

Amada HDS Press Brake Tooling List

Tool #	Quantity	Length(MM)	w/Ears
MT-40_Gooseneck_0.6R_88 Degree	5	415	
	2	100	X
	1	50	
	2	20	
	2	15	
	2	10	
MT-36_Acute 30 Degree	7	415	
	1	100	
	2	40	X
	2	15	
	1	10	
MT-28_Sash_88 Degree	1	415	
	1	100	
	2	100	X
	1	50	
	1	40	
	1	20	
	1	15	
	1	10	
MT-46_Gooseneck_88 Degree	1	415	
	1	100	
	2	100	X
	1	50	
	1	15	
	1	20	
	1	20	
MT-14_Standard_88 Degree	1	200	
	1	100	
	1	50	
	1	40	
	1	20	
	1	15	
	1	10	

MT-10_Standard_88 Degree

2	415
2	100
1	40
2	20
2	15
1	10

MT-506_Acute_30 Degree

7	415
1	200
1	100
1	50
1	40
1	20
1	15
1	10

MT-508_Acute_30 Degree

1	200
1	50
1	40
1	20
1	15
1	10

Mt-510_Acute_30 Degree

1	415
1	100

MT-725_Standard_88 Degree

8	415
2	100
2	50
2	20
2	15
2	10

MT-714_Standard_90 Degree

1	415
1	200
1	100
1	50
1	40
1	20
1	15
1	10

MT-712_Standard_90 Degree

1	415
1	200
1	100
1	50
1	40
1	20
1	15
1	10

MT-710_Standard_88 Degree

4	415
1	200
1	50
1	40
2	20
2	15
2	10

MT-710_Standard_90 Degree

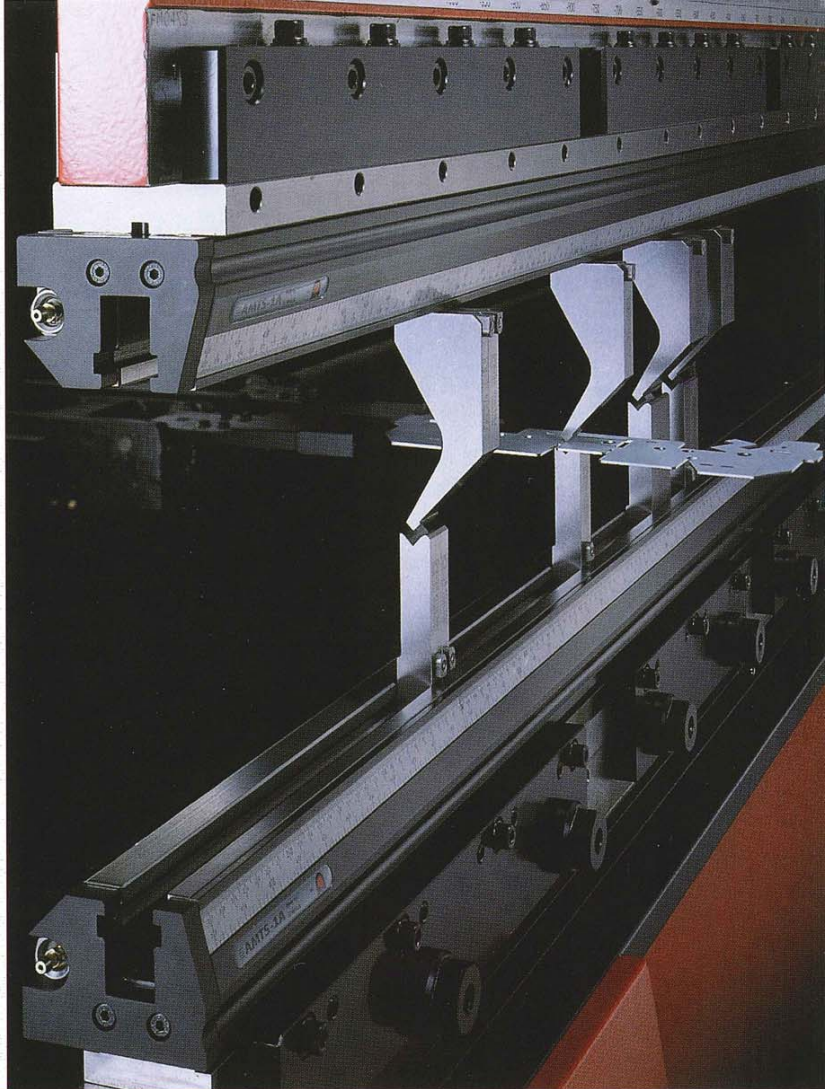
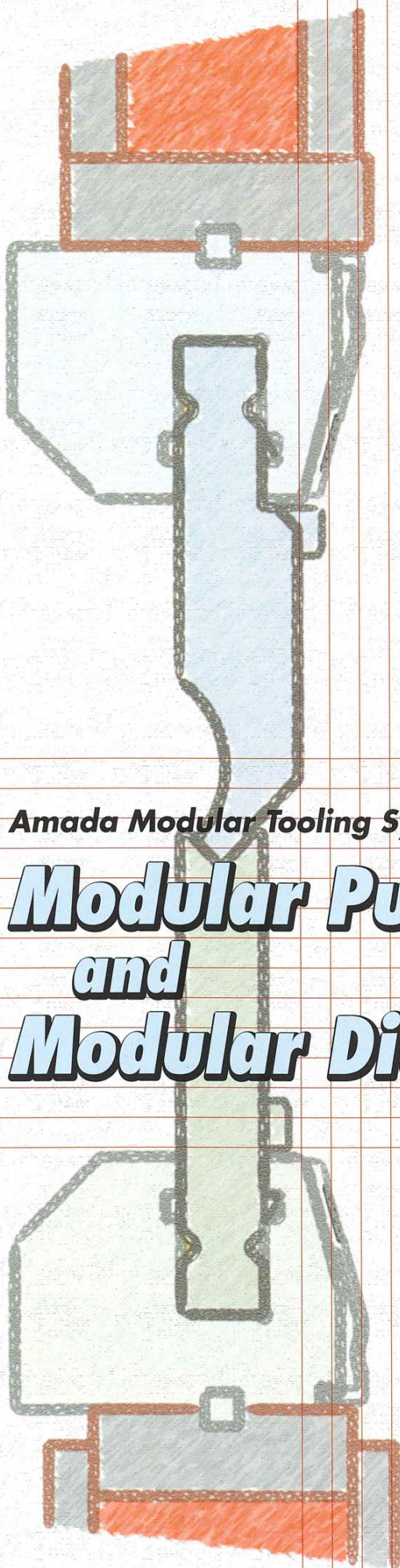
1	415
1	100
1	50
1	40

MT-708_Standard_90 Degree

1	415
1	200
1	100
1	40
1	20
1	15
1	10

MT-706_Standard_90 Degree

1	415
2	200
1	100
1	50
1	40
1	20
1	15
1	10



Amada Modular Tooling Systemt (AMTS)

Modular Punches and Modular Dies



- AMTS punches are available in eight types and unified to three heights of 90, 120 and 170 mm.
- AMTS dies come with V-groove widths of 4 to 25 mm for a wide range of forming operations and have small and large shoulder radii for a variety of forming conditions.
- AMTS punches and dies are made in four lengths, or 415, 300 and 200 mm one-piece lengths and 235 mm sectionalized length. Smaller weight allows for greater ease of handling.
- Lineup of short tools allows rational section of tools to meet specific needs.
- Safety clicks are adopted for simple tool changes (front installation and removal).
- Quenched hardness is increased to HRC 45±2 to substantially improve wear resistance, retain edge accuracy, and achieve at least three times longer life than that of our conventional punches and dies.
- New type 2 allows bending to special shapes, such as hemming, offset bending and radius bending, and enables deep bending and bending of sheets up to 6 mm in thickness.

*Safety click is a registered trademark of Wila B.V. Netherlands.

*When you use a press brake, you must take hazard prevention measures that suit your forming job.

90° Punches

Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.	Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.
MT-10 (90°) Surface HRC54±2 1000kN/m {100ton/m} †Except ear type 450kN/m {45ton/m}	H=90			0.2R	415	10200A	MT-14 (90°) Surface HRC54±2 200kN/m {20ton/m}	H=120			0.2R	415	14202A
					300	10200D						300	14202D
					200	10200C						200	14202C
					235 Sectionalized	10200F						235 Sectionalized	14202F
					†100 R/L Ear	10200G						100 R/L Ear	14202G
	H=120			0.6R	415	10600A		H=90			0.6R	415	14602A
					300	10600D						300	14602D
					200	10600C						200	14602C
					235 Sectionalized	10600F						235 Sectionalized	14602F
					†100 R/L Ear	10600G						100 R/L Ear	14602G
MT-12 (90°) Surface HRC54±2 800kN/m {80ton/m} †Except ear type 450kN/m {45ton/m}	H=90			0.2R	415	12200A	MT-28 (90°) Surface HRC54±2 300kN/m {30ton/m}	H=120			0.2R	415	28202A
					300	12200D						300	28202D
					200	12200C						200	28202C
					235 Sectionalized	12200F						235 Sectionalized	28202F
					†100 R/L Ear	12200G						100 R/L Ear	28202G
	H=120			0.6R	415	12600A		H=90			0.6R	415	28600A
					300	12600D						300	28600D
					200	12600C						200	28600C
					235 Sectionalized	12600F						235 Sectionalized	28600F
					†100 R/L Ear	12600G						100 R/L Ear	28600G
MT-14 (90°) Surface HRC54±2 200kN/m {20ton/m}	H=90			0.2R	415	14200A	MT-30 (90°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 190kN/m {19ton/m}	H=120			0.2R	415	30202A
					300	14200D						300	30202D
					200	14200C						200	30202C
					235 Sectionalized	14200F						235 Sectionalized	30202F
					100 R/L Ear	14200G						†100 R/L Ear	30202G
	H=120			0.6R	415	14600A		H=90			0.6R	415	30600A
					300	14600D						300	30600D
					200	14600C						200	30600C
					235 Sectionalized	14600F						235 Sectionalized	30600F
					†100 R/L Ear	14600G						†100 R/L Ear	30600G

{ } Reference only
Unit : mm

† Note the allowable tonnage.
*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.
*Weight of ear type is sum of left and right halves.

90° Punches

Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.	Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.
MT-30 (90°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 190kN/m {19ton/m}	H=120			0.2R	415	30202A	MT-46 (90°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 350kN/m {35ton/m} *This punch has safety pins instead of safety clicks because of weight limit.	H=120			0.2R	415	46202E
					300	30202D						300	46202D
					200	30202C						200	46202C
					235 Sectionalized	30202F						235 Sectionalized	46202F
					†100 R/L Ear	30202G						†100 R/L Ear	46202G
	H=170			0.2R	415	30207A		H=120			0.6R	415	46602E
					300	30207D						300	46602D
					200	30207C						200	46602C
					235 Sectionalized	30207F						235 Sectionalized	46602F
					†100 R/L Ear	30207G						†100 R/L Ear	46602G
MT-40 (90°) Surface HRC54±2 700kN/m {70ton/m} †Except ear type 500kN/m {50ton/m} *This punch has safety pins instead of safety clicks because of weight limit.	H=90			0.2R	415	40200A		H=120			0.2R	415	40202E
					300	40200D						300	40202D
					200	40200C						200	40202C
					235 Sectionalized	40200F						235 Sectionalized	40202F
					†100 R/L Ear	40200G						†100 R/L Ear	40202G
	H=120			0.6R	415	40600A					0.6R	415	40602E
					300	40600D						300	40602D
					200	40600C						200	40602C
					235 Sectionalized	40600F						235 Sectionalized	40602F
					†100 R/L Ear	40600G						†100 R/L Ear	40602G
MT-46 (90°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 350kN/m {35ton/m}	H=90			0.2R	415	46200A		H=120			0.2R	415	46200A
					300	46200D						300	46200D
					200	46200C						200	46200C
					235 Sectionalized	46200F						235 Sectionalized	46200F
					†100 R/L Ear	46200G						†100 R/L Ear	46200G
	H=120			0.6R	415	46600A					0.6R	415	46600A
					300	46600D						300	46600D
					200	46600C						200	46600C
					235 Sectionalized	46600F						235 Sectionalized	46600F
					†100 R/L Ear	46600G						†100 R/L Ear	46600G

{ } Reference only
Unit : mm

† Note the allowable tonnage.

*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.
*Weight of ear type is sum of left and right halves.

88° Punches

Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.	Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.
MT-10 (88°) Surface HRC54±2 1000kN/m {100ton/m} †Except ear type 450kN/m {45ton/m}	H=90			0.2R	415	10280A	MT-14 (88°) Surface HRC54±2 200kN/m {20ton/m}	H=120			0.2R	415	14282A
					300	10280D						300	14282D
					200	10280C						200	14282C
					235 Sectionalized	10280F						235 Sectionalized	14282F
					†100 R/L Ear	10280G						100 R/L Ear	14282G
	H=120			0.6R	415	10680A		H=90			0.6R	415	14682A
					300	10680D						300	14682D
					200	10680C						200	14682C
					235 Sectionalized	10680F						235 Sectionalized	14682F
					†100 R/L Ear	10680G						100 R/L Ear	14682G
MT-12 (88°) Surface HRC54±2 800kN/m {80ton/m} †Except ear type 450kN/m {45ton/m}	H=90			0.2R	415	12280A	MT-28 (88°) Surface HRC54±2 300kN/m {30ton/m}	H=120			0.2R	415	28282A
					300	12280D						300	28282D
					200	12280C						200	28282C
					235 Sectionalized	12280F						235 Sectionalized	28282F
					†100 R/L Ear	12280G						100 R/L Ear	28282G
	H=120			0.6R	415	12680A		H=90			0.6R	415	28680A
					300	12680D						300	28680D
					200	12680C						200	28680C
					235 Sectionalized	12680F						235 Sectionalized	28680F
					†100 R/L Ear	12680G						100 R/L Ear	28680G
MT-14 (88°) Surface HRC54±2 200kN/m {20ton/m}	H=90			0.2R	415	14280A	MT-30 (88°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 190kN/m {19ton/m}	H=120			0.2R	415	30280A
					300	14280D						300	30280D
					200	14280C						200	30280C
					235 Sectionalized	14280F						235 Sectionalized	30280F
					100 R/L Ear	14280G						†100 R/L Ear	30280G
	H=120			0.6R	415	14680A		H=90			0.6R	415	30680A
					300	14680D						300	30680D
					200	14680C						200	30680C
					235 Sectionalized	14680F						235 Sectionalized	30680F
					100 R/L Ear	14680G						†100 R/L Ear	30680G

{ } Reference only
Unit : mm

† Note the allowable tonnage.

*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.

*Weight of ear type is sum of left and right halves.

88° Punches

Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.
MT-30 (88°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 190kN/m {19ton/m}	H=120			0.2R	415	30282A
					300	30282D
					200	30282C
					235 Sectionalized	30282F
					†100 R/L Ear	30282G
				0.6R	415	30682A
					300	30682D
					200	30682C
					235 Sectionalized	30682F
					†100 R/L Ear	30682G
	H=170			0.2R	415	30287A
					300	30287D
					200	30287C
					235 Sectionalized	30287F
					†100 R/L Ear	30287G
				0.6R	415	30687A
					300	30687D
					200	30687C
					235 Sectionalized	30687F
					†100 R/L Ear	30687G

Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.
MT-46 (88°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 350kN/m {35ton/m} *This punch has safety pins instead of safety clicks because of weight limit.	H=120			0.2R	415	46282E
					300	46282D
					200	46282C
					235 Sectionalized	46282F
					†100 R/L Ear	46282G
				0.6R	415	46682E
					300	46682D
					200	46682C
					235 Sectionalized	46682F
					†100 R/L Ear	46682G

30° Punches

Tool No.	Height	Cross Section	Weight	Edge	Length	Code No.
MT-36 (30°) Surface HRC54±2 500kN/m {50ton/m} †Except ear type 190kN/m {19ton/m}	H=90			0.2R	415	36230A
					300	36230D
					200	36230C
					235 Sectionalized	36230F
					†100 R/L Ear	36230G
				0.6R	415	36630A
					300	36630D
					200	36630C
					235 Sectionalized	36630F
					†100 R/L Ear	36630G
	H=120			0.2R	415	36232A
					300	36232D
					200	36232C
					235 Sectionalized	36232F
					†100 R/L Ear	36232G
				0.6R	415	36632A
					300	36632D
					200	36632C
					235 Sectionalized	36632F
					†100 R/L Ear	36632G
	H=170			0.2R	415	36237A
					300	36237D
					200	36237C
					235 Sectionalized	36237F
					†100 R/L Ear	36237G
				0.6R	415	36637A
					300	36637D
					200	36637C
					235 Sectionalized	36637F
					†100 R/L Ear	36637G

90° 1V Dies (Small shoulder radius)

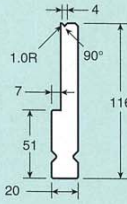
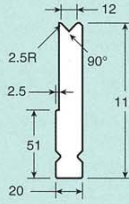
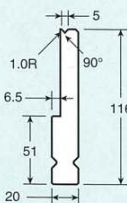
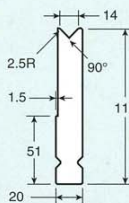
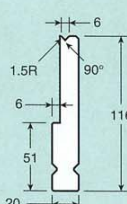
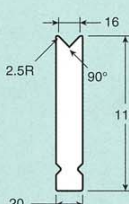
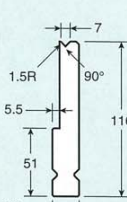
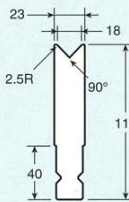
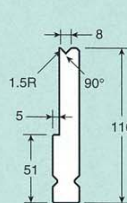
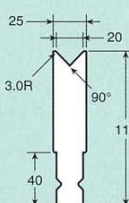
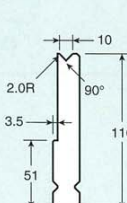
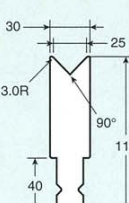
Tool No.	Height	Cross Section	Weight	Length	Code No.	Tool No.	Height	Cross Section	Weight	Length	Code No.
MT-604 (90°, V=4) Surface HRC54±2 400kN/m {40ton/m}	H=80		5.9kg 4.3kg 2.8kg 3.3kg	415 300 200 235 Sectionalized	60408E 60408D 60408C 60408F	MT-612 (90°, V=12) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.7kg 4.9kg 3.2kg 3.8kg	415 300 200 235 Sectionalized	61208E 61208D 61208C 61208F
MT-605 (90°, V=5) Surface HRC54±2 500kN/m {50ton/m}	H=80		6.0kg 4.3kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	60508E 60508D 60508C 60508F	MT-614 (90°, V=14) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.9kg 5.0kg 3.3kg 3.9kg	415 300 200 235 Sectionalized	61408E 61408D 61408C 61408F
MT-606 (90°, V=6) Surface HRC54±2 550kN/m {55ton/m}	H=80		6.1kg 4.4kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	60608E 60608D 60608C 60608F	MT-616 (90°, V=16) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.2kg 5.2kg 3.5kg 4.1kg	415 300 200 235 Sectionalized	61608E 61608D 61608C 61608F
MT-607 (90°, V=7) Surface HRC54±2 600kN/m {60ton/m}	H=80		6.2kg 4.5kg 3.0kg 3.5kg	415 300 200 235 Sectionalized	60708E 60708D 60708C 60708F	MT-618 (90°, V=18) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.9kg 5.7kg 3.8kg 4.4kg	415 300 200 235 Sectionalized	61808E 61808D 61808C 61808F
MT-608 (90°, V=8) Surface HRC54±2 650kN/m {65ton/m}	H=80		6.3kg 4.5kg 3.0kg 3.6kg	415 300 200 235 Sectionalized	60808E 60808D 60808C 60808F	MT-620 (90°, V=20) Surface HRC54±2 1000kN/m {100ton/m}	H=80		8.3kg 6.0kg 4.0kg 4.7kg	415 300 200 235 Sectionalized	62008E 62008D 62008C 62008F
MT-610 (90°, V=10) Surface HRC54±2 900kN/m {90ton/m}	H=80		6.6kg 4.7kg 3.2kg 3.7kg	415 300 200 235 Sectionalized	61008E 61008D 61008C 61008F	MT-625 (90°, V=25) Surface HRC54±2 1000kN/m {100ton/m}	H=80		9.3kg 6.7kg 4.5kg 5.3kg	415 300 200 235 Sectionalized	62508E 62508D 62508C 62508F

{ } Reference only
Unit : mm

*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.

90° 1V Dies (Large shoulder radius)

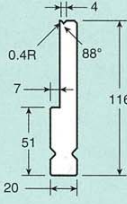
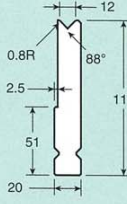
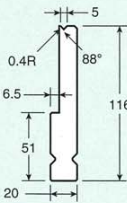
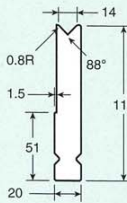
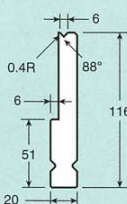
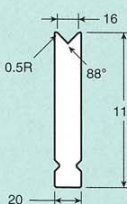
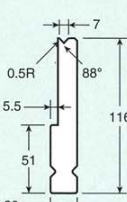
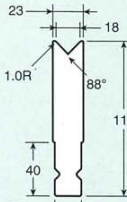
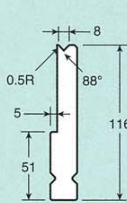
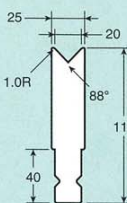
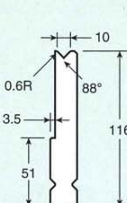
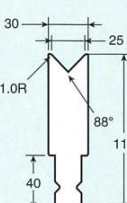
Tool No.	Height	Cross Section	Weight	Length	Code No.	Tool No.	Height	Cross Section	Weight	Length	Code No.
MT-704 (90°, V=4) Surface HRC54±2 400kN/m {40ton/m}	H=80		5.9kg 4.3kg 2.8kg 3.3kg	415 300 200 235 Sectionalized	70408E 70408D 70408C 70408F	MT-712 (90°, V=12) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.7kg 4.9kg 3.2kg 3.8kg	415 300 200 235 Sectionalized	71208E 71208D 71208C 71208F
MT-705 (90°, V=5) Surface HRC54±2 500kN/m {50ton/m}	H=80		6.0kg 4.3kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	70508E 70508D 70508C 70508F	MT-714 (90°, V=14) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.9kg 5.0kg 3.3kg 3.9kg	415 300 200 235 Sectionalized	71408E 71408D 71408C 71408F
MT-706 (90°, V=6) Surface HRC54±2 550kN/m {55ton/m}	H=80		6.1kg 4.4kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	70608E 70608D 70608C 70608F	MT-716 (90°, V=16) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.2kg 5.2kg 3.5kg 4.1kg	415 300 200 235 Sectionalized	71608E 71608D 71608C 71608F
MT-707 (90°, V=7) Surface HRC54±2 600kN/m {60ton/m}	H=80		6.2kg 4.5kg 3.0kg 3.5kg	415 300 200 235 Sectionalized	70708E 70708D 70708C 70708F	MT-718 (90°, V=18) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.9kg 5.7kg 3.8kg 4.4kg	415 300 200 235 Sectionalized	71808E 71808D 71808C 71808F
MT-708 (90°, V=8) Surface HRC54±2 650kN/m {65ton/m}	H=80		6.3kg 4.5kg 3.0kg 3.6kg	415 300 200 235 Sectionalized	70808E 70808D 70808C 70808F	MT-720 (90°, V=20) Surface HRC54±2 1000kN/m {100ton/m}	H=80		8.3kg 6.0kg 4.0kg 4.7kg	415 300 200 235 Sectionalized	72008E 72008D 72008C 72008F
MT-710 (90°, V=10) Surface HRC54±2 900kN/m {90ton/m}	H=80		6.6kg 4.7kg 3.2kg 3.7kg	415 300 200 235 Sectionalized	71008E 71008D 71008C 71008F	MT-725 (90°, V=25) Surface HRC54±2 1000kN/m {100ton/m}	H=80		9.3kg 6.7kg 4.5kg 5.3kg	415 300 200 235 Sectionalized	72508E 72508D 72508C 72508F

{ } Reference only
Unit : mm

*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.

88° 1V Dies (Small shoulder radius)

Tool No.	Height	Cross Section	Weight	Length	Code No.	Tool No.	Height	Cross Section	Weight	Length	Code No.
MT-604 (88°, V=4) Surface HRC54±2 400kN/m {40ton/m}	H=80		5.9kg 4.3kg 2.8kg 3.3kg	415 300 200 235 Sectionalized	60488E 60488D 60488C 60488F	MT-612 (88°, V=12) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.7kg 4.9kg 3.2kg 3.8kg	415 300 200 235 Sectionalized	61288E 61288D 61288C 61288F
MT-605 (88°, V=5) Surface HRC54±2 500kN/m {50ton/m}	H=80		6.0kg 4.3kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	60588E 60588D 60588C 60588F	MT-614 (88°, V=14) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.9kg 5.0kg 3.3kg 3.9kg	415 300 200 235 Sectionalized	61488E 61488D 61488C 61488F
MT-606 (88°, V=6) Surface HRC54±2 550kN/m {55ton/m}	H=80		6.1kg 4.4kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	60688E 60688D 60688C 60688F	MT-616 (88°, V=16) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.2kg 5.2kg 3.5kg 4.1kg	415 300 200 235 Sectionalized	61688E 61688D 61688C 61688F
MT-607 (88°, V=7) Surface HRC54±2 600kN/m {60ton/m}	H=80		6.2kg 4.5kg 3.0kg 3.5kg	415 300 200 235 Sectionalized	60788E 60788D 60788C 60788F	MT-618 (88°, V=18) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.9kg 5.7kg 3.8kg 4.4kg	415 300 200 235 Sectionalized	61888E 61888D 61888C 61888F
MT-608 (88°, V=8) Surface HRC54±2 650kN/m {65ton/m}	H=80		6.3kg 4.5kg 3.0kg 3.6kg	415 300 200 235 Sectionalized	60888E 60888D 60888C 60888F	MT-620 (88°, V=20) Surface HRC54±2 1000kN/m {100ton/m}	H=80		8.3kg 6.0kg 4.0kg 4.7kg	415 300 200 235 Sectionalized	62088E 62088D 62088C 62088F
MT-610 (88°, V=10) Surface HRC54±2 900kN/m {90ton/m}	H=80		6.6kg 4.7kg 3.2kg 3.7kg	415 300 200 235 Sectionalized	61088E 61088D 61088C 61088F	MT-625 (88°, V=25) Surface HRC54±2 1000kN/m {100ton/m}	H=80		9.3kg 6.7kg 4.5kg 5.3kg	415 300 200 235 Sectionalized	62588E 62588D 62588C 62588F

{ } Reference only
Unit : mm

*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.

88° 1V Dies (Large shoulder radius)

Tool No.	Height	Cross Section	Weight	Length	Code No.	Tool No.	Height	Cross Section	Weight	Length	Code No.
MT-704 (88°, V=4) Surface HRC54±2 400kN/m {40ton/m}	H=80		5.9kg 4.3kg 2.8kg 3.3kg	415 300 200 235 Sectionalized	70488E 70488D 70488C 70488F	MT-712 (88°, V=12) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.7kg 4.9kg 3.2kg 3.8kg	415 300 200 235 Sectionalized	71288E 71288D 71288C 71288F
MT-705 (88°, V=5) Surface HRC54±2 500kN/m {50ton/m}	H=80		6.0kg 4.3kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	70588E 70588D 70588C 70588F	MT-714 (88°, V=14) Surface HRC54±2 1000kN/m {100ton/m}	H=80		6.9kg 5.0kg 3.3kg 3.9kg	415 300 200 235 Sectionalized	71488E 71488D 71488C 71488F
MT-706 (88°, V=6) Surface HRC54±2 550kN/m {55ton/m}	H=80		6.1kg 4.4kg 2.9kg 3.4kg	415 300 200 235 Sectionalized	70688E 70688D 70688C 70688F	MT-716 (88°, V=16) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.2kg 5.2kg 3.5kg 4.1kg	415 300 200 235 Sectionalized	71688E 71688D 71688C 71688F
MT-707 (88°, V=7) Surface HRC54±2 600kN/m {60ton/m}	H=80		6.2kg 4.5kg 3.0kg 3.5kg	415 300 200 235 Sectionalized	70788E 70788D 70788C 70788F	MT-718 (88°, V=18) Surface HRC54±2 1000kN/m {100ton/m}	H=80		7.9kg 5.7kg 3.8kg 4.4kg	415 300 200 235 Sectionalized	71888E 71888D 71888C 71888F
MT-708 (88°, V=8) Surface HRC54±2 650kN/m {65ton/m}	H=80		6.3kg 4.5kg 3.0kg 3.6kg	415 300 200 235 Sectionalized	70888E 70888D 70888C 70888F	MT-720 (88°, V=20) Surface HRC54±2 1000kN/m {100ton/m}	H=80		8.3kg 6.0kg 4.0kg 4.7kg	415 300 200 235 Sectionalized	72088E 72088D 72088C 72088F
MT-710 (88°, V=10) Surface HRC54±2 900kN/m {90ton/m}	H=80		6.6kg 4.7kg 3.2kg 3.7kg	415 300 200 235 Sectionalized	71088E 71088D 71088C 71088F	MT-725 (88°, V=25) Surface HRC54±2 1000kN/m {100ton/m}	H=80		9.3kg 6.7kg 4.5kg 5.3kg	415 300 200 235 Sectionalized	72588E 72588D 72588C 72588F

{ } Reference only
Unit : mm

*All sectionalized size : 10, 15, 20, 40, 50, 100

*Weight corresponds to length on opposite side.

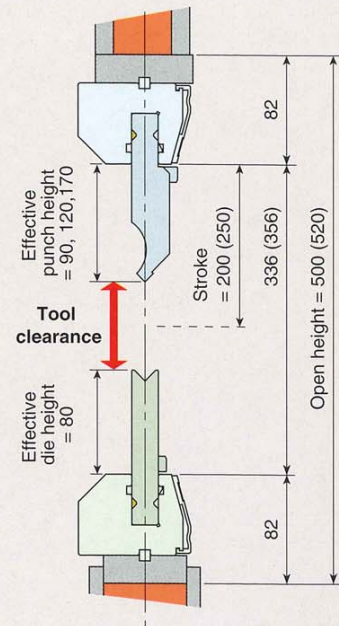
30° 1V Dies

Tool No.	Height	Cross Section	Weight	Length	Code No.
MT-506 (30°, V=6) Surface HRC54±2 180kN/m {18ton/m}	H=80		6.6kg	415	50638E
			4.8kg	300	50638D
			3.2kg	200	50638C
			3.8kg	235 Sectionalized	50638F
MT-508 (30°, V=8) Surface HRC54±2 200kN/m {20ton/m}	H=80		6.8kg	415	50838E
			4.9kg	300	50838D
			3.3kg	200	50838C
			3.8kg	235 Sectionalized	50838F
MT-510 (30°, V=10) Surface HRC54±2 260kN/m {26ton/m}	H=80		7.1kg	415	51038E
			5.1kg	300	51038D
			3.4kg	200	51038C
			4.0kg	235 Sectionalized	51038F

Tool clearance by machine model

HDS-NT series

Unit: mm

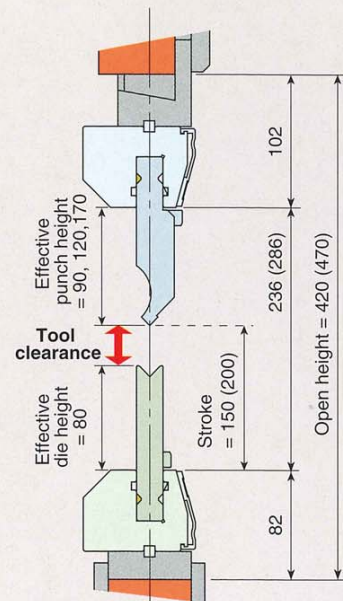


Effective punch height \ Effective die height	90	120	170
80	166 (186)	136 (156)	86 (106)

*Upper : HDS5020 · 8025 · 1303
(Lower : HDS1703 · 2203 · 2204)

FBDⅢ-NTseries

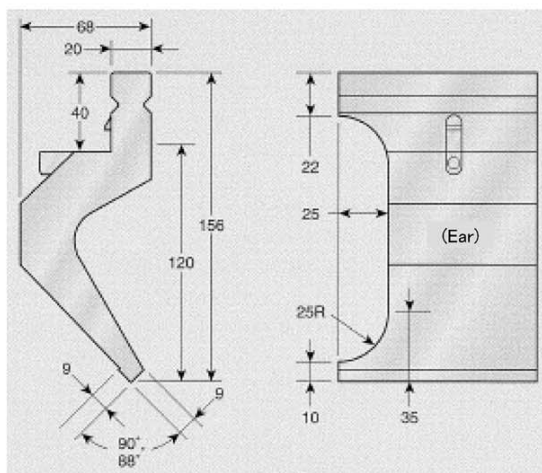
Unit: mm



Effective punch height \ Effective die height	90	120	170
80	66 (116)	36 (86)	x (36)

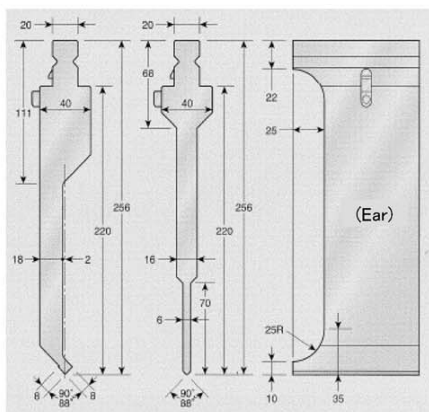
*Upper : FBDⅢ 3512 · 5012 · 5020 · 8020 · 8025 · 1025 · 1030 · 1253
(Lower : FBDⅢ 1503 · 1504 · 2003 · 2004)

MT-47



Tool type	MT-47
Angle	90° , 88°
Edge radius	0.2mm, 0.6mm
Hardness	HRC54±2
Allowable tonnage	Solid type : 500kN/m {50ton/m} Ear : 500kN/m {50ton/m}
Tool length	Solid type : 200, 300, 415mm (piece sale) Sectionalized : 10, 15, 20, 40, 50, 100mm total 235mm (6 as set) Ear : 100(left ear), 100(right ear)mm (2 as set)
Effective height	120mm
Weight	13.5kg / 415mm

High-height sash & sword 220



Tool type	(High-height · Sash)	(High-height · Sword)
Angle	90° , 88°	
Edge radius	0.2mm, 0.6mm	
Hardness	HRC54±2	
Effective height	220mm	
Weight	16.6kg / 415mm	
Allowable tonnage	Solid type : 500kN/m {50ton/m} Ear : 500kN/m {30ton/m}	Solid type : 500kN/m {50ton/m} Ear : 500kN/m {19ton/m}
Tool length	Solid type : 200, 300, 415mm (piece sale) Sectionalized : 10, 15, 20, 40, 50, 100mm total 235mm (6 as set) Ear : 100(left ear), 100(right ear)mm (2 as set)	

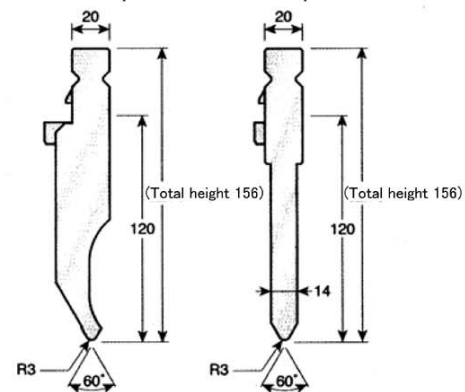
Heavy duty tool 60 degree heavy duty punch and die

special

Tool type	(Standard punch)	(blade punch)
Angle	60°	
Edge radius	3.0mm	
Hardness	HRC54±2	
Allowable tonnage	1000kN/m {100ton/m} (solid type)	
Tool length	solid type: 200, 300, 415mm (piece sale)	
	Sectionalized: 10, 15, 20, 40, 50, 100 total 235mm (6 as set)	
Effective height	120mm	
Weight	8.9kg/415mm	11.1kg/415mm

Standard punch

blade punch

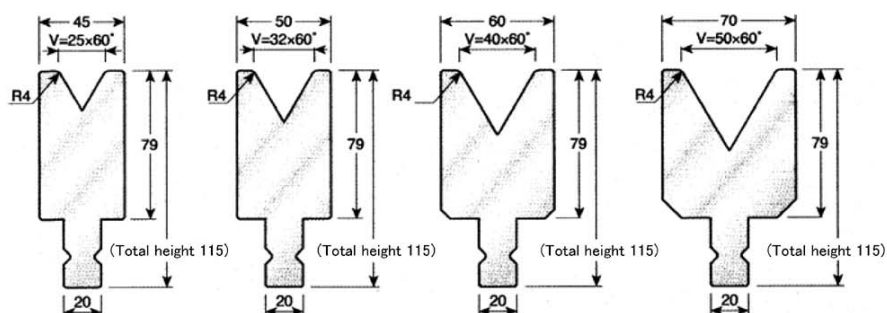


special

Type II holder only

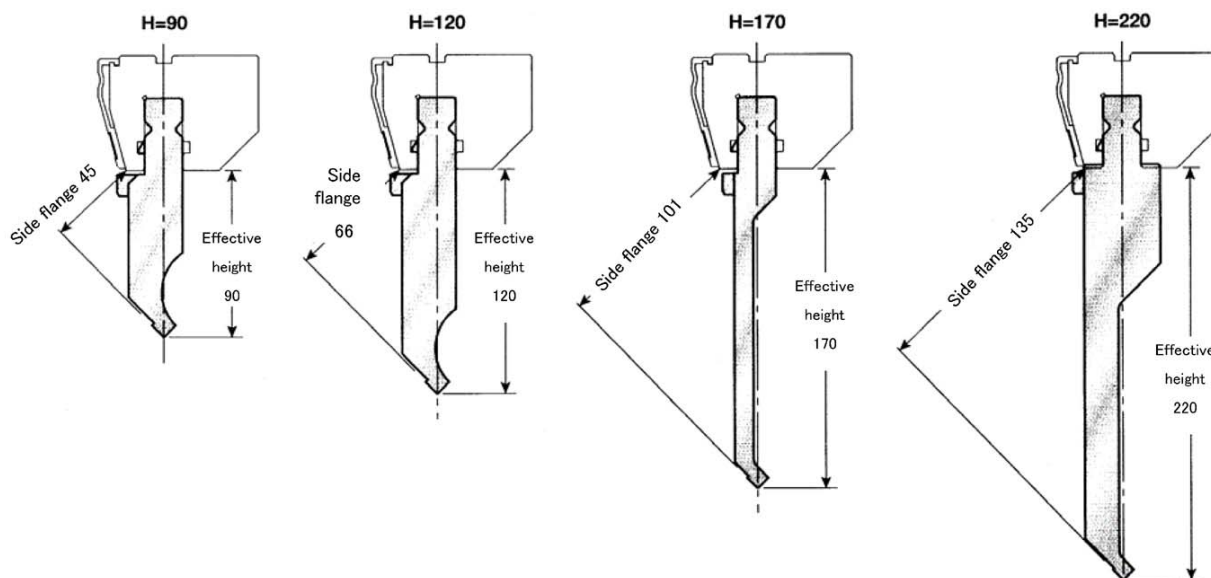
(not applicable to type I holder)

- * not applicable to work navigator and BI-J
- * use heavy duty punch

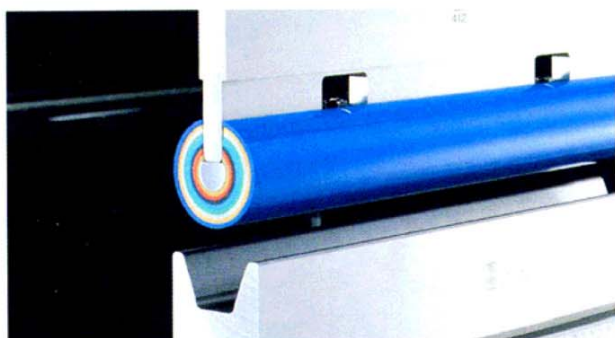


Tool type	(heavy duty die)			
V width	25mm	32mm	40mm	50mm
V angle	60°			
Shoulder radius	4.0mm			
Hardness	HRC54±2			
Allowable tonnage	1000kN/m {100ton/m}			
Tool length	solid type: 200, 300, 415mm (piece sale) Sectionalized: 10, 15, 20, 40, 50, 100 total 235mm (6 as set)			
Effective height	80mm			
Weight	12.9kg/415mm	13.5kg/415mm	15.1kg/415mm	16.2kg/415mm

Side flange dimension for each punch height



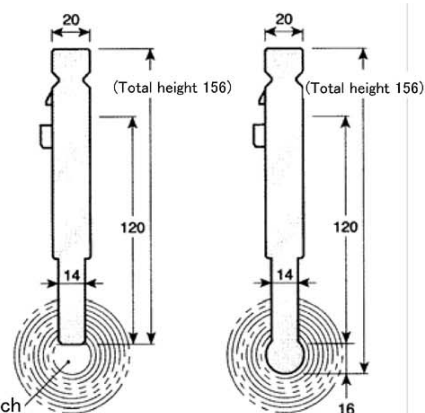
Punch holder for Radius tool



special

Short size

Sectionalized



Color Radius, Radius punch

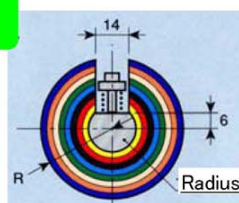
Tool type	(R bend punch holder)
Holder's length	S size: 412mm sectionalized: 25, 40, 50, 100, 120, 200, 300 total 835mm
Effective height	120mm (up to install surface)
Weight	9kg/412mm

* Applicable tool for this punch holder is standard Color Radius or Radius Punch

Color Radius

(polycarbonate)

Standard

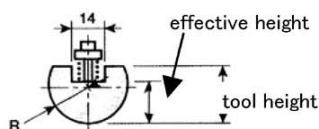


Tool type	S size: 03A002 sectionalized: 03B001
Radius	10, 12.5, 15, 17.5, 20, 22.5, 25, 27.5, 30mm
Hardness	-
Tool length	S size: 415mm sectionalized: 25, 40, 50, 100, 120, 200, 300 total 835mm (7 as set)
Effective height	Radius + 6mm
Weight	-
Marking	S size: 03000 sectionalized: 03080

Radius punch

(S45C-G)

Standard



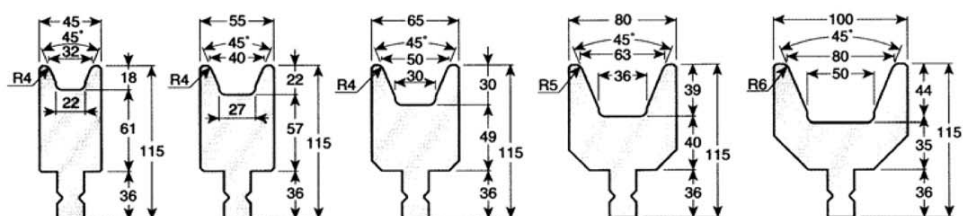
Tool type	17 (Radius tool)					
Radius	10mm	15mm	17.5mm	20mm	25mm	30mm
Hardness	-					
Tool length	solid type: 415mm					
Tool height	16mm	27mm	32mm	34mm	39mm	44mm
Effective height	16mm	20mm	22mm	24mm	29mm	34mm
Weight	0.9kg	1.4kg	2.6kg	3.5kg	5.0kg	6.8kg
Marking	017102	017152	017172	017202	017252	017302

Die for Radius bend

special

Applicable to type- II holder only
(not applicable to type I)

* not applicable to work navigator and BI-J



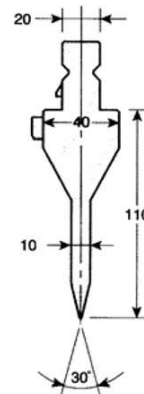
Tool type	(Die for Radius bend)				
V width	32mm	40mm	50mm	63mm	80mm
V angle	45° (U shape groove)				
Shoulder radius	4.0mm			5.0mm	6.0mm
Hardness	HRC40±2				
Allowable tonnage	350kN/m [35ton/m]	400kN/m [40ton/m]	400kN/m [40ton/m]	600kN/m [60ton/m]	700kN/m [70ton/m]
Tool length	solid type: 200, 300, 415mm (piece sale)				
Effective height	80mm				
Weight	12.3kg/415mm	14.0kg/415mm	15.0kg/415mm	16.1kg/415mm	16.9kg/415mm

Double-deck type Hemming tool

■ Special hemming punch

special

Applicable to type- II holder only
(not applicable to type I)



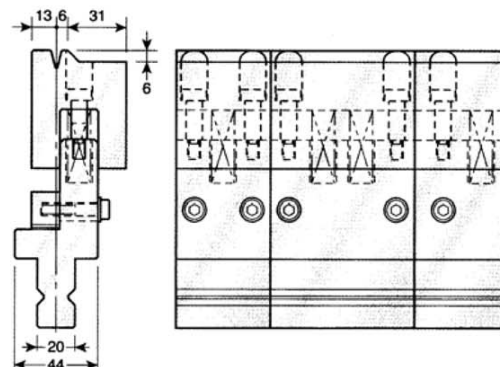
Angle	30°
Radius	0.5mm
Hardness	HRC54 ± 2
Allowable tonnage	1000kN/m { 100ton/m }
Tool length	Solid Type : 200, 300, 415mm (piece sale) sectionalized: 15, 20, 25, 30, 40, 50, 100mm total 280mm (7 as set)
Effective height	110mm
Weight	8.9kg/415mm

■ Double-deck type hemming die

special

Applicable to type- II holder only
(not applicable to type I)

- * not applicable to work navigator and BI-J
- * use Special hemming punch



V width	6mm	8mm
V angle	30°	
Shoulder radius	1.0mm	
Hardness	HRC54 ± 2	
Allowable tonnage	acute angle : 450kN/m { 45ton/m } Hemming : 650kN/m { 65ton/m }	acute angle : 350kN/m { 35ton/m } Hemming : 650kN/m { 65ton/m }
Tool length	Solid Type : 200, 300, 415mm (piece sale)	
Effective height	108mm	112mm
Weight	15.7kg/415mm	16.2kg/415mm

● Hemming work possibly creates excessive thrust load and very dangerous operation.

So be sure to apply the load to the work in multiple process and perform the hemming through multiple process.

Hemming tool

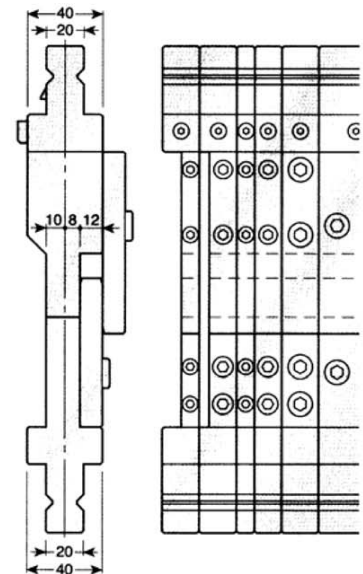
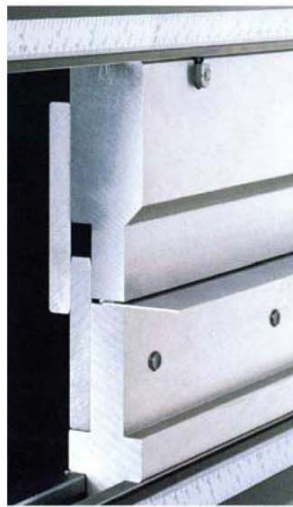
V6, V8 and V10

special

Applicable to type- II holder only
(not applicable to type I)

* No recognition by BENDCAM not applicable to BENDCAM

* Direct key-in to AMNC



Tool type	(Acute bent + hemming in 2nd process)
Width	18mm
Hardness	HRC54 $\pm$ 2
Allowable tonnage	1000kN/m { 100ton/m }
Tool length	Solid Type : 200, 300, 415mm(set as punch and die) sectionalized: 10 (left ear), 10 (right ear), 15(left ear), 15(right ear), 20, 40, 50, 100mm(8 as set)
Weight	punch 16kg/415mm(v6) die 11.4kg/415mm(v6)

- This hemming tool is designed in accordance with 3 types deferent shut height cooperating acute bend in 1st process. V groove bottom varies with V dies, so select the die from V6, V8 and V10

Punch MT-36(Height 120mm) and Die MT-506 (Height 80mm) V6

Punch MT-36(Height 120mm) and Die MT-508 (Height 80mm) V8

Punch MT-36(Height 120mm) and Die MT-510 (Height 80mm) V10

- Applicable material + material thickness

mild steel max 2.0mm stainless steel max 1.5mm

- Hemming work possibly creates excessive thrust load and very dangerous operation.

So be sure to apply the load to the work in multiple process and perform the hemming through multiple process.

Offset tool Tip type and solid type

special

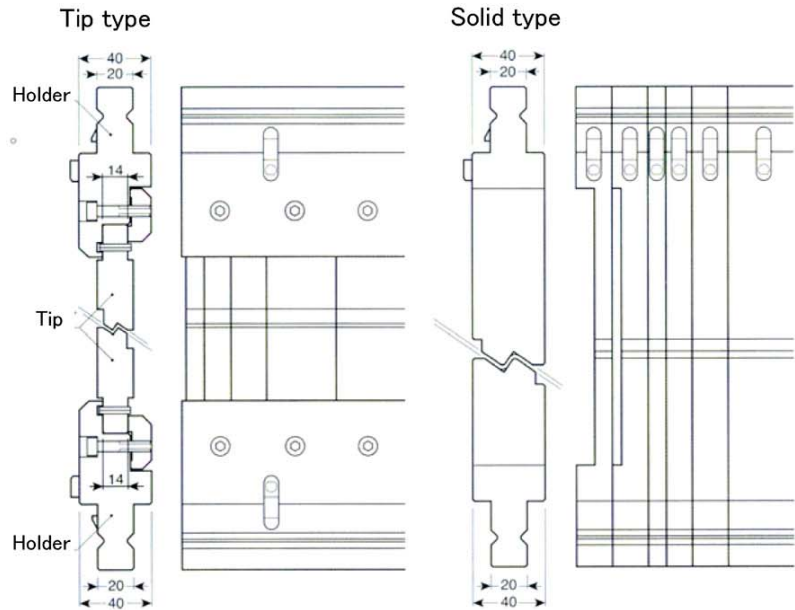
Applicable to type-II holder only

(not applicable to type I)

*Specified tool for deferent material type ,thickness and different offset value



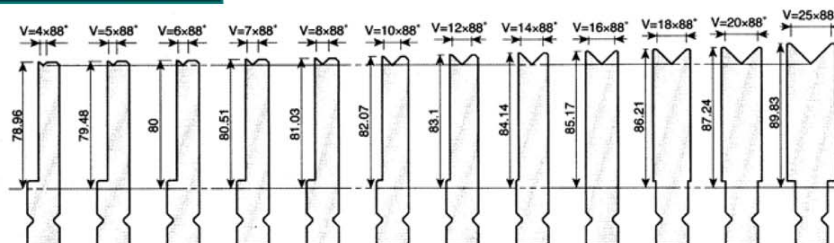
Picture shows solid type



Tool type	(tip type offset tool)	(solid offset tool)
Applicable offset	material thickness × 3 to 10mm	material thickness × 3 to 10mm
Applicable material and thickness	mild steel ≤ 2.3mm stainless steel ≤ 1.5mm	mild steel ≤ 2.3mm stainless steel ≤ 1.5mm
Hardness	HRC54±2	HRC54±2
Allowable tonnage	-	-
Tool length	solid type: 415, 835mm (piece sale) Solid Type: 10, 15, 20, 40, 50, 100, 200, 365mm total 800mm (8 as set)	sectionalized: 10 (left ear), 10 (right ear), 15 (left ear), 15 (right ear), 20, 40, 50, 100mm (8 as set)
Holder's length	solid type: 420mm (set as punch and die)	solid type: 200, 300, 415mm (set as punch and die)
Effective height	-	-
Weight	-	-

Unified V bottom die

special



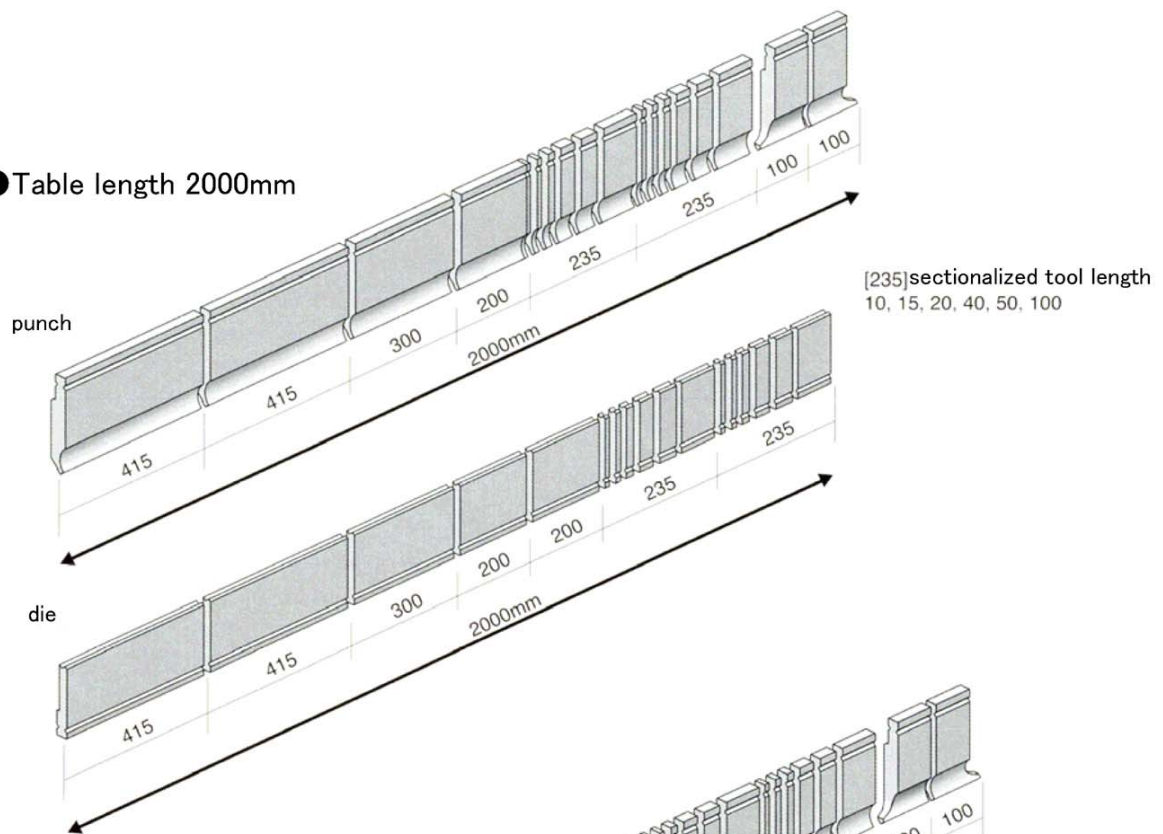
* Not applicable to Bi-J , work navigator and laser safe.

* NC origin set must be done for each tool change.

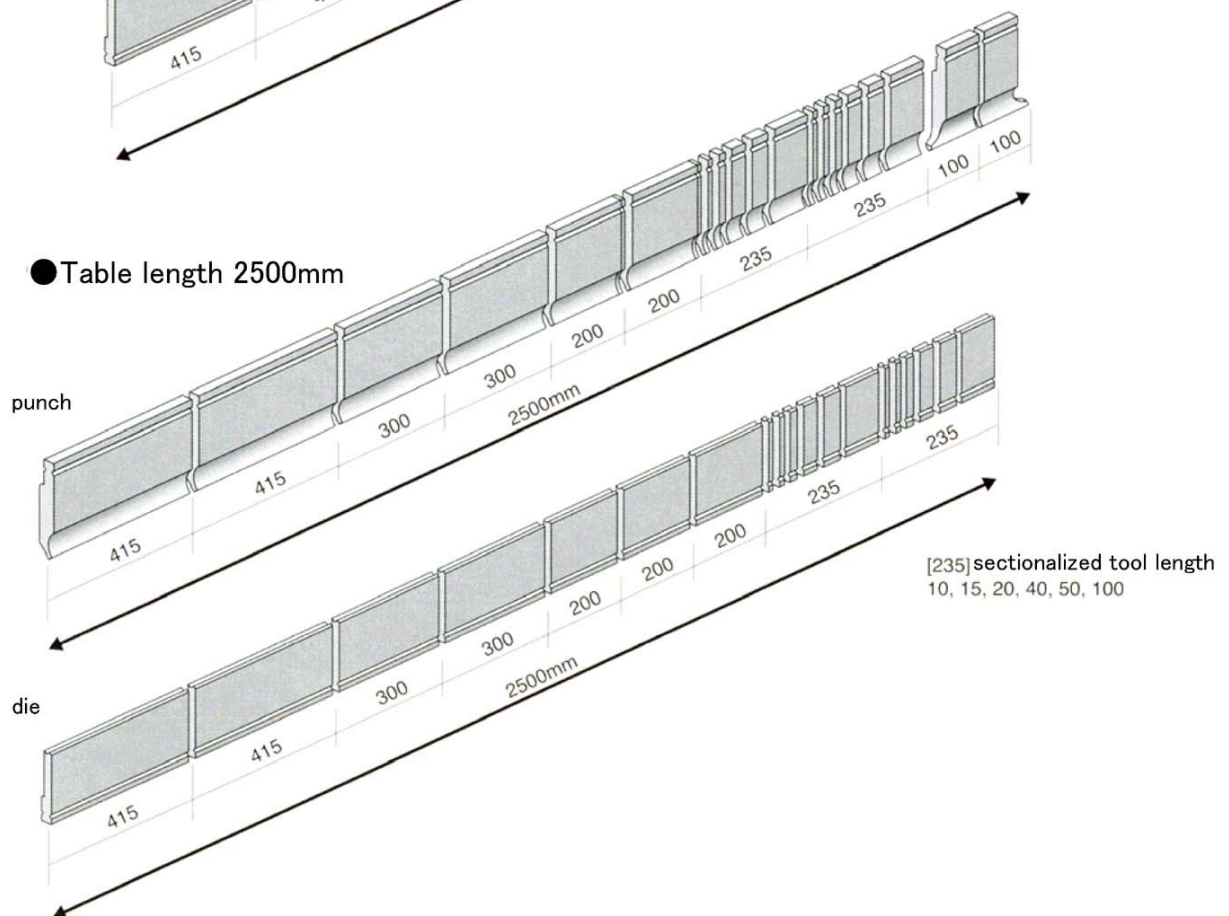
* Tool height and V width varies with V groove, so be sure not to damage the die when back-gauge is traversing.

Punch & die combination

●Table length 2000mm



●Table length 2500mm



Standard tool weight list

Tool type	length	H=90mm	H=120mm	H=170mm
MT-10	415mm	8.6kg	11.4kg	—
	300mm	6.2kg	8.2kg	—
	200mm	4.2kg	5.5kg	—
	sectionalized	4.9kg	6.5kg	—
MT-12	415mm	8.5kg	11.3kg	—
	300mm	6.2kg	8.2kg	—
	200mm	4.1kg	5.4kg	—
	sectionalized	4.8kg	6.4kg	—
MT-14	415mm	8.2kg	10.9kg	—
	300mm	5.9kg	7.9kg	—
	200mm	3.9kg	5.3kg	—
	sectionalized	4.6kg	6.2kg	—
MT-28	415mm	5.9kg	6.9kg	8.5kg
	300mm	4.3kg	5.0kg	6.2kg
	200mm	2.9kg	3.3kg	4.1kg
	sectionalized	3.4kg	3.9kg	4.8kg
MT-30	415mm	5.7kg	6.3kg	8.0kg
	300mm	4.1kg	4.5kg	5.8kg
	200mm	2.7kg	3.0kg	3.9kg
	sectionalized	3.2kg	3.5kg	4.5kg
MT-36	415mm	5.6kg	6.2kg	8.0kg
	300mm	4.1kg	4.5kg	5.7kg
	200mm	2.7kg	3.0kg	3.9kg
	sectionalized	3.2kg	3.5kg	4.5kg
MT-40	415mm	9.6kg	13.8kg	—
	300mm	6.9kg	10.0kg	—
	200mm	4.6kg	6.7kg	—
	sectionalized	5.4kg	7.8kg	—
MT-46	415mm	9.1kg	13.3kg	—
	300mm	6.6kg	9.6kg	—
	200mm	4.4kg	6.4kg	—
	sectionalized	5.1kg	7.5kg	—

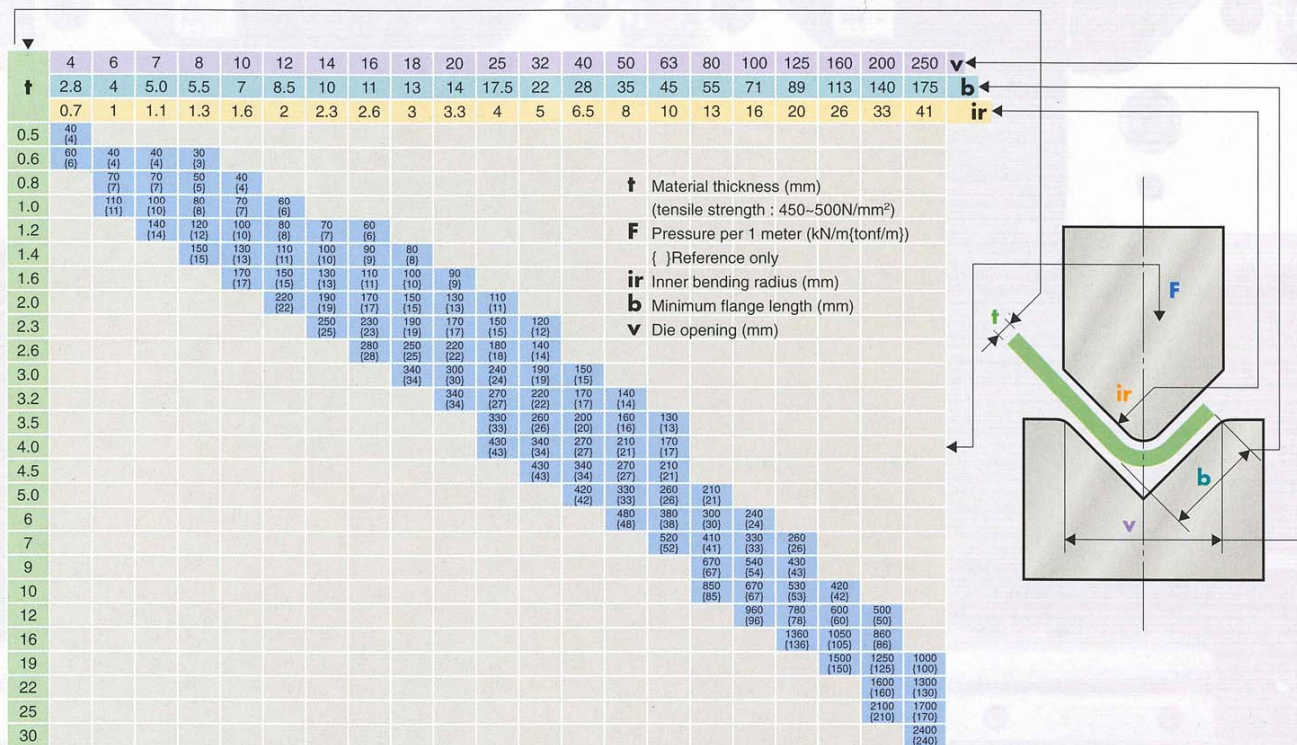
•Sectionalized : 10, 15, 20, 40, 50, 100mm total 235mm (6 as set)

•Use 200mm weight for the ear type.

HOW TO READ THE PRESSURE CHART

If the material thickness and inner bending radius are known, the following can be obtained from the chart below :

- (1) Pressure required for bending the material of 1 meter.
- (2) Opening of the die to be used.
- (3) Minimum bendable length.



Material Thickness and V-width

The distance across the die opening is known as the V-width. The proper V-width should be selected according to the material thickness in as much as good bending is impossible at an arbitrary V-width. Table below shows the relationship between material thickness and V-width in bottoming. This table shows the optimum standards, but in reality the relationship is determined by flange length, product inner R, and mechanical capacity.

Relationship of Material Thickness (t) and V-Width

Material Thickness (t) mm	0.5 ~ 2.6	3.0 ~ 8	9 ~ 10	12 or more
V-width mm	$6 \times t$	$8 \times t$	$10 \times t$	$12 \times t$