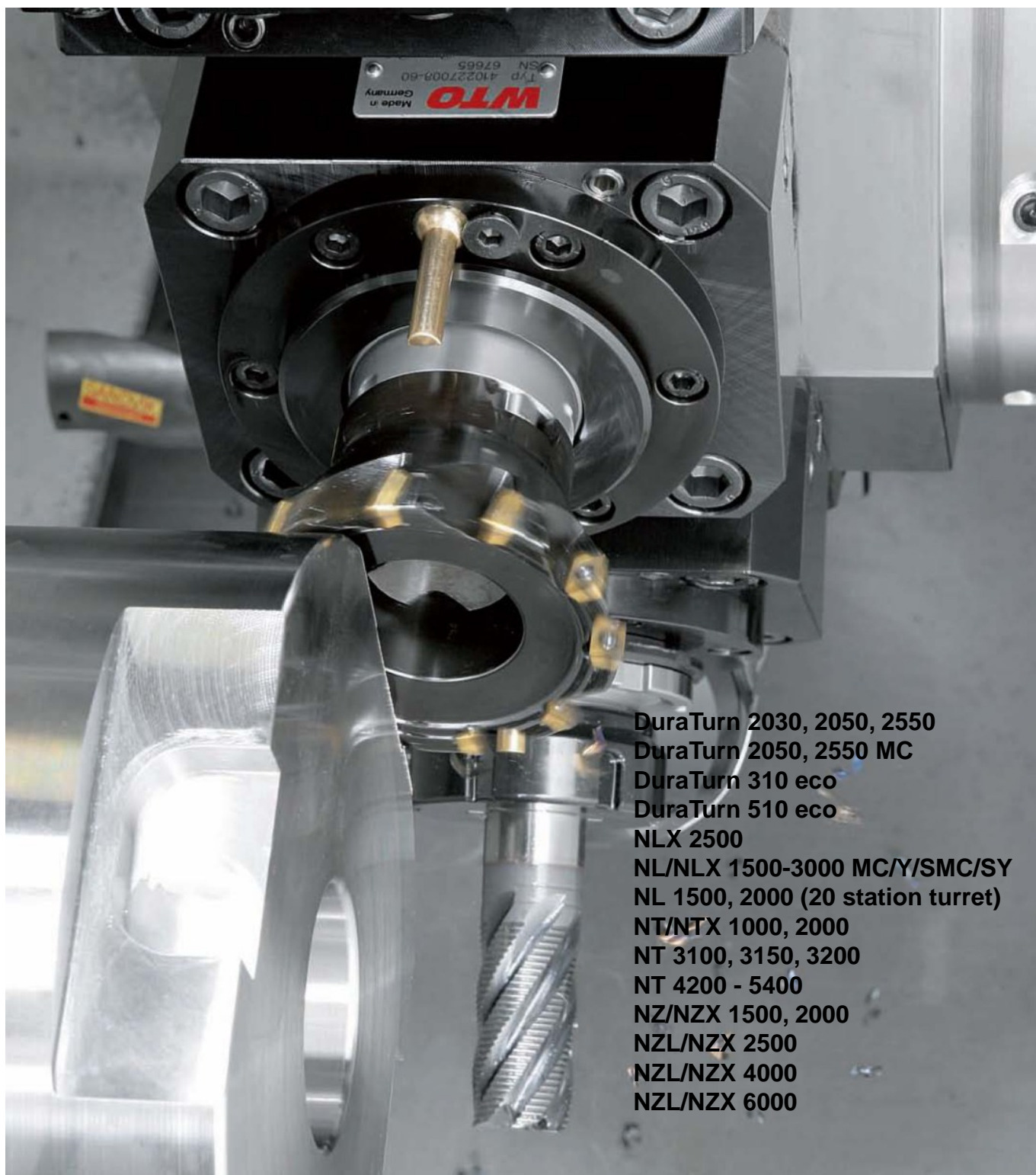
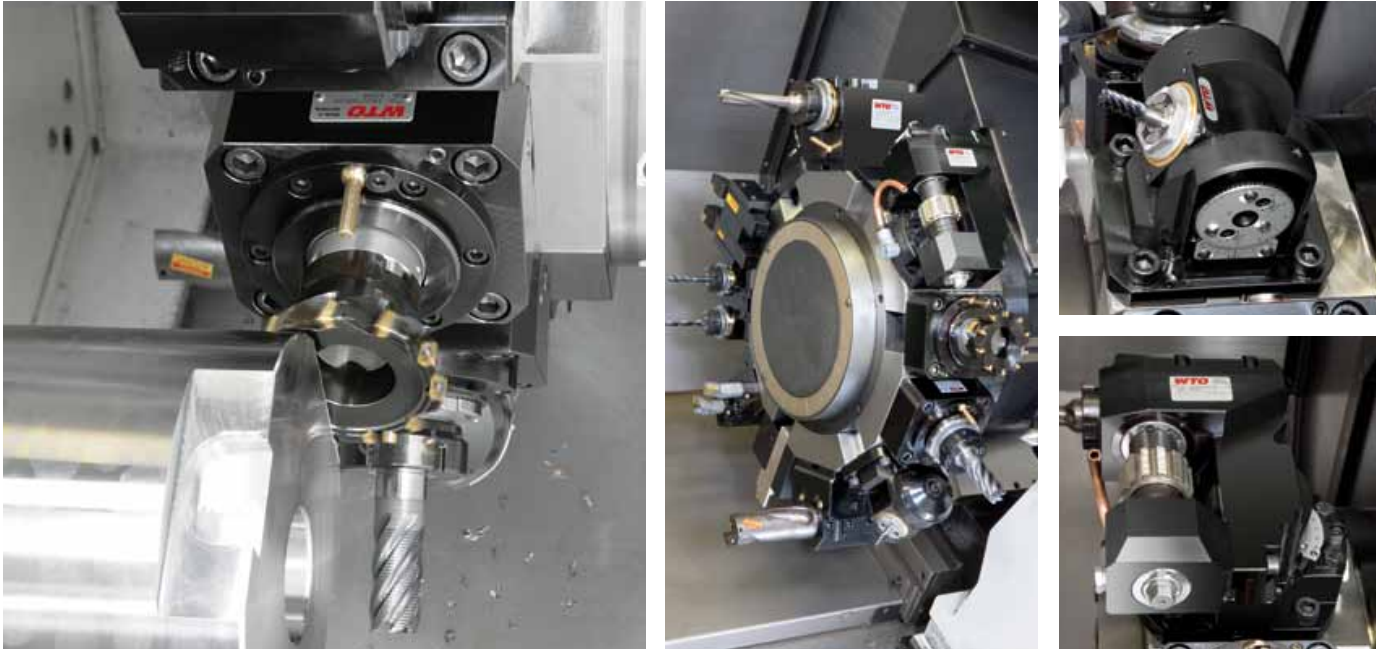


# Toolholder Program



DuraTurn 2030, 2050, 2550  
DuraTurn 2050, 2550 MC  
DuraTurn 310 eco  
DuraTurn 510 eco  
NLX 2500  
NL/NLX 1500-3000 MC/Y/SMC/SY  
NL 1500, 2000 (20 station turret)  
NT/NTX 1000, 2000  
NT 3100, 3150, 3200  
NT 4200 - 5400  
NZ/NZX 1500, 2000  
NZL/NZX 2500  
NZL/NZX 4000  
NZL/NZX 6000



## Higher Productivity



WTO's strategy is to constantly build on excellence in technology and quality to serve our customers.

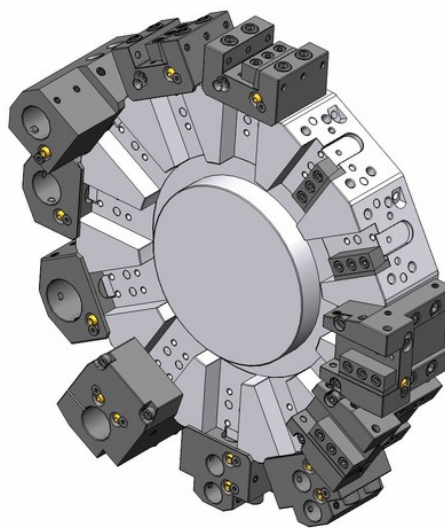
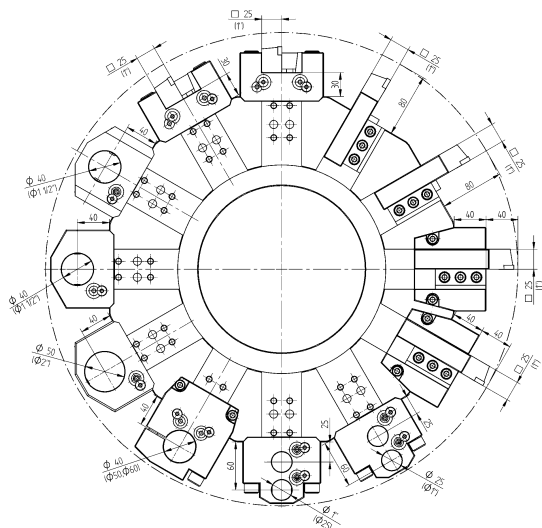
As recognized pioneer and leader in its industry, WTO has always set the benchmarks for driven tool technology with inventions and new developments.

Our products are used worldwide in the metal cutting industry where high precision parts are manufactured with efficiency.

In 1994 WTO became the first manufacturer of driven precision tooling to achieve ISO 9001 certification.


DuraTurn 2030, 2050, 2550	Page	4 - 4
DuraTurn 2050, 2550 MC	Page	5 - 7
DuraTurn 310 eco	Page	8 - 10
DuraTurn 510 eco	Page	11 - 14
NLX 2500	Page	15 - 16
NL/NLX 1500-3000 MC/Y/SMC/SY	Page	17 - 22
NL 1500, 2000 (20 station turret)	Page	23 - 28
NT/NTX 1000, 2000	Page	29 - 33
NT 3100, 3150, 3200	Page	34 - 37
NT 4200 - 5400	Page	38 - 42
NZ/NZX 1500, 2000	Page	43 - 48
NZL/NZX 2500	Page	49 - 52
NZL/NZX 4000	Page	53 - 54
NZL/NZX 6000	Page	55 - 56
Reduction sleeves	Page	57 - 59
Collets	Page	60 - 62


**EC = External coolant supply**  
**IC 80 bar = Internal und external coolant supply**  
 Max. coolant pressure = 80 bar  
**IC 30 bar = Internal und external coolant supply**  
 Max. coolant pressure = 30 bar  
 Only use filtered coolant fluid (max. particle size = 100 µm)  
 Do not run without coolant  
 Do not use for machining abrasive materials such as cast iron, etc.




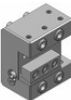
**Toolholder - Standard Program**


**Toolholder - Enhanced Program**


- 


**Wedge block**  
25 (1") 48-B27036
- 

**Wedge shim**  
25 48-B27037  
1" 48-B27038
- 

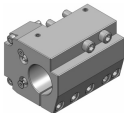
**OD cutting holder**  
25 48-T00074  
1" 48-T00075
- 

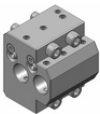
**Face and ID cutting holder**  
25 48-T00068  
1" 48-T00069
- 


**Boring bar holder**  
Ø 40 48-T10036  
Ø 50 48-T10044  
Ø 1 1/2" 48-T10037  
Ø 2" 48-T10045
- 


**Boring bar holder, extended**  
Ø 40 48-T10038  
Ø 1 1/2" 48-T10039
- 

**Combination toolholder**  
Ø 40 48-T13064 IC 80 bar  
Ø 50 48-83292 IC 80 bar  
Ø 1 1/2" 48-T13065 IC 80 bar  
Ø 2" 48-83294 IC 80 bar

- 

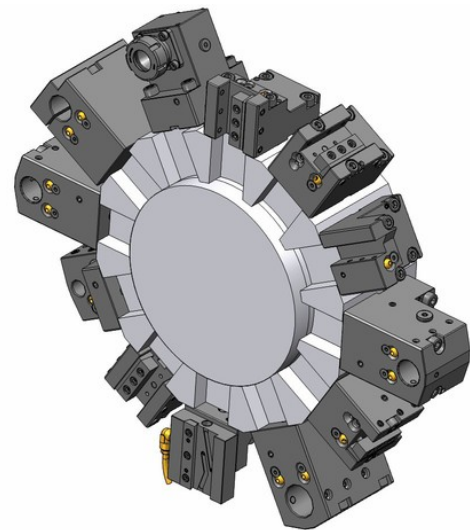
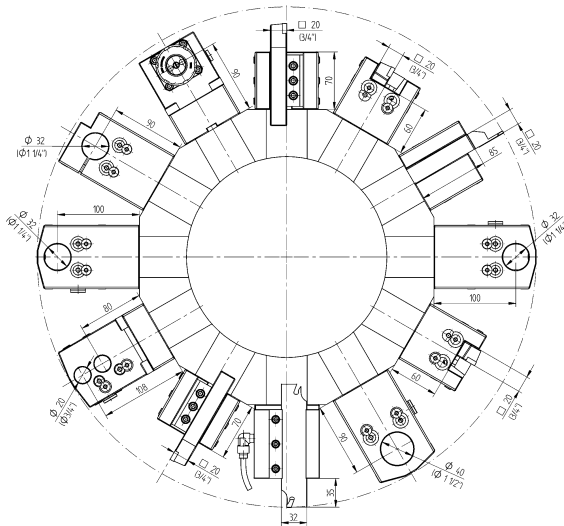
**Boring bar holder, with slot**  
Ø 40 48-88503  
Ø 50 48-88501  
Ø 60 48-85667
- 

**Boring bar holder, double**  
Ø 25 48-83452  
Ø 1" 48-83592
- 

**VDI adapter, left**  
VDI 30 48-83473
- 

**VDI adapter, right**  
VDI 30 48-49950





**Toolholder - Standard Program**

**Toolholder - Enhanced Program**



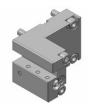
**OD cutting holder, short**

- 20 48-T00224  
T00224
- 25 48-T00267  
T00267
- 3/4" 48-T00234  
T00234
- 1" 48-T00272  
T00272



**Face and ID cutting holder**

- 20 48-T03017  
T03017
- 25 48-T03024  
T03024
- 3/4" 48-T03018  
T03018
- 1" 48-T03025  
T03025



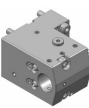
**Cut-off holder, right hand**

- 20 48-T00251  
T00251
- 25 48-T00268  
T00268
- 3/4" 48-T00252  
T00252
- 1" 48-T00359  
T00359



**Boring bar holder**

- Ø 32 48-T10115  
T10115
- Ø 1 1/4" 48-T10119  
T10119



**Combination toolholder**

- Ø 32 48-T13132 IC 80 bar  
T13132
- Ø 1 1/4" 48-T13135 IC 80 bar  
T13135



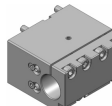
**Cut-off holder, adjustable**

- SH 32 48-77483



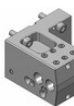
**Combination toolholder**

- Ø 40 48-77999 IC 80 bar
- Ø 1 1/2" 48-80016 IC 80 bar



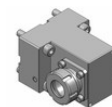
**Boring bar holder, with slot**

- Ø 32 48-82057
- Ø 40 48-82058
- Ø 1 1/4" 48-82059
- Ø 1 1/2" 48-82060



**Boring bar holder, double, universal**

- Ø 20 48-75406
- Ø 3/4" 48-75416



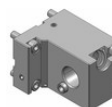
**Collet face drill holder**

- ER 32 48-81031
- 107532000



**VDI adapter, left**

- VDI 30 48-77732



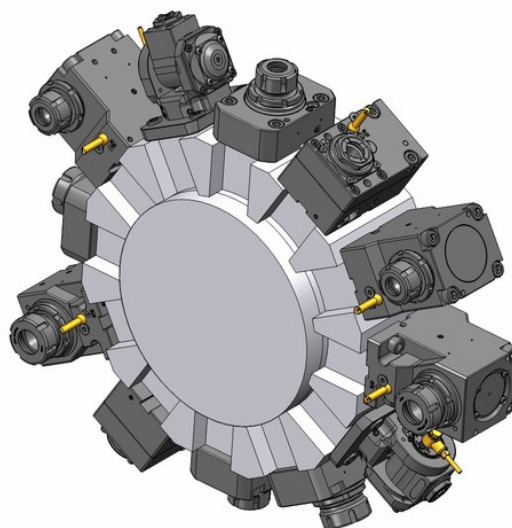
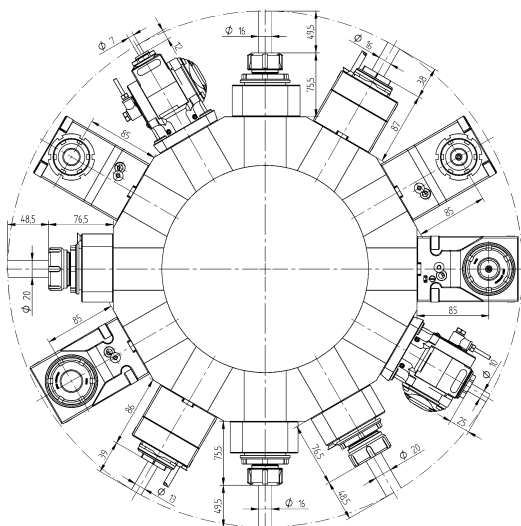
**VDI adapter, right**

- VDI 30 48-78687



**Boring bar holder, blank**

- 48-80506

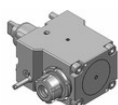


Performance Series - Standard Program



**OD drill/milling unit for ER collets**

<b>ER 25</b>	410116048-40 T32274	1:1	EC
	00675000861		
<b>ER 32</b>	410120272-40 T32475	1:1	EC
	00675000592		



**Face drill/milling unit for ER collets**

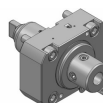
<b>ER 25</b>	410516103-40 T32275	1:1	EC
	00675000861		
<b>ER 32</b>	410520353-40 T32476	1:1	EC
	00675000592		

Performance Series - Enhanced Program



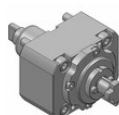
**OD drill/milling unit for ER collets**

<b>ER 25</b>	410116052-40 T32287	1:1	IC 80 bar
	00675000861		
<b>ER 32</b>	410120271-40	1:1	IC 80 bar
	00675000592		



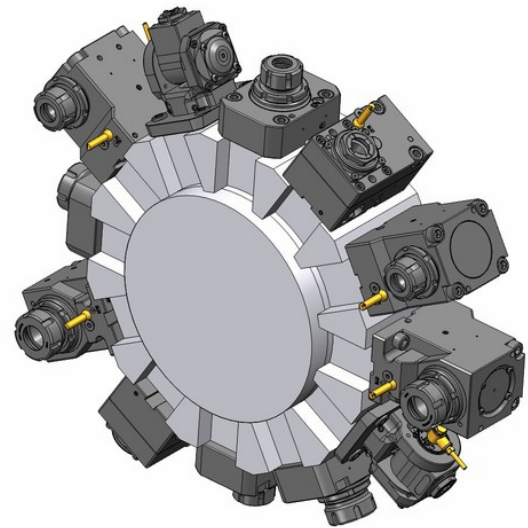
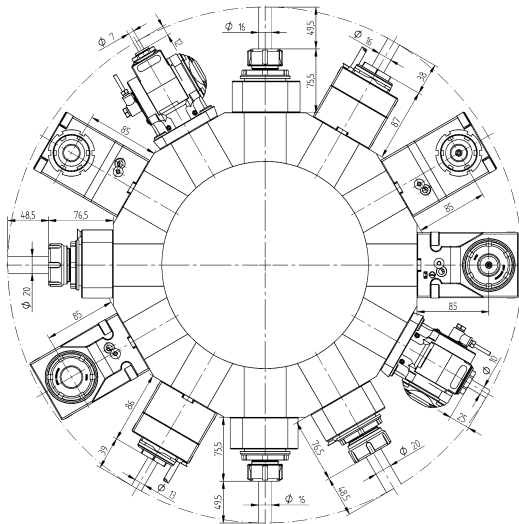
**OD drill/milling unit for Weldon or Whistle Notch shank**

<b>Ø 16</b>	410116049-40	1:1	EC
<b>Ø 16</b>	410116053-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410116054-40	1:1	EC
<b>Ø 5/8"</b>	410116055-40	1:1	IC 80 bar

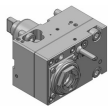


**OD milling unit with combination mill arbor DIN 6358**

<b>Ø 16</b>	410216010-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410222016-40 T32280	1:1	EC
	00675000483		
<b>Ø 3/4"</b>	410219003-40	1:1	EC
	00675000483		

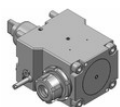


Performance Series - Enhanced Program



**OD drill/milling unit, offset**

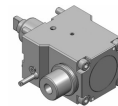
<b>ER 25</b>	410116050-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116057-40	1:1	IC 80 bar
	00675000932		
<b>ER 20</b>	410113060-40	1:2	EC
	00675000939		
<b>ER 20</b>	410113068-40	1:2	IC 80 bar
	00675000939		
<b>ER 16</b>	410110004-40	1:3	EC
	00675000937		
<b>ER 16</b>	410110003-40	1:3	IC 80 bar
	00675000937		
<b>ER 25</b>	410116051-40	2:1	EC
	00675000932		
<b>ER 25</b>	410116058-40	2:1	IC 80 bar
	00675000932		



**Face drill/milling unit for ER collets**

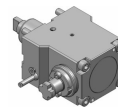
<b>ER 25</b>	410516104-40	1:1	IC 80 bar
	T32288		
	00675000861		
<b>ER 32</b>	410520349-40	1:1	IC 80 bar
	00675000592		
<b>ER 20</b>	410513044-40	1:2	EC
	00675000885		
<b>ER 20</b>	410513045-40	1:2	IC 80 bar
	00675000885		
<b>ER 16</b>	410810003-40	1:3	EC
	00675000841		
<b>ER 16</b>	410810004-40	1:3	IC 80 bar
	00675000841		
<b>ER 32</b>	410520342-40	2:1	EC
	00675000592		
<b>ER 32</b>	410520341-40	2:1	IC 80 bar
	00675000592		

Performance Series - Enhanced Program



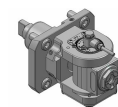
**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516110-40	1:1	EC
<b>Ø 16</b>	410516111-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410516124-40	1:1	EC
<b>Ø 5/8"</b>	410516125-40	1:1	IC 80 bar



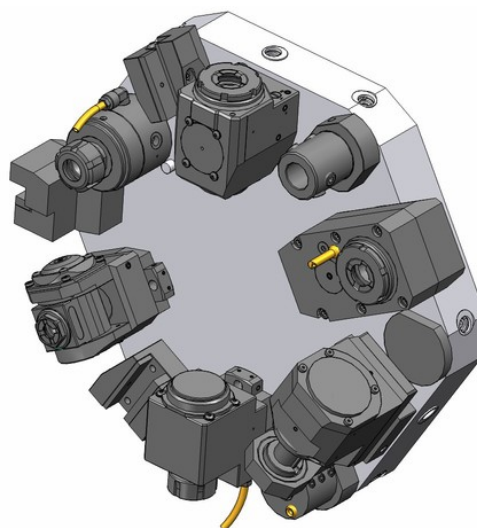
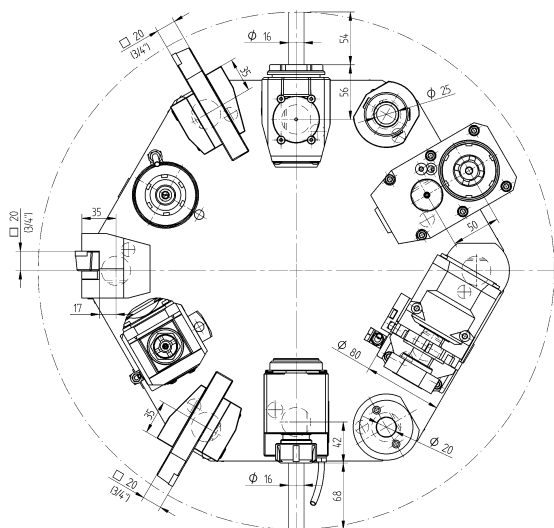
**Face milling unit with combination mill arbor DIN 6358**

<b>Ø 16</b>	410616009-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410622022-40	1:1	EC
	00675000483		
<b>Ø 22</b>	410622018-40	2:1	EC
	T32292		
	00675000483		
<b>Ø 3/4"</b>	410619002-40	1:1	EC
	00675000483		

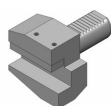


**Adjustable angle drill/milling unit**

<b>ER 16</b>	411010008-40	1:1	EC
	00675000913		
<b>ER 16</b>	411010009-40	1:1	IC 80 bar
	00675000913		
<b>ER 11</b>	411007001-40	1:2	EC
	00675000914		
<b>ER 11</b>	411007002-40	1:2	IC 80 bar
	00675000914		

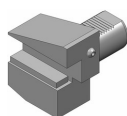


Toolholder



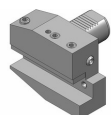
**Radial square toolholder, right hand, short, Form B1**

- 20 48-B1-30x20
- 20 48-B1-30x20x60
- 3/4" 48-B1-30x075



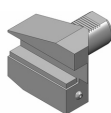
**Radial square toolholder, right hand inverted, short, Form B3**

- 20 48-B3-30x20
- 20 48-B3-30x20x60
- 3/4" 48-B3-30x075



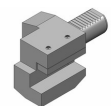
**Radial square toolholder, right hand, long, Form B5**

- 20 48-B5-30x20
- 20 48-B5-30x20x60
- 3/4" 48-B5-30x075



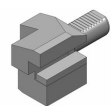
**Radial square toolholder, right hand inverted, long, Form B7**

- 20 48-B7-30x20
- 20 48-B7-30x20x60
- 3/4" 48-B7-30x075



**Axial square toolholder, right hand, Form C1**

- 20 48-C1-30x20
- 3/4" 48-C1-30x075



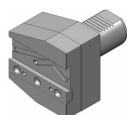
**Axial square toolholder, right hand inverted, Form C3**

- 20 48-C3-30x20
- 3/4" 48-C3-30x075



**Cut-off holder, adjustable height, right hand SH 26**

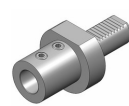
- 48-AR-30x26



**Cut-off holder, adjustable height, right hand inverted**

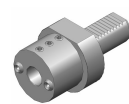
- SH 26 48-ARU-30x26

Toolholder



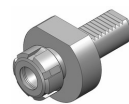
**Holder for indexable insert drills, internal coolant supply, Form E1**

- Ø 16 48-E1-30x16
- Ø 20 48-E1-30x20
- Ø 25 48-E1-30x25
- Ø 32 48-E1-30x32
- Ø 5/8" 48-E1-30x063
- Ø 3/4" 48-E1-30x075
- Ø 1" 48-E1-30x100
- Ø 1 1/4" 48-E1-30x125
- Ø 1 1/2" 48-E1-30x150



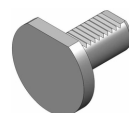
**Boring bar holder, internal coolant supply, Form E2**

- Ø 8 48-E2-30x8
- Ø 10 48-E2-30x10
- Ø 12 48-E2-30x12
- Ø 16 48-E2-30x16
- Ø 20 48-E2-30x20
- Ø 25 48-E2-30x25
- Ø 30 48-E2-30x30
- Ø 32 48-E2-30x32
- Ø 5/16" 48-E2-30x032
- Ø 3/8" 48-E2-30x038
- Ø 1/2" 48-E2-30x050
- Ø 5/8" 48-E2-30x063
- Ø 3/4" 48-E2-30x075
- Ø 1" 48-E2-30x100
- Ø 1 1/4" 48-E2-30x125



**ER collet chuck holder, Form E4**

- ER 25 48-E4-30x25  
107525000
- ER 32 48-E4-30x32  
107532000
- ER 40 48-E4-30x40  
107540000

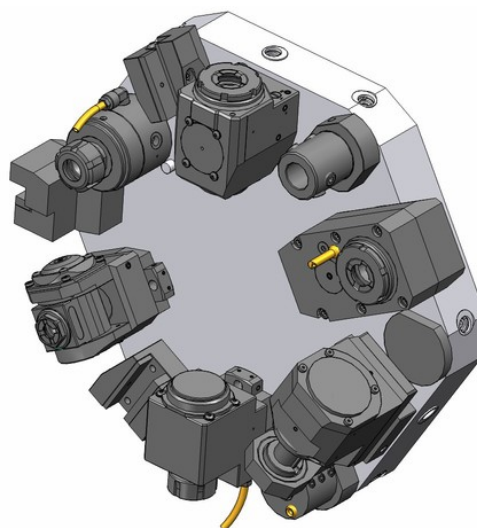
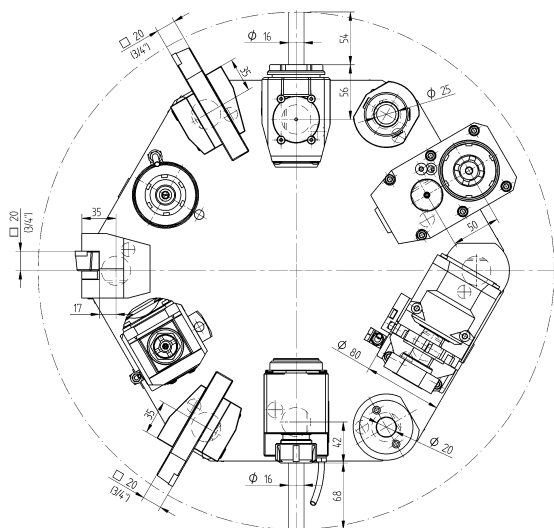


**Plug, plastic, Form Z2**

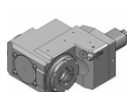
- Plastic 48-Z2-30-P







Performance Series - Enhanced Program



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

- ER 25    410516111-30    1:1    IC 80 bar  
 00675000801
- ER 25    410516029-30    2:1    EC  
 00675000801
- ER 25    410516039-30    2:1    IC 80 bar  
 00675000801



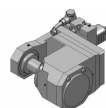
**Right angle back set drill/milling unit**

- ER 25    410516005-30    1:1    EC  
 00675000801



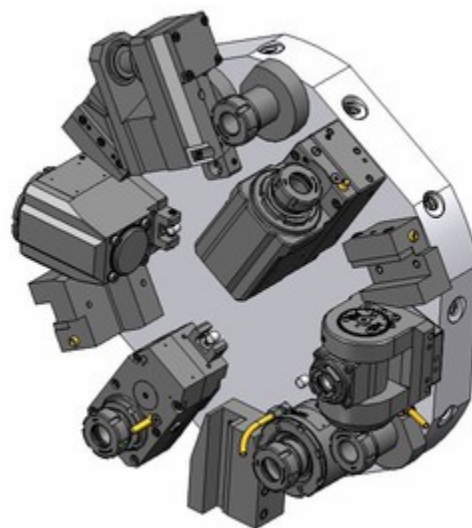
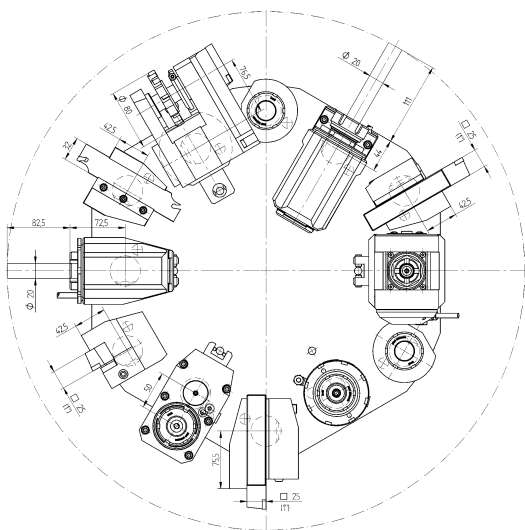
**Adjustable angle drill/milling unit**

- ER 16    411010017-30    1:1    EC  
 00675000902
- ER 16    411010018-30    1:1    IC 80 bar  
 00675000902
- ER 11    411007020-30    1:2    EC  
 00675000914
- ER 11    411007021-30    1:2    IC 80 bar  
 00675000914

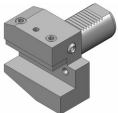


**Slitting saw unit**

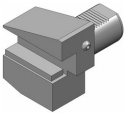
- Type 14/2    410900016-30    2,62:1    EC  
 00675000460
- 160016142 Ø 16
- 160022142 Ø 22
- 160027142 Ø 27
- 160015142 Ø 5/8"
- 160019142 Ø 3/4"
- 160023142 Ø 7/8"
- 160025142 Ø 1"



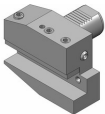
Toolholder

- 

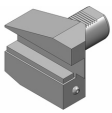
**Radial square toolholder, right hand, short, Form B1**

25	48-B1-40x25
1"	48-B1-40x100
- 

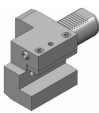
**Radial square toolholder, right hand inverted, short, Form B3**

25	48-B3-40x25
1"	48-B3-40x100
- 

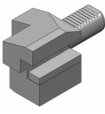
**Radial square toolholder, right hand, long, Form B5**

25	48-B5-40x25
1"	48-B5-40x100
- 


**Radial square toolholder, right hand inverted, long, Form B7**

25	48-B7-40x25
1"	48-B7-40x100
- 

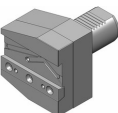
**Axial square toolholder, right hand, Form C1**

25	48-C1-40x25
1"	48-C1-40x100
- 

**Axial square toolholder, right hand inverted, Form C3**

25	48-C3-40-25
1"	48-C3-40x100
- 


**Cut-off holder, adjustable height, right hand**

SH 26	48-AR-40x26
SH 32	48-AR-40x32
- 

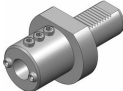
**Cut-off holder, adjustable height, right hand inverted**

SH 26	48-ARU-40x26
SH 32	48-ARU-40x32

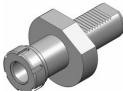
Toolholder

- 




**Holder for indexable insert drills, internal coolant supply, Form E1**

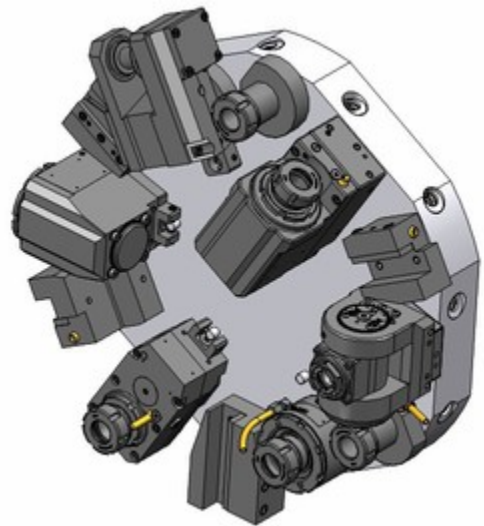
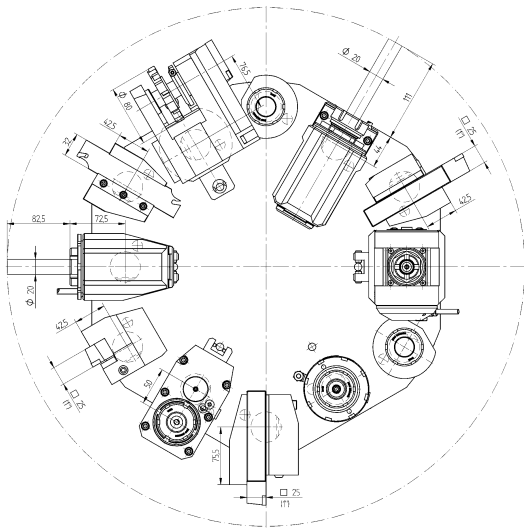
Ø 16	48-E1-40x16
Ø 20	48-E1-40x20
Ø 25	48-E1-40x25
Ø 32	48-E1-40x32
Ø 40	48-E1-40x40
Ø 5/8"	48-E1-40x063
Ø 3/4"	48-E1-40x075
Ø 1"	48-E1-40x100
Ø 1 1/4"	48-E1-40x125
Ø 1 1/2"	48-E1-40x150
- 

**Boring bar holder, internal coolant supply, Form E2**

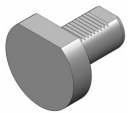
Ø 8	48-E2-40x8
Ø 10	48-E2-40x10
Ø 12	48-E2-40x12
Ø 16	48-E2-40x16
Ø 20	48-E2-40x20
Ø 25	48-E2-40x25
Ø 30	48-E2-40x30
Ø 32	48-E2-40x32
Ø 40	48-E2-40x40
Ø 5/16"	48-E2-40x031
Ø 3/8"	48-E2-40x038
Ø 1/2"	48-E2-40x050
Ø 5/8"	48-E2-40x063
Ø 3/4"	48-E2-40x075
Ø 1"	48-E2-40x100
Ø 1 1/4"	48-E2-40x125
Ø 1 1/2"	48-E2-40x150
Ø 1 3/4"	48-E2-40x175
- 

**ER collet chuck holder, Form E4**

ER 25	48-E4-40x25		107525000
ER 32	48-E4-40x32		107532000
ER 40	48-E4-40x40		107540000




Toolholder

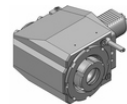


**Plug, plastic, Form Z2**  
 Plastic 48-Z2-40-P

Performance Series - Standard Program

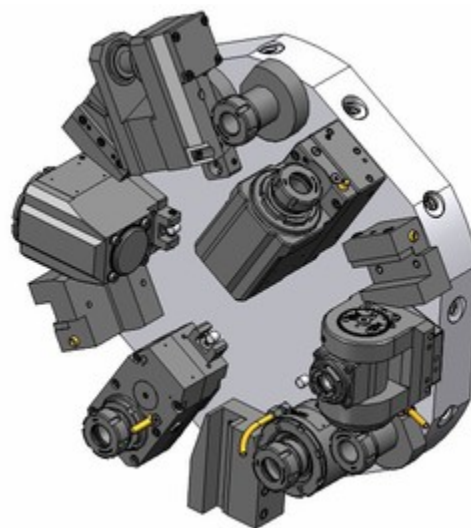
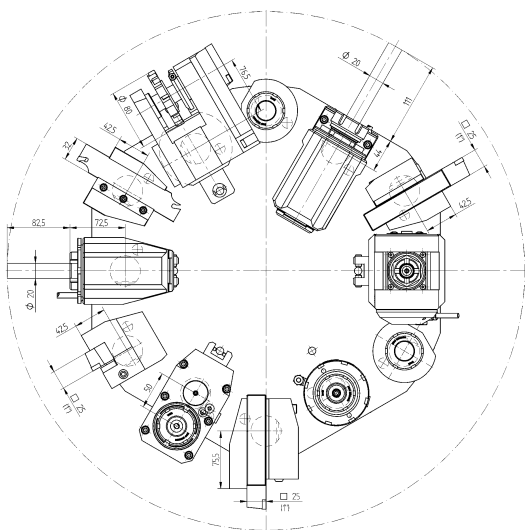


**Straight drill/milling unit**  
 ER 32 410120119-40 1:1 EC  
 00675000515



**Right angle drill/milling unit**  
 ER 32 410520088-40 1:1 EC  
 00675000490



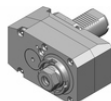


Performance Series - Enhanced Program



**Straight drill/milling unit**

**ER 32** 410120120-40 1:1 IC 30 bar  
 00675000515



**Straight offset drill/milling unit**

**ER 32** 410120152-40 1:1 EC  
 00675000592

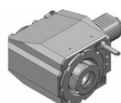
**ER 32** 410120159-40 1:1 IC 80 bar  
 00675000592

**ER 25** 410116087-40 1:2 EC  
 00675000720

**ER 25** 410116088-40 1:2 IC 80 bar  
 00675000720

**ER 32** 410120140-40 2:1 EC  
 00675000592

**ER 32** 410120141-40 2:1 IC 80 bar  
 00675000592



**Right angle drill/milling unit**

**ER 32** 410520089-40 1:1 IC 80 bar  
 00675000490

**ER 25** 410516084-40 1:2 EC  
 00675000801

**ER 25** 410516085-40 1:2 IC 80 bar  
 00675000801

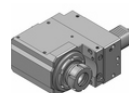
**ER 32** 410520118-40 2:1 EC  
 00675000490

**ER 32** 410520128-40 2:1 IC 80 bar  
 00675000490

**ER 40** 410526013-40 2:1 EC  
 00675000491

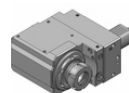
**ER 40** 410526016-40 2:1 IC 80 bar  
 00675000491

Performance Series - Enhanced Program



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

**ER 32** 410520002-40 1:1 EC  
 00675000743



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

**ER 32** 410520154-40 1:1 IC 80 bar  
 00675000743

**ER 40** 410526021-40 1:1 EC  
 00675000744

**ER 40** 410526027-40 1:1 IC 80 bar  
 00675000744

**ER 32** 410520003-40 2:1 EC  
 00675000743

**ER 32** 410520149-40 2:1 IC 80 bar  
 00675000743

**ER 40** 410526024-40 2:1 EC  
 00675000744

**ER 40** 410526025-40 2:1 IC 80 bar  
 00675000744



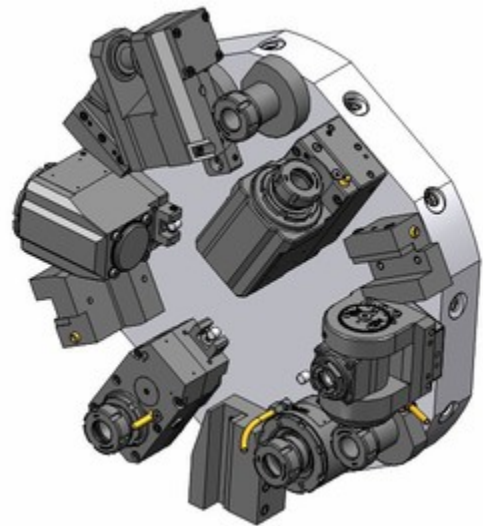
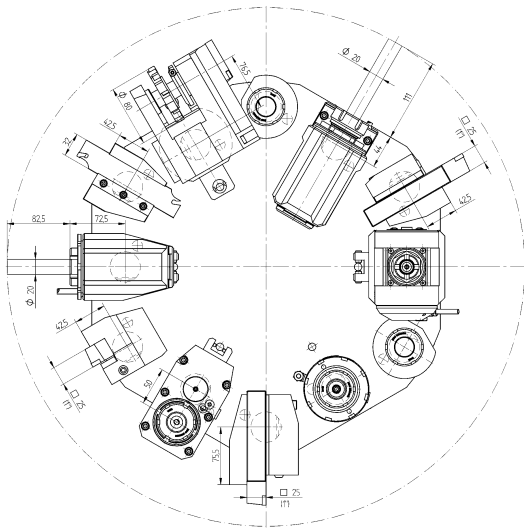
**Adjustable angle drill/milling unit**

**ER 25** 411016000-40 1:1 EC  
 00675000934

**ER 25** 411016029-40 1:1 IC 80 bar  
 00675000934

**ER 16** 411010040-40 1:2 EC  
 00675000936

**ER 16** 411010041-40 1:2 IC 80 bar  
 00675000936





Performance Series - Enhanced Program





**Offset slitting saw unit**


Type 14/2 411500008-40 2,73:1 EC


 00675000460


 160016142 Ø 16


 160022142 Ø 22

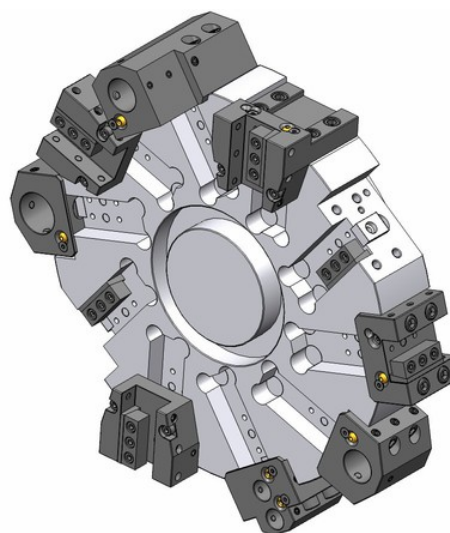
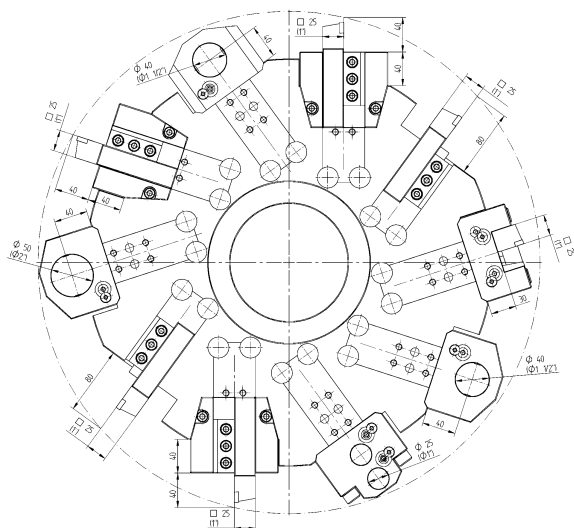
 160027142 Ø 27

 160015142 Ø 5/8"

 160023142 Ø 7/8"

 160019142 Ø 3/4"

 160025142 Ø 1"



Toolholder - Standard Program

Toolholder - Standard Program



**Wedge block**  
25 (1") 48-B27036



**Wedge shim**  
25 48-B27037  
1" 48-B27038



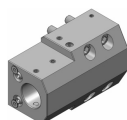
**OD cutting holder**  
25 48-T00074  
1" 48-T00075



**Face and ID cutting holder**  
25 48-T00068  
1" 48-T00069



**Boring bar holder**  
Ø 40 48-T10036  
Ø 50 48-T10044  
Ø 1 1/2" 48-T10037  
Ø 2" 48-T10045



**Boring bar holder, extended**  
Ø 40 48-T10038  
Ø 1 1/2" 48-T10039



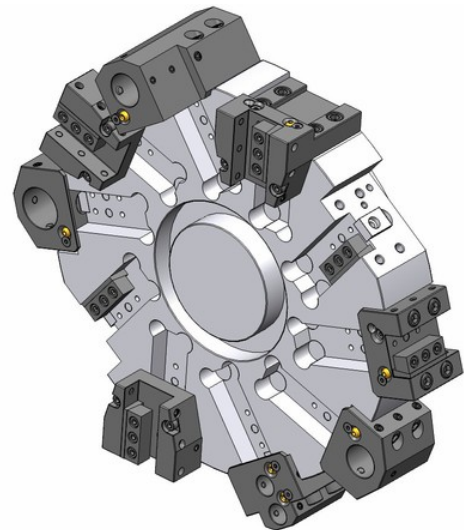
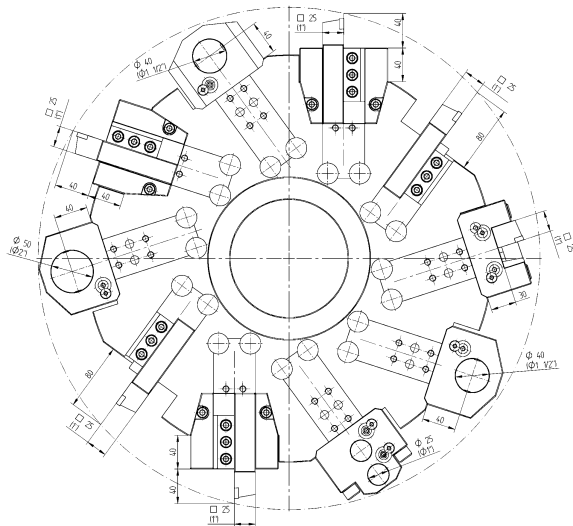
**Combination toolholder**  
Ø 40 48-T13064 IC 80 bar  
Ø 50 48-83292 IC 80 bar  
Ø 1 1/2" 48-T13065 IC 80 bar  
Ø 2" 48-83294 IC 80 bar



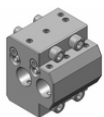
**Center drill holder**  
48-T17002



**Work stopper**  
48-T23006



Toolholder - Enhanced Program



**Boring bar holder, double**

Ø 25 48-83452

Ø 1" 48-83592



**VDI adapter, left**

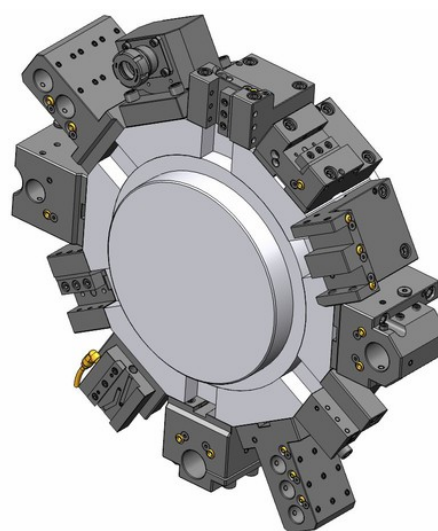
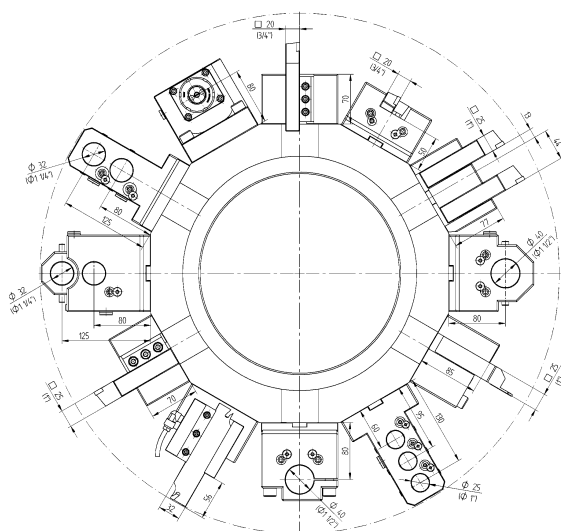
VDI 30 48-83473



**VDI adapter, right**

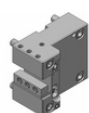
VDI 30 48-49950



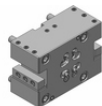


Toolholder - Standard Program

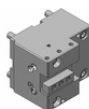
Toolholder - Standard Program



<b>OD cutting holder</b>	
<b>20</b>	48-T00187 T00187
<b>25</b>	48-T00186 T00186
<b>3/4"</b>	48-T00203 T00203
<b>1"</b>	48-T00202 T00202



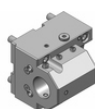
<b>OD cutting holder, both sides</b>	
<b>20</b>	48-T00185 T00185
<b>25</b>	48-T00184 T00184
<b>3/4"</b>	48-T00201 T00201
<b>1"</b>	48-T00199 T00199



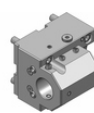
<b>Face and ID cutting holder</b>	
<b>20</b>	48-T03006 T03006
<b>25</b>	48-T03005 T03005
<b>3/4"</b>	48-T03014 T03014
<b>1"</b>	48-T03013 T03013



<b>Cut-off holder, right hand</b>	
<b>25</b>	48-T00197 T00197
<b>1"</b>	48-T00198 T00198



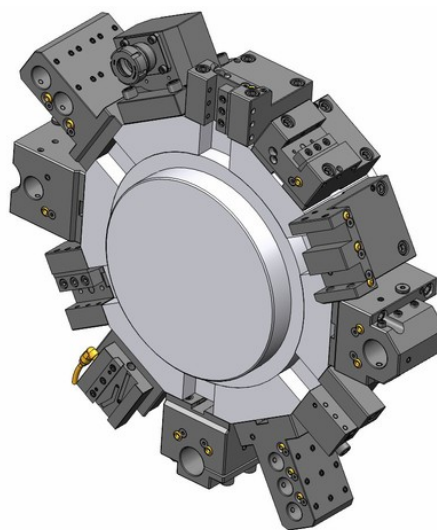
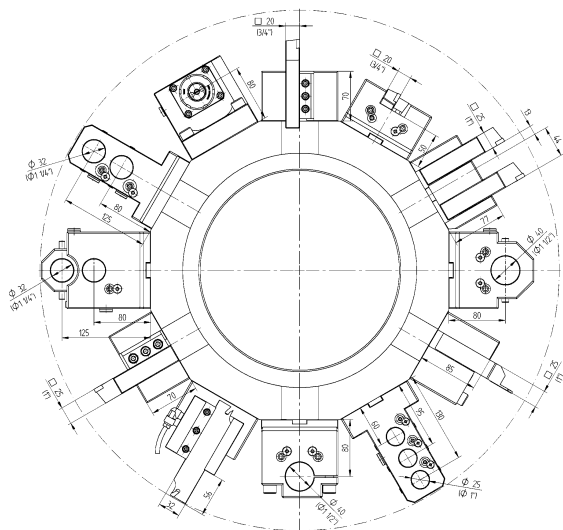
<b>Boring bar holder</b>	
<b>Ø 40</b>	48-T10097 T10097
<b>Ø 50</b>	48-T10098 T10098
<b>Ø 1 1/2"</b>	48-T10101 T10101
<b>Ø 2"</b>	48-T10102 T10102



<b>Combination toolholder</b>		
<b>Ø 40</b>	48-T13128 T13128	IC 80 bar
<b>Ø 50</b>	48-T13139 T13139	IC 80 bar
<b>Ø 1 1/2"</b>	48-T13130 T13130	IC 80 bar
<b>Ø 2"</b>	48-T13140 T13140	IC 80 bar




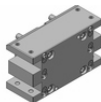
<b>Boring bar holder, both sides</b>	
<b>Ø 32</b>	48-T10096 T10096
<b>Ø 1 1/4"</b>	48-T10100 T10100
<b>Ø 40</b>	48-87747
<b>Ø 1 1/2"</b>	48-89192





Toolholder - Enhanced Program

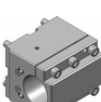
Toolholder - Enhanced Program

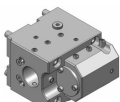
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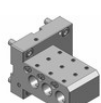
**OD cutting holder, double, Y axis**  
 25 (1") 48-71865
- 

**OD cutting holder, both sides, double, Y axis**  
 25 (1") 48-71863
- 

**Face and ID cutting holder, both sides**  
 25 48-78995  
 1" 48-78996
- 

**Cut-off holder, adjustable**  
 SH 32 48-70893
- 

**Boring bar holder, with slot**  
 Ø 40 48-T10136  
 T10136  
 Ø 50 48-T10137  
 T10137  
 Ø 60 48-70811  
 Ø 1 1/2" 48-T10143  
 T10143  
 Ø 2" 48-T10142  
 T10142
- 

**Combination toolholder, both sides**  
 Ø 40 48-89027 IC 80 bar  
 Ø 1 1/2" 48-89195 IC 80 bar
- 

**Boring bar holder, triple, universal**  
 Ø 25 48-T10104  
 T10104  
 Ø 1" 48-T10107  
 T10107

- 

**Boring bar holder, double, both sides**  
 Ø 32 48-71889  
 Ø 1 1/4" 48-72951
- 

**Boring bar holder, triple, both sides**  
 Ø 25 48-71875  
 Ø 1" 48-72949
- 

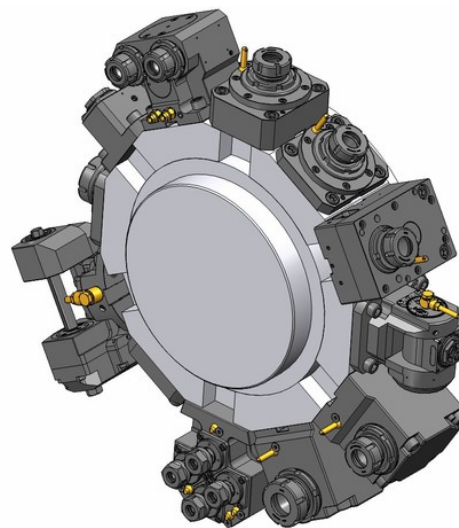
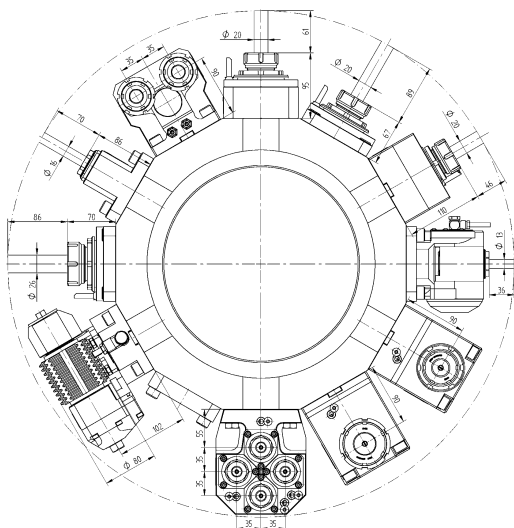
**Collet face drill holder**  
 ER 32 48-81071  
 107532000  
 ER 40 48-81073  
 107540000
- 

**Collet face drill holder, both sides**  
 ER 32 48-81072  
 107532000  
 ER 40 48-81074  
 107540000
- 

**VDI adapter, left**  
 VDI 30 48-77127  
 VDI 40 48-72984
- 

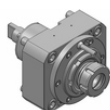
**VDI adapter, right**  
 VDI 30 48-74796  
 VDI 40 48-77955
- 

**Boring bar holder, blank**  
 48-81080

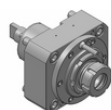


Performance Series - Standard Program

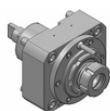
Performance Series - Enhanced Program



<b>OD drill/milling unit for ER collets</b>				
<b>ER 32</b>	410120036-60	1:1	EC	
	T32206, T32249			
	00675000780			
<b>ER 40</b>	410126011-60	1:1	EC	
	T32213			
	00675000781			



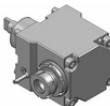
<b>OD drill/milling unit for ER collets</b>				
<b>ER 32</b>	410120037-60	1:1	IC 80 bar	
	T32232			
	00675000780			
<b>ER 40</b>	410126012-60	1:1	IC 80 bar	
	T32234			
	00675000781			



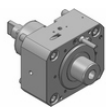
<b>OD drill/milling unit for ER collets (10000 RPM)</b>				
<b>ER 32</b>	410120058-60	1:1	EC	
	00675000780			



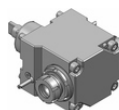
<b>OD drill unit for ER collets, short</b>				
<b>ER 32</b>	410120038-60	1:1	EC	
	00675000780			
<b>ER 40</b>	410126014-60	1:1	EC	
	00675000781			



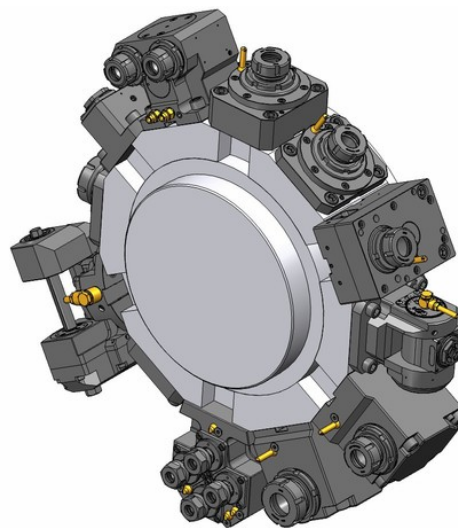
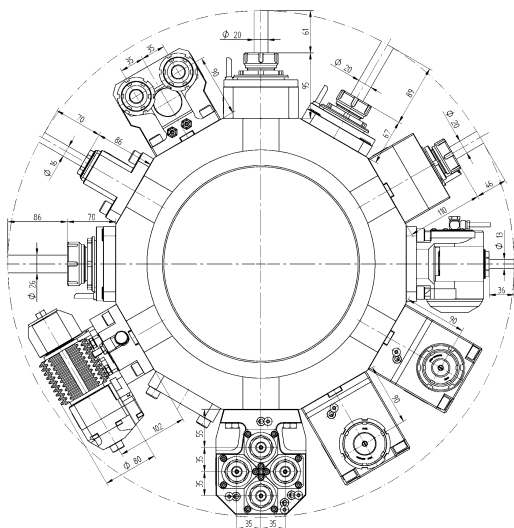
<b>Face drill/milling unit for ER collets</b>				
<b>ER 32</b>	410520025-60	1:1	EC	
	T32207, T32256			
	00675000780			
<b>ER 40</b>	410526014-60	1:1	EC	
	T32214			
	00675000781			



<b>OD drill/milling unit for Weldon or Whistle Notch shank</b>				
<b>Ø 16</b>	410116022-60	1:1	EC	
<b>Ø 16</b>	410116023-60	1:1	IC 80 bar	
<b>Ø 20</b>	410120043-60	1:1	EC	
	T32227			
<b>Ø 20</b>	410120044-60	1:1	IC 80 bar	
<b>Ø 25</b>	410125002-60	1:1	EC	
	T32221			
<b>Ø 25</b>	410125001-60	1:1	IC 80 bar	
<b>Ø 3/4"</b>	410119000-60	1:1	EC	
<b>Ø 3/4"</b>	410119001-60	1:1	IC 80 bar	
<b>Ø 1"</b>	410125003-60	1:1	EC	
	T32223			
<b>Ø 1"</b>	410125004-60	1:1	IC 80 bar	

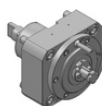


<b>Face drill/milling unit for ER collets, both sides</b>				
<b>ER 32</b>	410520027-60	1:1	EC	
	T32216			
	00675000780			
<b>ER 40</b>	410526016-60	1:1	EC	
	T32248			
	00675000781			



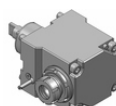
Performance Series - Enhanced Program

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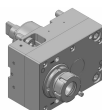
**OD milling unit with combination mill arbor  
DIN 6358**

<b>Ø 16</b>	410216000-60	1:1	EC
	00675000854		
<b>Ø 22</b>	410222007-60	1:1	EC
	T32268		
	00675000483		
<b>Ø 27</b>	410227008-60	1:1	EC
	00675000245		
<b>Ø 3/4"</b>	410219000-60	1:1	EC
	00675000483		
<b>Ø 1"</b>	410225000-60	1:1	EC
	T32217		
	00675000483		



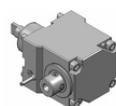
**Face drill/milling unit for ER collets**

<b>ER 32</b>	410520029-60	1:1	IC 80 bar
	T32233		
	00675000780		
<b>ER 40</b>	410526015-60	1:1	IC 80 bar
	T32235		
	00675000781		
<b>ER 25</b>	410516000-60	1:2	EC
	00675000801		
<b>ER 25</b>	410516001-60	1:2	IC 80 bar
	00675000801		
<b>ER 40</b>	410526017-60	2:1	EC
	00675000781		
<b>ER 40</b>	410526018-60	2:1	IC 80 bar
	00675000781		



**OD drill/milling unit, offset**

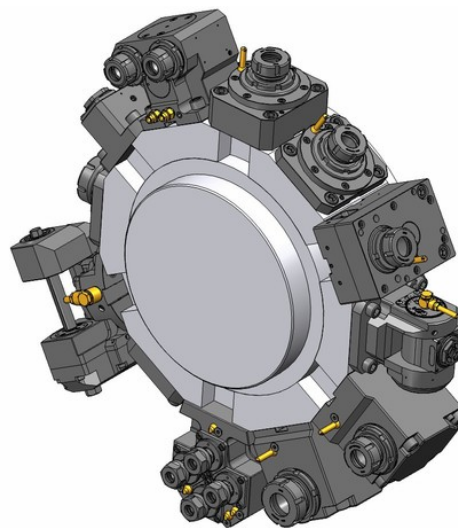
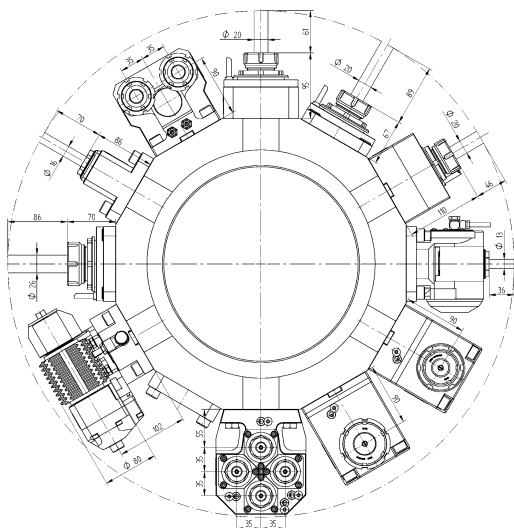
<b>ER 32</b>	410120045-60	1:1	EC
	00675000782		
<b>ER 32</b>	410120047-60	1:1	IC 80 bar
	00675000782		
<b>ER 25</b>	410116020-60	1:2	EC
	00675000861		
<b>ER 25</b>	410116021-60	1:2	IC 80 bar
	00675000861		
<b>ER 32</b>	410120041-60	2:1	EC
	00675000782		
<b>ER 32</b>	410120040-60	2:1	IC 80 bar
	00675000782		



**Face drill/milling unit with Weldon or Whistle Notch shank**

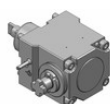
<b>Ø 16</b>	410516005-60	1:1	EC
<b>Ø 16</b>	410516006-60	1:1	IC 80 bar
<b>Ø 20</b>	410520011-60	1:1	EC
	T32228		
<b>Ø 20</b>	410520012-60	1:1	IC 80 bar
<b>Ø 25</b>	410525004-60	1:1	EC
	T32222		
<b>Ø 25</b>	410525005-60	1:1	IC 80 bar
<b>Ø 3/4"</b>	410519000-60	1:1	EC
<b>Ø 3/4"</b>	410519001-60	1:1	IC 80 bar
<b>Ø 1"</b>	410525006-60	1:1	EC
	T32224		
<b>Ø 1"</b>	410525007-60	1:1	IC 80 bar





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**Face milling unit with combination mill arbor  
DIN 6358**

<b>Ø 22</b>	410622000-60 T32269	2:1	EC
	00675000483		
<b>Ø 27</b>	410627000-60	2:1	EC
	00675000245		
<b>Ø 1"</b>	410625000-60 T32226	2:1	EC
	00675000483		



**Adjustable angle drill/milling unit**

<b>ER 20</b>	411013009-60 T32474	1:1	EC
	00675000928		
<b>ER 20</b>	411013010-60	1:1	IC 80 bar
	00675000928		
<b>ER 16</b>	411010001-60	1:2	EC
	00675000936		
<b>ER 16</b>	411010002-60	1:2	IC 80 bar
	00675000936		



**Slitting saw unit**

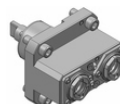
<b>Type 19/2</b>	411500006-60	3:1	EC
	00675000855		
	160022192 Ø 22		
	160027192 Ø 27		
	160032192 Ø 32		
	160040192 Ø 40		
	160023192 Ø 7/8"		
	160025192 Ø 1"		
	160031192 Ø 1 1/4"		
	160038192 Ø 1 1/2"		



**Gear hobbing unit**

<b>Type 16/1</b>	411500007-60	1:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		

<b>Type 16/1</b>	411500008-60	2:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		



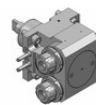
**OD drill/milling unit, both sides**

<b>ER 25</b>	413002001-60	1:1	EC
	00675000907		



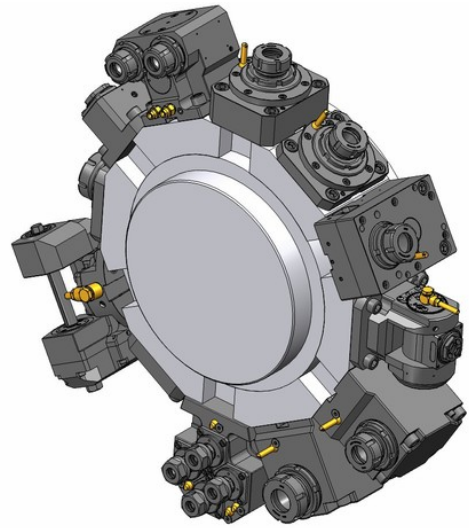
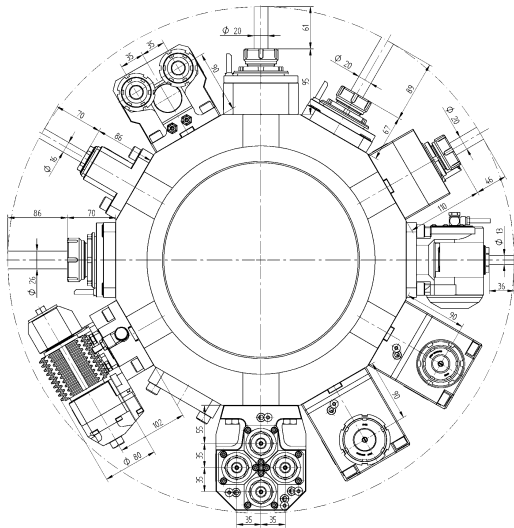
**OD drill/milling unit, double, Y axis**

<b>ER 25</b>	413002000-60	1:1	EC
	00675000907		



**2-spindle - Face drill/milling unit, Y axis**

<b>ER 25</b>	413502000-60	1:1	EC
	00675000915		
<b>ER 25</b>	413502002-60	1:1	IC 80 bar
	00675000915		

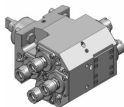


Performance Series - Enhanced Program



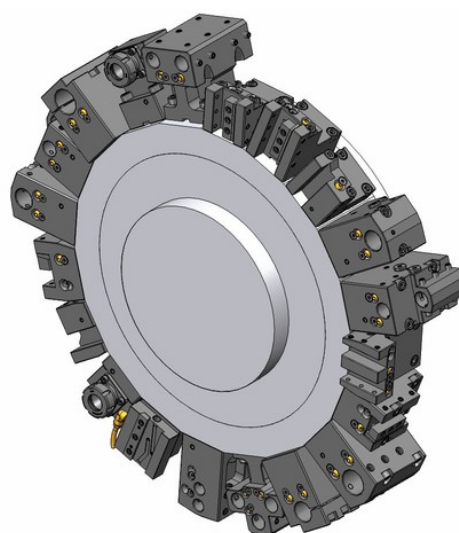
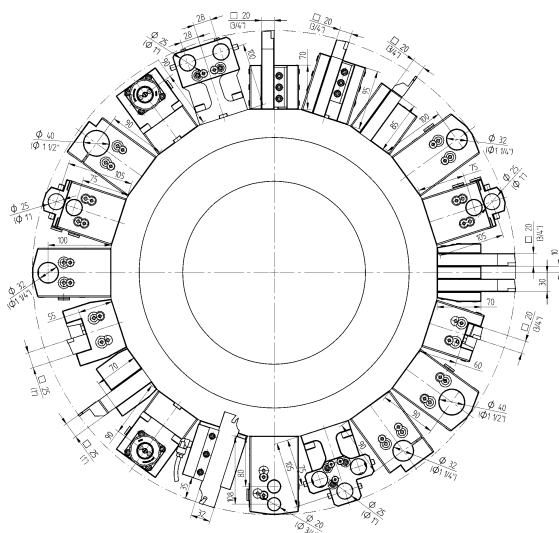
**2-spindle - Face drill/milling unit, both sides, Y axis**

ER 25    413502001-60    1:1    EC  
 ⚒ 00675000915



**4-spindle - Face drill/milling unit, both sides**

ER 20    413504000-60    1:1    EC  
 ⚒ 00675000911



Toolholder - Standard Program

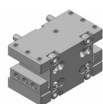
Toolholder - Standard Program



- OD cutting holder, short**
- 20 48-T00224  
T00224
  - 25 48-T00267  
T00267
  - 3/4" 48-T00234  
T00234
  - 1" 48-T00272  
T00272



- OD cutting holder, long**
- 20 48-T00225  
T00225
  - 3/4" 48-T00235  
T00235



- OD cutting holder, both sides, short**
- 20 48-T00228  
T00228
  - 3/4" 48-T00250  
T00250



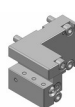
- OD cutting holder, both sides, short**
- 25 48-86523
  - 1" 48-86524



- OD cutting holder, both sides, long**
- 20 48-T00226  
T00226
  - 3/4" 48-T00249  
T00249



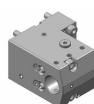
- Face and ID cutting holder**
- 20 48-T03017  
T03017
  - 25 48-T03024  
T03024
  - 3/4" 48-T03018  
T03018
  - 1" 48-T03025  
T03025



- Cut-off holder, right hand**
- 20 48-T00251  
T00251
  - 25 48-T00268  
T00268
  - 3/4" 48-T00252  
T00252
  - 1" 48-T00359  
T00359



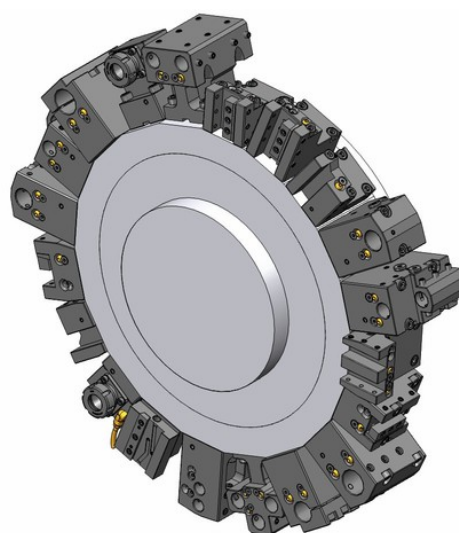
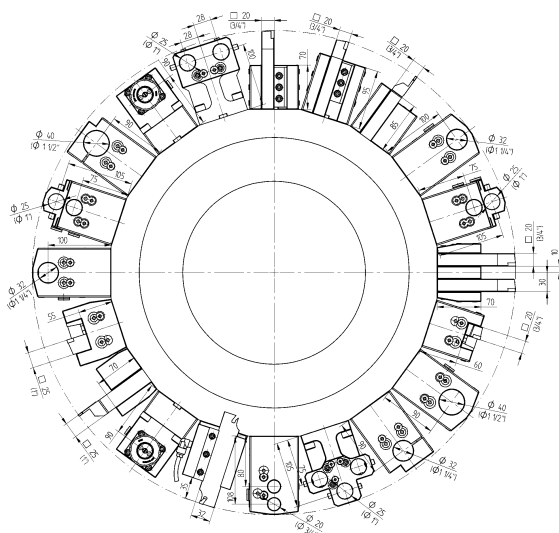
- Boring bar holder**
- Ø 32 48-T10115  
T10115
  - Ø 1 1/4" 48-T10119  
T10119




- Combination toolholder**
- Ø 32 48-T13132 IC 80 bar  
T13132
  - Ø 1 1/4" 48-T13135 IC 80 bar  
T13135




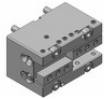
- Boring bar holder, both sides**
- Ø 25 48-T10117  
T10117
  - Ø 1" 48-T10139  
T10139





Toolholder - Enhanced Program


- 


**OD cutting holder, double, Y axis**  
 20(3/4") 48-77726
- 


**OD cutting holder, both sides, double, Y axis**  
 20(3/4") 48-77727
- 

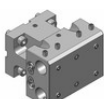
**Face and ID cutting holder, both sides**  
 20 48-79608  
 3/4" 48-79609
- 

**Cut-off holder, adjustable**  
 SH 32 48-77483
- 

**Combination toolholder**  
 Ø 40 48-77999 IC 80 bar  
 Ø 1 1/2" 48-80016 IC 80 bar
- 

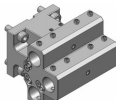
**Boring bar holder, with slot**  
 Ø 32 48-82057  
 Ø 40 48-82058  
 Ø 1 1/4" 48-82059  
 Ø 1 1/2" 48-82060
- 

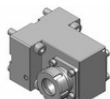
**Boring bar holder, double, universal**  
 Ø 20 48-75406  
 Ø 3/4" 48-75416
- 


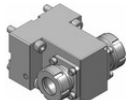
**Boring bar holder, double, both sides**  
 Ø 20 48-75404  
 Ø 3/4" 48-75417
- 


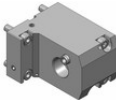
**Combination toolholder, both sides, double, Y axis**  
 Ø 25 48-80788 IC 80 bar  
 Ø 1" 48-81033 IC 80 bar

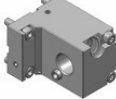
Toolholder - Enhanced Program


- 

**Combination toolholder, both sides, triple, Y axis**  
 Ø 25 48-85908 IC 80 bar  
 Ø 1" 48-85985 IC 80 bar
- 

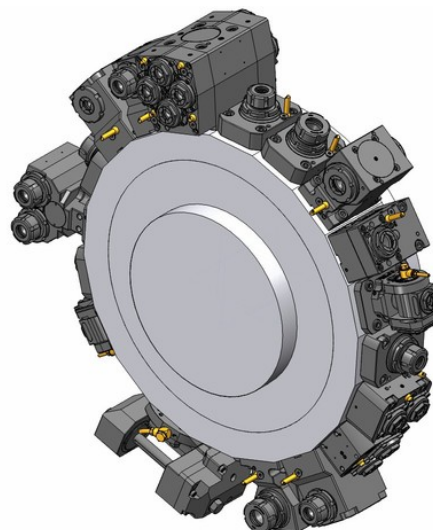
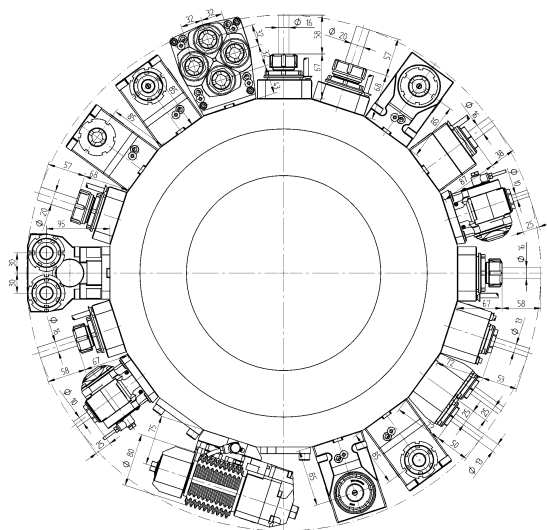
**Collet face drill holder**  
 ER 32 48-81031  
 107532000
- 

**Collet face drill holder, both sides**  
 ER 32 48-80509  
 107532000
- 

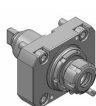
**VDI adapter, left**  
 VDI 30 48-77732
- 

**VDI adapter, right**  
 VDI 30 48-78687
- 

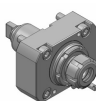
**Boring bar holder, blank**  
 48-80506



Performance Series - Standard Program



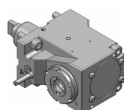
<b>OD drill/milling unit for ER collets</b>				
<b>ER 25</b>	410116048-40	1:1	EC	
	T32274			
	00675000861			
<b>ER 32</b>	410120272-40	1:1	EC	
	T32475			
	00675000592			



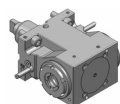
<b>OD drill/milling unit for ER collets (12000 RPM)</b>				
<b>ER 25</b>	410116056-40	1:1	EC	
	00675000861			



<b>Face drill/milling unit for ER collets</b>				
<b>ER 25</b>	410516103-40	1:1	EC	
	T32275			
	00675000861			
<b>ER 32</b>	410520353-40	1:1	EC	
	T32476			
	00675000592			

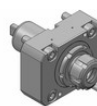


<b>Face drill/milling unit for ER collets (12000 RPM)</b>				
<b>ER 25</b>	410516130-40	1:1	EC	
	00675000831			

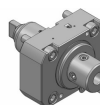


<b>Face drill/milling unit for ER collets, both sides</b>				
<b>ER 25</b>	410516109-40	1:1	EC	
	T32276			
	00675000897			

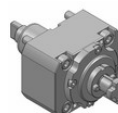
Performance Series - Enhanced Program



<b>OD drill/milling unit for ER collets</b>				
<b>ER 25</b>	410116052-40	1:1	IC 80 bar	
	T32287			
	00675000861			
<b>ER 32</b>	410120271-40	1:1	IC 80 bar	
	00675000592			

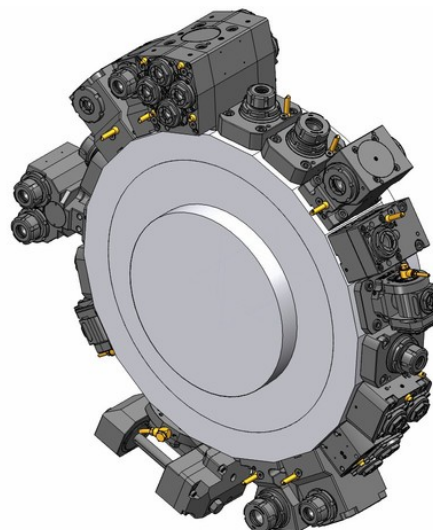
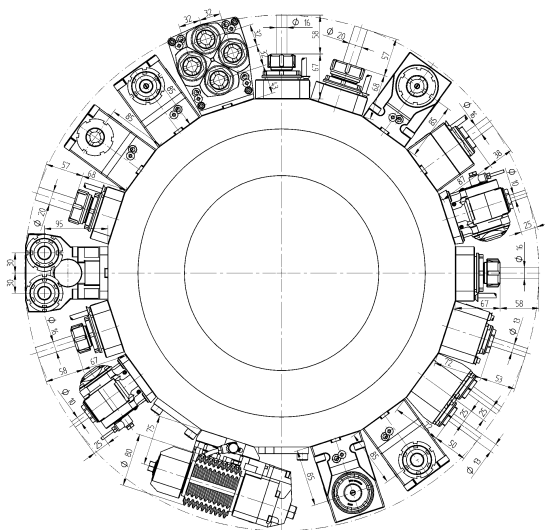


<b>OD drill/milling unit for Weldon or Whistle Notch shank</b>				
<b>Ø 16</b>	410116049-40	1:1	EC	
<b>Ø 16</b>	410116053-40	1:1	IC 80 bar	
<b>Ø 5/8"</b>	410116054-40	1:1	EC	
<b>Ø 5/8"</b>	410116055-40	1:1	IC 80 bar	

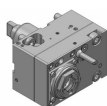


<b>OD milling unit with combination mill arbor DIN 6358</b>				
<b>Ø 16</b>	410216010-40	1:1	EC	
	00675000854			
<b>Ø 22</b>	410222016-40	1:1	EC	
	T32280			
	00675000483			
<b>Ø 3/4"</b>	410219003-40	1:1	EC	
	00675000483			



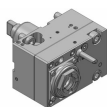


Performance Series - Enhanced Program



**OD drill/milling unit, offset**

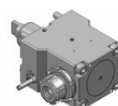
<b>ER 25</b>	410116050-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116057-40	1:1	IC 80 bar
	00675000932		
<b>ER 20</b>	410113060-40	1:2	EC
	00675000939		
<b>ER 20</b>	410113068-40	1:2	IC 80 bar
	00675000939		
<b>ER 16</b>	410110004-40	1:3	EC
	00675000937		
<b>ER 16</b>	410110003-40	1:3	IC 80 bar
	00675000937		
<b>ER 25</b>	410116051-40	2:1	EC
	00675000932		
<b>ER 25</b>	410116058-40	2:1	IC 80 bar
	00675000932		



**OD drill/milling unit for ER collets (12000 RPM)**

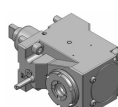
<b>ER 25</b>	410116060-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116059-40	1:1	IC 80 bar
	00675000932		

Performance Series - Enhanced Program



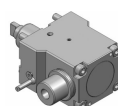
**Face drill/milling unit for ER collets**

<b>ER 25</b>	410516104-40	1:1	IC 80 bar
	T32288		
	00675000861		
<b>ER 32</b>	410520349-40	1:1	IC 80 bar
	00675000592		
<b>ER 20</b>	410513044-40	1:2	EC
	00675000885		
<b>ER 20</b>	410513045-40	1:2	IC 80 bar
	00675000885		
<b>ER 16</b>	410810003-40	1:3	EC
	00675000841		
<b>ER 16</b>	410810004-40	1:3	IC 80 bar
	00675000841		
<b>ER 32</b>	410520342-40	2:1	EC
	00675000592		
<b>ER 32</b>	410520341-40	2:1	IC 80 bar
	00675000592		



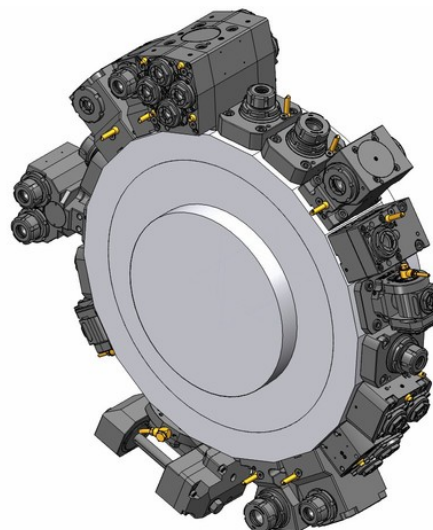
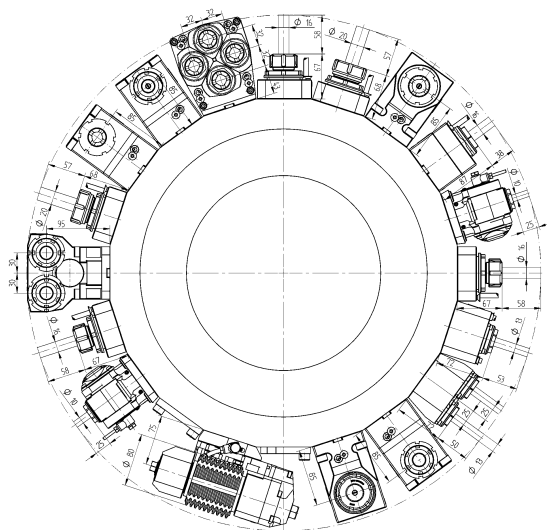
**Face drill/milling unit for ER collets (12000 RPM)**

<b>ER 25</b>	410516131-40	1:1	IC 80 bar
	00675000831		

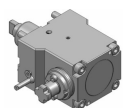


**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516110-40	1:1	EC
<b>Ø 16</b>	410516111-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410516124-40	1:1	EC
<b>Ø 5/8"</b>	410516125-40	1:1	IC 80 bar

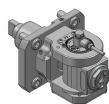


Performance Series - Enhanced Program



**Face milling unit with combination mill arbor  
DIN 6358**

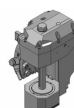
<b>Ø 16</b>	410616009-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410622022-40	1:1	EC
	00675000483		
<b>Ø 22</b>	410622018-40	2:1	EC
	T32292		
	00675000483		
<b>Ø 3/4"</b>	410619002-40	1:1	EC
	00675000483		



**Adjustable angle drill/milling unit**

<b>ER 16</b>	411010008-40	1:1	EC
	00675000913		
<b>ER 16</b>	411010009-40	1:1	IC 80 bar
	00675000913		
<b>ER 11</b>	411007001-40	1:2	EC
	00675000914		
<b>ER 11</b>	411007002-40	1:2	IC 80 bar
	00675000914		

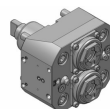
Performance Series - Enhanced Program



**Gear hobbing unit**

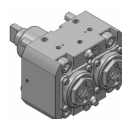
<b>Type 16/1</b>	411500017-40	1:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		

<b>Type 16/1</b>	411500018-40	2:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		



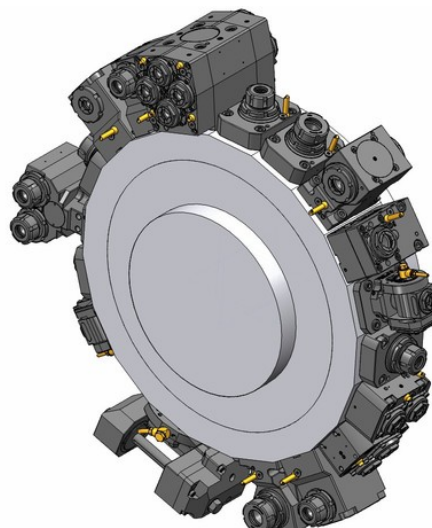
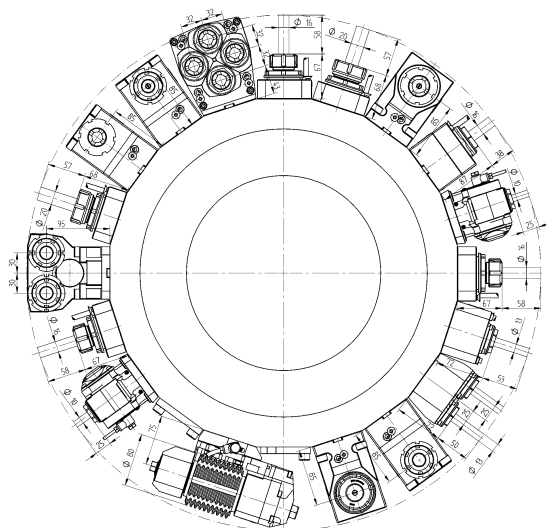
**OD drill/milling unit, double, Y axis**

<b>ER 20</b>	413002014-40	1:1	EC
	00675000947		
<b>ER 20</b>	413002017-40	1:1	IC 80 bar
	00675000947		

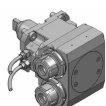


**OD drill/milling unit, both sides**

<b>ER 20</b>	413002015-40	1:1	EC
	00675000947		
<b>ER 20</b>	413002018-40	1:1	IC 80 bar
	00675000947		

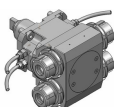


Performance Series - Enhanced Program



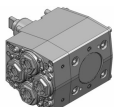
**2-spindle - Face drill/milling unit, Y axis**

- ER 25    413502008-40    1:1    EC  
 00675000915
- ER 25    413502009-40    1:1    IC 80 bar  
 00675000915



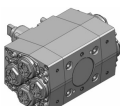
**2-spindle - Face drill/milling unit, both sides, Y axis**

- ER 25    413502007-40    1:1    EC  
 00675000915



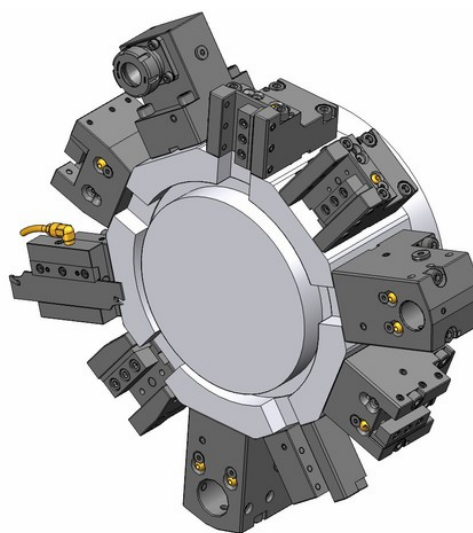
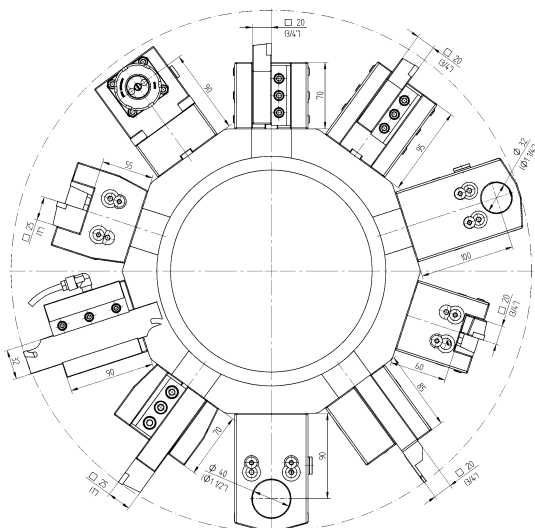
**4-spindle - Face drill/milling unit**

- ER 20    413504001-40    1:1    EC  
 00675000947



**4-spindle - Face drill/milling unit, both sides**

- ER 20    413504000-40    1:1    EC  
 00675000947



Toolholder - Standard Program

Toolholder - Standard Program



- OD cutting holder, short**
- 20 48-T00224  
T00224
  - 25 48-T00267  
T00267
  - 3/4" 48-T00234  
T00234
  - 1" 48-T00272  
T00272



- OD cutting holder, long**
- 20 48-T00225  
T00225
  - 3/4" 48-T00235  
T00235



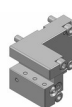
- OD cutting holder, both sides, short**
- 20 48-T00228  
T00228
  - 3/4" 48-T00250  
T00250



- OD cutting holder, both sides, long**
- 20 48-T00226  
T00226
  - 3/4" 48-T00249  
T00249



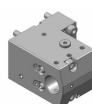
- Face and ID cutting holder**
- 20 48-T03017  
T03017
  - 25 48-T03024  
T03024
  - 3/4" 48-T03018  
T03018
  - 1" 48-T03025  
T03025



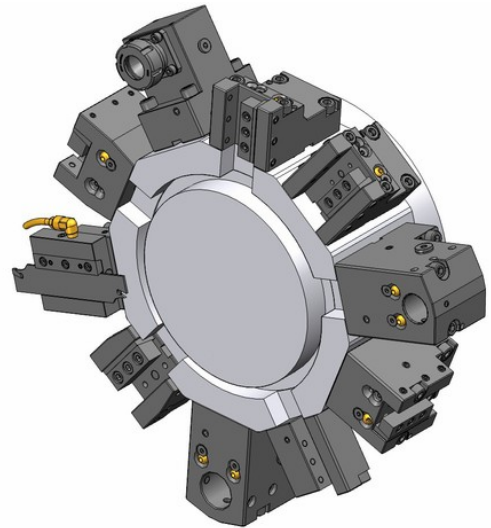
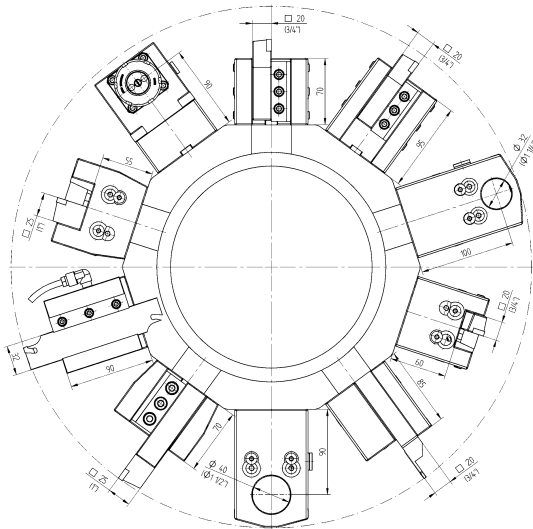
- Cut-off holder, right hand**
- 20 48-T00251  
T00251
  - 25 48-T00268  
T00268
  - 3/4" 48-T00252  
T00252
  - 1" 48-T00359  
T00359



- Boring bar holder**
- Ø 32 48-T10115  
T10115
  - Ø 1 1/4" 48-T10119  
T10119



- Combination toolholder**
- Ø 32 48-T13132 IC 80 bar  
T13132
  - Ø 1 1/4" 48-T13135 IC 80 bar  
T13135



Toolholder - Enhanced Program



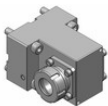
**Cut-off holder, adjustable**

SH 32 48-77483



**Combination toolholder**

Ø 40	48-77999	IC 80 bar
Ø 1 1/2"	48-80016	IC 80 bar



**Collet face drill holder**

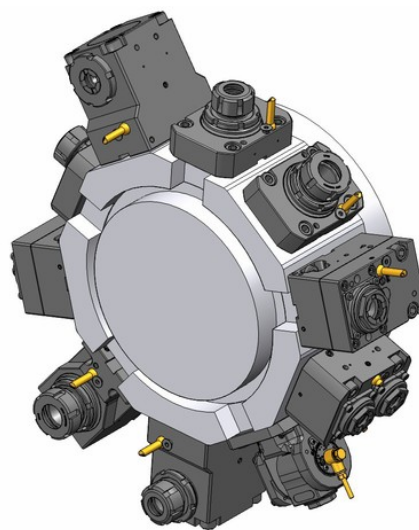
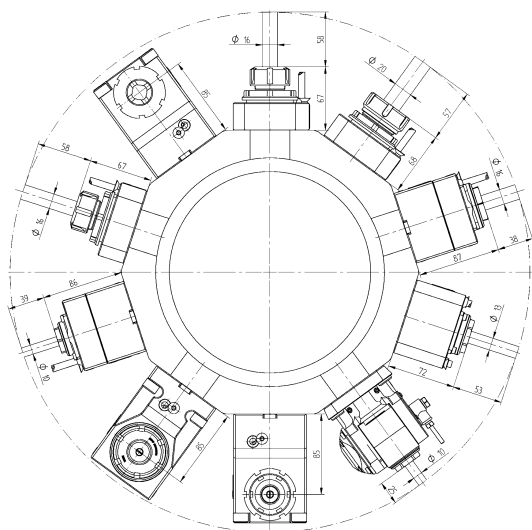
ER 32 48-81031  
 107532000



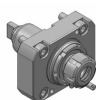
**Boring bar holder, blank**

48-80506



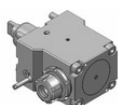


Performance Series - Standard Program



**OD drill/milling unit for ER collets**

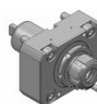
<b>ER 25</b>	410116048-40	1:1	EC
	T32274		
	00675000861		
<b>ER 32</b>	410120272-40	1:1	EC
	T32475		
	00675000592		



**Face drill/milling unit for ER collets**

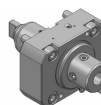
<b>ER 25</b>	410516103-40	1:1	EC
	T32275		
	00675000861		
<b>ER 32</b>	410520353-40	1:1	EC
	T32476		
	00675000592		

Performance Series - Enhanced Program



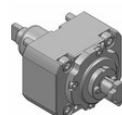
**OD drill/milling unit for ER collets**

<b>ER 25</b>	410116052-40	1:1	IC 80 bar
	T32287		
	00675000861		
<b>ER 32</b>	410120271-40	1:1	IC 80 bar
	00675000592		



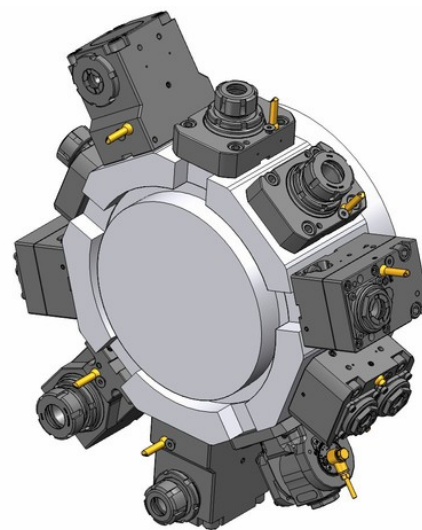
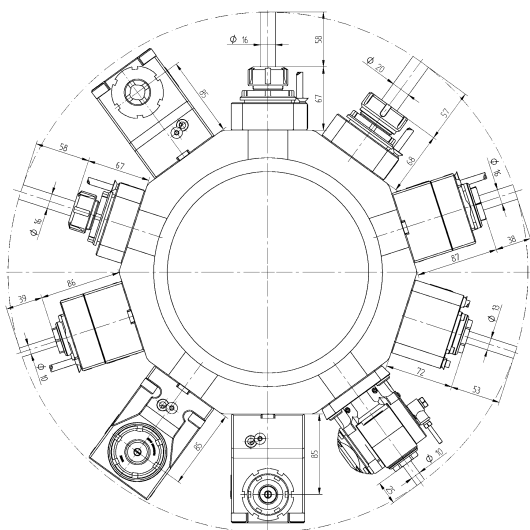
**OD drill/milling unit for Weldon or Whistle Notch shank**

<b>Ø 16</b>	410116049-40	1:1	EC
<b>Ø 16</b>	410116053-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410116054-40	1:1	EC
<b>Ø 5/8"</b>	410116055-40	1:1	IC 80 bar



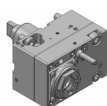
**OD milling unit with combination mill arbor DIN 6358**

<b>Ø 16</b>	410216010-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410222016-40	1:1	EC
	T32280		
	00675000483		
<b>Ø 3/4"</b>	410219003-40	1:1	EC
	00675000483		



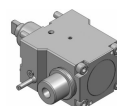
Performance Series - Enhanced Program

Performance Series - Enhanced Program



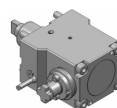
**OD drill/milling unit, offset**

<b>ER 25</b>	410116050-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116057-40	1:1	IC 80 bar
	00675000932		
<b>ER 20</b>	410113060-40	1:2	EC
	00675000939		
<b>ER 20</b>	410113068-40	1:2	IC 80 bar
	00675000939		
<b>ER 16</b>	410110004-40	1:3	EC
	00675000937		
<b>ER 16</b>	410110003-40	1:3	IC 80 bar
	00675000937		
<b>ER 25</b>	410116051-40	2:1	EC
	00675000932		
<b>ER 25</b>	410116058-40	2:1	IC 80 bar
	00675000932		



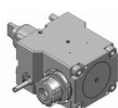
**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516110-40	1:1	EC
<b>Ø 16</b>	410516111-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410516124-40	1:1	EC
<b>Ø 5/8"</b>	410516125-40	1:1	IC 80 bar



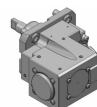
**Face milling unit with combination mill arbor DIN 6358**

<b>Ø 16</b>	410616009-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410622022-40	1:1	EC
	00675000483		
<b>Ø 22</b>	410622018-40	2:1	EC
	T32292 00675000483		
<b>Ø 3/4"</b>	410619002-40	1:1	EC
	00675000483		



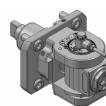
**Face drill/milling unit for ER collets**

<b>ER 25</b>	410516104-40	1:1	IC 80 bar
	T32288 00675000861		
<b>ER 32</b>	410520349-40	1:1	IC 80 bar
	00675000592		
<b>ER 20</b>	410513044-40	1:2	EC
	00675000885		
<b>ER 20</b>	410513045-40	1:2	IC 80 bar
	00675000885		
<b>ER 16</b>	410810003-40	1:3	EC
	00675000841		
<b>ER 16</b>	410810004-40	1:3	IC 80 bar
	00675000841		
<b>ER 32</b>	410520342-40	2:1	EC
	00675000592		
<b>ER 32</b>	410520341-40	2:1	IC 80 bar
	00675000592		



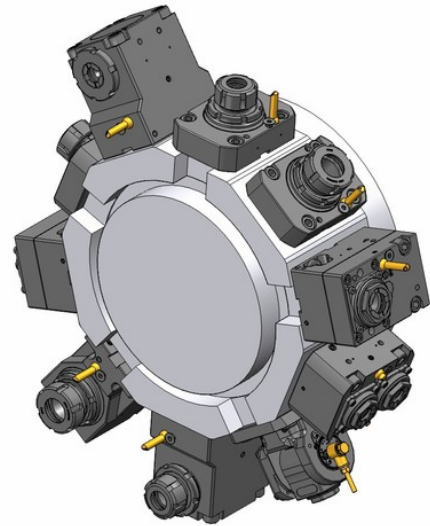
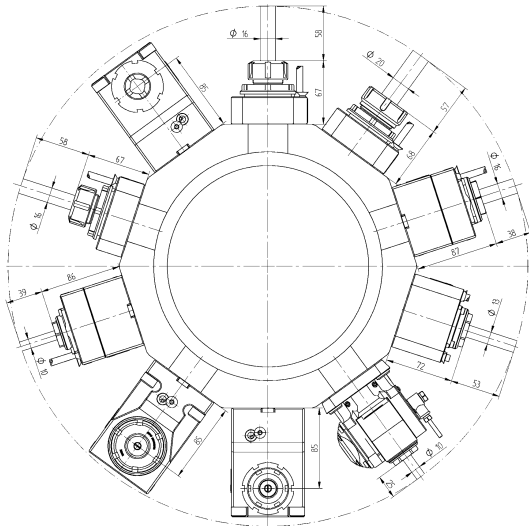
**Face back set drill/milling unit**

<b>ER 25</b>	410516153-40	1:1	EC
	00675000801		
<b>ER 25</b>	410516154-40	1:1	IC 80 bar
	00675000801		

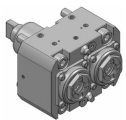


**Adjustable angle drill/milling unit**

<b>ER 16</b>	411010008-40	1:1	EC
	00675000913		
<b>ER 16</b>	411010009-40	1:1	IC 80 bar
	00675000913		
<b>ER 11</b>	411007001-40	1:2	EC
	00675000914		
<b>ER 11</b>	411007002-40	1:2	IC 80 bar
	00675000914		

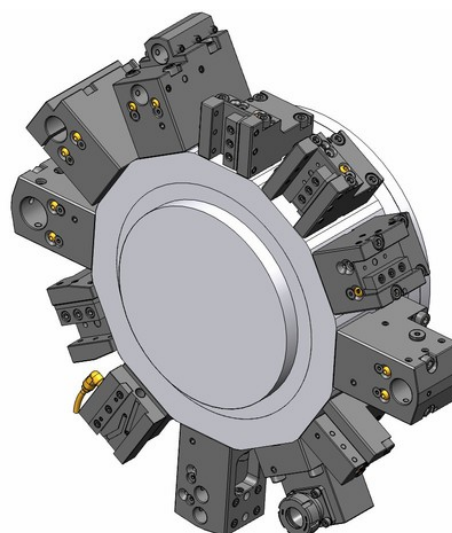
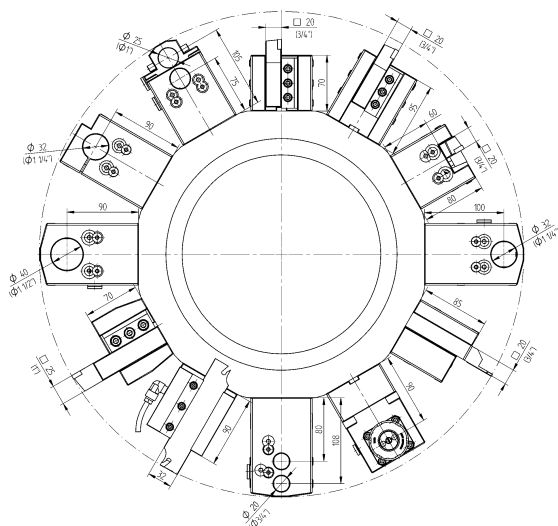


Performance Series - Enhanced Program



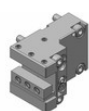
**OD drill/milling unit, both sides**

<b>ER 20</b>	413002015-40	1:1	EC
	00675000947		
<b>ER 20</b>	413002018-40	1:1	IC 80 bar
	00675000947		



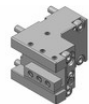
Toolholder - Standard Program

Toolholder - Standard Program



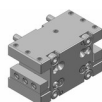
**OD cutting holder, short**

- 20 48-T00224  
T00224
- 25 48-T00267  
T00267
- 3/4" 48-T00234  
T00234
- 1" 48-T00272  
T00272



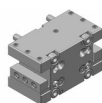
**OD cutting holder, long**

- 20 48-T00225  
T00225
- 3/4" 48-T00235  
T00235



**OD cutting holder, both sides, short**

- 20 48-T00228  
T00228
- 3/4" 48-T00250  
T00250



**OD cutting holder, both sides, short**

- 25 48-86523
- 1" 48-86524



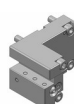
**OD cutting holder, both sides, long**

- 20 48-T00226  
T00226
- 3/4" 48-T00249  
T00249



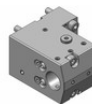
**Face and ID cutting holder**

- 20 48-T03017  
T03017
- 25 48-T03024  
T03024
- 3/4" 48-T03018  
T03018
- 1" 48-T03025  
T03025



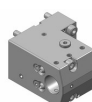
**Cut-off holder, right hand**

- 20 48-T00251  
T00251
- 25 48-T00268  
T00268
- 3/4" 48-T00252  
T00252
- 1" 48-T00359  
T00359



**Boring bar holder**

- Ø 32 48-T10115  
T10115
- Ø 1 1/4" 48-T10119  
T10119



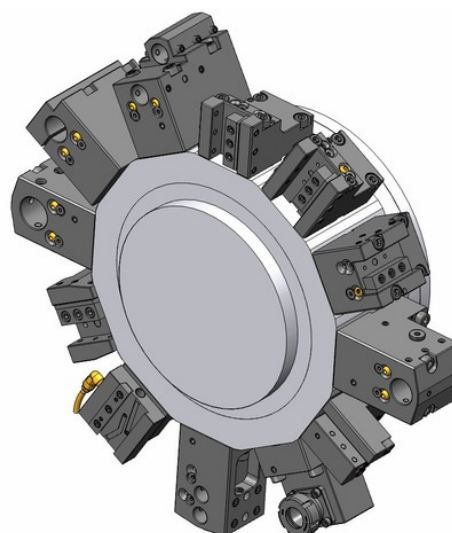
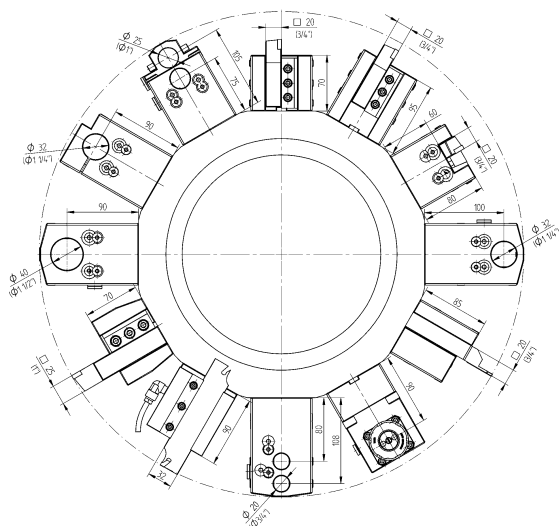
**Combination toolholder**

- Ø 32 48-T13132 IC 80 bar  
T13132
- Ø 1 1/4" 48-T13135 IC 80 bar  
T13135





**Boring bar holder, both sides**


- Ø 25 48-T10117  
T10117
- Ø 1" 48-T10139  
T10139





Toolholder - Enhanced Program


- 


**OD cutting holder, both sides, short, extended**  
 20 48-79403  
 3/4" 48-82167
- 


**OD cutting holder, both sides, long, extended**  
 20 48-81414  
 3/4" 48-82168
- 

**Face and ID cutting holder, both sides**  
 20 48-79608  
 3/4" 48-79609
- 

**Cut-off holder, adjustable**  
 SH 32 48-77483
- 


**Cut-off holder, adjustable, extended**  
 SH 26 48-77484
- 

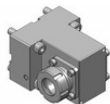
**Combination toolholder**  
 Ø 40 48-77999 IC 80 bar  
 Ø 1 1/2" 48-80016 IC 80 bar
- 

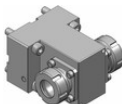
**Boring bar holder, with slot**  
 Ø 32 48-82057  
 Ø 40 48-82058  
 Ø 1 1/4" 48-82059  
 Ø 1 1/2" 48-82060
- 

**Boring bar holder, double, universal**  
 Ø 20 48-75406  
 Ø 3/4" 48-75416

Toolholder - Enhanced Program


- 

**Boring bar holder, double, both sides**  
 Ø 20 48-75404  
 Ø 3/4" 48-75417
- 

**Collet face drill holder**  
 ER 32 48-81031  
 107532000
- 

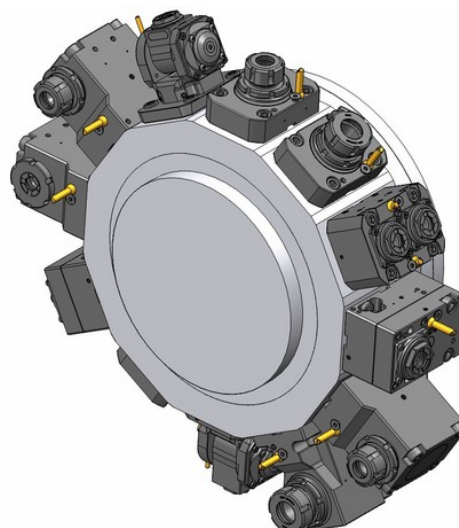
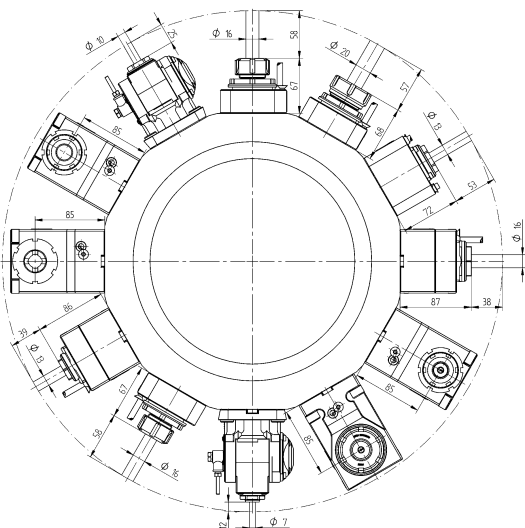
**Collet face drill holder, both sides**  
 ER 32 48-80509  
 107532000
- 

**VDI adapter, left**  
 VDI 30 48-77732
- 

**VDI adapter, right**  
 VDI 30 48-78687
- 

**Boring bar holder, blank**  
 48-80506

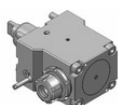




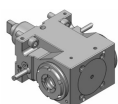
Performance Series - Standard Program



<b>OD drill/milling unit for ER collets</b>				
<b>ER 25</b>	410116048-40	1:1	EC	
	T32274			
	00675000861			
<b>ER 32</b>	410120272-40	1:1	EC	
	T32475			
	00675000592			



<b>Face drill/milling unit for ER collets</b>				
<b>ER 25</b>	410516103-40	1:1	EC	
	T32275			
	00675000861			
<b>ER 32</b>	410520353-40	1:1	EC	
	T32476			
	00675000592			

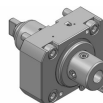


<b>Face drill/milling unit for ER collets, both sides</b>				
<b>ER 25</b>	410516109-40	1:1	EC	
	T32276			
	00675000897			

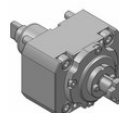
Performance Series - Enhanced Program



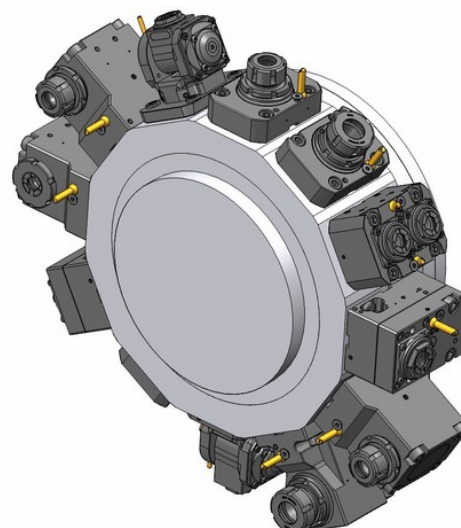
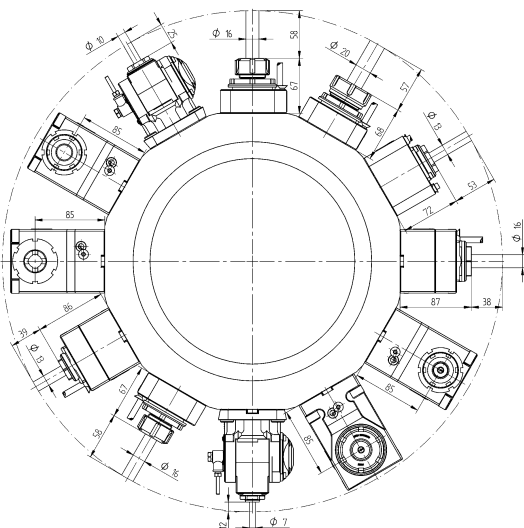
<b>OD drill/milling unit for ER collets</b>				
<b>ER 25</b>	410116052-40	1:1	IC 80 bar	
	T32287			
	00675000861			
<b>ER 32</b>	410120271-40	1:1	IC 80 bar	
	00675000592			



<b>OD drill/milling unit for Weldon or Whistle Notch shank</b>				
<b>Ø 16</b>	410116049-40	1:1	EC	
<b>Ø 16</b>	410116053-40	1:1	IC 80 bar	
<b>Ø 5/8"</b>	410116054-40	1:1	EC	
<b>Ø 5/8"</b>	410116055-40	1:1	IC 80 bar	

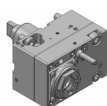


<b>OD milling unit with combination mill arbor DIN 6358</b>				
<b>Ø 16</b>	410216010-40	1:1	EC	
	00675000854			
<b>Ø 22</b>	410222016-40	1:1	EC	
	T32280			
	00675000483			
<b>Ø 3/4"</b>	410219003-40	1:1	EC	
	00675000483			



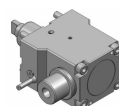
Performance Series - Enhanced Program

Performance Series - Enhanced Program



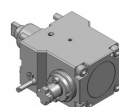
**OD drill/milling unit, offset**

<b>ER 25</b>	410116050-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116057-40	1:1	IC 80 bar
	00675000932		
<b>ER 20</b>	410113060-40	1:2	EC
	00675000939		
<b>ER 20</b>	410113068-40	1:2	IC 80 bar
	00675000939		
<b>ER 16</b>	410110004-40	1:3	EC
	00675000937		
<b>ER 16</b>	410110003-40	1:3	IC 80 bar
	00675000937		
<b>ER 25</b>	410116051-40	2:1	EC
	00675000932		
<b>ER 25</b>	410116058-40	2:1	IC 80 bar
	00675000932		



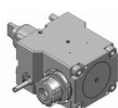
**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516110-40	1:1	EC
<b>Ø 16</b>	410516111-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410516124-40	1:1	EC
<b>Ø 5/8"</b>	410516125-40	1:1	IC 80 bar



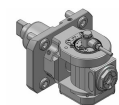
**Face milling unit with combination mill arbor DIN 6358**

<b>Ø 16</b>	410616009-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410622022-40	1:1	EC
	00675000483		
<b>Ø 22</b>	410622018-40	2:1	EC
	T32292 00675000483		
<b>Ø 3/4"</b>	410619002-40	1:1	EC
	00675000483		



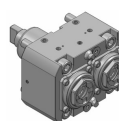
**Face drill/milling unit for ER collets**

<b>ER 25</b>	410516104-40	1:1	IC 80 bar
	T32288 00675000861		
<b>ER 32</b>	410520349-40	1:1	IC 80 bar
	00675000592		
<b>ER 20</b>	410513044-40	1:2	EC
	00675000885		
<b>ER 20</b>	410513045-40	1:2	IC 80 bar
	00675000885		
<b>ER 16</b>	410810003-40	1:3	EC
	00675000841		
<b>ER 16</b>	410810004-40	1:3	IC 80 bar
	00675000841		
<b>ER 32</b>	410520342-40	2:1	EC
	00675000592		
<b>ER 32</b>	410520341-40	2:1	IC 80 bar
	00675000592		



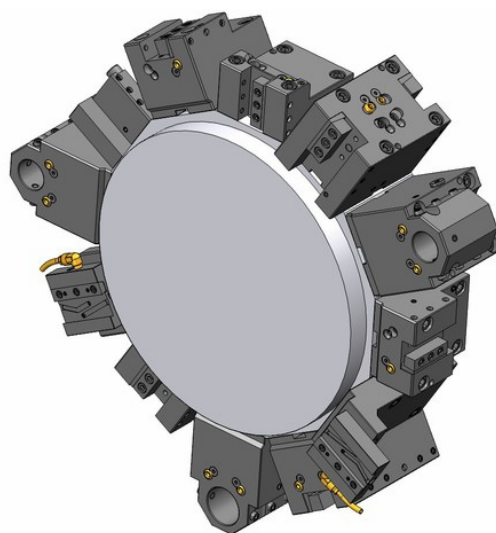
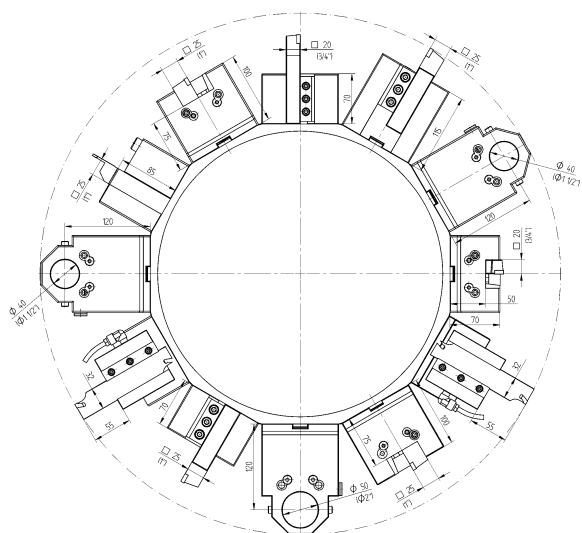
**Adjustable angle drill/milling unit**

<b>ER 16</b>	411010008-40	1:1	EC
	00675000913		
<b>ER 16</b>	411010009-40	1:1	IC 80 bar
	00675000913		
<b>ER 11</b>	411007001-40	1:2	EC
	00675000914		
<b>ER 11</b>	411007002-40	1:2	IC 80 bar
	00675000914		



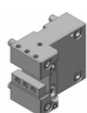
**OD drill/milling unit, both sides**

<b>ER 20</b>	413002015-40	1:1	EC
	00675000947		
<b>ER 20</b>	413002018-40	1:1	IC 80 bar
	00675000947		



Toolholder - Standard Program

Toolholder - Standard Program



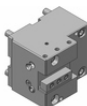
- OD cutting holder**
- 20 48-T00187  
T00187
  - 25 48-T00186  
T00186
  - 3/4" 48-T00203  
T00203
  - 1" 48-T00202  
T00202



- OD cutting holder, both sides**
- 20 48-T00185  
T00185
  - 25 48-T00184  
T00184
  - 3/4" 48-T00201  
T00201
  - 1" 48-T00199  
T00199



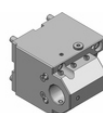
- OD cutting holder, both sides, long**
- 25 48-T00237  
T00237
  - 1" 48-78257



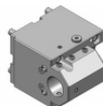
- Face and ID cutting holder**
- 20 48-T03006  
T03006
  - 25 48-T03005  
T03005
  - 3/4" 48-T03014  
T03014
  - 1" 48-T03013  
T03013



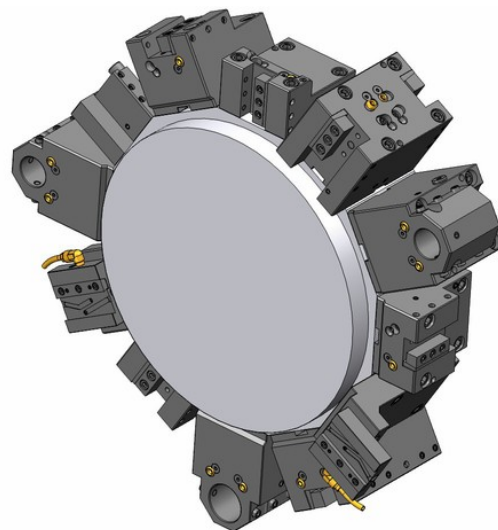
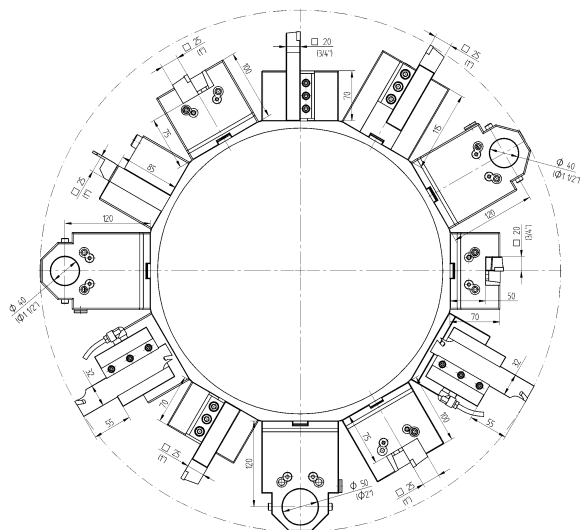
- Cut-off holder, right hand**
- 25 48-T00197  
T00197
  - 1" 48-T00198  
T00198



- Boring bar holder**
- Ø 40 48-T10113  
T10113
  - Ø 50 48-T10114  
T10114
  - Ø 1 1/2" 48-T10134  
T10134
  - Ø 2" 48-T10135  
T10135



- Combination toolholder**
- Ø 40 48-T13131 IC 80 bar  
T13131
  - Ø 50 48-77902 IC 80 bar
  - Ø 1 1/2" 48-T13137 IC 80 bar  
T13137
  - Ø 2" 48-77901 IC 80 bar

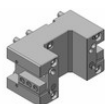


Toolholder - Enhanced Program



**OD cutting holder, extended**

25 48-76267  
1" 48-81553



**OD cutting holder, both sides, extended**

25 48-81627  
1" 48-82499



**Face and ID cutting holder, both sides**

25 48-78995  
1" 48-78996



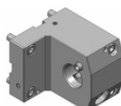
**Cut-off holder, adjustable**

SH 32 48-70893



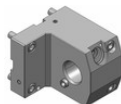
**Cut-off holder, adjustable, extended**

SH 32 48-77478



**VDI adapter, left**

VDI 30 48-77127  
VDI 40 48-72984



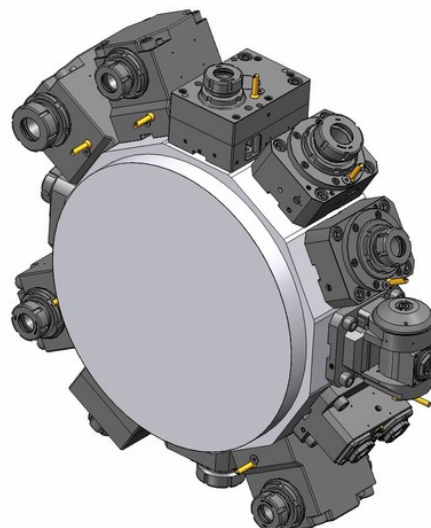
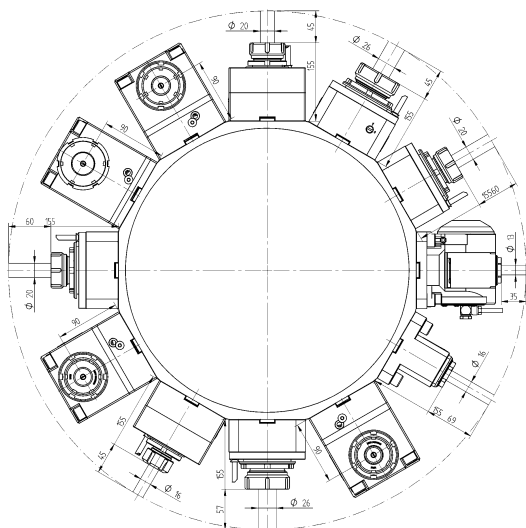
**VDI adapter, right**

VDI 30 48-74796  
VDI 40 48-77955



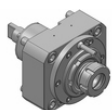
**Boring bar holder, blank**

48-81081



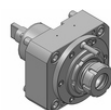
Performance Series - Standard Program

Performance Series - Enhanced Program



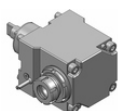
**OD drill/milling unit for ER collets**

<b>ER 32</b>	410120036-60 T32206, T32249	1:1	EC
	00675000780		
<b>ER 40</b>	410126011-60 T32213	1:1	EC
	00675000781		



**OD drill/milling unit for ER collets**

<b>ER 32</b>	410120037-60 T32232	1:1	IC 80 bar
	00675000780		
<b>ER 40</b>	410126012-60 T32234	1:1	IC 80 bar
	00675000781		



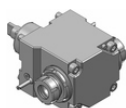
**Face drill/milling unit for ER collets**

<b>ER 32</b>	410520025-60 T32207, T32256	1:1	EC
	00675000780		
<b>ER 40</b>	410526014-60 T32214	1:1	EC
	00675000781		



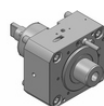
**OD drill unit for ER collets, short**

<b>ER 32</b>	410120038-60	1:1	EC
	00675000780		
<b>ER 40</b>	410126014-60	1:1	EC
	00675000781		



**Face drill/milling unit for ER collets, both sides**

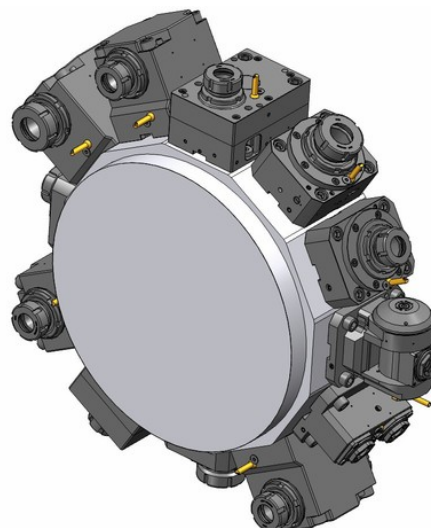
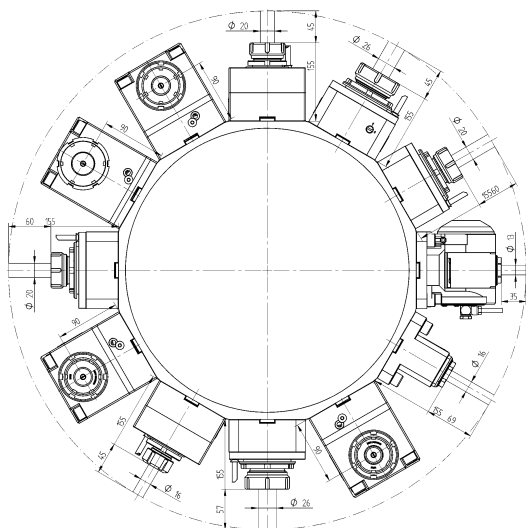
<b>ER 32</b>	410520027-60 T32216	1:1	EC
	00675000780		
<b>ER 40</b>	410526016-60 T32248	1:1	EC
	00675000781		



**OD drill/milling unit for Weldon or Whistle Notch shank**

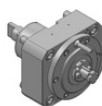
<b>Ø 16</b>	410116022-60	1:1	EC
<b>Ø 16</b>	410116023-60	1:1	IC 80 bar
<b>Ø 20</b>	410120043-60 T32227	1:1	EC
<b>Ø 20</b>	410120044-60	1:1	IC 80 bar
<b>Ø 25</b>	410125002-60 T32221	1:1	EC
<b>Ø 25</b>	410125001-60	1:1	IC 80 bar
<b>Ø 3/4"</b>	410119000-60	1:1	EC
<b>Ø 3/4"</b>	410119001-60	1:1	IC 80 bar
<b>Ø 1"</b>	410125003-60 T32223	1:1	EC
<b>Ø 1"</b>	410125004-60	1:1	IC 80 bar





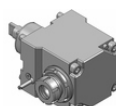
Performance Series - Enhanced Program

Performance Series - Enhanced Program



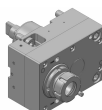
**OD milling unit with combination mill arbor  
DIN 6358**

<b>Ø 16</b>	410216000-60	1:1	EC
	00675000854		
<b>Ø 22</b>	410222007-60	1:1	EC
	T32268		
	00675000483		
<b>Ø 27</b>	410227008-60	1:1	EC
	00675000245		
<b>Ø 3/4"</b>	410219000-60	1:1	EC
	00675000483		
<b>Ø 1"</b>	410225000-60	1:1	EC
	T32217		
	00675000483		



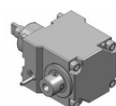
**Face drill/milling unit for ER collets**

<b>ER 32</b>	410520029-60	1:1	IC 80 bar
	T32233		
	00675000780		
<b>ER 40</b>	410526015-60	1:1	IC 80 bar
	T32235		
	00675000781		
<b>ER 25</b>	410516000-60	1:2	EC
	00675000801		
<b>ER 25</b>	410516001-60	1:2	IC 80 bar
	00675000801		
<b>ER 40</b>	410526017-60	2:1	EC
	00675000781		
<b>ER 40</b>	410526018-60	2:1	IC 80 bar
	00675000781		



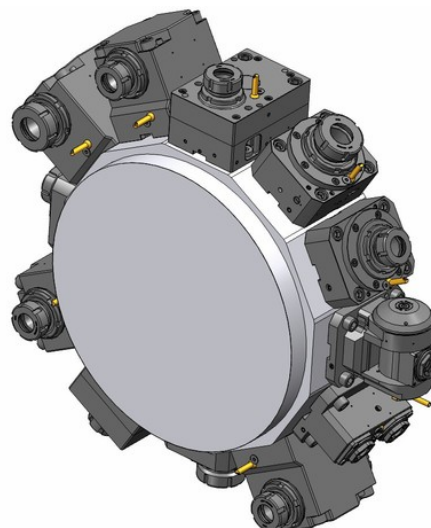
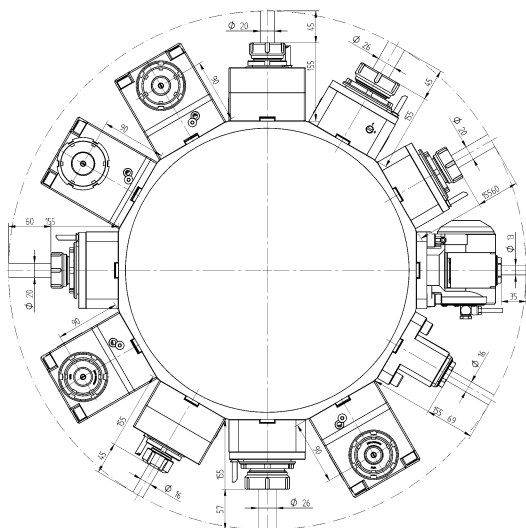
**OD drill/milling unit, offset**

<b>ER 32</b>	410120045-60	1:1	EC
	00675000782		
<b>ER 32</b>	410120047-60	1:1	IC 80 bar
	00675000782		
<b>ER 25</b>	410116020-60	1:2	EC
	00675000861		
<b>ER 25</b>	410116021-60	1:2	IC 80 bar
	00675000861		
<b>ER 32</b>	410120041-60	2:1	EC
	00675000782		
<b>ER 32</b>	410120040-60	2:1	IC 80 bar
	00675000782		

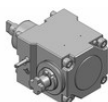


**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516005-60	1:1	EC
<b>Ø 16</b>	410516006-60	1:1	IC 80 bar
<b>Ø 20</b>	410520011-60	1:1	EC
	T32228		
<b>Ø 20</b>	410520012-60	1:1	IC 80 bar
<b>Ø 25</b>	410525004-60	1:1	EC
	T32222		
<b>Ø 25</b>	410525005-60	1:1	IC 80 bar
<b>Ø 3/4"</b>	410519000-60	1:1	EC
<b>Ø 3/4"</b>	410519001-60	1:1	IC 80 bar
<b>Ø 1"</b>	410525006-60	1:1	EC
	T32224		
<b>Ø 1"</b>	410525007-60	1:1	IC 80 bar



Performance Series - Enhanced Program



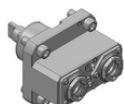
**Face milling unit with combination mill arbor  
DIN 6358**

<b>Ø 22</b>	410622000-60 T32269	2:1	EC
	00675000483		
<b>Ø 27</b>	410627000-60	2:1	EC
	00675000245		
<b>Ø 1"</b>	410625000-60 T32226	2:1	EC
	00675000483		



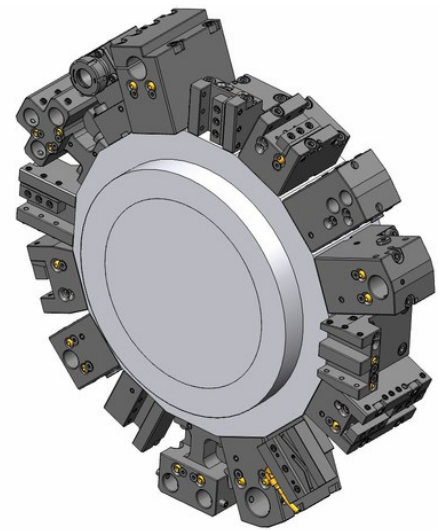
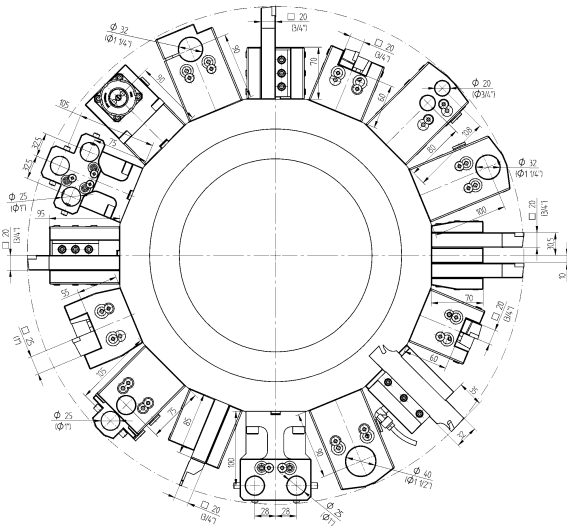
**Adjustable angle drill/milling unit**

<b>ER 20</b>	411013009-60 T32474	1:1	EC
	00675000928		
<b>ER 20</b>	411013010-60	1:1	IC 80 bar
	00675000928		
<b>ER 16</b>	411010001-60	1:2	EC
	00675000936		
<b>ER 16</b>	411010002-60	1:2	IC 80 bar
	00675000936		



**OD drill/milling unit, both sides**

<b>ER 25</b>	413002001-60	1:1	EC
	00675000907		



Toolholder - Standard Program

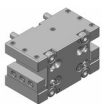
Toolholder - Standard Program



- OD cutting holder, short**
- 20 48-T00224  
T00224
  - 25 48-T00267  
T00267
  - 3/4" 48-T00234  
T00234
  - 1" 48-T00272  
T00272



- OD cutting holder, long**
- 20 48-T00225  
T00225
  - 3/4" 48-T00235  
T00235



- OD cutting holder, both sides, short**
- 20 48-T00228  
T00228
  - 3/4" 48-T00250  
T00250



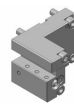
- OD cutting holder, both sides, short**
- 25 48-86523
  - 1" 48-86524



- OD cutting holder, both sides, long**
- 20 48-T00226  
T00226
  - 3/4" 48-T00249  
T00249



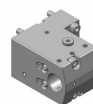
- Face and ID cutting holder**
- 20 48-T03017  
T03017
  - 25 48-T03024  
T03024
  - 3/4" 48-T03018  
T03018
  - 1" 48-T03025  
T03025



- Cut-off holder, right hand**
- 20 48-T00251  
T00251
  - 25 48-T00268  
T00268
  - 3/4" 48-T00252  
T00252
  - 1" 48-T00359  
T00359



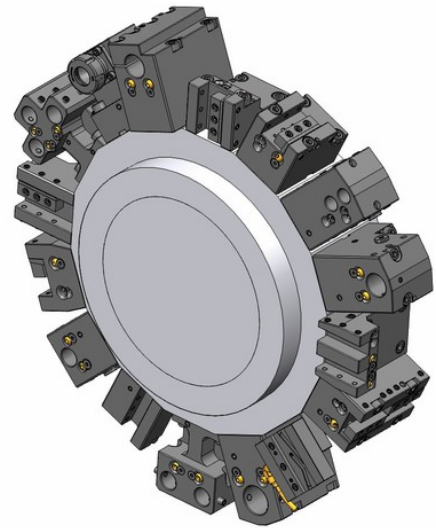
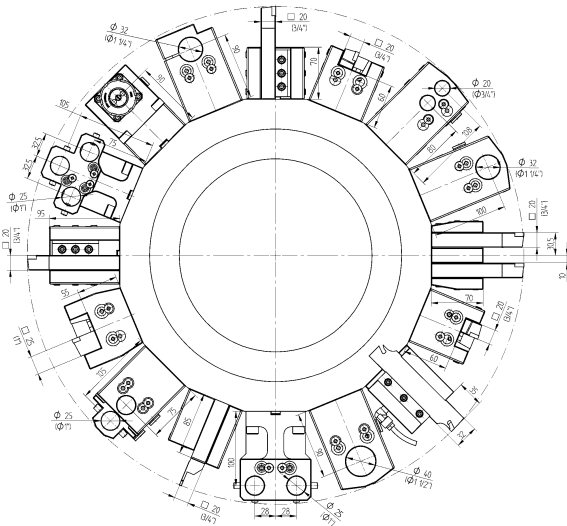
- Boring bar holder**
- Ø 32 48-T10115  
T10115
  - Ø 1 1/4" 48-T10119  
T10119



- Combination toolholder**
- Ø 32 48-T13132 IC 80 bar  
T13132
  - Ø 1 1/4" 48-T13135 IC 80 bar  
T13135





- Boring bar holder, both sides**
- Ø 25 48-T10117  
T10117
  - Ø 1" 48-T10139  
T10139





Toolholder - Enhanced Program


Toolholder - Enhanced Program

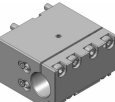
- 


**OD cutting holder, double, Y axis**  
20(3/4") 48-77726
- 


**OD cutting holder, both sides, double, Y axis**  
20(3/4") 48-77727
- 

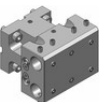
**Face and ID cutting holder, both sides**  
20 48-79608  
3/4" 48-79609
- 

**Cut-off holder, adjustable**  
SH 32 48-77483
- 

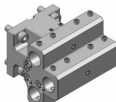
**Combination toolholder**  
Ø 40 48-77999 IC 80 bar  
Ø 1 1/2" 48-80016 IC 80 bar
- 

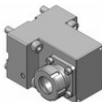
**Boring bar holder, with slot**  
Ø 32 48-82057  
Ø 40 48-82058  
Ø 1 1/4" 48-82059  
Ø 1 1/2" 48-82060
- 

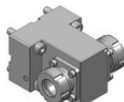
**Boring bar holder, double, universal**  
Ø 20 48-75406  
Ø 3/4" 48-75416
- 


**Boring bar holder, double, both sides**  
Ø 20 48-75404  
Ø 3/4" 48-75417
- 

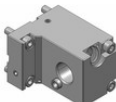
**Combination toolholder, both sides, double, Y axis**  
Ø 25 48-80788 IC 80 bar  
Ø 1" 48-81033 IC 80 bar

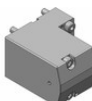
- 

**Combination toolholder, both sides, triple, Y axis**  
Ø 25 48-85908 IC 80 bar  
Ø 1" 48-85985 IC 80 bar
- 

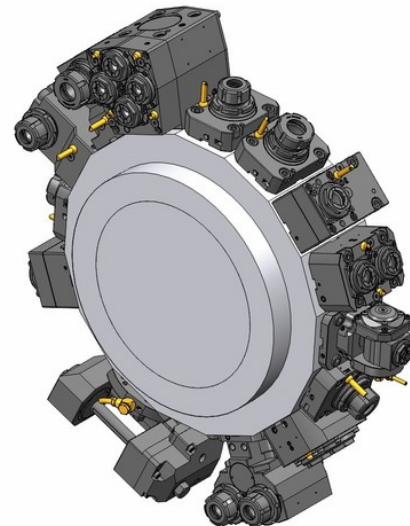
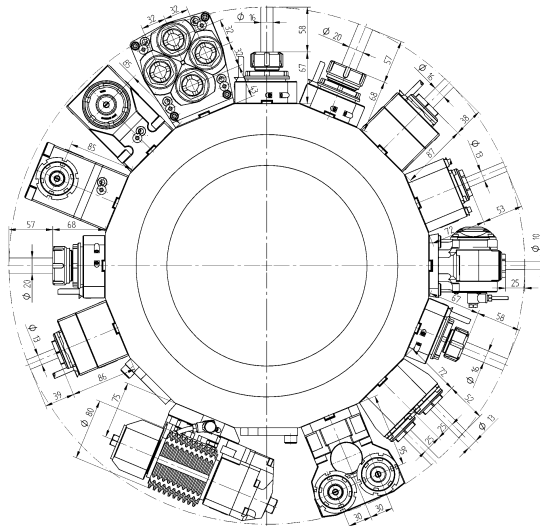
**Collet face drill holder**  
ER 32 48-81031  
107532000
- 

**Collet face drill holder, both sides**  
ER 32 48-80509  
107532000
- 

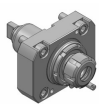
**VDI adapter, left**  
VDI 30 48-77732
- 

**VDI adapter, right**  
VDI 30 48-78687
- 

**Boring bar holder, blank**  
48-80506



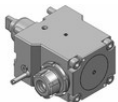
Performance Series - Standard Program



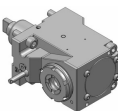
<b>OD drill/milling unit for ER collets</b>				
<b>ER 25</b>	410116048-40	1:1	EC	
	T32274			
	00675000861			
<b>ER 32</b>	410120272-40	1:1	EC	
	T32475			
	00675000592			



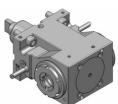
<b>OD drill/milling unit for ER collets (12000 RPM)</b>				
<b>ER 25</b>	410116056-40	1:1	EC	
	00675000861			



<b>Face drill/milling unit for ER collets</b>				
<b>ER 25</b>	410516103-40	1:1	EC	
	T32275			
	00675000861			
<b>ER 32</b>	410520353-40	1:1	EC	
	T32476			
	00675000592			



<b>Face drill/milling unit for ER collets (12000 RPM)</b>				
<b>ER 25</b>	410516130-40	1:1	EC	
	00675000831			

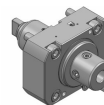


<b>Face drill/milling unit for ER collets, both sides</b>				
<b>ER 25</b>	410516109-40	1:1	EC	
	T32276			
	00675000897			

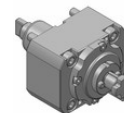
Performance Series - Enhanced Program



<b>OD drill/milling unit for ER collets</b>				
<b>ER 25</b>	410116052-40	1:1	IC 80 bar	
	T32287			
	00675000861			
<b>ER 32</b>	410120271-40	1:1	IC 80 bar	
	00675000592			

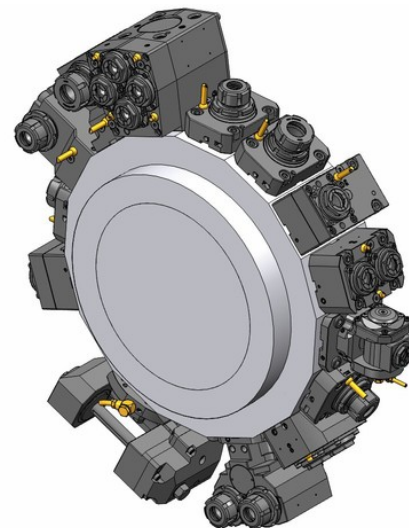
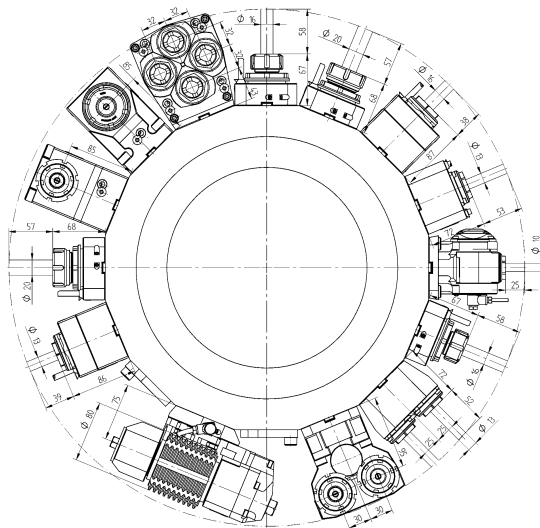


<b>OD drill/milling unit for Weldon or Whistle Notch shank</b>				
<b>Ø 16</b>	410116049-40	1:1	EC	
<b>Ø 16</b>	410116053-40	1:1	IC 80 bar	
<b>Ø 5/8"</b>	410116054-40	1:1	EC	
<b>Ø 5/8"</b>	410116055-40	1:1	IC 80 bar	



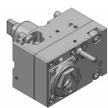
<b>OD milling unit with combination mill arbor DIN 6358</b>				
<b>Ø 16</b>	410216010-40	1:1	EC	
	00675000854			
<b>Ø 22</b>	410222016-40	1:1	EC	
	T32280			
	00675000483			
<b>Ø 3/4"</b>	410219003-40	1:1	EC	
	00675000483			





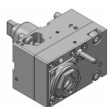
Performance Series - Enhanced Program

Performance Series - Enhanced Program



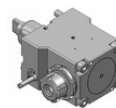
**OD drill/milling unit, offset**

<b>ER 25</b>	410116050-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116057-40	1:1	IC 80 bar
	00675000932		
<b>ER 20</b>	410113060-40	1:2	EC
	00675000939		
<b>ER 20</b>	410113068-40	1:2	IC 80 bar
	00675000939		
<b>ER 16</b>	410110004-40	1:3	EC
	00675000937		
<b>ER 16</b>	410110003-40	1:3	IC 80 bar
	00675000937		
<b>ER 25</b>	410116051-40	2:1	EC
	00675000932		
<b>ER 25</b>	410116058-40	2:1	IC 80 bar
	00675000932		



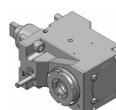
**OD drill/milling unit for ER collets (12000 RPM)**

<b>ER 25</b>	410116060-40	1:1	EC
	00675000932		
<b>ER 25</b>	410116059-40	1:1	IC 80 bar
	00675000932		



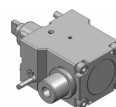
**Face drill/milling unit for ER collets**

<b>ER 25</b>	410516104-40	1:1	IC 80 bar
	T32288		
	00675000861		
<b>ER 32</b>	410520349-40	1:1	IC 80 bar
	00675000592		
<b>ER 20</b>	410513044-40	1:2	EC
	00675000885		
<b>ER 20</b>	410513045-40	1:2	IC 80 bar
	00675000885		
<b>ER 16</b>	410810003-40	1:3	EC
	00675000841		
<b>ER 16</b>	410810004-40	1:3	IC 80 bar
	00675000841		
<b>ER 32</b>	410520342-40	2:1	EC
	00675000592		
<b>ER 32</b>	410520341-40	2:1	IC 80 bar
	00675000592		



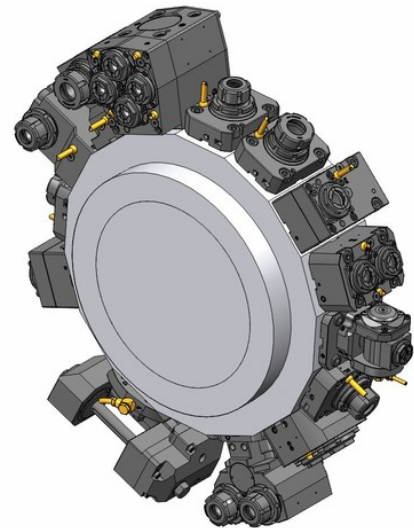
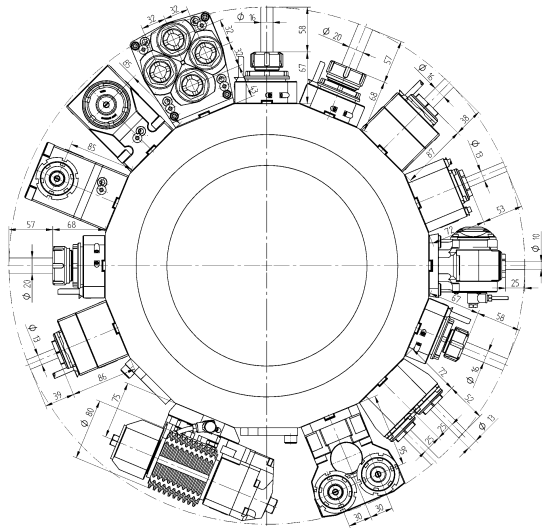
**Face drill/milling unit for ER collets (12000 RPM)**

<b>ER 25</b>	410516131-40	1:1	IC 80 bar
	00675000831		



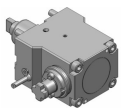
**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516110-40	1:1	EC
<b>Ø 16</b>	410516111-40	1:1	IC 80 bar
<b>Ø 5/8"</b>	410516124-40	1:1	EC
<b>Ø 5/8"</b>	410516125-40	1:1	IC 80 bar



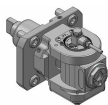
Performance Series - Enhanced Program

Performance Series - Enhanced Program



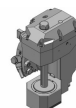
**Face milling unit with combination mill arbor  
DIN 6358**

<b>Ø 16</b>	410616009-40	1:1	EC
	00675000854		
<b>Ø 22</b>	410622022-40	1:1	EC
	00675000483		
<b>Ø 22</b>	410622018-40	2:1	EC
	T32292		
	00675000483		
<b>Ø 3/4"</b>	410619002-40	1:1	EC
	00675000483		



**Adjustable angle drill/milling unit**

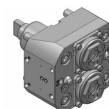
<b>ER 16</b>	411010008-40	1:1	EC
	00675000913		
<b>ER 16</b>	411010009-40	1:1	IC 80 bar
	00675000913		
<b>ER 11</b>	411007001-40	1:2	EC
	00675000914		
<b>ER 11</b>	411007002-40	1:2	IC 80 bar
	00675000914		



**Gear hobbing unit**

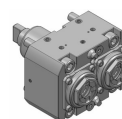
<b>Type 16/1</b>	411500017-40	1:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		

<b>Type 16/1</b>	411500018-40	2:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		



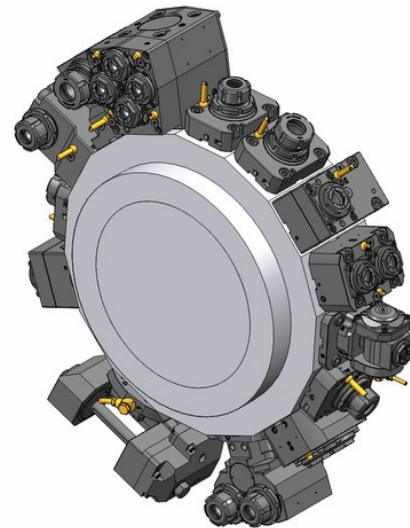
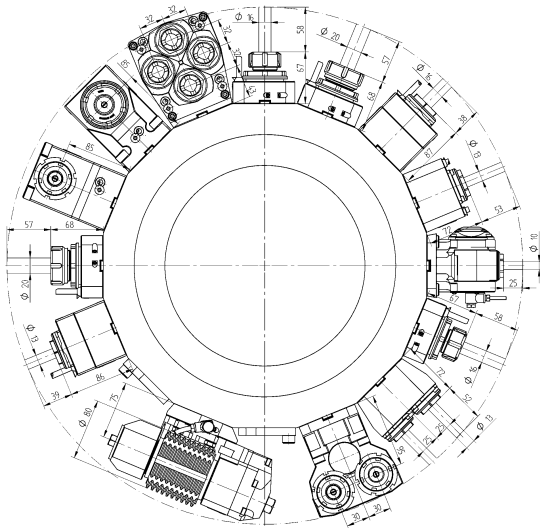
**OD drill/milling unit, double, Y axis**

<b>ER 20</b>	413002014-40	1:1	EC
	00675000947		
<b>ER 20</b>	413002017-40	1:1	IC 80 bar
	00675000947		

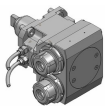


**OD drill/milling unit, both sides**

<b>ER 20</b>	413002015-40	1:1	EC
	00675000947		
<b>ER 20</b>	413002018-40	1:1	IC 80 bar
	00675000947		



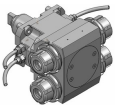
Performance Series - Enhanced Program



**2-spindle - Face drill/milling unit, Y axis**

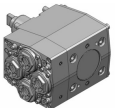
ER 25    413502008-40    1:1    EC  
 00675000915

ER 25    413502009-40    1:1    IC 80 bar  
 00675000915



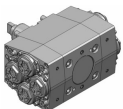
**2-spindle - Face drill/milling unit, both sides, Y axis**

ER 25    413502007-40    1:1    EC  
 00675000915



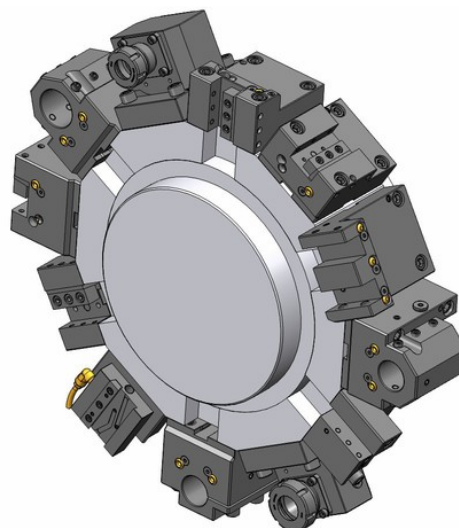
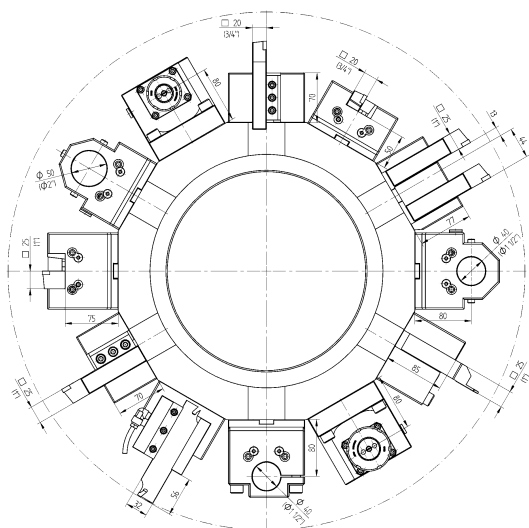
**4-spindle - Face drill/milling unit**

ER 20    413504001-40    1:1    EC  
 00675000947



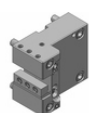
**4-spindle - Face drill/milling unit, both sides**

ER 20    413504000-40    1:1    EC  
 00675000947

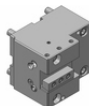


**Toolholder - Standard Program**

**Toolholder - Enhanced Program**



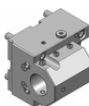
- OD cutting holder**
- 20 48-T00187  
T00187
  - 25 48-T00186  
T00186
  - 3/4" 48-T00203  
T00203
  - 1" 48-T00202  
T00202



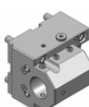
- Face and ID cutting holder**
- 20 48-T03006  
T03006
  - 25 48-T03005  
T03005
  - 3/4" 48-T03014  
T03014
  - 1" 48-T03013  
T03013



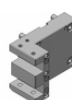
- Cut-off holder, right hand**
- 25 48-T00197  
T00197
  - 1" 48-T00198  
T00198



- Boring bar holder**
- Ø 40 48-T10097  
T10097
  - Ø 50 48-T10098  
T10098
  - Ø 1 1/2" 48-T10101  
T10101
  - Ø 2" 48-T10102  
T10102



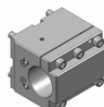
- Combination toolholder**
- Ø 40 48-T13128 IC 80 bar  
T13128
  - Ø 50 48-T13139 IC 80 bar  
T13139
  - Ø 1 1/2" 48-T13130 IC 80 bar  
T13130
  - Ø 2" 48-T13140 IC 80 bar  
T13140



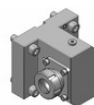
- OD cutting holder, double, Y axis**
- 25 (1") 48-71865



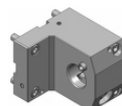
- Cut-off holder, adjustable**
- SH 32 48-70893



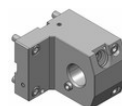
- Boring bar holder, with slot**
- Ø 40 48-T10136  
T10136
  - Ø 50 48-T10137  
T10137
  - Ø 60 48-70811
  - Ø 1 1/2" 48-T10143  
T10143
  - Ø 2" 48-T10142  
T10142



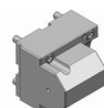
- Collet face drill holder**
- ER 32 48-81071  
107532000
  - ER 40 48-81073  
107540000



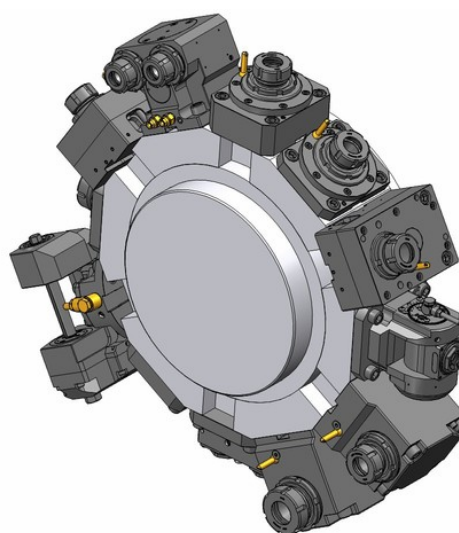
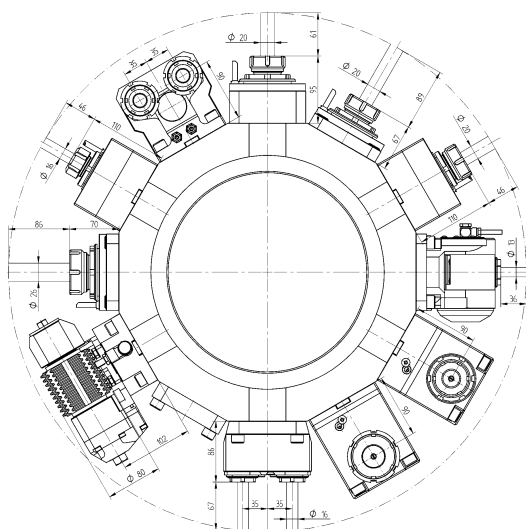
- VDI adapter, left**
- VDI 30 48-77127
  - VDI 40 48-72984



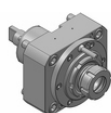
- VDI adapter, right**
- VDI 30 48-74796
  - VDI 40 48-77955



- Boring bar holder, blank**
- 48-81080

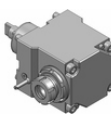


Performance Series - Standard Program



**OD drill/milling unit for ER collets**

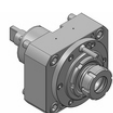
<b>ER 32</b>	410120036-60 T32206, T32249	1:1	EC
	00675000780		
<b>ER 40</b>	410126011-60 T32213	1:1	EC
	00675000781		



**Face drill/milling unit for ER collets**

<b>ER 32</b>	410520025-60 T32207, T32256	1:1	EC
	00675000780		
<b>ER 40</b>	410526014-60 T32214	1:1	EC
	00675000781		

Performance Series - Enhanced Program



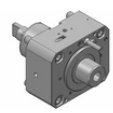
**OD drill/milling unit for ER collets**

<b>ER 32</b>	410120037-60 T32232	1:1	IC 80 bar
	00675000780		
<b>ER 40</b>	410126012-60 T32234	1:1	IC 80 bar
	00675000781		



**OD drill unit for ER collets, short**

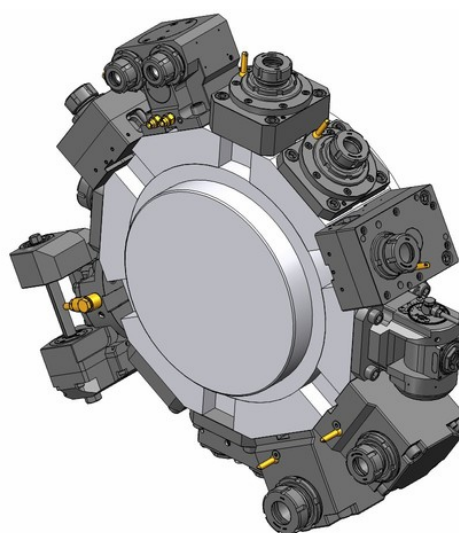
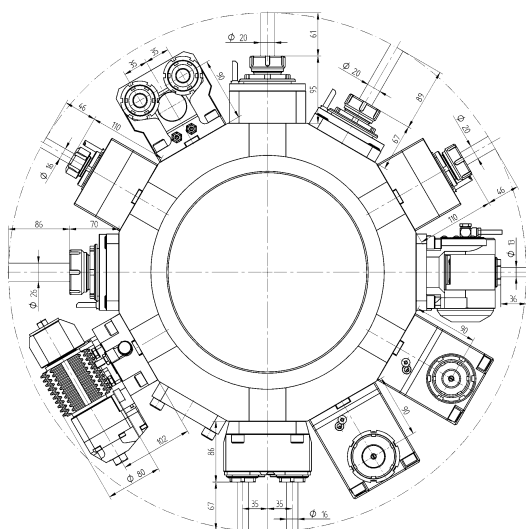
<b>ER 32</b>	410120038-60	1:1	EC
	00675000780		
<b>ER 40</b>	410126014-60	1:1	EC
	00675000781		



**OD drill/milling unit for Weldon or Whistle Notch shank**

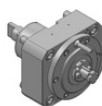
<b>Ø 16</b>	410116022-60	1:1	EC
<b>Ø 16</b>	410116023-60	1:1	IC 80 bar
<b>Ø 20</b>	410120043-60 T32227	1:1	EC
<b>Ø 20</b>	410120044-60	1:1	IC 80 bar
<b>Ø 25</b>	410125002-60 T32221	1:1	EC
<b>Ø 25</b>	410125001-60	1:1	IC 80 bar
<b>Ø 3/4"</b>	410119000-60	1:1	EC
<b>Ø 3/4"</b>	410119001-60	1:1	IC 80 bar
<b>Ø 1"</b>	410125003-60 T32223	1:1	EC
<b>Ø 1"</b>	410125004-60	1:1	IC 80 bar





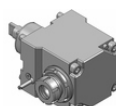
Performance Series - Enhanced Program

Performance Series - Enhanced Program



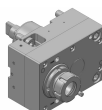
**OD milling unit with combination mill arbor DIN 6358**

<b>Ø 16</b>	410216000-60	1:1	EC
	00675000854		
<b>Ø 22</b>	410222007-60	1:1	EC
	T32268		
	00675000483		
<b>Ø 27</b>	410227008-60	1:1	EC
	00675000245		
<b>Ø 3/4"</b>	410219000-60	1:1	EC
	00675000483		
<b>Ø 1"</b>	410225000-60	1:1	EC
	T32217		
	00675000483		



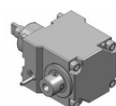
**Face drill/milling unit for ER collets**

<b>ER 32</b>	410520029-60	1:1	IC 80 bar
	T32233		
	00675000780		
<b>ER 40</b>	410526015-60	1:1	IC 80 bar
	T32235		
	00675000781		
<b>ER 25</b>	410516000-60	1:2	EC
	00675000801		
<b>ER 25</b>	410516001-60	1:2	IC 80 bar
	00675000801		
<b>ER 40</b>	410526017-60	2:1	EC
	00675000781		
<b>ER 40</b>	410526018-60	2:1	IC 80 bar
	00675000781		



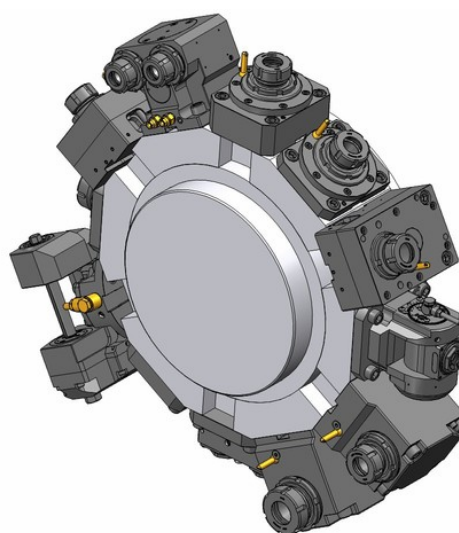
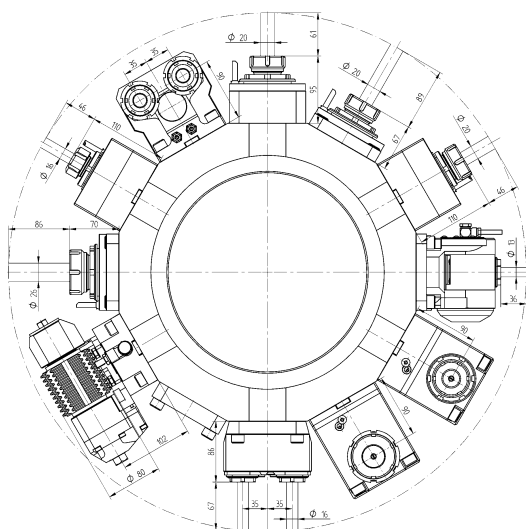
**OD drill/milling unit, offset**

<b>ER 32</b>	410120045-60	1:1	EC
	00675000782		
<b>ER 32</b>	410120047-60	1:1	IC 80 bar
	00675000782		
<b>ER 25</b>	410116020-60	1:2	EC
	00675000861		
<b>ER 25</b>	410116021-60	1:2	IC 80 bar
	00675000861		
<b>ER 32</b>	410120041-60	2:1	EC
	00675000782		
<b>ER 32</b>	410120040-60	2:1	IC 80 bar
	00675000782		



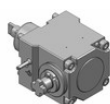
**Face drill/milling unit with Weldon or Whistle Notch shank**

<b>Ø 16</b>	410516005-60	1:1	EC
<b>Ø 16</b>	410516006-60	1:1	IC 80 bar
<b>Ø 20</b>	410520011-60	1:1	EC
	T32228		
<b>Ø 20</b>	410520012-60	1:1	IC 80 bar
<b>Ø 25</b>	410525004-60	1:1	EC
	T32222		
<b>Ø 25</b>	410525005-60	1:1	IC 80 bar
<b>Ø 3/4"</b>	410519000-60	1:1	EC
<b>Ø 3/4"</b>	410519001-60	1:1	IC 80 bar
<b>Ø 1"</b>	410525006-60	1:1	EC
	T32224		
<b>Ø 1"</b>	410525007-60	1:1	IC 80 bar



Performance Series - Enhanced Program

Performance Series - Enhanced Program



**Face milling unit with combination mill arbor  
DIN 6358**

<b>Ø 22</b>	410622000-60 T32269	2:1	EC
	00675000483		
<b>Ø 27</b>	410627000-60	2:1	EC
	00675000245		
<b>Ø 1"</b>	410625000-60 T32226	2:1	EC
	00675000483		



**Adjustable angle drill/milling unit**

<b>ER 20</b>	411013009-60 T32474	1:1	EC
	00675000928		
<b>ER 20</b>	411013010-60	1:1	IC 80 bar
	00675000928		
<b>ER 16</b>	411010001-60	1:2	EC
	00675000936		
<b>ER 16</b>	411010002-60	1:2	IC 80 bar
	00675000936		



**Slitting saw unit**

<b>Type 19/2</b>	411500006-60	3:1	EC
	00675000855		
	160022192 Ø 22		
	160027192 Ø 27		
	160032192 Ø 32		
	160040192 Ø 40		
	160023192 Ø 7/8"		
	160025192 Ø 1"		
	160031192 Ø 1 1/4"		
	160038192 Ø 1 1/2"		



**Gear hobbing unit**

<b>Type 16/1</b>	411500007-60	1:1	EC
	00675000926		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		

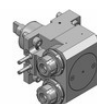
**Type 16/1** 411500008-60 2:1 EC

00675000926	
160016161 Ø 16	
160022161 Ø 22	
160027161 Ø 27	
160015161 Ø 5/8"	
160019161 Ø 3/4"	
160025161 Ø 1"	



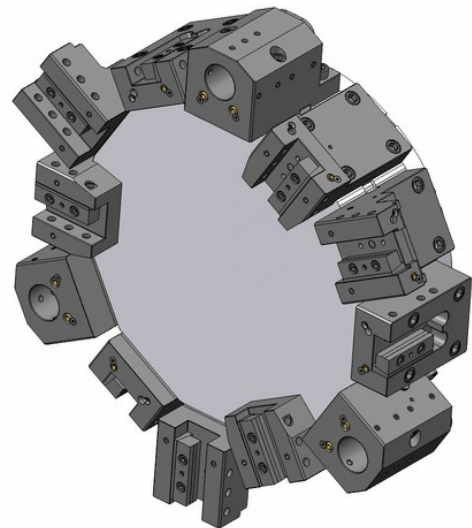
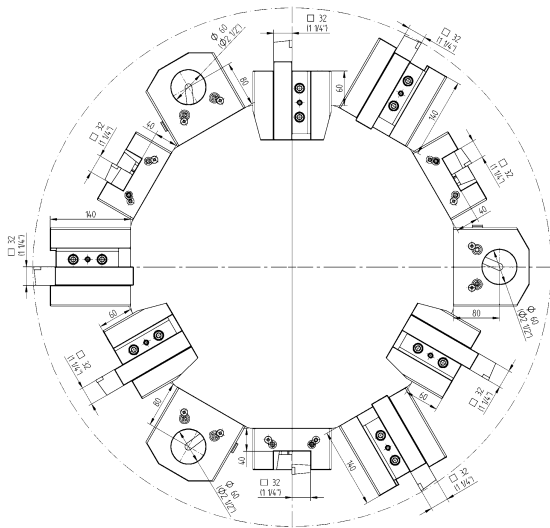
**OD drill/milling unit, double, Y axis**

<b>ER 25</b>	413002000-60	1:1	EC
	00675000907		

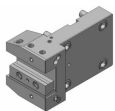


**2-spindle - Face drill/milling unit, Y axis**

<b>ER 25</b>	413502000-60	1:1	EC
	00675000915		
<b>ER 25</b>	413502002-60	1:1	IC 80 bar
	00675000915		

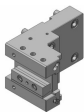


Toolholder - Standard Program



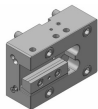
**OD cutting holder**

- 32**      48-T00432  
            T00432
- 1 1/4"**    48-T00433  
            T00433



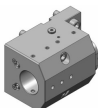
**OD cutting holder, long (only for turret 1)**

- 32**      48-T00434  
            T00434
- 1 1/4"**    48-T00435  
            T00435



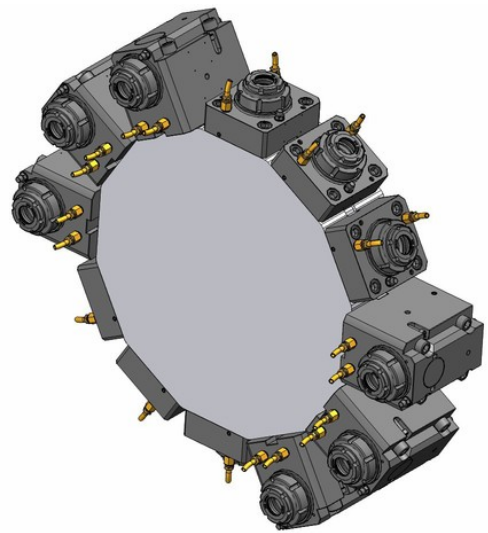
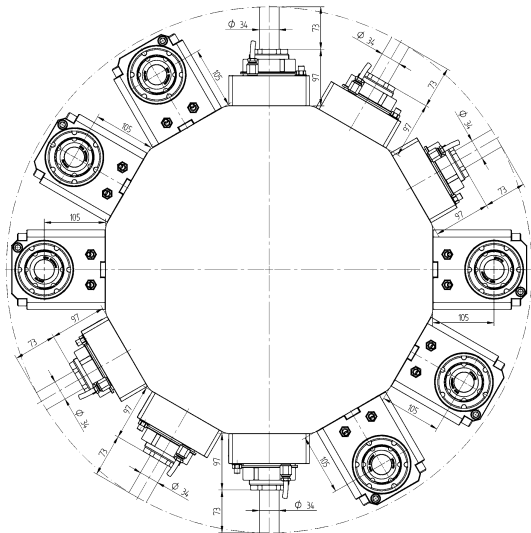
**Face and ID cutting holder**

- 32**      48-T03042  
            T03042
- 1 1/4"**    48-T03043  
            T03043



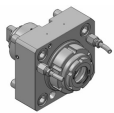
**Combination toolholder**


- Ø 60**      48-T10203  
            T10203
- Ø 2 1/2"**    48-T10204  
            T10204

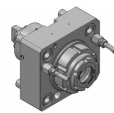



Performance Series - Standard Program

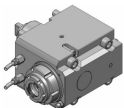
Performance Series - Enhanced Program




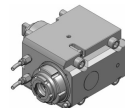
**OD drill/milling unit**  
**ER 50**    420150010-75    1:1    EC  
 0067750000




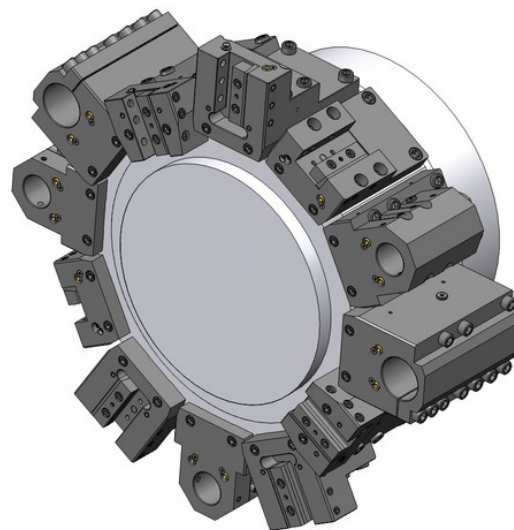
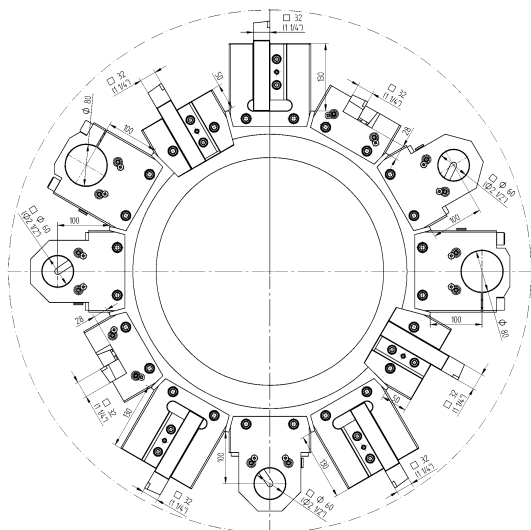
**OD drill/milling unit**  
**ER 50**    420150011-75    1:1    IC 80 bar  
 0067750000



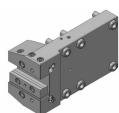
**Face drill/milling unit**  
**ER 50**    420550010-75    1:1    EC  
 0067750000



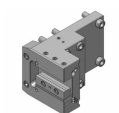
**Face drill/milling unit**  
**ER 50**    420550011-75    1:1    IC 80 bar  
 0067750000



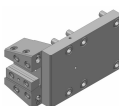
Toolholder - Standard Program



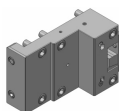
- OD cutting holder**
- 32 48-T00372  
T00372
  - 1 1/4" 48-T00383  
T00383



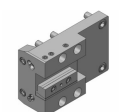
- OD cutting holder, long (only for turret 1)**
- 32 48-T00371  
T00371
  - 1 1/4" 48-T00382  
T00382



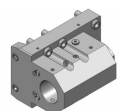
- OD cutting holder, short (only for turret 2)**
- 32 48-T00374  
T00374
  - 1 1/4" 48-92499



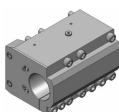
- OD cutting holder (only for turret 2)**
- 32 48-T00373  
T00373
  - 1 1/4" 48-92500



- Face and ID cutting holder**
- 32 48-T03030  
T03030
  - 1 1/4" 48-T03031  
T03031

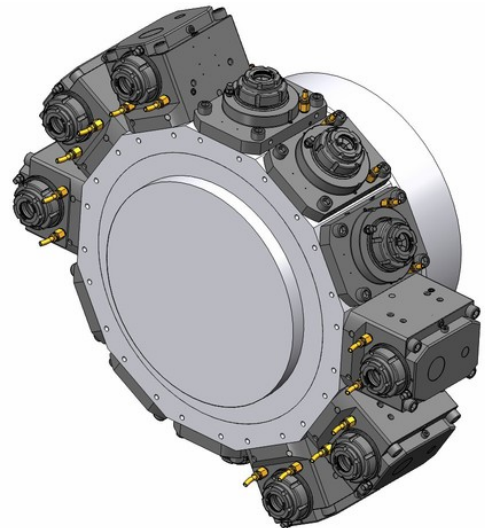
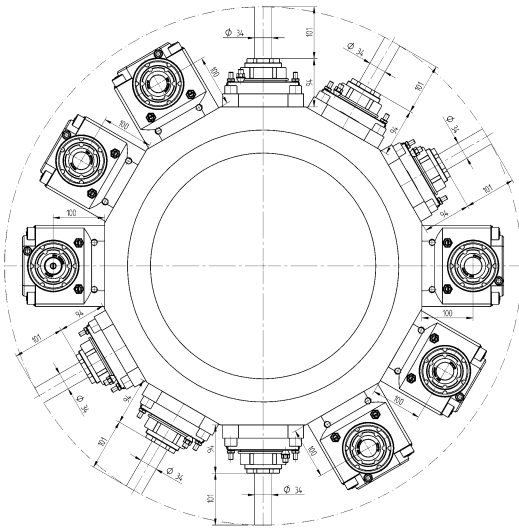


- Combination toolholder**
- Ø 60 48-T10168  
T10168
  - Ø 2 1/2" 48-T10174  
T10174




- Boring bar holder, with slot**
- Ø 80 48-T10169  
T10169

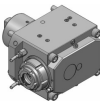





Performance Series - Standard Program

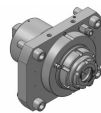



**OD drill/milling unit**  
**ER 50**    420150000-A1    1:1    EC  
 0067750000




**Face drill/milling unit**  
**ER 50**    420550000-A1    1:1    EC  
 0067750000

Performance Series - Enhanced Program



**OD drill/milling unit**  
**ER 50**    420150001-A1    1:1    IC 80 bar  
 0067750000



**Face drill/milling unit**  
**ER 50**    420550001-A1    1:1    IC 80 bar  
 0067750000

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
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 3/4"**

2400075025	ø 1/4"
2400075032	ø 5/16"
2400075038	ø 3/8"
2400075050	ø 1/2"
2400075063	ø 5/8"

Standard reduction sleeves - cylindrical



**Reduction sleeve Ø 1"**

2400100025	ø 1/4"
2400100031	ø 5/16"
2400100038	ø 3/8"
2400100050	ø 1/2"
2400100063	ø 5/8"
2400100075	ø 3/4"



**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"



**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"
2400200075	ø 3/4"
2400200088	ø 7/8"
2400200100	ø 1"
2400200125	ø 1 1/4"
2400200150	ø 1 1/2"
2400200175	ø 1 3/4"

Reduction sleeves for boring bar holders - cylindrical




**Reduction sleeve Ø 25**

24-T20180	ø 8
24-T20182	ø 10
24-T20184	ø 12
24-T20186	ø 16
24-T20188	ø 20




**Reduction sleeve Ø 32**

24-T20112	ø 8
24-T20114	ø 10
24-T20116	ø 12
24-T20118	ø 16
24-T20120	ø 20
24-T20122	ø 25




**Reduction sleeve Ø 40**

24-T20086	ø 8
24-T20088	ø 10
24-T20090	ø 12
24-T20092	ø 16
24-T20094	ø 20
24-T20096	ø 25
24-T20098	ø 32




**Reduction sleeve Ø 50**

24-T20160	ø 10
24-T20162	ø 12
24-T20164	ø 16
24-T20166	ø 20
24-T20168	ø 25
24-T20170	ø 32
24-T20172	ø 40




**Reduction sleeve Ø 60**

24-T20136	ø 32
24-T20138	ø 40
24-T20140	ø 50



**Reduction sleeve Ø 1"**


24-T20181	ø 3/8"
24-T20183	ø 1/2"
24-T20185	ø 5/8"
24-T20187	ø 3/4"



**Reduction sleeve Ø 1 1/4"**


24-T20115	ø 3/8"
24-T20117	ø 1/2"
24-T20119	ø 5/8"
24-T20121	ø 3/4"
24-T20123	ø 1"

Reduction sleeves for boring bar holders - cylindrical



**Reduction sleeve Ø 1 1/2"**

24-T20089	ø 3/8"
24-T20091	ø 1/2"
24-T20093	ø 5/8"
24-T20095	ø 3/4"
24-T20097	ø 1"
24-T20099	ø 1 1/4"



**Reduction sleeve Ø 2"**

24-T20163	ø 1/2"
24-T20165	ø 5/8"
24-T20167	ø 3/4"
24-T20169	ø 1"
24-T20171	ø 1 1/4"
24-T20173	ø 1 1/2"

Reduction sleeves for boring bar holders - cylindrical, extended



**Reduction sleeve Ø 32**

24-T20124	ø 8
24-T20126	ø 10
24-T20128	ø 12
24-T20130	ø 16



**Reduction sleeve Ø 40**

24-T20106	ø 8
24-T20108	ø 10
24-T20110	ø 12
24-T20194	ø 16
24-T20196	ø 20
24-T20216	ø 25



**Reduction sleeve Ø 1 1/4"**

24-T20127	ø 3/8"
24-T20129	ø 1/2"
24-T20131	ø 5/8"



**Reduction sleeve Ø 1 1/2"**

24-T20109	ø 3/8"
24-T20111	ø 1/2"
24-T20195	ø 5/8"
24-T20197	ø 3/4"

Reduction sleeves for boring bar holders - morse taper



**Reduction sleeve Ø 25**

24-T22062	MK 1
24-T22064	MK 2



**Reduction sleeve Ø 32**

24-T22050	MK 1
24-T22048	MK 2



**Reduction sleeve Ø 40**

24-T22066	MK 1
24-T22046	MK 2
24-T22042	MK 3



**Reduction sleeve Ø 50**

24-T22044	MK 4
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Collets DIN 6499B (ER/ESX)



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



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



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

Collets DIN 6499B (ER/ESX)



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



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



Collets DIN 6499B (ER/ESX)

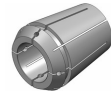


ER 40	mm	inch
190040000	∅ 26-3	∅ 1.024-0.118
190040040	∅ 4-3	∅ 0.157-0.118
190040050	∅ 5-4	∅ 0.197-0.157
190040060	∅ 6-5	∅ 0.236-0.197
190040070	∅ 7-6	∅ 0.276-0.236
190040080	∅ 8-7	∅ 0.315-0.276
190040090	∅ 9-8	∅ 0.354-0.315
190040100	∅ 10-9	∅ 0.394-0.354
190040110	∅ 11-10	∅ 0.433-0.394
190040120	∅ 12-11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



ER 50	mm	inch
190050000	∅ 34-10	∅ 1.339-0.394
190050060	∅ 6-4	∅ 0.236-0.157
190050080	∅ 8-6	∅ 0.315-0.236
190050100	∅ 10-8	∅ 0.394-0.315
190050120	∅ 12-10	∅ 0.472-0.394
190050140	∅ 14-12	∅ 0.551-0.472
190050160	∅ 16-14	∅ 0.630-0.551
190050180	∅ 18-16	∅ 0.709-0.630
190050200	∅ 20-18	∅ 0.787-0.709
190050220	∅ 22-20	∅ 0.866-0.787
190050240	∅ 24-22	∅ 0.945-0.866
190050260	∅ 26-24	∅ 1.024-0.945
190050280	∅ 28-26	∅ 1.102-1.024
190050300	∅ 30-28	∅ 1.181-1.102
190050320	∅ 32-30	∅ 1.260-1.181
190050340	∅ 34-32	∅ 1.339-1.260

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



ER 11	mm	inch
191011030	∅ 3	
191011040	∅ 4	
191011050	∅ 5	
191011060	∅ 6	
191011070	∅ 7	
191011013-in		∅ 0.125
191011019-in		∅ 0.188
191011025-in		∅ 0.25



ER 16	mm	inch
191016000	∅ 4-10	
191016030	∅ 3	
191016040	∅ 4	
191016050	∅ 5	
191016060	∅ 6	
191016070	∅ 7	
191016080	∅ 8	
191016090	∅ 9	
191016100	∅ 10	
191016013-in		∅ 0.125
191016019-in		∅ 0.188
191016025-in		∅ 0.25
191016031-in		∅ 0.313
191016038-in		∅ 0.375



ER 20	mm	inch
191020000	∅ 4-12	
191020030	∅ 3	
191020040	∅ 4	
191020050	∅ 5	
191020060	∅ 6	
191020070	∅ 7	
191020080	∅ 8	
191020090	∅ 9	
191020100	∅ 10	
191020110	∅ 11	
191020120	∅ 12	
191020130	∅ 13	
191020013-in		∅ 0.125
191020019-in		∅ 0.188
191020025-in		∅ 0.25
191020031-in		∅ 0.313
191020038-in		∅ 0.375
191020044-in		∅ 0.438
191020050-in		∅ 0.5

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

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



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	
191025013-in		ø 0.125
191025019-in		ø 0.188
191025025-in		ø 0.25
191025031-in		ø 0.313
191025038-in		ø 0.375
191025044-in		ø 0.438
191025050-in		ø 0.5
191025056-in		ø 0.563
191025063-in		ø 0.625



ER 32	mm	inch
191032000	ø 6-20	
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	
191032013-in		ø 0.125
191032019-in		ø 0.188
191032025-in		ø 0.25
191032031-in		ø 0.313
191032038-in		ø 0.375
191032044-in		ø 0.438
191032050-in		ø 0.5
191032056-in		ø 0.563
191032063-in		ø 0.625
191032075-in		ø 0.75

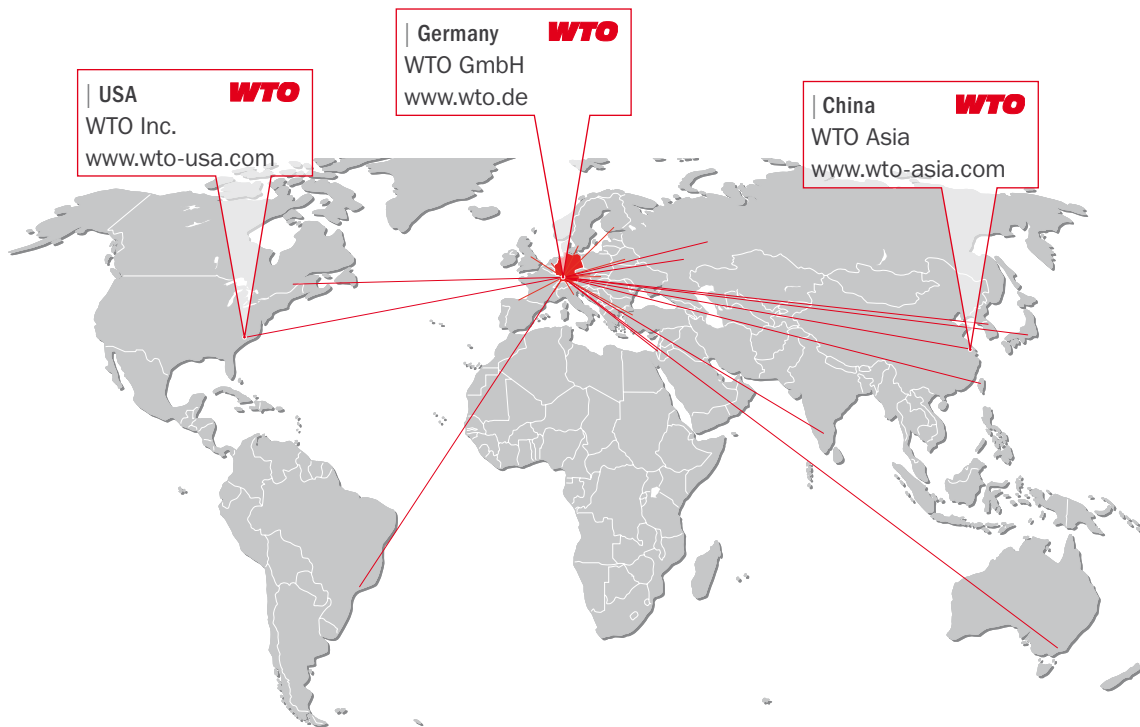


ER 40	mm	inch
191040040	ø 4	
191040050	ø 5	
191040044-in		ø 0.438
191040050-in		ø 0.5
191040056-in		ø 0.563
191040063-in		ø 0.625
191040075-in		ø 0.75
191040088-in		ø 0.875
191040100-in		ø 1
191040060	ø 6	
191040070	ø 7	
191040080	ø 8	
191040090	ø 9	
191040100	ø 10	
191040110	ø 11	
191040120	ø 12	
191040130	ø 13	
191040140	ø 14	
191040150	ø 15	
191040160	ø 16	
191040170	ø 17	
191040180	ø 18	
191040190	ø 19	
191040200	ø 20	
191040210	ø 21	
191040220	ø 22	
191040230	ø 23	
191040240	ø 24	
191040250	ø 25	
191040260	ø 26	
191040025-in		ø 0.25
191040031-in		ø 0.313
191040038-in		ø 0.375



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