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## Clamping



## Guiding



## Pick Up





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## **The JBS Flexible Guide Bushing**

The JBS Flexible Guide Bushing for double-cone collets was developed in order to guide and/or clamp work material rods with a varying external diameter in a rotating as well as a stationary condition in Swiss type automatic lathes.

The drive for the flexible guide bushing is via a drive belt, a gearwheel or a driving dog or synchronous drive.

Opening, closing and clamping of the guide collets is by means of a pneumatic system with an adjustable pressure piece.

The pressure piece presses the guide collet against the fixed spindle cap, the guide collet begins to close and thus surrounds the work material rod.

Controlling of the JBS guide bushing is via 4 freely programmable M commands in the machine.



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## **The flexible guide bushing for Swiss type automatic lathes**

This is what speaks in favour of the JBS-system

- **no more seizing**
- **collet guide runs synchronized to spindle and during the processing adjusts to material**
- **range of adjustment of the flexible guide collet max.  $\pm 0,5$  mm**
- **the quick-change collet system can be changed from one size collet to another in maximum 3 minute**
- **no more the titherto time-consuming and complicated adjustment of the guide collet**
- **easy handling of loaded magazines**
- **the necessary high metal removal rate in form cutting is made possible due to this innovative system**
- **suitable for all materials: from plastics to highalloyed chrome steels in the**

Technical data:

- **Material diameter 1,0 mm to 32,0 mm**
- **CNC- or CAM-controlling with serveral functions: opening - closing - clamping – gliding**

Technical modifications reserved



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## Opening-Closing-Clamping of JBS guide bushings

One generally differentiates when working with the JBS flexible guide bushings between two methods of working.

One method of working is guiding/sliding the bar workpiece to be machined as is known with rigid guide bushings.

The second method of working is clamping in order to be in a position to perform major milling, boring or impact work on the workpiece.

Opening and closing of JBS guide bushings takes place via the "bar change sub-programme" together with 2 freely programmable M commands in turning automatic lathes which actuate the opener/closer valve of the pneumatic control unit.

**Open:** The last workpiece with the sub-programme "cutting off with chamfer" was completed and now comes the signal "open the guide bushing". Here the piston pulls the pressure piece back to its end position. The guide clamp opens and the feed bar pulls the remaining piece out of the guide bushing.

**Closing:** The bar change has been conducted fully automatically. The bar workpiece has reached the cut-off position and now the signal comes "close the guide clamp". The pressure piece is pushed by the piston to its defined position and closes the guide clamp in such a way that the bar workpiece to be machined is fed under an even guide pressure; a secure machining process results.

Clamping is used if milling, boring or impact work has to be performed on the workpiece. Clamping of the guide bushing occurs again via 2 freely programmable M commands in automatic horizontal lathes which actuate the clamping valve of the pneumatic control unit.

**Clamping:** The workpiece is in the machining process and now milling should take place. The guide bushing is clamped via an M command in the machining programme in such a way that the bar workpiece to be machined is held as in a short lathe. If the machining process is finished then the guide clamp is brought back into its original guiding position via an M command. The machining process on a turning automatic lathe can continue.



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## JBS overview for Citizen CNC Swiss Automatic

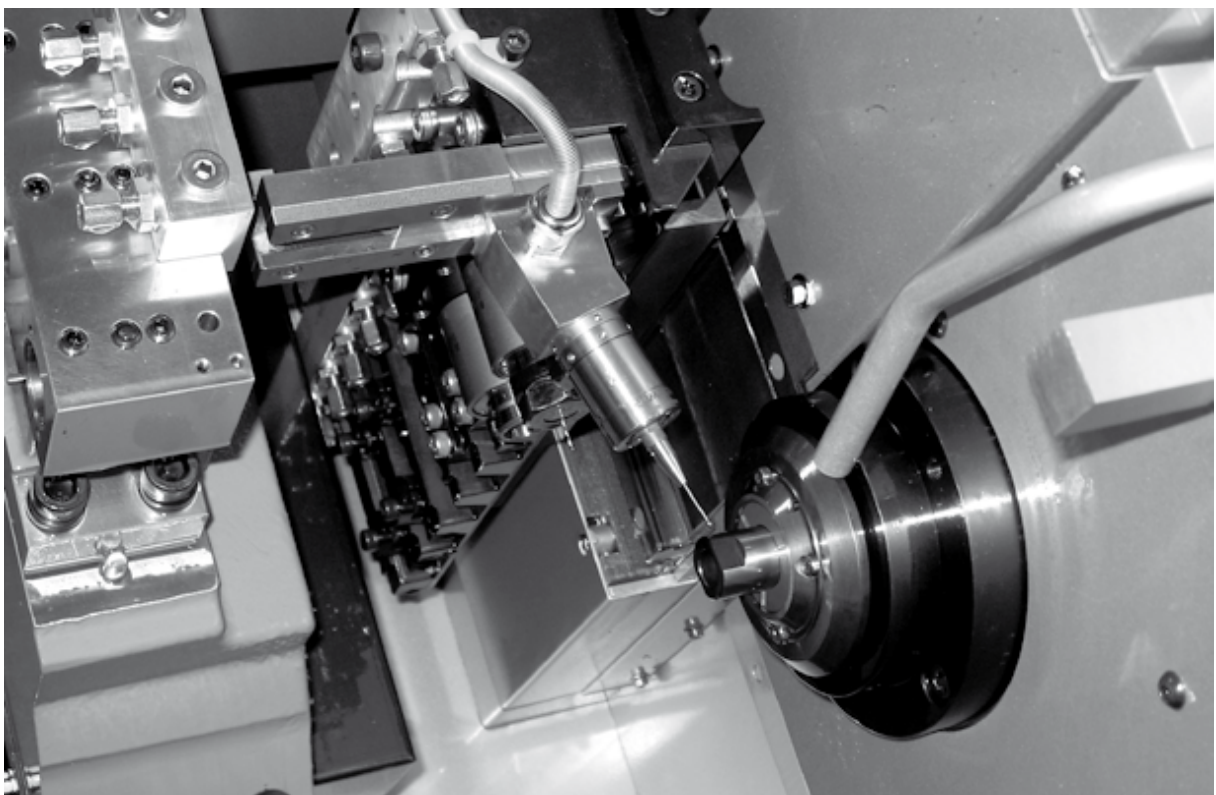
| Ident.-Nr | Item description                          | Guide collet      | Info   |
|-----------|---|-------------------|--|
| 104       | L32, Flexible guide bush unit             | 3/42x50           |  |
| 138       | E 32, Flexible guide bush unit (insert)   | 3/42x50           |  |
| 139       | E 20, Flexible guide bush unit            | 1/28x40           |  |
| 157       | E 16, Flexible guide bush unit (insert)   | 1/28x40           |  |
| 169       | E32KIII, Flexible guide bush unit(insert) | 3/42x50           |  |
| 170       | L 16, Flexible guide bush unit            | 1/28x40           |  |
| 187       | M20, Flexible guide bush unit             | 1/28x40           |  |
| 190       | E25J, Flexible guide bush unit (insert)   | 2/33x40           |  |
| 194       | L 25, Flexible guide bush unit (insert)   | 2/33x40           |  |
| 219       | L 520, Flexible guide bush unit           | 1/28x40           |  |
| 224       | M32, Flexible guide bush unit             | 3/42x50           | Up to Ø 36mm available                       |
| 229       | M 220, Flexible guide bush unit           | 1/28x40           |  |
| 246       | C 16, Flexible guide bush unit (insert)   | 7/24x35           |  |
| 249       | M 16, Flexible guide bush unit            | 7/24x35           |  |
| 260       | R 04-Neukomm, Guide bush unit             | FZ Typ 51.001/351 | With synchronous drive up to max. 10.000 rpm |
| 287       | R 07-Z, Flexible guide bush unit          | 322/26x35         | With synchronous drive up to max. 10.000 rpm |
| 293       | L 720, Flexible guide bush unit           | 1/28x40           | Identical in construction with L520          |
| 294       | L 632, Flexible guide bush unit           | 3/42x50           | Identical in construction with M32           |
| 301       | L 432, Flexible guide bush unit (insert)  | 3/42x50           |  |
| 306       | M 16-Z, Flexible guide bush unit          | 346/ 32x40        |  |
| 309       | L320, Flexible guide bush unit            | 3/42x50           |  |
| 316       | L720-Z, Flexible guide bush unit          | 317/36x40         |  |
| 321       | R 04-Z, Flexible guide bush unit          | 322/26x35         | With synchronous drive up to max. 10.000 rpm |
| 331       | C32, Flexible guide bush unit             | 3/42x50           | Identical in construction with M32           |
| 334       | R07-Neukomm, Guide bush unit              | FZ Typ 3.001      | With synchronous drive up to max. 10.000 rpm |
| 335       | A 20 VII, Flexible guide bush unit        | 1/28x40           | Up to Ø 25mm available                       |
| 341       | M32-Z, Flexible guide bush unit           | 328/53x50         |  |
| 354       | M 220-Z, Flexible guide bush unit         | 317/36x40         |  |
| 355       | C 16-Z, Flexible guide bush unit (insert) | 346/ 32x40        |  |
| 359       | A 20 VI, Flexible guide bush unit         | 1/28x40           |  |
| 363       | A 32, Flexible guide bush unit            | 3/42x50           |  |

Technische Änderungen und Irrtümer vorbehalten! Technical execution are subject to change without prior notice



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## **JBS Guide Bush Unit Citizen M32**





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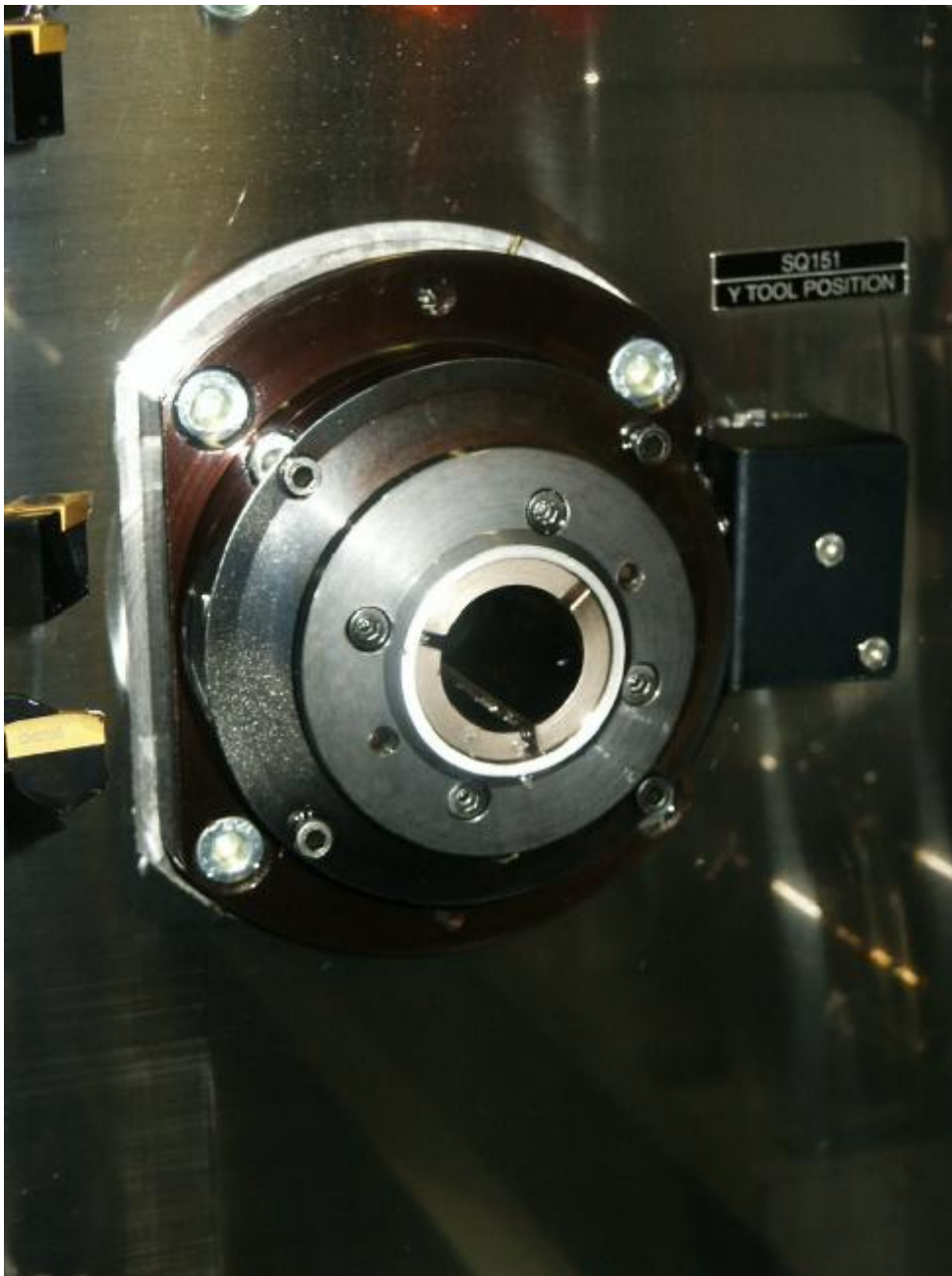
| JBS overview for<br>STAR CNC Swiss Automatic |   | JBS overview for<br>STAR CNC Swiss Automatic |   |
|--|---|--|---|
| Ident.-Nr                                    | Item description                          | Ident.-Nr                                    | Item description                        |
| 11   | SNC 25-DX, Flexible guide bush unit       | 162  | SR20/KNC20, Pick up chuck               |
| 13   | SNC 15, Flexible guide bush unit          | 163  | SR 20, Flexible guide bush unit         |
| 14   | JNC 16, Flexible guide bush unit          | 164  | JNC 16, Carrier                         |
| 16   | SNC 25-DX, Flexible guide bush unit       | 165  | RNC 16, Carrier                         |
| 28   | VNC 20, Chuck                             | 179  | SR 16, Flexible guide bush unit         |
| 29   | JNC16/RNC16                               | 180  | SR 32, Flexible guide bush unit         |
| 30   | VNC 20/KNC 20, Flexible guide bush unit   | 183  | SR 32, Chuck                            |
| 31   | VNC 32 / KNC 32, Flexible guide bush unit | 186  | KNC 32, Pick up chuck                   |
| 32   | STM 32, Flexible guide bush unit          | 188  | SV 20, Flexible guide bush unit         |
| 33   | STM 38, Flexible guide bush unit          | 193  | SH/SE 12-16, Flexible guide bush unit   |
| 37   | VNC 32, Chuck cylinder                    | 196  | SV32J, Flexible guide bush unit         |
| 39   | JNC 25, Flexible guide bush unit          | 197  | SV32J, Chuck                            |
| 40   | SNC 25, Chuck cylinder                    | 200  | SA 12/16, Flexible guide bush unit      |
| 42   | JNC 25, Chuck                             | 218  | SV32J, Flexible guide bush unit         |
| 43   | VNC 32, Chuck                             | 220  | SR20R, Flexible guide bush unit         |
| 44   | SNC 25, Chuck                             | 221  | VNC/KNC/SR/SV 32, Pick up chuck         |
| 52   | STM 38, Chuck cylinder                    | 236  | SV12/16, Flexible guide bush unit       |
| 56   | STM 38, Chuck                             | 254  | SV 12/16, Pick up chuck                 |
| 64   | SNC 25 DX, Carrier                        | 265  | ECAS 32T, Flexible guide bush unit      |
| 65   | JNC 16, Carrier                           | 266  | SB 16, Flexible guide bush unit         |
| 78   | RNC 16, Flexible guide bush unit          | 274  | SV-20/25, Flexible guide bush unit      |
| 79   | RNC 16, Spannzylinder                     | 275  | ECAS 20, Flexible guide bush unit       |
| 106  | KJR 16, Flexible guide bush unit          | 276  | SR-20/25RII, Flexible guide bush unit   |
| 108  | KJR 16, Chuck                             | 279  | ECAS 12, Führungsbuchse                 |
| 111  | KJR 16, Pick up chuck                     | 280  | SR-20/25RII, Chuck                      |
| 112  | RNC16/KJR16, Carrier                      | 281  | SR-20RII, Chuck                         |
| 113  | VNC/JNC/KNC32, Flexible guide bush unit   | 292  | STAR SR-32 J, Flexible guide bush unit  |
| 136  | KJR 25, Flexible guide bush unit          | 298  | SR-10 J, Flexible guide bush unit       |
| 137  | KJR 25, Chuck                             | 324  | SR-20 RIII, Flexible guide bush unit    |
| 145  | VNC 12, Flexible guide bush unit          | 329  | SR-20/25 RIII, Flexible guide bush unit |
| 148  | SST 16, Flexible guide bush unit          | 349  | ECAS 20 T, Flexible guide bush unit     |
| 150  | JNC 16, Flexible guide bush unit          | 353  | SR-20 J, Flexible guide bush unit       |
| 158  | SW 7, Flexible guide bush unit            | 362  | SR-32J, Chuck                           |
| 159  | SW 7, Chuck                               | 364  | SR-32 JN, Chuck                         |





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## **JBS Guide Bush Unit Star SV-32 J**







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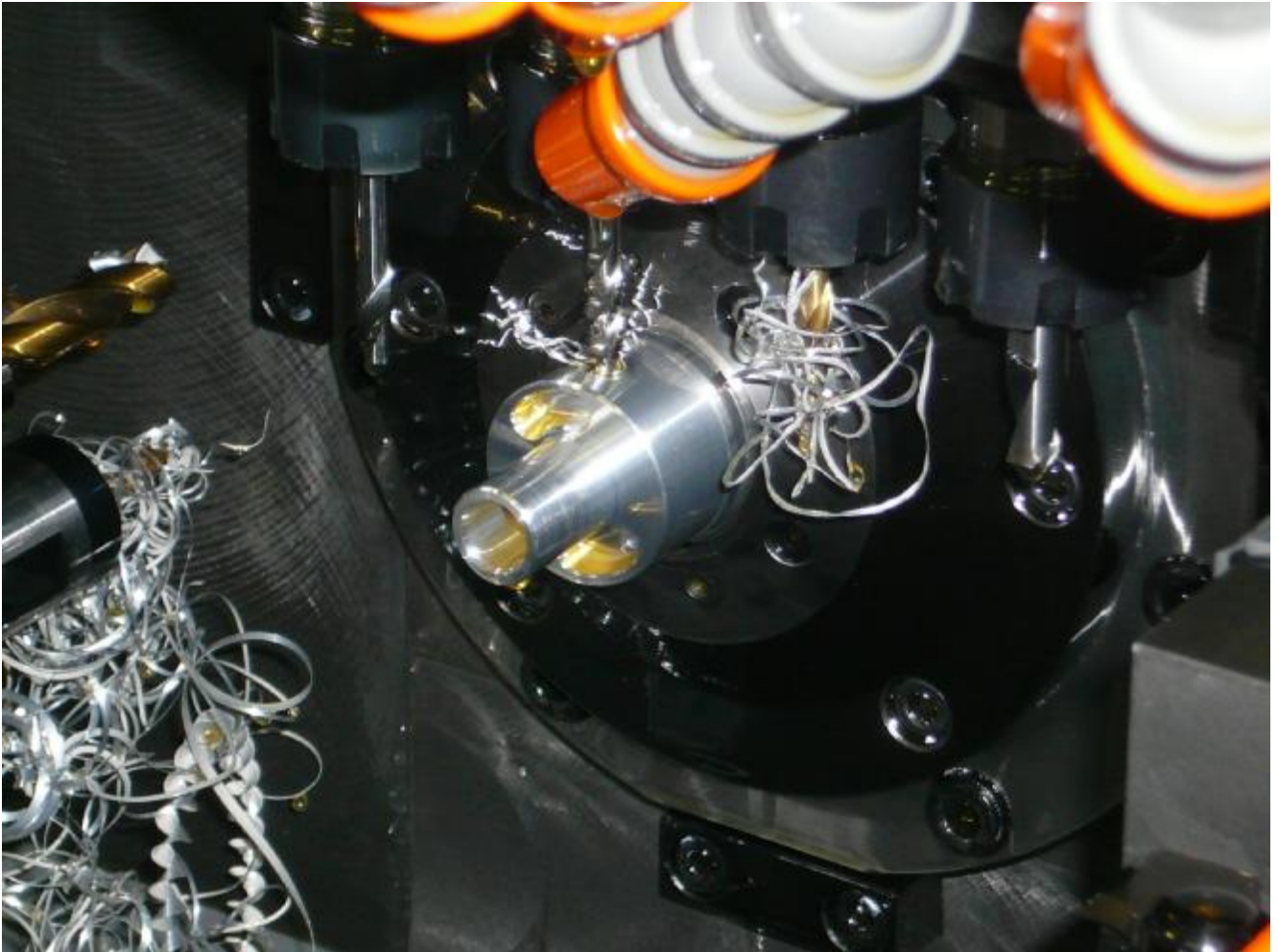
## **JBS overview – HANWHA CNC Swiss Automatic–**

| <b>Ident.-Nr</b> | <b>Artikel Bezeichnung</b>   | <b>FZ - Typ</b> |
|------------------|------------------------------|-----------------|
| 241              | SL 26, Führungsbuchse        | 2/33x40         |
| 242              | SL 26, Spannfutter           | 2/33x40         |
| 286              | SL 32 HPD, Führungsbuchse    | 3/42x50         |
| 299              | SL 35 HP                     | 6/48x60         |
| 308              | XD 20H, Führungsbuchse       | 1/28x40         |
| 314              | XD 26H, Führungsbuchse       | 2/33x40         |
| 315              | STL 35 H, Führungsbuchse     | 6/48x60         |
| 320              | STL 32 H, Führungsbuchse     | 6/48x60         |
| 326              | XD 20 H - Z, Führungsbuchse  | 317/36x40       |
| 327              | STL 35 H - Z, Führungsbuchse |                 |
| 337              | XD 32 H, Führungsbuchse      | 6/48x60         |
| 347              | XP 12, Führungsbuchse        | 7/24x35         |
| 348              | XP 20, Führungsbuchse        | 1/28x40         |
| 360              | XD 20 N, Spannfutter         | 1/28x40         |
| 365              | STL 38 H, Führungsbuchse     | 6/48x60         |



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## **JBS Guide Bush Unit Hanwha SL 32 HPD**





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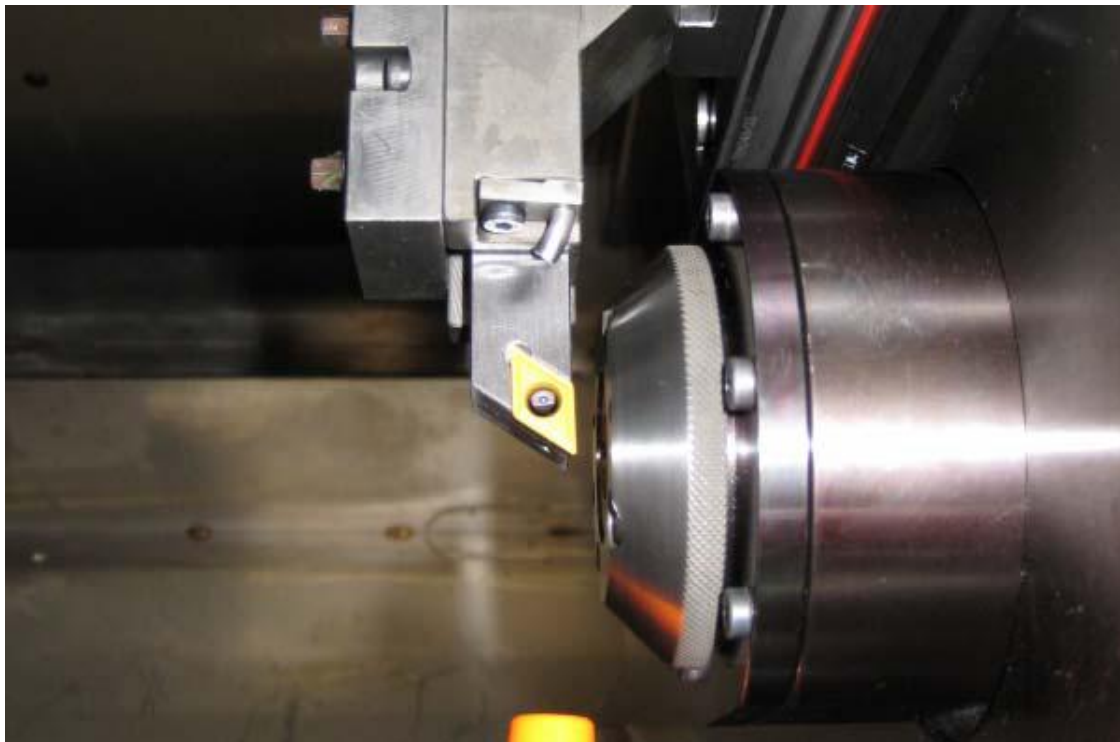
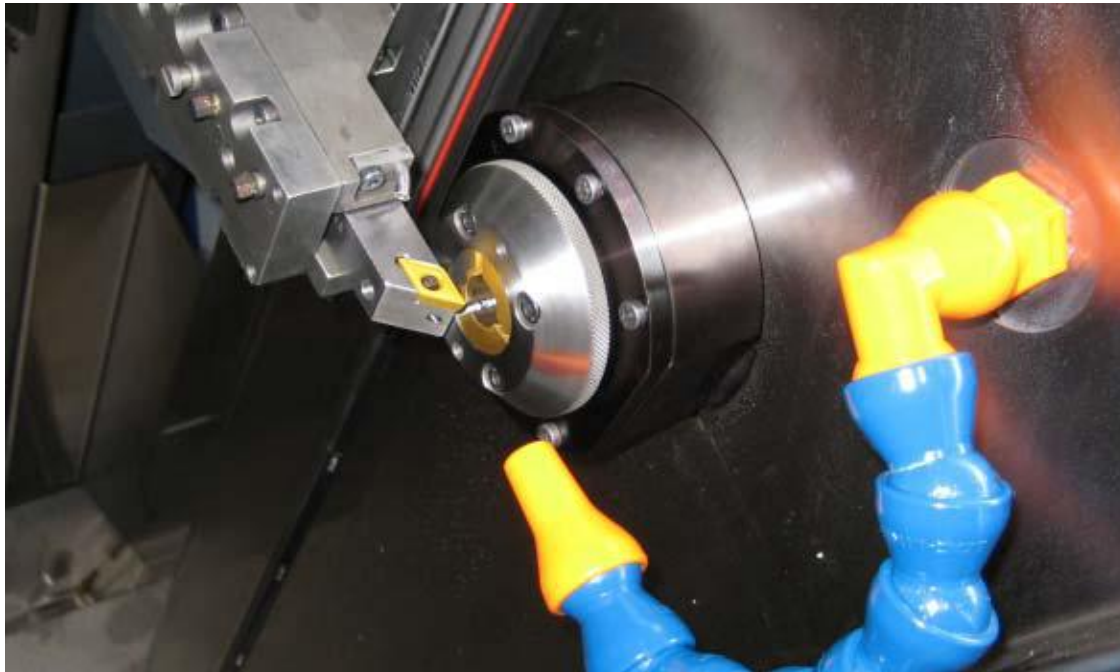
## **JSB Typenübersicht/JSB typ overview – Tornos Langdrehautomaten–**

| <b>Ident-Nr</b> | <b>JBS Typenübersicht für</b> | <b>JBS Typ overview for</b>             | <b>Zangen Typ</b> |
|-----------------|-------------------------------|---|-------------------|
| 208.6           | Deco 2000/26, Führungsbuchse  | Deco 2000/26, Flexible guide bush unit  | 2/33x40           |
| 209.1           | Deco 2000/20, Führungsbuchse  | Deco 2000/20, Flexible guide bush unit  | 2/33x40           |
| 371.0           | Deco 2000/10, Führungsbuchse  | Deco 2000/210, Flexible guide bush unit | 332/26x35         |
| 222.1           | Deco 2000/16, Führungsbuchse  | Deco 2000/16, Flexible guide bush unit  | 7/25x35           |
| 270.1           | Deco 2000/13, Führungsbuchse  | Deco 2000/13, Flexible guide bush unit  | 7/25x35           |
| 332.0           | Sigma 20, Führungsbuchse      | Sigam 20, Flexible guide bush unit      | 2/33x40           |



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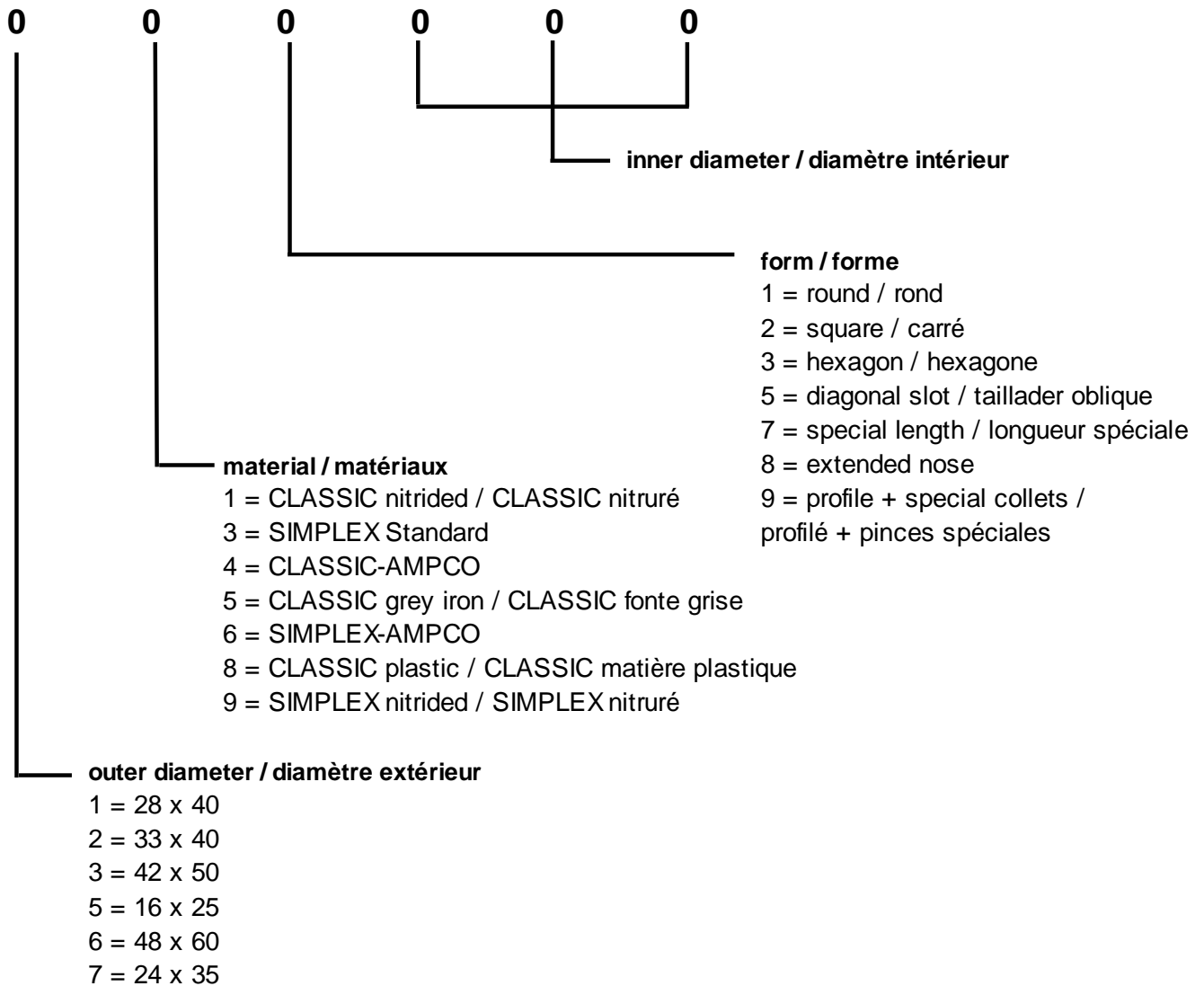
## **JBS Guide Bush Unit Tornos Sigma 20**





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## Collets Article-Number Key Pincas de guidage article-nom.-clef





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## Material Recommendation for JBS double cone guide collets



FZ CLASSIC nitrided:

- to reduce wear (copper/aluminium)

FZ CLASSIC-AMPCO:

- Bronze base alloy for titanium and chromium

FZ CLASSIC grey iron:

- for profiled bar material (rolled or ground) starting material with varying tolerances



FZ SIMPLEX standard:

- for profiled bar material (rolled or ground) starting material with varying tolerances, with chip cover cap and retainer ring

FZ SIMPLEX-AMPCO:

- Bronze base alloy for titanium and chromium with chip cover cap and retainer ring

FZ SIMPLEX nitrided:

- to reduce wear (copper/aluminium) with chip cover cap and retainer ring





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## **Air Adaption 3pos. for JBS Guide Bush Unit**

