

# Operating Instructions

1. **Intended use.** This Power Tool is intended for industrial applications, for cutting sheet metal (maximum capacity is indicated in the Specifications), for use with cutting jaws and cutting blades which are indicated in these operating instructions or recommended by DRÄCO.

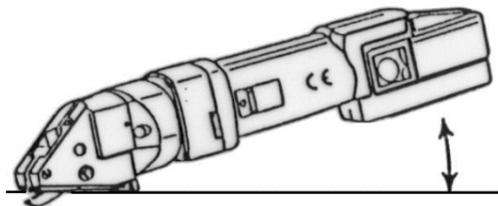
## 2. Initial Operation

Observe the rated voltage: The voltage of the power source must match that given on the nameplate of the machine. Chargers for 230V can also be operated on 220 V power sources.

### Switching ON and OFF

**Switching ON:** Slide the switch (93) forward.

**Switching OFF:** Slide the switch (93) to the rear.



1. **The material to be cut must always be free of oil or grease.** Always place the machine flat on the work piece
2. **Cut-outs:** Drill a starting hole with a 12-14 mm diameter drill. **Circular cuts:** Always cut counterclockwise and from left to right.
3. Do NOT cut sheet metal along welding points. Do NOT cut multi-layer sheets, which exceed the maximum cutting capacity.
4. **Battery Change**  
Before using the cordless tool, charge a new or empty battery. The full capacity is reached, after charging the battery about 4-5 times.

## Care and Maintenance



Before working on machine disconnect from power supply by removing plug from socket.

Always keep the machine and the ventilation slots clean. Oil the knife pin at regular intervals.

If the machine should happen to fail despite the care taken in manufacture and testing, repair should be carried out by an authorised customer services agent for DRÄCO power tools.

## CE-Declaration of conformity

We declare under our sole responsibility that this product is in conformity with the following standards.

2006/42/EG, 2014/30/EU, EN 60745-2-8:2009, EN 60335-1:2012/A13:2017, EN ISO 12100:2010

CE 18 Susanne Draenert

## Insert the battery (A)

Insert the battery from the back, until it clicks into place.



Abb. A

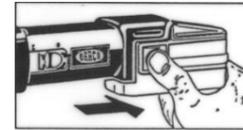


Abb. B

## Remove battery (B)

Press both stop locks together, take battery off, see arrow.

5. **For inside cutting**, if cutting a radius with the right hand, cut from right to left. The outside radius is unlimited.
6. For **cutting out** curved or circular inside patterns, a 14 mm ( $\pm 1/2$  ") hole, or a punched slot should be made to insert the centre cutter.
7. If after cutting, a **small strip** remains this can easily be trimmed off to the exact measurement, without leaving a burr or any distortion of the material. Just one side of the cordless tools can be used for cutting also (e.g. along a marked line). Lift the power tools out of the shavings while the motor is running. Cut off longer shavings.
8. Both knife and jaws can be sharpened. After being sharpened or replaced, the knife at its lowest point should protrude the jaws by approximately 3 mm. The knife should have approximately 0,05 mm (0,005") play on each side of the jaws, centring the cutter with spacing shims supplied.
9. Every 200 operating ours have the cutting blade and cutting jaws sharpened at a specialist workshop.
10. **Ensure that the material to be cut is free of oil and grease.**

## Noise/vibration information

Typically, the A-weighted sound pressure level of the tool is 71,2 dB(A). The noise level when working can exceed 82,2 dB(A). Emission peak 91 dB(C).

Wear ear protection. The typical hand-arm vibration is 2.6 m/s<sup>2</sup>. **The measured values specified above may exceed while working. For example: at 2 mm steel 13,2 m/s<sup>2</sup>, tube 0,65 mm 7,1 m/s<sup>2</sup>, uncertainty factor K 1,5 m/s<sup>2</sup>.**

Norms

Noise: EN ISO 3740:2000, EN ISO 3744:2010, EN ISO 11201:2010, EN ISO 4871:2009

Vibration: EN ISO 8041:2005, EN ISO 5349-1:2001, EN ISO 5349-2:2001 + A1:2015. EN 12096:1997

## Environmental protection



**Recycling raw materials instead of waste disposal.**

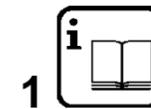
The Machine, accessories and packaging should be sorted for environment-friendly recycling.



## Operating Instructions for the metal-shears AK3514-2, AK3514-7R, AK3520, AK3515

To avoid any disturbance please read the following instructions:

### For your safety:



1



2



3



4



5

**1 Safe operation of this machine is possible only when the operating instructions and the safety precautions are read completely and the instructions contained therein are strictly observed.**

**2** The machine must not be used when damp and must not be operated in a wet environment.

**3** Always inspect cable and plug before using machine. Only have damage repaired by a qualified professional. Put the plug into the mains socket only when the machine is switched off.

**4+5** Always wears protective goggles, protective gloves and heavy-duty shoes when working.

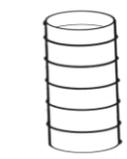
- Do not carry the machine by the cable.
- Always remove the plug from the power supply socket before carrying out any work on the machine, when interrupting work and when not using the machine.
- Always place the cable to the rear away from the machine.
- Apply the machine to the sheet metal only when switched on.
- Always provide for secure footing when working.
- Firmly clamp the work piece if it does not remain stationary from its own weight.
- The knife should not rub on the jaws: Possible danger of cutting tool breakage.
- Do not exceed the maximum allowable material thickness especially when cutting over doublers, folded joints, or welded seams.



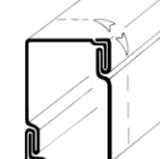
For further notes on safety refer to enclosed sheet

## Technical Data:

DRÄCO metal shears		AK 3520	AK 3514-2	AK 3514-7R	AK 3515
Art.no.		35201	351421	351471	35151
<b>max. cutting capacity</b>					
steel	400 N/mm <sup>2</sup> mm	1,7	1,7	1,7	1,7
stainless steel	600 N/mm <sup>2</sup> mm	1,3	1,3	1,3	1,3
stainless steel	800 N/mm <sup>2</sup> mm	1,0	1,0	1,0	1,0
non ferro	250 N/mm <sup>2</sup> mm	2,5	2,5	2,5	2,5
tightest radius	± mm	200	200	45	200
working speed	± m/min	4	4	4	4
strokes	± min <sup>-1</sup>	1800	1800	1800	1800



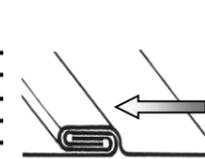
spiral ducting  
AK3514-2



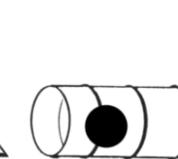
Pittsburgh-seam  
AK3514-2



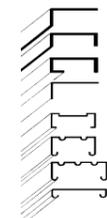
mesh and wire  
AK3514-2



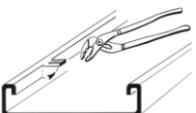
Eave  
AK3514-2



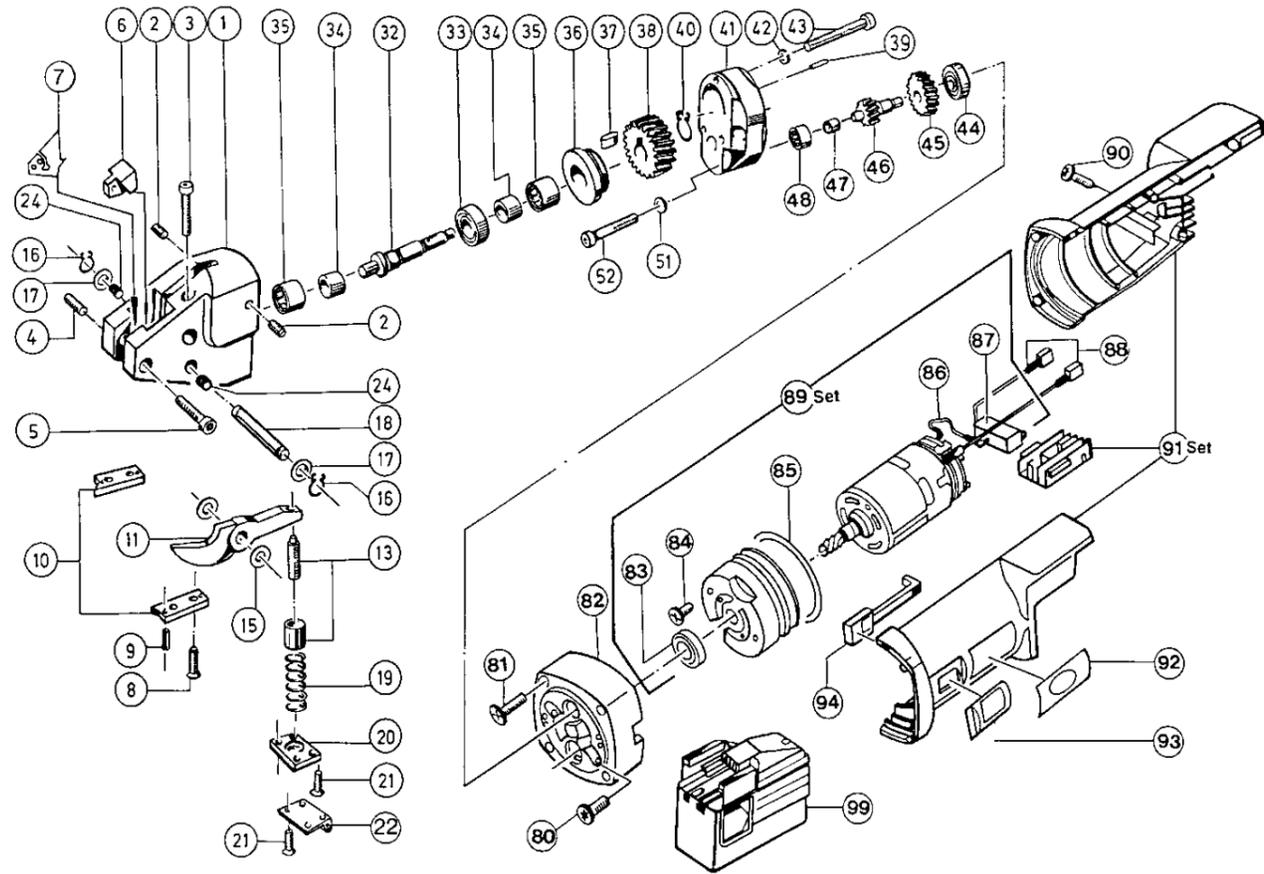
Inside cut outs  
AK3514-7R



Formed parts + cable trays  
AK3520,



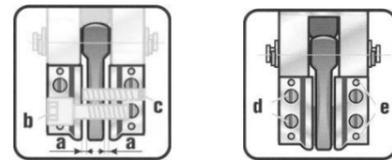
## Exploded view DRÄCO AK-Serie Ni-MH 12V



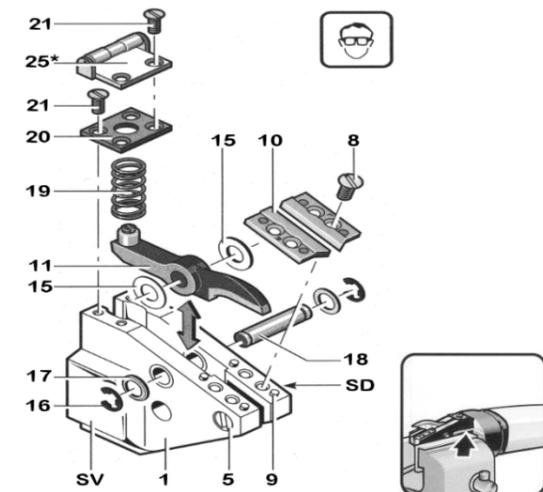
### SERVICE TIPS

Before working on machine disconnect from power supply by removing plug from socket. Wear protective glasses!

- One drop of oil between knife (11) and head-casting (1) keeps the spacing shims (15) in place.
- Dismantle Spring cover (20) and take spring out (19).
- Take circlip (16) and washer (17) off.
- Push knife pin (18) out of casting.
- Take knife out of housing.
-  Attention, do not exchange the spacing shims (15).
- Place the knife inside the housing feed shims on one side and push knife pin (18) into housing up to the middle of the knife.
- Feed the shims on the other of the knife.
- Push knife pin in completely, and secure washer (17) and circlip (16) again.
- Assemble spring (19) and spring cover (20).
- Between the knife (11) and the jaws (10) should be some distance, approximately 0,05 mm on each side. Knife (11) must be placed tight in the head casting.
- Adjustment for the play between the jaws. (a): 0,1 - 0,15 mm.



- If knife has contact with the jaws on both sides, adjust with screws in the head casting. If a burr is on the material, adjust the space between the knife and the jaws.
- Replace jaws with a new set, loosen 4 screws (8) take jaws (10) and pins (9) off, assemble again and tighten with the screws.



\*Optional

## Spare Parts List for DRÄCO Metal Shears AK3514-2, AK3514-7R, AK3520, AK3515

Pos.	Item	Pc.	Pos.	Item	Pc.	
1-43	BG35941	1	33	10250	Ball bearing	1
1-43	BG35911	1	34	10005	Sleeve	2
1-43	BG35943	1				
1-43	BG35942	1	35	10300	Needle Bearing	2
1	BG35940	1	36	BG10450	Cap for Needle Bearing Pos. 35+36	1
			37	10006	Key	1
3	81019	1	38	13051	Gear	1
4	81120	1	40	10009	Circlip	1
5	81272	1	41	13046	Gear Case Cover	1
6	35810	1	42	81249	Securing Washer	3
			43	81262	Flat Fillister Head Screw	3
8	81286	4	44	13039	Ball Bearing	1
9	81248	4	45	13540	Gear 24 Z	1
			46	13041	Pinion 20 teeth	1
10	35146	1	47	13042	Sleeve	1
11	03514	1	48	13043	Needle bearing	1
			51	81243	Spring washer	2
10	37222	1	52	81031	Screw	2
11	37140	1	80	33080	Screw	1
			81	33081	Screw	1
10	35020	1	82	33082	Motor Cover	1
11	03520	1	83	10038	Ball Bearing	1
			84	33084	Motor Cover	1
10	35146	1	85	33085	O-Ring	1
11	03515	1	86	33086	Cable	1
			87	33087	Switch	1
15	BG12400	1	88	33088	Cable	1
16	35054	2	89	33089	Motor cpl. (Pos.83-88)	1
17	81072	2	90	33090	Motor Cover	1
18	BG35145	1	91	33091	Motor housing cpl.	1
18	35145	1	92	33092	Lable	1
19	12200	1	93	33093	Cap for switch	1
20	12300	1	94	33094	Switch pad	1
21	81285	4	99	31298S3	High Capacity Battery Pack MXL	
24	35542	2		31297	SRA Charger 220V-240V 60 min.	
32	BG33018	1				
32	BG35556	1				
32	35556	1				
32	35557	1				

Ordering spare parts please mention order and item number.

### Warranty

DRÄCO tools carry a guarantee of 12 months from date of delivery. Damage attributable to normal wear and tear, overload or improper handling will be excluded from the guarantee. (e.g. blades/knives and jaws). In case of complaint please send the machine, **undismantled**, to your dealer or the DRÄCO Service Centre for electric power tools.

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