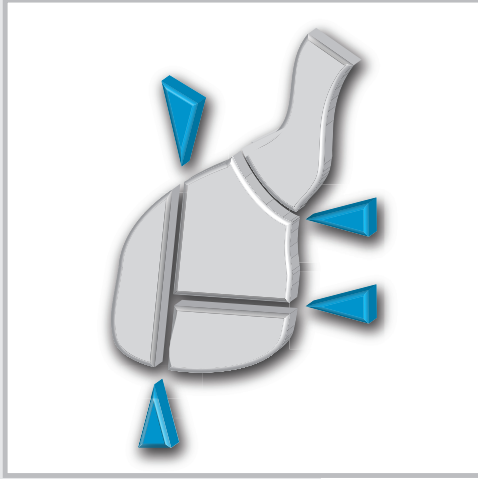
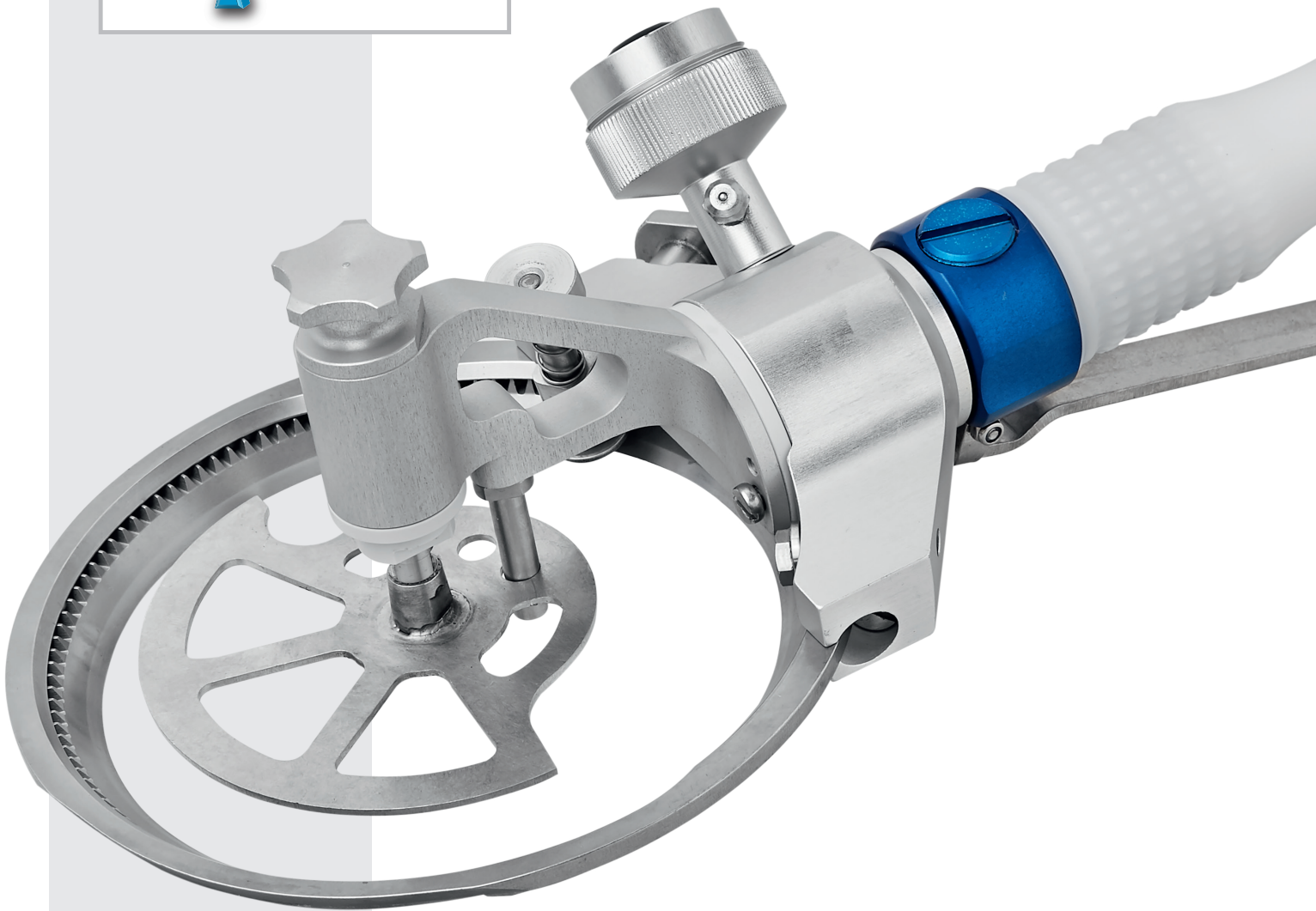


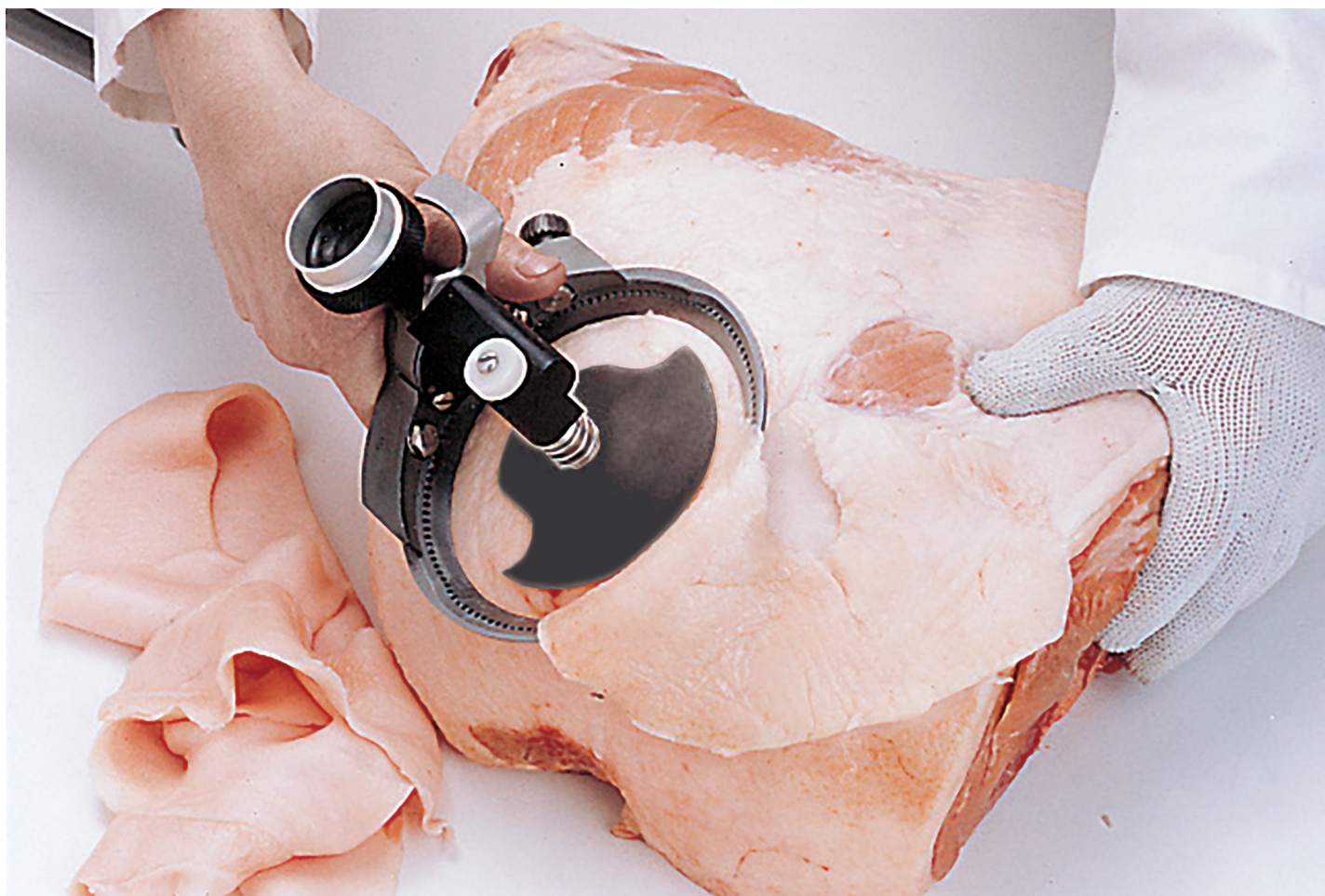


TRIMMING



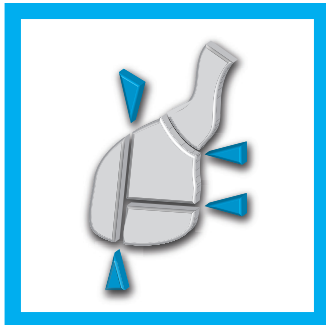
TRADITION + INNOVATION = FUTURE





TRIMMING

TRIMMING



In modern meat processing, the type, efficiency and quality of the tools used have a significant influence on the quality of the end product and on the achievable yields.

It is not uncommon for high demands to be placed on such tools. This can result in maintenance-related downtimes and considerable servicing costs.

For this reason, developers of modern trimmers have the task of creating a product that is not only powerful and economical, but also low-wear and therefore cost-efficient. This is exactly the approach that we take here at FREUND.

With our latest Series 2 trimmers, we have created a product that - thanks the use of proven components and high-quality materials - is a low-maintenance and therefore cost-saving alternative to the trimmers widely available on the market

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TRIMMING

QUALITY TRIMMER



TRIMMER

- Optionally powered electrically or pneumatically
- Further enhanced trimmer blade surface
- Less downtime and lower servicing costs thanks to low-wear quality components
- Ergonomic handle with robust and abrasion-free plastic design
- Patented quick-change blade system for toolless trimmer blade change
- Significant improvement of user safety thanks to optional start-stop safety system
- Quiet operation minimises vibrations on the hand piece
- Four different measurement types A, B, C and D in diameters Ø 35, 52, 65, 90 and 128 mm
- Optionally available with depth control in three different user-oriented designs

TECHNICAL DATA

	TM-E6000 EF1_evo2	TM-E6001 EF2_evo2	PNM2
Weight (kg)	16	16	0,6
Revolutions (rpm)	up to 6500	up to 6500	
Protection class	IP 65	IP 65	
Drive type	pneumatic, 1 phase	pneumatic, 1 phase	pneumatic
Input air pressure			6 bar 470 l/min
Power	550 Watt (100Hz)/VA 0,5 hp (100Hz)/VA	550 Watt (100Hz)/VA 0,5 hp (100Hz)/VA	



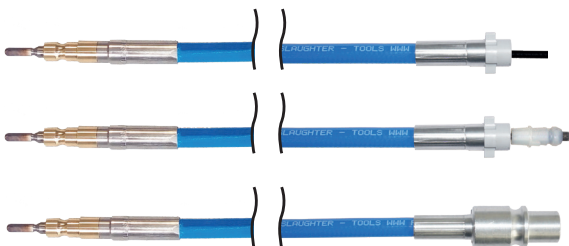
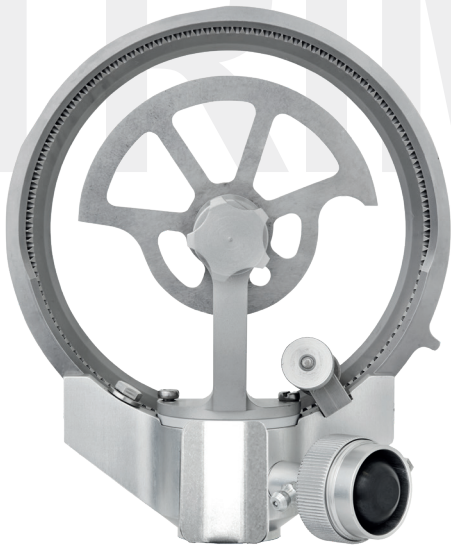
ELECTRIC MOTOR

- Integrated hand piece suspension
- adjustable to 6500rpm
- Less downtime thanks to low-wear operation
- Compact and lightweight aluminium housing
- Hygienic design
- All hand pieces and trimmer heads can be used individually with both systems



PNM2

- Hand piece with integrated pneumatic motor for compressed air operation with 6 bar
- new PNM2-D34 handpiece with 34mm diameter for better handling
- Can be used with all FREUND trimmer heads
- Start-stop safety system with stop lever
- Non-slip handle
- Available with pneumatic connecting kit including service unit and couplings (recommended)



THE RIGHT MACHINE FOR EVERY APPLICATION

From defatting degreasing of meat, poultry and fish products to precision cutting of wafer-thin salmon slices – with our optionally electrically or pneumatically powered trimmers, we offer you the right tool for the diverse requirements of your plant. At the same time, the modular design of our trimmers gives you the option of choosing from four different blade types in five diameters (35, 52, 69, 90 and 128 mm) and countless optional features such as an ergonomic thumb rest, depth control in a robust and hygienic stainless steel design and many other features.

DEPTH CONTROL

- Even cutting depth (individually adjustable)
- Higher yield thanks to lower number of rejects
- Especially suited to cutting & filleting salmon in variant DCS (plastic)
- Especially suited for degreasing hard and cold meat in variants DCF (plastic) and DC2F (stainless steel)

THUMB REST

- Ergonomically shaped to enable fatigue-free working
- Freely adjustable for right- and left-handers
- Significant increase in user safety

TRIMMER HANDPIECES

- Ergonomically shaped, abrasion-free and hygienic
- Optimal handling thanks to different handle shapes
- Available in handle diameters 31, 34 and 38 mm

CONNECTING KITS EF1 / EF2 / ADAPTIVE

- Low-maintenance thanks to integrated coupling sleeve
- Compatible with all FREUND hand pieces
- Also available as a special ADAPTIVE version to enable further use of your existing trimmer motor¹

¹) compatible with common trimmer motors

OPTIONS

	Ø (MM)	35	52	69	90	128
A (straight)		•	•	•	•	
B (hook)		•	•	•	•	
C (short flat)					•	•
D (long flat)						•
Depth control					DCF / DCS	DCF / DCS / DC2F
Pinion gear and bearing		Small	Small	Small	Large	Large
Thumb rest		•	•	•	•	•
Grease cup		Small/large	Small/large	Small/large	Small/large	Small/large
Steeling device only					•	•
Pneumatic motor PNM2		•	•	•	•	•
Start-stop safety system		•	•	•	•	•
Grease fitting and vacuum suction system		•	•			

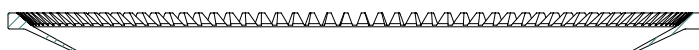
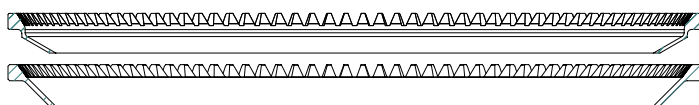
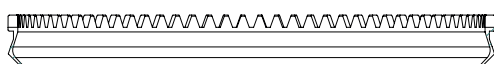
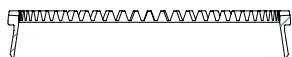


TRIMMING

RING BLADE SELECTION & APPLICATION

RING BLADE SELECTION

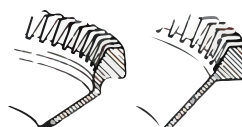
TYPE	Ø (MM)	35	52	69	90	128
A (straight)		•	•	•	•	
B (hook)		•	•	•	•	
C (short flat)					•	•
D (long flat)						•



■ A (straight)



■ B (hook)



■ C (short flat)
30° / 45°

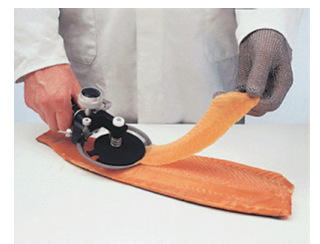
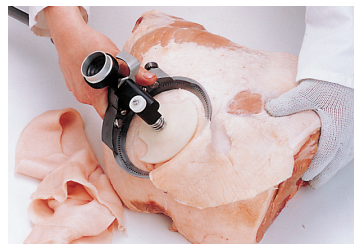


■ D (long flat)



APPLICATION

	Ø (mm)	35	52	69	90	128
Deboning / cleaning						
Bones		A	A	A		
Heads		A	A	A	A	
Chicken thighs		A	A			
Ribs from belly		A				
Removal						
Cheeks				A	A	
Chicken breast			B	B	B	
Spinal cord			A / B			
Remaining skin					C	C
Veins and glands		A	A			
Pig eyes		A				
Pork fillet				A	A	
Lean meat from fat						C
Tuna					C	C
Degreasing / trimming						
Skins					C	C
Warm fat trimming					C	C
Hard fat trimming					B	D
Ham / shoulder / cutlet					B / C	C
Slicing						
Salmon						C
Gyros / doner kebab					C	C



TRIMMING TRIMMER

TECHNICAL DATA

VAKUUM-TRIMMER52

Diameter (mm)	52
Drive type	elektric or pneumatic
Power	250 Watt



VAKUUM-TRIMMER52

- Application-optimised design
- Easy handling thanks to spherical suction head
- Various blade types (straight ring blade, hook ring blade)
- Minimal downtime and servicing costs thanks to low-wear quality components
- Ergonomic handle with robust and abrasion-free plastic design
- Quiet operation minimises vibrations on the hand piece
- Optionally powered electrically or pneumatically

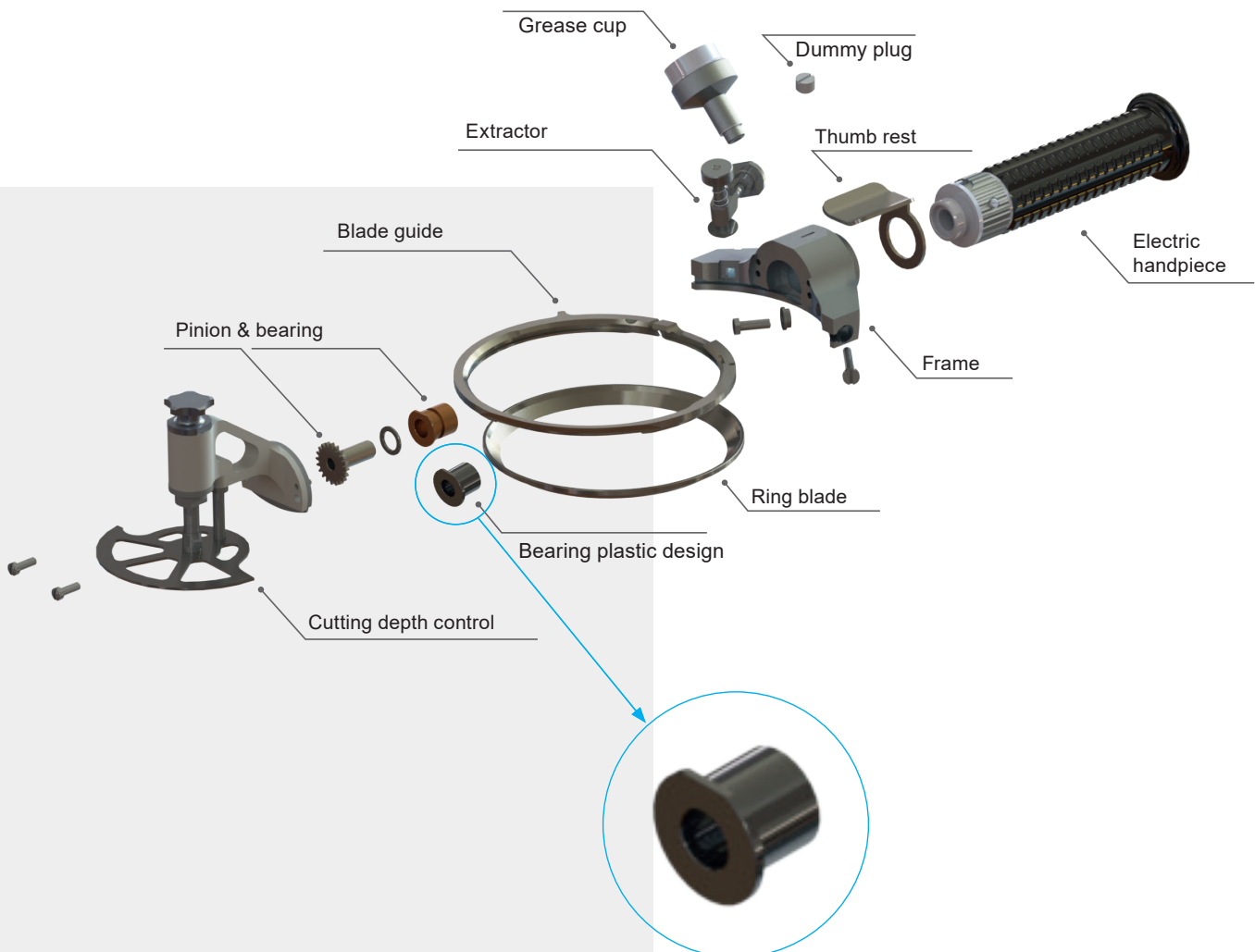


BEARING PLASTIC DESIGN

- all saleable trimmer handpieces can be fitted with the newly configurable plastic plain bearing
- available without an extra charge
- high endurance
- additional lubrication of the pinion is not necessary
- the daily greasing of the plain bearing is no longer necessary
- minimal weight reduction of the handpiece
- the handpiece is supplied without grease nipple and grease bushing (a blind plug is fitted)

TRIMMING

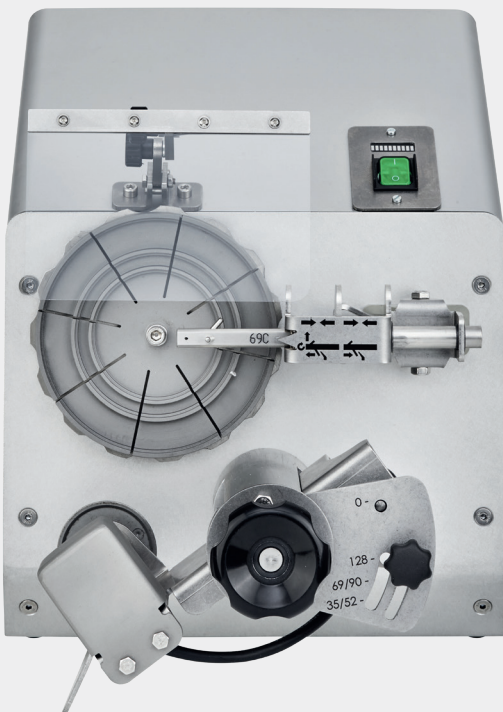
TRIMMER



*Figure shows a configuration possibility

TRIMMING

SHARPENING



*Figure: Standard variant with steeling device for blades Ø 69 -128mm

TSM-E1

Trimmer sharpening machine

- Precision sharpening of trimmer blades of all diameters
 - Quick clamp device in two different sizes enables rapid insertion of the trimmer blade with minimal installation effort
 - Spring-loaded deburring lever prevents contact being too forceful
 - Pre-coated precision grinding disc enables optimum sharpening results while, at the same time, ensuring the maximum service life for the grinding unit
 - Integrated overload display indicates potential overload
 - Compact aluminium housing with stable design
 - Drive with up to 8000 rpm
- Steeling device for Ø 35 and 52 mm OPTIONALLY available

TECHNICAL DATA

	TSM-E1	SCHÄRFSTAHL	SCHÄRFSTAHL-HAKEN	SCHÄRFSTAHL FÜR ARBEITSTISCH
Length (mm)		248	190	160
Diameter (mm)		12,9	6,5	9,5
Weight (g)	1380	344	92	270
Revolutions (rpm)	up to 8000			
Protection class	IP32			
Drive type	electrical, 1-phase			
Power	150 Watt (50Hz)			



Sharpening steel



Sharpening steel hook

SCHÄRFSTAHL /-HAKEN

- Precision resharpening of trimmer blades of type A 35 / 52 / 69 mm and trimmer blades of type B,C and D 90 / 128 mm
- Significant improvement of surface thanks to fine removal of material from the blade
- Increased service life for trimmer blades thanks to improved surface
- Design made of resistant chrome/vanadium alloy tool steel



SCHÄRFSTAHL FÜR ARBEITSTISCH

- Precision resharpening of trimmer blades of type B, C and D 90 / 128 mm
- Significant improvement of surface thanks to fine removal of material from the blade
- Increased service life for trimmer blades thanks to improved surface
- special design enables clamping in screwing device and attachment to work table
- Design made of hardened chrome/vanadium alloy cold work steel



SPARE PARTS

RING BLADE		Type	Item no.
Diameter - shape Blade shapes: A = straight B = hooked C = flat, short D = flat, long		35A	028-EL2-112
		35B	028-EL2-117
		52A Series 2	028-EL2-205
		52B Series 2	028-EL2-206
		69A	028-EL2-108
		69B	028-E55235
		90B	028-AD2-005
		90C	028-AD2-007
		128C 45°	028-EL2-030
		128C 30°	028-EL2-045
		128D	028-EL2-042
BLADE GUIDES		Type	Item no.
Diameter - shape		35mm	028-EL2-113
		52mm Series 2	028-EL2-207
		69mm	028-EL2-081
		90mm	028-AD2-003
		90mm LE	028-EL2-211
		128mm	028-EL2-040
		128mm LE	028-EL2-119
		128mm PS	028-EL2-044
CUTTING DEPTH CONTROL, 90-128MM ONLY		Type	Item no.
DCS - plastic design		90mm	028-EL2_009
		128mm	028-EL2-051
DCF - plastic design		90mm	028-EL2_008
		128mm	028-EL2-050
DC2F - stainless steel design		-	-
		128mm	028-EL2-146
SPROCKET		Type	Item no.
ENDEAVOUR+ADAPTIVE (Start-Stop)		35 / 52 / 69 mm	028-EL2-109
ENDEAVOUR		90 - 128mm	028-EL2-200
ENDEAVOUR Start-Stop		90 - 128mm	028-EL2-002
ADAPTIVE		90 - 128mm	028-AD2-002
BEARINGS		Type	Item no.
ENDEAVOUR		35 / 52 / 69 mm	028-EL2-115
		90 - 128 mm	028-E84137
	plastic design	35 / 52 / 69 mm	028-EL2-233
	plastic design	90 - 128 mm	028-EL2-232
ADAPTIVE		35 / 52 / 69 mm	028-EL2-115
		90 - 128mm	028-E66502

HANDLES WITH / WITHOUT START-STOP			Item no.
D31	with start-stop		028-EL2-088
	without start-stop		028-EL2-089
D34	with start-stop		028-EL2-202
	without start-stop		028-EL2-125
D38	with start-stop		028-EL2-052
	without start-stop		028-E89113ASSY
ERGONOMIC THUMB REST			Item no.
			028-E85782
SHAFTS AND HOSES FOR ALL FREUND TRIMMERS VERSION EF1 + START-STOP			Item no.
FREUND drive train	Drive train	1,5m	028-003-111E
	Flexible shaft	1,5m	028-E97250B
	Hose	1,5m	028-003-091
SHAFTS AND HOSES FOR ALL FREUND TRIMMERS VERSION EF2 + START-STOP			Item no.
FREUND drive train	Drive train	1,5m	028-003-116
	Flexible shaft	1,5m	028-003-118E
	Hose	1,5m	028-003-117E
SHAFTS AND HOSES FOR ALL FREUND TRIMMERS VERSION EF2 + START-STOP			Item no.
FREUND drive train	Drive train	2,1m	028-003-121
	Flexible shaft	2,1m	028-003-123E
	Hose	2,1m	028-003-124E
SHAFTS AND HOSES FOR ADAPTIVE UN84/ULTRADRIIVE, 90-128 MM ONLY			Item no.
Adaptive drive train	Drive train	1,5m	028-003-112E
	Flexible shaft	1,5m	028-E66499
	Hose	1,5m	028-003-087
GREASE CUP AND GREASE PRESS			Item no.
Grease cup	small		028-E97334
Grease cup	large		028-E93214
Grease cup	filled		028-100-006
SHARPENING STEEL			Item no.
Sharpening steel			028-E94295
Sharpening steel hook			028-E35241B
Sharpening steel for work table			028-E93129

TRIMMING

HAND SKINNER

TECHNICAL DATA

HSK8-P3_evo2

Weight (kg)	1,6
Cutting range (mm)	76
Cutting depth (mm)	3,5
Input air pressure	6 bar 420l/min
Drive type	pneumatic
Power	320 Watt



HSK8-P3_evo2

Hand skinner for easy skinning of pork halves and pig sections (cold fat trimming)

- Knife quick-change system for tool-less blade change
- Quick blade change system
- High degree of operational safety
- Stable design
- Stainless steel scraper
- Low-noise operation
- Suitable for right- and left-handers
- direct compressed air connection to the motor

Maintenance-friendly:

- Easy disassembly
- All parts of the roller are individually replaceable

Powerful pneumatic motor "Made in Germany"

- Easy cleaning thanks to the hygienic design
- No dead spaces where dirt can accumulate

TECHNICAL SUPPORT

OPTIMUM PLANNING

Excellent service is an important factor for customer loyalty – all of us at FREUND embody this belief. Whether it's maintenance, complaints or repairs – efficient service processes not only ensure satisfied customers, but also set us apart from the competition thanks to the comprehensive and meticulous technical service we offer.

PROFESSIONAL SERVICE

The basis for optimum service is the precise planning and handling of all our service offers. Based on a history of your existing machines, our team members are highly knowledgeable when it comes to your FREUND machines. In compliance with statutory requirements, you will receive a test certificate after any repair work.



ARRANGING AN APPOINTMENT

When a service request is received, our service team members immediately see which equipment is available and when. To ensure operational safety, we provide you with equivalent rental equipment for the duration of the repair work. Service lives are lengthened and downtimes are minimised, which has a positive impact on the life of FREUND machines and ensures a faultless production process. Our collection service will also save you time and effort and guarantees secure packaging for the transport process.

SERVICING

Special tools and decades of industry experience allow for flawless repair work in accordance with technical requirements. Only original parts and auxiliary materials are used - all of which have been approved via our in-house quality control. Thanks to the updates that are directly accounted for in the repair process, your product always complies with the latest technological standards.

Lower your operating costs via regular maintenance and repairs.

DIVERSE SERVICE PORTFOLIO

Multiple tasks can be entered for a service order. Such tasks are assigned to our service team. Our qualified employees provide professional advice and support, which is carried out in a skilful manner, on time and carefully according to our company philosophy.

You can reach our technical service via the following channels.:

Phone: +49 (5251) 1659-46

E-Mail: service@freund.eu

FREUND ASSISTANCE

WE ARE DIGITAL



A couple of clicks, no waiting times, using a PC, smartphone or tablet at any time of day or night: our customer portal provides you with information and functions relating to our machines - at any time of day!

We're going digital for you to unite you as a customer with us on one platform – communication and data exchange as you have never experienced it before with FREUND.

Operating manual and login can be found on our website :

www.freund.eu/assistance

ADVANTAGES FOR OUR CUSTOMERS

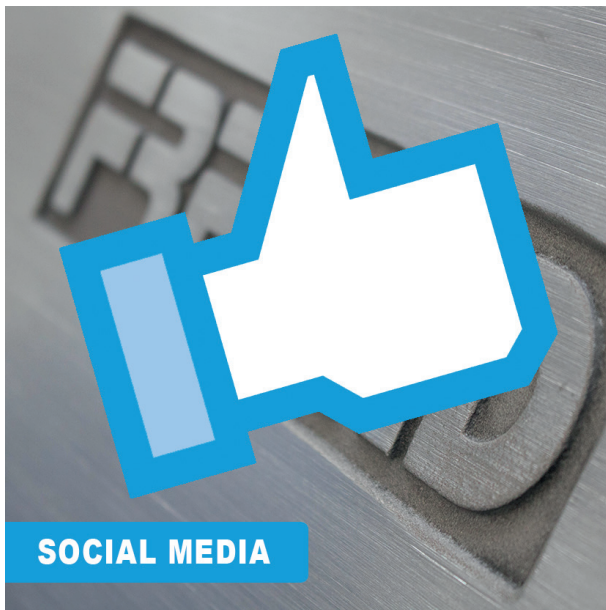
- Find your FREUND machines and FREUND devices
- You can navigate your way around the respective machine
- Find, view and print a spare parts list
- Operating manuals for our machines/devices
- Installation manuals for our machines/devices
- SRC technical information
- Send order requests directly to FREUND Sales by email, done directly from the customer portal
- Further users (multi-user login) can be created per customer on request

The advantages to the customer are at the forefront of everything we do. Our customer portal is of course available to you free of charge. After all, customer relations is a top priority for FREUND. Please give us a call on

+49 (5251) 1659-0 .

SOCIAL MEDIA

FREUND - SOCIAL MEDIA



Over 150 million people in Europe alone are active on social and digital media every day.

Platforms such as Facebook and LinkedIn are becoming ever more important in the fast-moving communications mix.

Each individual “user” predominantly makes use of such platforms on a mobile device.

The social media measures of FREUND Maschinenfabrik GmbH & Co. KG are tailored to the development for different channels.

The goal of all these measures from FREUND is to offer the respective “user” inspiration for products, developments and general information.

At FREUND, we use our social media not only to further develop our own offers, but also as an efficient way to increase awareness of our in-house product developments and customer information.

To ensure you are always fully up-to-date, visit and follow us on our social media channels as well.



<https://www.facebook.com/FREUND-Germany-374611402632603/>



<https://www.linkedin.com/company/freund-germany>

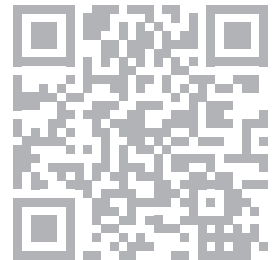


https://www.instagram.com/freund_germany/

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