



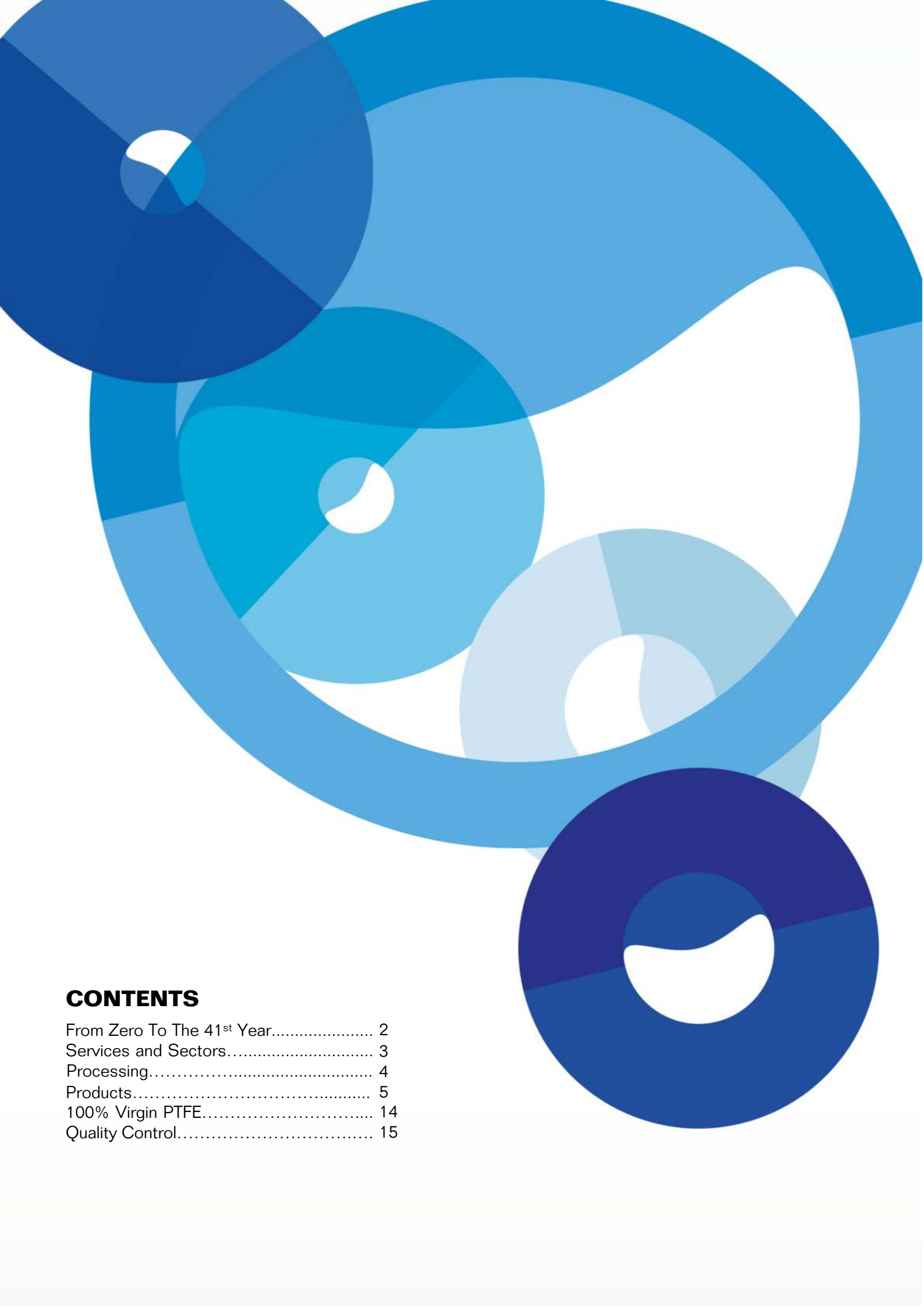
Invisible **Perfection**

Company Profile & Product Catalogue



11 Countries | 41 Years Experience





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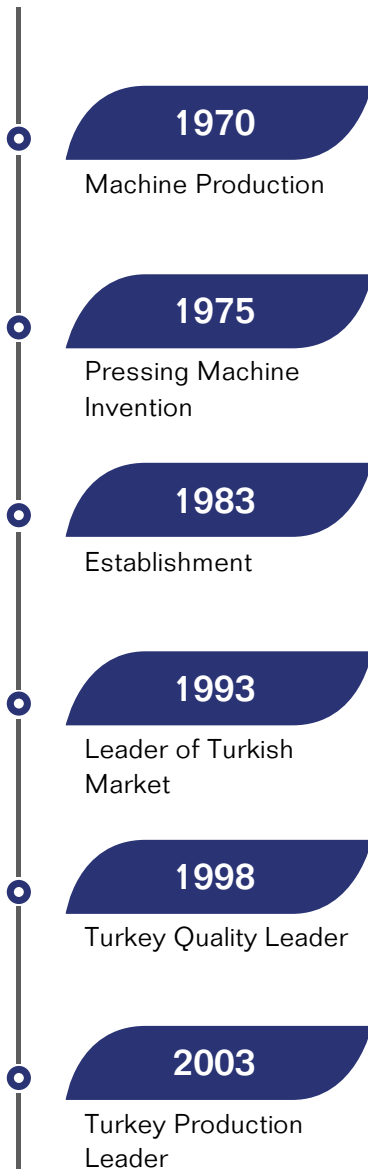
FROM ZERO TO THE 41ST YEAR

Mekanika was established in 1983 for the purpose of producing 100% virgin PTFE seals. It is the first manufacturer of 100% virgin PTFE seals in Turkey.

Our company uses automatic pressing systems with the raw materials produced by the companies that has WRAS Certificate in its production processes. It has become one of the most successful companies in the sector by means of paying strict attention to its product quality. Our company intends to have a long lasting relation with the customers have adopted conscious and systematically working principles as well as making no sacrifices in quality. We closely follow all developments in quality and technology.

Today, we provide 100% virgin PTFE Teflon gaskets for various leading valve companies in the world with our 41 years of experience and product quality.

WHY MEKANİKA?



- Mekanika has 41 years of Teflon gasket production experience
- Is the first to produce Teflon gaskets in Turkey with its own press machines, and in this sense deemed worthy of a Certificate of Appreciation from the Republic of Turkey
- Contains whose products are accepted in 11 different countries with an annual capacity of 140 million units
- Is known with its quality products and services
- Uses only 100% virgin Teflon or 25% carbon raw material in its products
- Develops special solutions for technical drawing and tolerance ranges and successfully responding to mass production demands in high volumes
- Is capable of producing in the size range of 3.5 mm to 200 mm
- Is owner of ISO 9001 and TSE Covid-19 Safe Production standards
- Produces certified products that are approved for the Life Test and suitable for drinking water use
- Provides products suitable for all production processes with full – semi-automation and traditional lines
- Constantly follows and implements current developments and changes in the global market
- Has adoptive honest and transparent communication with all customers as its primary ethical value
- Observes a solution-oriented cooperation understanding and providing design support in the new projects of its customers
- Shares information about improving the production process of its customers with its experienced expert staff.

01**DESIGN & ENGINEERING**

We are with our customers in the process that starts by understanding their needs correctly, from the design of the technical drawing, to the technical consultancy and the perfect harmony in the final product.

02**MANUFACTURING OF GASKETS**

We perfectly meet your need for 100% virgin PTFE Teflon and carbon PTFE gaskets of samples and mass production with pressing method. In addition, we respond to your special product requests in our CNC machine and lathe machine.

03**QUALITY CONTROL**

Due to our many years of experience, we are used to the certifications required by different sectors and we can adapt very quickly. In accordance with your needs, our production process and our team work in accordance with quality standards.

04**INNOVATION & DEVELOPMENT**

We have a research team that follows and interprets the developments and continuously improve our production / service. Thanks to this team, not only with our products, but also with you; We also benefit from our advance information.

05**COST REDUCTION**

We know that you want to reduce costs without sacrificing quality and we are trying to give you an advantage in this direction. Not only as a low product price; We also contribute to this process by supporting the development on the product.

SECTORS**PLUMBING****BUILDING****ARMATURE****VALVE****AUTOMOTIVE**



Production at Mekanika means choosing the right raw material, working with an experienced team, efficiency and continuous control. Production units and Quality Control Department carry out their activities within the framework of ISO standards and internal regulations. With MEK24 ERP, all these works are monitored and reported instantly (Just-in-Time - JIT). Undesirable situations are resolved without repetition.

Understanding the Need: The need is determined by taking into account the information, technical drawing and/or final product conveyed by our customer. At this stage, our customer is contacted many times to ensure that the solution and our suggestions are correct.

Choosing the Right Raw Material: The most ideal raw material type is determined in accordance with the usage area of our customers' products and other situations – again confirmed with them.

Mold Production & CNC Machining: Mold production in accordance with the product to be produced in our own facility on CNC machines. Thus, the accuracy of the mold / end product and realization of the production process in the shortest time are ensured.

Semi Finished Production: Gasket production is carried out in the desired diameter and tolerances in the pressing machines invented by our company.

Sintering & Finishing: The sintering of semi-finished gaskets is done in special industrial furnaces. If necessary, the gasket is given its final shape by machining operation.

Quality control: In each of the stages of raw material acceptance, molding control, sample control, semi finished product control and final control, quality control engineers control the product and the works to ensure the quality of Mekanika.

Our products are life-test approved, suitable for drinking water and automation.



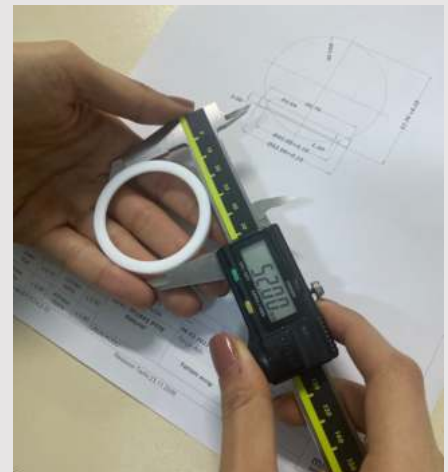
PRODUCTS

Automatic molding PTFE parts are used in many different industrial applications such as: Fluid Control, Hydraulic and Sanitary, Oil & Gas and Automotive. Because its production process' advantages, automatic molding systems enable us to answer the customer's needs faster and to produce with competitive prices.

With our daily production capacity of 400K pieces and an annual production capacity of 140 million pieces in the size range of 3.5 mm to 200 mm, we are able to respond to all amount of orders with the same success. We also provide products to the leading companies of the sector with products approved for the Life Test and certified suitable for drinking water use. As a manufacturer known for its quality, we continue our production with the same awareness since 1983 and have a large portfolio of finished parts which are given below.

- BALL VALVES SEATS
- FLAT RINGS
- WASHERS
- SINGLE CONES AND OGIVES
- ISOLATORS
- CUSTOMIZED PTFE PARTS

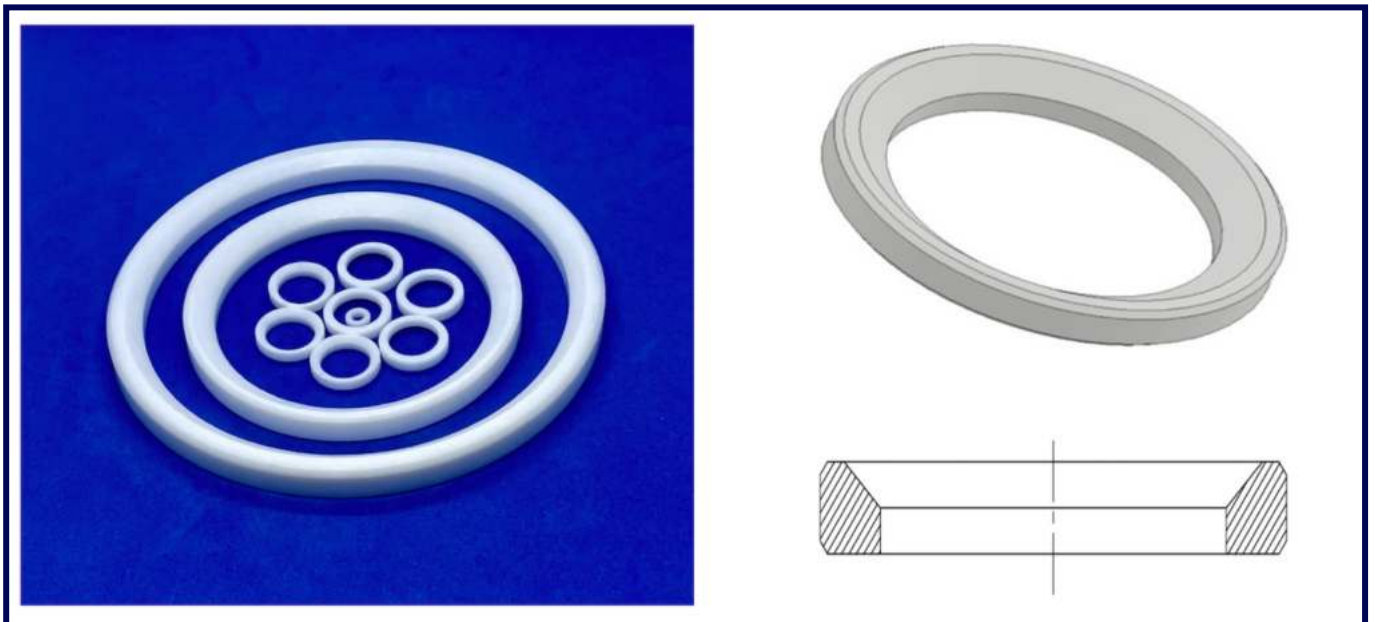
We are producing by using automatic pressing machines at Mekanika. As a result of our attention to product quality, we have become one of the successful companies in our sector in a short time and we have got the greatest source of pride which is long-term relationships with our customers. Our products are life-test approved, suitable for drinking water and automation.



Due to the PTFE (polymer) characteristics, gasket shows the excellent sealing performance when used in the ball valve spectrum. It has a low antifriction coefficient, very good temperature resistance, low permeability and good resistance to chemical agents.

The PTFE Teflon gasket has a strong as well as flexible bond structure. So, it can operate in a wide temperature range (between -250°C and $+260^{\circ}$)

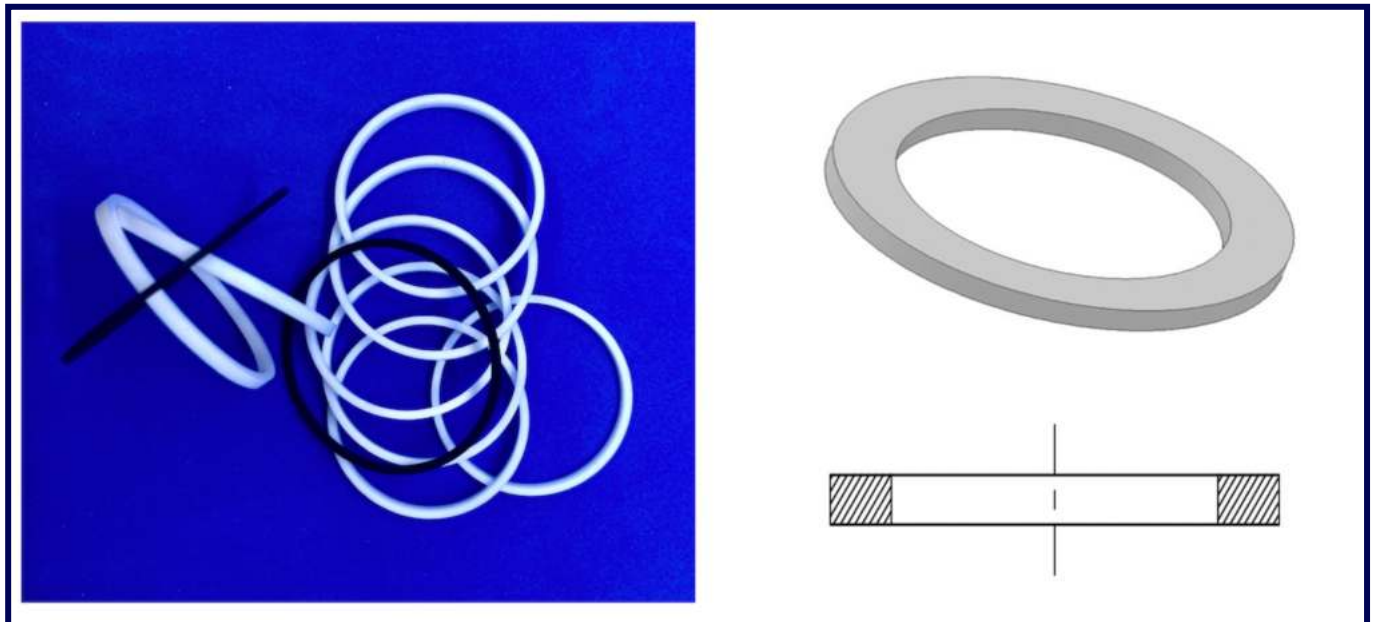
Material: 100% Virgin PTFE, PTFE 25% Carbon filled



PRODUCTS: FLAT RINGS

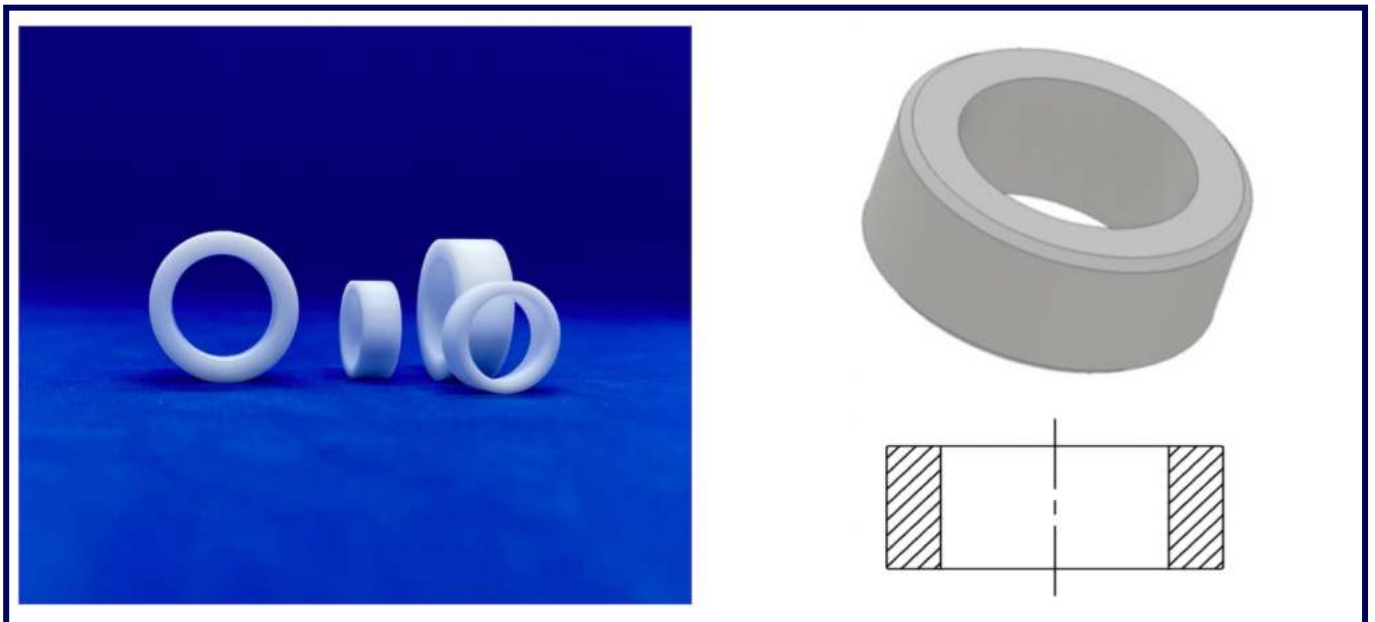
Flat rings are probably the most commonly used with the simplest shapes. They have sharp and straight lines. Flat rings are generally used in high and low temperature applications and showing stability to high heat conditions with long service life.

Material: 100% Virgin PTFE, PTFE + 25% Carbon Filled



Washers are specifically used as sealing components for ball valve stems and it has optimal performance even with aggressive fluids whose temperature range between $-50\text{ }^{\circ}\text{C}$ to $+200\text{ }^{\circ}\text{C}$, or with high pressure.

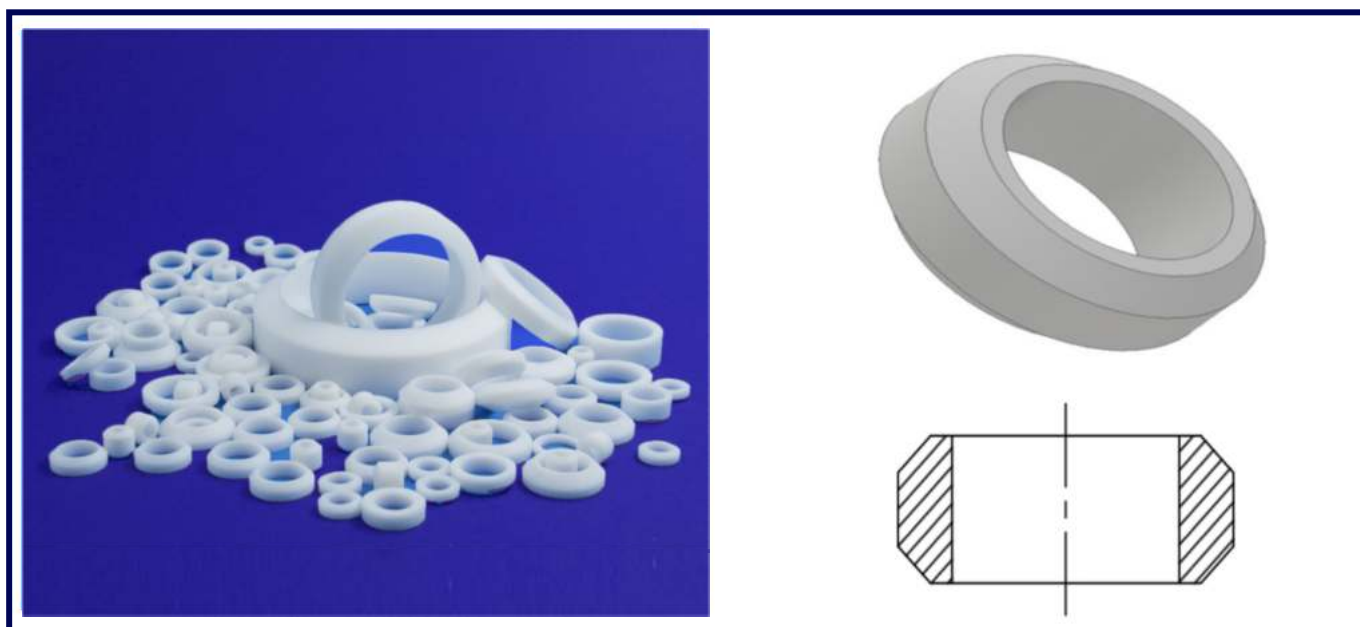
Material: 100% Virgin PTFE, PTFE + 25% Carbon Filled



PRODUCTS: SINGLE CONES AND OGIVES

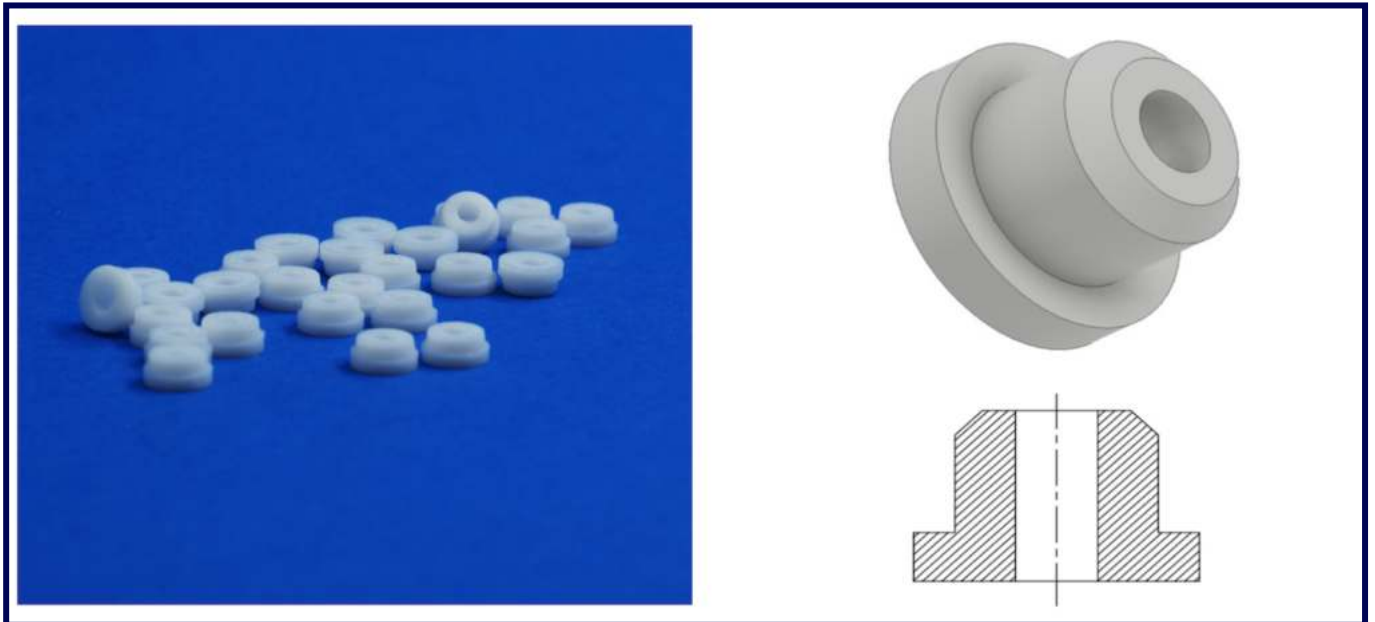
Single cones and ogives are widely used for both high and low pressures in ball valves, radiator valves and plumbing. It can show excellent strength even in aggressive liquids. Its optimum performance is at a temperature between -50°C and $+200^{\circ}\text{C}$.

Material: 100% Virgin PTFE, PTFE + 25% Carbon Filled



Isolators are widely used as a component of micro-insulators, connectors, nozzles, protections in the electrical sector because of the fireproof nature of PTFE. Manufacturing of Isolators is mostly made of %100 virgin PTFE.

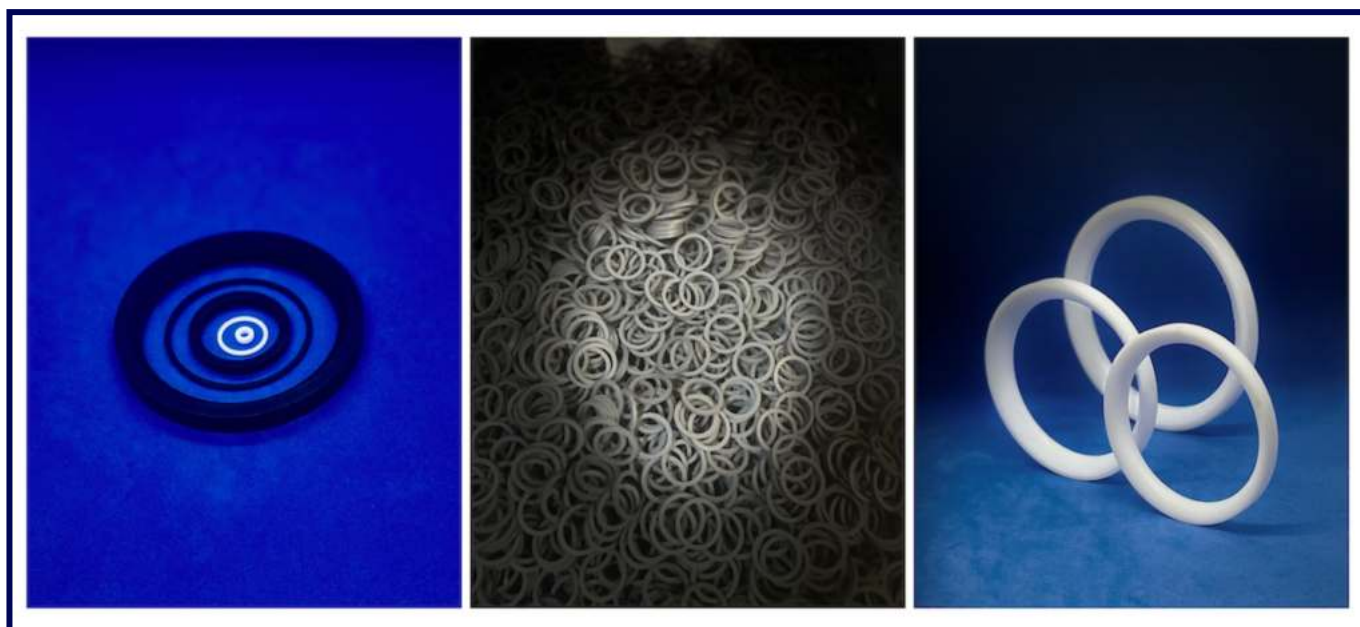
Material: 100% Virgin PTFE



PRODUCTS: CUSTOMIZED PTFE PARTS

With our daily production capacity of 400K pieces and an annual production capacity of 140 million pieces in the size range of 3.5 mm to 200 mm, we are able to respond to all amount of orders with the same success. We also provide products to the leading companies of the sector with products approved for the Life Test and certified suitable for drinking water use. As a manufacturer known for its quality, we continue our production with the same awareness since 1983.

Material: 100% Virgin PTFE, PTFE + 25% Carbon Filled



Life-test Approved

Our products are life-test approved, suitable for drinking water and automation. Since 1983, we are here to produce with decades of experience and solutions of the 21st century.



Preferring 100% virgin PTFE in gaskets has different advantages for manufacturers and end users;

- 100% virgin PTFE is one of the easiest materials for gasket assembly and disassembly. Teflon is the material with the lowest coefficient of friction. Therefore, it is not possible to encounter a problem such as sticking with Teflon gasket.
- Teflon, whose intramolecular and intermolecular bonds are much stronger than other polymer materials, shows both high dimensional stability and chemical stability. Therefore, 100% virgin PTFE Teflon gaskets are the ones with the best mechanical properties and chemical resistance among gaskets made from other polymer materials on the market.
- Teflon gasket is the most chemically stable gasket. It does not react with any fluid carried to the line where it is used. Therefore, it does not create a situation that will have the slightest negative effect on the performance of the part it is used and the system in which that part is located.
- Teflon has a strong as well as flexible bond structure. So, the Teflon gasket can operate in a wide temperature range (between -250°C and $+260^{\circ}\text{C}$), while minimizing the possibility of leakage by showing optimum expansion and contraction in the face of temperature changes.



In addition, it has been seen that if less costly equivalent raw materials are used instead of 100% virgin PTFE;

- Teflon gasket deforms in shorter periods and the product warranty period of the manufacturers may be affected.
- Functional loss may occur in a short time in the products it is used in (for example, valves) and the brand awareness of the manufacturers may be adversely affected.
- Because its strength is low in very cold or very hot weather conditions, it causes premature deterioration of the end product and may affect the end user.

Due to these features of Teflon and our quality standards, as Mekanika, we use only 100% virgin PTFE in our production process.

We work with the sincere awareness of how the products we produce can affect the lives of our customers and end users. In this context, We work in full compliance with...

- ISO 9001:2015
- WRAS – Water Regulations Advisory Scheme
- TSE Covid-19 Safe Production standard



Production with 100% virgin PTFE: In accordance with our quality standards, we only accept 100% virgin PTFE as raw material. Thanks to the gaskets that best reflect the Teflon feature, the functionality of our customers' products is more preserved, even if the warehouse waiting time of their semi-finished product or products is extended. Similarly, the durability of the end products is at the maximum level even in harsh climatic conditions.



Mass Production Capability in Low Tolerances: We have the capacity to develop special solutions for technical drawing and tolerance ranges and successfully respond to mass production demands in high volumes.



Efficient Production with Autonomous Machines: We have autonomous pressing machines that take their own precautions in case of any defect. Thus, we can ensure that the situations that may occur are resolved as soon as possible.



Control and Continuous Improvement at Every Step: Standard controls such as Warehouse Entry Control, Raw Material Acceptance Inspection, intermediate and final quality control tests are always carried out by independent responsible engineers and recorded in the product process flow logic. In this way, our business processes can be improved by making retroactive improvements.



Safe Production in All Conditions: We are constantly improving ourselves against all situations. In order to provide effective solutions against all kinds of new situations that negatively affect human health, we have started the Covid-19 Safe Production certification program of the Turkish Standards Institute, harmonizing our production facility with the new conditions, and we produce your orders in a safe environment against the corona virus.





We believe;

every expression of life deserved to be loved.

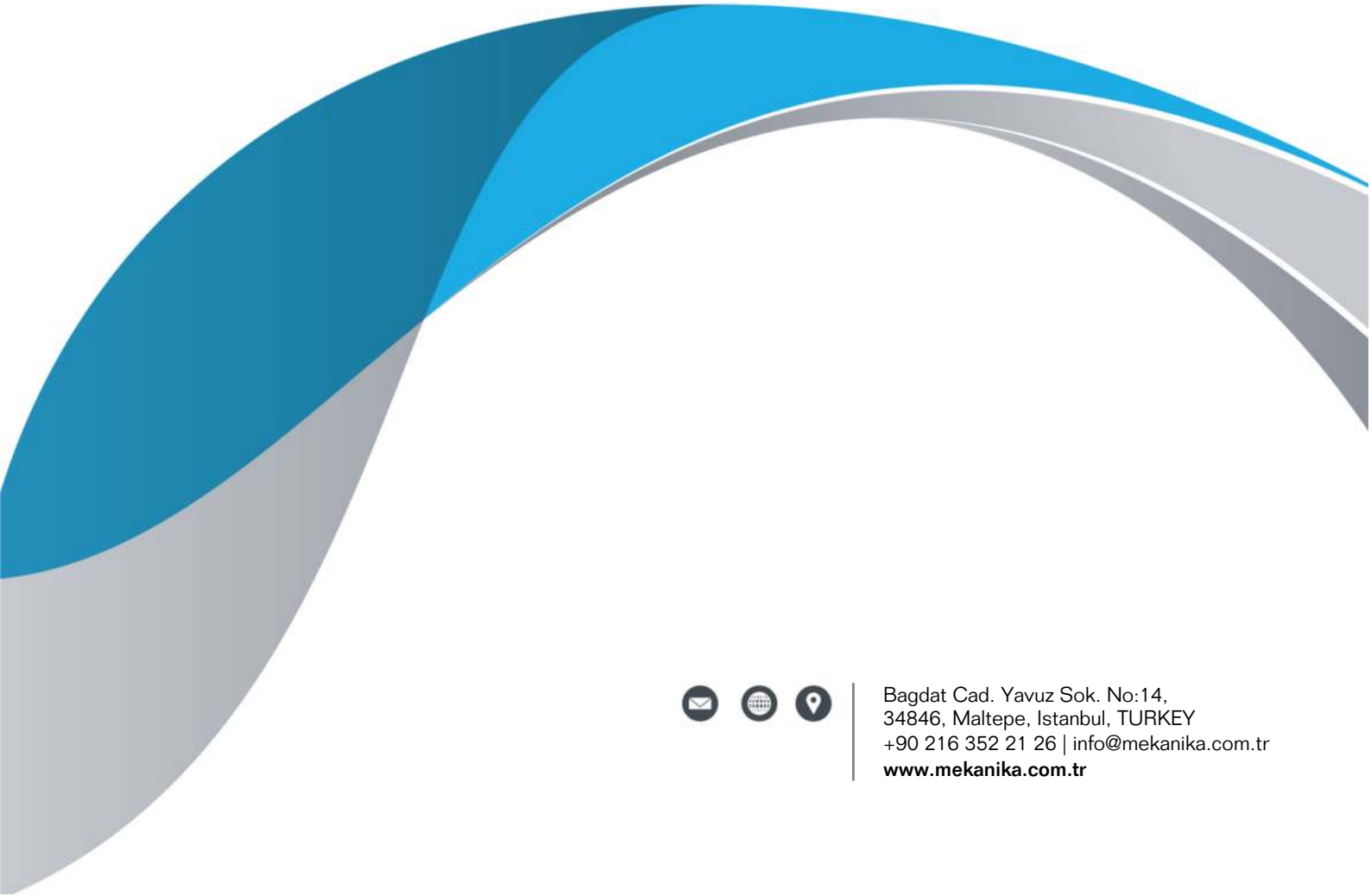
we are one and we need each other.

it should be asked how better is possible.

believing is half the battle.

we need to fight for better.

Invisible Perfection



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