

Industrial Solutions of
KORLOY

AUTOMOTIVE INDUSTRY

PART **1** *Engine parts of automobile*

- 01** **Cylinder Block**(Upper Part) - *Cast iron*
- 02** **Cylinder Block**(Lower Part) - *Cast iron*
- 03** **Cylinder Block** - *Al alloy*
- 04** **Cylinder Head** - *Al alloy*
- 05** **Crank Shaft**
- 06** **Cam Shaft**
- 07** **Connecting Rod**
- 08** **Bearing Cap**
- 09** **Crank Case**
- 10** **Piston Head**
- 11** **FlyWheel**
- 12** **Pulley**





PART **2** *Other automotive parts*

13 Transmission Housing

14 Main Shaft

15 Valve Body

16 Knuckle

17 CV Joint

18 Caliper Bracket

19 Brake Disk

20 Wheel

21 ABS Housing

22 Manifold

PART

1

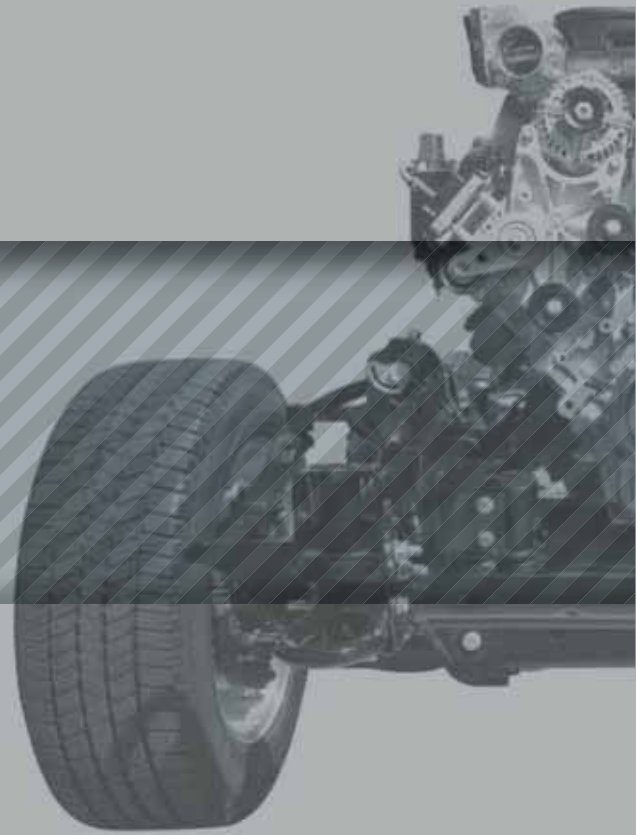


Cylinder Block
- Cast iron -



Cylinder Block
- Al alloy -

Engine parts of automobile



Connecting Rod
- Ti alloy, carbon steels -



Bearing Cap
- Heat treated carbon steels -



Crank Case
- Al alloy + cast iron -





Cylinder Head

- Al alloy -



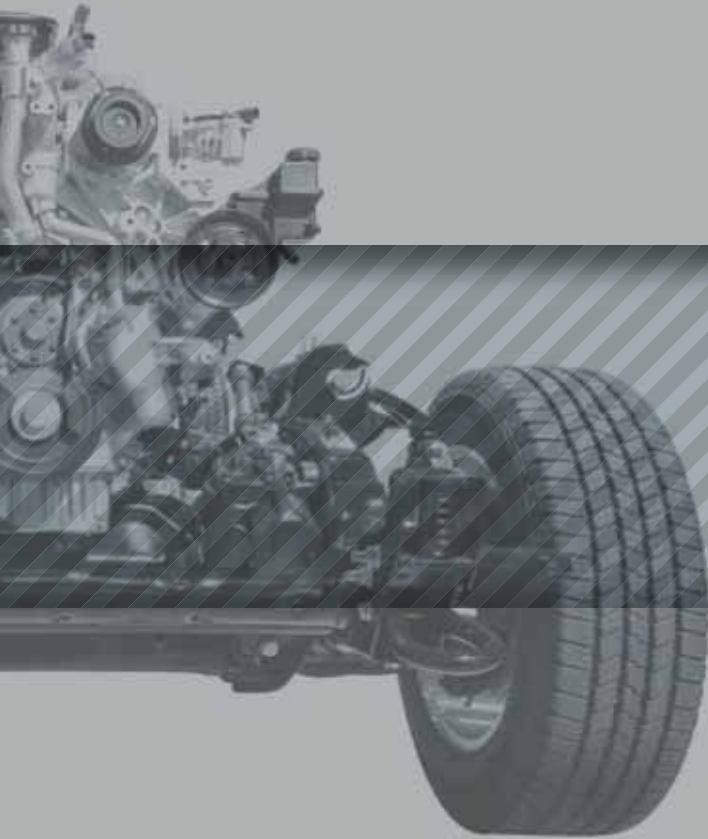
Crank Shaft

- Cast iron, alloy steels -



Cam Shaft

- Cast iron, alloy steels -



Piston Head

- Al alloy -



FlyWheel

- Cast iron -



Pulley

- Low carbon steels -



1 Shave Mill < SVM/SVUM >

[Adjustable System,
Front and Top Face]

: Facing-Finishing



01

Cylinder Block - Upper Part

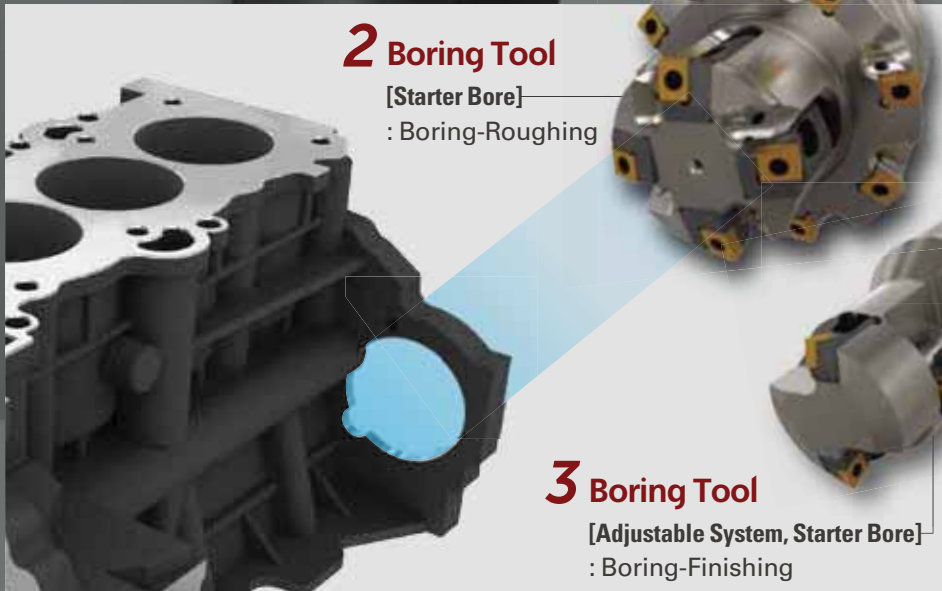
(Cast iron)

2 Boring Tool

[Starter Bore]
: Boring-Roughing

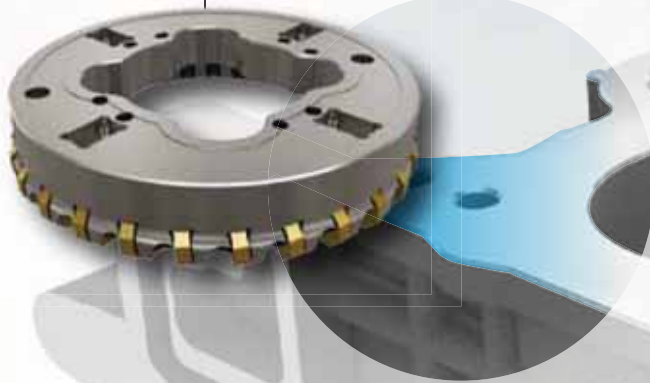
3 Boring Tool

[Adjustable System, Starter Bore]
: Boring-Finishing



4 Wedge Mill < RMR16 >

[16 Corners, Wedge Type, Front and Top Face]
: Facing-Roughing



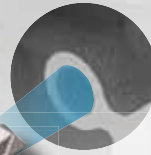
5 Mach Drill < MSD, MSDH >

[Block Bolt Holes]
: Drilling



6 Step Burnishing Reamer

[Mechanic Holes]
: Reaming



Industrial Solutions of
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**AUTOMOTIVE
INDUSTRY**

7 Special Side Cutter

[Start Motor Seat]
: Facing



9 Rich Mill < RM4, RM3 >

[Shouldering, Boss End]
: Facing



8 Special Boring Tool

[Cylinder Bore]
: Boring-Roughing





1 Ball Cutter
[Crank Half Bore]
: Boring-Roughing

02 Cylinder Block - Lower Part

(Cast iron)



2 Gang Cutter
[Cheek Face]
: Facing

3 Wedge Mill < RMR16 >

[16 Corners, Wedge Shape]
: Facing-Roughing

4 Mach Drill < MSD, MSDH >

[Block Bolt Holes]
: Drilling

5 Line Boring Bar

[Crank Bore]
: Boring-Finishing

Industrial Solutions of
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**AUTOMOTIVE
INDUSTRY**

6 Shave Mill < SVM/SVUM >

[Adjustable System, Front and Top Face]
: Facing-Finishing

8 Rich Mill < RM4, RM3 >

[Shouldering, Boss End]
: Facing

7 Tangen-Pro Cutter

[Bearing Cap Seat]
: Facing-Roughing

1 Pro-X Mill < Pro-X Mill >

[Block Hole Seat]

: Facing, Shouldering-Roughing,
Finishing**2 Special Side Cutter**

[Start Motor Seat]

: Boring-Roughing, Finishing

03**Cylinder Block**

(Al alloy)

**3 Aero Mill,
Aero Mill Plus**

< APD/APD-P >

[Block Front and Rear Face]

: Facing-Roughing, Finishing

4 Aero Mill, Aero Mill Plus

< APD/APD-P >

[Block Top and Bottom Face]

: Facing-Roughing, Finishing



5 Mach Drill / Burnishing Drill

< MSDH-N/ND Type >

[Block Bolt Hole]

: Drilling-Roughing, Finishing



6 Special Boring Cutter

[Cylinder Bore]

: Boring-Roughing



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INDUSTRY**

7 Gang Cutter

[Cheek Face]

: Special Machining-
Finishing



8 Aero Mill-Mini < MAPD > Pro-X Mill Modular Type < PAXM >

[Side Face]

: Facing-Roughing, Finishing



1 Aero Mill, Aero Mill Plus < APD/APD-P >

[Head Top and Bottom Face]
: Facing-Roughing, Finishing



04

Cylinder Head

(Al alloy)

2 Straight Reamer / Step Burnishing Reamer

[Head Gallery Hole and Guide]
: Reaming-Finishing



3 Line Boring Bar / High Speed Reamer

[Cam Shaft Bearing Seat]
: Line Boring Bar-Boring



4 Valve Seat Guide Tool

[Valve Seat Face]

: Drilling, Boring-Roughing,
Finishing

5 Mach Drill / Burnishing Drill < MSDH-N/ND Type >

[Head Holes]

: Drilling-Centering, Drilling

[Head Bolt Hole]

Burnishing Drill-Roughing, Finishing

6 Aero Mill, Aero Mill Plus < APD/APD-P >

[Rear Face]

: Facing-Roughing, Finishing

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INDUSTRY**

7 Micro Boring Bar < FBH >

[Spark Plug Holes]

: High Precision Boring

8 Aero Mill-Mini < MAPD >

[Bore Sides]

: Facing-Roughing, Finishing

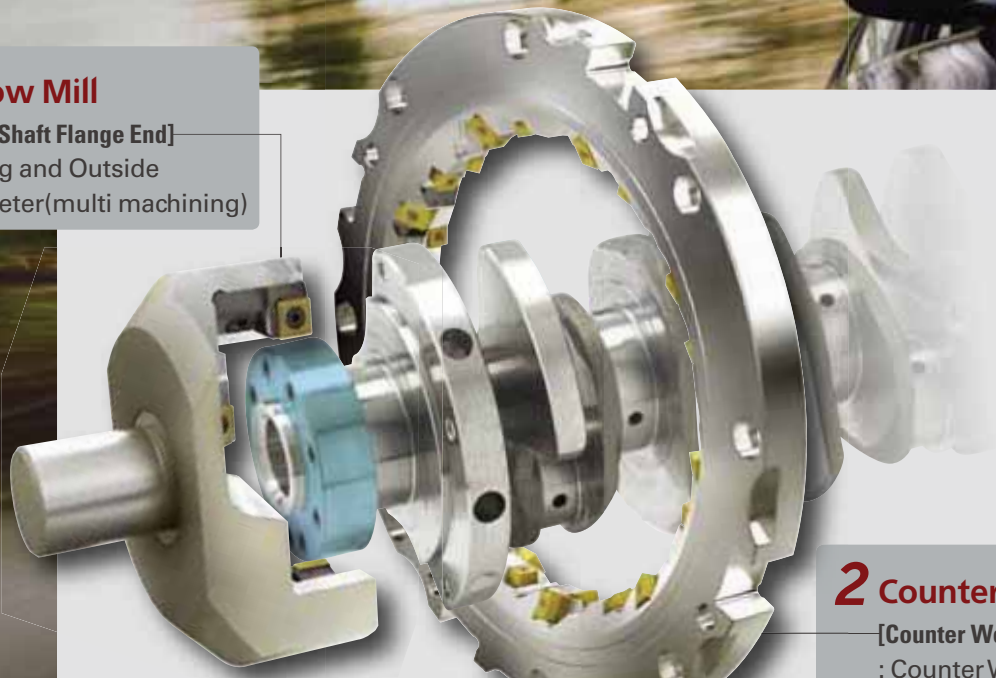
9 Laser Mill < LBH, LBS >

[Inside Diameter]

: High Precision Finishing

1 Hollow Mill

[Crank Shaft Flange End]
: Facing and Outside
Diameter(multi machining)

**2 Counter Weight Miller**

[Counter Weight]
: CounterWeight O.D. Machining

05**Crank Shaft**

(Cast iron, alloy steels)

3 Turn Broach

[Journal]
: Turning-Roughing,
Finishing



4 Rich Mill < RMT8Q >

[End Facing]
: Facing-Roughing



5 TM Solid / Mach Step Drill < MSDS, MSDHS >

[Flange End Holes]
· Drilling-Step Machining
· Threading



6 External Miller

[Pin, Journal]
: O.D. Milling-Roughing, Finishing



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7 Double Clamp < DCLNR/L >

[Boss End]
: O.D. Turning-Roughing, Finishing



8 Pin Miller / Journal Miller

[Pin, Journal]
: O.D. Milling-Roughing, Finishing



9 Mach Drill < MLD, MLDH >

[Pin, Journal Oil Holes]
: Drilling-Deep Hole Making



10 Rich Mill < RM4, RM3 Shank Type >

[Crank Arm Sides]
: Facing



06 Cam Shaft

(Cast iron, alloy steels)



1 Rich Mill <RMT8Q>

[End Facing]

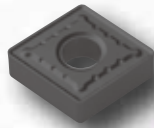
: Facing-Roughing

2 Double Clamp Holder <DCLNR/L>

[Cam Edge Ends]

: Turning-Outside Diameter Machining

<CNMG>



3 Special Cam(Groove) Miller

[Cam and Mec Groove]

: Special Machining-Slotting
(edges and chamfers)

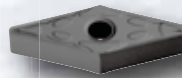
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**AUTOMOTIVE
INDUSTRY**

4 Double Clamp Holder <DVJNR/L>

[Cam Journals]

: Turning-Grooving Part

<VNMG>



5 Mach Long Drill <MLD>

[Cam Oil Holes]

: Drilling-Deep Hole Making

07 Connecting Rod

(Ti alloy, carbon steels)





2 TM Solid
[Bolt Hole Nuts]
: Threading



3 Indexable Step Drill
[Small Ends, Inside Diameter]
: Drilling, Facing-Roughing,
Finishing



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INDUSTRY



4 Rich Mill <RM8/RMT8>
[Big Ends]
: Facing-Roughing, Finishing



5 Rich Mill <RM4, RM3 Shank Type >
[Bolt Hole Clamping Parts]
: Facing, Plunging

08 Bearing Cap

(Heat treated carbon steels)

1 Rich Mill <RM4, RM3>

[Cap Hole Clamping Part]

: Facing, Plunging-Roughing,
Finishing



2 Wind Mill

[Bearing Cap Side]
: Special-Parting



3 Exchangeable Drill < TPDB, TPDC >

[Cap Clamping Bolt Holes]
: Drilling-Centering, Drilling



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**AUTOMOTIVE
INDUSTRY**



4 Rich Mill < RM8 >

[Cap Mounting]
: Facing-Roughing, Finishing



09 Crank Case

(Al alloy + cast iron)



3 Mach Drill <MSDH>

[Bearing Cap]
: Drilling

4 Rich Mill <RM16>

[Bearing Cap]
: Facing-Roughing

2 Finishing Cutter

[Top Face]
: Facing-Finishing

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AUTOMOTIVE
INDUSTRY

5 Boring Tool

[Bearing Cap]
: Boring-Roughing

6 Gang Cutter

[Cheek Face]
: Facing

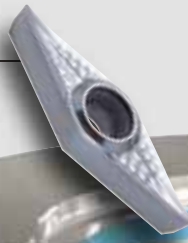
10

Piston Head

(Al alloy)

1 Special Holder < VCGT >

[Piston Head Holes]
: Turning-Inside Diameter
Finishing



2 MGT Holder < MGEHR >

[Piston Head Chamber]
: Turning-I.D. Finishing

<MRGN-A>



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3 MGT Holder < MGEHR >

[Piston Head Outside Diameter]
: Turning-O.D. Profiling



<MRGN-A>



4 TB Holder < TBH >

[Piston Head Ring Seat]
: Turning-Grooving



<TB-M>



11 FlyWheel

(Cast iron)



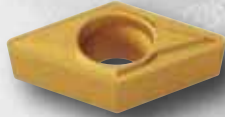
1 Special Drill < BDT(Step Burnishing Drill) >

[Holes]

: Drilling

2 Screw On Holder <SDJCR/L>

[Face Turning]
: Turning-Finishing



<DCMT>

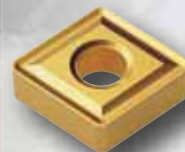
Industrial Solutions of
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**AUTOMOTIVE
INDUSTRY**

3 Mach Drill <MSD, MSDH>

[Holes]
: Drilling

4 Double Clamp Holder <DCLNR/L>

[Face Turning]
: Turning-Roughing



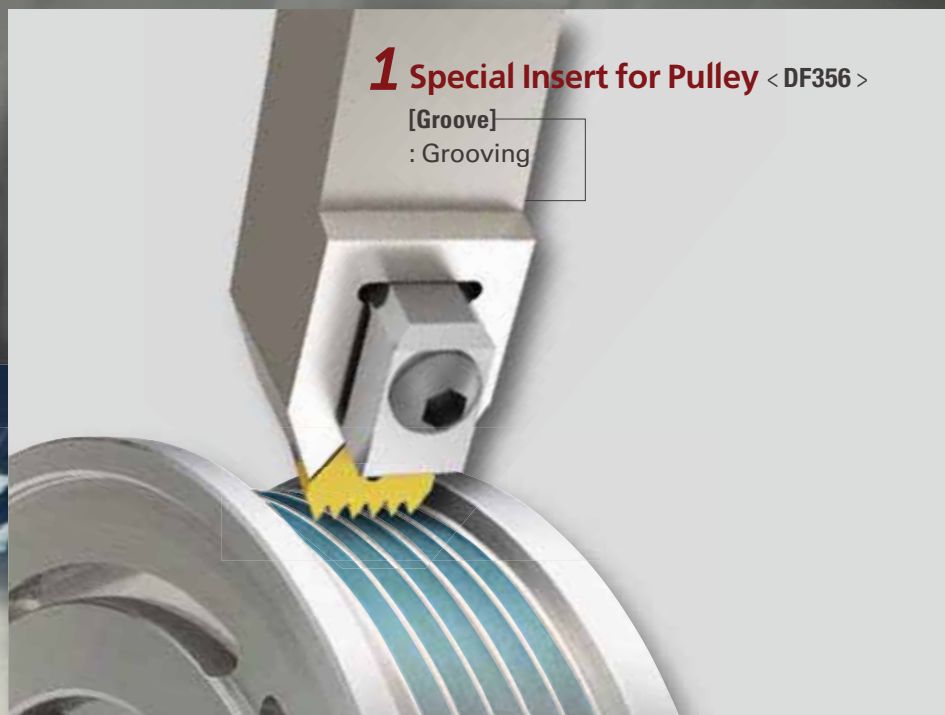
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12 Pulley

(Low carbon steels)

1 Special Insert for Pulley <DF356>

[Groove]
: Grooving





<DNMG>

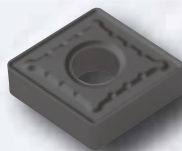
2 Double Clamp Holder < DDJNR/L >

[Face Turning]
:Turning

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**AUTOMOTIVE
INDUSTRY**

3 Double Clamp Holder < DCLNR/L >

[Outside Diameter]
:Turning



<CNMG>

PART 2



Transmission Housing
- Al alloy -



Main Shaft
- Low carbon steels -



Other automotive parts

Caliper Bracket
- Cast iron -



Brake Disk
- Cast iron -



Wheel
- Aluminum -





Valve Body

- Al alloy -



Knuckle

- Gray cast iron -



CV Joint

- Forged steels -



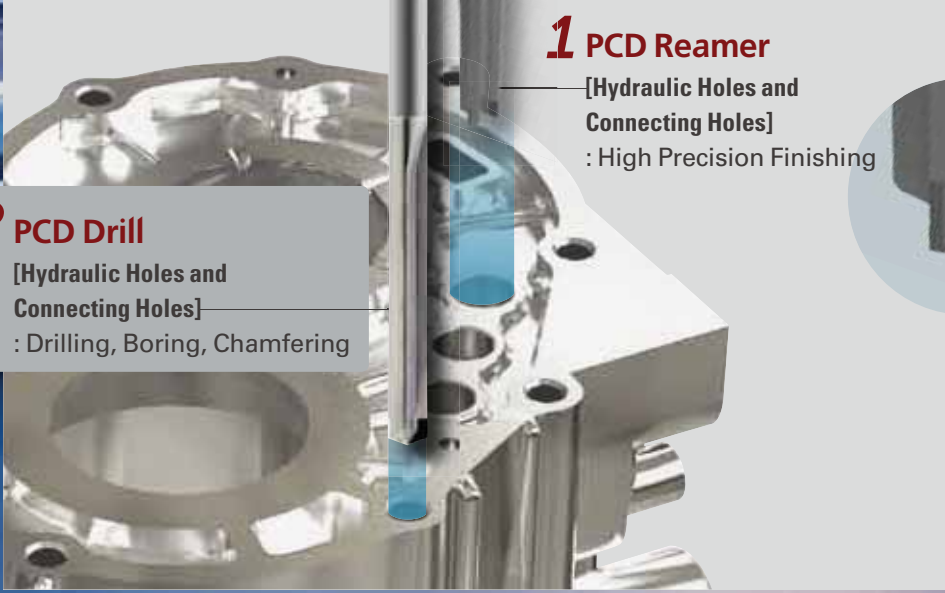
ABS Housing

- Al alloy -

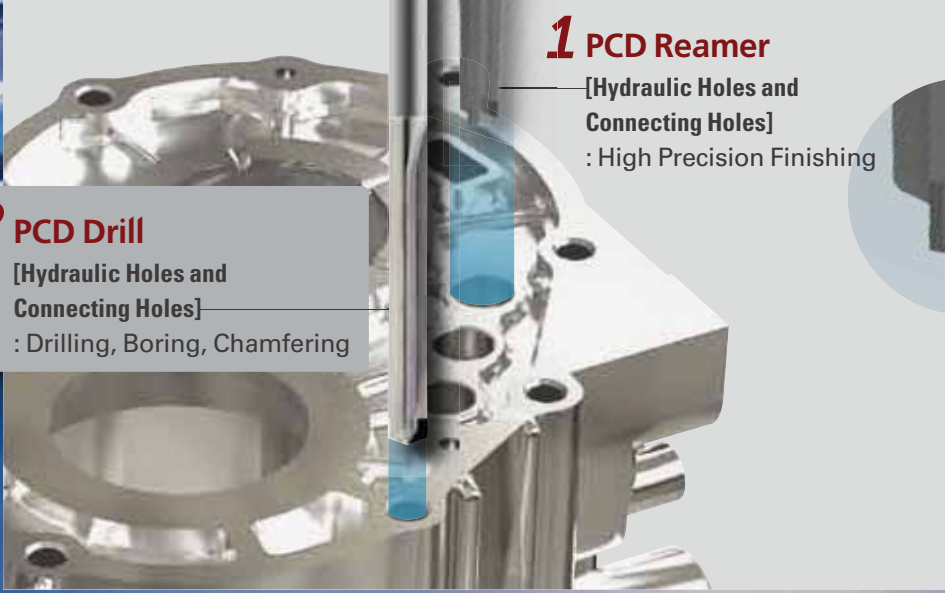
Manifold

- Cast iron, Al alloy -





2 PCD Drill
[Hydraulic Holes and
Connecting Holes]
: Drilling, Boring, Chamfering




1 PCD Reamer
[Hydraulic Holes and
Connecting Holes]
: High Precision Finishing

13

Transmission Housing

(Al alloy)



3 Pro-A Mill <PAS/C>
[Housing Mounting Face]
: Facing-Finishing



4 Aero Mill Plus < APD-P >

[Top Face]

: Facing-Medium Cutting to Finishing



5 TM Solid

[Side Clamping Bolt Holes]

: Threading



6 Step Burnishing Reamer

[Housing Bolt Holes]

: Reaming-Step Finishing

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**AUTOMOTIVE
INDUSTRY**



7

Mach Drill < MSD, MSDH >

[Housing Clamping Bolt Holes]

: Drilling



8 Special Boring Cutter

< HSK, Cartridge Type >

[Cylinder Bore, Oil Seat]

: Boring-Finishing

14 Main Shaft

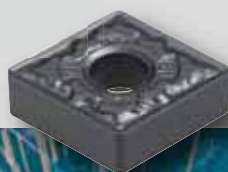
(Low carbon steels)



1 Double Clamp Holder < DCLNR/L >

[Outside Diameter and Face Turning]

:Turning-Roughing to Medium Cutting



<CNMG>



2 KGT Holder < KGEHR/L >

[Journal]
: Grooving and Turning

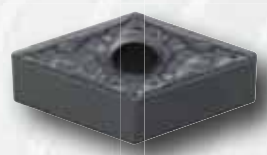


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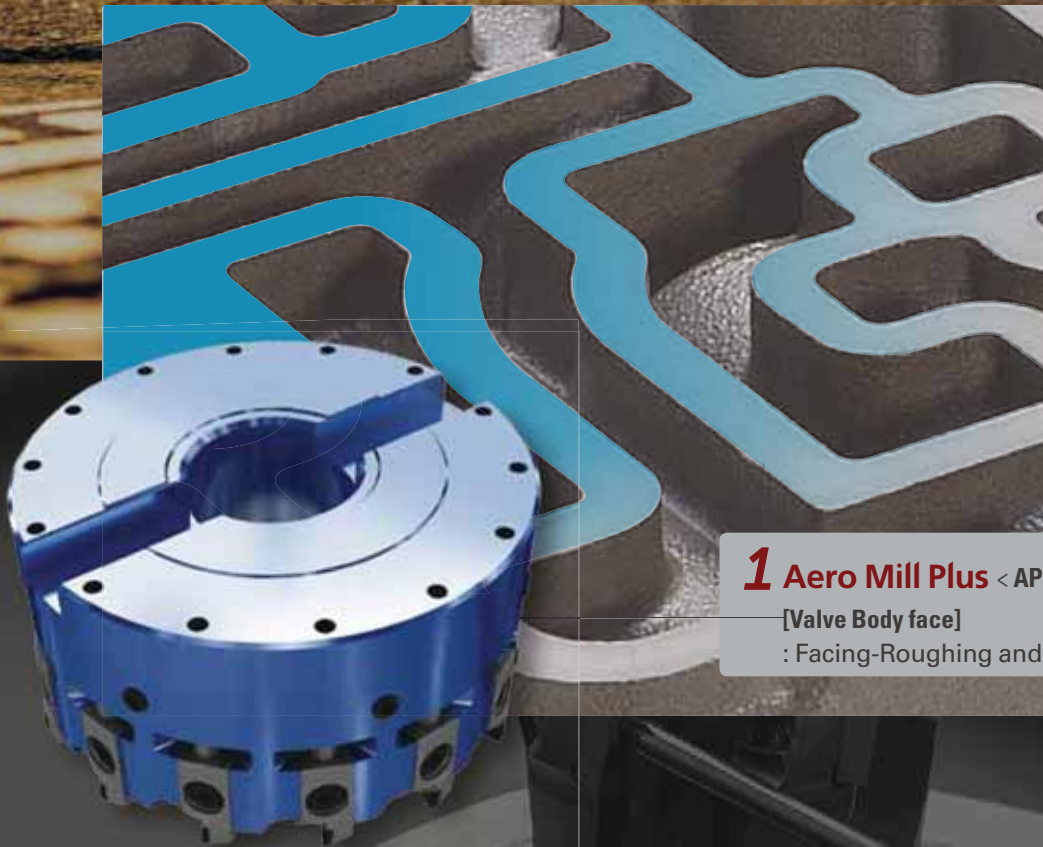
3 Double Clamp Holder < DDJNR/L >

[Outside Diameter]
: Turning-Finishing



15 Valve Body

(Al alloy)



1 Aero Mill Plus < APD-P >
[Valve Body face]
: Facing-Roughing and Finishing

3 PCD Form Tools & Drills

[Solenoid Holes]

: Finishing Drilling and Step Boring

2 Pro X-Mill

[Case Top Face and Mounting Area]

: Facing-Roughing and Finishing

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**AUTOMOTIVE
INDUSTRY**

4 Step Burnishing Reamer

[Solenoid Holes]

: Reaming-Finishing

5 Mach Drill < Double Margin >

[Location Holes]

: Drilling



1 Mach Drill <MSDH>
[Caliper Holes]
: Drilling

16

Knuckle

(Gray cast iron)



2 Wind Mill
[Low Arm]
: Slotting

3 Micro Boring Bar

[Knuckle Center Hole]
: High Precision Boring



4 Indexable Side Cutter

< RMT8 >

[Damper(upper arm)]
: Double Side Milling



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**AUTOMOTIVE
INDUSTRY**

5 Rich Mill < RM3 >

[Low Arm, ABS, Caliper]
: Facing-Roughing and Finishing



6 Indexable Side Cutter

< RM8 >

[Tie Rod, Low Arm]
: Full Side Face Milling



7 TPDC Drill

[Low Arm, ABS, Caliper]
: Drilling, Chamfering



17 CV Joint

(Forged steels)



2 Double Clamp Holder <DCLNR/L>

[Outside Diameter]

:Turning



<CNMG>

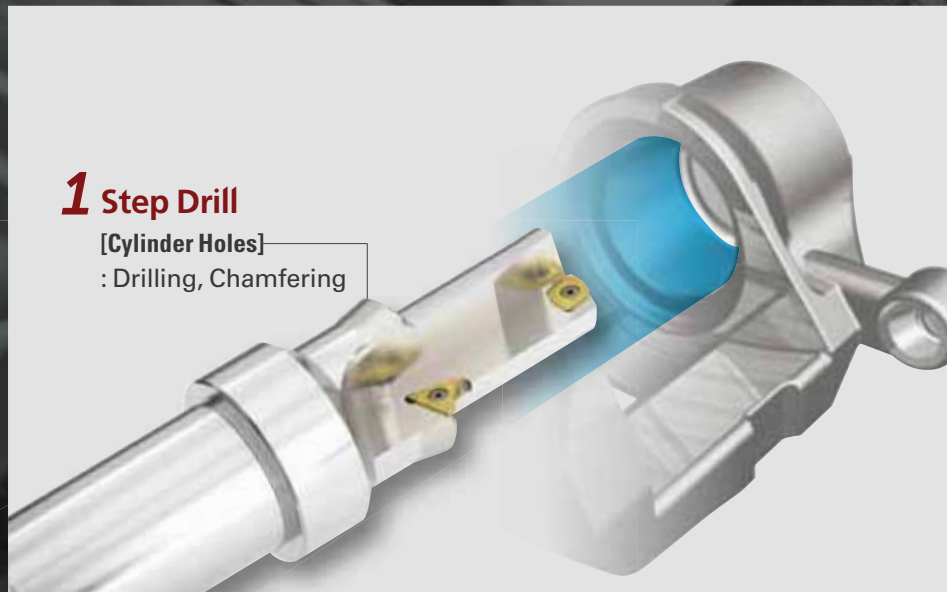
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**AUTOMOTIVE
INDUSTRY**

3 Laser Mill <LBH, LBS>

[Inside Diameter]

: Endmilling





18

Caliper Bracket

(Cast iron)





4 Special Side Cutter

[Disk Seat]
: Slotting



5 Special Grooving

[Cylinder Holes]
: Grooving



6 Special Side Cutter

[Lug Pin]
: Double Side Milling

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INDUSTRY**



7 Special Side Cutter

[Break Seat]
: Slotting



8 Special Boring Bar

[Cylinder Holes]
: Boring, Chamfering



19 Brake Disk

(Cast iron)

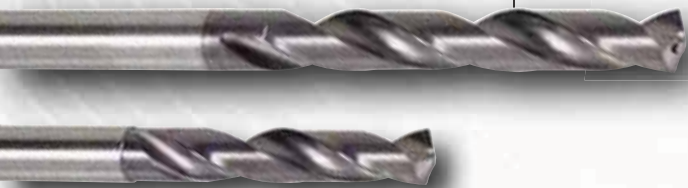


2 Double Clamp Holder < DCLNR/L >

[Drum Cover]
: Turning

3 Mach Drill < MSD, MSDH >

[Fixing Bolt Holes]
: Drilling



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**AUTOMOTIVE
INDUSTRY**

4 Mach Drill < MSD, MSDH >

[Fixing Holes]
: Drilling

5 Double Clamp Holder < DSBNR/L >

[Outside Diameter]
: Turning

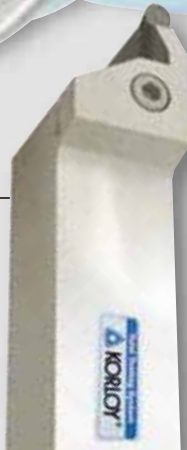
20 Wheel

(Aluminum)

1 MGT Holder < MGEHR/L >
[Wheel Outside Diameter]
: Turning-Roughing, Finishing



<MRGN-A(PCD)>



2 Boring Bar < MGIXR/L >
[Wheel Inside Diameter]
: Turning-Roughing, Finishing



<MRGN-A(PCD)>

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AUTOMOTIVE
INDUSTRY

3 King Drill Step Drill
< SPMT, XOMT-ND >

[Wheel Bolt Holes]
: Drilling, Chamfering



21

ABS Housing

(Al alloy)

1 Aero Mill-Mini < MAPD >

[ABS Housing Face]

: Facing-Medium Cutting to
Finishing





2
TM Solid
< Thread Milling Tool >
[TAP]
: Threading



3
Burnishing Drill
[TAP]
: Drilling

4
PCD Boring Tool and Drills
[ABS Housing Multi Holes, Countersink Step Holes and Connecting Holes]
: Boring, Drilling



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AUTOMOTIVE
INDUSTRY



5
Aero Mill, Aero Mill Plus < APD, APD-P >
[ABS Housing Face]
: Facing-Medium Cutting to Finishing





1 Aero Mill, Aero Mill Plus < APD, APD-P >

[ABS Housing Face]

: Facing-Medium Cutting to Finishing

22

Manifold

(Cast iron, Al alloy)



2 Rich Mill < RM8, RM3, RM4 >

[Facing]

: Facing

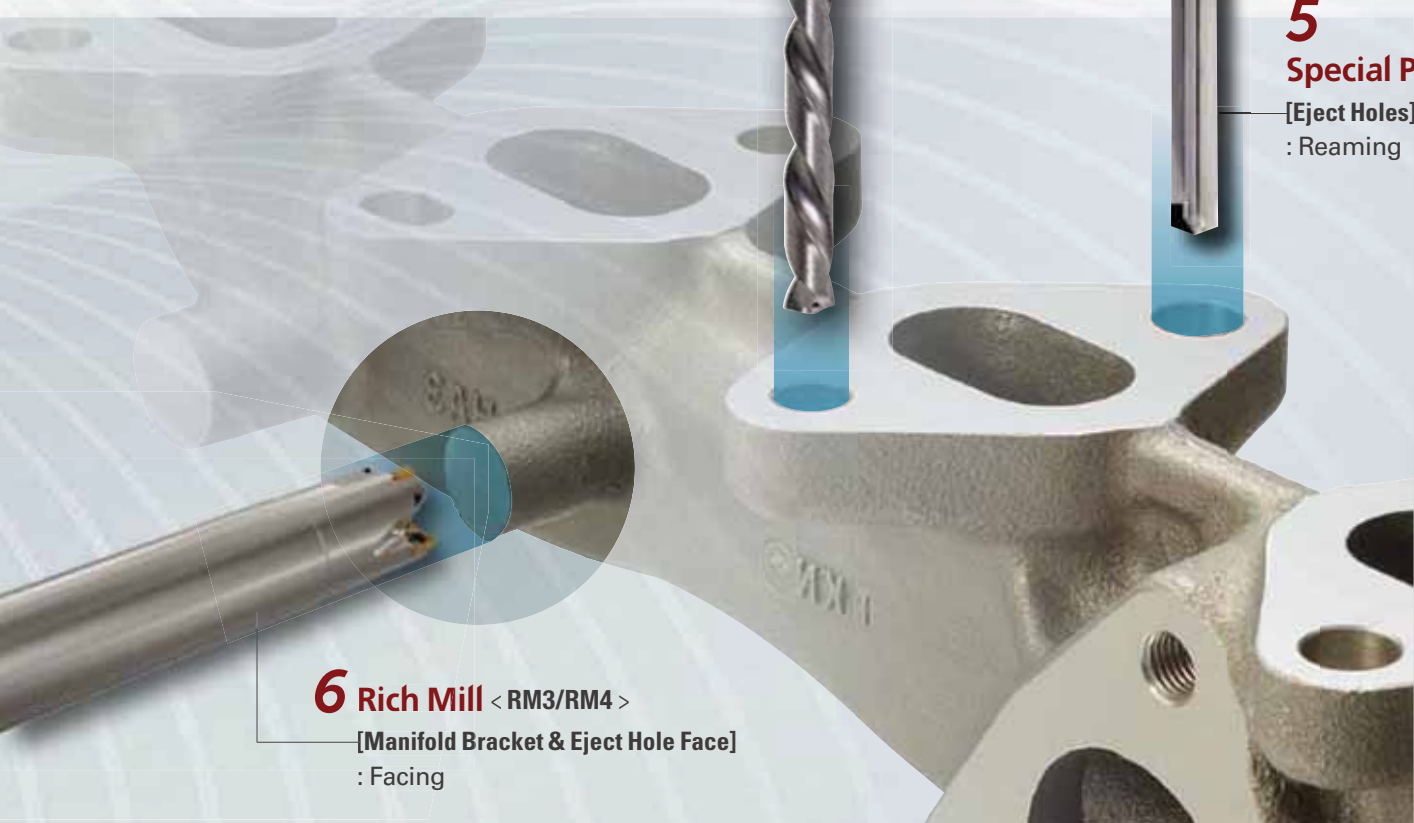


3 Rich Mill < RM4, RM8, RM16 >
[Cylinder Facing]
: Facing

Industrial Solutions of
KORLOY
AUTOMOTIVE
INDUSTRY

4 Mach Drill < MSD, MSDH >
[Holes]
: Drilling

5 Special PCD Reamer
[Eject Holes]
: Reaming



6 Rich Mill < RM3/RM4 >
[Manifold Bracket & Eject Hole Face]
: Facing



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