

21526 - 21528

ER collets for tapping



Type

With square drive for driving the tap. Without length compensation.

Use

For clamping taps with collet chucks.
Only for Synchro machines.

Note:

Collet box made of plastic, see AQRADO storage system HHW catalogue volume 2 (tools + machines) Cat. No. 84134. **21528**

| Shank Ø mm | Square-section mm | L2 mm | ER 16/4031 E | | ER 25/4282 E | | ER 32/4537 E | |
|---------------|----------------------|----------|--------------|----------------|--------------|-----|--------------|-----|
| | | | 21526 | ... | 21527 | ... | 21528 | ... |
| 3.5 | 2.7 | 18 | | 201 | | 201 | | |
| 4.5 | 3.4 | 18 | | 202 | | 202 | | 202 |
| 5.5 | 4.3 | 18 | | 203 | | 203 | | 203 |
| 6.0 | 4.9 | 18 | | 204 | | 204 | | 204 |
| 7.0 | 5.5 | 18 | | 205 | | 205 | | 205 |
| 8.0 | 6.2 | 22 | | 206 | | 206 | | 206 |
| 9.0 | 7.0 | 22 | | 207 | | 207 | | 207 |
| 10.0 | 8.0 | 25 | | 208 NEW | | 208 | | 208 |
| 11.0 | 9.0 | 25 | | | | 209 | | 209 |
| 12.0 | 9.0 | 25 | | | | 210 | | 210 |
| 14.0 | 11.0 | 25 | | | | 211 | | 211 |
| 16.0 | 12.0 | 25 | | | | 212 | | 212 |



DIN 6388

21552 - 21554

OZ collets

Type

- Spring steel, fully hardened and ground.
- Through-bore to increase the clamping force

Advantages:

- Better concentricity
- Higher clamping force due to increased load-bearing area
- Higher system rigidity and tool service life

Note:

Collet box made of plastic, see AQRADO storage system HHW catalogue volume 2 (tools + machines) Cat. No. 84134.

21552 - 21554



| Clamping Ø mm | Type 415 E for collet size 2 - 16 mm D x L 25.5 x 40 mm | | Type 462 E for collet size 3 - 25 mm D x L 35.05 x 52 mm | | Type 467 E for collet size 4 - 32 mm D x L 44 x 60 mm | |
|------------------|--|-----|---|-----|--|-----|
| | 21552 | ... | 21553 | ... | 21554 | ... |
| 2 | | 101 | | | | |
| 3 | | 102 | | 102 | | |
| 4 | | 103 | | 103 | | 103 |
| 5 | | 104 | | 104 | | 104 |
| 6 | | 105 | | 105 | | 105 |
| 7 | | 106 | | 106 | | 106 |
| 8 | | 107 | | 107 | | 107 |
| 9 | | 108 | | 108 | | 108 |
| 10 | | 109 | | 109 | | 109 |
| 11 | | 110 | | 110 | | 110 |
| 12 | | 111 | | 111 | | 111 |
| 13 | | 112 | | 112 | | 112 |
| 14 | | 113 | | 113 | | 113 |

| Clamping Ø mm | Type 415 E for collet size 2 - 16 mm D x L 25.5 x 40 mm | | Type 462 E for collet size 3 - 25 mm D x L 35.05 x 52 mm | | Type 467 E for collet size 4 - 32 mm D x L 44 x 60 mm | |
|------------------|--|-----|---|-----|--|-----|
| | 21552 | ... | 21553 | ... | 21554 | ... |
| 15 | | 114 | | 114 | | 114 |
| 16 | | 115 | | 115 | | 115 |
| 17 | | | | 116 | | 116 |
| 18 | | | | 117 | | 117 |
| 19 | | | | 118 | | 118 |
| 20 | | | | 119 | | 119 |
| 22 | | | | 120 | | 120 |
| 24 | | | | 121 | | 121 |
| 25 | | | | 122 | | 122 |
| 26 | | | | | | 123 |
| 28 | | | | | | 124 |
| 30 | | | | | | 125 |
| 32 | | | | | | 126 |

21581 - 21582

Reduction sleeves



21581

Type

Sealed for hydro expansion chuck.



21581

21582

Type

Without seal for power chucks.



21582

| Suitable for D ₁ mm | Reduction for D ₂ mm | 21581 | | 21582 | |
|--------------------------------|---------------------------------|-------|-----|-------|-----|
| | | ... | ... | ... | ... |
| 20 | 3 | | 098 | | 098 |
| 20 | 4 | | 099 | | 099 |
| 20 | 5 | | 100 | | 100 |
| 20 | 6 | | 101 | | 101 |
| 20 | 8 | | 102 | | 102 |
| 20 | 10 | | 103 | | 103 |
| 20 | 12 | | 104 | | 104 |
| 20 | 14 | | 105 | | 105 |
| 20 | 16 | | 106 | | 106 |
| 32 | 3 | | | | 110 |
| 32 | 4 | | | | 111 |

| Suitable for D ₁ mm | Reduction for D ₂ mm | 21581 | | 21582 | |
|--------------------------------|---------------------------------|-------|-----|-------|-----|
| | | ... | ... | ... | ... |
| 32 | 5 | | | | 112 |
| 32 | 6 | | | | 113 |
| 32 | 8 | | | | 114 |
| 32 | 10 | | | | 115 |
| 32 | 12 | | | | 116 |
| 32 | 14 | | | | 117 |
| 32 | 16 | | | | 118 |
| 32 | 18 | | | | 119 |
| 32 | 20 | | | | 120 |
| 32 | 25 | | | | 121 |





21509

Accessories for CENTRO|P precision collet



Note:

Only use CENTRO|P clamping nuts (Cat. No. 21509 102-106 and 21509 002-006) in conjunction with roller keys (Cat. No. 21509 200-206) and/or roller key attachments (Cat. No. 21509 301-306).

21509 101

Miniature clamping nut

21509 102-106

Standard clamping nut

21509 002-006

Clamping nuts for sealing discs

21509 200-206

Roller spanner

21509 301-306

Torque roller bearing heads

| Size | for collets | Ø D mm | Standard clamping nuts | | for sealing discs | |
|------------|--------------|--------|------------------------|-----|-------------------|-----|
| | | | 21509 | ... | 21509 | ... |
| HPC 11 M | ER 11/4008 E | 16 | | 101 | | |
| HPC 16 | ER 16/426 E | 30 | | 102 | | |
| HPC 16C | ER 16/426 E | 24 | | 103 | | |
| HPC 25 | ER 25/430 E | 40 | | 104 | | |
| HPC 32 | ER 32/470 E | 50 | | 106 | | |
| HPC 16-DI | ER 16/426 E | 30 | | | | 002 |
| HPC 16C-DI | ER 16/426 E | 24 | | | | 003 |
| HPC 25-DI | ER 25/430 E | 40 | | | | 004 |
| HPC 32-DI | ER 32/470 E | 50 | | | | 006 |

| Size | for clamping nut | Roller spanner | |
|-------|------------------|----------------|-----|
| | | 21509 | ... |
| RO 16 | HPC 11 M | | 200 |
| RO 24 | HPC 16C | | 201 |
| RO 30 | HPC 16 | | 202 |
| RO 40 | HPC 25 | | 204 |
| RO 50 | HPC 32 | | 206 |

| Size | for clamping nut | Plug-in attachment mm | Roller bearing heads | |
|--------|------------------|-----------------------|----------------------|-----|
| | | | 21509 | ... |
| DRO 24 | HPC 16C | 9 x 12 | | 301 |
| DRO 30 | HPC 16 | 14 x 18 | | 302 |
| DRO 40 | HPC 25 | 14 x 18 | | 304 |
| DRO 50 | HPC 32 | 14 x 18 | | 306 |

21513

Sealing discs for CENTRO|P ER clamping nuts



Type

Vulcanised sealing discs up to 80 bar. 0.5 mm clamping Ø extension (+0.4/-0.1).

Note:

Not suitable for other sealing disc systems! Sealing discs with 0.5 mm increments available on request.

21513 101-110

for type HPC 16(C)-DI
D x L 12.6 x 2 mm

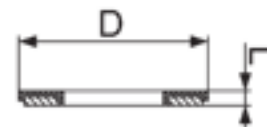
21513 202-216

For type HPC 25-DI
D x L 20.2 x 2 mm

21513 302-320

For type HPC 32-DI
D x L 26.2 x 2 mm

21513



| for | HPC 16(C)-DI | HPC 25-DI | HPC 32-DI | | | |
|----------------------|--------------|-----------|-----------|-----|--|-----|
| Size = Clamping Ø mm | 21513 | 21513 | 21513 | | | |
| 1 | | 101 | | | | |
| 2 | | 102 | | 202 | | 302 |
| 3 | | 103 | | 203 | | 303 |
| 4 | | 104 | | 204 | | 304 |
| 5 | | 105 | | 205 | | 305 |
| 6 | | 106 | | 206 | | 306 |
| 7 | | 107 | | 207 | | 307 |
| 8 | | 108 | | 208 | | 308 |
| 9 | | 109 | | 209 | | 309 |
| 10 | | 110 | | 210 | | 310 |

| for | HPC 16(C)-DI | HPC 25-DI | HPC 32-DI | | |
|----------------------|--------------|-----------|-----------|--|-----|
| Size = Clamping Ø mm | 21513 | 21513 | 21513 | | |
| 11 | | | 211 | | 311 |
| 12 | | | 212 | | 312 |
| 13 | | | 213 | | 313 |
| 14 | | | 214 | | 314 |
| 15 | | | 215 | | 315 |
| 16 | | | 216 | | 316 |
| 17 | | | | | 317 |
| 18 | | | | | 318 |
| 19 | | | | | 319 |
| 20 | | | | | 320 |



21518

Spare standard clamping nuts



21518

| Clamping range mm | Collets type | Ø D mm | 21518 | ... |
|----------------------|-----------------|-----------|-------|-----|
| 1 - 10 | AER 16 | 30 | | 101 |
| 1 - 16 | AER 25 | 40 | | 102 |
| 2 - 20 | AER 32 | 50 | | 103 |



21517

Spare clamping nuts -Mini-

Type
For collet chucks **type ER**.

21517

| Clamping range mm | Outside Ø d mm | collet type | thread | 21517 | ... |
|----------------------|-------------------|----------------|-------------|-------|-----|
| 1 - 7 | 16 | ER 11/4008 E | M 13 x 0.75 | | 101 |
| 1 - 10 | 22 | ER 16/426 E | M 19 x 1 | | 102 |
| 1 - 13 | 28 | ER 20/428 E | M 24 x 1 | | 103 |
| 2 - 16 | 35 | ER 25/430 E | M 30 X 1 | | 104 |



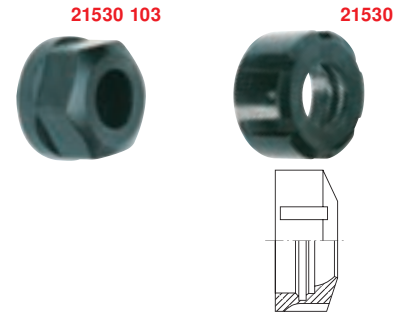
21530

Spare clamping nut

Use
For collet chucks **type ER**.

Note:
Open-end wrench for nut Cat. No. 21530 103 see
HHW catalogue volume 2 (tools + machines)
Cat. No. 50113 235.

| for clamping range mm | for type ER | Nut Ø mm | 21530 | ... |
|--------------------------|----------------|-------------------|-------|-----|
| 1 - 10 | 16 | Jaw opening 25/28 | | 103 |
| 1 - 10 | 16 | 32 | | 104 |
| 1 - 16 | 25 | 42 | | 105 |
| 2 - 20 | 32 | 50 | | 106 |
| 3 - 26 | 40 | 63 | | 107 |



21562

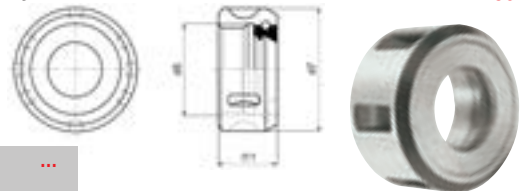
OZ clamping nuts



Type
With ball-bearing mounted union nut.
Use
For collet chucks cat.-no. 21540 - 21545.

Note:
Clamping wrench, see HHW catalogue volume 2
(tools + machines) Cat. No. 50650 ff.

| for clamping range mm | d5 | d7 | l11 | 21562 | ... |
|--------------------------|------------|----|------|-------|-----|
| 2 - 16 | M 33 x 1.5 | 43 | 24.0 | | 101 |
| 3 - 25 | M 48 x 2.0 | 60 | 30.0 | | 102 |
| 4 - 32 | M 60 x 2.5 | 72 | 33.5 | | 103 |



21516

Wrench

Type
Special steel, burnished, high-edge ground.

Use
For collet **Type ER Mini**.

21516

| for clamping range mm | Collets type | 21516 | ... |
|--------------------------|-----------------|-------|-----|
| 1 - 7 | ER 11/4008 E | | 101 |
| 1 - 10 | ER 16/426 E | | 102 |
| 1 - 13 | ER 20/428 E | | 103 |
| 1 - 16 | ER 25/430 E | | 104 |



21532

Wrench

Type
Made of special steel, hardened and burnished, with attachment hole.

Use
For collet chucks **type ER**.

21532

| for clamping range mm | for type ER | for nut Ø mm | Overall length mm | 21532 | ... |
|--------------------------|----------------|-----------------|----------------------|-------|-----|
| 1 - 10 | 16 | 32 | 160 | | 103 |
| 1 - 16 | 25 | 42 | 203 | | 104 |
| 2 - 20 | 32 | 50 | 253 | | 105 |
| 3 - 26 | 40 | 63 | 285 | | 106 |



Push-type collets

21568

Set of compression collets

DIN 6343 Typ 173E

Type
Type 173 E/F 48
40-part, hole diameters 3 - 42 mm,
 um 1 mm increments.

Note:
 Collet sets with 4-point or 6-point profiles
 available on request.



21568

| | | |
|--------------------------|-------|-----|
| for clamping range mm | 21568 | ... |
| 3 - 42 | | 101 |

21570 - 21571 Push-type collets

DIN 6343

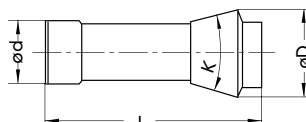
21570
Type
Type 173 E, dim.: Ø d 48 x Ø D 60 x L 94 mm,
 K = 30°. **DIN 6343/F48**, triple slotted.

Note:
 Collets with 4-point or 6-point profiles
 available on request.



21570

21571
Type
Type 185 E, dim.: Ø d 66 x Ø D 84 x L 110 mm,
 K = 30°. **DIN 6343/F66**, 4x slotted.



| Bore mm | 173 E | | 185 E | |
|------------|-------|-----|-------|-----|
| | 21570 | ... | 21571 | ... |
| 3 | | 101 | | |
| 4 | | 102 | | 102 |
| 5 | | 103 | | 103 |
| 6 | | 104 | | 104 |
| 7 | | 105 | | 105 |
| 8 | | 106 | | 106 |
| 9 | | 107 | | 107 |
| 10 | | 108 | | 108 |
| 11 | | 109 | | 109 |
| 12 | | 110 | | 110 |
| 13 | | 111 | | 111 |
| 14 | | 112 | | 112 |
| 15 | | 113 | | 113 |
| 16 | | 114 | | 114 |
| 17 | | 115 | | 115 |
| 18 | | 116 | | 116 |
| 19 | | 117 | | 117 |
| 20 | | 118 | | 118 |
| 21 | | 119 | | 119 |
| 22 | | 120 | | 120 |

| Bore mm | 173 E | | 185 E | |
|------------|-------|-----|-------|-----|
| | 21570 | ... | 21571 | ... |
| 23 | | 121 | | 121 |
| 24 | | 122 | | 122 |
| 25 | | 123 | | 123 |
| 26 | | 124 | | 124 |
| 27 | | 125 | | 125 |
| 28 | | 126 | | 126 |
| 29 | | 127 | | 127 |
| 30 | | 128 | | 128 |
| 31 | | 129 | | 129 |
| 32 | | 130 | | 130 |
| 33 | | 131 | | 131 |
| 34 | | 132 | | 132 |
| 35 | | 133 | | 133 |
| 36 | | 134 | | 134 |
| 37 | | 135 | | 135 |
| 38 | | 136 | | 136 |
| 39 | | 137 | | 137 |
| 40 | | 138 | | 138 |
| 41 | | 139 | | 139 |
| 42 | | 140 | | 140 |

| Bore mm | 173 E | | 185 E | |
|------------|-------|-----|-------|-----|
| | 21570 | ... | 21571 | ... |
| 43 | | | | 141 |
| 44 | | | | 142 |
| 45 | | | | 143 |
| 46 | | | | 144 |
| 47 | | | | 145 |
| 48 | | | | 146 |
| 49 | | | | 147 |
| 50 | | | | 148 |
| 51 | | | | 149 |
| 52 | | | | 150 |
| 53 | | | | 151 |
| 54 | | | | 152 |
| 55 | | | | 153 |
| 56 | | | | 154 |
| 57 | | | | 155 |
| 58 | | | | 156 |
| 59 | | | | 157 |
| 60 | | | | 158 |

21572

Emergency compression collets

DIN 6343

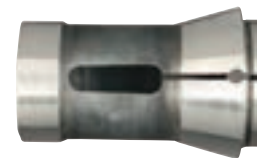
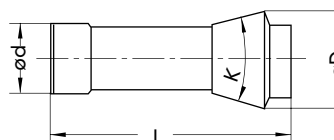
Type
 - Tempered to approx. 45 HRC
 - Completely ground

Note:
 Can be machined in collet with three pins
 inserted in face end.

NEW

Use
 For self-machining to desired diameter, or a stepped
 bore.

| Type | Ø D mm | Ø d mm | L mm | Pre-drilled to Ø mm | 21572 | ... |
|-------|-----------|-----------|---------|------------------------|-------|-----|
| 173 E | 60 | 48 | 94 | 3 | | 101 |
| 185 E | 84 | 66 | 110 | 6 | | 102 |



21572

21573

Internal stops for compression collets

Use
 For compression collets acc. to DIN 6343. As limit
 stop for turned parts. Can also be used for hollow
 parts. Can be used for round, hexagonal and
 square-section collets.

NEW

| | | |
|---------------------|-------|-----|
| for collets type | 21573 | ... |
| 173 E | | 101 |
| 185 E | | 102 |



21573

Clamping Technology