Roller Sorters

for orienting and feeding head bolts, bolt blanks or similar cold-headed parts into downstream machinery

for sorting small, mass-produced parts

for excluding rejected blanks from the production process

for checking the head diameter of small cold-headed parts

for lining up and separating adhesive anchors, headed pins, head bolts, turned and threaded parts
We supply roller sorters for orienting and feeding headed pins, bolt blanks, etc. into bolt chamfering machines, slotting machines and thread rollers

and

for excluding over- or undersized bolt-shaped, round or ball-shaped blanks from the production process,

for checking the head diameter of pin-shaped, headed blanks or bolt-shaped headed blanks,

for sorting small mass-produced parts according to their main geometric datas,

for orienting and lining up turned and threaded blanks, adhesive anchors, headed pins and head bolts,

for checking the length and/or the head diameter of small cold-headed parts,

for separating and feeding parts in filling, weighing and packaging applications where they need to be counted.
Driven by a speed-controlled, three-phase geared motor and a small, joint chain drive, the hardened and ground rollers rotate in opposite directions. A spring-loaded tensioning lever guarantees an unchanging tension of the drive chain even with different sorting gaps.

The roller sorter is available in two versions:

1) The **basic version**, equipped with two adjusting spindles for a parallel adjustment of the rollers to obtain a sorting gap of a uniform width (offering only a limited possibility of adjusting a wedge-shaped sorting gap).

2) The **advanced version**, equipped with a cardanic suspension and two adjusting spindles to allow for the adjustment of a rectangular or an extremely wedge-shaped sorting gap between the rollers.

Inclined side-guides, one of which is adjustable in conjunction with the adjustable roller, ensure that the bolts, etc. are fed perfectly into the gap between the rollers.

Parts that slip through the gap fall into outlet funnels mounted underneath the roller sorter and are removed from the production process. A frequency inverter allows for an infinitely variable adjustment of the roller speed.

For certain types of bolts, one of the rollers can be provided with a large-pitch, spiral-shaped groove along the entire length of the roller to facilitate the transport of the bolts between the rollers.

To enhance the sorting, inspection or orienting process (in particular with large quantities or long shaft bolts), it is possible to add a counter-rotating brush, which is also driven by a variable-speed motor. Mounted just above the rollers, the brush can easily be adjusted to the bolt head height and the sorting gap width. With its nylon or spring steel bristles, it pushes or throws back those bolts which lie lengthways over the rollers until they are inserted properly into the gap between the rollers.

The sorting and insertion process can also be influenced by bringing the entire roller sorter into an inclined position.

For this purpose, the roller sorter can be equipped with clamping plates, which are attached to the frame to allow for the adjustment of an inclined position of up to 15°.
Long bolt blanks, adhesive anchors, headed pins, etc. may need to be oriented before being fed onto the roller sorter. Our range of products therefore also comprises corresponding V- or trough-shaped vibratory feeders (linear vibrators), which are capable of bringing randomly oriented blanks into a longitudinal position to feed the parts to the rollers.

As thread rollers, bolt chamfering, pointing and similar machines require exact placement of the blanks between the guide rails at the inlet of these machine, the roller sorter must be precisely aligned with these guide rails. Depending on the diameter of the blank shaft and the blank length, the roller sorter outlet thus may need to be adjusted vertically or horizontally to the guide rails.

To accomplish this, we also supply height adjustable cross slide tables, which permit limitless fine-tuning in all three directions.

As short bolts are liable to tip over, they are often difficult to feed into the sorting gap between the rollers. To overcome this problem, we developed special vibratory feeders, which are capable of orienting and properly feeding these types of parts to the rollers. Feel free to contact us for more information.

For headed blanks in mass production that do not require frequent adjustment, we also supply low-cost one-purpose roller sorters without the extras for enhanced convenience.

For other orienting, sorting or feeding solutions ask for our corresponding special brochure.