

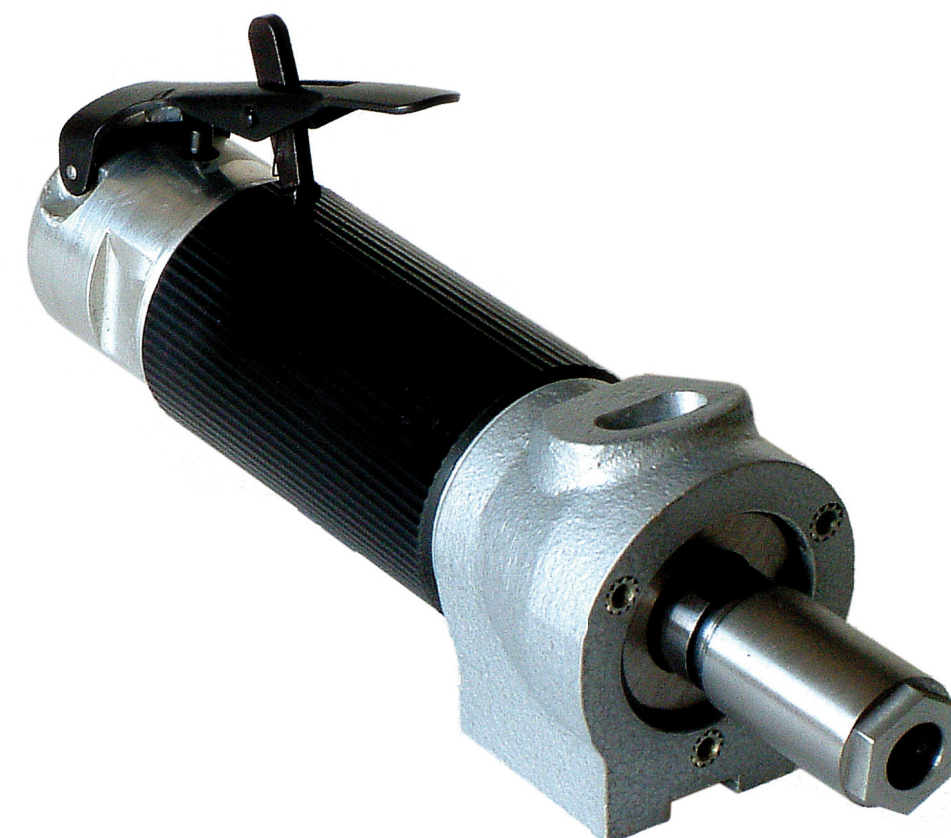
Contact us for a free
Composites Brochure.....



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INSTRUCTION MANUAL



SE20
Pneumatic Trimming Machine

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Repair & Service Facility.....

Return your machines to AMP-TEKNIK for all your repair and service requirements.

This will ensure that all repairs and servicing is carried out by qualified personnel using genuine parts, maintaining the safety of the machines.



Please read the user's instruction manual carefully before use and follow the user's instructions and health and safety guidelines.

Store the instruction manual where users and technicians can easily access any time as necessary.

CONTROL OF NOISE AT WORK REGULATIONS 2005

The Control of Noise at Work Regulations 2005 revoke and replace the Control of Noise at Work Regulations 1989.

Major changes from the 1989 Regulations include the lowering of exposure action values and the introduction of new exposure action and exposure limit values. The new action levels include a reduction of 5dB(A) in the exposure levels at which action has to be taken as follows:

- **Lower exposure action values:** a daily or weekly personal noise exposure of 80dB. Previously 85 dB.
- **Upper exposure action values:** a daily or weekly personal noise exposure of 85dB. Previously 90dB.
- **Exposure limit values:** a daily or weekly personal noise exposure of 87dB.

In the case of this law, it is a requirement to reduce the noise exposure at work to the lowest level possible and an offence to fail to provide adequate protection against noise if it exceeds certain levels. This means in practice that ear protection of some form or other will be required when doing any job which approaches the limits as stated above.

For information on how these levels apply to your particular industry and the method of measurement, experts should be consulted. Just like the COSHH regulations, these are laws which may not be broken, so it is important to get proper advice at an early stage.



An Introduction.....

The SE20 is an adaptable pneumatic trimming machine capable of being used for sawing, routing, jig trimming and rebating GRP mouldings and composites. Each machine is supplied with a plain nose cowl and is intended for use with DK Holdings range of diamond tools.

SE20 Machine Features.....

To fit a tool, first remove the three screws that secure the nose cowl. Using the two spanners supplied under the collet nut and insert the shank, this must be held as close to the collet as possible keeping the overhang to a minimum. Tighten the collet nut to secure.

Collet sizes 6mm and 8mm are available for the SE20.

Sawing.....

Saws up to 50mm diameter with 1/4" [6.35mm] bores can be mounted on the 6mm or 8mm diameter shank spindle arbor which fit into the collet.

Saws over 50mm diameter and up to 75mm diameter should be mounted on a collet nut saw adaptor, which fits directly on to the machine spindle in place of the collet nut.

In special applications requiring a spindle mounted saw over 50mm diameter use an 8mm shank x 19mm location spindle arbor, which will take all saws up to 75mm diameter with a 19mm diameter bore.

Side spoke saws are recommended for all hand held tools.

Saw guard and dust extractor cowl available.

Pneumatic trimming machine for sawing, routing, jig trimming and rebating GRP mouldings and composites.

Routing.....

Diamond coated router sizes of 6mm and 8mm diameters can be used.

SE20 Accessories.....

JIG TRIMMING GUIDE AND GUAGE WITH DUST EXTRACTION COWL – see page 4.

When used with a 40mm diameter side spoke saw, this unit allows for precision trimming to be carried out by following a jig with the roller guides and adjusting width of cut as required.

REBATING ATTACHMENT AND GUAGE WITH DUST EXTRACTION COWL – see page 4.

When used with standard 19mm diameter x 35mm long rebating router, which is fitted directly onto the spindle in place of the collet nut, the adjustable guide allows a large range of rebates to be machined quickly and easily.

PEDESTAL MOUNTING

For static operation the SE20 can be mounted on a bench or bench pedestal, adjustable for both height and radius. Mouldings can be very rapidly trimmed to height by passing them by a saw mounted on an SE20 machine.

A twist throttle can be specified only for fixed applications, or if necessary a foot operated air valve.

Mounting brackets for SE20 machine can be made to suit customers' particular requirements. Prices are available on request.

Lubrication.....

An oil mist lubrication unit must be used with this air tool and should be fitted within three metres of the machine.

Warranty.....

The SE20 machines are guaranteed for six months from date of purchase. Any machines requiring repair should be returned to our factory.

SE20 Technical Specification.....

Weight		Free Speed	Air Pressure		Air Consumption		Collet Diameter	Minimum Hose Diameter	Maximum Hose Diameter
lbs	Kg	RPM	lbs/sq inch	kg/sq inch	Cubic ft/minute	Litre/minute	Size	Air Hose bore	Diamond coated saw
2	0.91	20,000	80-100	6-7	15	425	6 or 8mm	10mm I.D.	3" [75mm]

Declaration of Noise Emission.....

Machine Sound Pressure Level	Spread in Method and Production
95 dB [A]	3 dB [A]

Declaration of Vibration.....

Measured Vibration Level	Spread in Method and Production
5 M/S ²	2 M/S ²

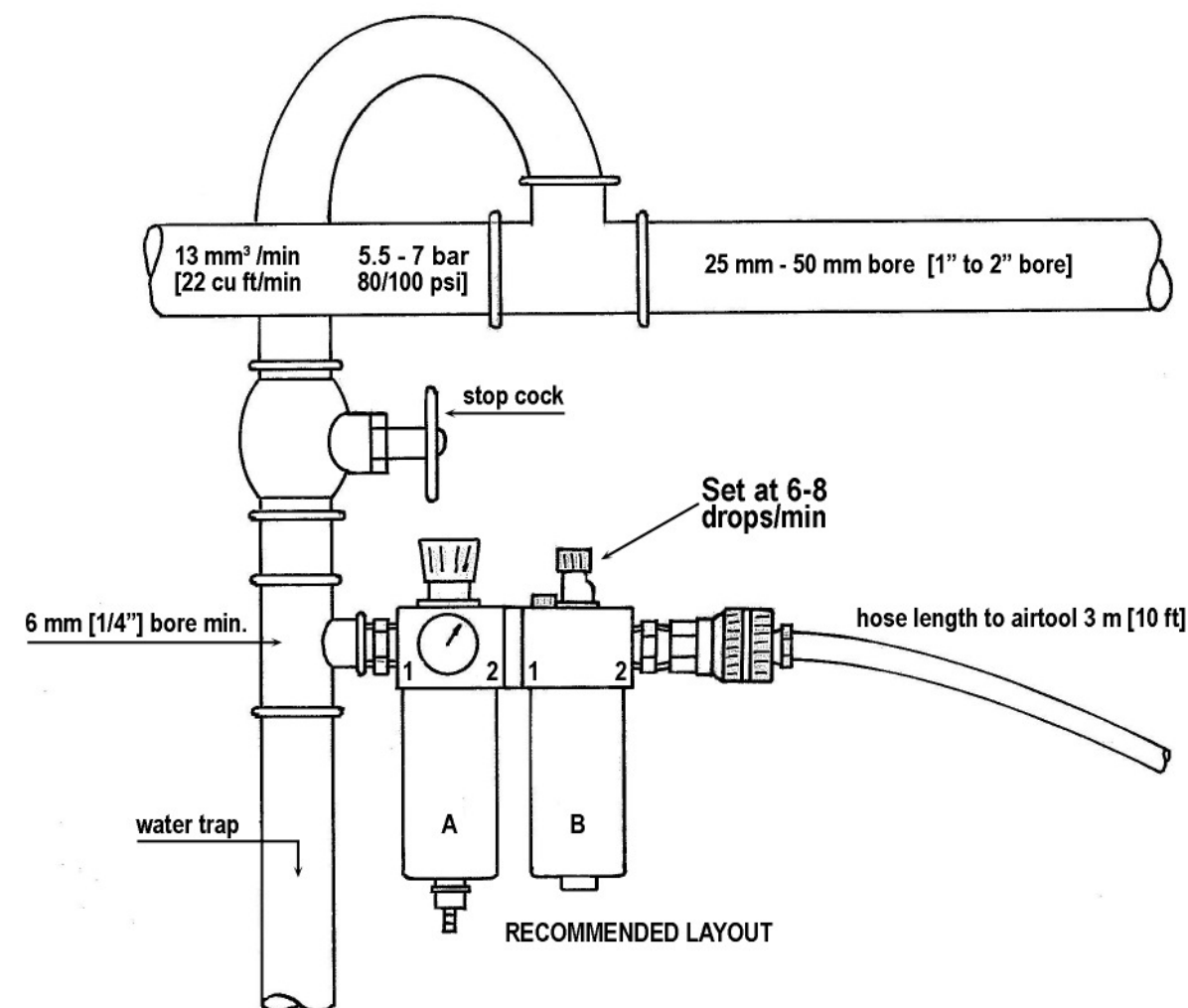
The following table illustrates maximum continuous air flow m³/min [c.f.m.] through various pipe sizes [75% maximum permissible].

PRESSURE		PIPE SIZE							
BAR	P.S.I.	12 mm [1/2"] Dia.		19 mm [3/4"] Dia.		25 mm [1"] Dia.		40 mm [1 1/2"] Dia.	
		m ³ /min	c.f.m.	m ³ /min	c.f.m.	m ³ /min	c.f.m.	m ³ /min	c.f.m.
5.5	80	5.3	9	24.7	42	76.5	130	247.2	420
6.2	90	5.9	10	26.5	45	82.4	140	265.0	450
7.0	100	7.0	12	30.0	51	94.1	160	288.4	490

Pressure loss amounts to 15% in sizes up to 12 mm [1/2"] and 10% in sizes 19 mm [3/4"] to 40 mm [1 1/2"], over 30 metres [100 foot] length run of pipe.

It must be stressed that unless an approved method of lubricating these machines is used, the suppliers will not hold themselves responsible for damage caused to the air motor and any guarantee will automatically become void. To ensure good lubrication a clean air supply is required. Contaminated air supply will greatly reduce the life of the machine.

Note: Recommended oil to use with our pneumatic tools is **Hydrasil 10**.



Air Tool Lubrication.....

Compressed air contains both water and dirt. For operating efficiency and long tool life, it is necessary to remove all dirty and contaminated air from the system and to add necessary lubrication. Inadequate lubrication results in decreased efficiency of the air tool and wastes air.

Haphazard lubrication can be damaging. Remember that an air tool revolving at between 10,000 and 50,000 r.p.m. does several million revolutions in a working day.

For this reason it is essential to use a Oil Mist lubricator filter unit, thus cleaning the air and producing a fine Oil Mist of oil which is capable of being carried over long distances - the only means of supplying lubrication for the working parts of the motor.

Our standard “Mini” unit will allow an air flow of 20 m³/min [34 c.f.m.] [free air to be passed per minute] at 80-100 p.s.i.. For maximum efficiency a pipe run from the oil fog unit to machine should not exceed 9.1metres [30 feet]. If using 2 machines concurrently the total length of pipe run for both machines should be kept within this limit. Due to limitations in adjustment, banks of not more than 2 machines per lubricator are advised for maximum efficiency.

A large unit is available - the “Mid” unit which allows 76.5 m³/min [130 c.f.m.] at 5.5 - 7 bar [80_100 p.s.i.].

Where line pressure exceeds 7 bar [100 p.s.i.] the pressure regulator must be set at a maximum of 7 bar [100 p.s.i.] to prevent excessive tool wear and wastage of air.

The main points to watch when fitting the Oil Mist are as follows: -

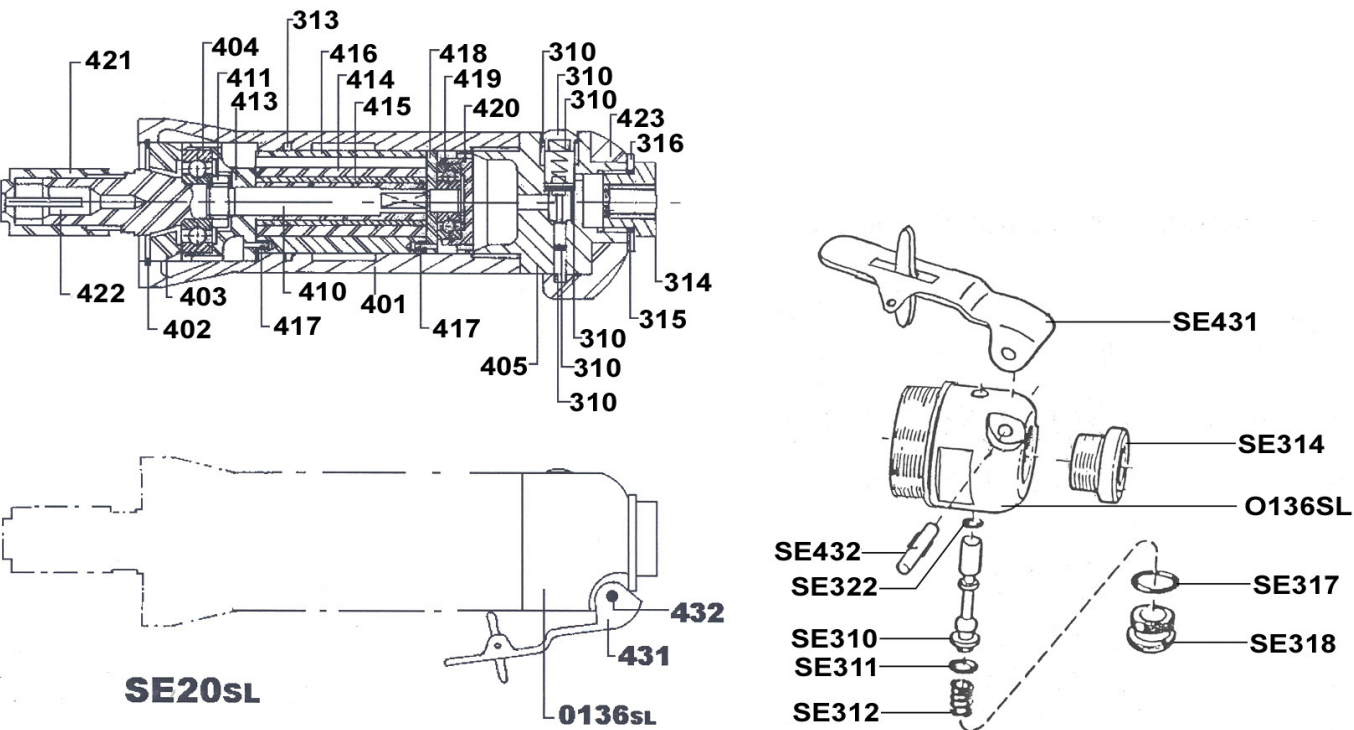
- ①

The Oil Mist unit should be situated as near the working area as possible with best results obtained when the air tool is connected straight into the unit with the length of hose provided
- ②

Ensure that the air from the compressor is directed through the filter/regulator **[A]** first, then through the lubricator **[B]** and not vice versa.
- ③

The air delivery pipe from compressor to oil unit should have a minimum bore size of 19 mm [³/₄”] over short lengths and up to 50 mm [2”] over long lengths.

PARTS LIST

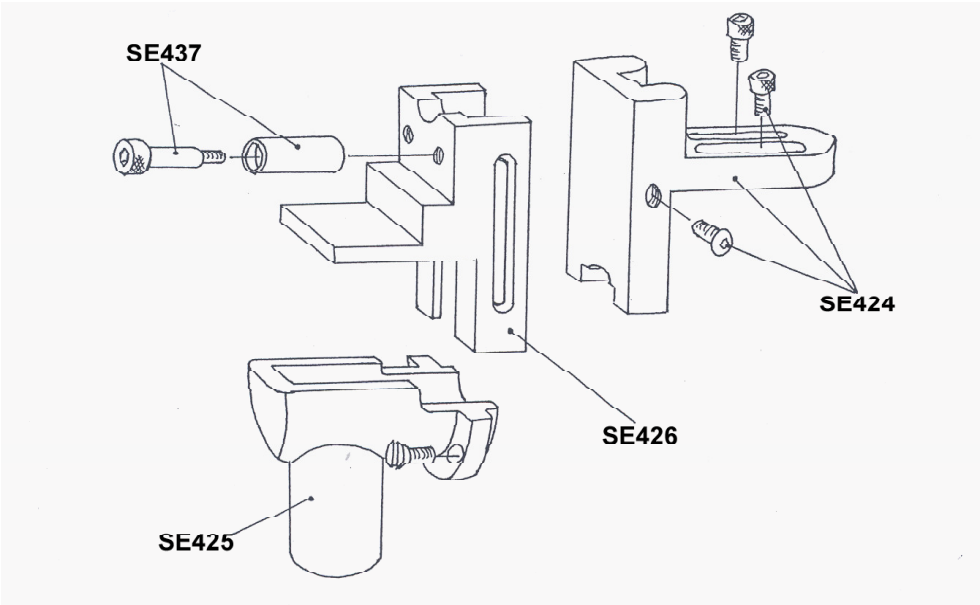


PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
O135SL	TRIGGER THROTTLE BODY	1	SE419	REAR BALL RACE	1
SE310	VALVE	1	SE420	REAR BEARING HOUSING	1
SE311	O-RING	1	SE421	COLLET NUT	1
SE312	SPRING	1	SE422	COLLET 8mm	1
SE313	O-RING	1	SE423	THROTTLE CONTROL	1
SE314	CONNECTION UNION	1	SE427	COLLET 6mm	1
SE315	O-RING	1	SE431	TRIGGER SAFETY LEVER	1
SE316	WASHER	1	SE432	SAFETY LEVER PIN	1
SE317	O-RING	1			
SE318	PLUG	1			
SE322	O-RING	1			
SE401	BODY	1			
SE402	CIRCLIP	1			
SE403	FRONT PLATE	1			
SE404	FRONT BALL RACE	1			
SE405	THROTTLE BODY	1			
SE410	CENTRE SHAFT	1			
SE411	CENTRE SHAFT NUT	1			
SE413	FRONT BEARING HOUSING	1			
SE414	ROTOR	1			
SE415	PADDLES	4			
SE416	SHELL	1			
SE417	FRONT & REAR PINS	2			
SE418	REAR PLATE	1			

Accessories		
SE424	TOP SLIDE	
SE425	DUST EXTRACTION COWL	
SE426	SOLE PLATE	
4.5.6	THICKNESSING ATTACHMENT	
SE428	BENCH PEDESTAL	
SE429	THICKNESSING GAUGE	

Included with each Machine	OIL HOSE QUICK RELEASE COUPLING (Schrader) SPANNERS QUICK RELEASE COUPLING (Atlas) SERVICING KIT
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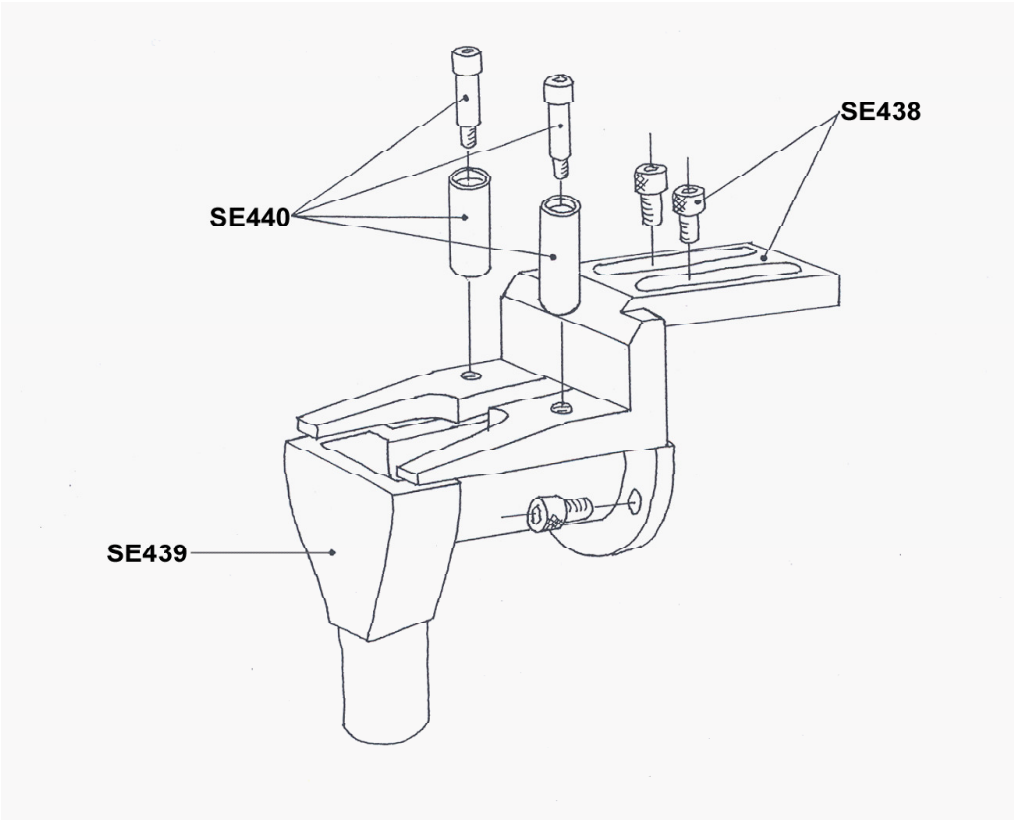
REBATING ATTACHMENT PARTS LIST



PART NO.	DESCRIPTION	QTY
SE424	TOP SLIDE	1
SE425	DUST EXTRACTION COWL	1
SE426	SOLE PLATE	1

PART NO.	DESCRIPTION	QTY
SE437	REBATING ROLLERS	1
SE436	COMPLETE ASSEMBLY	1

JIG TRIMMING GUIDE PARTS LIST



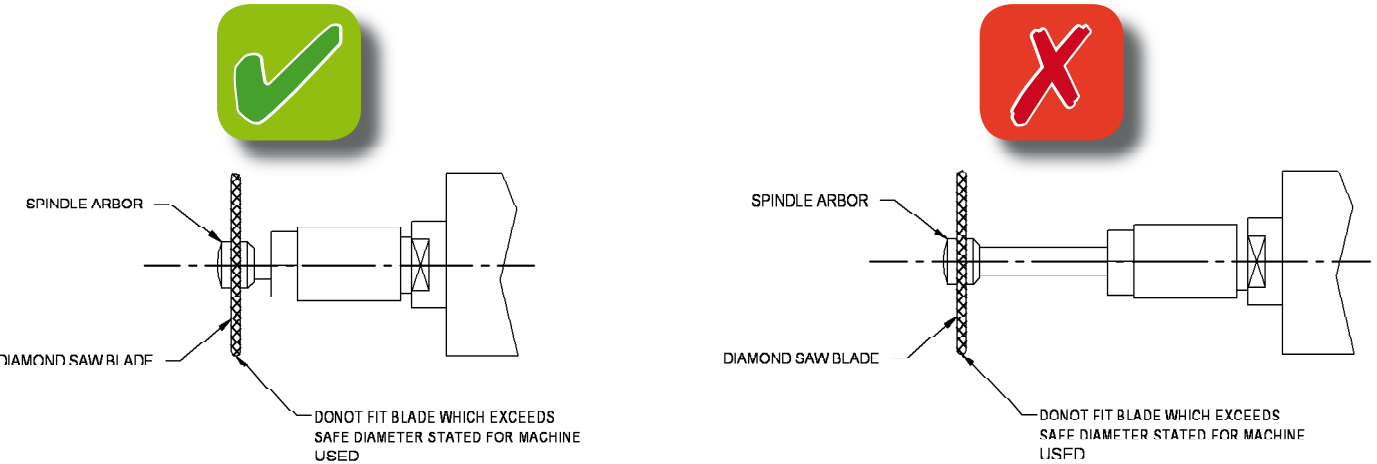
PART NO.	DESCRIPTION	QTY
SE438	JIG TRIM SLIDE	1
SE439	DUST EXTRACTION COWL	1

PART NO.	DESCRIPTION	QTY
SE440	JIG TRIM ROLLERS	1
SE429	COMPLETE ASSEMBLY	1

SAFE TRIMMING AND CUTTING

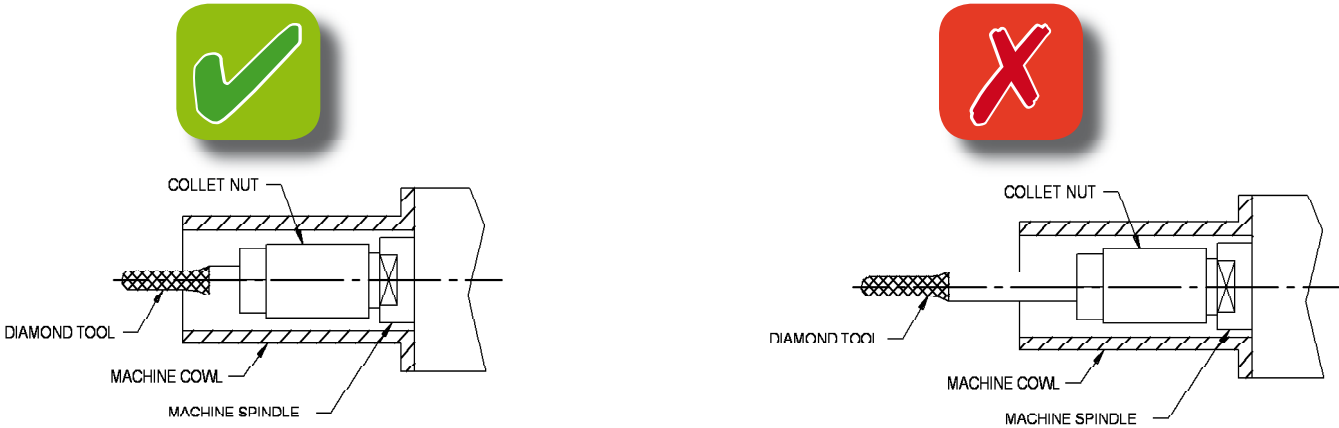
Recommended Safe Blade Size.....

SE20 50 mm diameter blade using 6 mm spindle arbor.
SE20 75 mm diameter blade using collet nut saw adaptor.
SE20 75 mm diameter blade using 8 mm x 19 mm spindle arbor.



Recommended Safe Coated Length for Routers.....

SE20 4.8mm diameter x 25mm coated length router.
SE20 6mm diameter x 25mm coated length router.
SE20 rebating router 19mm x 75mm (FITTED DIRECTLY TO COLLET NUT).



Recommended Hose Bore Diameter.....

		Air Pressure
SE20	10mm	80 - 100 psi 6-7 kg/sq. cm

Note: Using a larger bore hose or greater pressure than recommended can cause over speeding.