



TOOLING SYSTEM

2020

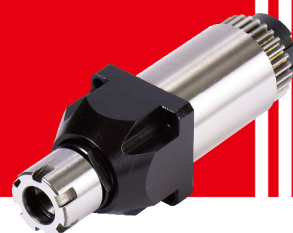
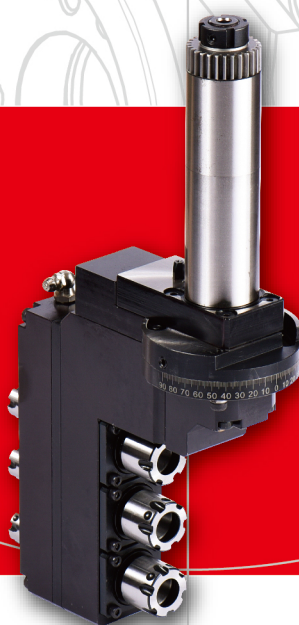
STAR / CINCOM / TSUGAMI / NOMURA

MIYANO / HANWHA / DOOSAN

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TOOLS

CUSTOMIZED PRODUCTS



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MIYANO 15

NOMURA 16

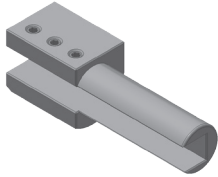
HANWHA 18

DOOSAN 24

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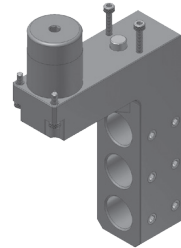
TOOLS 34





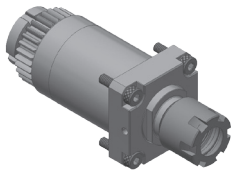
SR20R-11510
Turning holder

TOOL SHANK	Ø34mm
BITE HOLDER SHANK	12x12mm



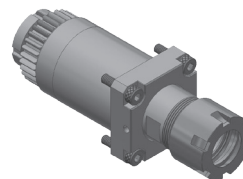
SR20R-11030
3 tool sleeve holder

TOOL SHANK	Ø34mm
DRILL SLEEVE SHANK	Ø22mm



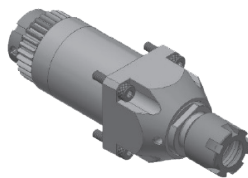
SR20R-20310
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16M
STAR CODE	33150



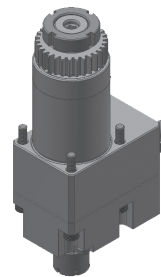
SR20R-20310-1
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER20M



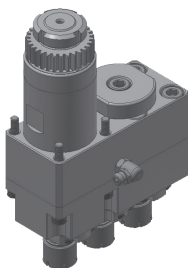
SR20R-20310-2
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16M
STAR CODE	57155



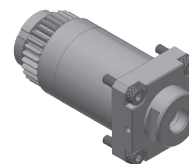
SR20R-23310
Cross drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M



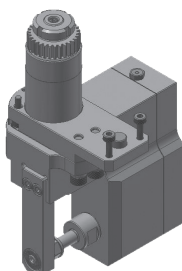
SR20R-22330
3 spindle cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER11M



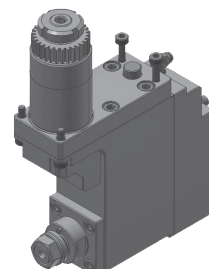
SR20R-21710
Cross milling unit

RATIO	1 : 1
RPM(MAX)	8000
MILLING TOOL	



SR20R-10710
Gear hobbing unit

RATIO	1 : 1
RPM(MAX)	6000
CUTTER OD(MAX)	Ø30.0mm
CUTTER SHANK	Ø10.0mm

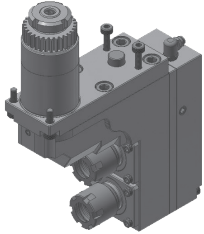


SR32J-10810
Polygon unit

RATIO	1 : 0.6
RPM(MAX)	3000
TOOL CLAMPING	Polygon head
	KT130480058
STAR CODE	67191

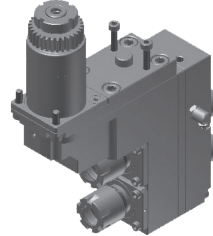
TOOLING FOR GANG TOOL POST

(SHANK Ø34mm)



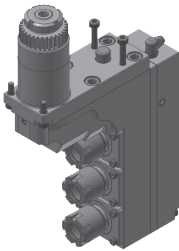
SR20R-20120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	54151



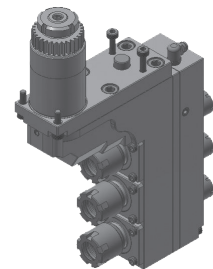
SR20R-21120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
STAR CODE	66159



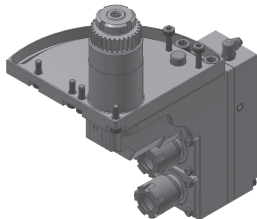
SR20R-20130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	66151



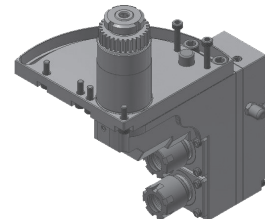
SR20R-21130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
STAR CODE	67161 / 0M155



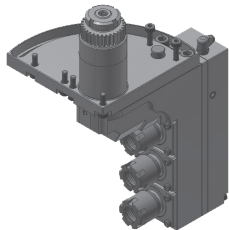
SR20R-25020
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°



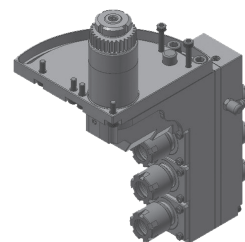
SR20R-25120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°



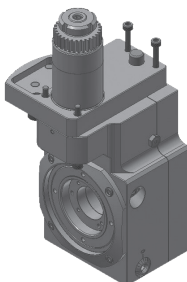
SR20R-25030
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°



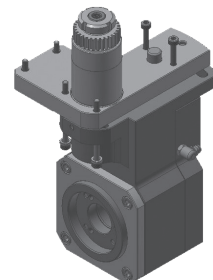
SR20R-25130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°



SR20R-25510-1
Thread whirling unit

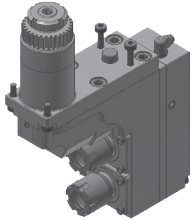
RATIO	1 : 1
RPM(MAX)	4000
THREAD(MAX)	M12
HELIX ANGLE	±20°
STAR CODE	68172



SR32J-20510
Thread whirling unit

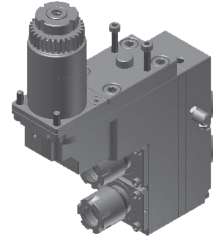
RATIO	1 : 1
RPM(MAX)	4000
THREAD(MAX)	M12
HELIX ANGLE	±15°
STAR CODE	68172

STAR



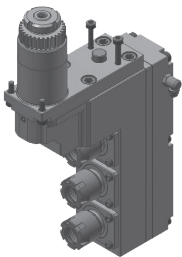
SR32J-20120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	67152



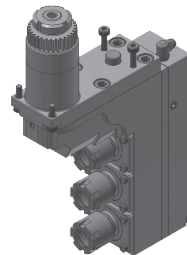
SR32J-21120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
STAR CODE	67158



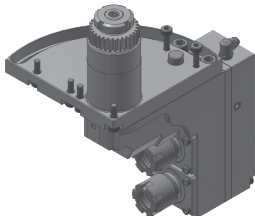
SR32J-20130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	67151



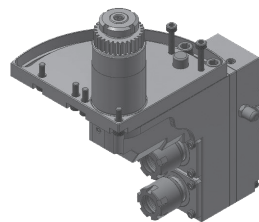
SR32J-21130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
STAR CODE	67159



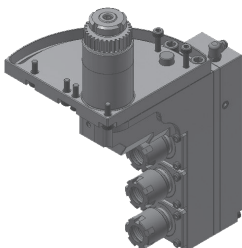
SR32J-25020
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°



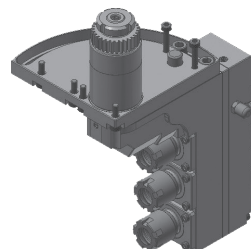
SR32J-25120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°



SR32J-25030
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°

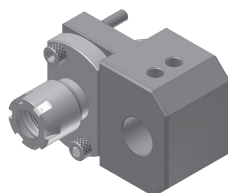


SR32J-25130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°

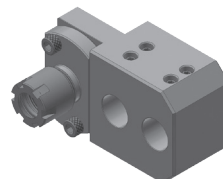
TOOLING FOR BACK TOOL POST

(SHANK Ø22mm)



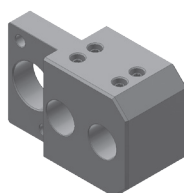
SR20J-31020
Extension tool holder

TOOL SHANK	Ø22.0mm
DRILL SLEEVE SHANK	Ø16.0mm
MACHINE	SR20J/SB20R TYPE G



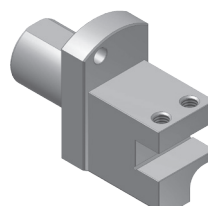
SR20J-31030
Extension tool holder

TOOL SHANK	Ø22.0mm
DRILL SLEEVE SHANK	Ø16.0mm
MACHINE	SR20J



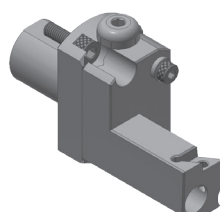
SB20R-31030
Extension tool holder

TOOL SHANK	Ø22.0mm
DRILL SLEEVE SHANK	Ø16.0mm
MACHINE	SB20R TYPE G



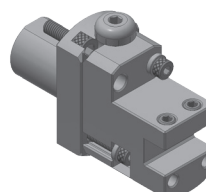
SR20R-31510
Turning tool holder

TOOL SHANK	Ø22.0mm
BITE HOLDER SHANK	10x10mm



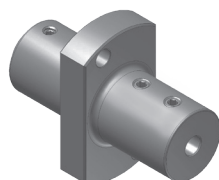
SR20R-51510
Turning holder (Center adjustable type)

TOOL SHANK	Ø22.0mm
INSERT TIP	MITSUBISHI DCM11T302
CENTER ADJUSTMENT	±1.0mm



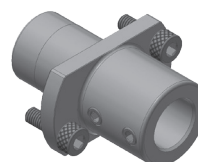
SR20R-51510-1
Turning holder (Center adjustable type)

TOOL SHANK	Ø22.0mm
BITE HOLDER SHANK	10x10mm
CENTER ADJUSTMENT	±1.0mm



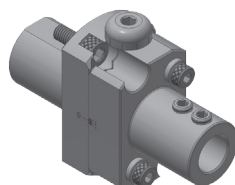
SR20R-51311
Boring sleeve

TOOL SHANK	Ø22.0mm
TOOL ID	Ø12.0mm
BUSHING TYPE	BS12



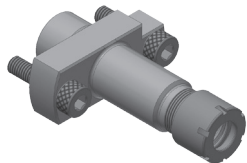
SR32J-51311
Boring sleeve

TOOL SHANK	Ø22.0mm
TOOL ID	Ø16.0mm
BUSHING TYPE	BS16
STAR CODE	67175



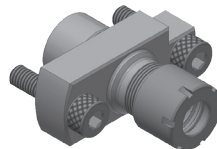
SR20R-51510-2
Boring sleeve (Center adjustable type)

TOOL SHANK	Ø22.0mm
TOOL ID	Ø12.0mm
CENTER ADJUSTMENT	±1.0mm
BUSHING TYPE	BS12



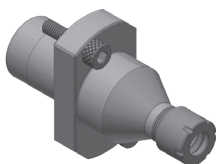
SR10J-31010
Drill sleeve

TOOL SHANK	Ø16.0mm
TOOL CLAMPING	ER11M
STAR CODE	69125
MACHINE	SR10J



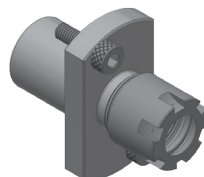
SR10J-31010-1
Drill sleeve (Short type)

TOOL SHANK	Ø16.0mm
TOOL CLAMPING	ER11M
MACHINE	SR10J



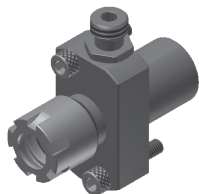
SR20R-31010
Drill sleeve

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER11M
STAR CODE	69124



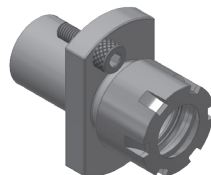
SR20R-51410
Drill sleeve

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER16M
STAR CODE	54121



SR20R-31011
Drill sleeve (Oil hole type)

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER16M
STAR CODE	67127



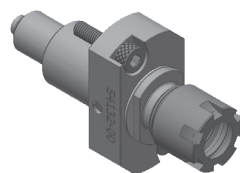
SR20R-31010-2
Drill sleeve

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER20M



SR32J-31011
Drill sleeve (Oil hole type)

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER20M

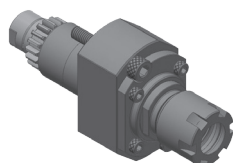


SR20R-31610
Tapping holder

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER16M
TAPPING CAPACITY(MAX)	M8xP1.25
STAR CODE	54132

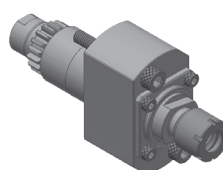
TOOLING FOR BACK TOOL POST

(SHANK Ø22mm)



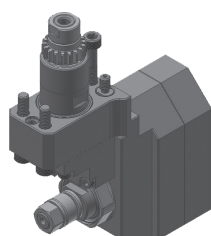
SR20R-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	57161



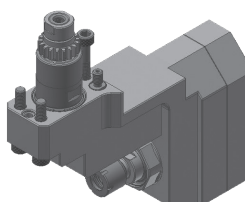
SR20R-30310-1
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11M
STAR CODE	54161



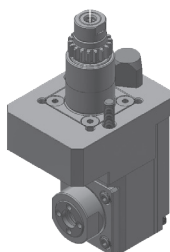
SR10J-30410
Slotting unit

RATIO	1 : 0.55
RPM(MAX)	4000
SAW OD(MAX)	Ø50
SAW ARBOR SHANK	Ø5.0/6.0/8.0/10.0/12.7/13.0mm
CENTER ADJUSTMENT	±1.0mm
STAR CODE	69165 / 69166



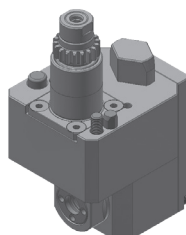
SR10J-30210
Slotting unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm



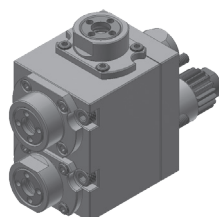
SR10J-30210-1
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11
MACHINE	SR10J



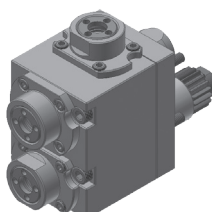
SR20R-30210
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11
MACHINE	SB20R TYPE G SR20RIII/SR20J/SR32J



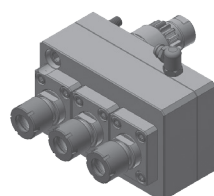
SR20R-30030
Cross drilling/milling and
face drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11
MACHINE	SR20RIII/SR20J/ECAS20



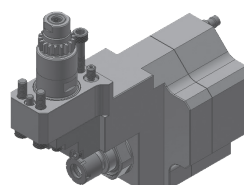
SB20R-30030
Cross drilling/milling and
face drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11
MACHINE	SB20R TYPE G



SR20JC-30330
3 spindle drilling/milling unit

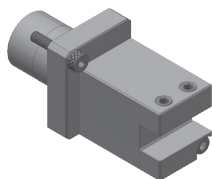
RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER11M
STAR ITEM NO.	0E151
MACHINE	SR20RIII/SR20J SB12R/SB16R/SB20R TYPE G



SR20R-33210
Cross drilling/milling unit

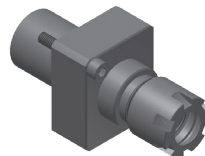
RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm

SR20RIV / SR32JII / SR38 / SW12RII / SW20 / SV20R SB16R TYPE G / SB20R TYPE G



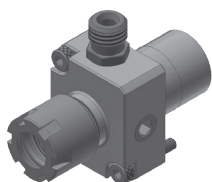
SR20RIV-31510
Turning holder

TOOL SHANK	Ø22.0mm
BITE HOLDER SHANK	10x10mm



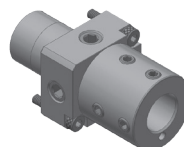
SR20RIV-51410
Drill sleeve

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER16M
STAR CODE	0R122



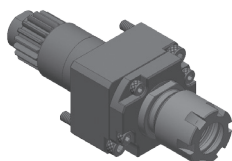
SR20RIV-31011
Drill sleeve (Oil hole type)

TOOL SHANK	Ø22.0mm
TOOL CLAMPING	ER16M
STAR CODE	0R123



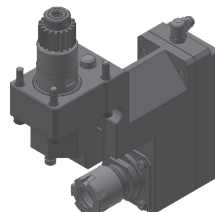
SR20RIV-51311
Boring bar sleeve (Oil hole type)

TOOL SHANK	Ø22.0mm
TOOL ID	Ø16.0mm
BUSHING TYPE	BS16
STAR CODE	10111



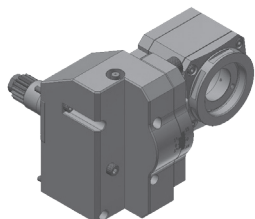
SR20RIV-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	0R161



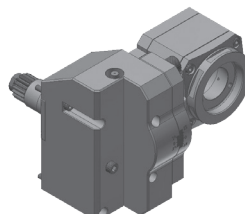
SR20RIV-30210
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
STAR CODE	0R151



SR20RIV-30510
Thread whirling unit

RATIO	1 : 1
RPM(MAX)	4000
THREAD(MAX)	M10
HELIX ANGLE	±15°
MACHINE	SR20RIV

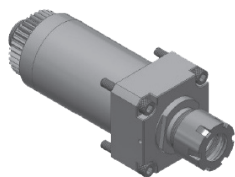


SR38-30510
Thread whirling unit

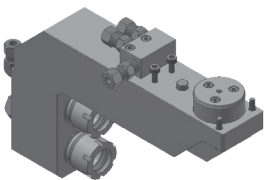
RATIO	1 : 1
RPM(MAX)	4000
THREAD(MAX)	M10
HELIX ANGLE	±15°
MACHINE	SR32JII/SR38

TOOLING FOR GANG TOOL POST (SHANK Ø44mm)

MACHINE : SR38



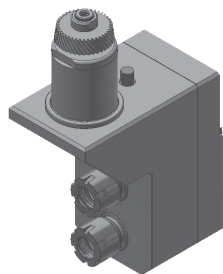
SR38R-20310 Cross drilling/milling unit	
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER20M
STAR CODE	10168



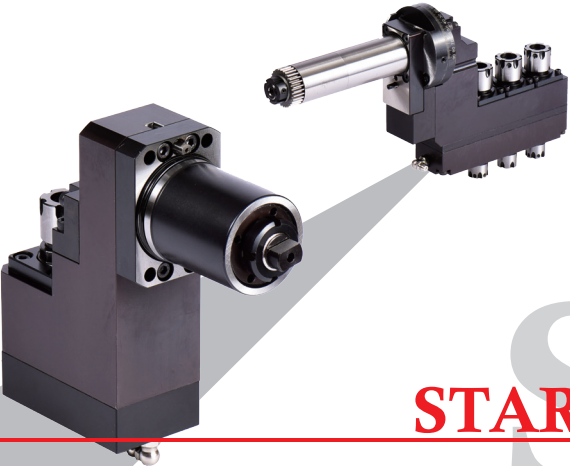
SR38-12021 2 tool deep hole drill holder	
TOOL SHANK	Ø44.0mm
TOOL CLAMPING	ER25M
DRILLING DEPTH(MAX)	138mm

TOOLING FOR TURRET TOOL POST (SHANK Ø44mm)

MACHINE : SV32 / SV38R / ECAS32T / ST38

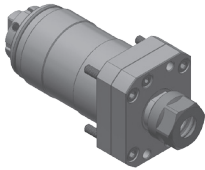


SV32-R220200N 2 spindle drilling/milling unit	
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER20M Back side : ER16M



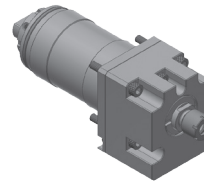
STAR

B0265/B0266/B0325/B0326/B0265II/B0266II B0325II/B0326II/B0385/SS20/SS32/HS26/HS32



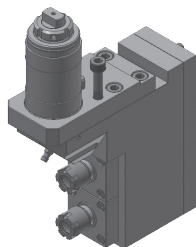
B0385-20310
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
TSUGAMI CODE	3268-T051



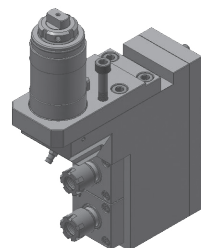
B0385-23310
Cross drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M
TSUGAMI CODE	3290-Y670



B0385-20120
2 spindle drilling/milling unit

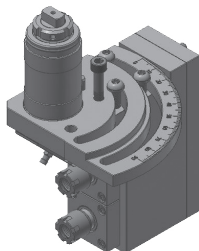
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3268-Y241



B0385-21120
2 spindle drilling/milling unit

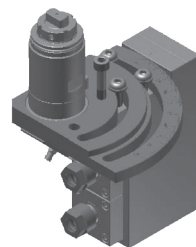
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER16M
TSUGAMI CODE	3282-Y901

Not available for SS20/SS32/HS26/HS32



B0385-25020
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°
TSUGAMI CODE	3268-Y281

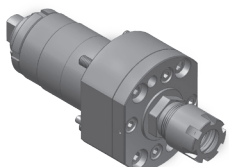


B0385-25120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER16M
ANGLE ADJUSTMENT	0~90°
TSUGAMI CODE	3282-Y921

Not available for SS20/SS32/HS26/HS32

B0125III/B0205III TOOLING FOR GANG TOOL POST

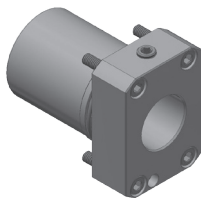


S206-20310
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3281-T051

TOOLING FOR BACK TOOL POST

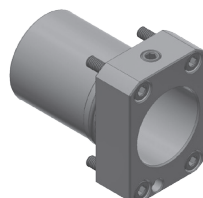
B0265/B0266/B0325/B0326/B0265II/B0266II B0325II/B0326II/B0385/SS267/SS327/HS267/HS327



B0385-31310

Tool adapter

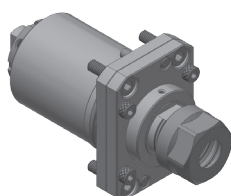
TOOL SHANK	Ø42.0mm
SLEEVE SHANK	Ø25.0mm
TSUGAMI CODE	3282-Y211



B0385-31310 -1

Tool adapter

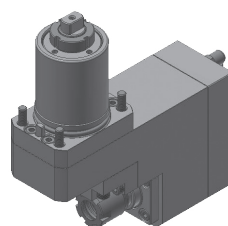
TOOL SHANK	Ø42.0mm
SLEEVE SHANK	Ø32.0mm
TSUGAMI CODE	3282-Y212



B0385-30310

Drilling/milling unit

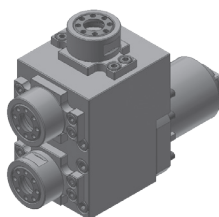
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
TSUGAMI CODE	3282-Y041



B0385-30210

Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3290-Y041

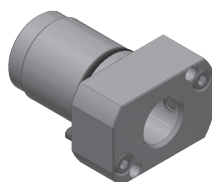


B0325-30030

Cross drilling/milling and
face drilling/milling unit

RATIO	1 : 1
RPM(MAX)	4000
TOOL CLAMPING	ER16

B0125III/B0205III TOOLING FOR BACK TOOL POST



B0205-51310

Tool adapter

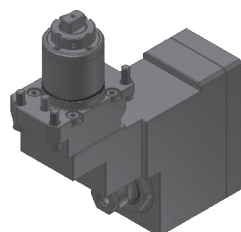
TOOL SHANK	Ø35.0mm
SLEEVE SHANK	Ø20.0mm
TSUGAMI CODE	3220-Y7073



B0205-30310

Drilling/milling unit

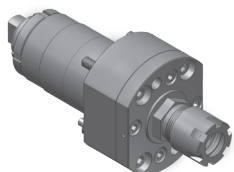
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3220-Y7072



B0205-30210

Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A
TSUGAMI CODE	3220-Y7074

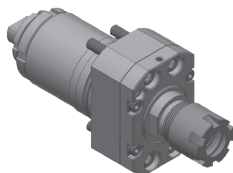


S206-20310

Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3281-T051

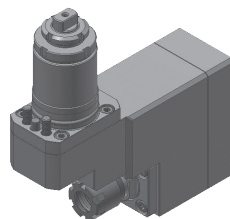
S205/S206/S207/SS207/HS207 TOOLING FOR BACK TOOL POST



S206-30310

Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3281-S080



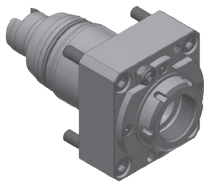
S206-30210

Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
TSUGAMI CODE	3281-Y460

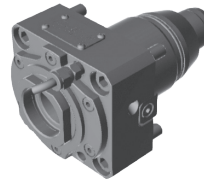
TOOLING FOR TURRET TOOL POST

M06D/M06SD/M06SY/M08D/M08SD/M08SY



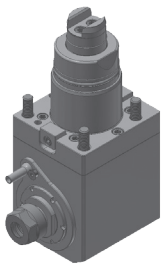
M06-A110250E
Axial driven tool holder

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER25UM
TSUGAMI CODE	3295-Y161



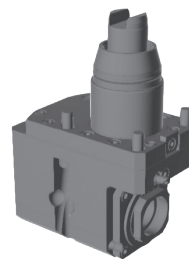
M06-A110320E
Axial driven tool holder

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER32A
TSUGAMI CODE	3295-Y161



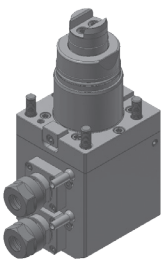
M06-R110200E
Radial driven tool holder

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER20A
TSUGAMI CODE	3295-Y171



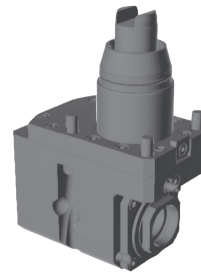
M06-R111320E
Radial driven tool holder / Offset

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER32A



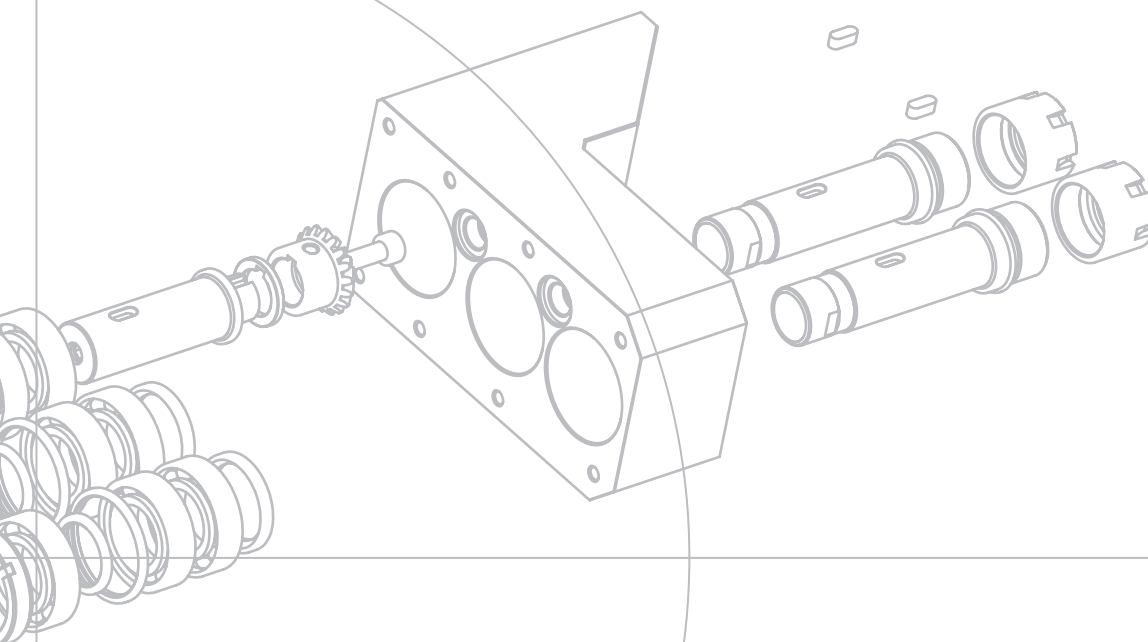
M06-R120200E
Radial driven tool holder / Double

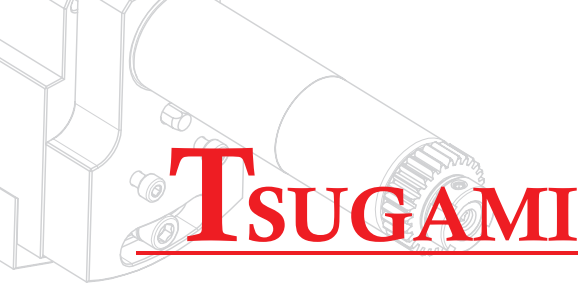
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER20A



M06-R211320E
Radial driven tool holder
Both ends / Offset

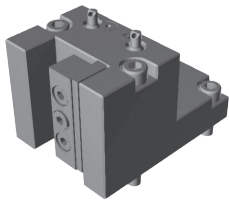
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER32A Back side : ER32A





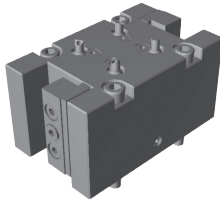
TOOLING FOR TURRET TOOL POST

M06D/M06SD/M06SY/M08D/M08SD/M08SY



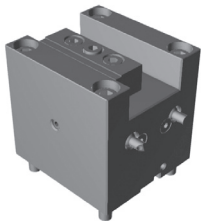
M06-S011250E
OD Turning holder

BITE HOLDER SHANK	25x25mm
TSUGAMI CODE	3295-H260



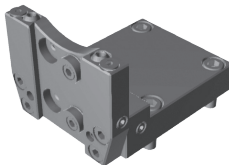
M06-S012250E
OD Turning holder / Double

BITE HOLDER SHANK	25x25mm
TSUGAMI CODE	3295-H210



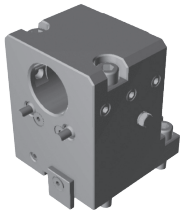
M06-S021250E
ID Turning holder

BITE HOLDER SHANK	25x25mm
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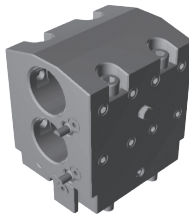
M06-S030320E
Cut off holder

BITE HOLDER SHANK	32mm
TSUGAMI CODE	3295-H250



M06-S041400E
Boring bar holder

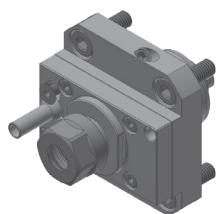
DRILL SHANK	Ø40mm
TSUGAMI CODE	3295-H290



M06-S042400E
Boring bar holder / Double

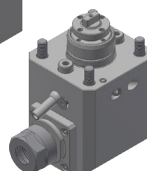
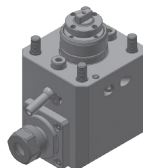
DRILL SHANK	Ø40mm
TSUGAMI CODE	3295-H220

BNA34C/BNA42C/BNA34S/BNA42S/BNA34DHY BNA42DHY/BNA42MSY



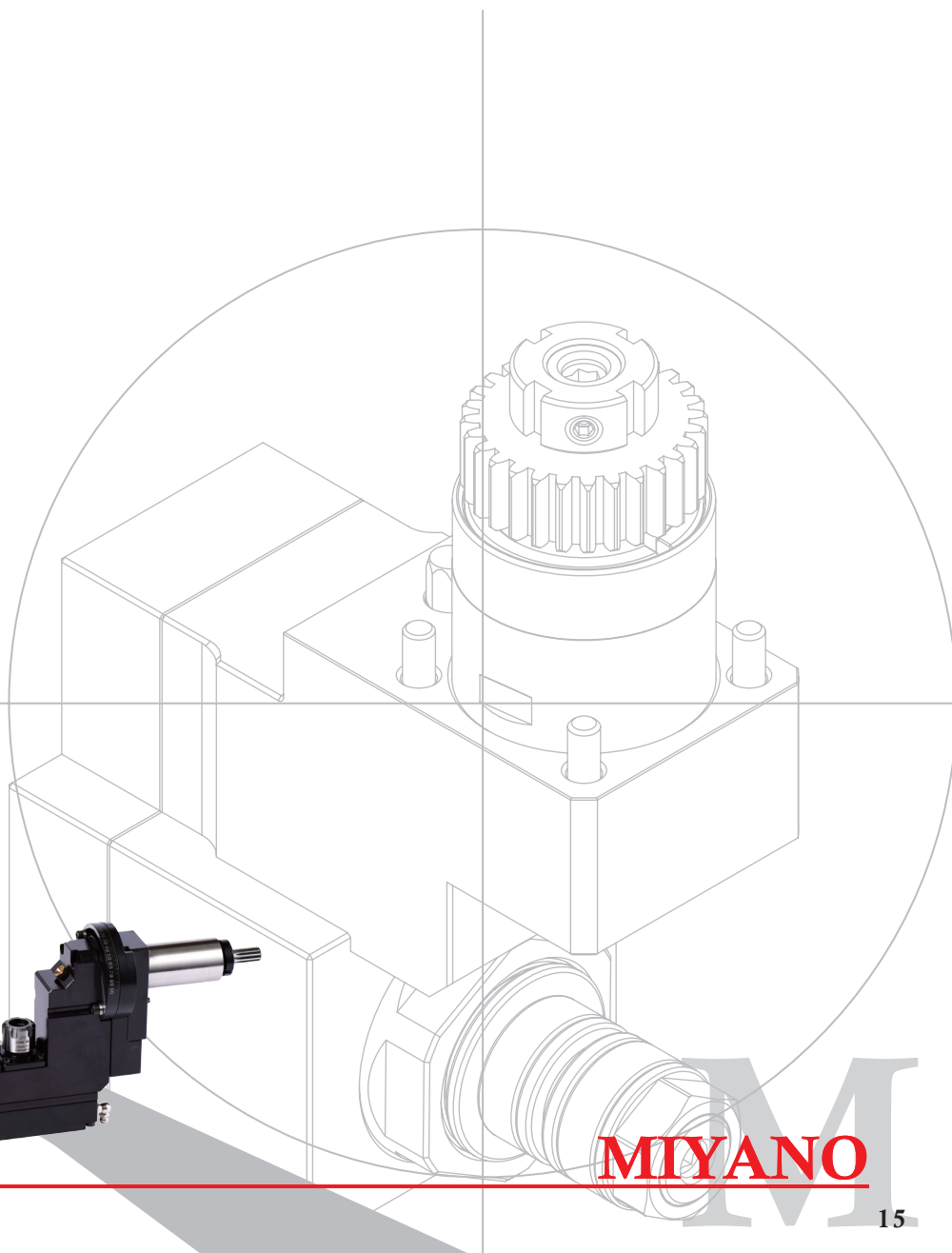
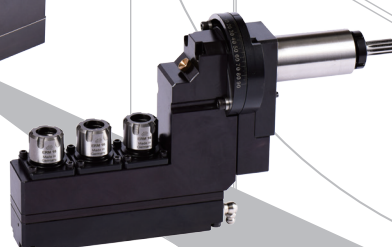
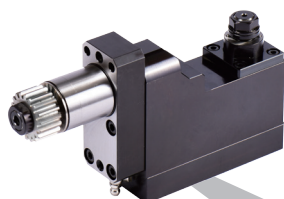
BMT38X371610
Axial driven tool holder

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
MIYANO CODE	CG70A000

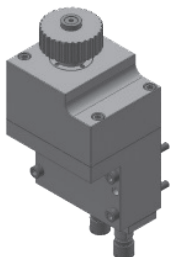


BMT38Z371610/BMT38Z371610-1
Radial driven tool holder

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	BMT38Z371610 : ER16A BMT38Z371610-1 : ER20A
MIYANO CODE	CG70C000



TOOLING FOR GANG TOOL POST



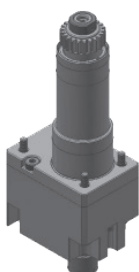
NN16S-13220

2 spindle cross drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M

NN20J2

TOOLING FOR GANG TOOL POST



NN20J2-23310

Cross drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M

NN32YB/NN32YB2

TOOLING FOR GANG TOOL POST



NN32YB-20310

Cross drilling/milling unit

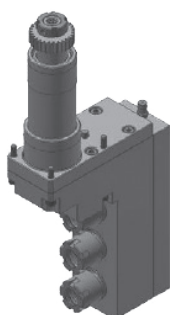
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A



NN32YB-23310

Cross drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M

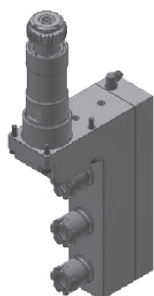


NN32YB2-20130

3 spindle drilling/milling unit

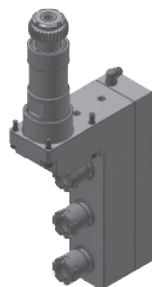
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M

TOOLING FOR GANG TOOL POST



NN38UB8-20130
 3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M

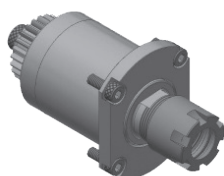


NN38UB8-21130
 3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M

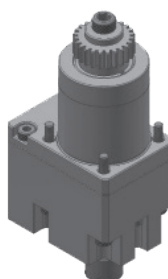
NN25UB8/NN32UB8/NN32YB/NN32YB2

TOOLING FOR BACK TOOL POST



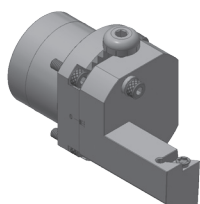
NN25UB8-30310
 Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



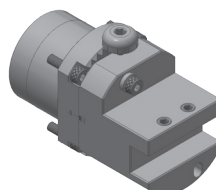
NN32YB3-33310
 Drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11M



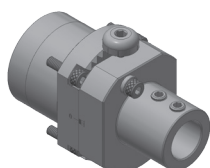
NN25UB8-51510
 Turning holder (Center adjustable type)

TOOL SHANK	Ø38.0mm
INSERT TIP	MITSUBISHI DCM11T302
CENTER ADJUSTMENT	±1.0mm



NN25UB8-51510-1
 Turning holder (Center adjustable type)

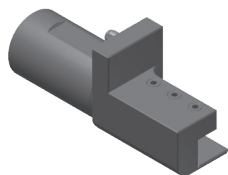
TOOL SHANK	Ø38.0mm
BITE HOLDER SHANK	12x12mm
CENTER ADJUSTMENT	±1.0mm



NN25UB8-51510-2
 Boring holder (Center adjustable type)

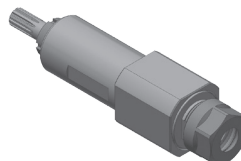
TOOL SHANK	Ø38.0mm
TOOL ID	Ø16.0mm
BUSHING TYPE	BS16
CENTER ADJUSTMENT	±1.0mm

TOOLING FOR GANG TOOL POST



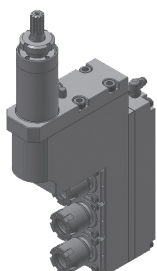
XD20H-11510
Turning holder

TOOL SHANK	Ø30mm
BITE HOLDER SHANK	12x12mm



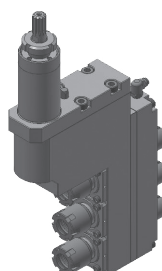
XD20H-10310
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16A



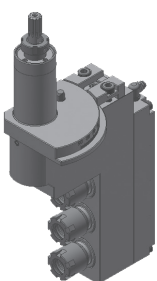
XD20H-10130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



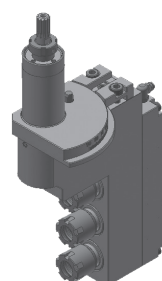
XD20H-11130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M



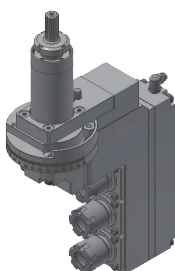
XD20H-15030
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°



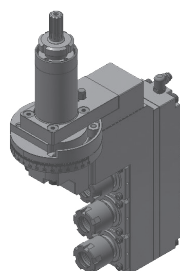
XD20H-15130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°



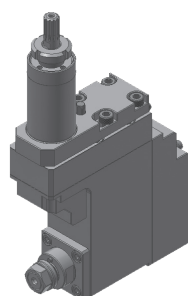
XD20H-16330
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	±90°



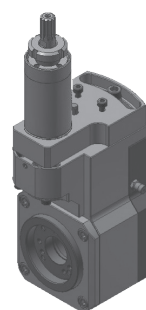
XD20H-16230
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	±90°



XD20H-10810
Polygon unit

RATIO	1 : 0.6
RPM(MAX)	3000
TOOL CLAMPING	Polygon head KT130480058

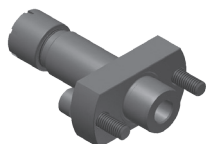


XD20H-20510
Thread whirling unit

RATIO	1 : 1
RPM(MAX)	6000
THREAD(MAX)	M12
HELIX ANGLE	±20°

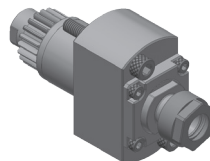
XD12/XD16/XD12II/XD16II

TOOLING FOR BACK TOOL POST



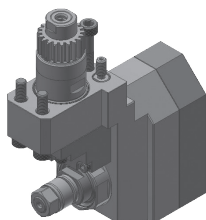
XD12H-31010
Drill sleeve

TOOL SHANK	Ø15mm
TOOL CLAMPING	ER11M



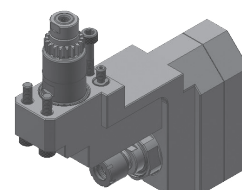
XD12H-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A



XD12H-30410
Slotting unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor shank Ø5.0/6.0/8.0/10.0/12.7/13.0mm
SAW OD(MAX)	Ø50mm
CENTER ADJUSTMENT	±1.0mm

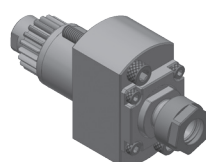


XD12H-30210
Cross drilling/milling(slotting) unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm

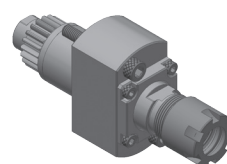
XD12III/XD16III

TOOLING FOR BACK TOOL POST



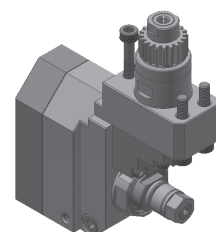
XD12III-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A



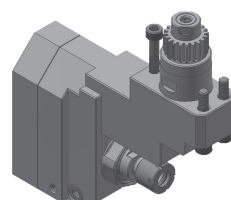
XD12III-30310-1
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



XD12III-30410
Slotting unit

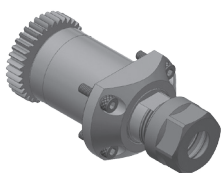
RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor shank Ø5.0/6.0/8.0/10.0/12.7/13.0mm
SAW OD(MAX)	Ø50mm
CENTER ADJUSTMENT	±1.0mm



XD12III-30210
Cross drilling/milling(slotting) unit

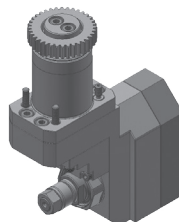
RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm

TOOLING FOR BACK TOOL POST



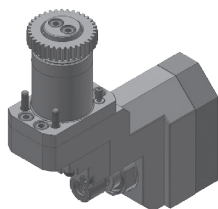
XD20H-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16A



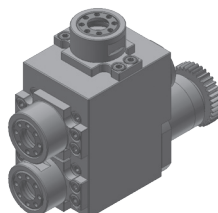
XD20H-30410
Slotting unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor shank Ø5.0/6.0/8.0/10.0/12.7/13.0mm
SAW OD(MAX)	Ø50mm
CENTER ADJUSTMENT	±1.0mm



XD20H-30210
Cross drilling/milling(slotting) unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm



XD20H-30030
Face drilling/milling and
cross drilling/milling unit

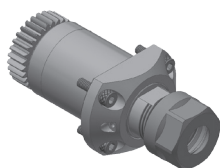
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11

REMARK

All 4 position of back tool post should be power driven when mounting this tool
Mounted on T24 and T25 positions
T24 for PIN T25 for SHANK

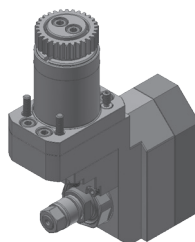
XD20II/XD26II

TOOLING FOR BACK TOOL POST



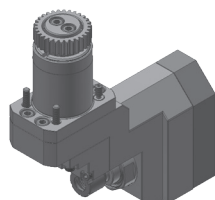
XD20II-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16A



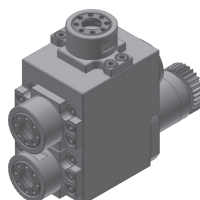
XD20II-30410
Slotting unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor shank Ø5.0/6.0/8.0/10.0/12.7/13.0mm
SAW OD(MAX)	Ø50mm
CENTER ADJUSTMENT	±1.0mm



XD20II-30210
Cross drilling/milling(slotting) unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm



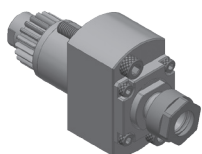
XD20II-30030
Face drilling/milling and
cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11

REMARK

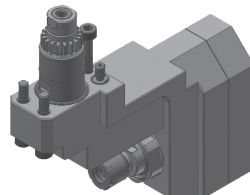
All 4 position of back tool post should be power driven when mounting this tool
Mounted on T24 and T25 positions
T24 for PIN T25 for SHANK

TOOLING FOR BACK TOOL POST



XD10-30310
Drilling/milling unit

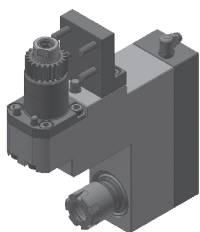
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A



XD10-30210
Cross drilling/milling (slotting) unit

RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	ER11M
CENTER ADJUSTMENT	±1.0mm

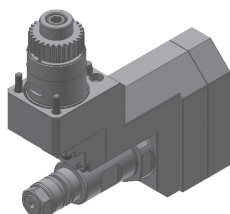
TOOLING FOR BACK TOOL POST



XD20V-50210
Cross drilling/milling unit

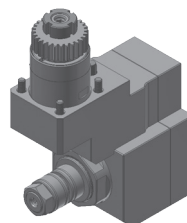
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M

TOOLING FOR BACK TOOL POST



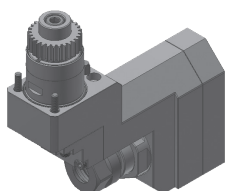
XD32H-30410
Slotting unit

RATIO	1 : 0.77
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor shank D12.7 / D13.0mm
SAW OD(MAX)	Ø50mm
CENTER ADJUSTMENT	±1.0mm



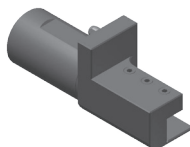
XD32H-30410A
Slotting unit

RATIO	1 : 0.77
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor shank D12.7 / D13.0mm
SAW OD(MAX)	Ø50mm
CENTER ADJUSTMENT	±1.0mm



XD32H-30210
Cross drilling/milling(slotting) unit

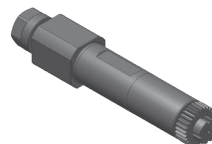
RATIO	1 : 0.77
RPM(MAX)	4000
TOOL CLAMPING	ER16A
CENTER ADJUSTMENT	±1.0mm



XD20H-11510

Turning holder

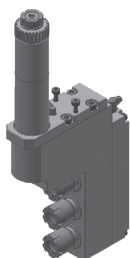
TOOL SHANK	Ø30mm
BITE HOLDER SHANK	12x12mm



XD20II-10310

Cross drilling/milling unit

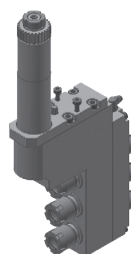
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A



XD20II-10130

3 spindle drilling/milling unit

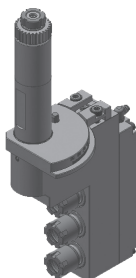
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



XD20II-11130

3 spindle drilling/milling unit

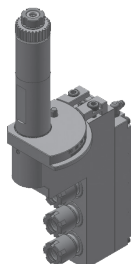
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M



XD20II-15030

3 spindle drilling/milling unit

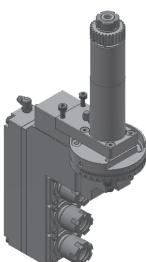
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°



XD20II-15130

3 spindle drilling/milling unit

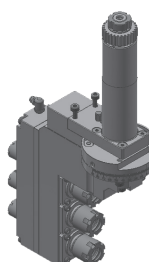
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°



XD20II-16330

3 spindle drilling/milling unit

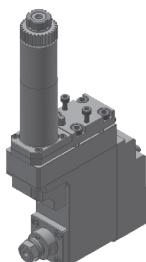
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	±90°



XD20II-16230

3 spindle drilling/milling unit

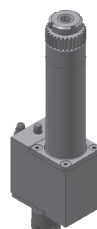
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	±90°



XD20II-10810

Polygon unit

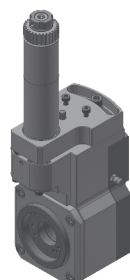
RATIO	1 : 0.6
RPM(MAX)	3000
TOOL CLAMPING	Polygon head KT130480058



XD26II-12110

Cross drilling/milling unit, Offset

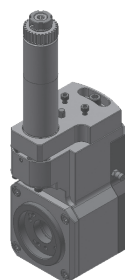
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
OFFSET DISTANCE	20mm



XD20II-20510-1

Thread whirling unit

RATIO	1 : 1
RPM(MAX)	4000
THREAD(MAX)	M12
HELIX ANGLE	±20°



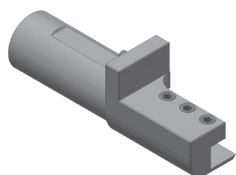
XD20II-20510-2

Thread whirling unit

RATIO	1 : 1
RPM(MAX)	4000
THREAD(MAX)	M12
HELIX ANGLE	±15°

XD32/XD35/XD38/XD32II/XD35II/XD38II

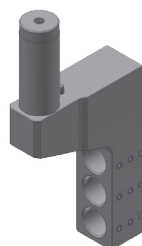
TOOLING FOR GANG TOOL POST



XD38II-11510

Turning holder

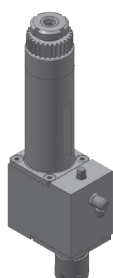
TOOL SHANK	Ø32mm
BITE HOLDER SHANK	12x12mm



XD38II-11030

3 tool sleeve holder

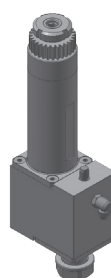
TOOL SHANK	Ø32mm
DRILL SLEEVE SHANK	Ø25mm



XD38II-12110

Cross drilling/milling unit, Offset

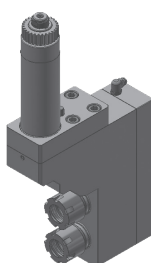
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
OFFSET DISTANCE	20mm



XD38II-10410

Slotting unit

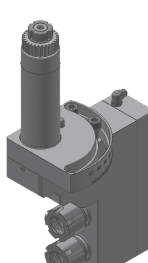
RATIO	1 : 1
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor D16.0mm



XD38II-10120

2 spindle drilling/milling unit

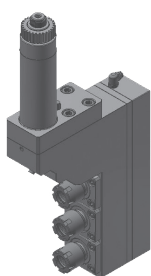
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER20M



XD38II-15020

2 spindle drilling/milling unit

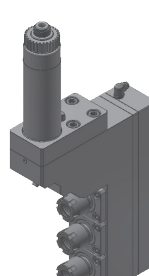
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER20M
ANGLE ADJUSTMENT	0~90°



XD32H-10130

3 spindle drilling/milling unit

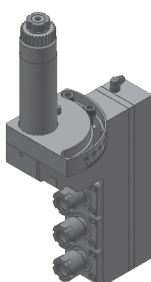
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



XD32H-11130

3 spindle drilling/milling unit

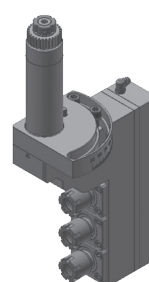
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M



XD32H-15030

3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°

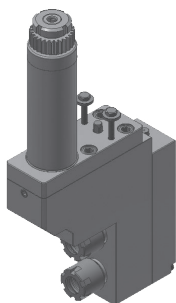


XD32H-15130

3 spindle drilling/milling unit

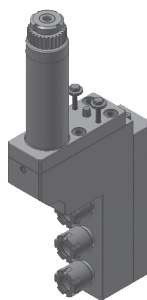
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16M Back side : ER11M
ANGLE ADJUSTMENT	0~90°

TOOLING FOR GANG TOOL POST



ST20G-10120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M

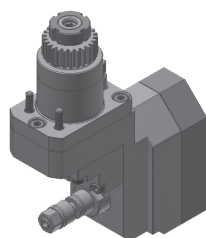


ST20G-10130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M

ST20G/ST20GS

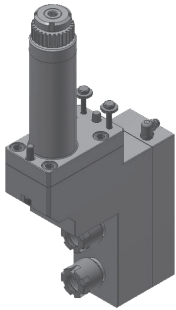
TOOLING FOR BACK TOOL POST



ST20G-30410A
Slotting unit

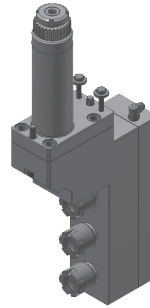
RATIO	1 : 0.55
RPM(MAX)	4000
TOOL CLAMPING	Saw arbor D6.0mm

TOOLING FOR GANG TOOL POST



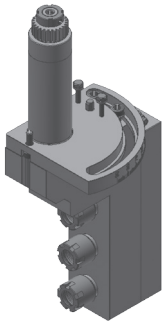
ST35G-10120
2 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



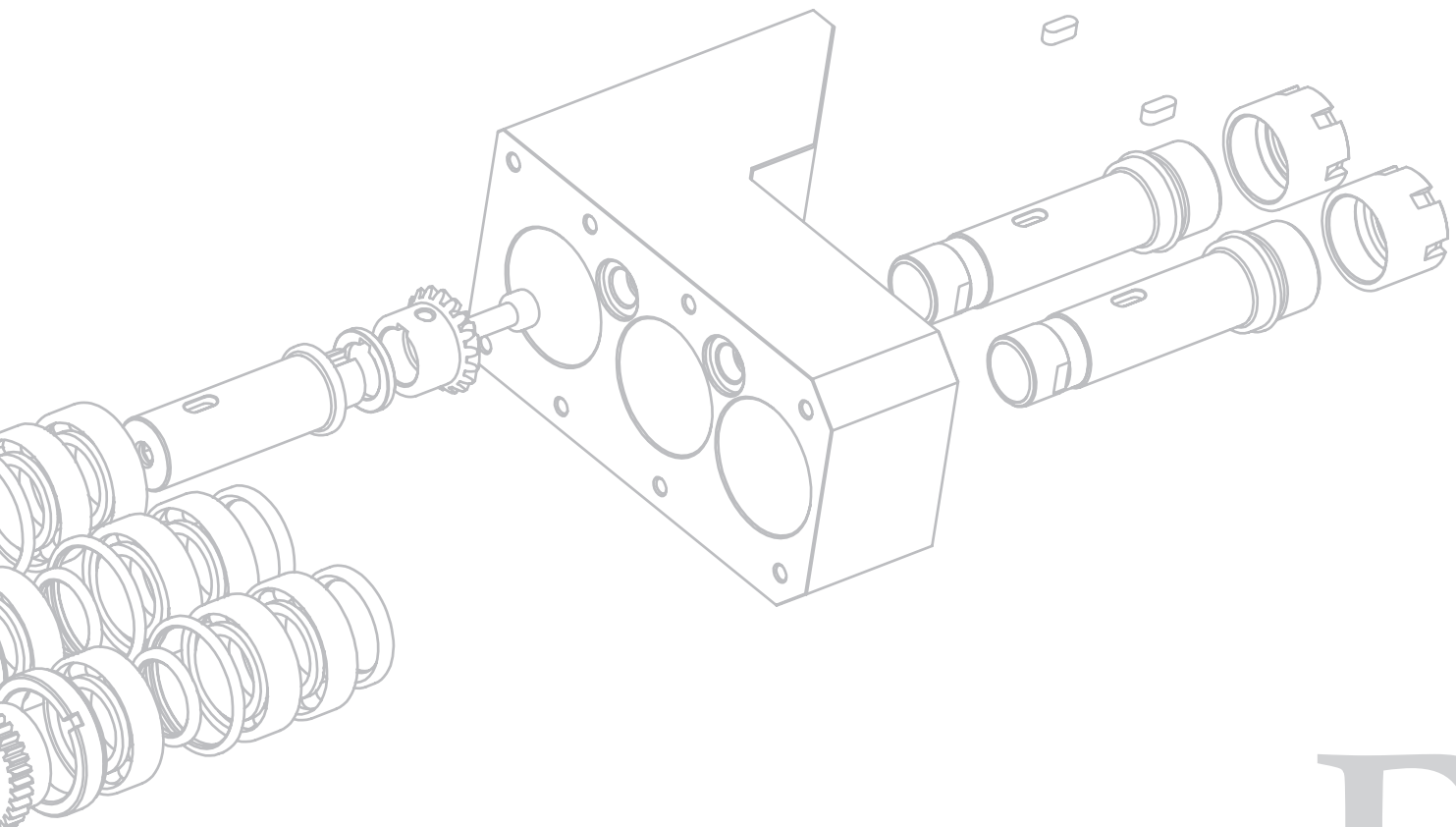
ST35G-10130
3 spindle drilling/milling unit

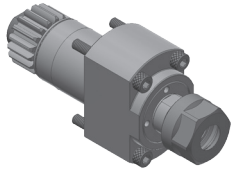
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M



ST35G-15030
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
ANGLE ADJUSTMENT	0~90°

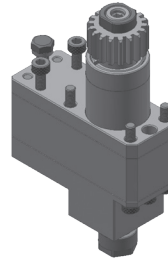




A20-10310

Cross drilling/milling unit

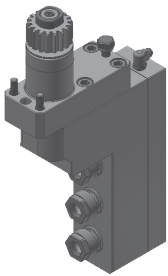
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
CITIZEN CODE	GSC1110
	GSC1310
	CSM4-03



A20-23310

Cross drilling/milling unit

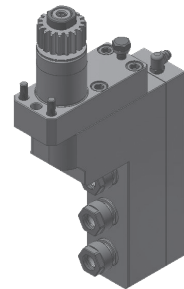
RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



A20-10130

3 spindle drilling/milling unit

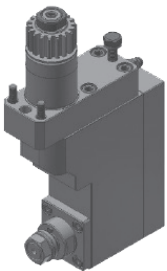
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A
CITIZEN CODE	BSE607



A20-11130

3 spindle drilling/milling unit

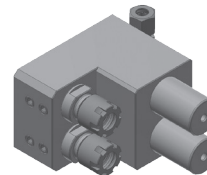
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER11A
	Back side : ER11A
CITIZEN CODE	BSE707



A20-10810

Polygon unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Polygon head
	KT130480058

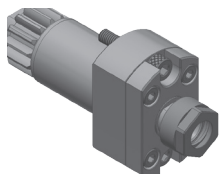


A20-22021

2 tool deep hole drill holder

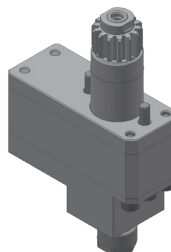
TOOL SHANK	Ø25.4mm
TOOL CLAMPING	ER16M
DRILLING DEPTH(MAX)	95mm

TOOLING FOR BACK TOOL POST



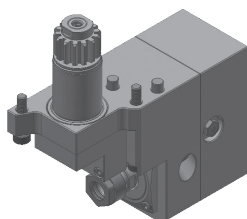
L20E-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER11A
CITIZEN CODE	GSE3307
	GSE3507
	CSM4-04



L20E-33310
Drilling/milling unit

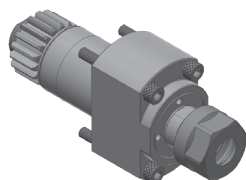
RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



L20E-30210
Cross drilling/milling unit

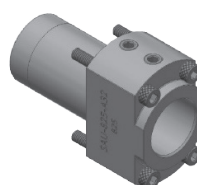
RATIO	1 : 0.9
RPM(MAX)	5000
TOOL CLAMPING	ER11A
CENTER ADJUSTMENT	0~3mm
CITIZEN CODE	GSS1330
	GSS1530

TOOLING FOR BACK TOOL POST



A20-10310
Drilling/milling unit

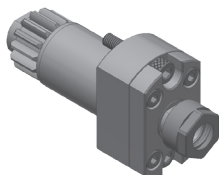
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
CITIZEN CODE	GSC1110
	GSC1310
	CSM4-03



L32-31310
Sleeve adapter

TOOL SHANK	Ø31.0mm
SLEEVE SHANK	Ø25.4mm
CITIZEN CODE	SAU825

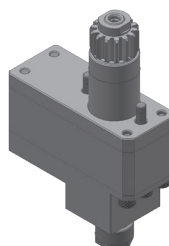
TOOLING FOR GANG TOOL POST



L20E-30310

Cross drilling/milling unit

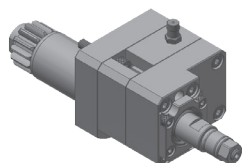
RATIO	1 : 1
RPM(MAX)	10000
TOOL CLAMPING	ER11A
CITIZEN CODE	MSC507
	CSM4-04



L20E-33310

Cross drilling/milling unit

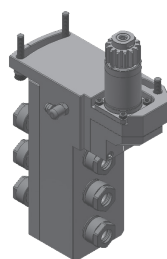
RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



L12-10410

Slotting unit

RATIO	1 : 1
RPM(MAX)	4000
SAW OD(MAX)	Ø30mm
SAW ARBOR SHANK	Ø6mm



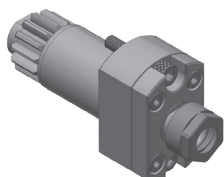
L12VII-15130

3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	10000
TOOL CLAMPING	Front side : ER11A
	Back side : ER11A
ANGLE ADJUSTMENT	0~30°
CITIZEN CODE	GSE3607

L12VII

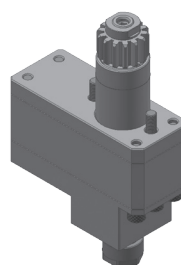
TOOLING FOR BACK TOOL POST



L20E-30310

Drilling/milling unit

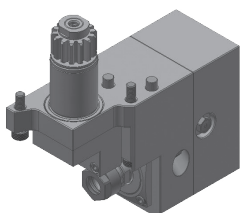
RATIO	1 : 1
RPM(MAX)	10000
TOOL CLAMPING	ER11A
CITIZEN CODE	MSC507
	CSM4-04



L20E-33310

Drilling/milling unit

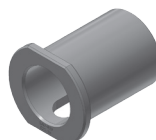
RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



L20E-30210

Cross drilling/milling unit

RATIO	1 : 0.9
RPM(MAX)	5000
TOOL CLAMPING	ER11A
CENTER ADJUSTMENT	0~3mm
CITIZEN CODE	GSS1330
	GSS1530



L220E-31310-1

Sleeve adapter

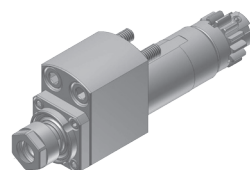
TOOL SHANK	Ø25.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	SAU819

TOOLING FOR GANG TOOL POST

L20VII-10310

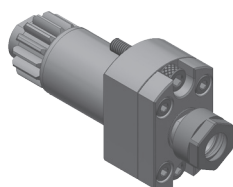
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER16A
CITIZEN CODE	GSC1010
	CSM4-01


L20VII-10310-1

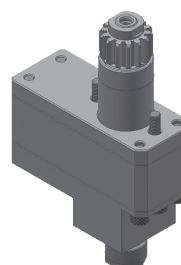
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A
CITIZEN CODE	GSC907

TOOLING FOR BACK TOOL POST

L20E-30310

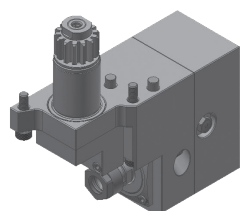
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER11A
CITIZEN CODE	GSE3307
	GSE3507
	CSM4-04


L20E-33310

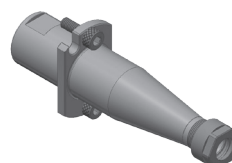
Drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A


L20E-30210

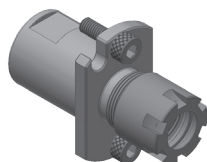
Cross drilling/milling unit

RATIO	1 : 0.9
RPM(MAX)	5000
TOOL CLAMPING	ER11A
CENTER ADJUSTMENT	0~3mm
CITIZEN CODE	GSS1330
	GSS1530


L220E-31010

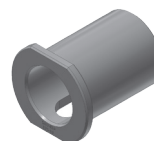
Drill sleeve

SLEEVE SHANK	Ø25.0mm
TOOL CLAMPING	ER11A
CITIZEN CODE	GDS107


L220E-31010-1

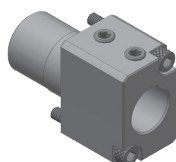
Drill sleeve

SLEEVE SHANK	Ø25.0mm
TOOL CLAMPING	ER16M
CITIZEN CODE	GDS210


L220E-31310-1

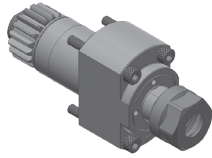
Sleeve adapter

TOOL SHANK	Ø25.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	SAU819


L220E-31310

Sleeve adapter

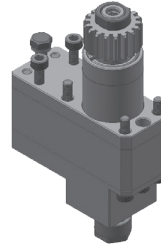
TOOL SHANK	Ø25.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	SAU919



A20-10310

Cross drilling/milling unit

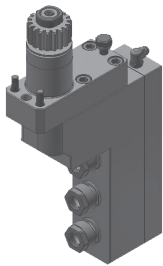
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
CITIZEN CODE	GSC1110
	GSC1310
	CSM4-03



A20-23310

Cross drilling/milling unit

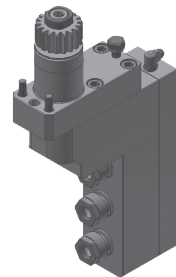
RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



A20-10130

3 spindle drilling/milling unit

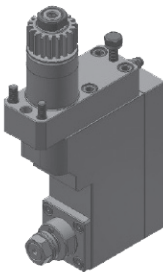
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A
CITIZEN CODE	BSE607



A20-11130

3 spindle drilling/milling unit

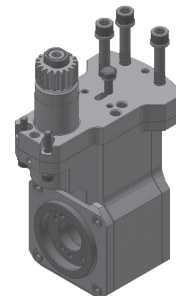
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER11A
	Back side : ER11A
CITIZEN CODE	BSE707



A20-10810

Polygon unit

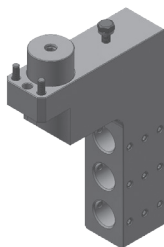
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Polygon head
	KT130480058



L20E-15510-1

Thread whirling unit

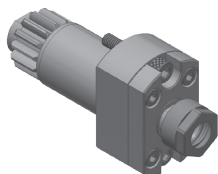
RATIO	1 : 1
RPM(MAX)	6000
THREAD(MAX)	M12
HELIX ANGLE	±15°



L220E-11030

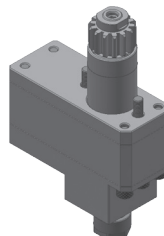
3 tool sleeve holder

TOOL SHANK	Ø31.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	GDF1207

TOOLING FOR BACK TOOL POST


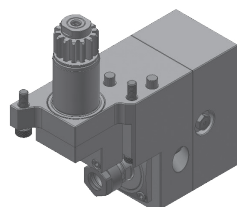
L20E-30310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	8000
TOOL CLAMPING	ER11A
CITIZEN CODE	GSE3307
	GSE3507
	CSM4-04



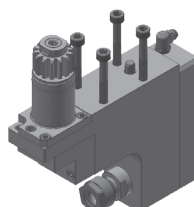
L20E-33310
Drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



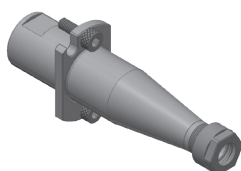
L20E-30210
Cross drilling/milling unit

RATIO	1 : 0.9
RPM(MAX)	5000
TOOL CLAMPING	ER11A
CENTER ADJUSTMENT	0~3mm
CITIZEN CODE	GSS1330
	GSS1530



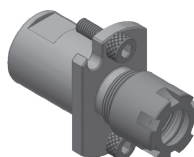
L220E-30210
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A
CITIZEN CODE	GSC1507



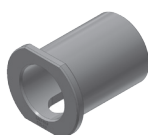
L220E-31010
Drill sleeve

SLEEVE SHANK	Ø25.0mm
TOOL CLAMPING	ER11A
CITIZEN CODE	GDS107



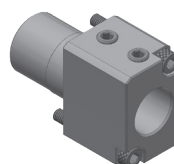
L220E-31010-1
Drill sleeve

SLEEVE SHANK	Ø25.0mm
TOOL CLAMPING	ER16M
CITIZEN CODE	GDS210



L220E-31310-1
Sleeve adapter

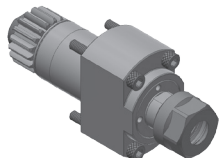
TOOL SHANK	Ø25.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	SAU819



L220E-31310
Sleeve adapter

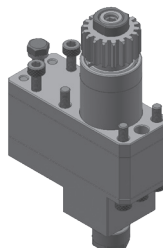
TOOL SHANK	Ø25.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	SAU919

TOOLING FOR GANG TOOL POST



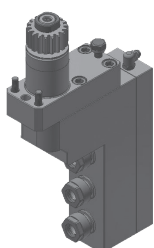
A20-10310
Cross drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
CITIZEN CODE	GSC1110 GSC1310 CSM4-03



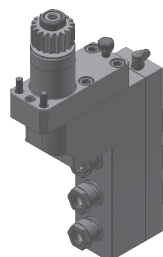
A20-23310
Cross drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



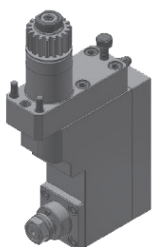
A20-10130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER11A
CITIZEN CODE	BSE607



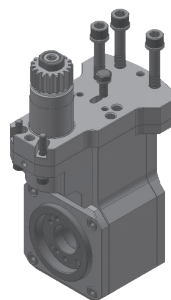
A20-11130
3 spindle drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER11A Back side : ER11A
CITIZEN CODE	BSE707



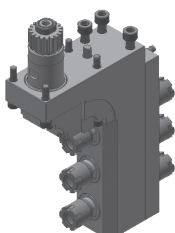
A20-10810
Polygon unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Polygon head KT130480058



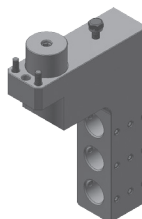
L20E-15510-1
Thread whirling unit

RATIO	1 : 1
RPM(MAX)	6000
THREAD(MAX)	M12
HELIX ANGLE	±15°



L32-11130
3 spindle drilling/milling unit

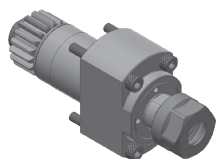
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	Front side : ER16A Back side : ER16A
CITIZEN CODE	GSE1810



L220E-11030
3 tool sleeve holder

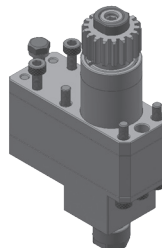
TOOL SHANK	Ø31.0mm
SLEEVE SHANK	Ø19.05mm
CITIZEN CODE	GDF1207

TOOLING FOR BACK TOOL POST



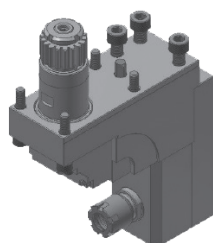
A20-10310
Drilling/milling unit

RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16A
CITIZEN CODE	GSC1110 GSC1310 CSM4-03



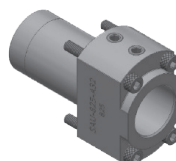
A20-23310
Drilling/milling unit

RATIO	1 : 3
RPM(MAX)	18000
TOOL CLAMPING	ER11A



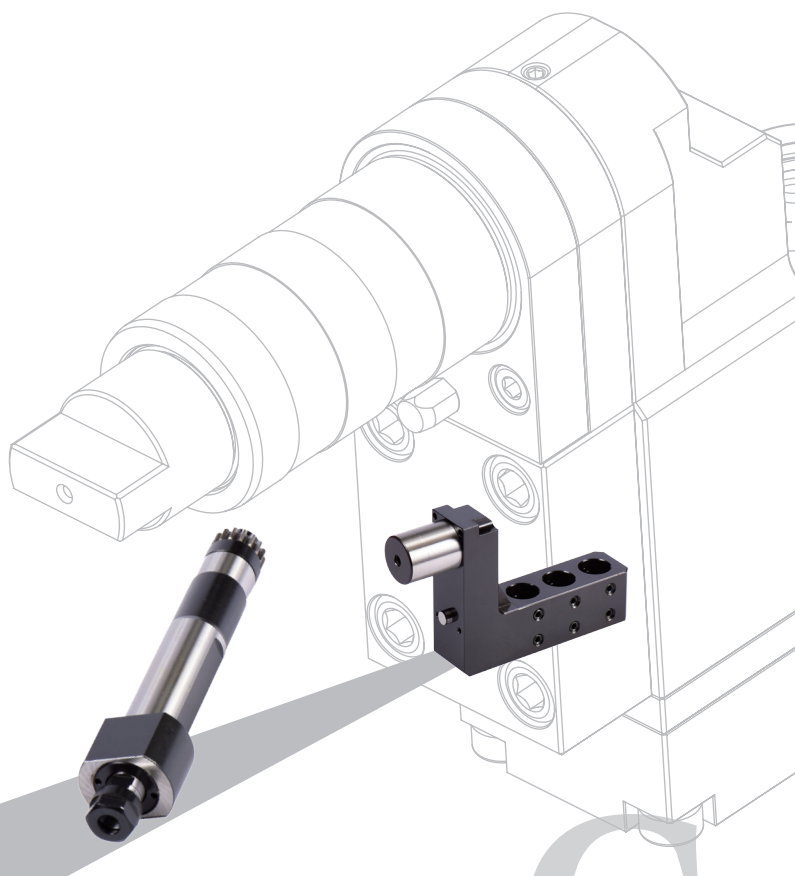
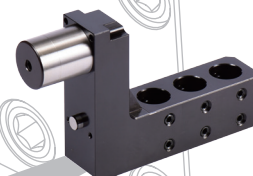
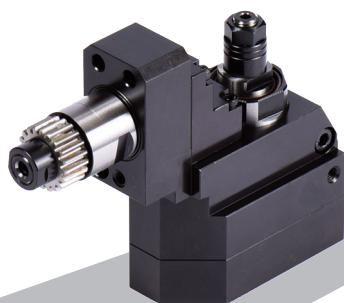
L32-30210
Cross drilling/milling unit

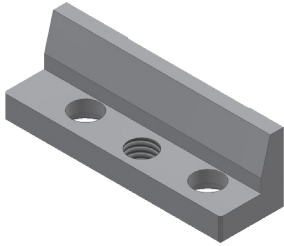
RATIO	1 : 1
RPM(MAX)	6000
TOOL CLAMPING	ER16M
CITIZEN CODE	GSE1910



L32-31310
Sleeve adapter

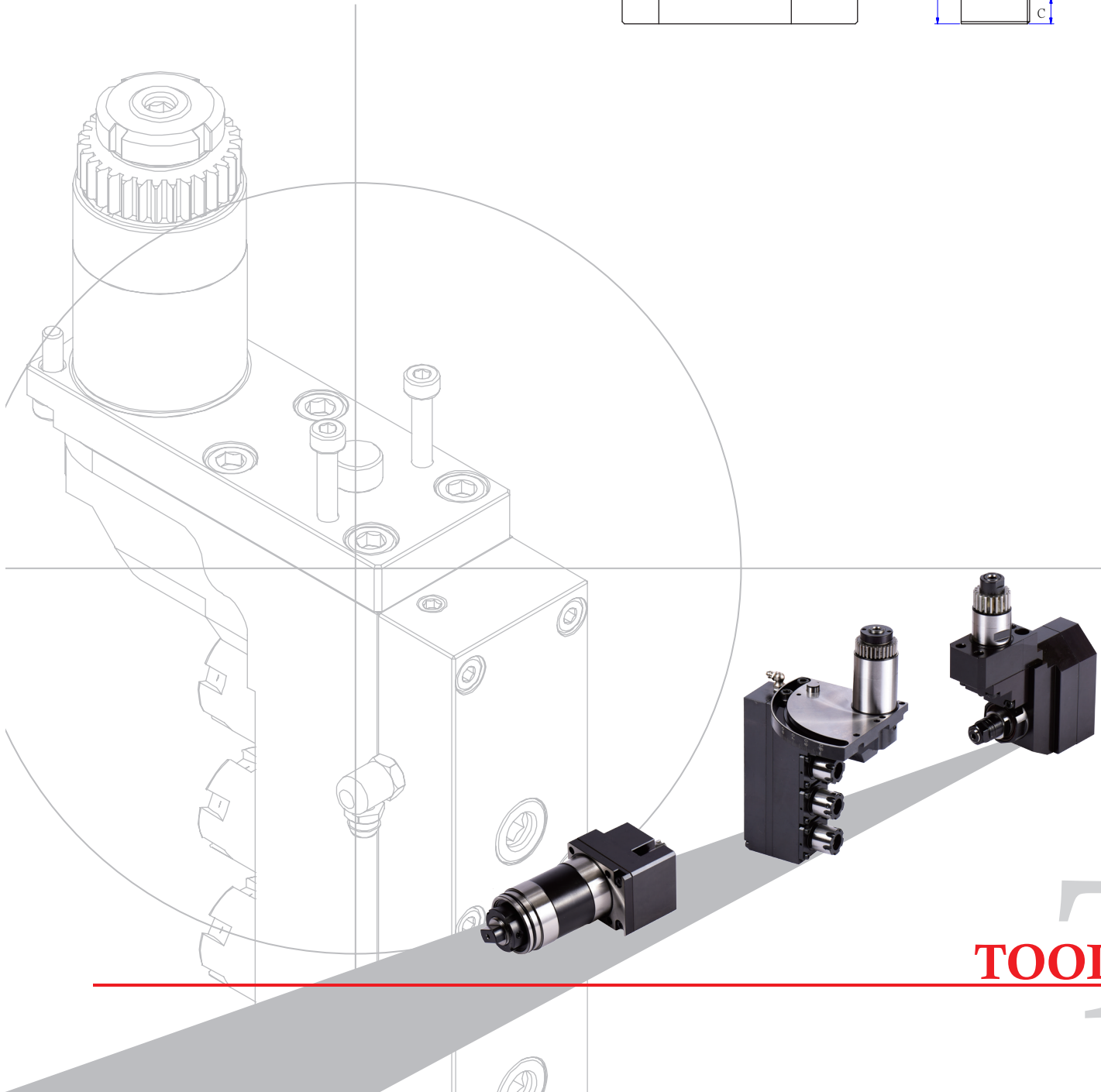
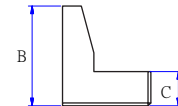
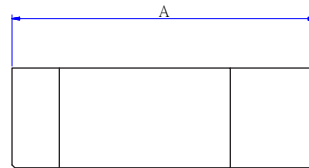
TOOL SHANK	Ø31.0mm
SLEEVE SHANK	Ø25.4mm
CITIZEN CODE	SAU825





FIXTURE

ITEM NO.	LENGTH(A)	HEIGHT(B)	THICKNESS(C)	MACHINE
FSR20-14-075	75	14	3.5	STAR SR20R
FSR20-14-065	65	14	3.5	STAR SR20R
FSR20-13-075	75	13	6.5	STAR SR20JC
FSV32-14-070	70	14	3.5	STAR SV32
FSV32-14-080	80	14	3.5	STAR SV32
FCL20-11-115	115	11	4.5	CITIZEN L20
FBO18-18-054	53.5	17.5	6	TSUGAMI BO18



TOOLS

MEMO

