

Manual, Data and CE Certificate

BG10 BG20 BG30

BELTIT

Pneumatic Belt Grinders

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EC DECLARATION OF CONFORMITY

We: Seco Engineering Co Ltd
32 Reading Road South
Fleet
Hants GU52 7QL

declare under our sole responsibility that the machine:

Make: Seco Engineering Co Ltd

Type: BG Model: BELT GRINDER BG10, BG20, BG30

Serial No(s):

Year of Construction:

as described in the attached documentation is in conformity with the Machinery Directive 89/392 as amended by the EC Directives 91/368 and 93/44.

Name: APPLETON

First Name: MARTIN

Position: Managing Director

Fleet

(Place, Date of Issue)

.....

(Signature)

Changing Belts on all BG BELTIT Belt Grinders.

The method of changing belts for all BG BELTIT belt grinders is the same. Every BG model has a catch located on the arm/mechanism housing.

To change a belt:

1. With one hand press on end of catch where spring is located
2. Push arm inwards (place other hand over end of tool where existing belt runs over contact wheel)
3. When arm is compressed, allow catch to be placed over lever pin
4. The arm will now be held in this new "reduced" position
5. Take off old belt and fit new belt
6. To release catch – press onto end of catch where spring is located
7. Arm is now fully extended with correct tension being applied to belt to enable it to be operated

UNDER NO CIRCUMSTANCES SHOULD THE CATCH BE RELEASED WHEN NO BELT HAS BEEN FITTED TO THE BG BELTIT.

This could cause wearing of component parts (when a belt is fitted, it stops the lever pin from hitting the end of the internal shaft).

The end of the arm might also shoot out of the arm/mechanism housing.

BG Belt Grinders (Belt Sanders)

Hand held, pneumatic and electric abrasive belt grinders.

Each BG tool operates only one arm and therefore only one belt size.
It is not possible to interchange the arms and belt sizes.

BG10, BG20 and BG30 – Pneumatic

BG10	Operating 10 x 330mm belts, 0.3hp, 22,000 maximum rpm.
BG20	Operating 20 x 520mm belts, 0.5hp, 20,000 maximum rpm.
BG30	Operating 30 x 540mm belts, 0.8hp, 13,000 maximum rpm.

BG20GE and BG30GE – Green Electric

BG20GE-240	240v, operating 20 x 520mm belts, 570w, 9,000 rpm.
BG20GE-110	110v, operating 20 x 520mm belts, 570w, 9,000 rpm.
BG30GE-240	240v, operating 30 x 540mm belts, 570w, 9,000 rpm.
BG30GE-110	110v, operating 30 x 540mm belts, 570w, 9,000 rpm.

BG20GE and BG30GE – Black Electric with speed control

BG20E-240	240v, operating 20 x 520mm belts, 1,100w, 5,000 – 10,000 rpm.
BG20E-110	110v, operating 20 x 520mm belts, 1,100w, 5,000 – 10,000 rpm.
BG30E-240	240v, operating 30 x 540mm belts, 1,100w, 5,000 – 10,000 rpm.
BG30E-110	110v, operating 30 x 540mm belts, 1,100w, 5,000 – 10,000 rpm.

Seco Engineering designs and manufactures the BELTIT range of belt grinders. They are the highest quality, most innovative range of hand held pneumatic and electric belt grinders available on the International Market.

If you require belt grinders that are more specialised than the BG range, we suggest that you visit Seco's website:
www.secoeng.co.uk

- Wide choice of strong, high performance electric and pneumatic motors.
- Over 120 different sizes and shapes of arm attachments available.
- Wide choice of different sizes of belts operated. (3,6,12,19 and 25mm wide x 457, 533, 610, 760, 865 and 1120mm long).
- Wide choice of rubber and steel wheels. (Drive wheels attached to motor. Driven wheels attached to arms). All wheels easily replaced. All moulded/produced by Seco.
- Dust Collecting versions available on wide range of models.
- Water Feed versions available on wide range of models.
- Spare parts readily available from Seco at very reasonable prices.
- Full repair service available.

Please contact your Seco distributor:
OR

SECO ENGINEERING Co. Ltd.
Tel: + 44 (0) 1252 622333 Email: enquiries@secoeng.co.uk

HEALTH & SAFETY

THE PNEUMATIC BG BELT GRINDER

All individual BG Belt Grinder models are fully tested for vibration and noise to ensure that they comply to the appropriate standards. Seco is so mindful of the danger from vibration that every BG Belt Grinder is individually tested for vibration during final testing to ensure that it gives readings of below 2.5ms² r.m.s. frequency-weighted vibration magnitude in the worst axis.

Though Seco takes great care to design and manufacture BG Belt Grinders that are both highly efficient and safe, it is necessary, as with all powered machines, that the Users themselves take certain precautions. If advice is required on any safety aspect in the use of BG Belt Grinders, please do not hesitate to contact Technical Advice at Seco

- The wearing of eye or face protection and industrial gloves is strongly recommended. Ear protection, even if not necessary, can be a very useful precaution as some sheet metal structures can be noisy when they are being ground.
- The trigger cannot be operated without first moving the safety lever. Do not prevent this safety device from operating. Check and oil regularly.
- A cover is fitted to all BG Belt Grinders as a worthwhile safety device. The cover should always be used. It also allows the comfortable holding of the body of the machine if two handed holding is preferred.
- Before grinding, ensure that the tracking of the belt is correct.
- Ensure that the BG Belt Grinder is maintained in good condition. Check driven and driving wheels regularly and replace if needed.
- Remember that sparks when grinding certain materials can burn holes in clothing etc and take whatever precautions needed. Do not wear loose clothing.
- Ensure that all air line connections are secure. An air line that becomes loose is dangerous. Never point an open air line at yourself or at anybody else.
- Ensure that work pieces are securely fixed to prevent movement.
- When grinding aluminium or other materials of which the dust is hazardous, the dust should be safely removed to protect the operator and other personnel in the work area. All models of Beltits other than the BG Belt Grinder, are available in dust collecting versions and carry the "VA" mark after the model number.
- Observe all health and safety precautions that may be issued by the Health and Safety Executive or similar official organisations in your Country.

PERFORMANCE FIGURES FOR THE BG BELT GRINDER – See appendix at the end of this manual.

GENERAL DESCRIPTION

BG BELT GRINDERS - AIR POWERED

With the tightening of Statutory Regulations and the penalties for non-compliance, the protection of operators from vibration causing “White Finger” and the lowering of workshop noise levels are becoming of ever greater importance. This is causing the steady replacement of traditional methods of grinding by the use of abrasive belt grinders such as those in the Beltit range.

A pneumatic motor is used to drive Coated Abrasive, non-woven nylon belts, cork or cloth belts over driven wheels in a range of sizes, shapes and hardness. These driven, replaceable wheels are mounted on arms that can be changed to suit the work in seconds. Grinding, deburring and polishing can be carried out not only over the driven wheels but also over self-adhesive platens of different hardness to achieve a wide range of finishes.

Abrasive belts to fit the complete Beltit range of machines are made by all of the leading Coated Abrasive Manufacturers, in all grits, in various materials. Seco Engineering keeps large stocks of belts as a back-up.

A safety trigger is fitted to avoid accidental running and the motor handle is insulated to give a comfortable grip for the operator.

GETTING THE BEST FROM YOUR BG BELT GRINDER

1ST ESSENTIAL - GOOD CLEAN AIR SUPPLY

2ND ESSENTIAL - ENOUGH OIL

3RD ESSENTIAL - GOOD QUALITY ABRASIVES

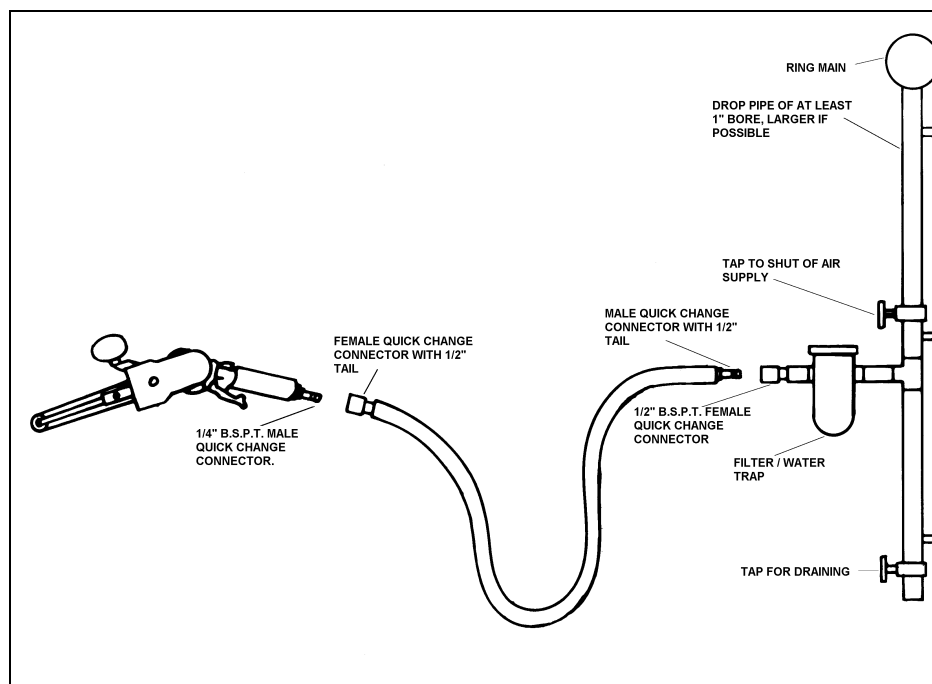
SECTION 1 - AIR SUPPLY FOR PNEUMATIC BG BELT GRINDERS

A good air supply system with pipework of adequate size saves electricity by reducing the load on the compressor as friction losses within the pipes and hoses are kept to a minimum.

HOSE SIZES

- A For hoses up to 2.5 metres in length use with 3/8” or 10mm bore.
- B For hoses between 2.5 metres and 5 metres use hose with 1/2” or 12.5mm bore.
- C For hoses over 5 metres a bore of 5/8” or 16mm bore, or larger is ideal. Fit short length of 3/8” or 10mm bore at tool end for operator comfort when using large bore hoses.
- D Ensure that there are no restrictions in the bore if air lines are joined together. Large bore quick change connectors are recommended for joining lengths of hose

SECTION 2 - AIR LINE CONNECTORS, FILTER/WATER SEPARATORS AND FILTERS



- A. Use quick change connectors with the male being of not less than 7mm bore at **all** points throughout the supply system. The connection to the metal supply line should ideally be by means of a 1/2" B.S.P.T. in the U.K. or 1/2 B.S.P.T.R. female quick change connector in other European countries. The bore of connectors supplied by Seco is over 7mm.
- B. Fit a 1/4" B.S.P.T. male quick change connector to the BG and a matching female quick change connector to the tool end of the hose. These connectors will allow direct injection of air tool oil into the BG Belt Grinders. Fitting of an air line to the tool without quick change connectors should be avoided.
- C. Water drains should be fitted to the bottom of drop pipes by extending the drop pipe past the connector, this extension is then fitted with a tap to drain the system. Clean, dry air will reduce the need for repairs to all air motors.
- D. A filter/water separator should be fitted between the drop pipe and the air line.

SECTION 3 - ENOUGH OIL The efficient working life of air driven tools depends on adequate lubrication with a good quality air tool oil, such as Secolube.

WALL MOUNTED MIST LUBRICATION

Set to deliver an adequate number of drops per minute. Consult the supplier or manufacturer of the lubricator if necessary. Do not allow air lines to contact cold surfaces such as concrete floors. Oil mist will condense and starve, then flood the tool with oil.

DIRECT LUBRICATION

Inject 4 drops of good quality air tool oil directly into the male quick change connector fitted to the BG Belt Grinder. Re-connect air supply and run motor for 2 or 3 seconds to circulate oil. Tools should be oiled every day immediately after use, thus allowing oil to counteract any moisture during the night. If the motor slows down or loses power, simply inject more oil into the male quick change connector on the BG Belt Grinder.

GOOD LUBRICATION = LONG MOTOR LIFE

SECTION 4 - GOOD QUALITY ABRASIVE BELTS

All of the main Coated Abrasive Manufacturers make a range of belts suitable for BG Belt Grinders. Belts should have butt joints, cut at an angle and joined with special tape. Alternatively jointless belts can be used.

BG BELT GRINDERS + GOOD BELTS = GOOD PERFORMANCE + FAST WORKING

SECTION 5 - KNOW YOUR BG BELT GRINDER

- A. Motors are driven by compressed air, fitted to the body. Motors can be turned through 360 degrees for operator comfort.
- B. The drive wheel is fitted to the motor drive shaft. A special coating ensures that they are virtually non-slip.
- E. An abrasive belt to suit the arm runs between the drive wheel and the driven wheel fitted to arm.
- F. Motor speed can be adjusted if desired by turning the brass adjuster on the underneath side of the motor handle.
- G. A safety lever ensures that the BG Belt Grinder will not run accidentally when laid down on a bench. The lever is moved forwards before the trigger is pressed, allowing the air supply valve to be opened by the trigger.
- H. The direction of the external exhaust air can be adjusted by rotating the expansion chamber fitted at the rear of the motor.
- I. All work is done on the return journey of the belt to the drive wheel.

Fault Finding Chart – BG Belt Grinder

Fault	Para	Cause		Remedy
Lack of Speed	Para 1	Speed regulator set too slow	1	With motor running adjust speed control
	Para 2	Lack of lubrication	2	Inject 4 or more drops of Secolube air tool oil directly into the male quick change connector fitted to the BG. Check and adjust oil flow of mist lubricator, if used
	Para 3	Poor air supply	3	Test BG Belt Grinder near compressor with short air line and correct size of connectors (see Section 2). If performance is satisfactory carry out 3a, 3b and 3c.
			3a	Check that air line hoses are of large enough bore for the length of line (see Section 1). Replace if necessary.
3b			Check that all air line connectors are of sufficiently large bore size (see Section 2). Replace if necessary.	
	3c	Check metal main line pipework. Is this of sufficient size for the number of air driven items in use? Use an electric motor fitted to a Beltit.		
	Para 4	Excess water in air supply	4	See Section 2c and 2d of instruction sheets and Para 5 of Fault
Moisture inside housing and on work surface	Para 5	Water in air line	5	See Sections 2c and 2d of instruction sheets. Drain down compressor.
			5a	Empty water drains at bottom of metal pipe drops (see Section 2) and drain water separators/filters.
			5b	Are air lines in contact with cold floor, causing condensation? If so move pipes from cold surfaces.
			5c	Blow out air line to atmosphere by fitting a quick change male connector into the female connector at BG end of line. Take care to point air jet in a safe direction
Motor seized	Para 6	Rust in motor through leaving water in motor without oil	6	Remove motor from housing. Fasten trigger in open position by fitting a plastic tie or elastic band around trigger and handle. Stand motor with handle upright. Flood with Secolube air tool oil through the male connector. Pressurise for one second and leave overnight. Free motor by gently turning drive wheel by hand in a forward and backward motion. When free, run motor with plenty of oil. N.B. Do not force motor as this will cause internal damage. Carry out steps under Para 5, "water in air line". Ensure adequate lubrication to prevent future problems.
Motor still seized after failure of Para 6 to rectify	Para 7	Dirt in motor or seized bearing	7	Strip, clean, replace faulty parts, reassemble and lubricate. Seco will willingly overhaul your BG if this is more convenient to you. Return to Seco Service Department.
Belts will not stay on BG	Para 8	Faulty belts, poorly cut or with incorrectly made joints. Belts of wrong length	8	Replace with belts of good manufacture (see Section 4 on abrasive belts).
	Para 9	Drive Wheel worn	9	Replace drive wheel
	Para 10	Badly worn driven wheel or bearings seized	10	Replace driven wheel and bearings

For technical advice contact Seco Engineering or an appointed Seco dealer

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