

# ID TOOL CODE LIST

NEX3 /  $\alpha$ ID / Value-Added Tools



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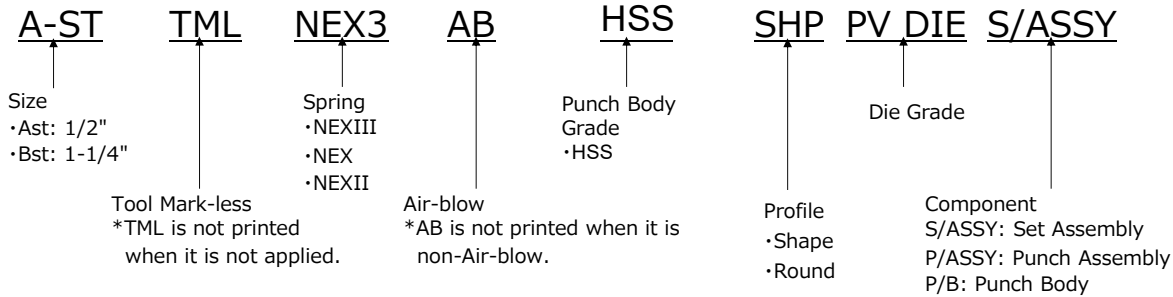
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# Description

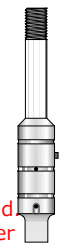
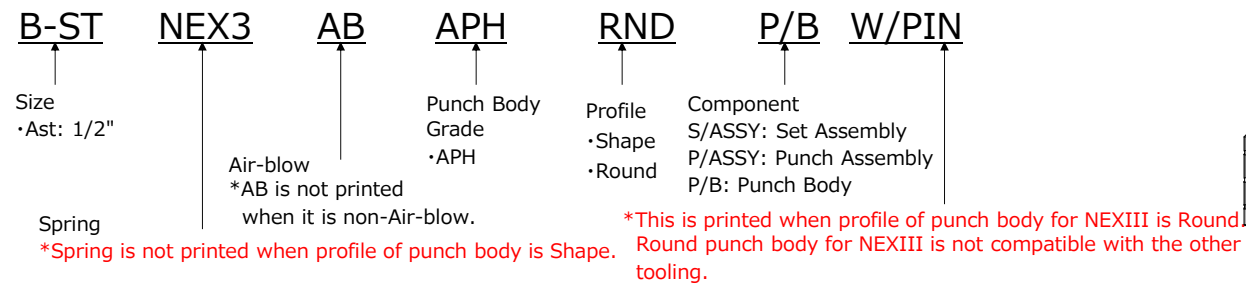
Product name has been revised.  
The details of each character are as follows:

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

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

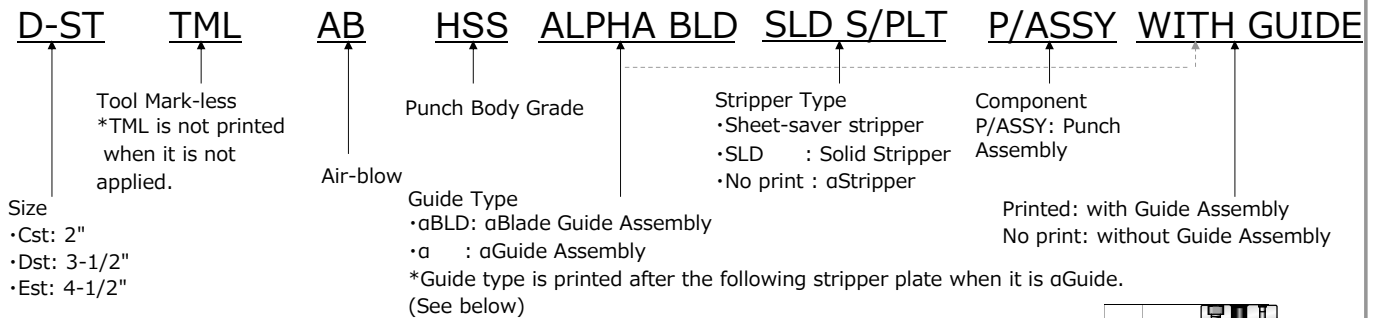


e.g. 2) B-ST NEX3 AB APH RND P/B W/PIN



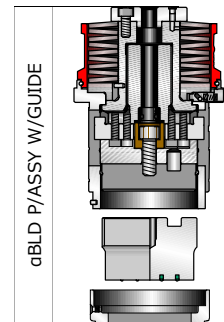
## <Cst:2" & Dst:3-1/2" & Est:4-1/2">

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

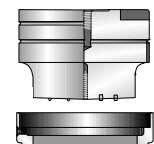
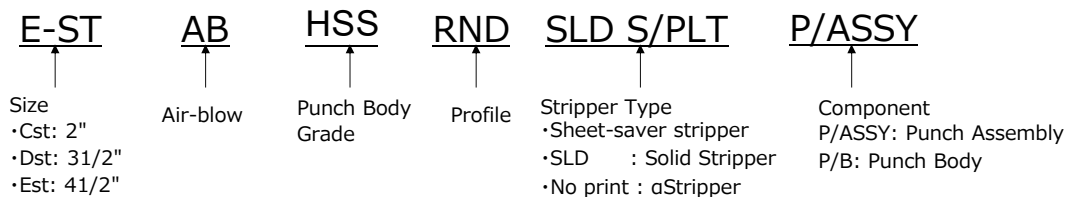


\*Order of character for Punch Assembly with Guide

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










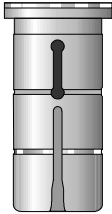
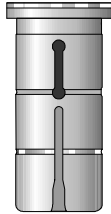
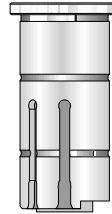
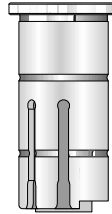
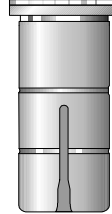
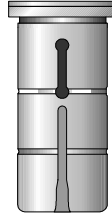


e.g. 4) E-ST AB HSS RND SLD S/PLT P/ASSY



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

※Images: Bst:1-1/4"

Type		NEX3		NEX II		NEX	
Punch Assy (P/A)							
Punch Body (P/B)	Model	NEX3	Ⓐ	NEX II		NEX	Ⓐ
	Form	Round	Shaped※1	Round	Shaped	Round	Shaped
	Note	(with pin)※2	-	(Two-Piece Style)		-	-
			 ※3				
Guide	Model	NEX3		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 NEX3 Round Punch Body (with pin) is dedicated to NEX3. 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.

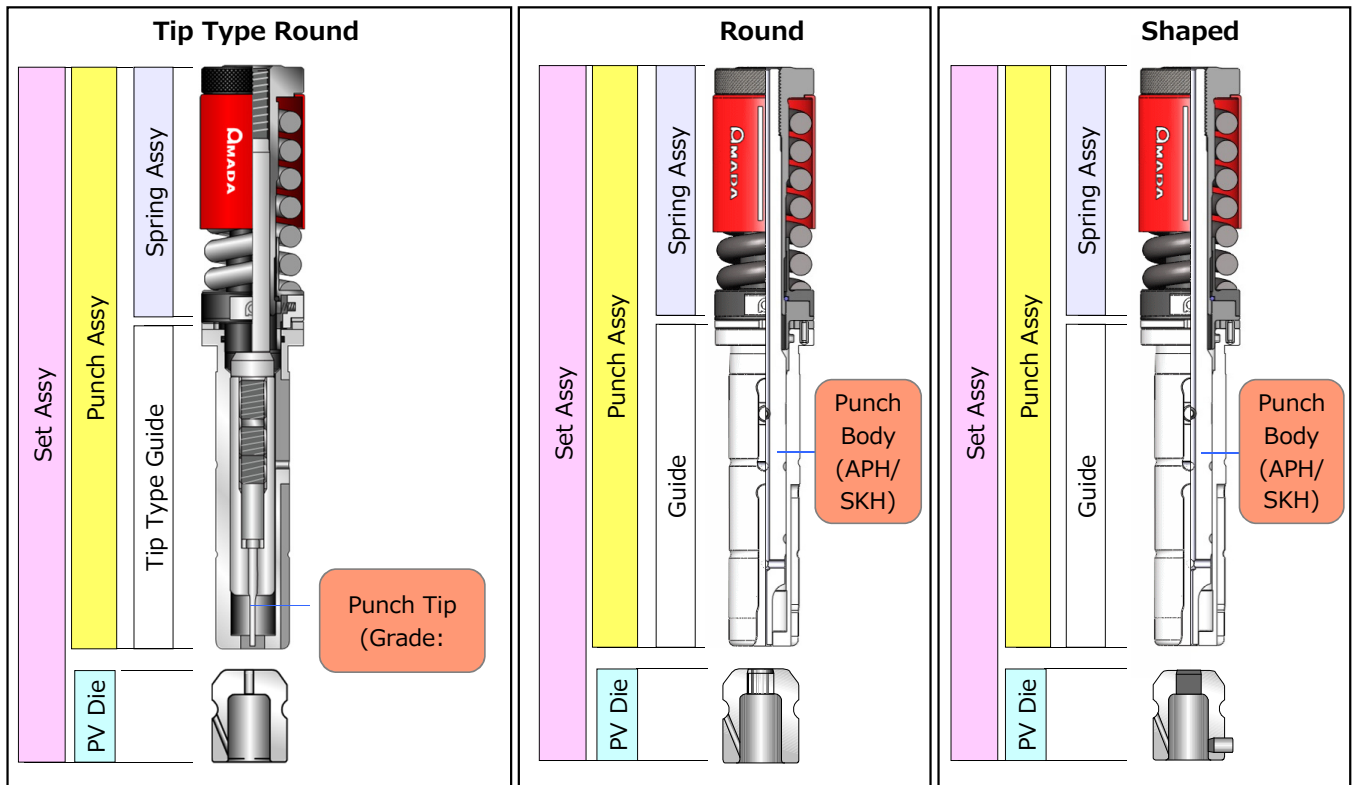
•If Air-blow punch is installed into Non-Air-blow guide, the punch key is caught at rough machining part of guide key and it generates backlash. Therefore the accuracy of punch edge positioning can not be kept.

※ Model in Punch Body field and Guide field indicates compatibility between NEX3, NEX II and NEX. Items have compatibility between same alphabet. e.g.) Ⓐ-Ⓐ:OK / Ⓐ-Ⓑ:NG / NEX3:Dedicated



# Ast:1/2" NEX3 [Air-blow]

Round:  $\phi 1.51 - \phi 12.7\text{mm}$  (Tip Type:  $\phi 0.8 \sim \phi 1.59\text{mm}$ )  
 Shaped: Inscribed in  $\phi 12.7\text{mm}$



## ■ Tool Code

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

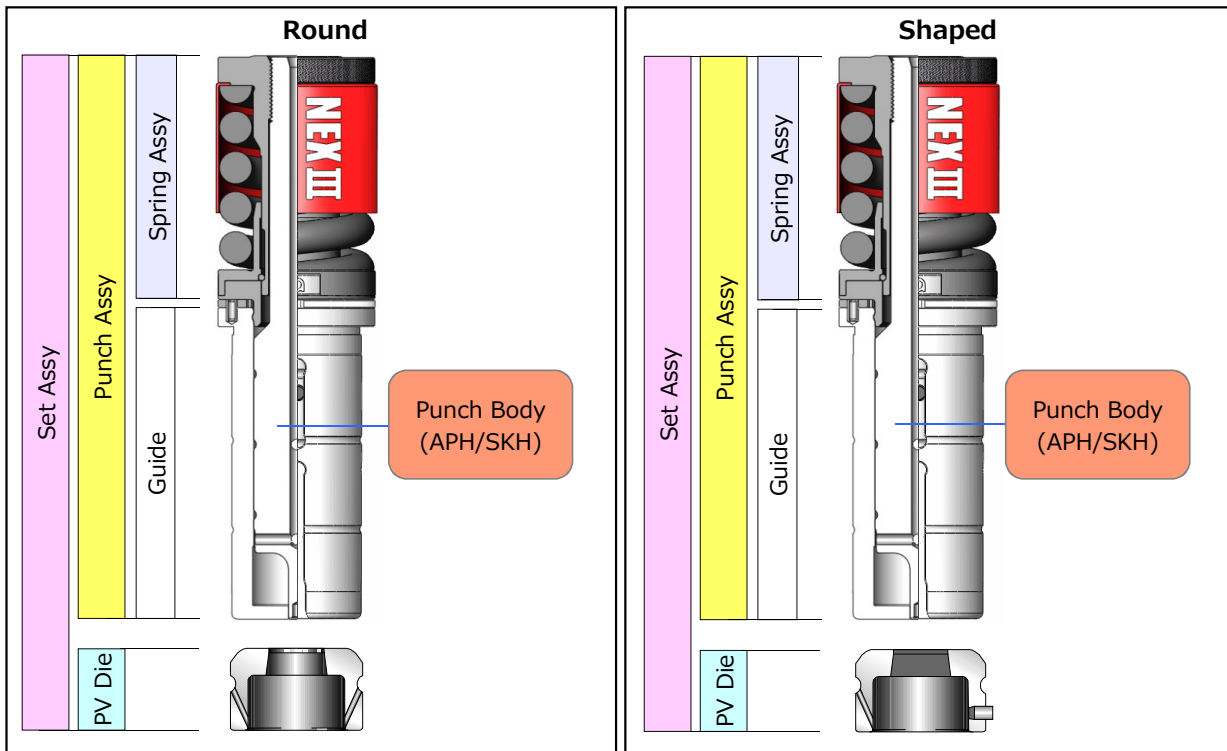
\* Star (☆) is marked on the guide in order to identify TML.

\* Over-sized punch is not available for NEX3. (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
Punch Assy	APH	-	-	11HM40	11HP40	12HM40	12HP40
	HSS	-	-	11FM40	11FP40	12FM40	12FP40
Punch Body	APH	-	-	41HM40		42H040	
	HSS	-	-	41FM40		42F040	
Guide (with index)	-	-	-	51FM40	51FP40	52FM40	52FP40
Spring Assy	-	-	-	983000			
Die (with ID)	PV	HSS		261V40		271V40	

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


\* Over-sized punch is not available for NEX3. (Max size is diameter of punch body. Additional price is applied.)

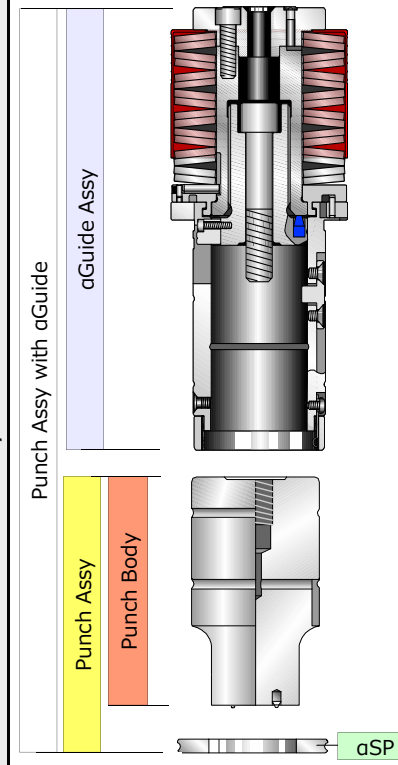
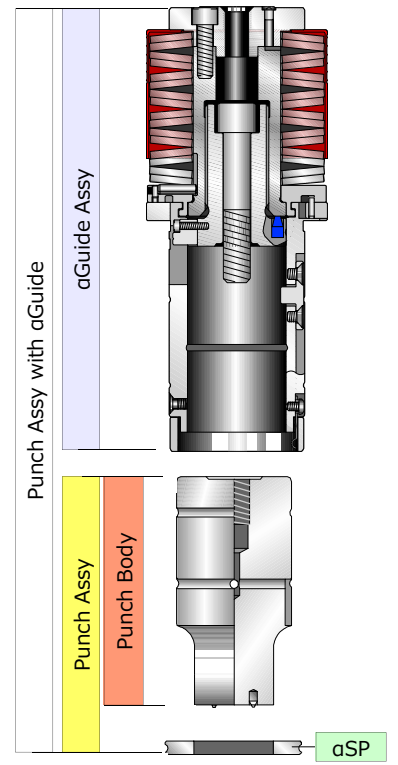
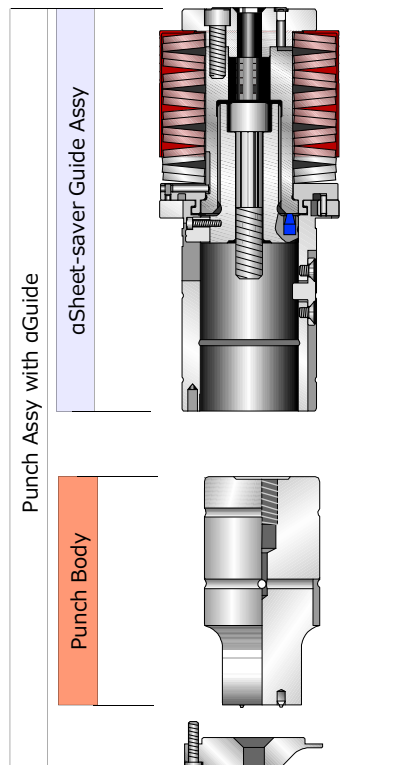
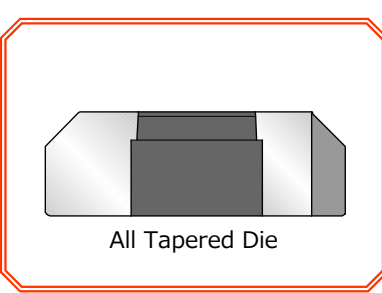
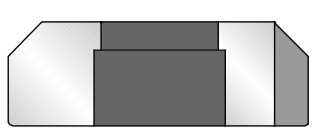
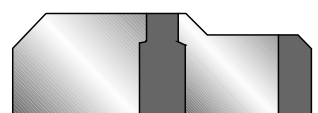
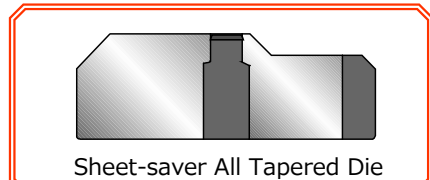
■ Option

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>Punch Assy with aGuide</p> <p>aGuide Assy</p> <p>Punch Assy</p> <p>Punch Body</p> <p>aSP</p>	 <p>Punch Assy with aGuide</p> <p>aSheet-saver Guide Assy</p> <p>Punch Body</p> <p>Sheet-saver SP</p>	
	*Die is not included.		*Die is not included.	
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.



## Cst:2" aID [Air-blow]

### ■ Tool Code

 : Recommendation

Item	Stripper Plate	Punch Grade	Die		Round		Shaped	
			Type	Grade	TML	NORMAL	TML	NORMAL
Punch Body		APH	-		41H060		42H060	
		HSS	-		41F060		42F060	
Stripper Plate	α				51FM60	51FZ60	52FM60	52FZ60
	Sheet-Saver				-	-	-	52F260
Die	All Tapered		HSS		215T60		225T60	
			HWS		211T60		221T60	
	Standard		HSS		215060		225060	
			HWS		211060		221060	
	Sheet-Saver All tapered		HSS		-		220T60	
	Sheet-Saver		HSS		-		220060	
αGuide Assy					907430			
αSheet-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 (αGuide usage) / 3mm (Sheet-Saver Guide usage)

\*Punch has slug-ejector when punch size is  $\phi$ 6.0mm 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 & 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	 Standard Die  Sheet-saver Die *Punch Assy with Guide does not include 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	
Solid Punch Body		HSS	-		41F080		42F080		
aBlade Punch		APH	-		-		42X480		
		HSS	-		-		422480		
Stripper Plate	α				51FM80	51FZ80	52FM80	52FZ80	
	Solid				51F580	51F480	52F580	52F480	
	Sheet-saver				-		52F380	52F280	
Die	All Tapered		HSS			215T80		225T80	
			HWS			211T80		221T80	
	Standard		HSS			215080		225080	
			HWS			211080		221080	
	Sheet-saver All Tapered		HSS			-		220T80	
	Sheet-Saver		HSS			-		220080	
αGuide Adapter Assy					907190				
•αGuide Assy					907130				
•αGuide Adapter					907170				
αBLD Guide Adapter Assy					907210				
•αBLD Guide Assy					907150				

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


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

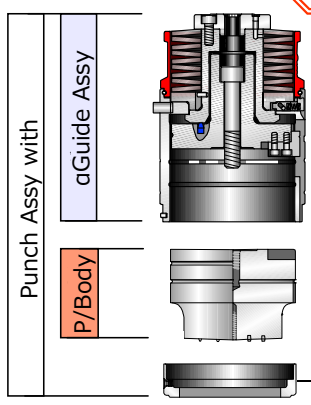
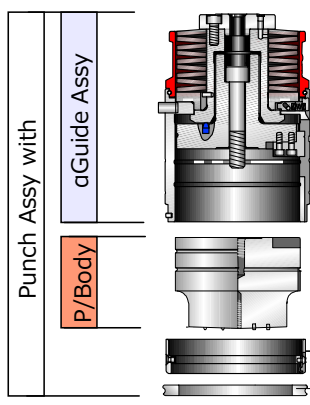

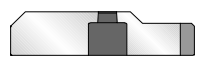
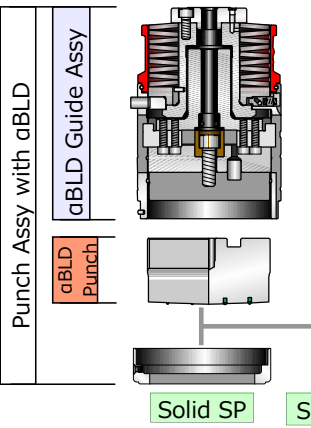
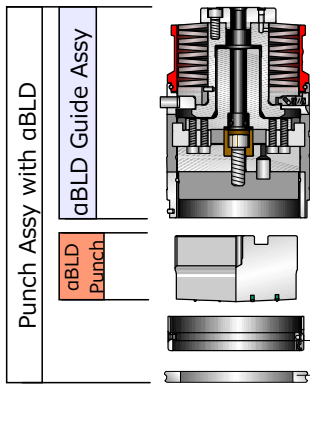

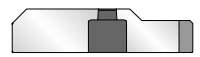
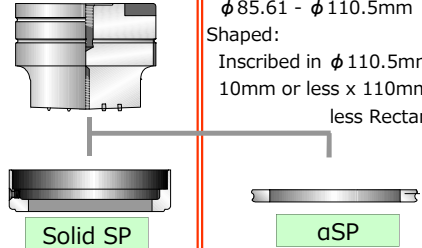
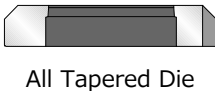
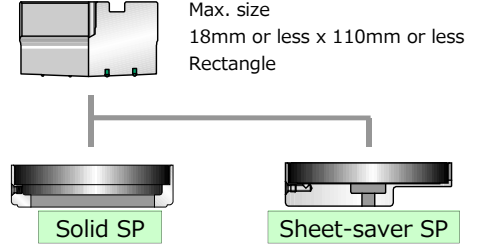
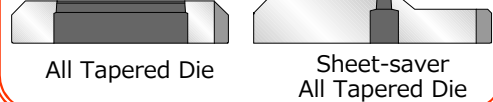
\*αBLD Guide Adapter Assy is combination of αBLD Guide Assy and αGuide Adapter.

# Est:4-1/2" aID [Air-blow]

Solid Punch: 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  
 aBLD Punch: 18mm or less  $\times 110\text{mm}$  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. 	Round / Shaped *Die is not included. 	 All Tapered Die  Sheet-saver All Tapered Die
Punch Assy with aBLD Guide	Shaped <b>Rectangle</b> *Die is not included. 	Shaped *Die is not included. 	 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 18mm 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,

# Est:4-1/2" aID [Air-blow]

■ Tool Code

 : Recommendation

Item	Stripper Plate	Punch Grade	Die		Round		Shaped	
			Type	Grade	TML	NORMAL	TML	NORMAL
Solid Punch Body		HSS	-		41F090		42F090	
aBlade Punch		APH	-		-		42X490	
		HSS	-		-		422490	
Stripper Plate	a				51FM90	51FZ90	52FM90	52FZ90
	Solid				51F590	51F490	52F590	52F490
	Sheet-saver				-		52F390	52F290
Die	All Tapered		HSS		215T90		225T90	
			HWS		211T90		221T90	
	Standard		HSS		215090		225090	
			HWS		211090		221090	
	Sheet-saver All Tapered		HSS		-		220T90	
	Sheet-Saver		HSS		-		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)

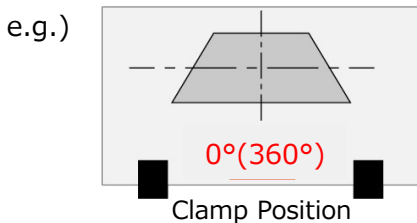
- A component that is produced by the combination of standard shaped tools can be produced by a single special shaped tool in a shorter time and with higher accuracy.
- Specify desired similar shapes with referring to the figures below.
- Attach the drawings when placing order in order to prevent misunderstanding.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

Category	Form				
I					
II					
III					
4 Corner Radius			Micro Joint	Trapezoid Shape with Horns	
				Hourglass Shape with Horns	

### ■ 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.**



### ■ Applicable Shape Direction

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

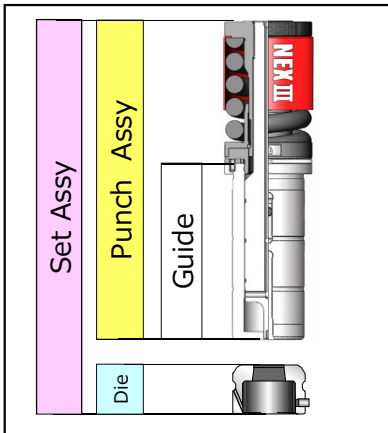
Specified Shape	Ast : 1/2" Bst : 1-1/4" Cst : 2"	D s t : 3-1/2" E s t : 4-1/2"

### ■ Caution for standard shape

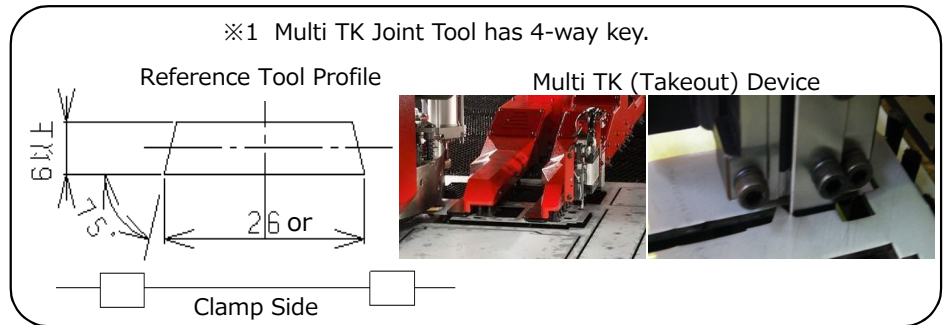
Standard shape (SQ/OB/RE/WD) with specified angle. e.g.) If the specified angle is 30°, the display angle of tool info is as shown below.

Specified Shape	Ast : 1/2" Bst : 1-1/4" Cst : 2"	D s t : 3-1/2" E s t : 4-1/2"
<p style="text-align: center;">Turret Clamp Position</p>	<p style="text-align: center;">30°      300°</p>	<p style="text-align: center;">30°      120°</p>

## NEX3 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"								

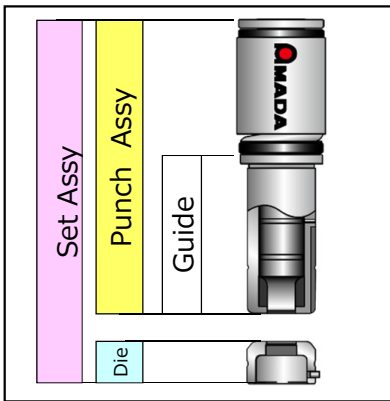
### ■ Micro Joint Tool

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

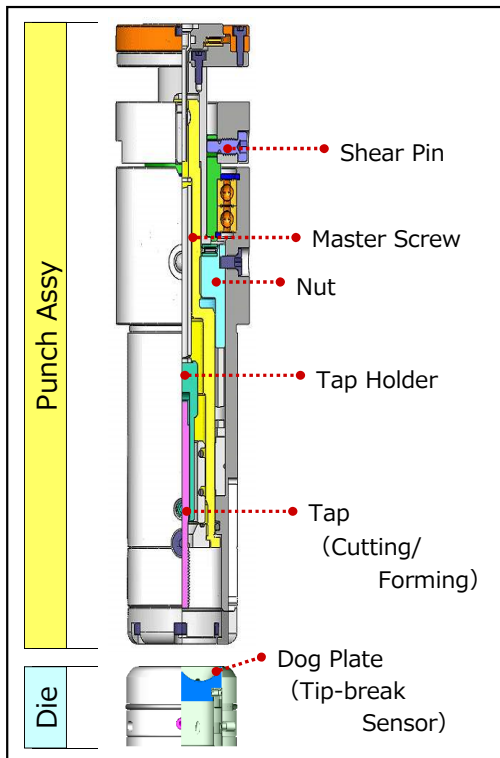
Category	Size	Set Assy		Punch Assy		P/Body SKD	Guide		Die SKD
		TML	NORMAL	TML	NORMAL		TML	NORMAL	
Trapezoid Shape with Horns	Ast:1/2"								
	Bst:1-1/4"								
Hourglass Shape with Horns	Ast:1/2"								
	Bst:1-1/4"								

#### ■ 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" MPT Tapping Tool



## ■ Tool Code

\*CRS:Cross / GRV:Groove

Item	M size	Type	Price	CAT No.
Punch Assy Tap (5pcs) and Spear Sear-Pin (1pc)	M2*	Cutting		Special
		Forming		Special
	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
Die Assy		Type-A		690000
		Type-B		690010
High Power Tap Die Assy		Type-A or B		Special
Dog Plate Set for MPT Tap (Tool Type-A and B)				690160
Dog for High Power Tap Die (Tool Type-A and B)				Special
Dog Plate Set (CRS/GRV) for MPT Tap Tool				690150
Die Parts set for MPT Tap Tool (New/Previous Type)				690170

\*Please use **M2 dedicated tooling** for pre-hole.  
Ast TML NEX3 AB Tict Tip-Type  
Size:  $\phi 1.6 \sim \phi 1.9$

Item	CATNo.
Set Assy	36WM10
Punch Assy	11WM10

Note1 : Guide is special. It has no compatibility with other tools.  
Note2 : PV Die

## MPT Die

Die has 2 type according to machines.

### Type-A

$\phi 1010$  Turret / King Turret



Applicable Machine

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

### Type-B



Applicable Machine

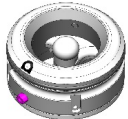
- ACIES
- EMZR
- EMZ-M II

## High Power Tap Die

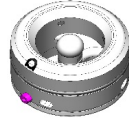
(Recommended for 4.5mm~6.0mm)

\*Mild Steel only

### Type-A

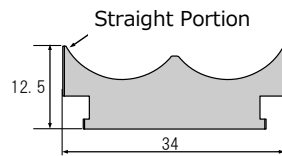


### Type-B



## Dog Plate Set

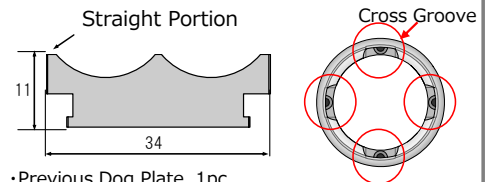
(Type-A and Type-B)



- Dog Plate 1pc
- Lock Screw with Hex Hole (M2.5x4 Flat Head) 2pcs

## Dog Plate Set for Cross Groove

(Previous Type-A)



- Previous Dog Plate 1pc
- Lock Screw with Hex Hole (M2.5x4 Flat Head) 2pcs

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

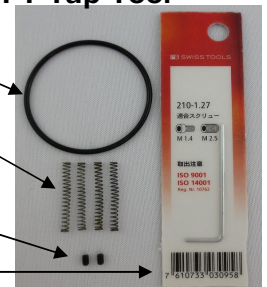
## Die Parts Set for MPT Tap Tool

O-Ring (S42) 1pc

Round Wire Coil Spring (WR3-30) 4pcs

Lock Screw with Hex Hole (M2.5x4 Flat Head) 2pcs

Allen Key (1.3mm)



## ■ Maintenance Kit

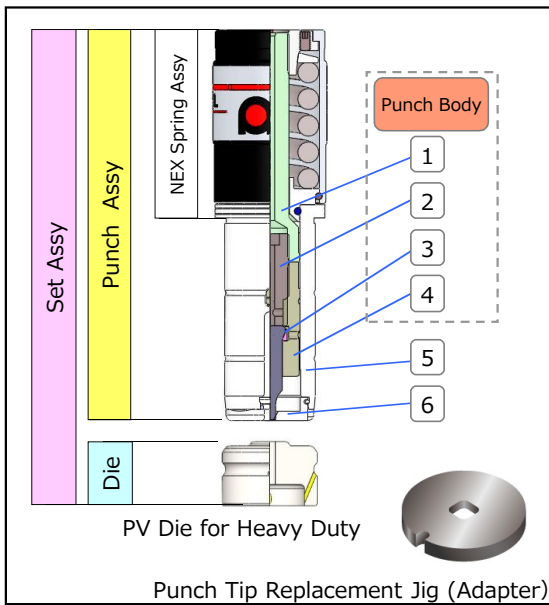
Item	Contents	Price	Cat No.
For EMZR/EM-M II	①、②、③、④、⑥		690130
For LCC1/ACIES	①、②、③、④、⑤		690140

## ■ Maintenance Kit Accessories

Item	①Grease Gun	②Pistol Oiler	③Amada Grease	④Tap Holder Attachment Jig	⑤Tap Oil for Multifunction Machine	⑥Tap Oil for EM-ZR, EM-M II※1
CAT No.	615040	615020	616050	690120	999680	Parts Code76073413
		(H-250)	(400g)		AML-46(4L)	99X Super (4L)

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

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



## ■ Tool Code

Item	Tool for Mild Steel / Stainless		
	Guide	Price	CAT No.
Set Assy	TML		352M40
	NORMAL		352440
Punch Assy	TML		152M40
	NORMAL		152240
Punch Body Assy	-		752240
1	Punch Driver		751440
2	Special Stop Plug Screw		751540
3	Punch Tip (with Ring)		452240
4	Punch Body		751340
Guide Assy	TML		551M40
	NORMAL		551140
5	Open Guide	-	51F440
6	Stripper for Heavy Duty Punch	TML	551M50
		NORMAL	551040
Bst:1-1/4" PV Die for Heavy Duty			252040
Punch Tip Replacement Jig			751640

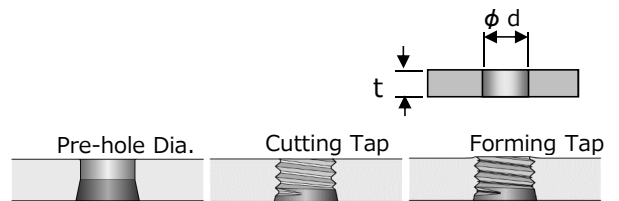
\*Die clearance should be 0.25mm or more. (on both sides)

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

\*Spring is NEX spring. It will be changed to dedicated spring when it is ready.

## ■ 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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

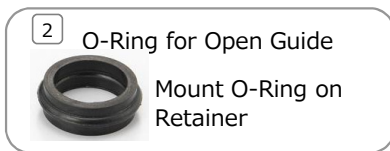
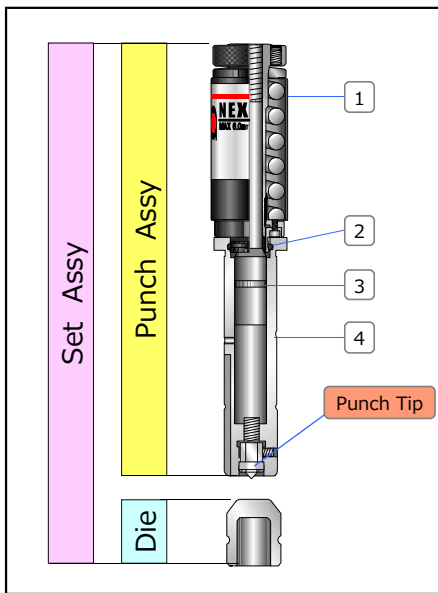
### <Stainless>

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	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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



### ■ Tool Code

Item	Price	CAT No.
Set Assy		38F100
Punch Assy		18F100
Punch Tip		918110
Die		281000

### ■ Parts List

No.	Item	Price	CAT No.
1	NEX Spring Assy		980000
2	O-Ring for Retainer (for Open Guide)		910150
3	Punch Body		Special
4	Punch Guide		Special

**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.

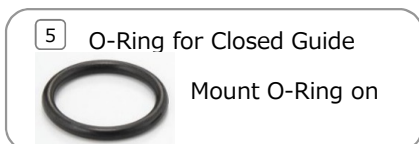
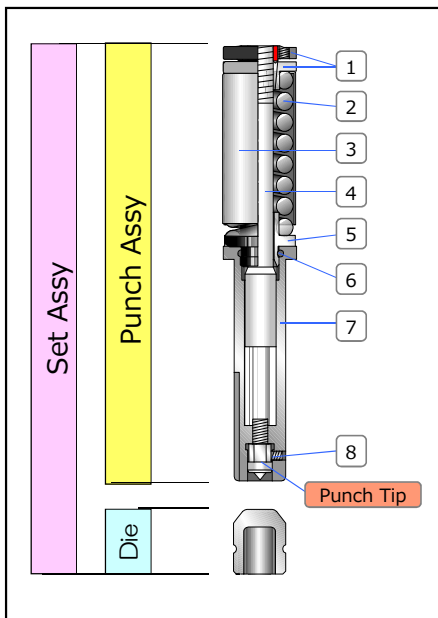
\*The max material thickness is 6.0mm, the tip angle is 90°.

\*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.

\*Spring is NEX spring. It will be changed to dedicated spring when it is ready.

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



### ■ Tool Code

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

### ■ Parts List

No.	Item	Price	CAT No.
1	Double Punch Head		901400
2	Stripping Spring		901300
3	Ast Spring Cover (5pcs)		926220
4	Punch Body		918410
5	Retainer Collar		901200
6	O-Ring for Retainer (for Closed Guide)		910060
7	Punch Guide		918420
8	Hex Socket Set Screw (Flat Point) (M5x6)		XP0607

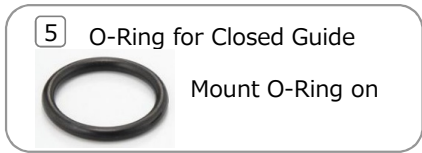
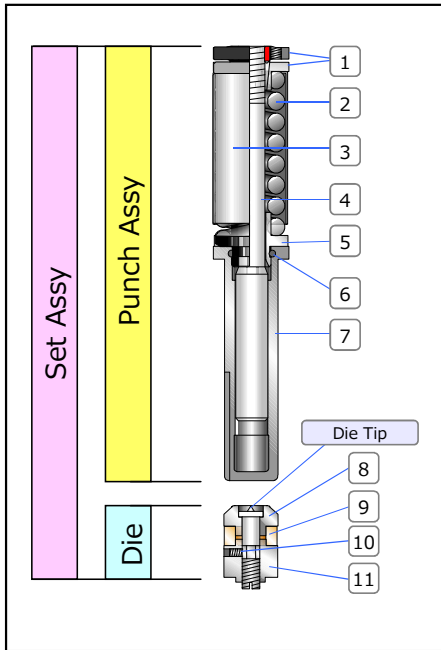
**No idle striking!**  
(Punching without material)

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



### ■ Tool Code

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

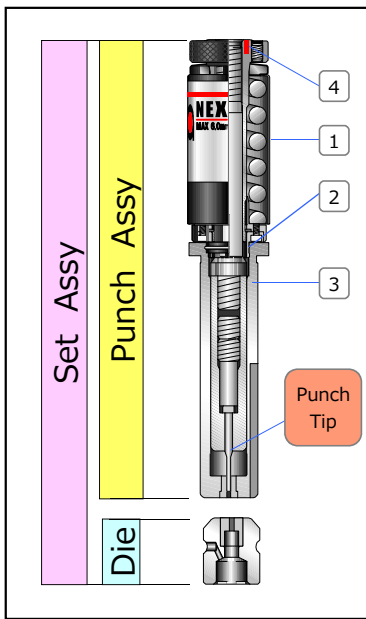
### ■ Parts List

No.	Item	Price	CAT No.
1	Double Punch Head		901400
2	Stripping Spring		901300
3	Ast Spring Cover (5pcs)		926220
3	Punch Body		918310
4	Retainer Collar		901200
5	O-Ring for Retainer (for Closed Guide)		910060
6	Punch Guide	TML	581M10
		NORMAL	581010
7	Ejector Plate		918320
8	Die Urethane Spring		918720
9	Lock screw ( 2pcs for 1 tooling)		918340
10	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]

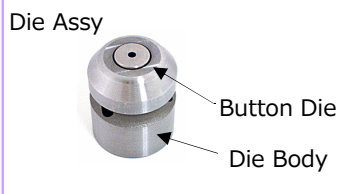


### ■ Tool Code

Item		Punch Grade	Die Grade	Price	CAT No.
Ticn Coating	Set Assy	Ticn Coating	SKH		35X220
	Punch Assy		-		15X220
	Punch Tip		-		45X220
	Die Assy (Die Tip Type)	-	SKH		251020
	Button Die				251220
Carbide	Set Assy	Carbide	Carbide		35K220
	Punch Assy		-		15K220
	Punch Tip		-		45K220
	Die Assy (Die Tip Type)	-	Carbide		25K020
	Button Die				25K220
Die Body					251320

### ■ Parts List

No.	Item	CAT No.
1	NEX Spring Assy	980000
2	O-Ring for Retainer (for Open Guide)	910150
3	Guide Assy (with bush)	551020
4	Urethane Tube (10pcs)	Special



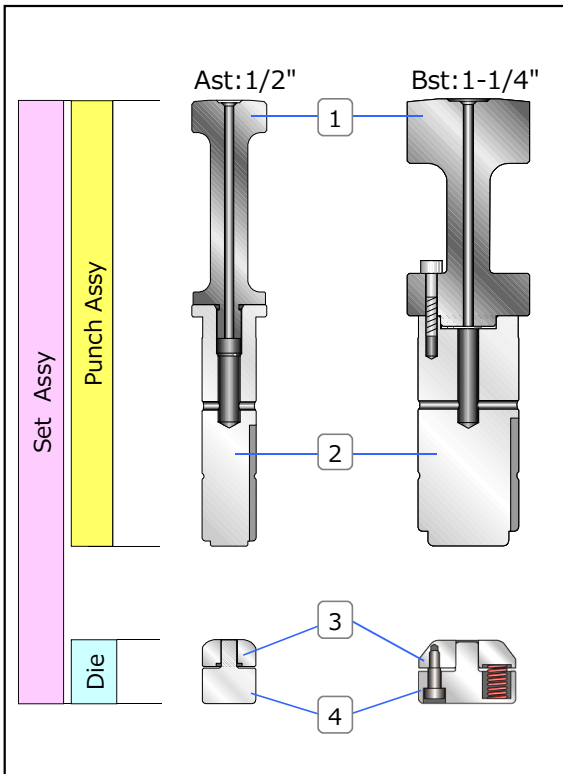
- \*Amada takes over the button die in order to replace by air pressure.
- \*Specification may change for improvement without prior notice.
- \*Contouring Tool is available for only machines with PV (Power Vacuum) device / AJV (Air-Jet Vacuum) device.
- \*Spring is NEX spring. It will be changed to dedicated spring when it is ready.

### ■ 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 <sup>※2</sup>	
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.

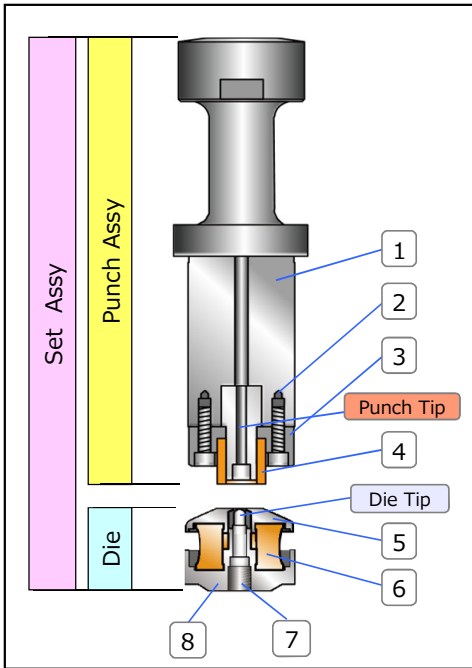
### ■ Tool Code

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	Special		Special				
2	Punch Body	Special		Special				
Die Assy		211120	221120	221130	221140	221150	221160	221170
3	Ejector Plate	Special	Special	Special	Special	Special	Special	Special
4	Die Body	Special	Special	Special	Special	Special	Special	Special

※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.

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

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

Item	Price	MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy	This colored items are only available for the above sizes.	300000	300520	309000	300500	300510
Punch Assy		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)

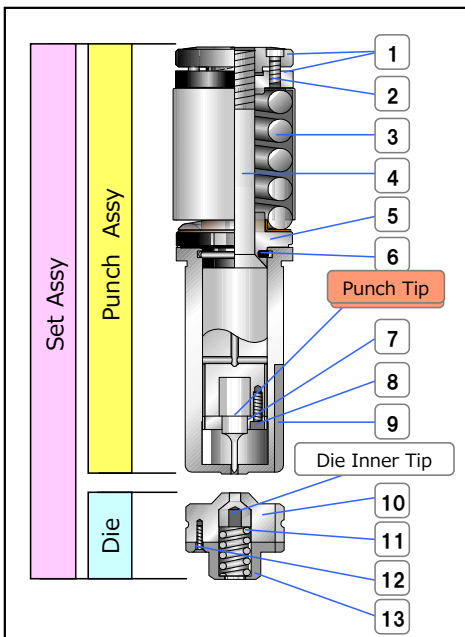
Item	Price	MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy	This colored items are only available for the above sizes.	300630	300620	300100	300600	300610
Punch Assy		100630	100620	100100	100600	100610
Punch Tip		902530	902570	905020	902550	902580
Die Assy		200630	200620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

### ■ Parts List

No.	Item	Material	Price	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			905100				

# 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	Price	MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy	This colored items are only available for the above sizes.	302100	302810	303100	302800	302820
Punch Assy		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	Price	MPT Tapping Tool		Cutting	Forming	Forming Tapping Tool
		Cutting	Forming			
Set Assy	This colored items are only available for the above sizes.	304100	303810	306100	303800	303820
Punch Assy		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

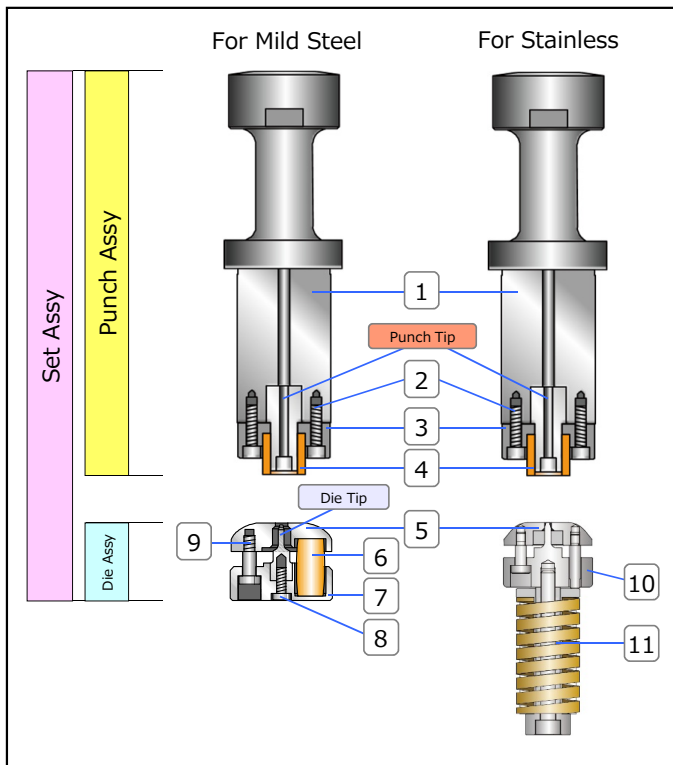
## ■ Parts List

No	Item	Material	Price	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)

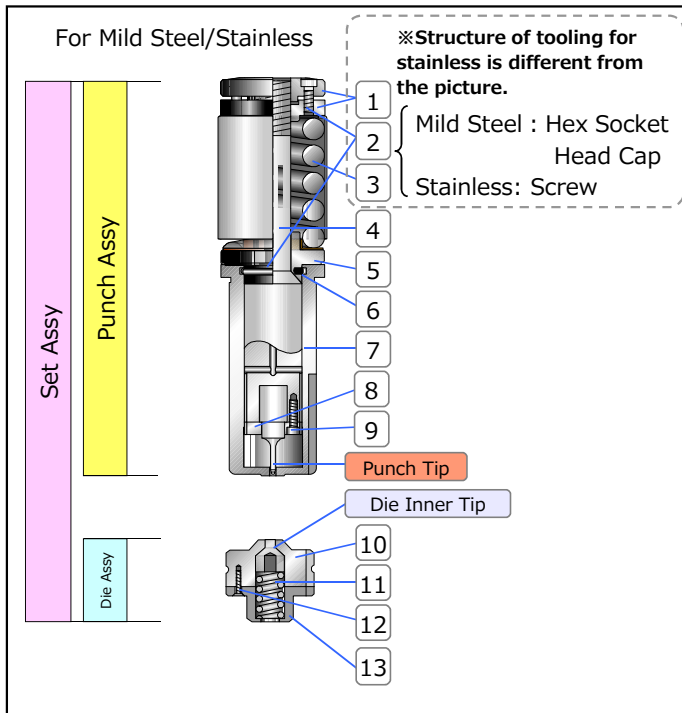
Item	Multi Tap Cutting				Multi Tap Forming			
	M3	M4	M5	M6	M3	M4	M5	M6
Set Assy	302300	302400	302500	302600	300530	300540	300550	300560
Punch Assy	102000				100530			
Punch Tip	902700				902730			
Die Assy	202300	202400	202500	202600	203300	203400	203500	203600
Die Tip	402000				400530			
1 PDC-Compatible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

## ■ 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) ※4pcs for 1 tooling	998800	
3 PDC-Compatible Punch Plate	900030	
4 Urethane Spring for Punch (φ 20×22L)	902040	
5 Ejector Plate	Special	
10 Die Body	Special	Special
11 Die Spring	Special	Special

# 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

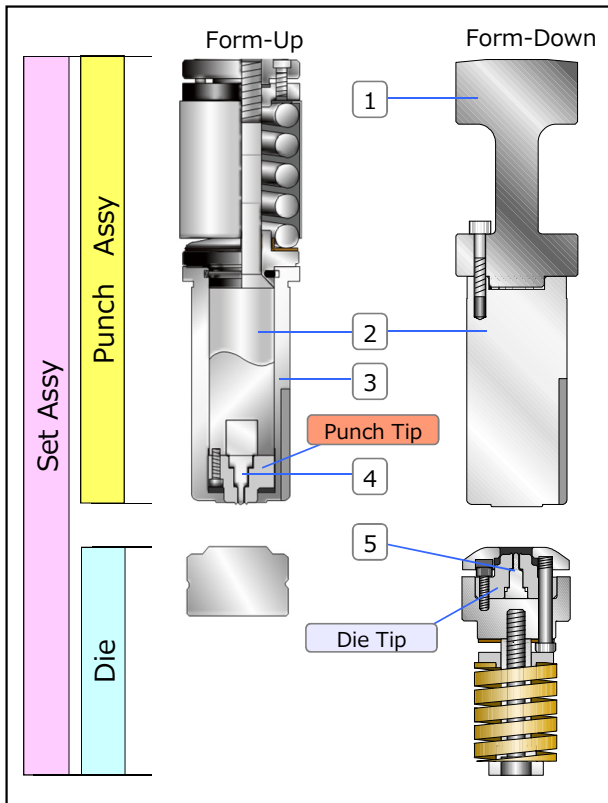
※Pre-hole diameter is same as diameter for form-up.

## ■ 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	Special	Special	Special	Special
5 Bst Retailer Collar (with O-Ring)	901210		901210	
6 Bst O-Ring for Retailer	910080		910080	
7 Guide	Special	Special	Special	Special
8 Punch Plate	903960		903960	
9 Hex Socket Head Cap Screw (M4×12) ※3pcs for 1 tooling	XP0025		XP0025	
10 Die Block	Special	Special	Special	Special
11 Die Spring (φ14×30L)	Special		Special	
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	$\phi$ 1.9mm~ $\phi$ 4.0mm (Specified projection size only) $\phi$ 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/mm <sup>2</sup> 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 ( $\pm 0.02$ mm or less).

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

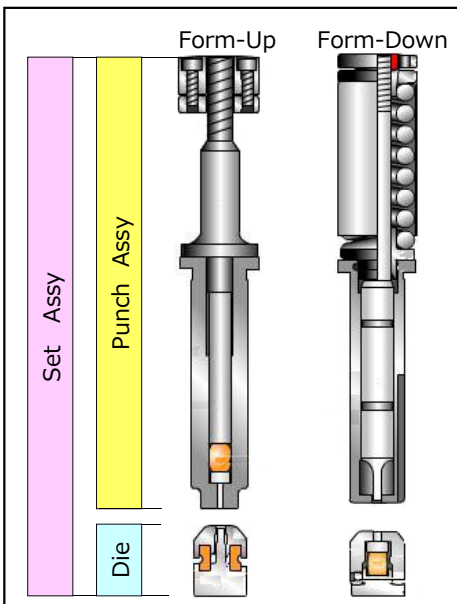
※3 In case of 2.0mm or more thickness, some protrusion may occur around projection.

※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	$\phi$ 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		-	-	-	Special		
2	Punch Body		Special	Special	Special	Special		
3	Guide		Special	Special	Special	-	-	-
Punch Tip			Special	Special	Special	-	-	-
4	Punch Ejector Tip		Special	Special	Special	-	-	-
Die/Die Assy			211140			212140	212240	212340
Die Tip			-	-	-	Special	Special	Special
5	Die Ejector Tip		-	-	-	Special	Special	Special

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



### ■ Tool List

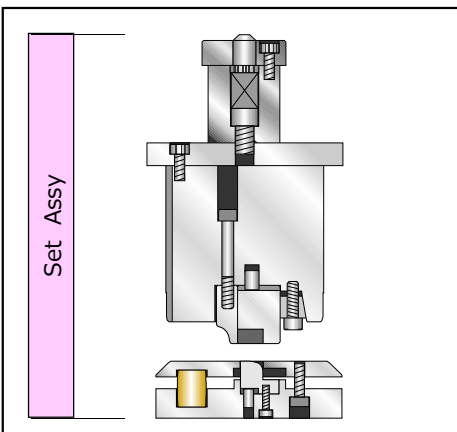
Size/Type	Item	Price	CAT No.
Ast:1/2" Form-Up (Die Solid Type)	Set Assy		307000
	Punch Assy		107000
	Die Assy		207000
Ast:1/2" Form-Down (Punch Solid Type)	Set Assy		307100
	Punch Assy		107100
	Die Assy		207100

※ Non Air -Blow Type

### ■ Specification

Diameter ( $\phi A$ )	$\phi 1.5 \sim \phi 5.0\text{mm}$ <span style="color: red;"><math>\phi 2.0, \phi 3.0, \phi 4.0\text{mm}</math>: Stock Item / Others: Not Stock Item</span>
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

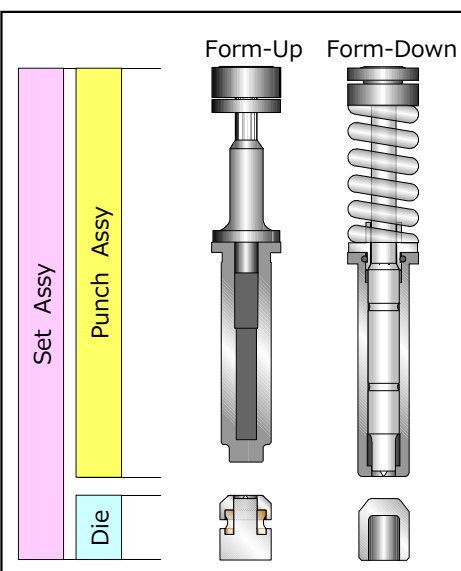


### ■ Tool List

Size	Item	Price	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

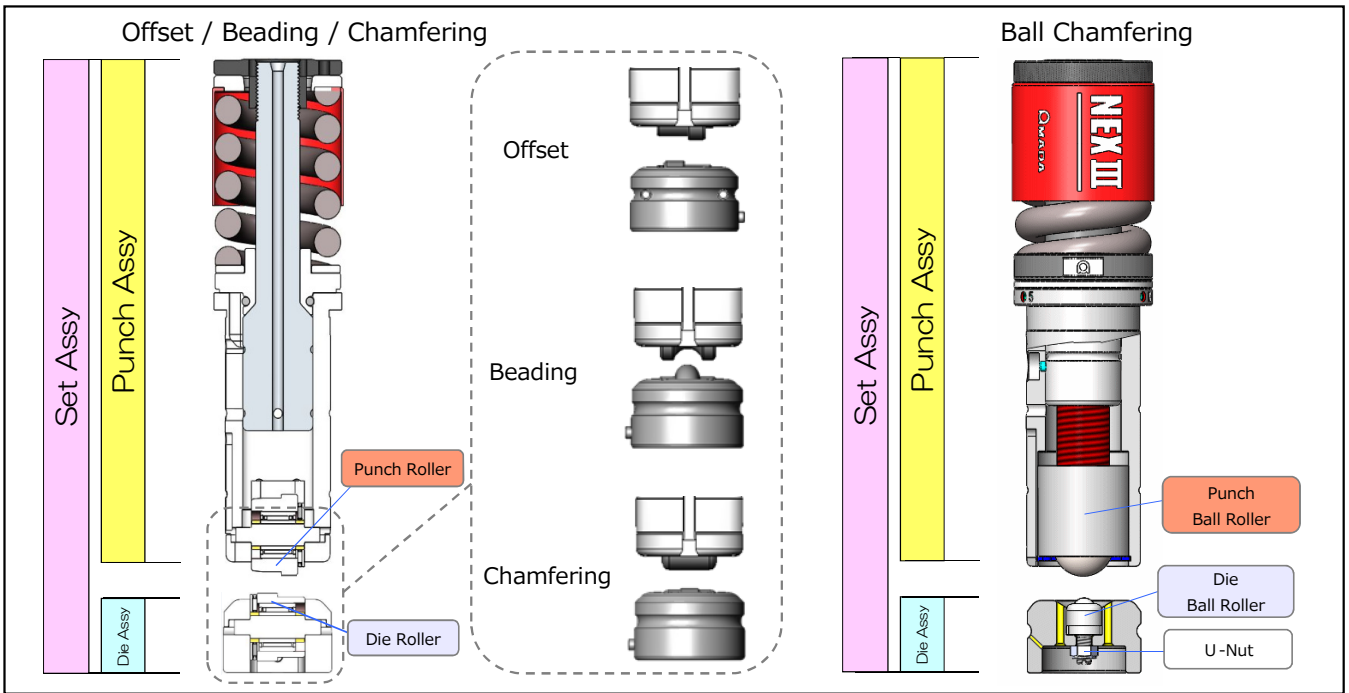


### ■ Tool List

Size/Type	Item	Price	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

# Bst:1-1/4" ARFT (Offset / Beading / Chamfering / Ball Chamfering)



## ■ 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