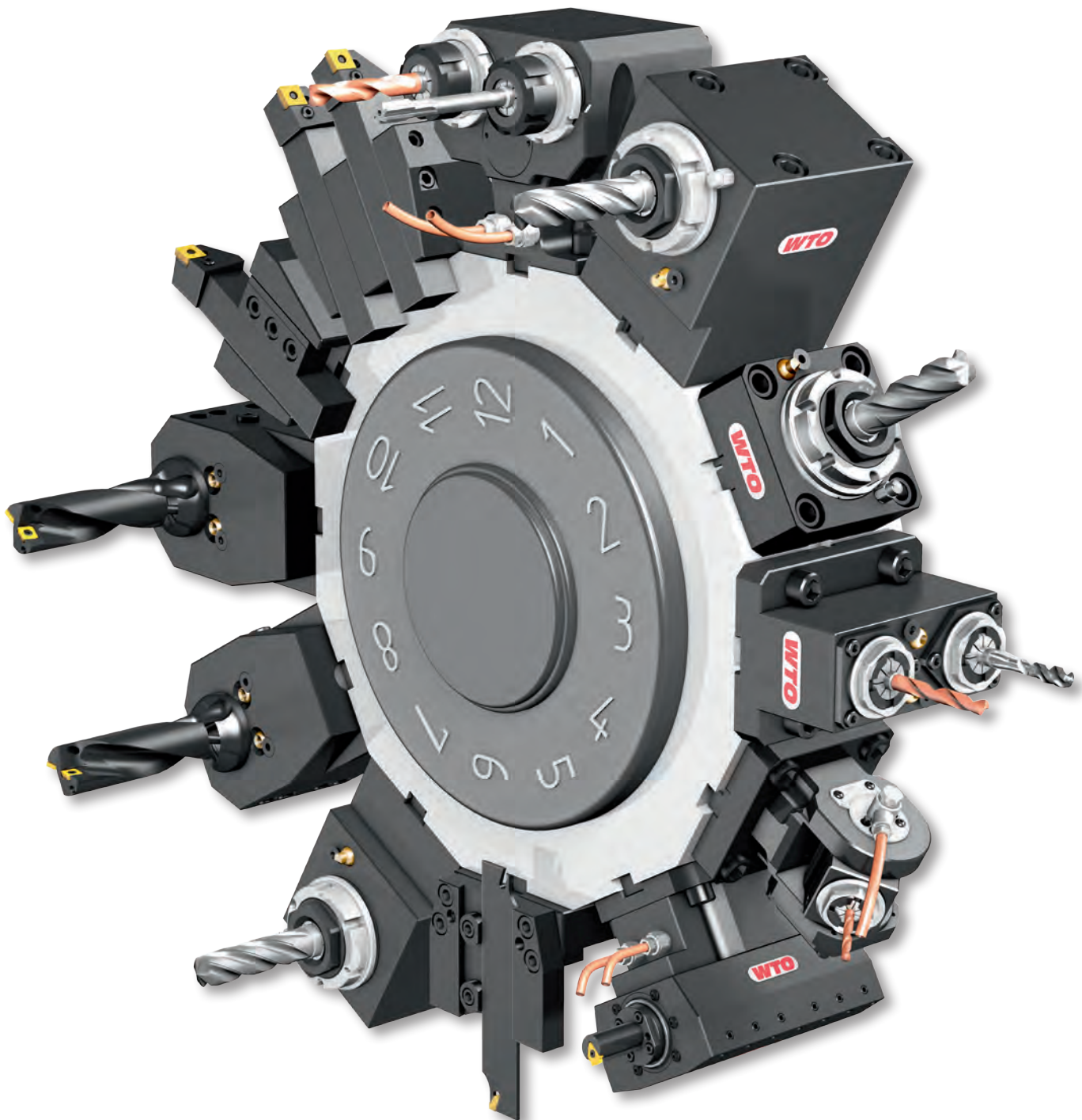


# Toolholder Program

ST-10/15/20/25/30/35, DS-30 (VDI40)

ST-20/25/30/35, DS-30 (BMT65)



# QuickFlex<sup>®</sup>

The new quick change system for high performance and precision.

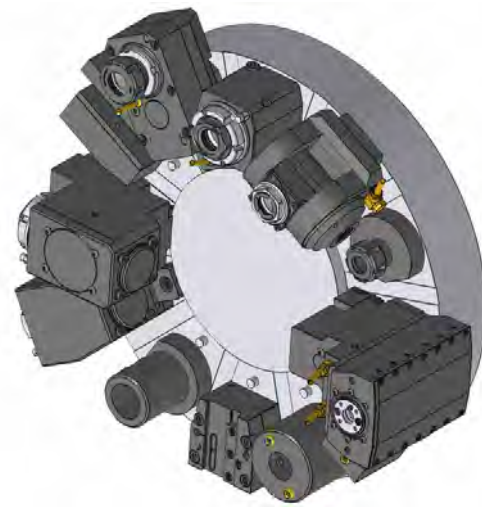
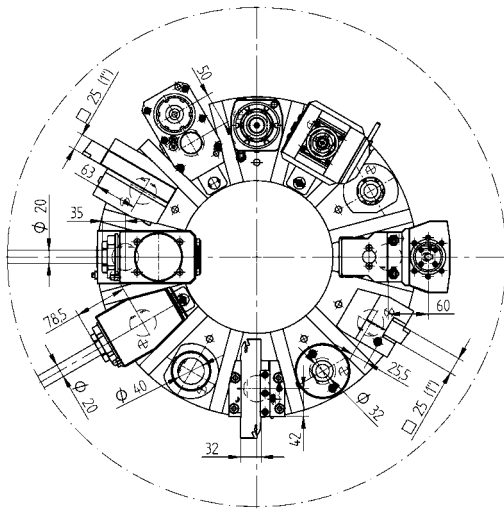
Minimal investment, maximal expandability.



Designed  
for  
BMT Turrets

|                                     |      |         |
|-------------------------------------|------|---------|
| ST-10/15/20/25/30/35, DS-30 (VDI40) | Page | 4 - 6   |
| ST-20/25/30/35, DS-30 (BMT65)       | Page | 7 - 10  |
| Reduction sleeves                   | Page | 11 - 12 |
| Collets                             | Page | 13 - 15 |

**EC = External coolant supply**  
**HP-IC = High pressure internal coolant supply through cutting tool**  
**IC 80 bar = Internal and external coolant supply**  
Max. coolant pressure = 80 bar  
**IC 30 bar = Internal and external coolant supply**  
Max. coolant pressure = 30 bar  
Only use filtered coolant fluid (max. particle size = 50 µm)  
Do not run without coolant  
Do not use for machining abrasive materials such as cast iron, etc.



Toolholder



**Radial square toolholder, left hand, short, Form B2**  
 25 48-B2-40x25



**Radial square toolholder, left hand inverted, short, Form B4**  
 25 48-B4-40x25  
 1" 48-B4-40x100



**Radial square toolholder, left hand, long, Form B6**  
 25 48-B6-40x25



**Radial square toolholder, left hand inverted, long, Form B8**  
 25 48-B8-40x25  
 1" 48-B8-40x100



**Axial square toolholder, left hand, Form C2**  
 25 48-C2-40x25



**Axial square toolholder, left hand inverted, Form C4**  
 25 48-C4-40x25  
 1" 48-C4-40x100



**Cut-off holder, adjustable height, left hand SH 32** 48-AL-40x32



**Cut-off holder, adjustable height, left hand inverted SH 32** 48-ALU-40x32



**Cut-off holder, adjustable height, HP-IC SH 32** 48-102690R IC 80 bar  
 SH 32 48-102690L IC 80 bar

Toolholder



**Holder for indexable insert drills, internal coolant supply, Form E1**  
 Ø 16 48-E1-40x16  
 Ø 20 48-E1-40x20  
 Ø 25 48-E1-40x25  
 Ø 32 48-E1-40x32  
 Ø 40 48-E1-40x40  
 Ø 1" 48-E1-40x100



**Boring bar holder, internal coolant supply, Form E2**  
 Ø 8 48-E2-40x8  
 Ø 10 48-E2-40x10  
 Ø 12 48-E2-40x12  
 Ø 16 48-E2-40x16  
 Ø 20 48-E2-40x20  
 Ø 25 48-E2-40x25  
 Ø 30 48-E2-40x30  
 Ø 32 48-E2-40x32  
 Ø 40 48-E2-40x40

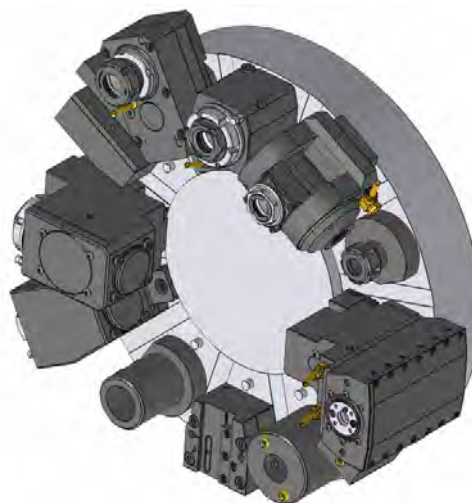
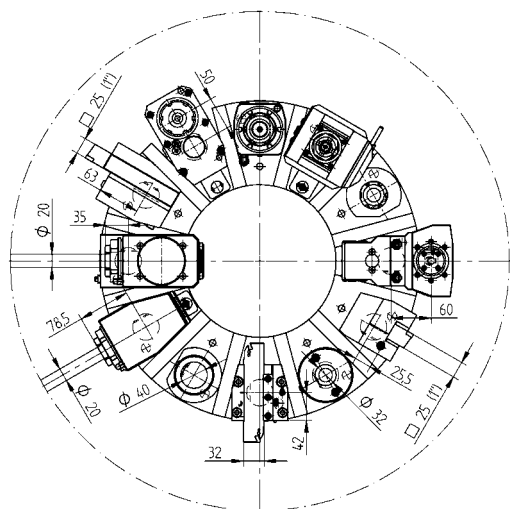


**ER collet chuck holder, internal coolant supply, Form E4**  
 ER 25 48-E4-40x25  
 107525000  
 ER 32 48-E4-40x32  
 107532000  
 ER 40 48-E4-40x40  
 107540000



**Plug, steel, Form Z2**  
 Steel 48-Z2-40-S





Driven Toolholders - QuickFlex®

Driven Toolholders - Enhanced Program



**Straight drill/milling unit**

**ER-32 QF** 420132079-40 1:1 EC  
0067732000

**ER-32 QF** 420132080-40 1:1 IC 80 bar  
0067732000



**Right angle drill/milling unit**

**ER-32 QF** 420532128-40 1:1 EC  
0067732000

**ER-32 QF** 420532129-40 1:1 IC 80 bar  
0067732000



**Straight offset drill/milling unit**

**ER 32** 410120237-40 1:1 EC  
00675000592

**ER 32** 410120266-40 1:1 IC 80 bar  
00675000592

**ER 20** 410113056-40 1:2 EC  
00675000591

**ER 20** 410113057-40 1:2 IC 80 bar  
00675000591

**ER 32** 410120239-40 2:1 EC  
00675000592

**ER 32** 410120240-40 2:1 IC 80 bar  
00675000592



**Right angle drill/milling unit**

**ER 25** 410516098-40 1:2 EC  
00675000801

**ER 25** 410516099-40 1:2 IC 80 bar  
00675000801

**ER 32** 410520291-40 2:1 EC  
00675000490

**ER 32** 410520292-40 2:1 IC 80 bar  
00675000490



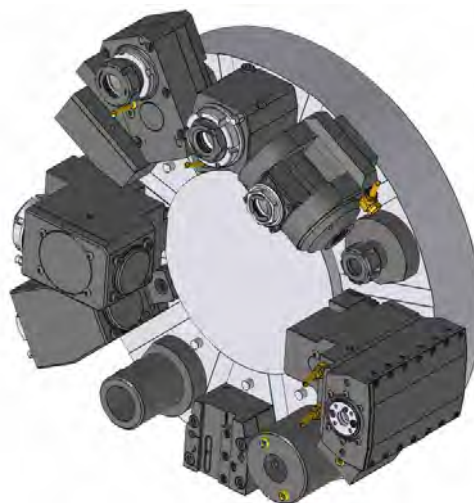
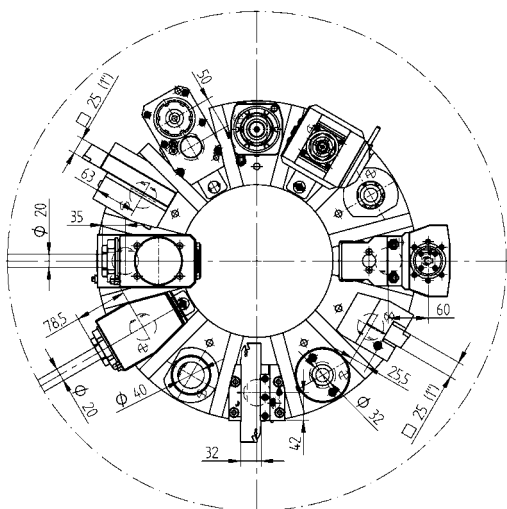
**Right angle back set drill/milling unit**

**ER-32 QF** 420532106-40 1:1 EC  
0067732000

**ER-32 QF** 420532107-40 1:1 IC 80 bar  
0067732000

**ER-40 QF** 420540029-40 2:1 EC  
0067740000

**ER-40 QF** 420540030-40 2:1 IC 80 bar  
0067540000



Driven Toolholders - Enhanced Program



**Adjustable angle drill/milling unit**

|              |              |     |           |
|--------------|--------------|-----|-----------|
| <b>ER 25</b> | 411016017-40 | 1:1 | EC        |
|              | 00675000934  |     |           |
| <b>ER 25</b> | 411016033-40 | 1:1 | IC 80 bar |
|              | 00675000934  |     |           |
| <b>ER 16</b> | 411010044-40 | 1:2 | EC        |
|              | 00675000936  |     |           |
| <b>ER 16</b> | 411010045-40 | 1:2 | IC 80 bar |
|              | 00675000936  |     |           |



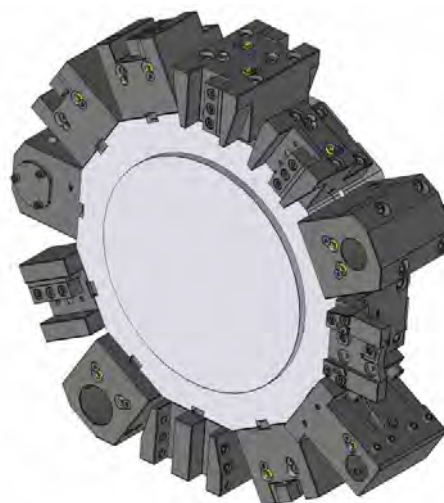
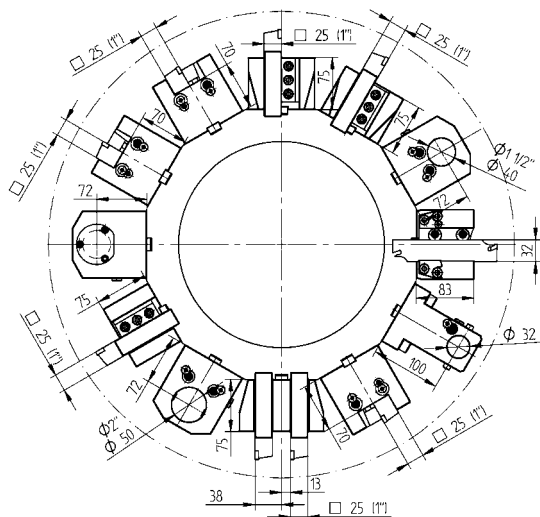
**Offset slitting saw unit**

|                  |                       |        |    |
|------------------|-----------------------|--------|----|
| <b>Type 14-2</b> | 411500022-40          | 2.73:1 | EC |
|                  | 00675000460           |        |    |
|                  | 160016142 $\phi$ 16   |        |    |
|                  | 160022142 $\phi$ 22   |        |    |
|                  | 160027142 $\phi$ 27   |        |    |
|                  | 160015142 $\phi$ 5/8" |        |    |
|                  | 160019142 $\phi$ 3/4" |        |    |
|                  | 160023142 $\phi$ 7/8" |        |    |
|                  | 160025142 $\phi$ 1"   |        |    |



**Broaching unit for ID and OD**

|                 |              |     |    |
|-----------------|--------------|-----|----|
| <b>TN765050</b> | 414132001-40 | 1:1 | EC |
|-----------------|--------------|-----|----|



Static Toolholders - Standard Program

Static Toolholders - Standard Program



**OD cutting holder**

25 48-92428  
1" 48-92466



**OD cutting holder, HP-IC**

25 48-92428-HP IC 80 bar  
1" 48-92466-HP IC 80 bar



**OD cutting holder, both sides**

25 48-92438  
1" 48-92472



**OD cutting holder, both sides, HP-IC**

25 48-92438-HP IC 80 bar  
1" 48-92472-HP IC 80 bar



**Face cutting holder**

25 48-86719  
1" 48-86720



**Face cutting holder, HP-IC**

25 48-109249-HP IC 80 bar  
1" 48-109250-HP IC 80 bar



**Combination toolholder, LF=72**

Ø 40 48-84375 IC 80 bar  
Ø 1 1/2" 48-87077 IC 80 bar  
Ø 50 48-107499 IC 80 bar  
Ø 2" 48-107501 IC 80 bar



**Boring bar holder, both sides**

Ø 32 48-101033



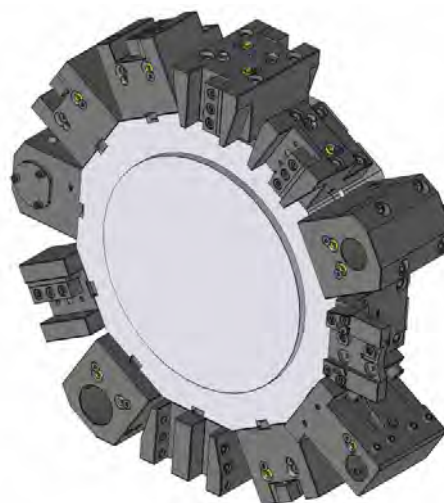
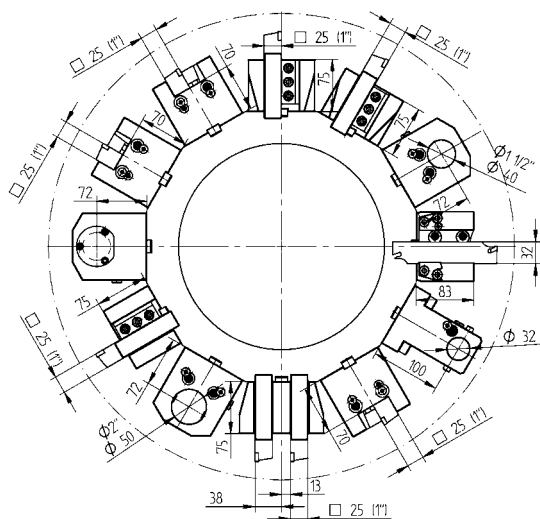
**Boring bar holder, double**

Ø 32 48-84524  
Ø 1 1/4" 48-86905





**Cover plate**


48-87089





Static Toolholders - Enhanced Program


- 


**OD cutting holder, double, Y axis**  
 25(1") 48-86103
- 


**OD cutting holder, both sides, double, Y axis**  
 25(1") 48-86150
- 

**Cut-off holder, adjustable**  
 SH 32 48-99060
- 

**Cut-off holder, adjustable, long**  
 SH 32 48-100084
- 

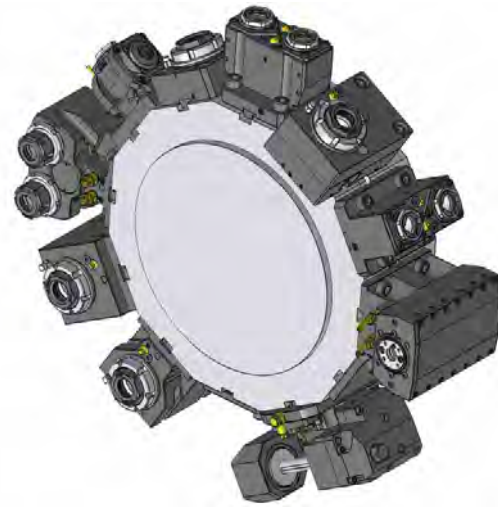
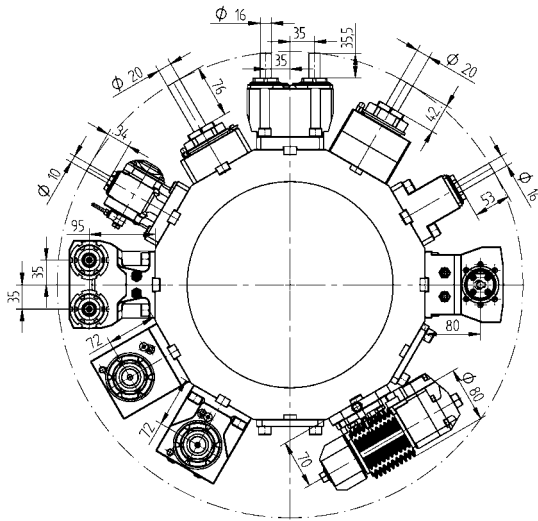
**Cut-off holder, adjustable, HP-IC**  
 SH 32 48-102256R IC 80 bar  
 SH 32 48-102256L IC 80 bar
- 

**Cut-off holder, adjustable, long, HP-IC**  
 SH 32 48-100082R IC 80 bar  
 SH 32 48-100082L IC 80 bar
- 


**Combination toolholder, back set**  
 Ø 40 48-102037 IC 80 bar  
 241140020 ER32  
 241140026 ER40
- 


**Boring bar holder, double, both sides**  
 Ø 32 48-86160  
 Ø 1 1/4" 48-86274






Driven Toolholders - QuickFlex®


- 


**Straight drill/milling unit**  
**ER-32 QF** 420132015-65 1:1 EC  
 0067732000  
**ER-32 QF** 420132016-65 1:1 IC 80 bar  
 0067732000
- 


**Right angle drill/milling unit, LF=72**  
**ER-32 QF** 420532015-65 1:1 EC  
 0067732000  
**ER-32 QF** 420532016-65 1:1 IC 80 bar  
 0067732000
- 


**Right angle drill/milling unit, both sides, LF=72**  
**ER-32 QF** 420532017-65 1:1 EC  
 0067732000

Driven Toolholders - Enhanced Program

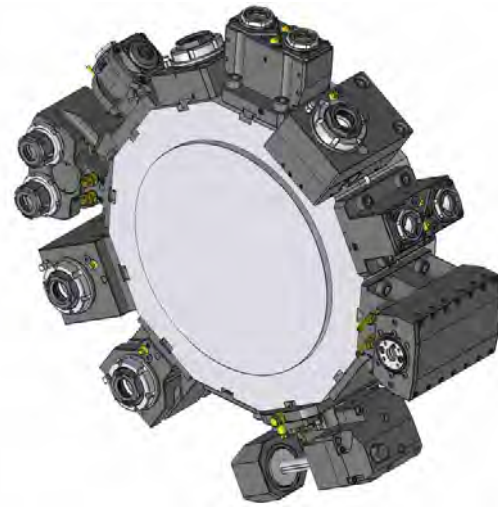
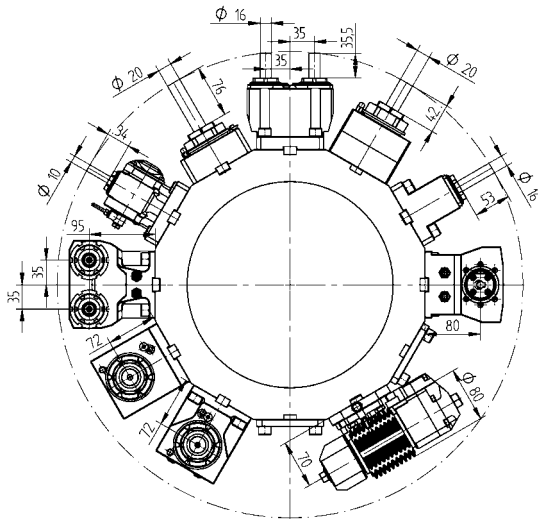
- 

**Straight drill/milling unit**  
**ER 40** 410126001-65 1:1 EC  
 00675000079
- 

**Straight milling unit with combination mill arbor DIN 6358**  
**Ø 22** 410222002-65 1:1 EC  
 00675000483  
**Ø 1"** 410225002-65 1:1 EC  
 00675000483
- 

**Straight offset drill/milling unit**  
**ER-32 QF** 420132037-65 1:1 EC  
 0067732000  
**ER-32 QF** 420132038-65 1:1 IC 80 bar  
 0067732000  
**ER-25 QF** 420125010-65 1:2 EC  
 0067725001  
**ER-25 QF** 420125011-65 1:2 IC 80 bar  
 0067725001
- 

**Face drill/milling unit for ER collets, LF=72**  
**ER 40** 410526005-65 1:1 EC  
 00675000781  
**ER 40** 410526006-65 1:1 IC 80 bar  
 00675000781



Driven Toolholders - Enhanced Program



|  |              |     |           |
|--|--------------|-----|-----------|
| <b>Right angle drill/milling unit, LF=72</b> |              |     |           |
| <b>ER-25 QF</b>                              | 420525010-65 | 1:2 | EC        |
|  | 0067725001   |     |           |
| <b>ER-25 QF</b>                              | 420525011-65 | 1:2 | IC 80 bar |
|  | 0067725001   |     |           |
| <b>ER-32 QF</b>                              | 420532027-65 | 2:1 | EC        |
|  | 0067732000   |     |           |
| <b>ER-32 QF</b>                              | 420532028-65 | 2:1 | IC 80 bar |
|  | 0067732000   |     |           |



|   |              |     |    |
|---|--------------|-----|----|
| <b>Right angle milling unit with combination mill arbor DIN 6358, LF=72</b> |              |     |    |
| <b>Ø 22</b>   | 410622001-65 | 1:1 | EC |
|   | 00675000483  |     |    |
| <b>1"</b>   | 410625001-65 | 1:1 | EC |
|   | 00675000483  |     |    |



|  |              |     |           |
|--|--------------|-----|-----------|
| <b>Adjustable angle drill/milling unit</b> |              |     |           |
| <b>ER 16</b>                               | 411010002-65 | 1:1 | EC        |
|  | 00675000902  |     |           |
| <b>ER 16</b>                               | 411010003-65 | 1:1 | IC 80 bar |
|  | 00675000902  |     |           |
| <b>ER 11</b>                               | 411007002-65 | 1:2 | EC        |
|  | 00675000914  |     |           |
| <b>ER 11</b>                               | 411007003-65 | 1:2 | IC 80 bar |
|  | 00675000914  |     |           |

Driven Toolholders - Enhanced Program



|                          |                  |     |    |
|--------------------------|------------------|-----|----|
| <b>Gear hobbing unit</b> |                  |     |    |
| <b>Type 16-1</b>         | 411500003-65     | 1:1 | EC |
| <b>Type 16-1</b>         | 411500002-65     | 2:1 | EC |
|                          | 00675000927      |     |    |
|                          | 160016161 Ø 16   |     |    |
|                          | 160022161 Ø 22   |     |    |
|                          | 160027161 Ø 27   |     |    |
|                          | 160015161 Ø 5/8" |     |    |
|                          | 160019161 Ø 3/4" |     |    |
|                          | 160025161 Ø 1"   |     |    |
|                          | 96394            |     |    |



|  |              |     |    |
|--|--------------|-----|----|
| <b>Straight drill/milling unit, both sides</b> |              |     |    |
| <b>ER 25</b>                                   | 413002001-65 | 1:1 | EC |
|  | 00675000907  |     |    |



|  |              |     |    |
|--|--------------|-----|----|
| <b>Straight drill/milling unit, double, Y axis</b> |              |     |    |
| <b>ER 25</b>                                       | 413002004-65 | 1:1 | EC |
|  | 00675000907  |     |    |



|   |              |     |           |
|---|--------------|-----|-----------|
| <b>2-spindle - Right angle drill/milling unit, Y axis</b> |              |     |           |
| <b>ER 25</b>  | 413502006-65 | 1:1 | EC        |
|   | 00675000915  |     |           |
| <b>ER 25</b>  | 413502007-65 | 1:1 | IC 80 bar |
|   | 00675000915  |     |           |



|   |              |     |    |
|---|--------------|-----|----|
| <b>2-spindle - Right angle drill/milling unit, both sides, Y axis</b> |              |     |    |
| <b>ER 25</b>  | 413502008-65 | 1:1 | EC |
|   | 00675000915  |     |    |



|                                     |              |     |    |
|-------------------------------------|--------------|-----|----|
| <b>Broaching unit for ID and OD</b> |              |     |    |
| <b>TN765050</b>                     | 414532001-65 | 1:1 | EC |

Standard reduction sleeves - cylindrical



**Reduction sleeve Ø 20**

|           |      |
|-----------|------|
| 240020006 | ø 6  |
| 240020008 | ø 8  |
| 240020010 | ø 10 |
| 240020012 | ø 12 |
| 240020014 | ø 14 |
| 240020016 | ø 16 |



**Reduction sleeve Ø 25**

|           |      |
|-----------|------|
| 240025006 | ø 6  |
| 240025008 | ø 8  |
| 240025010 | ø 10 |
| 240025012 | ø 12 |
| 240025016 | ø 16 |
| 240025020 | ø 20 |



**Reduction sleeve Ø 32**

|           |      |
|-----------|------|
| 240032006 | ø 6  |
| 240032008 | ø 8  |
| 240032010 | ø 10 |
| 240032012 | ø 12 |
| 240032016 | ø 16 |
| 240032020 | ø 20 |
| 240032025 | ø 25 |



**Reduction sleeve Ø 40**

|           |      |
|-----------|------|
| 240040006 | ø 6  |
| 240040008 | ø 8  |
| 240040010 | ø 10 |
| 240040012 | ø 12 |
| 240040014 | ø 14 |
| 240040016 | ø 16 |
| 240040020 | ø 20 |
| 240040025 | ø 25 |
| 240040032 | ø 32 |



**Reduction sleeve Ø 50**

|           |      |
|-----------|------|
| 240050010 | ø 10 |
| 240050012 | ø 12 |
| 240050016 | ø 16 |
| 240050020 | ø 20 |
| 240050025 | ø 25 |
| 240050032 | ø 32 |
| 240050040 | ø 40 |



**Reduction sleeve Ø 1 1/4"**

|            |        |
|------------|--------|
| 2400125038 | ø 3/8" |
| 2400125050 | ø 1/2" |
| 2400125063 | ø 5/8" |
| 2400125075 | ø 3/4" |
| 2400125088 | ø 7/8" |
| 2400125100 | ø 1"   |

Standard reduction sleeves - cylindrical



**Reduction sleeve Ø 1 1/2"**

|            |          |
|------------|----------|
| 2400150038 | ø 3/8"   |
| 2400150050 | ø 1/2"   |
| 2400150063 | ø 5/8"   |
| 2400150075 | ø 3/4"   |
| 2400150088 | ø 7/8"   |
| 2400150100 | ø 1"     |
| 2400150125 | ø 1 1/4" |



**Reduction sleeve Ø 2"**

|            |          |
|------------|----------|
| 2400200050 | ø 1/2"   |
| 2400200063 | ø 5/8"   |
| 2400200088 | ø 7/8"   |
| 2400200100 | ø 1"     |
| 2400200125 | ø 1 1/4" |
| 2400200150 | ø 1 1/2" |
| 2400200175 | ø 1 3/4" |

## Standard reduction sleeves - morse taper



### Reduction sleeve Ø 32

|           |      |
|-----------|------|
| 240532001 | MT 1 |
| 240532002 | MT 2 |
| 240532003 | MT 3 |



### Reduction sleeve Ø 40

|           |      |
|-----------|------|
| 240540001 | MT 1 |
| 240540002 | MT 2 |
| 240540003 | MT 3 |
| 240540004 | MT 4 |



### Reduction sleeve Ø 50

|           |      |
|-----------|------|
| 240550002 | MT 2 |
| 240550003 | MT 3 |
| 240550004 | MT 4 |

Collets DIN 6499B (ER/ESX)



| ER 11     | mm      | inch          |
|-----------|---------|---------------|
| 190011000 | ∅ 7-0.5 | ∅ 0.276-0.020 |
| 190011010 | ∅ 1-0.5 | ∅ 0.039-0.020 |
| 190011015 | ∅ 1.5-1 | ∅ 0.059-0.039 |
| 190011020 | ∅ 2-1.5 | ∅ 0.079-0.059 |
| 190011025 | ∅ 2.5-2 | ∅ 0.098-0.079 |
| 190011030 | ∅ 3-2.5 | ∅ 0.118-0.098 |
| 190011035 | ∅ 3.5-3 | ∅ 0.138-0.118 |
| 190011040 | ∅ 4-3.5 | ∅ 0.158-0.138 |
| 190011045 | ∅ 4.5-4 | ∅ 0.177-0.158 |
| 190011050 | ∅ 5-4.5 | ∅ 0.197-0.177 |
| 190011055 | ∅ 5.5-5 | ∅ 0.217-0.197 |
| 190011060 | ∅ 6-5.5 | ∅ 0.236-0.217 |
| 190011065 | ∅ 6.5-6 | ∅ 0.256-0.236 |
| 190011070 | ∅ 7-6.5 | ∅ 0.276-0.256 |



| ER 16     | mm       | inch          |
|-----------|----------|---------------|
| 190016000 | ∅ 10-0.5 | ∅ 0.394-0.020 |
| 190016010 | ∅ 1-0.5  | ∅ 0.039-0.020 |
| 190016020 | ∅ 2-1    | ∅ 0.079-0.039 |
| 190016030 | ∅ 3-2    | ∅ 0.118-0.079 |
| 190016040 | ∅ 4-3    | ∅ 0.158-0.118 |
| 190016050 | ∅ 5-4    | ∅ 0.197-0.158 |
| 190016060 | ∅ 6-5    | ∅ 0.236-0.197 |
| 190016070 | ∅ 7-6    | ∅ 0.276-0.236 |
| 190016080 | ∅ 8-7    | ∅ 0.315-0.276 |
| 190016090 | ∅ 9-8    | ∅ 0.354-0.315 |
| 190016100 | ∅ 10-9   | ∅ 0.394-0.354 |



| ER 20     | mm      | inch          |
|-----------|---------|---------------|
| 190020000 | ∅ 13-1  | ∅ 0.512-0.039 |
| 190020010 | ∅ 1-0.5 | ∅ 0.039-0.020 |
| 190020020 | ∅ 2-1   | ∅ 0.079-0.039 |
| 190020030 | ∅ 3-2   | ∅ 0.118-0.079 |
| 190020040 | ∅ 4-3   | ∅ 0.157-0.118 |
| 190020050 | ∅ 5-4   | ∅ 0.197-0.157 |
| 190020060 | ∅ 6-5   | ∅ 0.236-0.197 |
| 190020070 | ∅ 7-6   | ∅ 0.276-0.236 |
| 190020080 | ∅ 8-7   | ∅ 0.315-0.276 |
| 190020090 | ∅ 9-8   | ∅ 0.354-0.315 |
| 190020100 | ∅ 10-9  | ∅ 0.394-0.354 |
| 190020110 | ∅ 11-10 | ∅ 0.433-0.394 |
| 190020120 | ∅ 12-11 | ∅ 0.472-0.433 |
| 190020130 | ∅ 13-12 | ∅ 0.512-0.472 |

Collets DIN 6499B (ER/ESX)



| ER 25     | mm      | inch          |
|-----------|---------|---------------|
| 190025000 | ∅ 16-1  | ∅ 0.630-0.039 |
| 190025020 | ∅ 2-1   | ∅ 0.079-0.039 |
| 190025030 | ∅ 3-2   | ∅ 0.118-0.079 |
| 190025040 | ∅ 4-3   | ∅ 0.157-0.118 |
| 190025050 | ∅ 5-4   | ∅ 0.197-0.157 |
| 190025060 | ∅ 6-5   | ∅ 0.236-0.197 |
| 190025070 | ∅ 7-6   | ∅ 0.276-0.236 |
| 190025080 | ∅ 8-7   | ∅ 0.315-0.276 |
| 190025090 | ∅ 9-8   | ∅ 0.354-0.315 |
| 190025100 | ∅ 10-9  | ∅ 0.394-0.354 |
| 190025110 | ∅ 11-10 | ∅ 0.433-0.394 |
| 190025120 | ∅ 12-11 | ∅ 0.472-0.433 |
| 190025130 | ∅ 13-12 | ∅ 0.512-0.472 |
| 190025140 | ∅ 14-13 | ∅ 0.551-0.512 |
| 190025150 | ∅ 15-14 | ∅ 0.591-0.551 |
| 190025160 | ∅ 16-15 | ∅ 0.630-0.591 |



| ER 32     | mm      | inch          |
|-----------|---------|---------------|
| 190032000 | ∅ 20-2  | ∅ 0.787-0.079 |
| 190032030 | ∅ 3-2   | ∅ 0.118-0.079 |
| 190032040 | ∅ 4-3   | ∅ 0.157-0.118 |
| 190032050 | ∅ 5-4   | ∅ 0.197-0.157 |
| 190032060 | ∅ 6-5   | ∅ 0.236-0.197 |
| 190032070 | ∅ 7-6   | ∅ 0.276-0.236 |
| 190032080 | ∅ 8-7   | ∅ 0.315-0.276 |
| 190032090 | ∅ 9-8   | ∅ 0.354-0.315 |
| 190032100 | ∅ 10-9  | ∅ 0.394-0.354 |
| 190032110 | ∅ 11-10 | ∅ 0.433-0.394 |
| 190032120 | ∅ 12-11 | ∅ 0.472-0.433 |
| 190032130 | ∅ 13-12 | ∅ 0.512-0.472 |
| 190032140 | ∅ 14-13 | ∅ 0.551-0.512 |
| 190032150 | ∅ 15-14 | ∅ 0.591-0.551 |
| 190032160 | ∅ 16-15 | ∅ 0.630-0.591 |
| 190032170 | ∅ 17-16 | ∅ 0.669-0.630 |
| 190032180 | ∅ 18-17 | ∅ 0.709-0.669 |
| 190032190 | ∅ 19-18 | ∅ 0.748-0.709 |
| 190032200 | ∅ 20-19 | ∅ 0.787-0.748 |



Collets DIN 6499B (ER/ESX)



| ER 40     | mm      | inch          |
|-----------|---------|---------------|
| 190040000 | ø 26-3  | ø 1.024-0.118 |
| 190040040 | ø 4-3   | ø 0.157-0.118 |
| 190040050 | ø 5-4   | ø 0.197-0.157 |
| 190040060 | ø 6-5   | ø 0.236-0.197 |
| 190040070 | ø 7-6   | ø 0.276-0.236 |
| 190040080 | ø 8-7   | ø 0.315-0.276 |
| 190040090 | ø 9-8   | ø 0.354-0.315 |
| 190040100 | ø 10-9  | ø 0.394-0.354 |
| 190040110 | ø 11-10 | ø 0.433-0.394 |
| 190040120 | ø 12-11 | ø 0.472-0.433 |
| 190040130 | ø 13-12 | ø 0.512-0.472 |
| 190040140 | ø 14-13 | ø 0.551-0.512 |
| 190040150 | ø 15-14 | ø 0.591-0.551 |
| 190040160 | ø 16-15 | ø 0.630-0.591 |
| 190040170 | ø 17-16 | ø 0.669-0.630 |
| 190040180 | ø 18-17 | ø 0.709-0.669 |
| 190040190 | ø 19-18 | ø 0.748-0.709 |
| 190040200 | ø 20-19 | ø 0.787-0.748 |
| 190040210 | ø 21-20 | ø 0.827-0.787 |
| 190040220 | ø 22-21 | ø 0.866-0.827 |
| 190040230 | ø 23-22 | ø 0.906-0.866 |
| 190040240 | ø 24-23 | ø 0.945-0.906 |
| 190040250 | ø 25-24 | ø 0.984-0.945 |
| 190040260 | ø 26-25 | ø 1.024-0.984 |

Collets DIN 6499D (ER/ESX) - sealed, for IC



| ER 11        | mm  | inch    |
|--------------|-----|---------|
| 191011030    | ø 3 |         |
| 191011040    | ø 4 |         |
| 191011050    | ø 5 |         |
| 191011060    | ø 6 |         |
| 191111013-in |     | ø 0.125 |
| 191111019-in |     | ø 0.188 |
| 191111025-in |     | ø 0.25  |



| ER 16        | mm     | inch          |
|--------------|--------|---------------|
| 191016000    | ø 3-10 |               |
| 191016030    | ø 3    |               |
| 191016040    | ø 4    |               |
| 191016050    | ø 5    |               |
| 191016060    | ø 6    |               |
| 191016070    | ø 7    |               |
| 191016080    | ø 8    |               |
| 191016090    | ø 9    |               |
| 191016100    | ø 10   |               |
| 191116001    |        | ø 0.125-0.375 |
| 191116013-in |        | ø 0.125       |
| 191116019-in |        | ø 0.188       |
| 191116025-in |        | ø 0.25        |
| 191116031-in |        | ø 0.313       |
| 191116038-in |        | ø 0.375       |



| ER 25        | mm     | inch         |
|--------------|--------|--------------|
| 191025000    | ø 4-16 |              |
| 191025030    | ø 3    |              |
| 191025040    | ø 4    |              |
| 191025050    | ø 5    |              |
| 191025060    | ø 6    |              |
| 191025070    | ø 7    |              |
| 191025080    | ø 8    |              |
| 191025090    | ø 9    |              |
| 191025100    | ø 10   |              |
| 191025110    | ø 11   |              |
| 191025120    | ø 12   |              |
| 191025130    | ø 13   |              |
| 191025140    | ø 14   |              |
| 191025150    | ø 15   |              |
| 191025160    | ø 16   |              |
| 191125001    |        | ø 0.25-0.625 |
| 191125025-in |        | ø 0.25       |
| 191125031-in |        | ø 0.313      |
| 191125038-in |        | ø 0.375      |
| 191125044-in |        | ø 0.438      |
| 191125050-in |        | ø 0.5        |
| 191125056-in |        | ø 0.563      |
| 191125063-in |        | ø 0.625      |

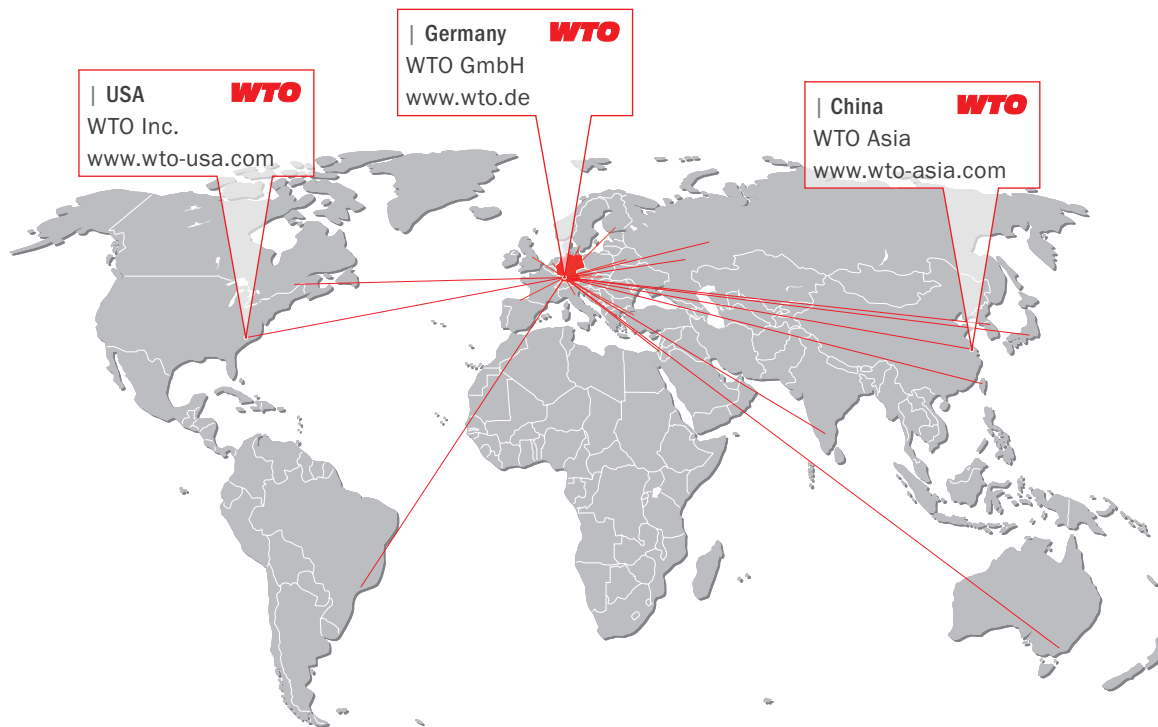
Collets DIN 6499D (ER/ESX) - sealed, for IC



| <b>ER 32</b> | mm     | inch        |
|--------------|--------|-------------|
| 191032000    | ø 4-20 |             |
| 191032030    | ø 3    |             |
| 191032040    | ø 4    |             |
| 191032050    | ø 5    |             |
| 191032060    | ø 6    |             |
| 191032070    | ø 7    |             |
| 191032080    | ø 8    |             |
| 191032090    | ø 9    |             |
| 191032100    | ø 10   |             |
| 191032110    | ø 11   |             |
| 191032120    | ø 12   |             |
| 191032130    | ø 13   |             |
| 191032140    | ø 14   |             |
| 191032150    | ø 15   |             |
| 191032160    | ø 16   |             |
| 191032170    | ø 17   |             |
| 191032180    | ø 18   |             |
| 191032190    | ø 19   |             |
| 191032200    | ø 20   |             |
| 191132001    |        | ø 0.25-0.75 |
| 191132025-in |        | ø 0.25      |
| 191132031-in |        | ø 0.313     |
| 191132038-in |        | ø 0.375     |
| 191132044-in |        | ø 0.438     |
| 191132050-in |        | ø 0.5       |
| 191132056-in |        | ø 0.563     |
| 191132063-in |        | ø 0.625     |
| 191132069-in |        | ø 0.688     |
| 191132075-in |        | ø 0.75      |



| <b>ER 40</b> | mm   | inch    |
|--------------|------|---------|
| 191040060    | ø 6  |         |
| 191040080    | ø 8  |         |
| 191040100    | ø 10 |         |
| 191040120    | ø 12 |         |
| 191040140    | ø 14 |         |
| 191040160    | ø 16 |         |
| 191040180    | ø 18 |         |
| 191040200    | ø 20 |         |
| 191040220    | ø 22 |         |
| 191040250    | ø 25 |         |
| 191140025-in |      | ø 0.25  |
| 191140031-in |      | ø 0.313 |
| 191140038-in |      | ø 0.375 |
| 191140044-in |      | ø 0.438 |
| 191140050-in |      | ø 0.5   |
| 191140056-in |      | ø 0.563 |
| 191140063-in |      | ø 0.625 |
| 191140069-in |      | ø 0.688 |
| 191140075-in |      | ø 0.75  |
| 191140088-in |      | ø 0.875 |
| 191140100-in |      | ø 1     |



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