

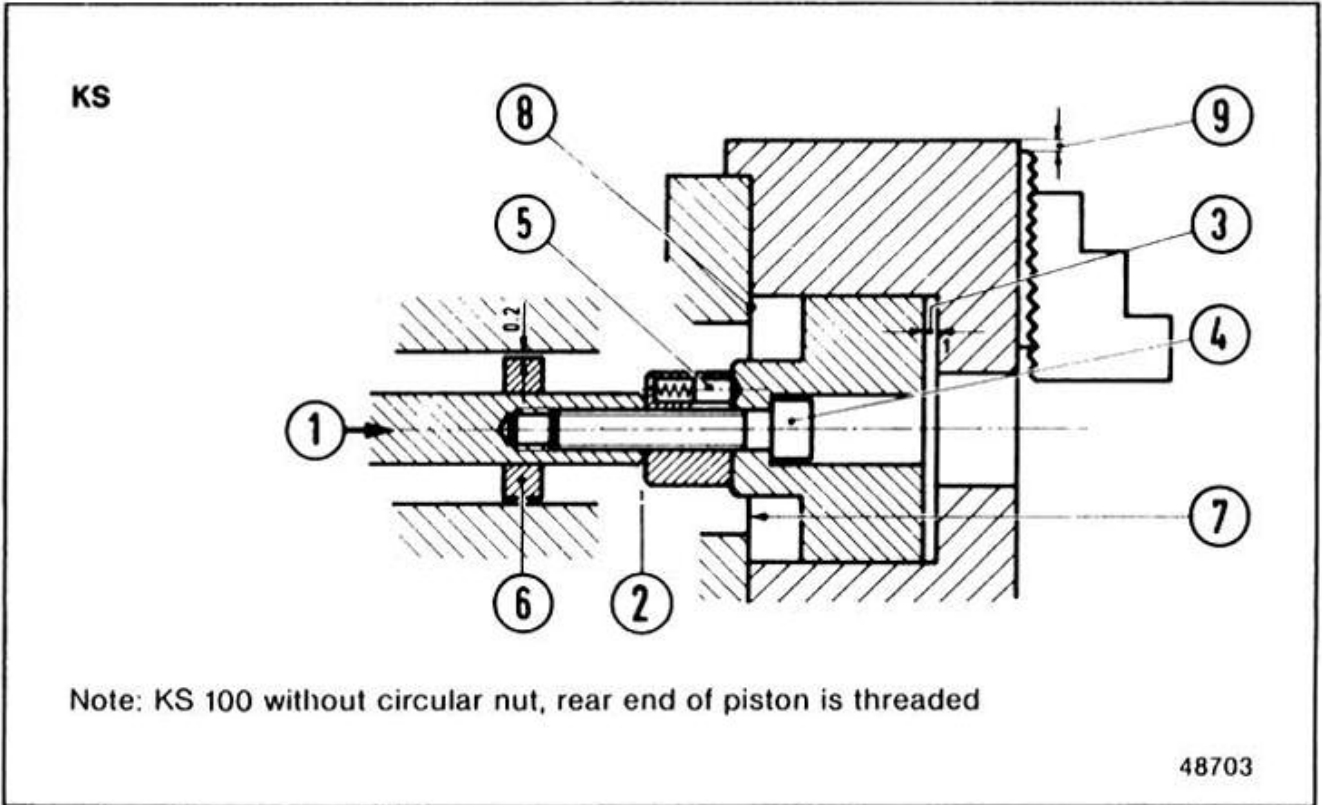
# FORWARDT

## KS THREE JAW POWER CHUCK



# Power operated three jaws chucks

## KS



### Chuck mounting

To obtain adequate accuracy of true running, check the chuck mounting for the following points:

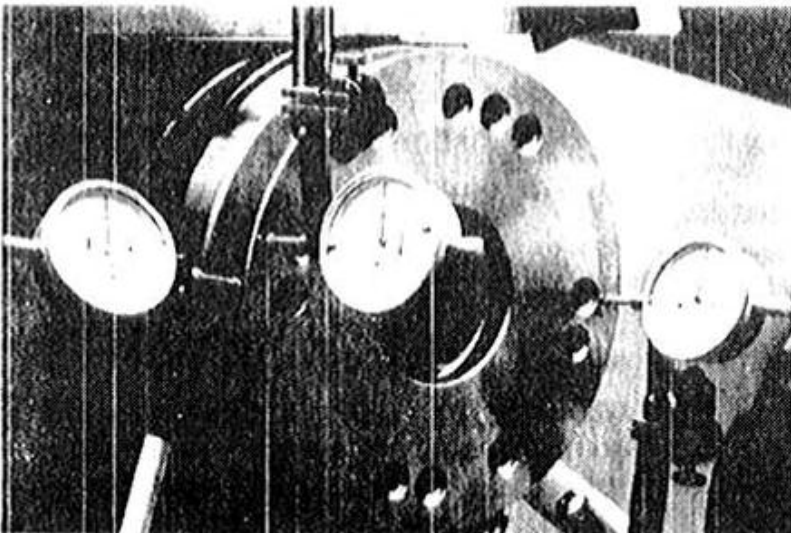
Check the flange for true running.

Check the flange for face runout with two mic-

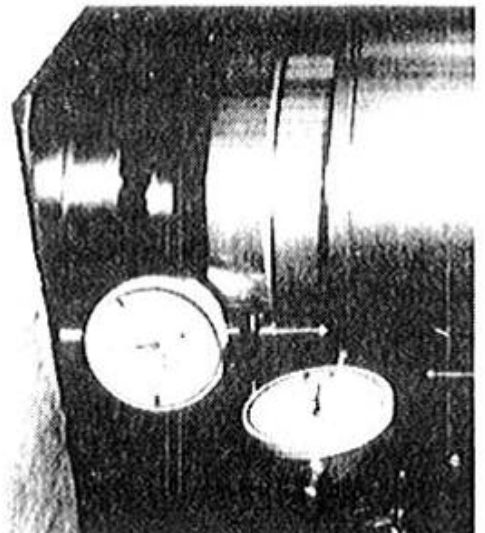
rometer clocks, one at the front and one at the rear of the machine.

Check the location face for flatness with a bevelled steel straightedge.

The surface of the location must be clean and free of burr at all bores.



7644-R



7646

# Operating Instructions

## Setting the chuck piston

When fitting Forkardt three-jaw chucks types KS it is necessary, as with all power-operated chucks, to pay particular attention to the following points:

- ① Location on the right in the chucking cylinder (not in the chuck). Therefore move piston of the chucking cylinder to the right.
- ② The connection rod must be so long that with the piston in position ① the distance in the cylinder is ③.
- ③ This safety clearance avoids damage of the chuck.
- ④ The chuck piston is firmly connected with the cylinder piston over the draw rod by fastening the screw, part 5. This firm connection is necessary for the function of the limit switches of the cylinder's stroke control.
- ⑤ In the case of the KS chuck, and the chucks, a safety stop in the circular nut or, respectively, the protective bush, prevents unintentional loosening of the drawbolt.
- ⑥ In the case of the KS chuck a guide ring for the draw rod facilitates assembly and prevents eccentric pulling of the piston.
- ⑦ The piston must on no account protrude from the chuck bore on the left.
- ⑧ On completion of its effective stroke the chuck piston must locate on the mounting flange or on the machine spindle.
- ⑨ After assembly measure the jaw stroke to check for correct fitting. (The jaw stroke is given in our prospectus.)
- ⑩ True radial and axial running of the chuck have to be checked according to picture 7646. Max. run-out: 0,01.

## Operating force

The rotating gripping cylinder must be set by means of the pressure-reducing valve or the setting screw of the power unit so that the pulling or pushing force at the connecting rod does not exceed the following values:

KS 140— 950 daN  
KS 160— 950 daN  
KS 200—1750 daN  
KS 250—2800 daN  
KS 315—4000 daN  
KS 400—4000 daN  
KS 500—6000 daN

## Important:

With  $\frac{1}{10}$  operating force the chuck must open and close correctly. If this not the case, screw off the upper jaws and check whether there is any binding caused by jamming in the jaw guides. If, after making any correction that may be necessary, the movement still is not right, check the end face of the flange with a straightedge to see whether the connection is free from strain.

### Note!

**The draw rod and draw tube must be in alignment (no skew thread).**

## Fixing the upper jaws

- Do not use any damaged T-bolts. The locating faces of the bolts must be in good condition.
- Do not damage the serrations and do not screw the upper jaws on unless the serrations are in good condition.
- If you have made the upper jaws yourself, make sure that the pitch of the serrations is correct and check whether there has been any distortion due to hardening.
- Use only high-quality screws, grade 10 K.

## Care of the chuck

Uniform gripping power, accuracy, and life can be obtained only by regular cleaning and lubrication. The frequency of cleaning and lubrication depends on how heavily the chuck is loaded and how dirty it gets.

## Basic rule

If the chuck does not open or close properly with  $\frac{1}{10}$  of the permissible operating force, it must be cleaned or lubricated.

For lubrication use *special grease PF 2*.

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## Dismantling the chuck

To take the KS chucks to pieces, it is necessary to unscrew them from the machine spindle.

Then proceed as follows:

Unscrew the upper jaws.

Unscrew the protective cover or protective bush.

Screw out the draw bolt or threaded ring.

In the case of KS chucks remove the locking screw from the rear of the chuck.

Pull the chuck piston out from the rear.

Take out the base jaws, outwards in the case of the KS chuck.

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## On assembly

- a) compare the numbering of the jaws,
  - b) do not forget the jaw locking screw in the the case of the KS chuck.
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## Spare parts (page 11)

When ordering replacement parts, please give the type of chuck, the serial number, the name of the part, and the number.

### Example of how to order:

KS 160

1 base jaws part 4

Serial No. 000 000

## Please note !

When a larger number of identical components is processed on **one** clamping diameter, above all at a very tightly adjusted opening stroke of the jaws, only very few movements take place in the chuck gear.

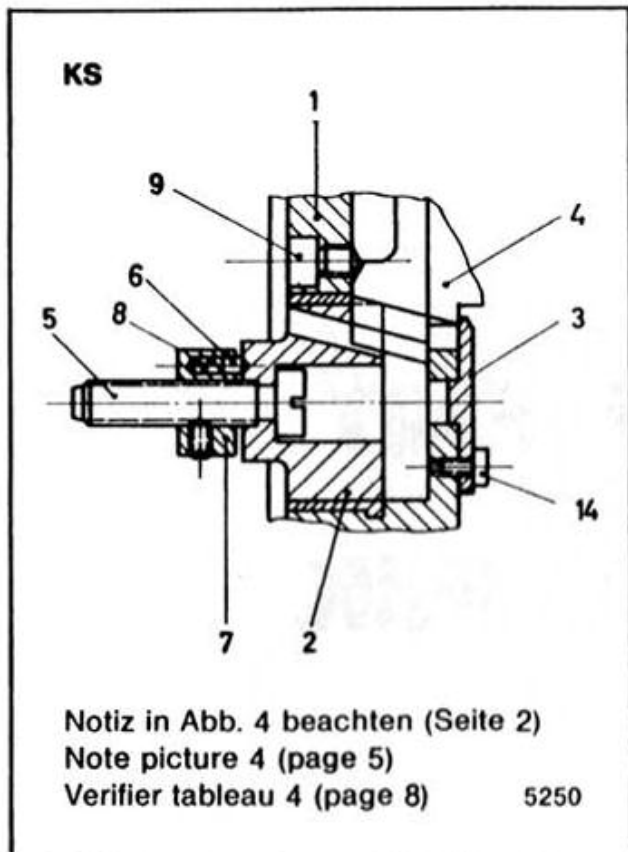
This results in a squeezing out of the lubricating grease between the loaded surfaces and thereby the efficiency factor of the chuck is decreased.

In such cases, the chuck should be operated several times without inserted component at the full stroke after a definite number of clamping cycles (indicative value 200 to 400). The lubricating grease in the inside of the chuck is then again distributed on the sliding surfaces of the inner parts of the chuck and favourable clamping force values of the chuck are re-established.

The requirement for regular relubrication of the chuck is, of course, not abolished by this measure.

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**Ersatzteile**  
**Spare parts**  
**Pièces de rechange**



- 1 Chuck body
- 2 Piston
- 3 Bush (cover)
- 4 Base jaws
- 5 Draw bolt
- 6 Pin for circular nut
- 7 Circular nut
- 8 Spring for circular nut
- 9 Jaw locking screw
- 14 Screws for bush (cover)

- 1 Futterkörper
- 2 Kolben
- 3 Buchse (Deckel)
- 4 Grundbacken
- 5 Zugschraube
- 6 Stift für Rundmutter
- 7 Rundmutter
- 8 Feder für Rundmutter
- 9 Backensicherungsschraube
- 14 Schrauben für Buchse (Deckel)

- 1 Corps du mandrin
- 2 Piston
- 3 Etoile (couverture)
- 4 Mors de base
- 5 Vis de traction
- 6 Goupille pour écrou rond
- 7 Ecrou rond
- 8 Ressort pour écrou rond
- 9 Vis de sécurité des mors
- 14 Vis pour étoile (couverture)



**10.4 Forkardt Service Department**

**Paid Repair**

The Forkardt service department assesses and repairs all brands currently produced by Forkardt. Customers can send their workholding to the Forkardt plant to receive an assessment for the repairs needed to bring it within original working condition. Any new improvements or revisions to that model will be incorporated into the repair, as if you are receiving a new chuck at a discounted price.

Most estimates are sent within one week of the item arriving at the Forkardt facility. A non-refundable assessment fee may be charged if there are extra ordinary efforts required.

**Paid Service**

Forkardt service technicians can help install or troubleshoot existing workholding set ups. This allows the customer to be trained and also allows the customer to reallocate resources by letting the experts take care of the product.

Technicians can perform on site training for preventative maintenance, disassembly and repair. This leads to improved and safer performance of the product.

Service technicians can also perform balancing on most brands of chucks in the field. This leads to improved performance of the machine, tooling and product.

**Limited Warranty**

Forkardt's products are warranted for a period of (1) year from date of delivery to be free from defects in material and workmanship.

This warranty does not include, nor does Forkardt assume responsibility for, defects or damage caused by misuse or abuse, alterations, service or repair by others, wear parts or failure to properly maintain the product.

**OEM Serviceable Chucks**

- NA Woodworth
- Forkardt
- SP
- Sheffer
- Logansport
- Buck Chuck
- Tork-Lok
- Teikoku

**Contacts**

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- Inside Sales  
(231)-995-8348 [sales@forkardt.us](mailto:sales@forkardt.us)

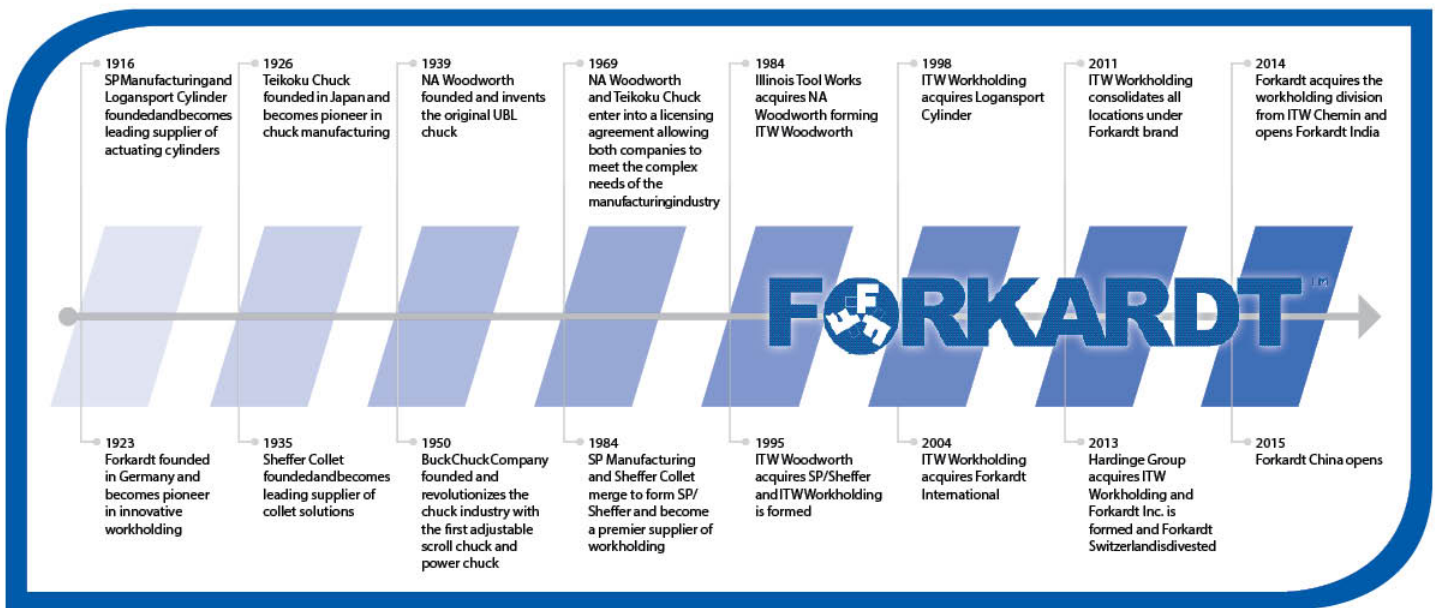
**Ship To Address**

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## OUR HISTORY



Innovative Technology by **FORKARDT**

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