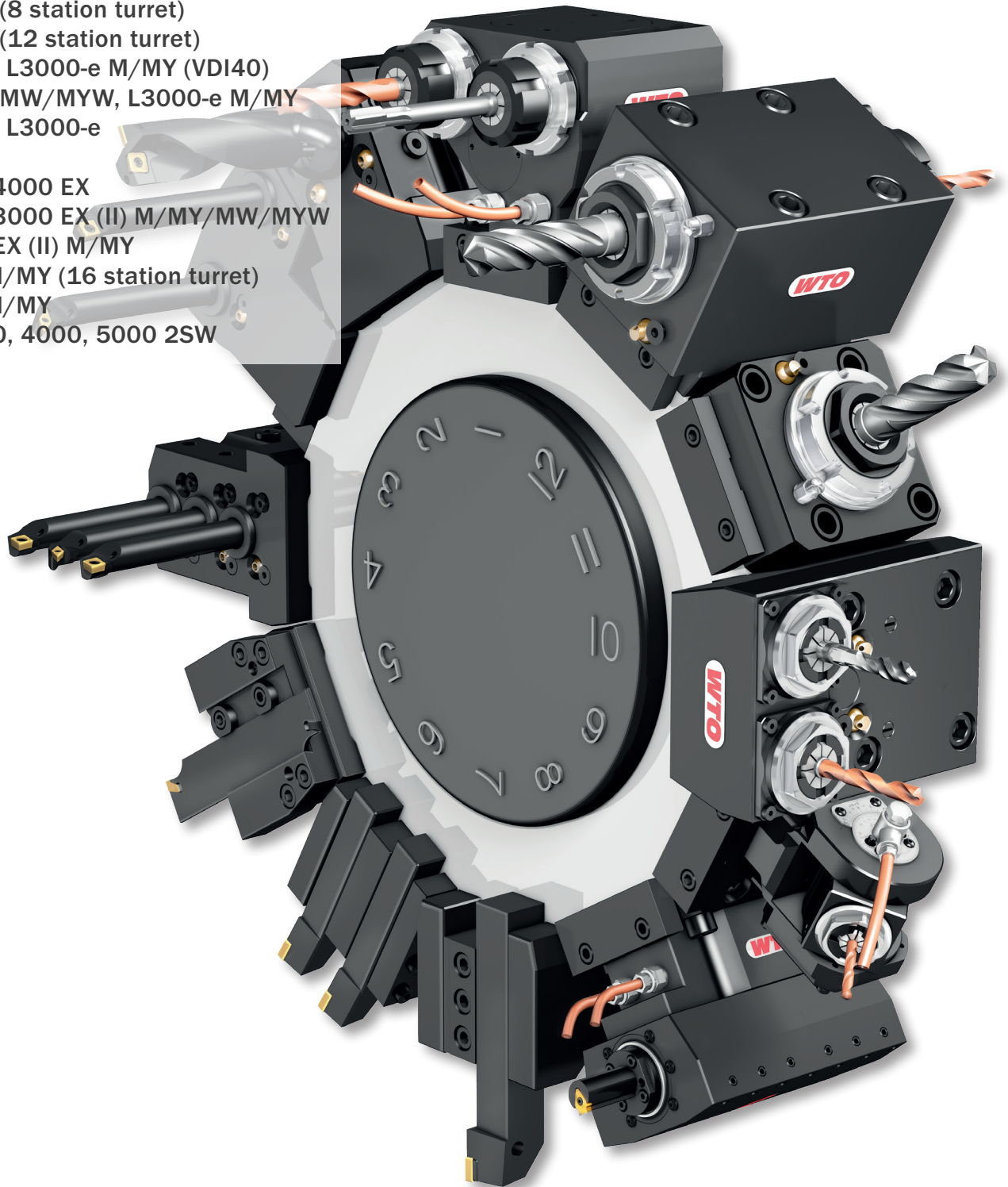


Tool Holder Program

GENOS L200, L2000-e M/MY (VDI30)
GENOS L250 (8 station turret)
GENOS L250 (12 station turret)
GENOS L300, L3000-e M/MY (VDI40)
GENOS L300 MW/MYW, L3000-e M/MY
GENOS L400, L3000-e
LB 2000 EX
LB/LU 2500-4000 EX
LB/LU 2000-3000 EX (II) M/MY/MW/MYW
LB/LU 4000 EX (II) M/MY
LT 2000 EX M/MY (16 station turret)
LT 3000 EX M/MY
Multus U3000, 4000, 5000 2SW





QuickFlex®

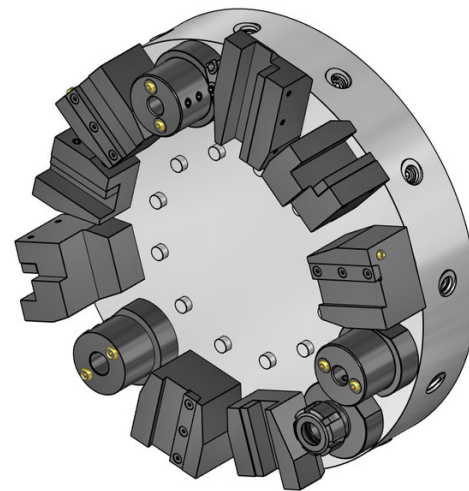
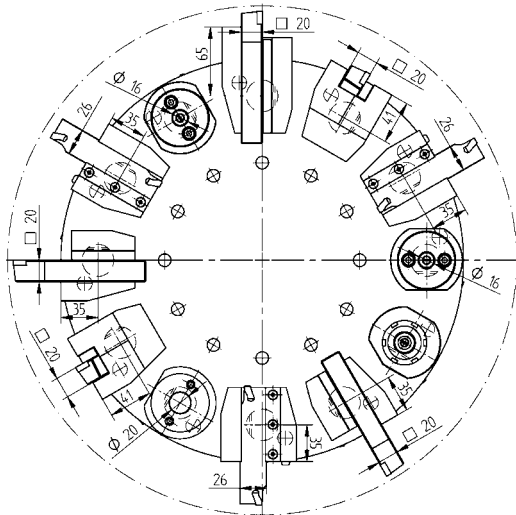
The new quick change system for high performance and precision.

Minimal investment, maximal expandability.

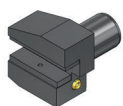


GENOS L200, L2000-e M/MY (VDI30)	Page	4 - 6
GENOS L250 (8 station turret)	Page	7 - 7
GENOS L250 (12 station turret)	Page	8 - 8
GENOS L300, L3000-e M/MY (VDI40)	Page	9 - 11
GENOS L300 MW/MYW, L3000-e M/MY	Page	12 - 14
GENOS L400, L3000-e	Page	15 - 15
LB 2000 EX	Page	16 - 16
LB/LU 2500-4000 EX	Page	17 - 17
LB/LU 2000-3000 EX (II) M/MY/MW/MYW	Page	18 - 21
LB/LU 4000 EX (II) M/MY	Page	22 - 25
LT 2000 EX M/MY (16 station turret)	Page	26 - 28
LT 3000 EX M/MY	Page	29 - 31
Multus U3000, 4000, 5000 2SW	Page	32 - 34
Reduction sleeves	Page	35 - 36
Collets	Page	37 - 39

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

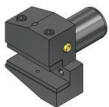


Static Toolholders - Standard Program



Radial square toolholder, left hand, short, Form B2

- 20(16) 48-B2-30x20
- 20(16) 48-B2-30x20x60



Radial square toolholder, left hand inverted, short, Form B4

- 20(16) 48-B4-30x20
- 20(16) 48-B4-30x20x60



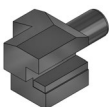
Radial square toolholder, left hand, long, Form B6

- 20(16) 48-B6-30x20
- 20(16) 48-B6-30x20x60
- 3/4" 48-B6-30x075



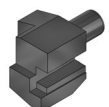
Radial square toolholder, left hand inverted, long, Form B8

- 20(16) 48-B8-30x20



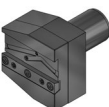
Axial square toolholder, left hand, Form C2

- 20(16) 48-C2-30x20

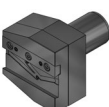


Axial square toolholder, left hand inverted, Form C4

- 20(16) 48-C4-30x20



Cut-off holder, adjustable height, left hand SH 26 48-AL-30x26



Cut-off holder, adjustable height, left hand inverted SH 26 48-ALU-30x26

Static Toolholders - Standard Program



Cut-off holder, adjustable height, HP-IC

- SH 26 48-102686R IC 80 bar
- SH 26 48-102686L IC 80 bar
- SH 32 48-102688R IC 80 bar
- SH 32 48-102688L IC 80 bar



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



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

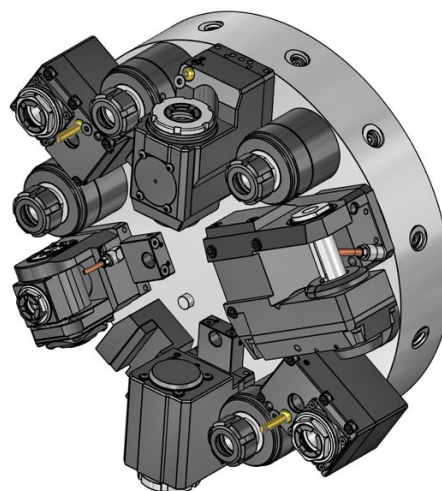
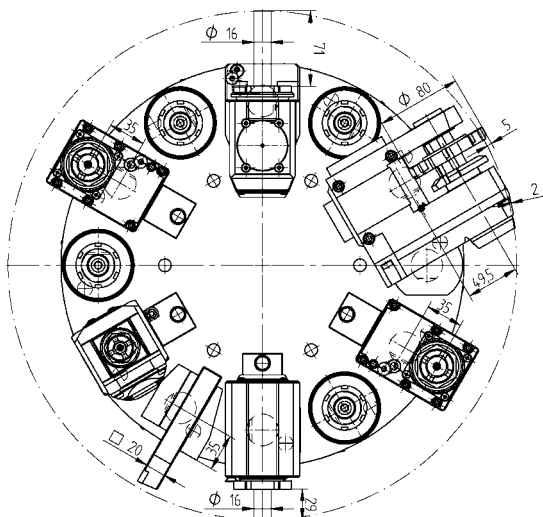


ER collet chuck holder, internal coolant supply, Form E4

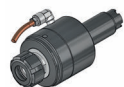
- ER 25 48-E4-30x25
107525000
- ER 32 48-E4-30x32
107532000
- ER 40 48-E4-30x40
107540000



Plug, steel, Form Z2
Steel 48-Z2-30-S



Driven Toolholders - Performance Series



Face drill/milling unit

ER 25	410116040-30	1:1	EC
	00675000359		
ER 25	410116041-30	1:1	IC 30 bar
	00675000359		



OD back set drill/milling unit

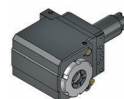
ER 25	410516045-30	1:1	EC
	00675000801		
ER 25	410516110-30	1:1	IC 80 bar
	00675000801		

Driven Toolholders - Enhanced Program



Face drill/milling unit, offset

ER 25	410116133-30	1:1	EC
	00675000932		
ER 25	410116125-30	1:1	IC 80 bar
	00675000932		
ER 20	410113041-30	1:2	EC
	00675000939		
ER 20	410113042-30	1:2	IC 80 bar
	00675000939		
ER 25	410116126-30	2:1	EC
	00675000932		
ER 25	410116127-30	2:1	IC 80 bar
	00675000932		



OD drill/milling unit

ER 20	410513028-30	1:2	EC
	00675000833		
ER 20	410513029-30	1:2	IC 80 bar
	00675000833		



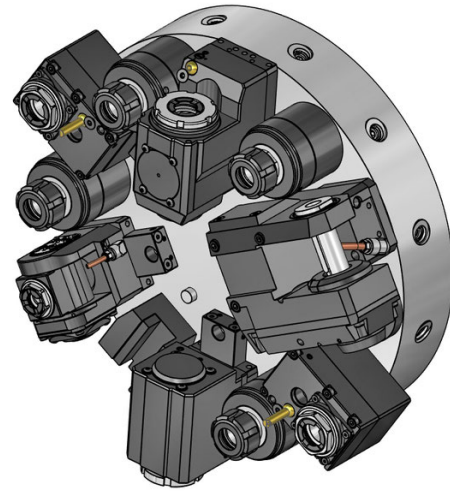
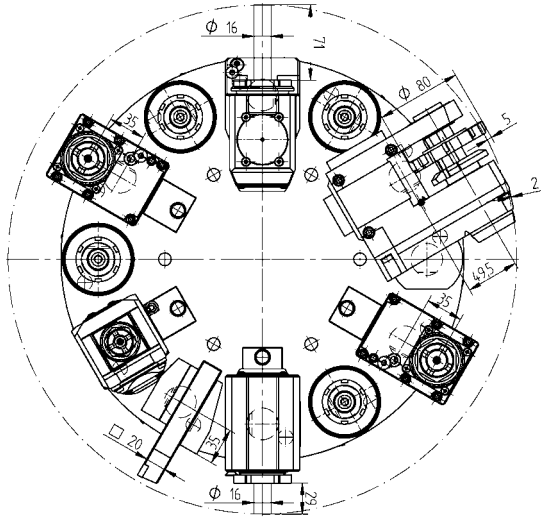
OD back set drill/milling unit

ER 25	410516046-30	2:1	EC
	00675000801		
ER 25	410516048-30	2:1	IC 80 bar
	00675000801		



Adjustable angle drill/milling unit

ER 16	411010012-30	1:1	EC
	00675000902		
ER 16	411010013-30	1:1	IC 80 bar
	00675000902		
ER 11	411007013-30	1:2	EC
	00675000914		
ER 11	411007014-30	1:2	IC 80 bar
	00675000914		





Driven Toolholders - Enhanced Program





Offset slitting saw unit


Type 14-2 411500006-30 2.73:1 EC


 00675000460


 160016142 Ø 16


 160022142 Ø 22

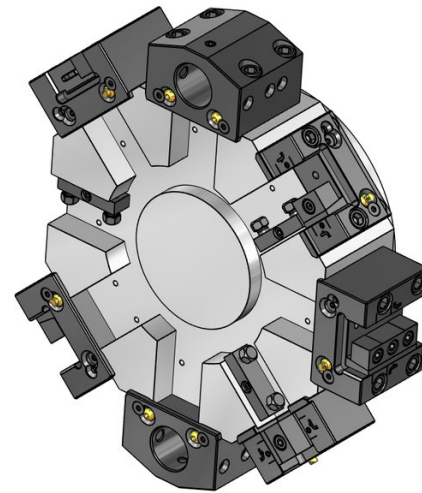
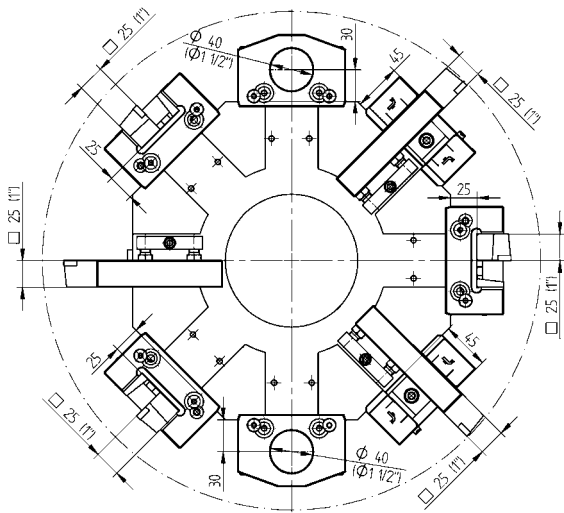
 160027142 Ø 27

 160015142 Ø 5/8"

 160019142 Ø 3/4"

 160023142 Ø 7/8"

 160025142 Ø 1"



Static Toolholders - Standard Program



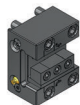
Wedge block

25(1") 48-78872



OD cutting holder, HP-IC

25 48-100856-HP IC 80 bar
 1" 48-102469-HP IC 80 bar



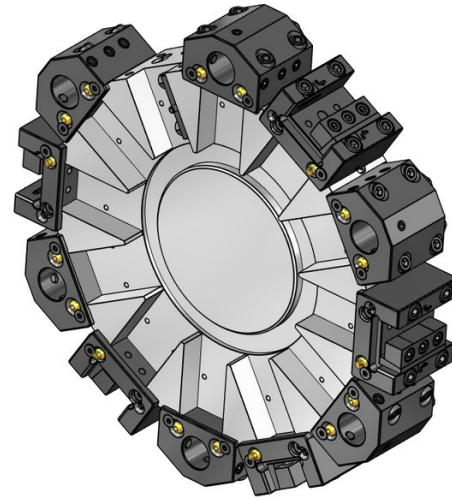
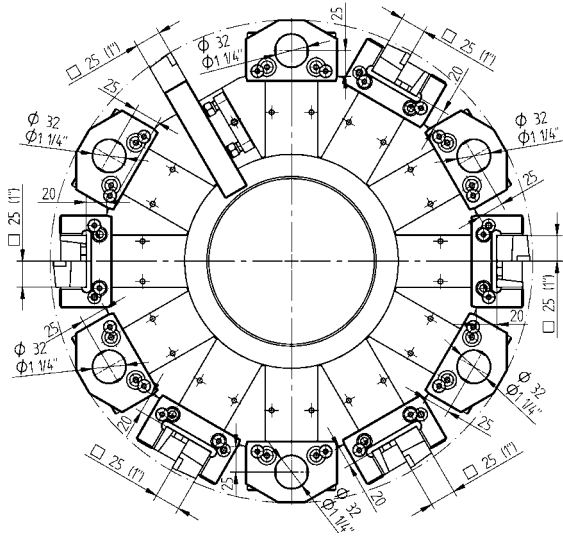
Face cutting holder, HP-IC

25 48-100858-HP IC 80 bar
 1" 48-115655-HP IC 80 bar



Combination toolholder

Ø 40 48-85213 IC 80 bar
 Ø 1 1/2" 48-101015 IC 80 bar

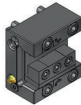


Static Toolholders - Standard Program



Wedge block

25(1") 48-78872



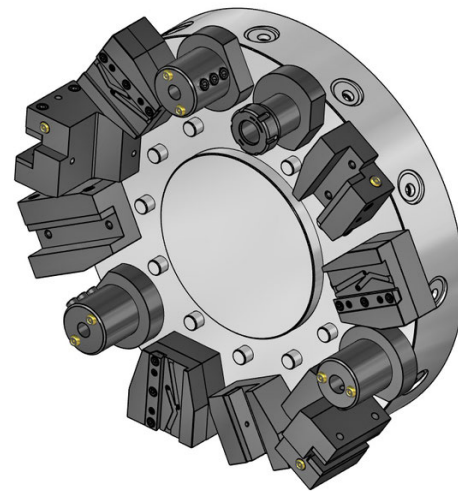
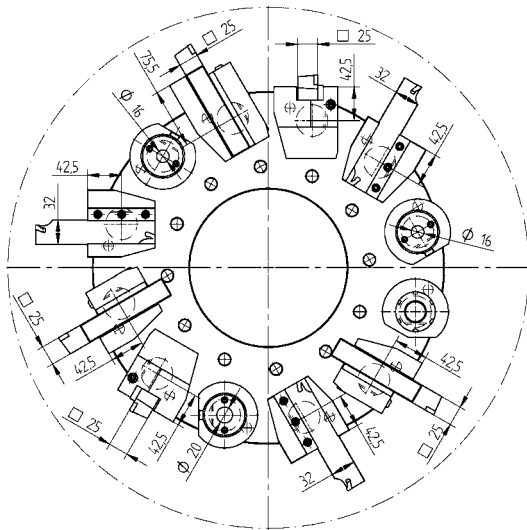
Face cutting holder, HP-IC

25	48-100853-HP	IC 80 bar
1"	48-115657-HP	IC 80 bar

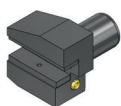


Combination toolholder

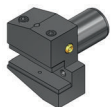
Ø 32	48-87633	IC 80 bar
Ø 1 1/4"	48-115658	IC 80 bar



Static Toolholders - Standard Program



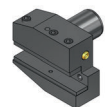
Radial square toolholder, left hand, short, Form B2
 25(20) 48-B2-40x25



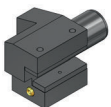
Radial square toolholder, left hand inverted, short, Form B4
 25(20) 48-B4-40x25
 1" 48-B4-40x100



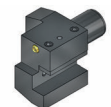
Radial square toolholder, left hand, long, Form B6
 25(20) 48-B6-40x25



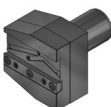
Radial square toolholder, left hand inverted, long, Form B8
 25(20) 48-B8-40x25



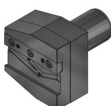
Axial square toolholder, left hand, Form C2
 25(20) 48-C2-40x25



Axial square toolholder, left hand inverted, Form C4
 25(20) 48-C4-40x25
 1" 48-C4-40x100



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



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

Static Toolholders - Standard Program



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



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



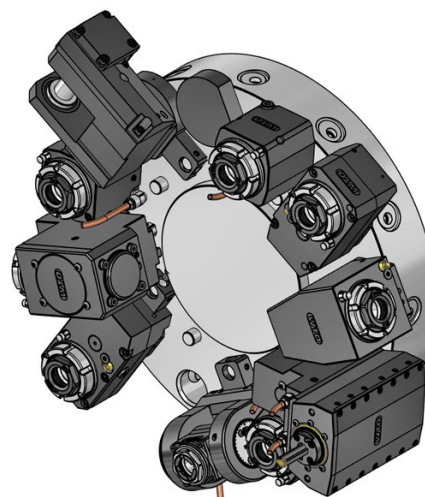
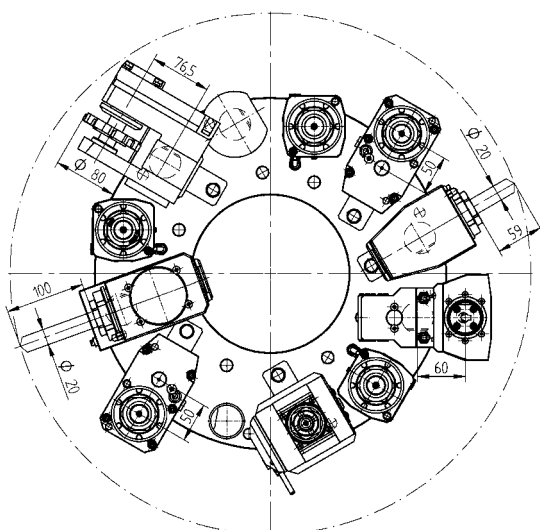
Boring bar holder, internal coolant supply, Form E2
 Ø 8 48-E2-40x8
 Ø 10 48-E2-40x10
 Ø 12 48-E2-40x12
 Ø 16 48-E2-40x16
 Ø 20 48-E2-40x20
 Ø 25 48-E2-40x25
 Ø 30 48-E2-40x30
 Ø 32 48-E2-40x32
 Ø 40 48-E2-40x40



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



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



Driven Toolholders - QuickFlex®



Face drill/milling unit

ER-32 QF	420132061-40	1:1	EC
	0067732000		
ER-32 QF	420132062-40	1:1	IC 80 bar
	0067732000		



OD drill/milling unit

ER-32 QF	420532123-40	1:1	EC
	0067732000		
ER-32 QF	420532124-40	1:1	IC 80 bar
	0067732000		

Driven Toolholders - Enhanced Program



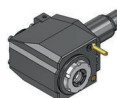
Face drill/milling unit, offset

ER-32 QF	420132089-40	1:1	EC
	0067732000		
ER-32 QF	420132090-40	1:1	IC 80 bar
	0067732000		
ER-25 QF	420125046-40	1:2	EC
	0067725001		
ER-25 QF	420125047-40	1:2	IC 80 bar
	0067725001		
ER-32 QF	420132095-40	2:1	EC
	0067732000		
ER-32 QF	420132096-40	2:1	IC 80 bar
	0067732000		



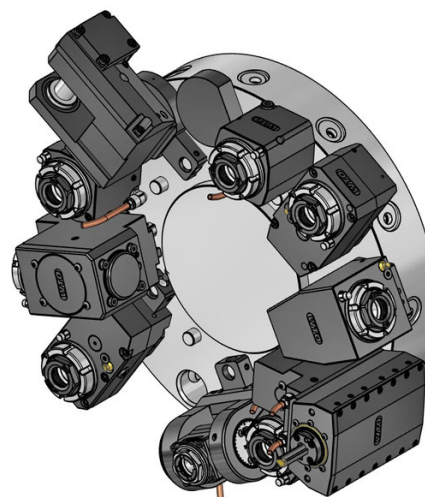
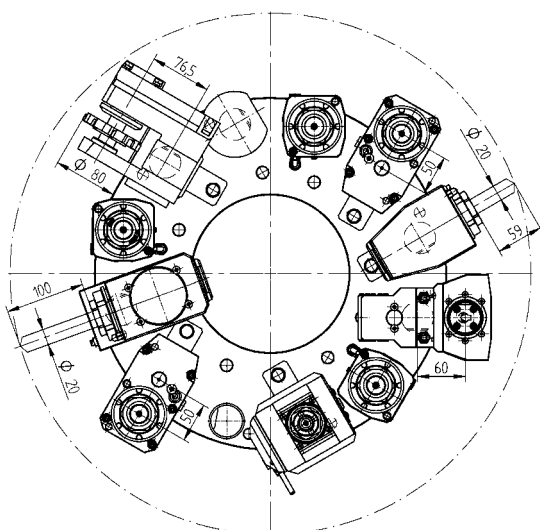
Straight milling unit with combination mill arbor DIN 6358

Ø 22	410222021-40	1:1	EC
	00675000479		



OD drill/milling unit

ER 25	410516074-40	1:2	EC
	00675000801		
ER 25	410516075-40	1:2	IC 80 bar
	00675000801		
ER 32	410520116-40	2:1	EC
	00675000490		
ER 32	410520126-40	2:1	IC 80 bar
	00675000490		

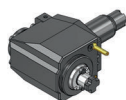


Driven Toolholders - Enhanced Program



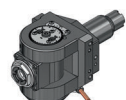
OD back set drill/milling unit

ER-32 QF	420532098-40	1:1	EC
	0067732000		
ER-32 QF	420532099-40	1:1	IC 80 bar
	0067732000		
ER-40 QF	420540019-40	2:1	EC
	0067740000		
ER-40 QF	420540020-40	2:1	IC 80 bar
	0067740000		



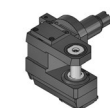
**OD milling unit with combination mill arbor
DIN 6358**

Ø 22	410622015-40	1:1	EC
	00675000160		



Adjustable angle drill/milling unit

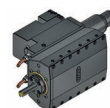
ER 25	411016010-40	1:1	EC
	00675000934		
ER 25	411016031-40	1:1	IC 80 bar
	00675000934		
ER 16	411010022-40	1:2	EC
	00675000936		
ER 16	411010023-40	1:2	IC 80 bar
	00675000936		



Offset slitting saw unit

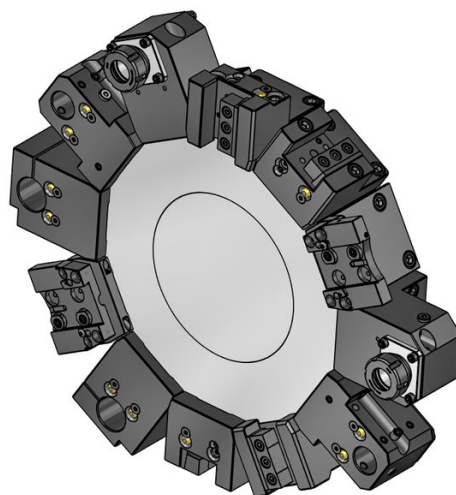
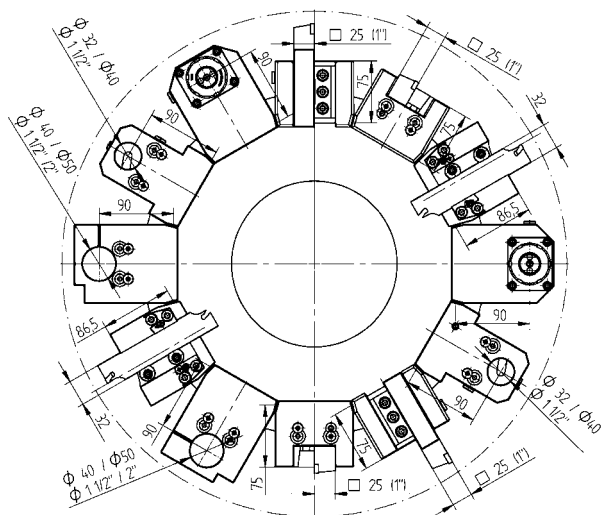
Type 14-2	411500006-40	2.73:1	EC
	00675000460		
	160016142 Ø 16		
	160022142 Ø 22		
	160027142 Ø 27		
	160015142 Ø 5/8"		
	160019142 Ø 3/4"		
	160023142 Ø 7/8"		
	160025142 Ø 1"		

Driven Toolholders - Enhanced Program



Broaching unit for ID and OD

TN765050	414132005-40	1:1	EC
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Static Toolholders - Standard Program

Static Toolholders - Enhanced Program



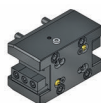
OD cutting holder

25 48-86471
1" 48-86473



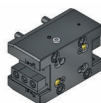
OD cutting holder, HP-IC

25 48-86471-HP IC 80 bar
1" 48-86473-HP IC 80 bar



OD cutting holder, both sides

25 48-86475
1" 48-86478



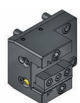
OD cutting holder, both sides, HP-IC

25 48-86475-HP IC 80 bar
1" 48-86478-HP IC 80 bar



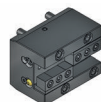
Face cutting holder

25 48-86480
1" 48-86482



Face cutting holder, HP-IC

25 48-86480-HP IC 80 bar
1" 48-86482-HP IC 80 bar



Face cutting holder, both sides

25 48-86484
1" 48-86487

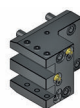


Combination toolholder

Ø 32 48-78611 IC 80 bar
Ø 40 48-78494 IC 80 bar
Ø 1 1/2" 48-78841 IC 80 bar

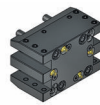


Plug
48-79267



OD cutting holder, double, Y axis

20 (3/4") 48-78534



OD cutting holder, both sides, double, Y axis

20 (3/4") 48-79965



Cut-off holder, adjustable

SH 32 48-99034



Cut-off holder, adjustable, HP-IC

SH 32 48-102282R IC 80 bar
SH 32 48-102282L IC 80 bar



Boring bar holder, with slot

Ø 40 48-80539
Ø 50 48-80511
Ø 1 1/2" 48-80542
Ø 2" 48-80541



Collet face drill holder

ER 32 48-81096 IC 80 bar
107532000



Collet face drill holder, both sides

ER 32 48-81097 IC 80 bar
107532000



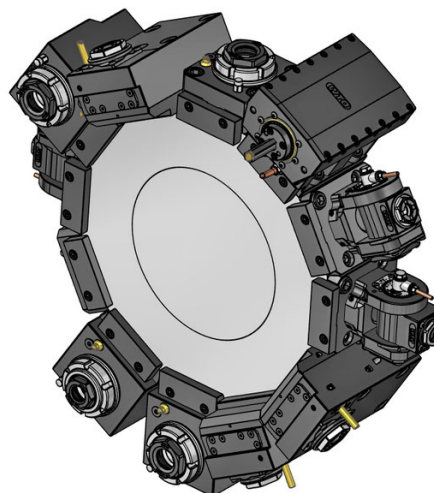
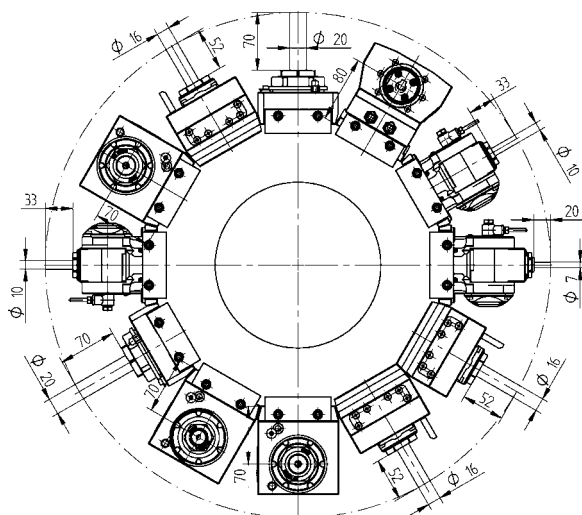
VDI adapter, left

VDI 30 48-79671
VDI 40 48-79839



VDI adapter, right

VDI 30 48-79982
VDI 40 48-79983



Driven Toolholders - QuickFlex®



OD drill/milling unit

- ER-32 QF 420132012-60 1:1 EC
0067732000
- ER-32 QF 420132013-60 1:1 IC 80 bar
0067732000



Face drill/milling unit

- ER-32 QF 420532014-60 1:1 EC
0067732000
- ER-32 QF 420532015-60 1:1 IC 80 bar
0067732000



Face drill/milling unit, both sides

- ER-32 QF 420532018-60 1:1 EC
0067732000

Driven Toolholders - Enhanced Program



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

- Ø 22 410222014-60 1:1 EC
00675000483
- Ø 1" 410225004-60 1:1 EC
00675000483



OD drill/milling unit, offset

- ER 25 410116035-60 1:1 EC
00675000932
- ER 25 410116034-60 1:1 IC 80 bar
00675000932
- ER 20 410113003-60 1:2 EC
00675000939
- ER 20 410113004-60 1:2 IC 80 bar
00675000939



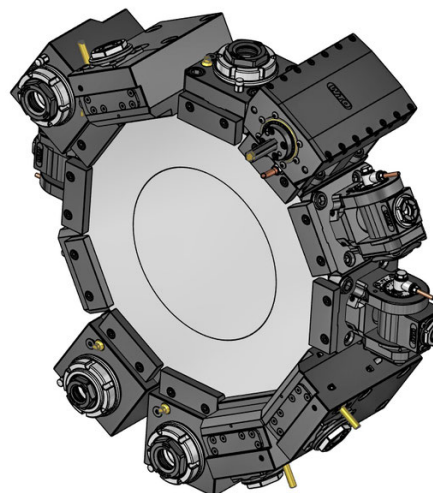
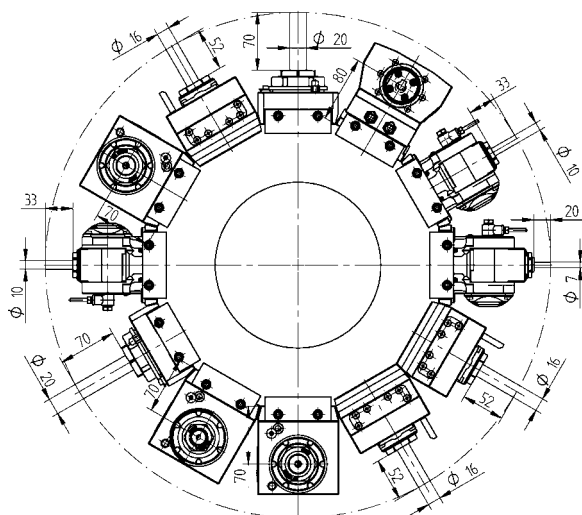
Face drill/milling unit

- ER-25 QF 420525012-60 1:2 EC
0067725001
- ER-25 QF 420525013-60 1:2 IC 80 bar
0067725001
- ER-32 QF 420532016-60 2:1 EC
0067732000
- ER-32 QF 420532017-60 2:1 IC 80 bar
0067732000



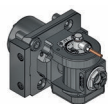
**Face milling unit with combination mill arbor
DIN 6358**

- Ø 22 410622002-60 1:1 EC
00675000557
- Ø 1" 410625002-60 1:1 EC
00675000483



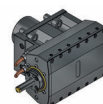
Driven Toolholders - Enhanced Program

Driven Toolholders - Enhanced Program



Adjustable angle drill/milling unit

ER 16	411010003-60	1:1	EC
	00675000902		
ER 16	411010004-60	1:1	IC 80 bar
	00675000902		
ER 11	411007001-60	1:2	EC
	00675000914		
ER 11	411007002-60	1:2	IC 80 bar
	00675000914		



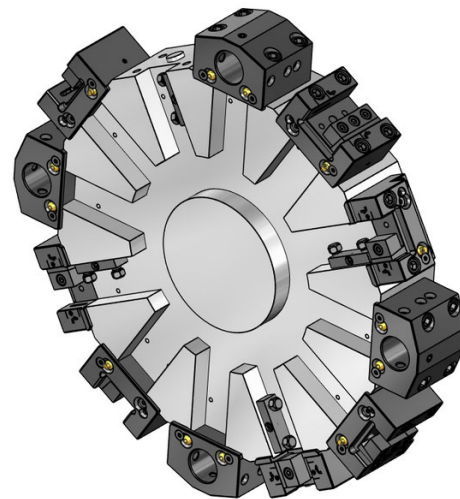
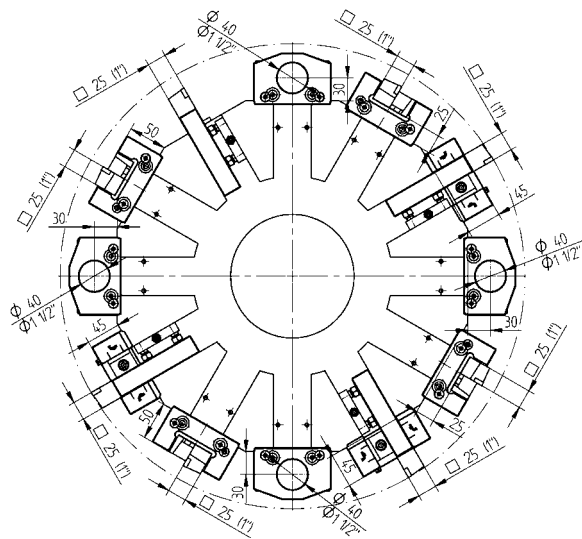
Broaching unit for ID and OD

TN765050	414532001-60	1:1	EC
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Gear hobbing unit

Type 16-1	411500013-60	1:1	EC
	00675000962		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		
Type 16-1	411500015-60	2:1	EC
	00675000962		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		



Static Toolholders - Standard Program



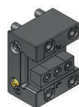
Wedge block

25(1") 48-78872



OD cutting holder, HP-IC

25 48-100856-HP IC 80 bar
 1" 48-102469-HP IC 80 bar



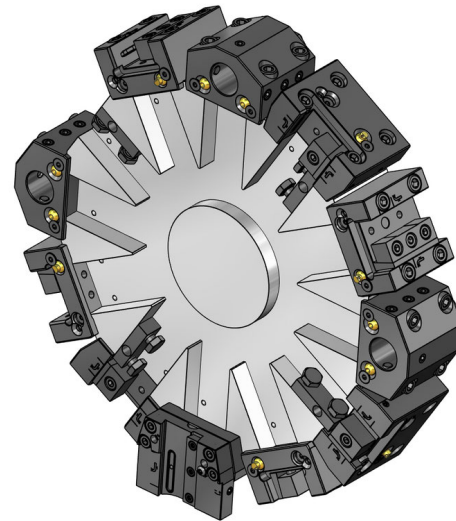
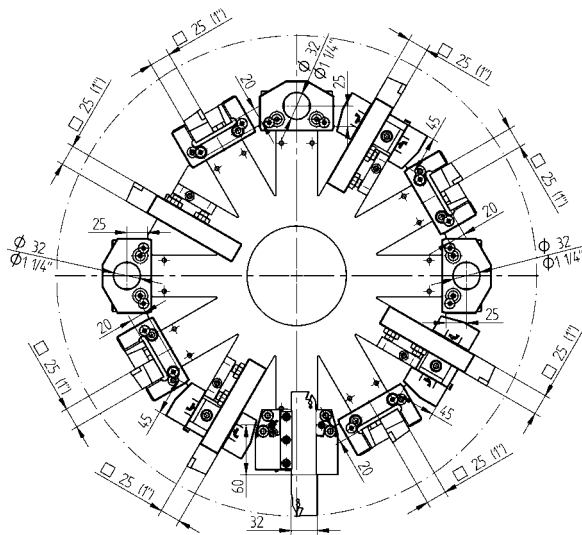
Face cutting holder, HP-IC

25 48-100858-HP IC 80 bar
 1" 48-115655-HP IC 80 bar



Combination toolholder

Ø 40 48-85213 IC 80 bar
 Ø 1 1/2" 48-101015 IC 80 bar



Static Toolholders - Standard Program



OD cutting holder, HP-IC

25	48-100854-HP	IC 80 bar
1"	48-115656-HP	IC 80 bar



Face cutting holder, HP-IC

25	48-100853-HP	IC 80 bar
1"	48-115657-HP	IC 80 bar



Combination toolholder

Ø 32	48-87633	IC 80 bar
Ø 1 1/4"	48-115658	IC 80 bar

Static Toolholders - Enhanced Program



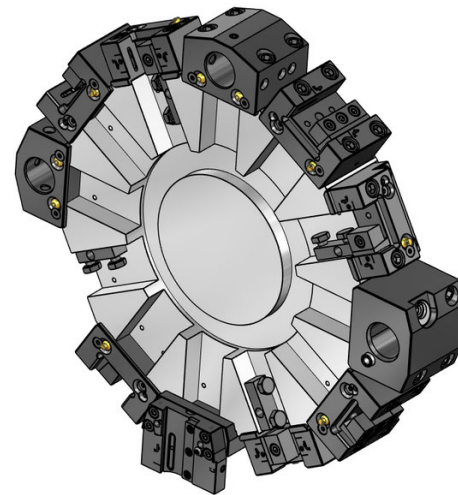
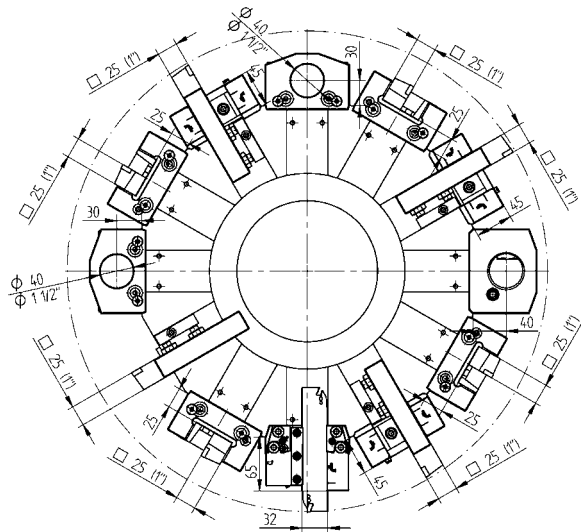
Cut-off holder, adjustable

SH 32	48-100568
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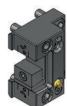


Cut-off holder, adjustable, HP-IC

SH 32	48-102284R	IC 80 bar
SH 32	48-102284L	IC 80 bar



Static Toolholders - Standard Program



OD cutting holder, HP-IC

25	48-100856-HP	IC 80 bar
1"	48-102469-HP	IC 80 bar



Face cutting holder, HP-IC

25	48-100858-HP	IC 80 bar
1"	48-115655-HP	IC 80 bar



Combination toolholder

Ø 40	48-85213	IC 80 bar
Ø 1 1/2"	48-101015	IC 80 bar

Static Toolholders - Enhanced Program



Cut-off holder, adjustable

SH 32	48-100571
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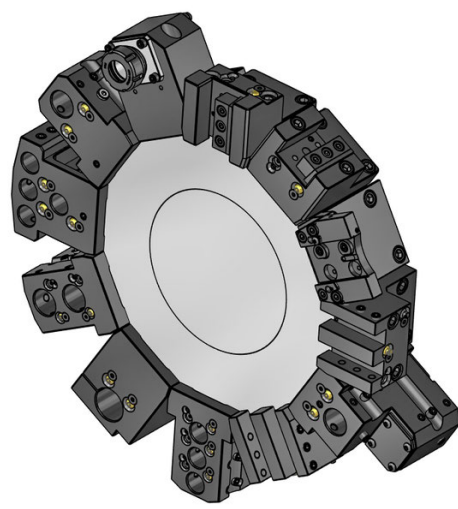
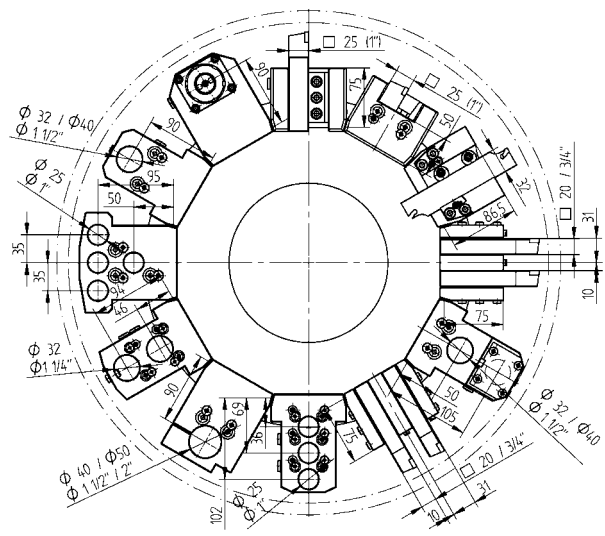
Cut-off holder, adjustable, HP-IC

SH 32	48-102286R	IC 80 bar
SH 32	48-102286L	IC 80 bar



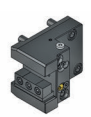
VDI adapter, right

VDI 40	48-104652
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Static Toolholders - Standard Program

Static Toolholders - Standard Program



OD cutting holder

25	48-86471
1"	48-86473



OD cutting holder, HP-IC

25	48-86471-HP	IC 80 bar
1"	48-86473-HP	IC 80 bar



OD cutting holder, both sides

25	48-86475
1"	48-86478



OD cutting holder, both sides, HP-IC

25	48-86475-HP	IC 80 bar
1"	48-86478-HP	IC 80 bar



Face cutting holder

25	48-86480
1"	48-86482



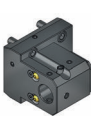
Face cutting holder, HP-IC

25	48-86480-HP	IC 80 bar
1"	48-86482-HP	IC 80 bar



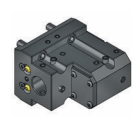
Face cutting holder, both sides

25	48-86484
1"	48-86487



Combination toolholder

Ø 32	48-78611	IC 80 bar
Ø 40	48-78494	IC 80 bar
Ø 1 1/2"	48-78841	IC 80 bar



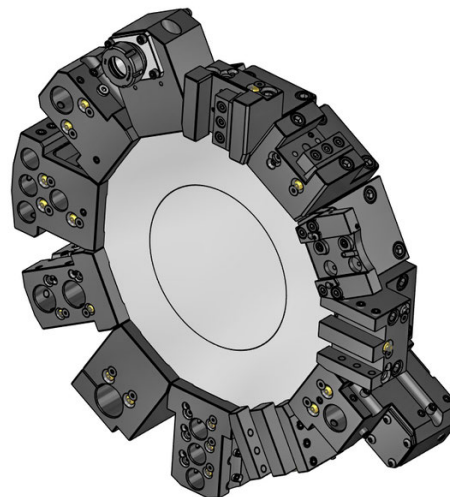
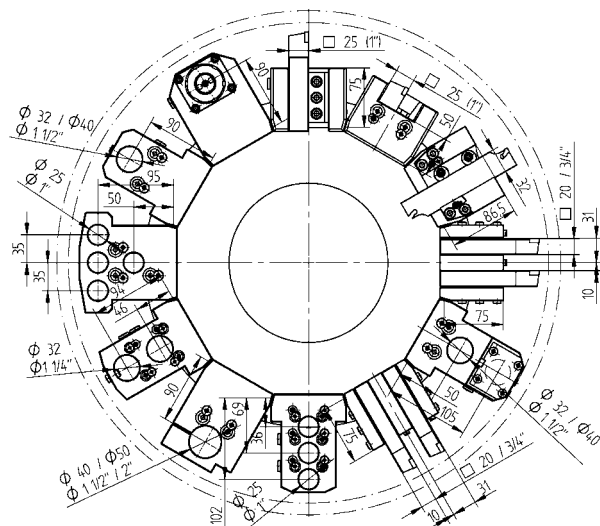
Combination toolholder, both sides

Ø 32	48-78726	IC 80 bar
Ø 40	48-78547	IC 80 bar
Ø 1 1/2"	48-78845	IC 80 bar



Plug

48-79267



Static Toolholders - Enhanced Program

Static Toolholders - Enhanced Program

- 

OD cutting holder, double, Y axis
20 (3/4") 48-78534
- 

OD cutting holder, double, 24 station
20 48-97154
3/4" 48-97155
- 

OD cutting holder, both sides, double, Y axis
20 (3/4") 48-79965
- 

Cut-off holder, adjustable
SH 32 48-99034
- 

Cut-off holder, adjustable, HP-IC
SH 32 48-102282R IC 80 bar
SH 32 48-102282L IC 80 bar
- 

Cut-off holder, adjustable, long, HP-IC
SH 32 48-101968R IC 80 bar
343-810100R48
SH 32 48-101968L IC 80 bar
343-810100L48
- 

Boring bar holder, with slot
Ø 40 48-80539
Ø 50 48-80511
Ø 1 1/2" 48-80542
Ø 2" 48-80541
- 

Combination toolholder, double
Ø 32 48-79972 IC 80 bar
Ø 1 1/4" 48-79997 IC 80 bar

- 

Combination toolholder, universal, double, 24 station
Ø 25 48-97157 IC 80 bar
Ø 1" 48-97158 IC 80 bar
- 

Combination toolholder, double, both sides
Ø 32 48-79888 IC 80 bar
Ø 1 1/4" 48-79996 IC 80 bar
- 

Boring bar holder, triple, both sides
Ø 25 48-79975
Ø 1" 48-79998
- 

Boring bar holder, multiple, both sides, Y axis
Ø 25 48-78538
Ø 1" 48-78825
- 

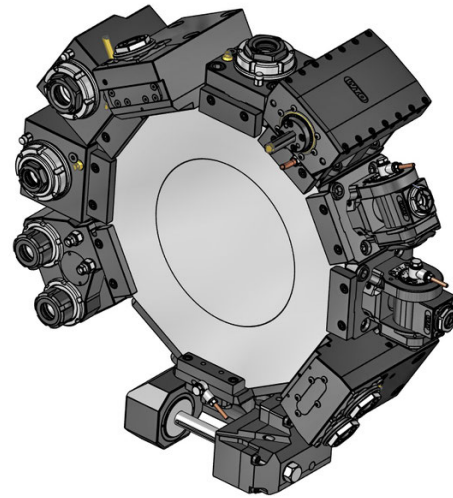
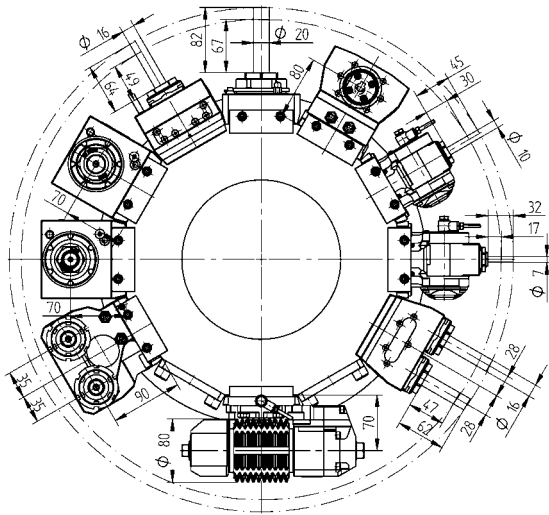
Collet face drill holder
ER 32 48-81096 IC 80 bar
107532000
- 

Collet face drill holder, both sides
ER 32 48-81097 IC 80 bar
107532000
- 

VDI adapter, left
VDI 30 48-79671
VDI 40 48-79839
- 

VDI adapter, right
VDI 30 48-79982
VDI 40 48-79983
- 

Boring bar holder, blank
48-81082



Driven Toolholders - QuickFlex®



OD drill/milling unit

ER-32 QF 420132012-60 1:1 EC
 ↳ 0067732000

ER-32 QF 420132013-60 1:1 IC 80 bar
 ↳ 0067732000



Face drill/milling unit

ER-32 QF 420532014-60 1:1 EC
 ↳ 0067732000

ER-32 QF 420532015-60 1:1 IC 80 bar
 ↳ 0067732000



Face drill/milling unit, both sides

ER-32 QF 420532018-60 1:1 EC
 ↳ 0067732000

Driven Toolholders - Enhanced Program



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

Ø 22 410222014-60 1:1 EC
 ↳ 00675000483

Ø 1" 410225004-60 1:1 EC
 ↳ 00675000483



OD drill/milling unit, offset

ER 25 410116035-60 1:1 EC
 ↳ 00675000932

ER 25 410116034-60 1:1 IC 80 bar
 ↳ 00675000932

ER 20 410113003-60 1:2 EC
 ↳ 00675000939

ER 20 410113004-60 1:2 IC 80 bar
 ↳ 00675000939



Face drill/milling unit

ER-25 QF 420525012-60 1:2 EC
 ↳ 0067725001

ER-25 QF 420525013-60 1:2 IC 80 bar
 ↳ 0067725001

ER-32 QF 420532016-60 2:1 EC
 ↳ 0067732000

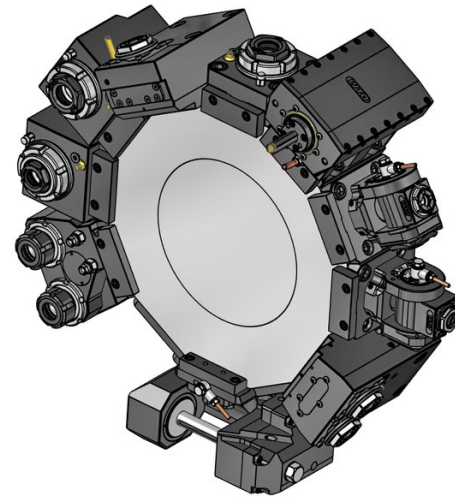
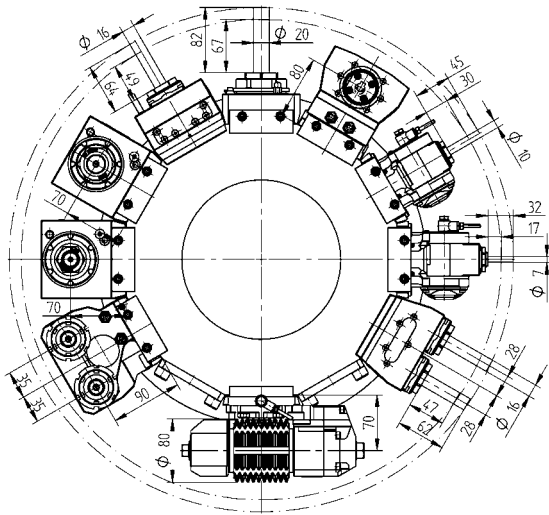
ER-32 QF 420532017-60 2:1 IC 80 bar
 ↳ 0067732000



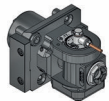
**Face milling unit with combination mill arbor
 DIN 6358**

Ø 22 410622002-60 1:1 EC
 ↳ 00675000557

Ø 1" 410625002-60 1:1 EC
 ↳ 00675000483



Driven Toolholders - Enhanced Program



Adjustable angle drill/milling unit

ER 16	411010003-60	1:1	EC
	00675000902		
ER 16	411010004-60	1:1	IC 80 bar
	00675000902		
ER 11	411007001-60	1:2	EC
	00675000914		
ER 11	411007002-60	1:2	IC 80 bar
	00675000914		



Gear hobbing unit

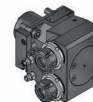
Type 16-1	411500013-60	1:1	EC
	00675000962		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		
Type 16-1	411500015-60	2:1	EC
	00675000962		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		

Driven Toolholders - Enhanced Program



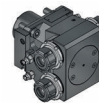
OD drill/milling unit, double, Y axis

ER 25	413002011-60	1:1	EC
	00675000932		
ER 25	413002010-60	1:1	IC 80 bar
	00675000932		



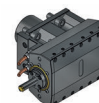
2-spindle - Face drill/milling unit, Y axis

ER 25	413502003-60	1:1	EC
	00675000915		
ER 25	413502004-60	1:1	IC 80 bar
	00675000915		



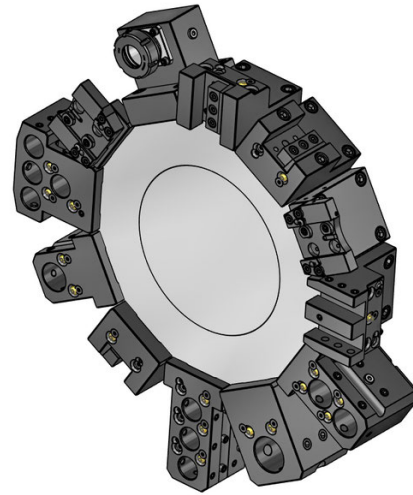
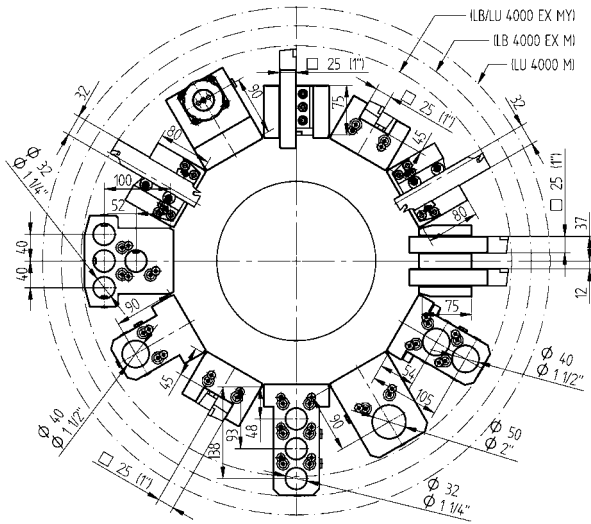
2-spindle - Face drill/milling unit, both sides, Y axis

ER 25	413502005-60	1:1	EC
	00675000915		



Broaching unit for ID and OD

TN765050	414532001-60	1:1	EC
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Static Toolholders - Enhanced Program



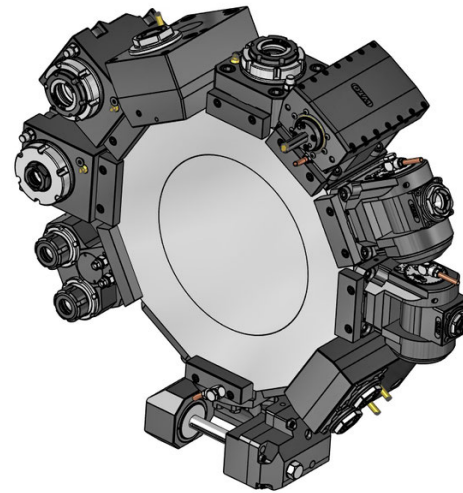
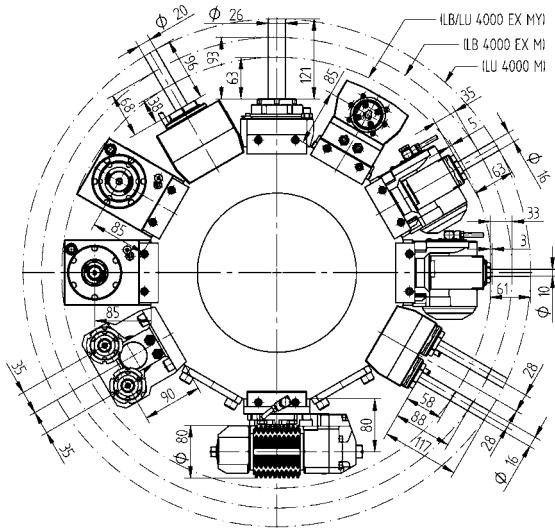
VDI adapter, left
VDI 40 48-79672



VDI adapter, right
VDI 40 48-79986



Boring bar holder, blank
48-81083



Driven Toolholders - QuickFlex®



OD drill/milling unit

- ER-40 QF** 420140012-60 1:1 EC
0067740000
- ER-40 QF** 420140013-60 1:1 IC 80 bar
0067740000



Face drill/milling unit

- ER-40 QF** 420540010-60 1:1 EC
0067740000
- ER-40 QF** 420540011-60 1:1 IC 80 bar
0067740000

Driven Toolholders - Enhanced Program



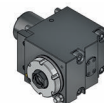
**OD milling unit with combination mill arbor
DIN 6358**

- Ø 27** 410227012-60 1:1 EC
00675000245
- Ø 1"** 410225005-60 1:1 EC
00675000483



OD drill/milling unit, offset

- ER 32** 410120053-60 1:1 EC
00675000958
- ER 32** 410120054-60 1:1 IC 80 bar
00675000958
- ER 25** 410116028-60 1:2 EC
00675000959
- ER 25** 410116029-60 1:2 IC 80 bar
00675000959



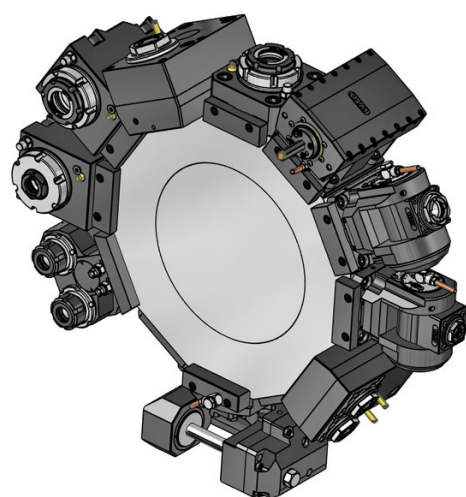
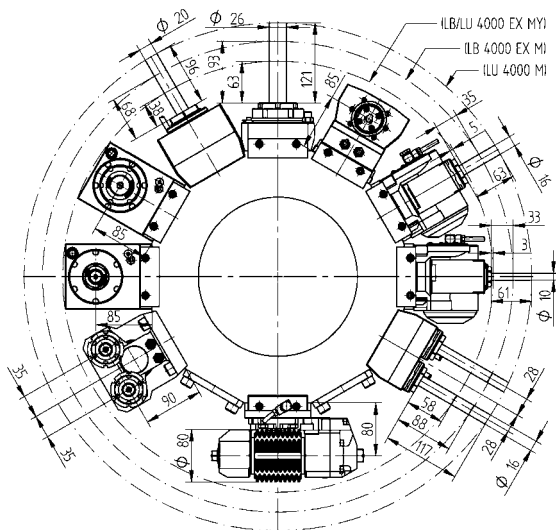
Face drill/milling unit

- ER-25 QF** 420525014-60 1:2 EC
0067725002
- ER-25 QF** 420525015-60 1:2 IC 80 bar
0067725002
- ER-40 QF** 420540024-60 2:1 EC
0067740000
- ER-40 QF** 420540025-60 2:1 IC 80 bar
0067740000



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

- Ø 27** 410627005-60 1:1 EC
00675000245
- Ø 1"** 410625005-60 1:1 EC
00675000483



Driven Toolholders - Enhanced Program



Adjustable angle drill/milling unit

ER 25	411016001-60	1:1	EC
	00675000934		
ER 25	411016002-60	1:1	IC 80 bar
	00675000934		
ER 16	411010005-60	1:2	EC
	00675000936		
ER 16	411010006-60	1:2	IC 80 bar
	00675000936		



Gear hobbing unit

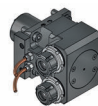
Type 16-1	411500011-60	1:1	EC
	00675000927		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		
Type 16-1	411500010-60	2:1	EC
	00675000927		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		

Driven Toolholders - Enhanced Program



OD drill/milling unit, double, Y axis

ER 25	413002004-60	1:1	EC
	00675000932		
ER 25	413002005-60	1:1	IC 80 bar
	00675000932		



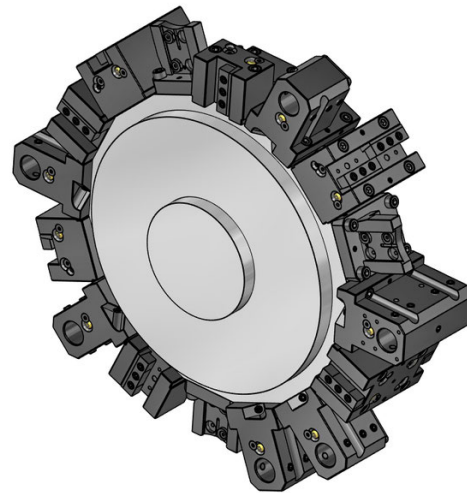
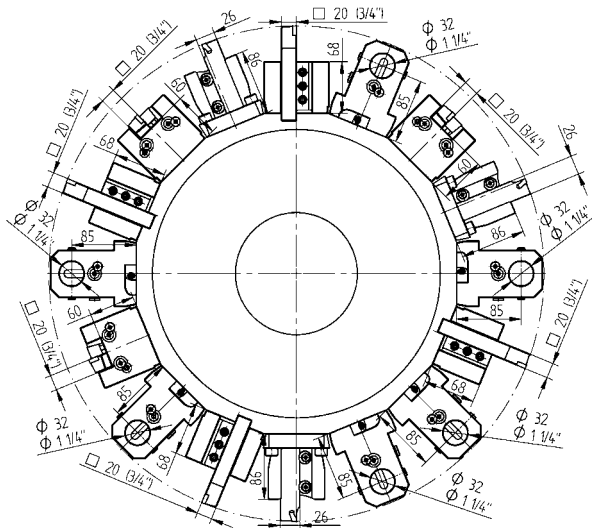
2-spindle - Face drill/milling unit, Y axis

ER 25	413502006-60	1:1	EC
	00675000915		
ER 25	413502007-60	1:1	IC 80 bar
	00675000915		



Broaching unit for ID and OD

TN765050	414532002-60	1:1	EC
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Static Toolholders - Standard Program

Static Toolholders - Enhanced Program



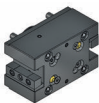
OD cutting holder

20 48-90520
3/4" 48-90521



OD cutting holder, HP-IC

20 48-90520-HP IC 80 bar
3/4" 48-90521-HP IC 80 bar



OD cutting holder, both sides

20 48-90522
3/4" 48-90523



OD cutting holder, both sides, HP-IC

20 48-90522-HP IC 80 bar
3/4" 48-90523-HP IC 80 bar



Face cutting holder, both sides

20 48-90524
3/4" 48-90525



Combination toolholder

Ø 32 48-90526 IC 80 bar
Ø 1 1/4" 48-90527 IC 80 bar



Combination toolholder, both sides

Ø 32 48-90528 IC 80 bar
241132016 ER25
241132020 ER32
Ø 1 1/4" 48-90529 IC 80 bar



Plug

48-90530



OD cutting holder, both sides, double, Y axis

20 (3/4") 48-100562



Cut-off holder, adjustable

SH 26 48-99058



Cut-off holder, adjustable, HP-IC

SH 26 48-102280R IC 80 bar
SH 26 48-102280L IC 80 bar



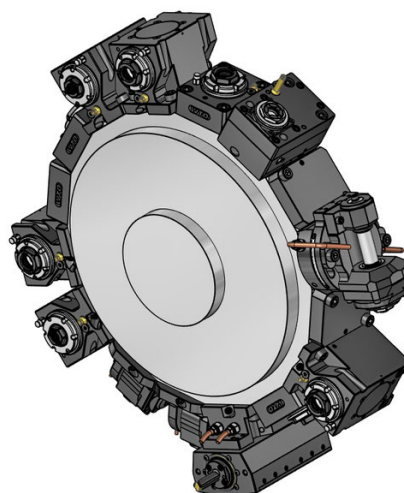
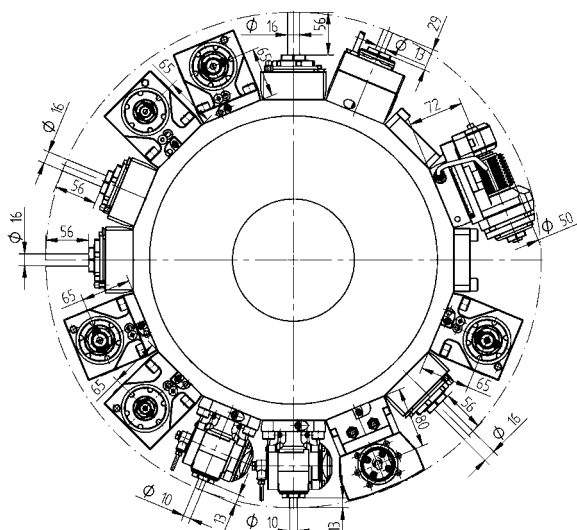
Boring bar holder, double, both sides

Ø 25 48-100564
1" 48-100565



Boring bar holder, blank

48-110682



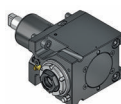
Driven Toolholders - QuickFlex®

Driven Toolholders - Enhanced Program



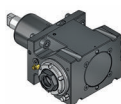
OD drill/milling unit

- ER-25 QF** 420125010-55 1:1 EC
0067725000
- ER-25 QF** 420125011-55 1:1 IC 80 bar
0067725000



Face drill/milling unit

- ER-25 QF** 420525010-55 1:1 EC
0067725000
- ER-25 QF** 420525011-55 1:1 IC 80 bar
0067725000



Face drill/milling unit, both sides

- ER-25 QF** 420525012-55 1:1 EC
0067725000



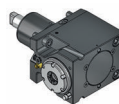
OD drill/milling unit, offset

- ER 20** 410113011-55 1:2 EC
00675000939
- ER 20** 410113012-55 1:2 IC 80 bar
00675000939
- ER 16** 410410006-55 1:3 EC
00675000937
- ER 16** 410410007-55 1:3 IC 80 bar
00675000937



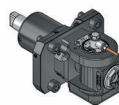
Face drill/milling unit

- ER-20 QF** 420520010-55 1:2 EC
0067720001
- ER-20 QF** 420520011-55 1:2 IC 80 bar
0067720001
- ER-25 QF** 420525013-55 2:1 EC
0067725000
- ER-25 QF** 420525014-55 2:1 IC 80 bar
0067725000



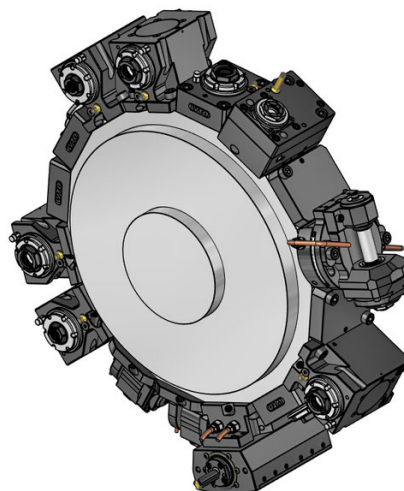
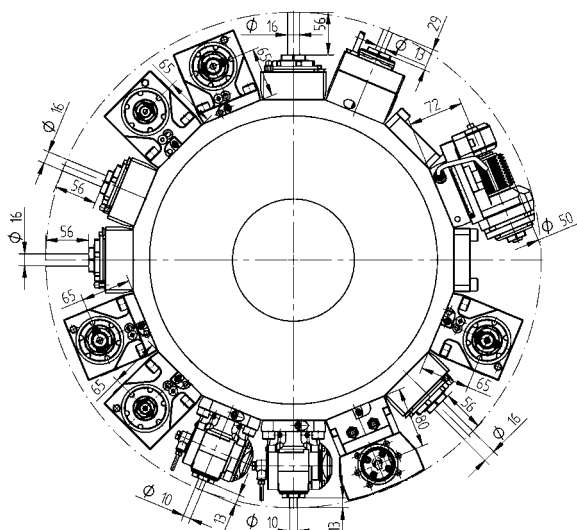
Face drill/milling unit

- ER 16** 410810014-55 1:3 EC
00675000841
- ER 16** 410810015-55 1:3 IC 80 bar
00675000841

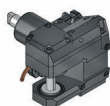


Adjustable angle drill/milling unit

- ER 16** 411010008-55 1:1 EC
00675000902
- ER 16** 411010009-55 1:1 IC 80 bar
00675000902
- ER 11** 411007009-55 1:2 EC
00675000914
- ER 11** 411007010-55 1:2 IC 80 bar
00675000914



Driven Toolholders - Enhanced Program



Slitting saw unit

Type 14-2 411500007-55 2.73:1 EC

00675000489

160016142 Ø 16

160022142 Ø 22

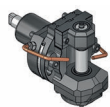
160027142 Ø 27

160015142 Ø 5/8"

160019142 Ø 3/4"

160023142 Ø 7/8"

160025142 Ø 1"



Gear hobbing unit

Type 15-2 410900003-55 1:1 EC

00675001015

160008152 Ø 8

160010152 Ø 10

160013152 Ø 13

160016152 Ø 16

160022152 Ø 22

160015152 Ø 5/8"

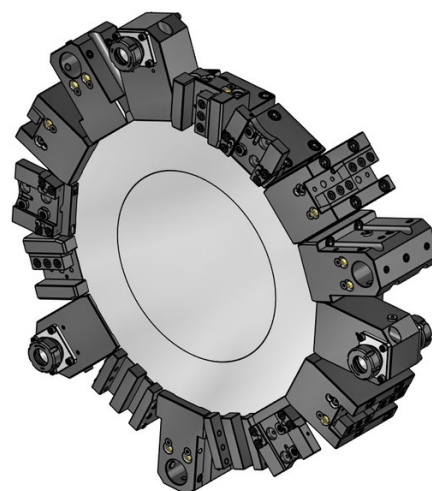
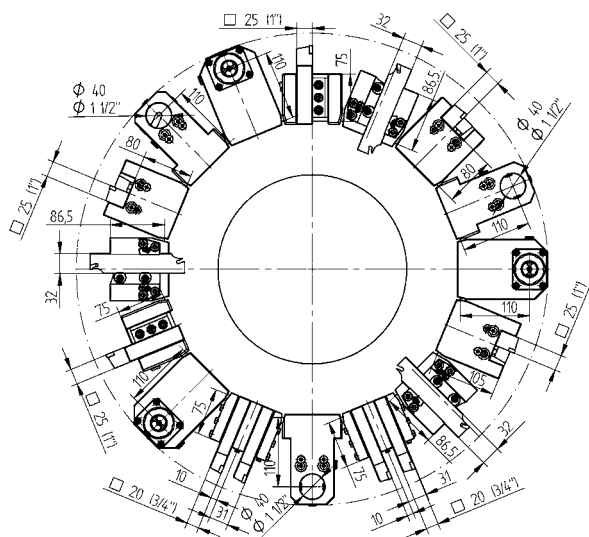
160019152 Ø 3/4"

110587




Broaching unit for ID and OD


TN765050 414532002-55 1:1 EC





Static Toolholders - Standard Program


Static Toolholders - Enhanced Program


- 


OD cutting holder
 25 48-86471
 1" 48-86473
- 


OD cutting holder, HP-IC
 25 48-86471-HP IC 80 bar
 1" 48-86473-HP IC 80 bar
- 

OD cutting holder, both sides
 25 48-86475
 1" 48-86478
- 

OD cutting holder, both sides, HP-IC
 25 48-86475-HP IC 80 bar
 1" 48-86478-HP IC 80 bar
- 

Face cutting holder, both sides
 25 48-95357
 1" 48-95358
- 

Combination toolholder
 Ø 40 48-95360 IC 80 bar
 Ø 1 1/2" 48-95361 IC 80 bar
- 

Combination toolholder, both sides
 Ø 40 48-95363 IC 80 bar
 Ø 1 1/2" 48-95364 IC 80 bar
- 

Plug
 48-79267

- 


OD cutting holder, double, Y axis
 20 (3/4") 48-78534
- 

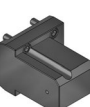
OD cutting holder, both sides, double, Y axis
 20 (3/4") 48-79965
- 

Cut-off holder, adjustable
 SH 32 48-99034
- 

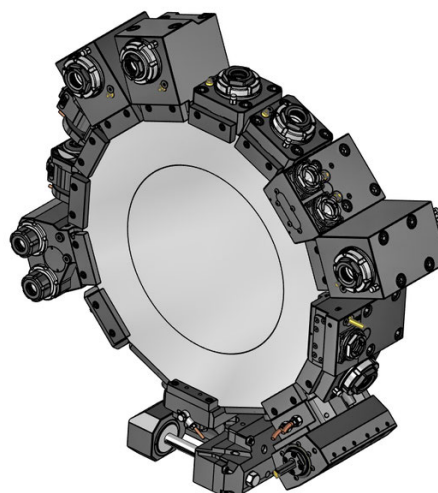
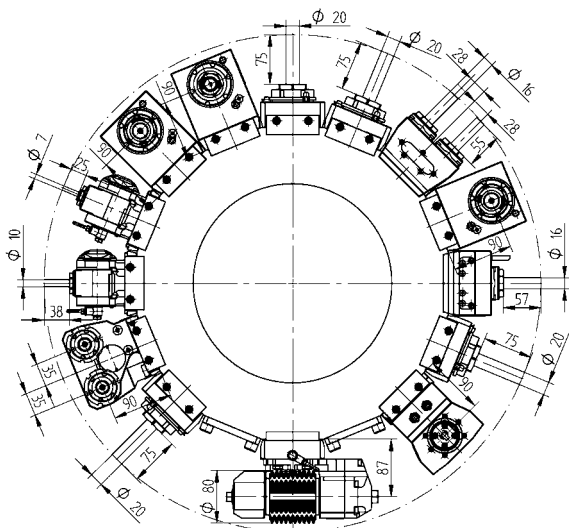
Cut-off holder, adjustable, long, HP-IC
 SH 32 48-101968R IC 80 bar
 343-810100R48
 SH 32 48-101968L IC 80 bar
 343-810100L48
- 

Boring bar holder, multiple, both sides, Y axis
 Ø 25 48-78538
 Ø 1" 48-78825
- 

Collet face drill holder
 ER 32 48-95365 IC 80 bar
 107532000
- 

Collet face drill holder, both sides
 ER 32 48-95366 IC 80 bar
 107532000
- 

Boring bar holder, blank
 48-95367



Driven Toolholders - QuickFlex®



OD drill/milling unit

- ER-32 QF** 420132016-60 1:1 EC
0067732000
- ER-32 QF** 420132017-60 1:1 IC 80 bar
0067732000



Face drill/milling unit

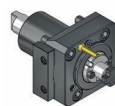
- ER-32 QF** 420532025-60 1:1 EC
0067732000
- ER-32 QF** 420532026-60 1:1 IC 80 bar
0067732000



Face drill/milling unit, both sides

- ER-32 QF** 420532029-60 1:1 EC
0067732000

Driven Toolholders - Enhanced Program



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

- Ø 22** 410222015-60 1:1 EC
00675000483
- Ø 1"** 410225006-60 1:1 EC
00675000483



OD drill/milling unit, offset

- ER 25** 410116037-60 1:1 EC
00675000932
- ER 25** 410116038-60 1:1 IC 80 bar
00675000932
- ER 20** 410113005-60 1:2 EC
00675000939
- ER 20** 410113006-60 1:2 IC 80 bar
00675000939



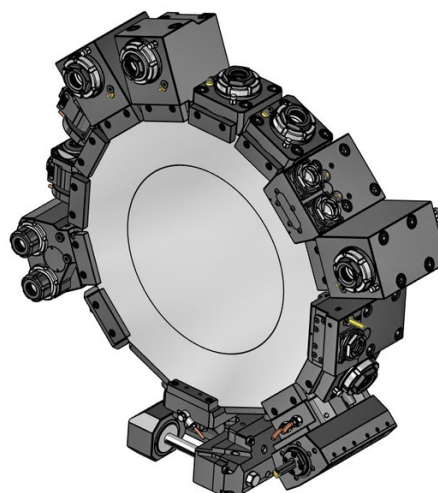
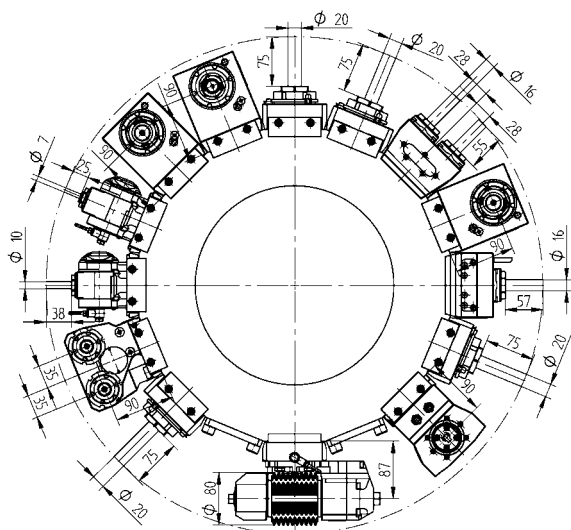
Face drill/milling unit

- ER-25 QF** 420525016-60 1:2 EC
0067725001
- ER-25 QF** 420525017-60 1:2 IC 80 bar
0067725001
- ER-32 QF** 420532027-60 2:1 EC
0067732000
- ER-32 QF** 420532028-60 2:1 IC 80 bar
0067732000



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

- Ø 22** 410622010-60 1:1 EC
00675000483
- Ø 1"** 410625006-60 1:1 EC
00675000483



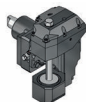
Driven Toolholders - Enhanced Program

Driven Toolholders - Enhanced Program



Adjustable angle drill/milling unit

ER 16	411010009-60	1:1	EC
	00675000902		
ER 16	411010010-60	1:1	IC 80 bar
	00675000902		
ER 11	411007003-60	1:2	EC
	00675000914		
ER 11	411007004-60	1:2	IC 80 bar
	00675000914		



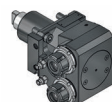
Gear hobbing unit

Type 16-1	411500022-60	1:1	EC
	00675000962		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
Type 16-1	411500023-60	2:1	EC
	00675000962		
	160016161 Ø 16		
	160022161 Ø 22		
	160027161 Ø 27		
	160015161 Ø 5/8"		
	160019161 Ø 3/4"		
	160025161 Ø 1"		
	160031161 Ø 1 1/4"		
	110587		



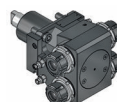
OD drill/milling unit, double, Y axis

ER 25	413002013-60	1:1	EC
	00675000932		
ER 25	413002014-60	1:1	IC 80 bar
	00675000932		



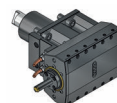
2-spindle - Face drill/milling unit, Y axis

ER 25	413502015-60	1:1	EC
	00675000915		
ER 25	413502016-60	1:1	IC 80 bar
	00675000915		



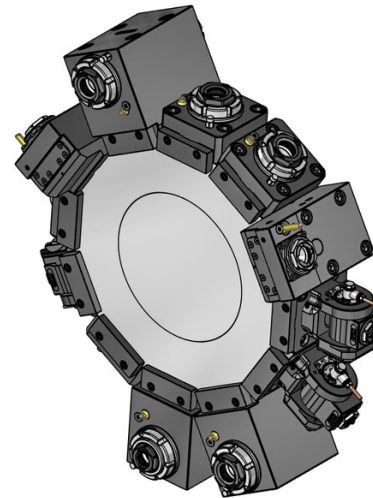
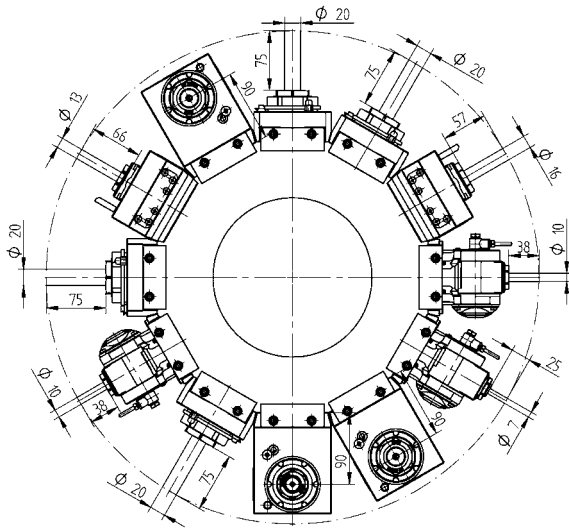
2-spindle - Face drill/milling unit, both sides, Y axis

ER 25	413502017-60	1:1	EC
	00675000915		

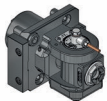


Broaching unit for ID and OD

TN765050	414532003-60	1:1	EC
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Driven Toolholders - Enhanced Program



Adjustable angle drill/milling unit

ER 16	411010003-60	1:1	EC
	00675000902		
ER 16	411010004-60	1:1	IC 80 bar
	00675000902		
ER 11	411007001-60	1:2	EC
	00675000914		
ER 11	411007002-60	1:2	IC 80 bar
	00675000914		

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
240025014	ø 14
240025016	ø 16
240025020	ø 20



Reduction sleeve Ø 32

240032006	ø 6
240032008	ø 8
240032010	ø 10
240032012	ø 12
240032014	ø 14
240032016	ø 16
240032018	ø 18
240032020	ø 20
240032025	ø 25



Reduction sleeve Ø 40

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



Reduction sleeve Ø 50

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

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"

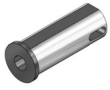
2400150038	ø 3/8"
2400150050	ø 1/2"
2400150063	ø 5/8"
2400150075	ø 3/4"
2400150088	ø 7/8"
2400150100	ø 1"
2400150125	ø 1 1/4"



Reduction sleeve Ø 2"

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

Standard reduction sleeves - morse taper



Reduction sleeve Ø 32

240532001	MT 1
240532002	MT 2
240532003	MT 3



Reduction sleeve Ø 40

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



Reduction sleeve Ø 50

240550002	MT 2
240550003	MT 3
240550004	MT 4

Collets DIN 6499B (ER/ESX)



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



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



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

Collets DIN 6499B (ER/ESX)



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



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

Collets DIN 6499B (ER/ESX)



ER 40	mm	inch
190040000	∅ 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	
191111013-in		∅ 0.125
191111019-in		∅ 0.188
191111025-in		∅ 0.25



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



ER 20	mm	inch
191020000	∅ 3-12	
191020030	∅ 3	
191020040	∅ 4	
191020050	∅ 5	
191020060	∅ 6	
191020070	∅ 7	
191020080	∅ 8	
191020090	∅ 9	
191020100	∅ 10	
191020110	∅ 11	
191020120	∅ 12	
191120001		∅ 0.125-0.5
191120013-in		∅ 0.125
191120019-in		∅ 0.188
191120025-in		∅ 0.25
191120031-in		∅ 0.313
191120038-in		∅ 0.375
191120044-in		∅ 0.438
191120050-in		∅ 0.5

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

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



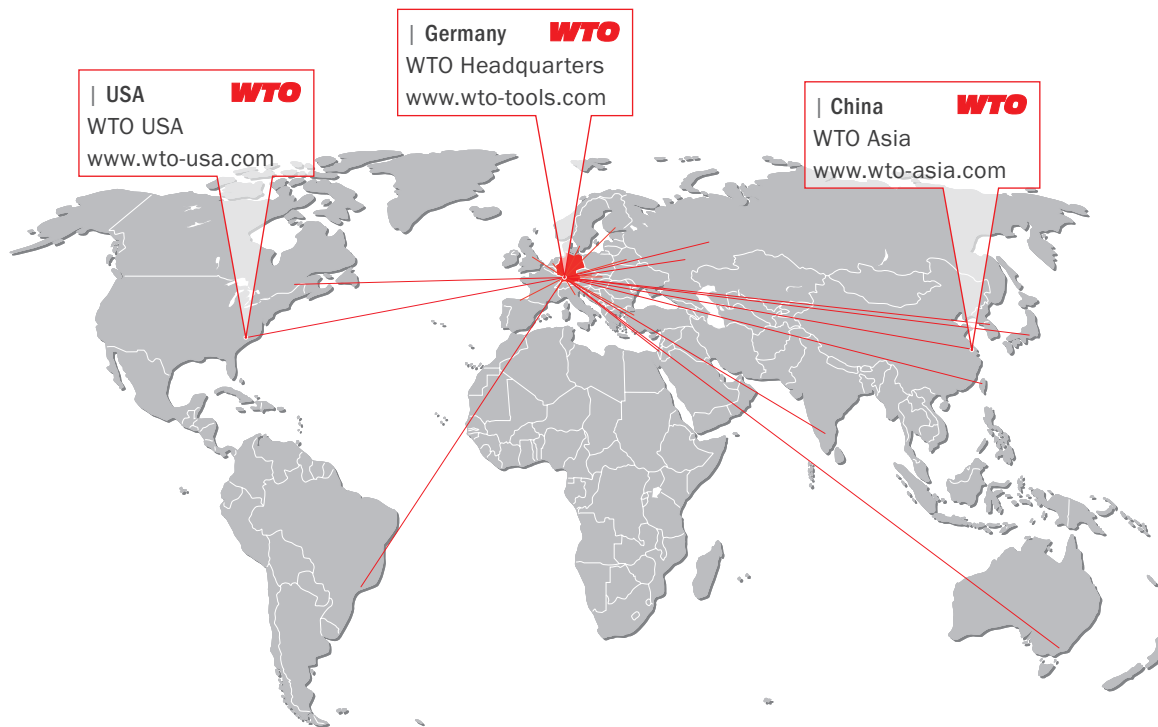
ER 25	mm	inch
191025000	ø 4-16	
191025030	ø 3	
191025040	ø 4	
191025050	ø 5	
191025060	ø 6	
191025070	ø 7	
191025080	ø 8	
191025090	ø 9	
191025100	ø 10	
191025110	ø 11	
191025120	ø 12	
191025130	ø 13	
191025140	ø 14	
191025150	ø 15	
191025160	ø 16	
191125001		ø 0.25-0.625
191125025-in		ø 0.25
191125031-in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



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



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



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