WDS Components Help Desk

A Gripper For Every Occasion

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A Gripper For Every Occasion

WDS Components Ltd, a leading manufacturer and supplier of standard parts, has introduced new ranges of adjustable grippers designed for precision clamping and positioning across a wide range of industrial applications. The new range includes additional ceramic and hardened variants, further enhancing WDS's extensive portfolio of soft, medium, and hard-tipped grippers.

Versatile Clamping Solutions for Precision Engineering

Adjustable grippers, also known as clamping screws, provide a secure, reliable method for holding and adjusting workpieces in jigs, fixtures, and mechanical assemblies. These adjustable grippers incorporate a threaded design that allows precise positioning against the workpiece. Select models also feature swivel heads, enabling adjustment at non-absolute angles for increased flexibility.

Comprehensive Range for Every Application

The WDS clamping screws range is available in steel and stainless steel, with tips manufactured from materials including nylon, POM, steel, stainless steel, and ceramic. Head configurations include flat, round, pointed, and serrated designs, delivering adaptability for multiple industrial environments.

Soft grippers:

Featuring non-marring, impact-absorbing tips such as polyurethane, nylon, and PA6 pads, these are ideal for delicate surfaces or irregular components. These grippers are suitable for applications involving jigs, fixtures, and assemblies where surface protection is essential.

Medium grippers

: Designed for general-purpose use, these feature brass or steel tips with options such as ball-ended or serrated designs. Typical applications include locating into drill points, machined radii, or bearing against components that require high contact strength.

Hard grippers:

Manufactured with hardened steel or ceramic tips, these deliver exceptional strength, wear resistance, and surface hardness for demanding applications. Ceramic options offer low friction and surface protection for precision industries, while hardened steel variants ensure durability under heavy, repetitive loads.

The Perfect Gripper For Every Use

Soft grippers are used for gentle clamping or where surfaces are delicate and/or easily damaged. Ball ended grips apply precise pressure while limiting damage; thermoplastic or nylon allow for even pressure and adaptation to irregular surfaces. Soft grippers are ideal for jigs, fixtures and assemblies requiring secure but soft contact. Angled, curved or uneven components benefit from a soft contact point, which provides stable clamping while protecting surfaces. Soft grippers are also impact absorbing. POM (thermoplastic) ball grippers include a flat surface to improve grip and contact on angled or irregular parts; POM has high stiffness and low friction.

Medium clamping screws are used in general applications including mechanical assemblies, equipment installations, and DIY projects. Hardened steel ball tips are suitable for locating into drill points, machined radii, or bearing against components that require high contact strength. Brass tips offer strength and a slightly softer contact surface and withstand corrosion.

Hard clamping screws offer maximum wear resistance. This range includes ceramic and hardened tool steel, and diamond impregnated surfaces. Ceramic ball ended grippers can be used in applications where surface protection, low friction, and smooth contact are essential. The ceramic tip provides a hard but refined contact point, reducing the risk of marking or damaging sensitive or polished surfaces. Their inherent wear resistance and excellent hardness also allow them to maintain performance even when used with abrasive materials or in environments where metal-to-metal contact could accelerate degradation. By reducing friction, ceramic tips enable smoother adjustments and help extend the service life of both the gripper and the workpiece.

Hardened steel tips offer exceptional strength, durability, and resistance to deformation under repeated pressure. This makes them ideal for demanding environments where the gripper must withstand high clamping forces without compromising accuracy or longevity. The hardened construction ensures consistent performance over time, reducing the likelihood of wear and the need for frequent replacement, which in turn supports cost-effectiveness in long-term operations. Additionally, the hardened tips offer reliable grip across a variety of materials, ensuring workpieces remain firmly secured during machining, assembly, or inspection processes.

An Expanded Range Of Choice

WDS Components' expanded range of adjustable grippers ensures that engineers and manufacturers can select the ideal clamping solution for any application, from delicate surface protection to heavy-duty precision work. By combining versatility, durability, and reliability, WDS continues to provide innovative standard parts that enhance performance, reduce downtime, and deliver long-term value across a wide spectrum of industrial sectors.

For more information, including detailed specifications, technical drawings, and ordering options, visit

www.wdscomponents.com or contact the WDS technical support team.