

ZOOM

APRIL 2023



**New Motto from
Kastaş Sealing Technologies**



**Kastaş Expands
Further in Europe:
Kastaş Italy**



**The New
K49 Piston Seal**



KASTAŞ Contents

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Dear Readers,

As we continue to navigate the ever-evolving landscape of the global industry, it is important that we remain focused on our goals and committed to driving growth through innovation and efficiency. At Kastas, we pride ourselves on our ability to adapt and thrive in a rapidly changing market, and we are excited to share some of our recent accomplishments with you in this edition of our corporate magazine.

We are proud to announce the opening of our new branch in Italy, which is a crucial step in our efforts to expand our reach and better serve our customers throughout Europe. This new branch represents an important investment for Kastas, and we are excited about the opportunities it will bring. Our new branch in Italy will help us to strengthen our partnerships with local businesses, and we are excited about the potential collaborations that will emerge as a result. We believe that this new branch will be a key driver of growth for Kastas in European market in the years ahead, and we are committed to making the most of this exciting opportunity.

In addition to the opening of our new Italian branch, we are thrilled to announce that Kastas has been accepted into the Turquality brand support program. This is a significant achievement for our company and a testament to the hard work and dedication of our team. The Turquality program is designed to promote the development and internationalization of Turkish brands, and we are honored to be a part of it. This program will provide us with valuable resources and support as we continue to expand our business and reach new markets around the world.

Over the past year, we have made significant investments in research and development, which has allowed us to introduce a range of new products and solutions that meet the needs

of our customers in new and exciting ways. Our team of engineers has worked tirelessly to develop cutting-edge technologies that enable us to produce high-quality products and materials that are important additions to our wide product range. In this manner, you will find details in this issue about K49 and XT500 as well as high performance TPU materials, PU9404 and PU6005.

We have also continued to invest in our people, recognizing that our success is ultimately driven by the talent and dedication of our employees. We have implemented new training programs and development initiatives that are designed to foster a culture of continuous learning and improvement, and we are proud to have some of the most skilled and motivated workers in the industry.

At the same time, we are mindful of the challenges that lie ahead. From supply chain disruptions to regulatory changes, there are a number of external factors that could impact our business in the coming years. But we are confident that by staying focused on our core values of quality, innovation, and customer service, we will be able to overcome these challenges and emerge even stronger on the other side.

In closing, I want to thank each and every member of the Kastas team for their hard work and dedication over the past year. It is through your efforts that we have been able to achieve so much, and I am confident that together we can continue to drive growth and success in the years ahead.

Sincerely,

Bircan Atilgan
Vice President

"LEADERSHIP ACADEMY PROGRAM" CONTINUES TO DEVELOP AND INSPIRE

Kastaş Sealing Technologies continues its training programs under the Academy for corporate and organizational development. Kastaş focuses on implementing qualified training programs to increase its employees' professional knowledge, skills, and competencies.

Kastaş aims to move forward with strategic orientations focusing on growth, branding, operational excellence, digitalization and corporate governance. As a leader, the company offers an approach to provide vision, instil confidence and eliminate all obstacles while maintaining its efforts towards strategic goals.

The Leadership Academy Program, which was put into practice, states that; "Good does not mean great, and our organization needs great. This is possible with great leaders within the organization". Within the scope of The Leadership Academy

Program, it is emphasized that leadership, which provides vision, fosters confidence, and destroys all obstacles, is not something that happens by coincidence, and that the unique skills required to be truly "great" must be known and practised continuously.

The program aims to provide our leaders the perspective and skills that will help them achieve ambitious goals in today's VUCA world, develop tools that enable our leaders to get to know themselves better, evaluate their current performance, further develop the organizational, interpersonal, and managerial skills that play a crucial role in the success of their employees, and thus help them become highly effective professionals. ■



TRAINING PROGRAM FOR PRODUCTION TEAM LEADERS AIMS TO ENHANCE MANAGERIAL SKILLS



Kastaş strives to train middle and first-line managers with the required responsibilities, management knowledge and capabilities, and who inspire by creating the appropriate emotional climate, communication, and harmony within the team.

With this program, field leaders and team leaders;

- ▶ To increase their personal and professional awareness of their roles and responsibilities, to help them see the impact of the tasks they are responsible for and the outputs they create on the organization, to create a more comprehensive awareness of the meaning of their work
- ▶ Increase their awareness of communication and relationship management skills to maintain effective relationships with their peers, the teams they manage and internal customers
- ▶ See intra- and inter-team disagreements and conflicts as an opportunity for development and resolve them through effective conflict management and reconciliation

▶ Increasing empathic listening skills and raising awareness in developing correct approach and feedback skills

▶ To equip them with the skills to support them to express themselves in regular/occasional meetings where they need to express themselves as part of their duties

▶ Gain effective team management skills such as recognizing, informing, motivating, and developing their teams in order to transform them into high performing teams

▶ Develop delegation skills to support them in effectively making and following up on work allocations and assignments within the team

▶ It is aimed to enable them to produce permanent solutions by systematically addressing the problem-solving and decision-making processes that have become a part of daily business practices. ■

NEW MOTTO FROM KASTAŞ SEALING TECHNOLOGIES

Kastaş Sealing Technologies launches new brand motto as "Engineering For Motion". The new motto is a brand campaign to interpret the organization's engineering and innovation driven approach on developing and producing sealing elements, for numerous applications of industry or in a greater extent, life. Motion, not only symbolizes the linear or rotational action of the applications where our sealing elements had a vital role but also represents our motivation for a never-ending progress and development.

Engineering for motion



Arzu Berk, Board Member and Coordinator of Kastaş, explains the idea behind the brand motto as; "I strongly believe that our new motto "Engineering for Motion" represents the fundamentals and value propositions to the industries and users we are supplying. Engineering and the mindset behind it has always been at the center of our activities while we are developing a seal or offering a sealing solution. In this context, we have never been a company only supplies sealing elements but always focussed on material science for advanced materials, innovative designs to enhance the performance of the equipment it's assembled, offering customized sealing solutions for various applications with our experience and dedication for better. ■"

KASTAŞ CORPORATE MOVIE IS ON AIR



Kastaş recently introduced its' new corporate movie. The new movie, is based on the brand motto "Engineering for Motion".

The movie emphasizes the important part of motion in everyday life and the engineering approach of the company in developing sealing technologies. ■



Scan Qr To Watch
Kastaş Corporate Film

WE WERE AT IFPE CONEXPO

IFPE, co-located with CONEXPO-CON/AGG was held between March 14-18, 2023 in Las Vegas, Nevada (USA)

As Kastaş Sealing Technologies, we took place in this big and significant event and introduced our new range of materials, products and industry-specific sealing solutions.

During the four-day event, we had the opportunity to both host our existing customers and meet with potential customers.

XT500, XT200, K49 and FR200 were the main products that attracted the attention of our visitors.



About the International Fluid Power Exposition (IFPE)

IFPE, the International Fluid Power Exposition, is the leading North American exhibition bringing together the fluid power, power transmission and motion control industries.

About CONEXPO-CON/AGG

CONEXPO-CON/AGG is the largest construction trade show in North America and the premier event that connects professionals from every major construction sector. Held every three years, CONEXPO-CON/AGG takes the construction industry to the next level by helping construction professionals elevate their industry expertise, experience the newest equipment and products through demonstrations and industry-leading education, make new professional connections, and grow their own marketability within the industry.



EVENTS AND EXHIBITONS

HPKON 2022, the main national gathering of the hydraulics and pneumatics industry.

KASTAŞ SHARED ITS ENGINEERING KNOW-HOW WITH THE INDUSTRY AT THE IXTH NATIONAL HYDRAULIC PNEUMATIC CONGRESS



Kastaş participated in the IXth National Hydraulic Pneumatics Congress and Exhibition (HPKON 2022) held at Tepekule Congress and Exhibition Center with the support of AKDER (Fluid Power Association) and CETOP (European Technical Committee for Hydraulics and Pneumatics) under the leadership of the Izmir and Istanbul branches of the Chamber of Mechanical Engineers of Turkey and shared its engineering knowledge with the industry.

In Congress, which is the information and sharing platform of the sector with its scientific program, exhibition, and social activities, and where the papers presented are a reference for practising engineers and technical staff. Kastaş's engineers also conveyed knowledge and experience to the participants through training and presentations and publishing three separate papers.

At the IXth National Hydraulic Pneumatics Congress and Exhibition;

R&D Design and Project Manager Sercan Karakoç provided training to the participants on "Sealing Elements Selection Criteria according to operating parameters and application" and provided important information on the selection and use of sealing elements.

R&D Design and Project Manager Sercan Karakoç and R&D Test Center Technician Recai Bıçakçı held a workshop on "Common Problems in Sealing Elements and Installation" with the participants. In the workshop, which practically took place, information was given on many issues regarding assembly and sealing elements.

Ozan Devlen, Technology Director, took part in the round table meeting where "The Impact of Green Transformation and Circular Economy on the Hydraulic and Pneumatic Market" was discussed. New technological developments were discussed in this session, which are of great interest to sustainability. ■



“

Papers Presented In HPKON:

- **Simulation and Optimization of Composite Guiding Elements with Analysis Software**
Cem Tanyeri, Seçkin Semiz
- **Development of a Novel Wiper Test Rig and Validation of Wiper Performance**
Seçkin Semiz, Cem Tanyeri
- **Designing a Double-Acting Piston Seal for Mobile Hydraulics & FEA Analysis**
Oğulcan Yıldırım

”



WE WERE AT MINING TURKEY, 2022

Kastaş participated in the 10th International Mining, Tunnelling, Machinery, Equipment and Construction Equipment Exhibition, which took place at Istanbul Tüyap Fair and Congress Center on December 15-18, hosting 638 exhibitors from 34 countries in 7 halls.

Kastaş presented its 40 years of experience in the field of hydraulic and pneumatic sealing elements and exhibited its innovative sealing solutions developed for the needs of the mining industry at Mining Turkey, the most comprehensive exhibition of its sector. As Kastaş Sealing Technologies, mining in general is one of the industries that we supply.

The company's booth attracted great interest and welcomed many local and international visitors. ■



WORLD'S BIGGEST SEALING TECHNOLOGIES CONFERENCE

The most important Sealing Technologies Conference in the world, ISC (International Sealing Conference), has been organized biennially by Stuttgart University and VDMA since 1963; Kastaş Sealing Technologies has been participating in ISC since 2010. The program committee that organizes this conference consists of technical managers of Europe's leading sealing element manufacturers and academicians in the field of sealing technologies.

Kastaş Technology Director Ozan Devlen took part in the board of directors for the programming of the conference held by VDMA and Stuttgart University on 12-13 October 2022. Kastaş Sealing Technologies participated in this conference with two papers; Our Test Center and Simulation Manager Cem Tanyeri presented the "Simulation of Composite Guiding Elements with Advanced Analysis" paper, while our Investment and Maintenance Manager Seçkin Semiz presented the "Development of a Novel Wiper Test Rig and Validation of Wiper Performance" paper to the audience. ■



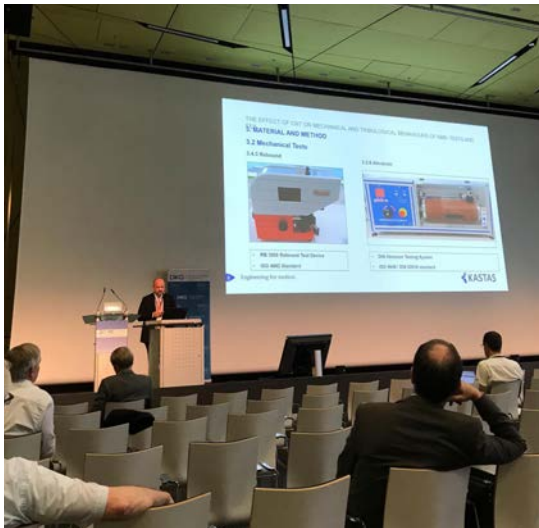
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IRC (International Rubber Conference)

The DKT (German Rubber Conference) is the conference and trade fair considered a global meeting place for all key players in the rubber and elastomer industry.

IRC (International Rubber Conference) is an organization that is planned annually by IRCO (International Rubber Conference Organization) and first-class conferences have been held since 1966. DKT, which was postponed for one year due to the pandemic, took place together with the IRC in Nuremberg on 27-30 June 2022.

Kastaş Sealing Technologies participated in this conference with a paper, Technology Director Ozan Devlen provided detailed information about the use of Nano Technologies in Sealing Solutions to the participants with his presentation titled "The Effect of CNT on the Mechanical and Tribological Behaviors of NBR: Test and FEA". ■



FAIR CALENDAR 2023



IFPE/CONEXPO

South Hall 2 S-82417

14.03.2023 - 18.03.2023



MECSPE BOLOGNA

PAD 30 Stand A30

29.03.2023 - 31.03.2023



HANNOVER MESSE

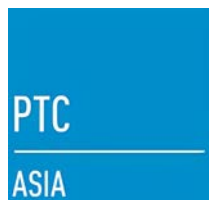
Hall 5 Stand E56

17.04.202 - 21.04.20233



GIS EXPO

05.10.2023 - 07.10.2023



PTC ASIA

24.10.2023 - 27.10.2023



AGRITECHNICA

12.11.2023 - 18.11.2023

DIGITAL MINDSET



Acquiring new technological skills is essential but not sufficient for digital transformation.. So they need a digital mindset. According to psychologists, mindset is a way of thinking and orientation about the world we live in that shapes our perceptions, feelings, and behaviors. The digital mindset is a set of attitudes and behaviors that enable people and organizations to see how data, algorithms, and artificial intelligence open up new opportunities, and to chart a clear route to success in business conditions where data-intensive, smart technologies are increasingly dominant.

Developing a digital mindset takes a lot of effort, but it's well worth the effort. Based on many examples employees who develop a digital mindset are more successful and happy in their jobs. Managers with a digital mindset are much more effective at driving their organizations to success and building a resilient workforce. Companies with this mentality also

respond more quickly to changes in the market and are in a position to take advantage of new business opportunities.

Like all other change initiatives, digital transformation often encounters resistance and missteps are inevitable in the early stages. According to numerous analysis/industry specialists/researches, the best a company can do is focusing on two critical areas: prepare organizations for a new digital organizational culture, and design and align systems and processes.

Developing a digital mindset depends on employees' internalization of this initiative.

It is very important to be able to identify the changing needs, to choose the trends and new technologies that are aligned to organization`s needs wisely, and to adapt them to the existing structure in the most efficient way.

SEAL-LINK.COM COMPLETELY OVERHAULED WITH A NEW ENGINE

The online sales portal of Kastaş, seal-link.com, continued its journey, which started with Kastaş Europe in 2017, by fully using the capacity of the existing system, by serving in all sales channels of Kastaş. Carefully observing the changing needs and feedback from the users and taking the new ERP, and the implementation of a new CRM into consideration, the need for an extensive change for seal-link has emerged. At the point where Seal-link.com is today, Kastaş needed to be able to serve all of its customers faster, with better product accessibility, the ability to create customized and long orders, access to many customer-specific processes in CRM, and the ability to create a sales process that interacts with the customer. In line with these needs, the most important criterion in parallel with the benefits and goals to be increased in the redesign agenda was to realize a project with high efficiency. In digitalization processes, the mistake is usually experienced at the point of directly implementing a technology and its compatibility with existing systems can be ignored. At this point, projects that can be solved with native integrations without going to technology diversity saves a lot of time and effort and reduce the error rate of the systems.

With its CRM infrastructure, Microsoft Dynamics offers the opportunity to present all the data it contains to the customers on the portal as desired and to create a customer-specific portal. It has been designed in such a way to present information such as all products in Kastaş standard price list, customer-specific products, and customer-specific article definitions in an instant and up-to-date manner. The new seal-link.com, which is designed to meet the increasing capacity needs of the customer with increased efficiency, will continue its improvements with the customer feedback. With the go-live at the beginning of 2023 and development plans spread throughout the year, increasing the efficiency of seal-link is on the agenda both internally and in customer communication.



Kastas launches new B2B portal



www.seal-link.com

Search



ONGOING CUSTOMER TRAINING PROGRAMS

We have been continuing to organize on-site workshops and training at our customers and universities in order to increase technical knowledge on seals and sealing technologies.



ERS Hydraulic

Volkan İlhan – İzmir Branch Manager
Training on Sealing Elements

Birim Makine

Volkan İlhan – İzmir Branch Manager
Training on Sealing Elements and
Application Areas



İzmir Demir Çelik

Volkan İlhan – İzmir Branch Manager
Sealing Elements Selection and
Encountered Problems Training

Sivas Chamber of Industry and Trade

Hakan Topaç - Anatolian Regional Manager
Özgür Bahadır - Ankara Branch Manager
Hydraulic-Pneumatic Sealing Elements and
Application Areas Training





Pamukkale University - Denizli Maintenance Technologies Congress

Hakan Topaç - Anatolian Regional Manager
Volkan İlhan - İzmir Branch Manager
Training on Sealing Elements

AGT

Hakan Topaç - Anatolian Regional Manager
Technical Training



Nevşehir Hacı Bektaş Veli University

İbrahim Çelik - Konya Branch Manager
İshak Çelik - Sales Engineer
Training on Hydraulic-Pneumatic Sealing
Elements



Vitra

Erkan Demirel - Project Sales Manager
Sealing Elements Selection and
Encountered Problems Training



Durmazlar Makina

Erkan Demirel - Project Sales Manager
Training on Hydraulic- Pneumatic Sealing
Elements



THE JOURNEY OF INSTITUTIONALIZATION AND GROWTH CONTINUES AT KASTAŞ



Kastaş is to be included in Turquality program

In line with its goal of strengthening its corporate infrastructure and becoming the first brand that comes to mind in its target markets, Kastaş was included in the Turquality® Brand Support Program. The program aims to support promising Turkish companies with strong brands, established business capabilities, and high economic potential—to ultimately transform top Turkish businesses into global players that have well-known global brands and generate high value-added exports.

The support program, which includes a small number of companies, aims to contribute to the more effective implementation of all processes in the company by supporting firms with the potential to have a voice all over the world, thereby increasing the brand value of the company.

Kastaş has successfully completed a 2.5-year process of undergoing numerous audits and assessments, ranging from strategic planning to brand, marketing and sales; supply chain management to new product introduction; and human resources management to information technologies and digitization examined. At the end of this assessment, each applicant receives a score along with a well-documented report on their current performance and development areas.

Companies with mature business processes and capabilities, high brand value, and a certain level of exports are accepted into the program and become eligible for support. Primary areas of support include international brand building activities, overseas store openings, talent acquisition, and large-scale corporate transformation projects.

Upon being accepted to the program, it is required for the companies to start a 6-month comprehensive strategic road-mapping with one of the accredited companies. Kastaş chose Ernst&Young for this project, and the strategic roadmapping is completed, which includes 16 strategic projects targeting brand, corporate development, organizational development, digitalization, customer as well as target markets and further actions.

Factors that enabled the company to be included in the Brand Support Program: Established brand perception and the reliability of the Kastaş brand in the sector; high geographical spread of the company, which is the market leader in Turkey and operates in 80 countries; value-added and export-oriented product portfolio; high availability with its strong sales and distribution structure in Turkey and Europe; a competitive pricing policy; the ability to develop customized solutions and flexible production capability with its strong technology and engineering capability;

a fast and high production capacity; its strong and innovative R&D Center; the agile, dynamic and open-to-learning work culture adopted by the corporation and its employees; the company's experienced and effective human resources; and domestic and international brand awareness and brand health monitoring activities.

Kastaş, which focused on five main perspectives, has set strategic goals for growth and long-term objectives. These goals include achieving sustainable and strategic growth through an export focus, increasing operational efficiency, producing engineering and technology-focused product and service solutions, ensuring organizational developments and sustainability, and continuing to improve corporate governance development.

The Brand Support Program will provide the company with the opportunity to take faster steps, especially for investments in the target markets and activities that will increase brand awareness. Kastaş's targets to increase global market share and presence are expected to gain even greater momentum by the supports of the program.

Within the framework of the Brand Support Program, Kastaş is positioning itself as a guide and reference point that reflects its current economic structure, customer and product analysis, customer-sales distribution value chain, competition analysis, brand value, actions towards target markets, and five-year sales and marketing plans through the roadmap and strategic plan it will develop. ■



What is Turquality®?

Turquality® includes support that covers all processes for companies that have product groups with branding potential and hold Turkey's competitive advantage. It includes all processes from production to marketing and from sales to after-sales services. It is the first and only state-supported branding program created to enable companies to become global players with their own brand in international markets and to create and establish a positive Turkish product image through these brands.

What are the characteristics of Turquality® Support Programs?

- ▶ In addition to exports, the Turquality brand support program supports the branding of companies in the international arena.
- ▶ The word, a portmanteau of Turkey and quality, is a government-supported incentive program by the Ministry of Economy.
- ▶ It was initiated under the leadership of important organizations such as the Ministry of Economy and the Turkish Exporters' Assembly.
- ▶ The first support steps were taken in 2004.
- ▶ Creating awareness for brands in the international arena is the goal.
- ▶ The support programs include enabling Turkish brands to market their products on global platforms.
- ▶ The programs offer both corporate and individual support.
- ▶ Turquality provides support to companies in areas such as production, competency, market entry, and sales.

What advantages does Turquality® provide to companies?

- ▶ Production processes
- ▶ Marketing tools
- ▶ Pre-sales services – after-sales services
- ▶ Presence in the international market
- ▶ Corporate structuring support
- ▶ Enabling products to enter the global market
- ▶ Increasing the image of Turkish products in the international platform
- ▶ Ensuring quality production



KASTAŞ EXPANDS FURTHER IN EUROPE: KASTAŞ ITALY



As Kastaş Sealing Technologies, we attach importance to customer service and globalization, producing high-quality sealing products, and providing innovative and reliable sealing technologies. We reach our customers in more than 80 countries worldwide, directly, or indirectly, through our extensive network of distribution partners.

We are also aware of the importance of local representation in our target markets; therefore we are pleased to announce the opening of our new branch in Italy. From October 1, 2022, Kastaş Italy Branch was fully operational with sales and marketing departments, technical services and project development for our Italian customers.

Located in Verona, Italy, Kastaş Italy consists of a team of specialists with an experience more than 20 years in sealing technologies and the Italian fluid power industry.

We aim to provide the best service to our Italian customers with our experienced team that will ensure the continuity of our services and products at our Kastaş Italy branch, which we support with the production capabilities of our headquarters in Turkey and the flexible logistic options of Kastaş Europe in Germany. As Kastaş Sealing Technologies, we continue to grow as a global sealing element manufacturer to be accessible to our customers worldwide and to supply our high-quality products to our customers as soon as possible. ■



Bircan Atilgan
Vice President

Italy has always been an key country market for Kastaş since early 2000`s. Italian market, historically had an important role in fluid power industry globally which consists of some of the most important producers of hydraulic and pneumatic cylinders, pumps, presses, mobile hydraulics equipment and various fluid power applications. Moreover the competiton has always been in top level due to the strong presence of global and local competitors.

Thanks to our extensive sales and marketing activities, we have managed to increase our market share significantly especially in the last decade.

In this context, I should acknowledge the efforts of our local distribution partner STS Sealing Technical Solutions. In cooperation with Kastaş Izmir team, they did a great job to increase the brand recognition of Kastaş, not only in limited number of key accounts but in a greater scope.

Besides the brand recognition, I believe the biggest achievement of Kastaş in market was, focussing on long term OEM projects with many global and local Italian manufacturer in various industries. In such a market where the competition is at high level, our we determined our 3 pillars of success as, always supplying high performance innovative sealing elements, acting as the project partner of our customers by focussing on the technical solutions to enhance the performance of their product they manufacture, and establishing sustainable and long-term business relations built on trust.

Now, we are taking our efforts to another level with our new branch. In the next years, we set our targets as to strenghten Kastaş`s position in the market, extend our market penetration to medium-size producers and expand our local distribution network with new partners.

KASTAŞ
Engineering for motion

Kastas Sealing Technologies
Europe GmbH
Succursale Italia



www.kastas.com



Nebi Akalin
International Sales Manager

As a leading country for fluid power and various manufacturing industries, Italy has always been one of our target markets where we always had strong focus on. Not only being the home to some of our globally well-known top accounts, we also value the growth potential we have in Italy. As Kastaş, we are a leading producer of hydraulic and pneumatic sealing elements but moreover we are producing special sealing solutions for various industries. We would like to extend our customer base also in this context in Italy.

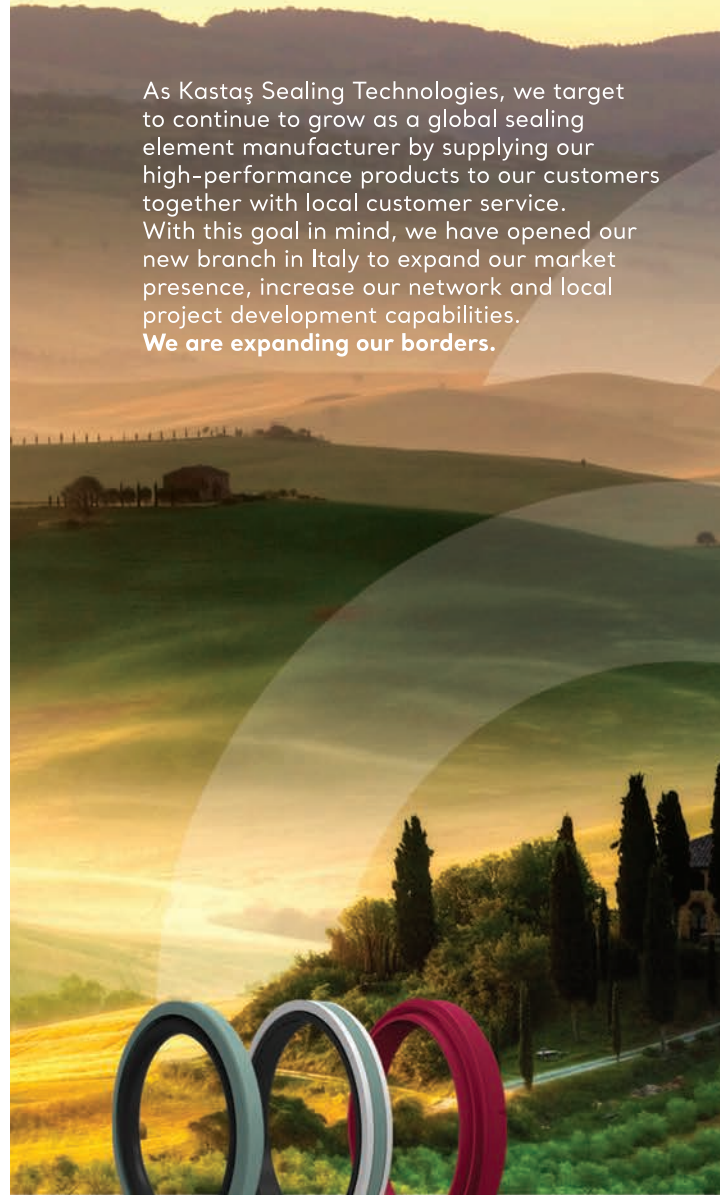
Our experienced team will be the local contact of our customers for their projects, Kastaş Europe GmbH, our logistic center in Germany, will be the key element for supplying our wide range of products to our customers with value-added services. In the near future, we plan to extend our team with new members to increase field sales activities and on-site services. On the other hand, same as other country markets that we had direct sales activities, our distribution partners keep their important position for Kastaş, which are the key elements for Kastaş products and solutions to reach and penetrate a greater extent of users and producers in the market. In this manner, we plan to strengthen our distribution network in Italy, and sustain our cooperation with our current distribution partners.

We Expand Our Border

As Kastaş Sealing Technologies, we target to continue to grow as a global sealing element manufacturer by supplying our high-performance products to our customers together with local customer service.

With this goal in mind, we have opened our new branch in Italy to expand our market presence, increase our network and local project development capabilities.

We are expanding our borders.



Kastas Sealing Technologies
www.kastas.com

s!



Valeria Albertini
Regional Sales Executive

The close relationship of cooperation built with customers over the past 12 years with STS, together with the recognition in the market of the Kastaş brand in terms of quality, innovation and reliability, is the starting point to increase and consolidate our presence in the territory.

The indisputable advantage of being present in Italy with its own organization is certain to be able to benefit from the direct support of Kastaş, with a team of highly qualified professionals, whose expertise will offer maximum technical and commercial assistance.

Kastaş has always worked hard over the years to expand its activities internationally. The establishment of Kastaş Italy represents a further step towards this goal, in a strategic market like the Italian one. We are really excited to participate in this new challenge with the spirit of contributing to our corporate vision: "Being the first choice sealing technology partner industries worldwide"

 **KASTAŞ**

BRAND TRACKER

Kastaş measured Brand recognition globally through an extensive Brand Perception Survey.

Kastaş has always kept the feedback received from its customers on top of its priorities and is aware that the first place to look is the customer's view. Perception is our power to give meaning to life and everything in life. This explanation leads us to our perceptions. Our perceptions depend on our preferences.

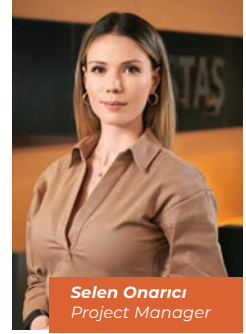
Brand perception is the name given to the way consumers visualize the product or service in their minds. It is the sum of the emotions, experiences, and thoughts that determine the reason for choosing that brand formed in the mind of the consumer.

The first important step in looking from this perspective and understanding the customer's perception is to determine the right evaluation methods. It is possible to measure and report customers' 360c perspective by asking the right questions. These reports are the basis for the actions we will take, our short, medium, and long-term plans, improvement points, the design of our communication processes, and even the management of marketing campaigns.

In the evaluation titles of competence, sincerity, excitement, ruggedness, and sophistication, which reveals the brand personality within the scope of strategic brand management, Kastaş brand identity has described as an expert, value-oriented, solution-oriented, reliable, accessible, sincere, fast, sedate, sincere, medium and higher classification. The main brand strategy is to strengthen the perception of an innovative, competitive, customer and value-oriented global sealing technology manufacturer in the current and target market, customer group, and sales channel, as well as on a local and global scale with the target of employee brand and corporate reputation.

The questionnaire consisting of 19 questions to measure the reflection of the brand perception on the customer was prepared in 6 languages and shared with Kastaş's 1160 customers and more than 600 employees around the world. Customers who mainly respond to the survey are the people who make the purchasing decision in the position of manager of the Purchasing and Management departments. The brand needs to learn the perception and ideas of the people who make the purchasing decision. As much as the predominantly participation of European countries and the fact that Germany, one of the target countries, is in the 1st with 13%; It is also noteworthy that China is in the 2nd with 7% and Australia is in the 3rd with 4%.

Selen Onarici, Marketing Project Senior Executive of Kastaş states that `` The results of the survey and the perception of our customers is not only an indicator showing strengths and weaknesses of our products and services but also how our efforts are perceived by the market. In line with our brand strategy, we will be focussing on improving the perception of our target areas by revising and modifying marketing and brand activities.



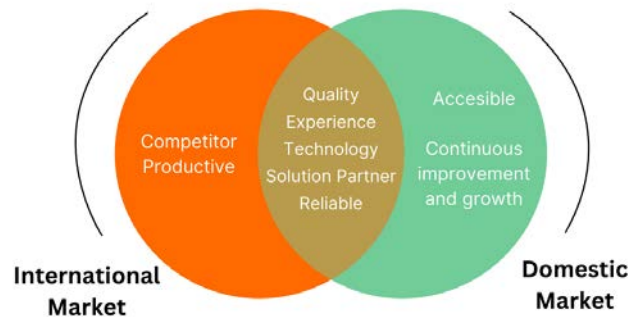
Selen Onarici
Project Manager

Foreign and domestic customers define the brand with the same expressions: Quality, Experience, Technology, Reliable, and Solution Partner. While Kastaş employees use the same expressions, unlike customers they also use them as a leader, continuous improvement, and growth. These can be defined as Kastaş's internal strengths.

Kastaş's distinctive advantages over its competitors seem as product quality & variety & performance and on-time delivery.

The reasons why foreign and domestic customers prefer the brand are product quality, product variety, stock availability, and short delivery time. Differently, while overseas customers emphasize Kastaş's competitive prices, on-time delivery, and satisfaction with its services; Brand awareness and problem-solving ability seem to be at the forefront in the preference reasons of domestic customers.

Kastaş Brand Identity is defined as Reliable, Accessible, Expert, Solution-Oriented, and Sincere. These concepts are the common answers of foreign and domestic customers and employees. ■



NEW MATERIALS INCLUDED TO THE SMART SEAL RANGE

Today, with the increasing importance of speed and agility, it is also important to offer quick solutions. Every minute of downtime due to unexpected maintenance in hydraulic systems or unexpected failures causes a high cost. Immediate resolution of a failure is the most important factor in minimizing these costs. Kastaş SmartSeal® presents all sealing element designs to the customers as soon as possible, using special materials, CNC technology and advanced software. ■



Advantages

- ▶ Minimize the downtimes and provide more flexible conditions
- ▶ Customized sealing solutions
- ▶ Fast delivery for quick maintenance needs
- ▶ Production up to Ø1500 mm

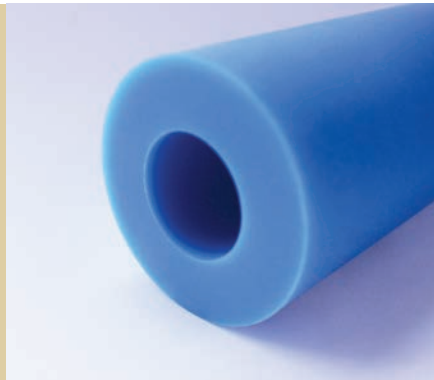
JPU9406 – 95 Shore A Polyurethane

Operating Temperature Range -50°C / 105°C

Colour: Light Blue

Appropriate for applications with contact with foodstuff
Approved by FDA 21 CFR 177.16800
Conform to (EC) No 1935/2004 and (EC) No 10/2011

Resistance to water up to 90°C, mineral oils and vegetable oils
Superior wear resistance.
Excellent mechanical properties at low temperatures.



JPU9412 – 95 Shore A Polyurethane

Operating Temperature Range -30°C / 125°C

Colour: Blue

Suitable for various food contact applications
Conform to a positive list of FDA 21 CFR 177.2600
Complies with (EC) No 1935/2004 and (EC) No 10/2011
Conform to Chinese Standard GB 4806.7-2016

Excellent hydrolysis resistance
Resistance to vegetable oils and aromatic hydrocarbons

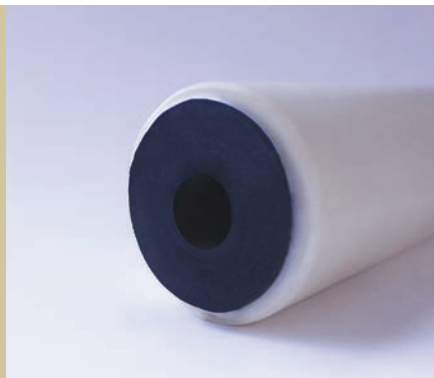


JNB8001 – 80 Shore A Polyurethane

Operating Temperature Range -50°C / 110°C

Colour: Black

Suitable for low temperature applications.
Good physical characteristics and chemical resistance to mineral oils and fuels.
Excellent compression set at low temperatures.



METAL-CASED WIPER RANGE IS RENEWED

K07 - METAL CASE WIPER

K07 metal case wipers are sealing elements that prevent foreign particles from outer environment, which can penetrate in the hydraulic applications. They can be produced from thermoplastic polyurethane or elastomer material in a metal case.

ADVANTAGES:

- ▶ Economical sealing solution
- ▶ Simple groove design
- ▶ Good wiping performance
- ▶ Easy installation

“



K13 - METAL CASE WIPER

K13 wipers are scraper elements, produced from thermoplastic polyurethane material in a metal case, that prevent foreign particles from outer environment, which can penetrate in the hydraulic applications. They can be used in open housing gland cap design.

ADVANTAGES:

- ▶ Used in heavy conditions by the good tear and rupture properties of PU material
- ▶ Simple groove design
- ▶ Good wiping performance on the rod with double wiper design
- ▶ Can be used as pin dust seal

K12 - METAL CASE WIPER

K12 metal case double wipers are sealing elements _thanks to their special design_ that prevent foreign particles from outer environment, which can penetrate in the system. They can be used in open housing gland cap design.

ADVANTAGES:

- ▶ Superior wiping performance
- ▶ Used in heavy conditions by the good tear and rupture properties of PU material
- ▶ Superior protection against particles in the external environment

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Kastaş continues to add new products to its innovative product design range.

In fact, Kastaş has been offering metal case wiper in the product portfolio for many years by outsourcing, until today.

Following the new investment decision in mid 2022, Kastaş started to produce K07 PU -K07 NBR - K12 PU and K13 PU product designs in-house.

Kastaş announced that, they now have much more flexibility, regarding the availability of products and shipment from stock and they are

at an advantageous point for supplying products under more favorable conditions, especially for high quantity and competitive price demands. ■

NOVEL WIPER TEST RIG

Wipers are essential elements in hydraulic and pneumatic applications which has a critical role in the performance, safety and lifetime of the configuration. As the main function is to prevent dust, dirt and contamination entering to the system, different wiper designs made of different materials shall be chosen for different cylinders working in different environments and operational parameters. Contamination in hydraulic and pneumatic systems can cause significant damage to metal parts of the cylinder, sealing elements, and other components of the whole system. This is the reason why Kastaş Sealing Technologies develops a new test bench to perform wiper performance.

It was seen that the tests on the wiper seals were carried out only to determine the amount of leakage, and the number of particles was not determined. For this reason, it is aimed to design and manufacture the test device to be used to determine and optimize the particle strength of wiper for the needs of the sealing elements market. The test device manufactured for this purpose will count the particles that have passed the wiper seals and passed into the system, ensuring that the wiper are in continuous development and studies will be carried out to standardize them. ■

SPECIFICATIONS:

- ▶ Rod Diameter: 50 mm
- ▶ Operating Stroke: 15 – 600 mm
- ▶ Fluid: HLP46
- ▶ Linear Velocity: 0 – 0.5 m/s,
- ▶ Operating Temperature: 20 – 60 °C

1. The test sample in the dimensions suitable is selected.
2. The standardized powders or particles are filled into the contaminant chamber.
3. All necessary settings are uploaded to the software.
4. The system starts to heat the hydraulic fluid.
5. A dust cloud is created in the chamber.
6. To measure the performance of the wiper seal, oil is poured around the test sample in a specially designed groove.
7. Particle measurements, linear velocity, oil flow rate, and temperature data collected during the test compared to distance are recorded and reported.
8. At the end of the test, the oil discharged from the test device is used in other hydraulic machines after filtering with the required filters to avoid waste hydraulic fluid.



HIGH PERFORMANCE PISTON SEAL:

XT500

XT500 retains two special grooves to sustain an oil film for enough lubrication of the seal against its counter surface. In this way, while ensuring low friction and low static leakage benefits its special profile ensures increased extrusion resistance and minimized blow-by risk. ■



Finite Element Analysis

Optimum contact with the counter-surface



Contact Normal Stress at 0 bar

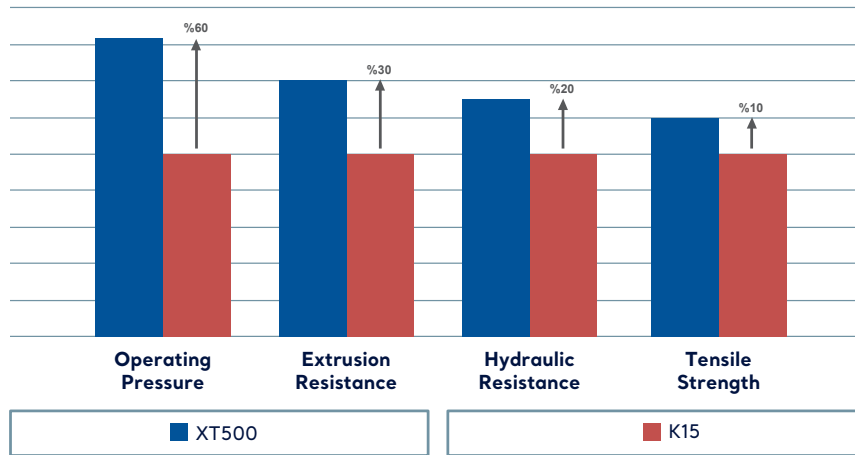


Contact Normal Stress at 300 bar



Equivalent Cauchy Stress at 300 bar

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Areas of Application



PU9414:

HIGH TEMPERATURE RESISTANT TPU

PU9414 is the new generation polyurethane introduced by Kastaş Sealing Technologies that combines excellent viscoelastic properties and extrusion resistance for high temperature applications.

The new PU9414 polyurethane assures better results and life-time than other polyurethanes in the market with its superior properties that have proven itself in long time tests both in-house and also at the field. ■

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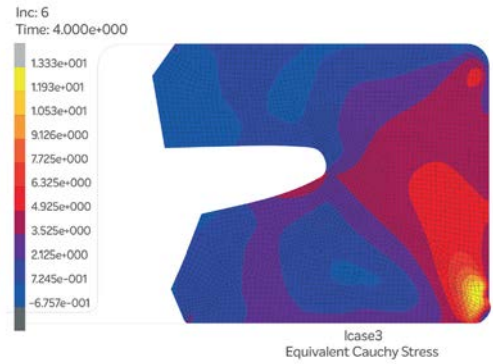
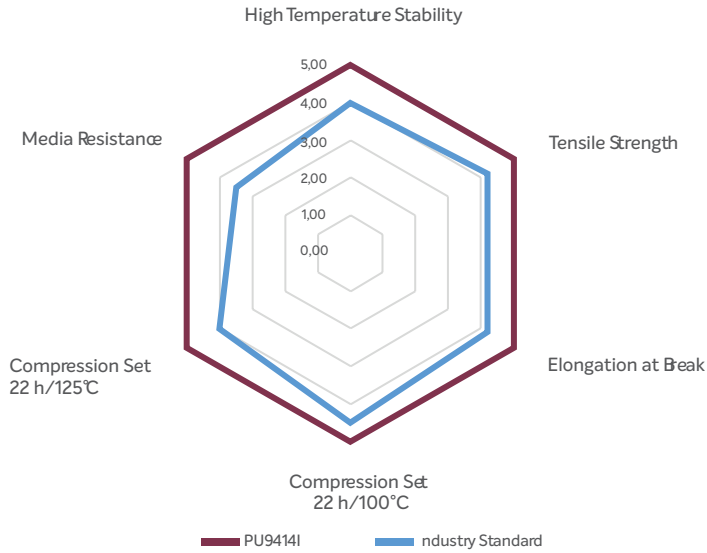
- ▶ High Temperature Resistance
- ▶ Superior Abrasion Resistance
- ▶ Hydrolysis Resistance
- ▶ High Extrusion Resistance

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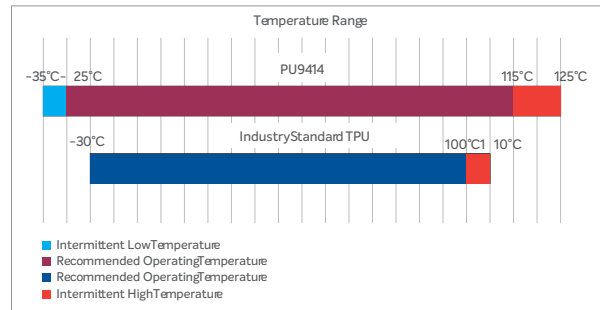
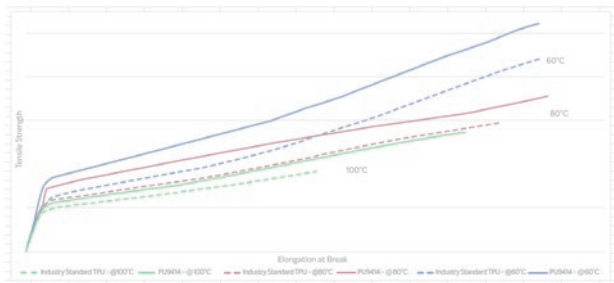
The new premium polyurethane PU9414 is developed for challenging applications and extreme operating conditions where high temperature resistance is required. PU9414 can be used in various seal designs, mainly rod seals for mobile equipment and generally all heavy duty applications where extrusion, high temperature, abrasion resistance are required at the same application. PU9414 is the ultimate solution for all cylinders that are exposed to high-temperature painting process.



Comparison of Properties



PU9414 polyurethane has superior extrusion resistance even at extreme temperatures.



PU9414 is recommended for the following designs:

Rod Seals: XT200®, FR200®, K31, K33

Buer Seal: K29

Wipers: K05, K107



HIGH-PERFORMANCE PISTON SEAL K49 MADE OF NOVEL PU6005

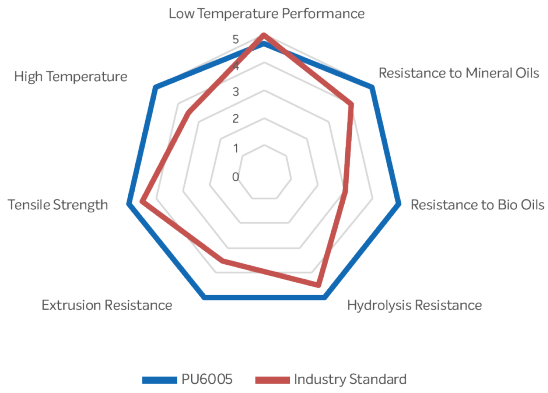


Kastaş is thrilled to introduce the new K49 sealing set that utilizes a novel material, PU6005, which offers exceptional advantages over traditional materials.

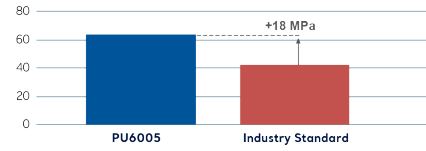
The K49 sealing set is a two-piece double-acting sealing set that consists of a hard polyurethane seal ring and an NBR elastomer ring as an energizer. The addition of the PU6005 material to the polyurethane seal ring provides superior wear resistance, making it ideal for heavy-duty applications that require high durability and extended service life. One of the key advantages of PU6005 is its resistance to mineral oils, greases, water, and oil mixtures. This makes the K49 sealing set ideal for use in hydraulic systems where exposure to these fluids is common.

Furthermore, the PU6005 material used in the polyurethane seal ring has high mechanical strength, ensuring that it can withstand the harsh conditions of dynamic applications. Its abrasion resistance is strong, ensuring that it can maintain its sealing performance even in the presence of abrasive particles. Additionally, PU6005 exhibits excellent resistance to ozone and oxidation, further improving its durability and service life.

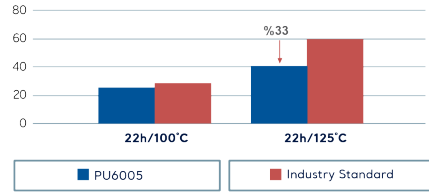
Comparison of Properties



Tensile Strength



Compression Set - (PU)





Physical Properties

Type	Standard	Unit	Material Specification
Hardness	ISO 7619-1	Shore D	60
Temperature Range		°C	-30°C / +125°C
Tensile Strength	ISO 37	N/mm ²	65
Elongation at Break	ISO 37	%	520

Chemical Compatibility

Fluid Type	DIN/ISO Code	Temperature	Result
Mineral Oils	HLP/HVLP/HLPD	110°C	Excellent
Water-based fluids	HFA	50-60°C	Good
	HFC	60°C	Excellent
Synthetic fluids	HEES	80-100°C	Excellent
	HEPG (PAG)	60°C	Good
	HEPR (PAO)	100°C	Excellent

While the operating temperature range of the K49 sealing set varies due to the elastomer energizer, between -30 °C / +110 °C, it can briefly go up to +125 °C. This allows for a wider range of applications in which the K49 sealing set can be used based on the energizer material.

The K49 sealing set is also easy to install and maintain, reducing downtime and increasing productivity. The sealing set is also compatible with a variety of hydraulic fluids, including mineral oils, synthetic fluids, and biodegradable fluids, making it a versatile solution for different types of machinery and applications.

The K49 sealing set is particularly well-suited for agricultural, forestry, and construction machinery, where heavy loads and harsh operating conditions can cause premature seal failure and increased downtime. The polyurethane seal ring provides excellent wear resistance, while the NBR elastomer ring ensures consistent sealing performance, even in dirty and dusty environments.

In addition to the superior sealing performance provided by the K49 sealing set with PU6005

material, its extended service life also helps to reduce the carbon footprint of machinery and systems in which it is used. A long-lasting seal can significantly reduce the need for frequent replacements and maintenance, resulting in less waste and resource consumption. This, in turn, helps to create a better environment by reducing the impact of machinery on the planet.

Overall, the K49 sealing set with PU6005 material provides exceptional sealing performance in dynamic applications, making it an ideal choice for a variety of applications in the fluid power industry. Its superior wear resistance against common hydraulic fluids, high mechanical strength, abrasion resistance, and excellent resistance to ozone and oxidation make it a reliable and durable solution for manufacturers of agricultural, forestry, and construction machinery, as well as hydraulic systems, industrial trucks, injection molding machines, loading cranes, presses, rolling mills, and standard cylinders. The K49 sealing set with PU6005 is a top-of-the-line solution that improves the performance and reliability of machinery and systems while reducing downtime and maintenance costs. ■

“

- ▶ Excellent extrusion resistance
- ▶ Advanced static and dynamic sealing performance
- ▶ High-temperature resistance
- ▶ Wide application range

”



INVESTING IN A SUSTAINABLE FUTURE



Kastaş takes sustainable steps today by taking responsibility for the future of our world.

A 'Sustainability Committee' was established at Kastaş to contribute positively to the future of our old and tired world, whose resources are scarce and diminishing, whose nature is rapidly deteriorating and struggling with environmental pollution, and which faces many risks such as global warming, food shortages, deficit and poverty.

The foundation of 'Sustainability' has become even more crucial in today's world where limited resources are rapidly depleting each passing day in the face of humanity's unlimited demands.

Sustainability studies carried out to leave a livable world for future generations basically cover issues such as protecting nature and natural resources, eliminating social problems such as inequality, poverty and hunger, and organizing economic growth and working conditions of companies in a way that will benefit the whole society. The realization of the planned works in these areas will not only improve the current order but will also ensure that the conditions in the future are taken one step further.

Businesses of the future-oriented business environment, which are sensitive, and value nature and their employees, have also started to work to contribute to these goals.

Kastaş, which has made it one of its main goals to benefit society since the day it was founded, is one of the companies taking responsibility to do its part to leave a livable world for future generations.

The company has taken the first steps in this crucial issue for the world and established the 'Sustainability Committee'. In the first phase, intensive work has begun in all departments for the sustainability report. A comprehensive analysis report covering the existing status of the organization is first prepared at weekly meetings. Following the completion of this study, further projects and actions will follow. In addition to that sustainable development goals will be defined and strategies will be set to be monitored. The aim is to publish the first report Q1 in 2024 within the GRI Standards.

The aim is to produce outputs that will benefit not only the climate, the environment and the protection of nature but also company employees, suppliers and all stakeholders involved in production processes.

In Kastaş' sustainability journey for a "Better World", the participation of all stakeholders, especially the company's employees, in the process with their support is of great importance as a motivational factor in all activities to be carried out for future generations. ■



WE WILL GET THROUGH THIS TOGETHER!

**WE ARE DEEPLY SADDENED BY THE MASSIVE EARTHQUAKE WHICH STROKE
TÜRKİYE & SYRIA IN FEBRUARY 2023**

As Kastaş family, we have been participating in donation and fundraising campaigns via local and national organizations, beginning from the first day of the disaster.

Believing that we will overcome these tough times hand in hand, we will continue our support in the long process of recovering the impacts of the catastrophe and rebuilding the region.

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