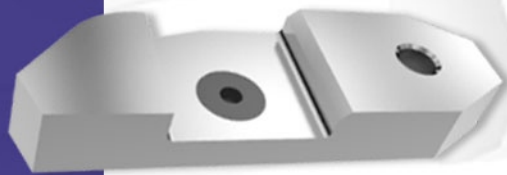
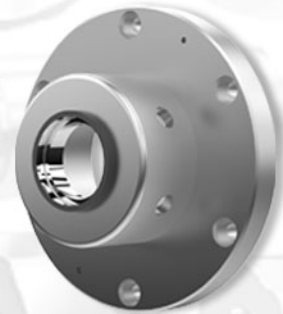
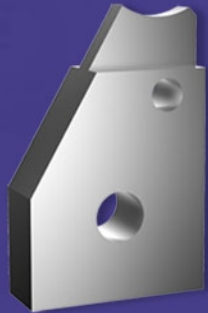
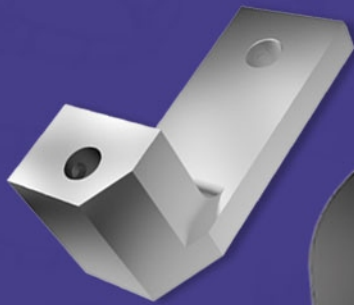


**PARIN**  
engineering

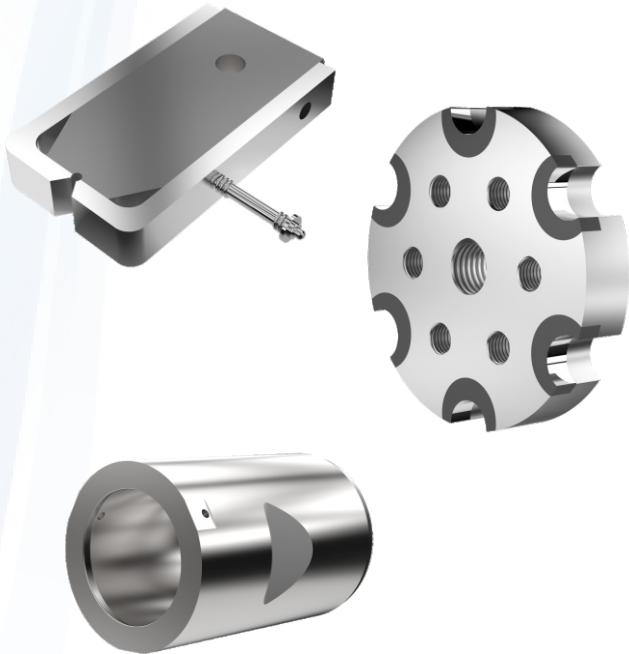


**“Always deliver  
more than expected.”**



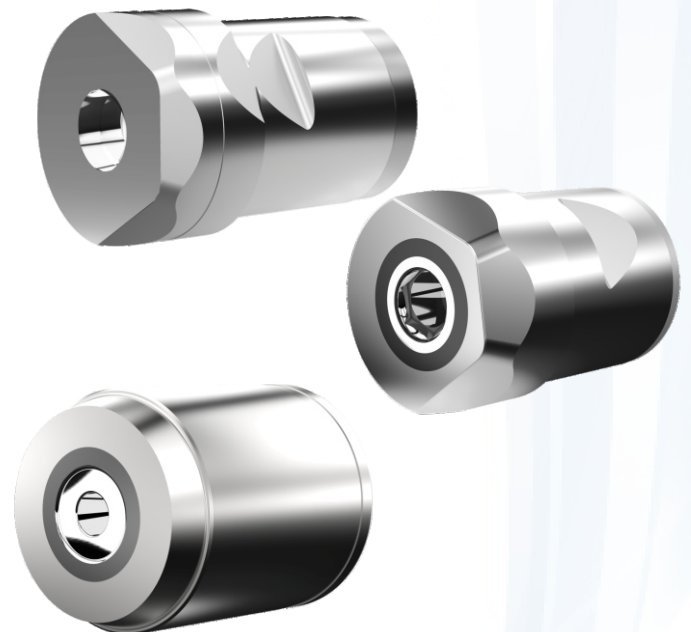
[www.parinengineering.net](http://www.parinengineering.net)

# TOOLING FOR FASTENER INDUSTRIES



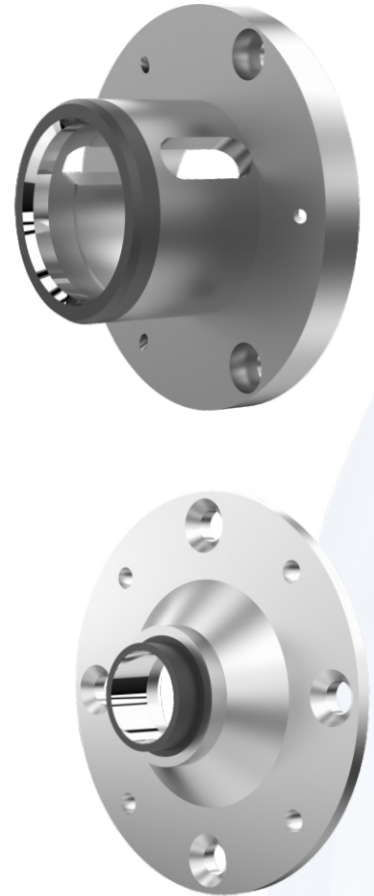
- » In our state-of-the-art manufacturing unit, different grades of carbides are developed to cater to the different tooling applications for enabling the tool to find its optimum performance.
- » We are known for manufacturing higher grade tools for fasteners industries; such as dies, quill, wire die, cutter (open and bush Type), nut forging cutter, 1st punch & casing. These are used in manufacturing for bolts, rivets, screws and other special fasteners.
- » To give our customers full satisfaction, we feel happy to share the solution for fastener tooling from manufacturing and execution based on our experience.

- » We also manufacture tools for various machines such as CHUN ZU, SACMA, national, etc.
- » Most of the sizes are in stock and can be supplied with in 1-2 weeks.
- » The various types of profile such as extrusion, pointing, trap extrusion, countersunk, washer face, etc. are some of our regular manufacturing products whereas we also manufacture the special dies with hexagon profiles.
- » We can also supply tooling in semi-finish condition for tools and fastener manufacturing. We are also manufacturing tooling for bimetal rivets.



## DRIVING PLATES

- » Driving plates are used for driving the inner and the outer races during the grinding and lapping operation.
- » These are basically used for linkoping and telinaus machines.
- » Parallelism between the 2 faces are maintained within 4 microns.
- » Every component is lapped to high degree of finish.
- » Positioning of all the holes within 0.01 to avoid any problems during the assembly.
- » Many different geometry of driving plates are manufactured and supplied to major bearing manufacturer around the world.



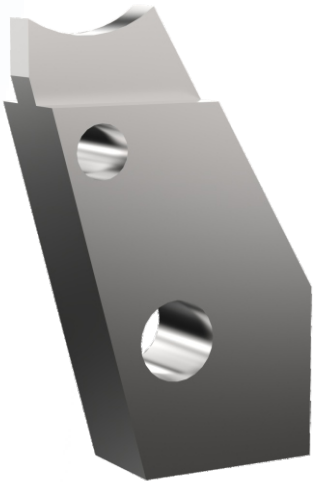
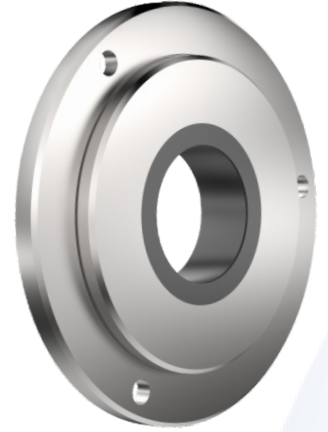
## CLAMPING PLATES

- » Clamping plates are used for holding the races against the driving plate during the grinding of inner and outer races during grinding and lapping .
- » Parallelism is maintained within 4 micron among the faces.
- » Clamping plate in combination with driving plate and shoe make entire set of tools for race grinding. This is done without holding the races radially and thereby giving high accuracy in bearings.

# TOOLING FOR BEARING INDUSTRIES

## GRINDING POSITIONING BUSH

- » Grinding positioning bush is a tooling item used on the duplex grinders (Double Disc) for grinding both faces of bearing rings simultaneously.
- » Due to this demanding requirement, the “Grinding positioning bush” is made of composite construction viz; a wear resistant carbide ring is press fitted to a carbon steel body. The bore of the carbide ring is precision ground a very high level of surface finish and geometrical accuracy.



## CARBIDE SHOE

- » Carbide shoe is used for supporting the bearing races during the grinding and Lapping operation.

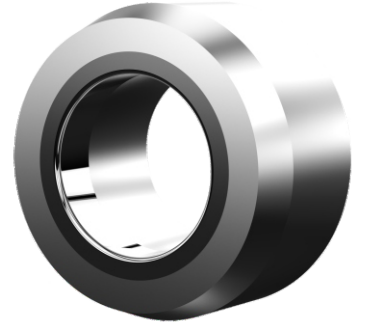
## GRINDING ARBOUR

- » Carbide arbours are used in the honing machines.



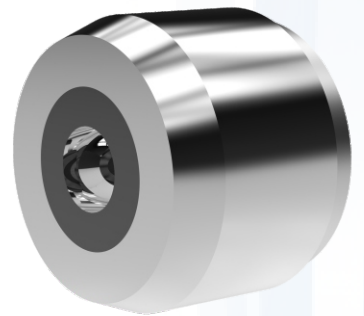
# TOOLING FOR COLLAPSIBLE TUBES AND CAN AND CONTAINER

- » Parin Engineering has introduced carbide rings for manufacturing of Aluminium Tubes in India.



- » Aluminium tubes are manufactured with backward extrusion process in which the slug is subjected to heavy load and thereby material flowing in reverse direction and forming the shape of tube.

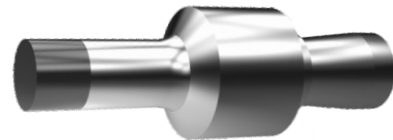
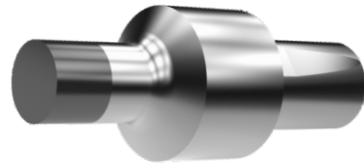
- » Combine die has been developed to form the tube along with the nozzle, thereby reducing the setting time and increase in productivity.



- » Further research in the field has helped us to develop dies for can manufacturing as well as bidding roller used for Necking.
- » Replacement of steel dies with carbide rings has bought substantial revolution in the industry.

## TOOLING FOR TABLET & CERAMIC PRESSING (SINTERED PRODUCTS)

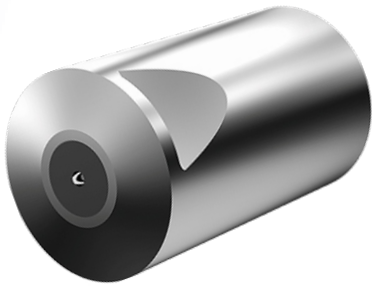
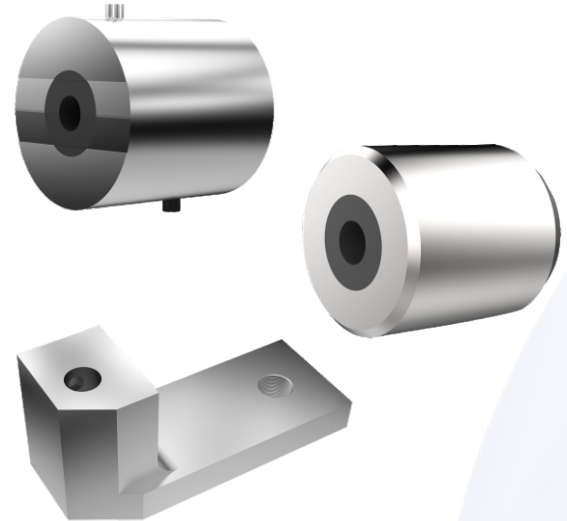
- » The input material (Ferites / Abrasive) is compacted between the dies and the punches to give the required shape. Later on the sintered product (Green Stage/Soft Stage) undergoes a firing / sintering process by which the product is then converted to Hard Stage.



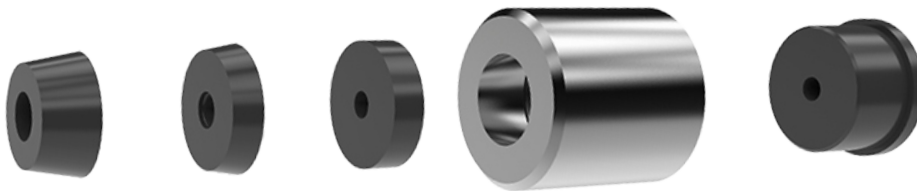
- » The major advantage of sintered product is to avoid loss of material and higher production.
- » Tableting dies more fondly used in Pharmaceutical Industries have similar application as sintered and accordingly Carbide grades are selected considering the various parameters.

# TOOLING FOR ROLLER MANUFACTURING

- » Parin Engineering have developed dies for taper roller and needle roller.
- » Dies in one piece design as well as segmental design has been developed and supplied successfully to major "Roller" manufacturer in India. Based on Customer requirements top insert, bottom insert, housing (body) and punch can be supplied.

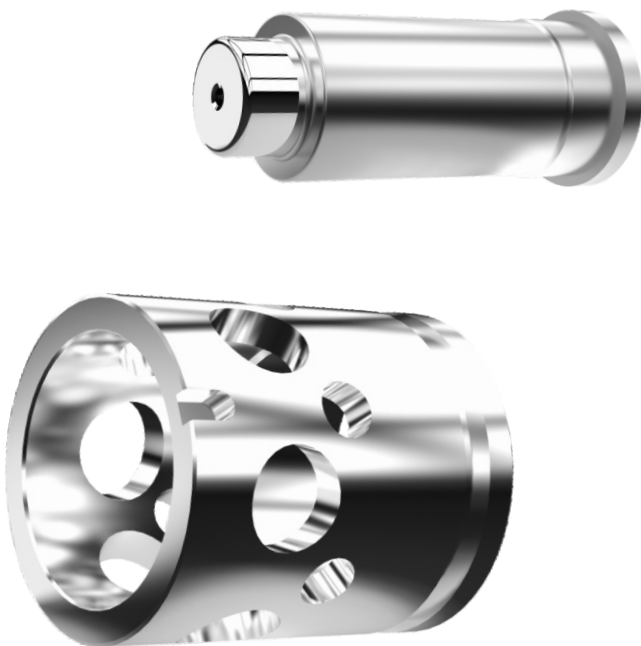
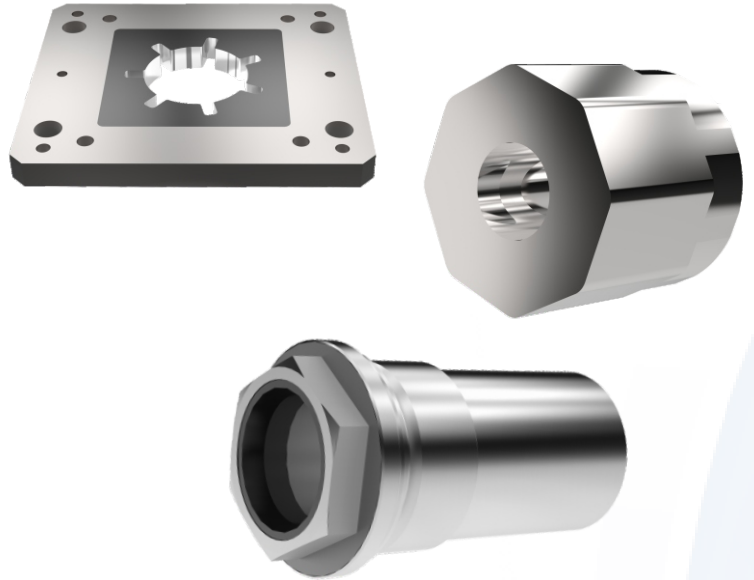


- » Parin engineering also manufactures cutter Insert, cutter and quill and thereby giving complete tooling solution under one roof.
- » We hold huge inventory stock with us and thereby ensuring faster deliveries.



## TOOLING FOR SPECIAL COMPONENT

- » We are also affianced in producing many different products that are especially required in Automobile Industries, Oil & Gas Industries, Cigarette Industries, Electrical Industries, etc.



- » We also supply ground/unground rods suitable for various application carbide flats/blocks and other special components can also be manufactured as per customers requirements.



Cages have an appreciable influence on the suitability of rolling bearings.

Their main purposes are:

- » Keeping the rolling elements at an appropriate distance from each other and to prevent direct contact between neighbouring rolling elements, in order to keep friction and thus heat generation at a minimum.
- » Keeping the rolling elements evenly distributed around the complete circumference to provide even load distribution and quiet and uniform running.
- » Guiding the rolling elements in the unloaded zone, to improve the rolling conditions in the bearing and to prevent damaging sliding movements.
- » All the incoming material are thoroughly inspected, and complete traceability of the Raw material is maintained in ERP.
- » In House tool room has helped us to manufacture and develop new tooling's in short time intervals.



# TOOLING FOR BALL MANUFACTURING INDUSTRIES

## BALL HEADING DIES

- » Parin Engineering have been specialized for manufacturing of carbide heading dies for steel ball industries from 1994. The die and punch is used to make the headed ball which on processing further turns into finish ball used majority for bearing Manufacturing.
- » The die design recommendations derived from practical experience, theoretical stress analysis, proven application engineering practices and modern manufacturing techniques has helped Parin Engineering to manufacture dies with high tool life and better shape of the ball.
- » Proper selection of carbide grades based on the material to be headed, cavity design and machine condition is also an important factor for increase in the tool service life of the dies. We also supply dies which are capable of re-polishing.
- » We manufacture dies for National, HIGHLAND, WATERBERRY, etc. Dies can also be manufactured as per customer drawing.



## CARBIDE CUTTER /QUILL & FINGER

- » Cutter are used in combination with quill and finger to cut the slug and position in between the die and the punch. With the success of heading dies and customer recommendation Parin Engineering started the development of cutter, quills and finger.
- » Different grades of carbides have been developed for different application, thereby giving optimum performance of the tools.
- » All the tools are manufactured with stringent process control and 100% traceability of the carbides used for each die can be achieved.
- » In house ERP system has been followed to maintain entire process with all the necessary documentary evidence. Minimum stock level of all the fast moving items are maintained to reduce the delivery lead time to as low as 24 Hrs.

# FULL PRODUCT RANGE

