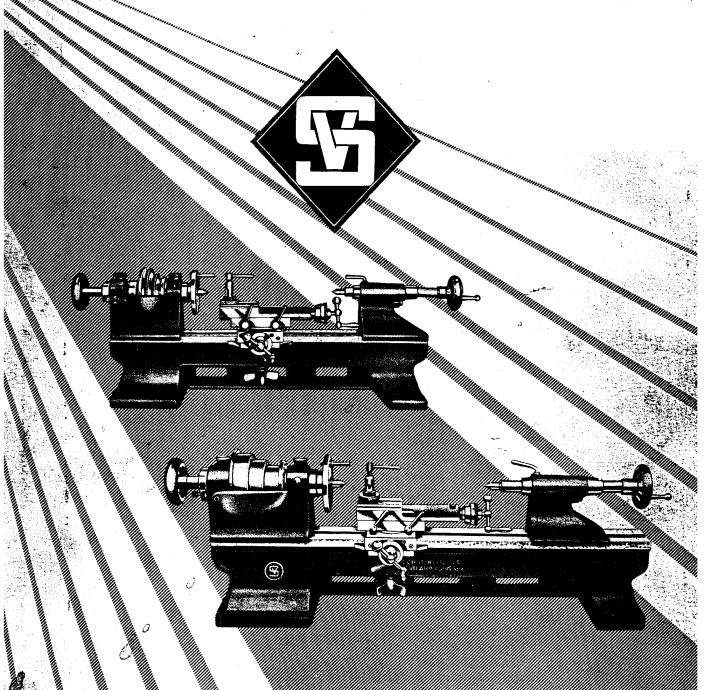
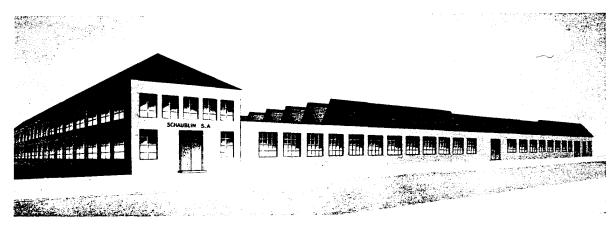
TOOLMAKERS'LATHES SV65 + SV70



MACHINE-TOOL MANUFACTURERS SCHAUBLIN LTD. BÉVILARD SWITZERLAND





MAIN FACTORY AT BÉVILARD

Machines



MALLERAY BRANCH

Experimental Department and School



DELÉMONT BRANCH

Manufacture of Collets and Similar Accessories

ACCURACY - INTERCHANGEABILITY



GENERAL CONDITIONS OF SALE

PRICES

Unless otherwise stated, all prices quoted are strictly nett, exclusive of packing, ex Malleray-Bévilard station.

PACKING

Packing is charged extra, the cost being approximately 1 % to 2 % of the invoice amount. If packing is returned in good condition, carriage paid, to Malleray-Bévilard station, credit is given for $\frac{3}{4}$ of the amount charged.

TERMS OF PAYMENT

Only the terms of payment stipulated in our quotations are valid. Consignments can be held over for customers, if so desired, provided that sufficient storage space is available. In no case, however, will such warehousing justify any delay in payment. Interest on delayed payment will be calculated at the rate of 6 % per annum.

DELIVERY

Delivery dates are given as exactly as possible, and every effort is made to adhere to them. No responsibility can be accepted for circumstances outside our control, such as acts of God affecting manufacture or transport, delivery of unacceptable goods from suppliers, strikes or lock-outs at our works or at the works of our suppliers, or failure on the part of the customer to comply with the terms of payment agreed upon.

No penalty can be accepted for delay, and no orders can be cancelled on that account.

TRANSPORT

The greatest possible care is exercised in packing, and we decline all responsibility for damage incurred in transit. Shipment is effected at the consignee's risk, even when the cost of transport is borne by us. Therefore, we advise our customers, before they accept delivery, to check the goods with the forwarding agents for damage, breakage, loss, delay in transport, etc., so that they may, if necessary, claim compensation. Should this formality be omitted, the consignee will be entirely responsible for any loss sustained.

DOCUMENTS

It is forbidden, without our consent, to reproduce drawings, prints, floor-space diagrams, printed matter, or quotations, or to place these at the disposal of third parties or competitors.

We reserve the right to alter the design of our products at any time, without notice. Neither the illustrations in this catalogue nor the weights indicated are binding.



SV MACHINES

The reputation enjoyed by SV Machines is the outcome of research and experience spread over a third of a century.

Full advantage is taken of the latest technical improvements and manufacturing processes, and this places SV Machines foremost in their category. The main characteristics of these machines are:

EXQUISITE WORKMANSHIP

COMPLETE INTERCHANGEABILITY OF ALL MACHINE PARTS

GREAT ACCURACY OF WORK

HIGH OUTPUT

ATTRACTIVE APPEARANCE

TOOLMAKERS' LATHES SV 65/70

These small lathes are especially intended for technicians engaged in the manufacture of watches and small instruments. They are used to advantage also in the manufacture of small precisiontools of all kinds and in experimental departments and laboratories

In addition to the standard equipment for ordinary turning work between centres, in collets or in chucks, the SV 65 and SV 70 lathes embody the various special attachments required by gauge makers.

The profile of the bed and the system of clamping used guarantee perfect centring of the various units fitted. A rib connecting the two legs, at the rear of the bed, prevents distorsion and at the same time ensures great rigidity of the lathe as a whole.

The essential difference between the SV 65 and SV 70 lathes lies in the capacity of the headstocks:

The SV 65 headstock takes type W 10 collets of 6,2 mm capacity and is driven by a grooved pulley for round belt of 6 mm diameter.

The SV 70 headstock takes type W 12 collets of 8,2 mm capacity and is driven by a 3-step pulley for flat belt, width 18 mm.

For special work the headstock can be replaced at any time by one of the models of quill-holder headstocks with spindle for collet or with faceplate with tapped holes and slots for clamping dogs. In order to eliminate pull and vibration due to the belt, the drive of the quill-holder headstock is indirect. It is effected through a driver support carrying the drive pulley and mounted at the end of the bed.

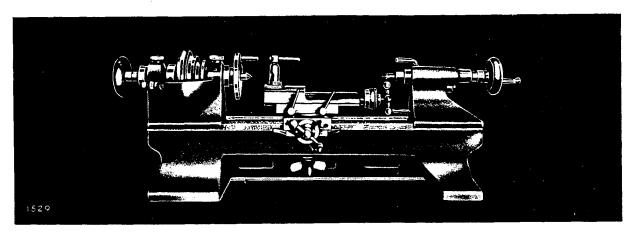
The quills with faceplate are generally provided with a system of centring from the rear, known as "pump" centring. An attachment for centring from the front is mounted on the carriage in place of the tool. For particulary delicate centring work, use is made of the attachment for centring by microscope with illumination by electric bulbs and swivelling support, mounted directly on the lathe bed.

The drive of the SV 65 and SV 70 lathes can be effected by countershaft on bench, on bars or on the ceiling or by individual drive. The latter is mounted on the bench, at the rear of the lathe. It comprises a countershaft mounted on a swivelling support adjustable in height on a rigid column.

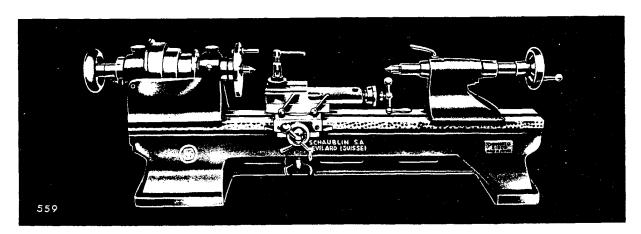
The drive motor, fixed on a base plate, has a power of $\frac{1}{3}$ hp at 1500 rpm.



TOOLMAKERS' LATHES



SV 65



SV 70

| ltem No. | Standard Equipment — Lathe SV 70 |
|-------------|---|
| 1 | Bed with fixing bolts |
| 13 | Headstock, bore of spindle 12 mm, with driving plate and male centre |
| 277 | Tailstock with male centre |
| 343 | Carriage with toolpost and adjustable verniers |
| 506 | Hand rest |
| | |

Lathe SV 65: same equipment with headstock No. 13, bore of spindle 10 mm.

GENERAL CHARACTERISTICS TOOLMAKERS' LATHES SV 65-70



| ltem No. | | | SV 65 | SV 70 |
|-------------|--|------------------------|--|--|
| | Height of centres | mm » » | 65 210 5 ½" | 70 275 5 ½'' |
| 1 | Bed Length of bed | mm » | 500 110 | 600 120 |
| 13 | Headstock for type W collets Hole in spindle | mm » » | 10 6,2 with grooves 48 - 60 - 76 | 12 8,2 19 48 - 64 - 80 |
| | Maximum speed: Headstock with plain-bearings Headstock with ball-bearings 13 R. and 191 R. | rpm » | 4500 | 4500 10 000 |
| 8 | Saddles Height of centres with saddles | mm | 90 | 95 |
| 277 | Tailstock Stroke of spindle | mm | 45 | 45 |
| 343 | Carriage with toolpost Stroke of slides long | mm » » » | 55 55 6 × 6 80 11 | 55 55 6 × 6 90 16 |
| | Weight Net | kg » » | 18.4 (41 lbs.) 32 (71 lbs.) 45 (99 lbs.) | 25 (55 lbs.) 40 (88 lbs.) 55 (121 lbs.) |
| - " | Space required | mm in. | 675 × 260 × 220 27" × 10" × 8" | 800 × 260 × 240 32" × 10" × 9" |
| | Packing Ordinary | cm in. cm in. | $\begin{array}{ccc} 27^{\prime\prime} \times 1 \\ 77 \times 4 \end{array}$ | 33 × 33 3'' × 13'' 43 × 43 7'' × 17'' |



TEST CHART FOR TOOLMAKERS' LATHES

Height of centres 65 to 120 mm

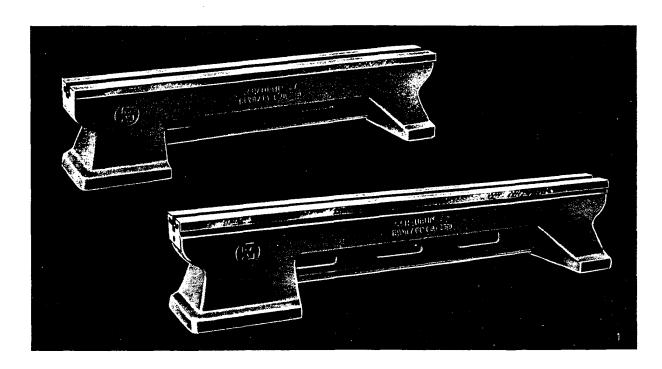
| | • | Headstock | No |
|-----------|-------------|-----------|-----|
| Order No. | Machine No. | Carriage | No. |
| | | Tailstock | No |

| | | | | Tailstock No. |
|--|---------------------------|-----------------|------|---|
| Test to be applied | Permissible Error | Actual Error | Fig. | |
| Bed Bed straight in longitudinal direction (apron side) convex only | + 0,02 0,01 1000 mm | | 1 a | |
| Ditto, opposite side | + 0,01 0 1000 mm | | 1 b | a c b |
| Bed level in transverse direction | 0,05 1000 mm | | 1 c | |
| WORK SPINDLE Centre point for true running | 0,01 | | 3 a | |
| Spindle nose for true running | 0,005 | | 3 b | رات ال |
| Work spindle for axial slip | 0,01 | | 3 c | , |
| Taper of work spindle for true running, measured at end of 300 mm mandrel | 0,02 | | 1 d | |
| Work spindle parallel with bed in vertical plane (rising towards free end of mandrel only) | + 0,01 0 300 mm | | 1 d | |
| Ditto, in horizontal plane (free end of mandrel inclined towards direction of tool pressure only) | 0 0,01 300 mm | | 1 e | е е ®-Ф |
| CARRIAGE Upper slide parallel with work spindle in vertical plane | 0,02 300 mm | | 4 | |
| TAILSTOCK Sleeve parallel with bed in vertical plane (rising towards free end only) | + 0,01 0 300 mm | | 5 a | a ### |
| Ditto, horizontal plane (free end inclined towards direction of tool pressure only) | 0 — 0,01 300 mm | | 5 b | b 0 |
| Axis of centres parallel with bed in vertical plane, measured on mandrel between centres (rising towards tailstock only) | + 0,01 0 300 mm | | 6 | |

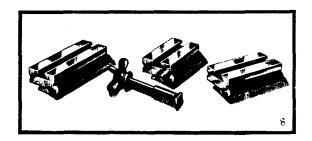
| | Inspector : | |
|---------------|-------------|--|
| Bévilard, the | Foreman : | |

BEDS



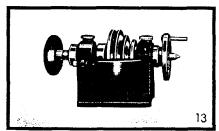


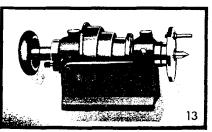
RAISING BLOCKS



- 1 SV 65 9,9 kg length 500 mm height 110 mm
- 1 SV 70 13,5 kg length 600 mm height 120 mm
- 8 Set of 3 raising blocks, height 25 mm SV 65 2,5 kg SV 70 3 kg

HEADSTOCKS



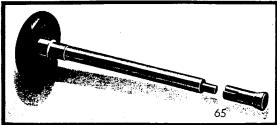


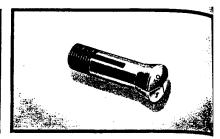
| Headstock | Litem | Ì | Spi | Spindle Pulley | | | | Weight | | |
|-----------|-------|-----------------------|--------|----------------|------------------------|-------------------------------|---------|----------------------|---|-----|
| type | No. | Hole in spindle mm | Collet | type | Bore through collet mm | Width mm | 1 | Diam. et steps mm | Spindle mounting | kg |
| SV 65 | 13 | 10 | W | 10 | 6,2 | Grooves for belt Ø 6 mm | | 48 60 76 | Plain bearings: spindle with tapers of 3 and 45° at front, cylin- drical at rear | 3,2 |
| | 191 | Heads | tock | SV 6 | 65 No. 13 v | with lever-opera | tec | I quick-d | hucking mechanism No. 174 | 4,3 |
| SV 70 | 13 | 12 | W | 12 | 8,2 | 19 | | 64 | Plain bearings: spindle with tapers of 3 and 45° at front, cylin- drical at rear | 4,5 |
| | 191 | Heads | itock | SV : | 70 No. 13 v | with lever-opera | tec | d quick- | crucking mechanism No. 174 | 5,2 |
| SV 70 | 13 R | 12 | W | 12 | 8,2 | 19 | | 48 64 80 | Double-row cylindri- cal roller-bearing at front, 2 ball-bearings at rear | 5,6 |
| | 191 R | Hea | dstock | < N | o. 13 R wit | h lever-operates | d c | quick-ch | ucking mechanism No. 174 | 6,3 |



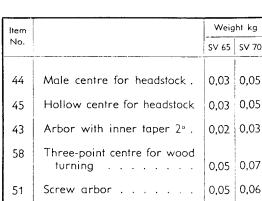
ACCESSORIES FOR HEADSTOCKS

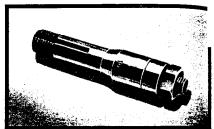






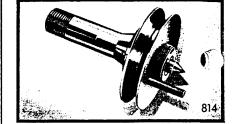




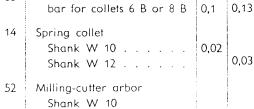




| 1 | | | · |
|------|--|------|------|
| 44 | Male centre for headstock . | 0,03 | 0,05 |
| 45 | Hollow centre for headstock | 0,03 | 0,05 |
| 43 | Arbor with inner taper 2°. | 0,02 | 0,03 |
| 58 | Three-point centre for wood turning | 0,05 | 0,07 |
| 51 | Screw arbor | 0,05 | 0,06 |
| 27 B | Arbor for «Jacobs» No. 0 drill chuck (without chuck) | 0,05 | 0,05 |
| 27 | « Jacobs » No. 0 drill chuck, capacity 0 – 6,4 mm (with arbor) | 0,2 | 0,2 |
| 65 | Reduction bush with draw-in | 0.1 | 0.13 |







c = 5 - 8 - 10 - 13 - 16 mm

 $\sigma = 5 - 8 - 10 - 13 - 16 \text{ mm}$

Grinding-wheel arbor . . : 0,04

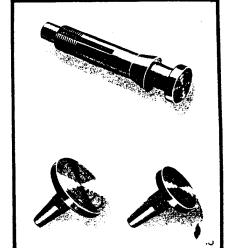
Shank W 12 mm

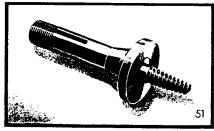
55

0,04

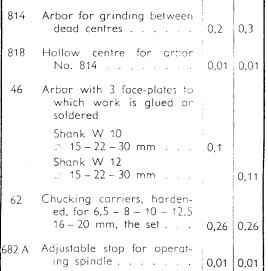
0,09

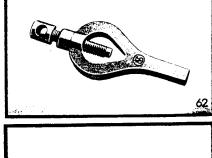
0,09

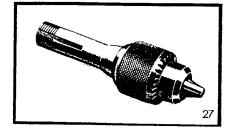


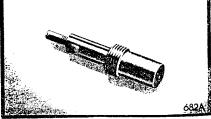






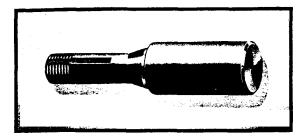


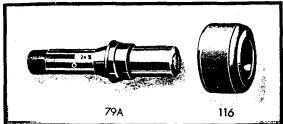


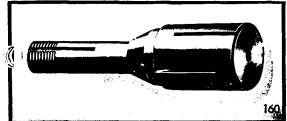


ACCESSORIES FOR HEADSTOCKS



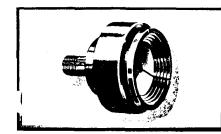




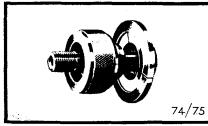


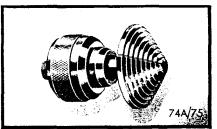


72/73



72A/73





Arbors

Shank W 10 - Lathe SV 65 Blank head \varnothing : 14-20-25-30 mm Length of head: 40 mm

Shank W 12 – Lathe SV 70 Blank head \varnothing : 16 – 20 – 25 – 30 – 40 mm Length of head : 40 mm

Expanding arbors (without closing rod)

79 A Shank W 10 – Finished head

Finished head \emptyset : D = 6-8, 9-11, 12-14 mm Length of head: L = 1015

79 A Shank W 12 – Finished head Finished head \varnothing : D = 6.–8, 9–11, 12–14, 15–17 mm Length of head: L = 10 15 20 25 mm

635 Nut with closing rod for No. 79 A

116 Stop nut for spindle nose

160 Expanding arbors with interchangeable bushes for powerful and concentric clamping over entire length Shank W 12 - Clamping \varnothing : 17 to 30 mm, clamping length: 30 mm

Blank

STEP-COLLETS

| Size | 69 | 70 | 72 | IV 77 | > 80 |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Weight | kg 0,2 24 | kg 0,25 40 | kg 0,35 56 | kg 0,5 72 | kg 0,75 |
| Capacity SV 70 No. of closer | 27 68 | 43 71 | 59 73 | 75 78 | 91 81 |
| Weight | kg 0,07 | kg 0,13 | kg 0,22 | kg 0,45 | kg 0,5 |

With turned steps

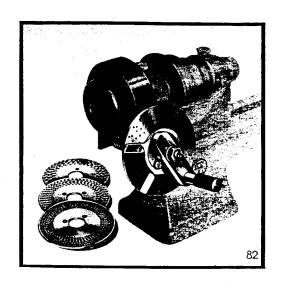
| Item No. | Size | Туре | Weight kg | Nber | Ø of steps mm | Remarks |
|-------------|------|----------|--------------|------|--------------------|---|
| 69 A | ı | 65 70 | 0,1 0,15 | 4 | 9 – 24 12 – 27 | The interval between the |
| 70 A | 11 | 65 70 | 0,15 0,2 | 4 | 25 ~ 40 28 ~ 43 | steps is 4 mm. |
| 72 A | 111 | 65 70 | 0,25 0,3 | 4 | 41 ~ 56 44 ~ 59 | In order to obtain all diameters in stages of |
| 77 A | IV | 65 70 | 0,3 0,38 | 4 | 57 ~ 72 60 ~ 75 | one millimetre, 4 collets of each size with 4 steps per collet are required |
| 80 A | V | 70 | 0,45 | 4 | — 76 – 91 | for each type. |

EXTERNAL STEP CHUCKS

| 74 | Blank | | | | | | | | | | | kg 0,15 |
|----|-------------------|--|--|--|--|--|--|--|--|--|--|---------|
| | With turned steps | | | | | | | | | | | |
| /5 | Expanding ring . | | | | | | | | | | | kg 0,1 |

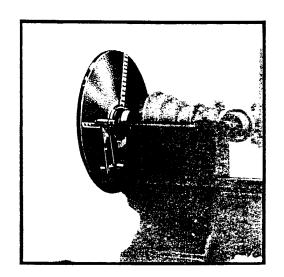
To obtain all steps in stages of one millimetre the following numbers of chucks are necessary: SV 70 Shank W 12, β 10-49 mm : 5 chucks SV 65 - Shank W 10, Ø 8-43 mm : 4 chucks

DIVIDING ATTACHMENTS

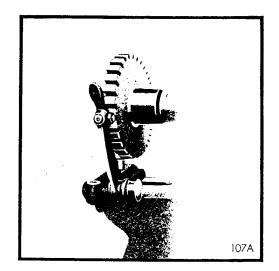


Dividing attachment with 4 discs, each with 6 circles of divisions giving nearly all numbers between 2 and 360. Ratio between gear and wormwheel 1: 60.

2,2 kg.



76 **Brass dividing plate** with 24 divisions marked on the indexes :

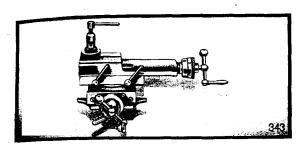


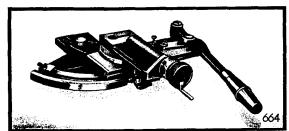
Dividing plate with pawl for use with headstock or quill.

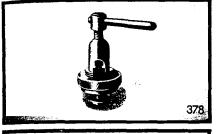
- Dividing plate, 60 teeth, bore 15 mm for SV 65 0,35 kg. bore 19 mm for SV 70
- 107 A Pawl with base for mounting on bed 0,28 kg.

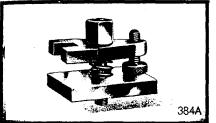
CARRIAGES AND ACCESSORIES FOR CARRIAGES

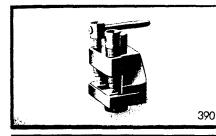


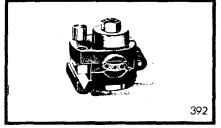


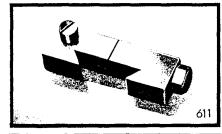




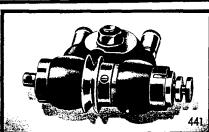




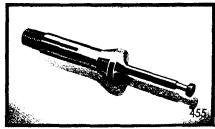


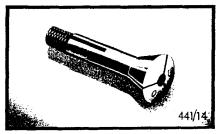


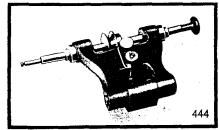
| Item | | Weig | ht kg |
|---------------------|---|-------|---------------|
| No. | | SV 65 | SV 70 |
| 343 | Carriage with micrometer screws | 2,8 | 2,8 |
| | Fully protected slides Protected micrometer screws Adjustable verniers reading to 1/100 mm Cross slide swivels 90° either side | | |
| İ | Long. stroke 55 mm Trans. stroke 55 mm | | İ |
| | Accessories | | |
| 378 384 A 390 | Tool-post for tools 6 × 6 mm Tool-clamp Tool-post with 2 screws SV 65 tool 6 × 6 mm SV 70 tool 7 × 7 mm | | 07 17 2 |
| 392 | Adjustable tool-post for trianguar tool 8 mm | 0. | |
| 611 612 G | Stop for slide | 0, | |
| 612 H | for longitudinal slide | | 19 16 |
| 394 394 A | Set of 6 tools 6 × 6 mm Set of round tools @ 5 mm | 0, | 15 07 |
| 397 | Tool holder for round tools | | 02 |
| 664 | Carriage for cylindrical and taper grinding, external and internal, and planing | 6 | 6 |
| | Long stroke 50 mm Transv. stroke 40 mm | | |
| | Accessories | | |
| 441 | Grinding attachment Spindle for collet B 6 mm Pulley with grooves © 36 mm Speed : 5400 rpm | 0, | 8 |
| 441 R | Grinding attachment No. 441 with spindle mounted on ball-bearings | 0, | 95 |
| 457 | Wheel arbor for external grind- ing | 0, | 02 |
| 455 | Wheel arbor for internal grind- ing | 0. | 01 |
| 441/14 | Length of grinding 18 - 24 mm Collet for No. 441, shank diam. 6 mm. | 0. | 02 |
| 444 | Internal grinding attachment Spindle with taper. Pulley with groove diam. 25 mm Stroke 33 mm. Speed 7800 rpm | 0, | 6 |



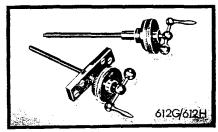


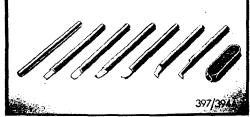






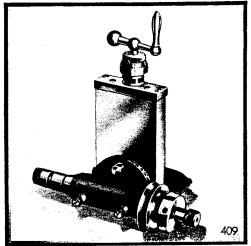


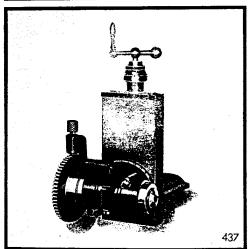


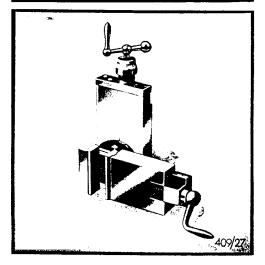




ATTACHMENTS FOR CARRIAGES







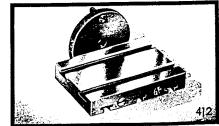
The milling attachment upright No. 409 A can accomodate the following accessories :

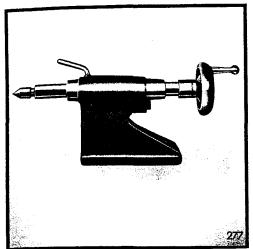
Cutter headstock Work headstock Parallel vice Swivelling angle-plate

specification as per table below:

| ltem No. | • | Weight kg |
|-------------------|---|--------------|
| 409 | Milling attachment with inclinable headstock | 2 |
| | Vertical strocke 60 mm Inclination from 0 to 360° Spindle for collet type B 8 Pulley with 2 grooves diam. 42-32 mm for belt Ø 5 mm Speeds: 1300 and 3000 rpm | () |
| 435 | Milling-cutter arbor, shank type B 8 Diameter 5 – 8 – 10 – 13 – 16 mm | 0,03 |
| 437 110 108 | Work headstock, spindle for collet type W 20 Division plate 60 teeth Spring pawl | 1,5 |
| 409/27 | Parallel vice, width of jaws 50 mm Max. opening 35 mm | 1,7 |
| 412 | Swivelling angle plate with T-slots: 2 longitudinal slots 3 transversal slots Working surface: 90 × 60 mm | O 1 |

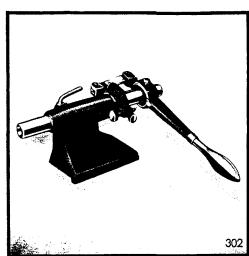


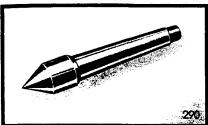




TAILSTOCKS

| Item No. | | Weig SV 65 | |
|-------------|--|---------------|-----|
| 277 | Tailstock with screw and handwheel, spindle with inner taper 2°, stroke of spindle 45 mm | 2 | 2,3 |
| 302 | Lever-operated tailstock for repe- tition work, spindle for collet : | | |
| | SV 65 : type W 10 SV 70 : type W 12 | 2 | 2,7 |

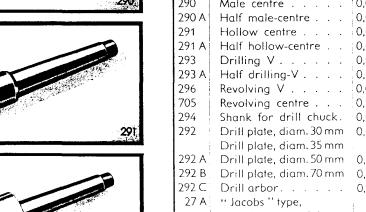


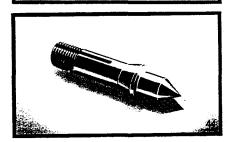


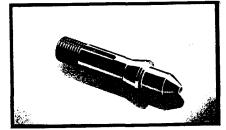
Accessories for Tailstocks

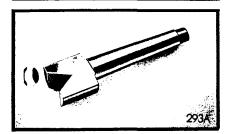
| ltem | Taper 20 | Weig | ht kg |
|-------|--------------------------|-------|-------|
| No. | raper 2 | SV 65 | SV 70 |
| | | | |
| 290 | Male centre | 0,02 | 0,03 |
| 290 A | Half male-centre | 0,02 | 0,03 |
| 291 | Hollow centre | 0,02 | 0,03 |
| 291 A | Half hollow-centre | 0,02 | 0,03 |
| 293 | Drilling V | 0,03 | 0,04 |
| 293 A | Half drilling-V | 0,03 | 0,04 |
| 296 | Revolving V | 0,05 | 0,06 |
| 705 | Revolving centre | 0,15 | 0,15 |
| 294 | Shank for drill chuck. | 0,05 | 0,05 |
| 292 | Drill plate, diam. 30 mm | 0,04 | |
| | Drill plate, diam. 35 mm | | 0,06 |
| 292 A | Drill plate, diam. 50 mm | 0,12 | 0,13 |
| 292 B | Drill plate, diam. 70 mm | 0,14 | 0,15 |
| 292 C | Drill arbor | 0,03 | 0,05 |
| 27 A | " Jacobs " type, | į | |
| 1 | drill chuck, cap. 6,4 mm | 1 | 1 |
| } | mounted on arbor | | |
| ł | no. 294 | 0,2 | 0,2 |
| | no. 294 | 0,2 | 0,2 |







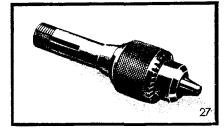


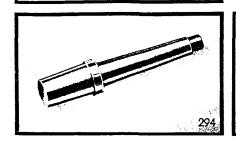


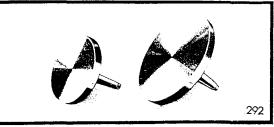
Accessories for Lever-operated Tailstock

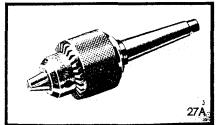
| Item | Shank W 10 or W 12 | Weig | ht kg |
|------|------------------------------------|-------|-------|
| No. | Shark W 10 01 W 12 | SV 65 | SV 70 |
| 14 | Collet type W 10 | 0,02 | |
| | type W 12 | | 0,03 |
| 44 | Male centre | 0,03 | 0,05 |
| 45 | Hollow centre | 0,03 | 0,05 |
| 27 B | Arbor for drill chuck | | |
| | (without chuck) | 0,05 | 0,05 |
| 27 | "Jacobs" type drill | | |
| | chuck, with arbor, cap. 0 – 6,4 mm | 0,2 | 0,2 |





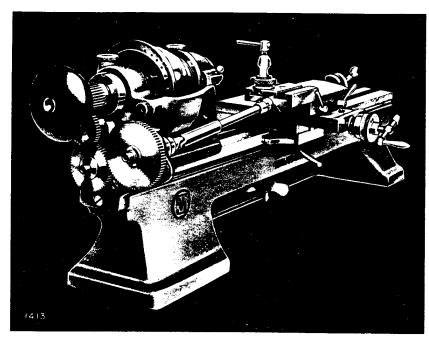








ATTACHMENT FOR SCREWCUTTING BY CARRIAGE AND UNIVERSAL JOINTS



111 kg 1,5

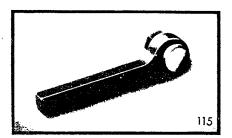
Of simple design, this attachment allows the cutting of threads up to 1,25 mm pitch on a length of 50 mm by means of the carriage No. 343.

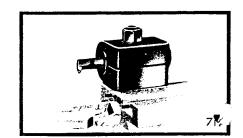
- a) with metric screws and set of 9 gears for cutting the following threads: 0,25 0,30 0,35 0,40 0,45 0,50 0,55 0,60 0,75 0,80 0,85 0,90 1 1,25 mm.
- b) with inch screws and set of 15 gears for cutting the following threads: 80 72 68 64 60 56 52 50 48 46 44 42 40 38 36 34 32 30 28 26 25 24 22 20 18 per inch.

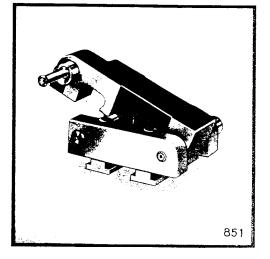
Gears required for cutting other threads can generally be supplied from stock.

SCREWCUTTING TOOLS AND TOOLHOLDERS





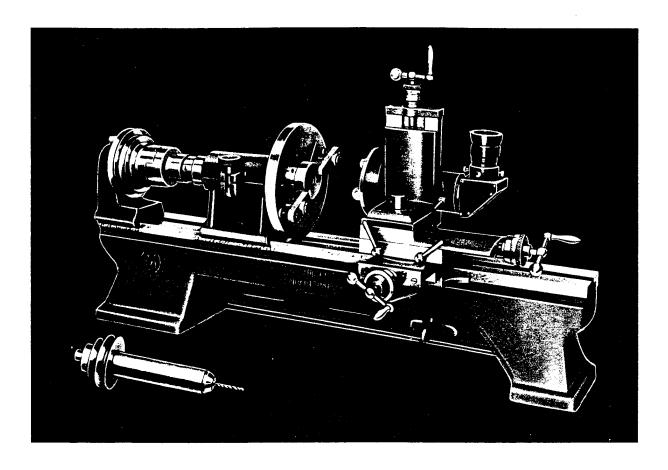




| Item No. | For use with attachment No. 111 | Weight kg |
|-------------|--|--------------|
| 114 | Circular screw-cutting tool, 55 or 60°, diam. 24 mm | 0,005 |
| 711 | Toolpost for circular screw-cutting-tool No. 114 Adjustable toolholder for internal screw-cutting Diam, of tool 8 mm | 0,03 0,22 |
| 851 | Eccentricity of tool 15 mm Hinged toolholder for internal threads Diam. of internal-threading tool 8 mm | 0,65 |

LATHE FOR CENTRING WITH MICROSCOPE





| Bed on 2 legs | Item | Standard equipment | Weig | jht kg |
|---|-------|---|-------|--------|
| Hinged quill-holder, bore 35 mm Quill with face plate with tapped holes and 3 slots, with dogs and centring pump 2,5 2,5 405 Headstock with carrier 1,4 1,7 668 A Square carrier 0,29 0,2 343 Carriage with adjustable verniers 2,8 409 A Upright of milling attachment 1,2 1,2 420 Quill-holder, bore 25 mm 1 Quill Ø 25 mm for collet type B 8 with pulley with 2 grooves Ø 44-55 mm 0,6 0,6 1370 Elbowed microscope magnifying 65 x, with concentric circles and reticule 0,4 0,4 | No. | siandara equipmeni | SV 65 | SV: 70 |
| Hinged quill-holder, bore 35 mm Quill with face plate with tapped holes and 3 slots, with dogs and centring pump Centring pump Carriage with adjustable verniers Carriage with adjustable verniers Carriage with adjustable verniers Carriage with of milling attachment Carriage with ore 25 mm Cauill & 25 mm for collet type B 8 with pulley with 2 grooves A44-55 mm Chicago with concentric circles and reticule O,4 O,4 O,4 | 1 | Bed on 2 leas | 99 | 13.5 |
| Quill with face plate with tapped holes and 3 slots, with dogs and centring pump 2,5 2,5 2,5 2,5 2,5 2,5 2,5 2,5 2,5 2,5 | 265 | 3 | | 2,3 |
| 105 B centring pump 2,5 1,7 1,7 1,7 1,7 1,7 0,29 0,2 0,2 0,2 0,2 2,8 <td></td> <td></td> <td></td> <td>·</td> | | | | · |
| 668 A Square carrier 0,29 0,2 343 Carriage with adjustable verniers 2,8 2,8 409 A Upright of milling attachment 1,2 1,2 420 Quill-holder, bore 25 mm 1 1 702 Quill Ø 25 mm for collet type B 8 with pulley with 2 grooves 0,6 0,6 Ø 44-55 mm 0,6 0,6 0,6 1370 Elbowed microscope magnifying 65 x, with concentric circles 0,4 0,4 | | centring pump | 2,5 | 2,5 |
| 343 Carriage with adjustable verniers 2,8 409 A Upright of milling attachment 1,2 420 Quill-holder, bore 25 mm 1 702 Quill Ø 25 mm for collet type B 8 with pulley with 2 grooves 0,6 Ø 44-55 mm 0,6 1370 Elbowed microscope magnifying 65 x, with concentric circles 0,4 and reticule 0,4 | 251 | Headstock with carrier | 1,4 | 1,7 |
| 409 A 409 A 420 Quill-holder, bore 25 mm | 668 A | Square carrier | 0,29 | 0,29 |
| 420 Quill-holder, bore 25 mm | 343 | Carriage with adjustable verniers | 2,8 | 2,8 |
| 702 Quill Ø 25 mm for collet type B 8 with pulley with 2 grooves Ø 44-55 mm | 409 A | Upright of milling attachment | 1,2 | 1,2 |
| Ø 44-55 mm | 420 | Quill-holder, bore 25 mm | 1 | |
| 1370 Elbowed microscope magnifying 65 ×, with concentric circles and reticule | 702 | Quill Ø 25 mm for collet type B 8 with pulley with 2 grooves | | |
| and reticule | | ø 44-55 mm | 0,6 | 0,6 |
| | 1370 | Elbowed microscope magnifying 65 $	imes$, with concentric circles | | |
| 1371 Disc with 3 bulbs for illuminating the part to be centred (8 Volts) 0,1 0,1 | | and reticule | 0,4 | 0,4 |
| | 1371 | Disc with 3 bulbs for illuminating the part to be centred (8 Volts) | 0,1 | 0,1 |



QUILLS AND QUILL-HOLDERS



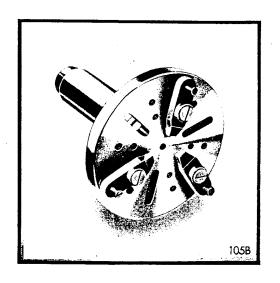


265 Hinged quill-holder,

bore 35 mm

SV 65, length 100 mm 1,8 kg SV 70, length 100 mm 2,3 kg

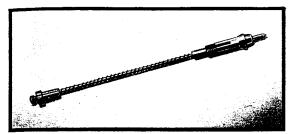


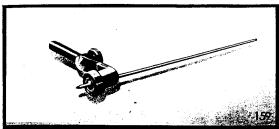


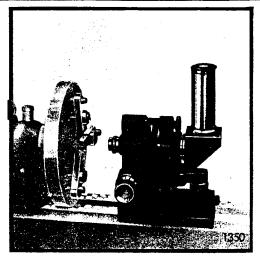
| ltem No. | Plain quills with spindle for collet and draw-in bar | Weight kg |
|-------------|---|--------------|
| 91 A | Quill Ø 35 mm Spindle nose SV 65 collet type W 10, with male centre and protecting ring | 1,2 |
| 91 B | Quill Ø 35 mm Spindle nose SV 70 collet type W 12, with male centre and protecting ring . | 1,2 |
| 702 | Quill Ø 25 mm Spindle nose without thread, collet type B 8 | 0,65 |
| | Quills with face plate with tapped holes and 3 slots with dogs and centring pump | |
| 105 A | Quill Ø 35 mm Plate Ø 128 mm, with 3 dogs for slots | 2,6 |
| 105 B | Quill Ø 35 mm Plate Ø 128 mm, with 3 dogs for tapped holes, for clamping work directly on face plate | 2,5 |

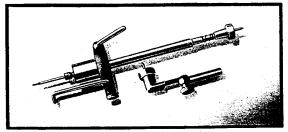
CENTRING ATTACHMENTS







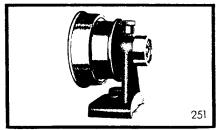


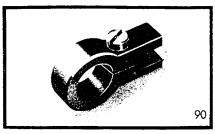


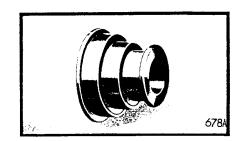
| ltem | Description | | Weight kg | |
|------|--|-------|-----------|--|
| No. | Description | SV 65 | SV 70 | |
| | | | | |
| 95 | Centring pump for quills with face plate or for headstock | 0,06 | 0,1 | |
| 154 | Attachment for centring from back and front | 0,34 | 0,37 | |
| 159 | Attachment for centring from front | 0,07 | 0,07 | |
| 1350 | Microscope holder for fitting on bed, adjustable in all directions | 1,4 | 1,4 | |
| 1370 | Elbowed microscope, magnifying $65 \times$, with concentric circles and reticule . | 0,4 | 0,4 | |
| 1371 | Disc with 3 bulbs, for illuminating the part to be centred (8 Volts) | 0,1 | 0,1 | |

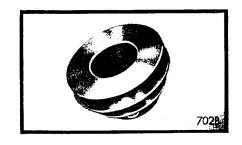
PULLEYS AND CARRIERS







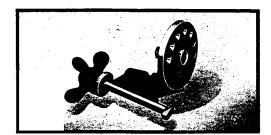


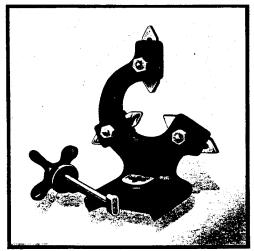


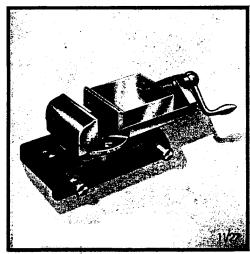
| Item | | Weig | ght kg |
|--------------|--|-------|--------|
| No. | Drive pulleys for direct drive | SV 65 | sv 70 |
| 678 A 678 | Pulley with 3 steps for quills No. 91, bore 15 mm and 19 mm SV 70: Ø 48 — 64 — 80 x 18 mm | 0,4 | 0,7 |
| 702 B | Pulley with 2 steps for quills No. 702, bore 12 mm, \otimes 44 \pm 55 mm | 0,22 | 0,22 |
| | Carriers for indirect drive | | |
| 251 | Headstock with carrier SV 70, pulley with 2 steps ○ 64 84 × 18 mm . SV 65, pulley with 3 grooves ○ 52 68 84 mm | 1,4 | 1,7 |
| 668 ; | Square carrier for quitts No. 91 with special draw-in bar and key | 0,36 | 0,36 |
| 668 A | Square carrier for quills with face plate No. 105 A - 8 | 0,29 | 0,29 |
| 90 | Fork-carrier | 0.1 | 0,1 |

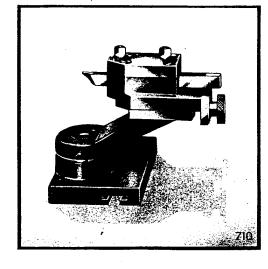


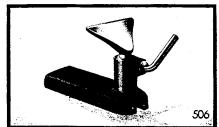
VARIOUS ACCESSORIES

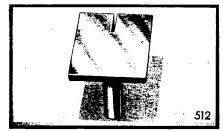








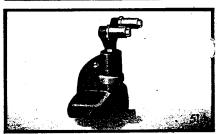








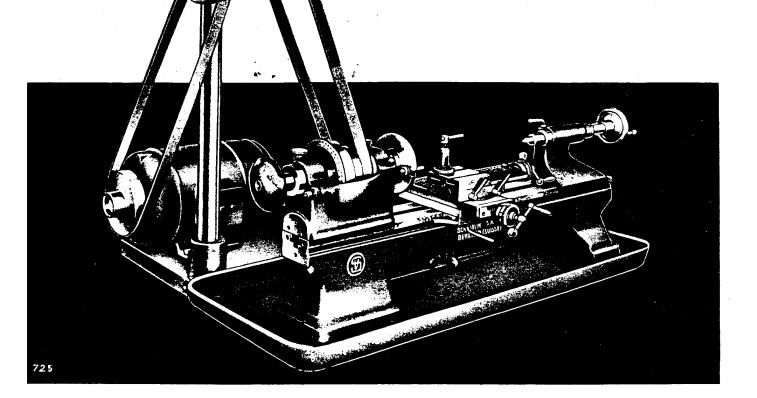




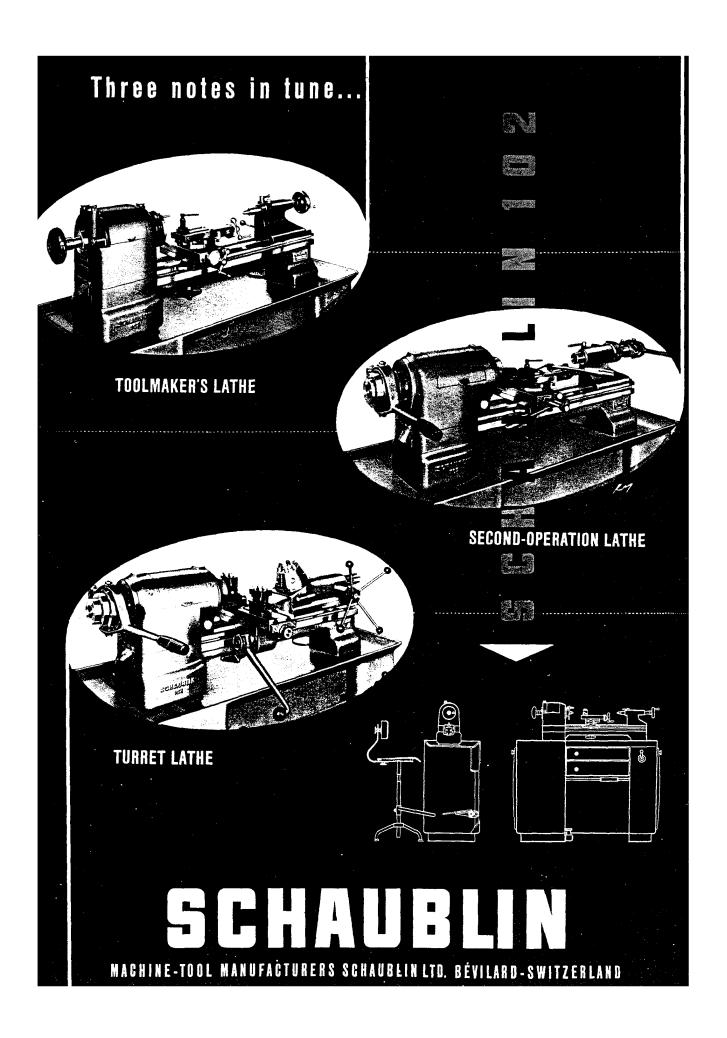
| Item | , | Weig | ht kg |
|-------|--|-------|--------|
| No. | , | SV 65 | SV 70' |
| 528 | Steady rest with holes Diam. 1,5 - 3 - 4,5 - 6 - 7,5 - 9 - 10 mm | 0,5 | 0,7 |
| 524 | Steady rest with 3 guided cast-iron jaws. Maximum cap. 35 mm | 0,8 | 0,9 |
| 506 | Hand rest | 0,3 | 0,3 |
| 520 | Tilting hand-rest | 0,4 | 0,4 |
| 512 | Rectangular sawing table | 0,1 | 0,1 |
| 512 A | Triangular sawing table | 0,1 | 0,1 |
| 509 | Single filing-roller rest | 0,05 | 0,05 |
| 514 | Double filing-roller rest | 0,25 | 0,25 |
| 11/27 | Vice, width of jaws 50 mm opening 35 mm | 1,55 | 1,55 |
| 710 | Spherical-turning attachment Max. radius 55 mm Stroke of slide 30 mm | 1,7 | 1,7 |

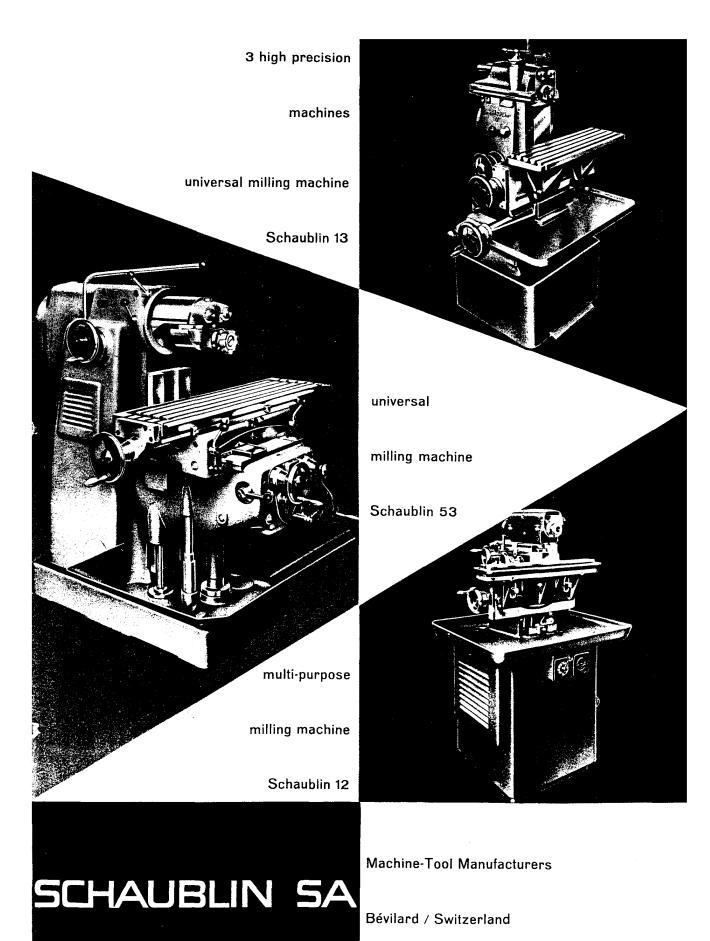






| Individual drive, comprising: | Weight - Space required |
|--|---|
| Cast-iron/tray Base plate, for mounting on bench | Weight kg 41 (90 lbs |
| Column dia. 30 mm, height 760 mm Countershaft with pulleys and swivel bracket with lever | gross ordinary » 66 (145 lbs overseas » 135 (298 lbs |
| 3-phase-motor: 1/3 hp - 1500 rpm with 2-step-pulley 3-pole switch for mounting under bench | Space required mm 760 × 450 × 350 |
| Speeds at headstock | " angl. 30" × 20" × 14" Packing |
| Lathe SV 70: | ordinary : |
| 270 — 450 — 730 — 1120 — 1860 — 3080 rpm | cm 82 × 50 × 40 "angl. 33" × 20" × 16" |
| Lathe SV 65: 250 — 460 — 700 — 1020 — 1960 — 3500 rpm | overseas: cm $93 \times 60 \times 50$ "angl. $37'' \times 24'' \times 20''$ |





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