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**Industrial Solutions of  
KORLOY**



**AUTOMOTIVE  
INDUSTRY**

We Create your Tomorrow!



We learn the challenge with nature.  
 We also dream love in nature.  
 'Challenge for dream, Love for human'  
 It's an ideal of Korloy like nature.

## The 21st century of KORLOY is the power for a better future.

KORLOY Inc. is a total cutting tool manufacturer specializing in uncoated, coated (CVD, PVD), and Cermet inserts.

KORLOY Inc. was founded in 1966.

Our establishment is now a top leading cutting tool provider that constantly invests and improves our R&D center in Korea

Our goal is to be the top, globally leading company that overcomes the continuous challenges and innovations.

KORLOY Inc. products manufactured by the ever growing R&D department along with our innovative production technology are selling and exporting to over

80 countries, as the global company recognized with higher technology.

KORLOY Inc. continuously endeavors to grow as the global enterprise representing Korea.

We sincerely anticipate your on-going interest for KORLOY Inc.



**3** Boring Bar(SVQCR) <VCGT-AK>  
 [Wheel Hub ]  
 : Turning - Bore profiling, roughing, finishing

**4** DA150-PCD <MRGN-A>  
 MGIUR, MGIXR <HOLDER>  
 [Wheel Boring ]  
 : Turning - Roughing, finishing in boring



# AUTOMOTIVE INDUSTRY

For over 100 years, the automotive industry has pierced its way into our daily lives and is now a necessity for the most of us.

An automobile requires putting together about 500 different types and 20,000 different parts together to complete the manufacturing process.

Along with using the know-how and the advanced technology, the need of Cutting Tool is an unbearable factor in machining automobile parts. Korloy's high productivity level and low cost provides our customers with high quality products and services at a low cost.

The industrial solutions of Korloy will provide satisfaction for our customers' various needs.

## 1. Engine parts of automobile

Cylinder Head

Cylinder Block

Crank Shaft

Cam Shaft

Connecting Rod

Piston Head

Bearing Cap

## 2. Other automotive parts

Transmission Housing

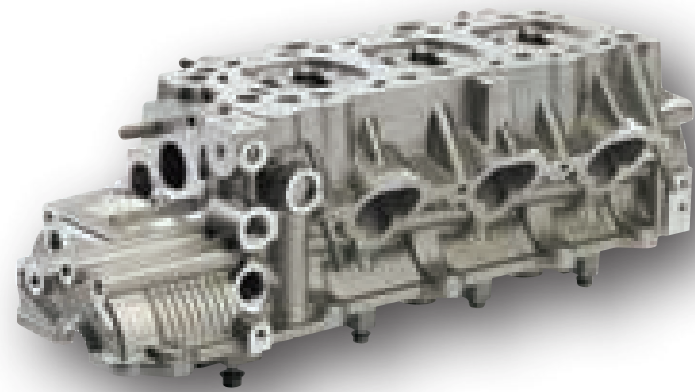
Knuckle

Caliper Bracket

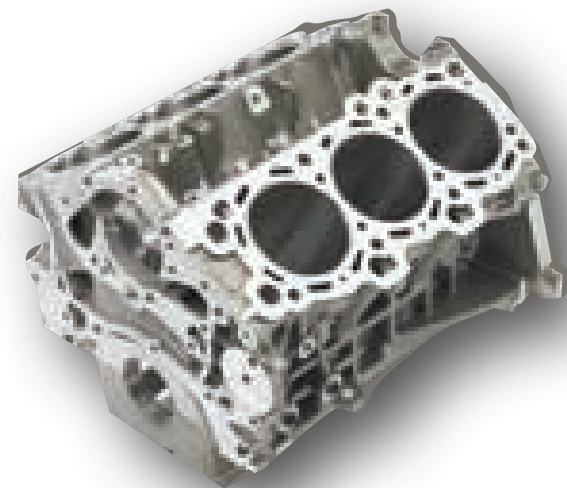
Wheel



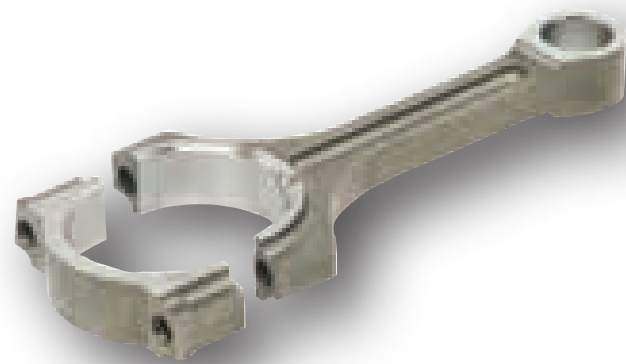
# ENGINE PARTS OF AUTOMOBILE



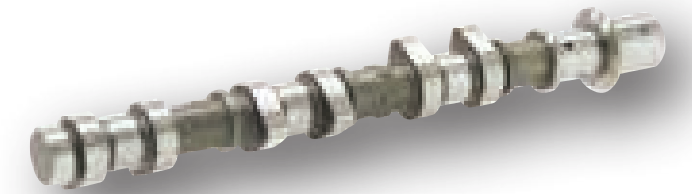
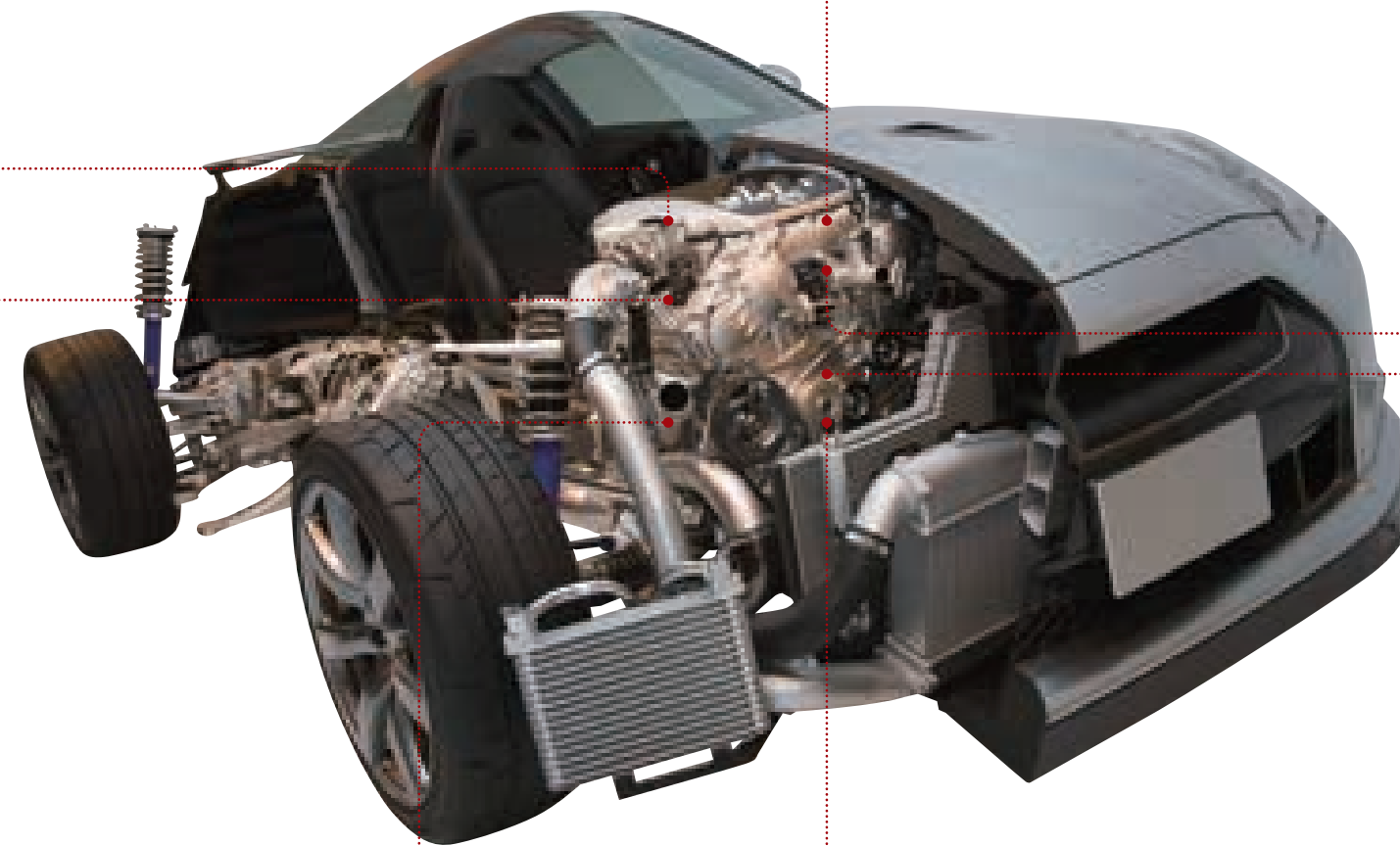
Cylinder Head



Cylinder Block



Connecting Rod



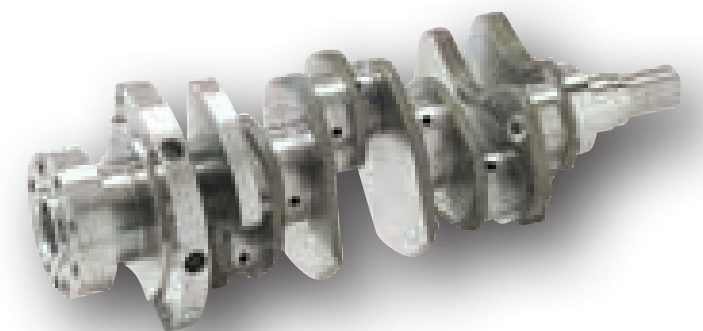
Cam Shaft



Bearing Cap



Piston Head



Crank Shaft

# Cylinder Block

Al alloy

1

**Aero Mill**  
<ADP250R / ADP315R>

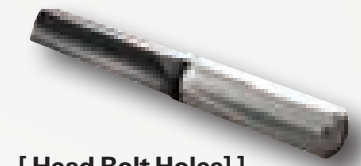
[ Head and Bottom of Head ]  
: Facing-Roughing, finishing



4

**Mach Drill**  
<MSDH -N or ND Type>

[ Head Holes ]  
Drilling-Centering,drilling

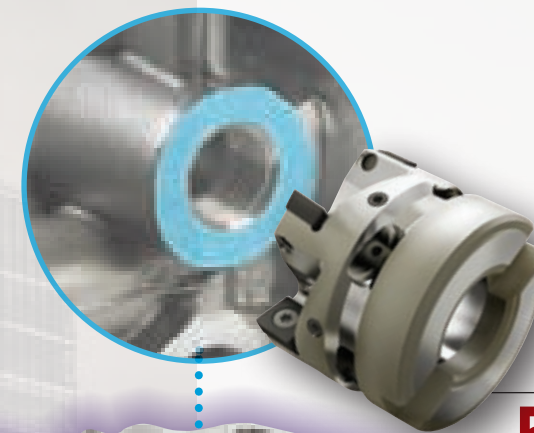


[ Head Bolt Holes ]  
Burnishing drill-Roughing, finishing

5

**Aero Mill Mini**  
<MAPD050HR>

[ Bore Sides ]  
: Facing-Roughing, finishing



2

**Straight Reamer / Step Burnishing Reamer**

[ Head Gallery Hole and Guide ]  
: Reaming-Finishing



[ Head Gallery Hole and Guide ]  
: Reaming-Step finishing

3

**Line Boring Bar / High Speed Reamer**

[ Cam Shaft Bearing Seat ]  
Line boring bar : Boring

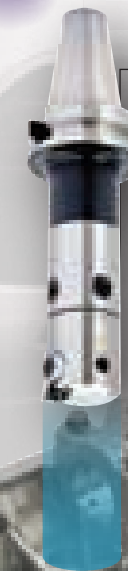


[ Cam Journal Bore ]  
Reamer for high speed : Reaming, finishing

6

**Micro Boring Bar <FBH>**

[ Spark Plug Hole ]  
: High precision boring



7

**Aero Mill**  
<ADP080R>

[ Cam Bore, Rear Face ]  
: High precision boring



8

**Laser Ball End Mill <LBH, LBS>**

[ Cam Bore Seat ]  
: High precision machining



# Cylinder Block

Al alloy

**1** Aero Mill <ADP160R>  
[ Block Front and Rear ]  
: Facing-Roughing, finishing

**4** Special Boring Cutter  
[ Cylinder Bore ]  
: Boring-Roughing

**5** Mach Drill / Burnishing Drill  
<MSDH -N or ND Type>  
[ Block Top Bolt Holes ]  
: Drilling-Roughing, finishing

**2** Pro-X Mill, Shank type  
[ Block Hole Seat ]  
: Facing, Shouldering-Roughing, finishing

**6** Aero Mill  
<ADP250R / ADP400R>  
[ Block Top and Bottom ]  
: Facing-Roughing, finishing

**7** Aero Mill Mini <MAPD050HR>  
Pro-X Mill Modular type <PAXM>  
[ Side Face ]  
: Facing-Roughing, finishing

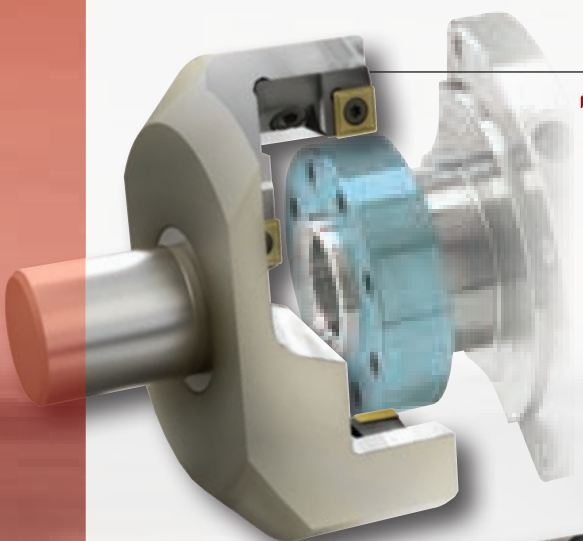
**3** Special Side Cutter  
[ Starter Motor Seat ]  
: Boring-Roughing, finishing

**8** Gang Cutter  
[ Cheek Face ]  
: Special machining-Finishing

# Crank shaft

Alloy steels

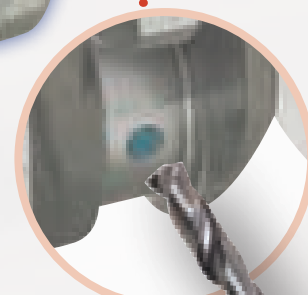
**1** **Hollow Mill**  
[ Crank Shaft Flange End ]  
: Facing and OD(multi machining)



**2** **TM Solid / Mach Step Drill**  
<MSDS, MSDHS(<math>\Phi 20</math>>  
[ Flange End Holes ]  
· Drilling-step machining  
· Threading



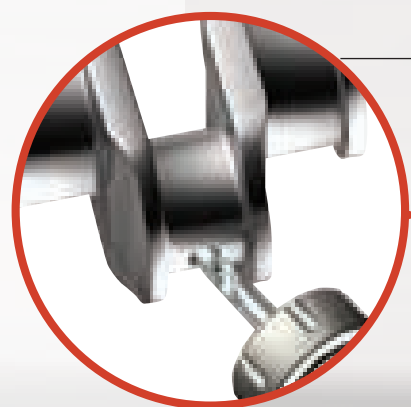
**3** **Mach Drill <MSD, MSDH>**  
[ CounterWeight Holes/Oil Holes ]  
: Drilling-Centering, Drilling



**4** **CounterWeight Miller**  
[ CounterWeight ]  
: Counter weight OD-Finishing



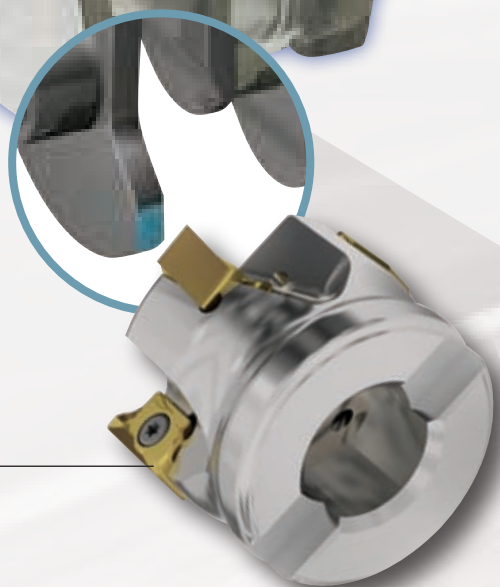
**5** **Mach Long Drill**  
<MLDH, MLDP>  
[ Oblique Holes ]  
: Drilling-deep hole drilling



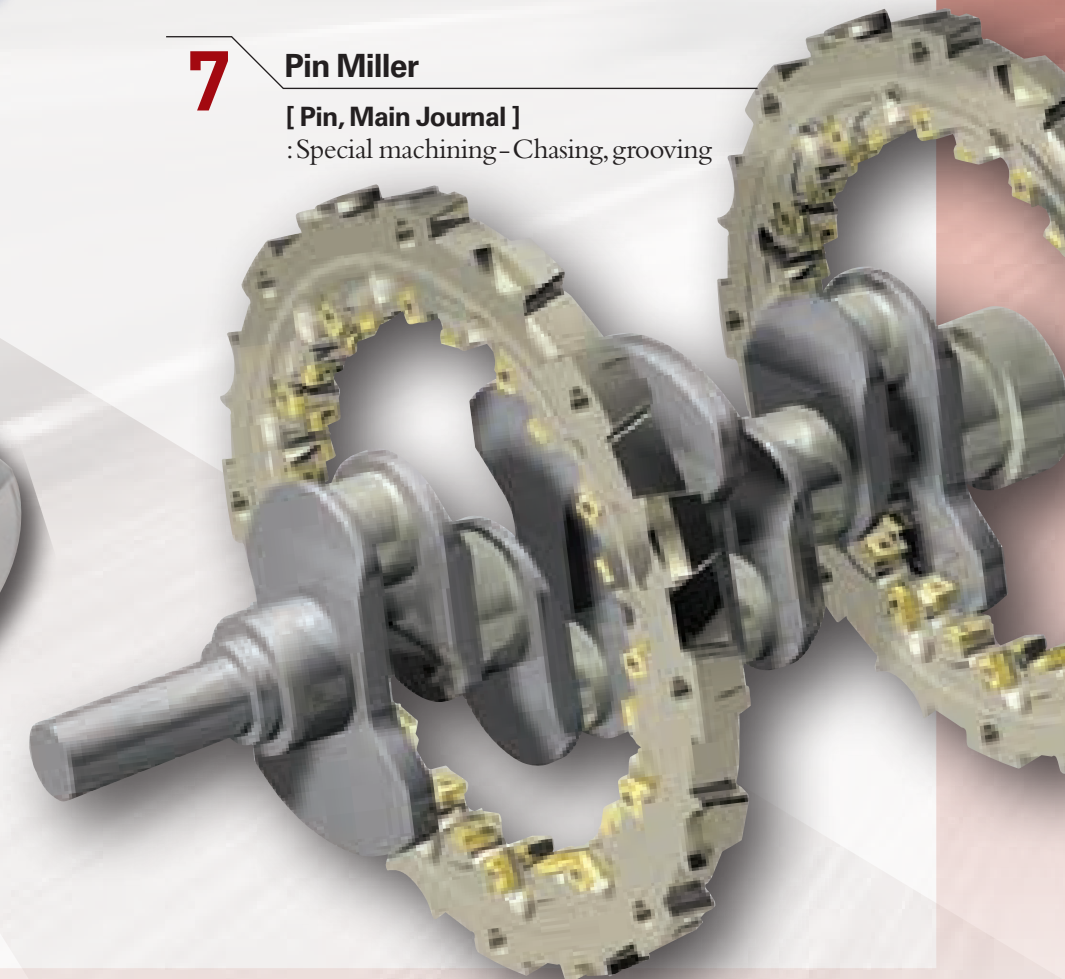
**6** **Double Clamp**  
<NC3120-VM, VF>  
[ Boss End ]  
: Turning-Roughing, finishing



**8** **Rich Mill, Alpha Mill**  
<RM4, Alpha Mill>  
[ Crank Arm Sides ]  
: Facing-Phrasing sides



**7** **Pin Miller**  
[ Pin, Main Journal ]  
: Special machining-Chasing, grooving

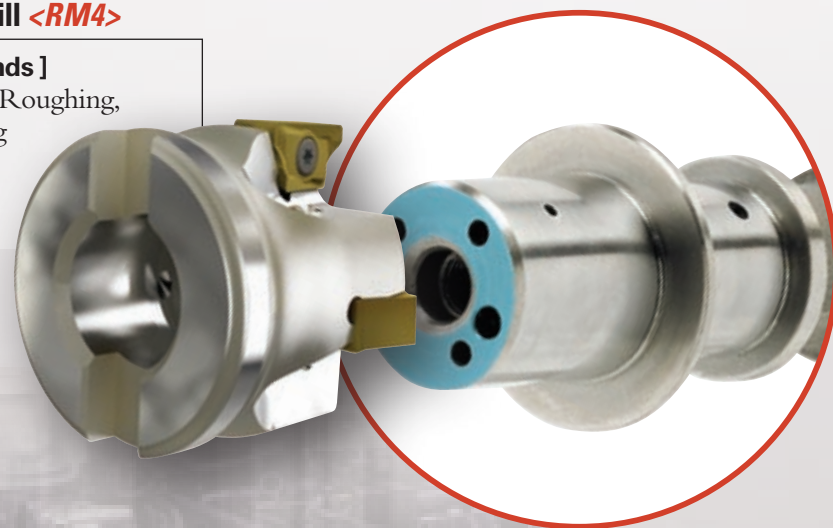


# Cam Shaft

Cast Iron

## 1 Rich Mill <RM4>

[ Cam Ends ]  
: Facing-Roughing,  
finishing



## 3 Double Clamping <CNMG-NC6110>

[ Cam Edge Ends ]  
: Turning-O.D



## 4

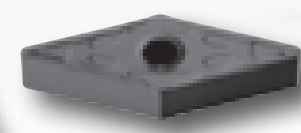
### Special Cam(groove) Miller <Special>

[ Cam and Mec Groove ]  
: Special machining-Slotting  
(edges, chamfers)



## 2 Double Clamping <VNMG-NC6110>

[ Cam Journals ]  
: Turning-Grooving part



## 5

### Mach Long Drill <MLD, MLDH>

[ Cam Oil Holes ]  
: Drilling-deep hole drilling





# Connecting Rod

Al alloy, Ti alloy, Carbon steels

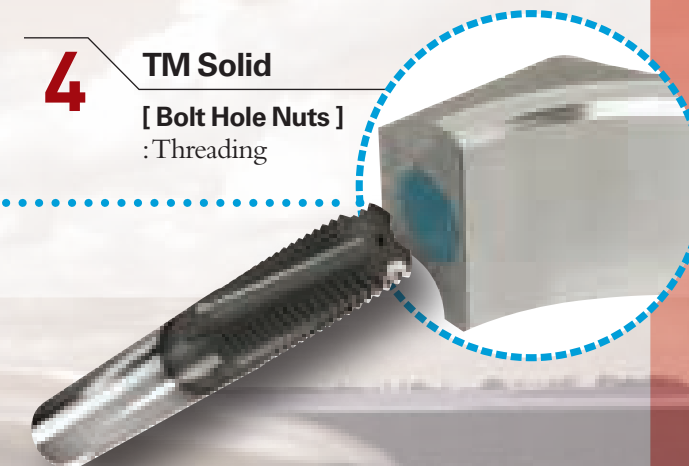
**1** Rich Mill <RM8 / RMT>  
[ Big Ends ]  
: Facing - Roughing, finishing



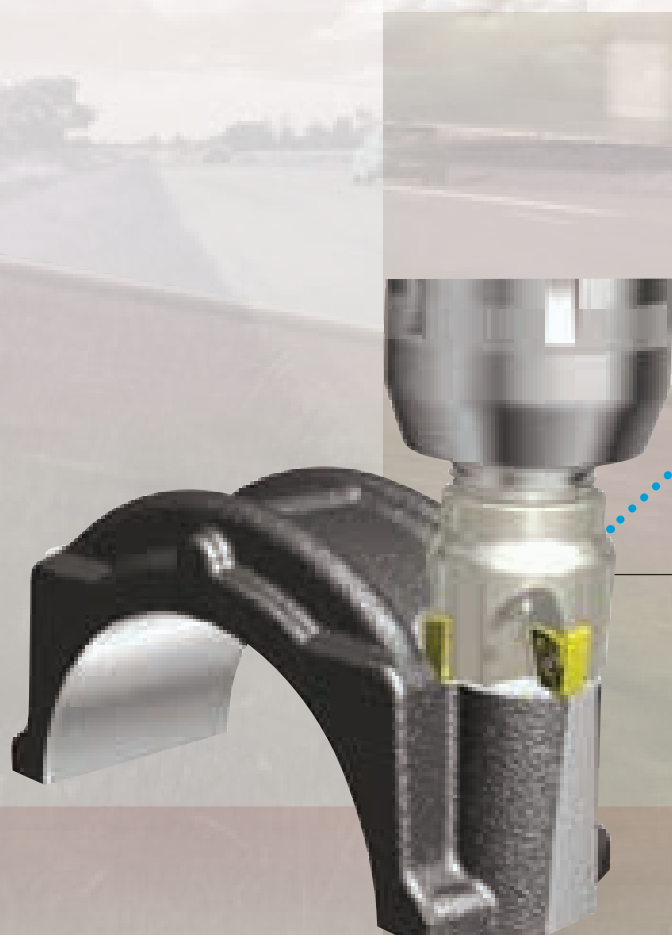
**3** Indexable Step Drill  
[ Small Ends, ID ]  
: Drilling, Facing - Roughing, finishing



**4** TM Solid  
[ Bolt Hole Nuts ]  
: Threading



**2** Rich Mill, Alpha Mill <RM4>  
[ Bolt Hole Clamping Parts ]  
: Facing, Shouldering - Roughing, finishing

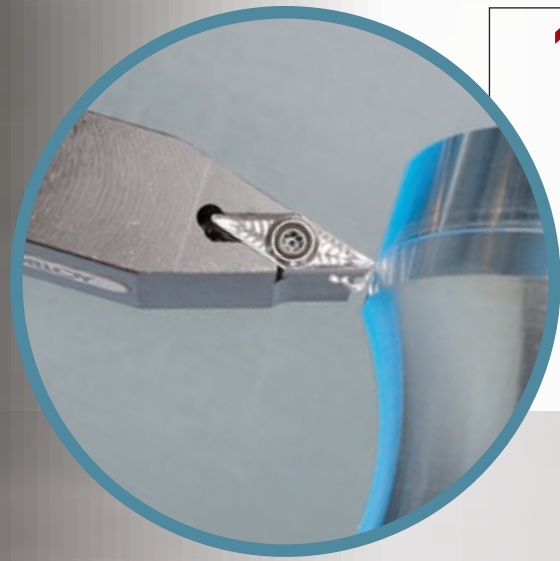


**5** Mach Drill <MSD>  
[ Bolt Hole ]  
: Drilling



# Piston Head

Al alloy



## 1 Special Holders <H01-VCGT>

[Piston Head Holes]  
:Turning-ID finishing



## 3 Special Holders <MGEUR>

[Piston Head Chamber]  
:Turning-ID finishing



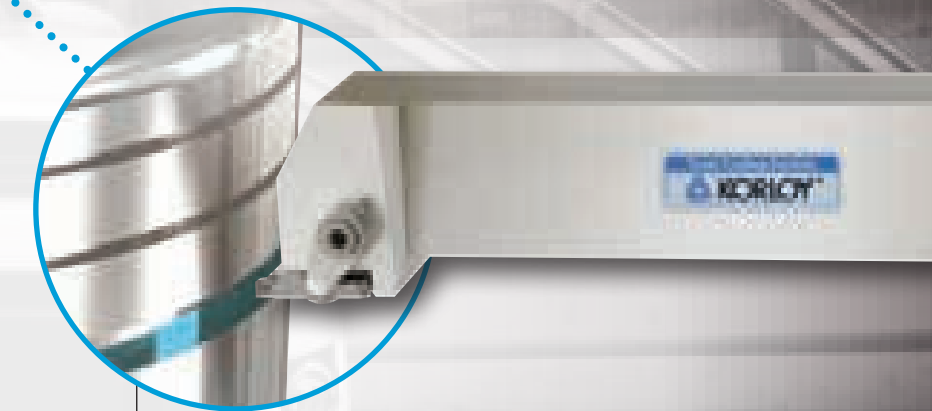
<MRGN-A(DA150-PCD)>



## 2 Special Holders

[Piston Head OD]  
:Turning-OD profiling

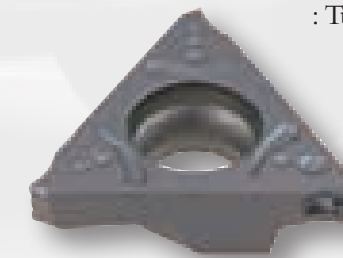
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## 4 Special Holders <TBH>

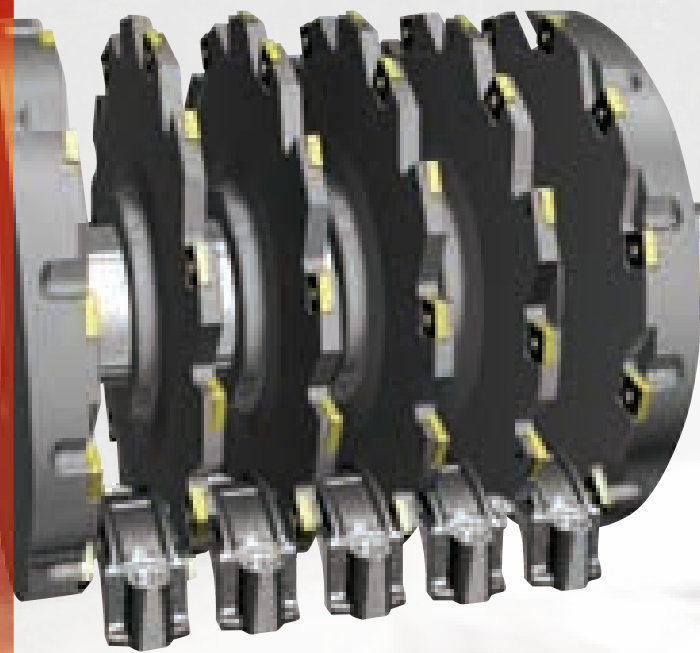
[Piston Head Ring Seat]  
:Turning-Grooving

<TB430 insert>

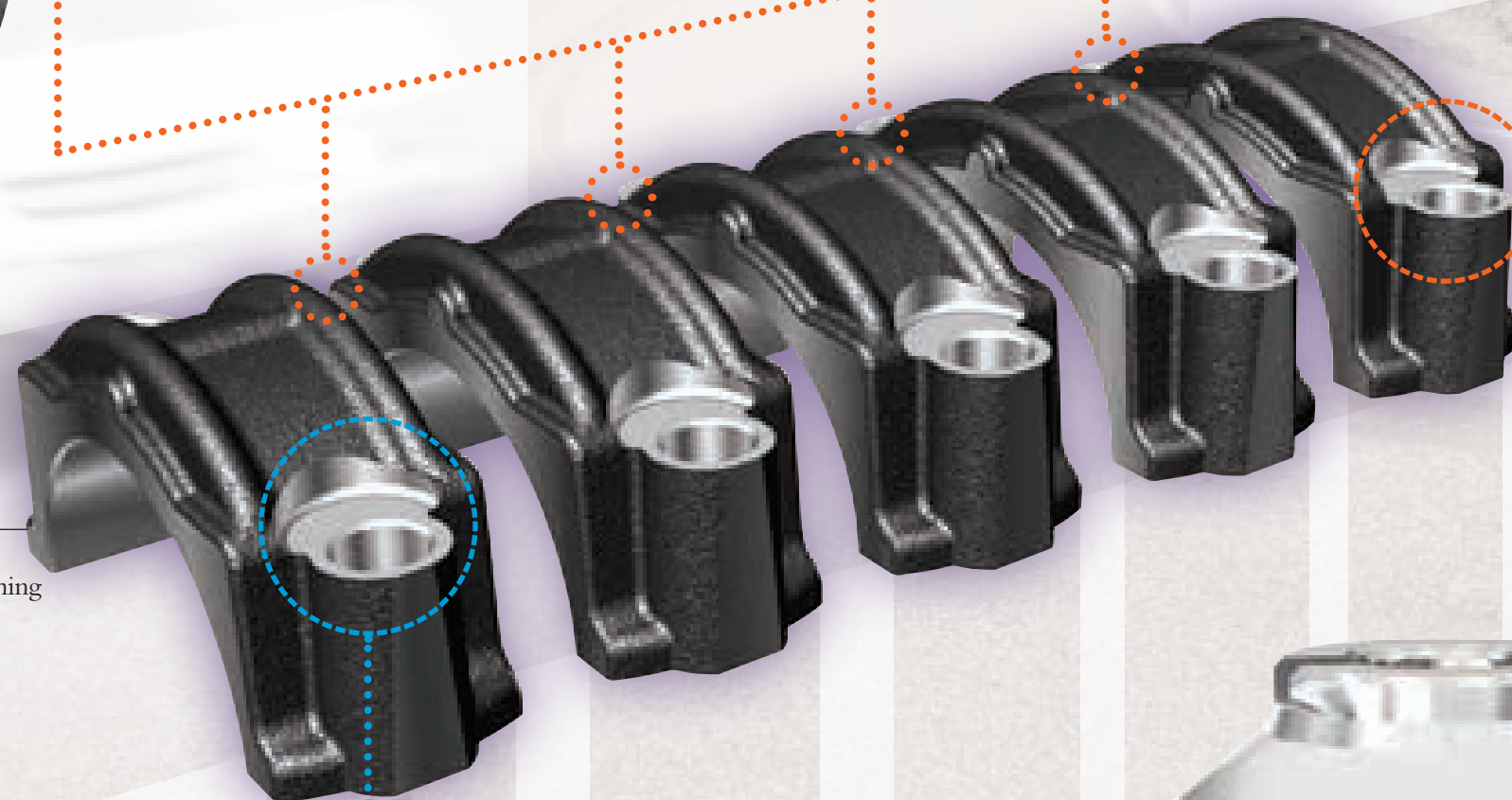


# Bearing Cap

Heat treated carbon steels



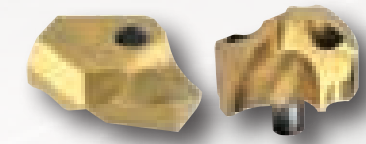
**1** **Multi Side Cutter**  
[ Bearing Cap Side ]  
: Special - parting



**2** **Rich Mill, Alpha Mill <RM4>**  
[ Cap hole Clamping Part ]  
: Facing, Shouldering - Roughing, finishing



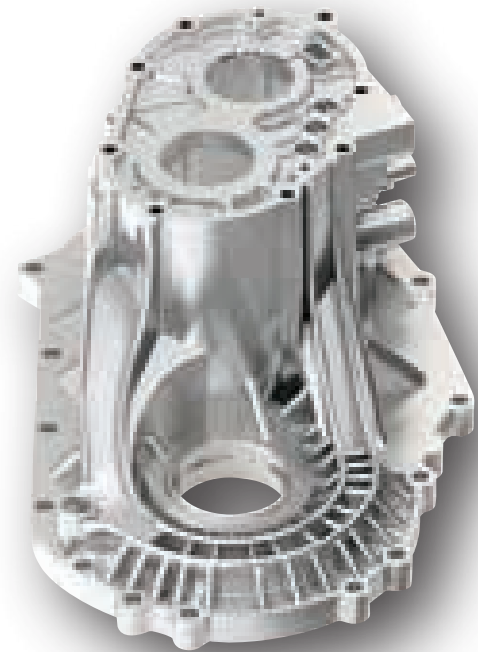
**3** **Insert Drills <TPDB, TPDC>**  
[ Cap clamping Bolt Holes ]  
: Drilling - Centering, drilling



**4** **Rich Mill <RM8>**  
[ Cap Mounting ]  
: Facing - Roughing, finishing



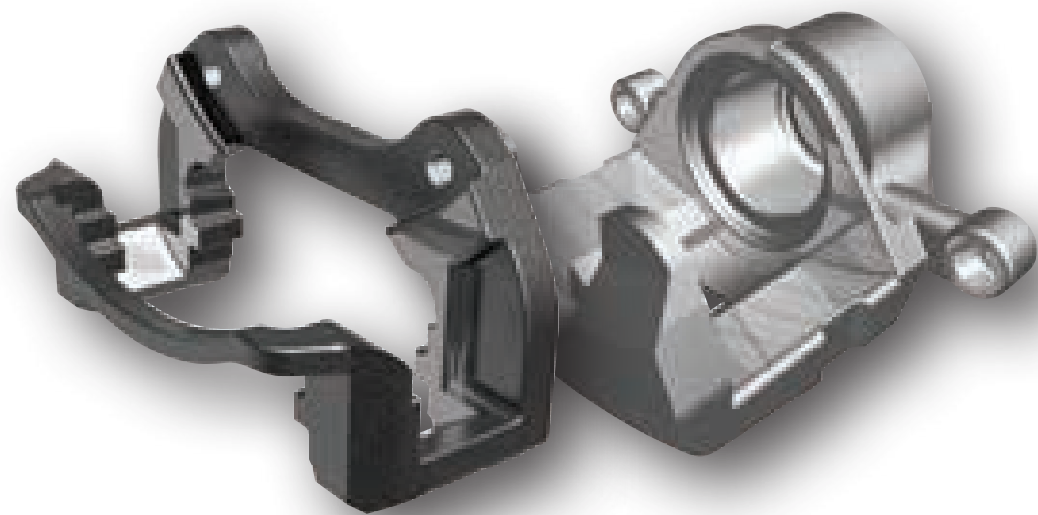
# OTHER AUTOMOTIVE PARTS



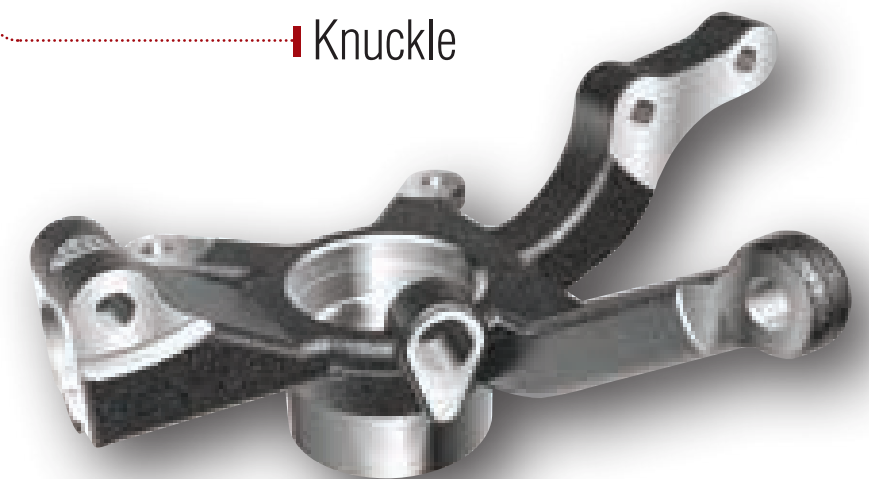
Transmission Housing



Wheel



Caliper Bracket



Knuckle

# Transmission Housing

Al alloy

## 1 Step Burnishing Reamer

[ Housing Bbolt Holes ]  
: Reaming-step finishing



## 2 Mach Drill <MSD, MSDH>

[ Housing Clamping Bolt Holes ]  
: Drilling-Centering, drilling



## 4

### Aero Mill, Aero Mill Mini <ADP080R, MADP050HR>

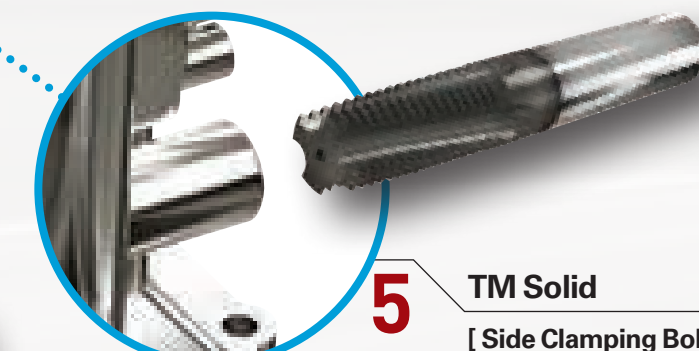
[ Housing Top and Bottom ]  
: Facing-Roughing, finishing



## 5

### TM Solid

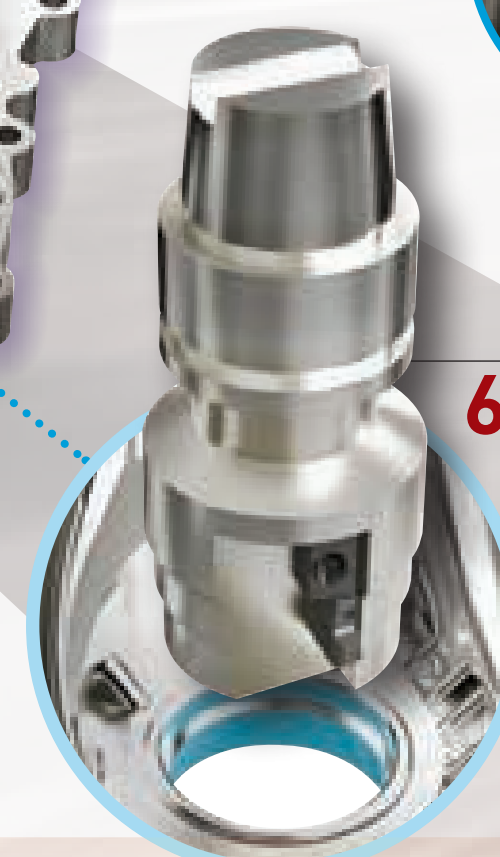
[ Side Clamping Bolt Holes ]  
: Threading



## 6

### Special Boring Cutter <HSK, Cartridge type>

[ Cylinder Bore, Oil Seat ]  
: Boring-Finishing



## 3 Pro-A Mill <PAS/C>

[ Housing Mounting Face ]  
: Facing-Finishing



# Knuckle

Gray Cast Iron

## 1 Mach Drill <MSD>

[Knuckle Arm Mounting Holes]  
: Drilling-Roughing, finishing



## 4 Special Boring Bar

[Knuckle Center Hhole]  
: Special boring



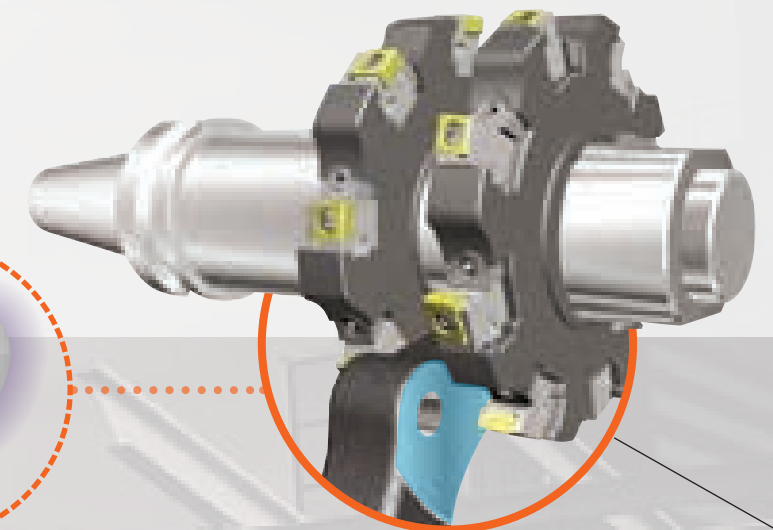
## 2 Indexable Side Cutter <SPB>

[Tie Rod Mounting]  
: Special slitting



## 5 Indexable Side Cutter <Tangential type>

[Denver Mounting]  
: Special facing



## 3 Future Mill <FMP>

[Tie rod Mounting]  
: Facing-Roughing, finishing



## 6 Future Mill <FMP>

[Knuckle Mounting]  
: Facing, shouldering-Roughing, finishing



## 7 Indexable Step Drill

[Cortical Hole]  
: Drilling-Roughing, finishing

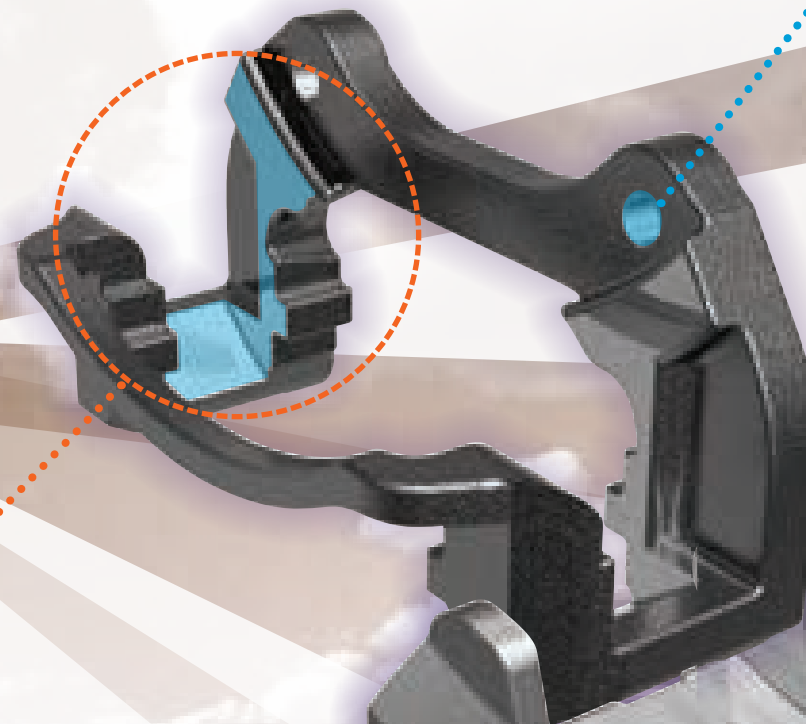


# Caliper Bracket

Cast Iron



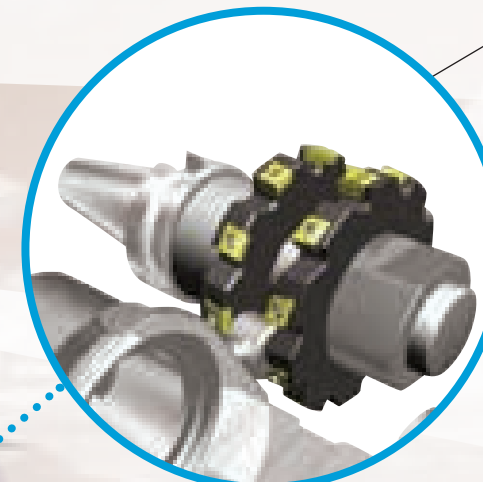
**1** Side Cutter  
[ Disk Seat ]  
: Slotting-Roughing, finishing



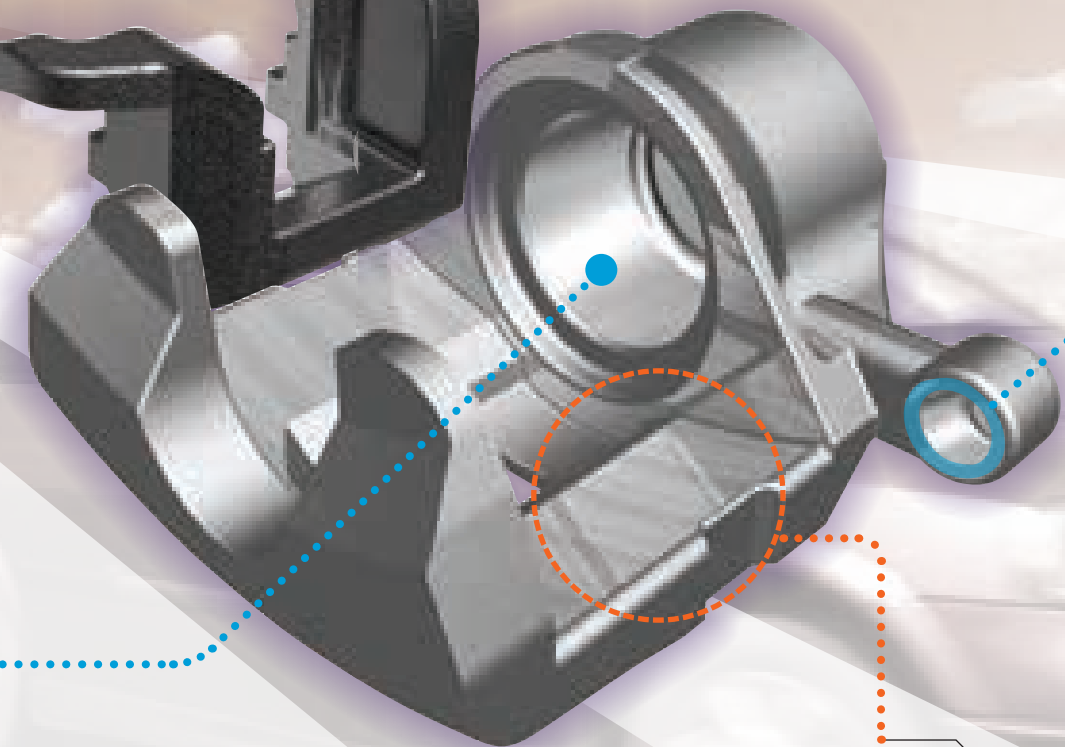
**2** Special Boring Bar  
[ Cylinder Holes ]  
: ID boring-finishing



**3** Mach Drill <MSD>  
[ Carrier reference holes ]  
: Drilling-Centering, drilling



**4** Special Side Cutter  
[ Housing Head ]  
: Facing-Roughing, finishing



**5** Side Cutter  
[ Brake Seat ]  
: Slotting-Roughing, finishing



# Wheel

Aluminum

**1**

**MGEHR**  
**<MRGN-A(DA150-PCD)>**

[Wheel OD]  
: Turning-OD roughing, finishing



**3**

**Boring Bar(SVQCR) <VCGT-AK>**

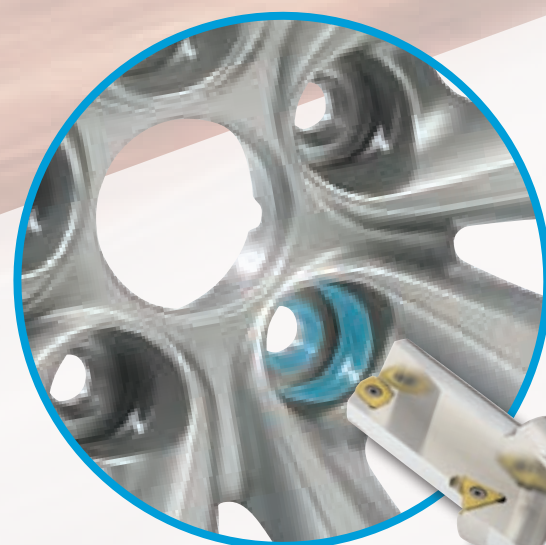
[Wheel Hub]  
: Turning-Bore profiling, roughing, finishing



**2**

**Indexable Step Drill**

[Wheel Bolt Holes]  
: Drilling, chamfering, boring



**4**

**DA150-PCD <MRGN-A>**  
**MGIUR, MGIXR <HOLDER>**

[Wheel Boring]  
: Turning-Roughing, finishing in boring

