WDS Components Help Desk

Rust Resistant, Rugged, or Lightweight Handwheel Options at WDS Components

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WDS Components Ltd (WDS) responds adeptly to the needs of machinery manufacturers by offering a diverse range of material choices, notably stainless steel, cast iron and aluminium handwheels, each tailored to meet specific industry requirements. Each type of handwheel serves the same fundamental purpose – manual operation of machinery – but come with distinct features and advantages that make them suitable for different applications.

Material properties and application

Stainless steel handwheels are favoured in sectors that require high resistance to corrosion and chemicals, such as the food processing, medical and pharmaceutical industries. Comprising of grades like 304 and 316 stainless steel, these handwheels stand up to harsh environments while maintaining their structural integrity. Their polished aesthetic, coupled with bakelite or stainless grips, make them especially suited for marine or food and beverage applications.

Cast iron handwheels excel in heavy-duty applications where sturdiness and high mechanical strength are required. Used widely in manufacturing, these handwheels can withstand substantial load pressure and often come at a lower cost than their stainless steel counterparts.

Aluminium handwheels stand as a budget-friendly alternative. This lightweight choice is perfect for applications requiring easy manoeuvrability and with the recent release of bakelite grips for them, operators get both efficiency and comfort.

Design

WDS offers handwheels in a variety of designs, ensuring the ideal fit for every application. From spoked to dished designs with a central mounting hole, these handwheels cater to specific needs, whether it’s a pilot, round, square, or keyway design. With diameters ranging from a compact 80 mm to a substantial 500 mm, they provide versatility for a wide array of machinery configurations.

Recent additions to the handwheel range from WDS include cast-iron models with diameters of 140 mm with 14 mm and 16 mm bores and 180 mm diameter with additional borehole sizes. Additionally, bakelite grips have now been introduced for its aluminium handwheel range.

Safety and maintenance

Stainless steel, cast iron and aluminium handwheels each have their unique safety features. Stainless steel is naturally resistant to bacterial growth, making it the ideal choice for hygiene-sensitive areas. Cast-iron handwheels, when coasted with zinc or chrome, offer protection against corrosion. Aluminium handwheels, on the other hand, are known for their lightweight nature and resistance to rust, which can be especially beneficial in environments where weight and longevity are factors.

Customisation, add-ons and availability

Complementing its comprehensive selection of handwheels, WDS provides tailored accessories for varied industrial requirements.

Fixed grips: Enhancing precision in machine operation, these grips are available in Aluminium, Bakelite, Steel and Stainless Steel. They come in both male and female threaded versions, with many designs available to enhance user comfort with their ergonomic feel.

Parallel shaft keys: Also known as feather keys, these are designed for hand wheels with a keyway. They ensure consistent handwheel operation. With a broad range of sizes available, they are manufactured to meet DIN6885A standards ensuring a secure fit and dimensions that align perfectly with the shaft diameter.

Revolving grips: For swift handwheel operation, WDS offers male threaded, rotating grips in aluminium, stainless steel and bakelite.

Customers can directly order these add-ons alongside a wide array of handwheels direct from the WDS website at www.wdscomponents.com, along with many other products available for same-day shipping. WDS's stock guarantee also ensures a 10% discount on any applicable order that they can't fulfil from current stock. Detailed product specifications and CAD images can also be found on the WDS website.



About WDS Components Ltd

WDS Components is the home of standard parts and machine accessories. Established in 1952 'Woodside Die Sinking Company' made jig and die parts to speed up production in tool rooms, WDS Components has grown from humble beginnings to become a leading European manufacturer and global distributor of high quality durable parts at competitive prices. We supply components, standard parts and machine accessories to original equipment manufacturers, maintenance engineers, small businesses and individuals all over the world. Over 98% of our range is available from stock and can be shipped the same day from our global distribution centre in the UK, using best in class worldwide logistics companies.We provide unrivalled choice and unequalled availability.

WDS Components are proud to support some of the most prestigious engineering companies and brands in the world, who all trust WDS Components to service their needs.

We are committed to engineering excellence and continuous improvement. Our team of in-house engineers has expertise spanning several decades and is a blend of highly experienced and new generation graduate engineers who focus on the latest developments in design and manufacturing technology.

Our entire range of products is available to purchase on our website WDS COMPONENTS.COM where designers and manufacturers alike can download 3D models of all components in the widest range of formats available.

WDS Components provide solutions for customers who require a wide and growing range of high quality, competitively priced products, coupled with incredible product availability and same day despatch, backed up by easily accessible technical support.

Further Information:

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