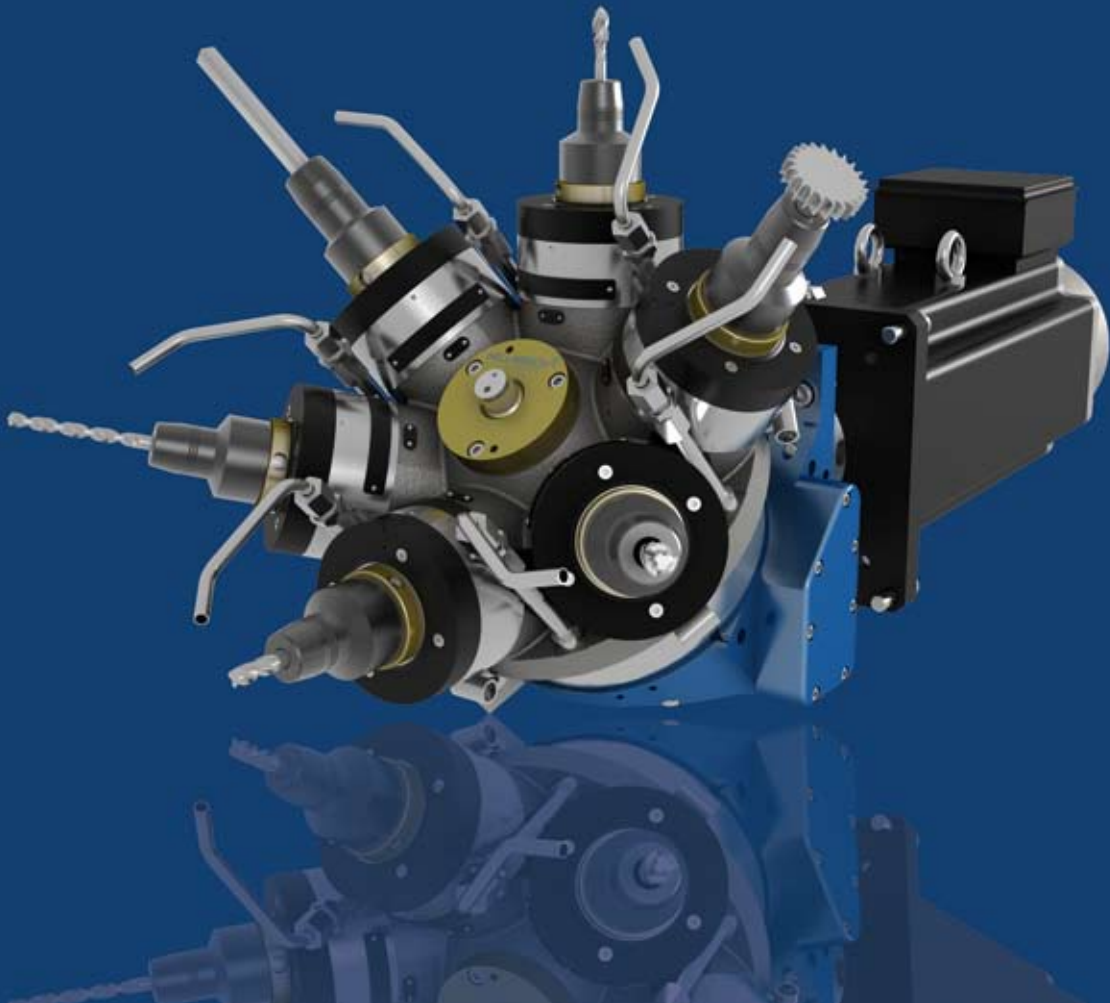


SPEED REQUIRES  
PRECISION.

HERE IS THE FASTEST  
CROWN TURRET.



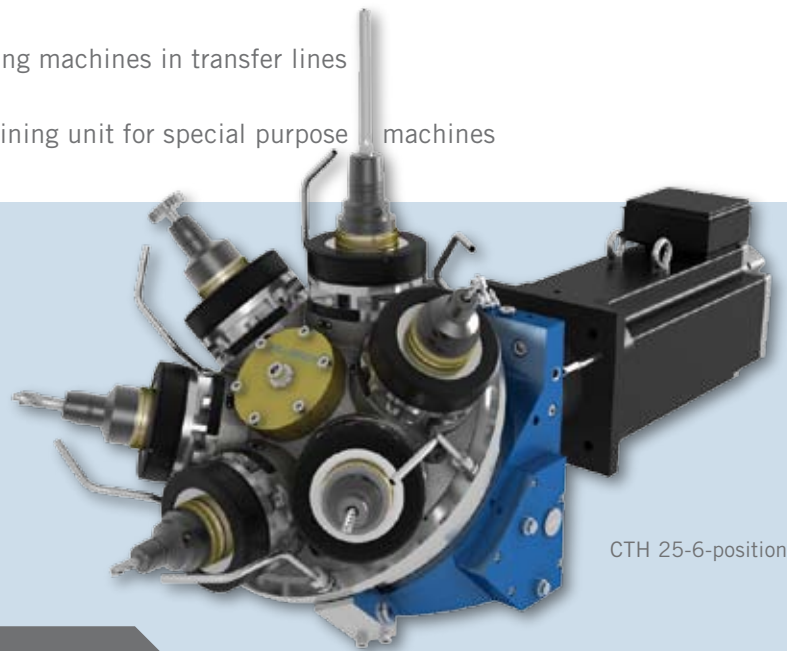
# THE HELLMERICH CROWN TURRET HEAD IS BASED ON THE FORMER KETTERER TURRET HEAD.

HELLMERICH has acquired the patents and manufacturing rights and improved it.

Flexibility is the core feature of this turret head. HELLMERICH Precision Components has the widest product range of multi-spindle drilling heads for High Volume Production. Our new crown turret is an extraordinary product for flexible machining tasks, and it features proven HELLMERICH manufacturing quality.

## THE NEW HELLMERICH CROWN TURRET

- For individual and flexible expansion in production machines, such as transfer centers and machining
- For retool of existing machines in transfer lines
- Added agile machining unit for special purpose machines



CTH 25-6-position

### BROAD SPECTRUM OF APPLICATIONS

in: TRANSFER LINES  
 ROTARY-TABLE MACHINES  
 TRANSFER CENTRES  
 MACHINING CENTRES  
 LATHES  
 SPECIAL PURPOSE MACHINES

for: Drilling  
 Tapping  
 Roll Form  
 Plane milling  
 Face milling  
 Multiple spindle drilling  
 Multiple spindle threading  
 Turning  
 Measuring

# EXTREMELY SHORT CHIP-TO-CHIP TIMES OF < 1.5 SECONDS. SPINDLE SPEEDS UP TO 18,000 RPM.

This makes it possible for you to significantly increase performance and flexibility of existing manufacturing machines. The HELLMERICH crown turrets enable high productivity at great precision. Chip-to-chip times of < 1.5 seconds at spindle speeds of up to 18,000 RPM. The power available ranges from 4 to 35 KW, for flexible configuration with 6 or 8 spindles. Can be used for HSK 32, HSK 40, HSK 50, HSK 63, HSK 80 and every other tool interface.

## TECHNOLOGICAL PRODUCT ADVANTAGES

- Less secondary times due to bi-directional drive of the work spindles and indexing mechanism. Indexing and spindle acceleration is done simultaneously with common drive
- Maximum acceleration due to advanced constructive components with reduced mass moments of inertia
- Constant and stable spindle position not effected by thermal expansion during production
- Continual thermal spindle position stability in machining mode
- Non-lifting, three-piece Hirth-coupling with fast pneumatic support during indexing
- HSK spindle interface for high rigidity of the operating tools

# LESS SPACE. GREATER RIGIDITY.



CTH 25-6-position  
with MSH

Thanks to its short projection length, the HELLMERICH crown turret has the lowest space requirement of any system available on the market. The HSK interface enables the highest degree of rigidity of the tools used – whereby the design concept takes the prevention of contamination into account. The assembly could hardly be simpler. Drive motor with variable installation position.

## MAXIMUM RIGIDITY WITH COMPACT DESIGN

TYPE		CTH	CTH	CTH	CTH	CTH
		15-6	15-8	25-6	25-8	27-6
A	mm	272	272	400	400	400
B	mm	105	105	145	153	145
C	mm	105	105	160	160	160
Ø D	mm	70	70	95	95	100
F	mm	125	125	140	140	140
G	mm	147	182	180	240	220
H	mm	280	330	395	435	425

## USER-ORIENTED PRODUCT ADVANTAGES

- Labyrinth sealing with gap seal system and air purge
- Economical installation and commissioning thanks to presetting and position indexes
- Non-contact inductive position sensing. Complete inductive feedback for added safety
- Optimised chip evaluation without pipes or hoses in the machining work area

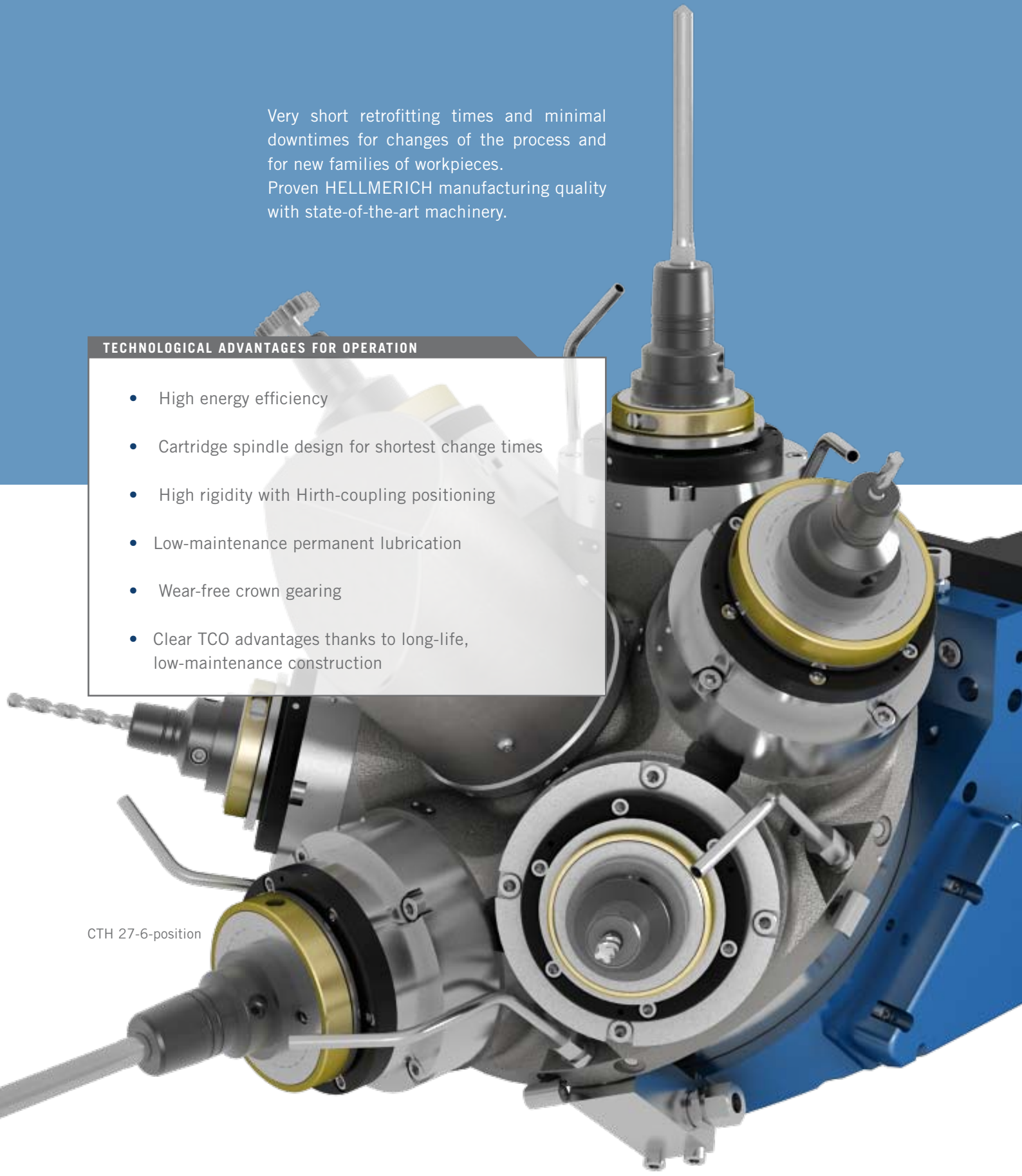
# THIS IS HOW SPEED BECOMES EVEN MORE ECONOMICAL.

Very short retrofitting times and minimal downtimes for changes of the process and for new families of workpieces.  
Proven HELLMERICH manufacturing quality with state-of-the-art machinery.

## TECHNOLOGICAL ADVANTAGES FOR OPERATION

- High energy efficiency
- Cartridge spindle design for shortest change times
- High rigidity with Hirth-coupling positioning
- Low-maintenance permanent lubrication
- Wear-free crown gearing
- Clear TCO advantages thanks to long-life, low-maintenance construction

CTH 27-6-position

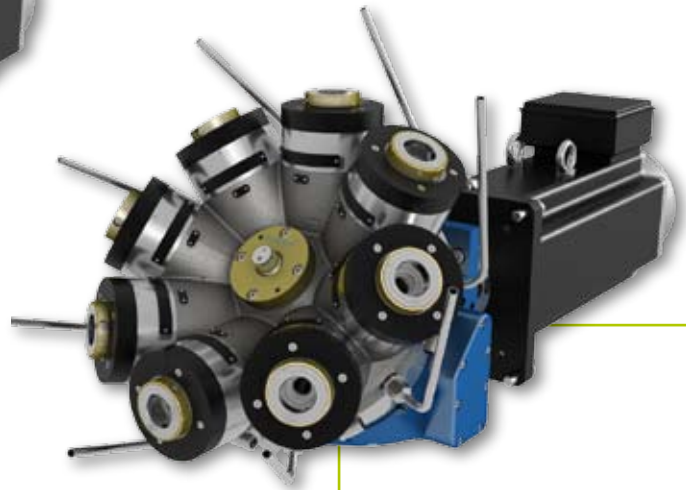


# THE FASTEST CROWN TURRET.

TIMES FIVE.



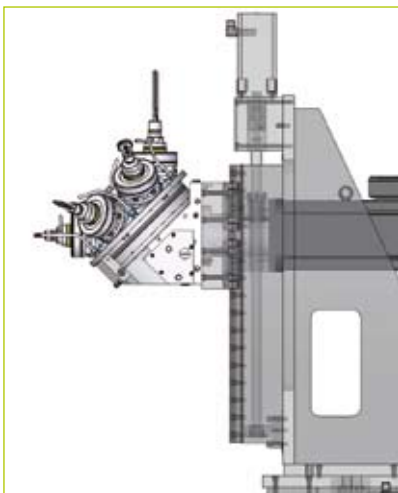
**CTH 15-6-position**  
6 individual tools  
Space saving and extremely fast



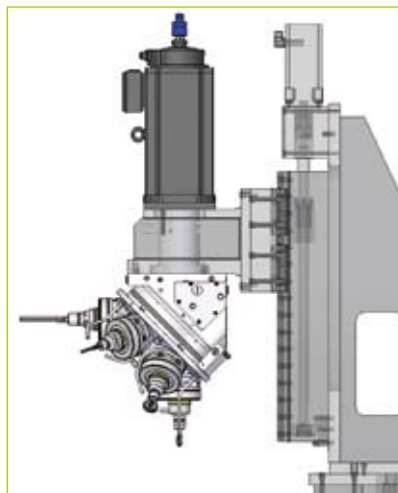
**CTH 15-8-position**  
8 individual tools  
Space saving and extremely fast

## VARIABLE MACHINING APPLICATIONS

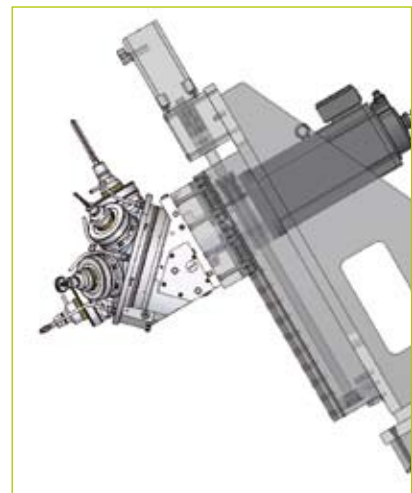
### MAXIMUM POWER IN EVERY INSTALLATION POSITION



Horizontal machining application

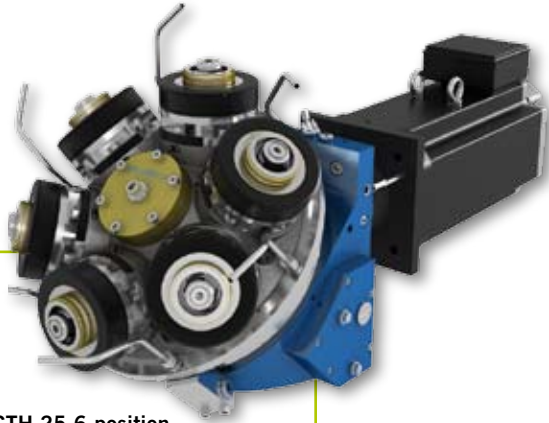


Vertical machining application

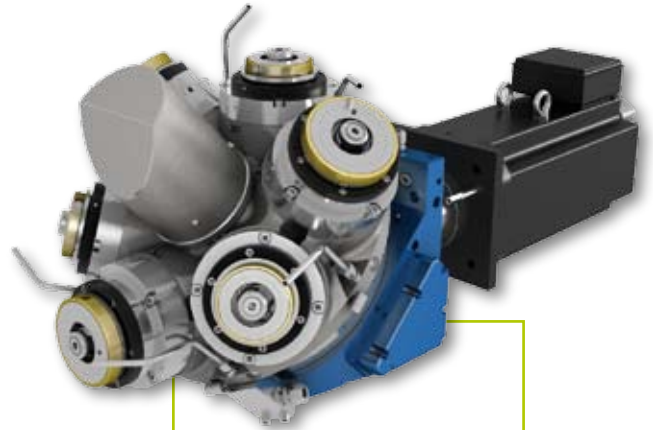


Angled machining application

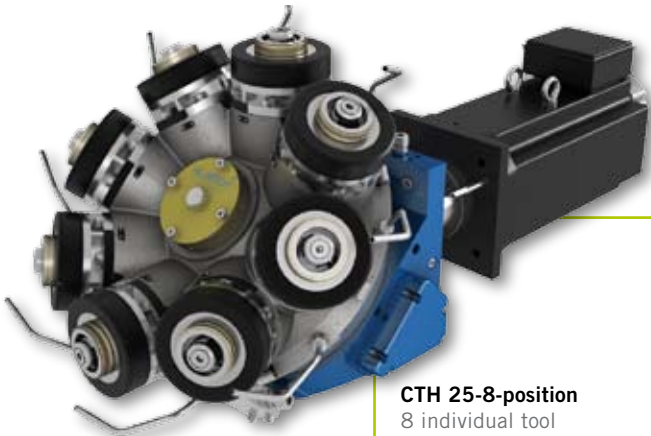
HELLMERICH crown turrets can be used in the most diverse machining configurations and installation positions; horizontal, vertical or inclined at any angle. The full power of the units is ensured in all installation positions.



**CTH 25-6-position**  
6 individual tools  
Universal integration



**CTH 27-6-position**  
6 individual tools  
For demanding cutting tasks

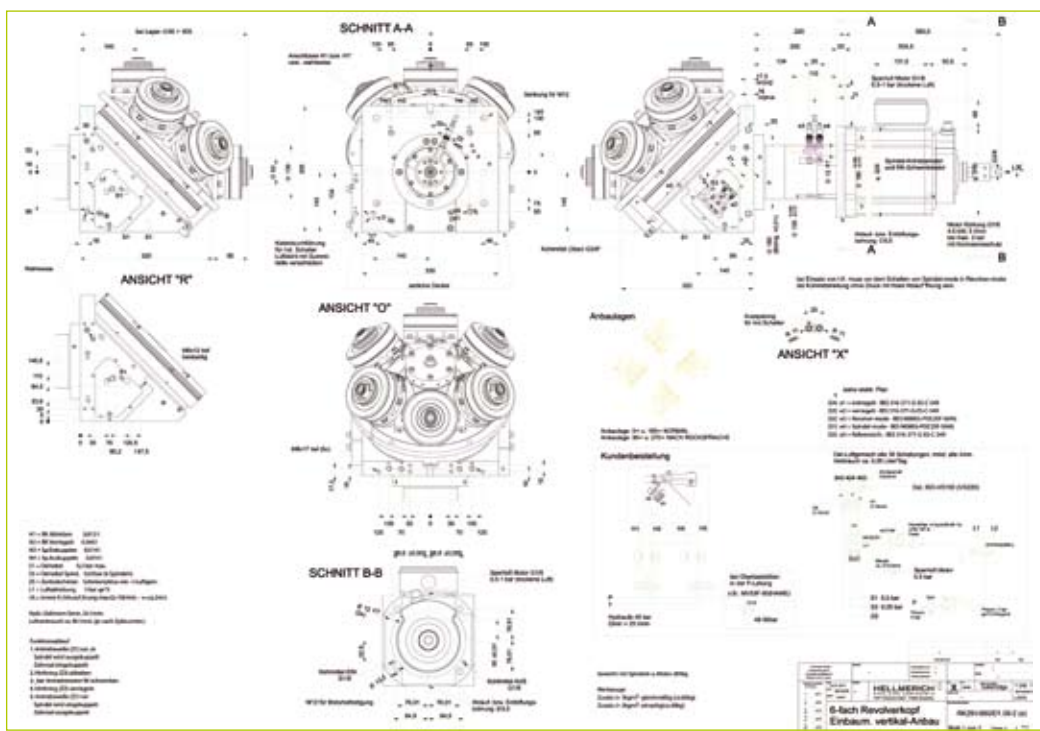


**CTH 25-8-position**  
8 individual tool  
Universal integration

Direct axis tool lubricant supply with coolant. Alternatively, minimum quantity lubrication (MQL) by economical single channel system or external splash coolant.

# COLLISION CONTROL

## PROJECT PLANNING MADE EASY



HELLMERICH Crown turrets have been planned for flexible use in production. To enable professional project planning for machining tasks in your CAD system, 3D STEP files are available for all five types.

# DATA SHEET

TYPE	CTH 15-6	CTH 15-8	CTH 25-6	CTH 25-8	CTH 27-6
<b>SPINDLES</b>					
Number of Spindles	6	8	6	8	6
Tool Interface	up to HSK32/40/50	up to HSK32/40/50	up to HSK63/80	up to HSK63/80	up to HSK63/80
Permitted tool weight of inertia of the tool load	1.2 kg/m <sup>2</sup>	1.6 kg/m <sup>2</sup>	3	3.5	3.5
Permitted tool weight (all tools with balanced condition)	30 kg	30 kg	60	60	60
<b>SWITCHING TIMES</b>					
Turret head rotation (60°)	0.15 sec.	0.12 sec.	0.3	0.25	0.4
Spindle acceleration and deceleration	0.2 sec.	0.2 sec.	0.25	0.25	0.3
Spindle drive to index mode (within the spindle mode)	0.15 sec.	0.15 sec.	0.2	0.2	0.2
Chip-to-chip time	1.1 sec.	1.1 sec.	1.5	1.5	2.5
<b>POWER</b>					
Maximum permitted spindle speed	up to 18,000 RPM	up to 18,000 RPM	12,000 RPM	12,000 RPM	12,000 RPM
Maximum spindle torque	Maximum S6	Maximum S6	64 (110) Nm	64 (110) Nm	95 (160) Nm
Maximum power (starting from 3,000 RPM)			10 kW	20 kW	30 kW
Turret weight (without spindle load and drive motor)			65 kg	180 kg	280 kg
Inner lubricant supply	up to 80 bar subject to consultation	up to 80 bar subject to consultation	60 bar	60 bar	60 bar

If you require further technical product information, HELLMERICH would be pleased to assist you.