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# Powered by excellence



Battery-powered tools bee-system II

for all orthopedic indications and large bone surgery

### Drill & Ream machine

The new bee-system II universal Drill and Ream handpiece for all orthopedic indications and large bone surgery. Drill & Ream machine with Right/Left (CW and CCW) rotation lever for oscillating mode on/off and trigger for manual speed regulation with ring for switch Drill and Ream mode.

- With Right/Left (forward/backward rotation)
- Lock position
- Oscillating mode on/off
- Continuously adjustable rotation speed
- Drill with 2 speed ranges, switch to change from Drill to Ream mode



Technical data:	
Handpiece dimensions (without attachment)	162 x 93 x 198 mm
Weight of handpiece with powerpack	1850 g
Continuously adjustable rotation speed	0 - 1000 rpm (drill mode)/0 - 250 rpm (ream mode)
Cannulation	Ø 4.3 mm
Protection class	B, EN 60601-1
Power supply	Internal battery
Order no.	F-31-100-00

### Drill machine standard



The new bee-system II small handpiece for all drill attachments incl. Kirschner pin driver with continuously adjustable rotation speed.



- With Right/Left (CW/CCW) rotation
- Lock position
- Continuously adjustable rotation speed

Technical data:	
Handpiece dimensions (without attachment)	137 x 93 x 197 mm
Weight of handpiece with powerpack	1660 g
Continuously adjustable rotation speed	0 - 1000 rpm
Cannulation	Ø 4.3 mm
Protection class	B, EN 60601-1
Power supply	Internal battery
Order no.	F-31-150-00

### Accessories for Drill & Ream and Drill machines standard

Accessories for Drill & Ream and Drill machines standard		for Drill & Ream	for Drill standard
	Wire/Pin Driver for Drill & Ream machine F-31-100-00 for use with K-wires with: Ø 1.0 mm (Drill mode) to Ø 4.0 mm (Ream mode)	•	
	Wire/Pin Driver for Standard Drill machine F-31-150-00 for use with K-wires with: Ø 1.0 mm (Drill mode) to Ø 4.0 mm (Ream mode)		•
	Extension guide for wire/pin driverF-30-100-19	•	•
	Adapter for radiolucent drill guide F-30-100-25	•	•
	<b>AO connector</b> small, Ø 2.5 mmF-30-100-50	•	•
	<b>AO connector</b> large, Ø 4.3 mm F-30-100-51	•	•
	<b>1/4" connector</b> Ø 4.3 mm	•	•
0	<b>Hudson connector</b> Ø 4.3 mm F-30-100-53	•	•



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Accessories for Drill & Ream and Drill n	nachines standard	for Drill & Ream	for Drill standard
	Harris connector           Ø 4.3 mm         F-30-100-54	•	•
	Hexagonal connector SW6 Ø 4.3 mmF-30-100-55	•	•
	<b>DIN-Coupling</b>	•	•
	<b>Drill attachment Jakobs chuck</b> small with key, Ø 0 - 4.0 mmF-30-100-60	•	•
	Drill attachment Jakobs chuck large with key, Ø 0 - 6.5 mmF-30-100-61	•	•
The state of the s	<b>Röhm – three jaw chuck</b> with key, max Ø 7.0 mm	•	•
	Quick action chuck with ratchet, max Ø 6.5 mm	•	•
	Quick action chuck without ratchet, max Ø 6.0 mmF-30-100-64	•	•
	Albrecht quick action chuck without ratchet small, max Ø 3.5 mm	•	•

### Oscillating Reaming machine

The new Oscillating Reaming machine for use in anterior cruciate ligament reconstruction.

- Continously adjustable oscillation speed
- Holder fort he patended hollow burrs and hollow drills
- Avoidance of application errors through fixed locking position
- Extraction of BT & BTB grafts with defined bone block



Technical data:	
Handpiece dimensions (without attachment)	140 x 111 x 206 mm
Weight of handpiece with powerpack	1550 g
Continuously adjustable rotation speed	0 - 9000 rpm (Step 1)/0 - 11000 rpm (Step 11)
Protection class	B, EN 60601-1
Power supply	Internal battery
Order no.	F-31-700-00



Special adapted for cannulated Oscillating Reaming machine F-31-700-00. Tools for harvesting quadriceps tendon, patellar tendon and harvesting cylindrical bone blocks.

For quadriceps- or patella tendon harvesting		
	Hollow burr         sz. 8 (ID 8,4 mm)       8869.841         sz. 9 (ID 9.4 mm)       8869.843         sz. 10 (ID 10.4 mm)       8869.844	Cutting teeth only on 2/3 of the distal burr avoids a too big defect on the patella when harvesting the bone block Hollow burrs of different diameters allow to harvest anatomically suitable graft diameters for each patient
	<b>Suture puller</b> WL 350 mm (Ø 4 mm) 8869.921	Passing the sutures through and pulling the graft into the hollow burr
	Bone elevator         sz. 8 (inside 8.4 mm)       8868.921         sz. 9 (inside 9.4 mm)       8868.922         sz. 10 (inside 10.4 mm)       8868.923	Loosen the bone block from the patella after using a hollow burr
	Pusher straight WL 110 mm8869993 Curved plunger	Reimplanting and press-fit fixation of BT or BTB grafts in the femoral tunnel     Straight version for use via anteromedial portal
	WL 110 mm8869.991	Curved version for use via transtibial portal

Auxiliary set of hollow drills for harvesting c	ylindrical bone blocks	
	Hollow drill and ejector         sz. 8 (OD 8,5 mm)	Application of the hollow drill with     Oscillating Reaming machine F-31-700-00     Hollow drills are simultaneously guided via the drill guide, and using canullated ejectors – safe tunnel positioning
an and an	Base section for tibial drill 8874.111	Mounting the drill guides for hollow drill and guide wire     Compatible with standard aiming hook 8874.121 or spoon 8874.123
	Aiming hook tibial ACL	Compatible with Base section 8874.111
	Alignment wire guide hollow drill sz. 2.5	Directs the guide wire to position the tibial tunnel     Compatible with Base section 8874.111
	Drill guide for hollow drill bit         sz. 8       8874150         sz. 9       8874.152         sz. 10       8874.153	Guides the hollow drill to remove a tibial bone block     Compatible with Base section 8874.111

### Oscillating saws

Oscillating saws are available in two versions: Oscillating saw,  $4^{\circ}$  (lateral movement) for Synthes/AO saw blades and oscillating saw for Stryker sawblades.

#### Sagittal oscillating saw in bone surgery:

- With rotatable saw blade clamping in 45° steps (8 positions)
- Manual speed adjustment and oscillating mode
- Shift lever for operating in two different speeds
- With AO-Synthes and Stryker connection of the saw blade



Technical data:	
Handpiece dimensions (without attachment)	166 x 111 x 211 mm
Weight of handpiece with powerpack	1760 g
Continuously adjustable rotation speed	0 - 9000 cpm (Step 1)/0 - 11000 cpm (Step II)
Protection class	B, EN 60601-1
Power supply	Internal battery
Order no. oscillating saw 4° for Synthes/AO saw blades	F-31-300-00
Order no. oscillating saw 4° for Stryker saw blades	F-31-310-00

#### Sternum saw



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Sternum saw with protection sleeve and keyless chuck with continuously adjustable rotation speed and switch lever from Step I to II. Basic model can be used as reciprocating saw.

Rotate the attachment / chuck to the desired position. Locking always at  $90^{\circ}$ .



- Precise cutting guide
   with good visibility conditions
- Easy clamping of sawblade (no tools required)
- Use of saw blades with Stryker adaption
- Attachment of protection sleeve in 4 different positions possible (locking at 90°)
- Basic model to be used as receprocating

Technical data:	
Handpiece dimensions (without attachment)	185 x 111 x 206 mm
Weight of handpiece with powerpack	1750 g
Continuously adjustable rotation speed	0 - 7500 cpm (Step 1)/0 - 10000 cpm (Step 11)
Protection class	B, EN 60601-1
Power supply	Internal battery
Order no. (includes keyless sternum attachment F-30-400-05)	F-31-601-00

### One powerpack for all machines

The innovative battery-driven power-system concept with newest Li-lon battery technology and longer lifetime. With new ergonomic design, improved closing mechanism and easier cleaning and maintenance.

Powerpack, universal drive unit for use with all bee-system handpieces, newest Li-lon technology.

#### The heart of the system:

- 1 powerpack for all handpieces
- Includes control unit, battery, electronics, and motor united in one powerpack
- Automatic recognition
   of the performance parameters according to the used handpiece
- Unique durability,
   no need to sterilize delicate components
- Latest battery technology long lifetime, no memory effect
- Display for battery charging status: green, orange, red (discharged)
- White LEDs for additional illumination of the OR field



Technical data:	
Dimensions	89 x 87 x 102 mm
Weight	760 g
Туре	Li-ion
Max. voltage	16.8 V
Operating voltage (rated voltage)	14.4V
Capacity	2.1 Ah
Typical charging time period	< 90 min
Order no.	F-30-900-00

### Battery charger



All charging units indicate the charging status of the powerpacks. In addition to the charging status at the powerpack, the charger displays the charging capacity per powerpack slot.





Technical data:	
Dimensions	1 charging slot: 157 x 140 x 79 mm 2 charging slots: 240 x 190 x 130 mm 4 charging slots: 520 x 190 x 130 mm
Weight	1 charging slot: 1740 g 2 charging slots: 4939 g 4 charging slots: 8700 g
Туре	Li-ion battery charger
Input	100 - 240 V AC 50 - 60 Hz 0,9 A
Output	16,8 V DC 2,0 A
Order no. Battery charger (1 charging slot)	F-30-900-50
Order no. Battery charger (2 charging slots)	F-30-900-51
Order no. Battery charger (4 charging slots)	F-30-900-52

### Accessories



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Accessories for bee-system II	
	Tray with lid, for 1 machine without rinsing set, reusable
	Rinsing set reusableF-30-910-40
	Cleaning brush set reusableF-30-910-50
	Hi-tech oil pen
	Sterile funnel for insertion of powerpack F-30-900-00 under sterile conditions, reusable
7	Lubrication service frame reusable
	Poag cable for charging units for connecting F-30-900-50 or F-30-900-51 or F-30-900-52 to potential equalization

