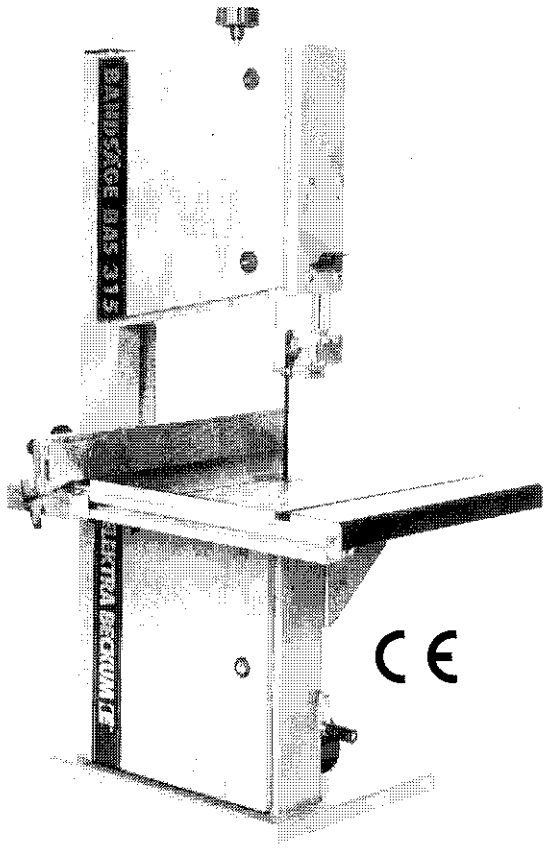
ELEKTRA BECKUM®

English only

Betriebsanleitung Bandsäge
Operating Instructions Band Saw
Instruction de service Scie à ruban
Istruzioni di servizio Sega a nastro
Gebruiksaanwijzing Bandzaag
Driftsvejledning Båndsav
Bruksanvisning Båndsag
Handbok Bandsåg
Käyttöohje Vannesaha



BAS 315/4 GWN 55
BAS 315/4 GDN 55

Achtung! Bitte lesen Sie diese Betriebsanleitung vor der Installation und Inbetriebnahme der Bandsäge aufmerksam durch.
Note Read these instructions carefully before commissioning and operating this band saw.
Attention! Prière de lire attentivement cette instruction de service avant installation et mise en service de la scie à ruban.
Attenzione! Si prega de leggere con attenzione e completamente le istruzioni di servicio prima dell'installazione e della messa in esercizio della sega a nastro.
Let op! Lees deze gebruiksaanwijzing a.u.b. zorgvuldig door voor de installatie en het gebruik nemen van de bandzaag.
Vigtigt! De bedes læse driftsvejledningen opmærksomt i gennem inden installationen og idrifttagningen af båndsaven.
OBS! Vær vennlig å lese nøye gjennom denne bruksanvisningen før du installerer og tar i bruk båndsagen.
Observera! Innan bandsågen installeras och tas i drift skall instruktionerna i handboken läsas noggrant.
Huomio! Lue käyttöohje huolellisesti läpi ennen vannesahan asennusta ja käyttöönottoa.
Atención! Por favor, lea cuidadosamente las instrucciones de servicio antes de la instalación y puesta en marcha de la sierra de cinta.

Technische Änderungen vorbehalten! / Elektra Beckum reserves the right to change specifications and design without prior notice and without incurring obligation of any kind. Equipment referred to as available or optional may be at extra cost. / Sous réserve de modifications techniques! / Con riserva di modifiche tecniche / Technische wijzigingen voorbehouden! / Ret til tekniske ændringer forbeholdes! / Med forbehold om tekniske endringer! / Förbehåll för tekniska ändringar! / Oikeus teknisiin muutoksiin pidätään. / Modificaciones t'ecnocas reservadas.

0598 - D/GB/F/I/NL/DK/N/S/SF/E

Art.-Nr. 115 161 0915

Contents

1 General

1.1 Specifications

	BAS 315/4 GWN 55	BAS 315/4 GDN 55
Dimensions (lxwxh)	590x610x1265 mm	590x610x1265mm
Weight with motor	60 kg	60 kg
Table height from floor	480 mm	480 mm
Table height from floor on workstand	1100 mm	1100 mm
Throat width	305 mm	305 mm
Max. cutting height	160 mm	160 mm
Sawblade length	2240 mm	2240 mm
Sawblade width	6 - 15 mm	6 - 15 mm
Sawtable tilt	to 45°	to 45°
Sawtable size	400x548 mm	400x548 mm
Sawblade speeds	370 + 800 m/min	370 + 800 m/min
Motor capacity	P1 - 0.81 kW S1	P1 - 0.76 kW S1
	P2 - 0.55 kW S1	P2 - 0.55 kW S1
Noise information pursuant to DIN 45635:	no-load	working
Sound power level	84.1 dB(A)	85.5 dB(A)
Workplace related noise emission value	73.3 dB(A)	79.4 dB(A)

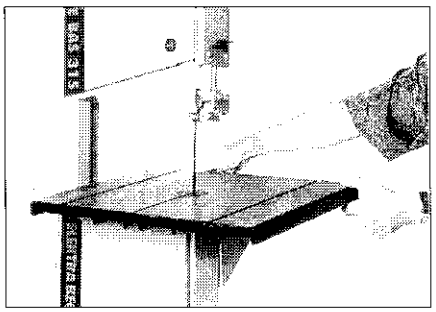
1.2 User Responsibility/Warranty

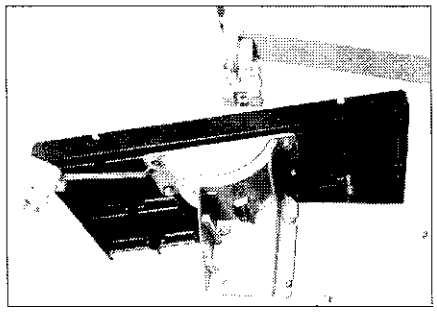
This appliance will perform in conformity with the description contained in the instructions provided. This machine must be checked periodically. Defective equipment (including power cables) should not be used. Parts that are broken, missing, obviously worn, distorted or contaminated, should be replaced immediately. Should such repair or replacement become necessary, it is recommended that only genuine Elektra Beckum replacement parts are used and that such repairs are carried out by qualified persons approved by Elektra Beckum or its representatives. Failure to comply relieves Elektra Beckum from product liability. The aforementioned also applies to all accessories offered for this appliance.

This appliance or any of its parts should not be altered or changed from standard specifications. The user of this machine shall have the sole responsibility for any malfunction which results from improper use or unauthorized modification from standard specifications, faulty maintenance, damage or improper repair by anyone other than qualified person approved by Elektra Beckum or its representatives.

Please fill in the warranty registration card and send to the address shown on it. Normal wearing parts and consumables are not covered by the warranty.

1.3 Final Assembly and Installation





Unpack machine and check for any visible damage which may have occurred during transport. If a damage is detected notify your dealer immediately.

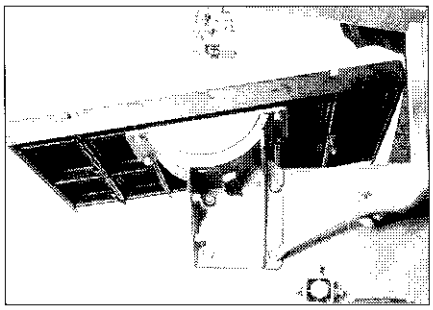
This machine is shipped partly disassembled. Saw table, rip fence guide and crank handle have to be installed prior to use.

- Remove the rip fence guide extrusion from the table.
- Place the table onto the upper table trunnion.
- Install to trunnion with 4 each serrated lock washer and hexagon head screw M 8x16.
- Attach rip fence guide extrusion to table with the four thumb screws.
- Place table insert into the table centre hole (table insert with wide slot for bevel cuts only).
- Insert cup square neck screw into rip fence guide and secure with washer Ø 8.4 and wing nut.
- Attach rip fence extrusion with 2 each cup square neck screw M 6x35, washer Ø 6.4 and knurled nut M 6 to the rip fence guide.
- Install crank handle with cap screw M 6x55 and two hex. flat nuts M 6 to the crank.

After installation adjust the table so that the sawblade runs through the centre of the table insert's slot.

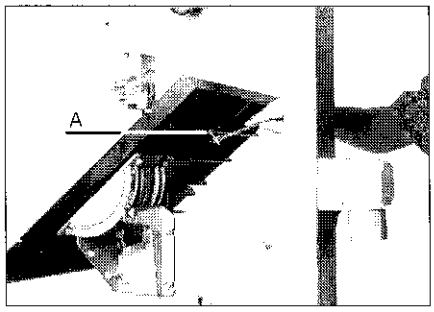
Centering the Table

- Loosen the screws holding the lower table trunnion.
- Move table sideways as required, until sawblade runs through the centre of the table insert.
- Tighten the table trunnion screws, ensure the table stays in its set position.

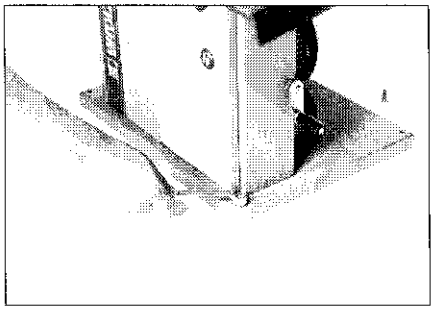


Setting the Table Square with the Sawblade

- The saw table can be tilted up to 45°. To tilt, loosen the wing nut of the table trunnion.
- A stop on the underside of the table rests on the lower wheel housing when the table is at 90° with the blade.
- By turning the hexagon nut (A) in or out, as required, the angle against the sawblade can be adjusted.
- After setting the table affix the scale to the rip fence carrier extrusion.



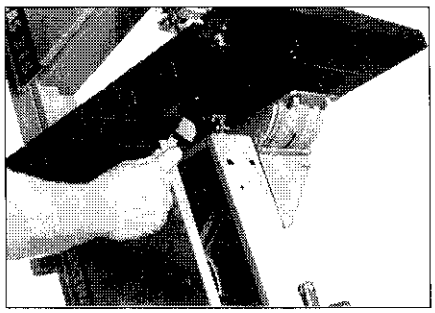
To ensure sufficient upright stability of the machine it should be bolted to floor, bench or table, or mounted on the Workstand BAS, available as optional accessory. For this purpose Ø 8 mm holes are provided in the machine's base plate.



Sawblade Guard

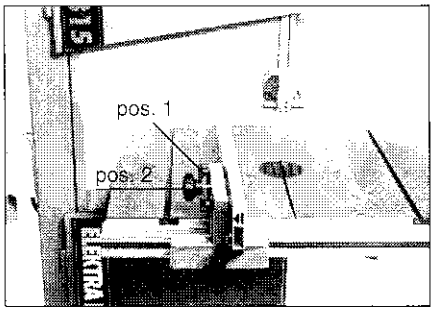
When opening the lower wheel housing door the sawblade guard swings down. When closing the door, the sawblade guard must be lifted by hand, so the door can close fully.

Important: Operate saw only with the lower wheel housing door closed.



Rip Fence

The rip fence supplied with this saw can be used on both sides of the blade. Loosen the two knurled nuts (pos.2) to set the extrusion to the other side of the rip fence carrier. With the starknob screw (pos.1) the fence extrusion can be set to square with the table top.



Dust Collection

If this band saw is operated indoors it is recommended to have it connected to a dust collector. The suction connector, supplied with the machine, has to be fitted to the dust ejection port of the saw for this purpose. The diameter of the suction connector is 100 mm. The dust collector this saw is connected to must provide for an air flow rate of 20 mtr/sec.

Caution! Wood dust and chips, together with an ignition source and the oxygen in the ambient air, can cause fires and explosions, injuries and allergies.

- Workmen working in operations processing oak or beech timber where found to develop more often cancer of the mucous membrane of the nose (adenocarciome of the inner nose) then other workers.
- Experience shows that skin contact with oak or beech dust does not cause cancer.

2 Band Saw Settings

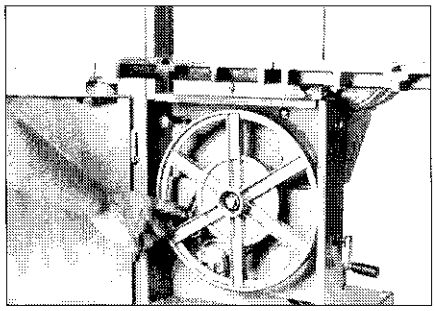
2.1 Selecting the Correct Blade Speed

This band saw can be operated at two different speeds. By changing the V-ripped belt on the pulleys either 370 m/min (20.2 fps) or 800 m/min (43.7 fps) are possible. The band saw blade speed most suitable for the job at hand should be found by making trial cuts in a piece of scrap wood.

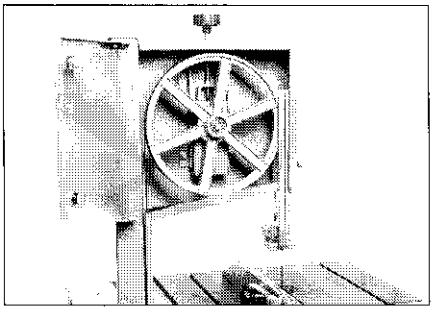
We recommend: 800 m/min for all timber
370 m/min for hardwoods, certain plastics and NF-metals.

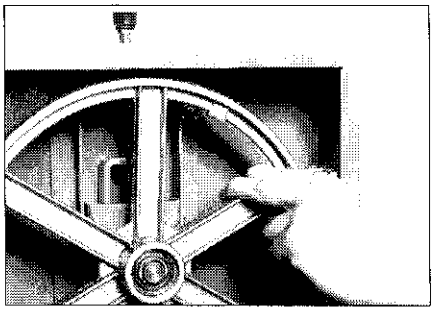
Change of Saw Blade Speed

Slacken the V-ripped belt with the crank located at the side of the lower wheel housing. Both the lower band saw wheel and the motor pulley are 2-stepped. Place belt on either front or rear V-grooved step on both pulleys (see also label in the lower door). Adjust belt tension pulley position on its shaft accordingly, then tighten the belt.



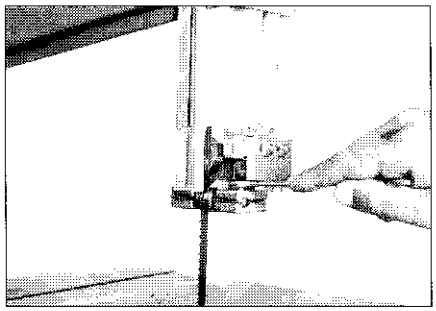
2.2 Changing and Setting the Saw Blade

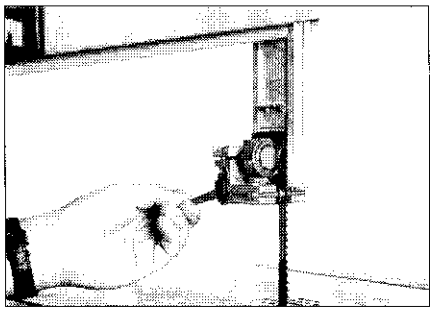




This band saw is factory-equipped with a general purpose woodcutting blade, the blade set. To change the blade, remove the rip fence carrier extrusion from the table. Then slacken the blade tension by turning the handwheel on top of the upper wheel housing. Remove the blade.
Fit new blade and tension lightly. The blade should run in the centre of the rubber lined band saw wheels or else it may jump of. To check tracking, turn upper wheel by hand. If required, adjust tracking with the knurled handle at the rear of the upper wheel housing.

2.3 Blade Guiding

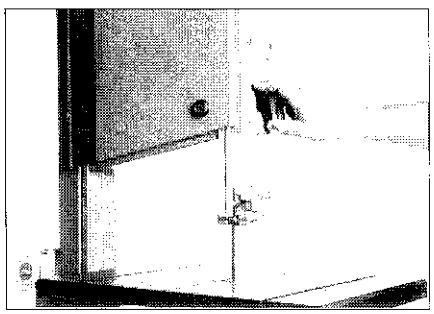




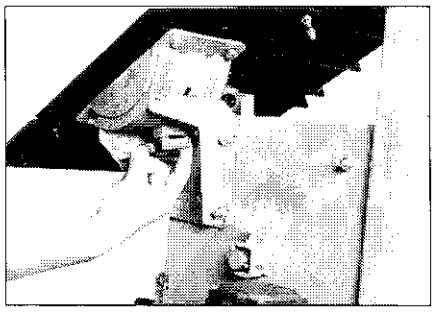
The saw blades guide of this band saw model BAS 315 ensure an exact guiding of the blade for clean cuts. When using narrow blades ensure that the lower blade guide positively supports the blade from both sides and the rear.
Set the bearings of the upper blade guide to within approx. 0.5 mm of the blade, and the large thrust bearing against the back of the blade, just clear of it. Do not set the bearing too close, as the friction generates heat, which may have an adverse effect on the bearings and the saw blade as well.

2.4 Setting the Cutting Height

The upper blade guide should always be set as close as practical against the work. To adjust, loosen the wing nut at the side of the upper wheel housing, and set the blade guide to the required height.
Tighten wing nut after setting.

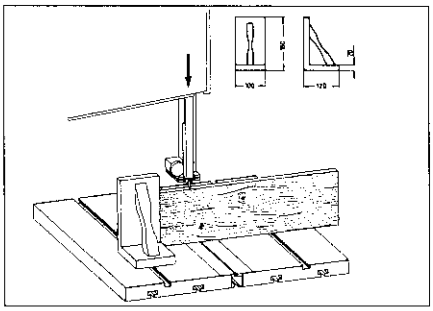


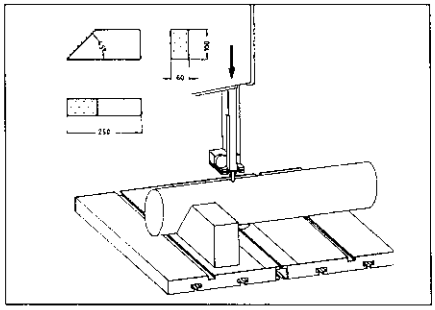
2.5 Saw Table Tilt



For bevel cuts the saw table tilts steplessly through 45°. To tilt, loosen the wing nut on the table trunnions, set table to the required angle and tighten the wing nut again.
Exchange the table insert against the one with the wide slot, so the blade can travel freely.
It is recommended to verify the correct angle setting by making trial cuts in scrap wood.

2.6 Safety Information





1. Check that all guards are in place and securely locked before switching the machine on.
2. Always disconnect from power when servicing this machine.
3. Do not use bent or cracked band saw blades.
4. Replace table insert if slot has enlarged.
5. For cutting operations with a tilted table the rip fence has to be located to the right hand side of the blade.
6. When cutting round stock use a suitable jig or fixture to keep the work from turning.
7. When cutting boards in an upright position use a suitable push block to prevent kickback.
8. Exchange the standard table insert against the one with the wide slot before tilting the table.
9. To keep health risk to a minimum it is recommended to always connect this band saw to a dust collector having an air flow rate of at least 20 m/s.

The most common hazards associated with the operation of band saws are the following:
- a hazard by the running saw blade, e.g. contact with the teeth of the blade.
- flinging of cutoffs or knots
- workpiece kickback

The principal hazard areas of a band saw are:
- the work area
- the area around a running machine
- the kickback area

Despite the use of the specific safety devices and compliance with all relevant regulations for the prevention of accidents, when operating a band saw the following residual risks remain:
- hearing damage by excessive noise;
- danger of accidents in the unprotected cutting area of the running saw blade;
- danger of injury when changing blades (danger of cuts by the sharp teeth);
- endangering by flung about workpieces or parts;
- squashing of fingers;
- danger of injury by kickback of workpieces;
- health risk caused by the dust emission, especially from oak and beech saw dust.

2.7 Other Information

This band saw can be fitted and/or upgraded with a range of optional accessories. Elektra Beckum or its representatives can only assume liability under the current product liability regulations if the machine, and all accessories offered or made available for it, is used for its intended purpose.

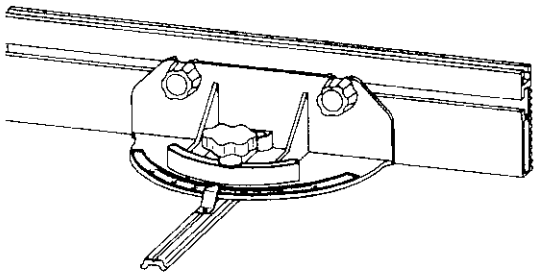
2.8 Electrical Installation

This band saw is equipped with either a 0.55 kW 230V single-phase, or a 0.55 kW 400V three-phase motor. Connection to a supply circuit is made by an extension cable, plugged directly into the switch.
This machine must be connected to an earthed outlet and should be operated on a residual current device (RCD) of 30 mA capacity. The three-phase model must be connected to a 5-wire supply system. Ensure that only 5-wire extension cables are used. Extension cables must should have a minimum lead cross section of 3 x 1.5 mm˝ (230 V) or 5 x 1.5 mm˝ (400 V).
Have damaged power cables replaced at once by a qualified electrician. **Risk of electric shock** if operated with a damaged power cable.
Children should not operate this band saw.

3 Accessories

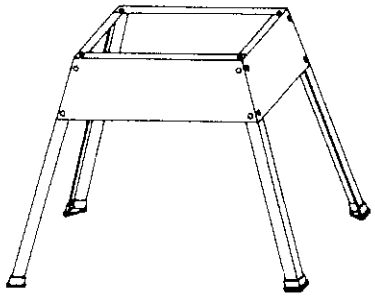
3.1 Mitre Fence Stock-no. 0910008048

If the mitre fence needs to be used on the left-hand side of the saw blade, both extrusion end plugs have to be removed from the mitre fence extrusion, otherwise the mitre fence can not pass between the blade and the machine's frame.



3.2 Workstand Stock-no. 0909004276

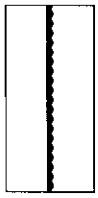
Provides a stable base for a firm stand and a convenient working height.



4 Bandsaw Blades

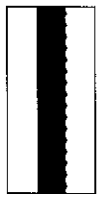
Standard delivery: General purpose blade with induction hardened teeth. All blades Swedish steel.

General purpose blade
tooth spacing 6 mm
2240x12x.0.5 mm
Stock-no. 0909000467



Blade for wood circular cutting
tooth spacing 4 mm
2240x6x0.5 mm
Stock-no. 0909000475

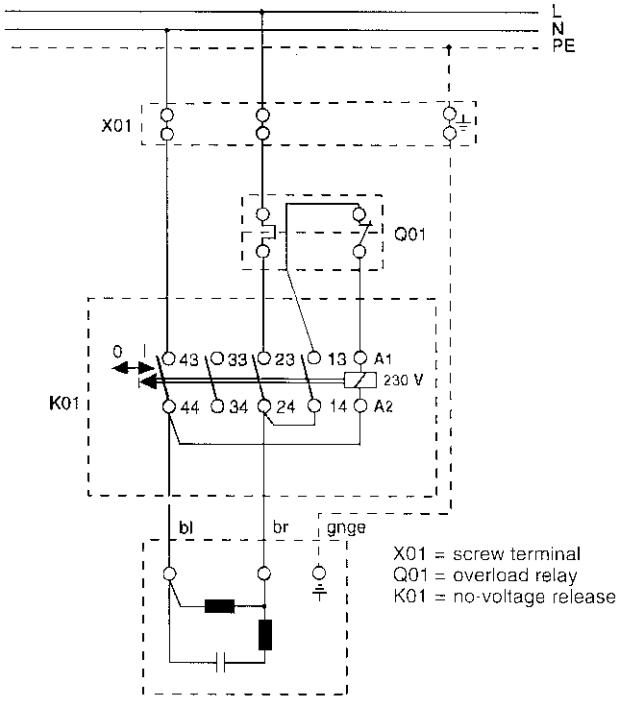
Blade for wood ripping
tooth spacing 6 mm
2240x15x0.5 mm
Stock-no. 0909000483



Blade for NF-metals
tooth spacing 2 mm
2240x15x0.5 mm
Stock-no. 0909000491

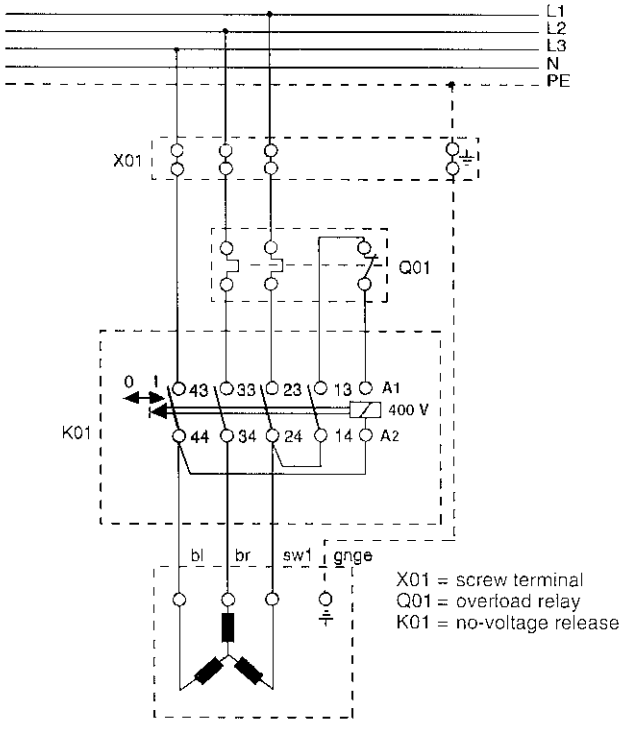
5 Wiring Diagrams

BAS 315/4 GWN 55



Single-phase

BAS 315/4 GDN 2315



Three-phase

6 Spare Parts List BAS 315/4 G

Item	Description	Dimension	DIN	Stock-no.
4	Guide support			138 004 4990
6	Upper bandsaw wheel ass'y			138 042 1360
7	Tension bracket frame			100 901 0323
8	Tension bracket	25x5x175		138 242 1333
9	Blade tensioner			100 901 0820
10	Guide carrier extrusion	375mm		138 342 1370
11	Knurled nut	M 8		624 113 3255
12	Wheel carrier bracket	128x165		138 205 1390
13	Spacer bushing	8x40 galv.		644 208 4635
14	Pilot pin	6.9x5.9x35		138 205 2818
17	Parallel pin	10h11x100		650 008 7283
18	Upper bearing shaft			148 505 1453
19	Lower bearing bolt			148 505 1518
21	Thrust bearing, small			100 901 0935
22	Suction connector BAS	Ø 100		138 105 3489
23	Table insert, narrow slot	Ø 70x5		138 140 4400
26	Starknob screw	M 8x65		700 104 7374
28	Thumb screw	M 8		700 513 5529
29	Starlock w/o cap	Ø 10		701 605 0711
30	Set screw	M 6x12	913	616 105 0910
31	Deep groove ball bearing 6203 ZZ			710 004 7254
32	Deep groove ball bearing 6203 LLU	17x40x12		710 001 7703
33	Circlip ring	17x1	471	640 004 7357
35	Washer	B 6.4 galv.	9021	630 500 2087
37	Hexagon nut, self-locking	M 6 galvanized	985	620 200 2291
42	Hexagon nut	M 16x1.5 galv.	934	620 005 0477
43	Hexagon nut	M 20x1.5	934	620 004 6208
46	Spring washer	B 16 galv.	127	630 100 0292
48	Washer	B 8.4 galv.	9021	630 500 2486
50	Lower bandsaw wheel ass'y			138 042 1352
51	Crank			148 207 2522
52	J-belt pulley, 2-step	4Jx62		724 041 9429
53	Tension wheel			148 540 0180
54	Deep groove ball bearing 6001-ZZ			710 008 6764
56	Circlip ring	12x1	471	640 000 9935
57	Set collar	A 10 galv.	705	641 000 0715
58	Disk spring	20x10.2x0.8		705 301 0088
59	Sliding shaft			148 540 0172
60	Tongue, narrow			701 414 0071
61	Lock housing	Ø 28		701 407 4168
62	Slotted insert			701 419 8568
64	Leaf spring - rear lock			705 221 5689
65	Slider	45x95		138 142 1259
67	Lamello plug	100x60		138 114 4590
75	Crank handle	Ø 25x45		700 401 7433
76	Hexagon thin nut	M 6 galv.	936/439	620 502 8046
82	Pan-head tapping screw	ST 3.5x9.5 C_H galv.	7981	617 202 8215
84	3-roller guide ass'y, heavy-duty			100 901 8022
85	Thrust bearing, heavy-duty			100 901 0951
86	Ratchet lever nut	M 6		700 607 2385
87	Knurled thumb screw	M 6x25 galv.		614 307 1144
88	Table insert, wide slot	70x5		138 140 4419
90	Band saw table	400x548		138 042 1212
91	Table trunnion, lower			238 041 4301
92	Table trunnion, upper			238 041 4310
93	Table trunnion scale 0-45°			114 241 4291
94	Fence extrusion	450 mm		139 300 5307
95	Rip fence carrier	145x130x98		138 008 1896
96	Scale, metric			114 108 6363
97	Bolt guide	22x60		138 208 3667
98	Bolt guide	16x53.5		138 242 1341
100	Pin guide seat			148 207 1003
101	Cup square neck bolt	M 8x100 galv.	603	611 008 2701
102	Glide piece, table trunnion	20.5x20.5x8		138 109 2115
103	Spacer bush	8x50 galv.		644 208 4643
104	Knurled nut	M 6	similar to 466	624 112 5058

Item	Description	Dimension	DIN	Stock-no.
105	Brush strip			913 208 1414
106	Bandsaw tyre	310x2.5x20		723 205 5833
107	Cap screw	M 6x55 galv.	84	612 000 0100
109	Washer	A 8.4 galv.	125	630 001 6322
110	Serrated lock washer	A 8.4 galv.	6798	630 400 1745
111	Hexagon nut	M 8 galv.	934	620 000 2235
112	Cup square neck screw	M 8x50 galv.	603	611 008 0245
113	Cup square neck screw	M 6x40 galv.	603	611 000 0616
116	Cup square neck screw	M 8x20 galv.	603	611 001 7942
119	Upper door ass'y 315			100 942 1285
120	Lower door ass'y 315			100 942 1307
121	Pilot pin guide ass'y			100 900 9570
122	Pan-head tapping screw	4.8x16 C-H galv.	7981	617 200 1830
125	Thumb screw	M 8x18		615 042 1509
201	Rip fence carrier extrusion	548 mm		138 342 1388
203	Flange nut	M 8 galv.		620 911 0995
204	Hexagon head screw	M 8x16 galv.	933	610 300 1178
209	Hexagon head screw	M 6x16 galv.	558/933	610 301 5675
210	Combination nut	M 6 galv.		620 907 3836
211	Guide bracket	25x135		138 242 1260
214	Washer	B 6.4 galv.	9021	630 500 2087
215	Hexagon head screw	M 6x20 galv.	933	610 300 1135
216	Hexagon head screw	M 6x12 galv.	933	610 300 1127
217	Serrated lock washer	A 6.4	6798	630 408 4047
223	Connecting tube			238 011 3662
224	Set screw	M 5x12 galv.	913	616 106 5348
227	Starknob screw	M 6x28 galv.		700 108 7775
229	Switch WN - BAS 315/4 GWN 55			100 900 3955
	Switch DN - BAS 315/4 GDN 55			813 200 4405
234	Cross recessed raised cheese head screw	M 4x50		612 306 7132
240	Cap screw	M 8x40		612 100 0898
241	Hexagon nut	M 8 galv.	934	620 911 0995
242	Cap screw	M 4x10		612 000 0029
243	Hexagon head screw	M 4		620 206 5412
244	Washer	4,3		630 001 6330
245	Sawblade guard			138 242 1317
250	Motor 0.55kW 230V 1-phase			100 900 3602
	Motor 0.55kW 400V 3-phase			100 900 3793
7000	Poly-V-belt	4 PJ 610		723 319 0017