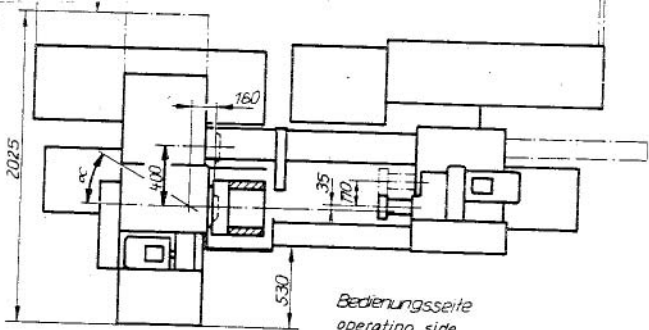
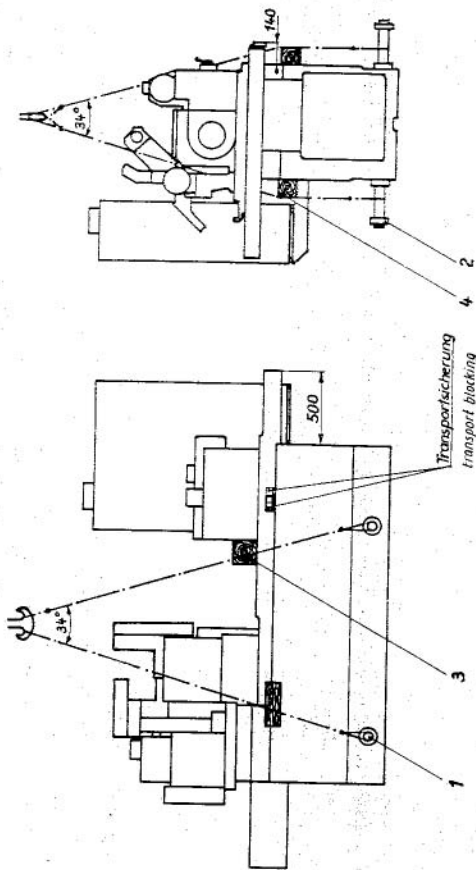


Bedienblende S1611 ASA - N
 Tableau de commande S1611 ASA - N
 switchboard S1611 ASA - N
 Bild 5

- S 220 Preselector for switching-off the grinding motor in the end position of table
- S 221 Preselector for speed change of work drive with internal grinding.
It is used when an other speed is required for face grinding.
- S 222 Preselection for coolant pump 1
- S 223 Preselection for coolant pump 2
- S 224 Preselection for coolant pump 3
- S 225 Preselector for grinding programme
- S 226 Time relay
Preselection for intermediate sparking-out according to time.
- S 227 Time relay
Preselection for final sparking-out according to time.
- S 228 Preselector for dressing prior to or after grinding cycle (automatic)
See also diagram, point 3.2.8.
- S 229 Time relay
Preselection of table dwell in the left-hand point of reversal for grinding pocket holes.
- S 230 Preselection of the end of the automatic internal grinding process in the left-hand point of table reversal.
Grinding wheel is lifted from the work only after a complete stroke inwards has been completed.
- S 231 Preselector for dwell of reversing lever during moving in up to the contact with table stop, then infeed is started.
Application if several positions are to be ground at one work.
- S 232 Preselector for dwell of reversing lever during moving in up to table stop without starting of infeed. Application if inside faces are to be ground by the internal grinding spindle.
- S 234 Oil mist lubrication for grinding spindle must be actuated with connected automatic pressure controller for oil mist.
- S 236 Preselector for rapid traverse of table up to table stop (during moving in and out). pay attention to setting-up of limit switch S24, point 3.7.7.4. Control sequence see diagram, point 3.2.8.

- S 237 Preselector for unilateral or bilateral dressing
O = unilateral (during moving in)
I = bilateral (during moving in and out)
- S 240 Switching-off of face grinding motor in end position.
- S 241 Preselector for speed change of work drive with face grinding.
Application in connection with S 221.
- S 242 Preselector for pump 2 for face grinding.
-
- S 140 Face grinding motor Off
- S 141 Face grinding motor On
- S 142 Swivelling-out of face grinding attachment
- S 143 Swivelling-in of face grinding attachment
- S 144 Dressing of face grinding wheel
- S 145 Coarse displacement of face grinding attachment to the right
- S 146 Coarse displacement of face grinding attachment to the left
-
- S 160 Transverse displacement forward
- S 161 Transverse displacement backward





51611-N x 315

1.3. Design of machine

The SI 6/1-N is an internal cylindrical grinding machine. The following materials can be machined: hardened and un-hardened steel, cast iron, malleable cast iron, cast steel, non-ferrous metals and plastics.

The SI 6/1-N series is available in various variants:

SI 6/1 A-N x 315 SI 6/1 A-N x 500 SI 6/1 A-N x 710

Internal cylindrical grinding machine with automatic internal grinding cycle, grinding depth 315, 500 or 710.

The internal grinding spindle is suited to grind cylindrical and taper holes, straight and stepped holes as well as short outside diameters and narrow end faces.

SI 6/1 AS-N x 315 SI 6/1 AS-N x 500 SI 6/1 AS-N x 710

Internal cylindrical grinding machine with automatic internal grinding cycle and manually controlled face grinding attachment, grinding depth 315, 500 or 710.

The internal grinding spindle is suited to grind cylindrical and taper holes, straight and stepped holes as well as short outside diameters and narrow end faces.

The face grinding attachment together with suitable accessories permits to grind single end faces, low-arranged end faces or simultaneously two end faces arranged one behind the other.

SI 6/1 ASA-N x 315

Internal cylindrical grinding machine with automatic internal grinding cycle and automatically controlled face grinding attachment, grinding depth 315.

After the automatic grinding of the hole, the automatic face grinding attachment automatically starts to grind the end face.

1.4. Technical data and working ranges

SI 6/1	A-Nx315	A-Nx500	A-Nx710
SI 6/1	AS-Nx315	AS-Nx500	AS-Nx710
SI 6/1	ASA-Nx315		

Dimensions

Length	3640 mm	3920 mm	5140 mm
Width	2400 mm	2400 mm	2400 mm
Height	2000 mm	2000 mm	2000 mm

Input power

Internal wheelhead motor	7.5 kW	7.5 kW	7.5 kW
Work drive motor	0.9/1.5 kW	0.9/1.5 kW	0.9/1.5 kW
Motor for face grinding attachment	4 kW	4 kW	4 kW

Work-holding spindle speeds

40/50/63/80	40/50/63/80	40/50/63/80
100/125/160	100/125/160	100/125/160
200/250/315	200/250/315	200/250/315
400 r.p.m.	400 r.p.m.	400 r.p.m.

Internal grinding wheel feed, continuous intermittent

0.1-1 mm/min	0.1-1 mm/min	0.1-1 mm/min
1.0-25 $\mu\text{m}/\text{DH}^*$	1.0-25 $\mu\text{m}/\text{DH}^*$	1.0-25 $\mu\text{m}/\text{DH}^*$

Table speeds

0.1-8 m/min	0.1-8 m/min	0.1-8 m/min
10 m/min	10 m/min	10 m/min

Rapid traverse

10 m/min	10 m/min	10 m/min
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Connected load (with face grinding attachment)

17 kW	17 kW	17 kW
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Traverse distances of internal grinding attachment on table

520 mm	530 mm	760 mm
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Maximum distance between work-holding spindle flange and wheel-spindle base

1250 mm	1450 mm	2000 mm
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Maximum grinding depth

315 mm	500 mm	710 mm
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Grinding diameter in work guard

internal grinding	40-400 mm	40-400 mm	40-400 mm
external grinding, max.	400 mm	400 mm	400 mm

Maximum work diameter in work guard

500 mm	500 mm	500 mm
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Maximum distance between work-holding spindle flange and face grinding wheel

500 mm	500 mm	500 mm
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Distance between work-holding spindle flange and seat of back stay

150-520 mm	280-650 mm	280-880 mm
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*DH = cycle

SI 6/1	A-N x 315	A-N x 500	A-N x 710
SI 6/1	AS-N x 315	AS-N x 500	AS-N x 710
SI 6/1	ASA-N x 315		

Shipping weight, packed for rail transport	7000 kg	7600 kg	8500 kg
packed for sea transport	7150 kg	7750 kg	8650 kg
packed for road transport	5900 kg	6500 kg	7100 kg
Weight of empties			
rail	1100 kg	1100 kg	1400 kg
Weight of empties			
sea	1250 kg	1250 kg	1550 kg
Shipping weight, container	8400 kg	9000 kg	9600 kg
weight of empties	2300 kg	2300 kg	2300 kg
Required freight space			
rail	9.5 m ²	9.5 m ²	11.0 m ²
	24.0 m ³	24.0 m ³	27.0 m ³
sea	9.5 m ²	9.5 m ²	11.0 m ²
	24.0 m ³	24.0 m ³	27.0 m ³
lorry	9.5 m ²	9.5 m ²	11.0 m ²
	24.0 m ³	24.0 m ³	27.0 m ³
container	14.8 m ²	14.8 m ²	14.8 m ²
	36.0 m ³	36.0 m ³	36.0 m ³
Dimensions of cases			
length l	4340 mm	4340 mm	4840 mm
width b	2200 mm	22 00 mm	2200 mm
height h	2520 mm	2520 mm	2520 mm
Dimensions of containers			
length	6055 mm	6055 mm	6055 mm
width	2435 mm	2435 mm	2435 mm
height	2435 mm	2435 mm	2435 mm
Net weight (with face grinding attachment)	5800 kg	6500 kg	7100 kg
Dimensions of package			
length	4340 mm	4340 mm	4840 mm
width	2200 mm	2200 mm	2200 mm
height	2520 mm	2520 mm	2520 mm