1. Labor saving & set up time reduction for hemming work

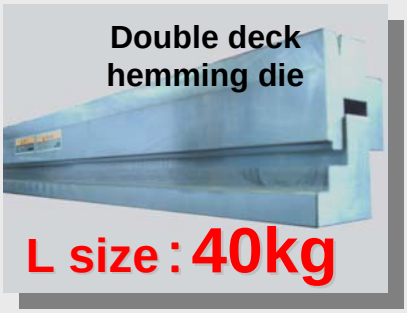
Proposal of Light hemming series

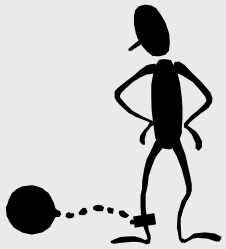
Light weight hemming I , II

Light weight hemming III

Hemming process Issue

1) Awkward job（whole replacement is required ）
2) Very heavy tooling
3) Awkward set up demands one specified machine
4) Not suited for Female or part-time job-worker





Customer's voice for easier tool change & tool weight reduction : Customers need light weight hemming die !

Proposal

Tool change set up time reduction & improved operation environment

Change double-deck type hemming die (current type) to Light weight type

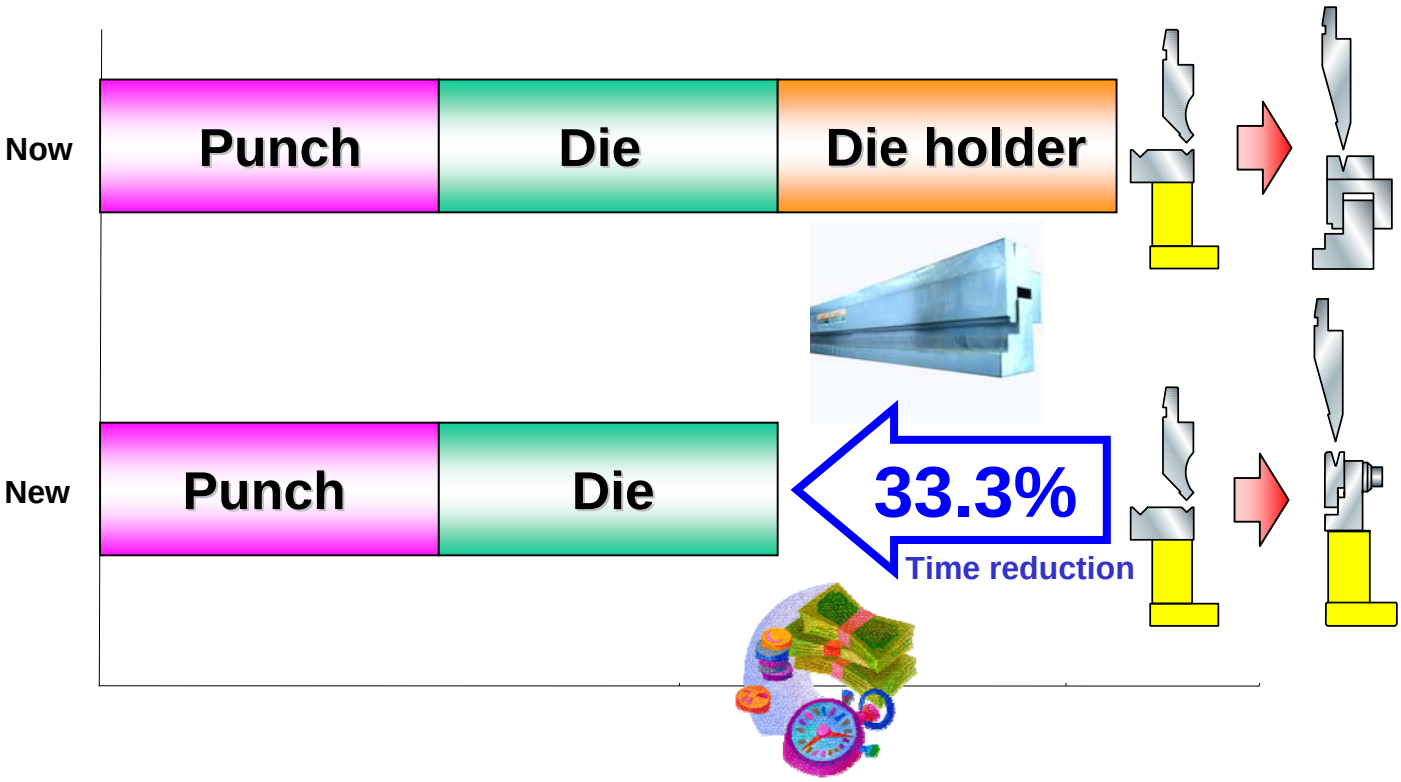
1) Set up time is minimized
2) Labor charge reduction
3) Everybody can do same set up
4) Less operator fatigue

L size weight 40kg ⇒ 15kg

Reference data

・Release the mental & physical stress by reducing work time & set up time as well as light weight tooling

Proposal example: for hemming work set up time saving



Happy voice from the customers for light weight hemming tool III

・Tooling was too heavy and nearly dropped the tool! But now Light weight tool enables easier set up !

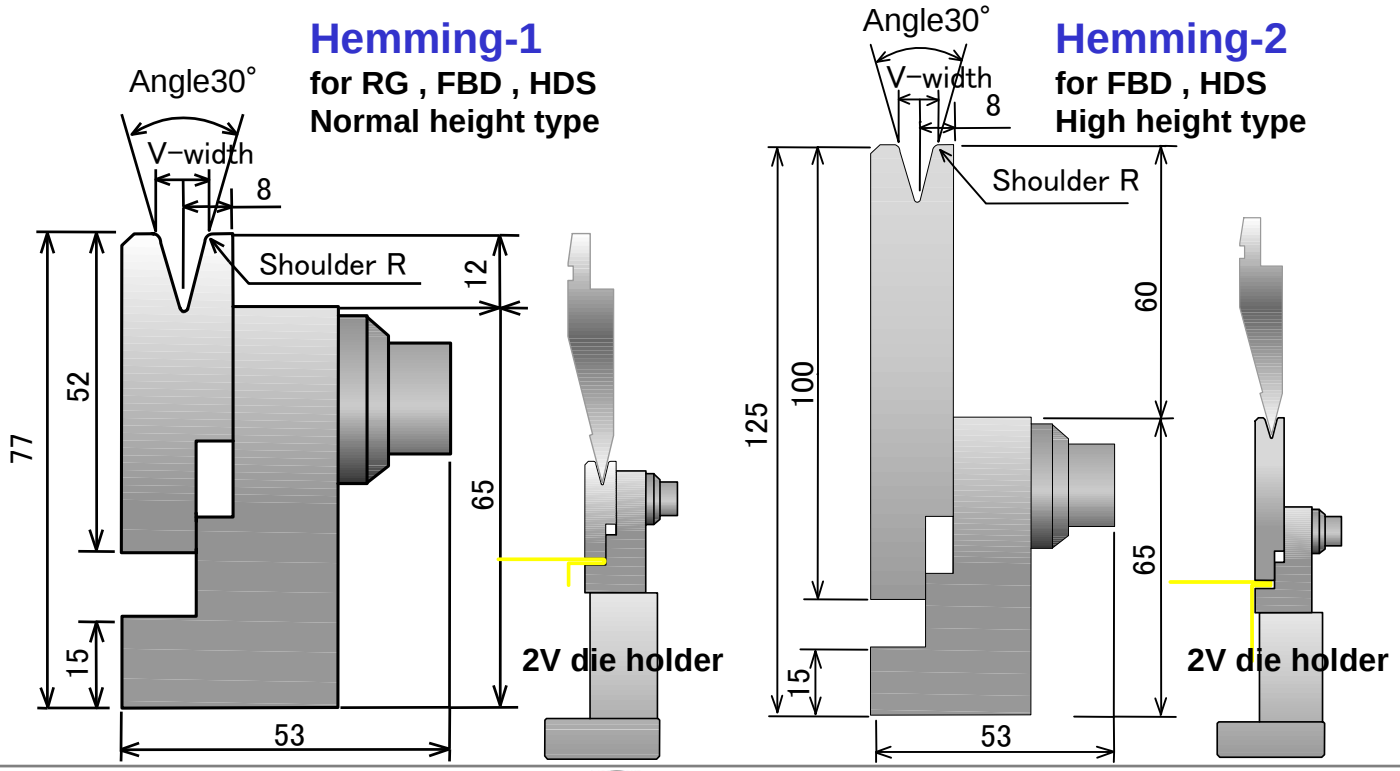
・I used to call a male helper to set up the hemming tool, but now I can do it myself because the tool becomes light weight type III

・New tool can cover wider application, and simplifies two-process work into single-process hemming work !

- ◆ Easier work for tool change operation.
- ◆ Widen the bending application (comparison # 104 tool)
- ◆ The double-deck style hemming tool first bends the 30 degree acute bend and then flattens the hem.
- ◆ Tooling structure minimizes thrust load in the hemming process.

Light weight hemming I & II for 2V die holder type

		Hemming-1		Hemming-2	
V-width		V = 6 , V = 8			
Angle		30°			
Shoulder R		1R			
Die height	Opened	77mm		125mm	
	Shut	67mm		115mm	
Stroke		10mm			
Allowable tonnage	1st stage	500kN/M { 50Ton/M } (Acute bending)			
	2nd stage	800kN/M { 80Ton/M } (Hemming)			
Maximum thickness	Mild steel	1.2mm , 1.6mm			
	Stainless	1.0mm , 1.2mm			
Size		L(835mm)	S(415mm)	L(835mm)	S(415mm)
Weight		15kg	8kg	15kg	8kg



Light weight hemming III for 1V die holder type

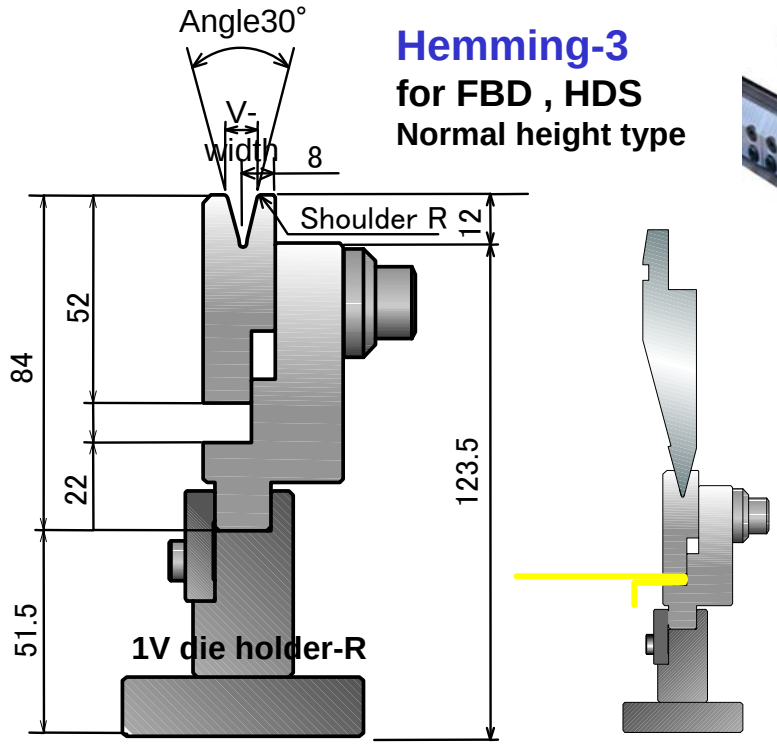
		Hemming - 3					
V-width		V = 6			V = 8		
Angle		30°					
Shoulder R		R1					
Die height	Open	84mm					
	Shut	74mm					
Stroke		10mm					
Allowable tonnage	1st stage	500 kN/M {50 TON/M} (Acute bending)					
	2nd stage	800 kN/M {80 TON/M} (Hemming)					
Maximum thickness	Mild steel	1.2mm			1.6mm		
	Stainless	1.0mm			1.2mm		
Size		L 835mm	Sectionalized 470mm	S 415mm	L 835mm	Sectionalized 470mm	S 415mm
Weight		16kg	9kg	8kg	16kg	9kg	8kg
【sectionalized size】45・50・50・55・60・65・70・75 total 470 mm							

・Can be used on sectionalized 1V die holder reversible type and hydraulic 1V die holder.

* Not required to change the die holder.

・Hemming applications such as notched corners or side flanges can be formed.

Note）Old type sectionalized sash die holders can not be used with this hemming tool.



Hemming-3
for FBD , HDS
Normal height type

Sectionalized type !