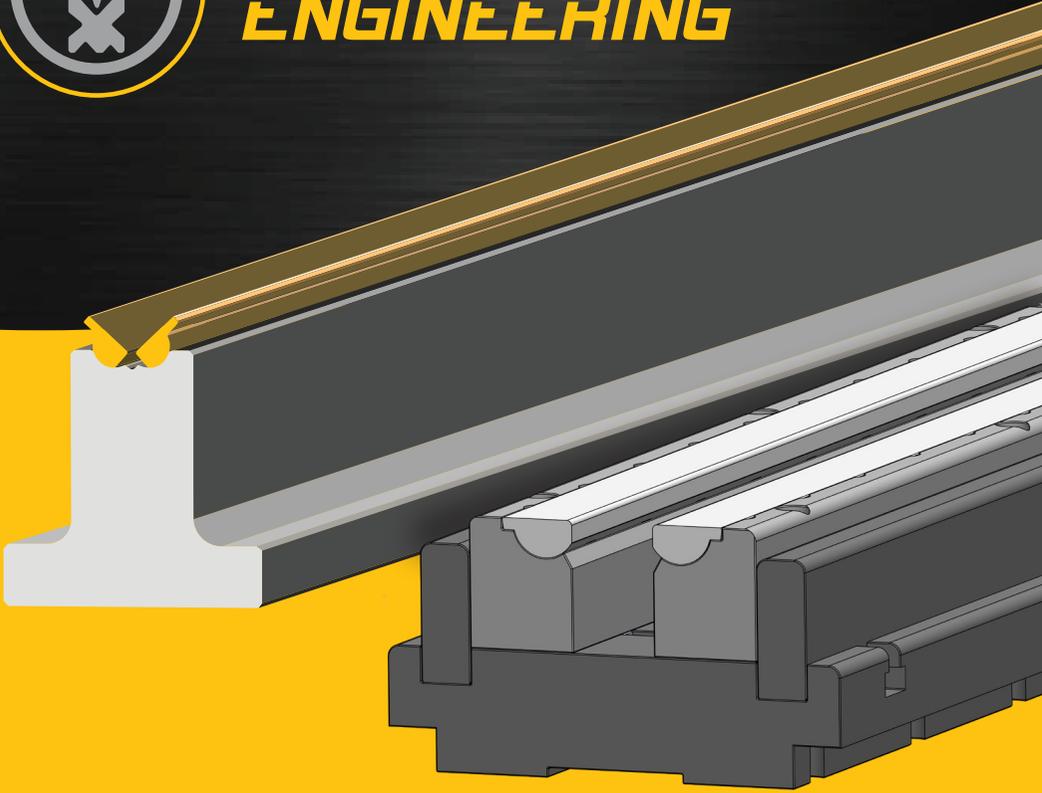


Manufacturers of : Press Brake tools, Panel Bending Tools, Hardened and ground liner Plates.
AN ISO 9001 : 2015 CERTIFIED



**FARO HAR
ENGINEERING**



**ROCKER
DIE**



■ **PRESS BRAKE TOOLS**



INTRODUCTION



Design

- ◆ 4 models of Rocker Dies for Upto 4mm thickness.
- ◆ Options available to suit all machine bases.
- ◆ Adaptive Rocker Die for heavy thicknesses.
- ◆ Single-stroke channel forming achievable by swapping rockers of Adaptive Rocker Bending Die.
- ◆ Adaptive Joggle Tool enables variable offset bending with minimum changeover.
- ◆ Rocker Wiping Tool enables extended sheet bending without lifting sheet.

Advantages

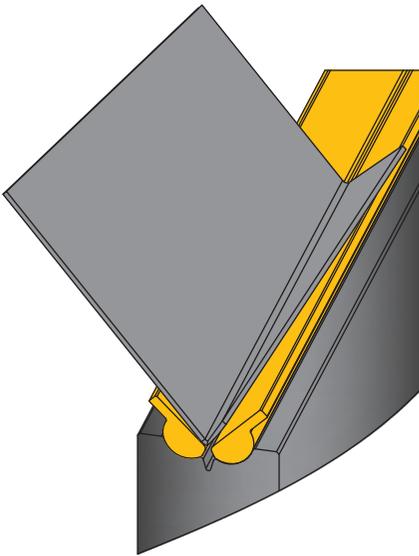
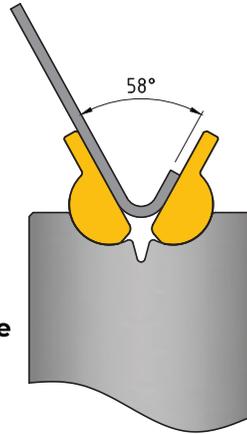
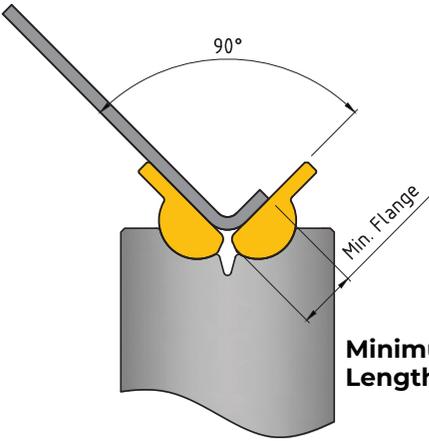
- ◆ Achieving minimal flange bending.
- ◆ Bend tapered flanges without bulging
- ◆ Bend aesthetic materials mark-free
- ◆ Dodging deformation, bend perforated, chequered plates.
- ◆ Form short, tapered flanges with finesse.
- ◆ Bend adjacent to holes, slots without distortion
- ◆ Reduce tool changeovers to boost efficiency.

MOULDED FOR LONG LASTING

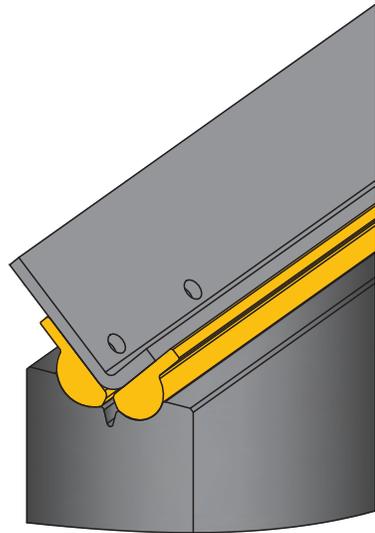
- ◆ Rockers engineered with chrome vanadium steel, max. robustness vacuum hardened 58 HRC.
- ◆ Rocker die base manufactured using Chrome Nickel Grade tool steel-Toughened 38±2HRC and Working Area Laser Hardened 55/56Hrc.

Model No.	RD6	RD8	RD13	RD18	RD22	ARD-1	ARD-2
Max. Tonnage	30T/m	40T/m	80T/m	120T/m	150T/m	150T/m	200T/m
Equivalent VEE@90°	5.29mm	6.59mm	10.88mm	15.17mm	19.17mm	24-60 mm	40-120 mm
Max. Mat. Thk.-M.S./S.S. (mm)	1.2/1	1.6/1.2	2.5/2	4/3	5/4	12/10	16/12
Min. Flange for 90°	3.7	4.6	7.7	11	14	15-40.4	20.2-76.8
Min. Bend Angle	58	58	58	60	60	60	58
Max. Outside Radius	R2.1	R3	R6	R8	R10	R12-R35	R15-R60

ROCKER DIE

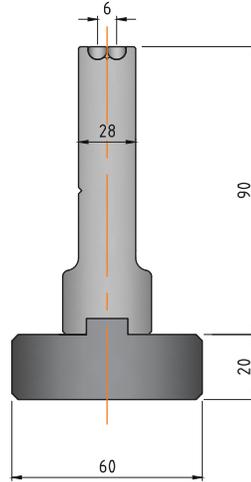


Tapered Flange without Bulging

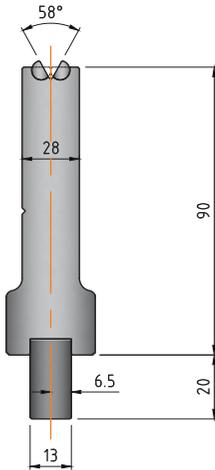


Hole without Distortion

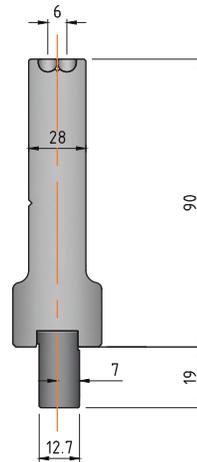
ROCKER DIE



RDA-06
(Amada Type)



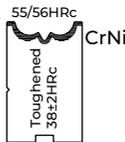
RDT-06
(Trumpf -Wila Type)



RDL-06
(LVD Type)

Material

Chrome Nickel Grade tool steel-
Toughened 38±2HRC
and Working Area Laser
Hardened 55/56Hrc.
Rocker Material : Chrome
Vanadium Steel Vacuum
Hardened 58±2HRC.



Tonnage Capacity **30T/m.**

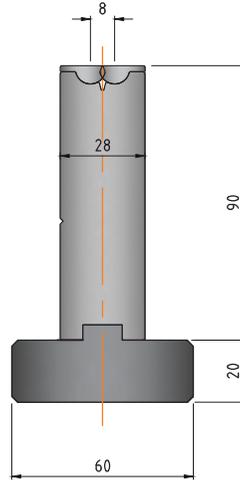
Minimum bend angle **58°**

Max. Material Thk. **M.S. 1.2mm - S.S. 1mm**

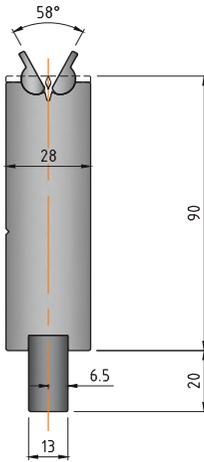
Maximum Outside Radius **R2.1**

Minimum Possible Flange Length **3.7mm**

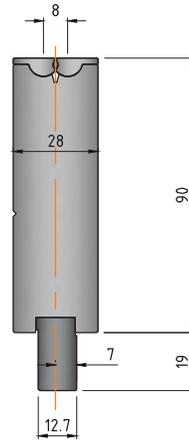
ROCKER DIE



RDA-08
(Amada Type)



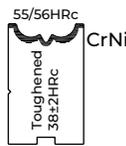
RDT-08
(Trumpf -Wila Type)



RDL-08
(LVD Type)

Material

Chrome Nickel Grade tool steel-
Toughened 38±2HRC
and Working Area Laser
Hardened 55/56Hrc.
Rocker Material : Chrome
Vanadium Steel Vacuum
Hardened 58±2HRC.



Tonnage Capacity **40T/m**

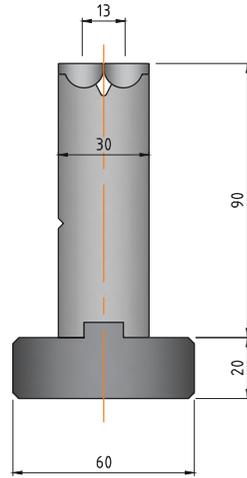
Minimum bend angle **58°**

Max. Material Thk. **M.S. 1.6mm - S.S. 1.2mm**

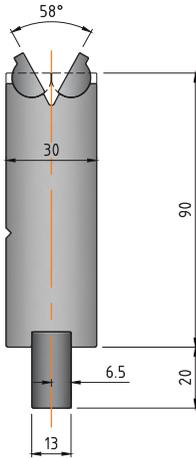
Maximum Outside Radius **R3**

Minimum Possible Flange Length. **4.6mm**

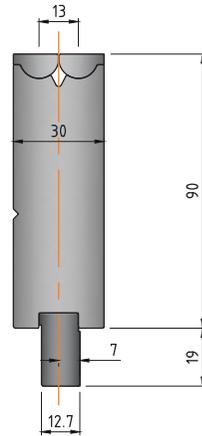
ROCKER DIE



RDA-13
(Amada Type)



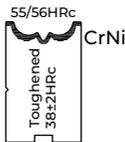
RDT-13
(Trumpf -Wila Type)



RDL-13
(LVD Type)

Material

Chrome Nickel Grade tool steel-
Toughened 38±2Hrc
and Working Area Laser
Hardened 55/56Hrc.
Rocker Material : Chrome
Vanadium Steel Vacuum
Hardened 58±2HRC.



Tonnage Capacity **80T/m.**

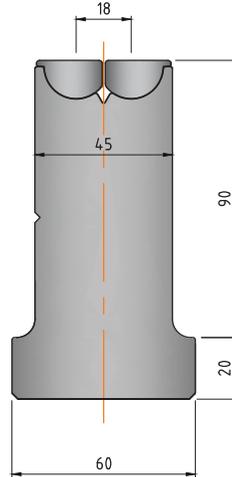
Minimum bend angle **58°**

Max. Material Thk. **M.S. 2.5mm - S.S. 2mm**

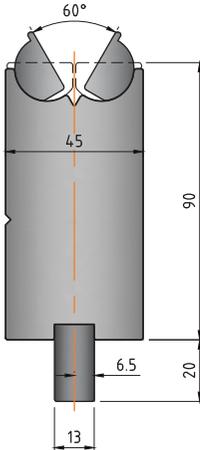
Maximum Outside Radius **R6**

Minimum Possible Flange Length **7.7mm**

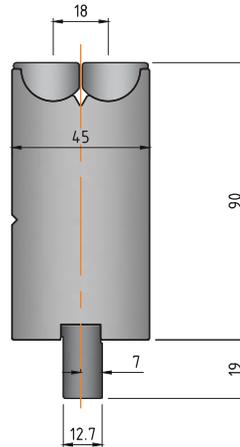
ROCKER DIE



RDA-18
(Amada Type)



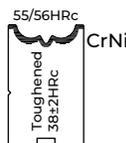
RDT-18
(Trumpf -Wila Type)



RDL-18
(LVD Type)

Material

Chrome Nickel Grade tool steel-
Toughened 38±2Hrc
and Working Area Laser
Hardened 55/56Hrc.
Rocker Material : Chrome
Vanadium Steel Vacuum
Hardened 58±2Hrc.



Tonnage Capacity **120T/m**

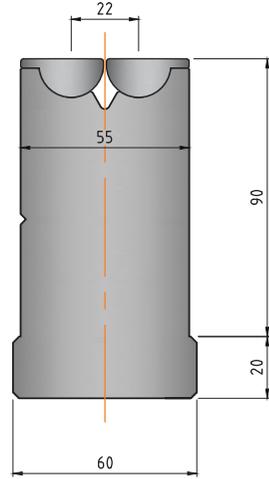
Minimum bend angle **60°**.

Max. Material Thk. **M.S. 4mm - S.S. 3mm**

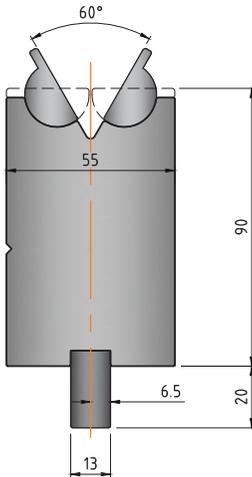
Maximum Outside Radius **R8**

Minimum Possible Flange Length **11mm**

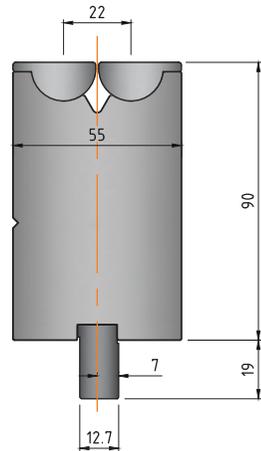
ROCKER DIE



RDA-22
(Amada Type)



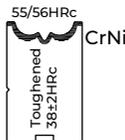
RDT-22
(Trumpf -Wila Type)



RDL-22
(LVD Type)

Material

Chrome Nickel Grade tool steel-
Toughened 38±2HRC
and Working Area Laser
Hardened 55/56Hrc.
Rocker Material : Chrome
Vanadium Steel Vacuum
Hardened 58±2HRC.



Tonnage Capacity **150T/m**

Minimum bend angle **60°**

Max. Material Thk. **M.S. 5mm - S.S. 4mm**

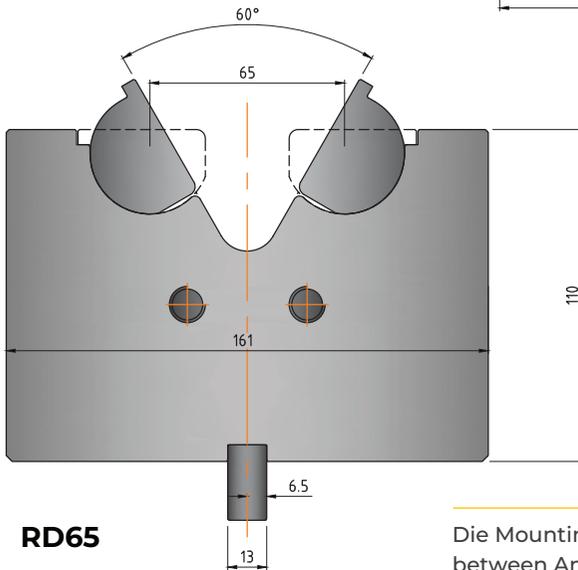
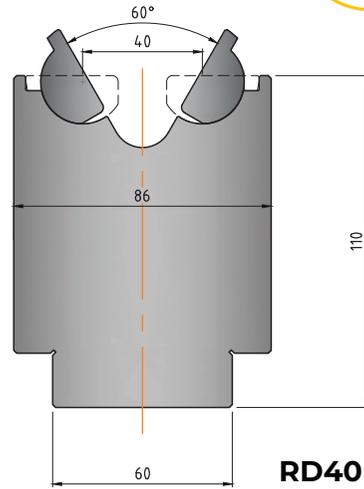
Maximum Outside Radius **R10**

Minimum Possible Flange Length **13.5**

ROCKER DIE



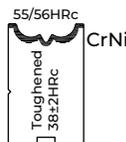
Rocker Die Can be customized and vary between RD8 to RD120 and other variants



Die Mounting can be interchanged between Amada type, Self Centering type, Trumpf-Wila type, LVD type or to suit your machine

Material

Chrome Nickel Grade tool steel- Toughened $38\pm 2\text{HRC}$ and Working Area Laser Hardened $55/56\text{Hrc}$.
Rocker Material : Chrome Vanadium Steel Vacuum Hardened $58\pm 2\text{HRC}$.





ROCKER DIE

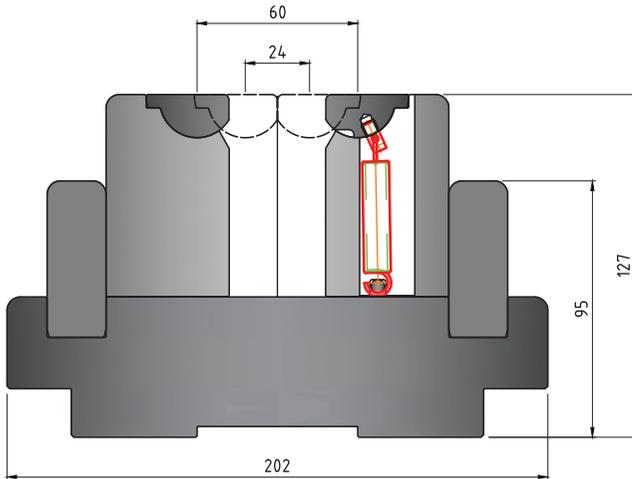
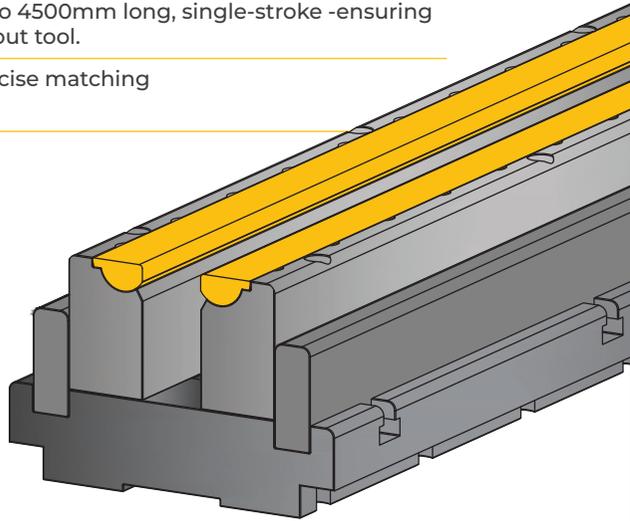
The Adaptive Rocker die is designed to meet diverse sheet metal needs.

Tool accommodates various combinations of minimum flange length and large radius in different thicknesses.

Freedom to increase Vee opening by 2mm by varying packing thickness.

In-house surface grinding up to 4500mm long, single-stroke -ensuring 20 microns accuracy through out tool.

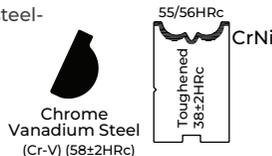
CNC machined cavities for precise matching and interchangeability.



Japanese Spring

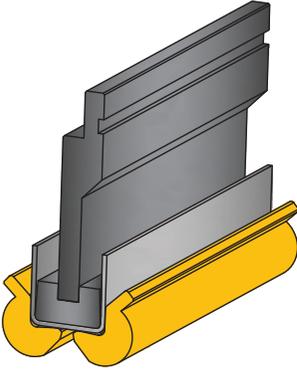
Material

Chrome Nickel Grade tool steel- Toughened 38±2HRC and Working Area Laser Hardened 55/56Hrc.
Rocker Material : Chrome Vanadium Steel Vacuum Hardened 58±2HRC.

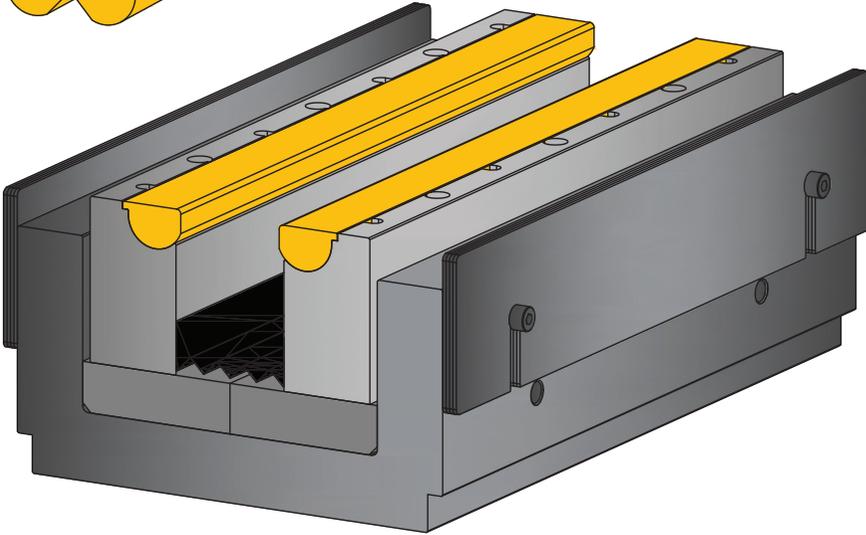


- Tonnage Capacity **150T/m.**
- Minimum bend angle **60°**
- Max. Material Thk. **M.S. 12mm - S.S. 10mm**
- Maximum Outside Radius. **R12/R35**
- Minimum Possible Flange Length **15/40.4**

ROCKER DIE



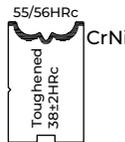
VIDEO



Max. Tonnage capacity 200T/m.
Outside channel Range 45-120 - ARD 2

Material

Chrome Nickel Grade tool steel-
Toughened 38±2HRC
and Working Area Laser
Hardened 55/56Hrc.
Rocker Material : Chrome
Vanadium Steel Vacuum
Hardened 58±2Hrc.



Tonnage Capacity **200T/m.**

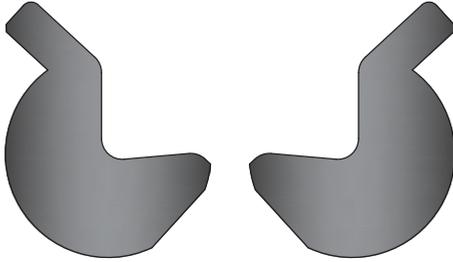
Minimum bend angle **58°**

Max. Material Thk. **M.S. 16mm - S.S. 12mm**

Maximum Outside Radius **R15/R60**

Minimum Possible Flange Length **20.2/76.8**

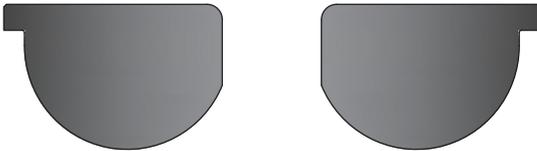
TYPES OF ROCKER



Channel Bending

28 ~ 60 - ARD1
 45 ~ 120 - ARD2
 Outside Channel Range

ARD - 1
 24 ~ 60CD
 Max. 60°



ARD - 2
 40 ~ 120CD
 Max. 60°

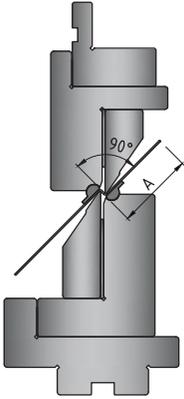
Material

Rocker Material :
 Chrome Vanadium Steel Vacuum
 Hardened 58±2HRc.

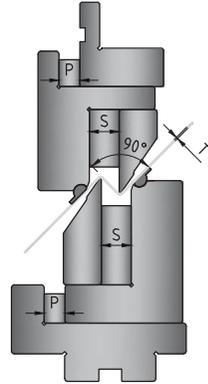


Chrome Vanadium Steel Vacuum
 Hardened 58±2HRc.

Z-BEND

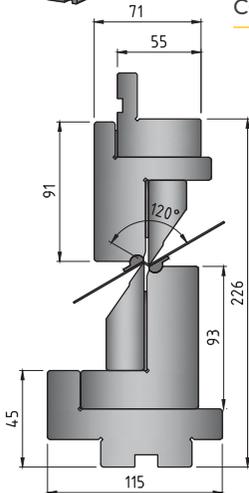


JOGGLE TOOL SHIM & OFFSET BEND						
Sr. No.	Sheet Thk	Angle	Offset (B)	Min. Flange A	Shim S	Shim P
1	1-3	90	6	8.41	2.64	1.02
2	1-3	90	8	11.41	5.47	3.14
3	1-3	90	10	14.41	8.3	5.26
4	1-3	90	12	17.41	11.12	7.38
5	1-3	90	14	20.41	13.95	9.5
6	1-3	90	16	23.4	16.78	11.62
7	1-3	90	17	24.9	18.19	12.68
8	1-3	120	5	8.6	2.82	1.15
9	1-3	120	6	10.43	4.55	2.45
10	1-3	120	8	14.11	8.01	5.05
11	1-3	120	10	17.78	11.48	7.65
12	1-3	120	12	21.45	14.94	10.24
13	1-3	135	4	7.25	1.55	0.2
14	1-3	135	6	11.17	5.24	2.97
15	1-3	135	8	15.09	8.94	5.74
16	1-3	135	10	19.01	12.63	8.51



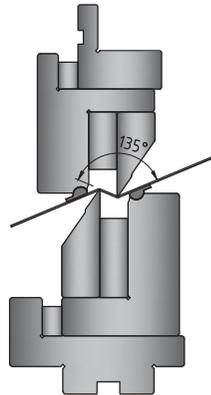
ADAPTIVE PROPERTIES OF TOOL

- 1) FLEXIBLE FOR SHEET THICKNESS 1 MM, 2MM, 3MM
- 2) OBTAIN VARIES ANGLE & RESPECTIVE OFFSET IN THE SAME TOOL FOR MORE VARIATION CONTACT US



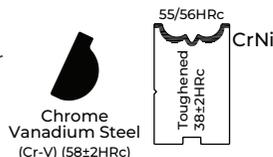
MODEL NO.- ARJT-01	
ANGLE	SHEET OFFSET RANGE WITH 0.5 INCREMENT
90°	6.5 MM TO 18 MM
120°	4.8 MM TO 13 MM
135°	2.8 MM TO 10 MM

AVAILABLE WITH CUSTOMIZED OFFSET RANGE & TOOL HOLDING TYPE



Material

Chrome Nickel Grade tool steel-Toughened 38±2HRc and Working Area Laser Hardened 55/56Hrc.
 Rocker Material : Chrome Vanadium Steel Vacuum Hardened 58±2HRc.

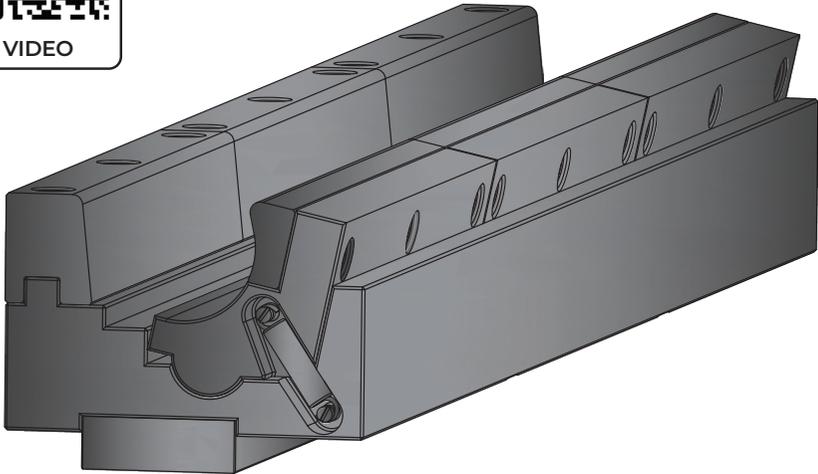


ROCKER DIE



Advantages of a U-Bend Rocker Die

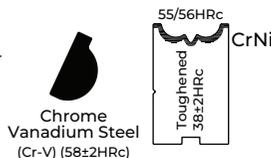
- 1. Decreased Forming Load**
 The oscillating motion during deformation distributes the forming stresses more evenly over the material, resulting in a reduction of the required pressing force and tonnage.
- 2. Allow large radius and parallel bends**
 The tool's design lets you adjust the machine stroke to compensate for spring-back, ensuring you hit the exact bend angle every time.
- 3. Superior Surface Finish in formed component**
 Reduced sliding friction and more uniform material flow result in fewer surface imperfections on visible or critical components.
 Increased Die Life Through Distributed Wear



Material

Chrome Nickel Grade tool steel- Toughened $38\pm 2\text{HRc}$ and Working Area Laser Hardened $55/56\text{Hrc}$.

Rocker Material : Chrome Vanadium Steel Vacuum Hardened $58\pm 2\text{HRc}$.



ROCKER DIE



Extended sheet bending prevents sheet lifting.

Robust Rocker

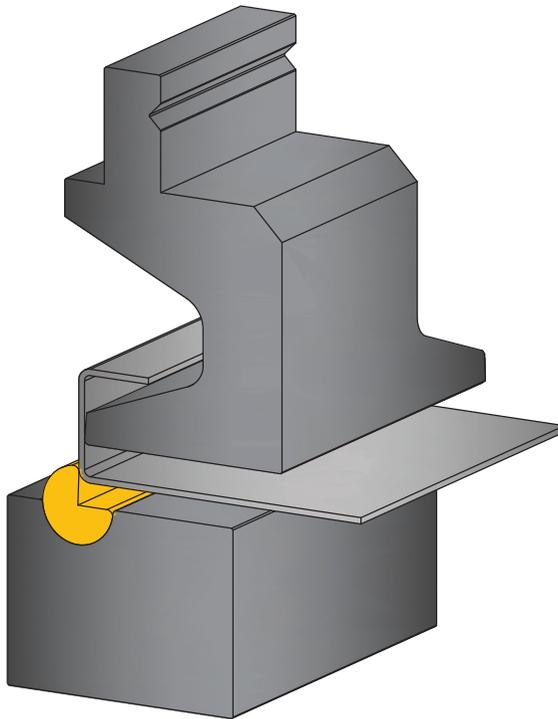
Precise over-bending to counter spring back.

For long panel bend.

Customised to your bending requirement.

With horn hold down tool both ends to form complete panel.

Max. Thickness **3mm**



ROCKER WIPING TOOL

Material

Chrome Nickel Grade tool steel-
Toughened $38\pm 2\text{HRc}$ and Working Area Laser
Hardened $55/56\text{HRc}$.

Rocker Material : Chrome Vanadium Steel
Vacuum Hardened $58\pm 2\text{HRc}$.


Chrome
Vanadium Steel
(Cr-V) ($58\pm 2\text{HRc}$)

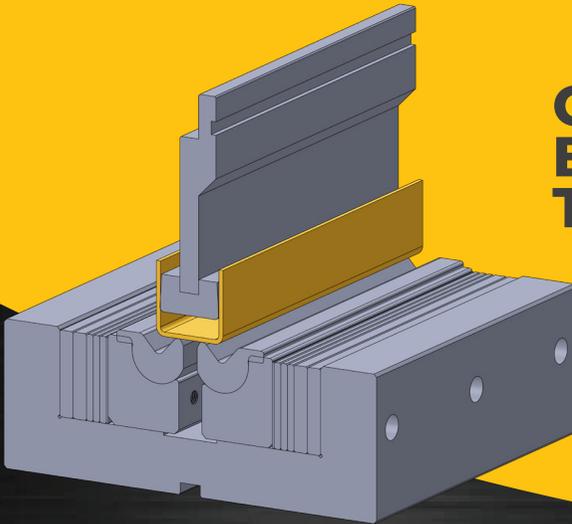
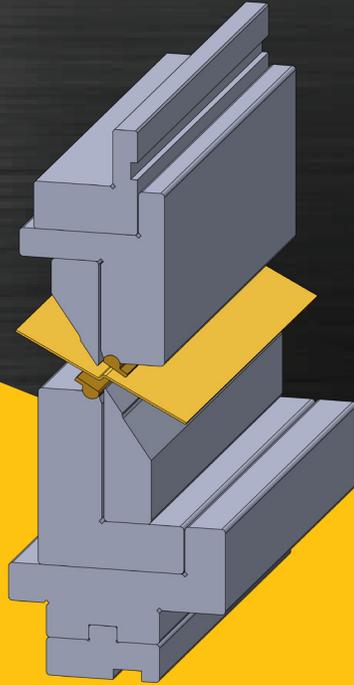
$55/56\text{HRc}$

Toughened
 $38\pm 2\text{HRc}$
CrNi



E- CATALOGUE

ADDAPTIVE JOGGLE DIE



CHANNEL BENDING TOOL

FAROHAR ENGINEERING

W-9, B/1, Anand Nagar, M. I. D. C Industrial Area,
Ambarnath (E), Dist. Thane 421 506, Maharashtra.
Mobile No.: **+91 98198 98970** | **+91 98198 98912**
E-mail: **dk@farohar.in** | **sales@farohar.in**
www.farohar.in | **www.pressbraketools.in**



CONTACT