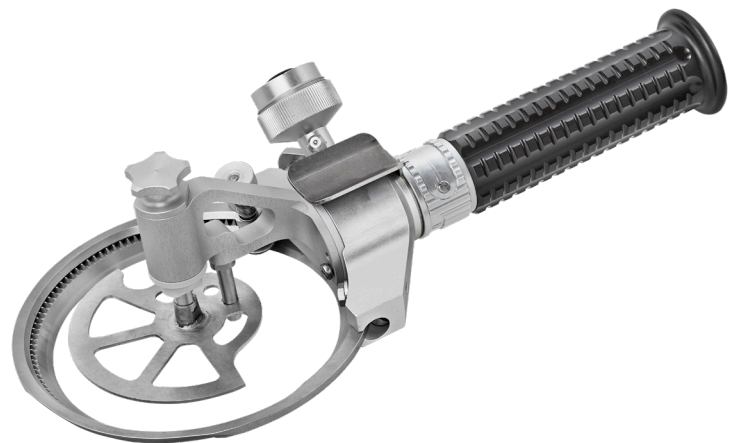
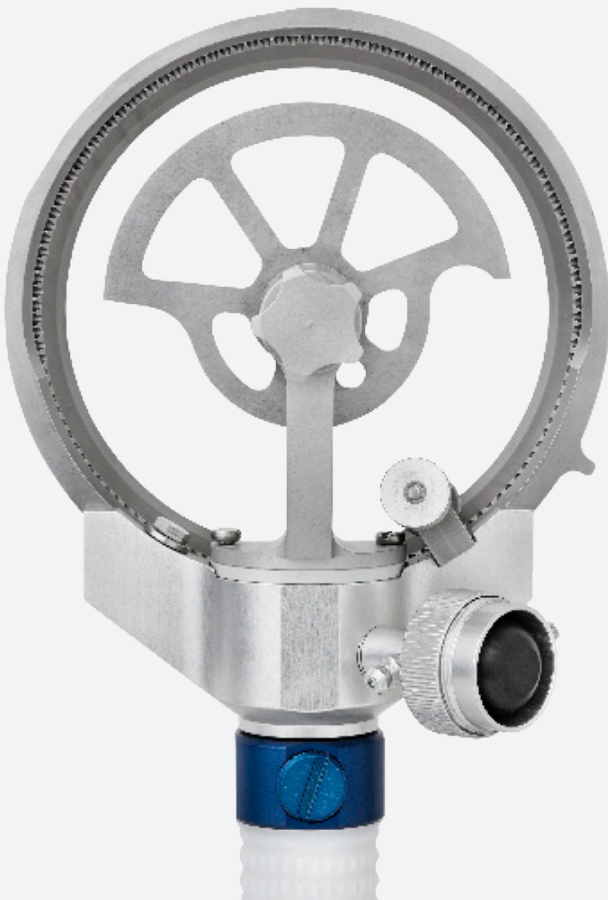
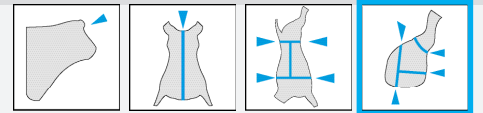


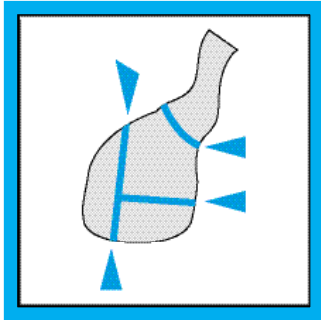
TRIMMERS

German high quality trimmers -
designed for the highest level of performance,
low maintenance costs and perfect economics

FINISHING



FINISHING



YOUR COST-EFFICIENT SOLUTION

In modern meat-processing, the quality of the end product is determined to a significant extent by the quality and efficiency of the machines used. The requirements of modern meat processing are high. Heavy strain on trimmers means that maintenance-related downtimes are common and high maintenance costs can be incurred. The challenge is therefore to create a tool that is efficient, maximises the quality of the end product, and is both hard-wearing and cost-efficient. That's precisely where FREUND comes into its own. With our current Series 2 trimmers, we have created products which use tried and tested components and high-quality materials to provide a low-maintenance and therefore cost-saving alternative to other trimmers available on the market.

QUALITY TRIMMERS FROM FREUND

- Choice of electrical or pneumatic power
- Further improvements to the surface of the trimmer blade
- Shorter downtimes and lower maintenance costs thanks to low-wear quality components
- Ergonomic handles in a robust, abrasion-free plastic design
- Patented quick-change blade system for changing the trimming blade without using tools
- Significant improvement in user safety through optional start-stop safety system
- Quiet running minimises vibrations in the handpiece
- Four different blade types A, B, C and D with diameters of 35, 52, 65, 90 and 128 mm
- Also available with cutting depth control system in a robust, hygienic stainless steel design as an option

TECHNICAL DATA

	TM-E6000	TM-E6001	PNM2
Weight (kg)	16 kg	16 kg	0.6 kg
Revolutions (rpm)	up to 6500	up to 6500	
Protection class	IP 65	IP 65	
Intake pressure			6 bar 470 l/min
Output	400 watts (50-60Hz)/VA	400 watts (50-60Hz)/VA	250 watts
	0.5 hp (50-60Hz)/VA	0.5 hp (50-60Hz)/VA	



ELECTRIC MOTOR

- Standard speed 4500 rpm
- Continuously adjustable up to 6500 rpm
- Integrated handpiece mounting
- Shorter downtimes due to low-wear operation
- Compact and light aluminium housing
- Hygienic design
- Available for connection units EF1 and EF2
- All handpieces and trimmer heads can be used individually with both systems

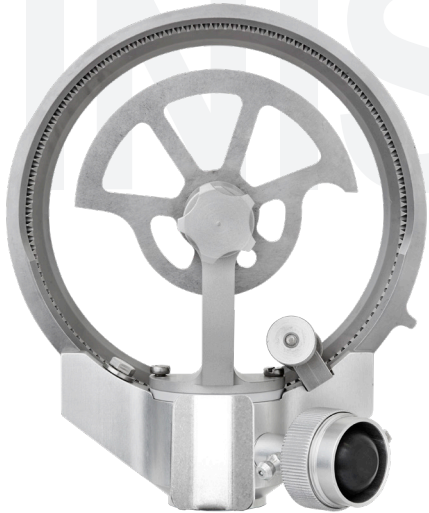


PNM2

- Handpiece with integrated pneumatic motor for compressed air operation at 6 bar
- Usable with all FREUND trimmer heads
- Start-stop safety system with stop lever
- Non-slip handle
- Available with pneumatic connection unit including maintenance unit and couplings (recommended)

THE RIGHT MACHINE FOR EVERY APPLICATION

From low-loss removal of fat from meat, poultry and fish products through to precise cutting of wafer-thin slices of salmon – with our electric or pneumatic trimmers, we provide you with the right tool for the various requirements of your business. The modular design of our trimmers gives you the option to choose from four different blade types in five diameters (35, 52, 69, 90 and 128 mm) and from countless optional features such as an economic thumb rest, cutting depth control in a robust and hygienic stainless steel design, and many other features.



CUTTING DEPTH CONTROL

- Even cutting depth (individually adjustable)
- High yield thanks to less waste
- DCS (plastic) model particularly suitable for cutting and filleting salmon
- DCF (plastic) and DC2F (stainless steel) models particularly suitable for removing fat from hard and cold meat

THUMB REST

- Ergonomically shaped for fatigue-free working
- Continuously adjustable for right-handed and left-handed users
- Significant increase in user safety



TRIMMER HANDPIECES

- Ergonomically shaped, abrasion-free and hygienic
- Optimal handling with various handle shapes
- Available with handle diameters of 31, 34 and 38 mm



CONNECTION UNITS EF1 / EF2 / ADAPTIVE

- Low-maintenance with integrated coupling sleeve
- Compatible with all handpieces from FREUND
- Also available as a special ADAPTIVE version for continued use of your existing trimmer motor¹

¹) Compatible with standard trimmer motors

OPTIONS

	Ø (mm)	35	52	69	90	128
A (straight)		•	•	•	•	
B (hooked)		•	•	•	•	
C (flat short)					•	•
D (flat long)						•
Cutting depth control					DCF / DCS	DCF / DCS / DC2F
Pinion and bushing		small	small	small	large	large
Thumb rest		•	•	•	•	•
Grease cup		small/large	small/large	small/large	small/large	small/large
Sharpening steel					•	•
Pneumatic motor PNM2		•	•	•	•	•
Start-stop safety system		•	•	•	•	•

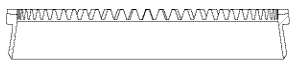


RING BLADE SELECTION & USE

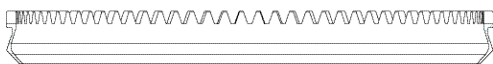
FINISHING

RING BLADE SELECTION

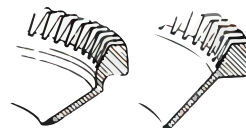
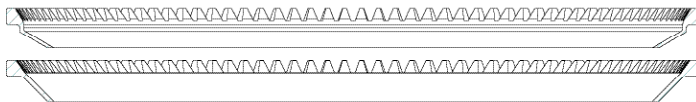
Type	∅ 35	52	69	90	128
A (straight)	•	•	•	•	
B (hooked)	•	•	•	•	
C (flat short)				•	•
D (flat long)					•



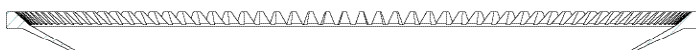
■ A (straight)



■ B (hooked)



■ C (flat short)
30° / 45°



■ D (flat long)

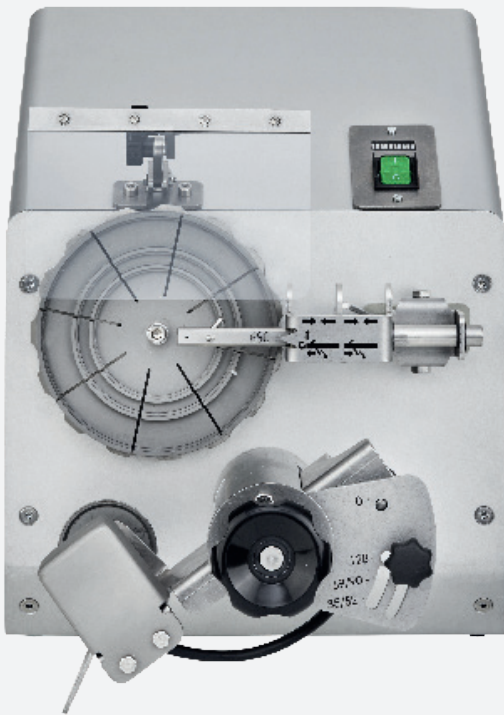
APPLICATION / USE

Ø (mm)	35	52	69	90	128
Deboning / cleaning					
Bones	A	A	A		
Heads	A	A	A	A	
Chicken thighs	A	A			
Ribs from pork belly	A				
Removal					
Cheeks			A	A	
Chicken breast		B	B	B	
Trimming		A / B			
Remains of skin				C	C
Veins and glands	A	A			
Pigs' eyes	A				
Pork filet			A	A	
Lean meat from fat					C
Tuna				C	C
Removal of fat / trimming					
Skins				C	C
Warm fat removal				C	C
Hard fat removal				B	D
Ham / shoulder / cutlet				B / C	C
Slicing					
Salmon					C
Gyros / Kebap				C	C



FINISHING

SHARPENING



SHARPENING MACHINE TSM-E1

- Precise in-house sharpening of trimming blades of all diameters
- Quick clamping device in two different sizes allows the trimming blade to be inserted quickly with minimal set-up work
- Pre-tensioned spring-mounted deburring lever prevents contact with too much pressure
- Pre-coated precision grinding disc gives the best sharpening results with maximum service life of the grinding unit
- Integrated overload display indicates possible overload
- Compact aluminium housing in strong design
- Drive with up to 8000 rpm

TECHNICAL DATA

	TSM-E1	Sharpening steel	Sharpening steel hook	Sharpening steel for work table
Length (mm)		248	190	160
Diameter (mm)		12.9	6.5	9.5
Weight (g)	1380	344	92	270
Revolutions (rpm)	up to 8000			
Water protection class	IP32			
Output	150 watts (50 Hz)			



Sharpening steel



Sharpening steel hook

SHARPENING STEEL / SHARPENING STEEL HOOK

- Precise re-sharpening of trimming blades of type A 35 / 52 / 69 mm and trimming blades of type B, C and D 90 / 128 mm
- Significant improvement of the surface thanks to fine removal of material from the blade
- Increased service life of the trimming blade thanks to improved surface
- Design in tough chrome-vanadium alloyed tool steel



SHARPENING STEEL FOR WORK TABLE

- Precise re-sharpening of trimming blades of type B, C and D 90 / 128 mm
- Significant improvement of the surface thanks to fine removal of material from the blade
- Increased service life of the trimming blade thanks to improved surface
- Special design allows clamping in screw device and fitting to work table
- Design in toughened chrome-vanadium alloyed cold-work steel

Ring blade		Type	Item no.
		35A	028-EL2-112
		35B	028-EL2-117
		52A Series 2	028-EL2-205
Diameter - shape		52B Series 2	028-EL2-206
Blade shapes:		69A	028-EL2-108
A = straight		69B	028-E55235
B = hooked		90B	028-AD2-005
C = flat, short		90C	028-AD2-007
D = flat, long		128C 45°	028-EL2-030
		128C 30°	028-EL2-045
		128D	028-EL2-042
Blade guides		Type	Item no.
		35 mm	028-EL2-113
		52 mm Series 2	028-EL2-207
		69 mm	028-EL2-081
Diameter - shape		90 mm	028-AD2-003
		90 mm LE	028-EL2-211
		128 mm	028-EL2-040
		128 mm LE	028-EL2-119
		128 mm PS	028-EL2-044
Cutting depth control, 90-128 mm only			
DCS - plastic design		90 mm	028-EL2_009
		128 mm	028-EL2-051
DCF - plastic design		90 mm	028-EL2_008
		128 mm	028-EL2-050
DC2F - stainless steel design		-	-
		128 mm	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 - 128mm	028-E84137
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

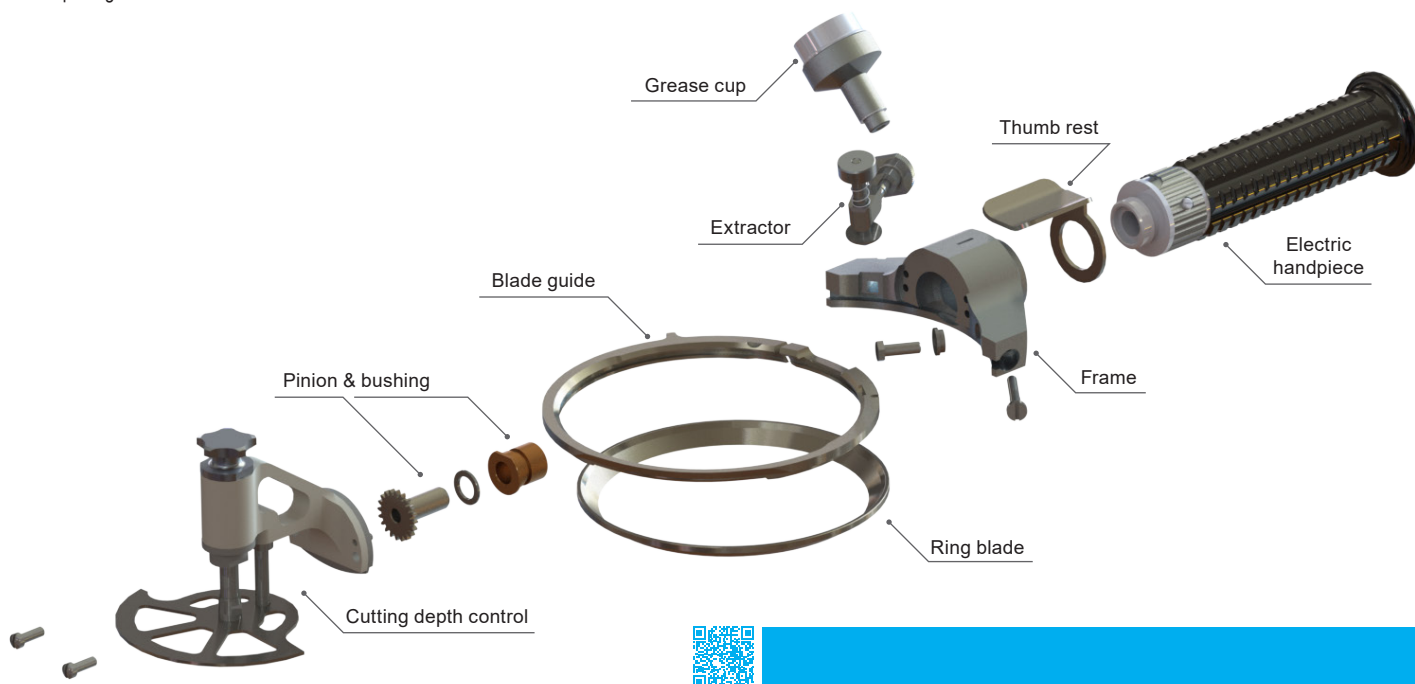
Shafts and hoses for all FREUND trimmers version EF1 + start-stop			Item no.
FREUND drive train	Drive train	1.5 m	028-003-111E
	Flexible shaft	1.5 m	028-E97250B
	Hose	1.5 m	028-003-091

Shafts and hoses for all FREUND trimmers version EF2 + start-stop			Item no.
FREUND drive train	Drive train	1.5 m	028-003-116
	Flexible shaft	1.5 m	028-003-118E
	Hose	1.5 m	028-003-117E

Shafts and hoses for Adaptive UN84/Ultradrive, 90-128 mm only			Item no.
Adaptive drive train	Drive train	1.5 m	028-003-112E
	Flexible shaft	1.5 m	028-E66499
	Hose	1.5 m	028-003-087

Grease cup and grease press			Item no.
Grease cup	small		028-E97334
Grease cup	large		028-E93214
Grease press	filled		028-100-006

Sharpening steel			Item no.
Sharpening steel			028-E94295
Sharpening steel hook			028-E35241B
Sharpening steel for work table			028-E93129





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