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| Machine Id | :- 1300 | Serial No | :- |
| Category | :- Gear Related Machines | Model | :- V152 Two Axis CNC Gear Shaper(With & Without Rack Cutting Attachment) |
| Country | :- England | Make | :- SYKES |
| Type of Machine | :- Two Axis Fine pitch vertical gear Shaper | Year | :- REBUILT 2019 |
| Weight | :- 0.0 | Dimensions | :- 965mmx1372mmx1473mm |
| Power | :- | Location | :- |

Specification :-

CNC version is based on existing V152 machine.

Sykes V152 has been operating worldwide since 1964 .

The Sykes Model V152 fine pitch vertical gear generator is a versatile machine developed specifically for the high speed production of all types of precision fine pitch gears, racks and segments up to a maximum of 12 to 14 D.P. (Approx.2 mod).

The specification of the Model V152 is based on Sykes wide experience and research into the design of machines for the production of fine pitch gears. Built on unit construction principles, the Model V152 machine offer the most modern techniques and up to date design features to the manufacturer of fine pitch gears.

Applications

For all types of spur and helical gears, both internal and external and a wide range of other forms such as are often found in precision instruments and mechanisms. With suitable attachments spur and helical racks can be produced, together with all types of segment gears.

A robust construction, simple operation and fully automatic infeed ensure high output rates which can be maintained continuously without loss of accuracy or quality. Small batch production can be economically carried out by reason of the extremely simple setting up procedure. A wide range of accessories extends the versatility of the basic machine and the Sykes Model V 6 is ideally suited to long production runs as well as for short batch production.

Design and Construction

The Model V152 Machine is manufactured from the highest quality materials and components to ensure that it will retain its initial precision and output over a long period of service.

Particular attention has been given to rigidity and stability at the high speed necessary for the machine of this type : all bearings thought out the kinematic train are of the anti-friction type.

The Machine is CE Certified and safe operation. Mechanical and electrical controls and change gear settings are identified by instruction plates with easily understood symbol markings.

Relief is applied to the cutter head unit by means of a double acting cam and rollers which give a positive action in both directions and a precise 'dead-stop' to the cutting position. This feature insures stable and consistent relief even at the highest speed of operation.

The work saddle unit runs on precision slide ways on a separate intermediate saddle base casting. The one piece work table is mounted on a matched pair of large diameter precision taper roller bearings. The whole of the table drive unit is contained in a sealed oil-filled enclosure. A built -in pump circulates oil to the table bearings and also provides an automatic metered supply to the saddle slideways.

Infeed on the V152 machine is controlled by Servo Motor M4 and is designated X axis. electro-mechanical unit of simple construction but robust and positive in action. One or two cuts are provided for both External and internal gears and two rates Multiple cuts possible for both external/internal gears of infeed can be selected by changing a pair of fixed centres pick - off gears. Infeed is directly related to cutter stroking and thus provides the optimum rate for each application irrespective of the diameter of the component.

The whole of the infeed mechanism is remotely mounted in the main column of the machine and is thus isolated from the saddle and any possibility of damage by swarf, coolant or misuse.

CAPACITY

| | | |
|---------------------------|-------------|--------------------|
| Max pitch | Steel | 14 D.P. (1.8 Mod) |
| | Non-ferrous | 12 D.p. (2.1 Mod) |
| Min. pitch | | 100 D.p. (0.2 Mod) |
| External Gears: Max P.C.D | | 6 in (152mm) |
| Internal Gears: Max P.C.D | | 6 in(152 mm) |
| Stroke | | 0-1 in (0-25.4mm) |

| | |
|---|-------------------------------------|
| Face width. Max. | 7/8 in (22.2 mm) |
| Helix angle, max. diameter) | 430-480 (dependent on cutter |
| Work Table: | |
| Bore: | 2 1/4in (57 mm) |
| Diameter | 6 in (152 mm) |
| Rack Cutting attachment: | |
| Rack cutting attachment is optional extra | |
| Also tailstock is also available as optional extra | |
| Length of Rack, Max. | 20 in (508mm) |
| Width face, Max | 7/8 in (22.2mm) |

Pitches finer than 100 D.P. (0.2Mod.) are dependent on the cutter to be used and should be subject of special enquiry