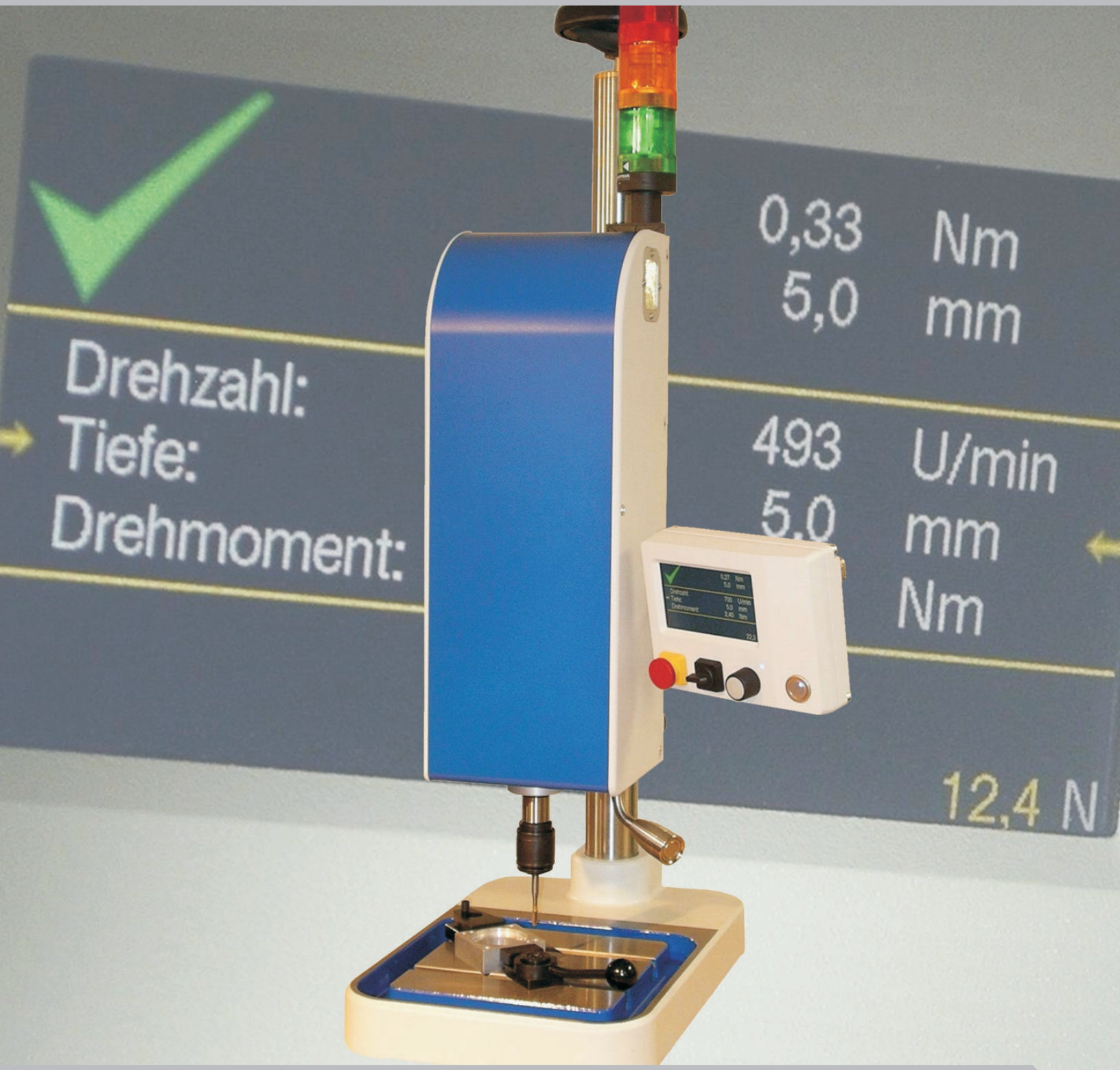
Tauro®

Thread processing



The force under control

Tauro® 25
M0,8 - M6

Tauro® 83
M2 - M10

Tauro® 120
M2 - M12

sale ex 2011
Tauro® 300
M4 - M18

Tauro®

Thread processing

Janich-Design: Specialists in thread machining

With Tauro®, Janich-Design presents an innovation in torque monitored thread machining! Our machines are used for thread cutting and thread forming. They also offer solutions for other torque monitored applications, as thread gauging, insertion of threaded bushings, or bolts. The products of the Tauro®-series cover several ranges of power with a thread cutting capacity from M0.8 to M18 (0.05 Nm to 30 Nm). Next to the machining of single parts and prototypes the scope of applications also includes automated manufacturing.

The special advantage of the Tauro® machines: They continuously monitor all process operations and intervene before a tool breaks or a part gets damaged. Based on the high quality of the material processing, as well as the possible integration into an existing automated manufacturing, the Tauro® products are ideally suited for various industries. These include workshops and production plants of metal, plastic and sheet metal machining industries. Also users from the automotive industry and its suppliers, the aerospace industry, optics, and medical-technology manufacturing benefit from the Tauro threading machines.

Talk to us about your requirements!

We are specialists in the field of thread machining and offer you professional consulting and technical support with the integration of machinery plus intelligent implementation. Furthermore, we take the time to adjust and integrate the Tauro products into your existing automation solution.

All advantages of Tauro® in a nutshell:

- Intelligent control and workpiece machining
- Smooth and reliable running performance
- Machining with carbide tools
- Continuously adjustable speed from 50 to 3000 rpm
- High dynamic due to synchronous servo technology
- Continuously adjustable torque from 0.05 Nm to 30 Nm
- Graphic display with a menu-guided user interface
- Modular design and PLC interface
- Useful for a variety of applications
- Robust and maintenance-free

Tauro® thread machining convinces users:

- By exact monitoring, measuring and optimization of process parameters, Tauro® contributes to quality assurance during the machining process.
- Without tool breakage and material rejects, production costs are decreased significantly with Tauro®.
- Optimized process parameters increase tool life.

Obtain additional information at www.thread-tapping.com!

Tauro®

Technical details

Thread machining with Tauro®

Based on a counter-balance system, the spindle is free floating. This avoids any axial force to the thread tapping tool and workpiece. With its pitch the tool pulls itself into the workpiece. There is no need to enter the pitch of the tap, since the depth is controlled by a measurement system at all times. The tool always finds an existing thread again, without risk of damaging the same, what makes remachining very easy.

The simple operation

Clearly presented menu-driven operation allows the user to simply input the working parameters by a 4.3“ TFT LCD display with a rotary encoder and push buttons i.e. torque, depth, speed, thread forming, threading a blind hole, etc. The tool is held by a quick change system. The spindle operates from preset parameters to a precise depth and sequence.

The intelligent control unit

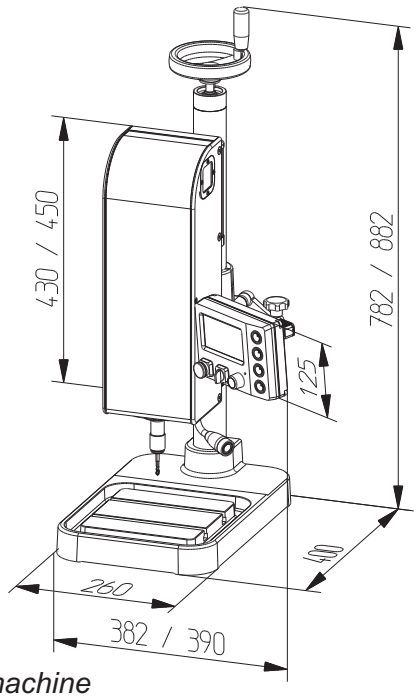
The high capacity processors of each single module are networking together. One processor controls the depth while another processor is able to monitor the drive and the torque. Another operates the display and controls the operation. Based to the fact that the drive has its own processor, the control is very fast. It measures the torque constantly and in case of exceeding the set torque it stops the drive before the tool is broken or the workpiece is damaged.

The quality evaluation

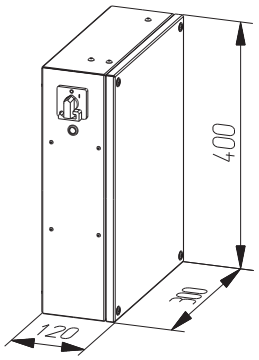
The intelligent control unit assures secure processing and quality evaluation. Parameter monitoring happens during operation. The quality evaluation immediately reports the results on the display, like error-free machining, monitoring of operation, excessive torque, tool wear, or pilot hole too large or small.

Dynamic drive

The synchronous servo motor of the Tauro threading machine reaches very high dynamics due to complex control engineering and at the same time an extremely smooth running performance at low and high speeds. Hence even the use of carbide tools is possible.



Tauro®
Thread tapping machine



Control unit

Tauro®

Technical data

Type of machine	Tauro® 25	Tauro® 83	Tauro® 120
Thread capacity (Thread cutting - blind hole 2,0 x D)	**M0,8 - M6**	**M2 - M10**	**M2 - M12**
	in aluminum / AlMg4,5Mn / 3.3547		
Thread capacity (Thread cutting - blind hole 1,5 x D)	**M0,8 - M5**	**M2 - M8**	**M2 - M10**
	in stainless steel / X6CrNiMoTi17-12-2 / 1.4571 (V4A)		
Torque range (continuously adjustable)	0,05 - 2,50Nm	0,30 - 8,30Nm	0,30 - 12Nm
RPM range (continuously adjustable)	50 - 3000rpm	50 – 2400rpm from 6,80Nm max. 2000rpm	50 – 2400rpm
Modular construction (3-parts)	- Spindle unit - Operator and display unit - control unit		
Cable length between the modules	2m (3m Optional)		
Dimensions machine (WxDxH)	382 / 450 / 782mm	390 / 450 / 882mm	
Dimensions control unit (WxDxH)	120 / 300 / 400mm		220 / 400 / 400mm
Spindle / tool holder	B10 / EM 0 quick change holder	B12 / EM 1 quick change holder	
Spindle travel / thread depth	90 / 80mm		
Height adjustment / travel	with hand crank / 60°		
Travel height adjustment (distance machine base / tool holder)	0 - 330mm (column 650mm)	70 - 415mm (column 750mm)	
Throat	165mm	185mm	
Machine pedestal (WxDxH) 2 x T-slots	260 x 400 x 45mm T-slots DIN 650-10		
Electric supply / Power input	230V~ / 615W		230V~ / 1,1kW
Entrance protection class	IP54		
Engineer standard	Conforms to CE / EMV		
LCD Display	4.3“ TFT–display, 65536 colors		
Operation	Menu driven		
Digital inputs / outputs (24V DC / 3.6W) (PLC capable for automation & valves)	3 inputs 10 outputs		
Depth accuracy	0,1mm		
Finish **RAL / colour name**	RAL 7035 / light grey RAL 5005 / signal blue		
Quality evaluations / Error messages	Display with error message Evaluation and audible signal		
Option	· Minimal lubricant unit pneumatic 87psi / 6bar · Spindle feed pneumatic 87psi / 6bar · Signal light column red, orange, green and horn forquality evaluation		

Software:

- Languages: German / English / Norwegian (more on request)
- Depth unit: mm / (inch on request)
- Process programs: thread cutting, rethreading, thread forming
  Option: thread inserts, screwsetting , thread plug gauge
- Grade of quality: blowhole, array of torque, tolerance of depth
- Control torque with indicator
- Independent of thread type and pitch
- Rotation: right-hand or left-hand switchable
- Reversal program: variable speed
- Different start menus, such as, manual button, automatic zero point identification with rotating spindle
- Chip clearance programs
- Parameter data storage
- Part counter
- Lubricant: cooling, and blow off control
- Switching function for power outputs for valves such as pneumatic part holder

Subject to change without notice

Test the products of Janich-Design and let Tauro® convince you!

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