



Special Cutting Tools for Automotive Parts



Since 1992, Meets the new challenges and the new brilliance



In the course of the development of the company, constantly committed to improving the living standards and living content of workers, continues creating jobs for the local and make due contributions to the stable development of the society.

（社員の生活レベルの向上に努め、地域の雇用を創出し、社会の安定発展へ貢献して参ります。）

Our company is also constantly committed to improving the overall strength and overall image of the company in order to meet the market demand and strive to become a world-renowned company in cutting tools industry at the same time.

（ナステックグループとして、企業イメージを向上させ、市場需要を満足させると同時に業界における地位を確立致します。）

General Manger Sun Guoqing

BRIEF INTRODUCTION

Shanghai Nagoya Precision Tools Co., Ltd. was established in 1992, mainly engaged in various types of precision cutting tools, the products are mainly used for auto parts, medical equipment, consumer electronics, machinery and equipment, wind energy and nuclear energy equipment, ship and railway, military and civilian aircraft and other Precision manufacturing of military equipment.

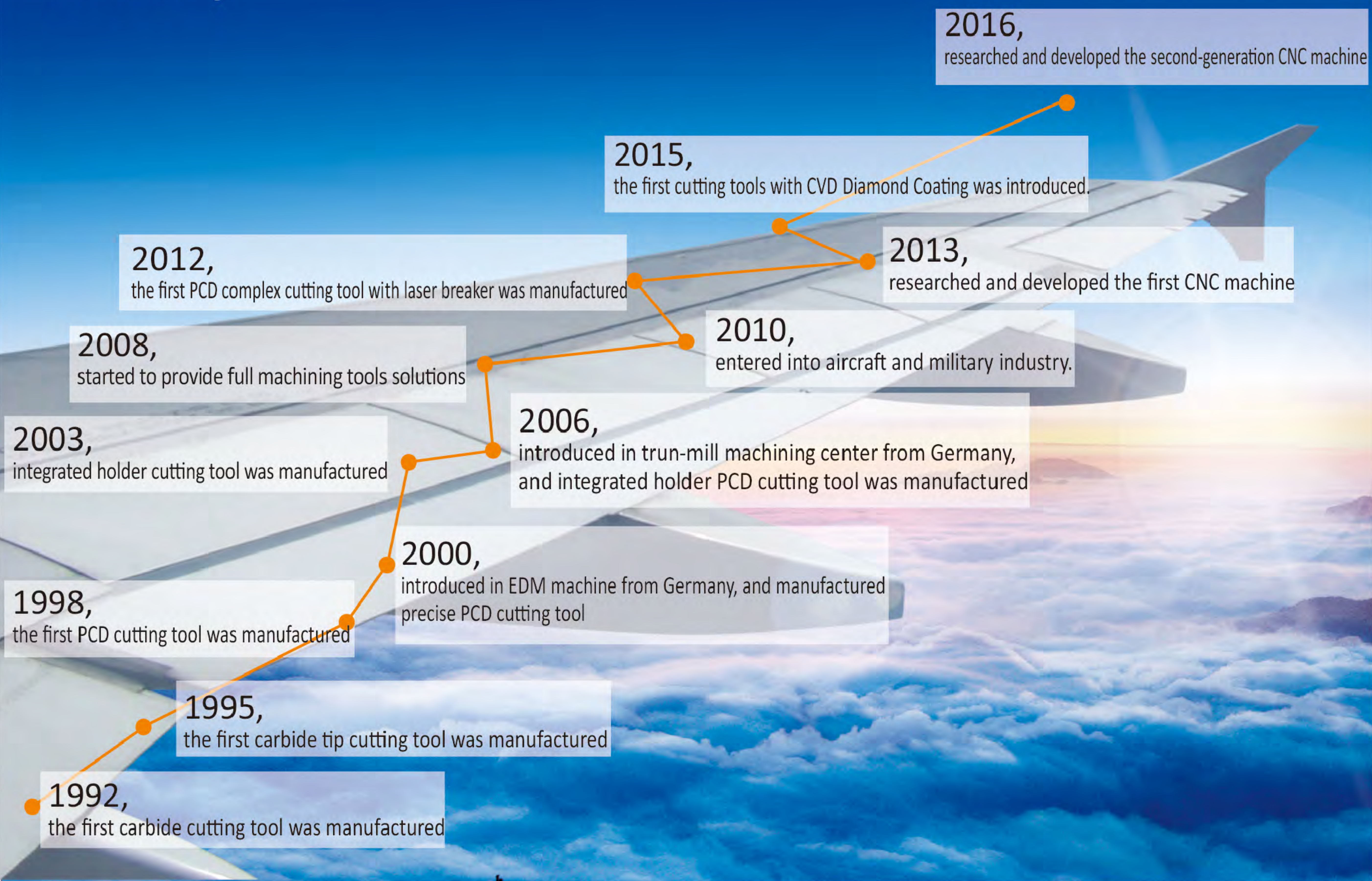
The company gathers design, research and development, manufacture, sale and service as one unity. Meanwhile, also provides a complete set of solution for customers, which contains tools' design, manufacture, optimization, tools regrinding/coating, fixtures customization, match with chucks and holders, processing technology optimization, project cost control and etc.

The company's tool product line includes all kinds of highgrade. carbide cutting tools, PCD and complex cutting tools, mainly used for replacing for the similar imported products, the company is famous for it short delivery and high precision.

For the last 33 years, the company continues creating value for its customers, in the future, the company will continue contributing to the successful development of customer.



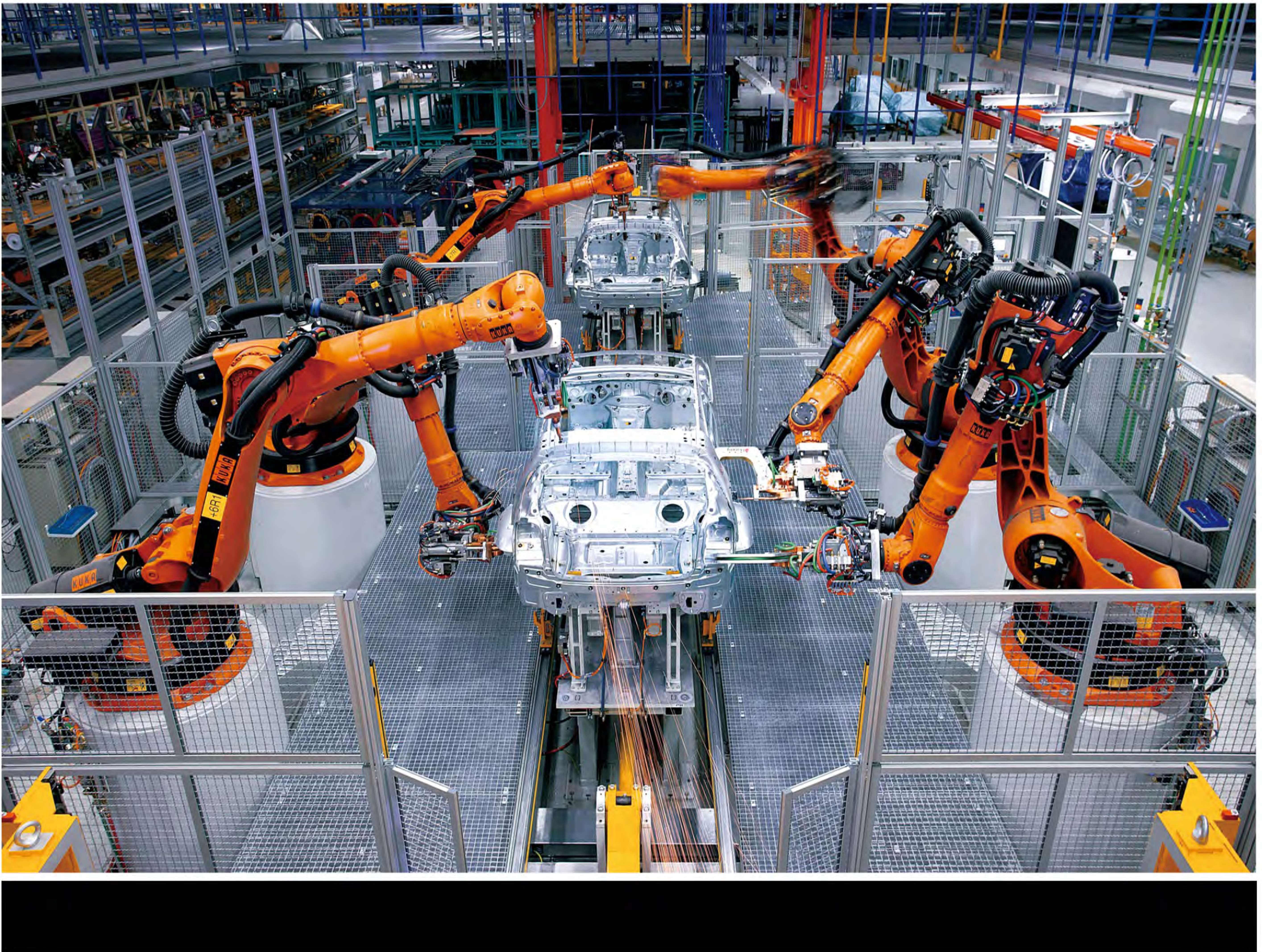
History



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2025, from Made in China to Made with Wisdom, We Will Always be There for You

Recently, the wave of Made with wisdom 2025 has been accompanied by the slogan of Industrial 4.0, which is the best of times and the worst of times. The current situation of China's manufacturing industry is relatively unbalanced, to face with the situation of entering into industrial 4.0 (information) with the absence of overall completion of industrial 2.0 (mechanization) and industrial 3.0(automation). Therefore, in our view, the development of China's industrial manufacturing, will be industrial 2.0, industrial 3.0, industrial 4.0 parallel development of the road.

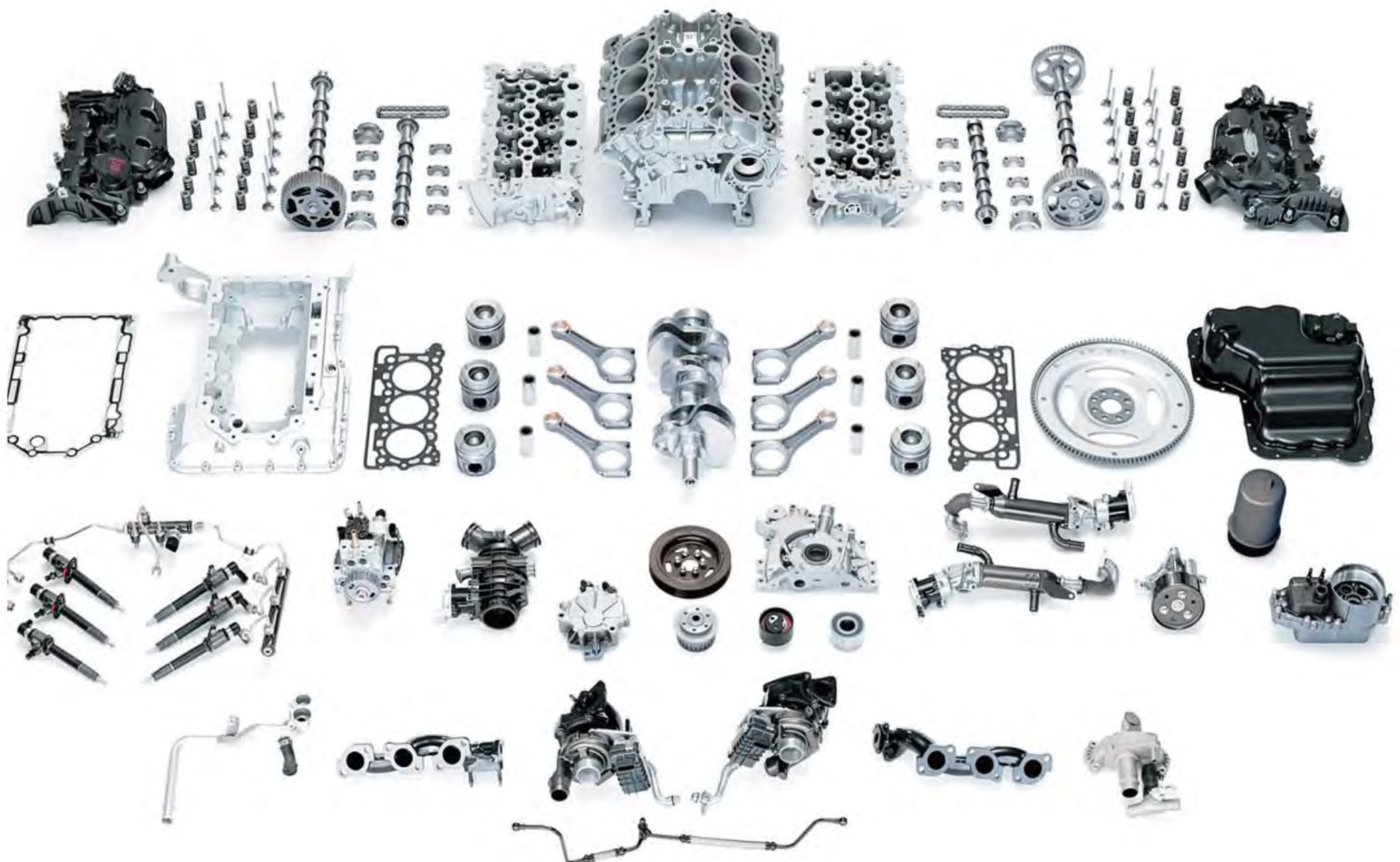
SNSTC as the leading ultra-hard precision cutting tool company in China, it is clear that the importance and rationality of down-to earth development. With high-precision and short delivery, SNSTC provides mature and reliable professional solutions ,and it also provides convenience and benefits for customer in many aspects, such as process optimization, real-time customer service,and extremely short delivery. SNSTC, solutions for Auto industry are based on holistic processing of precision components, including processing scheme of precision hole machining and precision turn milling. It covers all precision cutting tools in parts items. The company uphold the "faster, more complete, more precise and better" business philosophy, by the coming of the wave “Made withWisdom 2025” is approaching, The company will continue keeping enterprising, solving problems and creating value for you.

Contribute to The Great Development of Automotive Industry in China

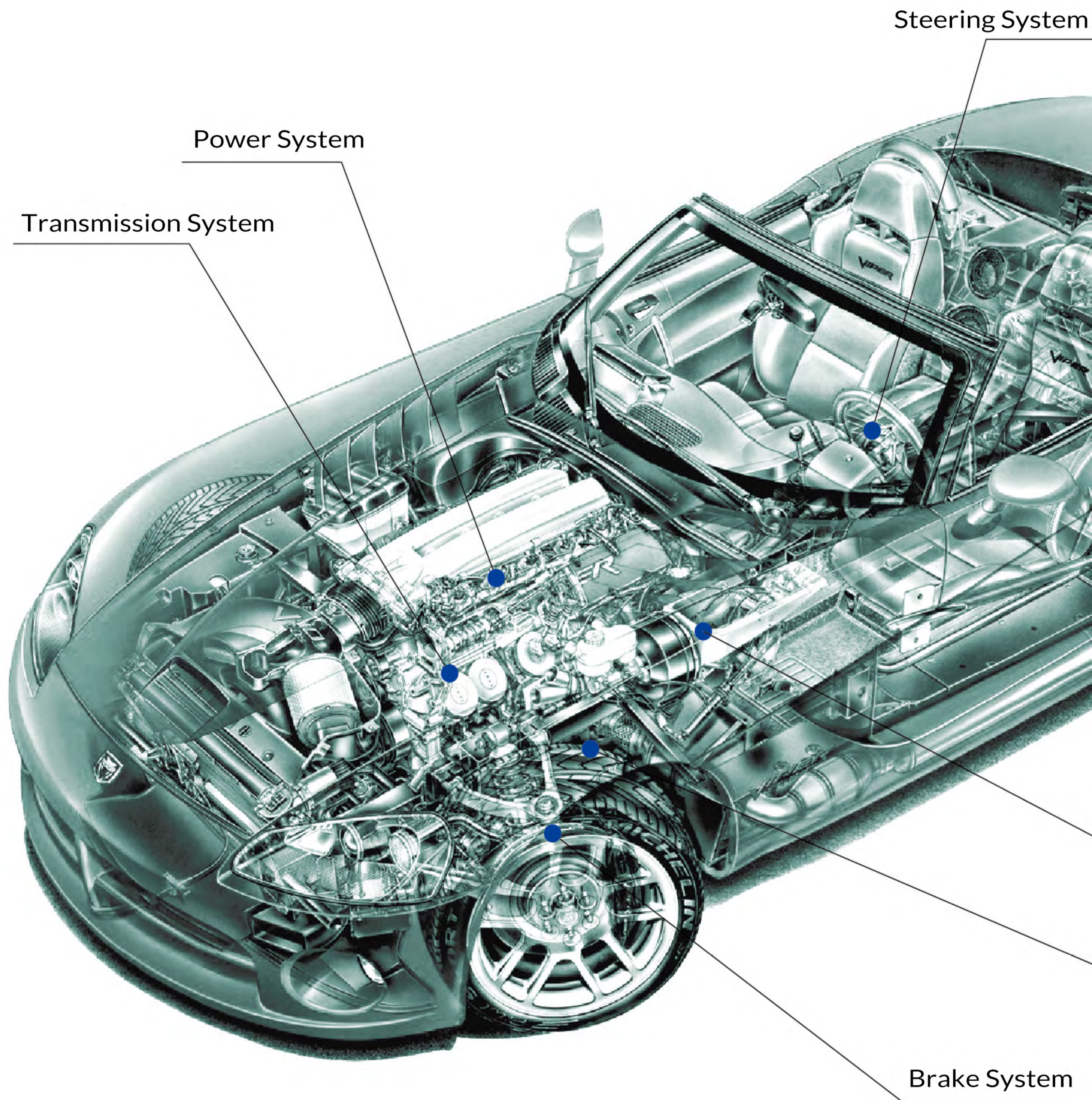
With the upgrading of automobile consumption, related industries have developed rapidly, China's auto industry also have got an unprecedented development opportunity in almost 10 years. From the time we provide the first tools for clutch housing 33 years ago, great changes have happened to the whole auto industry in China. Nowadays, it has become the immediate goal for every auto part enterprise in China to move from low end production to high end equipment manufacturing, with high efficient management replacing rough management, and industrial clusters replacing industrial agglomeration.

SNSTC has maintained long term cooperative relations with major auto manufacturers and parts suppliers, providing them with premier, high efficient and precise tools and solutions ranging from engine cylinder and cover, clutch, gear box and steering shell to ABS valve, Brake caliper bracket and air-conditioner's cylinder back cover and plunger.

SNSTC sincerely wish to have the honor to cooperate with you, and try our best to help you as well as to contribute to the development of China's auto industry with our experience and innovative spirit.



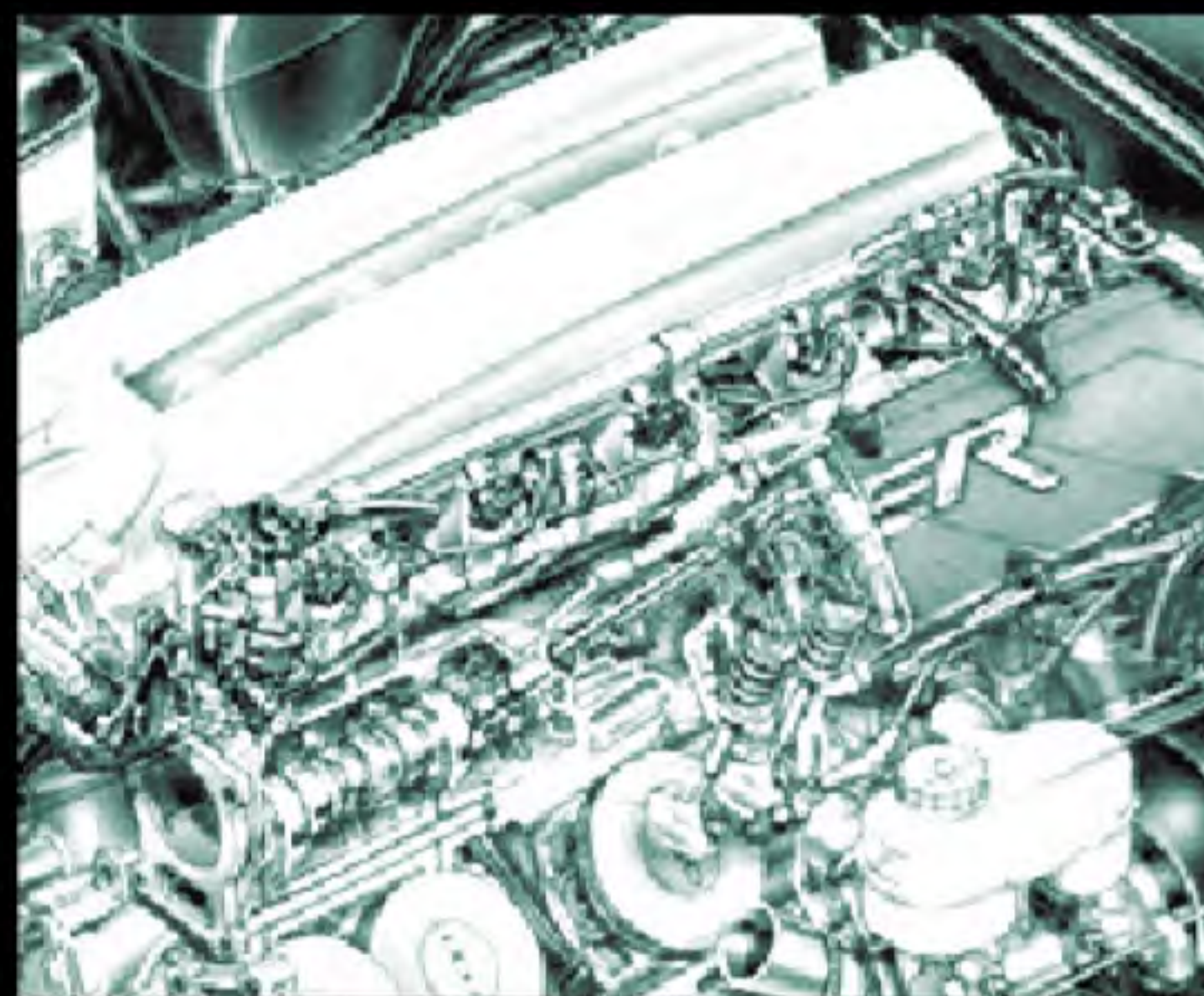
The Core Auto Systems



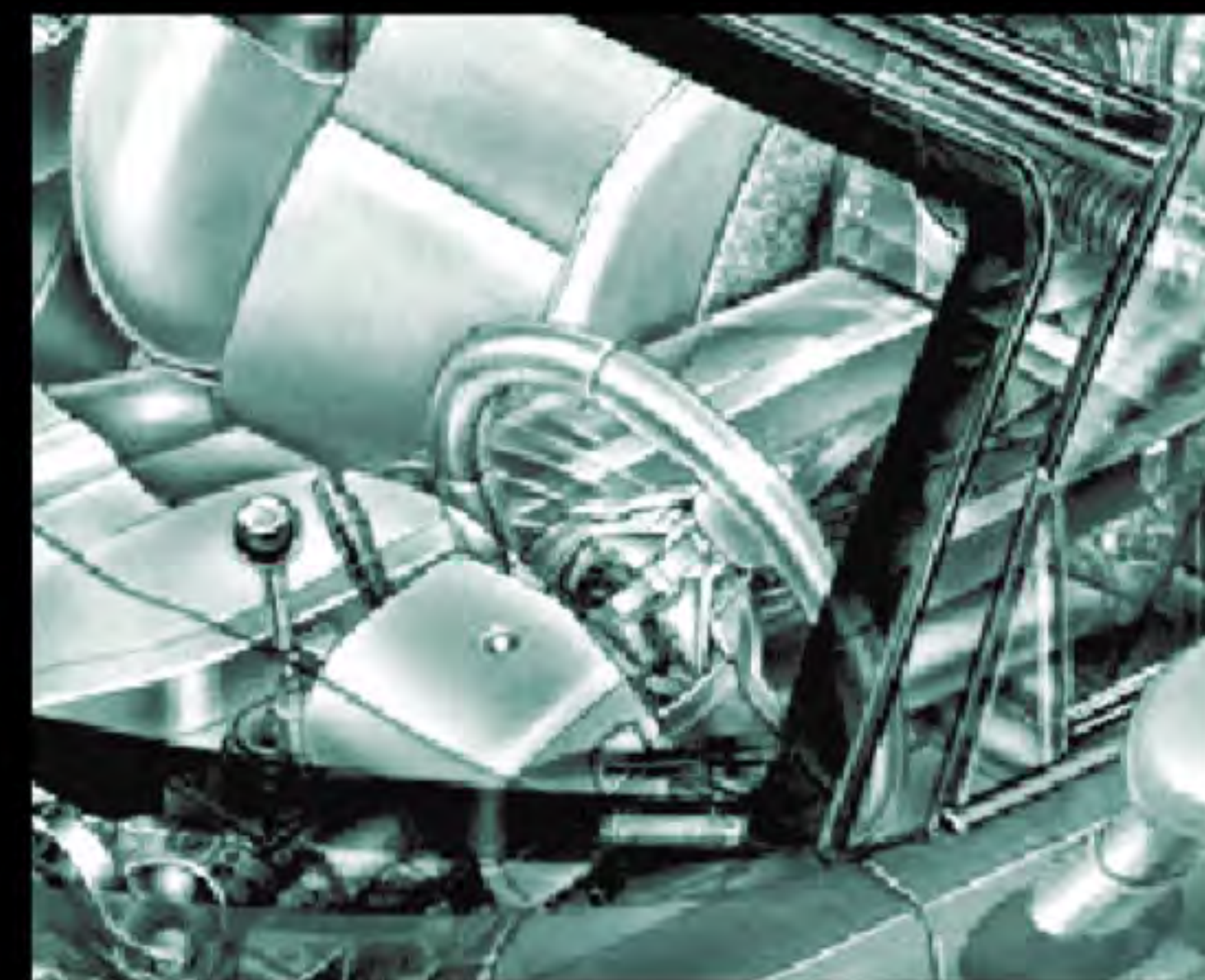


Air-conditioning System

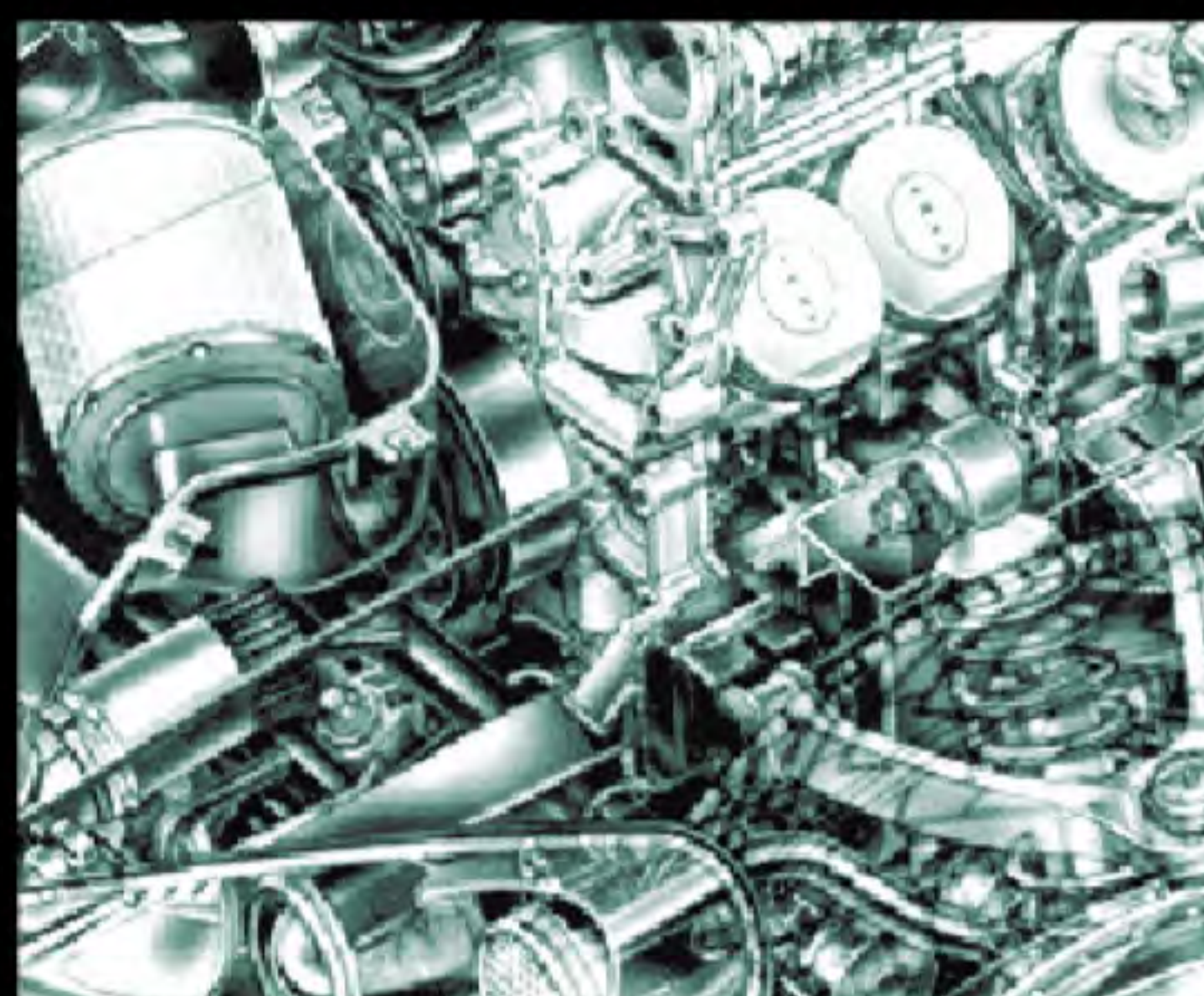
Driving System



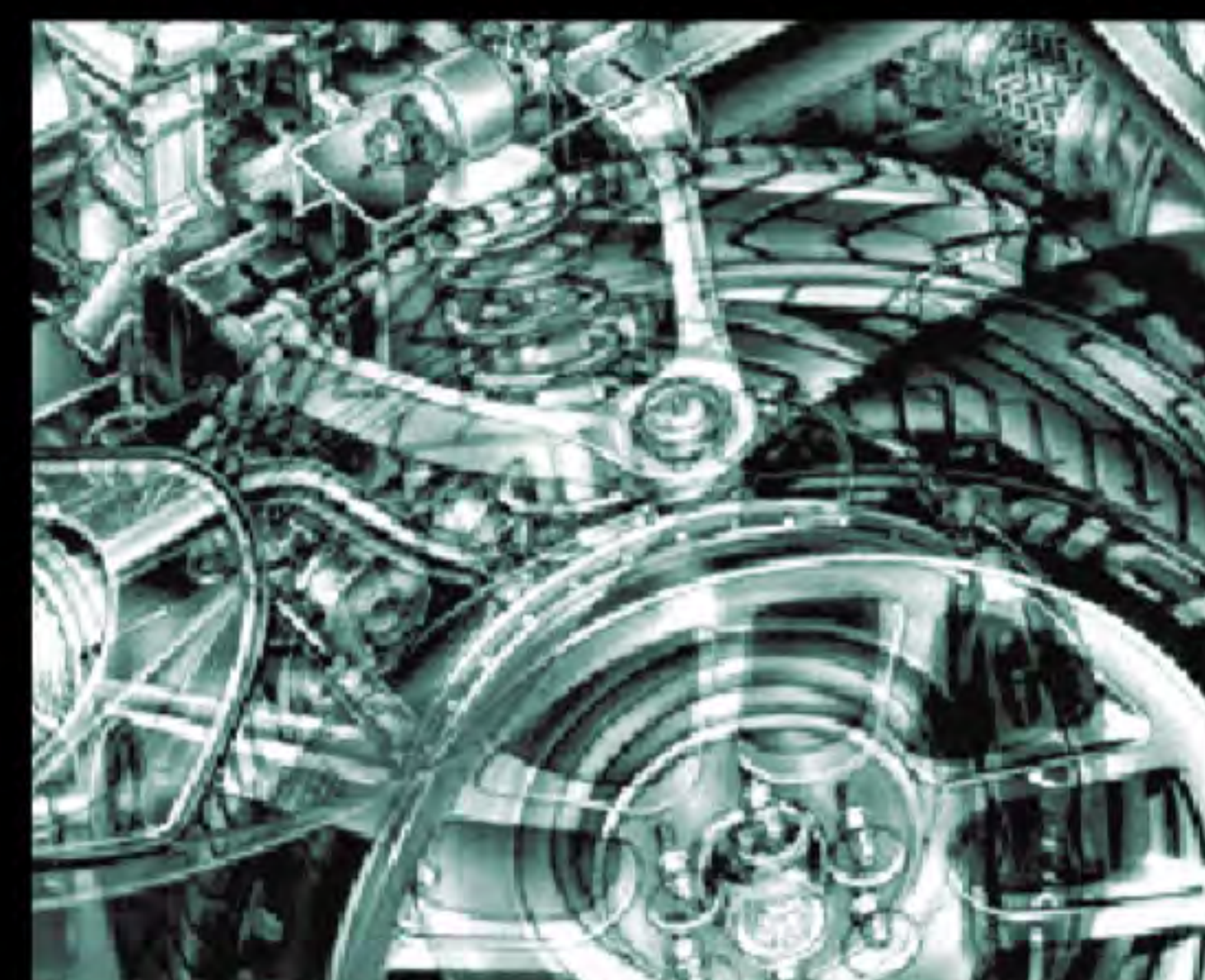
• Power System



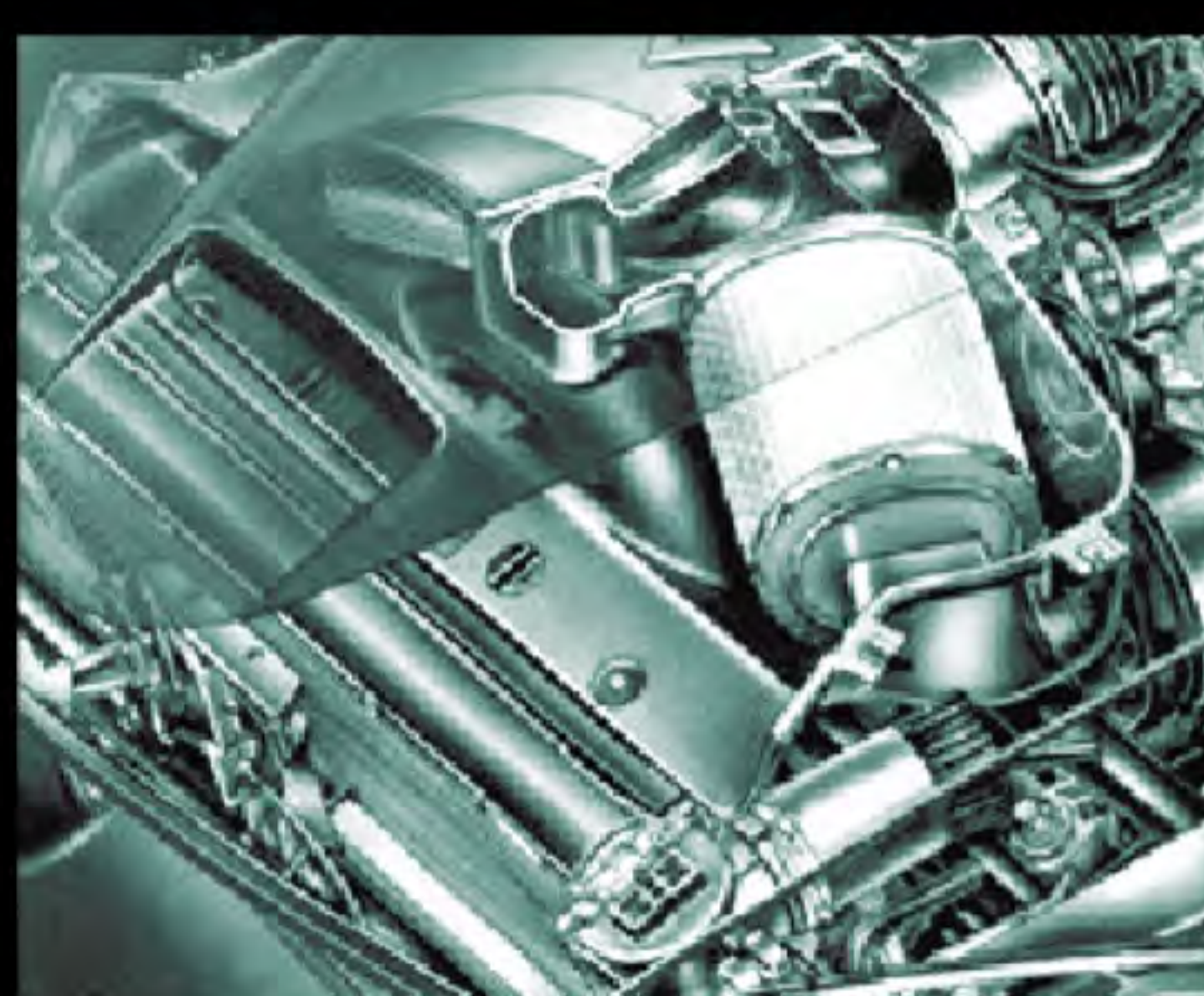
• Steering System



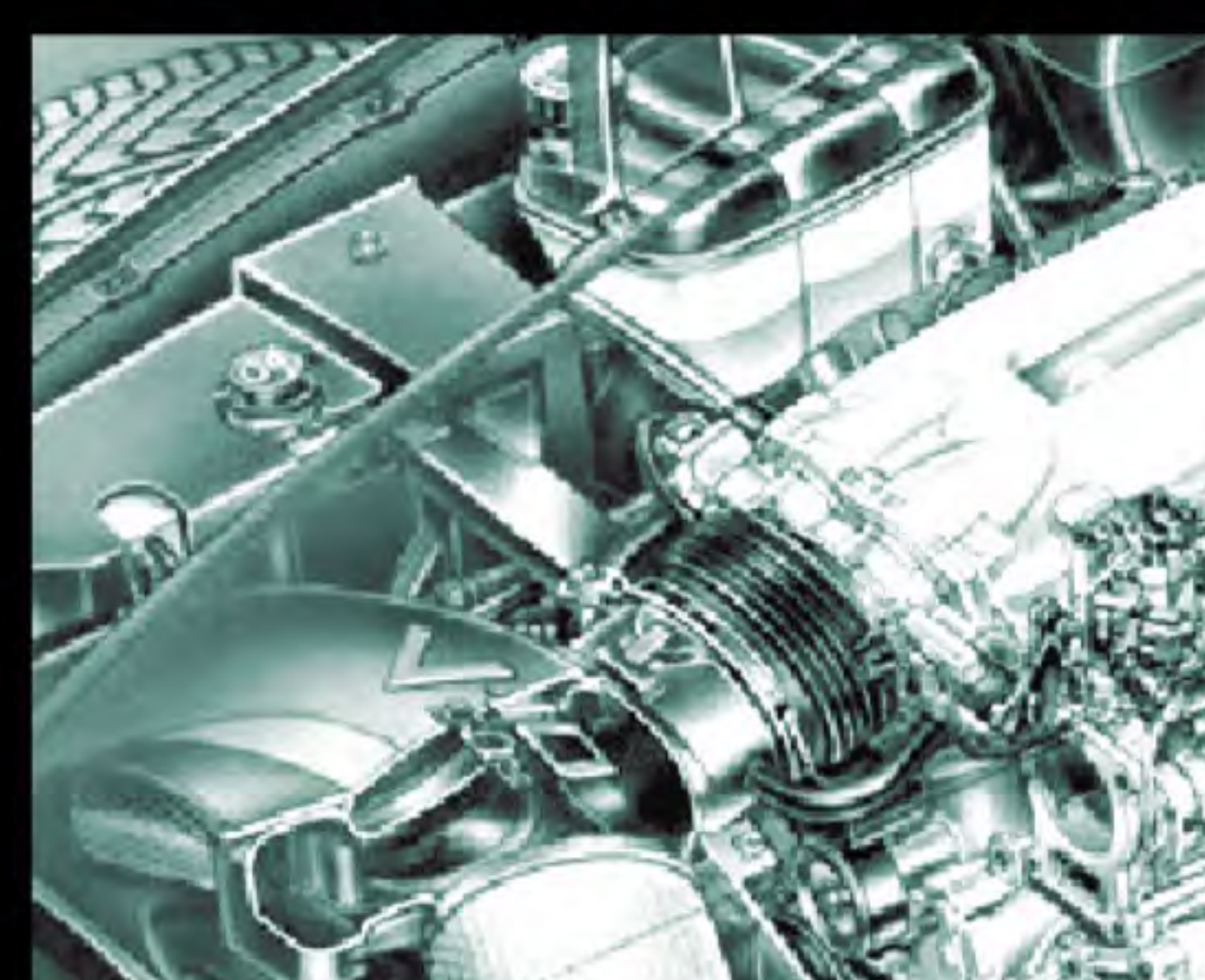
• Driving System



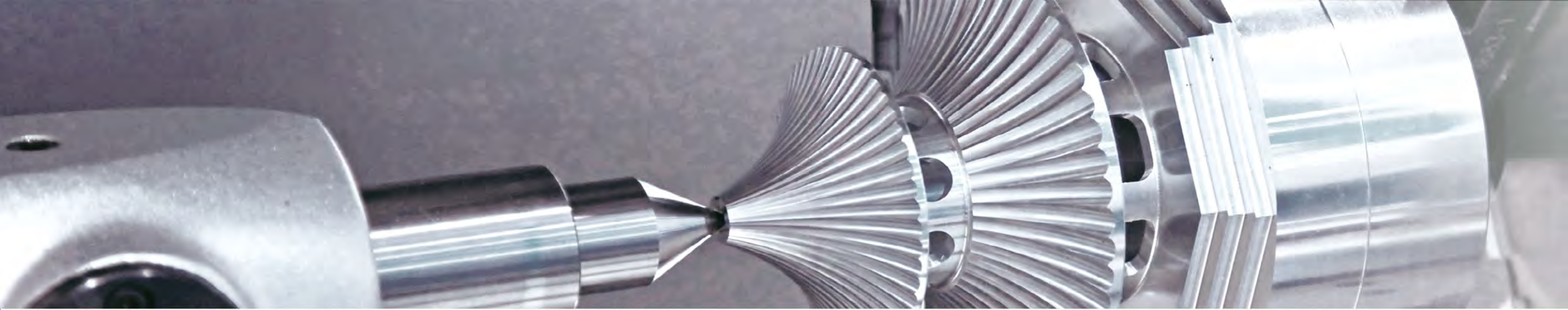
• Brake System



• Transmission System



• Air-conditioning System

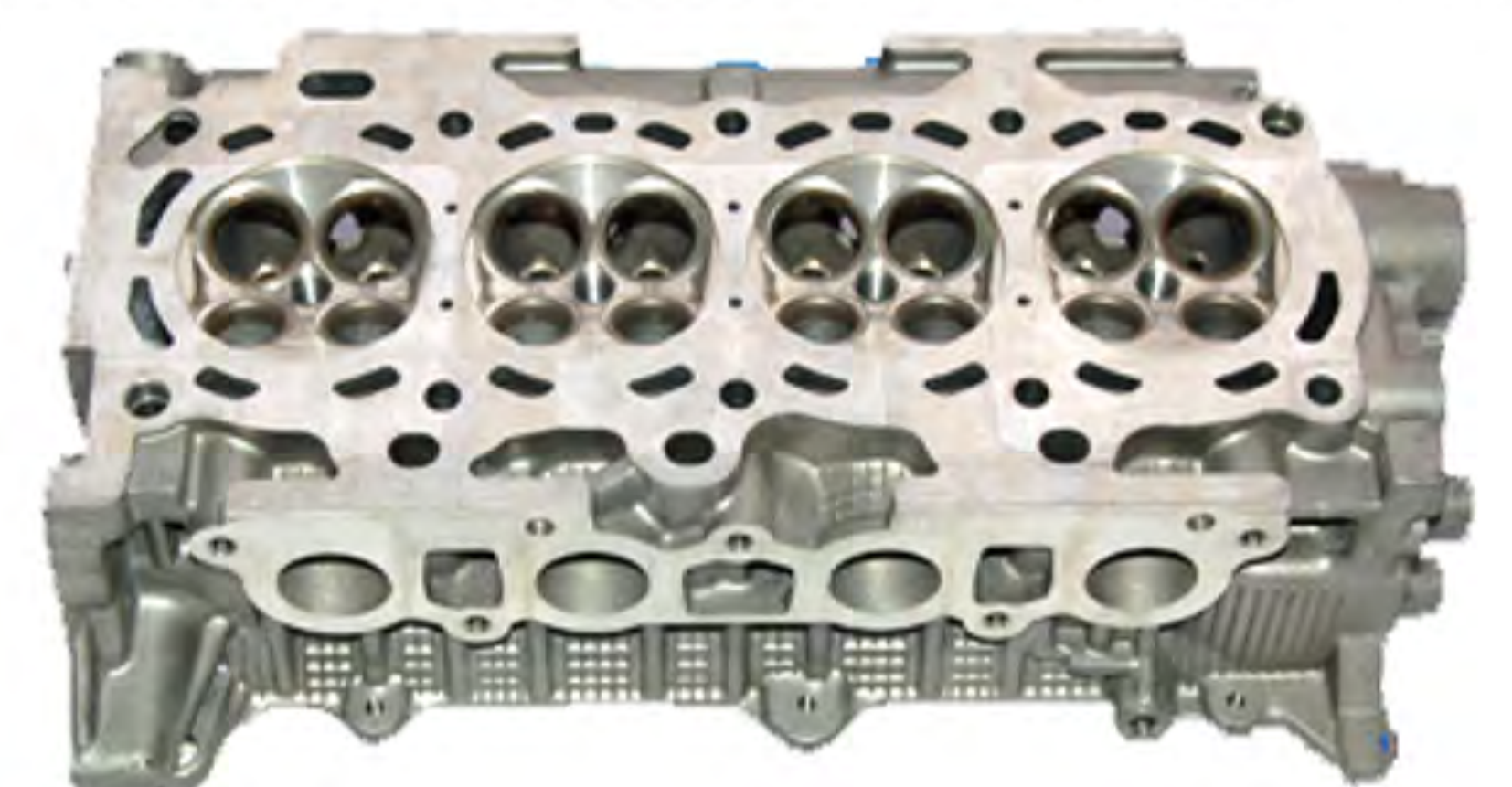
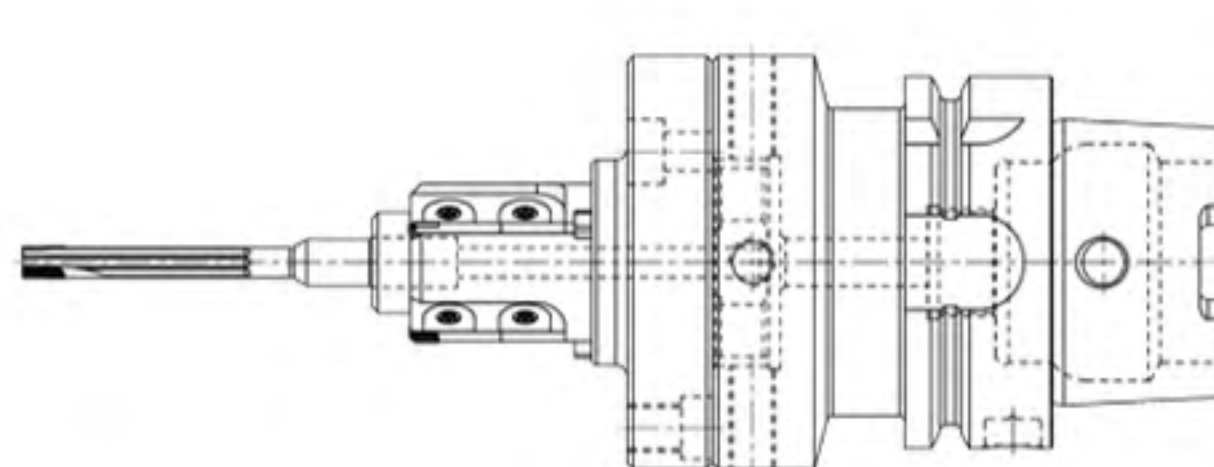
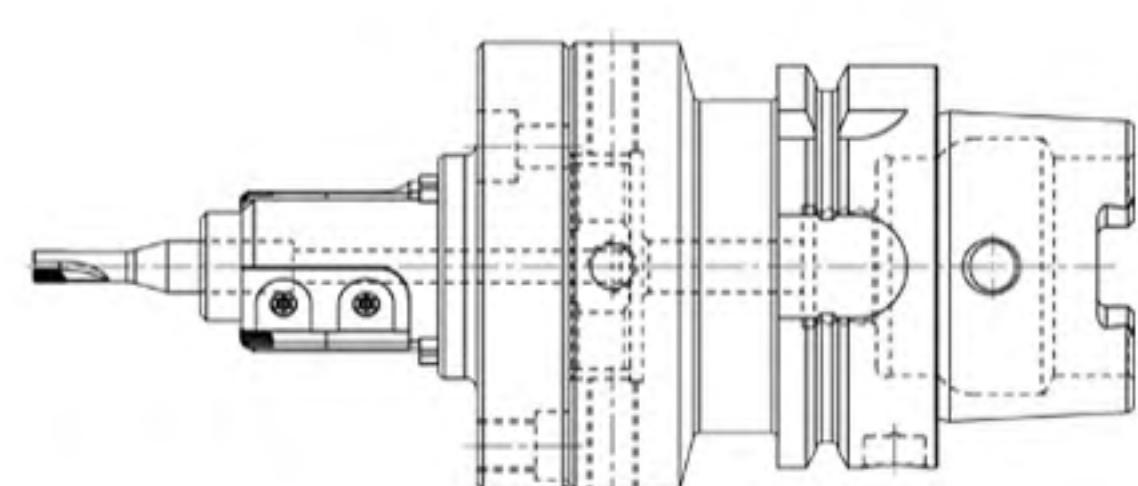
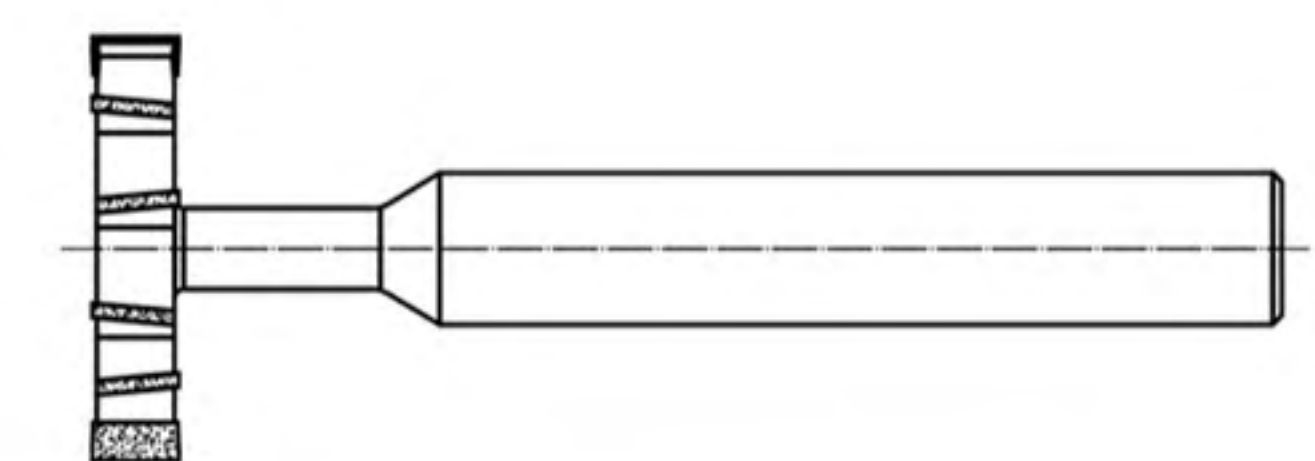
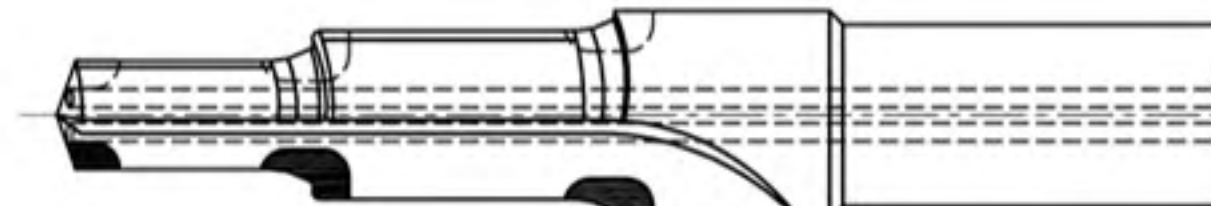
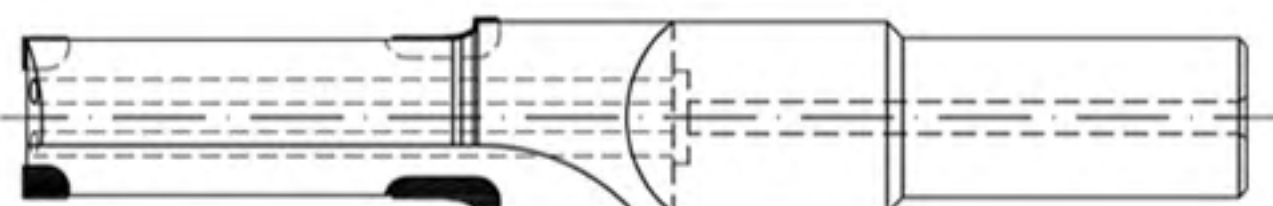
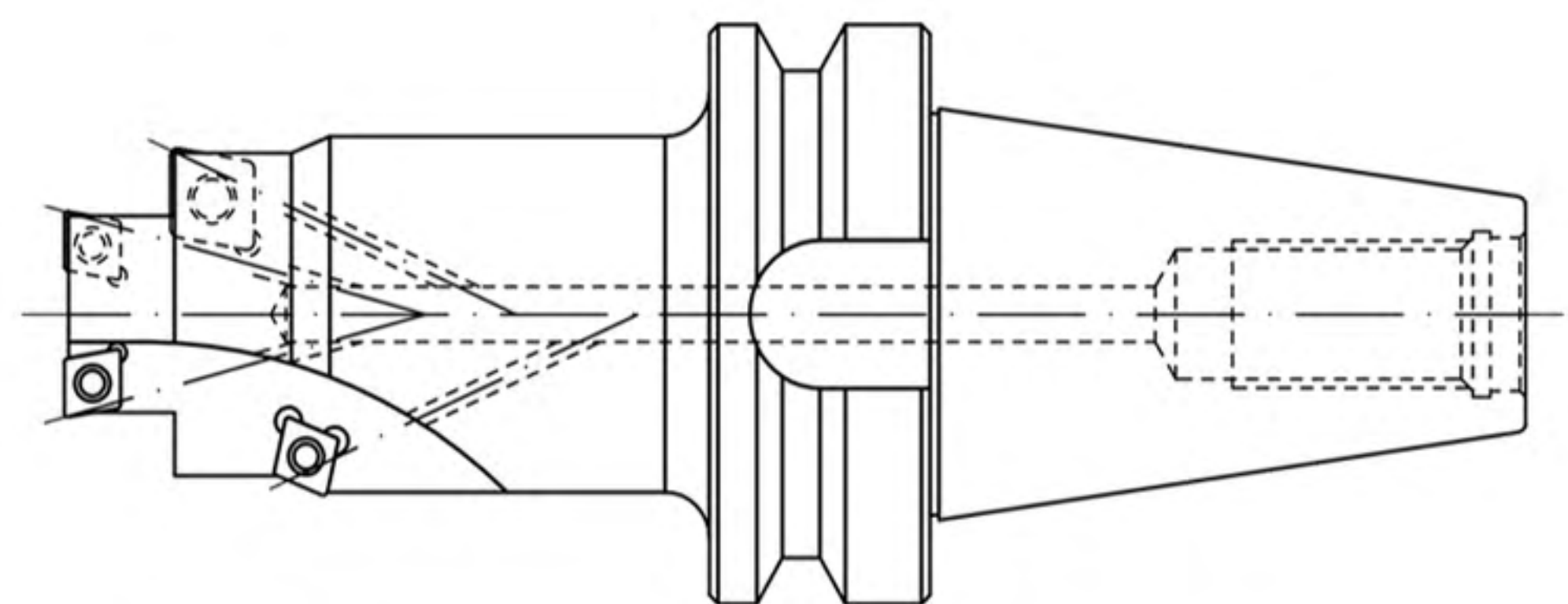
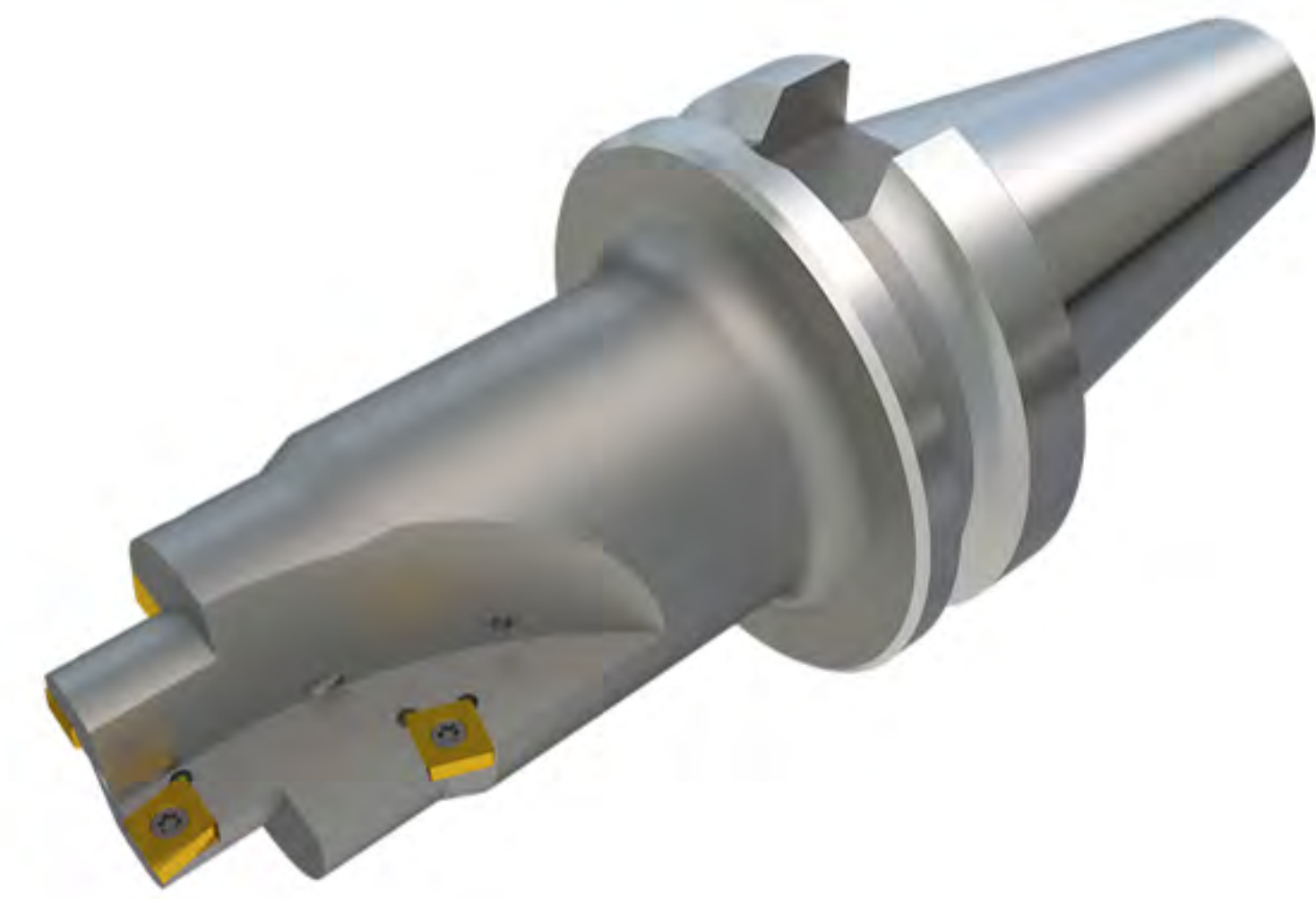


■ Tool Solution for Engine System --- Engine



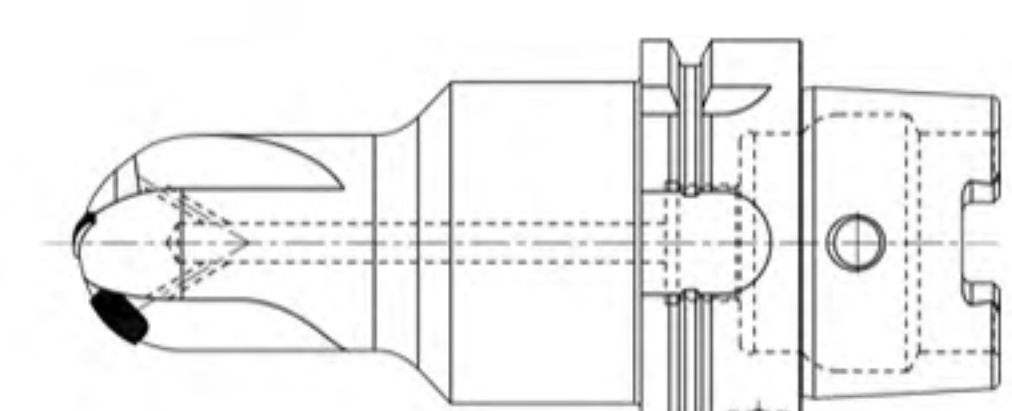
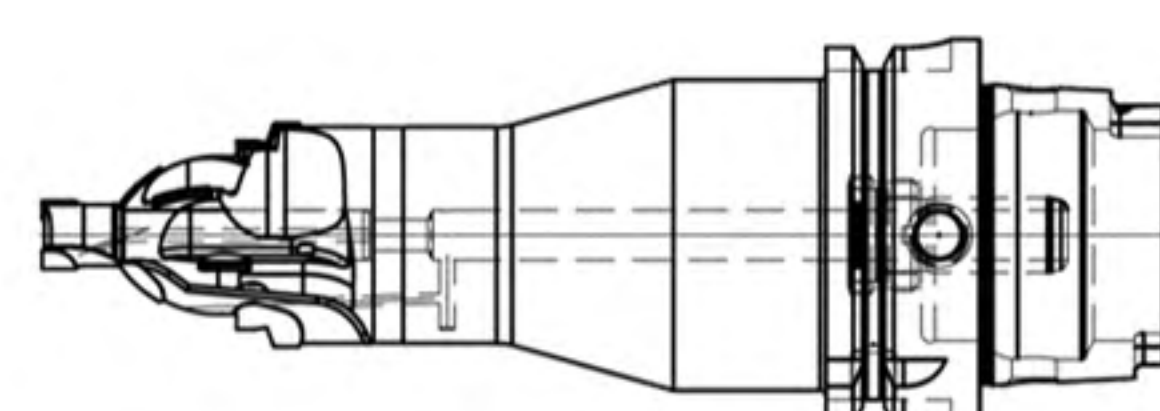
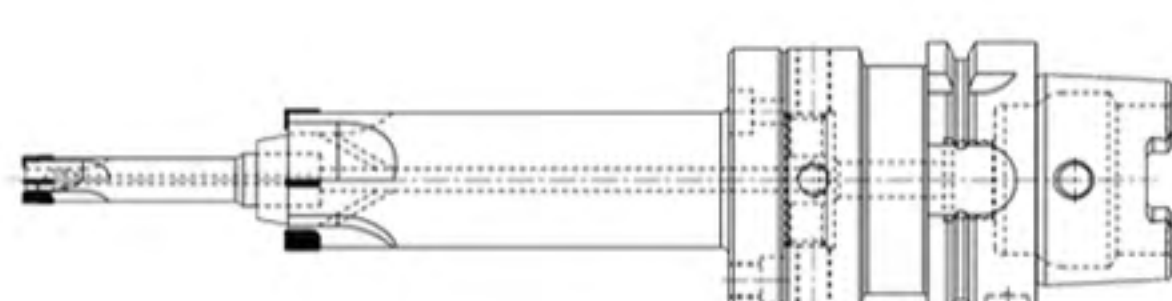
Engine Cylinder Head Cover

It is on the top of cylinder head, protecting cylinder and head, and also provides the space for machine oil reflex housing, air guide plate and other parts. And we have a complete set of tool solution.



Engine Cylinder Head

It pursues high compression ratio and great heat dissipation performance as it is in high speed and high load operation. Therefore it needs to be made of Si-aluminum alloy material. And our PCD tools have already been wildly applied to process this kind of parts.



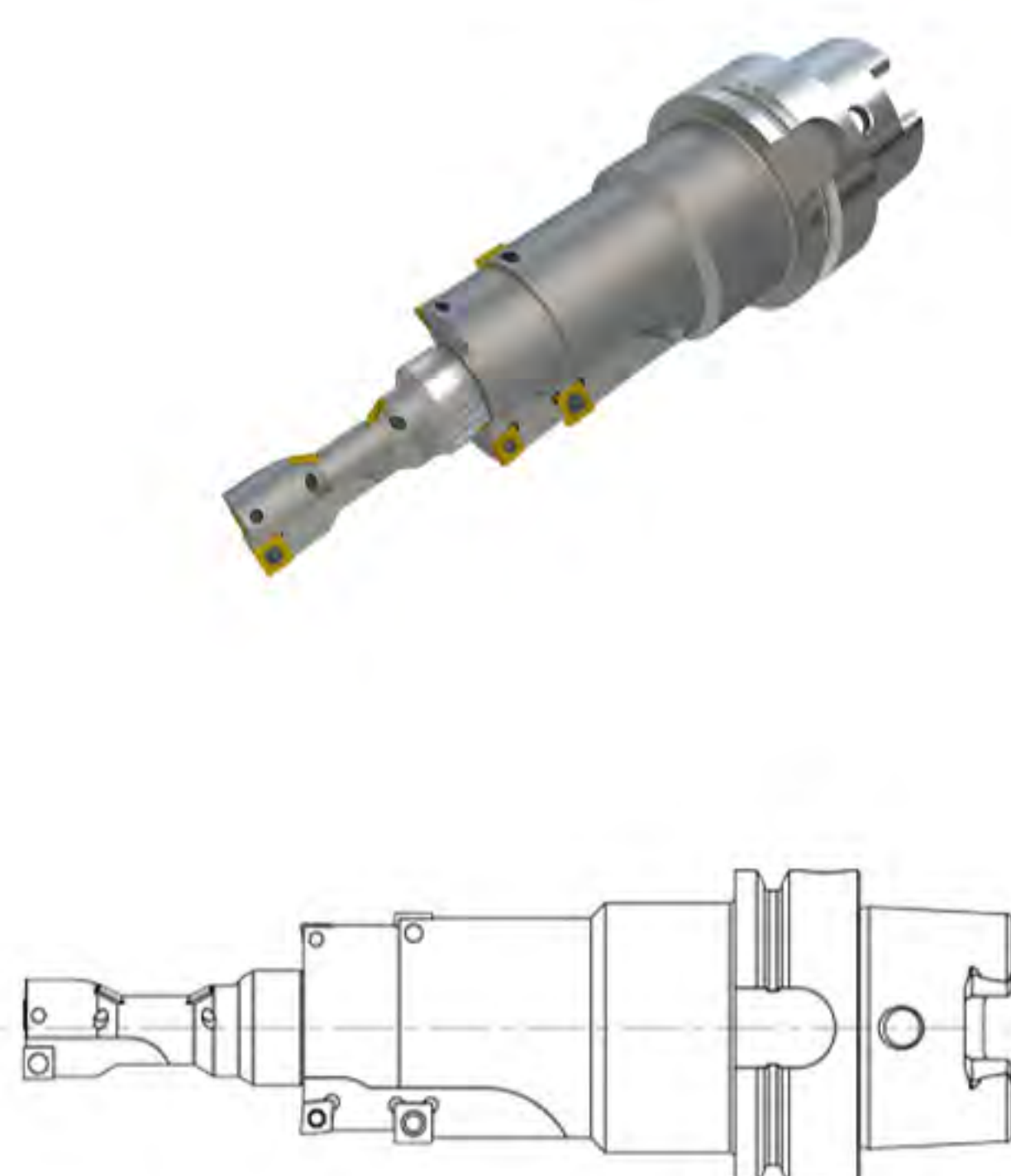
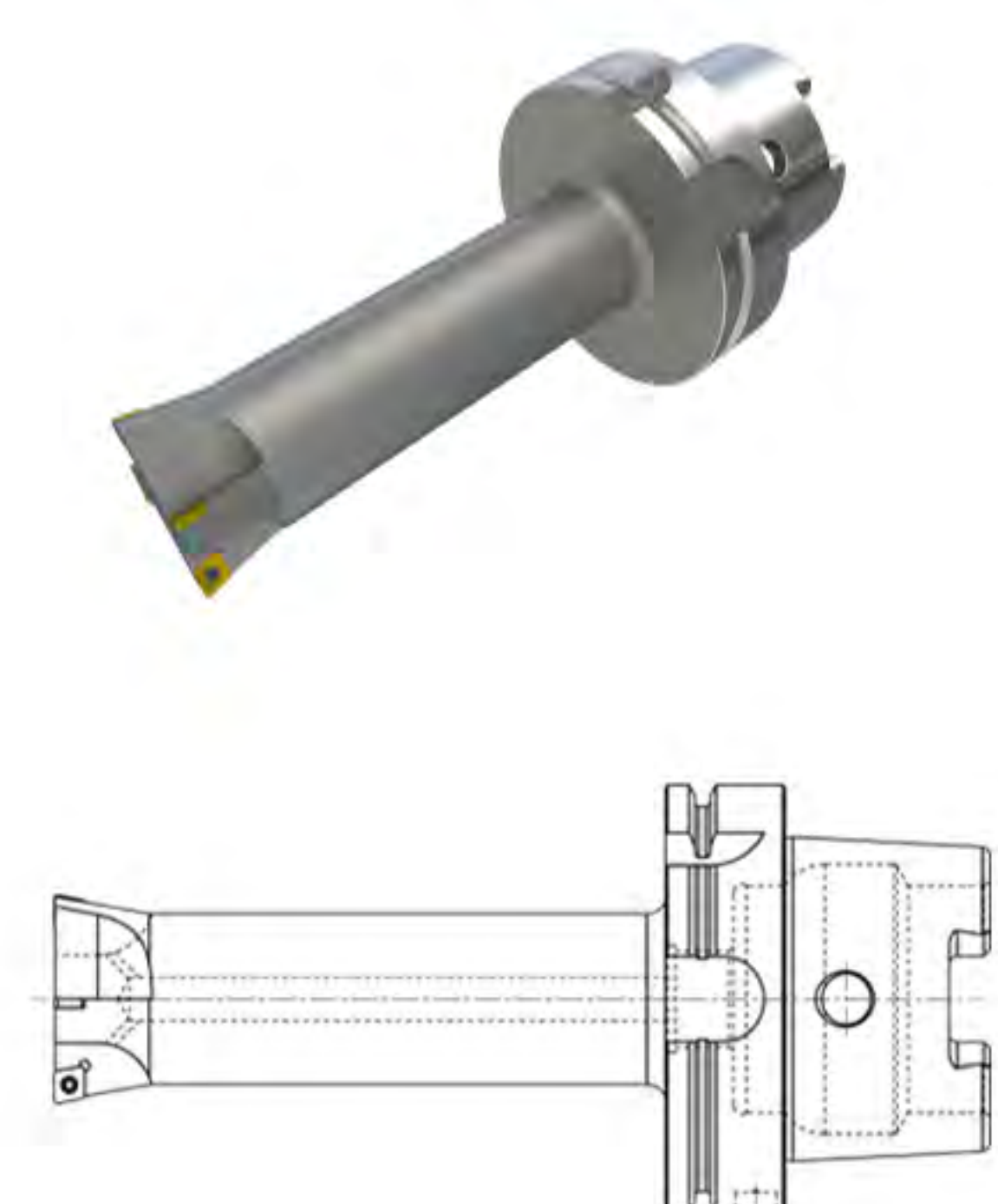
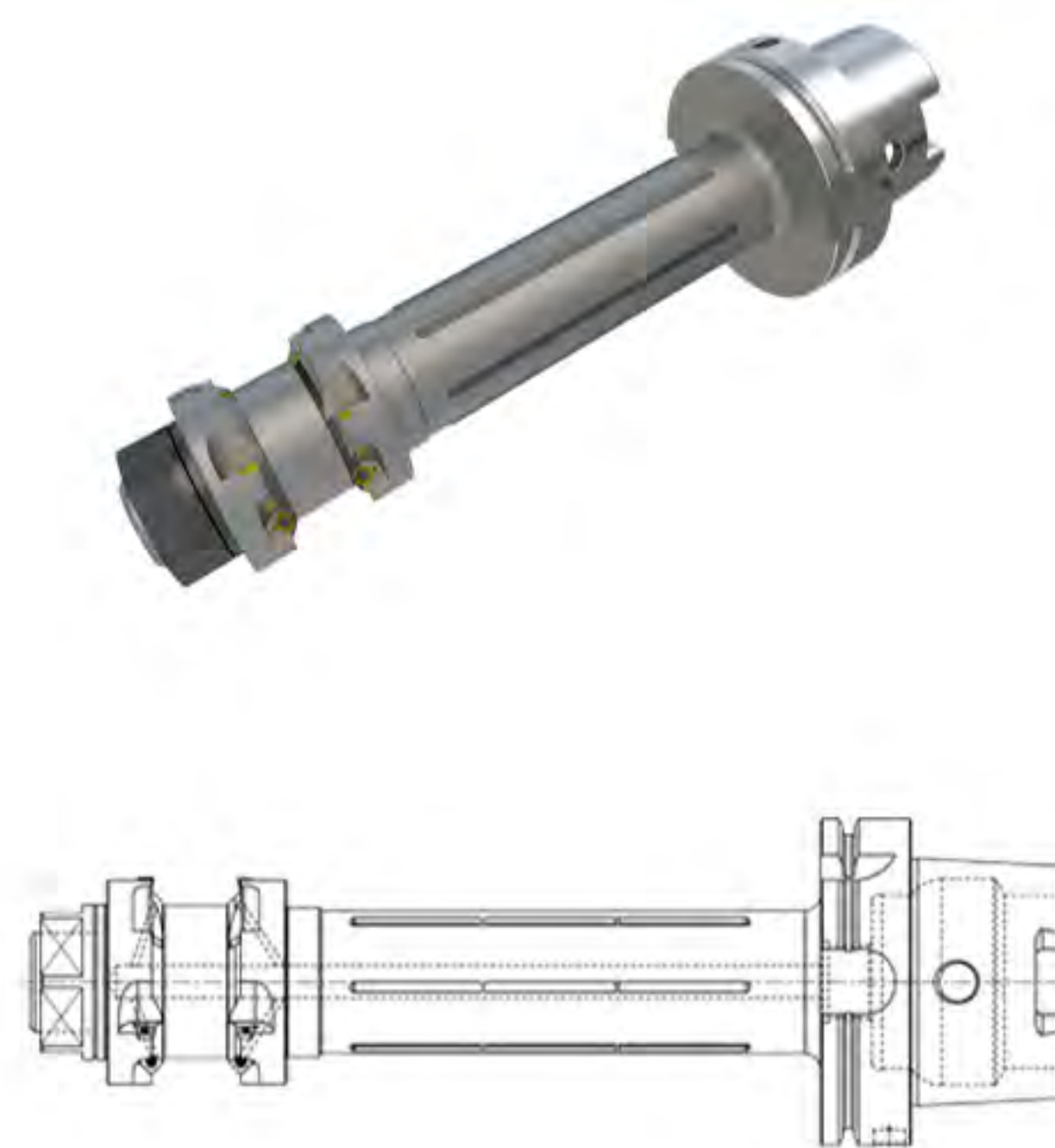
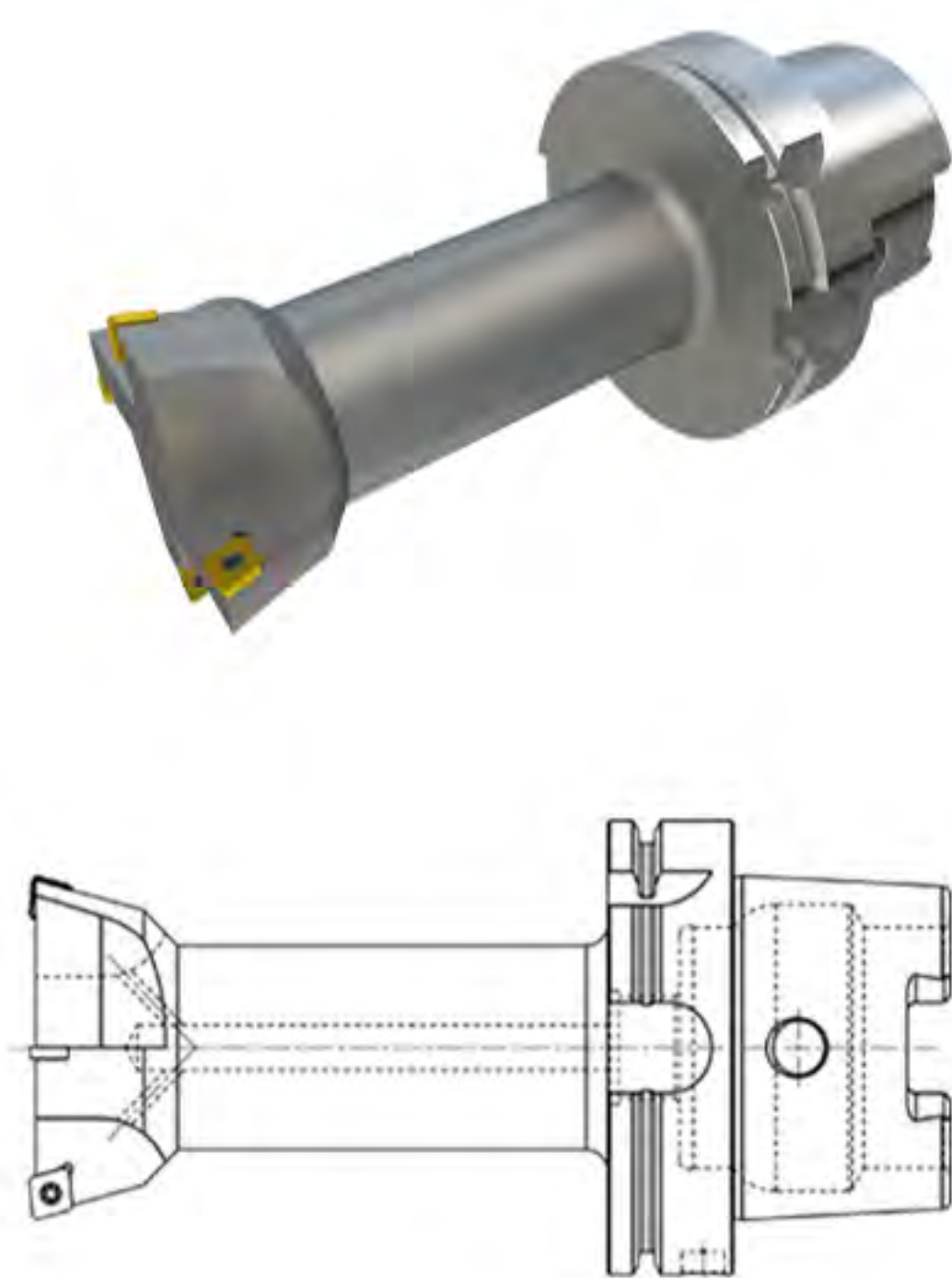
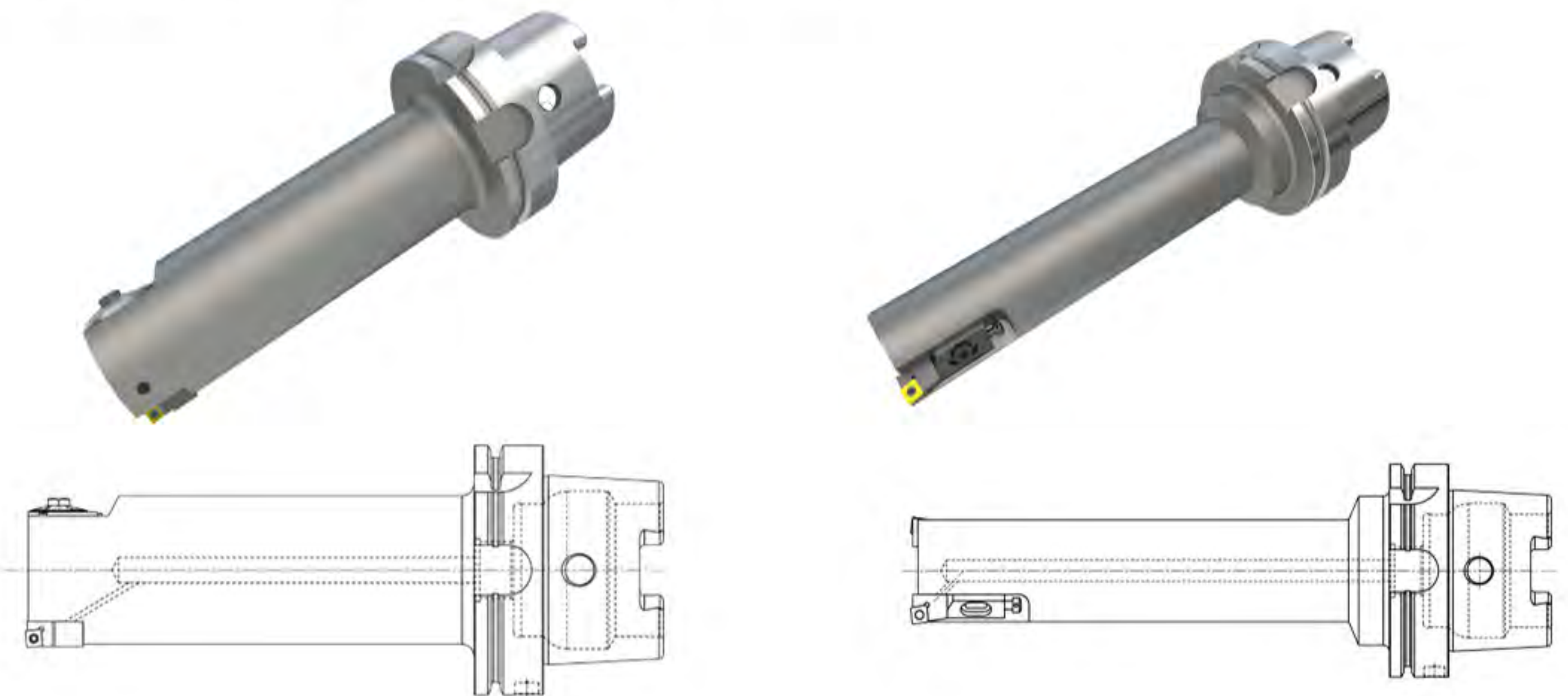
Power System

Car moves by burning fuel.
It includes engine system, air intake and exhaust system, and fuel feed system.



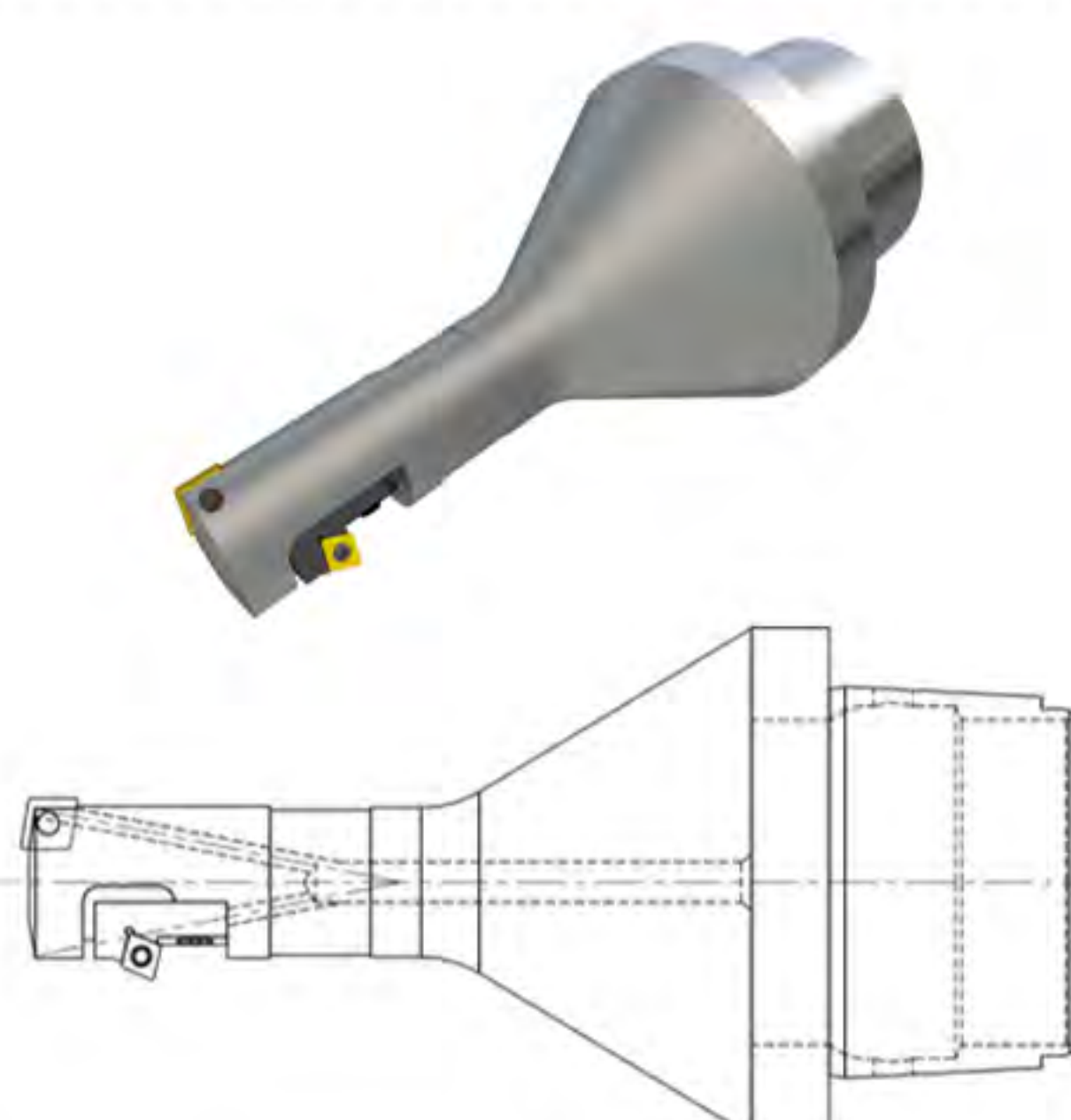
Engine Cylinder

As the framework and matrix of the engine, the engine cylinder must bear the force caused by high temperature and high pressure when the fuel is burning, therefore it must use the best precision cutting tools to meet the requirement. And we have plenty of practical experience in this area.



Engine Toggle Lever

Only through the crank-rod , engine transfers the reciprocating motion of the plunger to the rotation motion of the bant shaft. So the lever bears massive force. The processing of the lever cannot leave out high quality precision cutting tools.



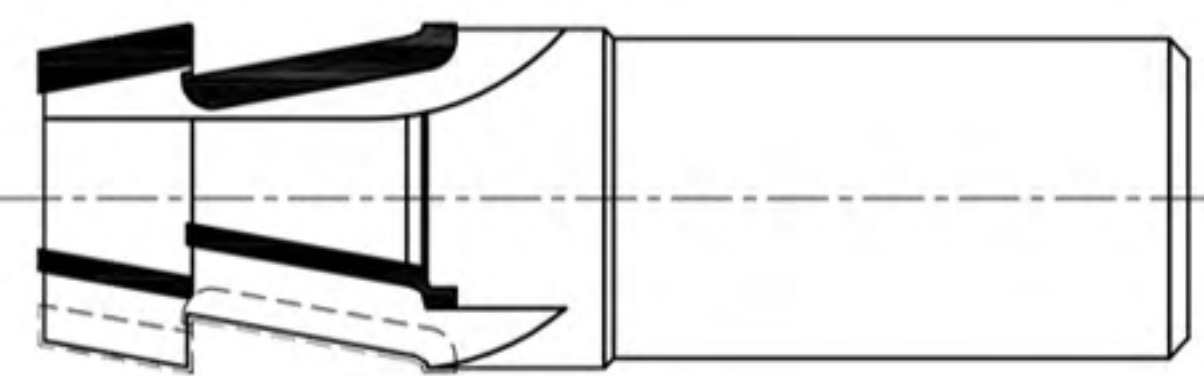
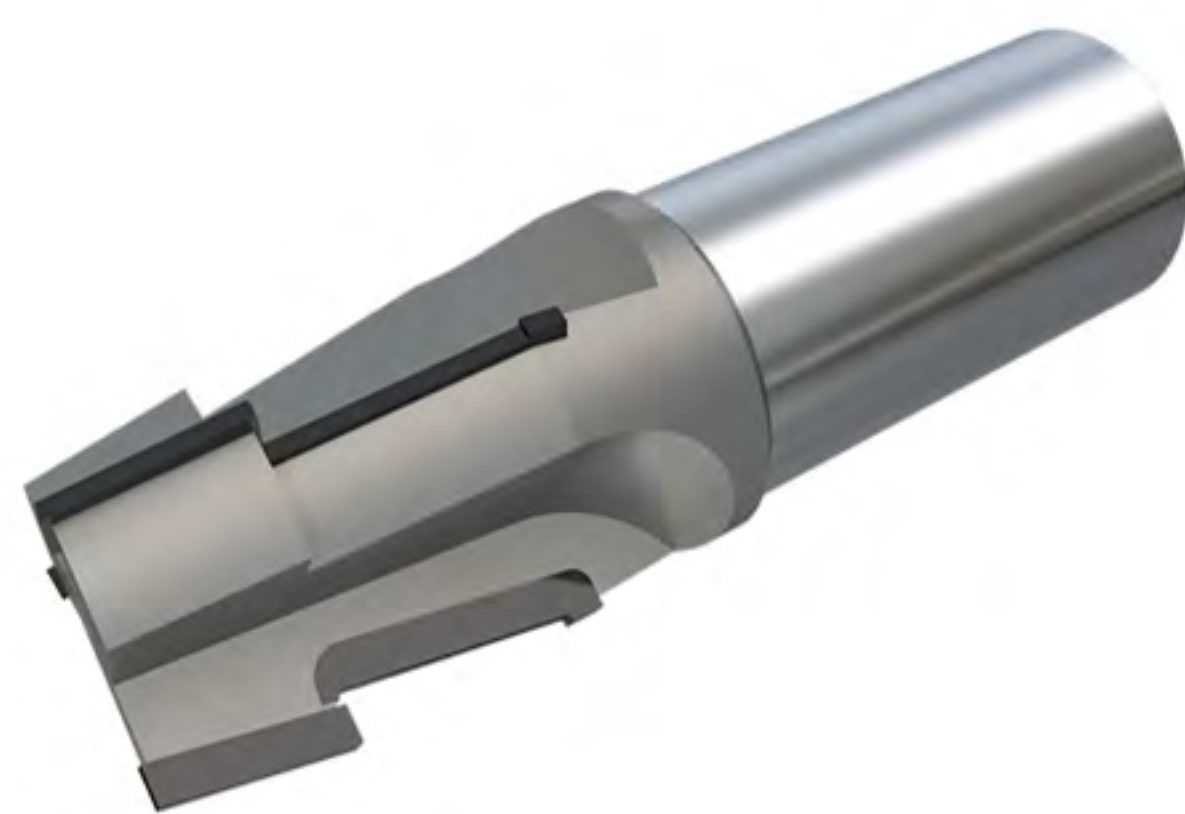
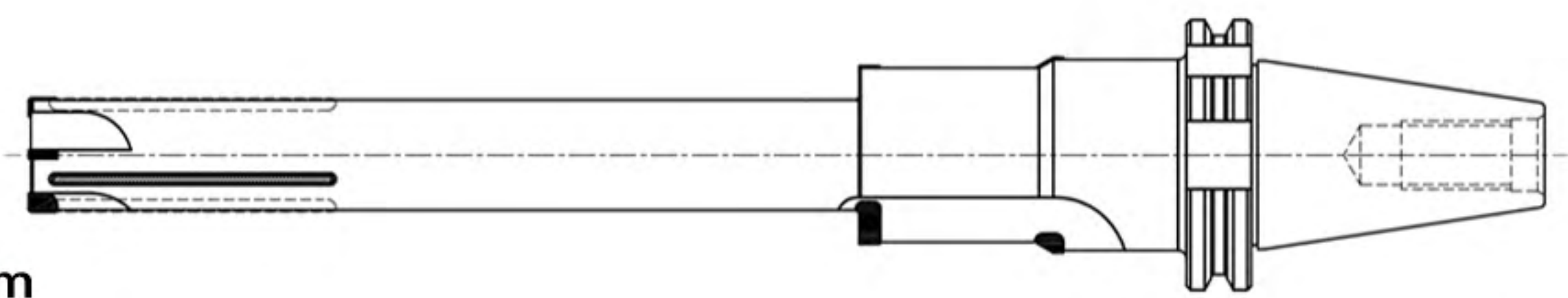


■ Tool Solution for Intake and Exhaust System ---- Valve Mechanism, Turbocharger



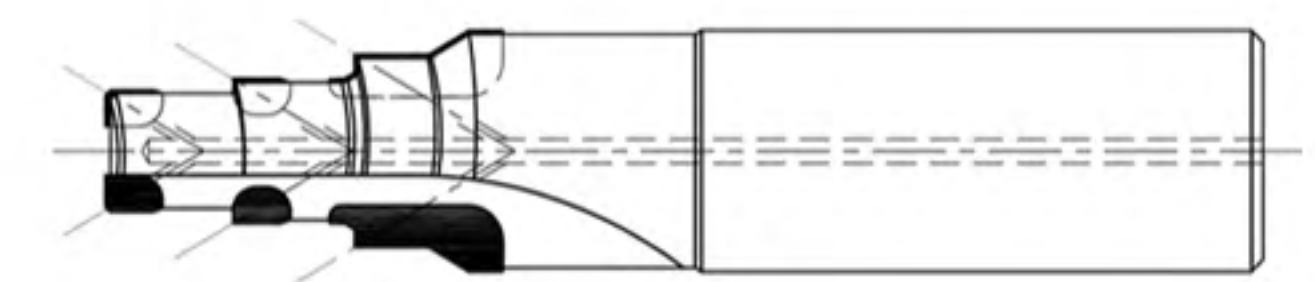
The Inlet Pipe

It leads the combustible mixture evenly to each cylinder. It is made of aluminium alloy which is light-weight and excellent in heat radiation. So it is also where PCD tools can distinguish itself.



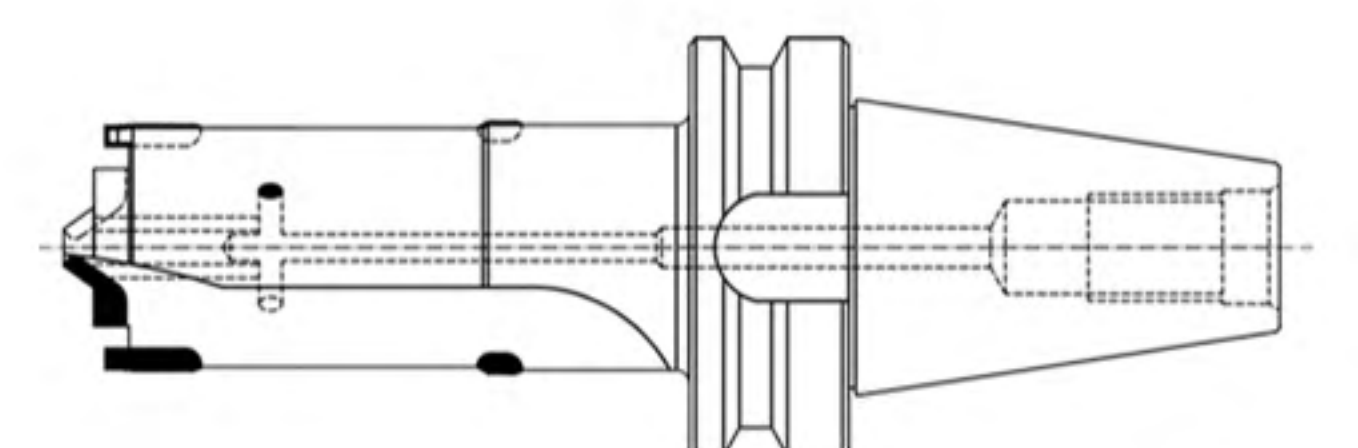
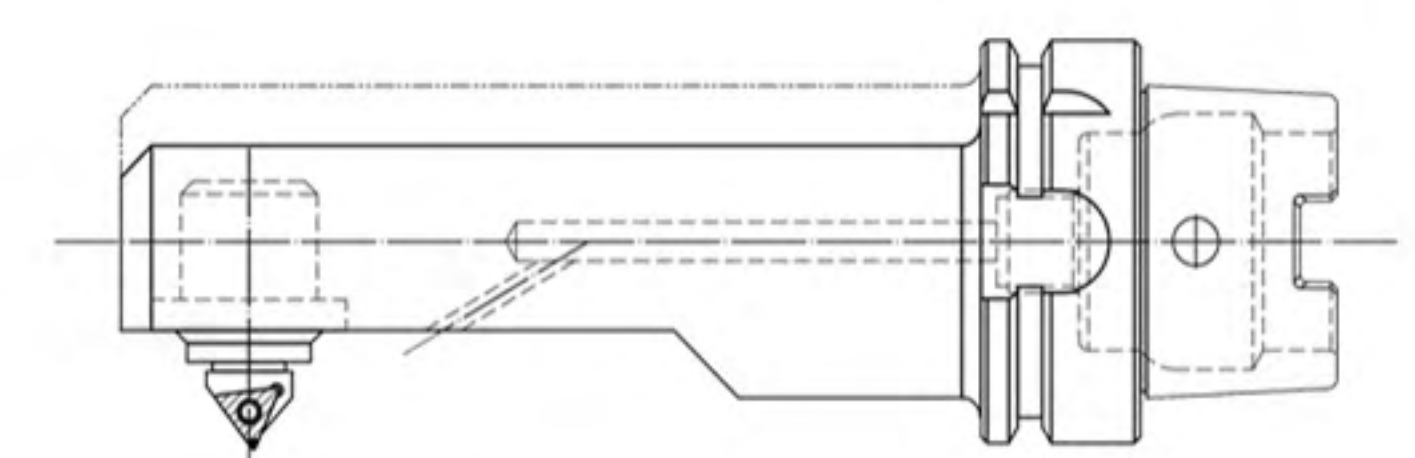
Turbocharger

It may be placed in the front, in the back or in both, but it requires the parts to be of resistance to high temperature and friction due to the heat load. So it is a challenge for the processing tools with its complex structure, precision and materials. We have provided the quite satisfactory result.



Throttle

It reports the work load of the engine by collecting the feedback of the automotive electronic control unit through sensor, which get the data of the degree of opening and closing of the auto parts and also the speed of the opening and closing. Our molding cutter can totally be competent for processing it with high efficiency.



Power System

Car moves by burning fuel
It includes engine system, air intake and exhaust system, fuel feed system

■ Tool Solution for Fuel Feed System --- Engine Pumping Unit, Oil Filter

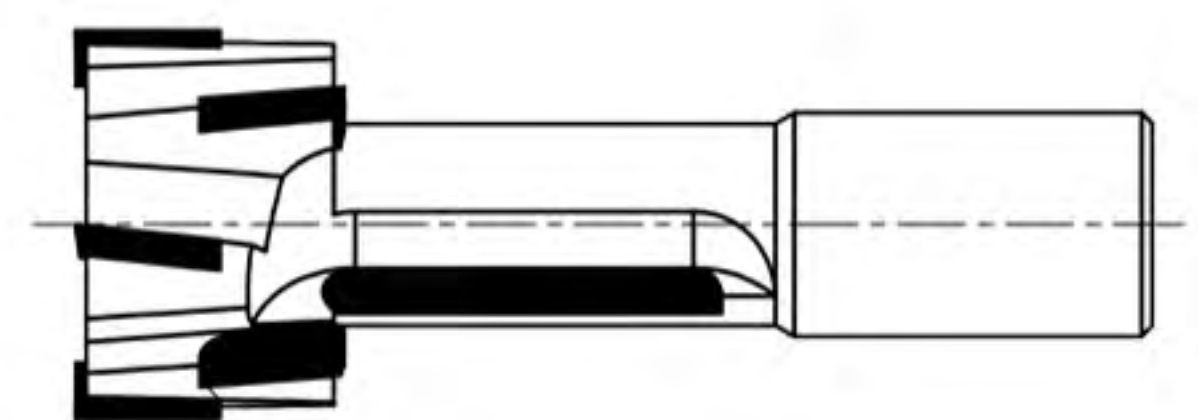
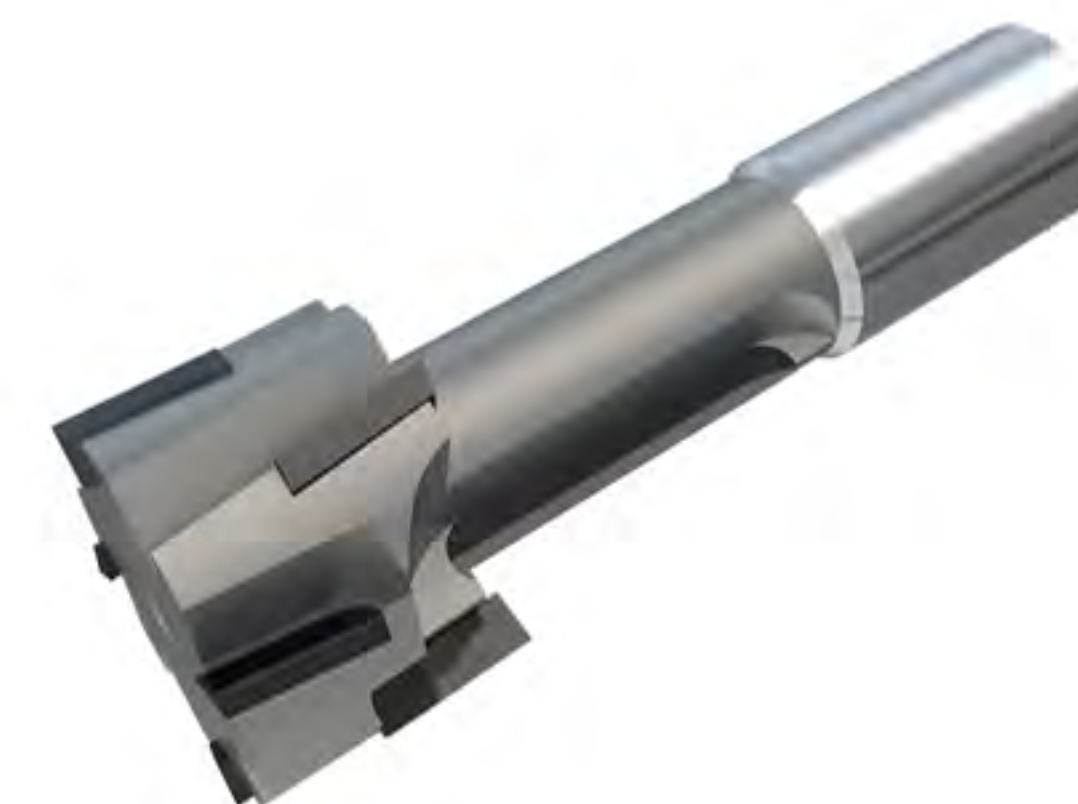
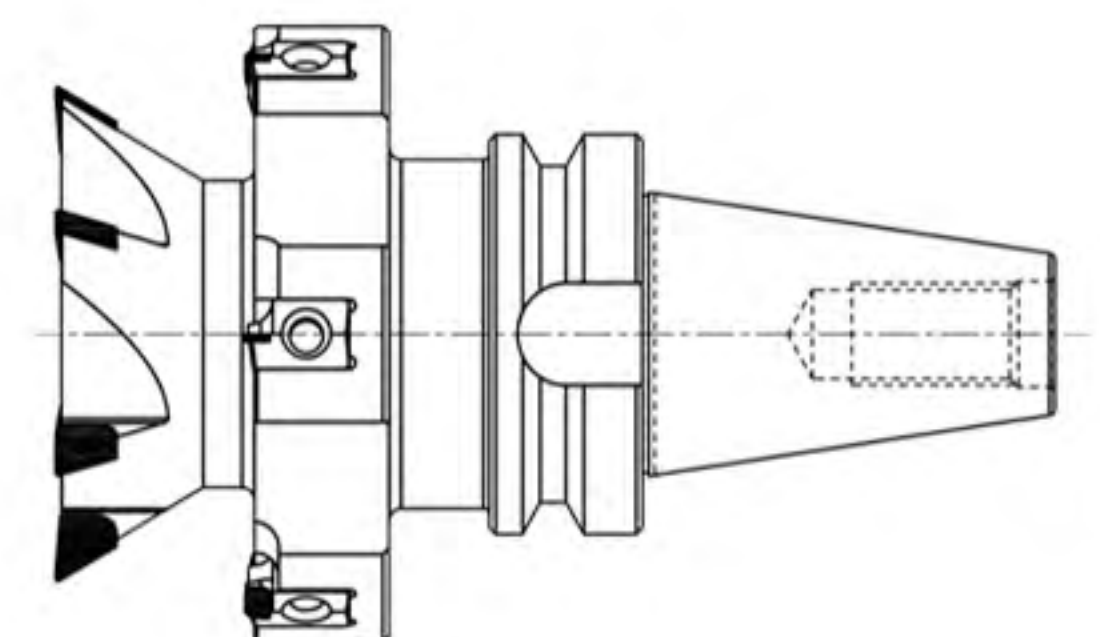
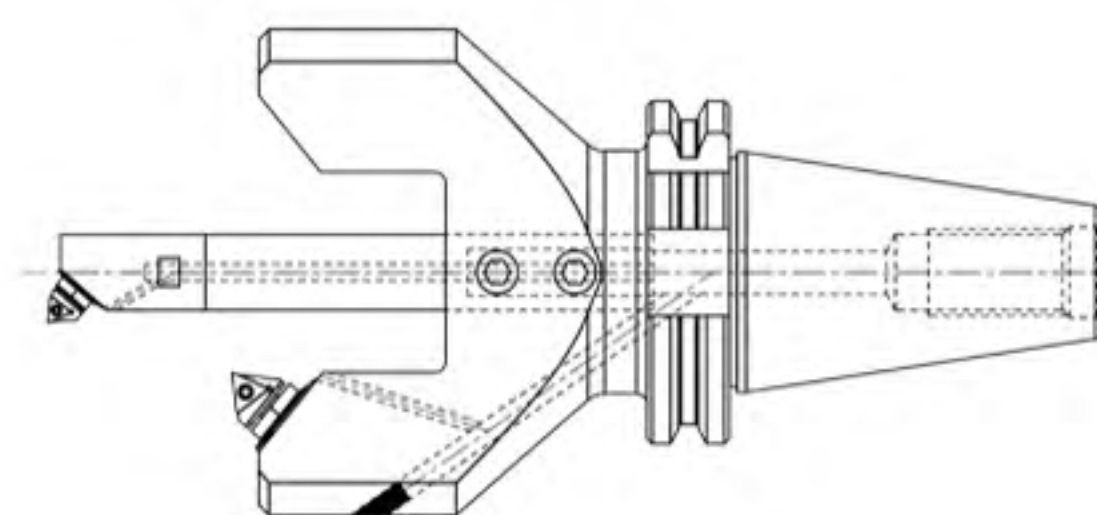
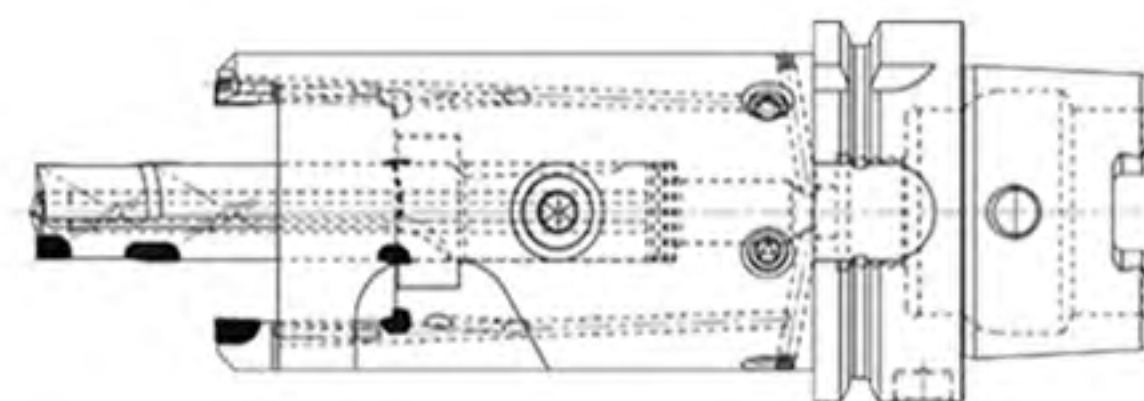


The Body of Engine Oil Pump



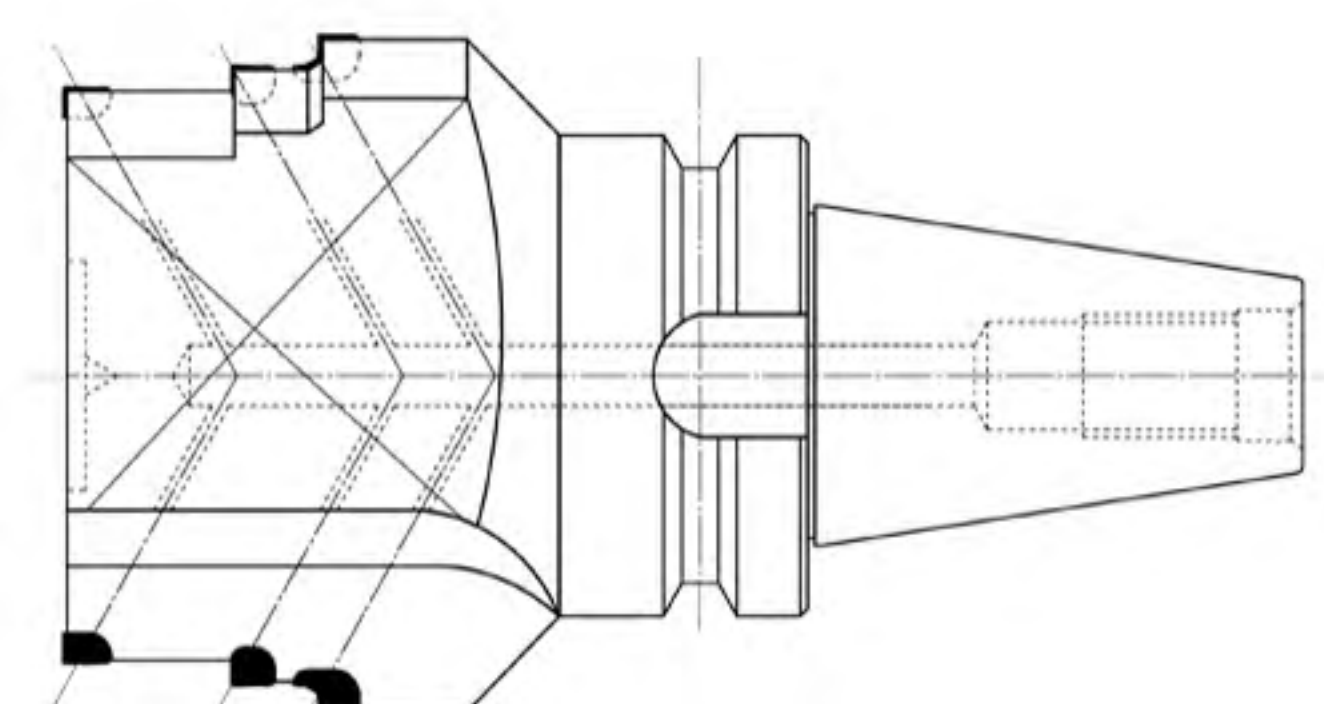
The Cover of Engine Oil Pump

The task of the engine oil pump is to supply the lubricant constantly to the friction surface of each moving parts so as to reduce the friction, release the heat, sealing, damping and preventing rust of the parts. As to the processing of the oil pump, we provide high efficient customized cutting tools solutions, meeting the requirement of the exact physical dimension and surface roughness.



Oil Filter

When the car is running, the reused oil filter will be inevitably mixed with foreign substance. Therefore multi-tiered filter system is required. We can offer processing tools for various filters such as oil strainer, coarse strainer and fine strainer (Centrifugal and combined)

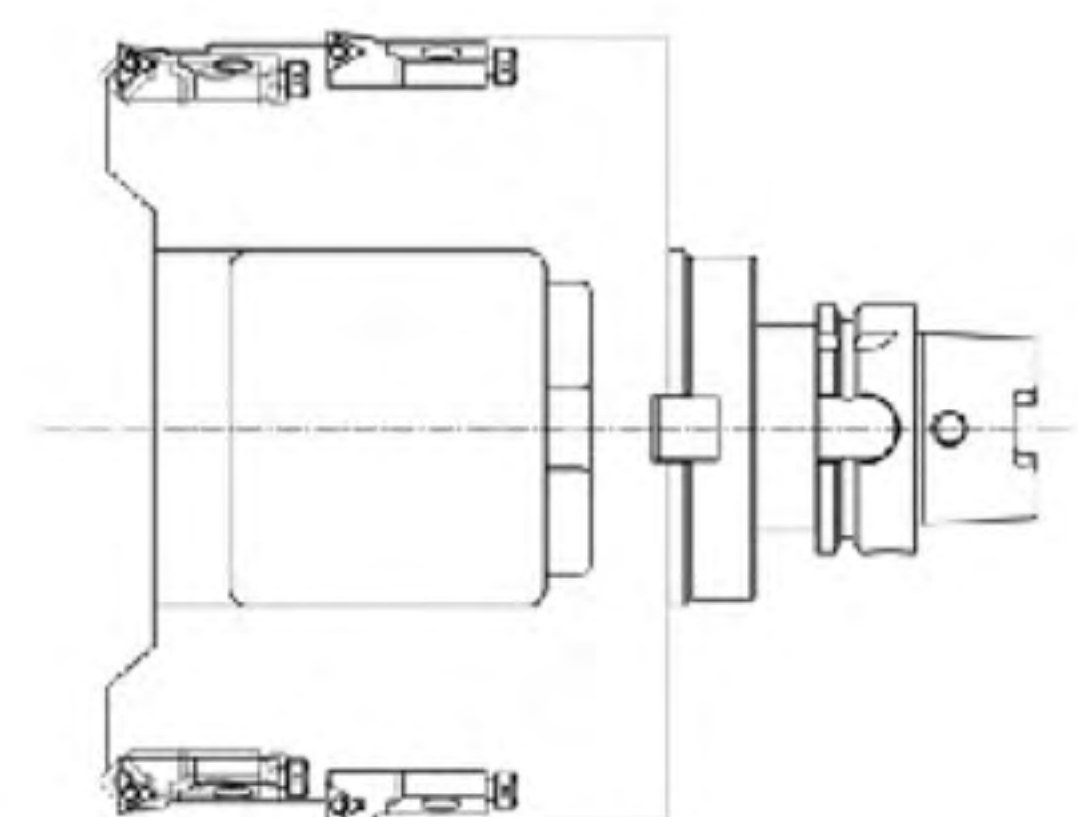
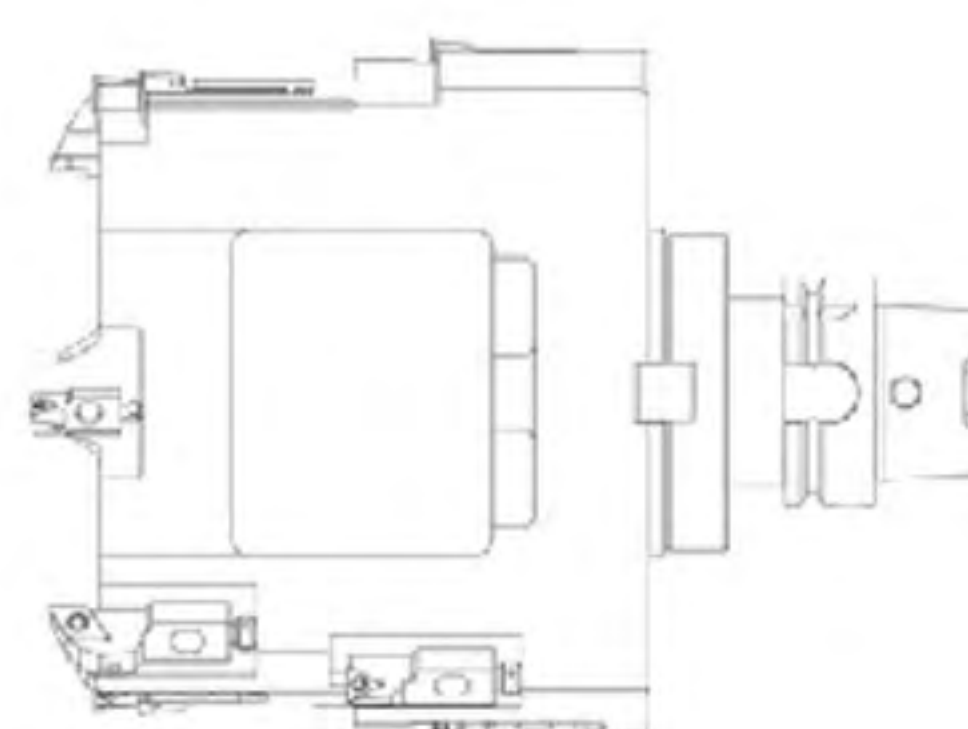
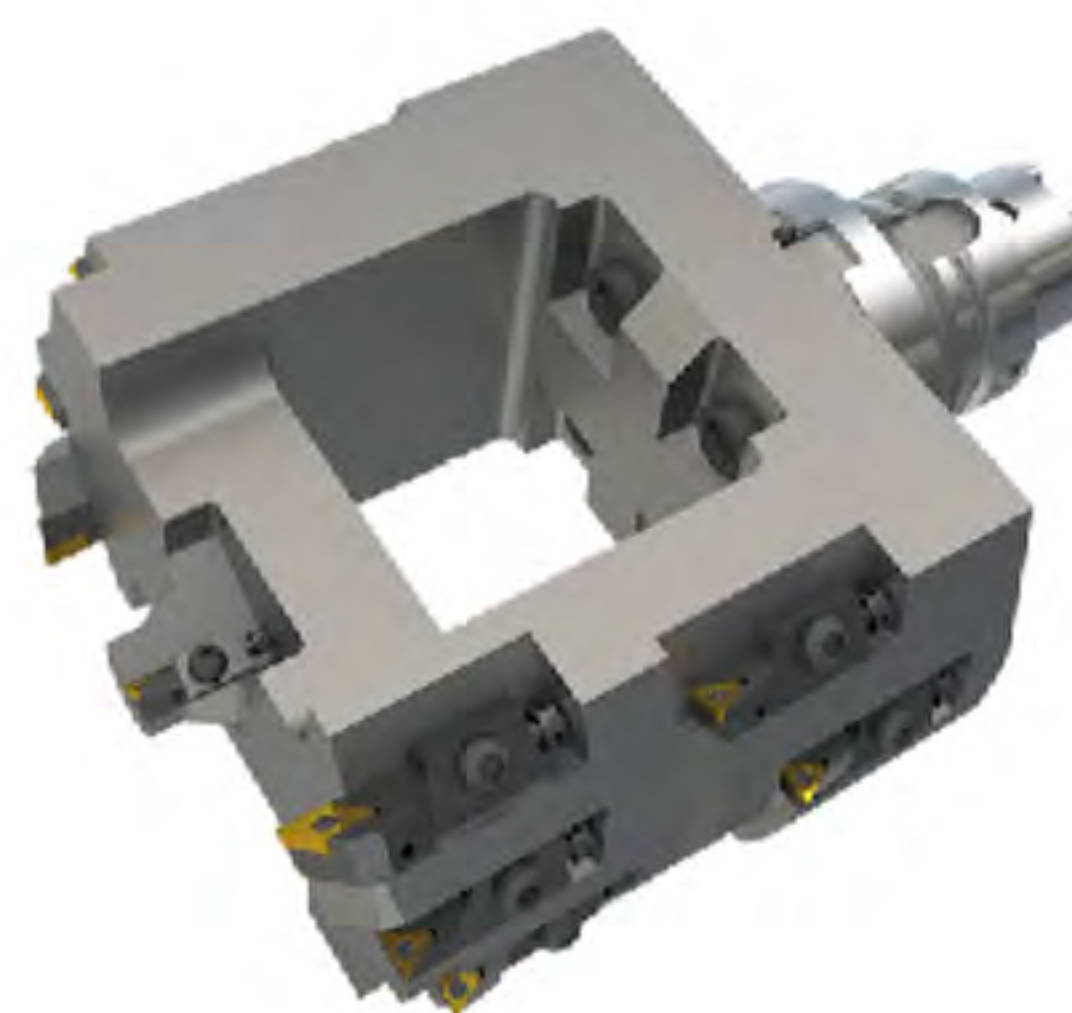
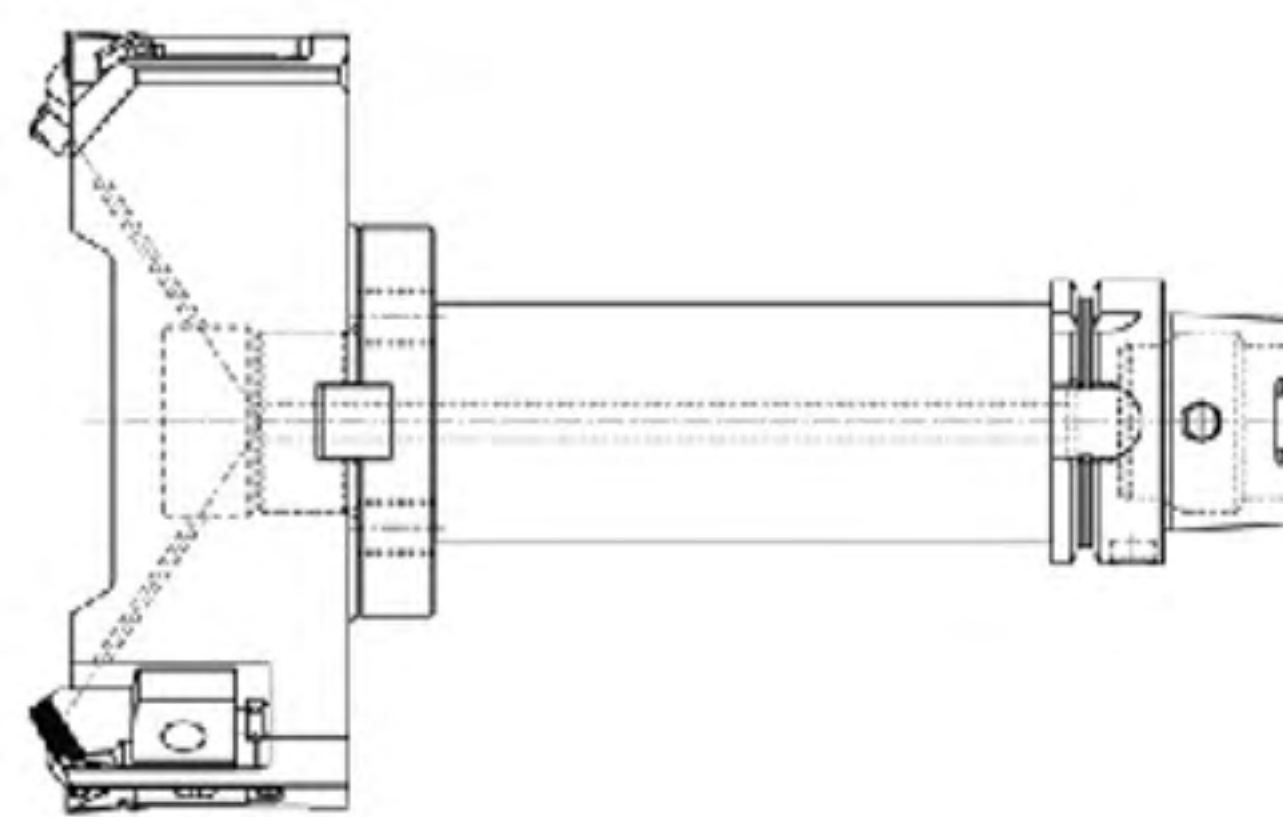
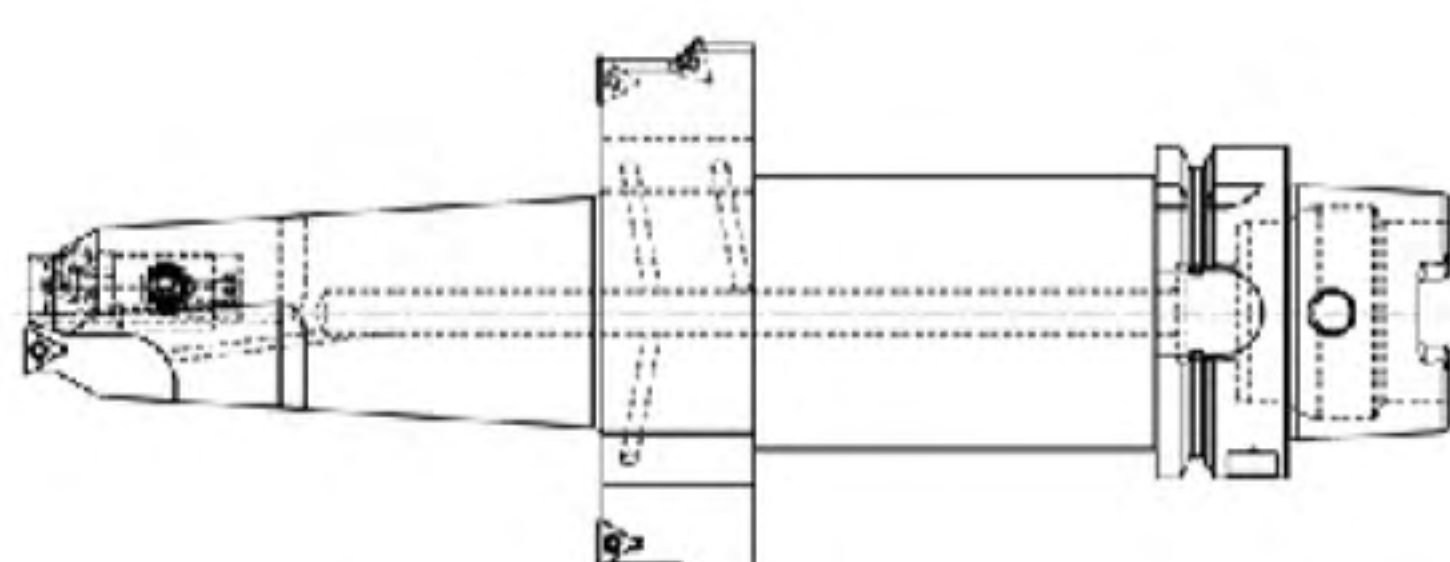
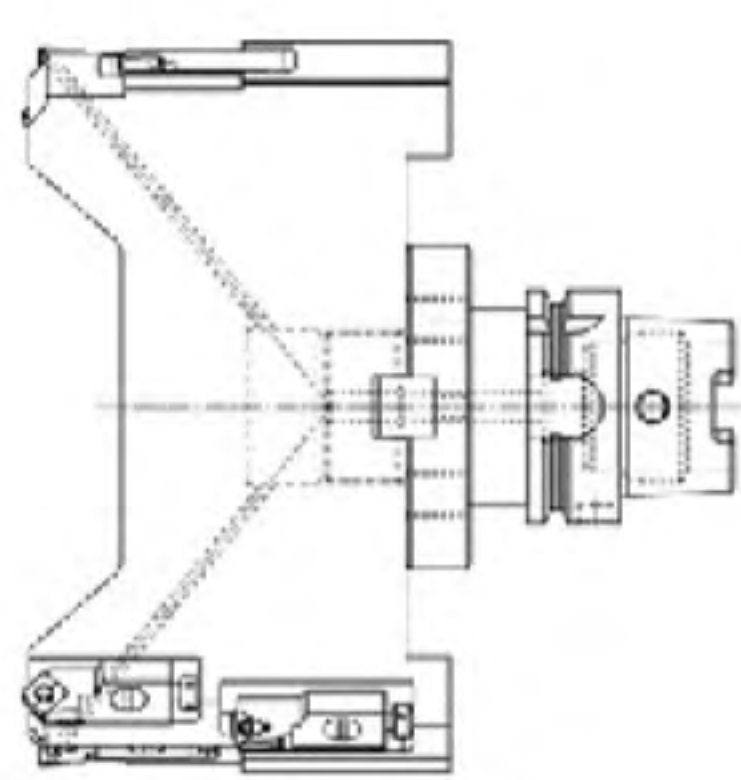




■ Tool Solution for Transmission System---Gear Box

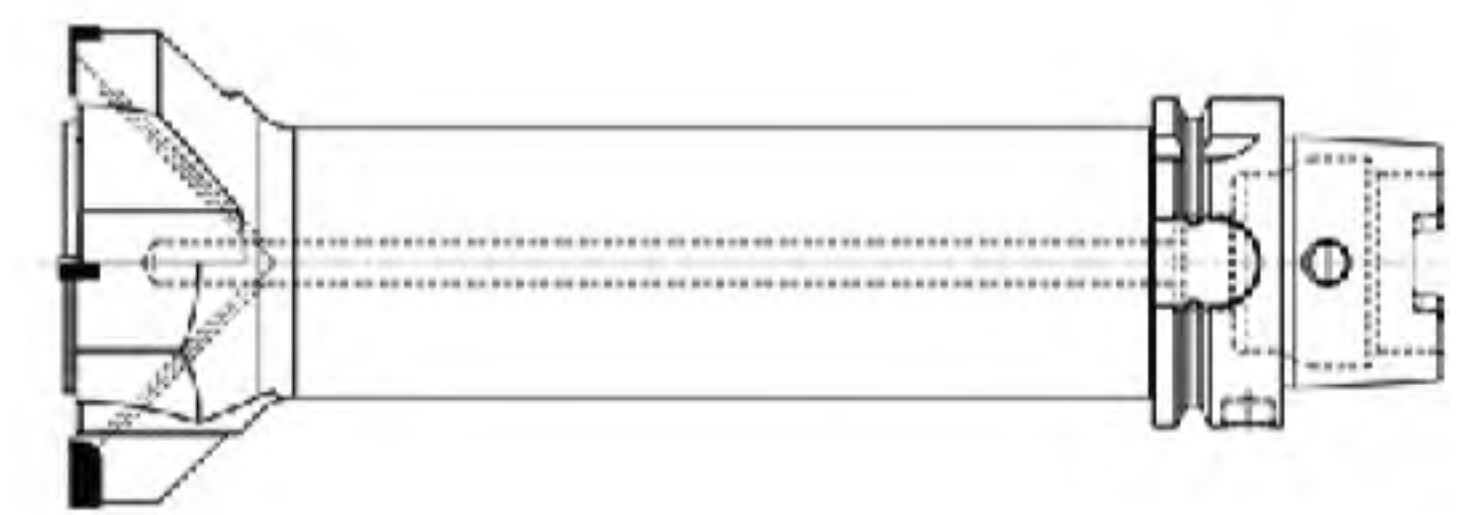
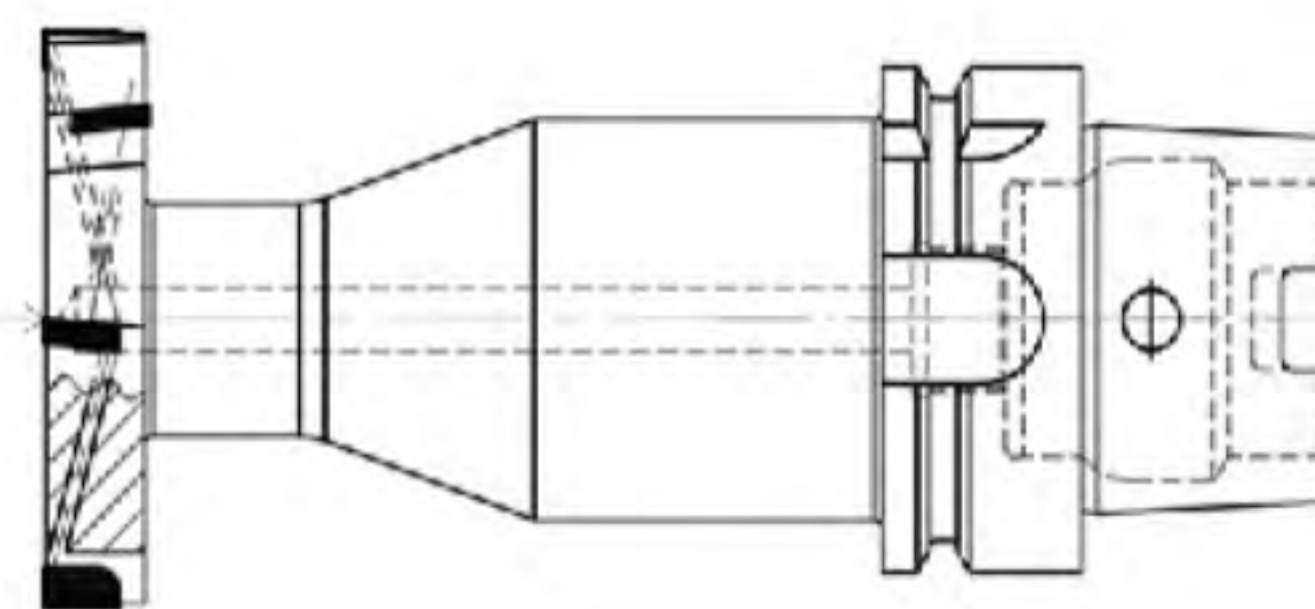
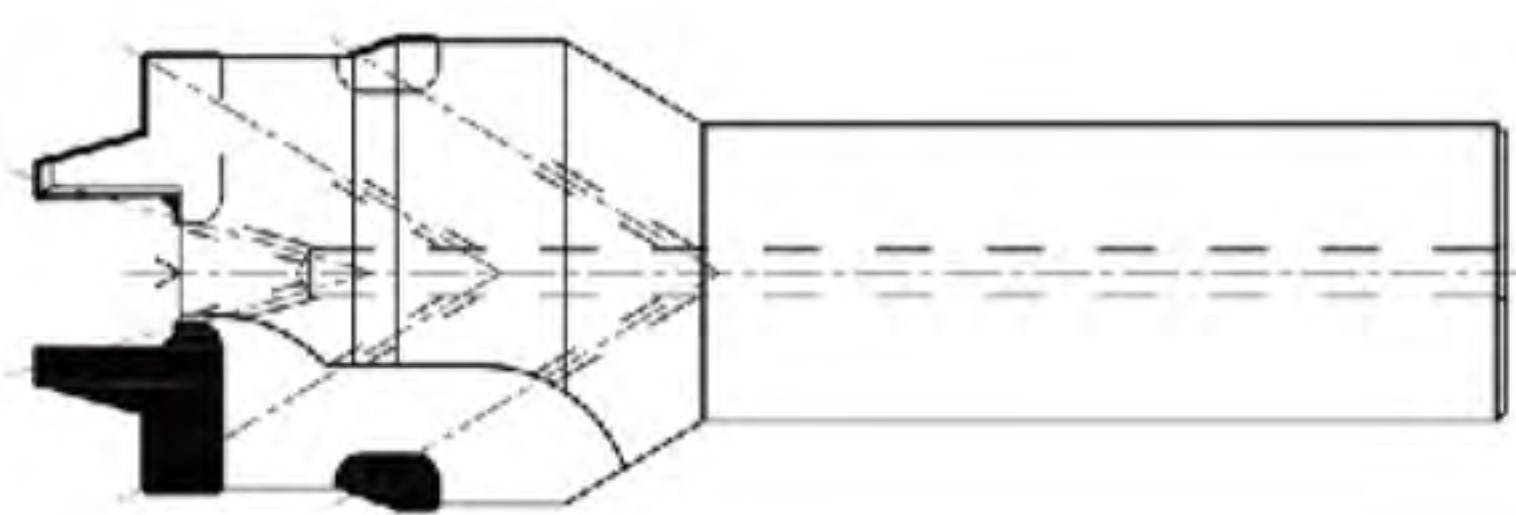
■ Gear Box Case

Modern gear box is more likely to use high silicon aluminum material as it can provide matching driving force and speed for various road conditions. To produce the large case, thin wall and holes, we provide high efficient precision processing tools designed for it.



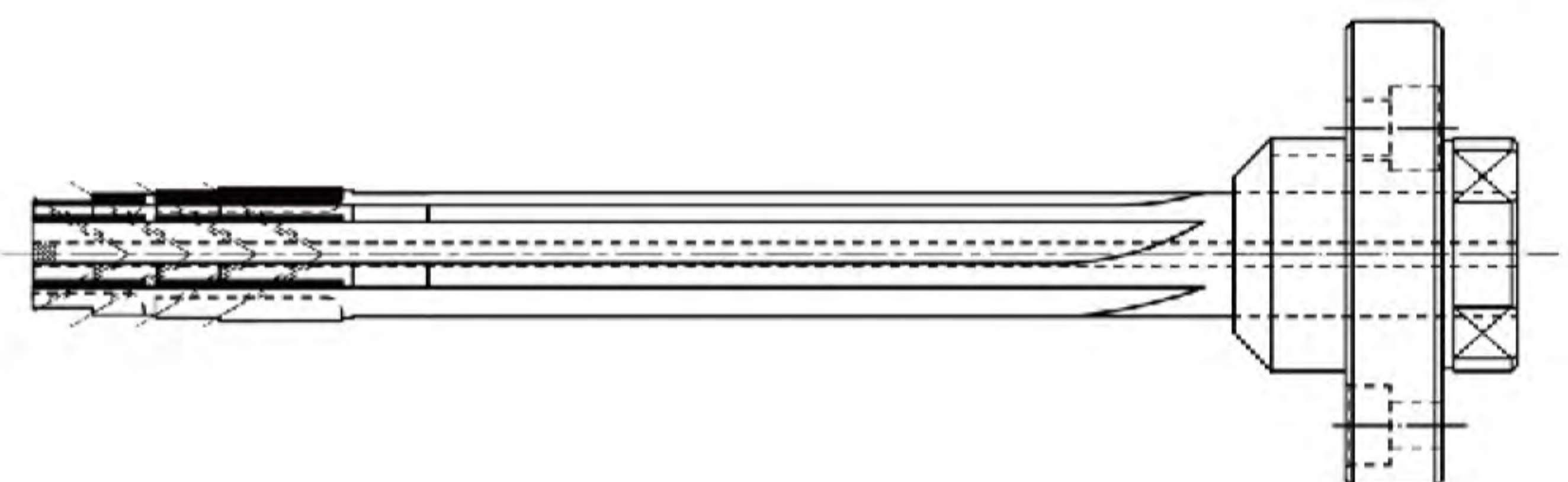
Driving System

Convey the impetus from the engine to drive wheels, which leaves the car running
It includes clutch, transmission and differential mechanism



Transmission Oil Circuit Board

It requires high precision, the challenge to the cutter and processing comes from the small aperture diameter, place, and clamping. The cutter we provide applied to all processes, including rough finish and fine machining of surface milling and drill.

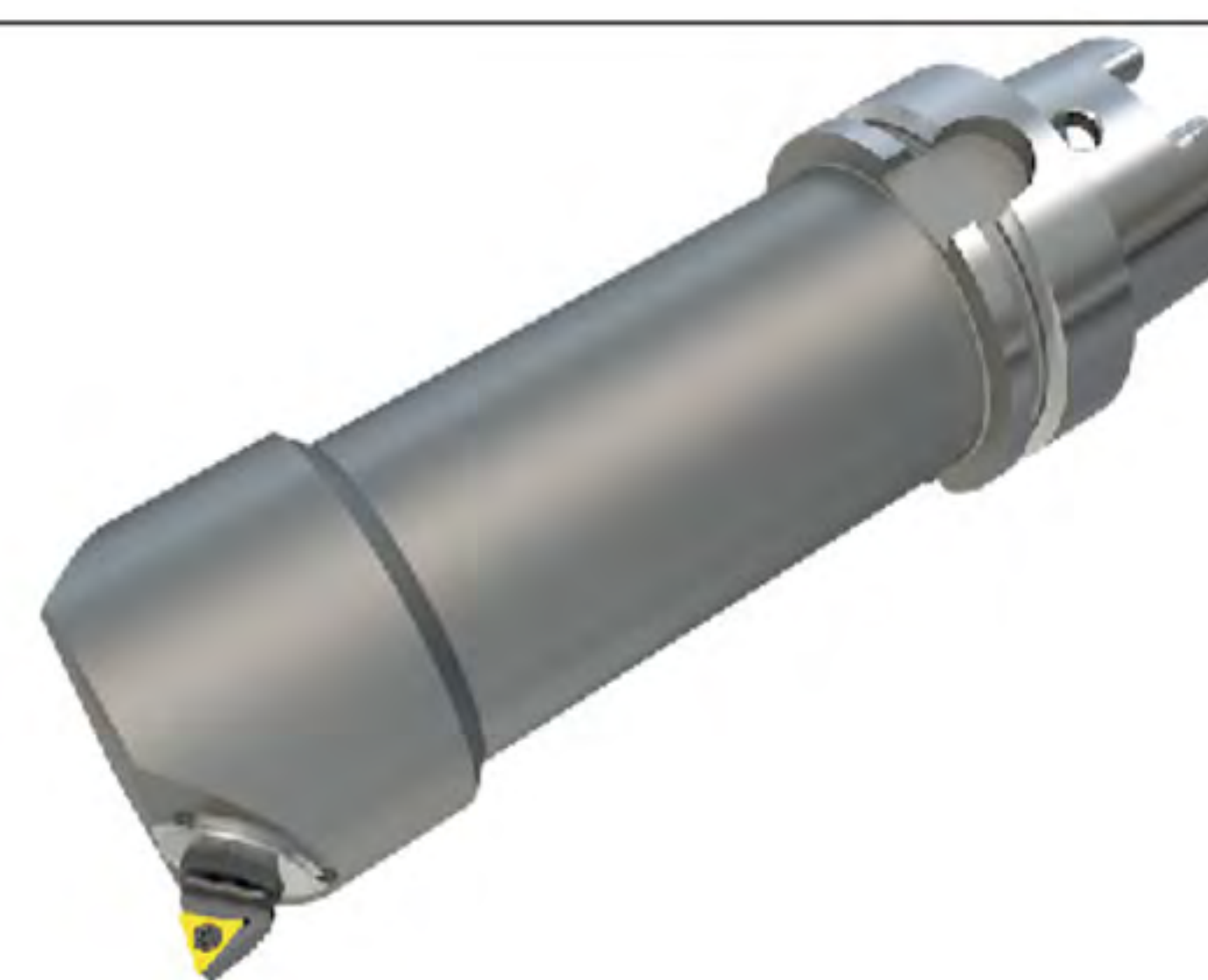
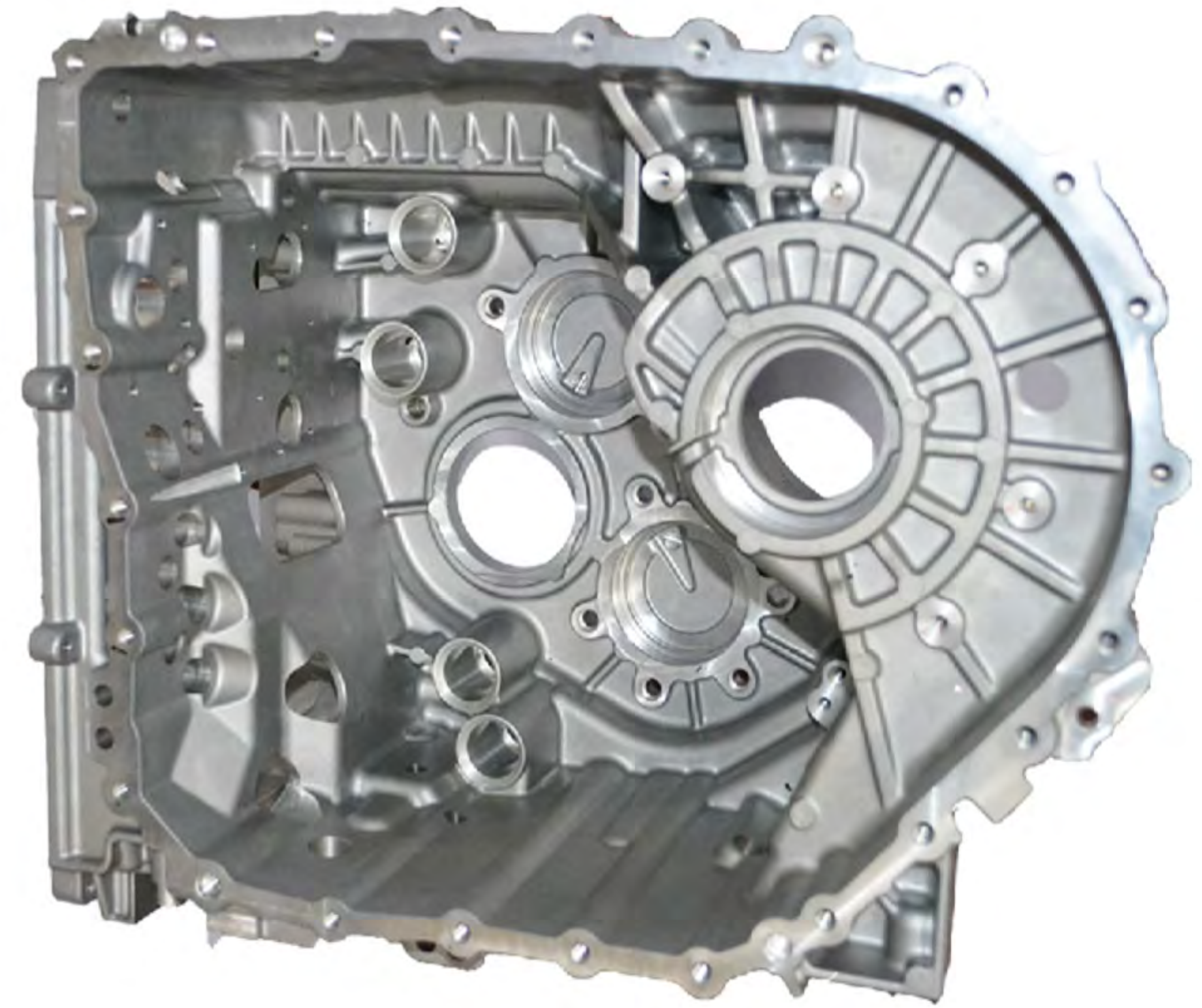




■ Tool Solution for Clutch System--- Clutch, Differential Mechanism

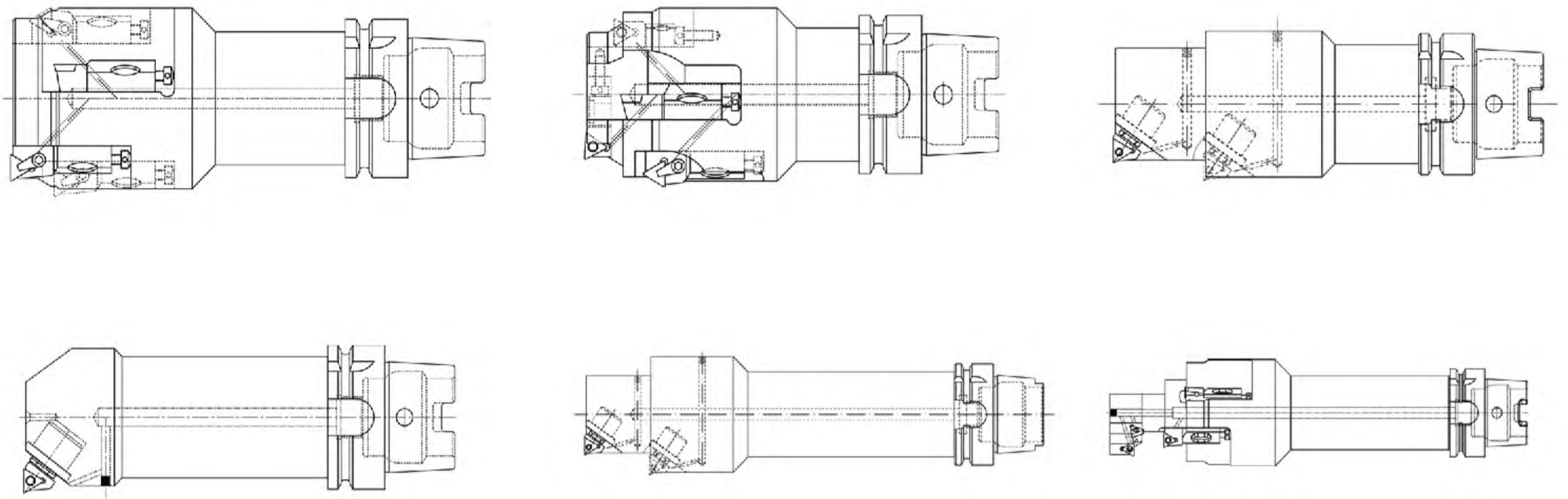
Clutch Housing

Clutch is the part to cut off and deliver impetus between engine and the driving system. The performance of the clutch is a key indicator of performance of the whole car. As it needs to bear great moment of torque, so it demands highly of the cutter. We can meet such high requirements.



Driving System

Convey the impetus from the engine to drive wheels, which leaves the car running
It includes clutch, transmission and differential mechanism



Differential Mechanism

When the car is turning or running on rough roads, the differential mechanism ensures that the drive wheels on each side are pure rolling motion. The housing of it needs to make sure smooth contact surface and without tool marks between the housing and the planet gear gasket, and between housing and half axle gear. When designing the tools we balanced the quality of the treatment surface and its operating life.





■ Tool Solution for steering system



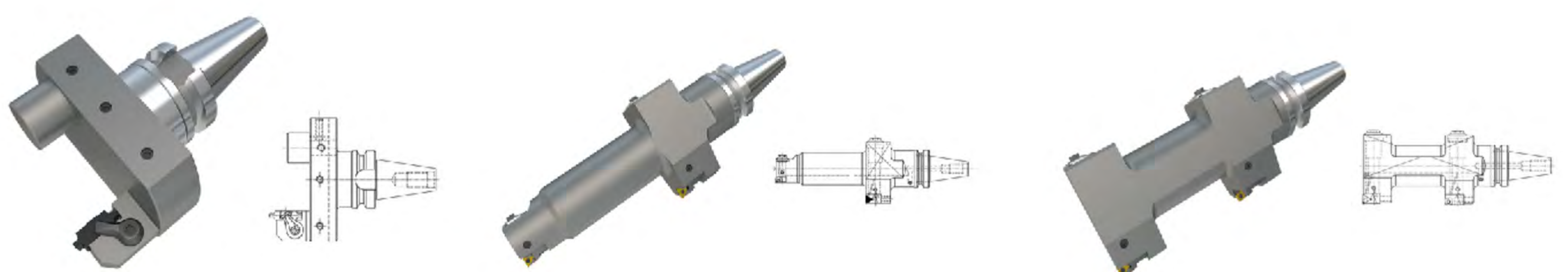
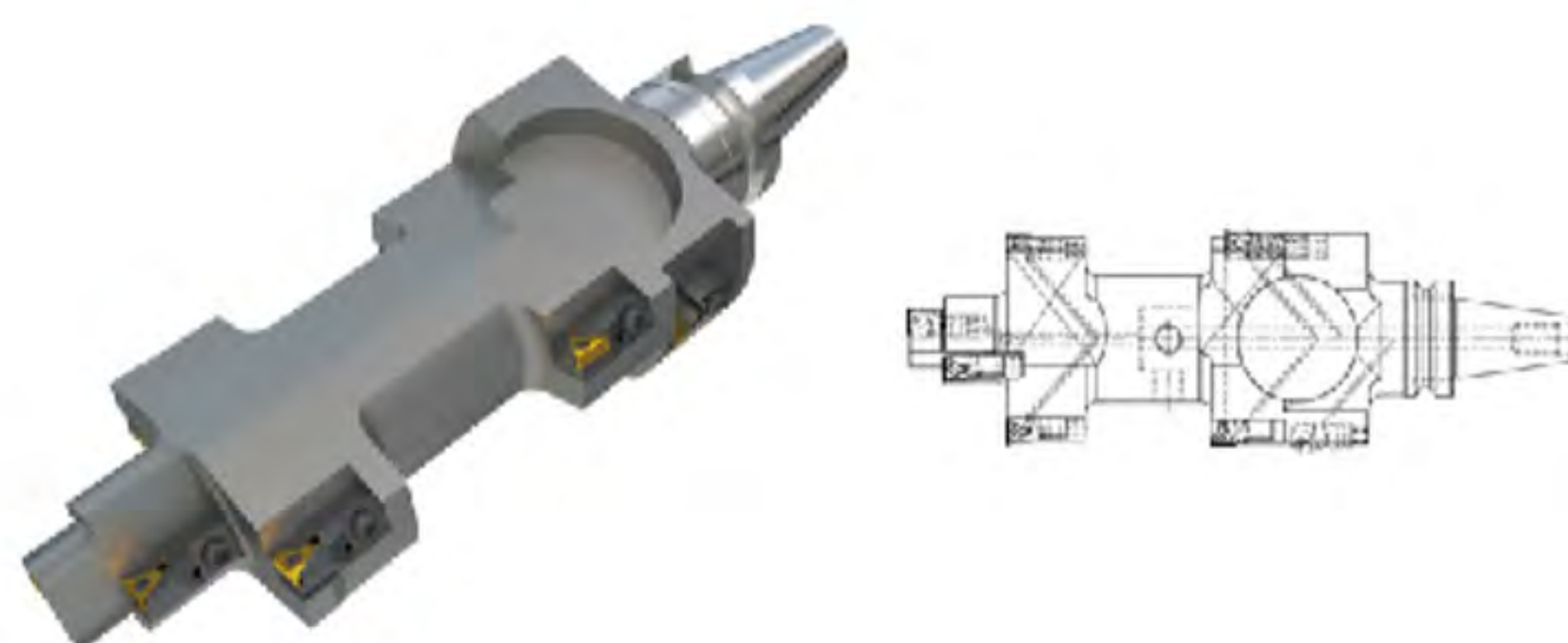
Steering Knuckle

The steering knuckle put the fore wheels in motion around the king bolt, thus making the car to turn. So the steering knuckle receives impact load while the car is running, therefore it requires high-strength material. Long cutting life is demanded. And we have a special design for this processing scheme, which could meet the standard.



Steering Actuation Motor Shell

An increasing number of automobiles have regarded the steering actuation as a basic equipment. We offer good quality of processing scheme for Steering actuation motor shell, as well as to ensure high efficient production and long cutting life.



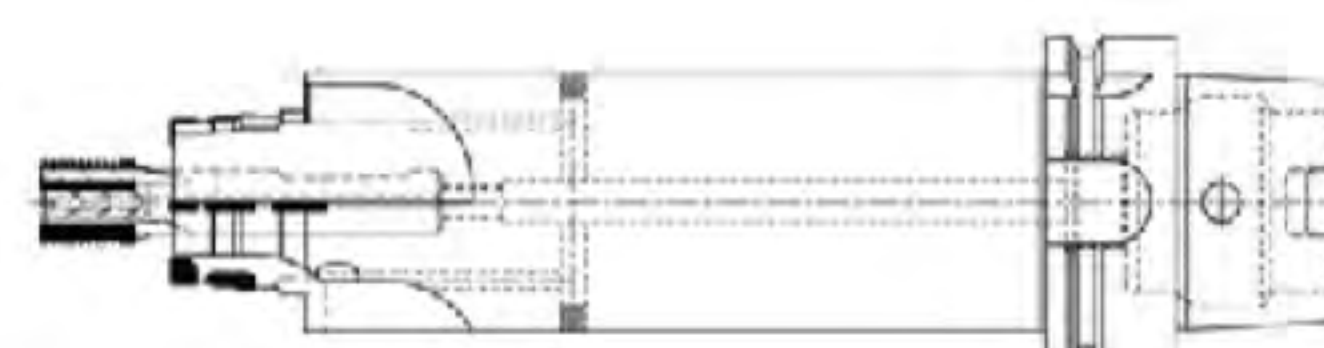
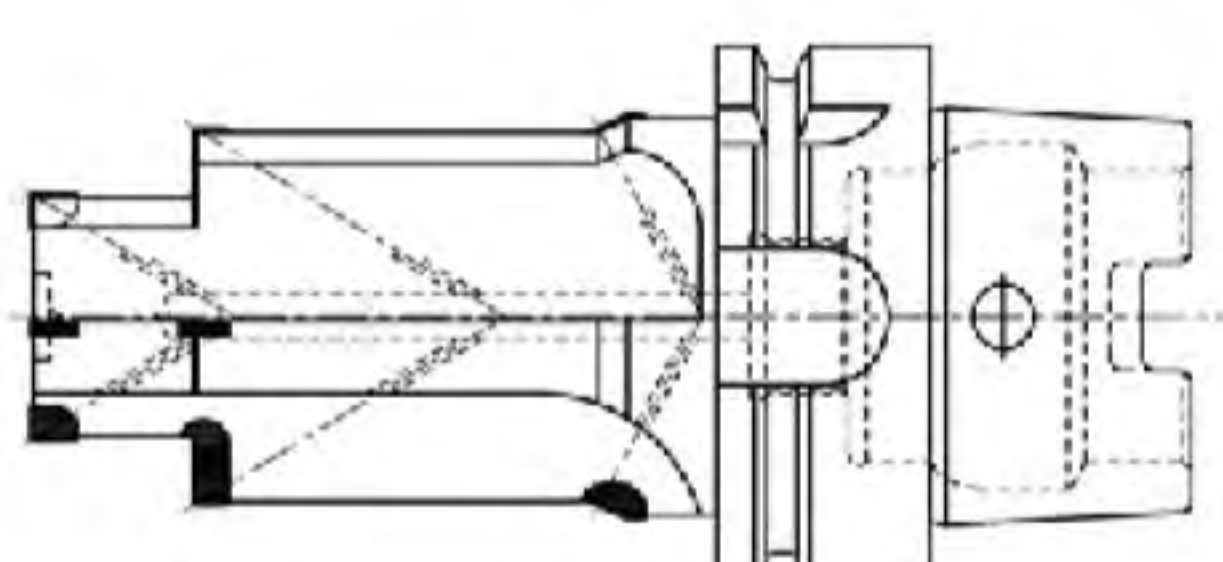
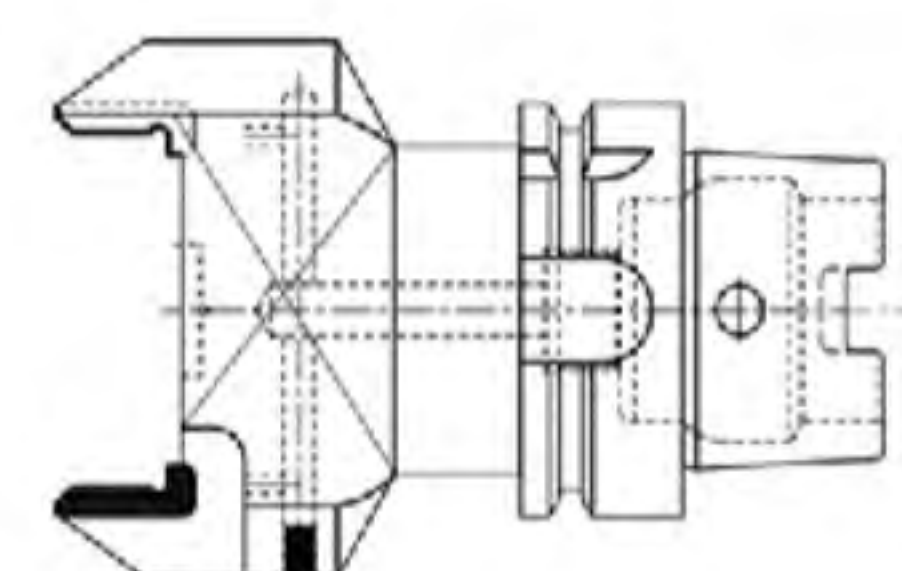
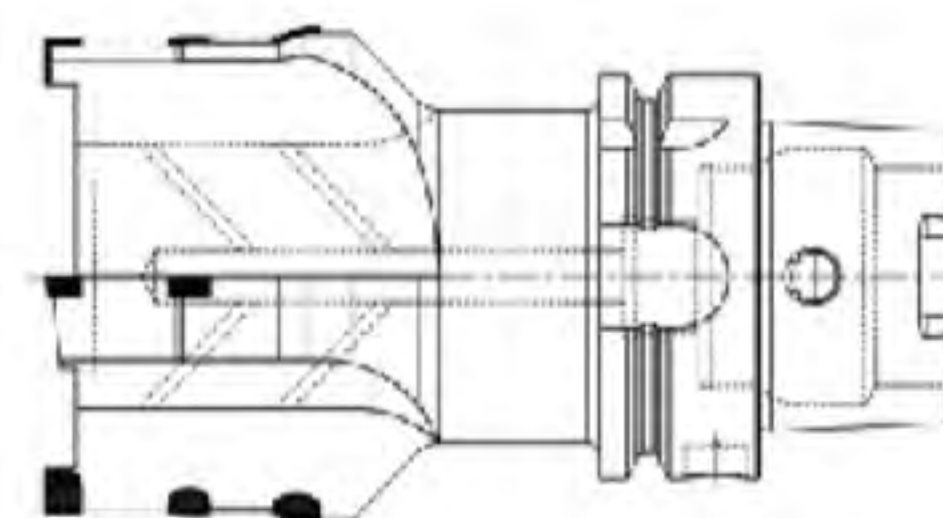
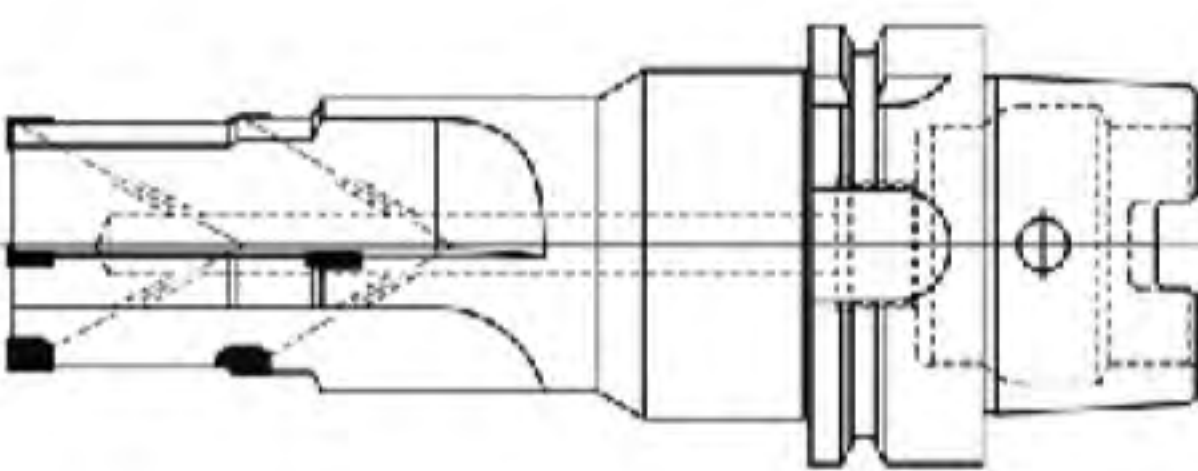
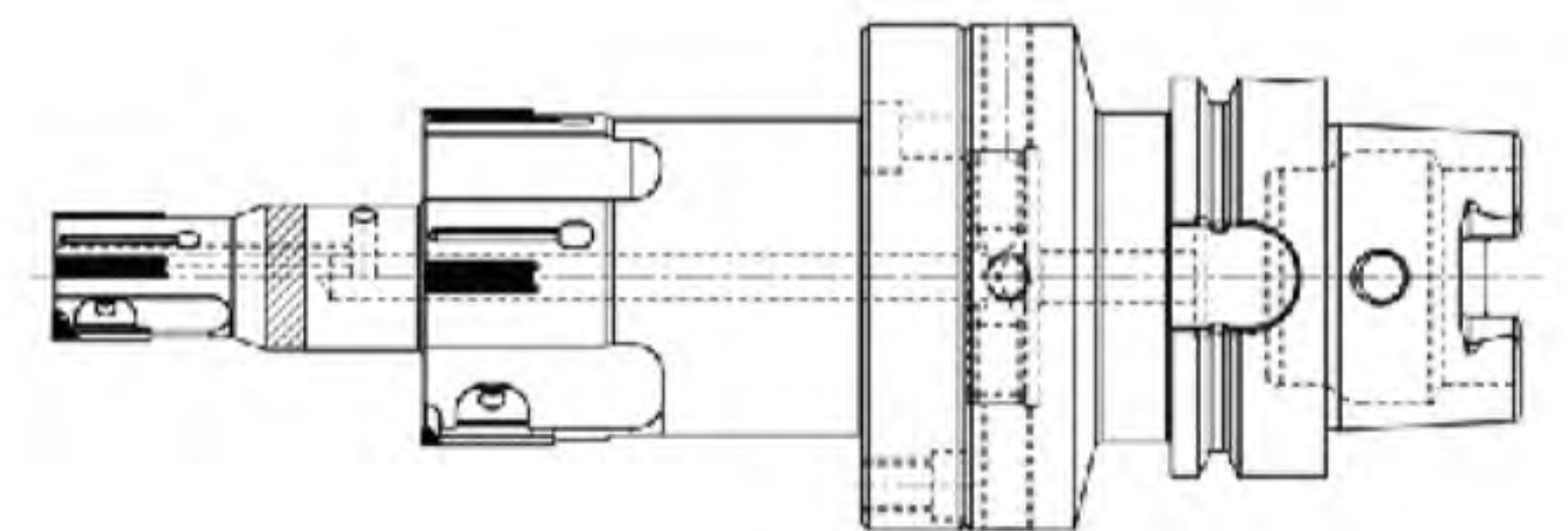
Steering System

Control the direction of the autos by steering wheel. It includes mechanical steering and power-assisted steering. The main parts are steering knuckle; steering gear and power assist system.



Steering Gear Long Shell

The steering gear long shell is used in rack-and-pinion steering-gear. The inside rack and pinion will enlarge the steering torque by the driver and also lower the speed. Due to its special parts mechanism, A lots of special cutting tools are needed, and we provide a full solution.



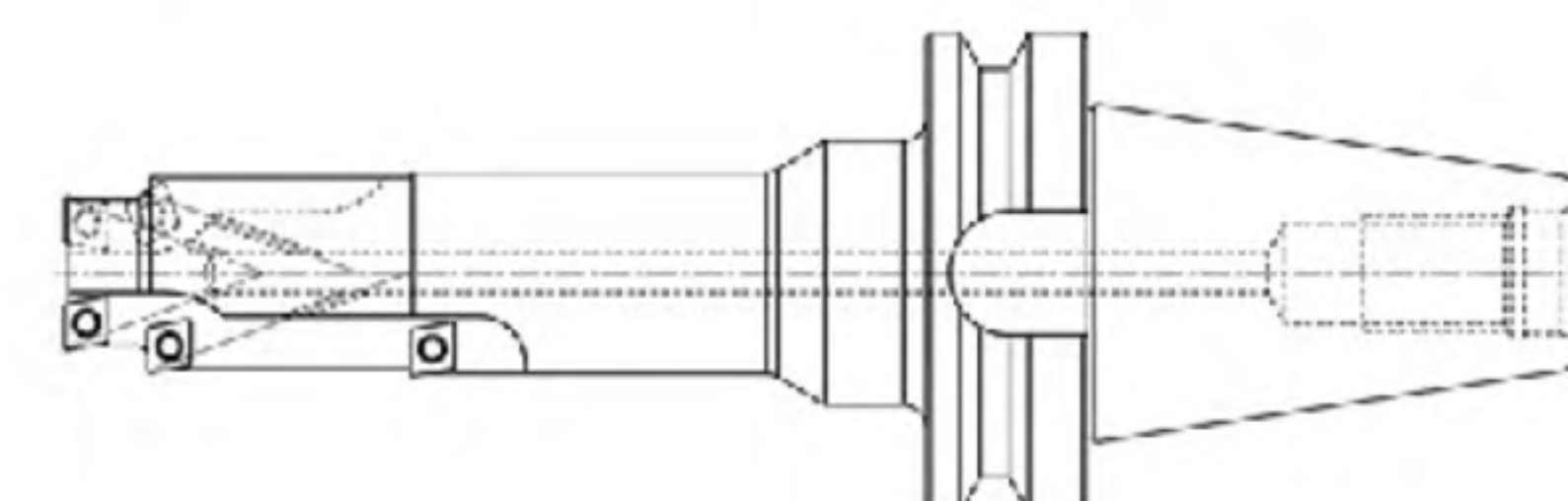
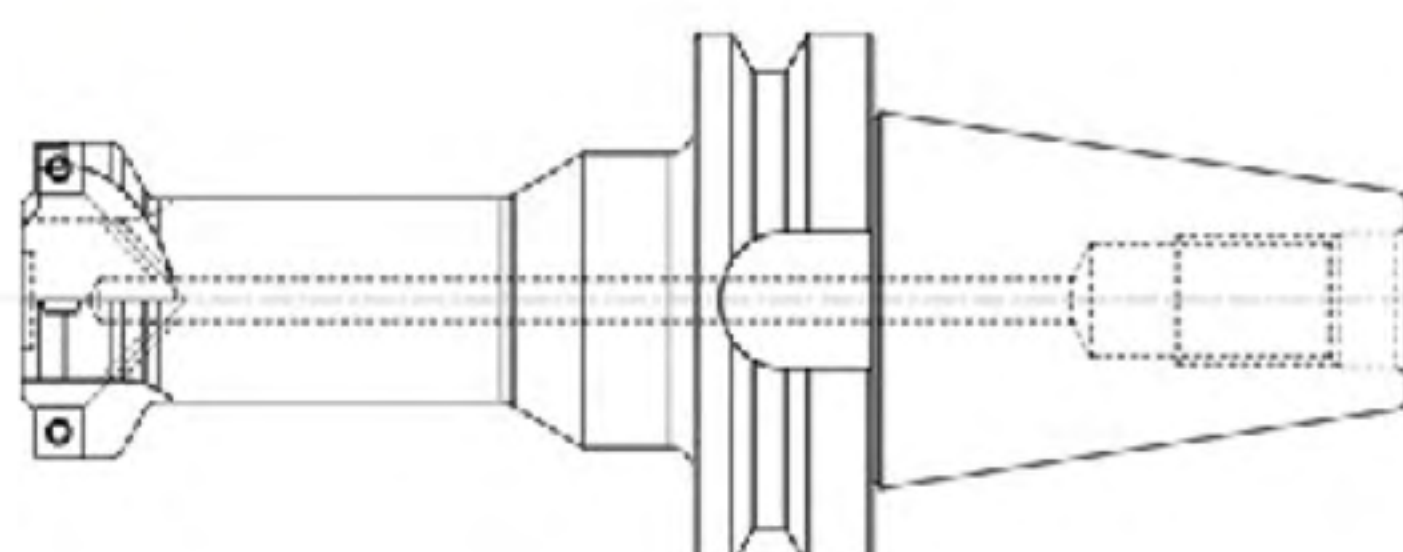
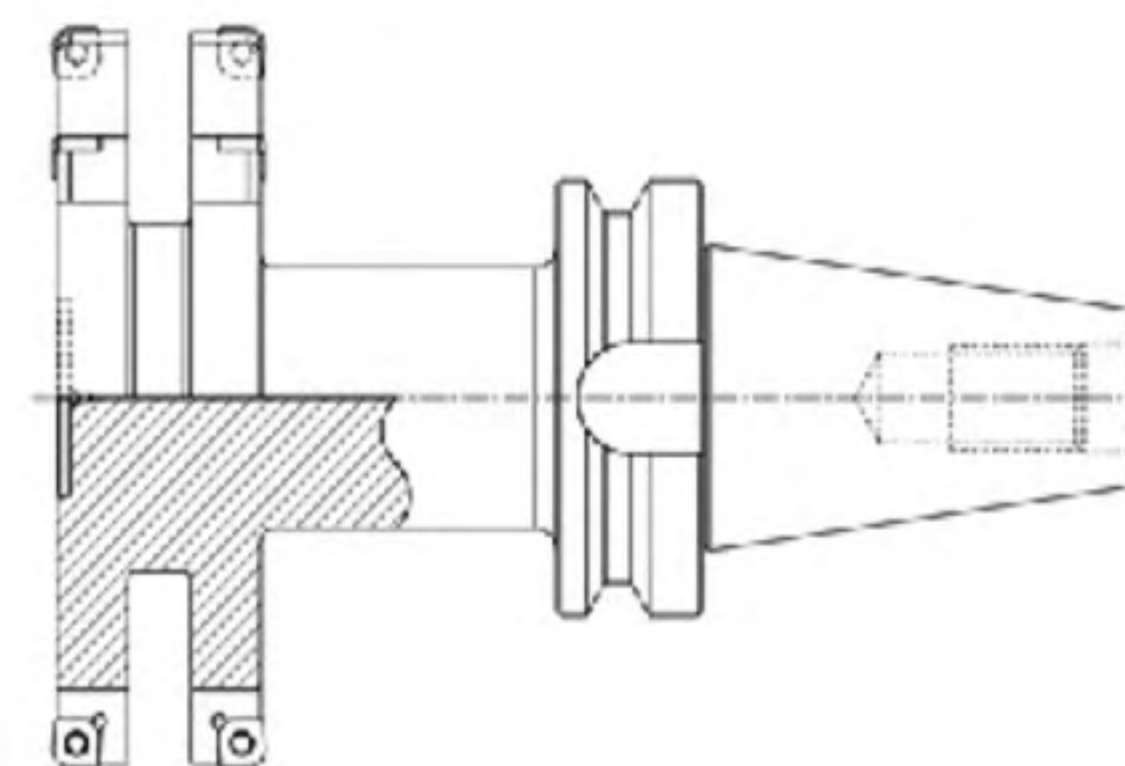
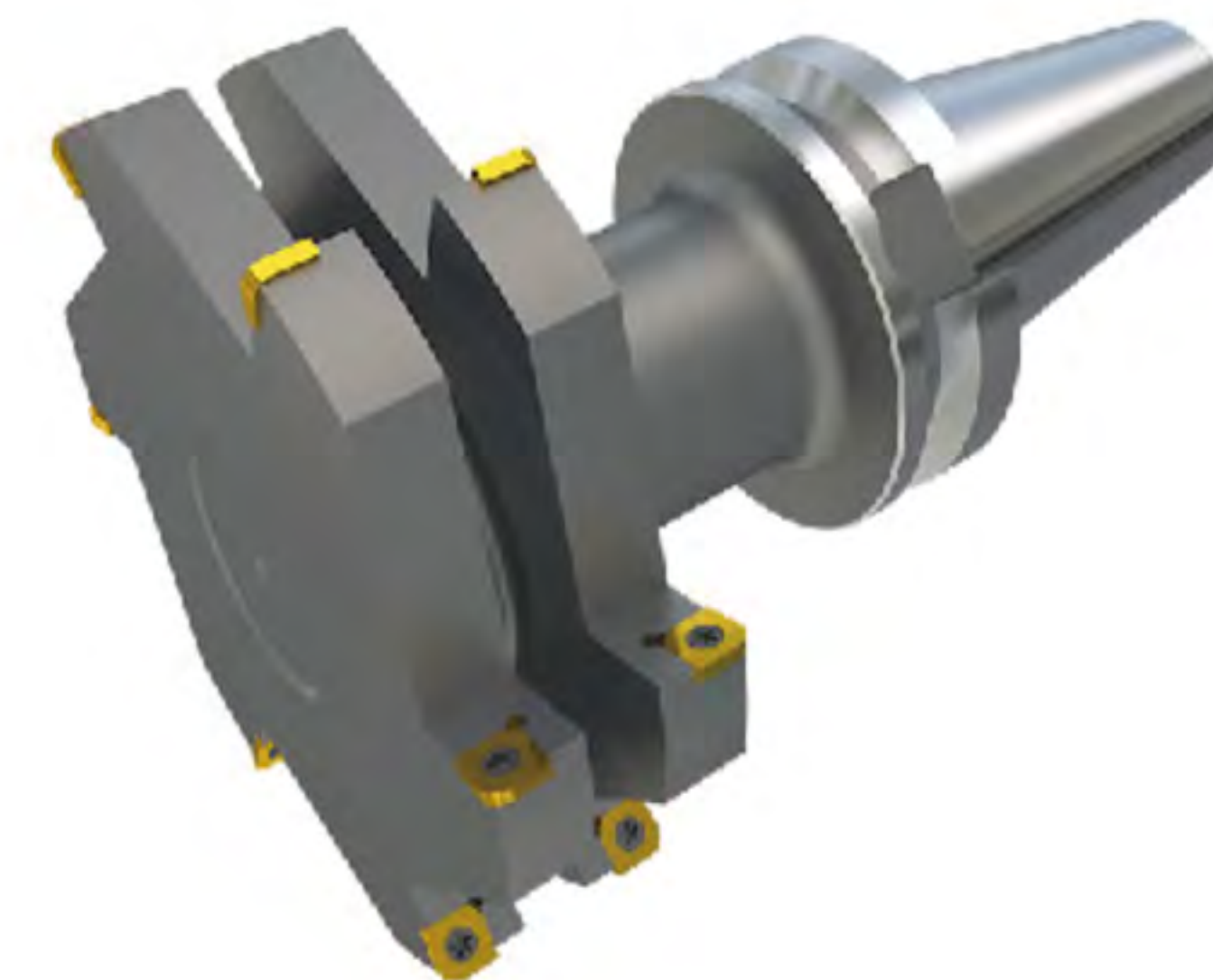
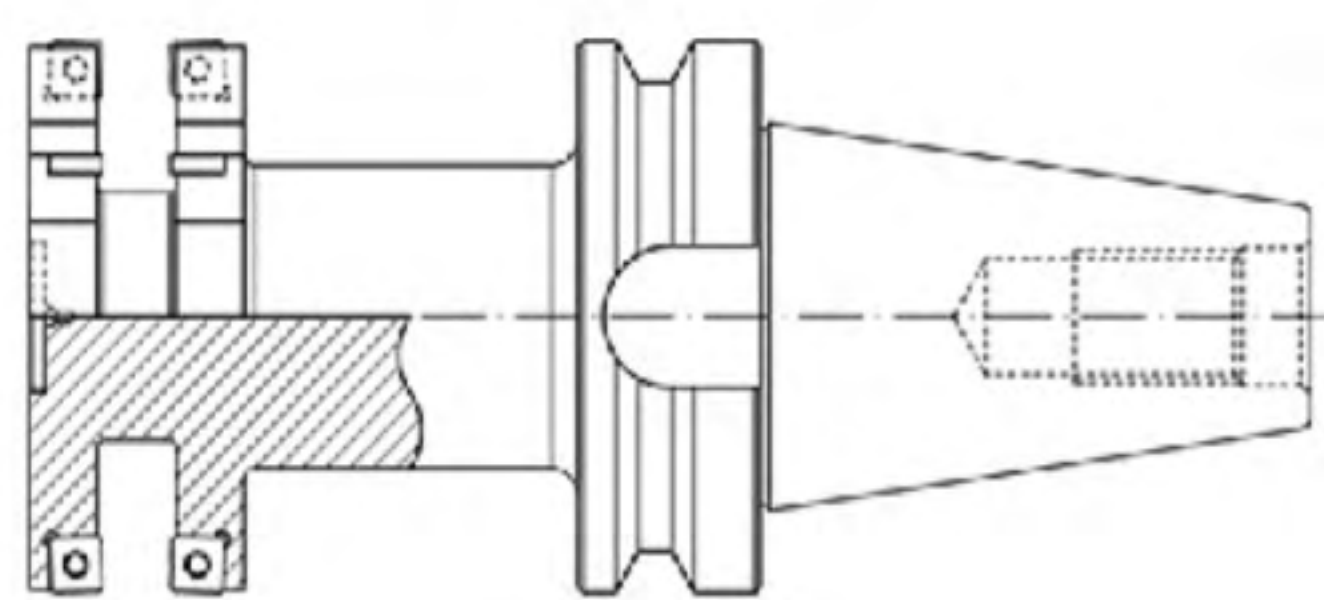
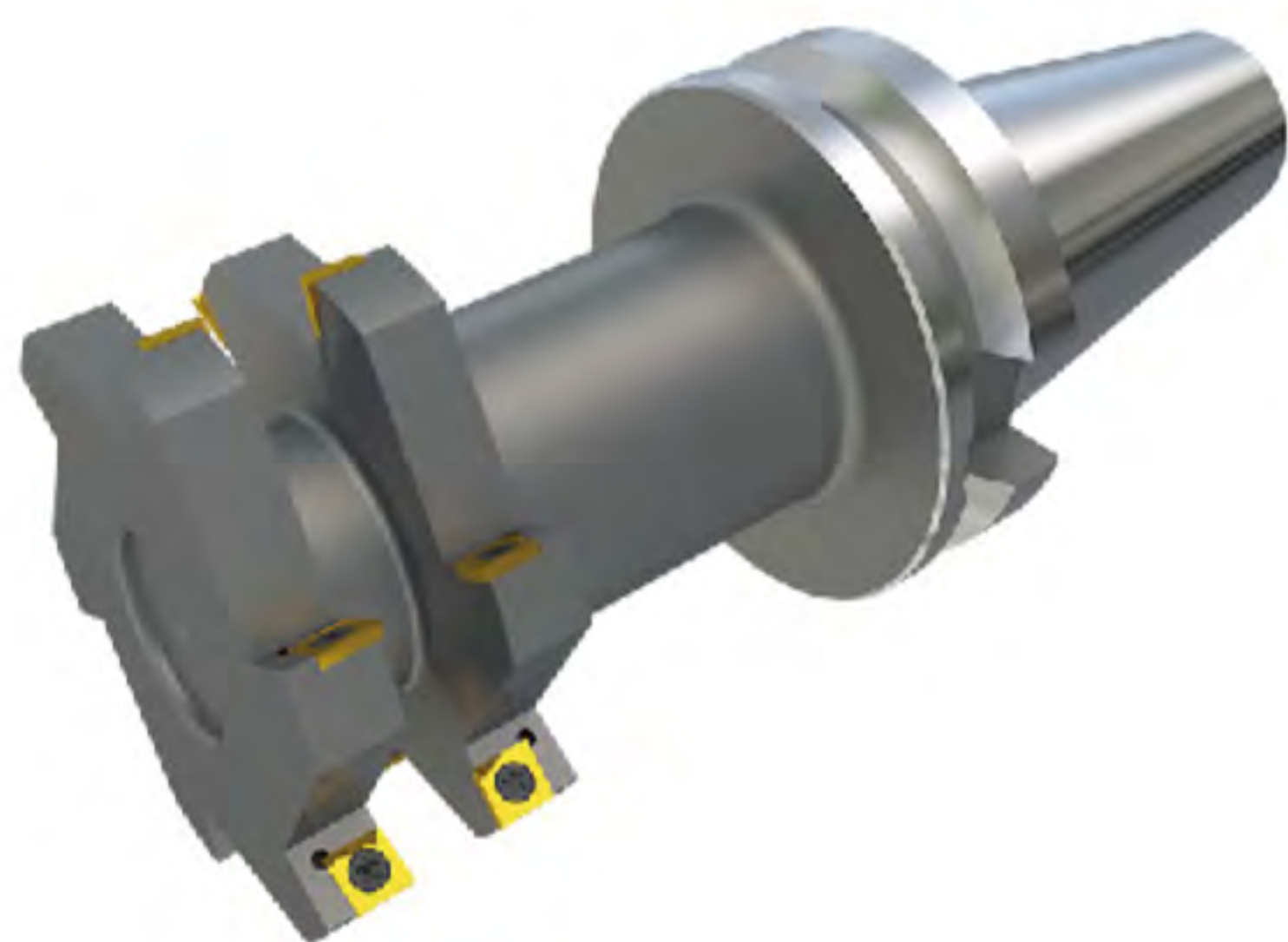


■ Tool Solution for Brake System--- Brake



Brake Caliper

The important role of brake is obvious while the car is in motion. Brake caliper is one of the important core parts in brake system. We have developed a whole set of cutting tools for the processing of brake caliper, hoping that users will have more safe experience.



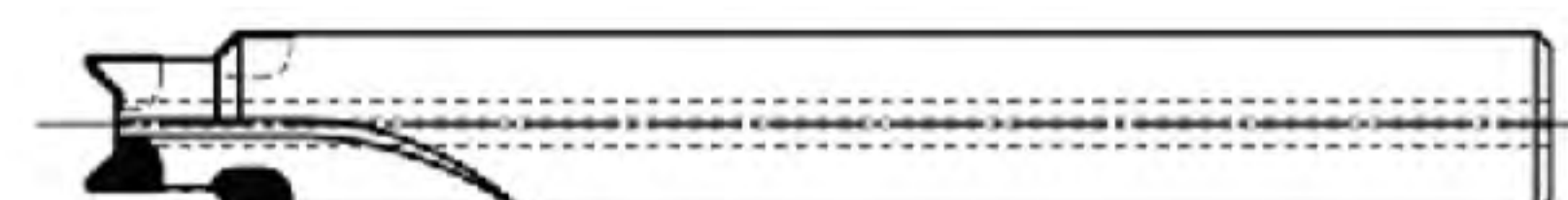
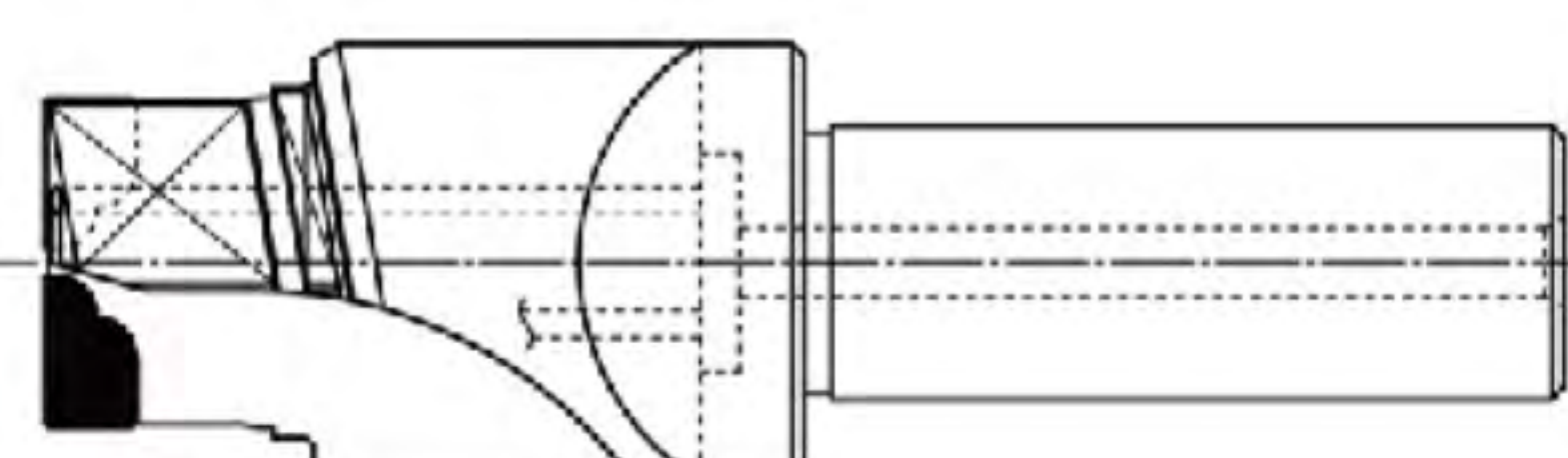
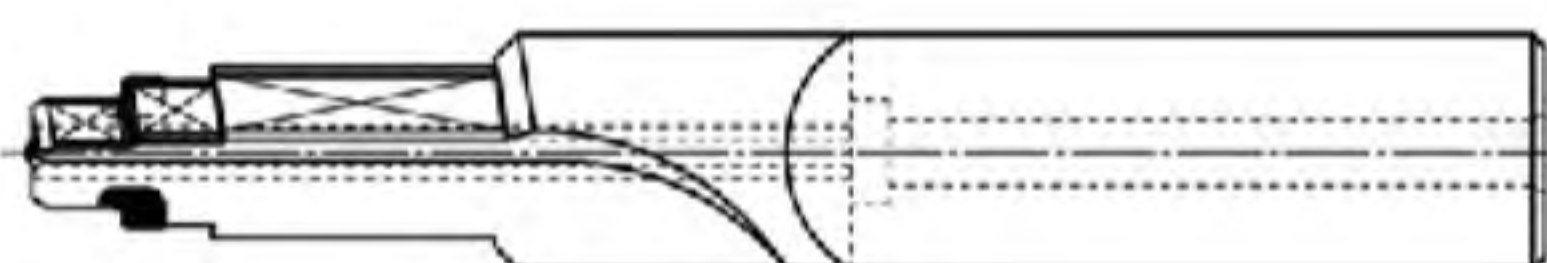
Brake System

It slows down the speed of the cars and make it stop, keep the vehicle moving at the same speed in the downhill and maintain the stillness of parking car. The main parts include brake staff, brake booster system, ABS and parking brake system.

■ Tool Solution for ABS---ABS Valve

ABS Valve

ABS helps avoid lock braking and other high risky situation when the car is out of control. In ABS valve there is a hydraulic pressure regulator, therefore large number of elongated holes are to be processed. We designed the sub sized depth drill with aperture ratio more than 30, which has meet the standard in terms of both cutting life and performance.



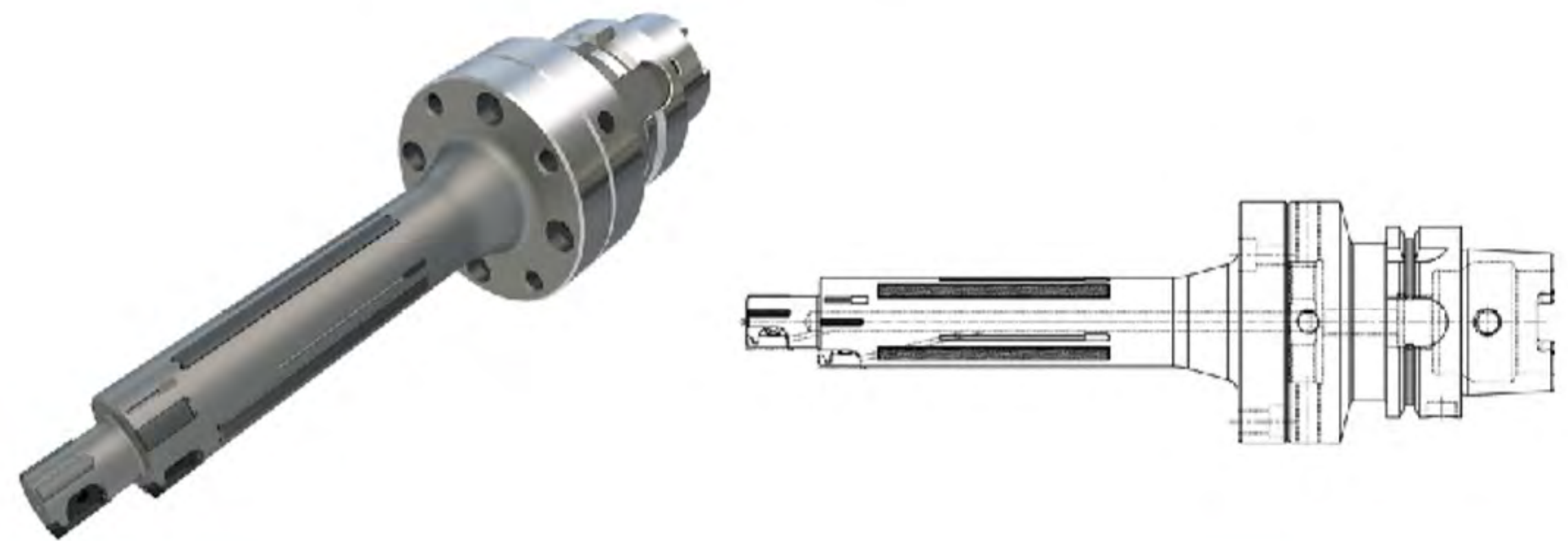


■ Tool Solution for Air-conditioning System--- Compressor, Fittings



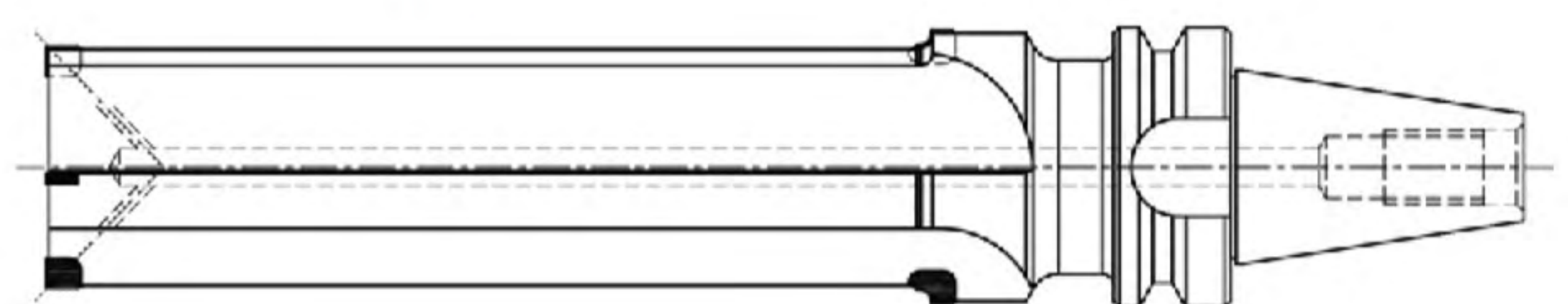
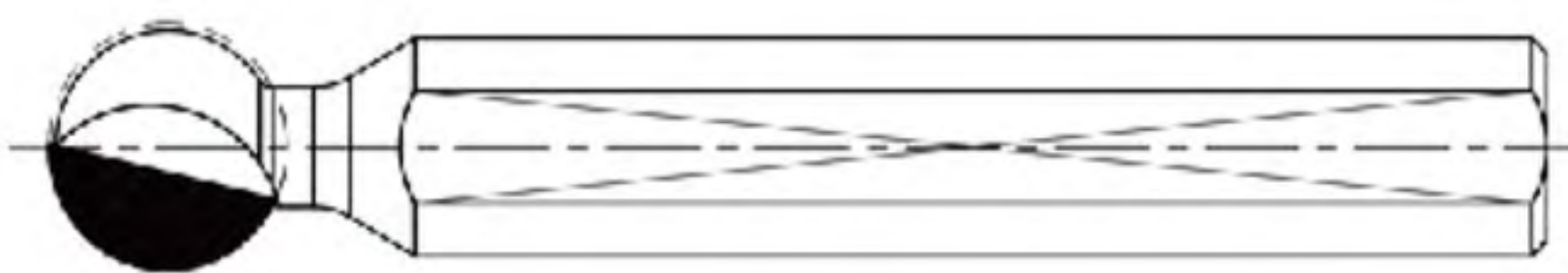
AC Compressor Cylinder

It produces cooling effect by compressing refrigerant, which is caused by reciprocating motion of the plunger. Therefore there is a high standard for the place, size, physical dimension and surface quality of the inner hole. Our cutting tools have good rigidity in long distances, it not only meets the requests but also simultaneously manufacturing both the front and rear cylinder together at one time, and showing excellent concentricity.

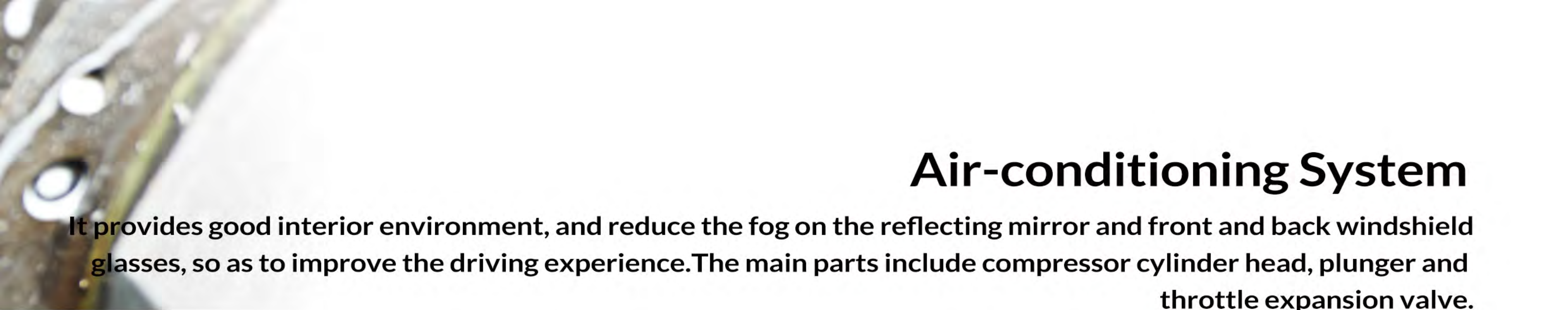


AC Compressor Plunger Valve

The plunger has spherical surface. Good processing size can lengthen the life circle and reduce the noise. Our solution provides products that is good in quality and cost less, and also guarantee the life expectancy.



Compressor Fittings



Air-conditioning System

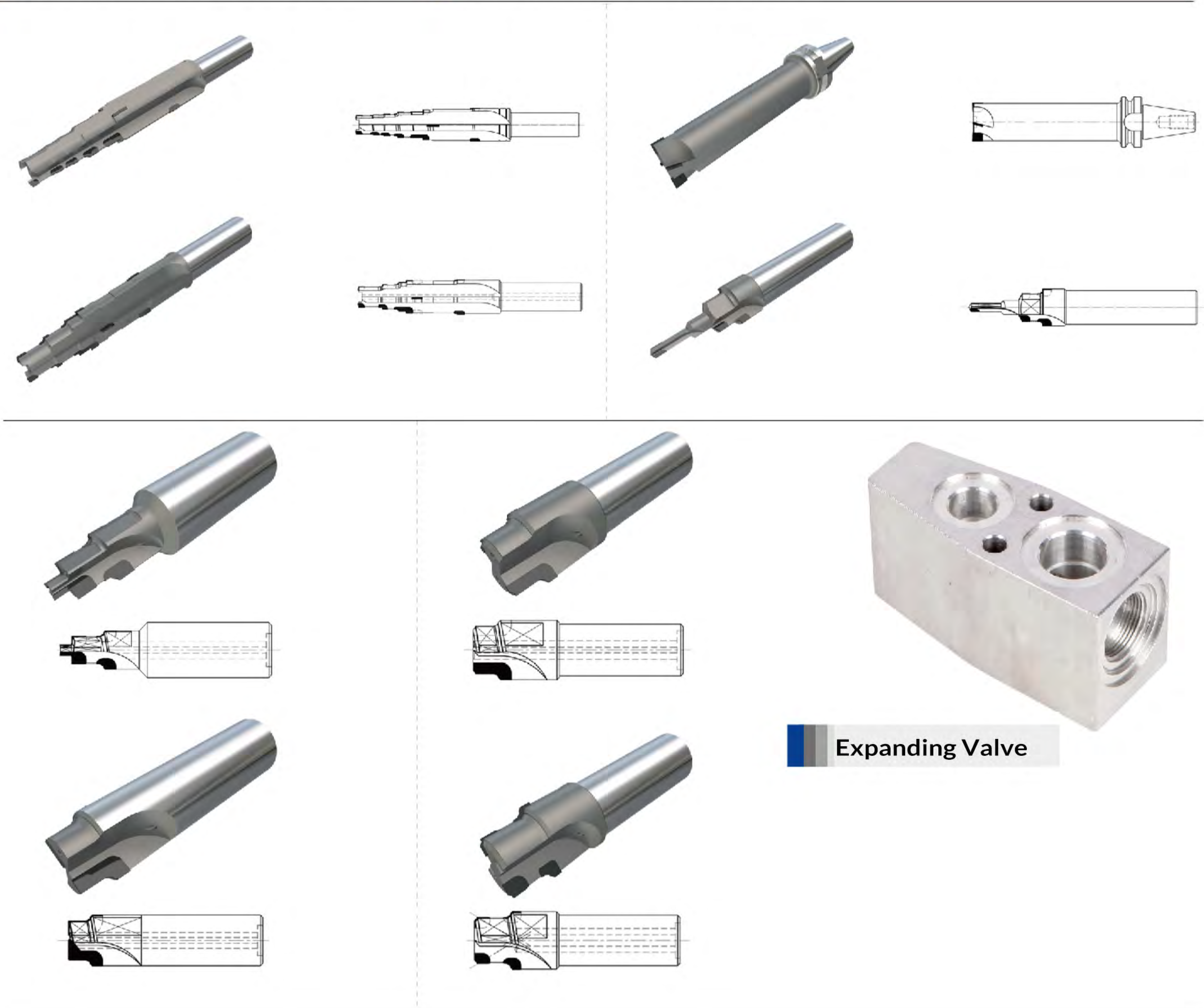
It provides good interior environment, and reduce the fog on the reflecting mirror and front and back windshield glasses, so as to improve the driving experience. The main parts include compressor cylinder head, plunger and throttle expansion valve.



The front cover is usually used for electric magnetic clutch, shaft bearing and rotating shaft, while the back cover is usually for inout refrigerating medium. We give a step drill to processing the multi-stepped holes at one time. This improves efficiency and reduces the cost of cutting tools.

AC Compressor Front Cover

AC Compressor Back Cover



Expanding Valve

■ Technology

- **Professional customization :**

As a leading cutting tools supplier with over 33 years of accumulation in China, SNSTC offer more than 20,000 kinds of special tools to different customers every year. SNSTC sincerely hope that you can get the advantage of using special tools.



- **Tailor Made :**

SNSTC's product design contains its deep understanding of customers' condition and demand. We only offer the correct tool fit to customers' requirements.



- **Technology Innovation :**

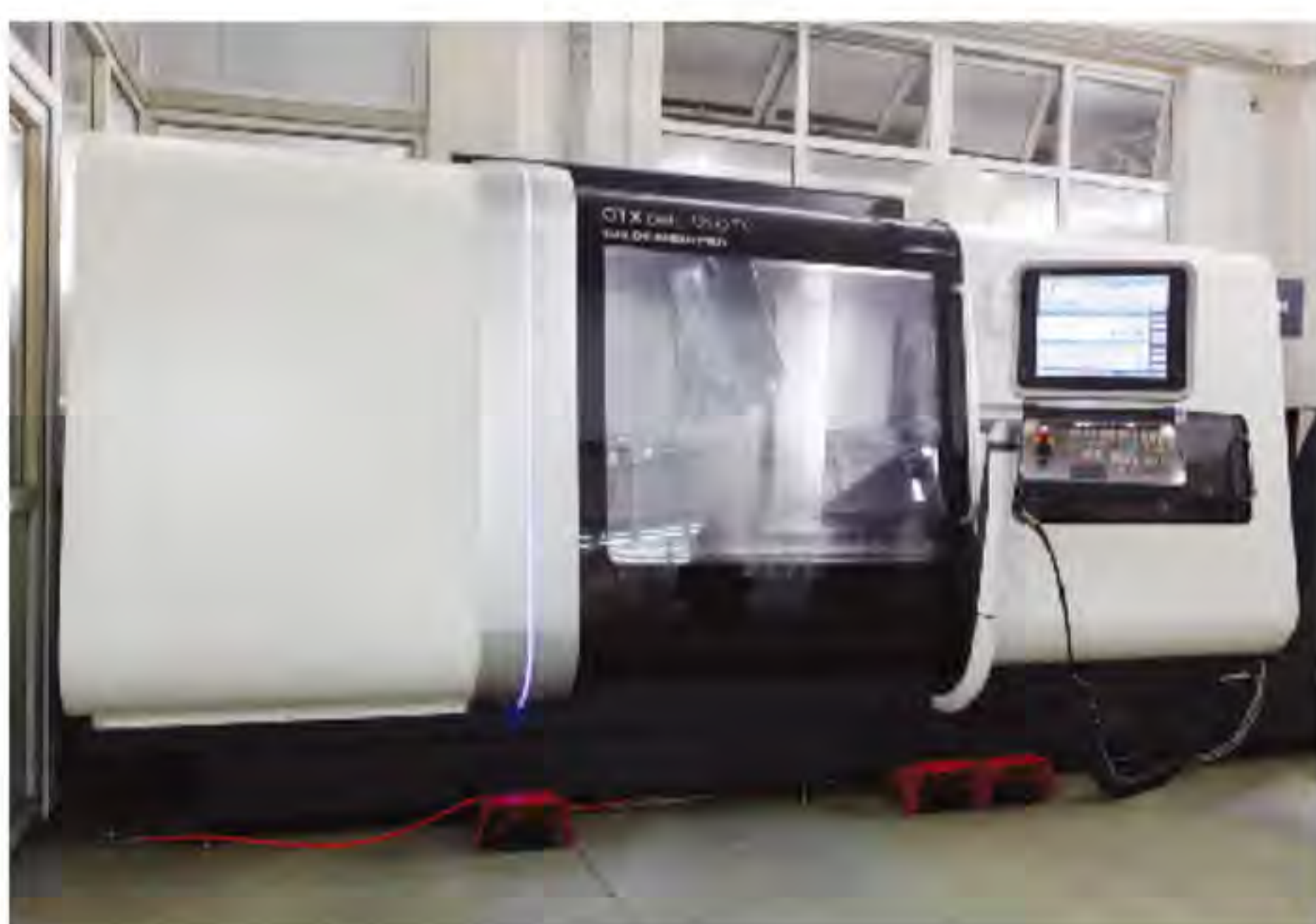
Over the years we have always drawn lessons from the past, and develop new technology and new products so as to improve efficiency and reduce cost. We firmly believe that only by making progress in technology can we keep our leading position in the precision cutting tools industry.

■ Manufacturing



- **Lean Management :**

We limit the unreasonable expense and waste in every link of production and circulation. Besides adopting the ERP management system, we think that the idea of people is the root for better development. Every product we deliver to our customers contains the labor and wisdom of our staffs.



- **Complete Inspection :**

SNSTC inspect all products so that any quality problem will be solved before it comes to the market. This is why we are confident about the quality of our products.

- **Short Delivery :**

Short delivery is one of the great advantages of SNSTC. It only takes 20 work days for us to complete a complete set of solution tools. This would benefit our customers in their lower turnover cost and quick response.

■ Sales

- **Target Marketing :**

As an old brand for precision cutting tools supplier, SNSTC have provided qualified cutting tools with our advanced technology in areas like auto manufacturing, aerospace, machinery and equipment, medical apparatus and instruments and electronic products.



- **Sales Team :**

Our professional sales team has strong business ability. We offer all-round service from the early stage of the information interaction, the carry out of technical scheme, confirmation of contract and order to short delivery of products, on-site experiencing feedback, and after-sales maintenances.



- **Business Network :**

We have set up direct sales service center in most major metal processing area in China. We will be at your side & support you 24 hours.

■ SNSTC 5 Axis Tool Grinding Machine (GIVEAL TC3/TC4)



Either by purchasing or rent our equipment, we offer our professional 5-axis tool grinding machine for you to grinding/regrinding drill, reamer and milling cutter by yourself. This can not only save a lot of regrinding cost, but also helps you to reduce inventory and lower management cost.



■ Environmental Protection

We promise:

The company and its staff obey laws and regulations concerning environmental protection in daily routine. We encourage energy-saving and resource recycling in factories and offices. We try to reduce complaints of products and waste of resources by strengthening technical exchange. We strictly implement 5S management system.





More Complete More Precise Faster And Better

Special Cutting Tools for automotive parts

Special Cutting Tools for Aircraft components

Special Cutting Tools for Medical device parts

Special Cutting Tools for 3C Electronic products

Special Cutting Tools for New Energy equipment



Shanghai Nagoya precision tools Co., Ltd.

Address: No.2988 Bao'an Rd, Jiading District, Shanghai ,China

ZipCode:201801

Tel: +86-21-59155664 E-mail : sales_center@snstc.com

Web: www.snstc.com / www.giveal.cn



Technical hotline: (86)21-5915-5664

Safety instruction:

When using the tool, there is a risk of damage. Be sure to use protective cover, safety glasses, safety boots and etc.

Please do not touch the cutting edge with your hand
Please do not touch the chipping with your hand.

Stop using the tool while the cutting edge is not in good condition.

Immediately stop using the tool when abnormal sound or vibration occur.

Please do not modify the tool without authorization.

Please check the tool size before machining.

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