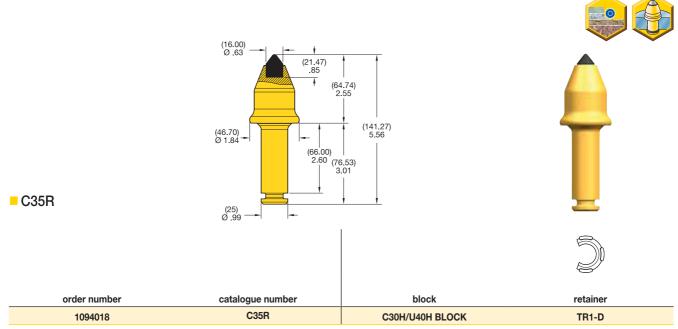
					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1013155	C36R	bucket	15	11.3	24.8	750	563	1238
5169341	C31R	bucket	15	10.4	22.8	750	518	1140







Block and additional retainers sold separately.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

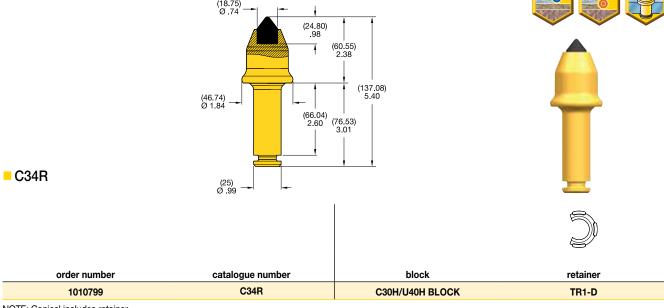
Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010806	C31RHD	bucket	15	10.4	22.8	750	518	1140
1094018	C35R	bucket	15	11.4	25.1	750	570	1253



25mm Systems • Wheel Trenchers





NOTE: Conical includes retainer.

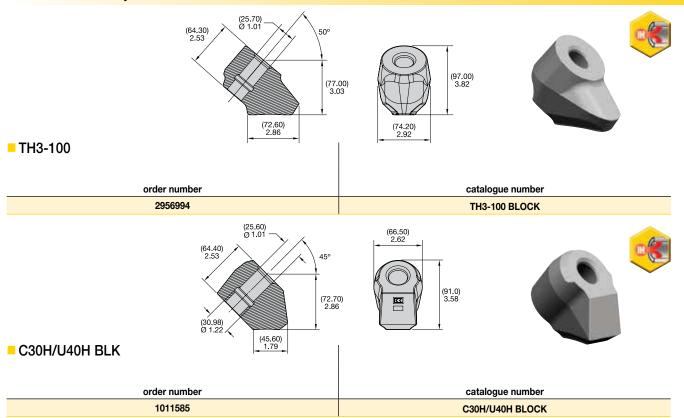
Block and additional retainers sold separately.

Packaging Information

				containe (approx	er weight ximate)			weight oximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010799	C34R	bucket	15	11.6	25.5	750	578	1275

Dimensions shown in (millimetres) and inches.

25mm Shank Block Systems





TR1-D Retainer



order number	catalogue number
4065385	TR1-D

UNIVERSAL TR3 PULLER



order number	catalogue number
5500279	UNIVERSAL TR3 PULLER

C31R Retainer

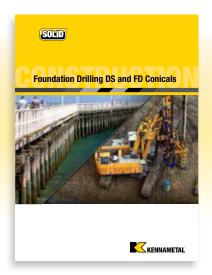


order number	catalogue number
1012065	C31R RETAINER

C31R Removal Tool with Grip



order number	catalogue number
1012347	C31R REMOVER TOOL W/GRIP



Looking for conicals not in this catalogue?

Additional conicals are available in the Foundation Drilling
DS and FD Conicals catalogue, B-15-04356.





22mm Trenching Systems Small Wheel Trenchers

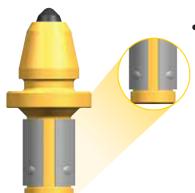
Don't let the name fool you — small wheel trenchers can tackle tough trenching applications in solid rock and concrete. Machines are designed to effectively excavate while reducing material left behind. Some common application examples include highway concrete cutters as well as trenching for underground networks and cables.







Conicals



 SD Series dimpled LR retainers provide additional hold power in blocks with internal grooves.





Narrow Bottom (NB) Tips — Unique Design to Maximise Cutting Capabilities

- Superior strength by providing maximum steel support and longer sharp profile life.
- Combines abrasive resistance of a cap tip and impact resistance of a plug tip.
- Triple-angle insert carbide for hard conditions.
- SD Series with dimpled long retainer.

Block Systems



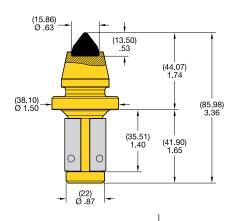
- The SLB01 block is ideal for challenging trenching applications and features.
- Increased height for clearance of externally retained tools.
- · Larger footprint for increased weld strength and stability.

SD Series — with Dimpled Long Retainer

Dimpled LR retainer provides additional hold power in blocks with internal grooves.









SD02

order number catalogue number block retainer

2504868 SD02 SLB01 - G LR87D SP RETAINER

NOTE: Conical includes retainer.

Block and additional retainers sold separately.

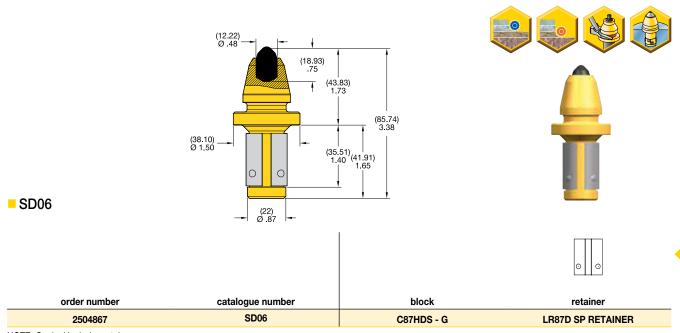
Packaging Information

				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
2504868	SD02	bucket	50	15.0	33.0	2,500	750	1650



85



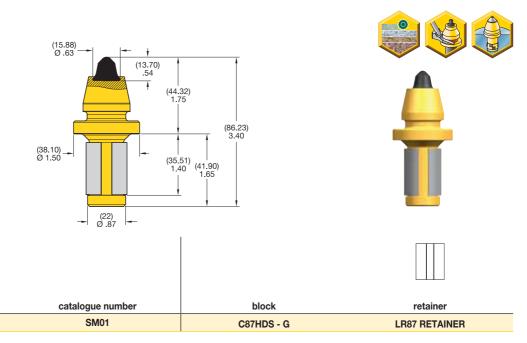


NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
2504867	SD06	bucket	50	15.5	34.0	2,500	775	1700

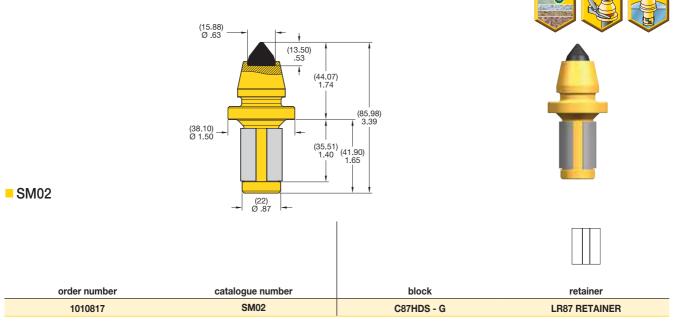


order number

1010860

SM01

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

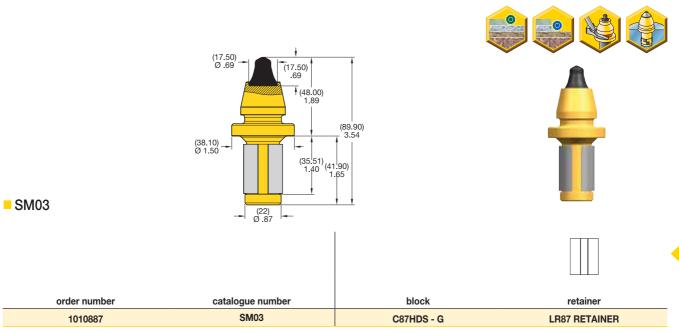
Block and additional retainers sold separately.

Packaging Information

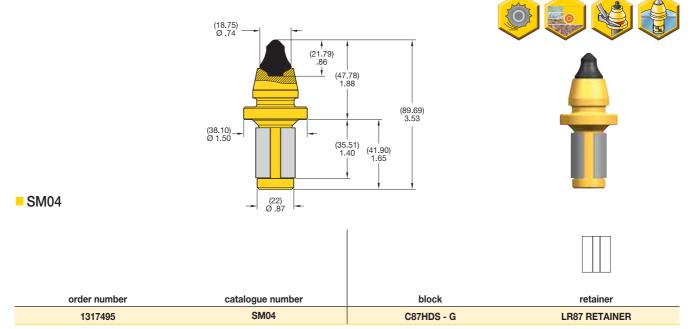
					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010860	SM01	bucket	50	15.0	33.0	2,500	750	1650
1010817	SM02	bucket	50	15.0	33.0	2,500	750	1650







Block and additional retainers sold separately.



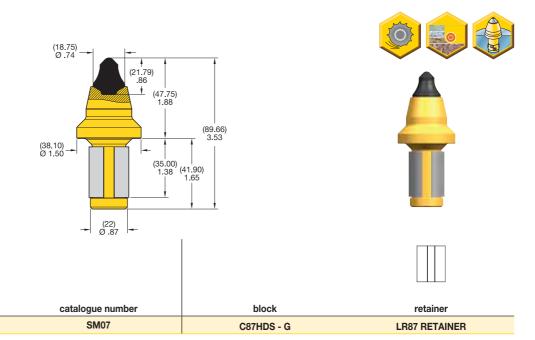
NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

				1	er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010887	SM03	bucket	50	15.5	34.0	2,500	775	1700
1317495	SM04	bucket	50	15.5	34.5	2,500	775	1725





order number

2274671

■ SM07

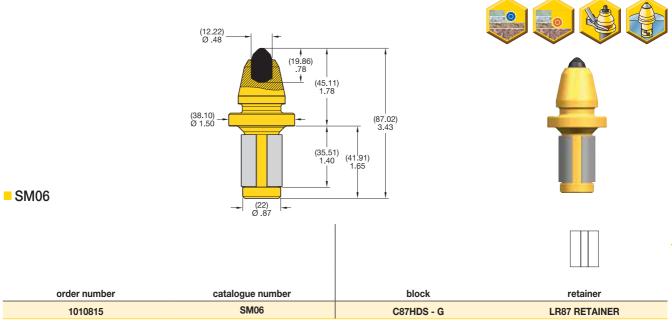
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
2274671	SM07	bucket	50	16.5	36.0	2,500	825	1800







Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010815	SM06	bucket	50	14.5	34.0	2,500	725	1700

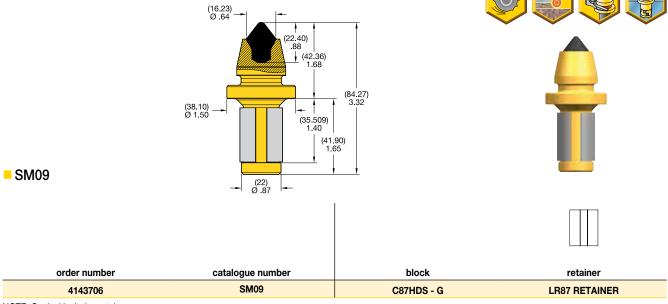




SM Series — Unique Design to Maximise Cutting Capabilities

Narrow Bottom (NB) Tips

- Superior strength by providing maximum steel support and longer sharp profile life.
- Combines abrasive resistance of a cap tip and impact resistance of a plug tip.
- Triple-angle insert carbide for hard conditions.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

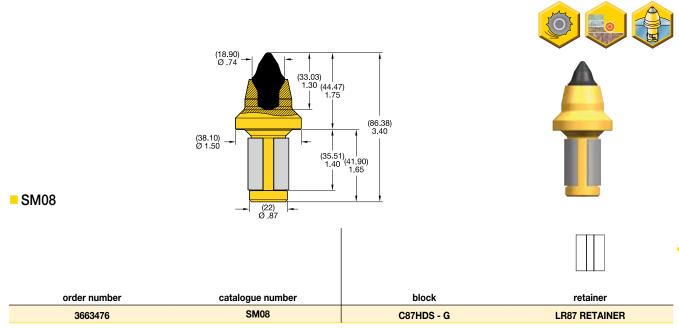
Packaging Information

					container weight (approximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4143706	SM09	bucket	50	15.0	33.5	2,500	750	1675



91



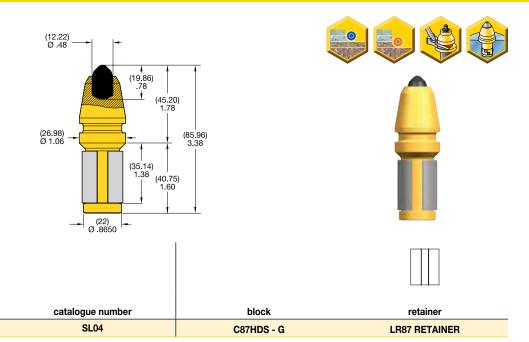


NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight oximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
3663476	SM08	bucket	50	16.5	36.0	2,500	825	1800

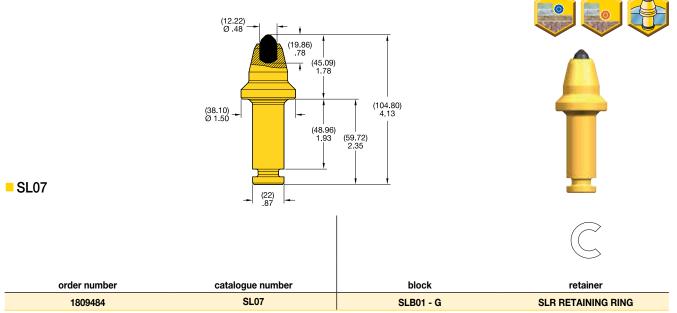


order number

1010795

SL04

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

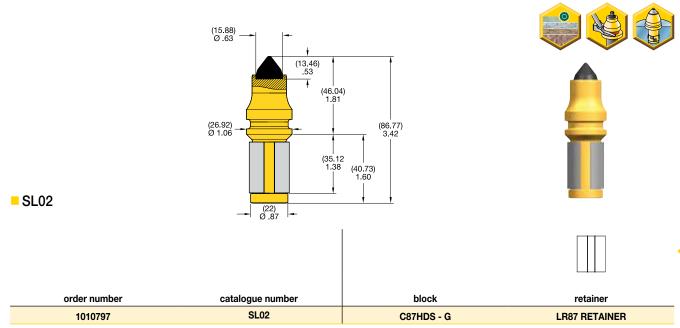
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010795	SL04	bucket	60	16.2	36.0	3,000	810	1800
1809484	SL07	bucket	40	15.2	33.6	2,000	760	1680







NOTE: Conical includes retainer.

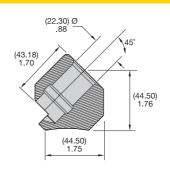
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010797	SL02	bucket	70	17.5	39.2	3,500	875	1960





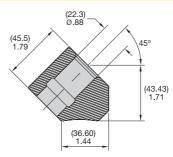


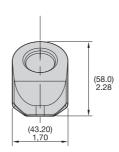




C87G

order number catalogue number
1012234 C87 - G



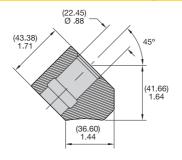


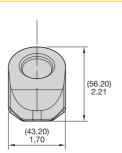


C87HDS - G

order number catalogue number

1012290 C87HDS - G



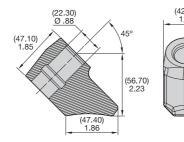




C87E - G

order number catalogue number

1012365 C87E - G





SLB01 MACHINING

order number	catalogue number
1858587	SLB01 - G





LR87D

LR87 SPRING STEEL





order number	catalogue number
3518626	LR87D SP RETAINER

order number	catalogue number
1011935	LR87 RETAINER

C123 PULLER







order number	catalogue number
1012016	C123/U50 HAMMER PULLER

order number	catalogue number
1012247	KHP2 KMTL PUNCH

SLR RETAINING RING

C21R PULLER





order number	catalogue number
1817888	SLR RETAINING RING

order number	catalogue number
1012348	C21R REMOVER TOOL W/ GRIP







19mm–20mm Trenching Systems Small Chain Trenchers

Whether you are cutting a small or big trench for landscaping, plumbing, or electrical applications, you want tooling that provides the highest productivity across every trenching job you do. Kennametal cutting systems make the most of your investment, offering higher efficiency and productivity year after year.





Conicals



Our C21F and C21FHD conicals feature:

• Solid carbide tips in two different styles for better penetration and higher impact strength in soft to hard cutting conditions.





Narrow Bottom

Plug Tip

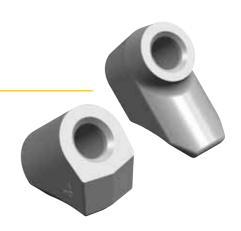
- Extra-wide collar for superb block face protection.
- Puller groove for easier conical removal.

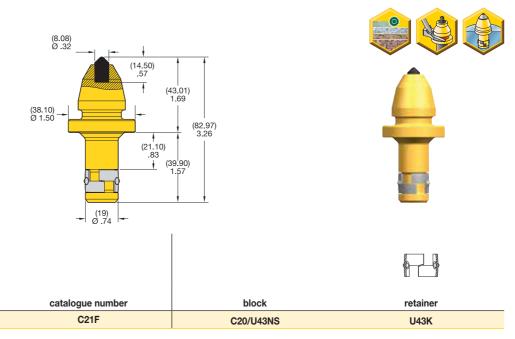
• Dimpled retainer for excellent holding power in the block in high-RPM machines.

Blocks

Our blocks are ideal for challenging trenching applications and features:

- Increased height for clearance of externally retained tools.
- · Larger footprint for increased weld strength and stability.



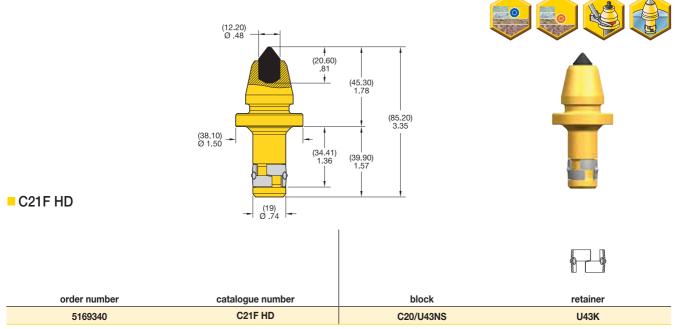


order number

5169049

C21F

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

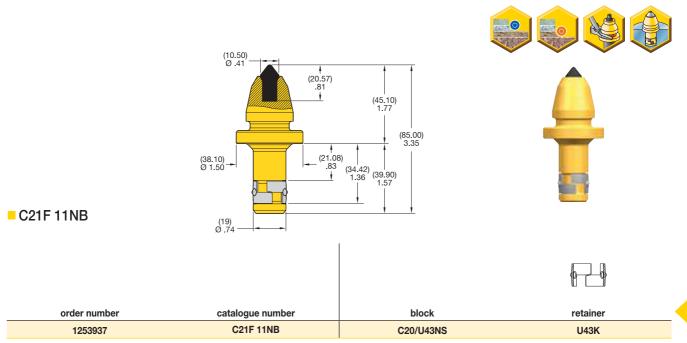
Block and additional retainers sold separately.

Packaging Information

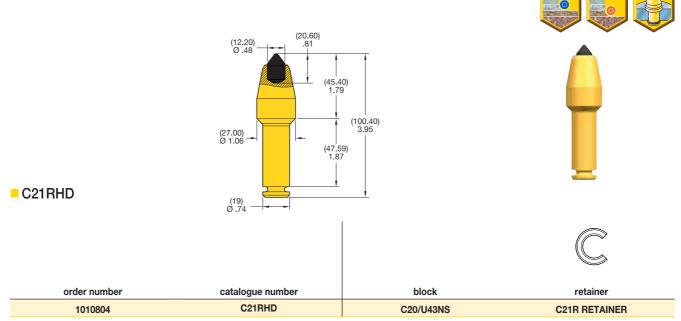
				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5169049	C21F	bucket	50	12.5	27.5	2500	625	1375
5169340	C21F HD	box	50	13.0	29.0	2500	650	1450







Block and additional retainers sold separately.



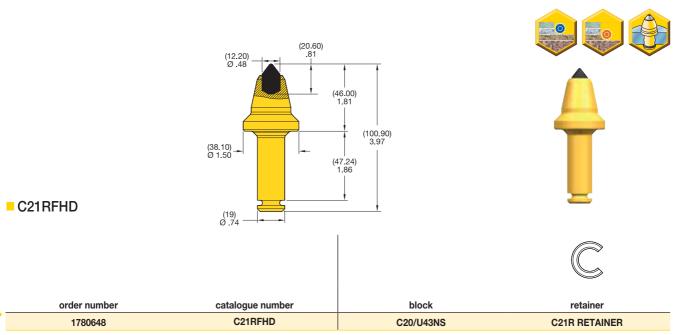
NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1253937	C21F 11NB	box	50	13.0	28.5	2500	650	1425
1010804	C21RHD	box	60	16.2	36.0	3000	810	1800





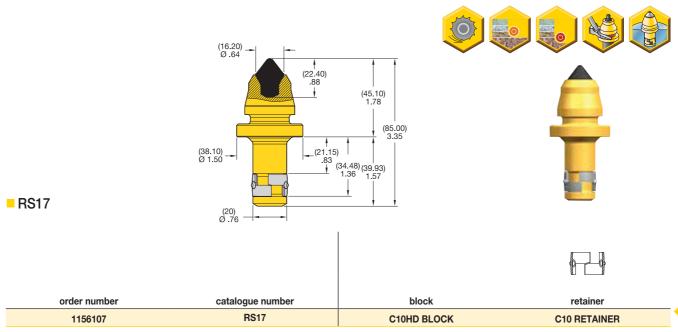
Block and additional retainers sold separately.

Packaging Information

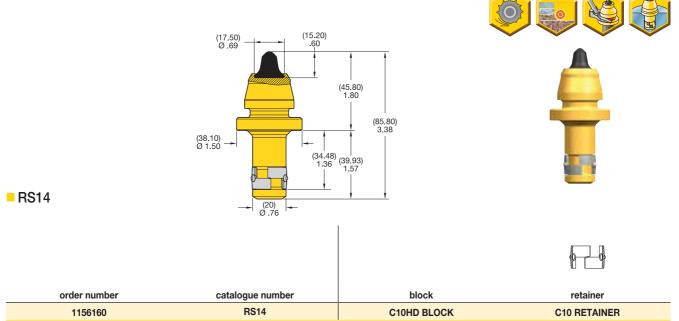
				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1780648	C21RFHD	box	50	16.0	35.0	2500	800	1750







Block and additional retainers sold separately.



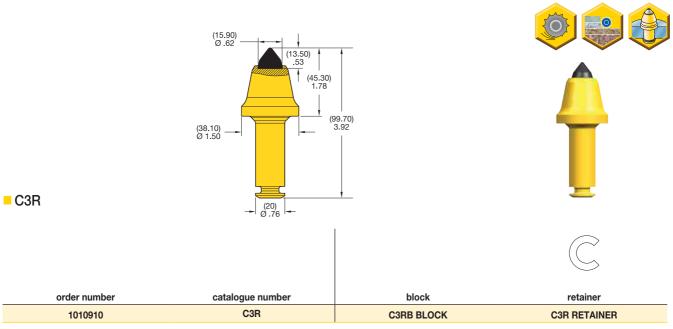
NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

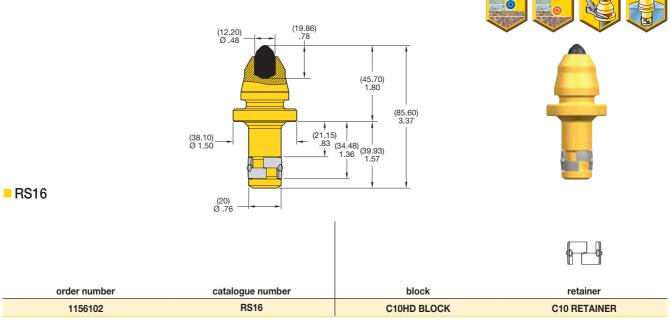
				container weight (approximate)				weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1156107	RS17	box	70	19.6	43.4	4200	1176	2604
1156160	RS14	box	70	18.9	41.3	4200	1134	2478





NOTE: Conical includes retainer.

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

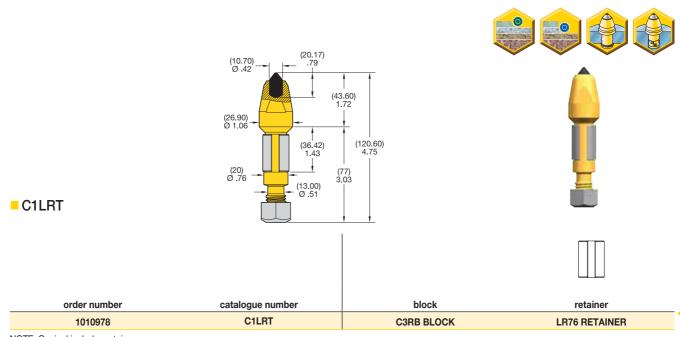
Block and additional retainers sold separately.

Packaging Information

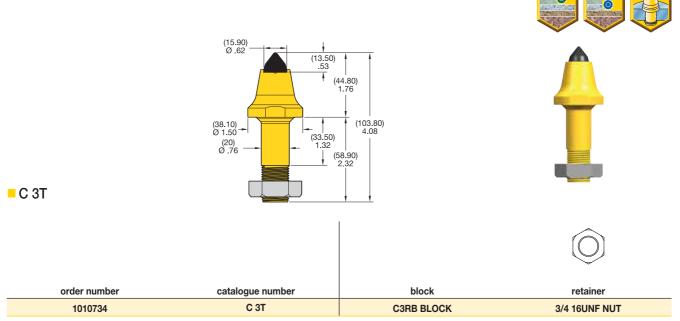
			container weight (approximate)				weight eximate)	
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010910	C3R	bucket	40	13.6	30.0	2000	680	1500
1156102	RS16	box	70	19.6	43.4	2800	784	1736







Block and additional retainers sold separately.



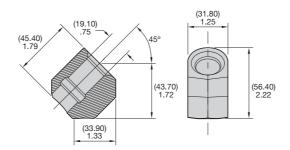
NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

				container weight (approximate)				weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010978	C1LRT	bucket	40	12.4	27.6	2000	620	1380
1010734	C 3T	bucket	30	11.1	24.6	1500	555	1230

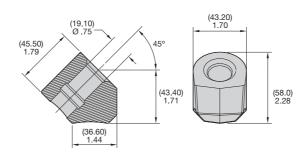






C20/U43NS BLK

order number	catalogue number
1012273	C20/U43NS



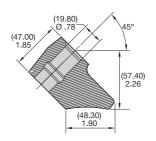


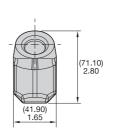
C20HD BLOCK

order number	catalogue number
1012276	C20HD BLOCK



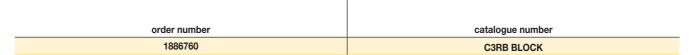


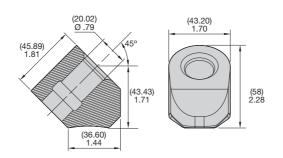






C3RB

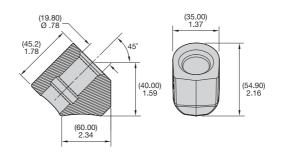






C10HD Block

order number	catalogue number
1012289	C10HD BLOCK





C10 Block

order number	catalogue number
1012278	C10 BLOCK

C10 Retainer



order number	catalogue number
1011965	C10 RETAINER

U43K Retainer



order number	catalogue number
1011978	U43K

C21R Retainer



order number	catalogue number
1011961	C21R RETAINER

C123/U50 HAMMER PULLER



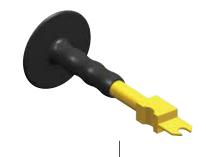
order number	catalogue number
1012016	C123/U50 HAMMER PULLER

C20/U43HP BIT PULLER ASSEM



order number	catalogue number
1011984	C20/U43HP BIT PULLER ASSEM

C21R PULLER



order number	catalogue number
1012348	C21R REMOVER TOOL W/ GRIP



C3R Retainer



order number	catalogue number
1012120	C3R RETAINER

LR76 Retainer



order number	catalogue number
1011942	LR76 RETAINER

3/4 16UNF NUT

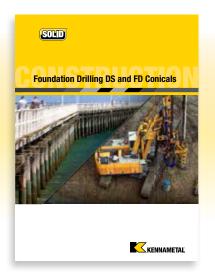


order number	catalogue number
1011884	3/4 16UNF NUT

M16 X 2 STOVER LOCK NUT



order number	catalogue number
1080452	M16 X 2 STOVER LOCK NUT



Looking for conicals not in this catalogue?

Additional conicals are available in the Foundation Drilling
DS and FD Conicals catalogue, B-15-04356.





11mm-14mm Trenching Systems Microtrencher/Horizontal Directional Drilling

As technology advances, mini- and micro-trenching are playing a more significant role. Large, open-cut trenches are being replaced with narrow cuts (from 2–0.5" wide) to lay fibre-optic cable and conduit.

Micro-trenching offers increased efficiencies with narrow, shallow cuts accomplished in less time with fewer disturbances in busy environments. Our new CM Mini Series offers a range of small-diameter blocks and bits in Narrow Bottom (NB), plug, and cap-style tips for a wide range of trenching requirements. The CM61 features a small-diameter tip designed for increased penetration. By comparison, the CM65 features a wide collar for maximum block protection along with a cap carbide tip profile for excellent performance in medium to abrasive cutting conditions.

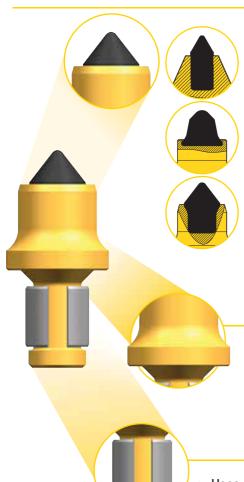








Conicals



14mm (CM Series) Platform

The CM Mini Series offers a range of small diameter carbide tip styles, depending on your application:

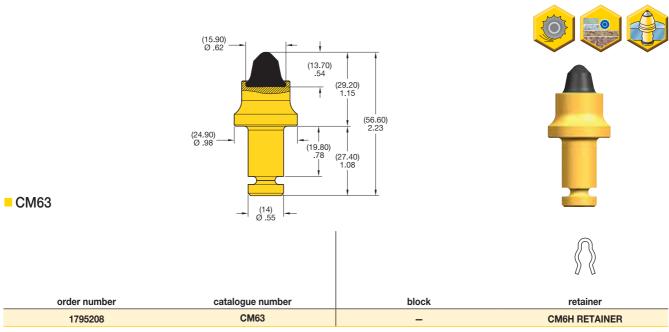
- Plug tips feature a physical lock between steel and carbide for maximum toughness.
- Cap tips are used in abrasive applications with the carbide on the business end, not sunk into the shank.
- NB tips withstand abrasive cutting, like a cap with the physical support of a plug. Unlike a cap point that gets blunt at the end of wear life, NB tips sharpen as they wear, making them an excellent choice in rock cutting, asphalts, and abrasives.
- Wide collar provides maximum block protection.

• Uses easy-to-install/remove LR55 sleeve retainer for extended bore life.

Block Systems

Features cannon-style face for improved tool rotation and larger base for stability and weld strength.





NOTE: Conical includes retainer.

Block and additional retainers sold separately.

CM65

cretainer

1876905

CM65

CM66
CM66-

NOTE: Conical includes retainer.

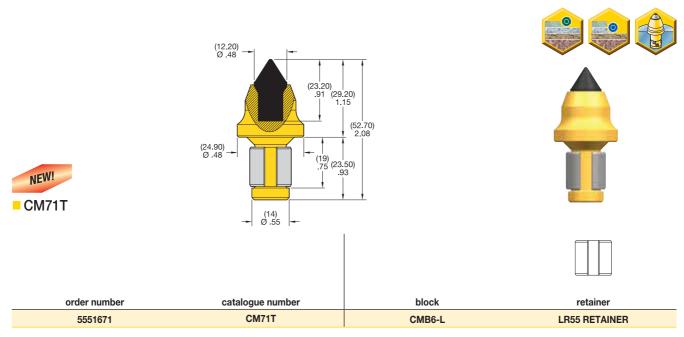
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			t weight oximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1795208	CM63	bucket	150	15.0	31.5	7,500	750	1575
1876905	CM65	bucket	150	13.5	30.8	7,500	675	1538

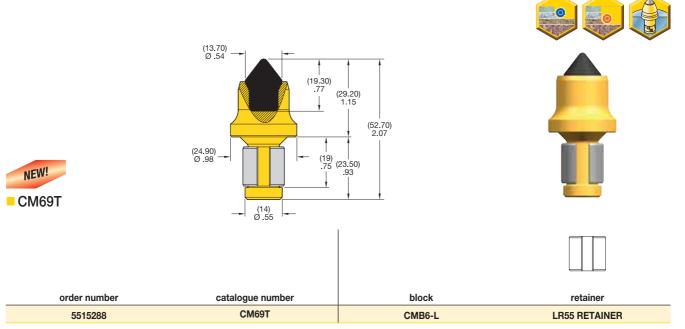






NOTE: Conical includes retainer.

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

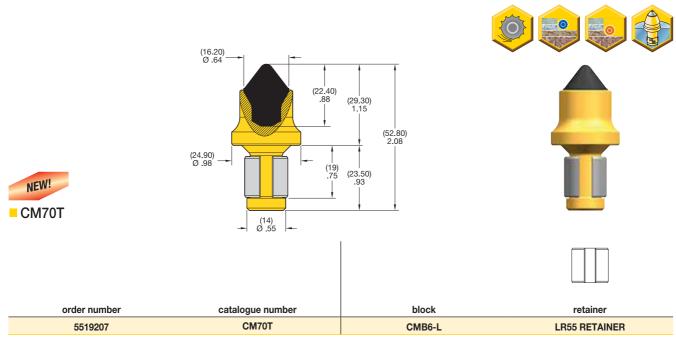
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5551671	CM71T	bucket	150	13.5	30.0	7,500	675	1500
5515288	CM69T	bucket	150	13.5	28.5	7,500	675	1425

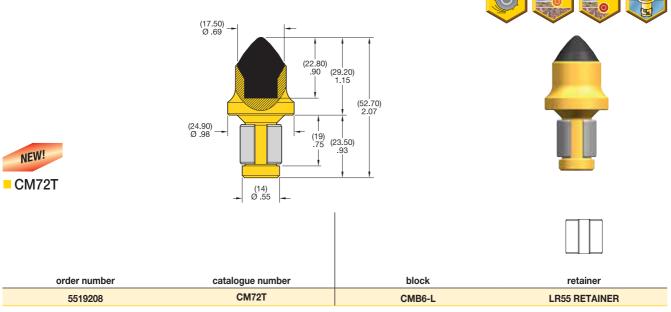






NOTE: Conical includes retainer.

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
5519207	CM70T	bucket	150	15.0	21.0	7,500	750	1050
5519208	CM72T	bucket	150	15.0	34.5	7,500	750	1725







NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

					er weight oximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1094015	CM61	bucket	100	8.0	17.9	5,000	400	895





LR51 RETAINER

CMB5 BLOCK

order number

4080539

CM51

NOTE: Conical includes retainer.

Block and additional retainers sold separately.

Packaging Information

				containe (appro	er weight ximate)			weight ximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
4080539	CM51	bucket	200	16.0	34.0	10,000	800	1700

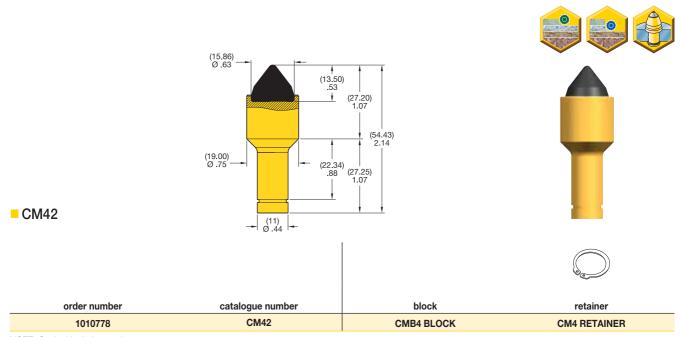
CM51





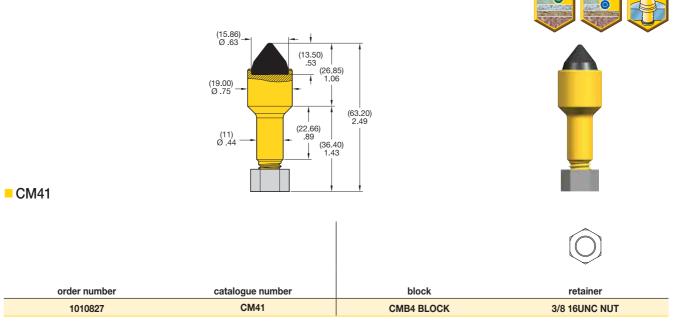
115





NOTE: Conical includes retainer.

Block and additional retainers sold separately.



NOTE: Conical includes retainer.

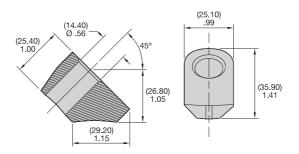
Block and additional retainers sold separately.

Packaging Information

					er weight ximate)			weight eximate)
order number	catalogue number	container type	pieces per container	kg	lbs	pieces per pallet	kg	lbs
1010778	CM42	bucket	200	16.0	34.0	10,000	800	1700
1010827	CM41	bucket	200	16.0	34.0	10,000	800	1700



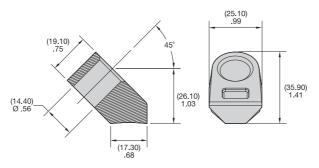






CMB6-L

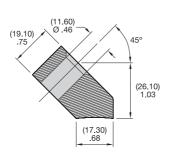
order number catalogue number
1898353 CMB6-L

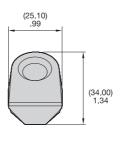




CMB6

order number catalogue number
1321008 CMB6



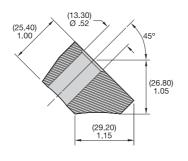




CMB4

order number catalogue number

1012281 CMB4 BLOCK







CMB5

order number	catalogue number
5031028	CMB5 BLOCK



CM6L LOCK RING

CM6H HAIRPIN





order number	catalogue number
1595671	CM6L RETAINER

order number	catalogue number
1777806	CM6H RETAINER

CM4 SNAP RING RETAINER

■ 3/8 16UNC Steel Centrelock Locknut





order number	catalogue number
1012223	CM4 RETAINER

order number	catalogue number
1012357	3/8 16UNC NUT

LR55

LR51





order number	catalogue number
1890174	LR55 RETAINER

order number	catalogue number
4080877	LR51 RETAINER







Wear Solutions

Trenching and Surface Miner equipment takes your tooling into rough conditions. Unprotected tooling can suffer wear damage that can slow or even halt production. You can't afford that.

Kennametal is the global benchmark for effectively combating extreme wear. Regardless of how demanding the environment, we provide an unbeatable portfolio of affordable, best-in-class solutions.



For additional information on KenCast, including ordering data, please refer to our online brochure B-15-04697 at www.kennametal.com.









Wear Solutions

Kennametal develops **Engineered Solutions** because we know that every customer has unique requirements that can't accept a "one-size-fits-all" solution. By working directly with customers, we utilise in-house expertise and capabilities to provide custom, finished solutions quickly.

Weight Reduction can be critical in reducing overall costs. Excess weight translates into higher costs in tires, fuel, and maintenance. By employing advanced material solutions, Kennametal can improve the life of your equipment while reducing weight — saving you valuable time and money.

100% Safe Is Kennametal's Goal. Anytime there is a shutdown for maintenance, the risk for safety issues increases. By utilising Kennametal solutions to extend tool life, we assist in improving safety conditions: less welding, less movement of materials, and less of a need for scaffolding to replace worn out liners means a safer environment.

Consider **Price vs. Cost.** Many customers reference "cost per pound or kilo" as a method to measure costs. However, many do not consider the overall cost of the product:

- Downtime for maintenance to repair and replace tools results in lost production.
- Producing and managing Drop Management, if buying plate, adds time to the process.

Extended Uptime is an excellent measurement of value. Our goal is to keep you up and running, because more uptime means:

- Equipment running, generating profits.
- Reduced risks for safety issues.
- Employees are hard at work, rather than concentrating on maintenance issues.





Protect Your Trenching Wheels and Chains with Maximum-Duty Kennametal KenCast™

Your trenching wheels and chains run in the toughest conditions. Protect them 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.

Add KenCast to increase equipment life:

Saws:

- Side of wheel
- Bolt-on segment

Trenchers:

- Side-of-base plates
- · Paddles on base plates or drums



For more information, please contact your Kennametal Sales Engineer or visit, http://www.kennametal.com/kencast.

Alleviate Cost and Downtime with Our Exclusive KenCast™ Base Plate

- Weldable steel is suitable for covering large areas.
- Carbide content provides longer life and higher impact durability than other forms of carbide.
- Protects blocks, saves downtime, and prolongs life when used on:
 - Sides of base plates on chain trenchers
 - Sides of segments on rock wheels
 - Clean-out paddles on terrain levelers, road miners,
 Rock Hawgs, and surface miners



Keep up and running longer!





Experience Powering Productivity™

Experience Powering Productivity™

Any project, any challenge, optimised and refined using digital intelligence to fundamentally transform your workflow into seamless, elegant, simple production. From art to part — to profit.

With NOVO™ you can now have the right tools on your machines, in the right sequence. This enterprise-wide solution ensures that you execute flawlessly to accelerate every job, and maximise every shift.





Order No.	Catalogue No. Page(s)	Order No. Catalogue No. Page(s)	Order No. Catalogue No. Page(s)	Order No. Catalogue No. Page(s)
1010734	C 3T K3560103	1094018C35R K356079	4009198TS40C X K3560MH32	4082919TS5 X K3560MH41
1010778	CM42 K3560115	1131591BBS30.65H SYSTEM17, 66	4046251TS35C X K3560MH38	4082920TS7 X K3560MH44
1010795	SL04 K356092	1131754BBS30.65H BUSHING68	4050637TS30 X K3560MH	4082921TS8 X K3560MH47
1010797	SL02 K356093	1156102RS16 K3560102	4050638TS30C X K356037	4143706SM09 K356090
1010799	C34R K356080	1156107RS17 K3560101	4055765KR-112 BE RETAINER19, 32, 39,	5031028CMB5 BLOCK17, 114, 116
1010804	C21RHD K356099	1156160RS14 K706101	41–51, 55,	5031746TH3-G-INDEX BLOCK17, 46–47, 52
1010806	C31RHD K356079	1253937C21F 11NB K356099	62–65, 67	5031772TH3S-G-INDEX BLOCK17, 50, 52
1010815	SC5-01 K356089	1304100HP CLIP19, 24, 26, 29	4065385TR1-D19, 72–81	5031774FC01 I50
1010817	SC1-01 K356086	1317495SC3-01P K70687	4065445T1 X K356073	5052081SM42BS BUSHING28–29
1010827	CM41 K3560115	1321008 CMB617, 116	4065446T5 X K356074	5059532SM42BS17, 24–28
1010860	SC2-01P K70686	1595671CM6L RETAINER19, 113, 117	4065448T7 X K356076	5164542SM42LR25 K3560MH26
1010887	SM2-02P K70687	1730570KSM1 K356048	4065449T8 X K356075	5164543SM42LR17 HF89 K3560MH27
1010910	C3R K3560102	1777806CM6H RETAINER19, 110, 117	4065450T11 X K356074	5164544SM42HP25 K3560MH26
1010978	C1LRT K3560103	1780648C21RFHD K3560100	4065494T16 X K356076	5164545SM42HP17 K3560MH24
1011569	BS30.65 BLOCK17, 62–66	1792958 U43XHD 30 BLOCK17, 66	4065496T17 X K356072	5169049C21F K356098
1011578	C4/U43H BLOCK17, 52	1795208CM63 K706110	4065497T18 X K356077	5169340C21F HD K356098
1011585	C30H/U40H BLOCK17, 78–80	1803295C15R RETAINER19, 55	4065498T19 X K356073	5169341C31R K356078
1011884	3/4 16UNF NUT19, 103, 107	1807656 U43XHD-P BLOCK17, 54	4065499T20 X K356072	5421574SM42LR27 HF89 K356028
1011935	LR87 RETAINER19, 86–93, 95	1809484SL07 K356092	4066765TS19C X K3560MH35	5497995SM42LR25 HF89 K356027
1011942	LR76 RETAINER19, 103, 107	1817888SLR RETAINING RING19, 92, 95	4066767TS19 X K3560MH42	5500279UNIVERSAL TR3 PULLER
1011961	C21R RETAINER19, 99–100, 106	1858587SLB01 - G17, 84, 92, 94	4066790TS20 X K3560MH45	19, 55, 67, 81
1011965	C10 RETAINER19, 101–102, 106	1876905CM65 K706110	4066813TS20C X K3560MH38	5515288CM69T K357G111
1011978	U43K19, 98–99, 106	1885470C15R RETAINER REMOVAL TOOL	4066816TS32 X K3560MH	5519207CM70T K357G112
1011984	C20/U43HP BIT PULLER ASSEM	19, 55	4066821TS32C X K356036	5519208CM72T K357G112
	19, 106	1886760C3RB BLOCK17, 102–103, 105	4066823TS35 X K3560MH45	5551671CM71T K357G111
1012010	KRP 1/C4 PLIER19, 56, 68	1890174LR55 RETAINER19, 110–112, 117	4066824TS36 X K3560MH46	5687249KRHA 2X K356062
1012012	KRPT1/C4 TIP19, 56, 68	1898353CMB6-L17, 110–112, 116	4066825TS36C X K3560MH39	5687260KRHA 3X K356062
1012016	C123/U50 HAMMER PULLER	1930255KSM3 K357049	4066829TS37 X K3560MH46	5687261KRHA 5X K357063
	19, 95, 106	1984719KSM4 K356048	4066864TS41 X K3560MH41	5687262KRHA 7CX K356063
1012047	KRP4 PLIER19, 55, 67	2274671SM3-01 K70688	4066869TS41C X K3560MH33	5687263KRHB 2X K356064
1012065	C31R RETAINER19, 81	2433922TH3 BLOCK17, 53	4066872TS31C X K3560MH36	5687264KRHB 3X K356064
1012120	C3R RETAINER19, 102, 107	2504867SD06 K3560MH85	4066873TS31 X K3560MH43	5687265KRHB 5X K357065
1012223	CM4 RETAINER19, 114, 117	2504868SD02 K3560MH84	4066875TS37C X K3560MH39	5687266KRHB 7CX K356065
1012234	C87 - G17, 94	2603270TH3S BLOCK17, 51, 53	4066876TS39 X K3560MH42	1012276C20HD BLOCK17, 104
1012247	KHP2 KMTL PUNCH19, 95	2956994TH3-100 BLOCK17, 72–77, 80	4066877TS39C X K3560MH35	1012289C10HD BLOCK105
1012273	C20/U43NS17, 98–100, 104	2988596U43XHD-50 BLOCK17, 54	4072746LR-42 RETAINER19, 24–29	1012290C87HDS - G17, 85–94
	C10 BLOCK105	3006766FC0151	4073124TR3 RETAINER19, 32–40,	1012365 C87E - G17, 94
1012281	CMB4 BLOCK17, 114–116	3043352K150 PAD COATED PULLER56	55, 63, 65, 67	
1012347	C31R REMOVER TOOL W/GRIP	3392835MTB1 BLOCK17, 53	4078887SM42LR22 P K3560MH25	
	19, 81	3504241MTB2S BLOCK17, 54	4078888SM42LR22 K3560MH25	
1012348	C21R REMOVER TOOL W/ GRIP	3518626LR87D SP RETAINER19, 84–85, 95	4080539 CM51 K706114	
	19, 95, 106	3663476SC4-01 K3560MH91	4080877LR51 RETAINER19	
	3/8 16UNC NUT115, 117	3737341TS-K30S IH BUSHING56	4081082SM42LR19 K3560MH24	
1013155	C36R K356078	3737342K30S-TS BLOCK17, 54	4082888TS7C X K3560MH37	
	M16 X 2 STOVER LOCK NUT19, 107	4009193TS5C X K3560MH33	4082889TS8C X K3560MH40	
1094015	CM61 K3055113	4009196TS33C X K3560MH32	4082890TS14C X K356034	

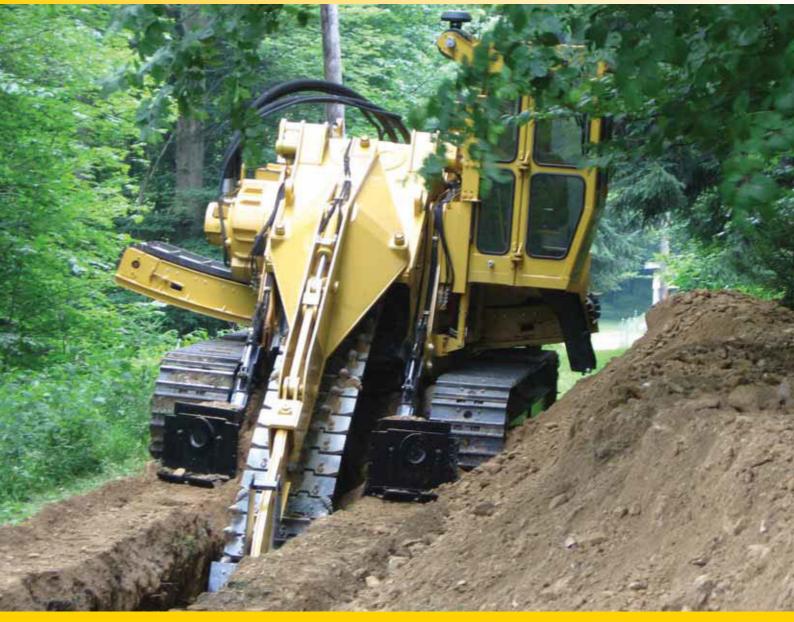




SPENDER 10 10 10 10 10 1	Catalogue No. Page(s)	Catalogue No.	Page(s)	Catalogue No.	Page(s)	Catalogue No.	Page(s)
PRESIDENTIFY 1.00	3/4 16UNF NUT19, 103, 107	CM6H RETAINER	19, 110, 117	SC4-01 K3560MH	91	TS31C X K3560MH	36
SERIEM SERIEM	3/8 16UNC NUT115, 117	CM6L RETAINER	19, 113, 117	SC5-01 K3560	89	TS31 X K3560MH	43
Post Bird DOX	BBS30.65H BUSHING68	CM70T K357G	112	SD02 K3560MH	84	TS32C X K3560	36
C100-C100000000000000000000000000000000	BBS30.65H SYSTEM17, 66	CM71T K357G	111	SD06 K3560MH	85	TS32 X K3560MH	43
CHING BLOCK	BS30.65 BLOCK17, 62–66	CM72T K357G	112	SL02 K3560	93	TS33C X K3560MH	32
CHING BLOCK	C10 BLOCK105	CMB4 BLOCK	17, 114–116	SL04 K3560	92	TS35C X K3560MH	38
C25000 NAMER PULLER	C10HD BLOCK105			SL07 K3560	92	TS35 X K3560MH	45
CHIEF PRIMER 19,55 FOU	C10 RETAINER19, 101–102, 106	CMB6	17, 116	SLB01 - G	17, 84, 92, 94	TS36C X K3560MH	39
CHERTANER FERMAN TOOL	C123/U50 HAMMER PULLER19, 95, 106	CMB6-L1	7, 110–112, 116	SLR RETAINING RING	19, 92, 95	TS36 X K3560MH	46
CHET KISSIO	C15R RETAINER19, 55	FC01	51	SM09 K3560	90	TS37C X K3560MH	39
CHET KISSIO	,						
COMUSINE PER PLLER ASSEM 10, 100 MS COMED PLLER 56 SMAZES 17, 24-22 TS SOX XESOMEN 42	,						
COUNTINGS			, , ,				
CATHER BLOCK	1, 11						
C21F1 11NB KS-560	, ,		,				
C21F FD K3560	, and the second		,				
C21FR PASSEO. 96 PAR A X KSSEO. 62 SMAZIR PIS KSSEOMH 24 TS X KSSEOMH 37 CZ FRHO KSSEO. 100 KSSEO. 99 KSSEO KSSEO. 63 SMAZIR Z KSSEOMH 25 TS X KSSEOMH 37 CZ FRHO KSSEO. 99 KSSEO KSSEO. 63 SMAZIR Z KSSEOMH 25 TS X KSSEOMH 44 CZ FR FRANCE 19.99-100.100 KSSEO. 63 SMAZIR Z KSSEOMH 25 TS X KSSEOMH 40 CZ FR FRANCE 19.99-100.100 KSSEO. 64 SMAZIR Z KSSEOMH 26 TS X KSSEOMH 40 CZ FR FRANCE 19.99-100.100 KSSEO. 64 SMAZIR Z KSSEOMH 26 TS X KSSEOMH 40 CZ FR FRANCE 19.99-100.100 KSSEO. 64 SMAZIR Z KSSEOMH 26 TS X KSSEOMH 40 CZ FR FRANCE 19.99-100.100 KSSEO. 64 SMAZIR Z KSSEOMH 26 TS X KSSEOMH 47 CZ FR FRANCE 19.99-100.100 KSSEO. 64 SMAZIR Z KSSEOMH 26 TS X KSSEOMH 40 CZ FR FRANCE 19.99-100 KSSEO. 77 KSSEO MSSEO 77 KSSEO 77 KSSE		NIT I Z DE NETAINEN	, , , , , , , , ,				
C1PP-D KSS60		NDIN ON NOTCO	, ,				
C21RHD K3560							
C21R REMOVER TOOL W GRP							
C21R RETANER							
C30H/H0H BLOCK							
C31PHD K3560	, ,						
C31R K3560 78 KRHB 7CX K3560 65 T16 X3560 76 U43/HD 30 BLOCK 117, 66 C31R REMOVER TOOL WIGRIP 19, 81 KRP 1/C4 PLER 19, 56, 68 T17 X K3560 72 U43/HD 50 BLOCK 117, 54 C31R RETAINER 19, 81 KRP4 PLER 19, 56, 67 T18 X K3560 77 U43/HD 50 BLOCK 17, 54 C34R K3560 .80 KRP1 L/C4 TIP 19, 56, 68 T19 X K3560 73 UMMERSAL TRS PULLER C36R K3560 .79 KSM1 K3560 48 T1 X K3560 72 UMMERSAL TRS PULLER C36R K3560 .78 KSM3 K3570 49 T20 X K3560 72 72 C37R K3560 .102 LR-42 PETAINER 19, 24-29 T7 X K3560 74 74 C37 K3560 .102 LR-42 PETAINER 19, 24-29 T7 X K3560 75 75 C37 K3560 .103 LR56 RETAINER 19, 10-112, 117 T13-10 BLOCK 17, 53 75 C4043H BLOCK .17, 52 LR76 PETAINER 19, 84-85, 95	,						
C3IR REMOVER TOOL WGRIP. 19,81 KRP 1/C4 PLER 19,56,68 T17 X K3560							, ,
C31R RETAINER 19,81 KRP4 PLIER 19,56,67 T18 X K3560 .77 U430HD-P BLOCK .17,54 C34R K3560 80 KRPTI/C4 TIP 19,56,68 T19 X K3560 .73 UNIVERSAL TR3 PLLER C35R K3560 79 KSM1 K3560 .48 T1 X K3560 .72 .72 C37R K3560 78 KSM3 K3570 .49 720 X K3560 .72 .72 C37R K3560 .17, 102-103, 105 KSM4 K3560 .48 T5 X K3560 .74 .74 C37R K3560 .102 LR-42 RETAINER .19, 24-29 .77 X K3560 .76 .75 C37R K3560 .103 LRS1 RETAINER .19, 104-112, 117 .17 X K3560 .76 .75 C37R K3560 .103 LRS5 RETAINER .19, 110-112, 117 .17 X K3560 .76 .75 C37R K3560 .103 LRS5 RETAINER .19, 103, 107 .17 X K3560 .75 .75 C47U43H BLOCK .17, 59 .17 S M3560 .17 S M3560 .17 S M3660 .17 S M3660 .17 S M3660							,
C34R K3560. .80 KRPT1/C4 TIP .19,56,68 T19 X K3560 .73 UNIVERSAL TR3 PULLER C35R K3560. .79 KSM1 K3560 .48 T1 X K3560 .73 19,55,67,81 C36R K3560. .78 KSM3 K3570 .49 T20 X K3560 .72 C3R BLOCK .17, 102–103, 105 KSM4 K3560 .48 T5 X K3560 .74 C3R K3560 .102 LR-42 RETAINER .19, 24–29 T7 X K3560 .76 C3R K3560 .103 LR55 RETAINER .19, 110–112, 117 T183 K3560 .75 C3T K3560 .103 LR55 RETAINER .19, 110–112, 117 T193-100 BLOCK .17, 72–77, 80 C4/U43H BLOCK .17, 85–94 LR870 SP RETAINER .19, 104–112, 117 TH3 BLOCK .17, 53 C87 - G. .17, 84 LR870 SP RETAINER .19, 84–85, 95 T183 BLOCK .17, 50, 52 CM4L K3560 .15 MTB1 BLOCK .17, 53 TR1-0 .19, 72–81 CM4 K2K3560 .15 MTB2 BLOCK .17, 54 TS14C X K3560MH .35 <td>.,.</td> <td></td> <td>, ,</td> <td></td> <td></td> <td></td> <td>,</td>	.,.		, ,				,
C36R K3560 79 KSM1 K3560 48 T1 X K3560 73 19,55,67,81 C36R K3560 78 KSM3 K3570 49 T20 X K3560 72 C3R BLOCK 17,102–103,105 KSM4 K3560 48 T5 X K3560 74 C3R K3560 102 LB-42 RETAINER 19, 24–29 T7 X K3560 76 C3R K3560 103 LB55 RETAINER 19, 110–112, 117 TH3-100 BLOCK 17, 72–77, 80 C4/U43H BLOCK 17, 52 LR76 RETAINER 19, 103, 107 TH3 BLOCK 17, 53 C87 F. G. 17, 85–94 LR870 SP RETAINER 19, 84–85, 95 TH3-G-INDEX BLOCK 17, 46–47, 52 C87 F. G. 17, 94 LR87 RETAINER 19, 86–93, 95 TH3S BLOCK 17, 51, 53 C87 F. G. 17, 94 M16 X 2 STOVER LOCK NUT 19, 107 TH3S-G-INDEX BLOCK 17, 50, 52 CM41 K3560 115 MTB1 BLOCK 17, 53 TR1-D 19, 72–81 CM42 K3560 115 MTB2 SELOCK 17, 54 TS14C X K3560 34 CM51	,		,,,,,				17, 54
C36R K3560 78 KSM3 K3570 49 T20 X K3560 72 C3RB BLOCK 17, 102–103, 105 KSM4 K3560 48 T5 X K3560 74 C3R K3560 102 LR-42 RETAINER 19, 24–29 T7 X K3560 76 C3R RETAINER 19, 102, 107 LR51 RETAINER 19 T8 X K3560 75 C 3T K3560 103 LR55 RETAINER 19, 110–112, 117 TH3-100 BLOCK 17, 27-77, 80 C47U43H BLOCK 17, 52 LR76 RETAINER 19, 103, 107 TH3 BLOCK 17, 53 C87-G		KRPT1/C4 TIP	19, 56, 68	T19 X K3560	73	UNIVERSAL TR3 PULLER	
C3RB BLOCK 17, 102–103, 105 KSM4 K3560 48 T5 X K3560 .74 C3R K3560 102 LR-42 RETAINER .19, 24–29 T7 X K3560 .76 C3R RETAINER 19, 102, 107 LR51 RETAINER 19 T8 X K3560 .75 C 3T K3560 103 LR55 RETAINER .19, 110–112, 117 TH3-100 BLOCK .17, 72–77, 80 C47/443H BLOCK 17, 52 LR76 RETAINER .19, 103, 107 TH3 BLOCK .17, 53 C87-BS - G .17, 85–94 LR87D SP RETAINER .19, 84–85, 95 TH3-G-INDEX BLOCK .17, 46–47, 52 C87E - G .17, 94 LR87 RETAINER .19, 86–93, 95 TH3S BLOCK .17, 51, 53 C87 - G .17, 94 M16 X 2 STOVER LOCK NUT .19, 107 TH3S-G-NIDEX BLOCK .17, 50, 52 CM41 K3560 .115 MTB1 BLOCK .17, 53 TR1-D .19, 72–81 CM42 K3560 .115 MTB2S BLOCK .17, 54 TS14C X K3560 .34 CM51 K706 .114 RS16 K3560 .102 TS19 X K3560MH .42 <t< td=""><td>C35R K356079</td><td>KSM1 K3560</td><td>48</td><td>T1 X K3560</td><td>73</td><td></td><td> 19, 55, 67, 81</td></t<>	C35R K356079	KSM1 K3560	48	T1 X K3560	73		19, 55, 67, 81
C3R K3560	C36R K356078	KSM3 K3570	49	T20 X K3560	72		
C3R RETAINER 19, 102, 107 LR51 RETAINER 19 T8 X K3560	C3RB BLOCK17, 102–103, 105	KSM4 K3560	48	T5 X K3560	74		
C 3T K3560	C3R K3560102	LR-42 RETAINER	19, 24–29	T7 X K3560	76		
C4/U43H BLOCK 17, 52 LR76 RETAINER 19, 103, 107 TH3 BLOCK 17, 53 C87HDS - G 17, 85-94 LR87D SP RETAINER 19, 84-85, 95 TH3-G-INDEX BLOCK 17, 46-47, 52 C87E - G 17, 94 LR87 RETAINER 19, 86-93, 95 TH3S BLOCK 17, 51, 53 C87 - G 17, 94 M16 X 2 STOVER LOCK NUT 19, 107 TH3S-G-INDEX BLOCK 17, 50, 52 CM41 K3560 115 MTB1 BLOCK 17, 53 TR1-D 19, 72-81 CM42 K3560 115 MTB2S BLOCK 17, 54 TS14C X K3560 34 CM4 RETAINER 19, 114, 117 RS14 K706 101 TS19C X K3560MH 35 CM51 K706 114 RS16 K3560 102 TS19 X K3560MH 42 CM61 K3055 113 RS17 K3560 101 TS20C X K3560MH 38 CM63 K706 110 SC1-01 K3560 86 TS20 X K3560MH 45 CM65 K706 110 SC2-01P K706 86 TS30C X K3560 37	C3R RETAINER19, 102, 107	LR51 RETAINER	19	T8 X K3560	75		
C87HDS - G 17, 85–94 LR87D SP RETAINER 19, 84–85, 95 TH3-G-INDEX BLOCK 17, 46–47, 52 C87E - G 17, 94 LR87 RETAINER 19, 86–93, 95 TH3S BLOCK 17, 51, 53 C87 - G 17, 94 M16 X 2 STOVER LOCK NUT 19, 107 TH3S-G-INDEX BLOCK 17, 50, 52 CM41 K3560 115 MTB1 BLOCK 17, 53 TR1-D 19, 72–81 CM42 K3560 115 MTB2S BLOCK 17, 54 TS14C X K3560 34 CM4 RETAINER 19, 114, 117 RS14 K706 101 TS19C X K3560MH 35 CM51 K706 114 RS16 K3560 102 TS19 X K3560MH 42 CM61 K3055 113 RS17 K3560 101 TS20C X K3560MH 38 CM63 K706 110 SC1-01 K3560 86 TS20 X K3560MH 45 CM65 K706 110 SC2-01P K706 86 TS30C X K3560 37	C 3T K3560103	LR55 RETAINER1	9, 110–112, 117	TH3-100 BLOCK	17, 72–77, 80		
C87E - G. 17, 94 LR87 RETAINER. 19, 86–93, 95 TH3S BLOCK. 17, 51, 53 C87 - G. 17, 94 M16 X 2 STOVER LOCK NUT 19, 107 TH3S-G-INDEX BLOCK. 17, 50, 52 CM41 K3560. 115 MTB1 BLOCK. 17, 53 TR1-D. 19, 72–81 CM42 K3560. 115 MTB2S BLOCK. 17, 54 TS14C X K3560. 34 CM4 RETAINER. 19, 114, 117 RS14 K706. 101 TS19C X K3560MH. 35 CM51 K706. 114 RS16 K3560. 102 TS19 X K3560MH. 42 CM61 K3055. 113 RS17 K3560. 101 TS20C X K3560MH. 38 CM63 K706. 110 SC1-01 K3560. 86 TS20 X K3560MH. 45 CM65 K706. 110 SC2-01P K706. 86 TS30C X K3560 37	C4/U43H BLOCK17, 52	LR76 RETAINER	19, 103, 107	TH3 BLOCK	17, 53		
C87 - G	C87HDS - G17, 85–94	LR87D SP RETAINER	19, 84–85, 95	TH3-G-INDEX BLOCK	17, 46–47, 52		
CM41 K3560 .115 MTB1 BLOCK .17, 53 TR1-D .19, 72-81 CM42 K3560 .115 MTB2S BLOCK .17, 54 TS14C X K3560 .34 CM4 RETAINER .19, 114, 117 RS14 K706 .101 TS19C X K3560MH .35 CM51 K706 .114 RS16 K3560 .102 TS19 X K3560MH .42 CM61 K3055 .113 RS17 K3560 .101 TS20C X K3560MH .38 CM63 K706 .110 SC1-01 K3560 .86 TS20 X K3560MH .45 CM65 K706 .110 SC2-01P K706 .86 TS30C X K3560 .37	C87E - G17, 94	LR87 RETAINER	19, 86–93, 95	TH3S BLOCK	17, 51, 53		
CM42 K3560 .115 MTB2S BLOCK .17, 54 TS14C X K3560 .34 CM4 RETAINER .19, 114, 117 RS14 K706 .101 TS19C X K3560MH .35 CM51 K706 .114 RS16 K3560 .102 TS19 X K3560MH .42 CM61 K3055 .113 RS17 K3560 .101 TS20C X K3560MH .38 CM63 K706 .110 SC1-01 K3560 .86 TS20 X K3560MH .45 CM65 K706 .110 SC2-01P K706 .86 TS30C X K3560 .37	C87 - G17, 94	M16 X 2 STOVER LOCK NUT	19, 107	TH3S-G-INDEX BLOCK	17, 50, 52		
CM4 RETAINER. 19, 114, 117 RS14 K706. 101 TS19C X K3560MH. 35 CM51 K706. 114 RS16 K3560. 102 TS19 X K3560MH. 42 CM61 K3055. 113 RS17 K3560. 101 TS20C X K3560MH. 38 CM63 K706. 110 SC1-01 K3560. 86 TS20 X K3560MH. 45 CM65 K706. 110 SC2-01P K706. 86 TS30C X K3560. 37	CM41 K3560115	MTB1 BLOCK	17, 53	TR1-D	19, 72–81		
CM51 K706 .114 RS16 K3560 .102 TS19 X K3560MH .42 CM61 K3055 .113 RS17 K3560 .101 TS20C X K3560MH .38 CM63 K706 .110 SC1-01 K3560 .86 TS20 X K3560MH .45 CM65 K706 .110 SC2-01P K706 .86 TS30C X K3560 .37	CM42 K3560115	MTB2S BLOCK	17, 54	TS14C X K3560	34		
CM61 K3055	CM4 RETAINER19, 114, 117	RS14 K706	101	TS19C X K3560MH	35		
CM63 K706 .110 SC1-01 K3560 .86 TS20 X K3560MH .45 CM65 K706 .110 SC2-01P K706 .86 TS30C X K3560 .37	CM51 K706114	RS16 K3560	102	TS19 X K3560MH	42		
CM65 K706	CM61 K3055113	RS17 K3560	101	TS20C X K3560MH	38		
	CM63 K706110	SC1-01 K3560	86	TS20 X K3560MH	45		
CM69T K357G	CM65 K706110	SC2-01P K706	86	TS30C X K3560	37		
	CM69T K357G111	SC3-01P K706	87	TS30 X K3560MH	44		









KENNAMETAL

Argentina

Phone: +54 11 4719 0700 Fax: +54 11 4719 6116

Australia/New Zealand

Phone: +61 7 3801 5844 Fax: +61 7 3801 5826 k-sydn.service@kennametal.com

Brazil/Latin America

Phone: +55 19 3936 9200 Fax: +55 19 3936 9201 bra.marketing@kennametal.com

Chile

Phone: +56 2 2641177 Fax: 001 888 442 4964

China

Phone: +86 400 650 1388 Fax: +86 10 8561 5263

k-cn-earthwork.service@kennametal.com

Germany/European Served Area

Phone: +49 6172 737 498 Fax: +49 6172 737 42 453 mcs-ag.service@kennametal.com

India

Phone: +91 800 22198444 Phone: +91 080 43281444 Fax: 91 80 2839 1300

bangalore.information@kennametal.com

lanan

Phone: +81 3 3820 2855 Fax: +81 3 3820 2800 k-jp.service@kennametal.com

Korea

Phone: +82 2 2109 6100 Fax: +82 2 2109 6981

Malaysia

Phone: 6 03 5569 9080 Fax: 6 03 5569 0080

Poland/Slovakia/Baltics

Phone: +48 61 665 6520 Fax: +48 61 665 6521 zory.orders@kennametal.com

South Africa/Sub Saharan Area

Phone: +27 11397 3540 Fax: +27 11397 3222

Singapore/Vietnam/

Philippines/Indonesia Phone: +65 6265 9222 Fax: +65 6861 0922 k-sg.sales@kennametal.com

Thailand

Phone: +66 2642 3455 Fax: +66 2641 2736 8

United States/Canada/Mexico

Phone: 800 458 3608 Fax: 800 521 3319

mcs-na.service@kennametal.com

WORLD AND CORPORATE HEADQUARTERS

Kennametal Inc.

1600 Technology Way Latrobe, PA 15650 USA

Phone: 800 446 7738 (United States and Canada)

E-mail: ftmill.service@kennametal.com

EUROPEAN HEADQUARTERS

Kennametal Europe GmbH

Rheingoldstrasse 50 CH 8212 Neuhausen am Rheinfall

Switzerland

Phone: +41 52 6750 100

 $\hbox{E-mail: neuhausen.info@kennametal.com}\\$

ASIA-PACIFIC HEADQUARTERS

Kennametal Singapore Pte. Ltd.

3A International Business Park Unit #01-02/03/05, ICON@IBP Singapore 609935

Phone: +65 6265 9222

E-mail: k-sg.sales@kennametal.com

INDIA HEADQUARTERS

Kennametal India Limited

CIN: L27109KA1964PLC001546 8/9th Mile, Tumkur Road Bangalore - 560 073

Phone: +91 080 22198444 or +91 080 43281444 E-mail: bangalore.information@kennametal.com



Kennametal Inc. 1600 Technology Way Latrobe, PA 15650 USA

www.kennametal.com