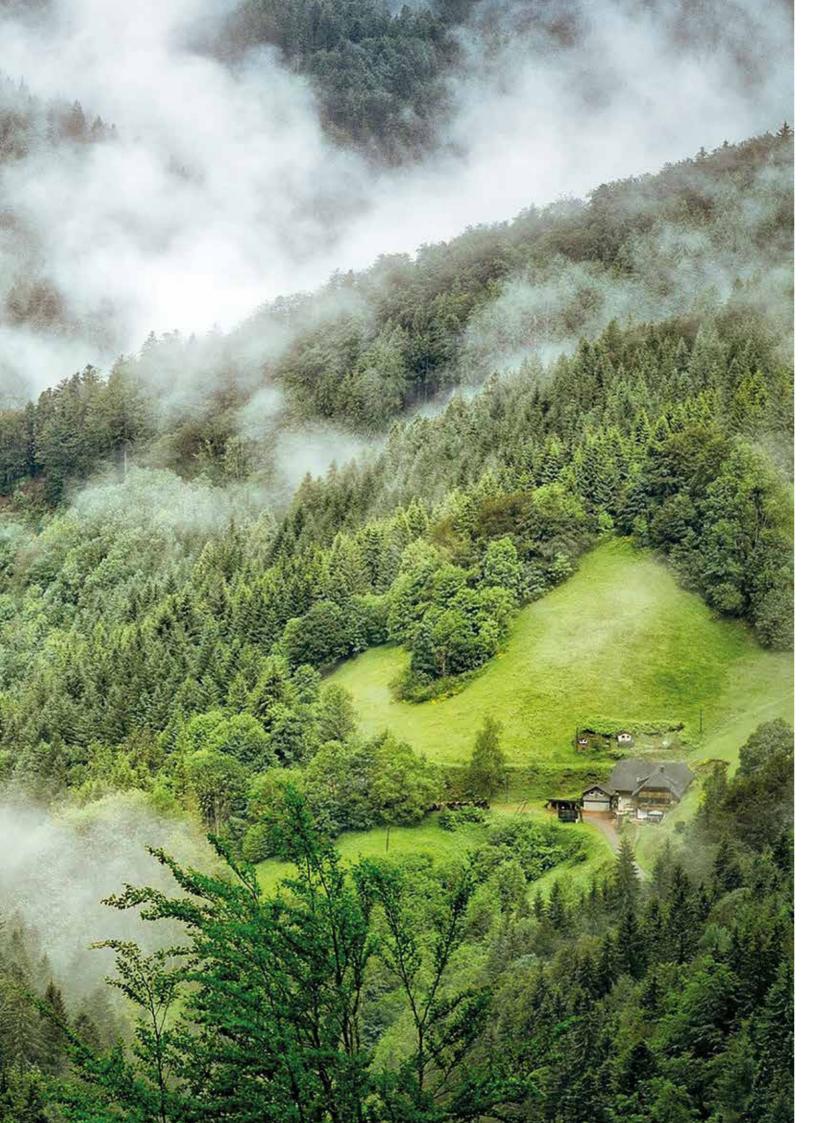
# Aggregatetechnologie und Manufaktur AG







# The Black Forest has a lot more to offer than just an evergreen forest, Black Forest cake, tradition, and R&R.

Maximilian Schmidt Vorstand/Director of ATEMAG, Hofstetten, Germany

I am proud to be part of the small but highly motivated team at ATEMAG.

I have headed ATEMAG since 2020. The staff showed me pretty quickly what's accomplished here and how amazing the idyllic Black Forest can be for Nigschmeckte.

The ATEMAG team is full of drive and know-how. In the development department, this motivation is marked by a pronounced Wunderfitz. Our established system of design and assembly à la Dipfleschisser delivers outstanding quality. Even if a coworker happens to be grädig once, focus stays on the customer in the building of new aggregates, and when it comes to servicing. What makes the work fun is sales and purchasing, because s'Beschde isch grad good enough for our customers. That's how I experience us in our daily work.

With this team and the outstanding products in our portfolio, I am looking forward to the future at ATEMAG.

4. Altumit

Maximilian Schmidt



#### Baden vocabulary

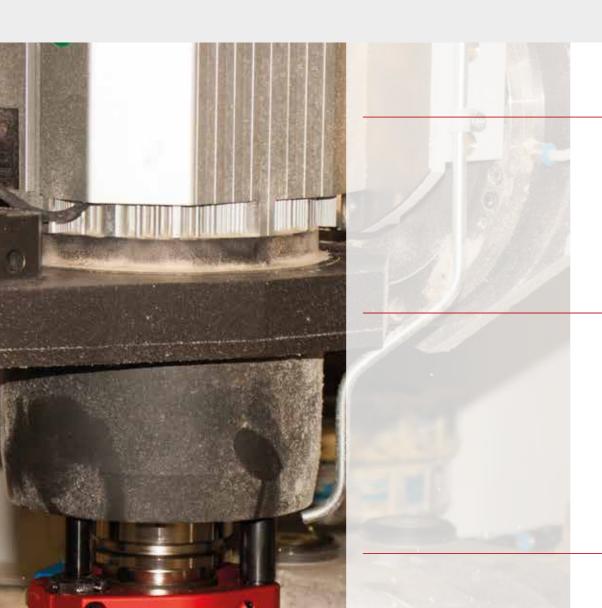
Baaon reeasana	<u> </u>
Nigschmeckte:	ne
Wunderfitz:	cu
Dipfleschisser:	10(
	ас

grädig: in a bad mo s'Beschde isch: the best is grad: just

newcomer curiosity 1000% accurate person in a bad mood the best is just



## Aggregate Technology Straight From Our Craft Production Facility



### Motor Spindle

Combining an electric motor, a tool interface, and a tool clamping system, the motor spindle is the heart of the CNC machine. The motor spindle clamps the tools and aggregates and supplies the rotational speed and torque for machining.

### C-Axis

The C-axis is a huge gain for the wood industry. With it, the aggregate can use the clamped-in tools with different approach angles. Rotations about the Z-axis of the machine are simple and time-saving because the C-axis, equipped with a servomotor, gearing, and a torque support ring,

can rotate the aggregate by 360 degrees.

The torque arm is the part that secures the aggregate against Torque Arm spinning. It prevents the static parts from rotating during machining. It also reduces vibrations, supports the aggregate against acting machining forces, and can transmit cooling media or control signals in the form of compressed air. The locating pins specified by the machine manufacturer are built into the torque arm of the aggregate and engage in the machine's antirotation torque support ring, stop block, or C-axis.

Here you will find a selection of companies for whose machines we supply suitable connections: Anderson Industrial Corp., auratronic, BIESSE S.p.A., C.R. Onsrud, Felder KG, FOOKE GmbH, HOLZHER GmbH, HOMAG Group AG, IMA Schelling Deutschland GmbH, MAKA Systems GmbH, Masterwood S.p.A., MKM International GmbH, Multiax International CNC Srl, Reichenbacher Hamuel GmbH, SAOMAD 2 srl., SCM Group S.p.A., Technowood, Thermwood Corporation, Michael Weinig AG, F. ZIMMERMANN GMBH, ... Please consult our sales team for companies not listed here.

An angular aggregate, or angle head, supports the functionality of a CNC machine and acts as an extended arm of the motor spindle. Aggregates extend the machine-side machining capabilities of 3-,

Aggregate 4-, and 5-axis machines. Tools can work horizontally or at any angle, even when space is limited.

Use of aggregates offers cutting, grinding, probing, indenting, doweling, gluing, and many other processing methods in addition to "rotating" machining processes such as routing, drilling, and sawing, ...









### Modularity for Greater...

### ... Adaptability

The design is completely adapted to the application area.

### ... Cost-efficiency

Optimally coordinated components provide for the maximum possible service life.

### ... Flexibility

Subsequent configuration of the machine connection is possible at any time.

If the conditions change, the requirements that the aggregate must meet also change.

Aggregates are built with cone/taper formats such as HSK-F63, HSK-E63, HSK-A63, SK30, SK40, BT30, and others. The torque arm is built to match the machine and is mounted as a separate aggregate component in the last work step.

Just like the machine connections, the tool interfaces can be designed flexibly and integrated according to customer requirements.

The numerous different interfaces, including ER 32, ER 25, Weldon, saw flange, and the modular tool interface (page 22), give rise to a wide range of possible tool applications.

The most common components are kept in stock so that we can assemble and deliver them quickly.

You benefit from the flexibility afforded by the modular design of the aggregates. Even with the large number of configurations, standard aggregates are always in stock and can be delivered within a short time after the torque arm is mounted.



Requirements and applications differ from one production facility to another. ATEMAG fine-tunes the solutions to match them perfectly.

In our initial meeting, our experts ask about the CNC machine, the material, the application, and the desired machining result. The aggregate is configured and assembled based on these specifications.

The modular design of our CNC aggregates offers numerous significant advantages. The main one lies in the individual adaptation. In our craft production facility, the aggregates are designed for the application area with the components needed for the application and the CNC machine.







### Our Design – Your Advantage

Benefits to you:

- Flexible selection options
- Attractive prices
- Short delivery lead times









# We machine EVERYTHING



Digital fingerprint for high quality standard.

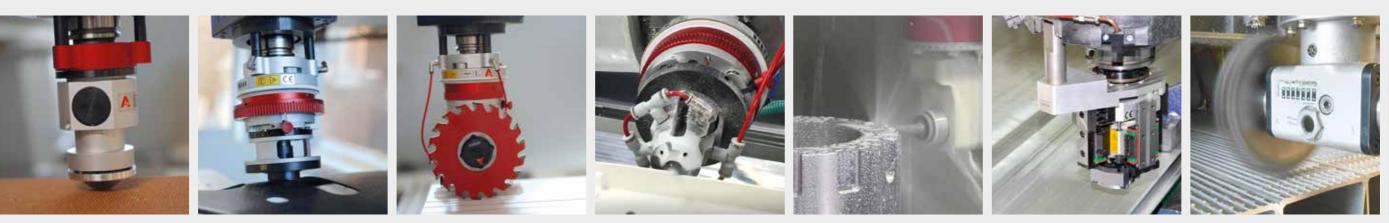
Before leaving our manufactury, every unit - regardless of whether it is a new unit or a serviced unit - is tested in a test run. Vibration data, temperature development and maximum temperature in various speed ranges are checked and digitalized via the AC 4.0 Control Chip.

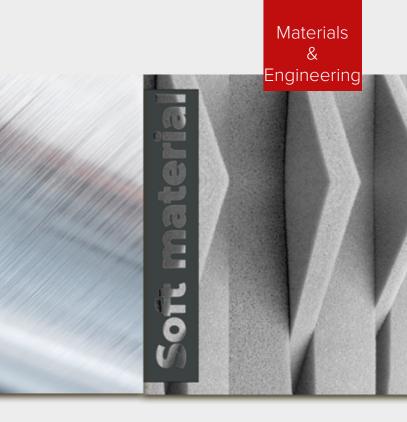
This enables us to guarantee a high quality standard and at the same time assign a digital fingerprint to the respective serial number.

where needs find solutions. With our craft production facility, we at ATEMAG can offer customers individual solutions with the highest quality – **#madeingermany.** 

Our development and design team works with the customer and the customer's partners from the initial idea to the finished product to develop specific and one-of-a-kind products – even with a parts volume of one.

Custom-made aggregates are part of our core business, so we can often come up with concrete implementation ideas right in the initial meeting. ATEMAG is represented in numerous different industry sectors and provides innovative solutions for realizing challenging processes.







































### Angle Heads in 5-Axis Machines!

Maximum time savings in the machining process



Floating aggregate for defined edge machining of contoured parts on 5-axis machines or robot systems



Economical drilling of numerous holes or complex hole patterns in just one machining stroke



Clamex connectors on surfaces possible thanks to low interfering contour



Cutting of soft materials



Constant and defined machining depth despite clamping unevenness and thickness fluctuations



5-axis & aggregate

Maximum space savings in the tool changer

During machining, guides the chips via a chip deflector plate directly to the machine extraction system

Automated grinding of surfaces and edges

Corner notching in tight spaces and underside machining without board reclamping

Stable machining through better support











### Aggregate Lubrication Technology

Grease or Oil?

# Smart Process Analysis Industry 4.0 – In the Aggregate

The AC 4.0 chip is mounted right on the aggregate and collects its process data, which are transmitted in real time directly to the user.

The high-tech sensors record the following data:

- Rotational speed
- Operating hours
- Temperature
- Vibration



The machine operator recognizes when critical parameters are reached and can optimize settings on the aggregate, the tools, and the machine in order to

- maximize the performance of the aggregate,
- lengthen the service life,
- optimize processes, and
- guarantee trouble-free operation.

The software also indicates recommended service intervals and enables timely and planned service for preventing undesired downtimes by means of preventive wear monitoring.



# Adding AC 4.0 . . .

- ... to your ATEMAG aggregate is easy and inexpensive.
- Based on the serial number of your aggregate, we set up the AC 4.0 chip and send it to you.
- You simply retrofit your aggregate with the AC 4.0 chip and sign in to the cloud via registration.

### Grease or Oil?

For mechanical parts that mesh and move relative to one another, there must be a grease or oil film on the metal surfaces to guarantee that there is no direct contact between them. This reduces friction and minimizes wear. The type of lubrication that should be used depends on the type of machining and whether it is for lightor heavy-duty tasks as well as on the rotational speed.

#### Grease

SMART LINE and FUNCTION LINE aggregates are lubricated with high-performance grease. The grease lubrication ensures the reliability of the machining process at moderate torques and high rotational speeds in continuous operation, especially for drilling and routing.

Lubrication of the gear parts plays an important role

in aggregate technology. Insufficient lubrication im-

Proper lubrication improves the efficiency of the

pacts the aggregate service life.

Lifetime lubrication ensures that regular grease refills are not necessary.

### Oil

ULTRA LINE aggregates work with oil bath lubrication. The oil bath lubrication ensures the reliability of the machining process at low rotational speeds and high torques. The gear housing is reliably sealed against dirt ingress and the gearing is continuously

aggregate and prevents downtime.

ATEMAG aggregates are equipped with either

high-performance grease or oil bath lubrication.



relubricated. Machining operations

that use high torgues such as planing or sawing can be performed reliably.

### **Constant Lubrication During Machining**



#### SIMA LUBE

The automated lubricator mounted on the aggregate has a lubricating time that can be individually adjusted to up to 12 months and guarantees regular relubrication of multiple spindles.



### ROTA LUBE

The mechanical device is actuated manually at regular intervals and provides for optimal lubrication of the gear elements at high aggregate rotational speeds.















# The ATEMAG Service Offering Applies to ATEMAG and Other Makes

### Service Hotline

+49 (0) 7832 9997-28 8:00 a.m. – 4:30 p.m. service@atemag.de

**Replacement Parts** 

Emergencies

URGENT !!!

Repair has

priority

When you call the ATEMAG service hotline, you will be speaking to experts who have many years of experience with ATEMAG products. Our experts know where the problem might be - and how it can be solved to the customer's satisfaction.

the following:

- Examination and quotation within 48 hours of receipt of aggregate

- If necessary, loan aggregate until repair is completed

### Conversions for all CNC machines

manufacturer.

Service

Your productivity is guaranteed!

A good aggregate alone is not enough –



Repairs

#### Preventive maintenance & servicing of wear parts

Wear parts are parts that can be found on every aggregate and have to be replaced sooner or later. They include bearing parts, gear parts, toothed belts, seals, and spacer rings.

Regular service and timely replacement of wear parts prevents costly repairs and time-consuming breakdowns. That's why you should incorporate the servicing of your aggregate into your work processes.

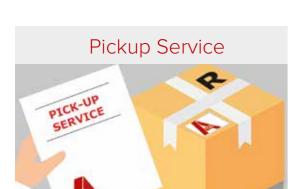
### Is your aggregate defective and in need of repair?

You also need excellent service so that you can rest assured:

Send the aggregate in to us!

After we receive the package, we will promptly examine and analyze it (whether ATEMAG or other make).

You will receive your individual service quotation based on this analysis.



Do you want to order a repair, a conversion, or service from us?

We would be happy to pick up your aggregate.

Contact us by phone at +49 (0)7832 / 9997-28 or email at service@atemag.de.

For pickup, we require the following data: pickup address, name and telephone number of contact, size and weight of package, and pickup time frame.

# Machine Connection



# With the replacement parts service, you receive the individual components that you need. The service includes

- Processing and execution of your individual replacement parts order and replacement parts delivery
- Compilation of replacement parts packages
- We just need the serial number of the aggregate (number stamped into housing) and, optimally, a photo of the required replacement parts.

### Is your aggregate defective and in need of immediate repair? With our emergency service, we can help you minimize your downtime by providing the following services:

- Repair within 5 business days, provided that all
- replacement parts are in stock
- Personal service consultation
- Call us we'll help you right away.
- Do you have a new CNC machine and want to use your aggregate on it?
- We can modify the torque arm on your ATEMAG aggregate so that it can be used on a CNC machine from another





# Product Finder – The Right Aggregate for Every Application

									10				*				<b>S</b>		Ą						<b>1</b> .		
		VARIO CLASSIC	DUO	SOFT GRINDER				QUATTRO	VARIO VISO	EXTRA	EXTRA PLUS	EXTRA 2	SOTTO	SOFT TOUCH PRO	SOFT TOUCH PRO HORI	SOFT TOUCH ONE	SOFT TOUCH 360°	SOFT CUTTER PRO	MONO LOW LEVEL	VERTINEO	HORI PRO	VERTI	MONO	MONO FIX	VARIO VISO	DUO	MEGA- CUTTER
		P. 43	SMART LINE P. 45	P. 44	P. 46	P. 47	P. 48	P. 50	P. 51	P. 52	P. 53	P. 54	FUNCTION P. 55		P. 57	P. 59	P. 58	P. 63	P. 64	P. 62	P. 66	P. 65	P. 69	P. 69	ULTRA LINE P. 68	P. 71	P. 70
	Plastic	· · +5	<i>.</i>	$\bigotimes$	○	<i>⊙</i>	···+0	<ul> <li>○</li> </ul>	$\bigotimes$	$\bigotimes$	1.35	Sq €	$\bigotimes$	<i>⊗</i>	$\bigotimes$	$\bigotimes$	$\bigotimes$	1.05	1.04	1.02	1.00	$\bigotimes$	$\bigotimes$	<i>⊗</i>	$\bigotimes$	$\bigotimes$	$\bigotimes$
	Soft materials																	$\bigotimes$									
Material	GFK CFK*	$\odot$	$\bigotimes$	<i>©</i>	$\bigotimes$	Ø	Ø	<b>S</b>	0	$\bigotimes$				$\bigotimes$		$\otimes$	$\otimes$						$\bigotimes$	$\bigotimes$	$\otimes$	Ø	$\bigotimes$
2	Wood	$\odot$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\odot$	0	0	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	0	$\odot$	$\odot$		$\bigotimes$	0	0	$\odot$	$\bigotimes$	$\bigotimes$	$\otimes$	$\otimes$	$\bigotimes$
	Aluminum*			$\otimes$	$\bigotimes$	$\otimes$	$\odot$	$\odot$						$\bigotimes$		$\otimes$	$\otimes$						$\bigotimes$	$\bigotimes$	$\otimes$	$\otimes$	$\bigotimes$
	Acoustic																					$\otimes$					
	Hinges	$\odot$	$\bigotimes$		$\bigotimes$	0	$\bigotimes$	0	${}^{\odot}$	$\bigotimes$		$\bigotimes$	$\bigotimes$									$\odot$		$\bigotimes$	$\odot$		
Drilling	Connectors		$\bigotimes$		$\bigotimes$	$\bigotimes$	$\bigotimes$	$\otimes$	$\bigotimes$			$\bigotimes$	$\bigotimes$							$\bigotimes$		$\otimes$					
	Dowels	$\odot$	$\otimes$		$\bigotimes$	$\bigotimes$	$\odot$	$\otimes$	$\bigotimes$	$\bigotimes$		$\bigotimes$							$\bigotimes$		$\bigotimes$	$\otimes$					
	Countersinks													$\bigotimes$		$\otimes$											
ding	Peripheral grinding																						$\bigotimes$	$\bigotimes$	$\odot$	$\otimes$	$\bigotimes$
Grinding	Face grinding			$\odot$										$\bigotimes$		$\otimes$							$\bigotimes$	$\bigotimes$	$\odot$	$\odot$	
ing	End milling (light-duty machining)	$\bigotimes$	$\bigotimes$		$\bigotimes$	$\otimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$		$\otimes$	$\odot$				$\bigotimes$						
William	Shell end milling (heavy-duty machining)																						$\bigotimes$	$\bigotimes$	$\otimes$	$\odot$	$\bigotimes$
ing	Circular saw, light-duty	$\otimes$	$\bigotimes$		$\bigotimes$	$\odot$	$\otimes$	$\odot$	$\odot$						$\odot$								$\odot$	$\bigotimes$	$\odot$	$\bigotimes$	$\bigotimes$
Sawing	Circular saw, heavy-duty																						$\otimes$	$\bigotimes$	$\otimes$	$\otimes$	$\bigotimes$
Cutting	Oscillating																	$\bigotimes$									
ing	Axial			$\bigotimes$										$\bigotimes$	0	$\otimes$											
Probing	Radial																$\odot$									<u> </u>	
Planing																							$\bigotimes$			$\otimes$	$\bigotimes$

\* Aggregates for machining of these materials are designed for specific applications

# Aggregates for all situations















# The Right Tool Holder for the Right Aggregate

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			ann <mark>a</mark> 43	(1)S1	E)	x 🚖 📒	50	£.0	<b>1</b>	P	-	0,000	SOFT	SOFT	SOFT	SOFT	SOFT-	MONO	II	HORI	REALERING		MONO		A.
		VARIO CLASSIC	DUO	MONO	MONO FIX	DUO	QUATTRO	VARIO VISO	EXTRA	EXTRA PLUS	EXTRA 2 PLUS	SOTTO	TOUCH PRO	TOUCH PRO HORI	TOUCH ONE	TOUCH 360°	CUTTER PRO		VERTINEO	PRO	VERTI	MONO	FIX	VARIO VISO	DUO
		SMAR P. 43	P. 45	P. 46	P. 47	P. 48	P. 50	P. 51	P. 52	P. 53	P. 54	FUNCTI P. 55	ON LINE P. 56	P. 57	P. 59	P. 58	P. 63	P. 64	P. 62	P. 66	P. 65	P. 69	ULTRA P. 69	A LINE P. 68	P. 71
0	ER 16 Mini																				$\odot$				
-0	ER 20 Mini																				$\odot$				
Ó	ER 25 Mini	$\bigotimes$	$\odot$	$\bigotimes$		$\bigotimes$	$\odot$					$\bigotimes$		$\bigotimes$		$\odot$				$\odot$		$\bigotimes$			$\bigotimes$
Ø	ER 32			$\bigotimes$	$\odot$	$\otimes$	$\otimes$		$\otimes$	$\odot$	$\otimes$				$\bigotimes$							$\bigotimes$	$\bigotimes$		$\bigotimes$
Ŏ	ER40																					$\bigotimes$			$\bigotimes$
0	ER 16 internal								$\bigotimes$	$\odot$															
100	ER 20 internal										$\bigotimes$														
0	ER 25 internal											$\otimes$													
100	Saw blade centering Ø30, Bolt circle Ø45 (4xM5) + Weldon Ø10 mm		$\otimes$	$\bigotimes$		$\bigotimes$	 ⊘							$\bigotimes$						$\odot$		$\bigotimes$			$\bigotimes$
	Saw blade centering Ø30, Bolt circle Ø52 (4xM5) + Weldon Ø10 mm			$\bigotimes$		$\odot$	$\odot$							$\bigotimes$						$\odot$		$\bigotimes$			$\bigotimes$
	ER 25 Mini + saw blade holder Ø30, bolt circle Ø42 (2xØ6 cylindrical pin)	$\odot$			$\odot$			$\bigotimes$															$\bigotimes$	$\odot$	
0	Saw blade centering Ø30, bolt circle Ø45 (4xM5) + bolt circle Ø52 (4xM5) + Weldon Ø10	$\odot$			$\odot$			$\bigotimes$						$\odot$									$\bigotimes$	$\bigotimes$	
1	Tool holder Ø30h5 for tool stem width from 1.5 to 6 mm													$\odot$								$\bigotimes$			$\odot$
Č	mm Tool holder Ø30h5 for tool stem width from 28 to 32 mm													$\bigotimes$								$\bigotimes$			$\bigotimes$
Ő	Tool holder Ø30h5 for tool stem width from 48 to 52 mm																					$\bigotimes$			$\bigotimes$
0	Tool holder Ø30h5 for tool stem width from 58 to 62 mm																					$\bigotimes$			$\bigotimes$
50	Tool holder Ø30h5 for tool stem width from 98 to 102 mm																					$\bigotimes$			$\bigotimes$
	Weldon Ø6 mm																$\bigotimes$	$\bigotimes$	$\bigotimes$		$\odot$				
	Weldon Ø10 mm											$\bigotimes$								$\odot$	$\odot$				
Ø	Weldon Ø12 mm											$\bigotimes$													
	Weldon Ø16 mm								$\bigotimes$																
Õ	Weldon Ø20 mm								$\bigotimes$																
Ő	M8 thread + Ø9H5 centering																	$\bigotimes$							





















For economical production, setup times and downtimes have to be minimized.

With integration of the ATEMAG ET interface, various adapters with various dimensions and sizes can be deployed quickly and flexibly.

For this, the required tool is simply clamped into a device in the adapter and is then ready for use in the aggregate.

The ET interface is secured to the aggregate with four set screws. In both cases, the aggregate is immediately ready for operation.

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# Quickchange systems

Modular Adapter Systems for ...

Tool adapters are quickly exchanged.

Various tool adapters can be inserted into

Tools can be clamped into the adapters in advance so that they are ready for use at all

... Variable Machining

... Higher Productivity

# Typical Applications

Grinding of treads	Smoothing of transit
SOFT GRINDER SMART LINE P. 44	SOFT GRINDER SMART LINE P. 44
Wire-brush texturing of treads	Corner mortising stair treads
MEGA CUTTER ULTRA LINE P. 70	CHISEL MORTISER FUNCTION LINE P. 72
Edge machining of stair treads with surface probingImage: Solution of the surface problem of the surfac	



... Faster Setup

an aggregate.

times.

ATEMAG ET interface



#### sitions

# Baluster hole drilling in stringer or railing



EXTRA FUNCTION LINE P. 52

### g for

# Pocket routing for treads / tread stringers



MONO / DUO / QUATTRO FUNCTION LINE P. 46, 48, 50







#### Clamex grooves in surfaces





DUO

P. 45

VARIO VISO

FUNCTION LINE

P. 51



VARIO CLASSIC SMART LINE P. 43

0°-100° (corner joints)

Miter cuts at any angle between



FUNCTION LINE FOR CLAMEX P. 49

### Clamex grooves at any angle between 0°-100°



VARIO VISO FUNCTION LINE P. 51

### Sanding of edges and surfaces



VARIO CLASSIC

SMART LINE

P. 43



DUO SMART LINE SMART LINE P. 45

MONO-DUO-QUATTRO FUNCTION LINE P. 46, 48, 50

Sawing of back wall grooves





MONO-DUO-QUATTRO FUNCTION LINE P. 46, 48, 50

MONO - DUO ULTRA LINE S. 69, 71

#### Machining w. surface probing: Rounding or chamfering of edges w. constant & defined positioning





SOFT TOUCH ONE FUNCTION LINE

P. 59

SOFT TOUCH PRO FUNCTION LINE P. 56





VARIO CLASSIC SMART LINE

P. 43



DUO SMART LINE P. 45

P. 46, 48, 50



#### Clamex grooves in edges with surface probing for boards with thickness fluctuations



FUNCTION LINE P. 49

### Routing or drilling in edges or recesses / pockets



DUO SMART LINE P. 45

SMART LINE

P. 43

#### Grinding at an angle (miters), e.g., Swiss edge





SOFT GRINDER SMART LINE P. 44

VARIO VISO FUNCTION LINE P. 51



SOFT GRINDER

P. 44



#### Underside machining, concealed hinge cup hole drilling or routing for hinges



### Machining with surface probing: Decorative grooves with constant and defined positioning



SOFT TOUCH ONE FUNCTION LINE P. 59



SOFT TOUCH PRO FUNCTION LINE P. 56



# Typical Applications

Edge machining of curved shapes	Drilling of holes for dowel joints in body elements in nesting process	Routing of glued-on edge banding flush with board	All-in-one Cabineo hole drilling in nesting process	Hole drilling for tw handles / hardware
SOFT TOUCH 360° FUNCTION LINE P. 58	MONO LOW LEVEL FUNCTION LINE P. 64	FLUSH TRIM ROUTING AG- GREGATE FUNCTION LINE P. 72	VERTINEO FUNCTION LINE P. 62	VERTI FUNCTION LINE P. 65
Edge machining with surface probing on 5-axis machines	Edge machining with surface probing on 4-axis machines	Slotting with saw package, e.g., curved counter fronts	Slotting and wire-brushing of visible surfaces	Generation of co surfaces and text
SOFT TOUCH 360° FUNCTION LINE P. 58 P. 60	SOFT TOUCH DUO 360° FUNCTION LINE P. 58	MEGA CUTTER ULTRA LINE P. 70	MEGA CUTTER ULTRA LINE P. 70	MEGA CUTTER ULTRA LINE P. 70
T	E			

14



### twist / furniture are in just one step

### Sawing (formating)



MONO-DUO ULTRA LINE S. 69, 71

### complex exturing grooves

# Routing of Clamex grooves in surfaces with surface probing



SOFT TOUCH PRO FUNCTION LINE P. 49





Door construction

# Typical Applications

Drilling of hardware holes at an angle (e.g., 93° or 97°)	Sanding of edges and surfaces – rough, intermediate, finish sanding	Routing of pockets for door hinges	Routing of corner joints, e.g., round mortise & tenon joints	Mortising of slots for f e.g., for restoration pr
		<u></u>	<b>*</b>	
VARIO CLASSIC MONO FIX SMART LINE FUNCTION LINE P. 43 P. 47	SOFT GRINDER SMART LINE P. 44	DUO FUNCTION LINE P. 48	DUO FUNCTION LINE P. 48	FICHE HINGE AGGRE- GATE FUNCTION LINE P. 73
Conventional lockset recess and forend machining in edges	Highly efficient lockset recess machining in edges	Underside drilling (standard & concealed hinges)	Efficient hole drilling for corner hinges, dowel joints (hole patterns)	Routing or drilling of drainage grooves
EXTRA FUNCTION LINE P. 52	EXTRA PLUS FUNCTION LINE P. 53	EXTRA 2 FUNCTION LINE P. 54 P. 55	HORI PRO FUNCTION LINE P. 66	VARIO CLASSIC SMART LINE P. 43
Notching of internal corners in light cutouts	Decorative groove routing, e.g. V-grooves in surfaces w. probing	Full decorative groove sawing in surfaces with probing	Efficient routing of slat grooves in window shutters	Hole drilling for twis corner hinges / HW
📲 🦞				
EXTRA 2 FUNCTION LINE P. 54 CHISEL MORTISER FUNCTION LINE P. 72	SOFT TOUCH ONE FUNCTION LINESOFT TOUCH PRO FUNCTION LINEP. 59P. 56	SOFT TOUCH PRO HORI FUNCTION LINE P. 57	HORI FUNCTION LINE P. 66	VERTI FUNCTION LINE P. 65
Hole drilling for twist handles, & door hardware, e.g., door handles	Generation of complex surfaces and texturing grooves	Drilling of door frame holes		
VERTI FUNCTION LINE P. 65	MEGA CUTTER ULTRA LINE P. 70	FRAME AGGREGATE FUNCTION LINE P. 67		

### or fiche hinges, n projects

# Sealing groove underside routing, twist handle hols & shiplap rabbets



EXTRA 2 FUNCTION LINE P. 54



SOTTO FUNCTION LINE P. 55

### ng of water res at an angle

### Drilling and routing



QUATTRO FUNCTION LINE P. 50

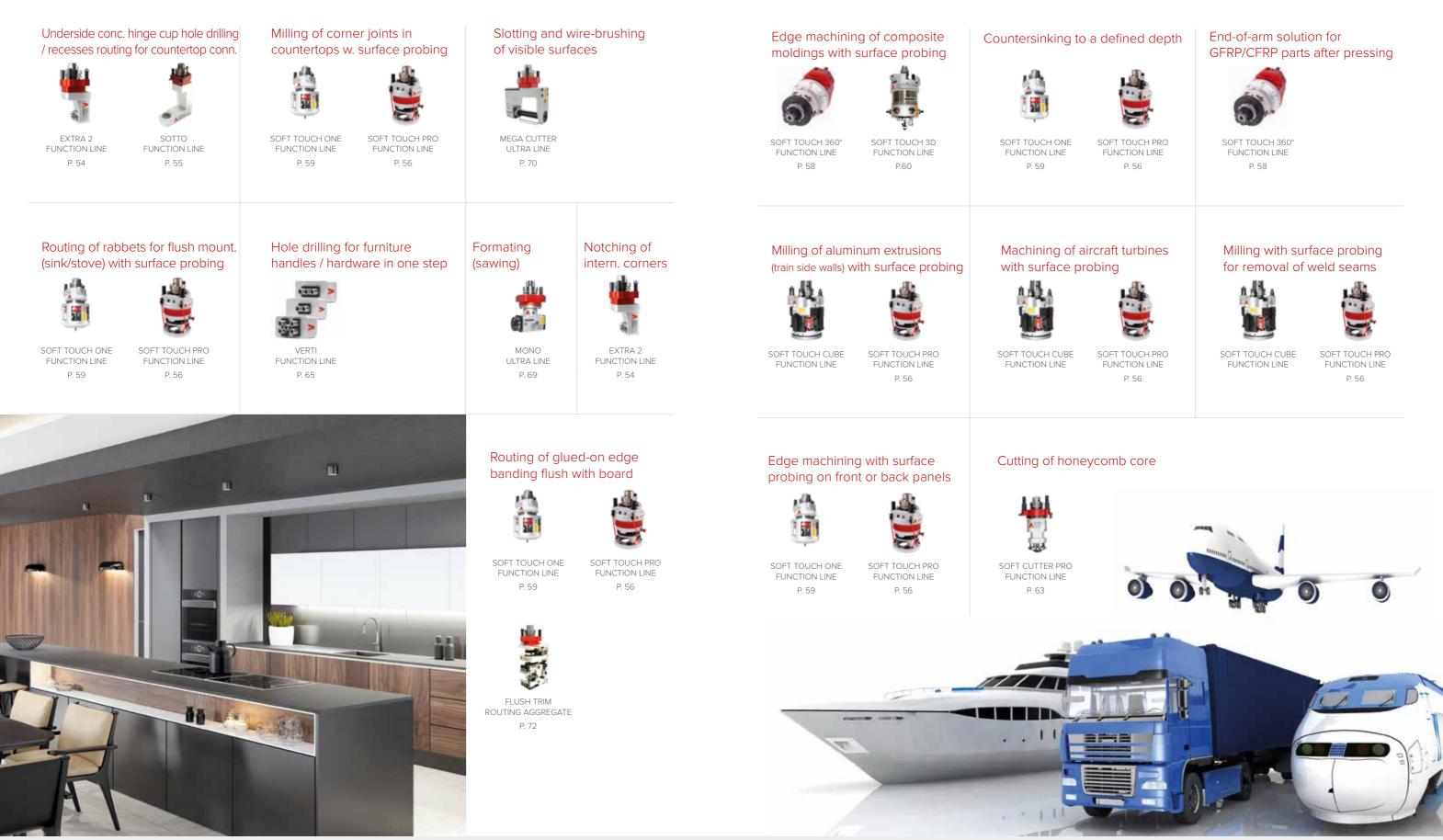
### twist handles / HW in 1 step





### Kitchens

### **Typical Applications**















Slotting and wire-brushing of

Surface and edge machining

THE C

MONO FIX 45°

FUNCTION LINE

Engraving

### Typical Applications



acoustic elements



VERTI FUNCTION LINE P. 65

Glued lam. timber str. elements slotting for steel plate connectors



CHAINSAW AGGREGATE FUNCTION LINE P. 73

visible surfaces	of high-quality surfaces		
		÷	
MEGA CUTTER ULTRA LINE	MEGA CUTTER ULTRA LINE	SPEEDER FUNCTION LINE	
P. 70	P. 70	P. 74	
Sanding of edges & surfaces –	Grinding of chamfers at an angle,	Machining w. surface probing:	>> 7/
rough, intermediate & finish sanding	e.g., Swiss edge & table tops	Routing of decorative grooves	
SOFT GRINDER SMART LINE	SOFT GRINDER SMART LINE	SOFT TOUCH ONE SOFT TOUCH PRO FUNCTION LINE FUNCTION LINE	
P. 44	P. 44	P. 59 P. 56	
Edge machining with surface probing on 4-axis machines	Machining w. surface probing: Inlay grooves	Edge machining of curved shapes	Driving of staples or nails into wood
		a =	1
SOFT TOUCH 360° DUO FUNCTION LINE	SOFT TOUCH ONE SOFT TOUCH PRO FUNCTION LINE FUNCTION LINE	SOFT TOUCH 360° FUNCTION LINE	PNEUMATIC NAIL GUN
P. 58	P. 59 P. 56	P. 58	
			Notching inside corners in cutouts
and the second	and the second s		Culouis

Planing, grinding, & brushing



# Production of hole patterns for

### Sawing at high end of motor spindle performance range



REDUCTION GEAR FUNCTION LINE

### Underside machining for drilling and routing



UNDERSIDE AGGREGATE FUNCTION LINE



# Typical Applications

Acoustic elements

Slotting of wall or ceiling elements

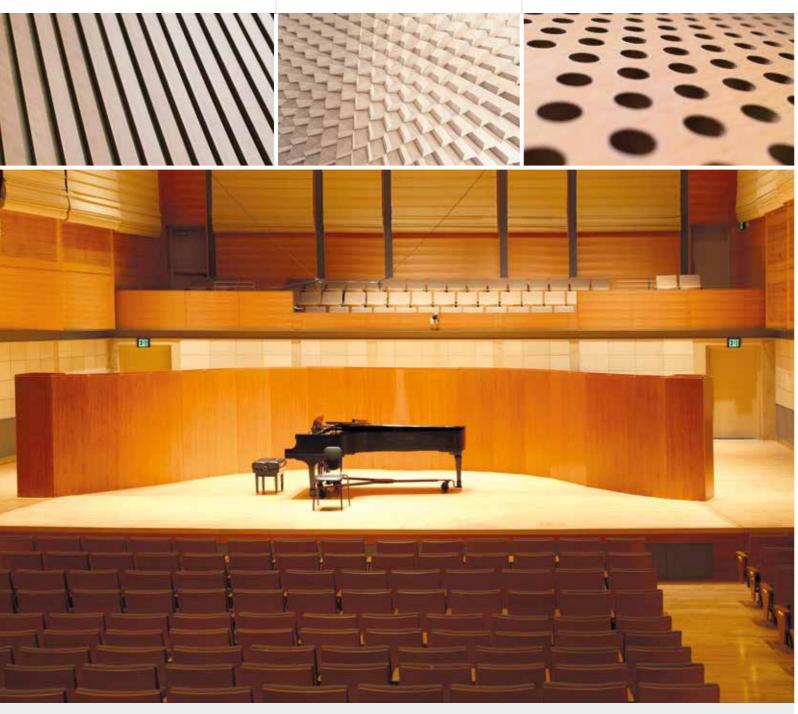


MEGA CUTTER ULTRA LINE P. 70 Cutting of polyester, foam, or other soft core materials

SOFT CUTTER PRO FUNCTION LINE P. 63 Efficient hole pattern drilling for acoustic elements



VERTI FUNCTION LINE P. 65





ATEMAG was founded in 2004 to meet the needs of the wood processing industry for products with exceptional quality and outstanding customer service.

We want to supply products that ...

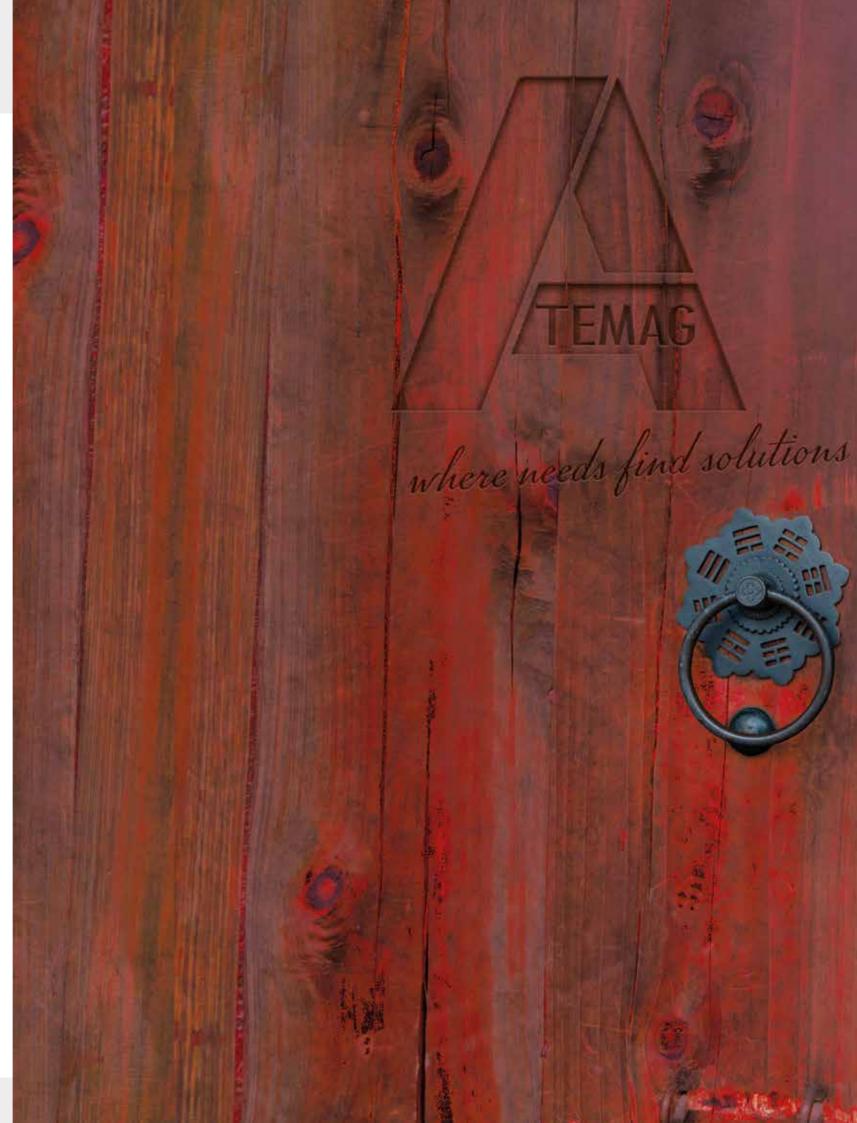
- .... are individually developed and coordinated according to customer needs and ....
- ... offer added value to each customer.

Craft production of aggregates at ATEMAG is nothing like an industrial production line. Ever since the company was founded, ensuring the uniqueness of each aggregate has been a priority. All bearings, gearwheels, and spacer rings are optimally coordinated.

Historically and owing to our quality promise, every aggregate is crafted by hand. Our aggregate specialists assemble, test, calibrate, document, and confirm the quality with their signatures.

#### ATEMAG

Aggregate Technologie und Manufaktur AG



#### FUNCTION LINE

ggregate for efficient drilling or dowel joints in body thanks to especially compact

#### NCTION LINE

ggregate for economical f corner hinge holes in window tion with a high feed rate of 5

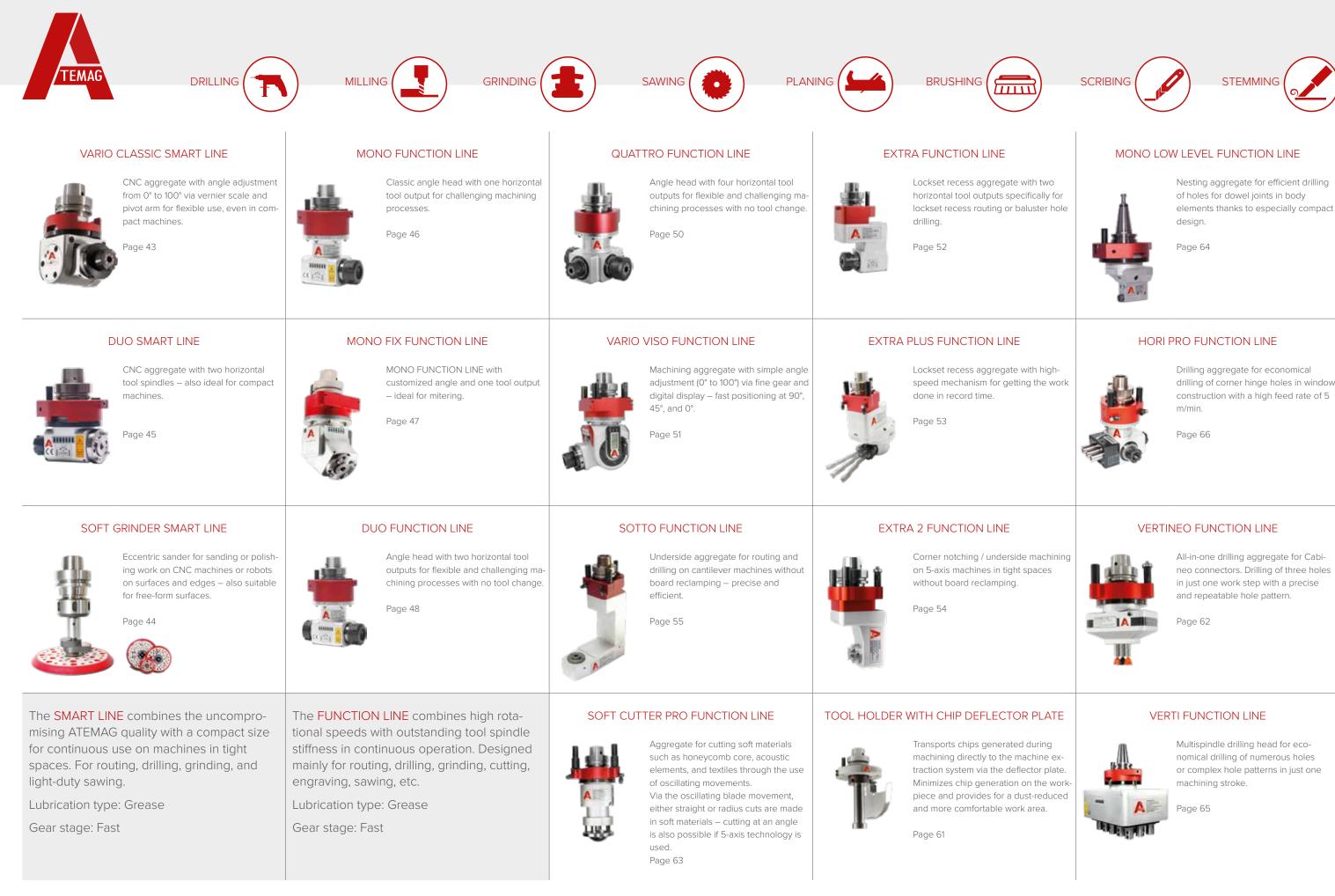
#### INCTION LINE

e drilling aggregate for Cabinectors. Drilling of three holes ne work step with a precise eatable hole pattern.

#### CTION LINE

ndle drilling head for ecol drilling of numerous holes blex hole patterns in just one ing stroke.

55





# STEMMING

#### MONO LOW LEVEL FUNCTION LINE

of holes for dowel joints in body elements thanks to especially compact

### SOFT TOUCH PRO FUNCTION LINE



Floating aggregate for constant and defined machining depth despite clamping unevenness and thickness fluctuations. Routing, drilling, grinding, profiling, and sawing with surface probing (vertical and horizontal). Diverse machining possibilities thanks to modular system allowing individual adaptation to different requirements Information on p. 56.

### SOFT TOUCH PRO HORI FUNCTION LINE



90-degree gearbox with surface probing for groove sawing combined with copying unit from the SOFT TOUCH PRO for precise and accurate groove depths.

Page 57

### SOFT TOUCH ONE FUNCTION LINE



Floating aggregate for constant and defined machining depth despite clamping unevenness and thickness fluctuations.

Page 59

### DUO ULTRA LINE

Page 69



Aggregate for heavy-duty sawing ideal for large saw blades, roughing cutters, profile cutters, and grinding tools with

MONO ULTRA LINE

grinding tools, etc.

MONO FIX ULTRA LINE

Page 69

내

90-degree gearbox ideal for large saw

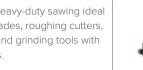
blades, roughing cutters, profile cut-

ters, texturing brushes, planing tools,

Aggregate for heavy-duty sawing idea

for large saw blades, roughing cutters

profile cutters, and grinding tools.





#### FICHE HINGE AG



Multispindle drilling head for economical drilling of numerous holes

SOFT TOUCH 360° FUNCTION LINE



Floating aggregate for defined edge machining of contoured parts on 5-axis machines or robot systems.



VARIO VISO ULTRA LINE

Digitally adjustable angle head (±100°) for heavy-duty machining in miters – fast positioning at 90°, 45°, and 0°.







Drilling aggregate for economical drilling of corner hinge holes in window construction with a high feed rate of 5



All-in-one drilling aggregate for Cabineo connectors. Drilling of three holes in just one work step with a precise and repeatable hole pattern.

### VERTI FUNCTION LINE

machining stroke.







### Product overview

MEGA CUTTER ULTRA LINE         Image: CNC machining aggregate for planing or with saw package – tool spindle positioned at 90°.         Page 70	FLUSH TRIM ROUTING AGGREGATE	CHISEL MORTISER AGGREGATE	SOFT TOUCH COMPACT         Floating aggregate for constant and defined machining depth.         Page 60
The ULTRA LINE stands for a solid design and heavy-duty machining and, with use of the ideal motor spindle torque, is perfect for large saw blades, roughing cutters, profile cutters, texturing brushes, planing tools, grinding tools, etc. Lubrication type: Oil Gear stage: Reduction	CHAINSAW AGGREGATE P. 73 Aggregate with chainsaw for joinery work on CNC machines.	ROTARY CUTTER AGGREGATE	SOFT TOUCH 3D FUNCTION LINEFloating aggregate for defined edge machining of contoured parts on 5-axis machines or robot systems.Page 60
SOLUTIONS FOR CLAMEX CONNECTORS         Vertical Clamex groove routing in surfaces with gentle machining using a standard ATEMAG aggregate – all-in-one system solution.         Page 49	SCORING & DRAG KNIFE AGGREGATE P. 75 Aggregate with razor-thin blade for cutting thin materials.	FRAME AGGREGATE	BELT SANDING AGGREGATE Efficient sanding of concave, convex, and flat edges. Page 74
FICHE HINGE AGGREGATE Aggregate for mortising of slots for fiche hinges. Page 73	SPEEDER FUNCTION LINE	TRIO FUNCTION LINE	SPECIAL SOLUTIONS Nothing's impossible. When standard aggregates reach their limits, ATEMAG takes a personalized approach. With our experience and development com- petence spanning the entire process from initial consultation to realization, we can ex- pertly handle customer-specific challenges. We look forward to your tasks!



#### SOFT TOUCH PRO FUNCTION LINE



Floating aggregate for constant and defined machining depth despite clamping unevenness and thickness fluctuations. Routing, drilling, grinding, profiling, and sawing with surface probing (vertical and horizontal). Diverse machining possibilities thanks to modular system allowing individual adaptation to different requirements. Information on p. 56.

#### SOFT TOUCH PRO HORI FUNCTION LINE



90-degree gearbox with surface probing for groove sawing combined with copying unit from the SOFT TOUCH PRO for precise and accurate groove depths.

Page 57

#### SOFT TOUCH ONE FUNCTION LINE



Floating aggregate for constant and defined machining depth despite clamping unevenness and thickness fluctuations.

Page 59

#### SOFT TOUCH 360° FUNCTION LINE



Floating aggregate for defined edge machining of contoured parts on 5-axis machines or robot systems.

Page 58







and vision have expanded:

... every industry

... every material

... every challenge

obvious:

where needs find solutions

the solution, because . . ..

- Since 2019 ATEMAG's goals
- ATEMAG doesn't just supply aggregates; ATEMAG supplies solutions for . . ..
- Given these goals, the new company slogan is

- This philosophy is part of our company culture and is what motivates the ATEMAG team.
- For our customers, however, the slogan is a promise. No matter what challenge you present us with, we will work with you to find
- .... our customers are our strongest partners.

### VARIO CLASSIC SMART LINE

CNC aggregate with angle adjustment from 0° to 100° via vernier scale and pivot arm for flexible use, even in compact machines

Machining capabilities: Drilling, routing, grinding, and light-duty sawing

Typical applications:

- Doors: Drilling of hardware holes at an angle (e.g., 93° or 97° Anuba hinges) • Furniture making, exhibition stand construction, interior build-out: Clamex grooves in
- boards (90°) or at any angle
- Miter cuts at any angle (corner joints)
- Grinding of edges

• ...

15,000 rpm
15,000 rpm
1:1
20 Nm
max. 85°C
360°
0° - 100°
Analog
1 / variable
Grease / Lifetime lubrication Detailed information on page 14



Tool connections

- ER 25 Mini with saw blade flange (K1)
- K2 saw blade flange
- Modular interface

 Other connections on request Overview of most commonly used connections: Page 20.

### SMART LINE









Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.





SMART LINE



### SOFT GRINDER SMART LINE

Eccentric sander for sanding or polishing work on CNC machines or robots on surfaces and edges – also suitable for free-form surfaces.

Machining capabilities:

- Sanding of edges and surfaces rough, intermediate, and finish sanding ...
- Grinding at an angle (miters), e.g., Swiss edge
- Polishing of various materials, e.g., Corian

• ...

Materials: Veneered boards, solid wood, MDF, mineral materials, etc.

#### **Technical Specifications**

Max. input speed:	12,000 rpm						
Max. output speed:	12,000 rpm						
Gear ratio:	1:1						
Permissible operating tem- perature:	85°C						
Machining angle:	0°						
Number of tool outputs:	1 / fixed						
Max. floating capacity:	4 mm						
Probing force:	1.2 - 2.4 kg						
Eccentric stroke:	5						



The SOFT GRINDER SMART LINE can be clamped in all angular aggregates units with



Tool connection The sanding discs are available with diameters of • ø76 mm • ø125 mm • ø150 mm and can be exchanged.



Machine connection: The eccentric sanding unit is simply clamped into an existing tool holder or a CNC aggregate.



### **DUO SMART LINE**

CNC aggregate with two horizontal tool spindles – Also ideal for compact machines

Machining capabilities: Drilling, routing, grinding, and light-duty sawing

Typical applications: Furniture making, exhibition stand construction, interior build-out

- Clamex grooves in boards (90°)
- Dowel hole drilling in edges
- Routing in edges or recesses
- Grinding of edges

• ...

Technical Specifications

Max. input speed:	8,000 rpm
Max. output speed:	12,000 rpm
Gear ratio:	1:1.48
Max. torque:	15 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page: 14



Tool connections

- ER 25
- S1 saw blade flange
- Other connections on request
- Overview of most commonly used connections: Page 20.

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Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.





MONO

### MONO FUNCTION LINE

Classic angle head with one horizontal tool output for challenging machining processes

Machining capabilities: Drilling, routing, grinding, and sawing

Typical applications:

- Furniture making: Dowel hole drilling in edges, Clamex grooves in boards, sawing of back wall grooves
- Doors: Routing of recesses for connectors (TECTUS)
- Windows: Routing of joints, e.g., round mortise and tenon joints
- ...

#### **Technical Specifications**

Max. input speed:	10,000 rpm with Rota Lube: max. 12,100 rpm
Max. output speed:	15,000 rpm with Rota Lube: max. 18,000 rpm
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	1/fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page: 14



### MONO FIX FUNCTION LINE

MONO FUNCTION LINE with customized angle and one tool output – Ideal for mitering

Machining capabilities: Drilling, routing, grinding, and light sawing

- Typical applications:
- Doors: Drilling of hardware holes at an angle (e.g., 93° or 97° Anuba hinges)
- Clamex grooves
- Sawing of miter cuts at 45° for corner joints
- Routing of holes for miter joint connectors

• ...

15,000 rpm
15,000 rpm
1:1
20 Nm
max. 85°C
360°
0-100°
1 / fixed
Grease / Lifetime lubrication Detailed information on page 14



#### Tool connections

- ER 25
- ER 32
  - S1 saw blade flange
  - Modular interface
  - Other connections on request
  - Overview of most commonly used connections: Page 20.



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

Tool connections:

- ER 25 and saw blade flange (K1)
- K2 saw blade flange
- Modular interface
- Other connections on request Overview of most commonly used connections: Page 20.



### FUNCTION LINE









Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.





### **DUO FUNCTION LINE**

Angle head with two horizontal tool outputs for flexible and challenging machining processes with no tool change

Machining capabilities: Drilling, routing, grinding, and light-duty sawing

Typical applications:

- Time savings in the process and space savings in the tool changer (even with 5 axes)
- Furniture making: Dowel hole drilling in edges, Clamex grooves in boards, sawing of back wall grooves
- Doors: Routing of recesses for connectors (TECTUS);
- Windows: Routing of joints, e.g., round mortise and tenon joints

#### Technical Specifications

Max. input speed:	10,000 rpm With Rota Lube: max. 12,100 rpm
Max. output speed:	15,000 rpm With Rota Lube: max. 18,000 rpm
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page: 14



### SOLUTIONS FOR CLAMEX CONNECTORS

Vertical Clamex groove routing in surfaces with gentle machining using a standard ATEMAG aggregate – all-in-one system solution

The MONO, DUO, and QUATTRO standard aggregates allow the Clamex connector to be positioned at any point on the board thanks to the vertical position of the Clamex groove side milling cutter and the spindle design of the aggregate. For diagonal positioning of the groove, the MONO FIX FUNCTION LINE (fixed angle) or the VARIO (variable angle) can be used. The grooving cutter tool of the respective aggregate is plunged into the surface during machining and moved sideways at a precise depth.

#### **Technical Specifications**

Max. input speed:	max. 10,000 rpm with Rota Lube: max. 12,100 r
Max. output speed:	max. 15,000 rpm with Rota Lube: max. 18,000
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page 14





On request, we can supply any aggregate used for Clamex groove routing with the Clamex routing tool in a system. Take advantage of our all-in-one system solution and request a quote for your Clamex system solution.



- Tool connections:
- ER 25 ER 32
- S1 saw blade flange
- Modular interface
- Other connections on request
- Overview of most commonly used connections: Page 20.



Machine connection: ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely

matched to the technical requirements of the CNC machine or robot. On page 5 under "Torque arm," you

will find a selection of companies for whose machines we supply connections.



### FUNCTION LINE





rpm

) rpm





### Floating Aggregate for Clamex Connectors

Grooves for Clamex connectors can also be routed into edges and surfaces of workpieces that have thickness fluctuations.

The SOFT TOUCH PRO FUNCTION LINE, which is equipped with a special probe, is suitable for this type of machining.





### QUATTRO FUNCTION LINE

Angle head with four horizontal tool outputs for flexible and challenging machining processes with no tool change

Machining capabilities: Drilling, routing, grinding, and light sawing

Typical applications:

- 5-axis: Maximum time savings in the process and space savings in the tool changer
- Furniture making: Dowel hole drilling in edges, Clamex grooves in boards, sawing of back wall grooves
- Doors: Routing of recesses for connectors (TECTUS);
- Windows: Routing of joints, e.g., round mortise and tenon joints

#### **Technical Specifications**

Max. input speed:	10,000 rpm with Rota Lube: max. 12,100 rpm
Max. output speed:	15,000 rpm with Rota Lube: max. 18,000 rpm
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	4 / fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page: 14



QUATTRO

### VARIO VISO FUNCTION LINE

Machining aggregate with simple angle adjustment (0° to 100°) via fine gear and digital display – Fast positioning at 90°, 45°, and 0°

Machining capabilities: Drilling, routing, grinding, and light sawing

- Typical applications:
- Doors: Drilling of hardware holes at an angle (e.g., 93° or 97° Anuba hinges)
- Furniture making, exhibition stand construction, interior build-out:
- Clamex grooves in miters
- Miter cuts at any angle (corner joints)

Grinding of edges

Technical Specifications

Max. input speed:	15,000 rpm
Max. output speed:	15,000 rpm
Gear ratio:	1:1
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	0 - 100°
Angle display:	Digital
Number of tool outputs:	1 / variable
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14



### Tool connections:

- ER 25
- ER 32
- S1 saw blade flange
- Modular interface
- Other connections on request
- Overview of most commonly used connections: Page 20.



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

Tool connections:

- ER 25 Mini and saw blade flange (K1)
- K2 saw blade flange
- Modular interface
- Other connections on request Overview of most commonly used connections: Page 20.



### FUNCTION LINE









Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.



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EXTRA

### EXTRA FUNCTION LINE

Lockset recess aggregate with two horizontal tool outputs specifically for lockset recess routing or baluster hole drilling

The design permits the use of long tools with a small interference circle diameter – optionally also with a guide rail for tool stabilization for deep drilling.

Typical applications:

- Doors: Lockset recess routing and forend routing in edges
- Stairs: Baluster hole drilling in stringer or railing
- Furniture making: Dowel hole drilling and drilling of holes for insert boards • ...

#### **Technical Specifications**

Max. input speed:	10,000 rpm with Rota Lube: max. 12,100 rpm
Max. output speed:	15,000 rpm with Rota Lube: max. 18,000 rpm
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	4 x 90°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page: 14



### EXTRA PLUS FUNCTION LINE

Lockset recess aggregate with high-speed mechanism for getting the work done in record time.

The high-speed mechanism in the oscillating production process guarantees a time savings of at least 50% compared with conventional lockset recess milling. Typical applications:

Industrial door production on CNC machines for lockset recess and forend machining

Technical Specifications	
Max. input speed:	10,000 rpm
Max. output speed:	15,000 rpm
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	4 x 90°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Rota Lube – Lifetime lubrication Detailed information on page: 14

#### Tool connection ER 16 ER 32 Modular interface • Weldon

- Other connections on request
- Overview of most commonly used connections: Page 20.



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

Tool connections: • ER32 ER16 Overview of most commonly used connections: Page 20.



### FUNCTION LINE





Pocket width: 76 mm for cutter ø16 mm with extension length 125 mm



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.





### **EXTRA 2 FUNCTION LINE**

Corner notching / underside machining on 5-axis machines in tight spaces without board

Machining capabilities: Drilling and routing

Typical applications:

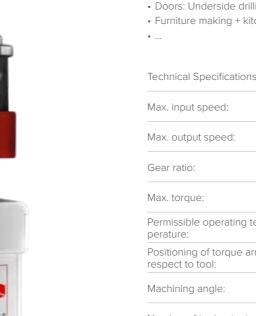
- Windows: Underside routing of sealing grooves
- Doors: Underside drilling (standard and concealed hinges), notching of internal corners
- Furniture making and kitchens: Concealed hinge cup hole drilling / routing for hinges • ...

#### **Technical Specifications**

Max. input speed:	8,000 rpm
Max. output speed:	12,100 rpm
Gear ratio:	1:1.48
Max. torque:	4 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	4 × 90°
Machining angle:	90°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14



EXTRA 2



### SOTTO FUNCTION LINE

Underside aggregate for routing and drilling on cantilever machines without board reclamping – Precise and efficient

#### Machining capabilities: Drilling and routing

Typical applications:

Lubrication:

- Windows: Underside routing of sealing grooves
- Doors: Underside drilling (standard and concealed hinges)
- Furniture making + kitchens: Concealed hinge cup hole drilling or routing for hinges

Technical Specifications	
Max. input speed:	15,000 rpm
Max. output speed:	15,000 rpm
Gear ratio:	1:1
Max. torque:	5 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	4 × 90°
Machining angle:	180°
Number of tool outputs:	1/ fixed

Grease / Lifetime lubrication Detailed information on page 14



#### Tool connection

• Spindle for corner notching tool

- ER32
- ER 20 internal
- Other connections on request
- Overview of most commonly used connections: Page 20.



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

• Weldon

Tool connections:

- ER 25 internal
- Other connections on request
- Overview of most commonly used connections: Page 20.



### FUNCTION LINE

SOTTO







Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.







### SOFT TOUCH PRO FUNCTION LINE

Floating aggregate for constant and defined machining depth despite clamping unevenness and thickness fluctuations

Typical applications:

- Facade installation: Routing of V-grooves in ALUCOBOND
- Stairs: Edge machining of stair treads
- Furniture making: Clamex P connectors in edges
- Kitchens: Routing of recesses in countertops / doors: Decorative grooves
- Formwork installation: Drilling at a defined depth
- Automotive and aerospace: Edge machining of molded parts and countersinking

#### **Technical Specifications**

Max. input speed:	18,000 rpm
Max. output speed:	18,000 rpm
Gear ratio:	1:1
Max. torque:	10 Nm
Permissible operating tem- perature:	max. 85°C
Machining angle:	0°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14
Floating capacity:	10 mm
Adjustment range:	10 mm
Setting precision:	0.01 mm
Probing direction:	Axial





Routing, drilling, grinding, profiling, and sawing with surface probing (vertical and horizontal) Diverse machining possibilities thanks to modular system allowing individual adaptation to different requirements.



Tool connection: Modular interface

Other connections on request

Overview of most commonly used connections: Page 20.



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

### SOFT TOUCH PRO HORI FUNCTION LINE

90° gearbox w. surface probing for groove sawing with copying unit from SOFT TOUCH PRO (p. 56) for precise and accurate groove depths

Fast feed rate due to high cutting speed

Machining capabilities: Sawing

Typical applications:

• Doors: All types of decorative grooves

• Facades: V-grooves

Technical Specifications	
Max. input speed:	8,100 rpm
Max. output speed:	12,000 rpm
Gear ratio:	1:1.48
Max. torque:	10 Nm
Permissible operating tem- perature:	max. 85°C
Floating capacity:	10 mm
Adjustment range:	7 mm
Setting precision:	0.01 mm
Machining angle:	90°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14



Tool connections:

- ATlock
- S1 saw blade flange
- Modular interface
- Other connections on request
- Overview of most commonly used connections: Page 20.



ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.

On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.



### FUNCTION LINE

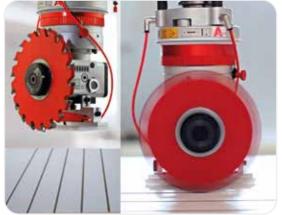


















### SOFT TOUCH 360° MONO FUNCTION LINE

Floating aggregate for defined edge machining of contoured parts on 5-axis machines or robot systems

Typical applications:

- Musical instruments: Edge machining of guitar bodies
- Furniture making: Edge machining of contoured shapes
- Routing of glued-on edge banding flush with board on 5-axis machines Industrial robot cells: End-of-arm solution for edge machining
- of GFRP/CFRP parts after pressing
- ...

#### Technical Specifications

Max. input speed:	12,000 rpm
Max. output speed:	12,000 rpm
Gear ratio:	1:1
Max. torque:	10 Nm
Permissible operating tem- perature:	max. 85°C
Machining angle:	0°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14
Probing direction:	Radial
Floating capacity:	5 mm



Copying function for compensating for shape and position tolerances in radial axis direction of molded parts, e.g., chamfers and radii, or for deburring.

Tool connections:

### SOFT TOUCH 360° DUO FUNCTION LINE

With two tool outputs

Furniture making and interior build-out: Routing of glued-on edge banding flush with board on 4-axis machines





16 000000

 Modular interface Other connections on request Overview of most commonly used connections: Page 20.

Machine connection: ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot. On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

### SOFT TOUCH ONE FUNCTION LINE

Floating aggregate for constant and defined machining depth despite clamping unevenness and thickness fluctuations

#### Typical applications:

- Facade installation: Routing of V-grooves in ALUCOBOND
- Stairs: Edge machining of stair treads
- Doors: Decorative grooves
- Kitchens: Routing of recesses in countertops
- Formwork installation: Drilling at a defined depth
- Automotive and aerospace: Edge machining of molded parts and countersinking

Technical Specifications	
Max. input speed:	18,000 rpm
Max. output speed:	18,000 rpm
Gear ratio:	1:1
Max. torque:	10 Nm
Permissible operating tem- perature:	max. 85°C
Machining angle:	0°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14
Floating capacity:	10 mm
Adjustment range:	70 mm
Setting precision:	0.01 mm
Probing direction:	Axial

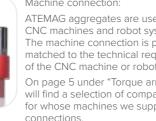


Tool connections: • ER 32

- Other connections on request
- Overview of most commonly used connections: Page 20.

58





### FUNCTION LINE









Routing – Drilling – Sawing (horiz.) – Grinding for standard applications



Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.







### SOFT TOUCH COMPACT

Floating aggregate for constant and defined machining depth

Typical applications are the same as those of the SOFT TOUCH PRO FUNCTION LINE and the SOFT TOUCH ONE FUNCTION LINE, but are designed for use when space is limited due to the requirements of the application or the machine characteristics. The height or diameter is adapted.

#### Technical Specifications

Max. input speed:	18,000 rpm
Max. output speed:	18,000 rpm
Gear ratio:	1:1
Max. torque:	10 Nm
Permissible operating temperature:	max. 85°C
Number of tool outputs:	1 / fixed
Floating capacity:	6 mm
Adjustment range:	4 mm
Setting precision:	0.01 mm
Lubrication:	Grease / Lifetime lubrication



### Tool holder with chip deflector plate...

... transports chips generated during machining directly to the machine extraction system via the deflector plate.

Minimizes chip generation on the workpiece and provides for a dust-reduced and more comfortable work area.

The tool holder is designed individually according to the customer's specifications.

#### **Technical Specifications**

Max. input speed:	15,000 rpm
Max. output speed:	15,000 rpm
Gear ratio:	1:1
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Machining angle:	0°
Number of tool outputs:	1/ fixed
Lubrication:	Grease

### SOFT TOUCH 3D FUNCTION LINE

Floating aggregate for defined edge machining of contoured parts on 5-axis machines or robot systems

Extension of the SOFT TOUCH 360° FUNCTION LINE floating aggregate (p. 58) with additional axial probing.

#### Technical Specifications

Max. input speed:	12,000 rpm
Max. output speed:	12,000 rpm
Gear ratio:	1:1
Max. torque:	10 Nm
Permissible operating temperature:	max. 85°C
Floating capacity:	axial: 7.5 mm / radial 5 mm
Machining angle:	0°
Adjustment range:	5 mm
Setting precision:	0,01 mm
Probing direction:	axial and radial
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication







Tool connection:

ER 25

ER 32

- Modular interface
- Tool arbor according to customer's specifications

• Other connections on request

Overview of most commonly used connections: Page 20.

FUNCTION LINE

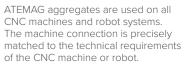
### FUNCTION LINE







Machine connection:









VERTINEO

### VERTINEO FUNCTION LINE

All-in-one drilling aggregate for Cabineo connectors. Drilling of three holes in just one work step with a precise and repeatable hole pattern

Machining capabilities: Drilling of Cabineo holes

- Typical applications:
- Furniture production

HIMMAGINATION HAMMAG

#### **Technical Specifications**

Max. input speed:	6,500 rpm
Max. output speed:	6,500 rpm
Gear ratio:	1:1
Max. torque:	3 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	0°
Number of tool outputs:	3 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14



#### Tool connection: Weldon Ø6 mm

Overview of most commonly used connections: Page 20.



ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot. On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

VERTINEO including tools as a system solution:

- Suitable for all common board materials
- Nearly flat hole bottom
- Precutter design for accurate hole drilling





### SOFT CUTTER PRO FUNCTION LINE

Aggregate for cutting soft materials such as honeycomb core, acoustic elements, and textiles through the use of oscillating movements

#### Machining capabilities: Cutting of straight-edged or radius cutouts

- Typical applications:
- Textile: Cutting of fabrics or textiles (e.g., leather, felt, etc.)
- Cutting to size of honeycomb cores for doors, stair construction, exhibition stand construction, or recreational vehicle construction
- Acoustic elements: Cutting of polyester, foam, or other sound-absorbing materials
- Aerospace and boat building: Cutting of honeycomb core

### **Technical Specifications**

Max. input speed:	6,000 rpm
Max. output speed:	9,000 rpm
Gear ratio:	1:1.48
Max. torque:	8 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	0°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14
Amplitude:	4 mm
Frequency:	150 Hz



Tool connection: • Weldon Ø6 mm Overview of most commonly used connections: Page 20.



### FUNCTION LINE







Via the oscillating blade movement, either straight or radius cuts are made in soft materials – cutting at an angle is also possible if 5-axis technology is used





#### Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.







### MONO LOW LEVEL FUNCTION LINE

Nesting aggregate for efficient drilling of holes for dowel joints in body elements thanks to especially compact design

Machining capabilities:

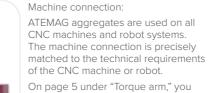
Drilling of dowel holes of diameter 6 or 8 mm in boards of thickness 16 mm or greater. Typical applications: Furniture production on nesting machines.



Max. input speed:	6,800 rpm
Max. output speed:	6,000 rpm
Gear ratio:	1: 0.88
Max. torque:	1 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	1/fixed
Lubrication:	Grease / Lifetime lubrication Detailed information on page 14



Tool connection • M8 with Ø9H5 centering hole Overview of most commonly used connections: Page 20.



will find a selection of companies for whose machines we supply connections.

Tool connection:

VERTI FUNCTION LINE

and the spindle arrangement can vary accordingly.

Typical applications:

**Technical Specifications** 

Max. input speed:

Max. output speed:

Permissible operating tem-

Positioning of torque arm with

Gear ratio:

Max. torque:

perature:

respect to tool:

Machining angle:

Lubrication:

Number of tool outputs:

or complex hole patterns in just one machining stroke

Acoustic elements: Economical production due to fewer drilling strokes

10,000 rpm

10,000 rpm

1:1

360°

0°

1 - 5 Nm

max. 85°C

2–49 / fixed

Grease / Sima Lube

Detailed information on page 14

• Weldon Ø10 mm

• Other connections on request

Overview of most commonly used connections: Page 20.

Requ	lest quote:	
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### FUNCTION LINE

Multispindle drilling head for economical drilling of numerous holes

The design is always application-based. The number of spindles, the grid dimensions,

• Furniture, windows, and doors: Holes for twist handles or hardware in just one step



VERTI





Machine connection:

ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot.







**Technical Specifications** 

Max. input speed:

Max. output speed:

Permissible operating tem-

Positioning of torque arm with 360°

Gear ratio:

Max. torque:

perature:

respect to tool:

Lubrication:

Machining angle:

Number of tool outputs:

FUNCTION LINE



### HORI PRO FUNCTION LINE

Drilling aggregate for economical drilling of corner hinge holes in window construction with a high feed rate of 5 m/min

5,000 rpm

7,500 rpm

1:1.48

1 - 20 Nm

max. 85°C

2–10 / fixed

Grease / Lifetime lubrication

Detailed information on page 14

90°

Typical applications: Windows: Efficient drilling of holes for corner hinges and dowels



Spindle arrangement and number of spindles according to customer specifications

- Tool connection:
- Weldon Ø 10 mm
- ER 25
- S1 saw blade flange
- Modular interface
- Other connections on request
- Overview of most commonly used connections: Page 20.



Machine connection: ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements

of the CNC machine or robot. On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

### FRAME AGGREGATE

Angle head for machining of door frames

Hole routing for frame connectors, also known as miter joint connectors, for bracing the individual mitered parts of door frames.

#### Technical Specifications

Max. input speed:	15,000 rpm
Max. output speed:	10,000 rpm
Gear ratio:	1:0.676
Max. torque:	1.5 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Lifetime lubrication

### TRIO FUNCTION LINE

DUO FUNCTION LINE with an additional vertical tool output

#### Technical Specifications

Max. input speed:	10,000 rpm
Max. output speed:	15,000 rpm
Gear ratio:	1:1.48
Max. torque:	20 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	horizontal and vertical
Number of tool outputs:	3 / fixed
Lubrication:	Grease / Lifetime lubrication



### FUNCTION LINE









FUNCTION LINE

TRIO



ULTRA LINE

### VARIO VISO



Digitally adjustable angle head (±100°) for heavy-duty machining in miters – fast positioning at 90°, 45°, and 0°

Machining capabilities: Sawing, drilling, routing, planing, and grinding Typical applications: Furniture industry, exhibition stand construction, and interior build-out:

• Solid wood machining with large saw blade diameter

• Miter cuts at any angle with a swivel range of 200° (±100°)

#### **Technical Specifications**

Max. input speed:	13,760 rpm
Max. output speed:	15,000 rpm
Gear ratio:	1:1.09
Max. torque:	20 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	From 100° to -100°
Angle display:	Digital
Number of tool outputs:	1/variable
Lubrication:	Oil / Oil bath lubrication Detailed information on page 14
Max. saw blade diameter:	~ ø250 mm

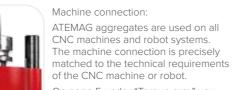




#### Tool connection

- ER 25 Mini and saw blade flange (K1)
- K2 saw blade flange
- Modular interface
- Other connections on request

Overview of most commonly used connections: Page 20.



On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.

### MONO ULTRA LINE

Aggregate for heavy-duty sawing ideal for large saw blades, roughing cutters, profile cutters, and grinding tools

Machining capabilities: Sawing, routing, brushing, planing, and grinding Typical applications:

- Sawing (formating) of solid wood, board and mineral materials, composites, aluminum, etc...
- Cut-offs, grooving, profiling, planing, etc.

Technical Specifications	
Max. input speed:	12,000 rpm
Max. output speed:	8,100 rpm
Gear ratio:	1: 0.676
Max. torque:	22 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	1/fixed
Lubrication:	Oil / Oil bath lubrication Detailed information on page 14
Max. saw blade diameter:	Housing height short: ~ ø220 mm Housing height medium: ~ ø280 mm Housing height long: ~ ø300 mm



- Tool connection
- ATlock
- ER 32
- Modular interface
- S1 saw blade flange
- K2 saw blade flange
- ER 25

• Other connections on request Overview of most commonly used connections: Page 20.



Machine connection: ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot. On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.





### MONO FIX ULTRA LINE

with fixed 45° angle CE

Max. saw blade diameter: ~ **ø**250 mm



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ULTRA LINE

Т

# MEGA CUTTER

### MEGA CUTTER ULTRA LINE

Planing shaft aggregate for planing, slotting (sawing), brushing, and grinding

Machining capabilities: Slotting, brushing, planing, and grinding

Typical applications:

- Stair construction: Wire-brush texturing of treads
- Shop fit-out: Slotting with saw package, e.g., curved counter fronts
- Door production: Textured surfaces
- Acoustic elements: Slotting of visible surfaces with saw package, e.g., wall or ceiling elements

**Technical Specifications** 

Max. input speed:	11,380 rpm
Max. output speed:	7,690 rpm
Gear ratio:	1: 0.676
Max. torque:	22 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	4 × 90°
Machining angle:	90°
Number of tool outputs:	1 / fixed
Lubrication:	Oil / Oil bath lubrication Detailed information on page 14
Max. tool diameter:	~ ø160 mm



Tool connection • Shaft Ø30 Overview of most commonly used connections: Page 20.



Machine connection: ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot. On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.



### DUO ULTRA LINE

Aggregate for heavy-duty sawing ideal for large saw blades, roughing cutters, profile cutters, and grinding tools with two tool outputs

Machining capabilities: Sawing, routing, brushing, planing, and grinding Typical applications:

- Time savings in the process and space savings in the tool changer (even with 5 axes) • Sawing (formating) of solid wood, board and mineral materials, composites,
- aluminum, etc...
- Cut-offs, grooving, profiling, planing, etc.

Technical Specifications	
Max. input speed:	12,000 rpm
Max. output speed:	8,100 rpm
Gear ratio:	1: 0.676
Max. torque:	22 Nm
Permissible operating tem- perature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Oil / Oil bath lubrication Detailed information on page 14



Tool connection

ATlock

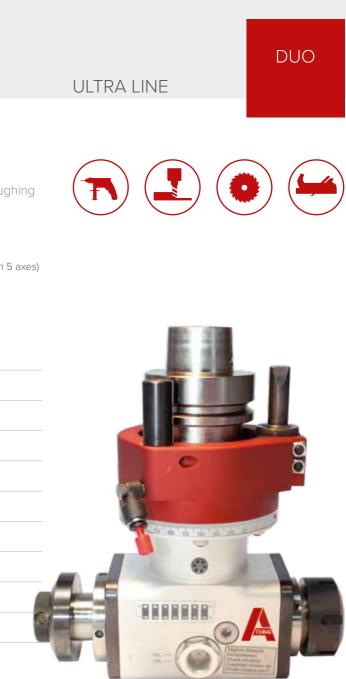
- ER 25
- Modular interface
- S1 saw blade flange
- S2 saw blade flange

• Other connections on request Overview of most commonly used connections: Page 20.



Machine connection: ATEMAG aggregates are used on all CNC machines and robot systems. The machine connection is precisely matched to the technical requirements of the CNC machine or robot. On page 5 under "Torque arm," you will find a selection of companies for whose machines we supply connections.













### FLUSH TRIM ROUTING AGGREGATE

Aggregate for routing of glued-on edge banding flush with board with probing function

Board machining: After the edge banding has been glued on, the aggregate routes the protruding part of the edge banding using the integrated probing function so that the banding is flush with the board top and bottom surfaces. Compressed air is required on the machine side for the functions of the unit.

#### Technical Specifications

Max. input speed:	10,000 rpm
Max. output speed:	10,000 rpm
Gear ratio:	1:1
Max. torque:	6 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	4 × 90°
Machining angle:	90°
Number of tool outputs:	2 / fixed
Lubrication:	Grease / Lifetime lubrication





CHAINSAW AGGREGATE

Chainsaw aggregate for joinery work on CNC machines

Slotting of glued laminated timber structural elements in wood construction Sawing of cutouts, e.g., windows, doors The chainsaw unit is sized according to the individual machining task.

Horizontal and vertical machining directions are possible.

Technical Specifications

Max. input speed:	depending on the pinion
Max. output speed:	depending on the pinion
Gear ratio:	horizontal 1 : 1 (vertical: indivi
Max. torque:	1.5 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	horizontal or vertical
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication
Lubrication of chain:	Oil

### CHISEL MORTISER AGGREGATE

Drilling of square holes through simultaneous drilling and mortising

- Production of square recesses in stair stringers for connecting and positioning treads in stringers
- Notching of internal corners

#### Technical Specifications

Max. input speed:	3,000 rpm
Max. output speed:	3,000 rpm
Gear ratio:	1:1
Max. torque:	20 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	3 x 120°
Machining angle:	horizontal or vertical
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication



### FICHE HINGE AGGREGATE

Aggregate for mortising of slots for fiche hinges

The fiche hinge aggregate is typically used in restoration projects for window installation. Depending on the application, it is oriented vertically or horizontally. In furniture making, especially in the production of overlay doors, the slots for the frame/body and door leaves of mortise hinges can also be made in an industrial process.

#### Technical Specifications

Max. input speed:	4,000 rpm
Max. output speed:	4,000 rpm
Gear ratio:	horizontal: 1 : 1 / vertical: indiv
Blade sizes:	Variable
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	horizontal: 6 x 60° / vertical:
Machining angle:	horizontal or vertical
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication

FUNCTION LINE



### FUNCTION LINE











# SPEEDER

### SPEEDER FUNCTION LINE

High-speed aggregate for small tool diameters

The high-speed aggregate with integrated gearbox allows very high speeds to be reached and is used, for example, for engraving wood or plastics or for processing delicate materials such as leather (tear-free cut). The maximum machine rotational speed is increased by the gearbox.

#### Technical Specifications

Max. input speed:	8,000 rpm
Max. output speed:	31,360 rpm
Gear ratio:	1:3.92
Max. torque:	2.7 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	360°
Machining angle:	O°
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication



### SCORING & DRAG KNIFE AGGREGATE

Trapezoidal blade for cutting of thin soft-core materials

Cutting and scoring of fabrics, leather, and other thin, soft materials

#### Technical Specifications

Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	4 × 90°
Machining angle:	Vertical Blade angle can be adjusted
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication

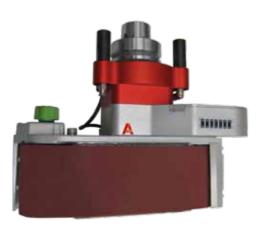
### **BELT SANDING AGGREGATE**

Efficient sanding of concave, convex, and flat edges.

Fully automated grinding of edges on CNC machines

#### Technical Specifications

Max. input speed:	7,560 rpm
Max. output speed:	1,890 rpm
Gear ratio:	4:1
Max. torque:	1 Nm
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	$4 \times 90^{\circ}$
Machining angle:	Vertical
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication



### ROTARY CUTTER AGGREGATE

Aggregate with rotary blade for cutting a variety of different materials

The rotary cutter aggregate is used, for example, in the packaging industry for cutting and indenting cardboard boxes. It is also ideal for cutting fabrics and leather.

#### **Technical Specifications**

Blade sizes:	Rotary blade
Permissible operating temperature:	max. 85°C
Positioning of torque arm with respect to tool:	4 × 90°
Machining angle:	Vertical
Number of tool outputs:	1 / fixed
Lubrication:	Grease / Lifetime lubrication

FUNCTION LINE



### FUNCTION LINE









FUNCTION LINE





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