



## ZSK FLEXIBLE COMPACT FEEDING SYSTEM

The flexible system with linear sorting allows feeding of parts in the automatic assembly and provides for a more efficient production of sub-assemblies. This system guarantees reliable part transport offering sorting out of defective parts or parts which are not in the exact position and thus plays an important part in future complete solutions at Bihler. Especially due to rising demands with regard to output as well as to shorter changeover times, continuous and trouble-free feeding is the first precondition for higher productivity.

The compact feeding system is a very efficient feeding unit which allows bunkering, pre-singling and sorting the parts in a very confined space.

The new system configuration allows sorting entire part families in one system (even multitrack) at a very high speed. Parting from a linear feeder the sorting tracks are straight and can be changed over partly but also completely in shortest time.

Thanks to the straight design of the sorting tracks most individual parts can be designed and manufactured on machines. A comprehensive range of jam tracks and prebunkers completes and extends the feeding system for varied applications even in case of most different plant concepts.

## Functioning

Parts are stored in a funnel and transported upwards by means of a frequency-controlled cleated belt. At the end of the cleated belt the parts fall on the intermediate feeder (linear feeder) which, due to its design, generates a continuous transport of the parts which fall down from the cleated belt in intervals. From the intermediate feeder the parts are fed to the presorting unit (mostly linear feeder with tube segments).

From the presorting unit the parts are passed on to the sorting linear feeder. The sorting device is mounted above a tub which is situated on the linear feeder guaranteeing that parts which are in a wrong position will fall down at any time.

The sorted out parts are collected inside the tub and fed back to the funnel of the cleated belt at the tub end, thus finishing the part cycle. For further processing the parts which are sorted in the right position are then transported on a jam track to the respective stations.

## Benchmark figures

- feeding possibility up to approx. 50 x 50 x 50 mm (part size)
- max. part weight up to 80 gr/part
- solid welding frame as base
- use of commercially available conveyor belts and linear feeders
- bunker volume 10 – 50 liters (depending on part)
- feeding speed up to 30 m/min. (depending on part geometry)

Measure A: 1450 mm standard (other heights possible)

Measure B: 550 to 850 mm, depending on bunker volume

Measure C: 1070 or 1170 mm, depending on bunker volume

\* these measures proportionately differ with regard to the outlet height (1450 mm)

(subject to change without notice 01/06)

## Advantages

- space-saving as installation of bunker and sorting device in a very confined space
- high feed capacity even in several tracks (even with multitrack presorting)
- straight sorting tracks mostly designed and manufactured on machines
- equal transport behaviour on all sorting tracks as sorting on a linear feeder
- easy manufacture of spare parts
- thanks to easy exchange of sections or the complete sorting device, short change-over times for part families
- low filling height
- thanks to pre-positioned bunker systems and following jam tracks the system is expandable

