

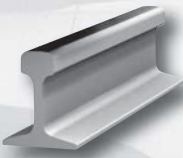
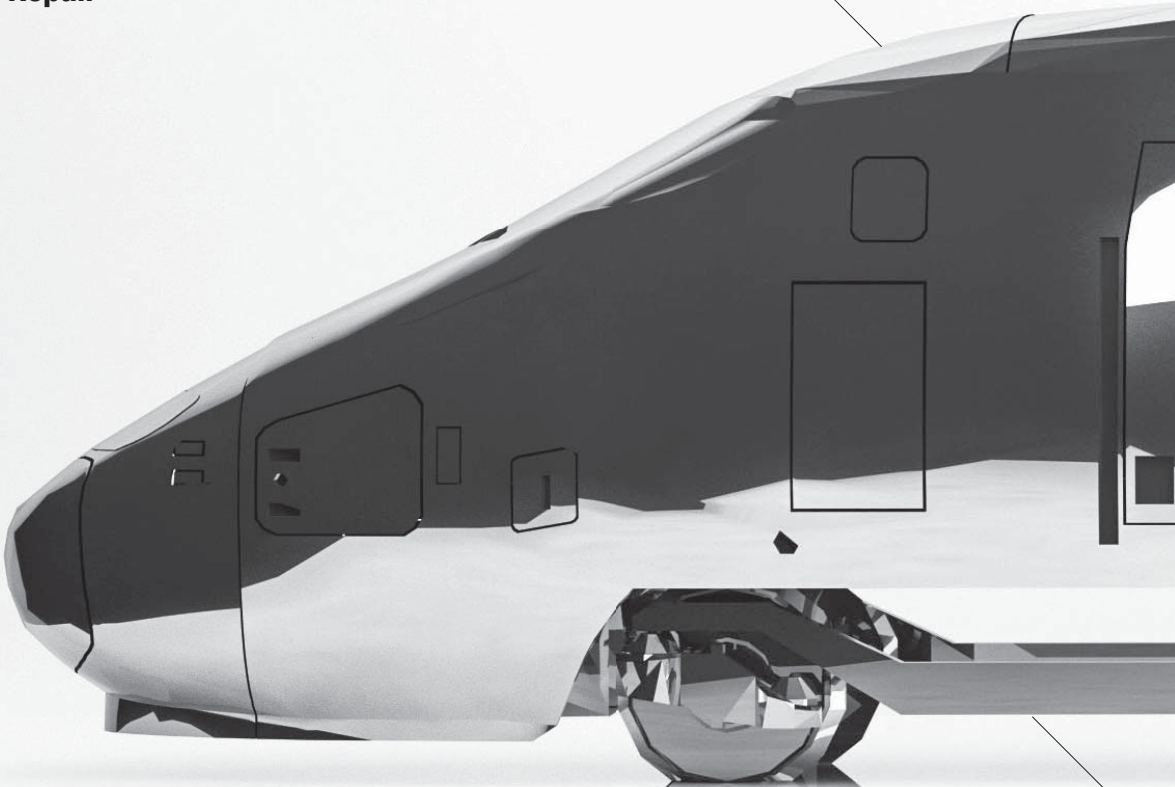
Technical Information **KORLOY**

# Railway Industry

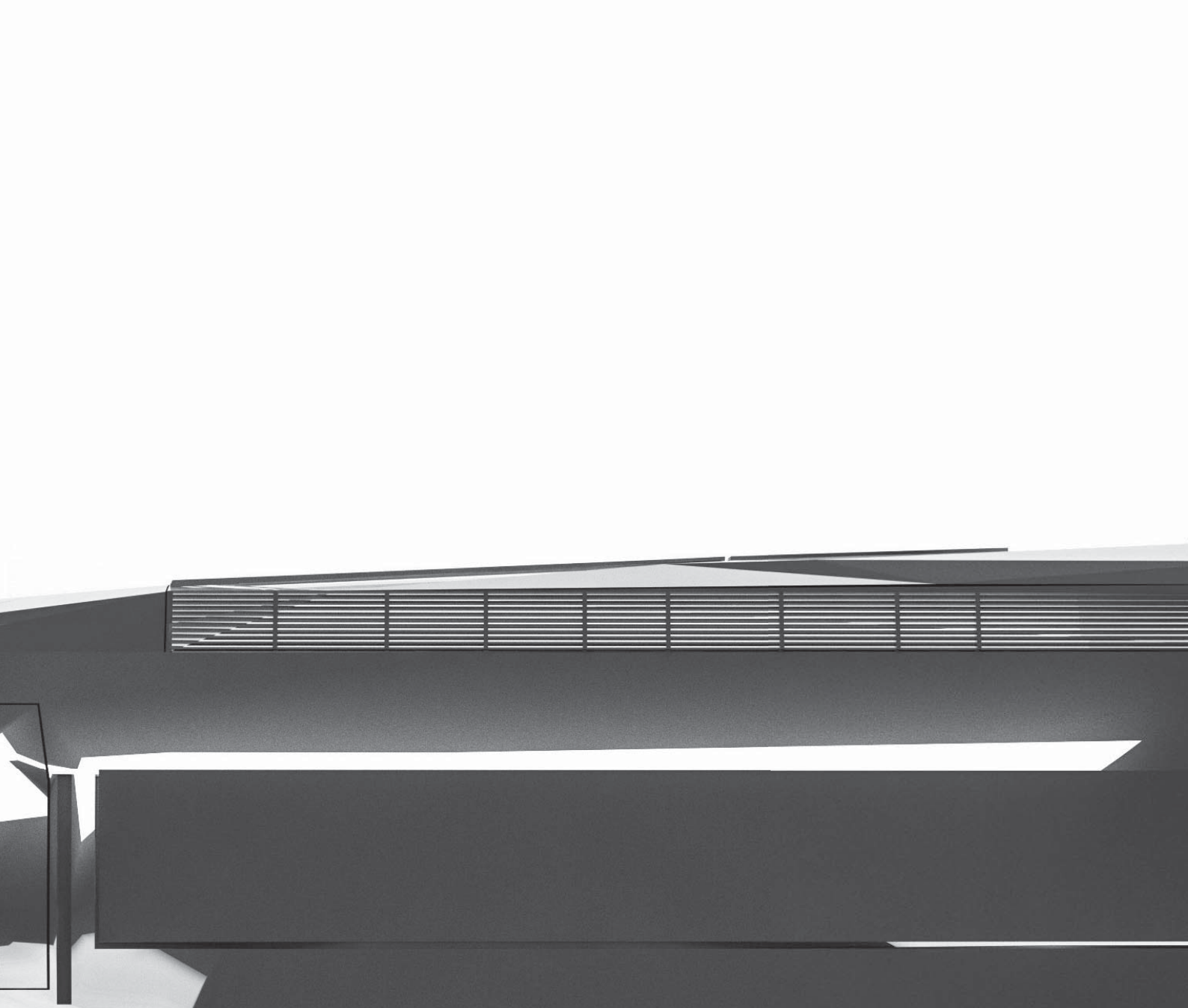
Railway Structural Components and Applicable Tools / Application Example / Product Details

# RAILWAY INDUSTRY

- 01 \_ Rail Repair
- 02 \_ Axle
- 03 \_ Wheel
- 04 \_ Rail & Crossing
- 05 \_ Wheel Repair
- 06 \_ Bogie



Rail Repair



**Axle**



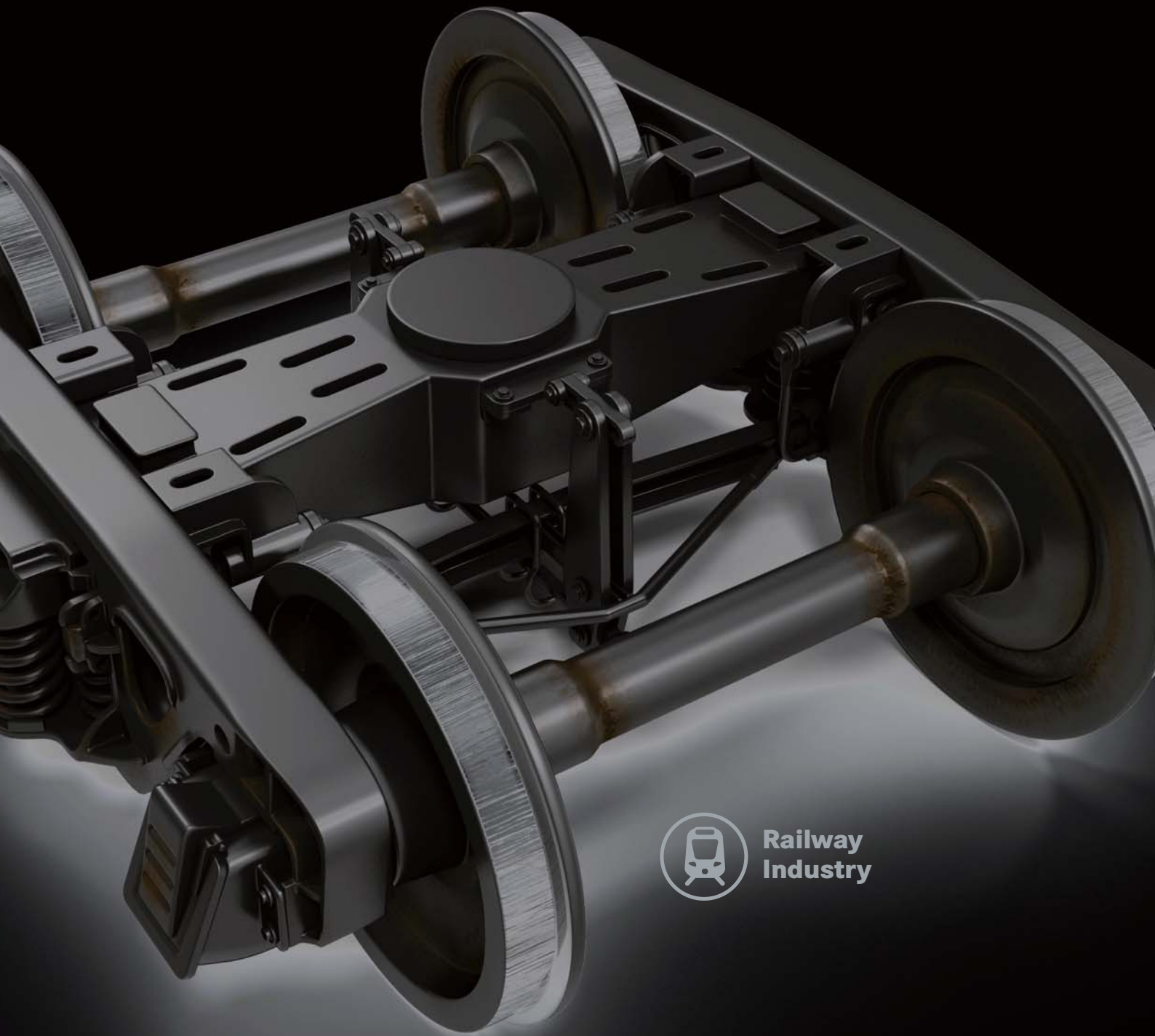
**Wheel**



**Wheel Repair**



**Bogie**



Railway  
Industry

# CONTENTS

## Part 1 Railway Structural Components and Applicable Tools

1	Rail Repair	008
2	Axle	010
3	Wheel	012
4	Rail & Crossing	014
5	Wheel Repair	016
6	Bogie	018

## Part 2 Application Example

1	Grade & Chip Breaker	020
2	Application Example for Axle	021
3	Application Example for Wheel	023
4	Application Example for Bogie	025

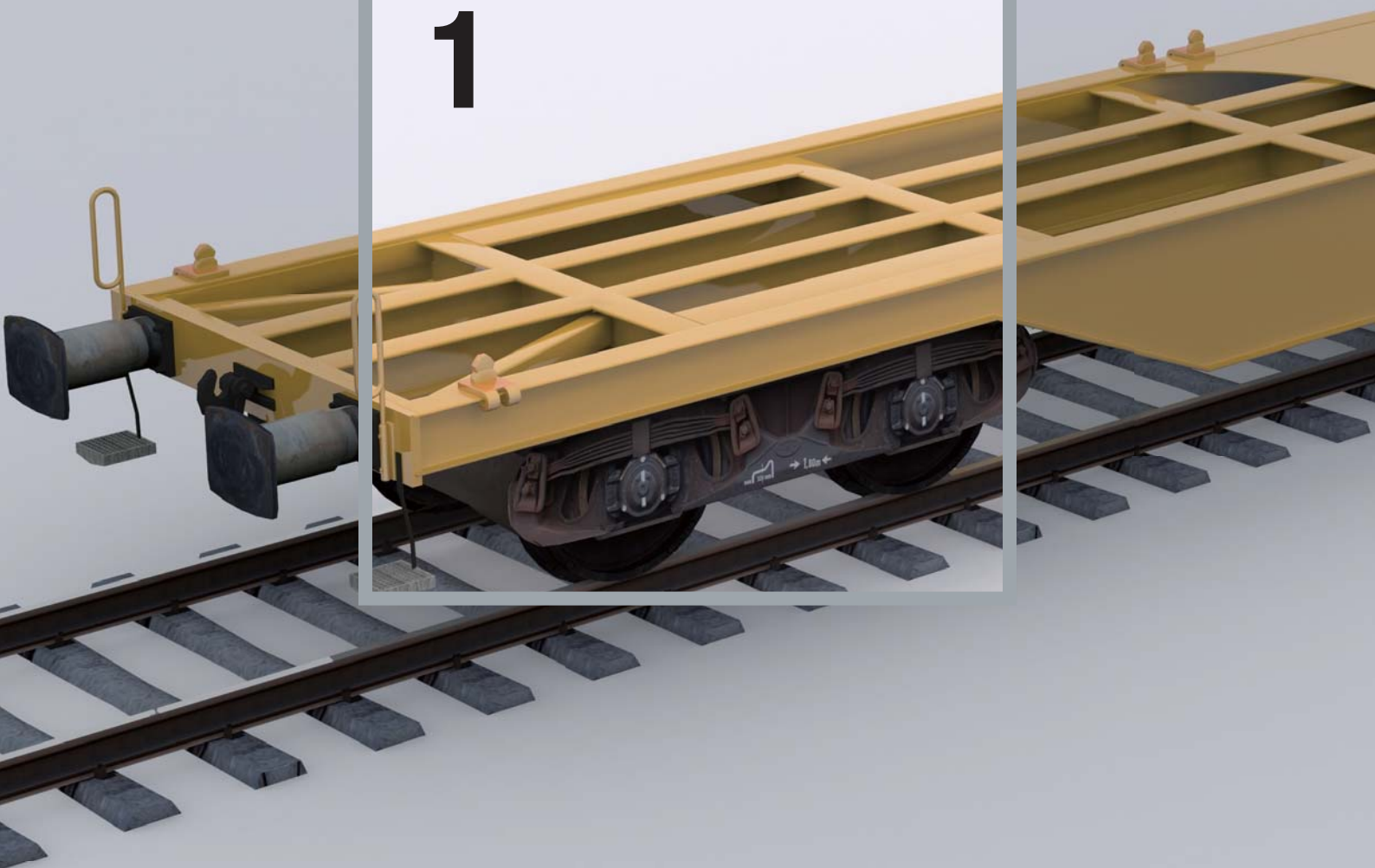
## Part 3 Product Details

1	Turning	028
2	Milling	030
3	Drilling	033

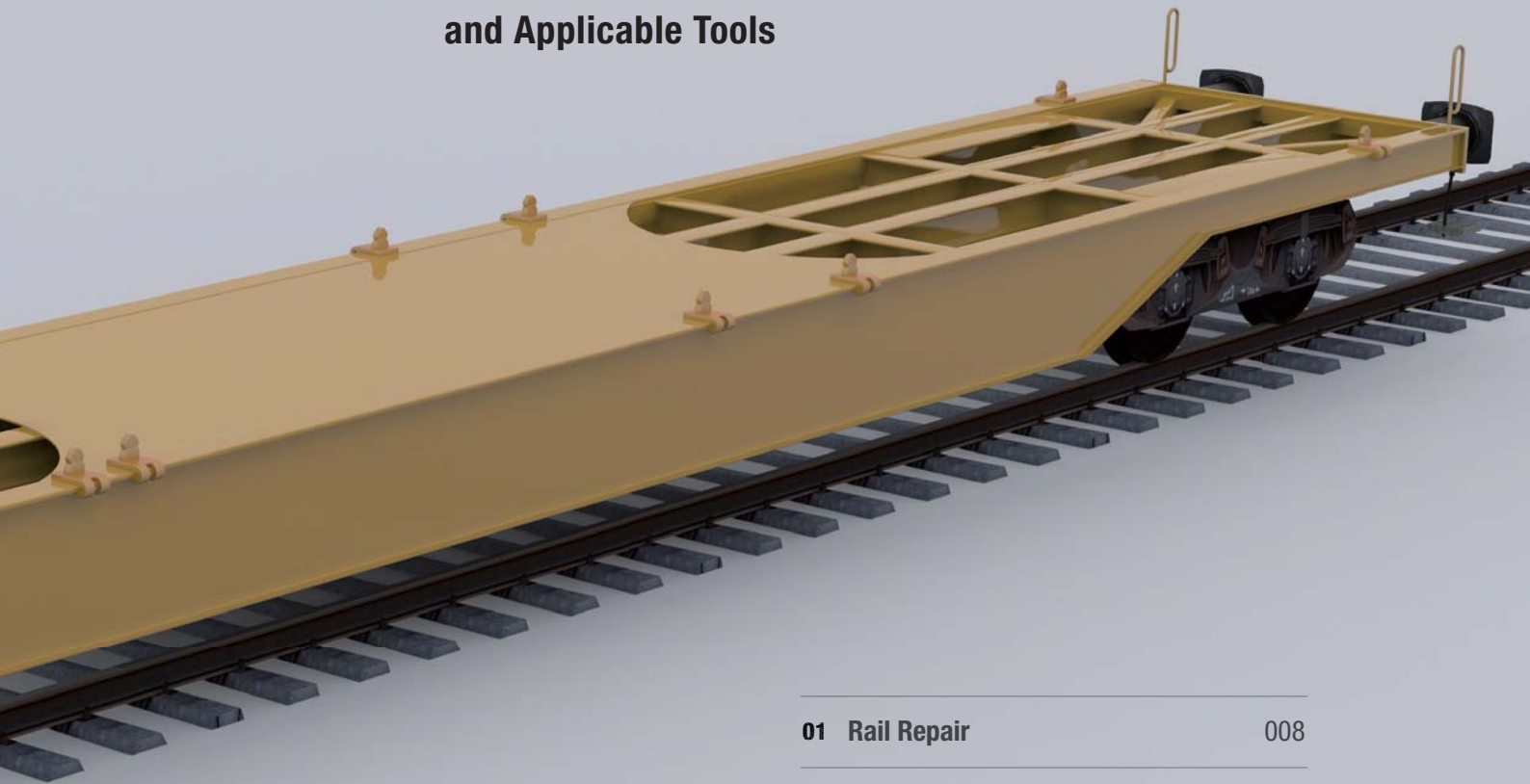


**RAILWAY INDUSTRY**

# Part 1

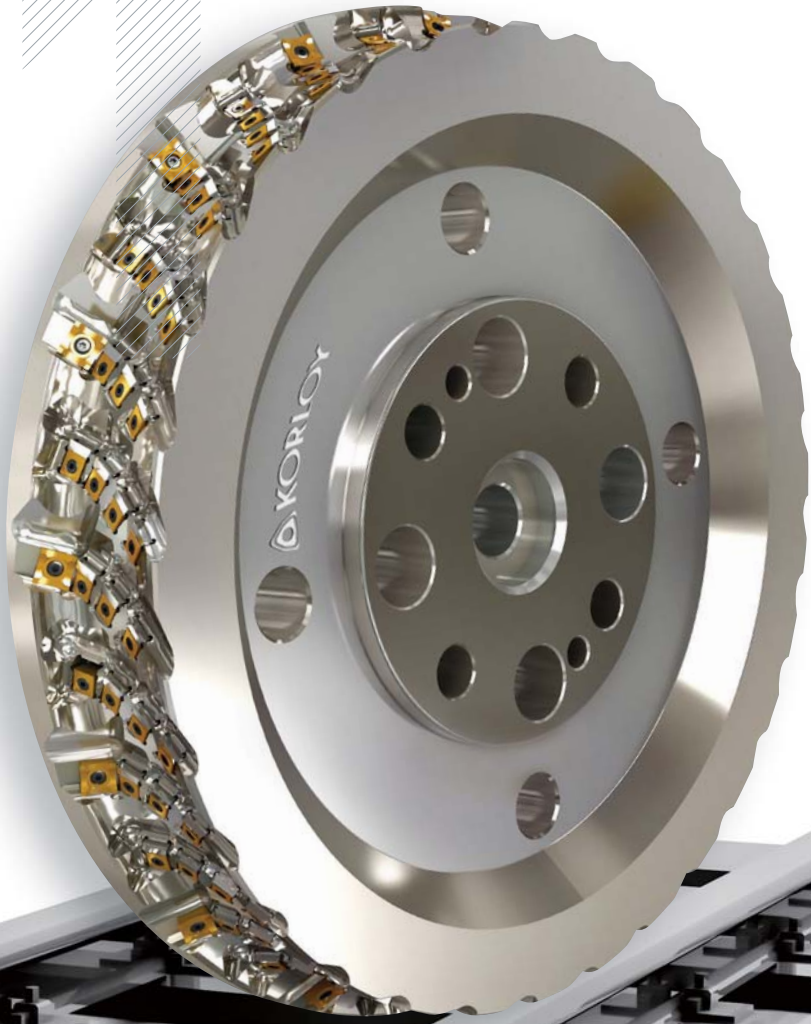
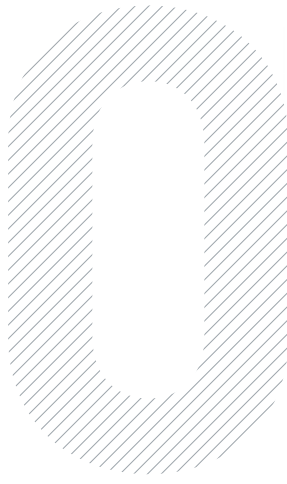


## Railway Structural Components and Applicable Tools



<b>01</b>	<b>Rail Repair</b>	008
<b>02</b>	<b>Axle</b>	010
<b>03</b>	<b>Wheel</b>	012
<b>04</b>	<b>Rail &amp; Crossing</b>	014
<b>05</b>	<b>Wheel Repair</b>	016
<b>06</b>	<b>Bogie</b>	018

# Rail Repair



## 01 Cutter for Rail Repair

<Wedge type(60KgK-SMRP-RW)>

The number of edges : 128

Cutters for repairing the shape of rail with abnormal wear





## 02 Cutter for Rail Repair

<Screw on type(60KgK-SMRP-RS01)>

The number of edges : 198

Cutters for repairing the shape of rail with abnormal wear

# Axle

## 01 Inserts for Heavy Duty Machining

<CNMM>

[ External / Profile ]

Turning for heavy duty machining

⇒ Application Example: P.21~23

⇒ Product Details: P.28



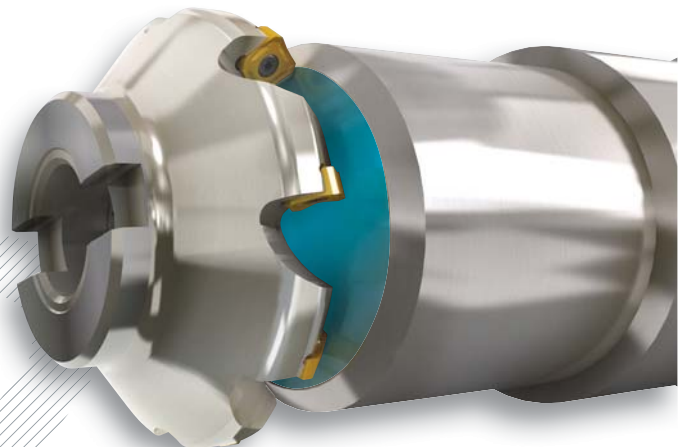
## 02 Rich Mill

<RM8>

[ External / Profile ]

Roughing and finishing for top surface facing

⇒ Product Details: P.32





### 03 Holders

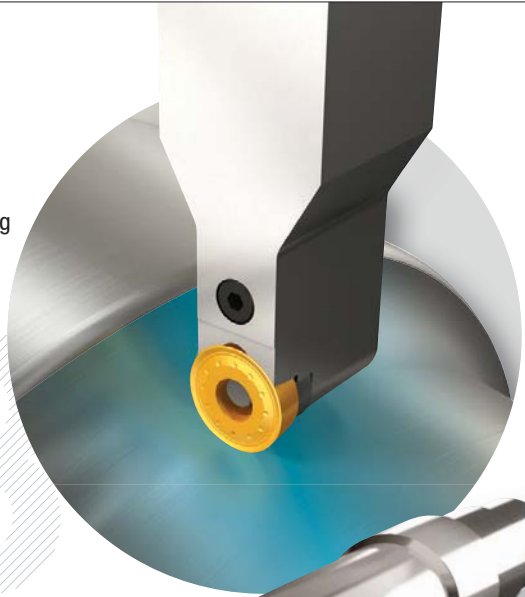
<PRDCN(RCMX)>

[ External / Profile ]

Turning for heavy duty machining

➔ Application Example: P.21~23

➔ Product Details: P.29



### 04 TPDC Plus Drill

[ Hole Making ]

➔ Application Example: P.23

➔ Product Details: P.35~36



### 05 Inserts for Heavy Duty Machining

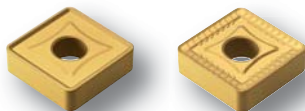
<SNMM>

[ External / Profile ]

Turning for heavy duty machining

➔ Application Example: P.21~23

➔ Product Details: P.28



< SNMM type >



# Wheel

## 01 LNUX Insert for Rail Way Wheel

<LNUX>

[ External / Profile-Finishing ]

⇒ Application Example: P.23~24

⇒ Product Details: P.29



< LNUX type >



## 02 Holders

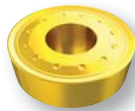
<PRDCN(RCMX)>

[ Wheel External / Profile ]

Turning for heavy duty machining

⇒ Application Example: P.23~24

⇒ Product Details: P.29



< RCMX type >





### 03 Inserts for Heavy Duty Machining

<SNMM/CNMM>

[ External / Profile ]

Turning for heavy duty machining

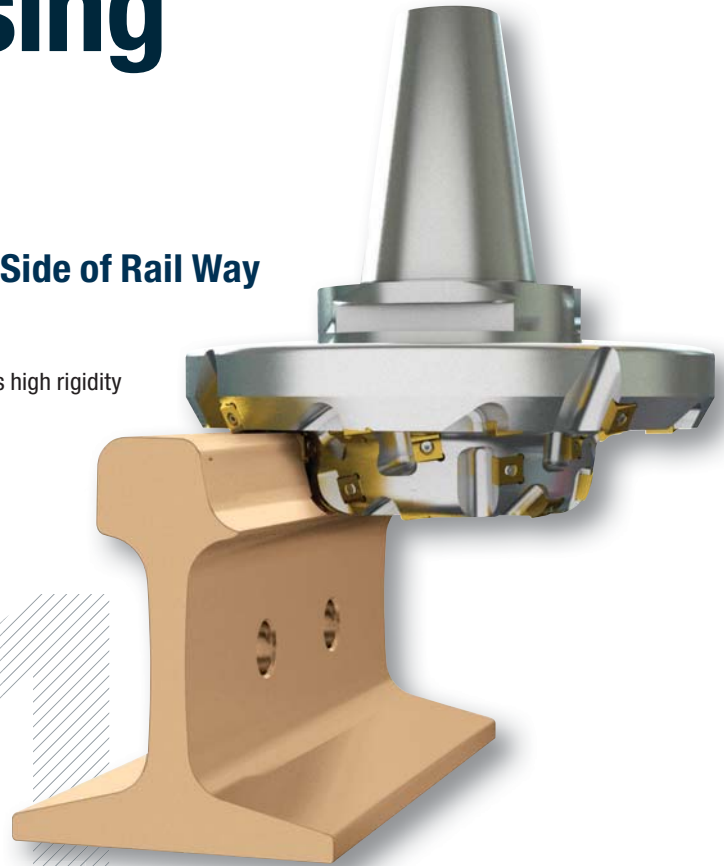
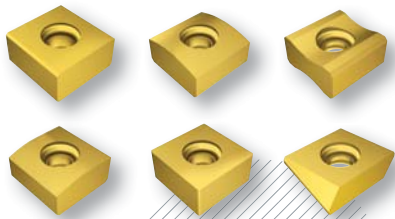
➔ Application Example: P.23~24

➔ Product Details: P.28

# Rail & Crossing

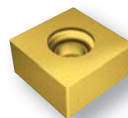
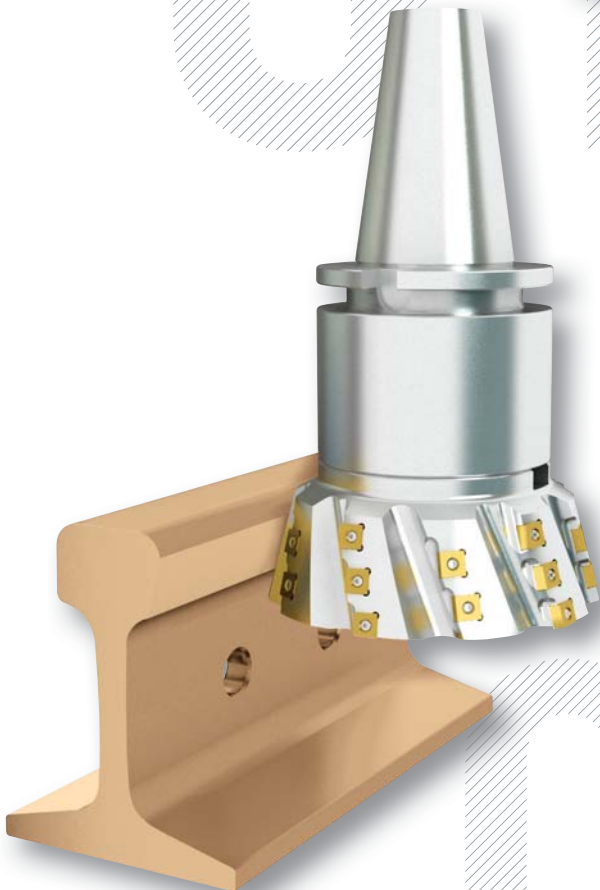
## 01 Forming Cutter for the Top Side of Rail Way

- Cutter diameter:  $\varnothing 300(\text{mm})$
- Number of tooth: 33
- One body design of cutter and arbor provides high rigidity



## 02 Periphery Face Milling for the Top Side of Rail Way

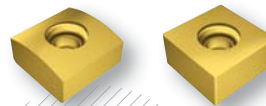
- Cutter diameter:  $\varnothing 240(\text{mm})$
- Number of tooth: 25





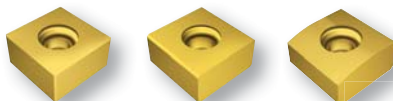
### 03 Forming Cutter for the Top Side of Rail Way

- Cutter diameter:  $\varnothing 160(\text{mm})$
- Number of tooth: 16
- Precise forming of rail way is possible



### 04 Rail Separator Joint Face Milling Cutter

- Cutter diameter:  $\varnothing 160(\text{mm})$
- Number of tooth: 54
- Special customizing is available upon customer's requests



# Wheel Repair

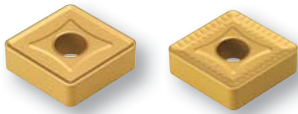
## 01 Inserts for Heavy Duty Machining

<SNMM/CNMM>

[ External / Profile ]

Turning for heavy duty machining

⇒ Product Details: P.28



< SNMM/CNMM type >



## 02 LNUX Insert for Wheel Repair

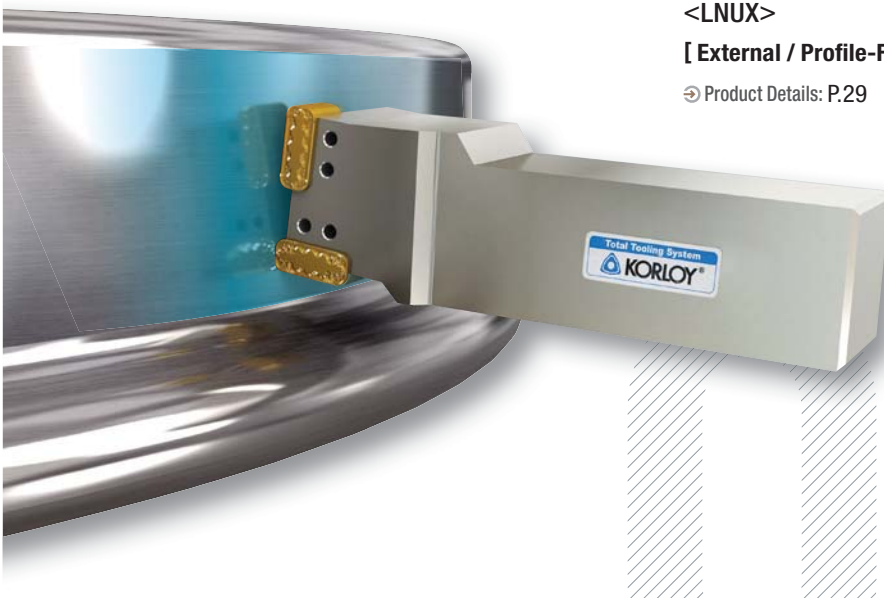
<LNUX>

[ External / Profile-Finishing ]

⇒ Product Details: P.29



< LNUX type >







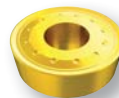
**03 Holders**

<PRDCN(RCMX)>

[ External / Profile ]

Turning for heavy duty machining

➔ Product Details: P.29



< RCMX type >

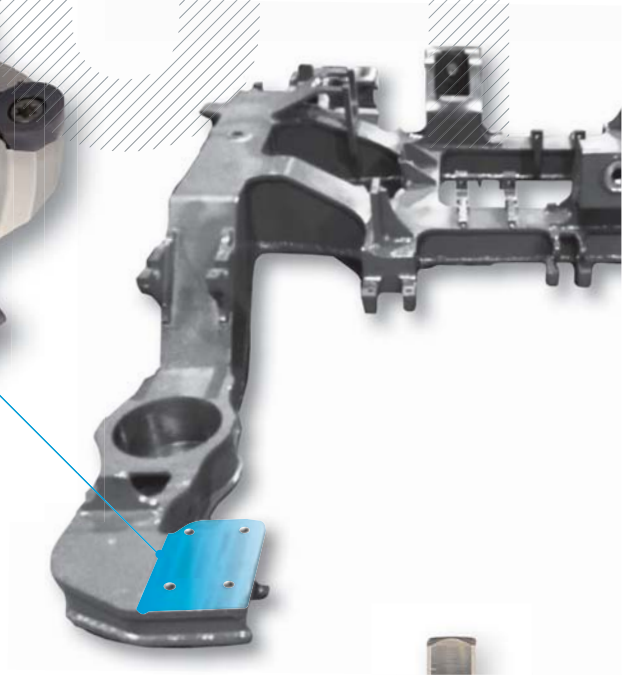
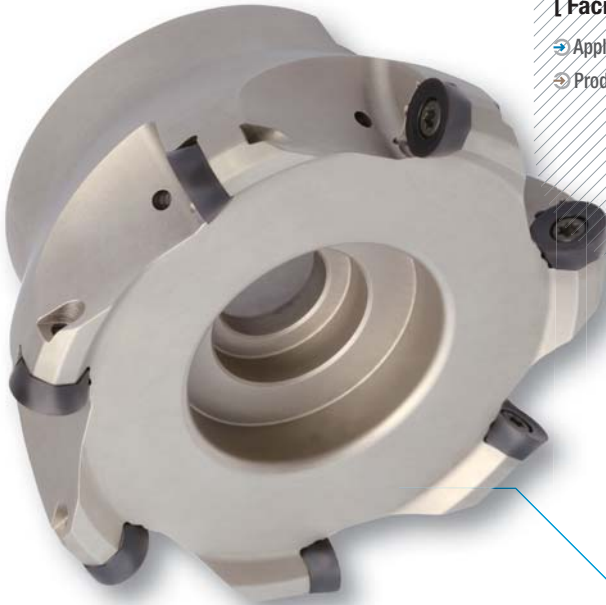
# Bogie

## 01 FMR

[ Facing ]

⇒ Application Example: P.26

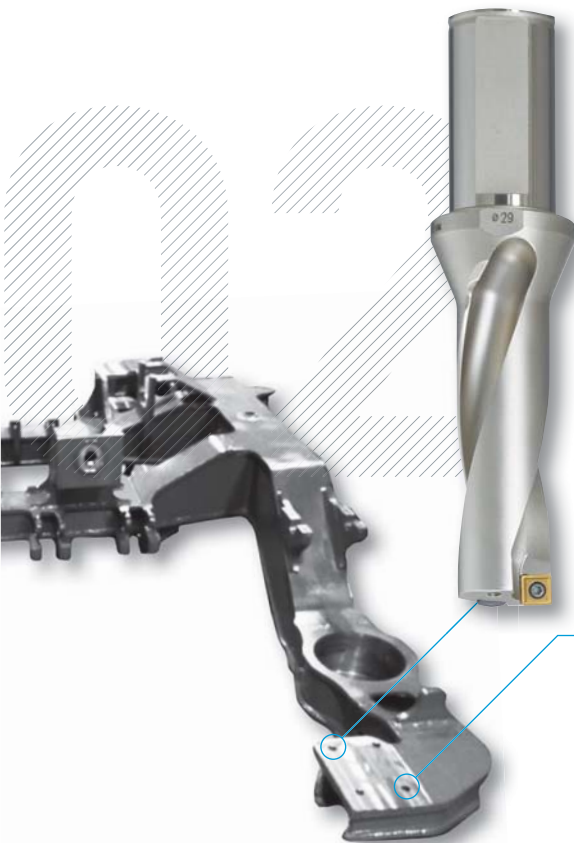
⇒ Product Details: P.32



## 02 King Drill

[ Hole Making ]

⇒ Product Details: P.33~34



## 03 Tap Series

[ Tapping ]

⇒ Application Example: P.25~26





RAILWAY INDUSTRY

# Part 2

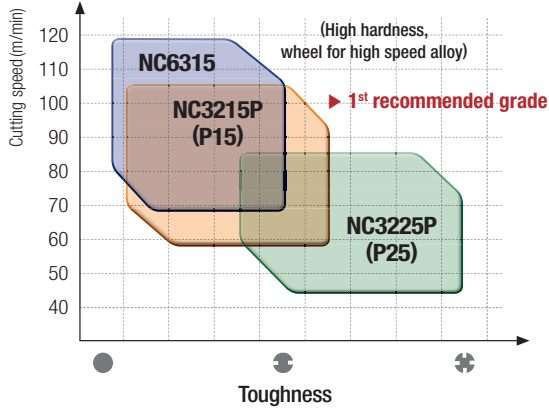
## Application Example

01	Grade & Chip Breaker	020
02	Application Example for Axle	021
03	Application Example for Wheel	023
04	Application Example for Bogie	022

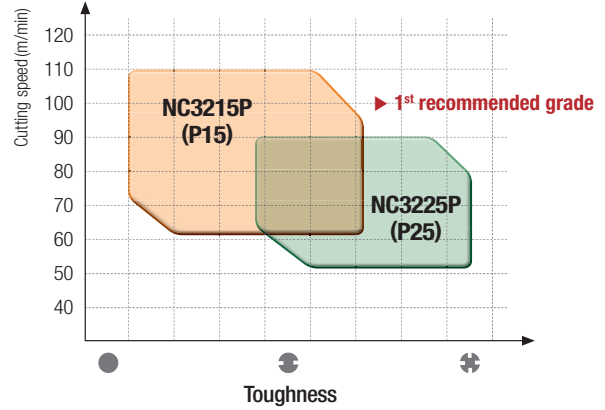
# Grade & Chip Breaker

## Line-up for grades of new and repaired railway wheel

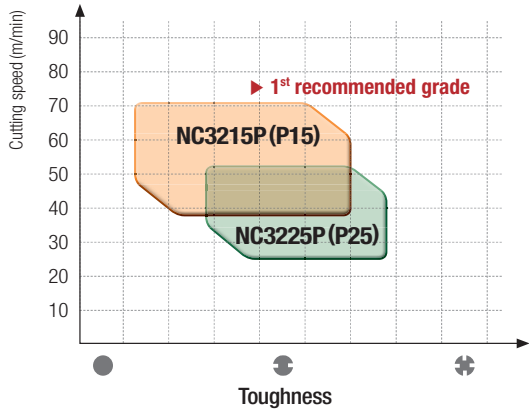
New grade line-up for wheel



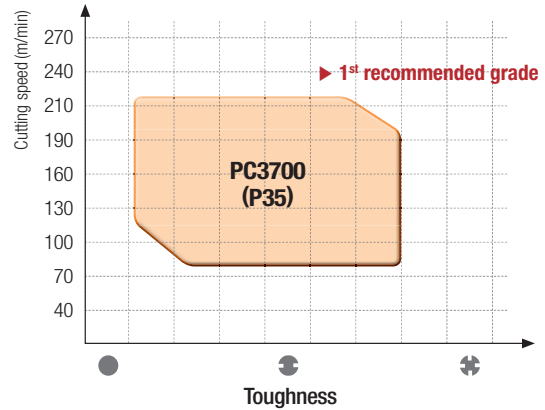
Grade line-up for axle



Grade line-up for repaired wheel

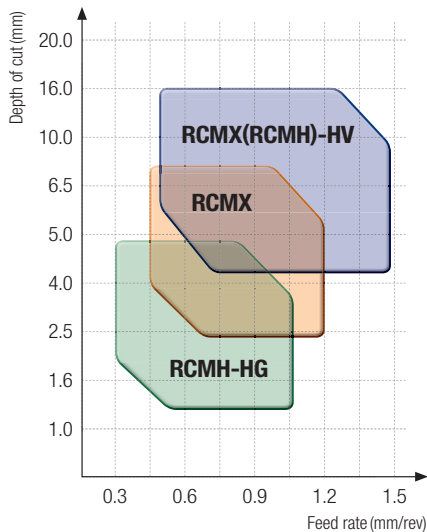


Grade line-up for railway machining

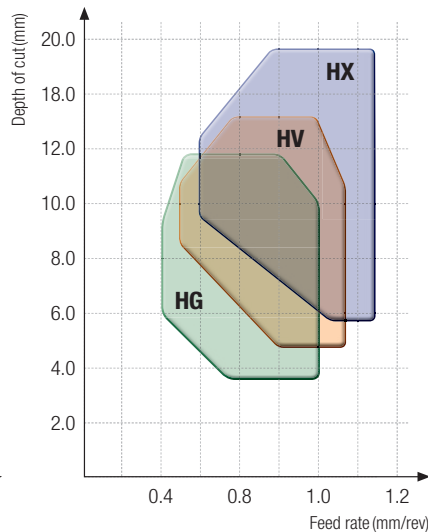


## Chip breaker line-up for new and repaired railway wheel

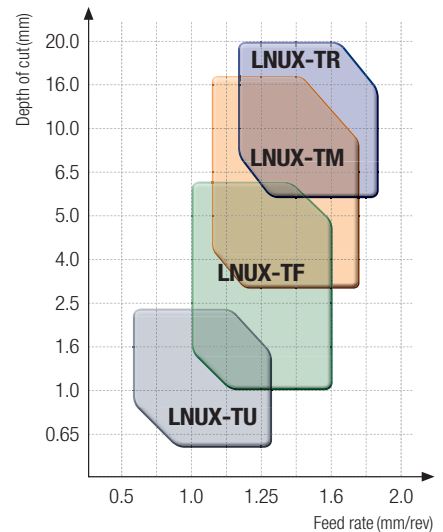
New wheel machining / R type (25, 32)



New wheel and axle machining / C, SNMM (19, 25)



Repaired wheel LNUX (19, 30)





# Axle

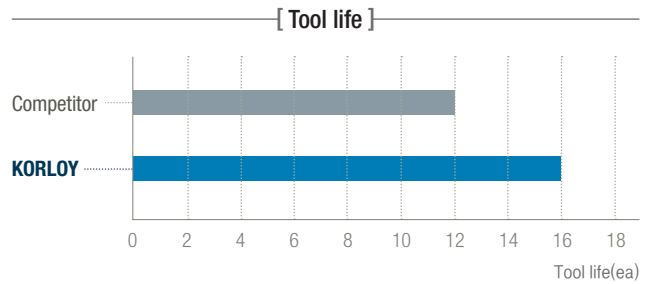
Application Example 1



### Cutting conditions

Insert	SNMM250724-HV
Grade	NC3225P
Workpiece	45C
Cutting speed	vc = 160 ~ 180 (m/min)
Feed	fn = 0.7 ~ 1.1 (mm/rev)
Depth of cut	ap = 5 ~ 20 (mm)
Coolant	Wet

Maker	KORLOY	Competitor
SNMM250724	16ea	12ea



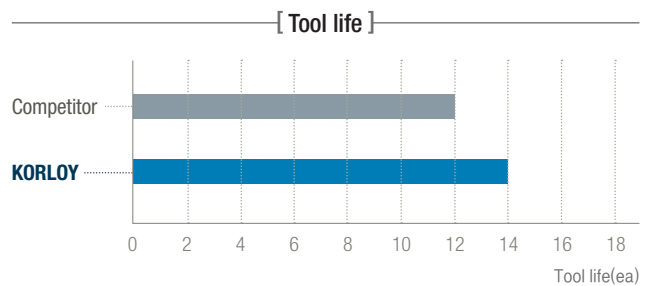
Application Example 2



### Cutting conditions

Insert	CNMG120408-CP
Grade	NC3215P
Workpiece	45C
Cutting speed	vc = 230 (m/min)
Feed	fn = 0.27 (mm/rev)
Depth of cut	ap = 1.5 (mm)
Coolant	Wet

Maker	KORLOY	Competitor
CNMG120408	14ea	12ea



# Axle

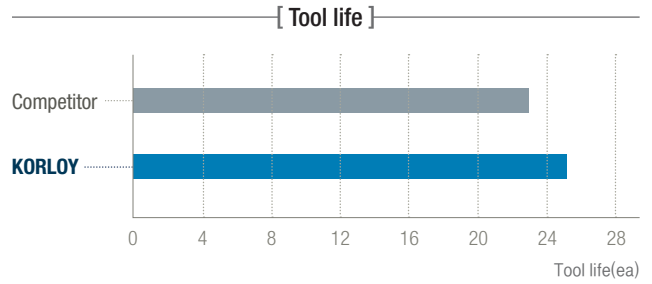
Application Example 3



### Cutting conditions

Insert	CNMG120408-CP
Grade	NC3215P
Workpiece	45C
Cutting speed	vc = 84 (m/min)
Feed	fn = 0.6 (mm/rev)
Depth of cut	ap = 4.4 (mm)
Coolant	Wet

Maker	KORLOY	Competitor
CNMG120408	25ea	23ea



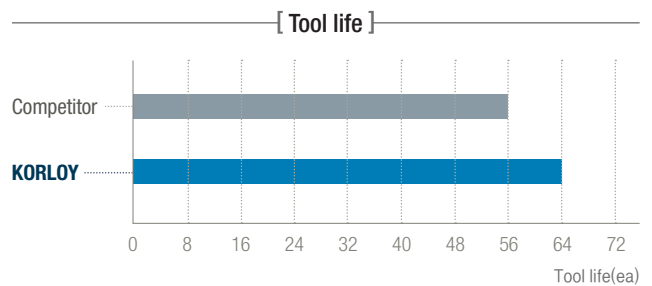
Application Example 4



### Cutting conditions

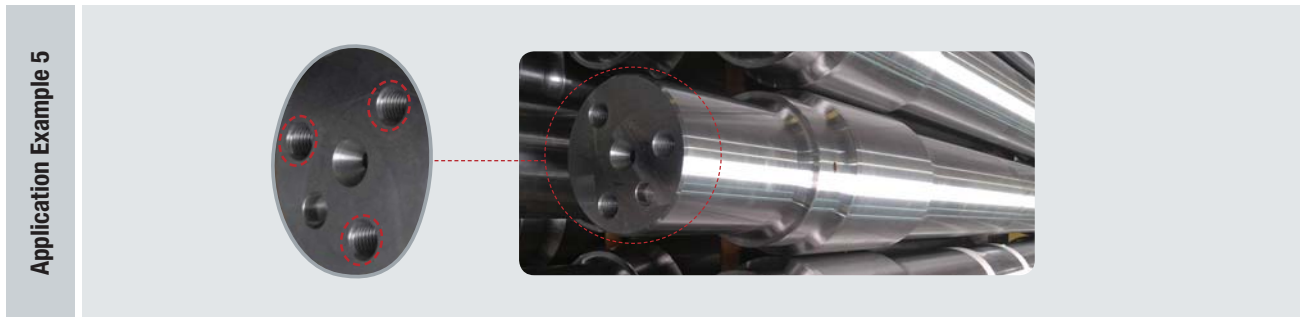
Insert	SNMM250924-HG
Grade	NC3215P
Workpiece	45C
Cutting speed	vc = 176 (m/min)
Feed	fn = 0.2 (mm/rev)
Depth of cut	ap = 8 ~ 12 (mm)
Coolant	Wet

Maker	KORLOY	Competitor
SNMM250924	64ea	56ea



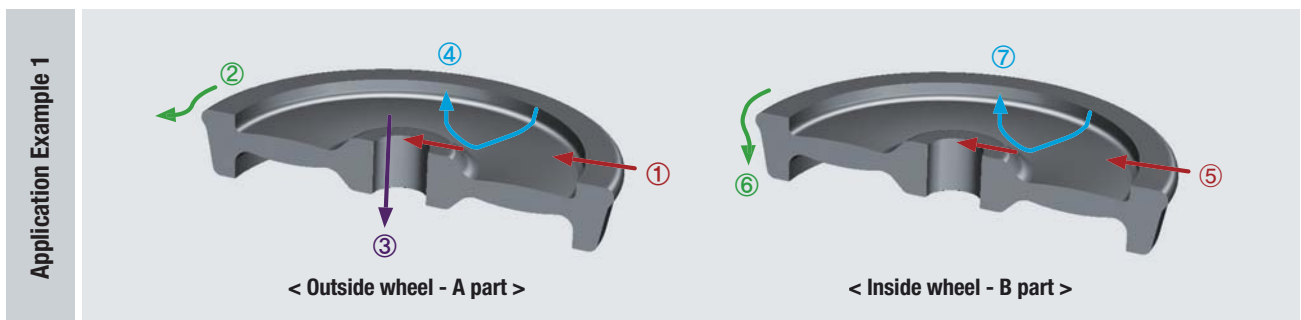


# Axle



Cutting conditions				
Holder	TPDC3D-21025-63	Maker	KORLOY	Competitor
Insert	TPD2100CP	Drill(Corn type)	Noise / Vibration decrease → get order	Not good Noise / Vibration
Grade	PC5335			
Workpiece	45C			
Cutting speed	vc = 62 (m/min)			
Feed	fn = 0.3 (mm/rev)			
Depth of cut	ap = 12 (mm), Closed hole			
Coolant	Wet			

# Wheel



Cutting conditions							
Insert	SNMM250724-HX ①/②/④ SNMM250724-HG ③	Maker	KORLOY	A Co.	B Co.	C Co.	
Grade	NC3215P(1 <sup>st</sup> ), NC6315P(2 <sup>nd</sup> )	RCMH3209M0	A Part	19ea	19ea	15ea	19ea
Workpiece	High carbon steel rolling wheel		B Part	19ea	19ea	15ea	19ea
Cutting speed	vc = 100 (m/min)		Normal	19(100%)	19(100%)	15(79%)	19(100%)
Feed	fn = 1.0 ~ 1.5 (mm/rev)	SNMM250724	A Part	20(200%)	16(80%)	-	8(80%)
Depth of cut	ap = 2 (mm)						
Coolant	Wet						

# Wheel

Application Example 2



### Cutting conditions

Insert	SNMM250724-HV
Grade	NC3215P(1 <sup>st</sup> ), NC6315P(2 <sup>nd</sup> )
Workpiece	High carbon steel rolling wheel
Cutting speed	vc = 150 (m/min)
Feed	fn = 1.1 (mm/rev)
Depth of cut	ap = 6 ~ 7 (mm)
Coolant	Air

Maker	KORLOY	Competitor
SNMM250724	Excellent chip evacuation	Not good chip evacuation

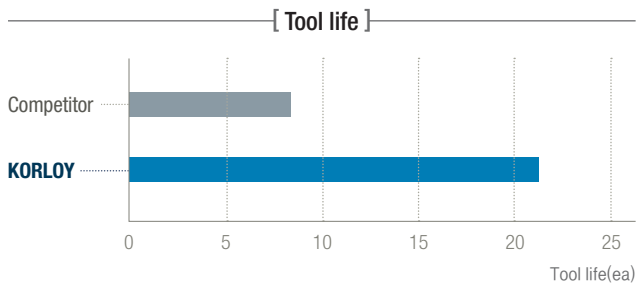
Application Example 3



### Cutting conditions

Insert	RCMX2507M0
Grade	NC3215P(1 <sup>st</sup> ), NC3225P(2 <sup>nd</sup> )
Workpiece	Carbon Steel
Cutting speed	vc = 90 (m/min)
Feed	fn = 1.2 ~ 1.4 (mm/rev)
Depth of cut	ap = 3 ~ 8 (mm)
Coolant	Wet

Maker	KORLOY	Competitor
RCMX2507M0	21ea	8ea







# Bogie

Application Example 1

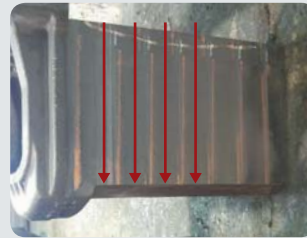


### Cutting conditions

Holder	<b>AMCM4085HM-5Z76-CH</b>
Insert	Internal <b>APMT180650R-MM</b>
	External <b>APMT1806PDSR-MM</b>
Grade	<b>PC3545</b>
Workpiece	Beam Bolster(SCMn1 - Cast Steel)
Cutting speed	vc = 158 (m/min)
Feed	fz = 0.37 (mm/t)
No. of tooth	25(5F*5T)
Depth of cut	ap = 40 (mm), ae = 3 (mm)
Coolant	Wet

Maker	<b>KORLOY</b>	Competitor
<b>Milling</b> Multi type (Good machinability)	Noise / Vibration decrease → get order	Not good Noise / Vibration

Application Example 2



### Cutting conditions

Holder	<b>AMCM4080HM-5Z61-CH</b>
Insert	<b>APMT1806PDSR-MM</b>
Grade	<b>PC3545</b>
Workpiece	Front Support(SCMn1 - Cast Steel)
Cutting speed	vc = 158 (m/min)
Feed	fz = 0.37 (mm/t)
No. of tooth	20(5F*4T)
Depth of cut	ap = 40 (mm), ae = 3 (mm)
Coolant	Wet

Maker	<b>KORLOY</b>	Competitor
<b>Milling</b> Multi type (Chip removal amount)	56,264cm <sup>3</sup> 28ea	50,200cm <sup>3</sup> 25ea

# Bogie

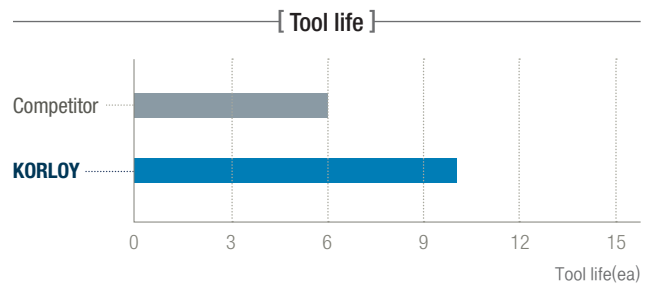
Application Example 3



### Cutting conditions

Holder	FMRCM6080HRX-5-CH
Insert	RPMX2007M0S-MM
Grade	NCM535(1 <sup>st</sup> ), NCM545(2 <sup>nd</sup> )
Workpiece	Front Support(SCMn1 - Cast Steel)
Cutting speed	vc = 160.8 (m/min)
Feed	fz = 0.63 (mm/t)
No. of tooth	5
Depth of cut	ap = 3 (mm), ae = 0.8D
Coolant	Wet

Maker	KORLOY	Competitor
Round (Chip removal amount)	13,650cm <sup>3</sup> 10ea	8,370cm <sup>3</sup> 6ea





RAILWAY INDUSTRY

# Part 3

## Product Details

01	Turning	028
02	Milling	030
03	Drilling	033

# Turning

Picture	Designation	Coated			Dimensions(mm)					Cutting condition		Geometries
		NC6315	NC3215P	NC3225P	L	IC	S	RE	D1	fn (mm/rev)	ap (mm)	
	<b>CNMM</b> 190612-HG				19.344	19.05	6.35	1.2	7.93	0.30~0.90	3.0~10.0	
	190616-HG				19.344	19.05	6.35	1.6	7.93	0.35~0.95	3.0~10.0	
	190624-HG				19.344	19.05	6.35	2.4	7.93	0.40~1.00	3.0~10.0	
	250924-HG				25.792	25.4	7.94	2.4	9.12	0.40~1.20	3.5~13.0	
	250932-HG				25.792	25.4	7.94	3.2	9.12	0.50~1.20	3.5~13.0	
	<b>CNMM</b> 190616-HV				19.344	19.05	6.35	1.6	7.93	0.45~1.05	4.0~11.0	
	190624-HV				19.344	19.05	6.35	2.4	7.93	0.50~1.10	4.0~11.0	
	250924-HV				25.792	25.4	7.94	2.4	9.12	0.50~1.40	4.0~15.0	
	<b>CNMM</b> 190616-HX				19.344	19.05	6.35	1.6	7.93	0.55~1.10	4.5~15.0	
	190624-HX				19.344	19.05	6.35	2.4	7.93	0.60~1.20	4.5~15.0	
	250924-HX				25.792	25.4	7.94	2.4	9.12	0.60~1.50	4.5~18.0	
	<b>SNMM</b> 190612-HG				19.05	19.05	6.35	1.2	7.93	0.30~0.90	3.0~10.0	
	190616-HG				19.05	19.05	6.35	1.6	7.93	0.35~0.95	3.0~10.0	
	190624-HG				19.05	19.05	6.35	2.4	7.93	0.40~1.00	3.0~10.0	
	250924-HG				25.4	25.4	7.94	2.4	9.12	0.40~1.20	3.5~13.0	
	250932-HG				25.4	25.4	7.94	3.2	9.12	0.50~1.20	3.5~13.0	
	<b>SNMM</b> 190616-HV				19.05	19.05	6.35	1.6	7.93	0.45~1.05	4.0~11.0	
	190624-HV				19.05	19.05	6.35	2.4	7.93	0.50~1.10	4.0~11.0	
	250724-HV				25.4	25.4	6.35	2.4	9.12	0.50~1.40	4.0~15.0	
	250924-HV				25.4	25.4	7.94	2.4	9.12	0.50~1.40	4.0~15.0	
	<b>SNMM</b> 190616-HX				19.05	19.05	6.35	1.6	7.93	0.55~1.10	4.5~15.0	
	190624-HX				19.05	19.05	6.35	2.4	7.93	0.60~1.20	4.5~15.0	
	250924-HX				25.4	25.4	7.94	2.4	9.12	0.60~1.50	4.5~18.0	

● : Stock item



# Turning


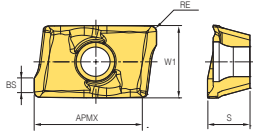

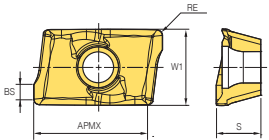

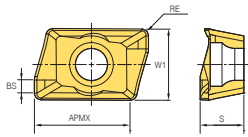
Picture	Designation	Coated			Dimensions (mm)					Cutting condition		Geometries
		NC6315	NC3215P	NC3225P	L	W	S	RE	D1	fn (mm/rev)	ap (mm)	
	<b>LNUX</b> 191940-TU				19.0	19.0	19.2	4.0	6.35	0.5~1.0	1.0~8.0	
	301940-TU				30.0	19.0	19.2	4.0	6.35	0.5~1.0	1.0~18.0	
	<b>LNUX</b> 191940-TF				19.0	19.0	19.2	4.0	6.35	0.6~1.1	1.5~9.0	
	301940-TF				30.0	19.0	19.2	4.0	6.35	0.6~1.1	1.5~19.0	
	<b>LNUX</b> 191940-TM				19.0	19.0	19.2	4.0	6.35	0.7~1.2	2.0~10.0	
	301940-TM				30.0	19.0	19.2	4.0	6.35	0.7~1.2	2.5~20.0	
	<b>LNUX</b> 191940-TR				19.0	19.0	19.2	4.0	6.35	0.8~1.3	2.0~12.0	
	301940-TR				30.0	19.0	19.2	4.0	6.35	0.8~1.3	2.5~22.0	

● : Stock item

Picture	Designation	Coated			Dimensions (mm)					Cutting condition		Geometries
		NC6315	NC3215P	NC3225P	L	IC	S	RE	D1	fn (mm/rev)	ap (mm)	
	<b>RCMX</b> 2507M0				-	25.0	7.94	-	7.25	0.15~1.15	4.0~12.0	
	3209M0				-	32.0	9.52	-	9.55	0.6~1.45	5.0~14.5	
	<b>RCMX</b> 2507M0-HV				-	25.0	7.94	-	7.25	0.55~1.2	4.5~12.5	
	3209M0-HV				-	32.0	9.52	-	9.55	0.65~1.5	5.5~15.5	
	<b>RCMH</b> 2507M0-HG				-	25.0	7.94	-	7.5	0.45~1.1	3.5~11.5	
	3209M0-HG				-	32.0	9.52	-	10.3	0.55~1.4	4.5~14.0	
	<b>RCMH</b> 2507M0-HV				-	25.0	7.94	-	7.5	0.55~1.2	4.5~12.5	
	3209M0-HV				-	32.0	9.52	-	10.3	0.65~1.5	5.5~15.5	

● : Stock item


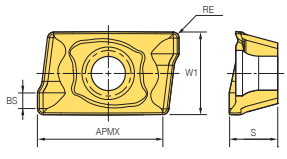

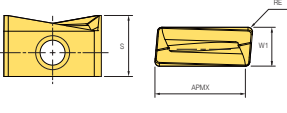
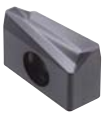
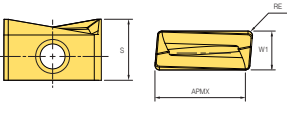
# Milling

Inserts	Designation	Coated			Dimensions (mm)					Geometries
		PC3545	PC5300	PC5400	W1	S	RE	BS	APMX	
	APMT	11T3PDSR-MF	●		6.467	3.6	0.5	1.2	11.2	
		1604PDSR-MF	●		9.41	5.76	0.8	1.1	16.4	
		1806PDSR-MF	●		10.98	6.35	0.8	2.2	17.4	
		180612PDSR-MF	●		10.98	6.35	1.2	1.8	17.4	
	APMT	0903PDER-ML	●		6.21	3.6	0.4	-	9.4	
		090308PDER-ML	●		6.21	3.6	0.8	-	9.4	
		11T3PDER-ML	●		6.467	3.6	0.5	-	11.2	
		11T308PDER-ML	●		6.467	3.6	0.8	-	11.2	
		160404PDER-ML	●		9.41	5.76	0.4	-	16.4	
		1604PDER-ML	●		9.41	5.76	0.8	-	16.4	
		180604PDER-ML	●		10.98	6.35	0.4	-	17.4	
		1806PDER-ML	●		10.98	6.35	0.8	-	17.4	
		180612PDER-ML	●		10.98	6.35	1.2	-	17.4	
		180616PDER-ML	●		10.98	6.35	1.6	-	17.4	
		180620PDER-ML	●		10.98	6.35	2.0	-	17.4	
		180624PDER-ML	●		10.98	6.35	2.4	-	17.4	
		180630R-ML	●		10.98	6.35	3.0	-	17.4	
	APMT	060202PDSR-MM	●		4.24	2.6	0.2	1.1	6.0	
		0602PDSR-MM	●		4.24	2.6	0.4	0.9	6.0	
		060208PDSR-MM	●		4.24	2.6	0.8	0.5	6.0	
		060212R-MM	●		4.24	2.6	1.2	0.1	6.0	
		060216R-MM	●		4.24	2.6	1.6	-	6.0	
		0903PDSR-MM	●		6.21	3.6	0.4	0.9	9.4	
		090308PDSR-MM	●		6.21	3.6	0.8	0.5	9.4	
		090312R-MM	●		6.21	3.6	1.2	-	9.4	
		090316R-MM	●		6.21	3.6	1.6	-	9.4	
		090320R-MM	●		6.21	3.6	2.0	-	9.2	
		090332R-MM	●		6.21	3.6	3.2	-	9.2	
		11T3PDSR-MM	●		6.467	3.6	0.5	1.2	11.2	
		11T308PDSR-MM	●		6.467	3.6	0.8	0.9	11.2	
		11T312PDSR-MM	●		6.467	3.6	1.2	0.5	11.2	
		11T316R-MM	●		6.467	3.6	1.6	-	11.0	
		11T318R-MM	●		6.467	3.6	1.8	-	11.0	
		11T324R-MM	●		6.467	3.6	2.4	-	11.0	

● : Stock item


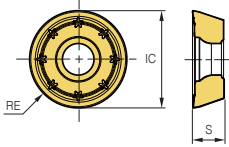

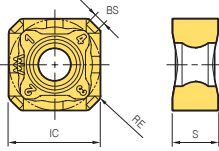

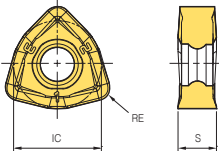

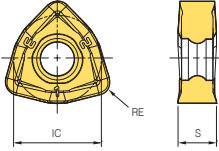
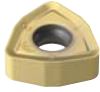
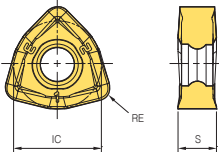


# Milling

Inserts	Designation	Coated			Dimensions (mm)					Geometries
		PC3545	PC5300	PC5400	W1	S	RE	BS	APMX	
<b>APMT-MM</b> 	<b>APMT</b>	160404PDSR-MM	●		9.41	5.76	0.4	1.1	16.4	
		1604PDSR-MM	●		9.41	5.76	0.8	1.1	16.4	
		160410PDSR-MM	●		9.41	5.76	1.0	0.9	16.4	
		160416PDSR-MM	●		9.41	5.76	1.6	0.3	16.4	
		160420R-MM			9.41	5.76	2.0	4.5	16.4	
		160424R-MM	●		9.41	5.76	2.4	-	16.0	
		160430R-MM	●		9.41	5.76	3.0	-	16.0	
		160432R-MM	●		9.41	5.76	3.2	-	16.0	
		160450R-MM	●		9.41	5.76	5.0	-	16.0	
		160464R-MM	●		9.41	5.76	6.4	-	16.0	
		1806PDSR-MM	●		10.98	6.35	0.8	2.2	18.7	
		180612PDSR-MM	●		10.98	6.35	1.2	1.8	17.4	
		180616PDSR-MM	●		10.98	6.35	1.6	1.4	17.4	
		180620PDSR-MM			10.98	6.35	2.0	1.0	17.4	
		180624PDSR-MM	●		10.98	6.35	2.4	0.6	17.4	
		180630R-MM	●		10.98	6.35	3.0	-	16.7	
		180632R-MM	●		10.98	6.35	3.2	-	16.7	
		180640R-MM	●		10.98	6.35	4.0	-	16.7	
		180648R-MM	●		10.98	6.35	4.8	-	16.7	
		180650R-MM	●		10.98	6.35	5.0	-	16.7	
	180660R-MM			10.98	6.35	6.0	-	16.7		
	180664R-MM	●		10.98	6.35	6.4	-	16.7		
<b>LNKT-ML</b> 	<b>LNKT</b>	080404PNR-ML			-	6.6	0.4	1.117	8.0	
		080408PNR-ML			-	6.6	0.8	0.717	8.0	
		080412PNR-ML			-	6.6	1.2		8.0	
		080416PNR-ML			-	6.6	1.6		8.0	
		140604PNR-ML			-	10.0	0.4		12.7	
		140608PNR-ML			-	10.0	0.8	1.1273	12.7	
		140612PNR-ML			-	10.0	1.2		12.7	
		140616PNR-ML			-	10.0	1.6		12.7	
		170704PNR-ML			-	11.0	0.4	1.332	16.5	
		170708PNR-ML			-	11.0	0.8	0.932	16.5	
		170712PNR-ML			-	11.0	1.2	0.532	16.5	
		170716PNR-ML			-	11.0	1.6	0.132	16.5	
		170720PNR-ML			-	11.0	2.0	0	16.5	
<b>LNKT-MM</b> 	<b>LNKT</b>	080404PNR-MM			-	6.6	0.4	1.117	8.0	
		080408PNR-MM			-	6.6	0.8	0.717	8.0	
		080412PNR-MM			-	6.6	1.2		8.0	
		080416PNR-MM			-	6.6	1.6		8.0	
		140604PNR-MM			-	10.0	0.4		12.7	
		140608PNR-MM			-	10.0	0.8	1.1273	12.7	
		140612PNR-MM			-	10.0	1.2		12.7	
		140616PNR-MM			-	10.0	1.6		12.7	
		170704PNR-MM			-	11.0	0.4	1.332	16.5	
		170708PNR-MM			-	11.0	0.8	0.932	16.5	
		170712PNR-MM			-	11.0	1.2	0.532	16.5	
		170716PNR-MM			-	11.0	1.6	0.132	16.5	
		170720PNR-MM			-	11.0	2.0		16.5	

● : Stock item

# Milling

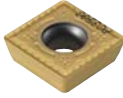
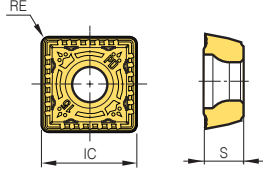

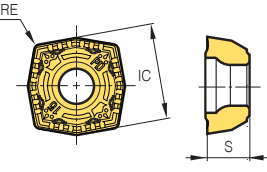

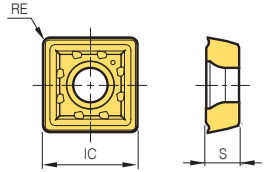

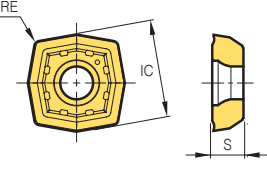
Inserts	Designation	Coated			Dimensions (mm)					Geometries
		PC3545	PC5300	PC5400	IC	S	RE	BS	APMX	
<b>RPMX-MM</b> 	<b>RPMX</b> 1605M0S-MM				16.0	5.6	-	-	-	
	2006M0S-MM				20.0	6.4	-	-	-	
<b>SNM(E)X-MM</b> 	<b>SNMX</b> 1206ANN-MM				12.7	6.35	0.8	1.56	6.0	
	1507ANN-MM				15.875	7.94	0.8	2.36	7.5	
	<b>SNEX</b> 1206ANN-MM				12.7	6.35	0.8	1.56	6.0	
	1507ANN-MM				15.875	7.94	0.8	2.36	7.5	
<b>WNMX-MF</b> 	<b>WNMX</b> 060312ZNN-MF		●		6.0	3.18	1.2	-	-	
	09T316ZNN-MF		●		9.0	3.97	1.6	-	-	
	130520ZNN-MF		●		13.0	5.56	2.0	-	-	
	160720ZNN-MF		●		16.0	7.0	2.0	-	-	
<b>WNMX-ML</b> 	<b>WNMX</b> 060312ZNN-ML		●		6.0	3.18	1.2	-	-	
	09T316ZNN-ML		●		9.0	3.97	1.6	-	-	
	130520ZNN-ML		●		13.0	5.56	2.0	-	-	
	160720ZNN-ML		●		16.0	7.00	2.0	-	-	
<b>WNMX-MM</b> 	<b>WNMX</b> 060312ZNN-MM		●		6.0	3.18	1.2	-	-	
	09T316ZNN-MM		●		9.0	3.97	1.6	-	-	
	130520ZNN-MM		●		13.0	5.56	2.0	-	-	
	160720ZNN-MM		●		16.0	7.00	2.0	-	-	

●: Stock item




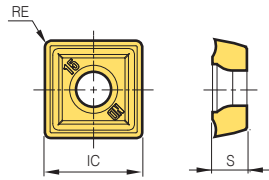



# Drilling

Inserts	Designation	Coated				Uncoated	Dimensions (mm)			Geometries
		PC5335	PC5300	PC3700	PC9540	H01	IC	S	RE	
[Peripheral] <b>SPMT-PD</b>  Universal	<b>SPMT</b>	040204-PD	●	●	●		4.7	2.4	0.4	
		050204-PD	●	●	●		5.1	2.4	0.4	
		060205-PD	●	●	●		6.2	2.5	0.5	
		07T208-PD	●	●	●		7.5	2.8	0.8	
		090308-PD	●	●	●		9.2	3.3	0.8	
		11T308-PD	●	●	●		11.0	4.0	0.8	
		130410-PD	●	●	●		13.0	4.5	1.0	
		15M510-PD	●	●	●		15.2	5.0	1.0	
		180510-PD	●	●	●		18.2	5.5	1.0	
[Central] <b>XOMT-PD</b>  Universal	<b>XOMT</b>	040204-PD		●	●		4.9	2.4	0.4	
		050204-PD		●	●		5.4	2.4	0.4	
		060204-PD		●	●		6.6	2.5	0.4	
		07T205-PD		●	●		7.8	2.8	0.5	
		090305-PD		●	●		9.6	3.3	0.5	
		11T306-PD		●	●		11.4	4.0	0.6	
		130406-PD		●	●		13.6	4.5	0.6	
		15M508-PD		●	●		15.9	5.0	0.8	
180508-PD		●	●		18.9	5.5	0.8			
[Peripheral] <b>SPMT-LD</b>  Mild steel	<b>SPMT</b>	060205-LD	●				6.2	2.5	0.5	
		07T208-LD	●				7.5	2.8	0.8	
		090308-LD	●				9.2	3.3	0.8	
		11T308-LD	●				11.0	4.0	0.8	
		130410-LD	●				13.0	4.5	1.0	
		15M510-LD	●				15.2	5.0	1.0	
		180510-LD	●				18.2	5.5	1.0	
[Central] <b>XOMT-LD</b>  Mild steel	<b>XOMT</b>	060204-LD	●				6.6	2.5	0.4	
		07T205-LD	●				7.8	2.8	0.5	
		090305-LD	●				9.6	3.3	0.5	
		11T306-LD	●				11.4	4.0	0.6	
		130406-LD	●				13.6	4.5	0.6	
		15M508-LD	●				15.9	5.0	0.8	
		180508-LD	●				18.9	5.5	0.8	

● : Stock item

# Drilling

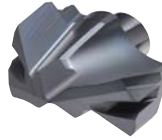
Inserts	Designation	Coated				Uncoated	Dimensions (mm)			Geometries
		PC5335	PC5300	PC3700	PC9540	H01	IC	S	RE	
[Peripheral] <b>SPET-ND</b>  Al	<b>SPET</b>	040204-ND				●	4.7	2.4	0.4	
	050204-ND				●	5.1	2.4	0.4		
	060205-ND				●	6.2	2.5	0.5		
	07T208-ND				●	7.5	2.8	0.8		
	090308-ND				●	9.2	3.3	0.8		
	11T308-ND				●	11.0	4.0	0.8		
	130410-ND				●	13.0	4.5	1.0		
	15M510-ND				●	15.2	5.0	1.0		
	180510-ND				●	18.2	5.5	1.0		
	[Central] <b>XOET-ND</b>  Al	<b>XOET</b>	040204-ND				●	4.9	2.4	
050204-ND					●	5.4	2.4	0.4		
060204-ND					●	6.6	2.5	0.4		
07T205-ND					●	7.8	2.8	0.5		
090305-ND					●	9.6	3.3	0.5		
11T306-ND					●	11.4	4.0	0.6		
130406-ND					●	13.6	4.5	0.6		
15M508-ND					●	15.9	5.0	0.8		
180508-ND					●	18.9	5.5	0.8		

● : Stock item

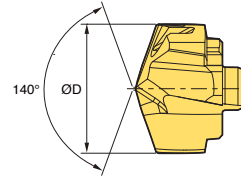
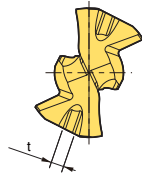


# Drilling

## TPDB Insert



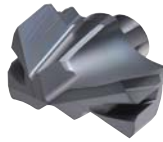
CP



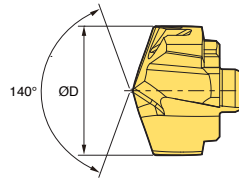
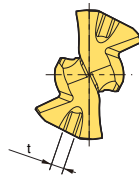
Drill dia. ØD (mm)	P type (CP) TPDC-P	Coated			Holder	Wrench
		PC5335	PC5300	PC330P		
12.0	TPD1200CP	●			TPDC□D-12016-□	TPDC- W1216
12.2	TPD1220CP	●				
12.5	TPD1250CP	●				
12.6	TPD1260CP	●				
13.0	TPD1300CP	●				
13.5	TPD1350CP	●				
14.0	TPD1400CP	●				
14.2	TPD1420CP	●				
14.3	TPD1430CP	●				
14.5	TPD1450CP	●				
15.0	TPD1500CP	●				
15.5	TPD1550CP	●				
16.0	TPD1600CP	●				
16.3	TPD1630CP	●				
16.5	TPD1650CP	●				
16.7	TPD1670CP	●			TPDC□D-16020-□	TPDC- W1721
17.0	TPD1700CP	●				
17.5	TPD1750CP	●				
17.7	TPD1770CP	●				
18.0	TPD1800CP	●				
18.1	TPD1810CP	●				
18.5	TPD1850CP	●				
18.6	TPD1860CP	●				
18.7	TPD1870CP	●				
19.0	TPD1900CP	●				
19.2	TPD1920CP	●				
19.5	TPD1950CP	●				
19.7	TPD1970CP	●				
20.0	TPD2000CP	●				
20.5	TPD2050CP	●				
21.0	TPD2100CP	●				
21.5	TPD2150CP	●				

# Drilling

## TPDB Insert



CP



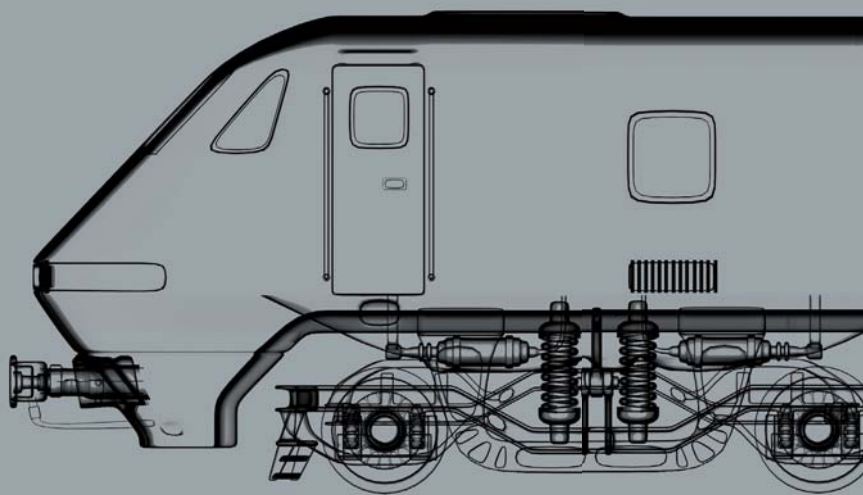
Drill dia. ØD (mm)	P type (CP)	Coated			Holder	Wrench
	TPDC-P	PC5335	PC5300	PC330P		
22.0	TPD2200CP	●			TPDC□D-22025-□	TPDC- W2225
22.5	TPD2250CP	●				
22.6	TPD2260CP	●				
22.7	TPD2270CP	●				
23.0	TPD2300CP	●				
23.5	TPD2350CP	●				
24.0	TPD2400CP	●			TPDC□D-24032-□	
24.5	TPD2450CP	●				
25.0	TPD2500CP	●				
25.3	TPD2530CP	●				
25.5	TPD2550CP	●				
25.8	TPD2580CP	●				
25.9	TPD2590CP	●			TPDC□D-25032-□	
26.0	TPD2600CP	●				
26.5	TPD2650CP	●				
27.0	TPD2700CP	●				
27.5	TPD2750CP	●				
28.0	TPD2800CP	●				
28.5	TPD2850CP	●			TPDC□D-28032-□	TPDC- W2630
29.0	TPD2900CP	●				
29.5	TPD2950CP	●				
30.0	TPD3000CP	●				
30.5	TPD3050CP	●				

※ We can provide if you order exact machining specification. Ex) Ø15.9, carbon steel machining → TPDC1590CP/PC337Q ●: Stock item

## Parts (applicable wrench)

Picture	Designation	Drill diameter ØD (mm)	Torque (N-m)	Width of clamping part of wrench (mm)
	TPDC- W1216	12.00~16.99	2.0~3.0	1.2
	W1721	17.00~21.99	2.0~4.0	1.5
	W2225	22.00~25.99	3.0~4.0	2.0
	W2630	26.00~30.99	4.0~5.0	2.5

**Railway Industry**

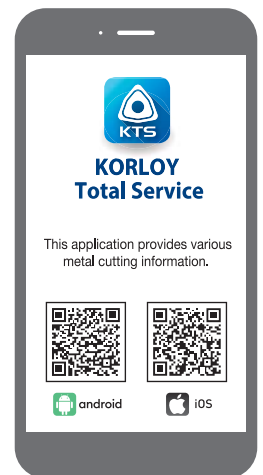


### ⚠ For the safe metalcutting

- Use safety supplies such as protective gloves to prevent possible injury while touching the edge of tools.
- Use safety glasses or safety cover to hedge possible dangers. Inappropriate usage or excessive cutting condition may lead tool's breakage or even the fragment's scattering.
- Clamp the workpiece tightly enough to prevent its movement while its machining.
- Properly manage the tool change phase because the inordinately used tool can be easily broken under the excessive cutting load or severe wear, and it may threat the operator's safety.
- Use safety cover because chips evacuated during cutting are hot and sharp and may cause burns and cuts. To remove chips safely, stop machining, put on protective gloves, and use a hook or other tools.
- Prepare for fire prevention measures as the use of the non-water soluble cutting oil may cause fire.
- Use safety cover and other safety supplies because the spare parts or the inserts can be pulled out due to centrifugal force while high speed machining.



**Head Office:** Holystar B/D, 326, Seocho-daero, Seocho-gu, Seoul, 06633, Republic of Korea  
Tel: +82-2-522-3181 Fax: +82-2-522-3184, +82-2-3474-4744 Web: [www.korloy.com](http://www.korloy.com) E-mail: [sales.khq@korloy.com](mailto:sales.khq@korloy.com)



### **KORLOY AMERICA**

620 Maple Avenue, Torrance, CA 90503, USA  
Tel: +1-310-782-3800 Toll Free: +1-888-711-0001 Fax: +1-310-782-3885  
E-mail: [sales.kai@korloy.com](mailto:sales.kai@korloy.com)

### **KORLOY INDIA**

Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India  
Tel: +91-124-4391790 Fax: +91-124-4050032  
E-mail: [sales.kip@korloy.com](mailto:sales.kip@korloy.com)

### **KORLOY TURKEY**

Serifali Mahallesi, Burhan Sokak NO: 34  
Dudullu OSB/Umraniye/Istanbul, 34775, Turkey  
Tel: +90-216-415-8874 E-mail: [sales.ktl@korloy.com](mailto:sales.ktl@korloy.com)

### **KORLOY RUSSIA**

Krasivy Dom office No. 305, Bld. 5, Novovladykinskiy proezd 8, 127106,  
Moscow, Russia  
Tel: +7-495-280-1458 Fax: +7-495-280-1459 E-mail: [sales.krc@korloy.com](mailto:sales.krc@korloy.com)

### **KORLOY FACTORY INDIA**

Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India  
Tel: +91-124-4391790 Fax: +91-124-4050032  
E-mail: [pro.kim@korloy.com](mailto:pro.kim@korloy.com)

### **KORLOY EUROPE**

Gablonzer Str. 25-27, 61440 Oberursel, Germany  
Tel: +49-6171-277-83-0 Fax: +49-6171-277-83-59  
E-mail: [sales.keg@korloy.com](mailto:sales.keg@korloy.com)

### **KORLOY BRASIL**

Av. Aruana 280, conj.12, WLC, Alphaville, Barueri,  
CEP06460-010, SP, Brasil  
Tel: +55-11-4193-3810 E-mail: [sales.kbl@korloy.com](mailto:sales.kbl@korloy.com)

### **KORLOY CHILE**

Av. Providencia 1650, Office 1009, 7500027  
Providencia-Santiago, Chile  
Tel: +56-229-295-490 E-mail: [sales.kcs@korloy.com](mailto:sales.kcs@korloy.com)

### **KORLOY MEXICO**

Calle R. M. Clemencia Borja Taboada 522, Jurica Acueducto,  
76230 Juriquilla, Qro., Mexico  
Tel: +52-442-673-7388 E-mail: [sales.kml@korloy.com](mailto:sales.kml@korloy.com)

