

6-4 Tool Holder Relational Dimensions Tables

NOTICE

If there is no instruction in the drawing, position of each axis is shown as below.

- X0...Absolute coordinate, Y, Z... Reference point

◆Turret

Name	Wedge type 2-station tool holder □16mm		
Type No.	43102	Application	Turning
Applicable tool length		80~88mm	

Name	Wedge type tool holder □16mm		
Type No.	78101	Application	Turning
Applicable tool length		80~88mm	

Name	Wedge type for inverse tool □16mm		
Type No.	78107	Application	Turning
Applicable tool length		60~80mm	

Name	Wedge type cut-off tool holder □16mm		
Type No.	58101	Application	Cutting-off
Applicable tool length		70~80mm	

Name	Standard wedge-free type □16mm		
Type No.	78103	Application	Turning
Applicable tool length		70~78mm	

• Tool holder

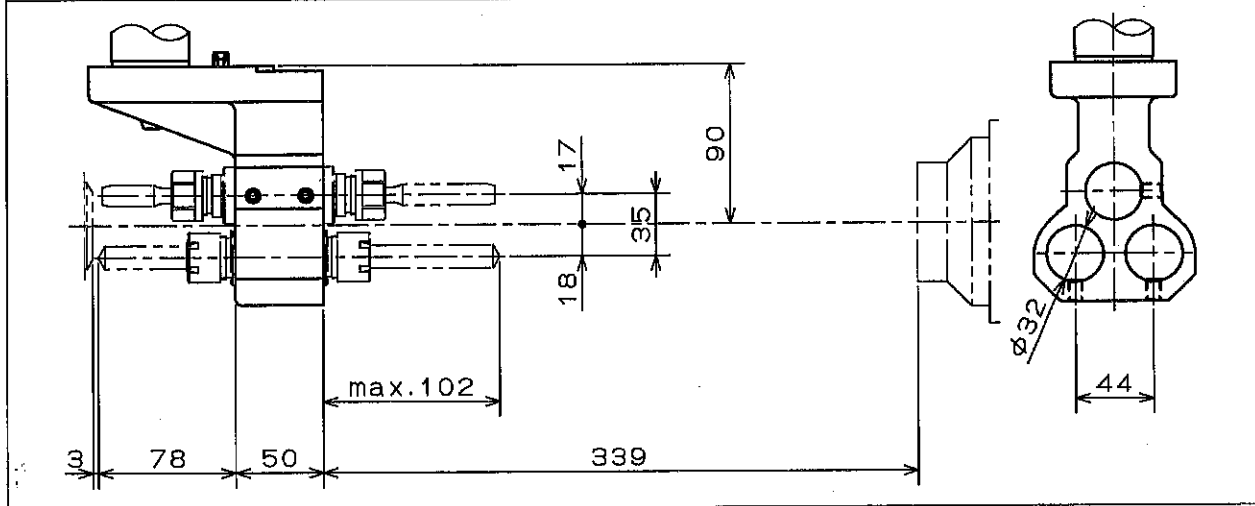
Name	2-station Overhang wedge type for inverse tool □16mm	Type No	43103
Application	Turning(by the back attachment)	Applicable tool length	80~88mm

Name	Wedge-free type for inverse tool for back working □16mm	Type No	78170
Application	Turning(by the back attachment)	Applicable tool length	70~78mm

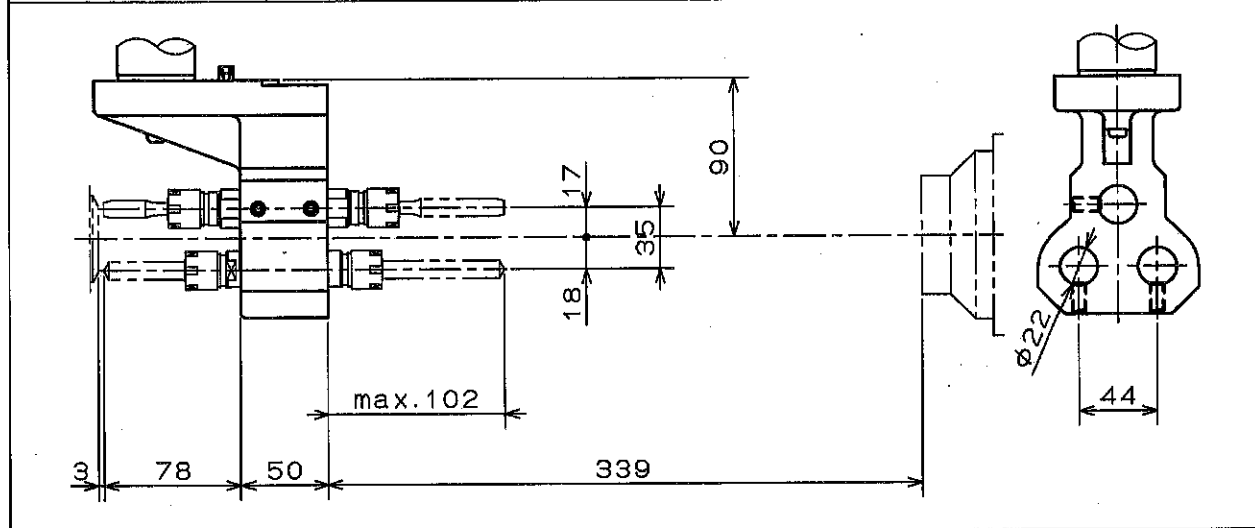
Name	Wedge-free type for back working □16mm	Type No	78171
Application	Turning, boring(by the back attachment)	Applicable tool length	70~78mm

• Triple sleeve holder

Name	Triple sleeve holder Main / back(32mm dia)	Type No	43111,58112
Applicable sleeve	42121, 26, 31 (Impossible to be attached on X1 turret)		
	78135, 35D (T * * 52 is only available at the back.)		
	73643, 43D		



Name	Triple sleeve holder Main / back	Type No	43112,58111
Applicable sleeve	42122, 27, 32 (Impossible to be attached on X1 turret)		
	30124,25,36,37,38,39		
	73640,40D,41,41D,42,42D,44,44D		



• Single sleeve holder

Name	Single sleeve holder for deep drilling 32mm dia	Type No	58114
Applicable sleeve	58121,22,23,24,25 (Impossible to be attached on X1 turret)		

Name	Single sleeve holder 32mm dia.
Type No	58113
Applicable sleeve	58121,22,23,24,25 (Impossible to be attached on X1 turret)

Name	Single sleeve holder for deep drilling (large diameter)
Type No	78111
Applicable sleeve	78121,22,25,58126 (Impossible to be attached on X1 turret)

• Drill sleeve

Name	Drill sleeve ER16		
Type No	30124	Shank diameter	max ϕ 10
Applicable sleeve holder	43112,58111		

Name	Drill sleeve ER16 for deep drilling		
Type No	30125	Shank diameter	max ϕ 10
Applicable sleeve holder	43112,58111		

Name	Counter-face drill sleeve ER20		
Type No	42121	Shank diameter	max ϕ 10
Applicable sleeve holder	43111,58112 (Can't fit any tools to back face of this sleeve when attached on X1 turret)		

Name	Counter-face drill sleeve ER16		
Type No	42122	Shank diameter	max ϕ 10
Applicable sleeve holder	43112,58111 (Can't fit any tools to back face of this sleeve when attached on X1 turret)		

Name	Counter-face drill sleeve ER20		
Type No	42126	Shank diameter	max ϕ 13
Applicable sleeve holder	43111,58112 (Impossible to be attached on X1 turret)		

Name	Counter-face drill sleeve ER16		
Type No	42127	Shank diameter	max ϕ 10
Applicable sleeve holder	43112,58111 (Impossible to be attached on X1 turret)		

• Drill sleeve

Name	Drill sleeve ER16		
Type No	58121	Shank diameter	max ϕ 10
Applicable sleeve holder	58113,58114 (Impossible to be attached on X1 turret)		
Sealing disc	DS/ER16		
remarks	Size with () is for attaching this unit to 58114		
<p>Technical drawing of Drill sleeve ER16. The drawing shows a cylindrical component with a flange on the left. Dimensions are indicated: a small gap of 3, a length of 75 (with 110 in parentheses), a total length of 114, an inner diameter of ϕ11, and an outer diameter of ϕ32. A 'Sealing disc' is shown at the left end.</p>			

Name	Drill sleeve ER20		
Type No	58122	Shank diameter	max ϕ 10
Applicable sleeve holder	58113,58114 (Impossible to be attached on X1 turret)		
Sealing disc	DS/ER20		
remarks	Size with () is for attaching this unit to 58114		
<p>Technical drawing of Drill sleeve ER20. The drawing shows a cylindrical component with a flange on the left. Dimensions are indicated: a small gap of 3, a length of 87 (with 122 in parentheses), a total length of 102, an inner diameter of ϕ13.5, and an outer diameter of ϕ32. A 'Sealing disc' is shown at the left end.</p>			

Name	Drill sleeve ER25		
Type No	58123	Shank diameter	max ϕ 16
Applicable sleeve holder	58113,58114 (Impossible to be attached on X1 turret)		
Sealing disc	DS/ER25		
remarks	Size with () is for attaching this unit to 58114		
<p>Technical drawing of Drill sleeve ER25. The drawing shows a cylindrical component with a flange on the left. Dimensions are indicated: a small gap of 3, a length of 97 (with 132 in parentheses), a total length of 92, an inner diameter of ϕ18, and an outer diameter of ϕ32. A 'Sealing disc' is shown at the left end.</p>			

• Drill sleeve

Name	Drill sleeve ER20 for deep drilling		
Type No	58126	Shank diameter	max ϕ 13
Applicable sleeve holder	78111 (Impossible to be attached on X1 turret)		

Name	Drill sleeve ER16 for deep drilling		
Type No	78125	Shank diameter	max ϕ 10
Applicable sleeve holder	78111 (Impossible to be attached on X1 turret)		

Name	Drill sleeve MT1		
Type No	58124	Taper size	MT1
Applicable sleeve holder	58113,58114 (Impossible to be attached on X1 turret)		
Remarks	Size with () is for attaching this unit to 58114		

Name	Drill sleeve MT2		
Type No	58125	Taper size	MT2
Applicable sleeve holder	58113,58114 (Impossible to be attached on X1 turret)		
Remarks	Size with () is for attaching this unit to 58114		

Name	Drill sleeve MT1		
Type No	78121	Taper size	MT1
Applicable sleeve holder	78111 (Impossible to be attached on X1 turret)		

Name	Drill sleeve MT2		
Type No	78122	Taper size	MT2
Applicable sleeve holder	78111 (Impossible to be attached on X1 turret)		

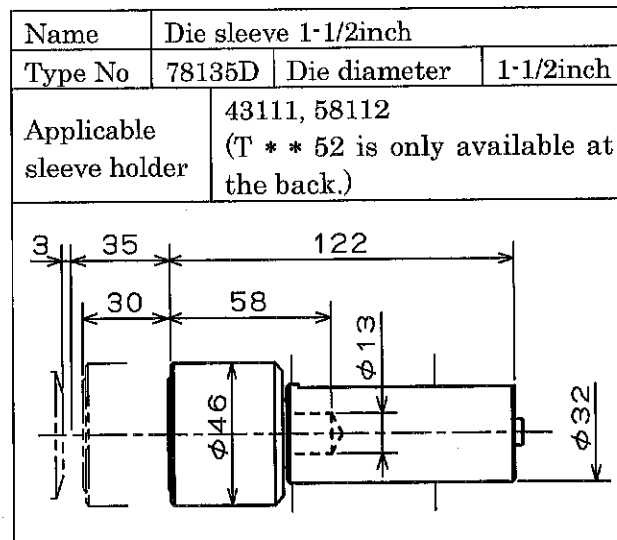
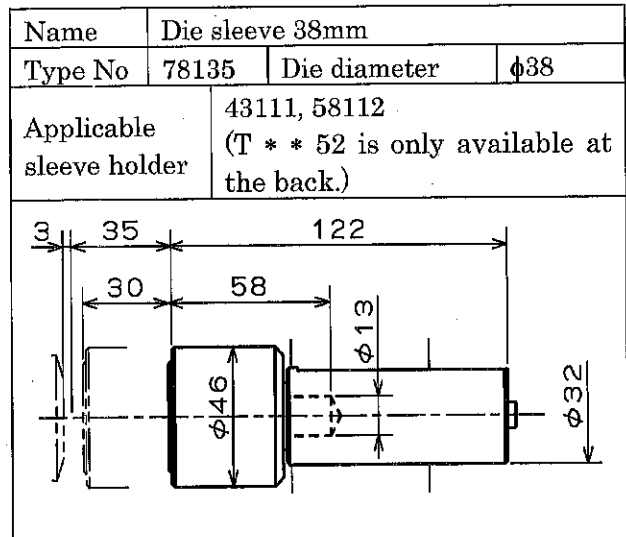
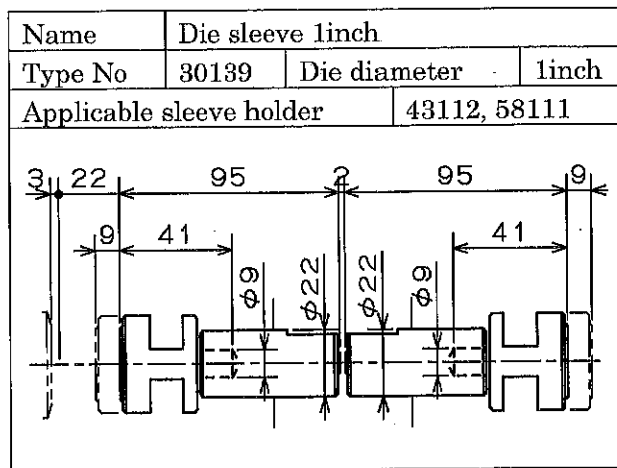
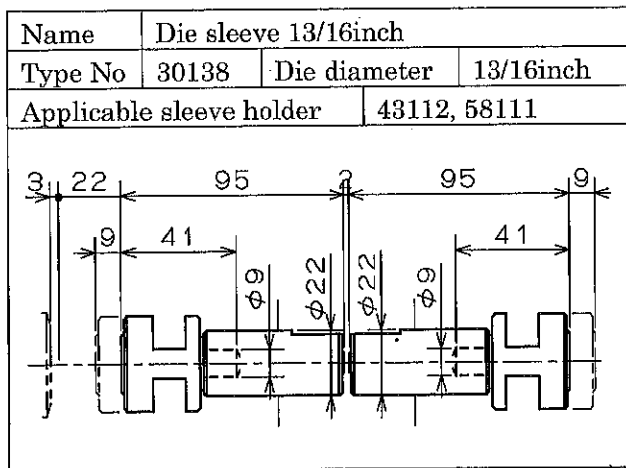
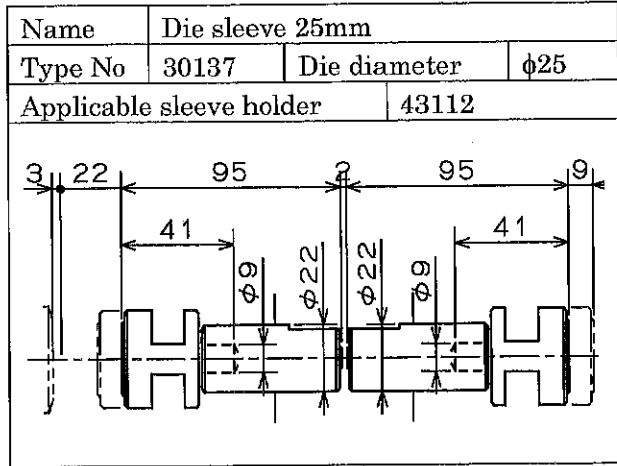
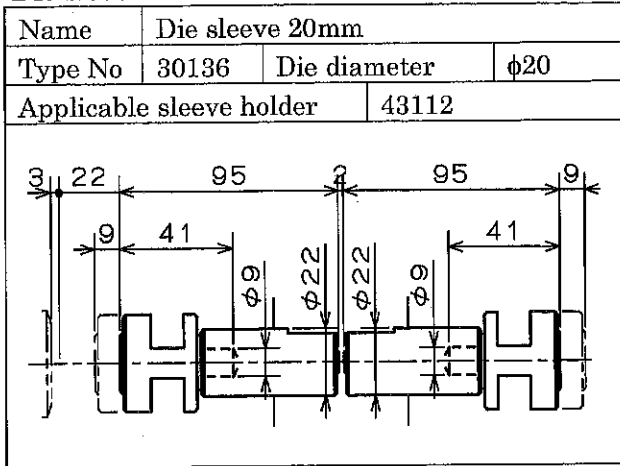
• Tap sleeve

Name	Counter face tap sleeve ER16		
Type No	42131	Shank diameter	max ϕ 10
Applicable sleeve holder	43111,58112 (Impossible to be attached on X1 turret)		

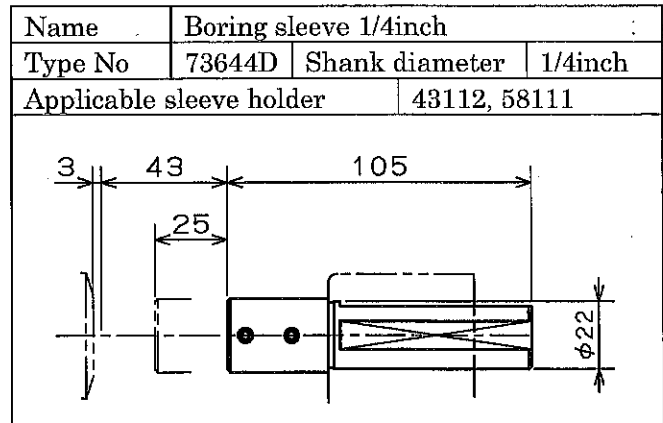
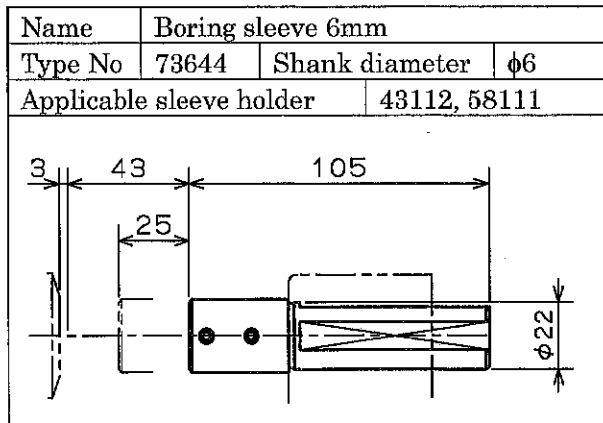
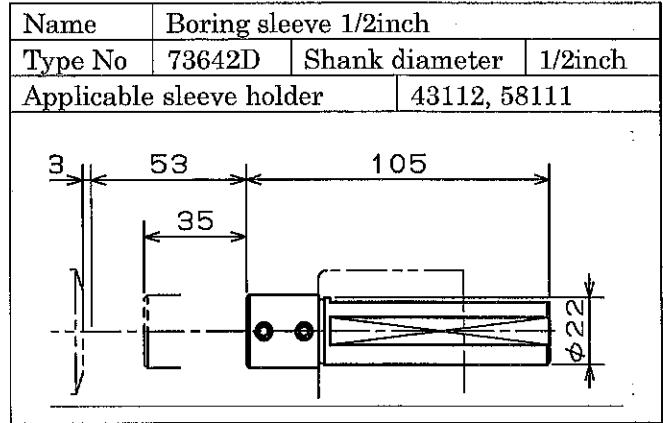
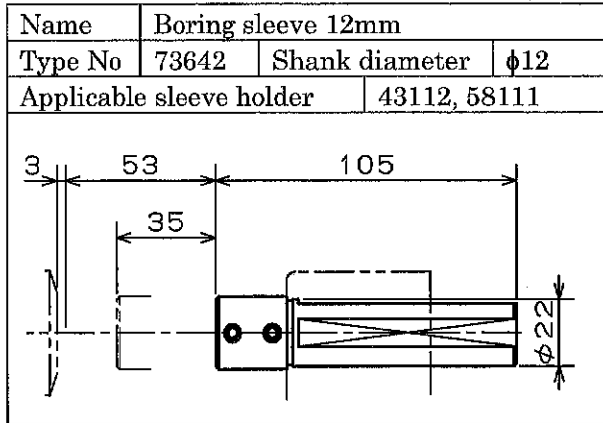
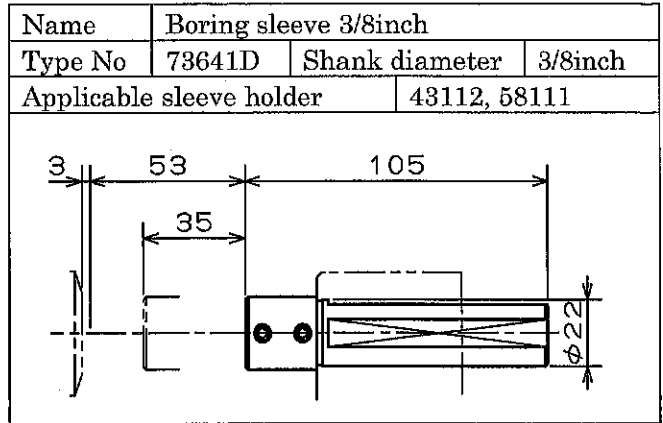
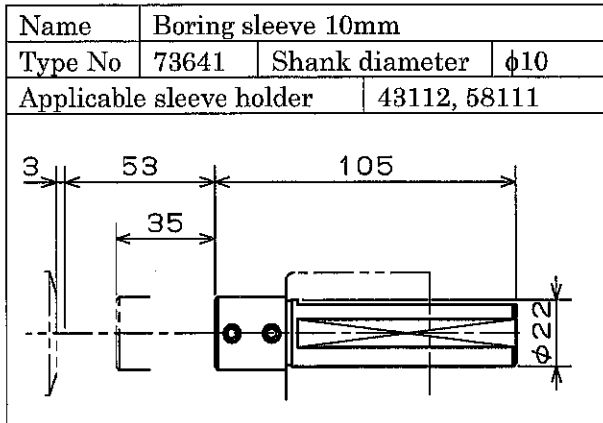
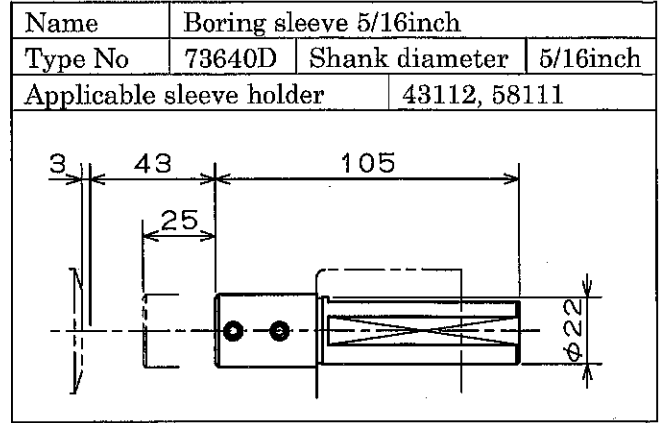
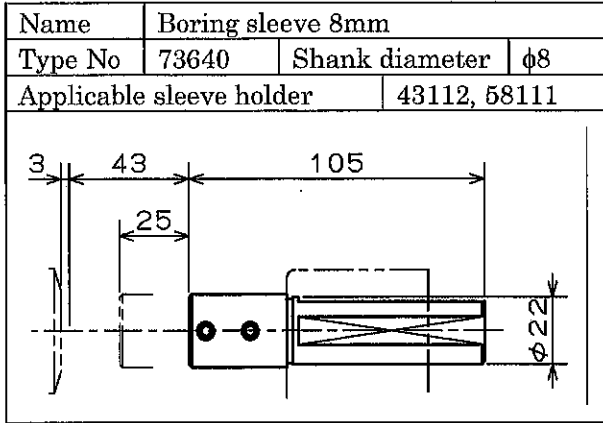
Name	Counter face tap sleeve ER16		
Type No	42132	Shank diameter	max ϕ 10
Applicable sleeve holder	43112,58111 (Impossible to be attached on X1 turret)		

Name	Counter face tap sleeve ER16		
Type No	30133	Shank diameter	max ϕ 10
Applicable sleeve holder	43111,58111		

• Die sleeve



• Boring sleeve



• Boring sleeve

7Name	Boring sleeve 16mm		
Type No	78143	Shank diameter	φ16
Applicable sleeve holder		43111, 58112	

Name	Boring sleeve 5/8inch		
Type No	78143D	Shank diameter	5/8inch
Applicable sleeve holder		43111 58112	

• Cross drill unit

Name	Cross drill unit ER16		
Type No	20150	Shank diameter	max. $\phi 10$
Application	Cross-drilling, milling		
Spindle speed	Max. 5700min ⁻¹		

Name	Cross tap unit ER11		
Type No	20151	Shank diameter	max. $\phi 7$
Application	Cross tapping		
Spindle speed	Max. 5700min ⁻¹		

Name	Cross drill unit ER20		
Type No	58151	Shank diameter	max. $\phi 13$
Application	Cross-drilling, milling		
Spindle speed	Max. 5700min ⁻¹		
Remarks			

Name	2-spindle cross-drilling unit ER16		
Type No	43151	Shank diameter	max. $\phi 10$
Application	Cross-drilling, milling		
Spindle speed	Max. 5700min ⁻¹		
Remarks			

Name	High speed 2-spindle cross-drilling unit ER11		
Type No	43152	Shank diameter	max. $\phi 7$
Application	Cross-drilling, milling		
Spindle speed	Max. 9500min ⁻¹		
Remarks			

• Front drill unit

Name	Front drill unit ER11		
Type No	20152	Shank diameter	max. $\phi 7$
Application	Front off-center drilling		
Spindle speed	Max. 5700min^{-1}		

Name	Front tapping unit ER11		
Type No	20153	Shank diameter	max. $\phi 7$
Application	Front off-center tapping		
Spindle speed	Max. 5700min^{-1}		

Name	2-spindle front drilling unit		
Type No	58157	Shank diameter	max. $\phi 10$
Application	Front off-center drilling		
Spindle speed	Max. 5700min^{-1}		

Name	Polygon machining unit		
Type No	34191	Application	Polygon machining
Spindle speed	Max. 2000min^{-1}		
Cutter	$\phi 70^*(t=7)^* \phi 16$		
Remarks	This indicates X80.0 relating dimension.		

• Slotting unit

Name	Slotting unit 60B	Type No	43153
Application	Slotting, 2-side milling		
Spindle speed	Max. 1700min ⁻¹		
Metal saw	φ60*t*φ15.875		

Name	Slotting unit 60A	Type No	43154
Application	Slotting, 2-side milling		
Spindle speed	Max. 1700min ⁻¹		
Metal saw	φ60*t*φ16		

• Counterface drill unit

Name	Counterface drill unit ER11	Type No.	20156
Application	Front / Back off-center drilling	Shank diameter	Max. φ7
Spindle speed	Max. 5700min ⁻¹	Remarks	Front / Back simultaneous off-center drilling are possible. (Impossible to attach tools at the back on X1 turret)

Name	2-spindle cut-off end drilling unit	Type No.	43159
Application	Front / Back off-center drilling	Shank diameter	Max. φ7
Spindle speed	Max. 5700min ⁻¹	Remarks	Front / Back simultaneous off-center drilling are possible. (Impossible to attach tools at the back on X1 turret)

• Angular drilling unit

Name	Angle adjustable cross drilling unit ER11	Shank diameter	Max. $\phi 7$
Type No.	43155	Spindle speed	Max. 5700min^{-1}
Application	Angular drilling (0 to 60° against to material axis line)		

Name	2-spindle skewed hole machining unit adjust. ER11	Shank diameter	Max. $\phi 7$
Type No.	58155	Spindle speed	Max. 6400min^{-1}
Application	Angular drilling (0° to 90° against to material axis line)		

Name	Skewed hole machining unit for back working adj. ER11	Shank diameter	Max. $\phi 7$
Type No.	58156	Spindle speed	Max. 5700min^{-1}
Application	Angular drilling (0° to 90° against to material axis line)		

• Thread whirling unit

Name	Thread whirling unit / outer	
Type No.	58171	
Application	Thread whirling for outer diameter (-10° to +10°)	
Spindle speed	Max.3000min ⁻¹	
Position on the turret	Y0.0 Z17.0 X14.0	

• Wedge type 2-station tool holder

Name	Wedge type 2-station tool holder □ 16mm back	
Type No.	58102	
Application	Outer diameter turning (by the back attachment)	
Fit position	T21 ~ T23	

◇ Back 8-spindle unit

• Drill sleeve

Name	Drill sleeve ER20	Shank diameter	Max. $\phi 13$
Type No.	58127	Fit position	T21~T28

max. 95
41.7 53.3
123
92
 $\phi 13.5$
Details for internal diameter part

Name	Drill sleeve ER25	Shank diameter	Max. $\phi 16$
Type No.	58128	Fit position	T28
Notes	In case of over "95" (Tool nose position size), the restrictions occurs for another tooling.		

95 'note'
51.7 43.3
123
102
 $\phi 18$
Sealing disc
max. 185 'note'
33
Details of internal dia. part