NAK Successful Cases of Washing Machine Seals





NAK's High Performance Washing Machine Seals

NAK washing machine seals are made up of a spring-loaded primary lip, metal shell and an auxiliary lip. As it keeps water out and grease in, the operating environment will interfere with the sealing performance. The water bleaches, detergents and chemical washing products can corrode the metallic case and spring easily and lead to seal failure. NAK designs and provides a wide standard range of static and dynamic sealing solutions for washing machine according to rotary speed, temperature, condition of surface, material, fluid, and etc.



NAK washing machine seals have the following characteristics:

- ★ Excellent chemical and physical property
- ★ Wear resistance in poor lubricating conditions
- ★ High performance in fluid resistance

★ High/Low temperature resistance









Expert and reliable supplier

NAK is an ISO-9001/14001, TS-16949 and OHSAS-18001 registered manufacturer of oil seals. NAK offers sealing solutions which are developed with a series of advanced lab instruments and latest technologies to meet or exceed the ASTM, DIN, BS, and the SAE international standards. NAK also implements 6 $\sigma(\text{Six Sigma})$ management to advance sophisticated products and higher quality for years.



Comprehensive products and designs

NAK offers a comprehensive range of washing machine seal types and sizes including custom-made products. Special elastomer compounds are available to fit different applications. It's cost-effective for customers to find correct sealing solutions for washing machines.

State-of-the-art Technologies

NAK has a complete line of equipment and ingredient research lab. We implement rubber testing method including processibility of unvulcanized rubber, hardness of plastic and rubber, material tensile strength and adhesive strength, heat aging / oil immersion / fuel immersion / low temperature properties / compression set, rebound properties / microscopy of compound dispersion, FT-IR analysis, and etc.

Dedicated R&D team and support

NAK has a strong and dedicated R&D team and offers technical consultation and support for mutual connection. To enhance R&D capability, NAK invests in modern software and hardware development such as FEA (Finite Element Analysis), SCAD, in house dynamic test center and etc. to build up theoretical analysis for operating conditions, decrease the failure rates during trial runs, and improve the efficiency of new product development.

Efficiency manufacturing process

NAK has implemented full automation and computerization in manufacturing process by deploying machineries such as check boarded machines, automatic spring loading machines, automatic packaging machines, automatic storage system and etc. NAK keeps improving efficiency and capability to satisfy and even exceed requirements from different OE customers.





NAK's partnership with OEM customers

With more than 35 years of experience in manufacturing sealing products, NAK has lots of success projects of washing machine seals and also acquired approvals for both top loading and front loading washing machines from OEM customers all over the world.

In Thailand, NAK cooperates with Electrolux, which is a global leader in household appliances and appliances for

In Thailand, NAK cooperates with Electrolux, which is a global leader in household appliances and appliances for professional use, selling more than 40 million products to customers in more than 150 markets every year. Its products are sold under a variety of brand names including its own and are primarily white goods and vacuum cleaners.

In Turkey, NAK collaborates with Arçelik A.Ş. which was founded in 1955 and offers products including refrigerator, washing machine, dishwasher, cooking appliances, components plants, and services in more than 100 countries. With ten brands, 11 production facilities in Turkey, Russia, Romania, and China, it's sales and marketing affiliate operating internationally.



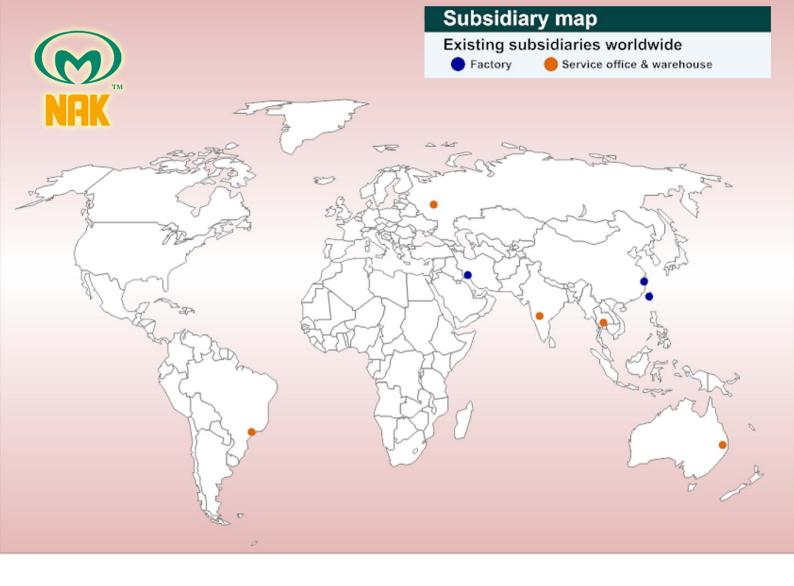
In China, NAK cooperates with the Little Swan which was awarded "State Inspection-Free Product" and the "Export Inspection- Free Approval". The Little Swan integrates with the international resources and enjoys multi-national partnership with Siemens of Germany, Panasonic, NEC, Renesas, and ENAMI of Japan, Emerson and P&G of the USA, Indesit of Italy, and Schulthess of Switzerland. Now, the Little Swan has more than 30 million consumers in over 80 countries. On the other hand, NAK also provides washing machine seals for PUER, Yuyao Huangcheng, and some other Tier 1 or Tier 2 companies which manufacture parts for washing machine manufacturers in China.

In Taiwan, NAK keeps cooperating with SAMPO which has developed as manufacturer for air conditioner, refrigerator, washing machine and other white good products. SAMPO is not only producing for its own brand "SAMPO" but also manufacturing for many other first tier brands around the world. NAK also provides washing machine seals to TAIR WOEI which produces professional laundry equipments especially for commercial and industrial applications.



No matter in home appliance, commercial washing machine or industrial washing machine, special seals can be manufactured on the basis of customer's requirements. Any specification is welcome according to your requirements. Please contact with us for more information.







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