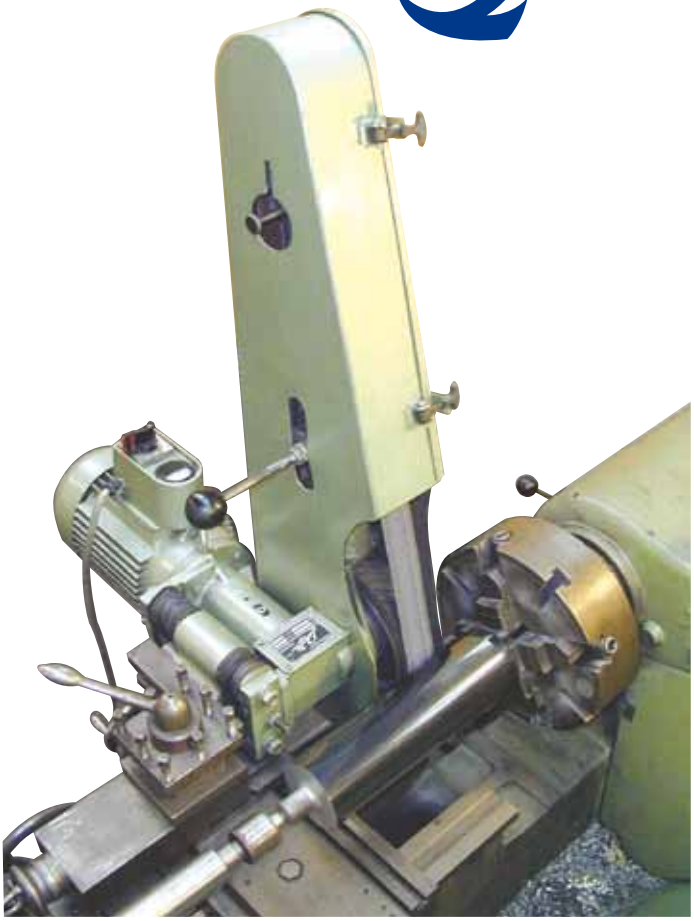
Surtech LEH Roll Grinding Heads



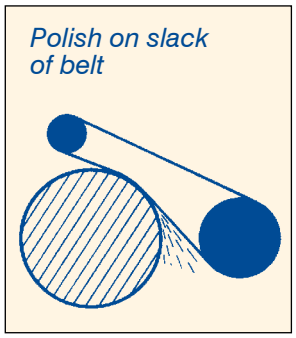
Convert your LATHE to a ROLL GRINDER

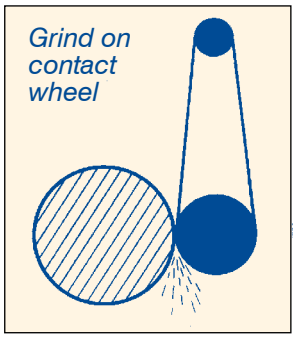
ABRASIVE BELTS CUT FASTER AND FINISH FINER!

The LEH abrasive-belt head can be mounted on the tool post of almost any lathe to convert it to a versatile and inexpensive tool-post roll grinder. It can also be fitted to abrasive-wheel roll or tube grinders to provide the greater efficiency and finer finish of belt grinding.

The LEH is primarily intended for coarse grinding with high stock removal rates and for finishing and polishing. It is used by many major manufacturers of rolls for the textile and paper industries. as well as hard chrome platers and hydraulic piston manufacturers.

When used for grinding, on the contact wheel, it is capable of the same tolerances on diameter, ovality and parallelism as the lathe and its operator, working to accepted good practice of constant measuring and localised grinding.

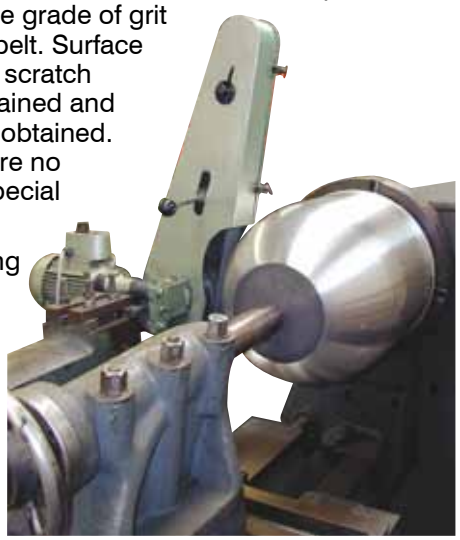




APPLICATIONS, FINISHES

The LEH abrasive-belt grinder can be used to grind or polish rolls or tubes in a variety of materials including steel, iron, copper, aluminium, plastics and rubber.

Any required standard of surface finish can be produced using an appropriate grade of grit on the slack of the belt. Surface finishes from heavy scratch patterns to finely grained and satinised are easily obtained. Polished surfaces are no problem with our special polishing belts.



Slack-of-belt grinding will, with the appropriate grade of grit, give you any finish required prior to chrome plating, down to approx 6 CLA.

Finishes to 4 CLA and below will need our special Superfinishing or Microabrasive belts. Extremely fine finishes to below 1 CLA will need the Microfinisher. *Please ask for details.*

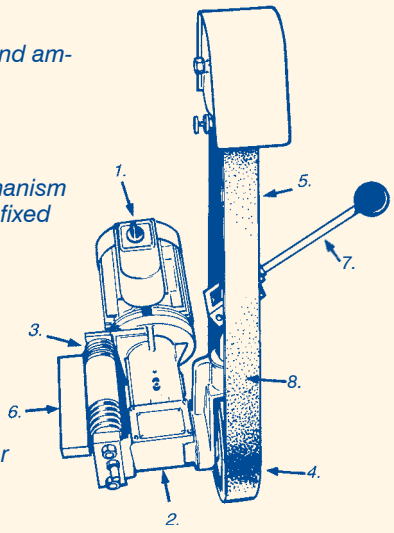
BENEFITS

The LEH Lathe Conversion Roll-Grinder offers significant advantages. Here are a few:

- It is the simplest *reliable* way of gaining the versatility of abrasive-belt roll grinding.
- It is specially designed and developed for roll grinding - not a modified standard head.
- It can be fitted with an optional Floating Head to handle out-of-round components.
- Floating Head grinding by contact wheel improves operation cycles by more than 50% compared with slack-of-belt grinding - more effective AND more economical.

Front View

1. *Motor with switch and ammeter*
2. *Gear Box*
3. *Floating head mechanism (also available with fixed head)*
4. *Contact wheel*
5. *Abrasive belt arm*
6. *Fixing bracket*
7. *Belt tensioning lever*
8. *Abrasive belt*



FEATURES

The LEH abrasive-belt head consists of a contact wheel mounted to a belt-arm assembly which provides belt tracking and tensioning control. Electric drive is built-in, and the whole assembly is easily fitted to most lathe tool-posts.

Abrasive Belt Arm

An integral, solid, mounting bracket automatically and accurately positions the contact wheel on the roll or tube's centre-line. The belt arm, mounted vertically to save space, can be swivelled through 180°, which facilitates grinding with the slack of the belt as well as on the contact wheel. The arm is fully adjustable to give control of belt tension and belt tracking.

Fixed or Floating Head

The standard LEH belt grinder has a fixed head. For grinding out-of-round rolls, a floating head is needed. It will also avoid the risk of 'hot spots'. (Hot spots are caused by a fixed head putting greater pressure on the highest part of the circumference of an out-of-round roll and causing localised expansion of the roll, with consequent increased metal removal in that area. This can lead to serious tolerance discrepancies on cooling).

The optional LEH floating head, with adjustable spring pressure control, follows the contours of the roll whilst still maintaining an even contact pressure. As the head can also be fixed when required, it greatly increases the versatility of an already-economical belt grinding conversion.

Drive Unit

The power-train is a compact arrangement of a totally-enclosed electric motor coupled to the contact wheel through a heavy-duty right-angled gear box. A particular feature of the design is its minimum width, allowing longer rolls or tubes to be handled. An integral ammeter provides operator-control of grinding pressures.

Contact Wheel

Abrasive-belt performance is heavily influenced by the grade of contact wheel fitted. We have a wide range of contact wheels available, whether for heavy stock removal, general-purpose grinding, or fine finishing.

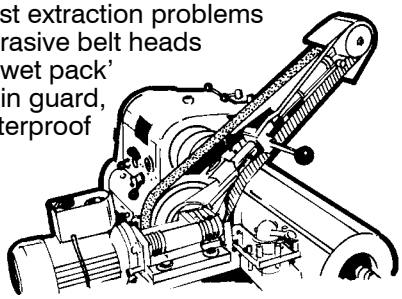
Dust Extraction, Wet Operation

All abrasive belt grinders create dust. Dust can be hazardous, harmful and even dangerous.
All abrasive belt grinders must therefore be connected to a suitable dust collector.

As the unit travels it is necessary to fit flexible ducting which travels with the abrasive belt head. Some dusts are more hazardous than others and require special extraction equipment. Never connect an abrasive belt grinder to a dust extractor unless you have taken expert advice that it is suitable for the materials you wish to grind. If in doubt ask! Surtech can give advice on the various methods of dust collection.

One way of overcoming dust extraction problems is to grind wet. The LEH abrasive belt heads are available with optional 'wet pack' including waterproof lining in guard, waterproof bearing and waterproof electrical controls.

Do not use the standard abrasive belt head for wet operation. It is not safe.



Wet operation means using water as coolant with a proprietary additive added to aid lubrication and prevent corrosion.

Guards

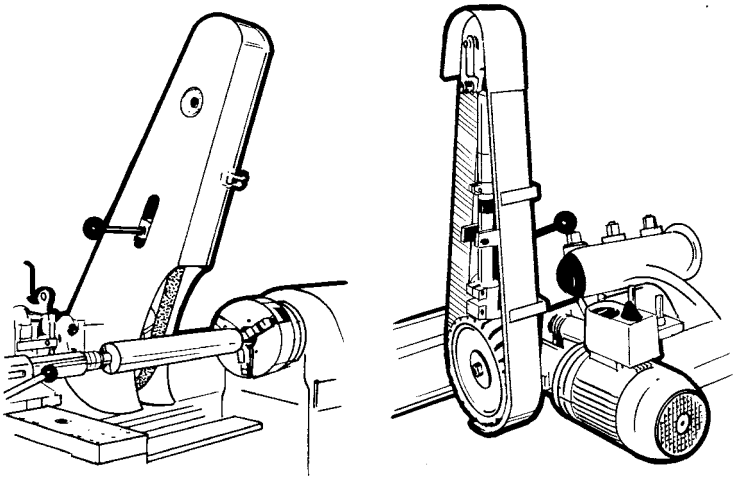
All LEH abrasive belt heads are supplied with a guard which totally encloses the abrasive belt arm and only leaves the working area of the contact wheel open. The guard has an access door for fast and simple belt changes.

For customers who want to use the abrasive belt head for slack of belt finishing we can modify the guard to allow this operation.

Please note: Unless you specify slack of belt operation the machine is supplied in its standard form for contact wheel grinding only. The guard incorporates a dust extraction flange.

Extraction Flanges

Model III - 80mm dia. *Models V-IX - 100mm dia*



LEH abrasive belt head shown here with guard modified for both contact wheel and slack of belt grinding. Shown on left with belt tensioning lever. On right with access door removed to show internal tensioning and tracking controls.

Dimensions All in mm.

Model	Head Type	Motor HP 420V 3HP	Contact Wheel Dia x Width	Abrasive Belt Size	Centre Height (max)
LEH III/X	Fixed	3	250 x 50	2000 x 50	250
LEH V/X	Fixed	5.5	350 x 75	3000 x 75	350
LEH VI/X	Fixed	7.5	350 x 100	3500 x 100	350
LEH VII/X	Fixed	10	350 x 100	3500 x 100	350
LEH VIII/X	Fixed	12.5	350 x 100	3500 x 100	350
LEH IX/X	Fixed	15	350 x 100	3500 x 100	350
LEH III/F	Floating	3	250 x 50	2000 x 50	250
LEH V/F	Floating	5.5	350 x 75	3000 x 75	350
LEH VI/F	Floating	7.5	350 x 100	3500 x 100	350
LEH VII/F	Floating	10	350 x 100	3500 x 100	350
LEH VIII/F	Floating	12.5	350 x 100	3500 x 100	350
LEH IX/F	Floating	15	350 x 100	3500 x 100	350

Weights

Model	Fixed Head	For Floating Mechanism Add	For Full Guard Add
LEH III	42 kg	11 kg	9 kg
LEH V	103 kg	18 kg	18 kg
LEH VI	110 kg	18 kg	29 kg
LEH VII	115 kg	18 kg	29 kg
LEH VIII	123 kg	18 kg	29 kg
LEH IX	135 kg	18 kg	29 kg

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