

Anexa nr. 5 Laringoscop adult cu fibra optica LED, 110610**03.41140.521+03.42013.621+03.42013.631+03.42013.641+03.42013.651 Kawe, Germania****Nr. inregistrare AMDM: DM000566377; DM000566387; DM000566388; DM000566389; DM000566390; DM000566102;**

<i>Specificarea tehnică deplină solicitată, Standarde de referință</i>	<i>Specificarea tehnică deplină oferita, Standarde de referință</i>
Laringoscop adult cu fibra optica, LED Cod 110610 Descriere Este un dispozitiv portabil, destinat pentru examinarea și vizualizarea laringelui. Efectuarea de laringoscopii de către secțiile primire urgente, reanimare, anestezie etc. Parametru Specificație Lamele laringoscop oțel inoxidabil mat obligatoriu tip pacient adult iluminare prin fibră optică Lamele tip: McIntosh obligatoriu mărimea 2 obligatoriu mărimea 3 obligatoriu mărimea 4 obligatoriu mărimea 5 obligatoriu autoclavabile la 134°C, 5min. obligatoriu ≥ 2000 ciluri de sterilizare obligatoriu Maner laringoscop fabricat din metal cromat sau AISI 304/316 fabricat din metal cromat sau AISI 304/316 fixarea rapidă cu lamele obligatoriu bec cu instalarea în mâner obligatoriu diametru mâner standart: 28mm, ±2mm obligatoriu Acumulator acumulator reîncărcabil, cu autonomie de ≥ 3 ore obligatoriu Bec LED, intensitatea luminei ≥ 2000 lux obligatoriu ≥ 2.5V obligatoriu lumină albă sau neutră lumină albă sau neutră Accesorii Stație de încărcare a laringoscopului fără a extrage bateriile de la priza de perete 220V, 50Hz obligatoriu, să se indice codul produsului Trusă trusă pentru păstrare/depozitarea dispozitivului în funcție de complectarea lamelelor solicitate obligatoriu, să se indice codul produsului	Laringoscop adult cu fibra optica, LED Cod 110610 Descriere Este un dispozitiv portabil, destinat pentru examinarea și vizualizarea laringelui. Efectuarea de laringoscopii de către secțiile primire urgente, reanimare, anestezie etc. Parametru Specificație Lamele laringoscop oțel inoxidabil mat – pag.81 tip pacient adult Iluminare prin fibră optică – pag.81 Lamele tip: Macintosh da- – pag.81 mărimea 2 da (03.42013.621) – pag.81 mărimea 3 da (03.42013.631) – pag.81 mărimea 4 da (03.42013.641) – pag.81 mărimea 5 da (03.42013.651) – pag.81 autoclavabile la 134°, 5min. – pag.81 - 2000 ciluri de sterilizare – pag.81 Maner laringoscop fabricat din metal cromat – pag.73,77 fixarea rapidă a lamelelor – pag.73 bec cu instalarea în mâner – pag.73 diametru mâner standart: 28mm, – pag.77 acumulator reîncărcabil, cu autonomie de min. 3 ore -pag77, scrisoare producator Bec LED, intensitatea luminei la distant de 35mm -18.000lux – pag 77,73 3.5V – pag.73,77 lumină albă – pag 73 Accesorii: Stație de incarcare directa a laringoscopului fara scoaterea acumulatorului 220V, 50Hz (12.80005.002) - pag 1 (brosura statia de incarcare+trusa) Trusa/Geanta pentru păstrare/depozitarea dispozitivului în funcție de complectarea lamelelor solicitate da (03.90003.001))- pag 1 (brosura statia de incarcare+trusa)



Laryngoskope Laryngoscopes



Das große KaWe Qualitätsversprechen

Ob im OP oder bei einem Notfall-Einsatz, immer ist es ein Wettlauf gegen die Zeit. Deshalb muss jeder Handgriff sitzen, jeder muss wissen, was er zu tun hat. Und: Anästhesist und Notarzt brauchen Instrumente, auf die sie sich verlassen können. Instrumente, die für solche Einsätze gemacht sind. Laryngoskope von KaWe sind dafür die idealen Partner: modernste Technologie, höchster Qualitätsstandard – ob im LED-, Fiberoptik-, Konventionell- oder Einmal-Bereich – KaWe bietet weltweit mit das größte Laryngoskop-Sortiment!

Abgerundet wird das Programm durch unsere Ladestation KaWe MedCharge 4000 – international einsetzbar – für 2,5 V oder 3,5 V-Griffe. Neben unserem hohen Qualitäts-Niveau steht ein gutes Preis-/Leistungs-Verhältnis, verbunden mit Zuverlässigkeit und einem Optimum an Sicherheit!

The great KaWe quality guarantee

Whether during an operation or in an emergency, there is a race against time. In times like these, everything must run smoothly and everyone must know what needs to be done. Above all, anaesthesiologists and doctors need instruments that they can rely on – instruments that are made for critical times like these. KaWe laryngoscopes offer the ideal solution: the most modern technology, the highest-quality standard – be they LED, fibre optic, conventional or single-use models – KaWe offers one of the largest laryngoscope product lines worldwide!

Our new KaWe Med-Charge 4000 charging station – internationally usable – for 2.5 V or 3.5 V handles rounds out our product line. In addition to our high level of quality, we also offer an excellent cost/effectiveness ratio combined with reliability and optimum safety.

F.O. Griffe | F.O. handles

DETAILANSICHT | DETAILED VIEW

Im Mund- und Rachenraum herrschen extrem schlechte Lichtverhältnisse. Um diesem Umstand Rechnung zu tragen, hat KaWe durch weiterentwickelte Lichttechnik (LED – bis 70 % mehr Licht) und neueste F.O. Glasfaserbündel eine höhere Sicherheit für eine leichte Intubation geschaffen. Das leistungsstarke LED Licht (2,5 V oder 3,5 V) sitzt bei allen KaWe Fiber Optik-Laryngoskopen im Griff. Die bewährte Xenon-Beleuchtung ist nach wie vor erhältlich. Übrigens: Sie können die Xenon-Beleuchtung durch einfachen LED Lampenwechsel im Griff (ohne weitere Komponenten), updaten. Ein umfangreiches Sortiment an F.O.-Spateln (Macintosh, Miller, Foregger, KaWe FLAPLIGHT, TEPRO, KaWe MEGALIGHT, Economy, Polio) ermöglicht die Anpassung selbst an schwierige anatomische Verhältnisse. Die Macintosh-Spatel sind sowohl mit integrierter als auch mit auswechselbarer Fiber Optik erhältlich. Besonderen Wert legen unsere Techniker auf eine leichte Handhabung und garantieren ein schnelles Wechseln der Spatel. Alle Spateltypen sind aus Edelstahl, selbstverständlich kompatibel zu DIN ISO 7376 und die Mehrweg-Spatel im Autoklaven bei 134°C sterilisierbar.

In the mouth and throat, the lighting conditions are very poor. In order to accommodate for these conditions, KaWe has created a safe and easy intubation method using advanced light technology (LED – with up to 70 % more light) and the latest F.O. light guides. All KaWe fibre optic laryngoscopes have a powerful LED light (2.5 V or 3.5 V) in their handles. The tried and tested xenon light is still available as well. You can, by the way, update the xenon lamp in your handle simply by replacing it with an LED lamp (no other components are required). An extensive selection of F.O. blades from the fibre optic line (Macintosh, Miller, Foregger, KaWe FLAPLIGHT, TEPRO, KaWe MEGALIGHT, Economy, Polio) makes it possible to meet the needs of even very difficult anatomic conditions. Macintosh blades are available with integrated as well as with exchangeable fibre optics. Our technicians place a particular importance on easy handling and guarantee that the blades can be exchanged quickly. All blade types are made of stainless steel, are compliant with DIN ISO 7376 standards and the reusable blades can be sterilized in an autoclave at 134°C.

71



Ladebatterie oder Batteriebetrieb möglich

Ausnahme: LED 2,5 V

Rechargeable battery or battery operation possible

exception: LED 2.5 V

Metallgriff – Doppelfunktion

① mit Ladebatterie (Akku) = **Ladegriff**
für Ladestation KaWe MedCharge 4000

② mit Batterien = **Batteriegriff**

Metal handle – dual mode

① with rechargeable battery = **charging handle**
for KaWe MedCharge 4000 charging station

② with batteries = **battery handle**



F.O. GRIFF F.O. HANDLE

- 1 Spatelhaltervorrichtung
- 2 Lampe
- 3 Lampenhülse
- 4 Kontaktscheibe
- 5 Kontaktfederstift
- 6 Batterie-/Ladegriff
aus Messing verchromt
(Economy-Griff aus Kunststoff)
- 7 Ladebatterie
- 8 Batterien
- 9 Metallkappe
- 10 Verschlusskappe

- 1 Blade holder
- 2 Bulb
- 3 Bulb housing
- 4 Contact disc
- 5 Contact spring pin
- 6 Battery/charging handle
made of chrome-plated brass
(Economy handle
made of plastic material)
- 7 Rechargeable battery
- 8 Batteries
- 9 Metal cap
- 10 Locking cap



F.O. Xenon

BATTERIE-/LADEGRIFFE | BATTERY/CHARGING HANDLES

Merkmale der Fiber Optik-Fasern:

- hoher Transmissionsgrad über den gesamten sichtbaren Wellenlängenbereich
- numerische Apertur 0,64
- hervorragende Abstrahlcharakteristik
- mehr als 4000 Sterilisations-Zyklen im Autoklaven bei 134°C
- min. 3500 / 5500 / 8000 Einzelfasern je Spateltyp sorgt für optimalen Lichtaustritt

Merkmale der Xenonlampe:

- Xenonlampe mit über 20 Stunden Lebensdauer
- Lampenschutzhülle aus Metall sorgt für längere Lebensdauer der Xenonlampe

Features of the fibre optic bundles:

- high transmission factor within the entire visible wavelength range
- numerical aperture 0.64
- excellent radiation properties
- more than 4000 sterilization cycles in the autoclave at 134°C
- 3500 / 5500 / 8000 single fibres minimum per blade type ensure optimal light emission

Features of the xenon lamp:

- xenon lamp with a service life of more than 20 hours
- metal protective lamp cap ensures that the xenon lamp has a longer service life

72

Mit Xenon-Beleuchtung

- alle Griffe sind kompatibel nach DIN ISO 7376
- Lampenhülse aus Metall, Vorteil: schnellere Entnahme der Xenon-Lampe für Sterilisationsvorgang
- leichtes Eigengewicht, da keine Kapsel und keine Innenhülse
- alle KaWe F.O. Xenon-Griffe 2,5 V (klein + mittel) haben eine Doppelfunktion
 - mit Batterien = Batteriegriff
 - mit Ladebatterie = Ladegriff für Ladestation KaWe MedCharge 4000
- sehr lange Lebensdauer der Ladebatterien 2,5 V + 3,5 V (NiMH)
- umweltschonend
- alle KaWe F.O. Xenon-Griffe 3,5 V (klein + mittel) können nur mit Ladebatterie in Verbindung mit KaWe MedCharge 4000 verwendet werden
- hohe Energiedichte der Li-Ion Ladebatterie 3,5 V

With xenon illumination

- all handles are compatible according to DIN ISO 7376
- metal light sockets, advantage: xenon-bulb can be removed very quickly to be sterilized
- light-weight (no casing or interior socket)
- all KaWe 2.5 V (small and medium) fiber optic xenon handles perform dual functions
 - with batteries = battery handle
 - with rechargeable battery = charging handle for KaWe MedCharge 4000 charging station
- very long rechargeable battery life 2.5 V + 3.5 V (NiMH)
- environmentally-friendly
- all KaWe 3.5 V (small + medium) fiber optic xenon handles can be used only with rechargeable battery and charged with the KaWe MedCharge 4000
- the 3.5 V lithium-ion rechargeable battery has a high energy density



F.O. LED Griffe | F.O. LED handles

LADEGRIFFE | CHARGING HANDLES



Mit LED-Beleuchtung

- alle Griffe sind kompatibel nach DIN ISO 7376
- Lampenhülse aus Metall, Vorteil: schnellere Entnahme der LED-Lampe für Sterilisationsvorgang
- leichtes Eigengewicht, da keine Kapsel und keine Innenhülse
- Alle KaWe F.O. LED Griffe 3,5 V (klein + mittel) können nur mit Ladebatterie in Verbindung mit KaWe MedCharge 4000 verwendet werden

With LED illumination

- all handles are compatible according to DIN ISO 7376
- metal light sockets, advantage: LED light can be removed very quickly to be sterilized
- light-weight (no casing or interior socket)
- all KaWe 3.5 V (small + medium) fibre optic LED handles can be used only with rechargeable battery and charged with the KaWe MedCharge 4000

73

LED-Lampe | LED bulb

Beleuchtungsstärke, Abstand 35 mm | illuminance, distance 35 mm

Farbtemperatur | colour temperature

Lebensdauer Lampe | lifetime of bulb

Lichtstrom | luminous flux

Garantie | guarantee



2,5 V

ca. | approx.

3.600 Lux

5.500 K

50.000 h

30 lm

5 Jahre | years



2,5 V

ca. | approx.

9.000 Lux

5.500 K

50.000 h

50 lm

5 Jahre | years



3,5 V

ca. | approx.

18.000 Lux

6.500 K

50.000 h

70 lm

5 Jahre | years

8000 Einzelfasern für optimale Lichttransmission
8000 single fibres for optimal light emission



F.O. Xenon – Batterie-/Ladegriffe | battery/charging handles

MIT XENON-BELEUCHTUNG | WITH XENON ILLUMINATION



2,5 V

F.O. XENON

2,5 V XENON

Batterie-/Ladegriffe | battery/charging handles

1	2,5 V Ø XL ⊗	Batterie-/Ladegriff AA, klein 19 mm Xenon-Lampe Batterien: Typ AA (Mignon)	Battery/charging handle AA, small 19 mm xenon bulb batteries type AA	REF 03.41005.711
1a	2,5 V ⚡	Batterie-/Ladegriff AA, klein inkl. Ladebatterie	Battery/charging handle AA, small inkl. rechargeable battery	REF 03.41105.711 REF 12.80110.712
2	2,5 V Ø XL ⊗	Batterie-/Ladegriff C, mittel 28 mm Xenon-Lampe Batterien: Baby C	Battery/charging handle C, medium 28 mm xenon bulb batteries (C)	REF 03.41000.721
2a	2,5 V ⚡	Batterie-/Ladegriff C, mittel inkl. Ladebatterie	Battery/charging handle C, medium inkl. rechargeable battery	REF 03.41100.721 REF 12.80110.722
3	2,5 V Ø XL ⊗	Batteriegriff C, groß 32 mm Xenon-Lampe Batterien: Baby C	Battery handle C, large 32 mm xenon bulb batteries (C)	REF 03.41000.731
4	2,5 V Ø XL ⊗	Batteriegriff AA, kurz 32 mm Xenon-Lampe Batterien: Mignon AA	Battery handle AA, short 32 mm xenon bulb batteries (AA)	REF 03.41000.741
5	2,5 V Ø XL ⊗	Economy-Batteriegriff C, mittel 30 mm, grün Xenon-Lampe Batterien: Baby C	Economy battery handle C, medium 30 mm, green xenon bulb batteries (C)	REF 03.41001.721



2,5 V XENON

Leuchtmittel für KaWe F.O. Griffe | Illuminant for KaWe F.O. handles

XL	Xenon-Lampe VE = 6 Stück	xenon bulb PU = 6 items	REF 12.75141.003
----	-----------------------------	----------------------------	------------------

F.O. Xenon – Ladegriffe | charging handles

MIT XENON-BELEUCHTUNG | WITH XENON ILLUMINATION



75

3,5V

F.O.
XENON

3,5 V XENON

Ladegriffe | charging handles

6	3,5 V	Ladegriff AA, klein (NiMH)	charging handle AA, small (NiMH)	REF 03.41015.711
	Ø	19 mm	19 mm	
	XL	Xenon-Lampe	xenon bulb	
7	3,5 V	Ladegriff C, mittel (Li-Ion)	charging handle C, medium (Li-Ion)	REF 03.41010.521
	Ø	28 mm	28 mm	
	XL	Xenon-Lampe	xenon bulb	
8	3,5 V	Ladegriff C, mittel (NiMH)	charging handle C, medium (NiMH)	REF 03.41000.811
	Ø	28 mm	28 mm	
	XL	Xenon-Lampe	xenon bulb	
	EU	240 V, EU-Version	240 V, EU version	REF 12.80120.742
		3,5 V, Nickel-Metallhydrid (NiMH)	3,5 V, nickel-metal hydride (NiMH)	
		Vorteile Li-Ion-Ladebatterien:	Advantages of Li-Ion rechargeable batteries:	REF 12.80220.722
		- hohe Lebensdauer	- long life	
		- hohe Energiedichte	- high energy density	
		- kein Memory-Effekt	- no memory effect	
		- geringe Selbstentladung	- little self discharging	

3,5 V XENON

Griff aufladbar in der Steckdose | handle rechargeable in electric outlet

8	3,5 V	Ladegriff C, mittel	charging handle C, medium	REF 03.41000.811
	Ø	28 mm	28 mm	
	XL	Xenon-Lampe	xenon bulb	
	EU	240 V, EU-Version	240 V, EU version	REF 12.80120.742
		3,5 V, Nickel-Metallhydrid (NiMH)	3,5 V, nickel-metal hydride (NiMH)	



3,5 V XENON

Leuchtmittel für KaWe F.O. Griffe | Illuminant for KaWe F.O. handles

XL	Xenon-Lampe	xenon bulb	REF 12.75244.013
	VE = 6 Stück	PU = 6 items	

F.O. LED – Batteriegriffe | battery handles

MIT LED-BELEUCHTUNG | WITH LED ILLUMINATION

LED-Beleuchtung ist die optimale Voraussetzung für ein einfaches Intubieren. Die LED Leuchtmittel zeichnen sich durch eine exzellente Lichteffizienz und eine sehr hohe Lichttransmission aus. Überzeugen Sie sich selbst.

LED illumination is the optimal prerequisite for easy intubation. The LED illuminants feature excellent light efficiency and superb light transmission. Try them out for yourself!



2,5V LED		Batteriegriffe battery handles		
1	2,5 V Ø LED ⊗	Batteriegriff AA, klein 19 mm LED standard Batterien (Mignon AA)	Battery handle AA, small 19 mm LED standard batteries (AA)	REF 03.41020.711
2	2,5 V Ø LED ⊗	Batteriegriff C, mittel 28 mm LED standard Batterien (Baby C)	Battery handle C, medium 28 mm LED standard batteries (C)	REF 03.41020.721
3	2,5 V Ø LED ⊗	Batteriegriff AA, kurz 32 mm LED standard Batterien (Mignon AA)	Battery handle AA, short 32 mm LED standard batteries (AA)	REF 03.41020.741
2,5V LED		Einmal-Batteriegriff Single-use battery handle		
4	2,5 V Ø LED ⊗	Batteriegriff C, mittel Kunststoff, VE = 10 St. 30 mm LED standard Batterien (Baby C)	Battery handle C, medium plastic, PU = 10 pcs. 30 mm LED standard batteries (C)	REF 03.41022.721
2,5V LED		Leuchtmittel für KaWe F.O. Griffe Illuminant for KaWe F.O. handles		
	LED	LED standard, VE = 1 Stück	LED standard, PU = 1 items	REF 12.75154.003

Alle 2,5 V LED Batteriegriffe nicht aufladbar in Ladestation KaWe MedCharge 4000. Keine Anwendung mit Ladebatterie 2,5 V möglich.

The 2.5 V LED battery handles are not compatible with the KaWe MedCharge 4000 charging station. Cannot be used with 2.5 V rechargeable battery.

F.O. LED – Batterie-/Ladegriffe | battery/charging handles

MIT LED-BELEUCHTUNG | WITH LED ILLUMINATION



77

2,5V

F.O. +LED high power

2,5 V LEDhp

Batteriegriffe battery handles			
5	2,5 V Ø LEDhp ⊗	Batteriegriff AA, klein 19 mm LED high power Batterien (Mignon AA)	Battery handle AA, small 19 mm LED high power batteries (AA) REF 03.41030.711
6	2,5 V Ø LEDhp ⊗	Batteriegriff C, mittel 28 mm LED high power Batterien (Baby C)	Battery handle C, medium 28 mm LED high power batteries (C) REF 03.41030.721
7	2,5 V Ø LEDhp ⊗	Batteriegriff AA, kurz 32 mm LED high power Batterien (Mignon AA)	Battery handle AA, short 32 mm LED high power batteries (AA) REF 03.41030.741



2,5V LED

Leuchtmittel für KaWe F.O. Griffe Illuminant for KaWe F.O. handles			
LEDhp	LED high power, VE = 1 Stück	LED high power, PU = 1 items	REF 12.75151.003

3,5V

F.O. +LED high power

3,5 V LEDhp

Ladegriffe charging handles			
8	3,5 V Ø LEDhp ⚡	Ladegriff AA, klein (NiMH) 19 mm LED high power inkl. NiMH Ladebatterie 3,5 V	charging handle AA, small (NiMH) 19 mm LED high power incl. 3.5 V NiMH rechargeable battery REF 03.41145.711 REF 12.80120.712
9	3,5 V Ø LEDhp ⚡	Ladegriff C, mittel (Li-Ion) 28 mm LED high power inkl. Li-Ion Ladebatterie 3,5 V	charging handle C, medium (Li-Ion) 28 mm LED high power incl. 3.5 V Li-ion rechargeable battery REF 03.41140.521 REF 12.80220.722



3,5 V LED

Leuchtmittel für KaWe F.O. Griffe Illuminant for KaWe F.O. handles			
LEDhp	LED high power, VE = 1 Stück	LED high power, PU = 1 items	REF 12.75251.003

F.O. Spatel | F.O. blades

FÜR F.O. GRIFFE | FOR F.O. HANDLES



78

          	1	(»80)	KaWe MEGALIGHT Macintosh F.O.	integrierte Fiber Optik	integrated fibre optic illumination	0, 1, 2, 3, 4, 5 □ 3 x 7 mm
			Größen	sizes		
			Lichtleiter	light guide		
	2	(»81)	Macintosh F.O.	auswechselbare Fiber Optik	replaceable fibre optic illumination	0, 1, 2, 3, 4, 5 Ø 4 mm
			Größen	sizes		
			Lichtleiter	light guide		
	3	(»82)	TEPRO Macintosh F.O.	auswechselbare Fiber Optik	replaceable fibre optic illumination	2, 3, 4 Ø 4 mm
			Größen	sizes		
			Lichtleiter	light guide		
	4	(»83)	KaWe FLAPLIGHT F.O.	auswechselbare Fiber Optik	replaceable fibre optic illumination	2, 3, 4 Ø 4 mm
			Größen	sizes		
			Lichtleiter	light guide		
	5	(»83)	KaWe FLAPLIGHT MEGALIGHT	integrierte Fiber Optik	integrated fibre optic illumination	2, 3, 4 □ 3 x 7 mm
			Größen	sizes		
			Lichtleiter	light guide		
	6	(»84)	KaWe MEGALIGHT Miller F.O.	integrierte Fiber Optik	integrated fibre optic illumination	00, 0, 1, 2, 3, 4 Ø 3 mm
			Größen	sizes		
			Lichtleiter	light guide		
	7	(»85)	Miller F.O.	auswechselbare Fiber Optik	replaceable fibre optic illumination	00, 0, 1, 2, 3, 4 Ø 4 mm
			Größen	sizes		
			Lichtleiter	light guide		
	8	(»86)	Foregger F.O.	auswechselbare Fiber Optik	replaceable fibre optic illumination	0, 1, 2, 3, 4 Ø 4 mm
			Größen	sizes		
			Lichtleiter	light guide		
	9	(»86)	Polio Macintosh F.O.	auswechselbare Fiber Optik	replaceable fibre optic illumination	3, 4 Ø 4 mm
			Größen	sizes		
			Lichtleiter	light guide		
	10	(»87)	Economy Macintosh F.O.	nicht auswechselbare Fiber Optik	non-replaceable fibre optic illumination	0, 1, 2, 3, 4, 5 Ø 3 mm
			Größen	sizes		
			Lichtleiter	light guide		
	11	(»88)	Economy Miller F.O.	nicht auswechselbare Fiber Optik	non-replaceable fibre optic illumination	00, 0, 1, 2, 3, 4 Ø 3 mm
			Größen	sizes		
			Lichtleiter	light guide		

Einmal-Spatel | Disposable blades

INTEGRIERTER ACRYLLICHTLEITER | INTEGRATED ACRYLIC LIGHT GUIDE



12 (»89)

Einmal-Spatel | disposable blades Macintosh

Edelstahl, unsteril	stainless steel, non-sterile
Größen	sizes
Lichtleiter	light guide



0, 1, 2, 3, 4
Ø 5 mm



13 (»90)

Einmal-Spatel | disposable blades Miller

Edelstahl, unsteril	stainless steel, non-sterile
Größen	sizes
Lichtleiter	light guide



00, 0, 1, 2, 3, 4
Ø 5 mm



14 (»91)

Einmal-Spatel | disposable blades Macintosh

Kunststoff, unsteril	plastic, non-sterile
Größen	sizes
Lichtleiter ca.	light guide approx.



2, 3, 4
Ø 5,4 - 5,7 mm



15 (»91)

Einmal-Spatel | disposable blades Miller

Kunststoff, unsteril	plastic, non-sterile
Größen	sizes
Lichtleiter ca.	light guide approx.



0, 1, 2, 3
Ø 4,9 - 5,4 mm

79

F.O. SPATEL | F.O. BLADES



KaWe FLAPLIGHT
MEGALIGHT
KaWe MEGALIGHT
Macintosh F.O.



KaWe MEGALIGHT
Miller F.O.



Macintosh F.O. | Miller F.O. |
Foregger F.O. |
TEPRO Macintosh F.O. | Polio
Macintosh F.O. |
KaWe Flaplight



Economy Macintosh F.O.
Economy Miller F.O.

F.O. EINMAL-SPATEL | F.O. DISPOSABLE BLADES



Einmal-Spatel, Metall
Disposable blades, metal



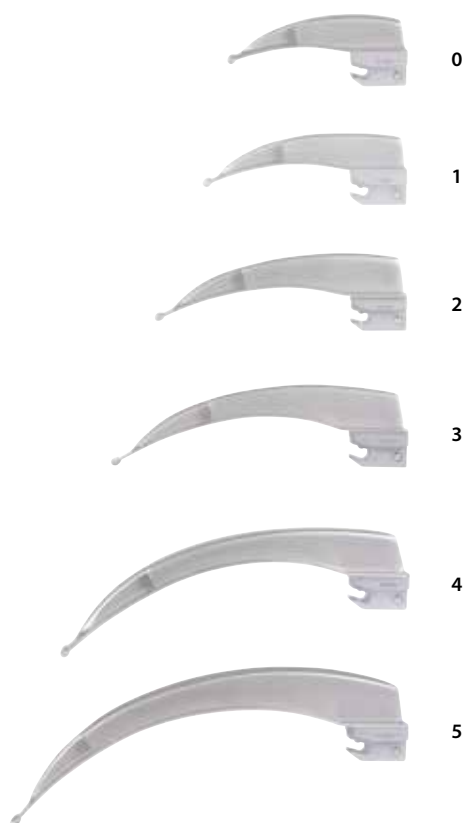
Einmal-Spatel, Kunststoff
Disposable blades, plastic

KaWe MEGALIGHT Macintosh F.O.



Macintosh Spatel mit integrierter Fiber Optik
Macintosh blades with **integrated** fibre optics

- Edelstahl matt – verhindert Rückreflexion
 - mit integrierter Fiber Optik
 - keine Schmutznischen – einfache Reinigung
 - sehr große Fiber Optik – Querschnitt (3,0 x 7,0 mm)
min. 6500 Einzelfasern für optimalen Lichtaustritt
 - autoklavierbar bis 134°C – für ca. 2000 Zyklen
 - kompatibel nach DIN ISO 7376
 - wartungsfrei
- matte stainless steel – prevents back reflection
 - with integrated fibre optics
 - no dirt-collecting recesses (easy to clean)
 - very large fibre optics – cross section (3.0 x 7.0 mm)
6500 single fibres minimum for optimal light emission
 - can be treated in the autoclave up to 134°C – approx. 2000 times
 - compatible according to DIN ISO 7376
 - maintenance-free



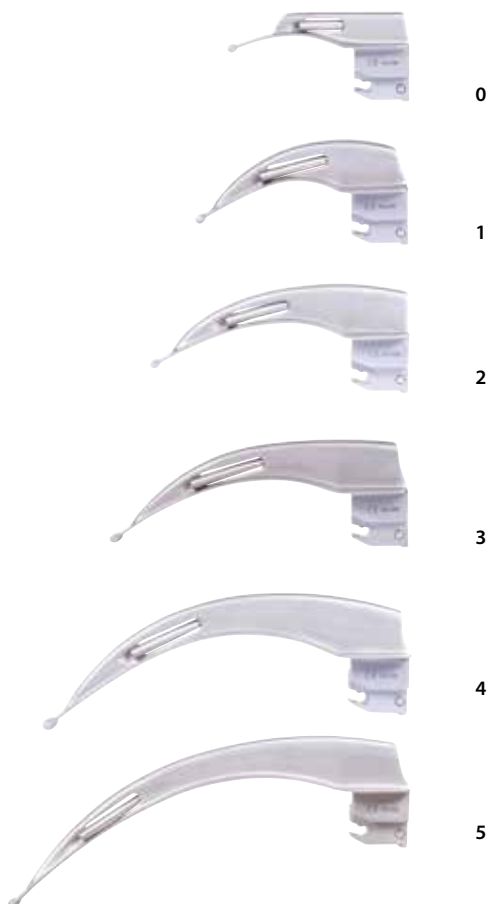
	Größe Size	a x b (mm)
REF 03.42244.601	0	82 x 14
REF 03.42244.611	1	93 x 14
REF 03.42244.621	2	115 x 17
REF 03.42244.631	3	135 x 18
REF 03.42244.641	4	155 x 18
REF 03.42244.651	5	176 x 20

Macintosh F.O.



Spatel mit **auswechselbarer** Fiber Optik Blades with **replaceable** fibre optics

- Edelstahl matt – verhindert Rückreflexion
 - auswechselbare Lichtleiter
 - leichte Reinigung
 - umweltfreundlich und zugleich wirtschaftlich
 - Fiberoptik Ø 4 mm, min. 5500 Einzelfasern
 - autoklavierbar bis 134°C – für ca. 2000 Zyklen
 - kompatibel nach DIN ISO 7376
- matte stainless steel – prevents back reflection
 - replaceable light guide
 - easy to clean
 - environmentally-friendly and cost-effective
 - fibre optic illumination Ø 4 mm, 5500 single fibres minimum
 - can be treated in autoclave up to 134°C – approx. 2000 times
 - compatible according to DIN ISO 7376



	Größe Size	a x b (mm)	Ersatzlichtleiter F.O. Spare light guide F.O.
REF 03.42013.601	0	80 x 13	REF 03.49013.601
REF 03.42013.611	1	92 x 20	REF 03.49013.611
REF 03.42013.621	2	112 x 19	REF 03.49013.621
REF 03.42013.631	3	130 x 22	REF 03.49013.631
REF 03.42013.641	4	155 x 25	REF 03.49013.641
REF 03.42013.651	5	175 x 23	REF 03.49013.651



Macintosh F.O. / TEPRO F.O. / Miller F.O. / Foregger F.O. / Polio F.O.

Einfaches Wechseln des F.O. Lichtleiters durch Lösen der Schraube

Fibre-optic light guide easily replaced by loosening the fastening screw



**Confirmation of the minimum achievable operating time REF 12.80220.722
(Li-Ion secondary charging battery)**

KIRCHNER & WILHELM GmbH + Co. KG (*KaWe*) hereby confirms that the secondary charging batteries "Type C, 3.5V, Lithium-Ion (*Li-Ion*), medium" (REF 12.80220.722) achieve a minimum operating time of 3 hours with all compatible *KaWe* laryngoscope handles and the illuminants compatible with these handles.

This applies under the restriction that the rechargeable batteries are in technically perfect condition and are used correctly. Please follow the instructions in the corresponding instructions for use.

There is generally no warranty claim on *KaWe* charging batteries.

Asperg, 26-Oct-2021

Gero Nowak

Gero Nowak
M. Eng.
Entwicklung / Development

KaWe MedCharge 4000 charging station

REF 12.80005.002



KaWe MedCharge 4000 is the charging station for the KaWe EUROLIGHT, KaWe COMBILIGHT, and the laryngoscope product lines metal handles in small (AA) and medium (C) models, with the exception of the Economy, LED 2.5 V and plug-in charging handles. The operation time of a medium-sized rechargeable batteries is approximately 3 hours, whereas the smaller models last approx. 2 hours. This is however, dependent on the type of bulb used.

Description

- charging station
- for charging handles 2.5 V / 3.5 V
- intelligent electronics control
- with universal power plug
ALL in ONE: EU 240 V, GB 240 V, US 110 V
- 2 adapter sleeves for (AA) handles
- incl. wall-mounted holder

Technical data

- input voltage: 100V – 240V +/- 10%, 50 – 60 Hz
- max. power: 1.2 A
- efficiency factor: 90 – 93 %
- chargeable capacity: min. 250 mAh, max. 4500 mAh
- input voltage charging station: 9 VDC +/- 10 %
- output voltage in stand-by: < 9 VDC
- rated output voltage: 2x 3.6 VDC
- rated charging current: 2x 250 mA +/- 10 %
- charge end power: 10 – 30 mA for Li-Ion
- electric strength: 4 kV
- protection class: II
- operating temperature: 0° C – +40° C
- storage temperature: -25° C – +70° C

Emergency bag, for max. 4 blades + 1 handle

REF 03.90003.001

color: blue

approx. L 19 x W 11 x H 6.5 cm

