

# ECOSPEED F

DS Technologie launches ECOSPEED F

Mönchengladbach, 14 April 2003-04-17  
The ECOSPEED F is the consequent answer to the current economic situation. Decreasing numbers of passengers as well as a difficult overall economic situation and the resulting higher cost awareness will in future force the airlines to purchase new aircraft at most favourable prices and low operating expenses. This pressure on the prices is entirely passed on to the aircraft industry. If they want to do business under these circumstances, manufacturers must offer highest quality at lowest prices. This requirement can only be met by drastically increasing the production efficiency in the aircraft industry and with its suppliers.

The innovative concept of the ECOSPEED has proved that production cost for the large aluminium structural components used in aircraft industry could be cut by up to 50 per cent. At the same time, accuracy and surface quality were improved while processing times dropped.

The new ECOSPEED F that is launched by DS Technologie Werkzeugmaschinenbau GmbH, represents the solution for smaller aluminium structural components while offering the same advantages as its bigger sister ECOSPEED.

The main innovation is the integration of a parallel kinematics machining head into a series basic machine.

The construction of this head based on a 3 bar kinematics (tripod-technology). The 3 bars carry the suspend / pivotally spindle platform holding the motorspindle in a cartridge design.

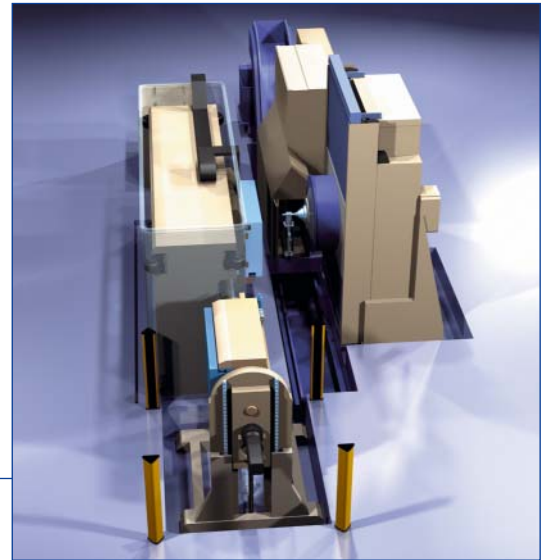
This worldwide unique concept allows the motor spindle, to move within a 90 degree

cone in space. The low masses allow for highest dynamics. The energy, coolant and hydraulic supply is realized through direct cable connections without slip rings and rotary couplings, i.e. leakage and maintenance free.

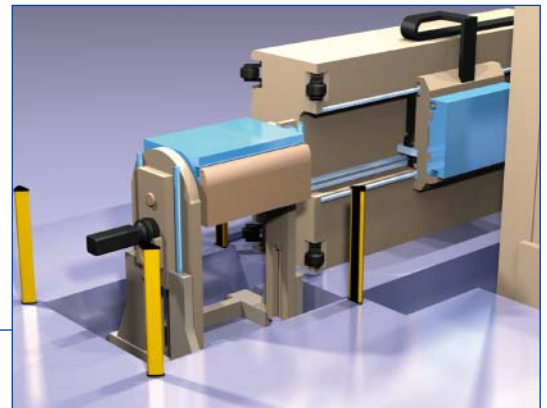
Taking the aforementioned into account it is obvious that this head concept is superior to the conventional fork and swivel heads.

The machining head Sprint Z3 traverses vertically in the column, guided and driven on both sides by the ball screws.

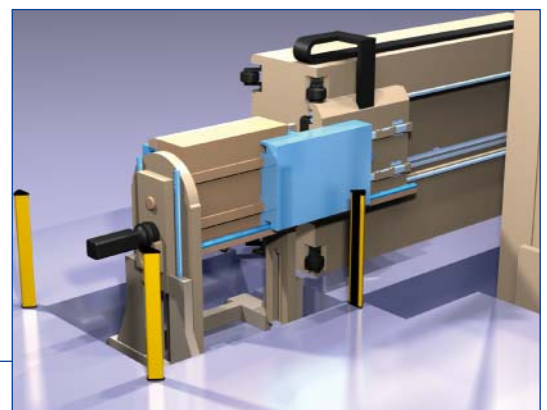
The processing is realized with the horizontal headstock and vertical pallet concept. Only this configuration can ensure an optimum chip evacuation. A chip production of 7,000 ccm/min is reached.



High-Performance  
Machining Center  
ECOSPEED F



Load- / unload station  
in vertical position  
ready for pallet transfer



Load- / unload station  
during pallet transfer

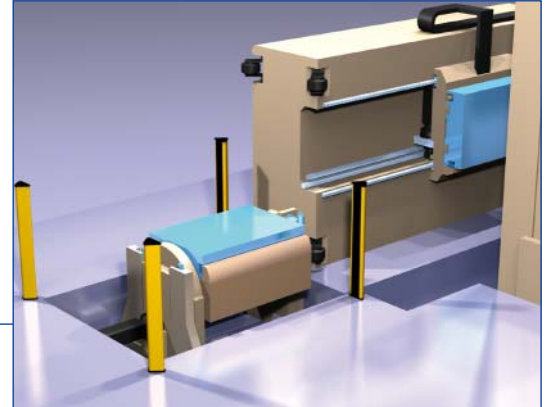
ECOSPEED F follows the concept of horizontal spindle and vertical pallet, "inherited" from the successfully introduced ECOSPEED. It also features the innovative machining head "Sprint Z3", the fast feedrates and the high accelerations. In contrast to the ECOSPEED, the machine column is fix and the pallet moves in x-axis on a vertical table group.

The pallet can be loaded in horizontal position on a rotatable load- / unload station and will then be transferred in vertical position to the machine table. In this way, ergonomic loading is possible without interrupting processing time.

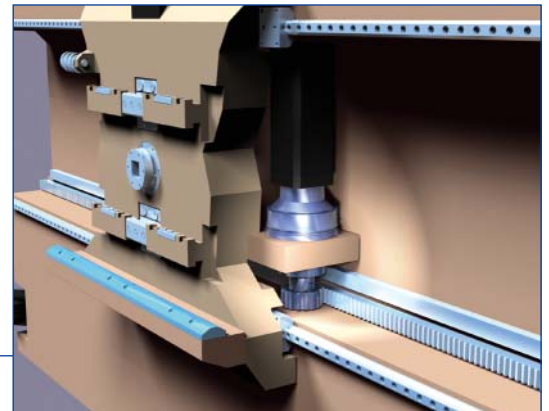
The pallet size of the ECOSPEED F varies from 2,5 m x 1,5 m up to 3,0 x 2,0 m and thus provides a high-performance solution for medium-sized workpieces to an attractive price.

For further information:

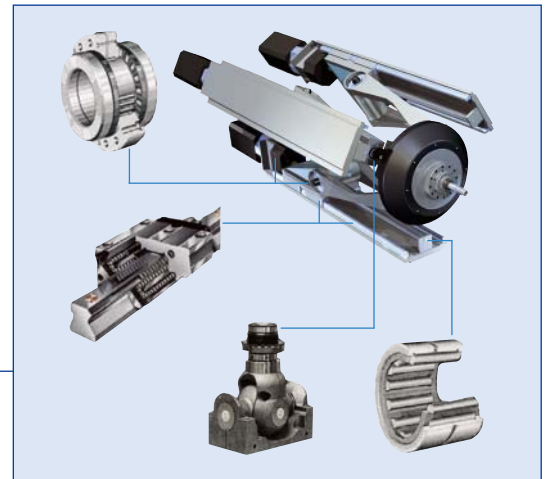
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Load- / unload station  
in horizontal position  
for ergonomic loading



Pallet drive  
master-slave concept



Sprint Z3 made of  
standard elements  
used in mechanical  
engineering



Processing of a  
structural component  
with Sprint Z3