

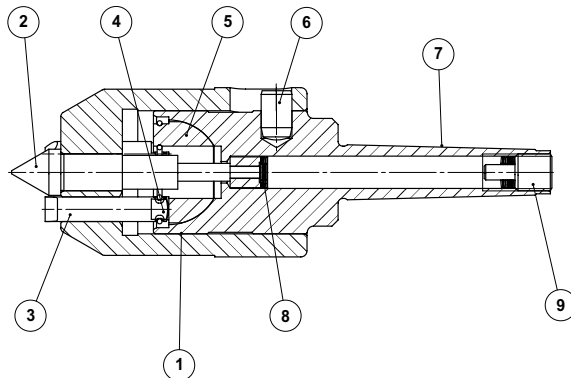
# Centres-Live Chucks

Type

300 - 422

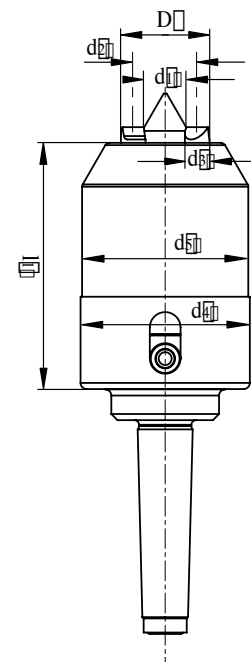
## FACE DRIVERS TYPE 300 - 303

WITH MECHANICAL COMPENSATION



- 1** Very large bearing surface. Housing moves with centre to compensate for diefferent sizes of component centres.
- 2** The centre point is exchangeable and is pressed into housing. This also prevents ingress of dirt.
- 3** Driving pins of HSS. The saw tooth form guarantees safe driving. Driving pins can be easily reversed for opposite rotation.
- 4** Circlips are holding the driving pins in order that they can't disengage by changing the workpieces.
- 5** Hardened hemisphere compensates the axial run out of workpieces.
- 6** Cylindrical pin with draw-off thread for disassembling the housing.
- 7** The shank can be ordered in different types of morse tapers, metrical cones and cylindrical holder.
- 8** Disk springs are compensate about the centre point different sizes of centre holes.
- 9** Screw for regulating centre pressure.

| Article No.                             | 300      | 301        | 302        | 303      |
|---|----------|------------|------------|----------|
| Shank                                   | MT 1/2/3 | MT 2/3/4/5 | MT 2/3/4/5 | MT 4/5/6 |
| Turning range Ø                         | 3 - 20   | 12 - 40    | 22 - 65    | 35 - 105 |
| Cylindrical holder mm                   | 12       | 35         | 35         | 35       |
| Centre point d <sub>1</sub>             | 8        | 7          | 15         | 22       |
| Driving pin pitch circle d <sub>2</sub> | 6        | 13,5       | 24         | 38       |
| Driving pin outside circle D            | 10       | 19,5       | 32         | 50       |
| Driving pin d <sub>3</sub>              | 4        | 6          | 8          | 12       |
| Housing front d <sub>4</sub>            | 24       | 39         | 54         | 77       |
| Housing rear d <sub>5</sub>             | 44       | 40         | 55         | 78       |
| Housing length l <sub>1</sub>           | 40       | 62         | 80         | 97       |
| Workpiece weight max. kg                | 25       | 50         | 65         | 80       |
| Spring pressure centre point daN        | 1 - 12   | 10 - 35    | 18 - 50    | 20 - 60  |



# FACE DRIVERS

## TYPE 309 - 312 NC

### WITH HYDRAULIC COMPENSATION

For clamping of arbors Ø 60 - 320 on lathes this type of face drivers has been developed. They allow save and fast clamping. Since many years the face drivers have been working successfully in different applications.

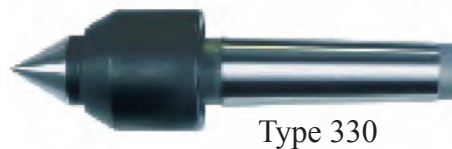
The interface to the machine has been made verx flexible. Therefore morse taper MT 4, 5 or 6 can be used on all units. The disk springs are housed in the shank. The housings of the face drivers are hardened and ground so the driver bodies can also be clamped directly into soft chuck jaws. In this case a spring magazine is needed that can be ordered separately.

The disk springs are connected with each other by a hydraulic ringchannel system. The system ist locked, so that no hydraulic oil can flow out.

The driving pins are made of HSS. They are designed in a sawtooth form for a better driving. Counter clockwise rotation is easily to adjust. For different sizes of the centres the spring pressure of the centre point is adjustable. It`s easy to exchange the centre point. The centre point has an effective stripper against dirt.

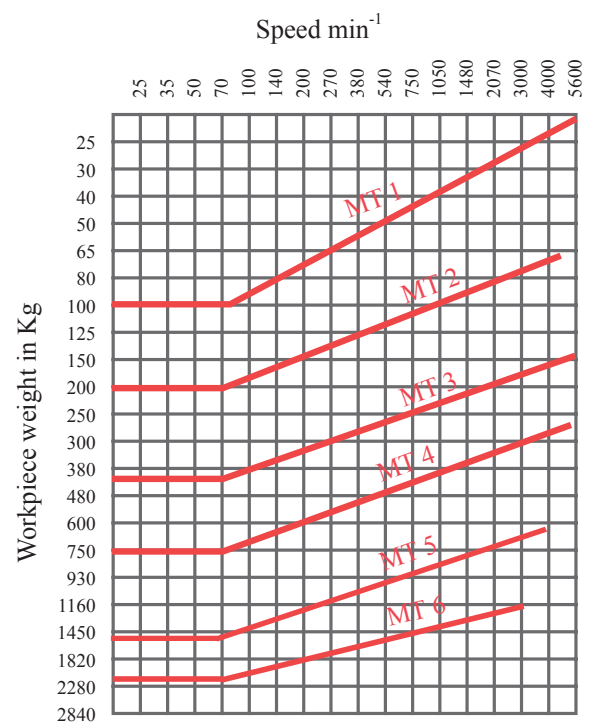
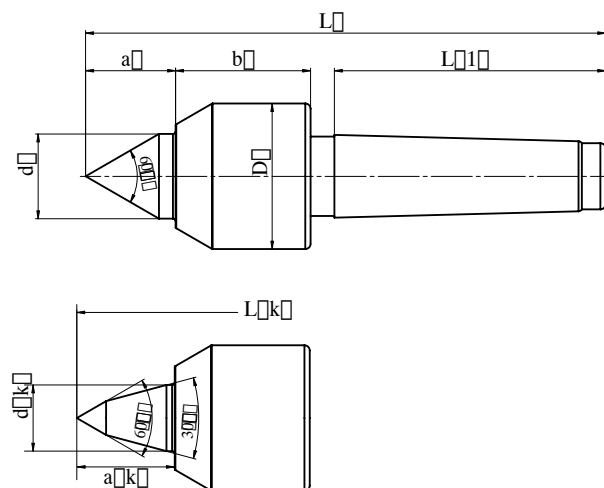
| Article No.                                 | 309 NC | 310 NC | 311 NC | 312 NC |
|---|--------|--------|--------|--------|
| Rotation range standard value <b>from</b> Ø | 60     | 82     | 105    | 140    |
| Rotation range standard value <b>to</b> Ø   | 160    | 200    | 250    | 320    |
| Driving pin pitch circle Ø                  | 60     | 82     | 107    | 142    |
| Driving pin outside circle Ø                | 78     | 100    | 125    | 160    |
| Driving pin quantity pcs.                   | 4      | 6      | 6      | 8      |
| Driving pin Ø                               | 18     | 18     | 18     | 18     |
| Hydraulic body Ø                            | 95     | 118    | 140    | 175    |
| Hydraulic body length                       | 84     | 84     | 84     | 84     |
| Centre point Ø                              | 20     | 30     | 30     | 30     |
| Workpiece weight max. kg                    | 120    | 240    | 280    | 320    |

## LIVE CENTRES TYPE 330



Type 330

- Robust standard centre
- Hardened shaft and tip
- 3- fold bearings / MT 5 a. MT 6 4 fold
- Slim housing
- Extended centre upon request
- For high rotational speeds



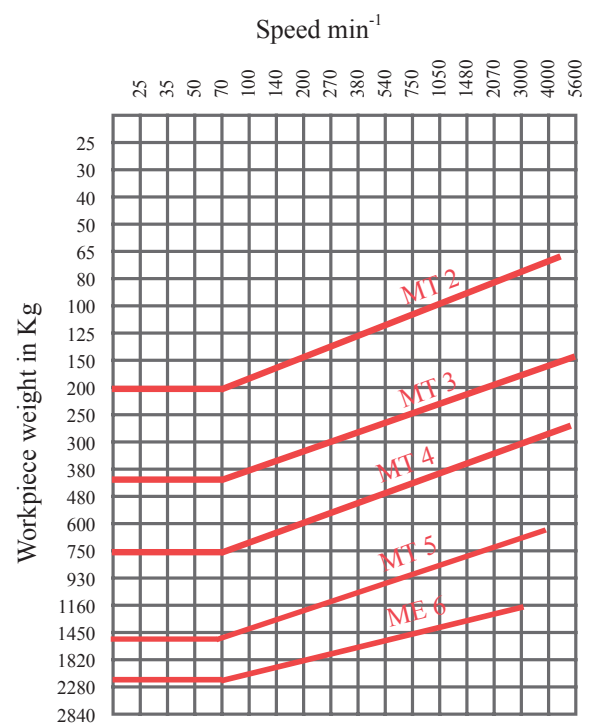
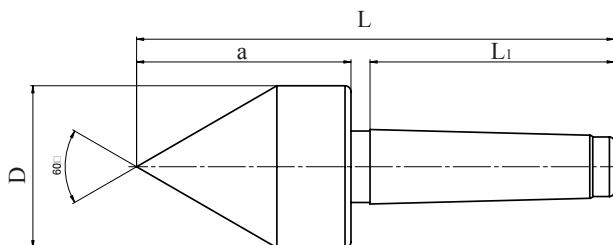
| Order No. standard centre       | 330-011-000 | 330-021-000 | 330-031-000 | 330-041-000 | 330-051-000 | 330-061-000 |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Order No. copying centre        | 330-011-060 | 330-021-060 | 330-031-060 | 330-041-060 | 330-051-060 | 330-061-060 |
| Shaft                           | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Workpiece weight max. kg        | 100         | 200         | 400         | 750         | 1500        | 2200        |
| Speed max. min <sup>-1</sup>    | 10000       | 9000        | 7500        | 5500        | 3900        | 2850        |
| Total length L                  | 111         | 129,5       | 156,5       | 196         | 254,5       | 344,3       |
| Total length Lk                 | 113,5       | 130,5       | 162,5       | 199         | 261,5       | 349         |
| Shaft length L <sub>1</sub>     | 53,5        | 64          | 81          | 102,5       | 129,5       | 182         |
| Centre length normal centre a   | 19          | 24          | 26          | 34          | 43          | 54          |
| Centre length copying centre ak | 21,5        | 25          | 32          | 37          | 50          | 58,5        |
| Centre-Ø normal centre d        | 16          | 20          | 24          | 32          | 40          | 48          |
| Centre-Ø copying centre dk      | 15          | 17          | 22          | 25          | 34          | 42          |
| Housing-Ø D                     | 30          | 38          | 42          | 55          | 70          | 100         |
| Housing length b                | 33,5        | 35          | 43          | 51          | 73          | 96          |

## LIVE CENTRE CONES TYPE 340



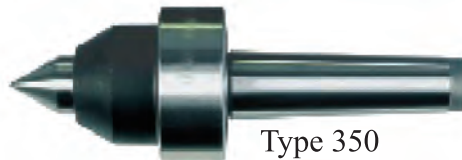
Type 340

- Through-hardened centre cone
- Hardened shank
- Precision bearing
- Anti-ingress sealed
- Larger clamping range



| Order No.                    | 340-020-000 | 340-030-000 | 340-040-000 | 340-050-000 | 340-060-000 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Shank                        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Workpiece weight max. kg     | 200         | 400         | 750         | 1500        | 2200        |
| Speed max. min <sup>-1</sup> | 9000        | 7500        | 5500        | 3900        | 2850        |
| Total length L               | 132         | 156         | 199         | 258         | 362         |
| Shaft length L <sub>1</sub>  | 64          | 81          | 102,5       | 129,5       | 182         |
| Tip length a                 | 63          | 70          | 90          | 122         | 167         |
| Tip diameter D               | 48          | 58          | 68          | 78          | 100         |

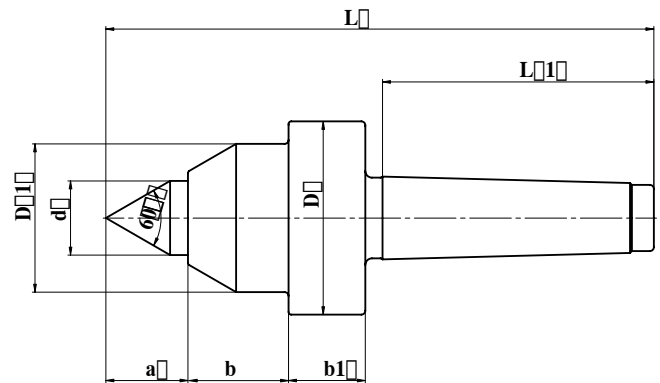
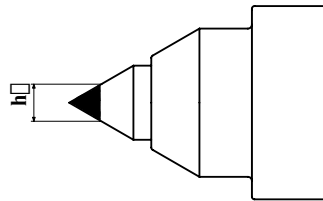
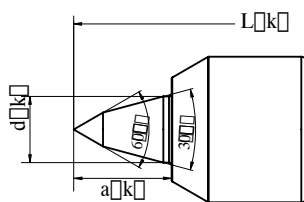
## LIVE CENTRES TYPE 350



Type 350

- Robust and precision design
- High load-resistant needle bearings
- Can be supplied with carbide tips
- Can be supplied with pressure compensation using disk springs for working with extreme expansion

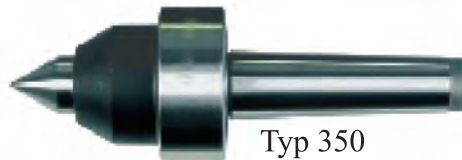
- Supplied with seal ring for cylindrical grinding
- Metr. taper 80/100/120 upon request
- With extended copying tips



| Order No.                        | 350-010-000 | 350-020-000 | 350-030-000 | 350-040-000 | 350-540-000 | 350-050-000 | 350-550-000 | 350-060-000 | 350-560-000 | 350-080-000 | 350-100-000 | 350-120-000 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Shaft                            | MT 1        | MT 2        | MT 3        | MT 4        | MT 4 S      | MT 5        | MT 5 S      | MT 6        | MT 6 S      | metr. 80    | metr. 100   | metr. 120   |
| Workpiece weight max. kg         | 150         | 300         | 600         | 1100        | 1200        | 2500        | 2800        | 4500        | 6000        | 6000        | 6000        | 6000        |
| Axial load max. kg               | 1150        | 1560        | 1760        | 2240        | 3900        | 3900        | 5900        | 5900        | 9000        | 9000        | 9000        | 9000        |
| Speed max. min <sup>-1</sup>     | 5000        | 4500        | 4000        | 3200        | 2400        | 2400        | 1800        | 1800        | 1400        | 1400        | 1400        | 1400        |
| Total length L                   | 115         | 135         | 168         | 206,5       | 224         | 257,5       | 340,8       | 358,6       | 413,6       | 427,6       | 465,6       | 503,6       |
| Shaft length L <sub>1</sub>      | 53,5        | 64          | 81          | 102,5       | 102,5       | 129,5       | 129,5       | 182         | 182         | 196         | 232         | 268         |
| Housing Ø D                      | 42          | 48,5        | 58,5        | 73          | 86          | 86          | 116         | 116         | 146         | 146         | 146         | 146         |
| Housing Ø D <sub>1</sub>         | 30          | 35          | 46          | 56          | 67          | 67          | 88          | 88          | 112         | 112         | 112         | 112         |
| Tip Ø d                          | 16          | 19          | 24          | 28          | 38          | 38          | 48          | 48          | 70          | 70          | 70          | 70          |
| Tip length a                     | 19          | 21          | 26          | 31          | 41,5        | 41,5        | 53,8        | 53,8        | 70,6        | 70,6        | 70,6        | 70,6        |
| Housing length b                 | 19          | 22          | 30          | 38          | 40          | 40          | 64          | 64          | 86          | 86          | 86          | 86          |
| Housing length b <sub>1</sub>    | 20          | 23          | 26          | 29          | 40          | 40          | 51          | 51          | 67          | 67          | 67          | 67          |
| Dimension for copying point      |             |             |             |             |             |             |             |             |             |             |             |             |
| Tip Ø dK                         | 14          | 17          | 22          | 24          | 34          | 34          | 42          | 42          | 60          | 60          | 60          | 60          |
| Tip length aK                    | 21          | 25          | 32          | 35          | 49,5        | 49,5        | 58,5        | 58,5        | 80          | 80          | 80          | 80          |
| Total length LK                  | 117         | 139         | 174         | 204,5       | 232         | 265,5       | 309,5       | 363,3       | 423         | 437         | 474         | 513         |
| Dimension for carbide tip        |             |             |             |             |             |             |             |             |             |             |             |             |
| Carbide Ø                        | 7           | 7           | 11          | 14          | 18          | 18          | 18          | 18          | -           | -           | -           | -           |
| Pressure compensation from to kg | 27-400      | 22-675      | 68-1000     | 83-1100     | 126-2670    | 126-2670    | 250-4070    | 250-4070    | 1280-16500  | 1280-16500  | 1280-16500  | 1280-16500  |



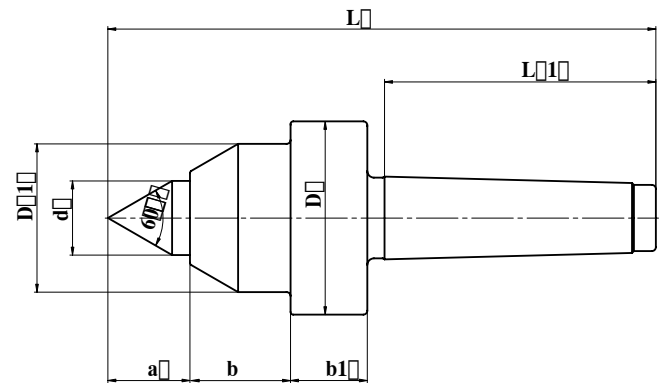
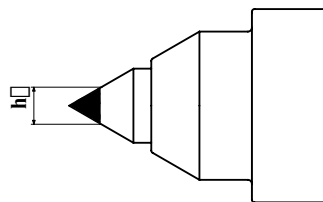
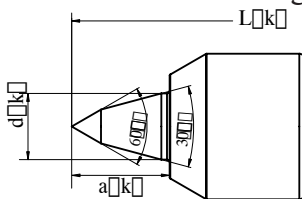
## MITLAUFENDE KÖRNERSPITZEN TYP 350



Typ 350

- Stabile und präzise Konstruktion
- Hochbelastbare Nadellager
- Mit HM-Spitze lieferbar
- Rundlauf 0,01 mm
- Auf Wunsch mit Druckausgleich über Tellerfeder für Arbeiten mit großer Wärmeausdehnung

- Zum Rundschleifen mit Dichtring
- Metr. Kegel 80/100/120 auf Anfrage
- Verlängerte Kopierspitze lieferbar

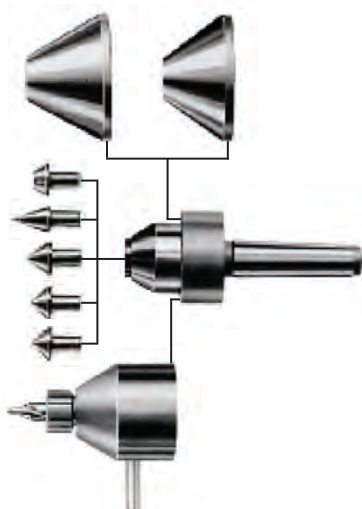


| Artikel Nr.                       | 350-010-000 | 350-020-000 | 350-030-000 | 350-040-000 | 350-540-000 | 350-050-000 | 350-550-000 | 350-060-000 | 350-560-000 | 350-080-000 | 350-100-000 | 350-120-000 |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Schaft                            | Mk 1        | Mk 2        | Mk 3        | Mk 4        | Mk 4 S      | Mk 5        | Mk 5 S      | Mk 6        | Mk 6 S      | metr. 80    | metr. 100   | metr. 120   |
| Werkstückgew. max. kg             | 150         | 300         | 600         | 1100        | 1200        | 2500        | 2800        | 4500        | 6000        | 6000        | 6000        | 6000        |
| Axialbelastung max. kg            | 1150        | 1560        | 1760        | 2240        | 3900        | 3900        | 5900        | 5900        | 9000        | 9000        | 9000        | 9000        |
| Drehzahl max. min <sup>-1</sup>   | 5000        | 4500        | 4000        | 3200        | 2400        | 2400        | 1800        | 1800        | 1400        | 1400        | 1400        | 1400        |
| Gesamtlänge L                     | 115         | 135         | 168         | 206,5       | 224         | 257,5       | 340,8       | 358,6       | 413,6       | 427,6       | 465,6       | 503,6       |
| Schaftlänge L <sub>1</sub>        | 53,5        | 64          | 81          | 102,5       | 102,5       | 129,5       | 129,5       | 182         | 182         | 196         | 232         | 268         |
| Gehäusedurchmesser D              | 42          | 48,5        | 58,5        | 73          | 86          | 86          | 116         | 116         | 146         | 146         | 146         | 146         |
| Gehäusedurchmesser D <sub>1</sub> | 30          | 35          | 46          | 56          | 67          | 67          | 88          | 88          | 112         | 112         | 112         | 112         |
| Spitzendurchmesser d              | 16          | 19          | 24          | 28          | 38          | 38          | 48          | 48          | 70          | 70          | 70          | 70          |
| Spitzenlänge a                    | 19          | 21          | 26          | 31          | 41,5        | 41,5        | 53,8        | 53,8        | 70,6        | 70,6        | 70,6        | 70,6        |
| Gehäuselänge b                    | 19          | 22          | 30          | 38          | 40          | 40          | 64          | 64          | 86          | 86          | 86          | 86          |
| Gehäuselänge b <sub>1</sub>       | 20          | 23          | 26          | 29          | 40          | 40          | 51          | 51          | 67          | 67          | 67          | 67          |
| Maße für Kopierspitze             |             |             |             |             |             |             |             |             |             |             |             |             |
| Spitzendurchmesser d <sub>K</sub> | 14          | 17          | 22          | 24          | 34          | 34          | 42          | 42          | 60          | 60          | 60          | 60          |
| Spitzenlänge a <sub>K</sub>       | 21          | 25          | 32          | 35          | 49,5        | 49,5        | 58,5        | 58,5        | 80          | 80          | 80          | 80          |
| Gesamtlänge L <sub>K</sub>        | 117         | 139         | 174         | 204,5       | 232         | 265,5       | 309,5       | 363,3       | 423         | 437         | 474         | 513         |
| Maße für Hartmetallspitze         |             |             |             |             |             |             |             |             |             |             |             |             |
| Hartmetалldurchmesser             | 7           | 7           | 11          | 14          | 18          | 18          | 18          | 18          | -           | -           | -           | -           |
| Druckausgleich von bis kg         | 27-400      | 22-675      | 68-1000     | 83-1100     | 126-2670    | 126-2670    | 250-4070    | 250-4070    | 1280-16500  | 1280-16500  | 1280-16500  | 1280-16500  |

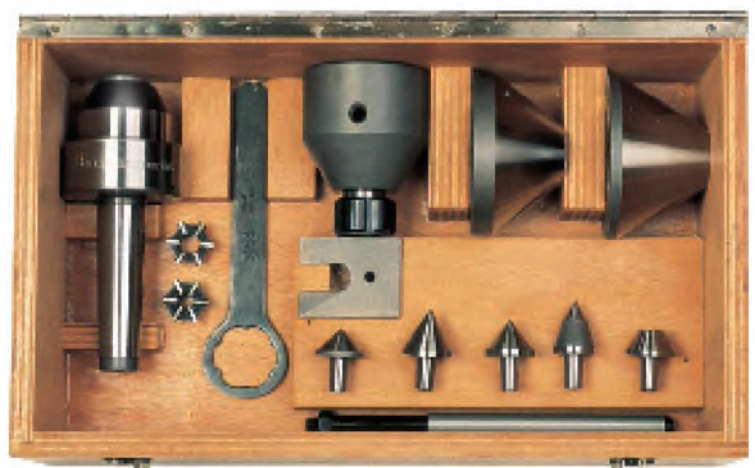
## LIVE CENTRES TYPE 350 UNIVERSAL

- No change of centre when centering
- Reduced change overtime
- Reduced tailstock taper wear
- Bore mount for centering and drilling
- Centering cones also be mounted
- Drill mounting with Rubberflex collets
- Can be supplied with pressure compensation or seal ring

| Order No.                     | 350-020-050 | 350-030-050 | 350-040-050 | 350-540-050 | 350-050-050 | 350-550-050 | 350-060-050 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Shaft                         | MT 2        | MT 3        | MT 4        | MT 4S       | MT 5        | MT 5S       | MT 6        |
| Workpiece weight on tips kg   | 80          | 180         | 300         | 650         | 650         | 1000        | 1000        |
| Workpiece weight on cones kg  | 300         | 600         | 1100        | 1200        | 2500        | 2800        | 4500        |
| Axial load max. kg            | 1560        | 1760        | 2240        | 3900        | 3900        | 5900        | 5900        |
| Speed max. min <sup>-1</sup>  | 4500        | 4000        | 3200        | 2400        | 2400        | 1800        | 1800        |
| Total length L                | 118         | 146         | 180,5       | 196         | 216,5       | 259         | 300         |
| Total length L <sub>1</sub>   | 64          | 81          | 102,5       | 102,5       | 129,5       | 129,5       | 182         |
| Housing-Ø D                   | 48,5        | 58,5        | 73          | 86          | 86          | 116         | 116         |
| Housing-Ø D <sub>1</sub>      | 34,5        | 45,5        | 56          | 66,5        | 66,5        | 87,5        | 87,5        |
| Tip mounting b <sub>3</sub>   | 4           | 4           | 4,5         | 7           | 7           | 8           | 8           |
| Housing length b <sub>1</sub> | 26          | 34          | 42,5        | 47          | 47          | 72          | 72          |
| Tips 60°/75°/90° Ø            | 19          | 24          | 28          | 38          | 38          | 48          | 48          |
| Hollow tip 60° Ø              | 7/2         | 8/2,5       | 10/3        | 14/4        | 14/4        | 16/5        | 16/5        |
| Centre cone 60° d/D/L         | 19,5/59/38  | 29/79/50    | 42/119/75   | 57/149/85   | 57/149/85   | 78/198/110  | 78/198/110  |
| Centre cone 75° d/D/L         | 19,5/59/35  | 28/79/45    | 32/119/64   | 47/169/85   | 47/169/85   | 66/198/94   | 66/198/94   |
| Collet range Ø                | 3,5-10      | 3,5-10      | 2,8-13      | 2,8-13      | 2,8-13      | 4-20        | 4-20        |

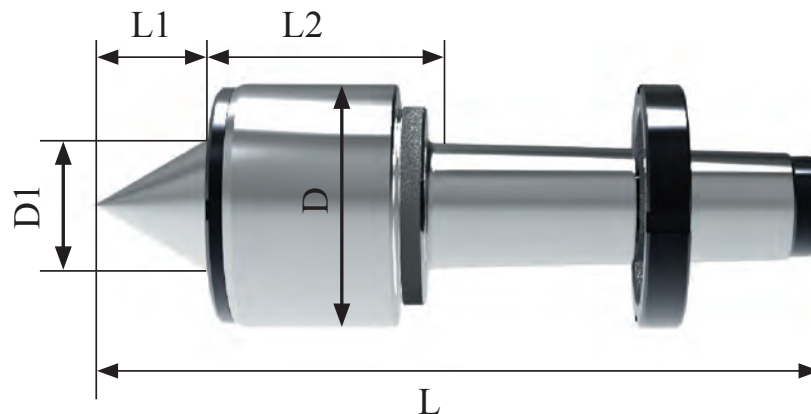


Storage box





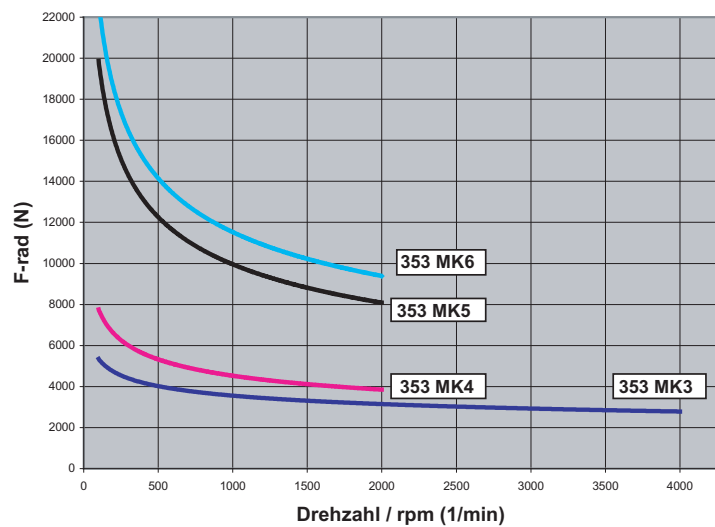
## LIVE CENTRES TYPE 353



- high accuracy
- pre loaded bearings
- for grinding with seal

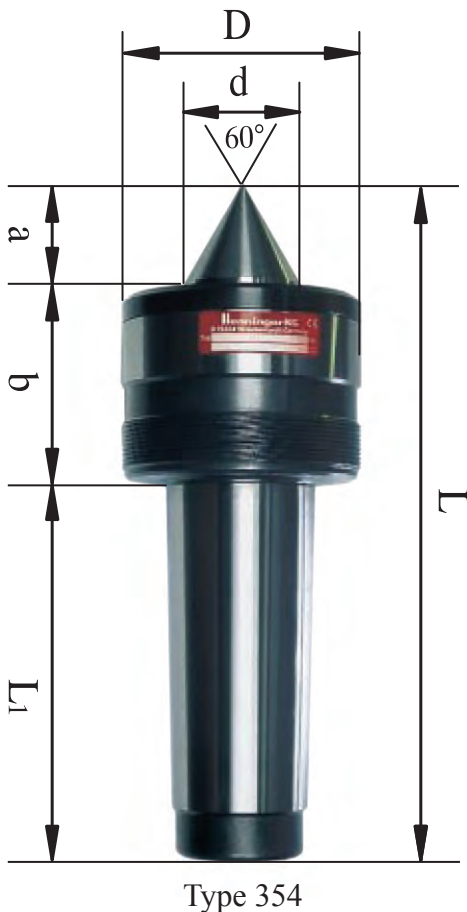
### Options

carbide tip  
draw off nut



| Article No.                  | 353-030-002 | 353-040-002 | 353-050-002 | 353-060-002 |
|------------------------------|-------------|-------------|-------------|-------------|
| Shank                        | Mk 3        | Mk 4        | Mk 5        | Mk 6        |
| Frad. max. N                 | 4000        | 5000        | 20000       | 22000       |
| Fax. max. N                  | 2000        | 4000        | 10000       | 13000       |
| Speed max. min <sup>-1</sup> | 4000        | 2000        | 2000        | 2000        |
| L                            | 161,5       | 205,3       | 255         | 350,3       |
| L1                           | 22          | 31,3        | 45          | 62,3        |
| L2                           | 58,5        | 71,5        | 80,5        | 106         |
| D                            | 48          | 66          | 86          | 120         |
| D1                           | 24,8        | 34,6        | 49,6        | 69,6        |
| Runout in μ                  | 3           | 3           | 3           | 5           |
| Draw off thread              | M 27 x 1,5  | M 36 x 1,5  | M 48 x 1,5  | M 68 x 1,5  |

## LIVE CENTRE TYPE 354/355



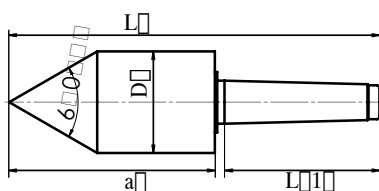
### Henninger Live Centre Type 354 »Inner Runner«

Is designed for bearing very high loads. This type is especially robust, radially and axially, due to its generously-dimensioned cylindrical roller bearings. The Henninger Type 354 is even suitable for such extremely demanding accuracies as required for cylindrical grinding of very heavy workpieces due to the high accuracy bearings and the precision machining.

| Order No.                    | 354-060-000 | 354-080-000 | 354-100-000 | 354-081-000 | 354-101-000 | 354-121-000 | 354-123-000 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Shaft                        | MT 6        | metr. 80    | metr. 100   | metr. 80    | metr. 100   | metr. 120   | metr. 120   |
| Workpiece weight max. kg     | 6 000       | 10 000      | 10 000      | 15 000      | 15 000      | 15 000      | 30 000      |
| Axial load max. kg           | 167         | 167         | 167         | 184         | 184         | 184         | 285         |
| Speed max. min <sup>-1</sup> | 1 200       | 1 200       | 1 200       | 1 000       | 1 000       | 1 000       | 700         |
| Housing Ø D                  | 150         | 150         | 150         | 160         | 160         | 160         | 225         |
| Tip Ø d                      | 64          | 64          | 64          | 80          | 80          | 80          | 120         |
| Tip length a                 | 63          | 63          | 63          | 79,3        | 79,3        | 79,3        | 114         |
| Housing length b             | 106         | 106         | 106         | 119         | 119         | 119         | 148         |
| Total length L               | 359         | 373         | 411         | 402         | 440         | 478         | 542         |
| Shaft length L <sub>1</sub>  | 182         | 196         | 232         | 196         | 232         | 268         | 268         |
| Tip angle                    | 19          | 22          | 30          | 38          | 40          | 40          | 64          |

### Henninger Live Centre Type 355

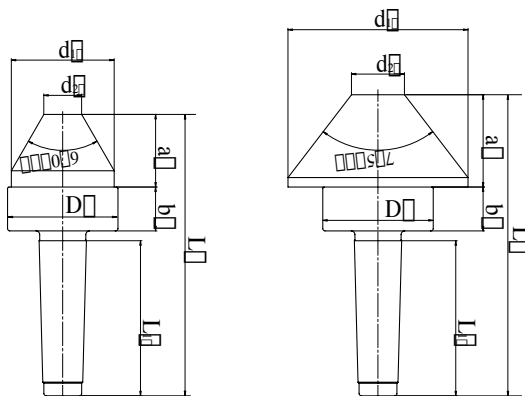
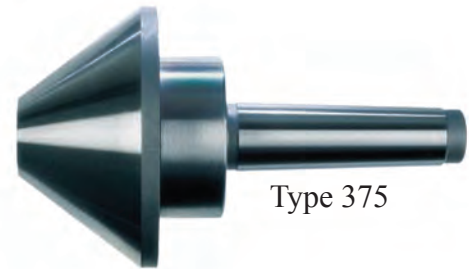
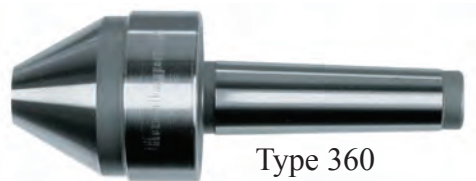
- 1 µ accuracy
- for grinding and inspection
- pre loaded bearings
- also with draw off nut



| Order No.                   | 355-020-000 | 355-030-000 | 355-040-000 | 355-050-000 |
|-----------------------------|-------------|-------------|-------------|-------------|
| Shaft                       | MT 2        | MT 3        | MT 4        | MT 5        |
| Workpiece weight max. kg    | 20          | 30          | 40          | 50          |
| Total length L              | 149         | 180         | 213         | 265         |
| Shaft length L <sub>1</sub> | 64          | 81          | 102,5       | 129,5       |
| Housing Ø D                 | 38          | 48          | 58          | 68          |
| Tip length a                | 80          | 94          | 104         | 129         |



## LIVE CENTRE CONES TYPES 360 / 375



- Robust and precision Design
- Hardened tool steel centre cone
- Load resistant needle bearings
- Super high accuracy design
- Supplied with seal ring for cylindrical grinding
- Can be supplied with pressure compensation using disk springs for working with extreme thermal expansion

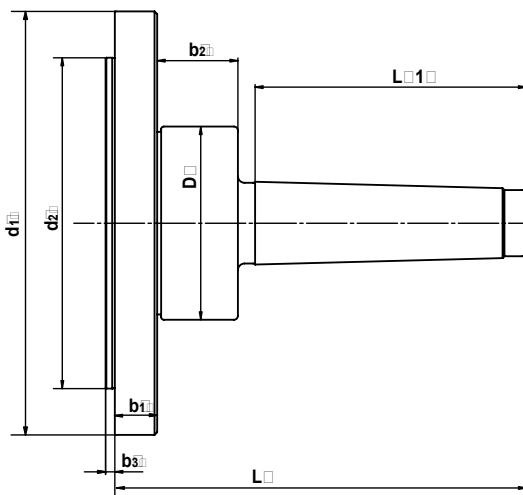
| Order No.                        | 360-020-000 | 360-030-000 | 360-040-000 | 360-540-000 | 360-050-000 | 360-550-000 | 360-060-000 | 360-560-000 | 360-080-000 | 360-100-000 | 360-120-000 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Order No.                        | 375-020-000 | 375-030-000 | 375-040-000 | 375-540-000 | 375-050-000 | 375-550-000 | 375-060-000 | 375-560-000 | 375-080-000 | 375-100-000 | 375-120-000 |
| Shank                            | MT 2        | MT 3        | MT 4        | MT 4 S      | MT 5        | MT 5 S      | MT 6        | MT 6 S      | metr. 80    | metr. 100   | metr. 120   |
| Workpiece weight max. kg         | 300         | 600         | 1100        | 1200        | 2500        | 2800        | 4500        | 6000        | 6000        | 6000        | 6000        |
| Axial loading max. kg            | 1560        | 1760        | 2240        | 3900        | 3900        | 5900        | 5900        | 9000        | 9000        | 9000        | 9000        |
| Speed max. min <sup>-1</sup>     | 4500        | 4000        | 3200        | 2400        | 2400        | 1800        | 1800        | 1400        | 1400        | 1400        | 1400        |
| Shaft length L1                  | 64          | 81          | 102,5       | 102,5       | 129,5       | 129,5       | 182         | 182         | 196         | 232         | 268         |
| Housing diameter D               | 48,5        | 58,5        | 73          | 86          | 86          | 116         | 116         | 146         | 146         | 146         | 146         |
| Housing length b                 | 23          | 26          | 29          | 40          | 40          | 51          | 51          | 67          | 67          | 67          | 67          |
| Runout standard/high accuracy μ  | 8/3         | 8/3         | 8/3         | 8/3         | 8/3         | 10/5        | 10/5        | 10/5        | 10/5        | 10/5        | 10/5        |
| Pressure compensation from to kg | 22-675      | 68-1000     | 83-1100     | 126-2670    | 126-2670    | 250-4070    | 250-4070    | 1280-16500  | 1280-16500  | 1280-16500  | 1280-16500  |

|                |                  |     |     |     |       |       |     |       |     |     |     |     |
|----------------|------------------|-----|-----|-----|-------|-------|-----|-------|-----|-----|-----|-----|
| Type 360 / 60° | Total length L   | 121 | 150 | 186 | 197   | 224   | 259 | 313   | 354 | 370 | 406 | 444 |
|                | Cone diameter d1 | 44  | 54  | 68  | 80    | 80    | 106 | 106   | 136 | 136 | 136 | 136 |
|                | Cone diameter d2 | 15  | 20  | 25  | 30    | 30    | 42  | 42    | 50  | 50  | 50  | 50  |
|                | Cone length a    | 29  | 38  | 48  | 48    | 48    | 72  | 72    | 97  | 97  | 97  | 97  |
| Type 375 / 75° | Total length L   | 123 | 155 | 199 | 233,5 | 260,5 | 276 | 332,5 | 359 | 373 | 411 | 449 |
|                | Cone diameter d1 | 59  | 79  | 119 | 168   | 168   | 196 | 196   | 240 | 240 | 240 | 240 |
|                | Cone diameter d2 | 20  | 19  | 35  | 50    | 50    | 75  | 75    | 100 | 100 | 100 | 100 |
|                | Cone length a    | 30  | 43  | 61  | 84    | 84    | 91  | 91    | 102 | 102 | 102 | 102 |

## LIVE CHUCK TYPE 380



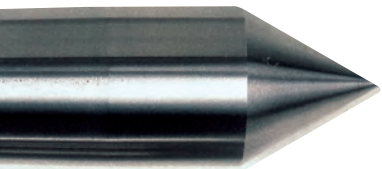
Type 380



- For quick and reliable tailstock mounting
- Steel or cast iron designed chucks
- For drills and workpieces without centres
- For three and four jawed chucks
- Hardened jaws, non hardened top jaws
- Futter in Guss- oder Stahlausführung
- Supplied with seal ring for cylindrical grinding
- Chuck fixturing used DIN 6350 centres
- Can be supplied in rigid design

| Order No.                             | 380-020<br>000 | 380-030<br>000 | 380-040<br>000 | 380-540<br>000 | 380-050<br>000 | 380-550<br>000 | 380-060<br>000 | 380-560<br>000 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Shaft                                 | MT 2           | MT 3           | MT 4           | MT 4 S         | MT 5           | MT 5 S         | MT 6           | MT 6 S         |
| Workpiece weight max. kg              | 225            | 450            | 825            | 875            | 2000           | 2300           | 3375           | 4800           |
| Axial pressure max. kg                | 1560           | 1760           | 2240           | 3900           | 3900           | 5900           | 5900           | 9000           |
| Chuck Ø = Flange Ø d1                 | 100            | 125            | 160            | 200            | 200            | 250            | 250            | 315            |
| Chuck mounting length L               | 105,5          | 132            | 155,5          | 174            | 201            | 214,5          | 268,5          | 282            |
| Shaft length L <sub>1</sub>           | 64             | 81             | 102,5          | 102,5          | 129,5          | 129,5          | 182            | 182            |
| Centering edge length b <sub>3</sub>  | 2,5            | 3              | 3,5            | 3,5            | 3,5            | 4              | 4              | 4,5            |
| Centering edge Ø h6                   | 70             | 95             | 125            | 160            | 160            | 200            | 200            | 260            |
| Housing Ø D                           | 48,5           | 58,5           | 73             | 86             | 86             | 116            | 116            | 146            |
| Housing length b <sub>2</sub>         | 23             | 26             | 29             | 40             | 40             | 51             | 51             | 67             |
| Flange length b <sub>1</sub>          | 12             | 18,5           | 16             | 23,5           | 23,5           | 22             | 22             | 37             |
| Runout µ                              | 0,04           | 0,05           | 0,05           | 0,07           | 0,07           | 0,07           | 0,07           | 0,1            |
| Only for pressure compensation design |                |                |                |                |                |                |                |                |
| Pressure compensation from            | 22             | 68             | 83             | 126            | 126            | 250            | 250            | 1280           |
| to in kg                              | 675            | 1000           | 1100           | 2670           | 2670           | 4070           | 4070           | 16500          |

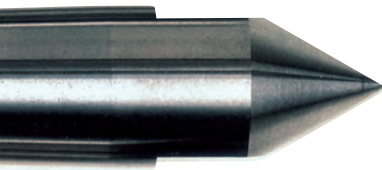
## CENTRES TYPE 410 - 422



**Type 410**

These centres have been manufactured by Henninger for decades

**Type 417**



**Type 412**

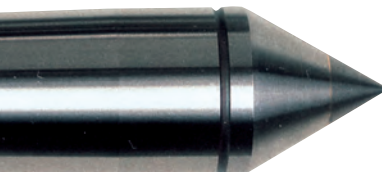
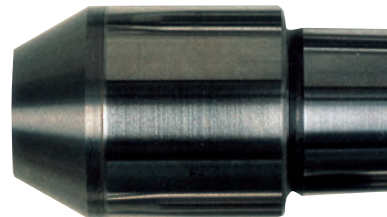
These centres are manufactured to the highest degrees of precision and quality that can be ensured by material selection, machining and expert heat treatment. The precision surpasses the recognised standards.

**Type 418**



**Type 414**

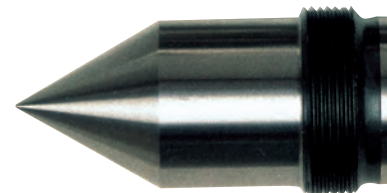
**Type 420**



**Type 416**

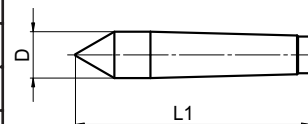
We also manufacture special customers-specific designs, guaranteeing an optimised design for each specific application.

**Type 421**



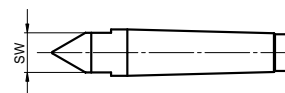
**Type 410** / solid 60° tip / Tool steel / HRC 60 ± 2 / DIN 806

| Type                        | 410-010-000 | 410-020-000 | 410-030-000 | 410-040-000 | 410-050-000 | 410-060-000 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Taper                       | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Total length L <sub>1</sub> | 80          | 100         | 125         | 160         | 200         | 270         |
| Tip Ø D                     | 12,2        | 18          | 24,1        | 61,6        | 44,7        | 63,8        |
| Weight appr. kg             | 0,06        | 0,16        | 0,35        | 0,76        | 1,9         | 5,2         |



**Type 412** / as 410 but with spanner flats / HRC 60 ± 2 / DIN 806

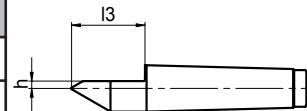
| Type              | 412-010-000 | 412-020-000 | 412-030-000 | 412-040-000 | 412-050-000 | 412-060-000 |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Taper             | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Schlüsselweite SW | 10          | 14          | 19          | 27          | 38          | 55          |





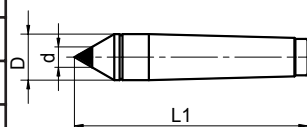
**Type 414 / Recessed tip / Tool steel / HRC 60 ± 2 / DIN 806**

| Type                  | 414-010-000 | 414-020-000 | 414-030-000 | 414-040-000 | 414-050-000 | 414-060-000 |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Taper                 | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Length L <sub>3</sub> | 22          | 30          | 38          | 50          | 63          | 79          |
| Dimension h           | 1,5         | 2           | 3           | 5           | 7           | 10          |



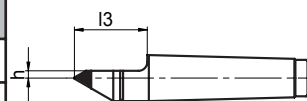
**Type 416 / Type E with carbide tip / Hardened taper / DIN 806**

| Type                  | 416-010-000 | 416-020-000 | 416-030-000 | 416-040-000 | 416-050-000 | 416-060-000 |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Taper                 | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Length L <sub>1</sub> | 80          | 100         | 125         | 160         | 200         | 270         |
| Carbide Ø d           | 7           | 7           | 11          | 14          | 18          | 18          |
| Tip Ø D               | 12,2        | 18,0        | 24,1        | 31,6        | 44,7        | 63,8        |



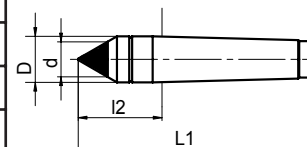
**Type 417 / Recessed tip with carbide / Hardened taper / DIN 806**

| Type                  | 417-010-000 | 417-020-000 | 417-030-000 | 417-040-000 | 417-050-000 | 417-060-000 |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Taper                 | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Length L <sub>3</sub> | 22          | 30          | 38          | 50          | 63          | 79          |
| Dimension h           | 1,5         | 2           | 3           | 5           | 7           | 10          |



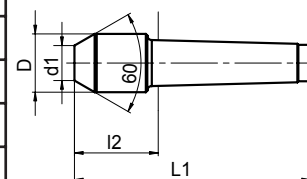
**Type 418 / with large Spitze mit HM / Hardened taper / similar to DIN 806**

| Type                        | 418-020 | 418-021 | 418-030 | 418-031 | 418-040 | 418-041 | 418-050 | 418-051 | 418-060 | 418-061 | 418-062 | 418-063 |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Taper                       | MT2     | MT2     | MT3     | MT3     | MT4     | MT4     | MT5     | MT5     | MT6     | MT6     | MT6     | MT6     |
| Total length L <sub>1</sub> | 100     | 100     | 125     | 125     | 160     | 160     | 200     | 200     | 270     | 270     | 270     | 270     |
| Length L <sub>2</sub>       | 36      | 36      | 44      | 44      | 57,5    | 57,5    | 70,5    | 70,5    | 88      | 88      | 88      | 88      |
| Larger Ø D                  | 18      | 18      | 24,1    | 24,1    | 31,6    | 31,6    | 44,7    | 44,7    | 63,8    | 63,8    | 63,8    | 63,8    |
| Smaller Ø d                 | 14      | 18      | 18      | 24      | 25      | 30      | 30,4    | 40      | 30      | 40      | 50      | 60      |



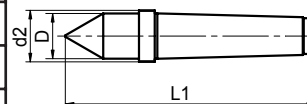
**Type 420 / Centre with blunt - ended tip / Tool steel / HRC 60 ± 2 / DIN 806**

| Type                        | 420-020 | 420-021 | 420-030 | 420-031 | 420-032 | 420-040 | 420-041 | 420-042 | 420-050 | 420-051 | 420-052 | 420-053 |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Taper                       | MT2     | MT2     | MT2     | MT3     | MT3     | MT4     | MT4     | MT4     | MT5     | MT5     | MT5     | MT5     |
| Total length L <sub>1</sub> | 104     | 109     | 125     | 125     | 130     | 157     | 162     | 162     | 199     | 199     | 199     | 199     |
| Length L <sub>2</sub>       | 40      | 45      | 45      | 45      | 50      | 55      | 60      | 60      | 70      | 70      | 70      | 70      |
| Larger Ø D                  | 25      | 40      | 30      | 40      | 50      | 30      | 40      | 50      | 30      | 40      | 50      | 60      |
| Smaller Ø d <sub>1</sub>    | 12      | 24      | 16      | 24      | 30      | 16      | 24      | 30      | 16      | 24      | 30      | 40      |



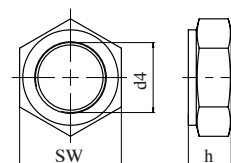
**Type 421 / Centre with draw-off thread / Tool steel / HRC 60 ± 2 / DIN 807**

| Type                        | 421-010-000 | 421-020-000 | 421-030-000 | 421-040-000 | 421-050-000 | 421-060-000 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Taper                       | MT 1        | MT 2        | MT 3        | MT 4        | MT 5        | MT 6        |
| Total length L <sub>1</sub> | 90          | 112         | 138         | 175         | 217         | 290         |
| Tip Ø D                     | 12,2        | 18,0        | 24,1        | 31,6        | 44,7        | 63,8        |
| Thread d <sub>2</sub>       | M 16 x 1,5  | M 22 x 1,5  | M 27 x 1,5  | M 36 x 1,5  | M 48 x 1,5  | M 68 x 1,5  |



**Draw - off nuts as per DIN 807**

| Type                  | 422-010-000 | 422-020-000 | 422-030-000 | 422-040-000 | 422-050-000 | 422-060-000 |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Thread d <sub>4</sub> | M 16 x 1,5  | M 22 x 1,5  | M 27 x 1,5  | M 36 x 1,5  | M 48 x 1,5  | M 68 x 1,5  |
| Wrench width SW       | 24          | 32          | 41          | 55          | 75          | 100         |
| Width h               | 12          | 15,5        | 17,5        | 21          | 23          | 25,5        |



# Henninger

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