

MASTER CATALOG 2018

VOLUME ONE | **TURNING TOOLS**



ISO/ANSI TURNING | GROOVING & CUT-OFF | THREADING | APPLICATION SPECIFIC

➤ Railroad

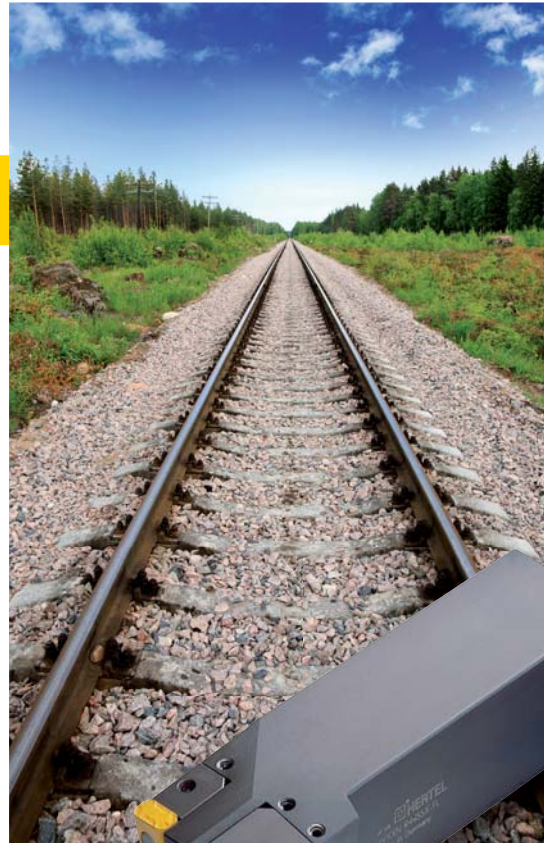
The intimate understanding Kennametal provides of the economics of the railroad value chain enables us to offer unparalleled custom solutions tailored to your needs. We deliver superior value because we listen closely to you, our customer, and innovate based on your feedback. Our goal is to help you be more competitive — both locally and on a global scale.

Best Practices in Productivity

As your trusted partner for optimized production, Kennametal offers customers a unique commitment to research and development excellence, leading to continued delivery of highly innovative ways to enhance your productivity. Certification to ISO 9001, QS 9000 TES, and VDA 6.4 guarantees the highest possible quality standards.

Best Performance, Less Environmental Impact

With technology, we can do both. Kennametal helps customers focus on the root causes of unsustainable behavior in highly complex manufacturing systems, while at the same time improving cost structure, quality, and performance. In addition to offering the latest in metalcutting tools and technology, our Advanced Engineering Team will analyze your existing production processes and help you identify new methods to improve your overall performance.



Wheel Lathe Tooling

Kennametal railroad tooling incorporates a unique locking unit design developed through years of testing on all types of wheel lathes and machining wheels with all types of tread surfaces.

This heavy-duty, rugged design has proven to be effective in reducing machining costs on tread turning applications, the most severe machining operation encountered in wheel and axle shops.

Strong inserts, with raised chipbreaker land and honed cutting edges, offer more effective chip control and a stronger cutting edge. Combining this tool geometry with the Kennametal grade selection delivers higher wheel turning productivity.



Wheelset

Advantages of Kennametal Wheel Lathe Tools:

- No top clamp to wear out or interfere with chip flow.
- Insert locks against two walls in the toolholder to prevent insert movement under heavy cutting loads.
- Hardened steel locking unit provides positive insert seating and holder protection.
- Fast, trouble-free insert indexing — just unlock one screw to release the insert.
- Quick removal of the steel locking unit and insert for cleaning or replacement.
- Heavy-duty steel locking unit design ensures longer life and helps reduce operating costs.
- Fewer parts to inventory.
- Toolholders and steel locking units, made from heat-treated alloy steel, provide support to withstand severe roughing cuts on work-hardened wheels.



LNUX-RRF Full Radius



LNUX-RRP Full Radius



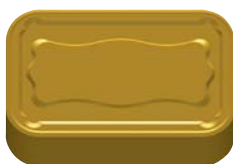
LNUX-RRH



LNUX-RRP



KRR6586-71



KRR6586-75



LNUX-RRSM



KRR6586-65



KRR6586-52



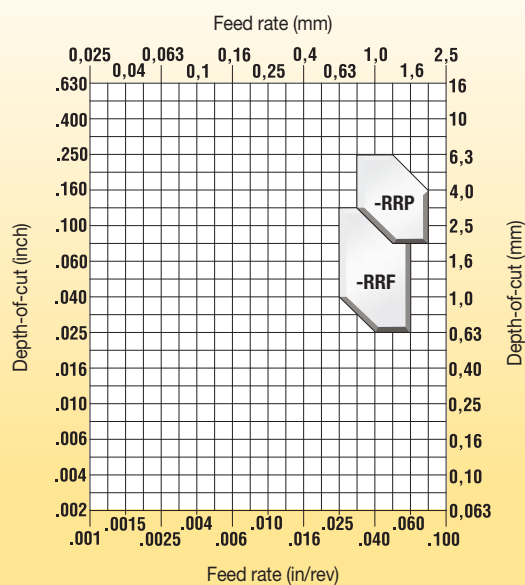
KRR6586-50

■ LNUX

Full-Radius Design

Our well-performed chipbreaking geometry RRF and RRP

- One insert can be applied in profiling and facing.
- Chip control even at smaller DOC will be improved!



-RRP



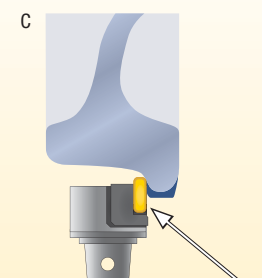
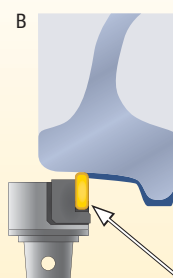
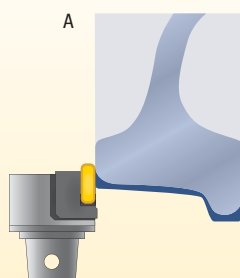
-RRF

■ Application Recommendation

A: At the beginning of the process, the DOC is higher because most of the bigger bur needs to be removed.

B: The DOC is smaller, but sometimes it has “hot spots” or brake spots.

C: Most critical area in regards to chip control because the thickness of the chip is quite thin and very difficult to manage.

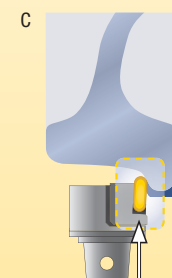
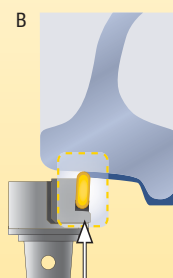
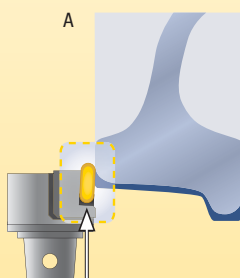


Approach angle -3° in feed direction

Problem with chip control!!

A, B, & C: One insert can be applied in profiling and facing.

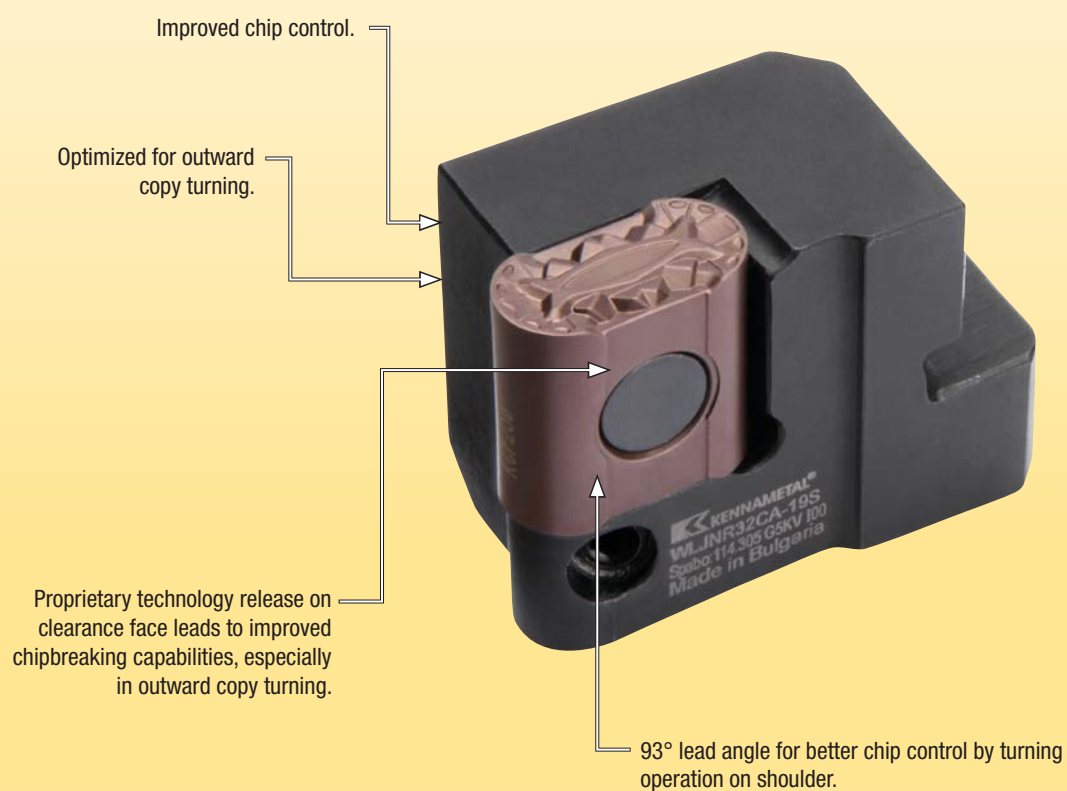
A & C: Chip control, even at a smaller DOC, will be improved.



Modified cartridge with approach angle of 93° (difference of 6°)

Improved chip control capabilities

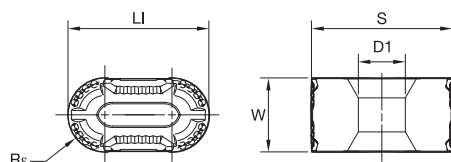
■ Features and Benefits



- The well performed RRF and RRP chipbreaker geometry with a full-radius design offers better chip control even at smaller DOC.

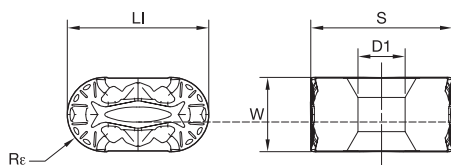
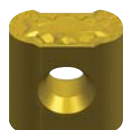
- first choice
- alternate choice

P		●	●
M			
K			
N			
S			
H			



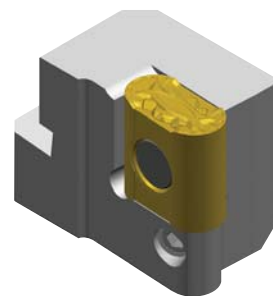
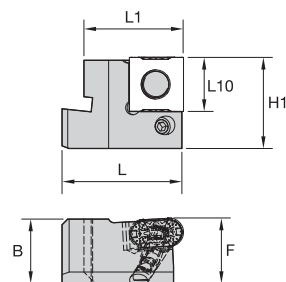
■ LNUX-RRF Full-Radius

ISO catalog number	ANSI catalog number	W		LI		S		Re		D1		KCP10B	KCP25B
		mm	in	mm	in	mm	in	mm	in	mm	in		
LNUX191950RRF	LNUX191950RRF	10,00	.394	19,05	.750	19,05	3/4	5,00	.196	6,35	.250	●	●



■ LNUX-RRP Full-Radius

ISO catalog number	ANSI catalog number	W		LI		S		Re		D1		KCP10B	KCP25B
		mm	in	mm	in	mm	in	mm	in	mm	in		
LNUX191950RRP	LNUX191950RRP	10,00	.394	19,05	.750	19,05	3/4	5,00	.197	6,35	.250	●	●
LNUX301960RRP	LNUX301960RRP	12,00	.472	30,00	1.181	19,05	3/4	6,00	.236	6,35	.250	●	●



■ Cartridge WLJN

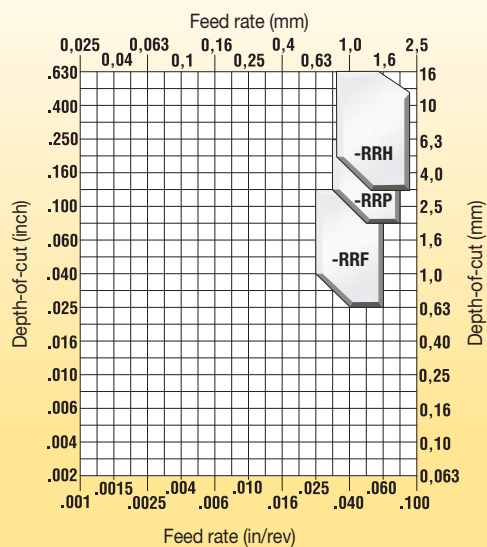
order number	catalog number	H1		B		F		L10		L1		L		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6049016	WLJNL32CA19S	32,00	1.260	22,60	.890	23,00	.906	19,050	.750	35,00	1.38	42,70	1.681	LNUX191950RRP
6049018	WLJNL32CA30S	32,00	1.260	22,60	.890	23,50	.925	30,000	1.181	35,00	1.38	45,00	1.772	LNUX301960RRP
6049015	WLJNR32CA19S	32,00	1.260	22,60	.890	23,00	.906	19,050	.750	35,00	1.38	42,70	1.681	LNUX191950RRP
6049017	WLJNR32CA30S	32,00	1.260	22,60	.890	23,50	.925	30,000	1.181	35,00	1.38	45,00	1.772	LNUX301960RRP

■ Spare Parts

catalog number	clamp stud	clamp screw	hex wrench
WLJNL32CA19S	114.305	121.616	170.003
WLJNL32CA30S	114.305	121.616	170.003
WLJNR32CA19S	114.305	121.616	170.003
WLJNR32CA30S	114.305	121.616	170.003

■ New Chip Breaking Geometry

For Rail Wheel Machining — RRF



-RRH

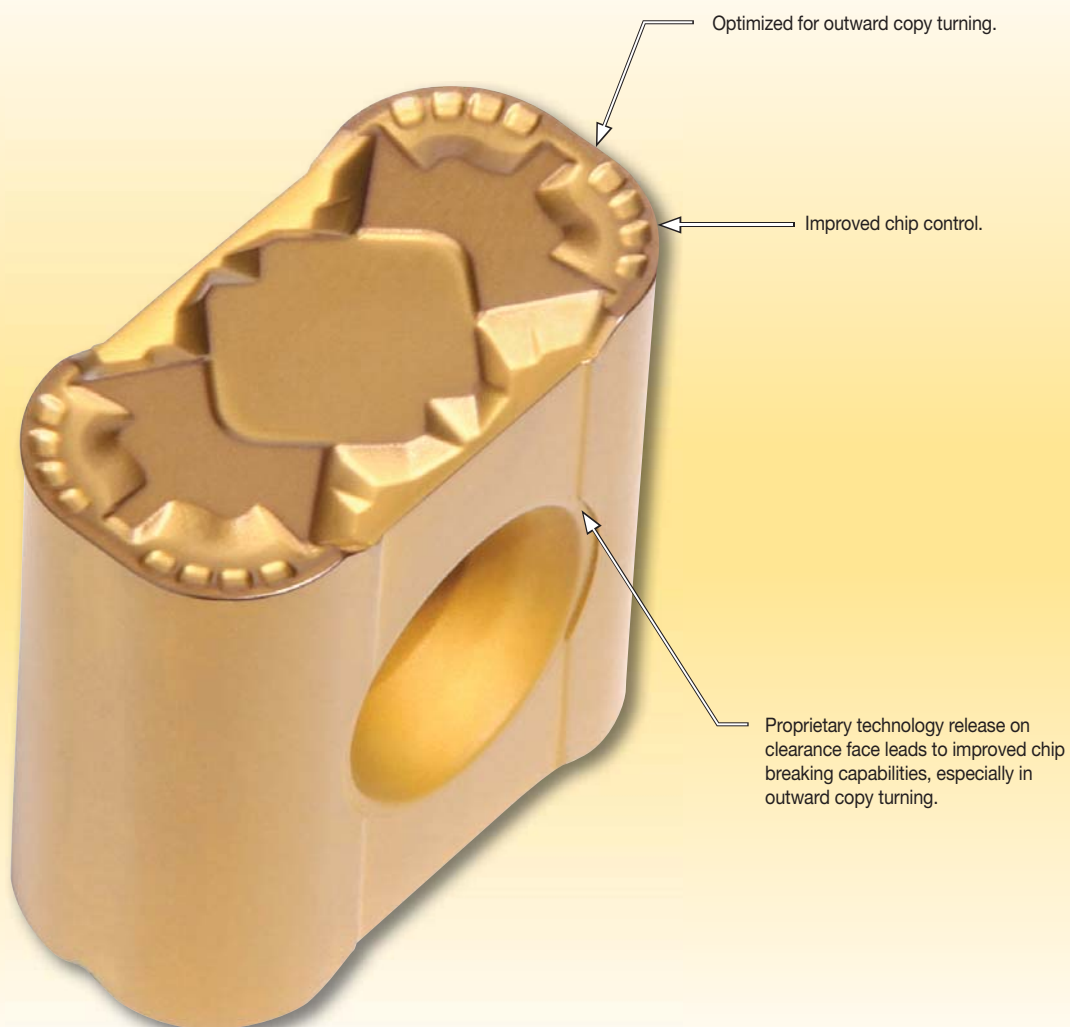


-RRP



-RRF

■ Small DOC Re-Profiling

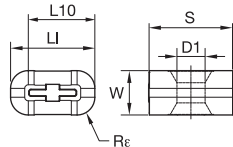


Kennametal stocks a complete line of standard inserts for wheel and axle machining. Inserts are available in various styles, sizes, and grades.

- **Wheel boring** — molded chipbreaker inserts in round, square, octagon, and regrindable inserts.
- **Axle turning** — triangle- and diamond-shaped inserts with chipbreakers.
- **Wheel turning** — rectangular and square styles, with or without molded chipbreakers.
- **Wheel truing** — round buttons with center hole for locking.

- first choice
- alternate choice

P	●	●	●	●
M	●	●	●	●
K	○	○	○	○
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●



■ LNUX-RRF

ISO catalog number	ANSI catalog number	W		LI		L10		S		Re		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRF	LNUX191940RRF	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	—	●	—	●
LNUX301940RRF	LNUX301940RRF	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	—	●	—	—

NOTE: Also available in KC9105™.

■ LNUX-RRH

ISO catalog number	ANSI catalog number	W		LI		L10		S		Re		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRH	LNUX191940RRH	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	—	●	—	●
LNUX301940RRH	LNUX301940RRH	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	●	—	—	●

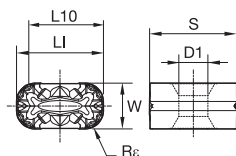
NOTE: Also available in KC9105.

Application Specific

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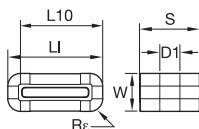
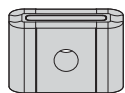
Application Specific



- first choice
- alternate choice

■ LNUX-RRP

ISO catalog number	ANSI catalog number	W		LI		L10		S		Re		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRP	LNUX191940RRP	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	-	•	-	•
LNUX301940RRP	LNUX301940RRP	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	-	-	-	•



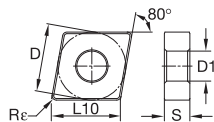
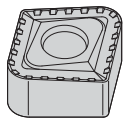
■ LNUX-RRSM

ISO catalog number	ANSI catalog number	W		LI		L10		S		Re		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRSM	LNUX191940RRSM	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	-	-	•	-
LNUX301940RRSM	LNUX301940RRSM	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	•	-	-	-

NOTE: Also available in KC9105™.

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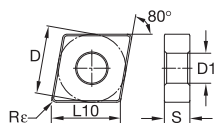
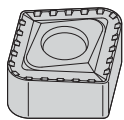
- first choice
- alternate choice

P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●

Application Specific

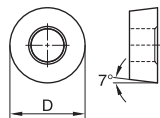
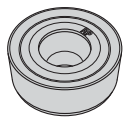
■ CNMM-RRP

ISO catalog number	ANSI catalog number	L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in				
CNMM190740RRP	CNMM190740RRP	19,34	.762	7,94	5/16	4,00	5/32	7,93	.313	●	-	-	-



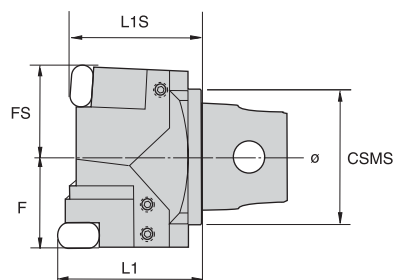
■ LNUX-WT5

ISO catalog number	ANSI catalog number	L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in				
LNUX191940S-WT5	LNUX191940S-WT5	19,05	.750	19,05	3/4	4,00	5/32	6,35	.250	-	-	●	-
SNMX190640S-WT5	SNMX190640S-WT5	19,05	.750	6,35	1/4	4,00	5/32	6,35	.250	-	-	●	-



■ RCMX

ISO catalog number	ANSI catalog number	L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in				
RCMX2507M076	RCMX2507M076	—	—	7,94	5/16	—	—	7,40	.291	-	-	●	-

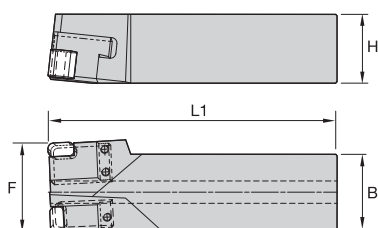
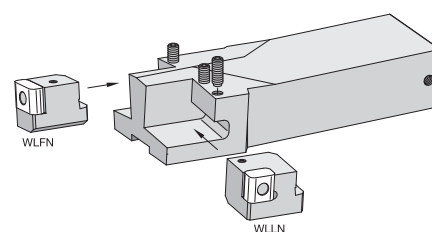


■ TK

order number	catalog number	CSMS system size	F		FS		L1		L1S	
			mm	in	mm	in	mm	in	mm	in
1781755	TK01338D	KM63	42,50	1.673	42,50	1.673	66,00	2.598	60,00	2.362
1781756	TK01339D	KM63	42,50	1.673	42,50	1.673	66,00	2.598	60,00	2.362

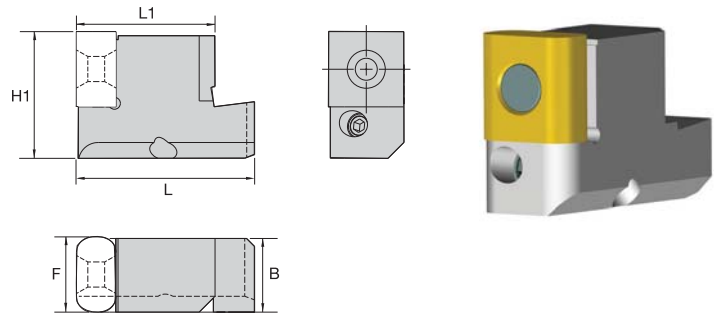
Assembly Instructions

basic/KM shank	cartridge WLLN..	cartridge WLFN..
right	right	left
left	left	right



■ Basic Shank WXXN

order number	catalog number	H		B		F assembly		L1 assy		clamp screw
		mm	in	mm	in	mm	in	mm	in	
1251261	WXXNL4455X-FL	50,00	1.969	55,00	2.165	65,00	2.559	210,00	8.268	PT00163
1251262	WXXNR4455X-FL	50,00	1.969	55,00	2.165	65,00	2.559	210,00	8.268	PT00163

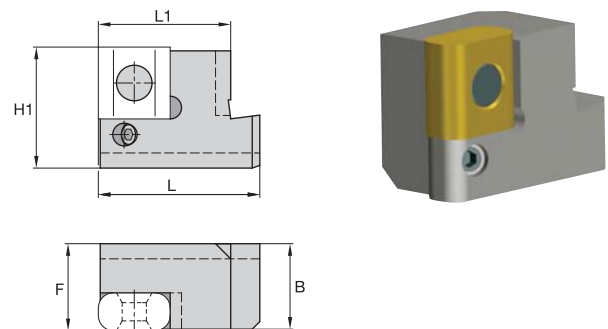


Cartridge WLFN

order number	catalog number	H1		B		F		L1		L		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
2435188	WLFNL32CA19S	32,00	1.260	18,60	.732	19,00	.748	35,00	1.378	42,70	1.681	LNUX191940...
2435187	WLFNR32CA19S	32,00	1.260	18,60	.732	19,00	.748	35,00	1.378	42,70	1.681	LNUX191940...

Spare Parts

catalog number	clamp stud	clamp screw	hex wrench
WLFNL32CA19S	114.305	121.616	170.003
WLFNR32CA19S	114.305	121.616	170.003



Cartridge WLLN

order number	catalog number	H1		B		F		L1		L		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
2435184	WLLNL32CA19S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX191940...
2435186	WLLNL32CA30S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX301940...
2435183	WLLNR32CA19S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX191940...
2435185	WLLNR32CA30S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX301940...

Spare Parts

catalog number	clamp stud	clamp screw	hex wrench
WLLNL32CA19S	114.305	121.616	170.003
WLLNL32CA30S	114.305	121.616	170.003
WLLNR32CA19S	114.305	121.616	170.003
WLLNR32CA30S	114.305	121.616	170.003

➤ Wheel and Wheelset Truing with **Beyond™** RU and UP Geometries

Kennametal tooling incorporates the latest technology for maximum metal removal and higher productivity. Standard off-the-shelf inserts and fewer pieces of hardware reduce inventory and operating costs. These tools are for reconditioning mounted wheel sets, wheel boring, wheel truing, axle turning, and journal burnishing.




Features and Benefits

Advantages of Kennametal Wheel Lathe Tools

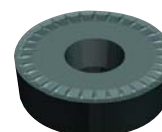
- Heavy-duty steel locking unit.
- No top clamp to wear out or interfere with chip flow.
- Hardened-steel locking unit prevents insert movement.
- Quick removal of the steel locking unit.
- Fast trouble-free insert indexing.
- Withstand severe roughing cuts on work-hardened wheels.

Achieve superior results while lowering production time and maintenance costs in these tough conditions:

- Skid flat areas.
- Accidental torch burns.
- Overheating of spinning wheels.
- Excessive mushroom and rollovers that are hardened by unusual hump retarder pressure.
- Mismatched wheels that cause excessive wear on the flange side.

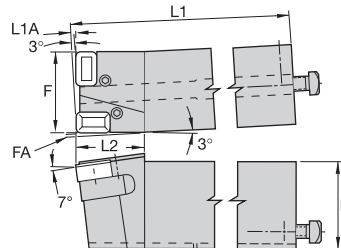
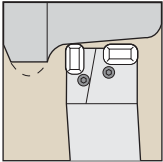


RU-Roughing Universal



UP-Universal Positive

- Fully automatic, heavy-duty wheel lathe with integrated measuring device to determine wheel set profile wear.
- Portal-type machine bed enables roll-through operation.
- Suitable for machining wheel sets for locomotives, transit, passenger, and freight cars.

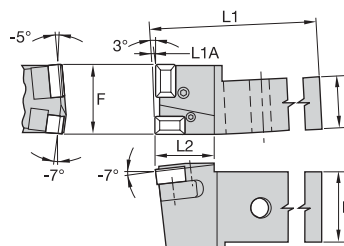
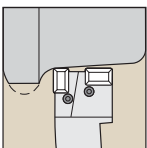


■ Tread Profile Truing

order number	catalog number	H		F		L1		L2		FA		L1A		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
1015754	HUWTCL	80,00	3.150	76,20	3.000	275,00	10.827	63,50	2.500	3,00	.118	3,00	.118	KRR6586__
1015723	HUWTCR	80,00	3.150	76,20	3.000	275,00	10.827	63,50	2.500	3,00	.118	3,00	.118	KRR6586__

NOTE: Requires two inserts.

- Maximum productivity at minimum operating costs.
- Fast insert indexing while tool is mounted in the tool block.
- Individual steel locking units make it easy to index and lock each insert.
- Gage location on tool, over insert, is held to +/- .003" (0,08mm).
- No top clamp to wear out or interfere with chip flow.
- Replaceable steel locking unit protects toolholder from damage.
- Improved inserts with chip control.



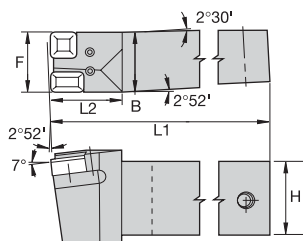
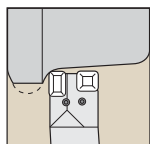
■ Wheel Tread Contouring

order number	catalog number	H		F		L1		L2		FA		L1A		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
1015688	FUWTCL	76,20	3.000	57,15	2.250	76,20	3.000	254,00	10.000	66,55	2.620	3,05	.120	KRR6586__
1015687	FUWTCR	76,20	3.000	57,15	2.250	76,20	3.000	254,00	10.000	66,55	2.620	3,05	.120	KRR6586__

NOTE: Requires two inserts.

- Maximum productivity at minimum operating costs.
- Fast insert indexing tool mounted in tool block.
- Individual steel locking units make it easy to index and lock each insert.
- Minimum parts for lower inventory.
- No top clamp to wear out or interfere with chip flow.
- Replaceable steel locking unit protects toolholder from damage.
- Indexable inserts with pre-formed chipbreakers deliver chip control at optimum feeds and speeds.

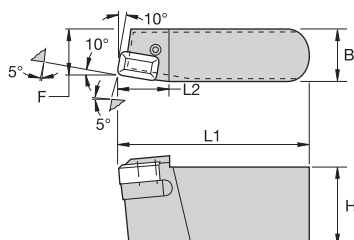
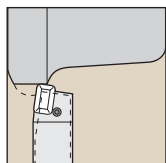
Application Specific



■ Wheel Tread Contouring

order number	catalog number	H		B		F		L1		L2		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
1015659	SUWTCL	76,20	3.000	57,15	2.250	57,15	2.250	254,00	10.000	66,55	2.620	KRR6586__
1015658	SUWTCR	76,20	3.000	57,15	2.250	57,15	2.250	254,00	10.000	66,55	2.620	KRR6586__

NOTE: Requires two inserts.



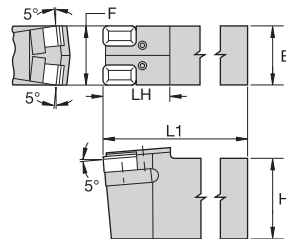
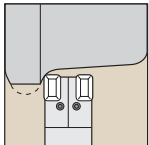
■ Wheel Flange Topping

order number	catalog number	H		B		F		L1		L2		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
1015690	NUFRL	63,50	2.500	41,28	1.625	36,53	1.438	152,40	6.000	39,62	1.560	KRR6586__
1015689	NUFRR	63,50	2.500	41,28	1.625	36,53	1.438	152,40	6.000	39,62	1.560	KRR6586__

- Maximum productivity at minimum operating costs.
- Fast insert indexing tool mounted in tool block.
- Individual steel locking units make it easy to index and lock each insert.
- Gage location on tool, over insert, is held to +/- .003" (0,08mm).
- No top clamp to wear out or interfere with chip flow.
- Replaceable steel locking unit protects toolholder from damage.
- Indexable inserts with pre-formed chipbreakers deliver chip control at optimum feeds and speeds.



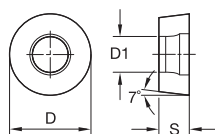
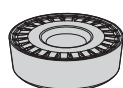
Simmons-Niles Wheel Turning Lathe



■ Wheel Tread Contouring

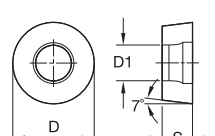
order number	catalog number	H		B		F		L1		LH		insert 1	steel locking unit	lock screw
		mm	in	mm	in	mm	in	mm	in	mm	in			
1015684	NUWTC	76,20	3.000	57,15	2.250	57,15	2.250	412,75	16.250	95,25	3.750	KRR6586__	SU3	S1006PKG

NOTE: Requires two inserts.



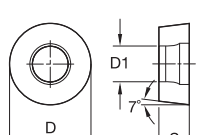
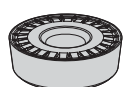
■ RCMH-UPG

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMH2507M0TUPG	RCMH2507M0TUPG	25	.984	7,55	.297	7,94	.313	-	-	-	●	-	●	-	-
RCMH3209M0TUPG	RCMH3209M0TUPG	32	1.260	10,35	.407	9,52	.375	-	-	-	●	-	●	-	-



■ RCMH-RU

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMH2507M0RU	RCMH2507M0RU	25	.984	7,55	.297	7,94	.313	-	-	-	-	●	-	-	-
RCMH3209M0RU	RCMH3209M0RU	32	1.260	10,35	.407	9,53	.375	-	-	-	-	●	-	-	-

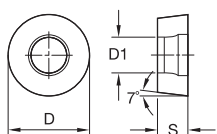
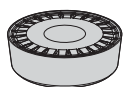


■ RCMT-UPG

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMT1606M0UPG	RCMT1606M0UPG	16	.630	5,50	.217	6,35	.250	●	-	-	●	-	●	●	-
RCMT2006M0UPG	RCMT2006M0UPG	20	.787	6,50	.256	6,35	.250	●	-	-	●	-	●	●	-

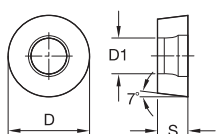
● first choice
○ alternate choice

P	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



RCMX-UPG

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMX2507M0TUPG	RCMX2507M0TUPG	25	.984	7,19	.283	7,94	.313	-	-	-	•	-	•	-	-
RCMX3209M0TUPG	RCMX3209M0TUPG	32	1.260	9,78	.385	9,52	.375	-	-	-	•	-	•	-	-



RCMX-RU

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMX2507M0RU	RCMX2507M0RU	25	.984	7,19	.283	7,94	.313	-	•	-	-	-	-	-	-
RCMX3209M0RU	RCMX3209M0RU	32	1.260	9,78	.385	9,53	.375	-	•	-	-	-	-	-	-

• first choice
○ alternate choice

P	•	○	•	•	•	•	•	•	•	•	•	•	•	•	•
M	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
K	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
S	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
H	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Application Specific