

# Leistritz

LEISTRITZ EXTRUSIONSTECHNIK GMBH



**maXXvolume**

### 30% Increase of Throughput by Means of Increased Volume



When running volume restricted processes, i.e. dryblends, pigment preparations, fillers or additive concentrates, the increased volume of the ZSE MAXX series has significant effect. The increased volume of up to 30% is realized with lower cut screw flights and larger external diameters.

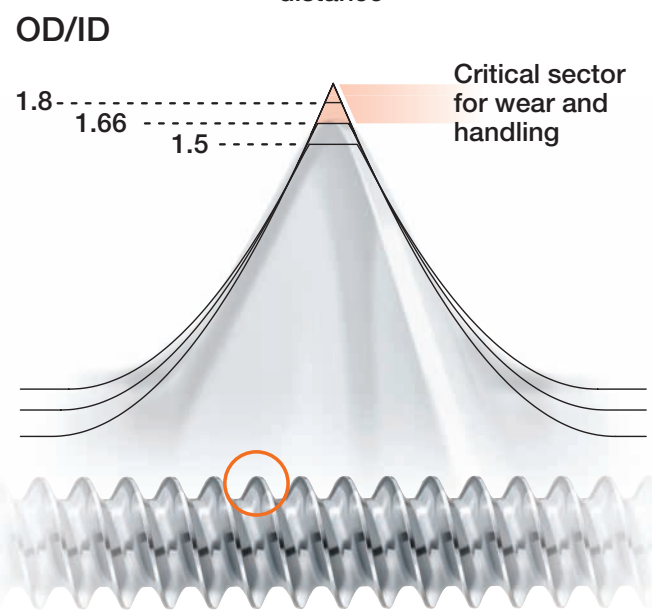
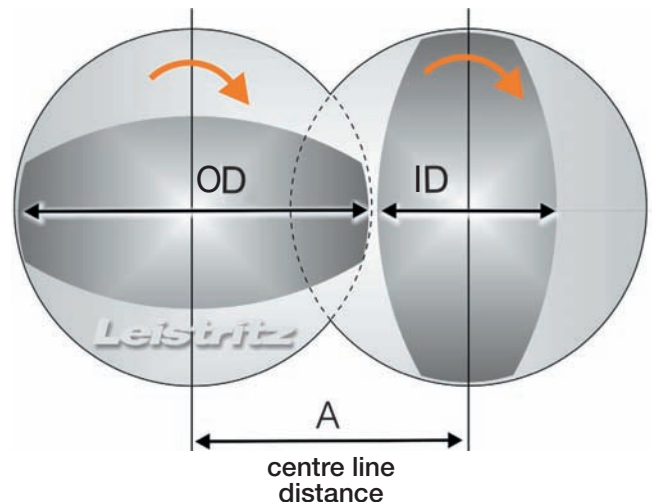
*Visualized:  
Difference in volume of the ZSE 50 HP  
in comparison to the ZSE 50 MAXX*

With an OD/ID of 1.66 Leistriz found the optimum ratio between high volume and energy input into the product. The shear effect is slightly smaller than of the ZSE HP machines, nevertheless it facilitates excellent dispersion. At the same time, high throughputs of many formulations with constant or even better quality can be achieved.

The geometry of screw elements in twin screw extruders are calculated by means of the so-called Erdmenger profile. Hence, the elements are subject to exactly defined geometrical specifications. The ZSE MAXX machines offer the best balance between deeper screw channels and technically sensible flight tips (see on the right).

The optimum in terms of process and material lies in the range between 1.5 and 1.66. The OD/ID ratio above 1.66 is critical, since it poses two problems:

1. The wear of thin screw flights is very high due to physical limits.
2. The handling of the screw elements with respectively thin screw flights becomes more and more difficult, since the screw flights become extremely sharp.



V\_01\_EN / 10.10.07

