### FS-travelling column machine

EFFICIECY WITH LARGE-SCALE PARTS

travelling column machine



Travelling column



## Precision and economy in metal

STADLER KEPPLER - synonymous with innovative efficient solutions and engineering excellence in the field of metalworking for more than five decades. A competent workforce of 100 employees in the Stadler-Group and over 40 dedicated specialist at the facility in Pfullingen, modern machinery an innovative design department and exemplary quality assurance make us the preferred industry partner. STADLER KEPPLER machines give you a decisive competitive edge.

Accompany us after the slogan "fascinating mechanical engineering" on the following sites and dive into the world of Stadler Keppler Maschinenbau.





## working

High dynamic 2-axis milling head with strong torque motor and absolute value measurement system for universal applications. Available in various spindle versions (HSK63 / HSK100 / SK50)





#### FORESIGHT THAT BRINGS YOU FORWARD

Visionary and always close to the customer. Creative and always one hundred percent practical. The forward-looking STADLER KEPPLER experts understand perfectly how to realise mechanical innovations to meet your specific needs. High performance technology that allows you to master your challenges - precisely, quickly and reliably.

#### QUALITY TO BENEFIT YOU

Our products and services are tested according to the most stringent quality standards. In every field our actions are governed by the zero-defects principle. The result: products which excel in terms of their outstanding availability coupled with a long service life. Absolute customer focus, reliability and fairness are all at the top of the STADLER KEPPLER list of priorities - and the benefit is all yours.

## Your most successful part prod

When it comes to mould- or machine building, precision, versatility and 5-sided machining are paramount. STADLER KEPPLER machines provide truly impressive results in every one of these areas, coupled with outstanding capabilities. Because this 5-axis universal centre was designed to address the specific demands of this sector - which naturally also include high machining speeds and an attractive price tag.

#### **Options:**

- Full enclosure
- Partial enclosure
- Dynamic package 40 m / min.
- Temperature compensation of the motor spindle
- Maintenance free oil emulsiion separator for full enclosure
- Internal cooling feedthrough through spindle increase to 60 bar
- Blower through spindle centre
- External blower
- Spray- / Blowing gun
- Minimal quantity lubrication through spindle
- Work piece measurement system (sensing device)
- Tool breakage monitoring
- Tool coding
- Rotating viewing window
- Track flushing
- Manual operating modul
- Multi pallet changing system
- Media interface table center
- Zero-point clamping system
- Special designs according to customer specifications

### uction ever



#### Your benefits:

#### **Machine table**

- Rotary table in combination with W-axis load up to 100 t
- Plate fields in 500 mm steps length- and crosswise
- Multi side machining in one clamping
- beneficial chip drop at horizontal roughing

#### Simultanous 5-axis machining

#### High rapid traverse speeds up to 40 m/min

#### Milling head

- 1-axis-NC milling head 525Nm (S6)
- 2-axis-NC milling head 220Nm (S6)
- HSK100/SK50
- additional spindle-, head-types according to customer specifications

#### **Direct measurement system**

- Heidenhain, pressurized air

#### **Tool magazine**

- Chain magazin with 40 / 60 / 80 / 100 tools

#### Mineral cast damped travelling column

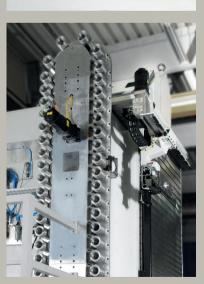
- optimal vibration dampening
- up to 50% increased tool life due to reduced vibrations

#### **Standard**

- Water cooled direct drive motor
- Water cooled cabinet with central cooling unit (maintenance free)
- Tool length ~ 800 mm









## Control, operation and maintenance

By selection of the control system, STADLER KEPPLER relies on high quality. So you can run your HDC either with Heidenhain or Siemens control.

#### Dynamic und efficiency

- Latest installation technique
- Best accessability
- Minimal maintenance effort

- Long life cycle
- Standardized user interface
- Solid machine technique



Siemens 840 D SL



Heidenhain TNC 640

#### Additional range of functions

- Pallet- / work piece monitoring
- Master computer connection over EthernetTool monitoring
- 24/7 remote access / machine monitoringUpdates / trainings
- Process monitoring



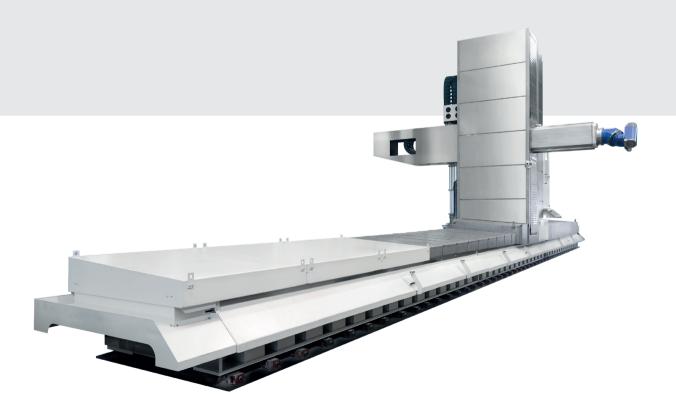
# Impressive data

#### HIGH PERFORMANCE BED TYPE TRAVELLING COLUMN MACHINE - TECHNICAL DATA

Working range	
X-axis (mm)	7000 to 30000
Y-axis (mm)	1000 to 1500
Z-axis (mm)	2000 to 4000
Machine table	
Clamping surface (mm)	in 500 mm steps length- and crosswise
Rotary table	
Clamping surface (mm)	from Ø 1200
Feed rate	
max. rapid traverse speed X/Y/Z (m/min)	20 / Option 40
max. programmable feed X/Y/Z (mm/min)	20 / Option 40
Acceleration	
max. acceleration X/Y/Z (m/s²)	1 m/s <sup>2</sup>
max. acceleration X/Y/Z (m/s²) optional	2 m/s <sup>2</sup>
Guiding system	
X-axis roller-rail guidings	prestressed, central lubricated, size 65 with 10 guiding carriages size 65 and 2 damping carriages
Y-axis roller-rail guidings	prestressed, central lubricated, size 55 with 8 guiding carriages size 55 and 4 damping carriages
Z-axis roller-rail guidings	prestressed, central lubricated, size 65 with 6 guiding carriage size 65, 4 clamping shoe
Drive	
X/Y/Z-axis	Rack and pinion drive  Master-Slave configuration
Measurement system	
Length measuring system (glass scale), absolut, impinged on	sealing air, resolution 0,001 mm
NC-milling head	
Stepless in both axes or with Hirth-gear	Option
Input rating of the milling head	
Speed (rpm)	5000, 7000, 8000, 10000, (acc. to customer)
Torque (Nm)	1000, 600, 500, 220
Tool changer	
Tool positions	40 / 60 / 80 / 100 / Option up to 250
Tool holder	HSK100 A (DIN 69893)
Optional	SK50 (DIN 69871)
Tool change time (s)	22
Control	
Path control	Heidenhain TNC 640
Optional	Siemens 840D SL

## Ultra-precision machining of I

This machine is an absolute winner when it comes to milling large-scale components. Ideal for general engineering and mould building. Offering unprecedented chip volumes coupled with excellent surface quality and high machining precision. These excellent results are the culmination of high dynamics, extreme feed torque and enormous rigidity. And the innovative milling head takes care of outstanding productivity: designed for highly efficient simultaneous machining in the 3D range exclusively from STADLER KEPPLER.



Cased machine at customer site



# arge components



Cased machine at customer site

## Precision down to the smallest



## detail







We provide an investment secure, efficient, and absolute reliable solution - worldwide!



#### STADLER KEPPLER MASCHINENBAU GMBH

Max-Eyth-Straße 9

72793 Pfullingen (Germany)

Tel: +49 7121 9776 0 Fax: +49 7121 9776 45 info@stadler-keppler.de www.stadler-keppler.de