

# ID TOOL CODE LIST(SK01)

NEXIII /  $\alpha$ ID / Value-Added Tools



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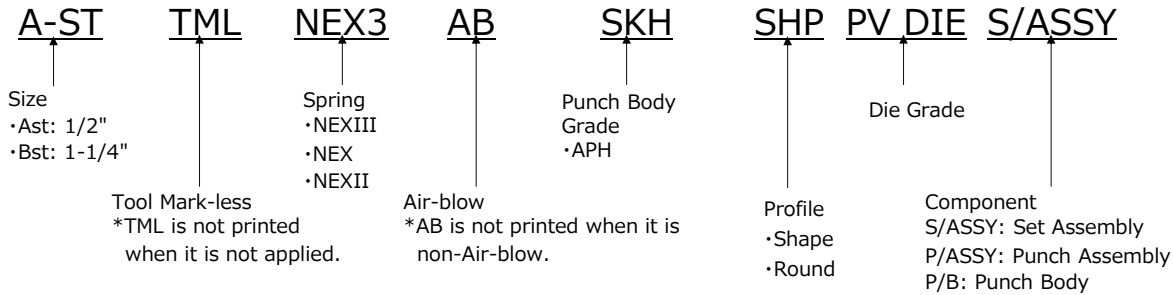
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# Description

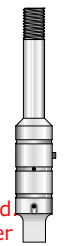
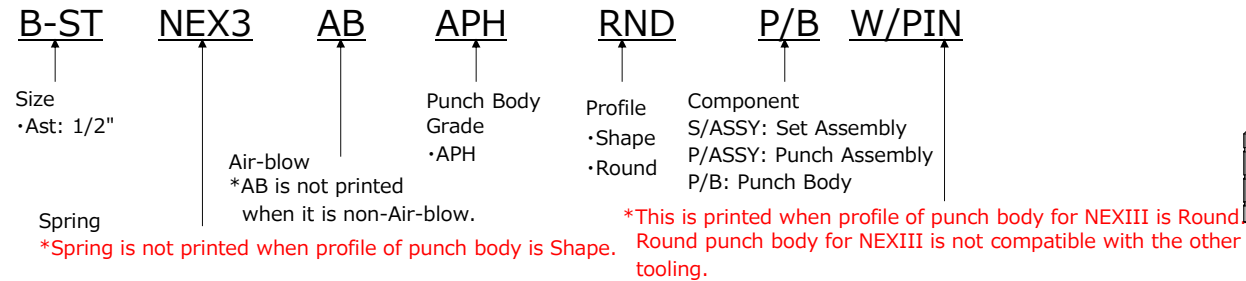
Product name has been revised.  
The details of each character are as follows:

## <Ast:1/2" & Bst:1-1/4">

e.g. 1) A-ST TML NEX3 AB SKH SHP PV DIE S/ASSY

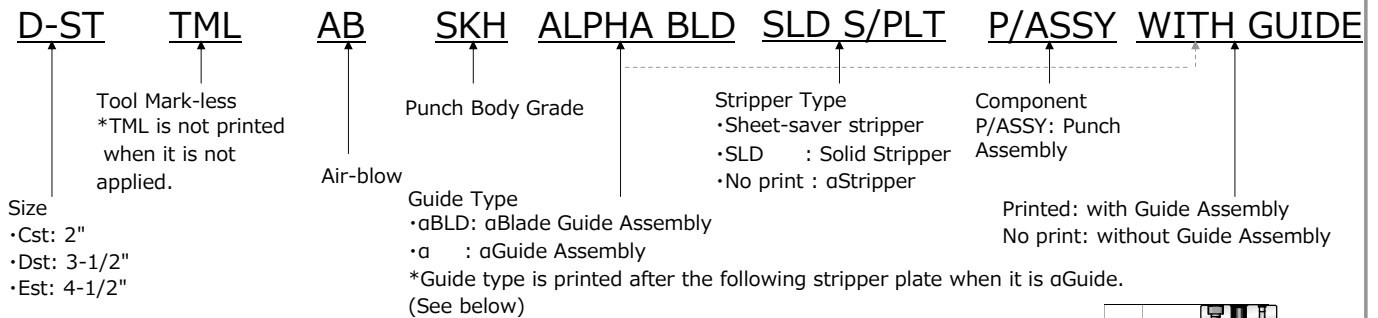


e.g. 2) B-ST NEX3 AB APH RND P/B W/PIN



## <Cst:2" & Dst:3-1/2" & Est:4-1/2">

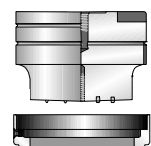
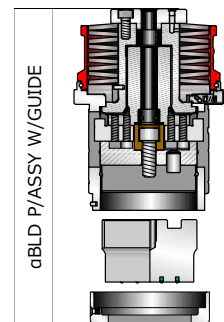
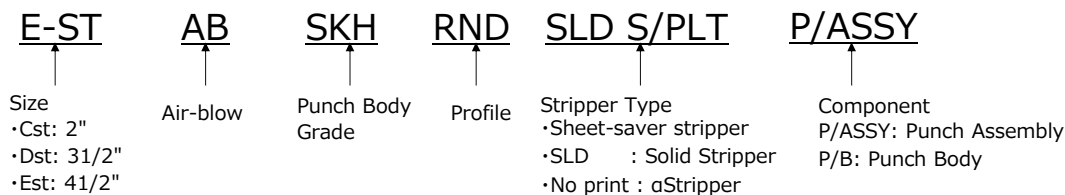
e.g. 3) D-ST TML AB SKH ALPHA BLD SLD S/PLT P/ASSY W/GUIDE



\*Order of character for Punch Assembly with Guide










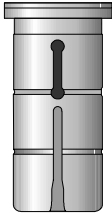
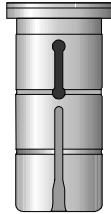
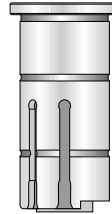
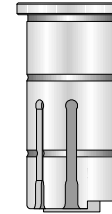
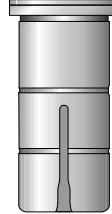
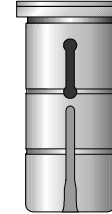
αGuide	(Solid) : D-ST TML AB SKH SHP <b>SLD P/ASSY W/ALPHA GUIDE</b>
αBLD Guide	(Solid) : D-ST TML AB SKH <b>ALPHA BLD SLD S/PLT P/ASSY W/GUIDE</b>
αBLD Guide (Sheet-Saver)	D-ST TML AB SKH <b>ALPHA BLD S/SAV S/PLT P/ASSY W/GUIDE</b>
αBLD Guide (αStripper)	D-ST TML AB SKH <b>ALPHA BLD P/ASSY W/GUIDE</b>

e.g. 4) E-ST AB SKH RND SLD S/PLT P/ASSY



# Punch Assy Structure Map for Ast/Bst <Air-blow>

※Images: Bst:1-1/4"

Type		NEX III		NEX II		NEX	
Punch Assy (P/A)							
Punch Body (P/B)	Model	NEX III	Ⓐ	NEX II		NEX	Ⓐ
	Form	Round	Shaped※1	Round	Shaped	Round	Shaped
	Note	(with pin)※2	-	(Two-Piece Style)		-	-
							
Guide	Model	NEX III		NEX II		NEX	
	Form	Round	Shaped	Round	Shaped	Round	Shaped
	Note	(with index plate)		(Open Guide)		-	-
							
Max. Grind Life	Ast:1/2" : 5.0mm Bst:1-1/4" : 6.5mm		5.0mm		5.0mm		
Adjust Method	Tool-less		Tool-less		Allen Key		

※1 ID marking is required for digital management.

※2 NEX III Round Punch Body (with pin) is dedicated to NEX III. The punch height changes on its own during processing if the punch body has no pin. Tooling and machine may get damaged by that change.

※3 In case of shaped punch body, key position between Air-blow type and Non-Air-blow type is different. Tooling and machine may get damaged if the tooling is assembled incorrectly.

- Non-Air-blow punch can not be installed into Air-blow guide.

- If Air-blow punch is installed into Non-Air-blow guide, the punch key is caught at rough machining part of guide key and it generates backlash. Therefore the accuracy of punch edge positioning can not be kept.

※ Model in Punch Body field and Guide field indicates compatibility between NEX III, NEX II and NEX. Items have compatibility between same alphabet. e.g.) Ⓐ - Ⓐ:OK / Ⓐ - Ⓑ:NG / NEX III :Dedicated

# Punch Assy Structure Map for Ast/Bst <Non-Air-blow>

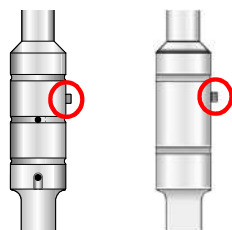
※Images: Bst:1-1/4"

Type	NEXⅢ		NEX		STD		
Punch Assy (P/A)							
Punch Body (P/B)	Model	NEXⅢ	ⓑ	ⓒ	ⓑ	ⓒ	ⓑ
	Form	Round	Shaped ※ <sup>1</sup>	Round	Shaped	Round	Shaped
	Note	(with pin) ※ <sup>2</sup>	-	-	-	-	-
Guide	Model	NEXⅢ		ⓓ	ⓔ	ⓓ	ⓔ
	Form	Round	Shaped	Round	Shaped	Round	Shaped
	Note	(with index plate)		-	-	-	-
Max. Grind Life	Ast:1/2" : 5.0mm Bst:1-1/4" : 6.5mm		5.0mm		2.0mm		
Adjust Method	Tool-less		Allen Key		Head Adjustment Jig		

## ※2 Cautions for NEXⅢ Round Punch Body



with anti-rotation pin

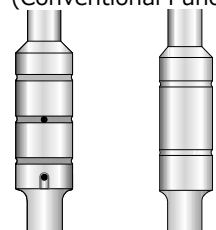


Air-blow

Non-Air-blow



without anti-rotation pin  
(Conventional Punches)



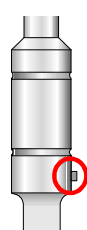
Air-blow

Non-Air-blow

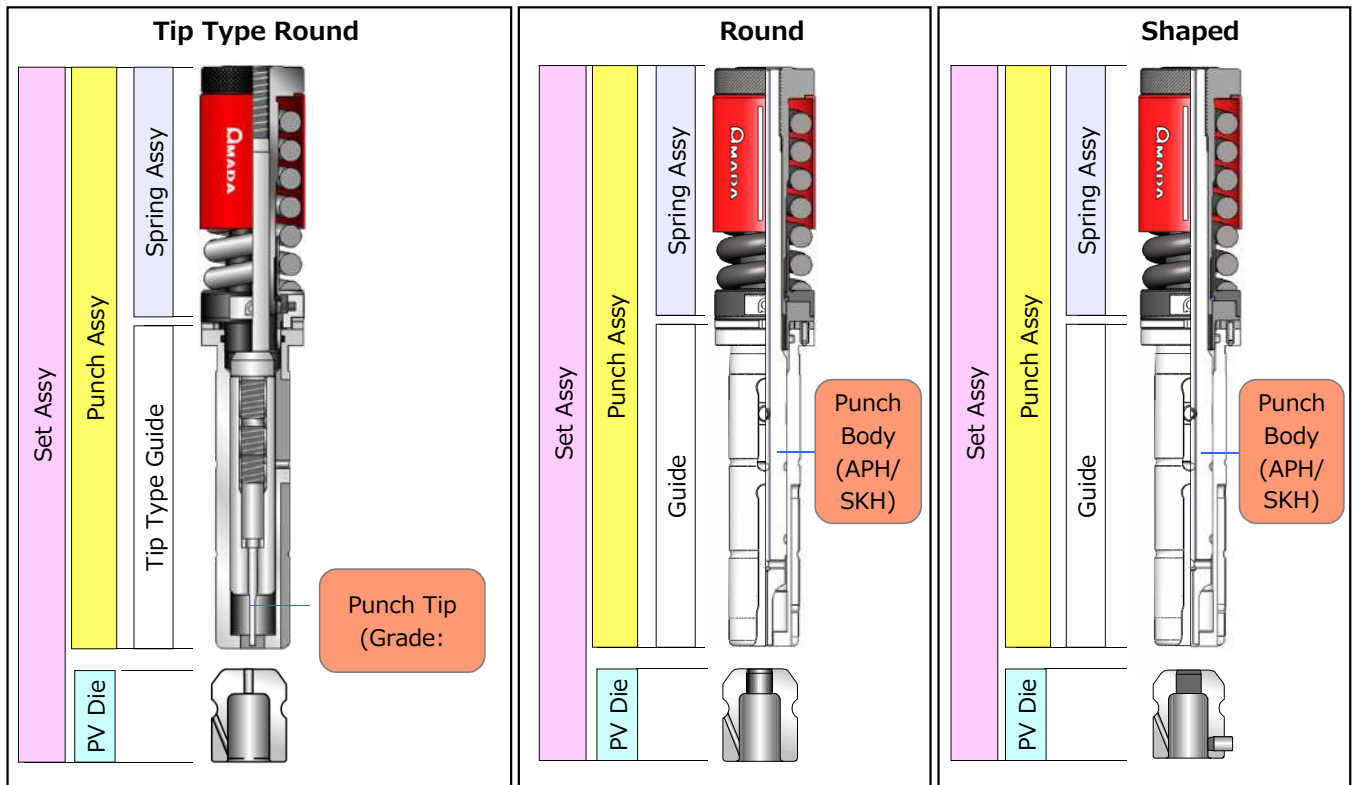
## ※3 Cautions for Shaped Punch Body



Air-blow



Non-Air-blow



■ Tool Code

Item	Punch Grade	Die		Tip Type Round		Round		Shaped	
		Type	Grade	$\phi 0.8 \sim \phi 1.59\text{mm}$		$\phi 1.51 \sim \phi 12.7\text{mm}$		Inscribed in $\phi 12.7\text{mm}$	
				TML	NORMAL	TML	NORMAL	TML	NORMAL
Set Assy	APH / Coating	PV	SKH	36HM10	36HP10	36HM20	36HP20	37HM20	37HP20
	SKH			-	-	36FM20	36FP20	37FM20	37FP20
Punch Assy	APH / Coating	-	-	11HM10	11HP10	11HM20	11HP20	12HM20	12HP20
	SKH			-	-	11FM20	11FP20	12FM20	12FP20
Punch Body	APH / Coating	-	-	411120		41HM20		42H020	
	SKH			-	-	41FM20		42F020	
Guide (with index)	-	-	-	51FM10	51FP10	51FM20	51FP20	52FM20	52FP20
Spring Assy	-	-	-	982000					
Die (with ID)	PV	-	SKH	261V20				271V20	

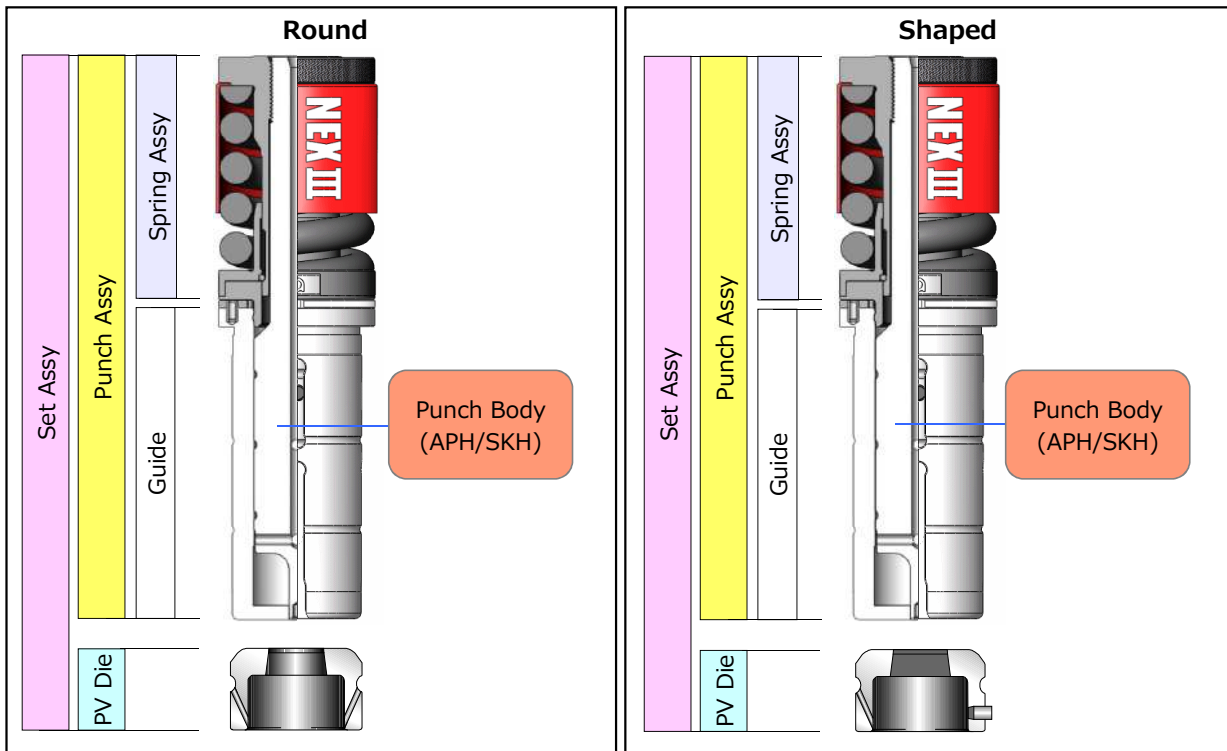
\* Star (☆) is marked on the guide in order to identify TML.

\* Over-sized punch is not available for NEXIII. (Max size is diameter of punch body. Additional price is applied.)

■ Option

Terms	Set Assy	Punch Assy	Punch Body	Guide	Die
Modification					
4 Conner Radii					
Additional Key Angle					
Shear Angle (2°)					
Shaped Narrow Punch (Less than 2mm)					

\* Shear angle is effective for reducing tonnage and noise.



■ Tool Code

Item	Punch Grade	Die		Round		Shaped	
		Type	Grade	$\phi$ 12.71 - $\phi$ 31.7mm		Inscribed in $\phi$ 31.7mm	
				TML	NORMAL	TML	NORMAL
Set Assy	APH	PV	SKH	36HM40	36HP40	37HM40	37HP40
	SKH			36FM40	36FP40	37FM40	37FP40
Punch Assy	APH	-	-	11HM40	11HP40	12HM40	12HP40
	SKH	-	-	11FM40	11FP40	12FM40	12FP40
Punch Body	APH	-	-	41HM40		42H040	
	SKH	-	-	41FM40		42F040	
Guide (with index)	-	-	-	51FM40	51FP40	52FM40	52FP40
Spring Assy	-	-	-	983000			
Die (with ID)	P V	SKH	-	261V40		271V40	
			-	261V40		271V40	

\* Star (☆) is marked on the guide in order to identify TML.

\* Over-sized punch is not available for NEXIII. (Max size is diameter of punch body. Additional price is applied.)

■ Option

Terms	Set Assy	Punch Assy	Punch Body	Guide	Die
Modification					
4 Conner Radii					
Additional Key Angle					
Shear Angle (2°)					
Shaped Narrow Punch (Less than 2mm)					

\* Shear angle is effective for reducing tonnage and noise.

■ Structure

: Recommendation

		aGuide		aSheet-Saver Guide
		Round	Shaped	
Punch Assy with aGuide	<p>Punch Assy with aGuide</p> <p>aGuide Assy</p> <p>Punch Assy</p> <p>Punch Body</p> <p>aSP</p> <p>*Die is not included.</p>	<p>Punch Assy with aGuide</p> <p>aGuide Assy</p> <p>Punch Assy</p> <p>Punch Body</p> <p>aSP</p> <p>*Die is not included.</p>	<p>Punch Assy with aGuide</p> <p>aSheet-saver Guide Assy</p> <p>Punch Assy</p> <p>Punch Body</p> <p>Sheet-saver SP</p> <p>*Die is not included.</p>	
	Die	<p>All Tapered Die</p>	<p>Standard Die</p>	<p>Sheet-saver Die</p> <p>Sheet-saver All Tapered Die</p>

<Reason of Recommendation>

- ◆ All Tapered Die is effective for slug suction unit, which is the machine device for slug-pulling prevention.



■ Tool Code

 : Recommendation

Item	Stripper Plate	Punch Grade	Die		Round		Shaped	
			Type	Grade	TML	NORMAL	TML	NORMAL
Punch Assy with aGuide	α	APH	-		01HM60	01HZ60	02HM60	02HZ60
		SKH	-		01FM60	01FZ60	02FM60	02FZ60
	Sheet-Saver	APH	-		-	-	-	02HN60
		SKH	-		-	-	-	02FN60
Punch Assy * Sheet-saver is not available.	α	APH	-		11HM60	11HZ60	12HM60	12HZ60
		SKH	-		11FM60	11FZ60	12FM60	12FZ60
Punch Body		APH	-		41H060		42H060	
		SKH	-		41F060		42F060	
Stripper Plate	α				51FM60	51FZ60	52FM60	52FZ60
	Sheet-Saver				-	-	-	52F260
Die	All Tapered		SKH		215T60		225T60	
			SKD		211T60		221T60	
	Standard		SKH		215060		225060	
			SKD		211060		221060	
	Sheet-Saver All tapered		SKH		-		220T60	
	Sheet-Saver		SKH		-		220060	
aGuide Assy					907430			
aSheet-Saver Guide Assy					907440			

\*TML is not applicable for Sheet-Saver Stripper Plate.

\*Star (☆) is marked on the stripper in order to identify TML.

■ Option

Terms	Set Assy	Punch Assy	Punch Body	Die
Modification	4 Conner Radii			
	Additional Key Angle			
	Shear Angle (2°)			
Shaped Narrow Punch (Less than 3mm)				

\*Max. punch grind life: 5mm (aGuide usage) / 3mm (Sheet-Saver Guide usage)

\*Punch has slug-ejector when punch size is φ6.0mm or more round, or 6mm or more square.

\*Shear angle is effective for reducing tonnage and noise.

# Dst:3-1/2" aID [Air-blow]

Solid Punch: Round:  $\phi 50.01 - \phi 85.6\text{mm}$   
 Shaped: Inscribed in  $\phi 85.6\text{mm} / 10\text{mm or less} \times 80\text{mm or less}$  Rectangle  
 aBLD Punch: 18mm or less  $\times 85\text{mm or less}$  Rectangle



## Structure

: Recommendation

	Solid / Sheet-Saver Stripper Plate	aStripper Plate	Die
Punch Assy with aGuide	Round / Shaped <b>Round / Square</b> *Die is not included.  Solid SP	Round / Shaped *Die is not included.  aSP	 All Tapered Die  Sheet-saver All Tapered Die
	Shaped <b>Rectangle</b> *Die is not included.  Solid SP    Sheet-saver SP	Shaped *Die is not included.  aSP	
Punch Assy with aBLD Guide	Shaped *Die is not included.  Solid SP    Sheet-saver SP	Shaped *Die is not included.  aSP	 Standard Die  Sheet-saver Die *Punch Assy with Guide does not include Die.
	<b>Solid Punch</b> Solid / aStripper Plate <b>Round and Square</b> Max. size Round: $\phi 50.01 - \phi 85.6\text{mm}$ Shaped: Inscribed in $\phi 85.6\text{mm} / 10\text{mm or less} \times 80\text{mm or less}$ Rectangle  Solid SP    aSP All Tapered Die	<b>aBlade Punch</b> Solid / Sheet-Saver Stripper Plate <b>Rectangle</b> Max. size 18mm or less $\times 85\text{mm or less}$  Solid SP    Sheet-saver SP All Tapered Die    Sheet-saver All Tapered Die	

## Option

Terms	Set Assy	Punch Assy	Punch Body	Die
Modification				
4 Conner Radii				
Additional Key Angle				
Shear Angle (2°)				
Shaped Narrow Punch (Less than 3mm)				

\*Shear angle is effective for reducing tonnage and noise.

### <Reason of Recommendation>

- ◆ aBLD Punch (aBlade Punch) is low cost compared with solid punch.
- ◆ Solid SP (Stripper Plate) enables one-touch operation without using screws.
- ◆ All Tapered Die is effective for slug suction unit, which is the machine device for slug-pulling prevention.

# Dst:3-1/2" aID [Air-blow]



■ Tool Code

: Recommendation

Item	Stripper Plate	Punch Grade	Die		Round		Shaped	
			Type	Grade	TML	NORMAL	TML	NORMAL
Punch Assy with aGuide (Solid Punch)	Solid	SKH	-		01FD80	01FC80	02FD80	02FC80
	α	SKH	-		01FM80	01FZ80	02FM80	02FZ80
Punch Assy with aBLD Guide (aBlade Punch)	Solid	APH	-		-		02HB80	02HA80
		SKH	-		-		02FB80	02FA80
	Sheet-saver	APH	-		-		02HL80	02HN80
		SKH	-		-		02FL80	02FN80
	α	APH	-		-		02HM80	02HZ80
		SKH	-		-		02BM80	02BZ80
Punch Assy (Solid Punch)	Solid	SKH	-		11FD80	11FC80	12FD80	12FC80
	α	SKH	-		11FM80	11FZ80	12FM80	12FZ80
aBLD Punch Assy (aBlade Punch)	Solid	APH	-		-		12HB80	12HA80
		SKH	-		-		12FB80	12FA80
	Sheet-saver	APH	-		-		12H880	12H780
		SKH	-		-		12F880	12F780
Solid Punch Body		SKH	-		41F080		42F080	
aBlade Punch		APH	-		-		42X480	
		SKH	-		-		422480	
Stripper Plate	α				51FM80	51FZ80	52FM80	52FZ80
	Solid				51F580	51F480	52F580	52F480
	Sheet-saver				-		52F380	52F280
Die	All Tapered		SKH		215T80		225T80	
			SKD		211T80		221T80	
	Standard		SKH		215080		225080	
			SKD		211080		221080	
	Sheet-saver All Tapered		SKH		-		220T80	
	Sheet-Saver		SKH		-		220080	
aGuide Adapter Assy					907190			
•aGuide Assy					907130			
•aGuide Adapter					907170			
aBLD Guide Adapter Assy					907210			
•aBLD Guide Assy					907150			

\*aGuide Adapter Assy is combination of aGuide Assy and aGuide Adapter.

\* Star (☆) is marked on the stripper in order to identify TML.

\*aBLD Guide Adapter Assy is combination of aBLD Guide Assy and aGuide Adapter.

■ Structure

: Recommendation

	Solid / Sheet-Saver Stripper Plate	aStripper Plate	Die
Punch Assy with aGuide	Round / Shaped <b>Round / Square</b> *Die is not included.  Solid SP	Round / Shaped *Die is not included.  aGuide Adapter aSP	 All Tapered Die  Sheet-saver All Tapered Die
Punch Assy with aBLD Guide	Shaped <b>Rectangle</b> *Die is not included.  Solid SP Sheet-saver SP	Shaped *Die is not included.  aGuide Adapter aSP	 Standard Die  Sheet-saver Die *Punch Assy with Guide does not include Die.
Punch & Die	<b>Solid Punch</b> Solid / aStripper Plate <b>Round / Square</b> Max. size Round: $\phi 85.61 - \phi 110.5\text{mm}$ Shaped: Inscribed in $\phi 110.5\text{mm} / 10\text{mm}$ or less $\times 110\text{mm}$ or less Rectangle  Solid SP aSP All Tapered Die	<b>aBlade Punch</b> Solid / Sheet-Saver Stripper Plate <b>Rectangle</b> Max. size $18\text{mm}$ or less $\times 110\text{mm}$ or less Rectangle  Solid SP Sheet-saver SP All Tapered Die Sheet-saver All Tapered Die	


■ Option











	Terms	Set Assy	Punch Assy	Punch Body	Die
Modification	4 Conner Radii				
	Additional Key Angle				
	Shaped Narrow Punch (Less than 3mm)				

<Reason of Recommendation>

- ◆ aBLD Punch (aBlade Punch) is low cost compared with solid punch.
- ◆ Solid SP (Stripper Plate) enables one-touch operation without using screws.
- ◆ All Tapered Die is effective for slug suction unit,

■ Tool Code

 : Recommendation

Item	Stripper Plate	Punch Grade	Die		Round		Shaped	
			Type	Grade	TML	NORMAL	TML	NORMAL
Punch Assy with aGuide (Solid Punch)	 Solid	SKH	-		01FD90	01FC90	02FD90	02FC90
	α	SKH	-		01FM90	01FZ90	02FM90	02FZ90
Punch Assy with aBLD Guide (aBlade Punch)	 Solid	APH	-		-		02HB90	02HA90
		SKH	-		-		02FB90	02FA90
	 Sheet-saver	APH	-		-		02HL90	02HN90
		SKH	-		-		02FL90	02FN90
	α	APH	-		-		02HM90	02HZ90
		SKH	-		-		02BM90	02BZ90
Punch Assy (Solid Punch)	 Solid	SKH	-		11FD90	11FC90	12FD90	12FC90
	α	SKH	-		11FM90	11FZ90	12FM90	12FZ90
aBLD Punch Assy (aBlade Punch)	 Solid	APH	-		-		12HB90	12HA90
		SKH	-		-		12FB90	12FA90
	 Sheet-saver	APH	-		-		12H890	12H790
		SKH	-		-		12F890	12F790
Solid Punch Body		SKH	-		41F090		42F090	
aBlade Punch		APH	-		-		42X490	
		SKH	-		-		422490	
Stripper Plate	α				51FM90	51FZ90	52FM90	52FZ90
	 Solid				51F590	51F490	52F590	52F490
	 Sheet-saver				-		52F390	52F290
Die	 All Tapered		SKH		215T90		225T90	
			SKD		211T90		221T90	
	Standard		SKH		215090		225090	
			SKD		211090		221090	
	 Sheet-saver All Tapered		SKH		-		220T90	
	Sheet-Saver		SKH		-		220090	
aGuide Adapter Assy					907200			
•aGuide Assy					907140			
•aGuide Adapter					907180			
aBLD Guide Adapter Assy					907220			
•aBLD Guide Assy					907160			

\*aGuide Adapter Assy is combination of aGuide Assy and aGuide Adapter.

\* Star (☆) is marked on the stripper in order to identify TML.

\*aBLD Guide Adapter Assy is combination of aBLD Guide Assy and aGuide Adapter.

# Special Shaped Tool (Semi-Standard)



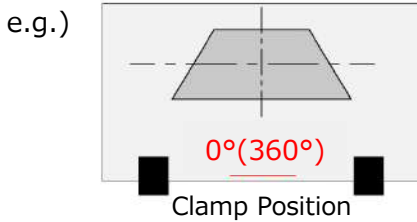
- A component that is produced by the combination of standard shaped tools can be produced by a single special shaped tool in a shorter time and with higher accuracy.
- Specify desired similar shapes with referring to the figures below.
- Attach the drawings when placing order in order to prevent misunderstanding.
- Be sure to specify the key position (processing direction).
- Shear proof (Punch with heel) is recommended for edge notching.

Category	Form				
I	[Various geometric shapes: rectangles, ovals, triangles, etc.]				
	[Various geometric shapes: circles, hexagons, etc.]				
II	[Various shapes with notches and chamfers]				
	[Various shapes with complex profiles]				
III	[Various shapes with intricate patterns]				
	[Various shapes with complex profiles]				
4 Corner Radius	[Cross shapes with rounded corners]		Micro Joint	Trapezoid Shape with Horns	[Diagram]
				Hourglass Shape with Horns	[Diagram]

### Key Angle

Regarding special shaped tools, **Amada set the positioning key angle to 0°(360°) as the default setting based on clamp position.**

Please be sure to specify the positioning key angle at the time of ordering when the angle differs from the registered data by NC data creation software (AP100 etc). **The angle will be 0°(360°) if not specified.**



### NC Data Creation Software Registration

「Positioning key angle」

Registration screen access from parameter management

Registration screen access from tooling location management

### Applicable Shape Direction

If a shape is set based on clamp position, applicable direction is 2 way as shown below.

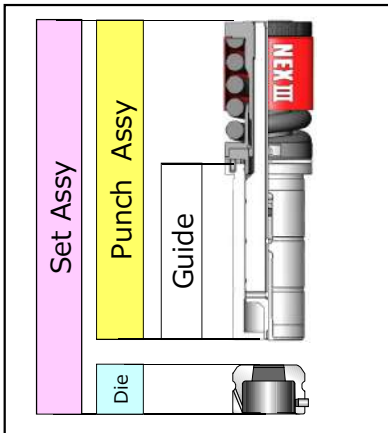
Specified Shape	Ast : 1/2" Bst : 1-1/4" Cst : 2"	Dst : 3-1/2" Est : 4-1/2"
[Diagram of trapezoid with clamp]	[Two diagrams showing applicable directions for the first set of sizes]	[Two diagrams showing applicable directions for the second set of sizes]

### Caution for standard shape

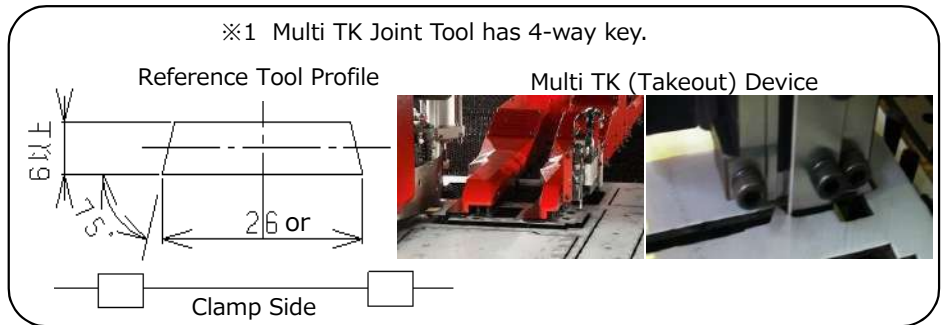
Standard shape (SQ/OB/RE/WD) with specified angle. e.g.) If the specified angle is 30°, the display angle of tool info is as shown below.

Specified Shape	Ast : 1/2" Bst : 1-1/4" Cst : 2"	Dst : 3-1/2" Est : 4-1/2"
[Diagram of trapezoid with 30° angle and turret clamp position]	[Two diagrams showing display angles of 30° and 300°]	[Two diagrams showing display angles of 30° and 120°]

# NEXIII Special Shaped Tool (Semi-Standard) [Air-blow]



- ※ Intricate shaped tools requires quotation. Please contact us.
- ※ PV die is not available depending on shapes. SKH die is applied in that case.
- ※ Star (☆) is marked on the guide in order to identify TML.



## ■ Category I, II, III

Size	Category	Set Assy		Punch Assy		P/Body SKH	Guide		PV Die SKH
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
Ast:1/2"	I								
	II								
	III								
Bst:1-1/4"	I								
	II								
	III								

## ■ 4 Corner Radius Tool

Size	Set Assy		Punch Assy		P/Body SKH	Guide		PV Die SKH
	TML	NORMAL	TML	NORMAL		TML	NORMAL	
Ast:1/2"								
Bst:1-1/4"								

## ■ Multi TK Joint Tool <sup>※1</sup> Please specify 4-way key on your order sheet.

Size	Set Assy		Punch Assy		P/Body SKH	Guide		PV Die SKH
	TML	NORMAL	TML	NORMAL		TML	NORMAL	
Bst:1-1/4"								

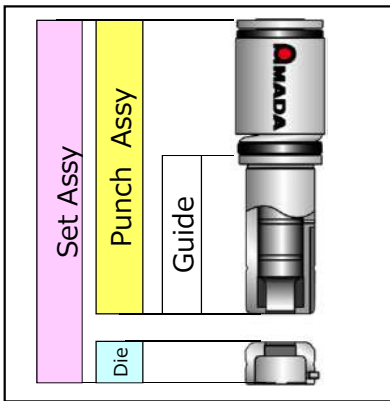
## ■ Micro Joint Tool

Category	Size	Set Assy		Punch Assy		P/Body SKH	Guide		PV Die SKH
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
Trapezoid Shape with Horns	Ast:1/2"								
	Bst:1-1/4"								
Hourglass Shape with Horns	Ast:1/2"								
	Bst:1-1/4"								

## ■ Option

Option	Size	Set Assy		Punch Assy		P/Body SKH	Guide		PV Die SKH
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
APH Punch (CAT I only)	Ast:1/2"						-	-	-
	Bst:1-1/4"						-	-	-
Narrow Punch	Ast:1/2"								-
	Bst:1-1/4"								-
4-Way Key	Ast:1/2"					-			-
	Bst:1-1/4"					-			-
Back Relief Die	Ast:1/2"			-	-	-	-	-	
	Bst:1-1/4"			-	-	-	-	-	
Kasu-Kuppa Die	Ast:1/2"			-	-	-	-	-	
	Bst:1-1/4"			-	-	-	-	-	

## Coil Spring Special Shaped Tool (Semi-Standard) [Non-Air-blow]



- ※ Intricate shaped tools requires quotation. Please contact us.
- ※ PV die is not available depending on shapes. SKH die is applied in that case.

### Non-ID Tools

#### ■ Category I, II, III

\*Star (☆) is marked on the guide in order to identify TML.

Size	Category	Set Assy		Punch Assy		P/Body SKD	Guide		Die SKD
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
Ast:1/2"	I								
	II								
	III								
Bst:1-1/4"	I								
	II								
	III								

#### ■ 4 Corner Radius Tool

Size	Set Assy		Punch Assy		P/Body SKD	Guide		Die SKD
	TML	NORMAL	TML	NORMAL		TML	NORMAL	
Ast:1/2"								
Bst:1-1/4"								

#### ■ Micro Joint Tool

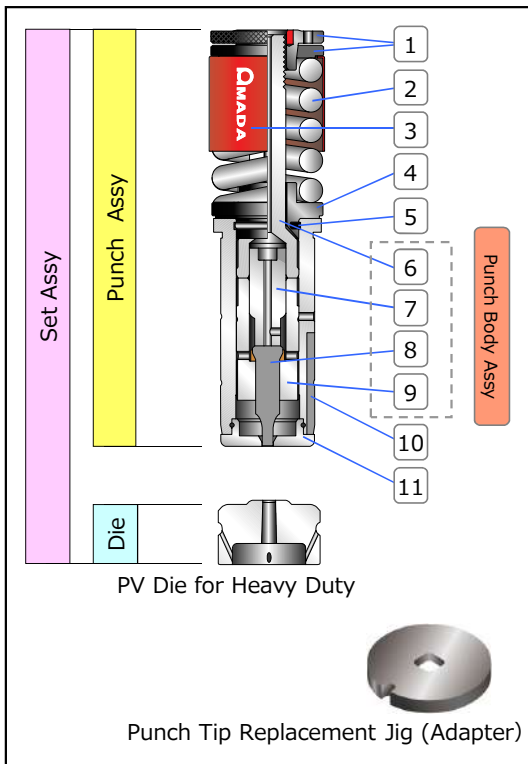
Category	Size	Set Assy		Punch Assy		P/Body SKD	Guide		Die SKD
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
Trapezoid Shape with Horns	Ast:1/2"								
	Bst:1-1/4"								
Hourglass Shape with Horns	Ast:1/2"								
	Bst:1-1/4"								

#### ■ Option

Category	Size	Set Assy		Punch Assy		P/Body SKD	Guide		Die SKD
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
SKH Punch	Ast:1/2"						-	-	-
	Bst:1-1/4"						-	-	-
SKH-F Punch	Ast:1/2"						-	-	-
	Bst:1-1/4"						-	-	-
APH Punch (CAT I only)	Ast:1/2"						-	-	-
	Bst:1-1/4"						-	-	-
Narrow Punch	Ast:1/2"								-
	Bst:1-1/4"								-
4-Way Key	Ast:1/2"								-
	Bst:1-1/4"								-
PV Die	Ast:1/2"			-	-	-	-	-	
	Bst:1-1/4"			-	-	-	-	-	
SKH Die	Ast:1/2"			-	-	-	-	-	
	Bst:1-1/4"			-	-	-	-	-	
Back Relief Die	Ast:1/2"			-	-	-	-	-	
	Bst:1-1/4"			-	-	-	-	-	
Kasu-Kuppa Die	Ast:1/2"			-	-	-	-	-	
	Bst:1-1/4"			-	-	-	-	-	



# Bst:1-1/4" Tip Type Heavy Duty Pierce-Punch Tool [Air-blow]



\*Die clearance should be 0.25mm or more. (on both sides)  
 \*Star (☆) is marked on the stripper in order to identify TML.

## ■ Tool Code

Item	Tool for Mild Steel / Stainless	
	Guide	CAT No.
Set Assy	TML	3A0270
	NORMAL	3A0240
Punch Assy	TML	1A0270
	NORMAL	1A0240
Punch Body Assy	-	7A0000
Bst:1-1/4" PV Die for Heavy Duty	-	252040

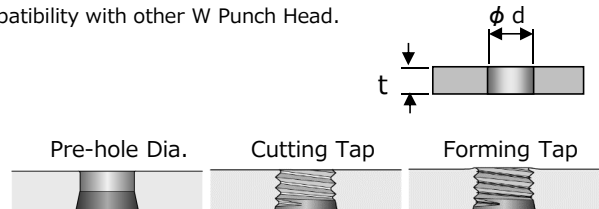
## ■ Parts List

No.	Item	Guide	CAT No.
1	Bst W Punch Head	-	9A0540
2	Bst Spring	-	901310
3	Bst Spring Cover	-	9A0790
4	Bst Retainer Collar (W/O-Ring)	-	901210
5	Bst O-Ring for Retainer	-	910080
6	Bst Tip Punch Driver	-	9A0800
7	Set Screw	-	751540
8	Punch Tip (with Ring)	-	452240
9	Punch Body	-	751340
	Guide Assy	TML	551M40
		NORMAL	551140
10	Open Guide	-	51F440
11	Stripper for Heavy Duty Punch	TML	551M50
		NORMAL	551040
	Punch Tip Replacement Jig	-	751640

\*Bst W Punch Head is specially designed for Red Spring Cover. It has no compatibility with other W Punch Head.

## ■ Flat Tap Process Range For LC-C1

- Range : Ast (1/2") size tool can pierce.
- Range : Ast (1/2") M2 dedicated tool can pierce.
- Range : Bst (1-1/4") under-size tool can pierce.
- Range : Bst (1-1/4") size heavy duty pierce-punch tool can pierce.



### <Mild Steel>

M size Diameter	Cutting								Forming							
	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M2	M2.5	M2.6	M3	M4	M5	M6	M8
1.2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
1.6	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2.3	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
3.2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
4.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
6.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

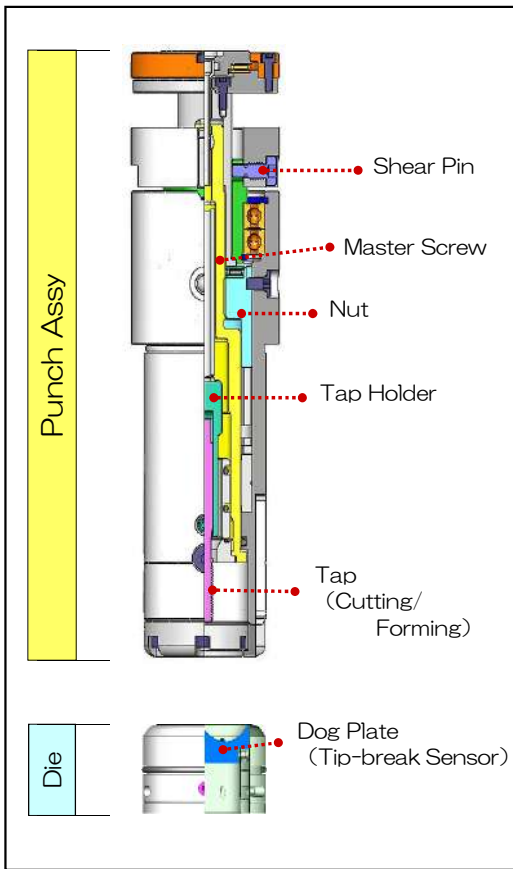
### <Stainless>

M size Diameter	Cutting								Forming							
	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M2	M2.5	M2.6	M3	M4	M5	M6	M8
1.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
3.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
4.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
5.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

### <Aluminum>

M size Diameter	Cutting								Forming							
	M2	M2.5	M2.6	M3	M4	M5	M6	M8	M2	M2.5	M2.6	M3	M4	M5	M6	M8
1.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
3.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
4.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
5.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
6.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

# Bst:1-1/4" MPT Tapping Tool



## ■ Tool Code

Item	M size	Type	CATNo.
Punch Assy [ Tap (5pcs) and Spear Shear Pin (1pc) ]	M2	Cutting	650200
		Forming	660200
	M2.5	Cutting	650250
		Forming	660250
	M2.6	Cutting	650260
		Forming	660260
	M3	Cutting	650300
		Forming	660300
	M4	Cutting	650400
		Forming	660400
	M5	Cutting	650500
		Forming	660500
	M6	Cutting	650600
		Forming	660600
M8	Cutting	650800	
	Forming	660800	
Shear Pin			690100
MPT Die	Die Assy	Type-A	690000
		Type-B	690010
	Dog Plate Set	Type-A & B	690160
Heavy Duty H/F	Die Assy	Type-A	25B040
		Type-B	26B040
	Dog Pin	Type-A & B	90B300
	Dog Bar	Type-A & B	90B200
Dog Plate Set (CRS/GRV*) for MPT Die			690150
Die Parts Set for MPT Die (New/Previous Type)			690170

\*CRS:Cross / GRV:Groove

## MPT Die

※Die has 2 type according to machines.

### Type-A

(φ1010 Turret / King Turret)



Applicable Machine

- EMK-M II
- LS2612E
- C1 (C1AJ)
- EM-M II

### Type-B

(ZR Turret / Z Turret)



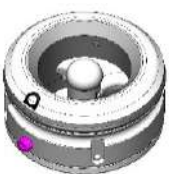
Applicable Machine

- ACIES
- EM-ZR
- EMZ-M II

## Heavy Duty H/F Die

(Recommend for 4.5mm~6.0mm  
※Mild Steel Only)

### Type-A



### Type-B



※Please use a tip-breaker tap for M5 & M6.

## ■ M2 Dedicated Tool Code

Item	Punch Grade	Die Type	Tip Type Round
			φ1.6~φ1.9mm TML
Set Assy	Coating	PV	36WM10
Punch Assy			11WM10
Punch Tip		-	411100
Guide (with index)		-	-

※ Guide is special. It has no compatibility with other tools.

# Bst:1-1/4" MPT Tapping Tool



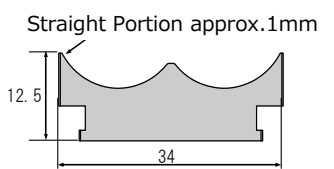
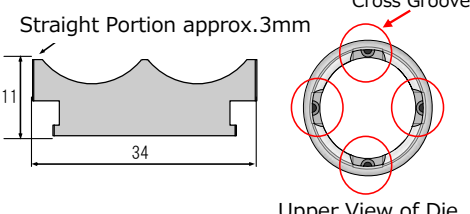
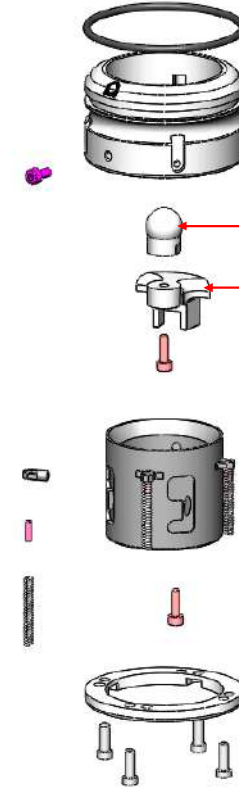

## ■ Maintenance Kit

Item	Contents	Price	CATNo.
For EMZR/EM-M II	①、②、③、④、⑥		690130
For LCC1/ACIES	①、②、③、④、⑤		690140

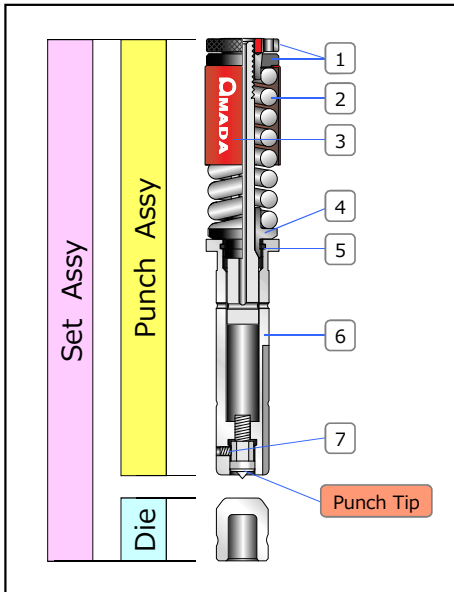
## ■ Maintenance Kit Accessories

Item	①Grease Gun	②Pistol Oiler	③Amada Grease SRL	④Tap Holder Attachment Jig	⑤Tap Oil for Combination Machine	⑥Tap Oil for EM-ZR, EM-M II ※1
CATNo.	615040	615020	616050	690120	999680	Parts Code:76073413
		 (H-250)	 (400g)		 AML-46(4L)	 99X Super(4L)

※ 1 This is a service parts item when it is ordered separately.

Dog Plate Set (Type-A and Type-B)	Dog Plate Set for Cross Groove (Previous Type-A)	Heavy Duty H/F Die Dog Bar · Dog Pin (Type-A and Type-B)
 <p>•Dog Plate 1pc •Lock Screw with Hex Hole 2pcs (M2.5×4 Flat Head)</p>	 <p>•Previous Dog Plate 1pc •Lock Screw with Hex Hole 2pcs (M2.5×4 Flat Head)</p>	 <p>Development of Type-A</p>
<h3>Die Parts Set for MPT Tapping</h3>  <p>O-Ring (S42) 1pc</p> <p>Round Wire Coil Spring (WR3-30) 4pcs</p> <p>Lock Screw with Hex Hole (M2.5×4 Flat Head) 2pcs</p> <p>Allen Key (1.3mm)</p>		

# Ast:1/2" High Speed Marking Tool [Air-blow]



## ■ Tool Code

Item		CAT No.
Set Assy		3A0280
Punch Assy		1A0280
Punch Tip		918110
Die		281000

## ■ Parts List

No.	Item	CAT No.
1	Ast W Punch Head	9A0150
2	Ast Spring	901300
3	Ast Spring Cover	901200
4	Ast Retainer Collar	910060
5	Ast O-Ring for Retainer (for Closed Guide)	910060
6	High Speed Marking Tool Guide	91F420
7	Hex Socket Set Screw (Flat Point) (M5x20)	XP0607

\*Ast W Punch Head is specially designed for Red Spring Corver.

It has no compatibility with other W Punch Head.

5

O-Ring for Closed Guide



Mount O-Ring on Guide

**No idle striking!**  
(Punching without material)

The idle striking breaks the punch tip and the die.

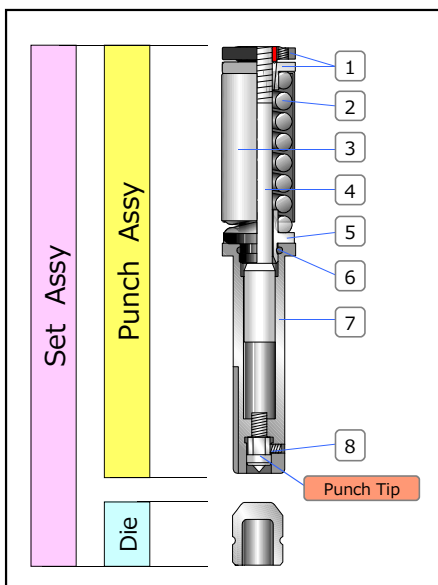
\*High speed marking tool is recommended for high speed machines such as AC servo drive.

\*The max material thickness is 6.0mm, the tip angle is 90°.

\*This tool can be used as Form-Down Center Punch.

\*Please use the tool with adjusting tip projection height when using wider range of thickness.

# Ast:1/2" Form-Down Center Punch Tool



## ■ Tool Code

Item		CAT No.
Set Assy		381100
Punch Assy		181100
Punch Tip		918110
Die		281000

## ■ Parts List

No.	Item	CAT No.
1	Ast W Punch Head	901400
2	Ast Spring	901300
3	Ast Spring Cover ※5pcs/set	926220
4	Punch Body	918410
5	Retainer Collar	901200
6	Ast O-Ring for Retainer (for Closed Guide)	910060
7	Punch Guide	918420
8	Hex Socket Set Screw (Flat Point) (M5x20)	XP0607

6

O-Ring for Closed Guide



Mount O-Ring on Guide

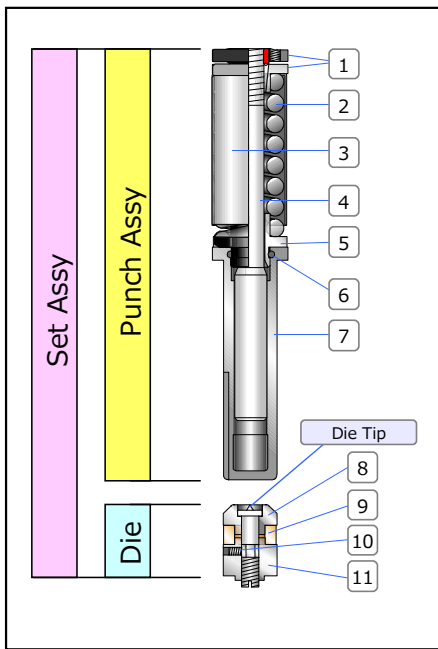
**No idle striking!**  
(Punching without material)

The idle striking breaks the punch tip and the die.

\*The max material thickness is 6.0mm, the tip angle is 90°.

\*Please use the tool with adjusting tip projection height when using wider range of thickness.

# Ast:1/2" Form-Up Center Punch Tool



**6** O-Ring for Closed Guide  
Mount O-Ring on Guide

## ■ Tool Code

Item		CAT No.
Set Assy	TML	381M10
	NORMAL	381110
Punch Assy	TML	181M10
	NORMAL	181110
Die Assy		281010
Die Tip		918210

## ■ Parts List

No.	Item	CAT No.	
1	Ast W Punch Head	901400	
2	Ast Spring	901300	
3	Ast Spring Cover ※5pcs/set	926220	
4	Punch Body	918310	
5	Retainer Collar	901200	
6	Ast O-Ring for Retainer (for Closed Guide)	910060	
7	Punch Guide	TML	581M10
		NORMAL	581010
8	Ejector Plate	918320	
9	Die Urethane Spring	918720	
10	Lock Screw (M4x4) ※2pcs for 1 tooling	918340	
11	Die Holder	918330	

**No idle striking!**  
(Punching without material)

\*The idle striking breaks the punch tip and the die.

\*The max material thickness is 3.2mm, the tip angle is 90°.

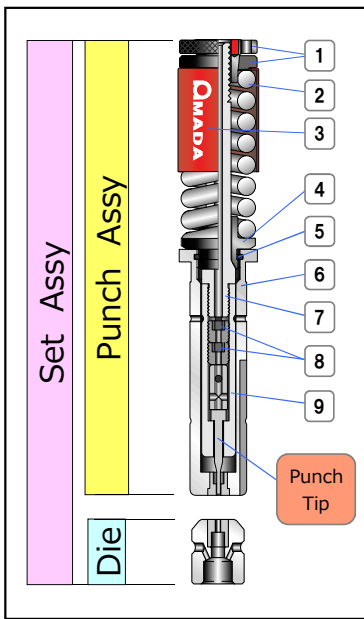
\*The die tip contacts on the backside of material and scratches it when the material is heavy and large such as (W)1,219mm x (L)2,438mm x (t)3.2mm.

Please use Bst:1-1/4" Center Punch (special order) to avoid this.

\*Please use the tool with adjusting tip projection height when using wider range of thickness.

\*Star (☆) is marked on the guide in order to identify TML.

# Ast:1/2" Contouring Tool [Air-blow]



## ■ Tool Code

Item		Punch Grade	Die Grade	CAT No.
Ticn Coating	Set Assy	Ticn Coating	SKH	3A0260
	Punch Assy		-	1A0260
	Punch Tip		-	45X220
	Die Assy (Die Tip Type)	-	SKH	251020
	Button Die			251220
Carbide	Set Assy	Carbide	Carbide	3A0250
	Punch Assy		-	1A0250
	Punch Tip		-	45K220
	Die Assy (Die Tip Type)	-	Carbide	25K020
	Button Die			25K220
Die Body				251320

## ■ Parts List

No.	Item	CAT No.	
1	Ast W Punch Head	9A0150	
2	Ast Spring	901300	
3	Ast Spring Cover	9A0830	
4	Ast Retainer Collar	910060	
5	Ast O-Ring for Retainer (for Closed Guide)	910060	
6	Guide Assy (with bush)	9A0140	
7	Punch Driver	9A0850	
8	SET SCREW ※2pcs for 1 tooling	9A0870	
9	Punch Holder	Ticn Coating	9A0170
		Carbide	9A0190

\*Amada takes over the button die in order to replace by air pressure.

\*Specification may change for improvement without prior notice.

\*Contouring Tool is available for only machines with PV (Power Vacuum) device / AJV (Air-Jet Vacuum) device.

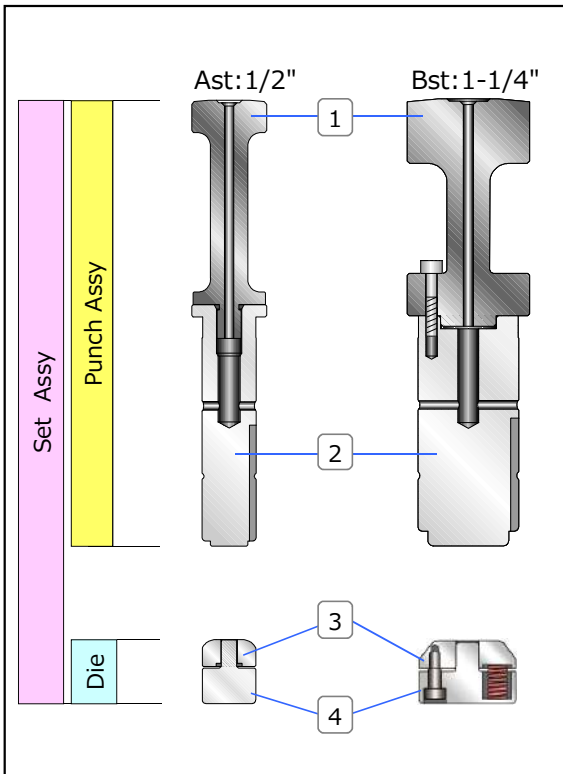
\*Ast W Punch Head is specially designed for Red Spring Cover. It has no compatibility with other W Punch Head.

## ■ Recommended Clearance

Material/Thickness	0.8mm	1.0mm	1.2mm	1.6mm	2.3mm
Mild Steel	0.15	0.15	0.15	0.2	0.3
Stainless	0.15	0.15			

\*2.3mm thickness is available for only carbide.

# Deburring Tool [Air-blow]



## ■ Specification

Item	Contents	
Size and Form ※1	Ast: 1/2"	φ2, Square 5
	Bst: 1-1/4"	Square 6, Square 10, Rectangle 5×20, Rectangle 6×20, Rectangle 10×20
Deburring Volume	Approx. C0.2	
Materials	Mild Steel, Aluminum, Stainless	
Thickness	0.5mm~3.2mm※2	
Form Direction	Form-up	

※1 Tool for other than the below sizes requires special order.

※2 In case of thick thickness, inside surface of product becomes uneven slightly. Please request samples if that quality is important matters.

※ Tool for mechanical type machines requires special order.

## ■ Tool Code

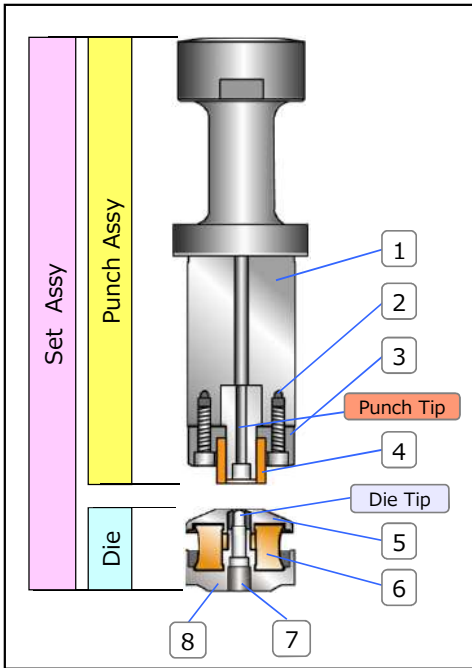
No.	Item	Size/Shape						
		Ast: 1/2"		Bst: 1-1/4"				
		φ2mm	SQ 5mm	SQ 6mm	SQ 10mm	RE 5x20	RE 6x20	RE 10x20
Set Assy		311120	321120	321130	321140	321150	321160	321170
Punch Assy		111120		121130				
1	PDC Punch Head Driver	911120		911130				
2	Punch Body	411130		411150				
Die Assy		211120	221120	221130	221140	221150	221160	221170
3	Ejector Plate	911320	921320	921330	921340	921350	921360	921370
4	Die Body	211320	221320	221330	221340	221350	221360	221370

※RE: Rectangle

# Bst:1-1/4" Form-Up Burring Tool [High Performance Air-Blow]



## Cutting-Tap/Forming-Tap



### ■ Specification

Material	Mild Steel / Aluminum	Stainless
Max Thickness	2.3mm	1.5mm
Tap Size	M2.5~M6	

### ■ Component Diameter

Screw Size	MPT Tap Tool		Cutting	Forming	Forming Tapping Tool
	Multi Tap Cutting	Multi Tap Forming			
M2.5	φ 2.10	φ 2.30	φ 2.10	φ 2.28	φ 2.27
M2.6	φ 2.20	φ 2.40	φ 2.21	φ 2.37	φ 2.37
M3	φ 2.57	φ 2.75	φ 2.57	φ 2.57	φ 2.57
M4	φ 3.40	φ 3.65	φ 3.40	φ 3.65	φ 3.65
M5	φ 4.30	φ 4.60	φ 4.30	φ 4.60	φ 4.60
M6	φ 5.10	φ 5.55	φ 5.10	φ 5.50	φ 5.55

- ※ High-function burring die has increased stripping force compared with conventional burring tools.
- ※ Chrome-plating treatment reduces scratches on the backside of the material when transferring.
- (option)
- ※ Punch Body 1 is dedicated to hydraulic machines and AC servo.
- ※ Tool for mechanical type machines requires special order.
- ※ M2.5 and M2.6 are not stock items.
- ※ Cutting, Forming and Forming Tapping Tool are not stock items.

### ■ Tool Code (Mild Steel / Aluminum)

Item		MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy		300000	300520	309000	300500	300510
Punch Assy	This colored items are only available for the above sizes.	100000	100520	109000	100500	100510
Punch Tip		902520	902540	902020	902600	902610
Die Assy		200000	205520	205000	205500	205510
Die Tip		400000	400520	405000	405500	405510

### ■ Tool Code (Stainless)

Item		MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy		300630	300620	300100	300600	300610
Punch Assy	This colored items are only available for the above sizes.	100630	100620	100100	100600	100610
Punch Tip		902530	902570	905020	902550	902580
Die Assy		200630	200620	205100	200600	200610
Die Tip		400630	400620	405100	400600	400610

### ■ Parts List

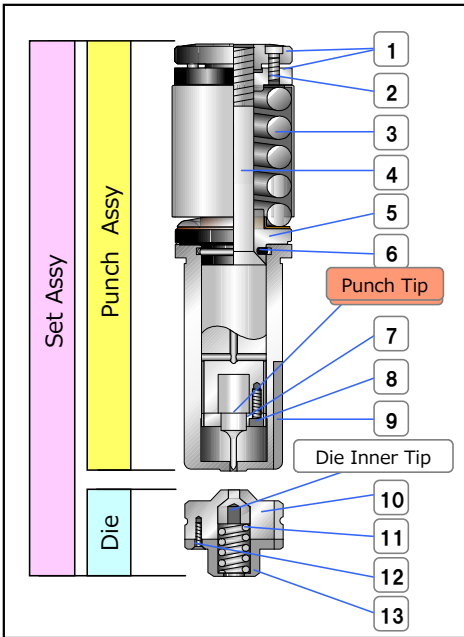
No.	Item	Material	CAT No				
			Multi Tap Cutting	Multi Tap Forming	Cutting	Forming	Forming Tapping Tool
1	PDC-Compatible Solid Punch Body	Mild Steel	909310	909330	909300	909320	909340
		Stainless	909360	909380	909350	909370	909390
2	Hex Socket Head Cap Screw (M6×25) ※4pcs for 1 tooling		XP0084				
3	PDC-Compatible Punch Plate		900030				
4	Punch Urethane Spring (φ 20×22L)		902040				
5	Ejector Plate		905090				
6	Urethane Spring for Die	Mild Steel	905080				
		Stainless	905070				
7	Hex Socket Set Screw (Flat Point) (M10×10)		XP0637				
8	Die Block	Mild Steel	9A1430	9A1470	9A1520	9A1450	9A1460
		Stainless	9A1510	9A1500	9A1440	9A1480	9A1490



# Bst:1-1/4" Form-Down Two-Hit Type Burring Tool [Air-blow]



## Cutting-Tap/Forming-Tap



### ■ Specification

Material	Mild Steel / Aluminum	Stainless
Max. Thickness	2.3mm	1.5mm
Tap size	M2.5~M6	

### ■ Component Diameter

Screw size	MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
	Multi Tap Cutting	Multi Tap Forming			
M2.5	φ 2.10	φ 2.30	φ 2.10	φ 2.28	φ 2.27
M2.6	φ 2.20	φ 2.40	φ 2.21	φ 2.37	φ 2.37
M3	φ 2.57	φ 2.75	φ 2.57	φ 2.75	φ 2.75
M4	φ 3.40	φ 3.65	φ 3.40	φ 3.65	φ 3.65
M5	φ 4.30	φ 4.60	φ 4.30	φ 4.60	φ 4.60
M6	φ 5.10	φ 5.55	φ 5.10	φ 5.50	φ 5.55

※ M2.5 and M2.6 are not stock items.

※ Cutting, Forming and Forming Tapping Tool are not stock items.

### ■ Tool Code (Mild Steel / Aluminum)

Item		MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy		302100	302810	303100	302800	302820
Punch Assy	This colored items are only available for the above sizes.	102100	102810	103100	102800	102820
Punch Tip		903120	903680	905120	903670	903690
Die Assy		202200	202810	203200	202800	202820
Die Inner Tip		908010	905030	909010	908020	905050

### ■ Tool Code (Stainless)

Item		MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy		304100	303810	306100	303800	303820
Punch Assy	This colored items are only available for the above sizes.	104100	103810	106100	103800	103820
Punch Tip		908120	904680	909120	904670	904690
Die Assy		204200	203810	205200	203800	203820
Die Inner Tip		908030	900050	909030	909020	908050

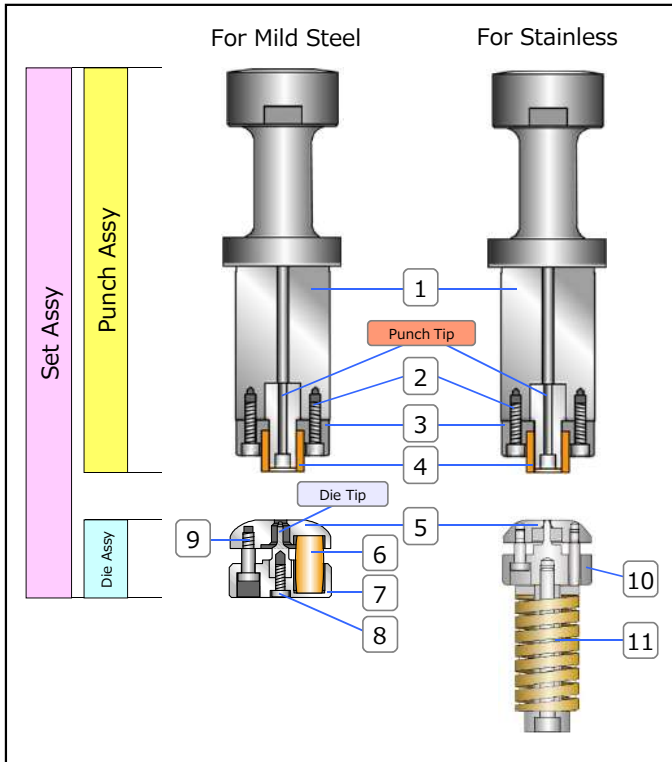
### ■ Parts List

No	Item	Material	CAT No				
			Multi Tap Cutting	Multi Tap Forming	Cutting	Forming	Forming Tapping Tool
1	Punch Head (with Hex Socket Head Cap Screw)		901010				
2	Hex Socket Head Cap Screw (M5×12) ※4pcs for 1 tooling		XP0047				
3	Bst Spring for Form-Down Burring	Mild Steel	901410				
		Stainless	901310				
4	Air-blow Burring Punch Body	Mild Steel	903110	903310	908110	903210	903410
		Stainless	901110	904310	909110	905210	904410
5	Retainer Collar		901210				
6	Bst O-Ring for Retainer		910080				
7	Punch Plate		903960				
8	Hex Socket Head Cap Screw (M4×12) ※3pcs for 1 tooling		XP0025				
9	Air-blow Burring Guide	Mild Steel	502100	505100	503100	504100	506100
		Stainless	500100	508100	507100	509100	506200
10	Die Block	Mild Steel	903920	903810	904920	902800	903820
		Stainless	905920	904810	907920	903800	904820
11	Die Spring (φ 15×31L)		902910				
12	Countersunk Head Screw (M3×10) ※3pcs for 1 tooling		XP0457				
13	Die Plate		901980				

# Bst:1-1/4" Form-Up BK Burring Tool [Air-blow]



## Cutting-Tap/Forming-Tap



### ■ Specification

Type	Form-Up Two-Hit
Tool Size	Bst:1-1/4"
Material	Mild Steel, Aluminum (Stainless is special order.)
Thickness	0.8-1.6mm (Stainless: up to 1.2mm)
Die Height	33.5-35.5mm <sup>※1</sup>

### ■ BK Burring Pre-hole Inner Diameter (Mild Steel/Aluminum)<sup>※2</sup>

Screw Size	Cutting Tap		Forming Tap	
	Br Inner Dia	Pre-hole Dia	Br Inner Dia	Pre-hole Dia
M2.6	φ 2.21	φ 1.3	φ 2.37	φ 1.3
M3	φ 2.57	φ 1.6	φ 2.75	φ 1.6
M4	φ 3.40	φ 2.0	φ 3.65	φ 2.0
M5	φ 4.30	φ 2.5	φ 4.60	φ 2.5
M6	φ 5.10	φ 3.0	φ 5.5 <sup>※3</sup>	φ 3.0

- ※ 1 Die height for mild steel and Aluminum is M3=33.5, M4=34.5, M5-6=35.5.
- ※ 2 In case of stainless steel, size of pre-hole may be determined after punching test.
- ※ 3 Inner diameter of "Burring Tool for M6 Forming Multi-Tap" is φ 5.55.
- ※ BK Burring Tool is only two-hit type. Pre-hole diameter is specified by AMADA.
- ※ Burring height cannot be altered because the diameter values of the pre-hole are fixed.
- \* Punch Body **1** is dedicated to hydraulic machines and AC servo.
- \* Tool for mechanical type machines requires special order.

### ■ Tool Code (Mild Steel / Aluminum)

Item	Multi Tap Cutting				Multi Tap Forming			
	M3	M4	M5	M6	M3	M4	M5	M6
Set Assy	302300	302400	302500	302600	300530	300540	300550	300560
Punch Assy	102000				100530			
Punch Tip	902700				902730			
Die Assy	202300	202400	202500	202600	203300	203400	203500	203600
Die Tip	402000				400530			
1 PDC-Compatible Solid Punch Body	203000				205530			
2 Hex Socket Head Cap Screw (M6×25) ※4					XP0084			
3 PDC-Compatible Punch Plate					900030			
4 Urethane Spring for Punch (φ 20×22L)					902040			
5 Ejector Plate	9A1420				9A1410			
6 Urethane Spring for Die (φ 12×30L) ※5					902140			
7 Die Block	902330	902440	902150	902260	909230	9E+05	909250	909260
8 Low Head Cap Screw CBS5-12					XP1160			
9 Stripper Bolt for BK ※3pcs/set					902170			

### ■ Tool Code (Stainless)

Item	Multi Tap Cutting	Multi Tap Forming
Set Assy	Special	Special
Punch Assy	Special	Special
Punch Tip	Special	Special
Die Assy	Special	Special
1 PDC-Compatible Solid Punch Body	Special	Special
2 Hex Socket Head Cap Screw (M6×25) ※4	203000	205530
3 PDC-Compatible Punch Plate	XP0084	
4 Urethane Spring for Punch (φ 20×22L)	902040	
5 Ejector Plate	Special	
10 Die Body	Special	Special
11 Die Spring	Special	Special

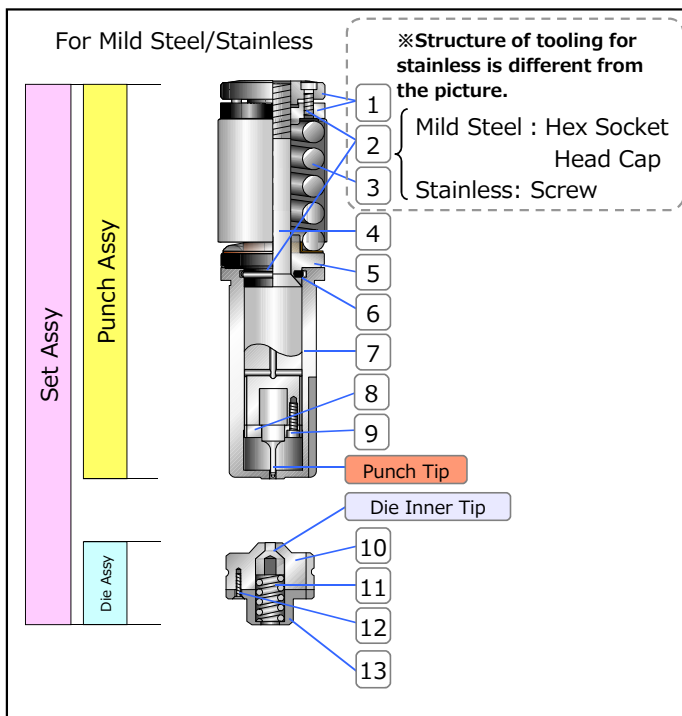
※ 4 4 pcs required for 1 tooling

※ 5 3 pcs required for 1 tooling

# Bst:1-1/4" Form-Down BK Burring Tool [Air-blow]



Cutting-Tap/Forming-Tap



## ■ Specification

Type	Form-Down Two-Hit
Tool Size	Bst:1-1/4"
Material	Mild Steel, Aluminum (Stainless is special order.)
Thickness	0.8-2.3mm (Stainless: up to 1.2mm)
Die Height	30.0mm

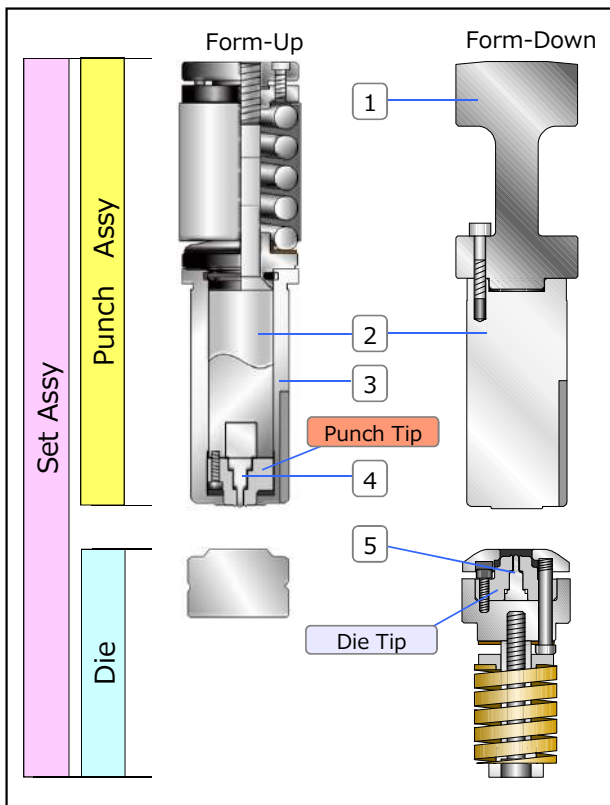
※Pre-hole diameter is same as diameter for form-up.

## ■ Tool Code

Item	Mild Steel / Aluminum		Stainless	
	Multi Tap Cutting	Multi Tap Forming	Multi Tap Cutting	Multi Tap Forming
Set Assy	302200	302830	Special	Special
Punch Assy	102200	102830	Special	Special
Punch Tip	903000	903200	Special	Special
Die Assy	202220	202830	Special	Special
Die Inner Tip	903040		Special	
1 Punch Head (with Hex Socket Head Cap Screw)	901010		Special	
2 Mild Steel: Hex Socket Head Cap Screw (M5×12) ※4pcs for 1 tooling	XP0047		-	
Stainless: Spacer	-		Special	
3 Stripping Spring	901410		901310	
4 Punch Body	903130	903150	Special	Special
5 Bst Retailer Collar (with O-Ring)	901210		901210	
6 Bst O-Ring for Retailer	910080		910080	
7 Guide	502110	502130	Special	Special
8 Punch Plate	903960		903960	
9 Hex Socket Head Cap Screw (M4×12) ※3pcs for 1 tooling	XP0025		XP0025	
10 Die Block	903830	903840	Special	Special
11 Die Spring (φ14×30L)	902900		902900	
12 Countersunk Head Screw (M3×10) ※3pcs for 1 tooling	XP0457		XP0457	
13 Die Plate	901980		901980	

※ Punch can not always be used with dies made for different thickness.

# Bst:1-1/4" FP(Flat Positioning) Tool (Form-Up/Form-Down)



## ■ Specification

Item	Form-Up FP Tool	Form-Down FP Tool <sup>※4</sup>
Size	Bst : 1-1/4"	
Process <sup>※1</sup>	Form-Up (Projection is on punch side)	Form-Down (Projection is on die side)
Projection Size	φ 1.9mm~φ 4.0mm (Specified projection size only) φ 3.0 is stock item, other sizes require special order.	
Projection Height	0.2mm~0.4mm (Varies by machine, material thickness and material type)	
Thickness	0.8mm(1.0mm common)·1.0mm(1.2mm common) 1.6mm(Exclusive)·2.0mm(2.3mm common) <sup>※3</sup>	
Materials <sup>※2</sup>	Mild Steel (Not applicable for more than 441kN/mm2 tensile strength)	
Min. Process Pitch	15mm	17mm

※ Non Air -Blow Type

※1 Small unevenness may appear on rear side of the material marked by FP Tool (±0.02mm or less).

※2 Not applicable for stainless steel and vinyl sheet-covered aluminum.

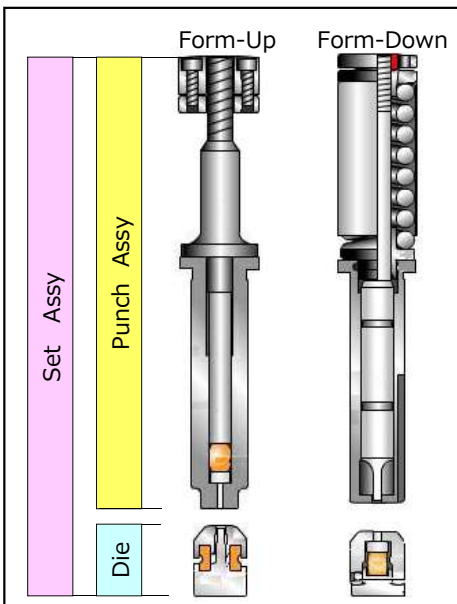
※3 In case of 2.0mm or more thickness, some protrusion may occur around projection.

※4 Tool for mechanical type machines requires special order.

## ■ Tool Code

No	Item	Type	Form-Up			Form-Down		
		Size	Bst:1-1/4"					
		Projection Size	φ 3					
		Thickness	1.0~1.2	1.6	2.0~2.3	1.0~1.2	1.6	2.0~2.3
Set Assy			311140	311240	311150	312140	312240	312150
Punch Assy			111140	111240	111340	112140		
1	PDC Punch Head Driver		-	-	-	812140		
2	Punch Body		411140	411240	411340	412140		
3	Guide		511140	511440	511540	-	-	-
Punch Tip			911140	911240	911340	-	-	-
4	Punch Ejector Tip		911740	911840	911940	-	-	-
Die/Die Assy			211140			212140	212240	212340
Die Tip			-	-	-	912140	912240	912340
5	Die Ejector Tip		-	-	-	912740	912840	912940

# Ast:1/2" Half-Shear Tool (Form-Up/Form-Down)



### Tool List

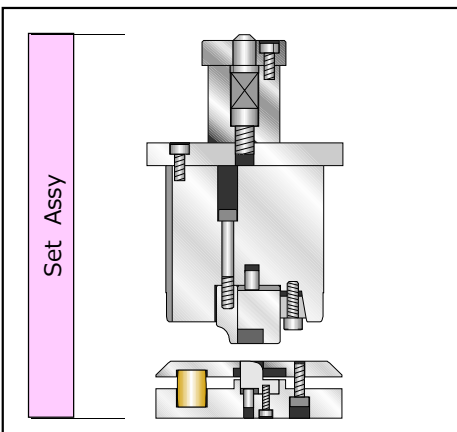
Size/Type	Item	CAT No.
Ast:1/2" Form-Up (Die Solid Type)	Set Assy	307000
	Punch Assy	107000
	Die Assy	207000
Ast:1/2" Form-Down (Punch Solid Type)	Set Assy	307100
	Punch Assy	107100
	Die Assy	207100

※ Non Air -Blow Type

### Specification

Diameter ( $\phi A$ )	$\phi 1.5 \sim \phi 5.0\text{mm}$ $\phi 2.0, \phi 3.0, \phi 4.0\text{mm}$ : Stock Item / Others: Not Stock Item
Applicable Thickness	0.8~2.3mm (Stainless: up to 1.5mm)
Applicable Material	Mild Steel, Aluminum, Stainless
Min. Pitch	$\phi A/2+8\text{mm}$ (Form-up/Form-Down)

# Louver Tool

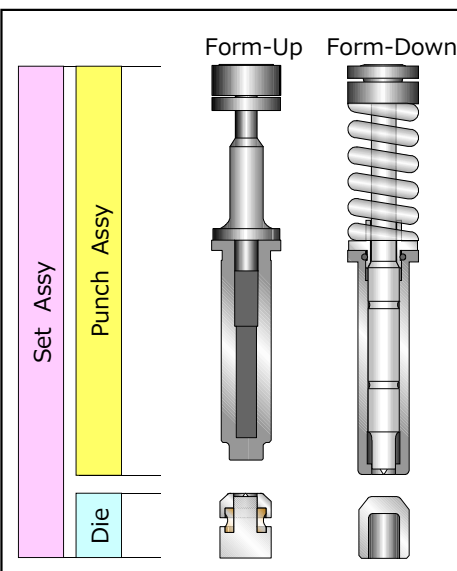


### Tool List

Size	Item	CAT No.
Bst:1-1/4"	Set Assy	Special
Cst:2"	Set Assy	Special
Dst:3-1/2"	Set Assy	Special
Est:4-1/2"	Set Assy	Special

※ Non Air -Blow Type

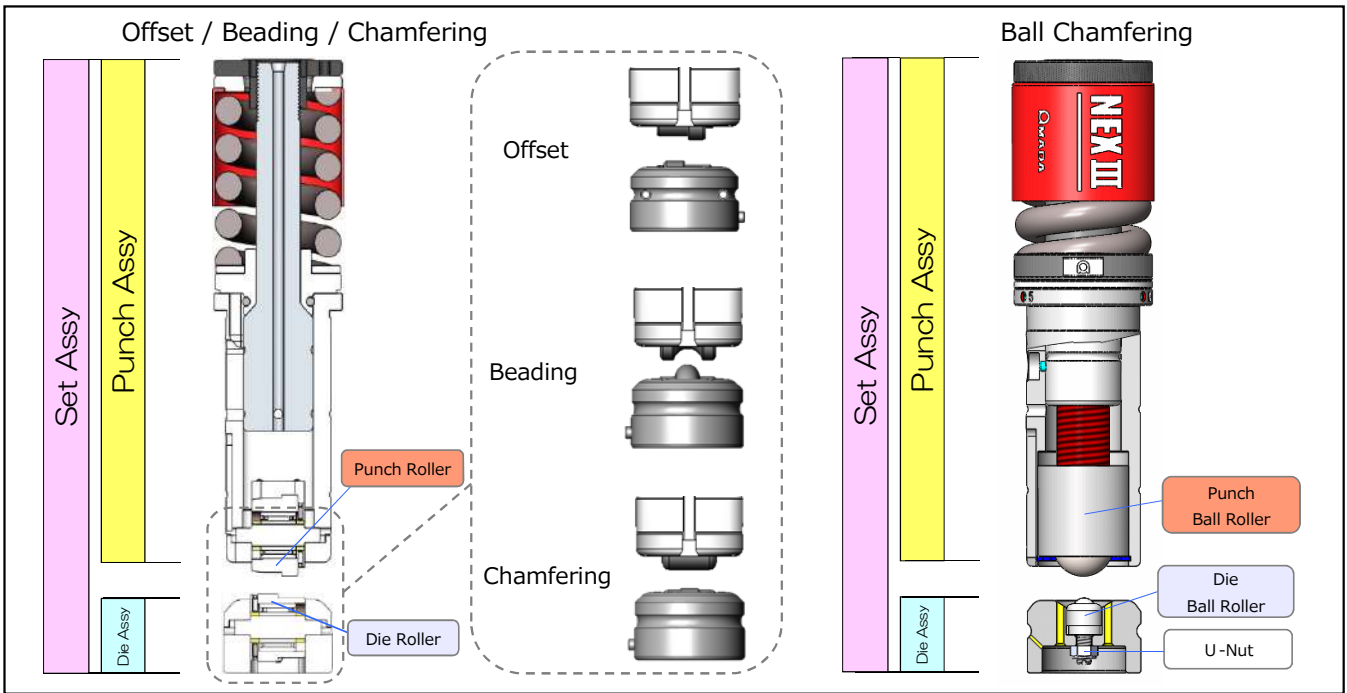
# Ast:1/2" Marking Tool



### Tool List

Size/Type	Item	CAT No.
Ast:1/2" Form-Up	Set Assy	Special
	Punch Assy	Special
	Die Assy	Special
Ast:1/2" Form-Down	Set Assy	Special
	Punch Assy	Special
	Die Assy	Special

※ Non Air -Blow Type



■ Specification

Item	Offset	Beading	Chamfering	Ball Chamfering
Size	Bst:1-1/4"			
Materials	Mild Steel, Aluminum, Stainless			
Thickness	Mild Steel:0.8-1.6mm (Aluminum, Stainless: up to 1.5mm)		Mild Steel:0.8-3.2mm (Aluminum, Stainless: up to 3.0mm)	
Shapes	<p><math>\theta</math> :MAX45° H :MAX1.6mm</p>	<p>W:MAX12.7mm H:MAX3.0mm</p>	<p><math>\theta</math> :20° W:MAX10.0mm Chamfering Amount : 0.2 - 0.4mm or equivalent</p>	<p>Chamfering Amount: 0.2~0.4mm or equivalent</p>

■ Tool Code

Item	Offset	Beading	Chamfering	Ball Chamfering
Set Assy		Special		Special
Punch Assy		Special		Special
Punch Roller/ Punch Ball Roller		Special		Special
Die Assy		Special		Special
Die Roller/ Die Ball Roller		Special		Special
U-Nut		-		Special
Die Ball Roller (5pcs/set)		-		Special

- ※ Roller Tool Software is required for Mchine NC Device.
- ※ Only manual allocation is supported. AP100 is not supported.
- ※ Product quality will be affected by material, thickness, size and form. Please confirm the product sample before placing the order.

**Ball Chamfering Accessory**  
Set Assy includes the followings.

- Die Ball Roller ×2pcs
- U-Nut ×1pc
- Bst Shim Keeper × 1pc
- Spacer 0.2mm ×1pc
- Spacer 0.4mm ×1pc

Shim Keeper/  
Spacer