

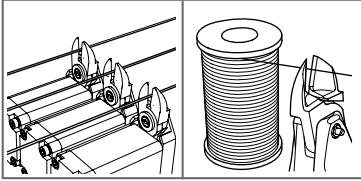


AIR NIPPER

<http://www.vessel.co.jp/english/airnipper/>

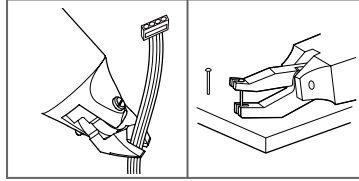
VESSEL®

Wire cutting with coil winding machine



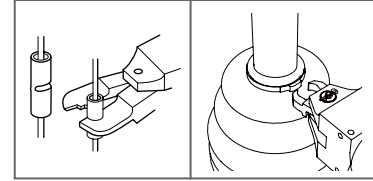
Attach to the nipper unit of automatic coil winding machine for power transformers, fan motors and ignition. Cutting thick diameter wires that cannot be torn off.

Hand tools for dismantling in recycling plants



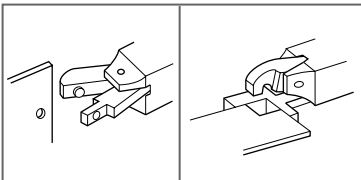
Cuts a variety of wires, copper tubing and steel bands in recycling plants such as PCs and QA equipment, pachinko machines, TVs, and refrigerators, washing machines, etc. Nippers for the purpose of pulling out the pachinko machine pins.

Crimping task for solderless terminals



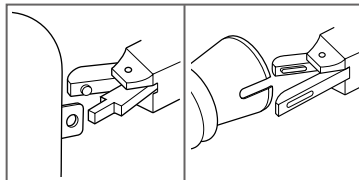
For crimping terminals with various wiring harnesses such as for switchboards, electrical products and lighting equipment. Less strain on fingers and wrists. Increased work efficiency for stop rings for auto parts.

Die cutter for aluminum products and plastic components



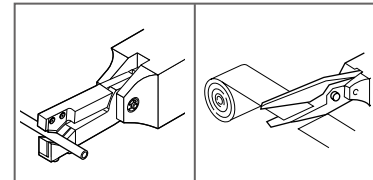
By support for separate blades, allows punching and form cutting of aluminum sash and thin plates.

Punching of blow molded products, punching slotted holes



Punching blow molded products, punching slotted holes, for containers that cannot be punched and automobile ducts, etc.

Other applications



Micro-edge air scissors that can cut various hard-to-cut fibers, carbon, aramid fibers, and soft plastic sheets. Nippers for cutting belt loops of jeans, peeling recycled golf balls, cutting edges with textile machinery, etc.

Capability selection chart

Types	Cutting material							Application model	Air pressure (MPa)
	Copper wire	Steel wire (Non-heat treated)	Stainless steel (Non-heat treated)	Piano Wire (HV320 or below)	Soft Plastic	Hard Plastic	Solderless terminals		
N • NS • NR	1.0mm	0.5mm		0.2mm	1.0mm			NS2,N3,NS3,NR3	0.4~0.5
	1.0	0.5		0.3	2.0	1.0mm		N5,NS5,NR5	0.4~0.5
	1.0	0.5		0.5	3.0	2.0		N7,NS7,NR7	0.4~0.5
	1.6	1.0	1.0mm	0.5	4.0	2.6		N10,NS10L,NR10L	0.4~0.5
	1.8	1.2	1.6	1.0	7.0	5.0		N12	0.4~0.5
	2.6	2.0	2.0	1.2	10.0	6.5		N20,NS20,NR20	0.5~0.6
	3.3	2.8	3.5	1.6	12.0		1.25/2.0	N30,NS30,NR30	0.5~0.6
	5.5	4.5					N50,NR50	0.5~0.6	
With pressure booster	2.6	1.6	1.3	1.0	5.0	4.0	12.5/2.0	P-10L	
	3.0	2.2	2.8	1.2	8.0	6.0	2.0/5.5	P-20	
	4.8	4.0	2.8	1.2	13.0	7.0	~0.8	P-30	
	6.5	5.5	4.0	2.0				P-50	
NY					2.0	1.3		NY03	0.4~0.5
	1.6	1.0			3.0	2.0		NF05,NY05	0.4~0.5
	1.7	1.1			3.5	2.3		NF10,NY10	0.4~0.5
	1.8	1.2			4.0	2.6		NF15,NY15	0.4~0.5
					5.0	3.4		NY25	0.5~0.6
NT					1.5	1		NT03	0.4~0.5
					2.5	1.5		NT05	0.4~0.5
					3.5	2.5		NT10	0.4~0.5
					5.0	3.4		NT20	0.4~0.5
	AS, HS, BJ type		BBB	HS	AP, PF, AJ type		ACD type		

Air Nippers For Resin Gate

These are high-class air nippers that can be mounted on gate cutting equipment and standby jigs for accurate, speedy cutting of resin products. VESSEL has a wide selection of items to meet a variety of needs, from around-the-clock operations to high cutting precision.



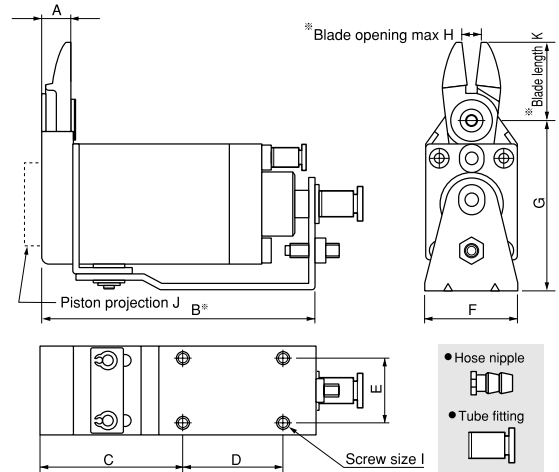
Slide-off air nipper horizontal-type

GT-NY05/10/15/25 Slide-Off Air Nippers Horizontal-Type

NY



The horizontal slide enables space to be used effectively. The low profile of the main unit allows work to be removed without obstructing the operations of the chuck plate.



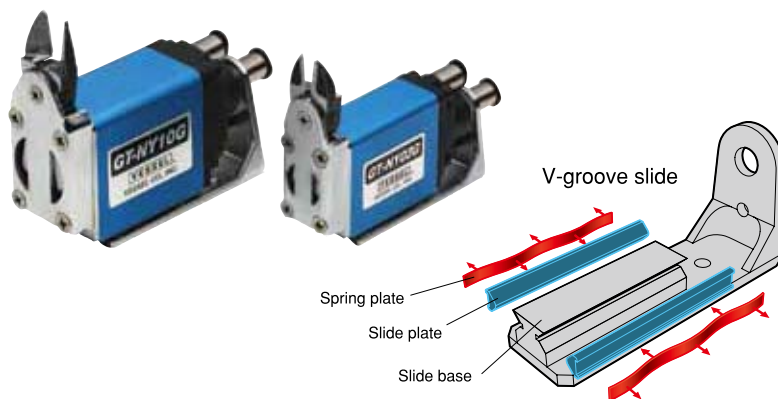
Capacity ϕ (mm)				Model No.	Size (mm)											Air Consumption (cm ³ /str.)	Weight (g)	Slide Direction/Distance (mm)	Spec. & Size of the Hose Port
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F	G	H	I	J	K				
3.0	2.0	1.6	1.0	GT-NY05	8.6	75.9	40.9	25	15	23	47.6	4	M4	3	22	48	155	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
3.0	2.0	1.6	1.0	GT-NY05R															
3.0	2.0	1.6	1.0	GT-NY05-4															
3.0	2.0	1.6	1.0	GT-NY05R-4															
3.5	2.3			GT-NY10	8.8	82.1	42.1	30	20	28	51.6	6	M4	5	24	68	210	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
3.5	2.3			GT-NY10R															
3.5	2.3			GT-NY10-4															
3.5	2.3			GT-NY10R-4															
4.0	2.6			GT-NY15	10.2	93	48	35	25	33	58	8	M4	5	27	136	319	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
4.0	2.6			GT-NY15R															
4.0	2.6			GT-NY15-4															
4.0	2.6			GT-NY15R-4															
5.0	3.4			GT-NY25	12.5	108.5	54.5	40	30	42	69	9	M5	2	31	184	580	Pull 0~5	W/hose nipple Hose I.D. ϕ 4mm
5.0	3.4			GT-NY25R															
5.0	3.4			GT-NY25-6															
5.0	3.4			GT-NY25R-6															

※Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa (NY25 type: 0.5~0.6)
 ※B refers to the distance from the cut position for PUSH style models, and the distance from the start position for PULL style models.

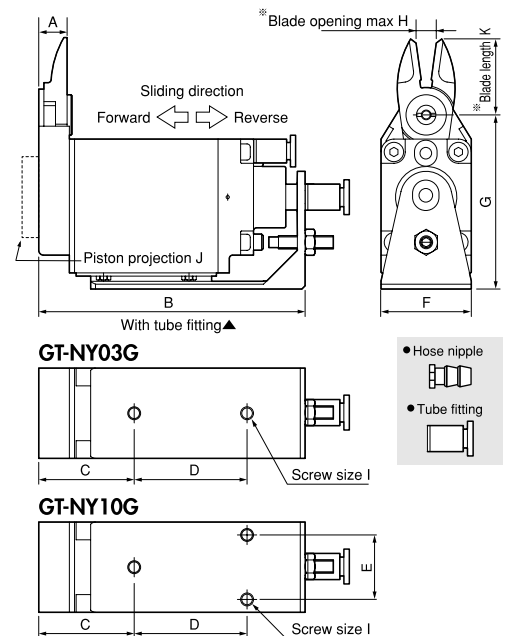
GT-NY03G/10G Slide-Off Air Nippers Horizontal-Type

Patented

NY-G



VESSEL's patented, V-groove slide base ensures constant, stable positioning. The unit is not subject to inclined loads, and has achieved high precision gate cutting performance.



Capacity ϕ (mm)		Model No.	Size (mm)											Air Consumption (cm ³ /str.)	Weight (g)	Slide Direction/Distance (mm)	Spec. & Size of the Hose Port
Soft Plastic	Hard Plastic		A	B	C	D	E	F	G	H	I	J	K				
2.0	1.3	GT-NY03G	8.6	74.5	29.5	30	-	19	46.5	3	M4	0	21	37	160	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
2.0	1.3	GT-NY03GR															
2.0	1.3	GT-NY03G-4															
2.0	1.3	GT-NY03GR-4															
3.5	2.3	GT-NY10G	8.8	82.6	29.6	35	20	28	54	6	M4	5	24	68	275	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
3.5	2.3	GT-NY10GR															
3.5	2.3	GT-NY10G-4															
3.5	2.3	GT-NY10GR-4															

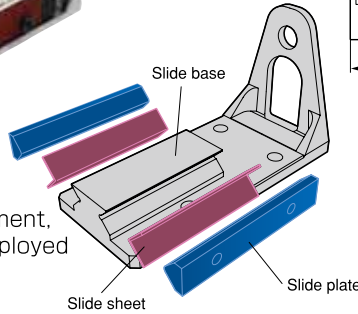
※Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa

Blade is optional. Note that forward and backward-facing blades are available.

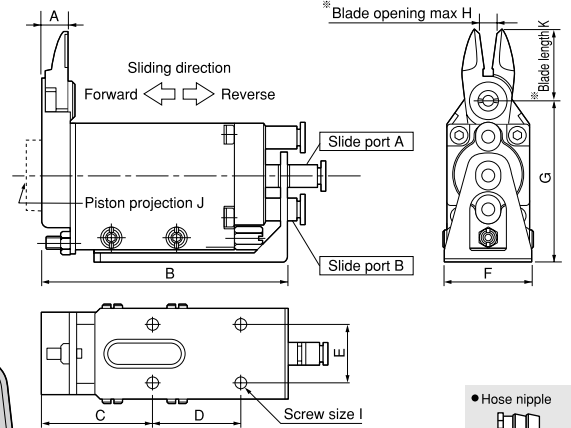
Slide-off air nipper horizontal-type

GT-NY10S/25S Double Action Sliding Air Nippers

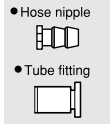
NY-S



The springless slide construction of the main unit ensures smooth movement, and a V-groove slide base has been employed for high precision positioning.



WARNING
Injecting air into slide port A slides the nippers in reverse.
Injecting air into slide port B slides the nippers forward.

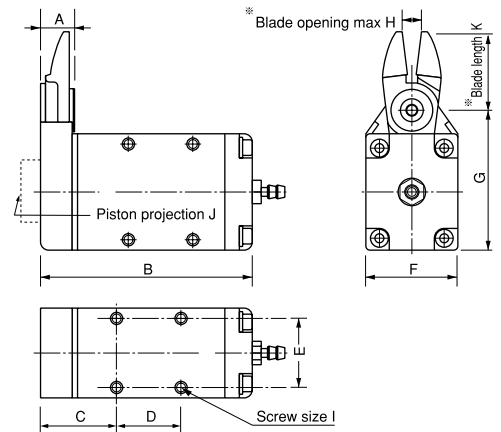


Capacity ϕ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)											Air Consumption (cm ³ /str.)	Weight (g)	Slide Direction/ Distance (mm)	Spec. & Size of the Hose Port
		A	B	C	D	E	F	G	H	I	J	K				
3.5 2.3	GT-NY10S	8.8	84.5	38	30	20	32	55	6	4-M4	5	24	68	300	0~3.5	W/tube fitting Hose I.D. ϕ 2.5×O.D. ϕ 4mm
5.0 3.4	GT-NY25S	12.5	106.5	47	40	30	47	72	9	4-M5	2	31	184	695	0~5.0	W/tube fitting Hose I.D. ϕ 4×O.D. ϕ 6mm

*Blade length (K) and opening max. (H) is the dimension adjusted for standard blade (AJ type). *Air Pressure...NY10S : 0.4~0.5 MPa / NY25S : 0.5~0.6 MPa

GT-NF05/10/15 Type-F Air Nippers

NF



These compact, lightweight nippers have been designed for easy mounting inside equipment and to enable secure mounting under high-density mounting conditions.

Capacity ϕ (mm)				Model No.	Size (mm)								Air Consumption (cm ³ /str.)	Weight (g)	Spec. & Size of the Hose Port			
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F	G	H				I	J	K
3.0	2.0	1.6	1.0	GT-NF05	8.6	59.9	21.9	17	18	23	39.5	4	M3	3	22	43	101	W/hose nipple Hose I.D. ϕ 2.5mm× ϕ 4mm
3.5	2.3	1.7	1.1	GT-NF10	8.8	65.1	23.1	20	22	28	43.5	6	M3.5	5	24	63	143	
4.0	2.6	1.8	1.2	GT-NF15	10.2	73	25	25	26	33	48.5	8	M4	5	27	128	219	

*Blade opening max. (K) is the dimension adjusted for standard blade (AJ type). Mounting screw for NF10 (M3.5) is regarded as spare part. *Air Pressure...0.4~0.5 MPa

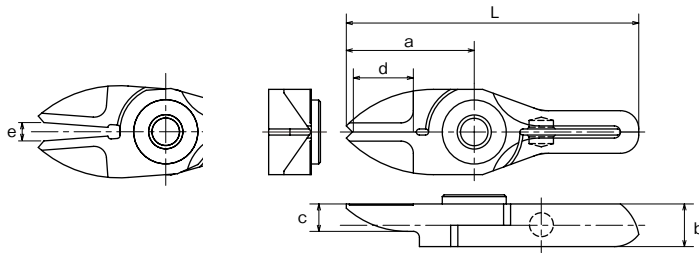
Slide-off air nipper horizontal-type blades

AJ/RAJ AJB

Straight blades for plastic

AJ/ This is a vertical set of blades with an unbeveled cutting edge. You can apply it at a right angle to the gate. **RAJ/** This is a reverse bevel of AJ type. **AJB/** This has a brazed carbide tip, suitable for cutting hard plastic or plastic containing glass fiber.

Plastic



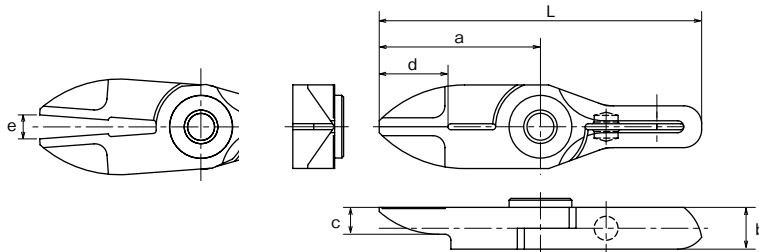
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NY03AJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)
NY03RAJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03GR(-4)
NY05AJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05
NY05RAJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05
NY05AJB	22	7	5	10.5	4	53	22	Sintered Alloy	GT-NY05(-4) / NF05
NY10AJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY10RAJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S
NY10AJB	24	7.2	5	12	6	57	28	Sintered Alloy	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S
NY15AJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15(-4) / NF15
NY15RAJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15R(-4) / NF15
NY15AJB	27	8.2	5.5	13	8	65	41	Sintered Alloy	GT-NY15R(-4) / NF15
NY25AJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25(-6) / NY25S
NY25RAJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25R(-6) / NY25S
NY25AJB	31	10	6	16	9	77	65	Sintered Alloy	GT-NY25R(-6) / NY25S

AJL

Straight long blades for plastic

AJL/ This is a long type set of straight blades. This is useful when there is distance between the nippers and the gate cut portion of the workpiece.

Plastic



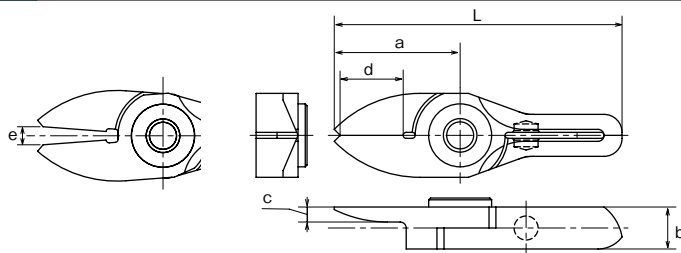
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NY03AJL	27	7	4.5	10.5	4	54	21	Special alloy steel	GT-NY03G(-4)
NY05AJL	31	7	5	10.5	5.5	62	29	Special alloy steel	GT-NY05(-4) / NF05
NY10AJL	33	7.2	5	12	8	66	37	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AJL	38	8.2	5.5	13	11	76	50	Special alloy steel	GT-NY15(-4) / NF15
NY25AJL	46	10	6	16	13	92	88	Special alloy steel	GT-NY25(-6) / NY25S

AJT

Thin, straight blades for plastic

AJT/ This is a set of straight blades with a thin cutting edge. It can cleanly trim cross sections without remnants.

Plastic



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NY03AJT	21	7	2.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)
NY05AJT	22	7	3	10.5	4	53	21	Special alloy steel	GT-NY05(-4) / NF05
NY10AJT	24	7.2	3	12	6	57	26	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AJT	27	8.2	3.5	13	8	65	38	Special alloy steel	GT-NY15(-4) / NF15

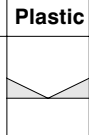
Slide-off air nipper horizontal-type blades


AD

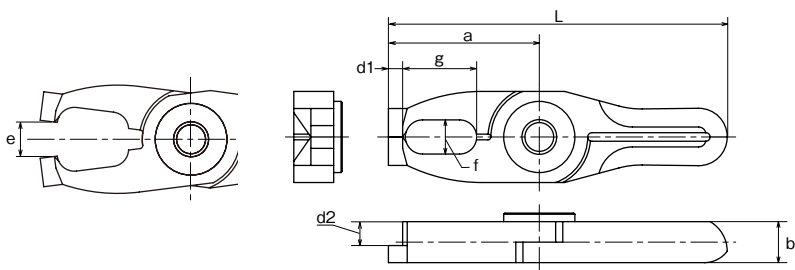
Lift blades for plastic

AD/ This is used for batch processing of the three-dimensional gate such as ride gate.

Plastic








Model No.	Size (mm)		f×g	d1 (mm)	d2	e (mm)	L (mm)	Weight (g)	Material	Application model
	a	b								
NY10AD	26.5	7.2	6×13	4.2	2.5	6	59.5	31	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AD	30	8.2	7×14	4.7	3	8	68	45	Special alloy steel	GT-NY15(-4) / NF15
NY25AD	35	10	8×17	6	4	9	81	75	Special alloy steel	GT-NY25(-6) / NY25S


AH/ RAH

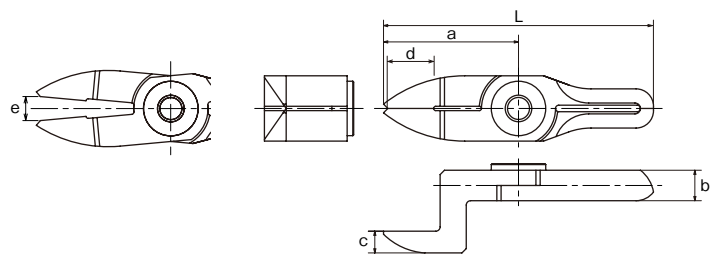
Crank blades for plastic

AH/ This is a set of blades with a clamped cutting edge for plastic. It is effective when there are obstructions or the gate is narrow. **RAH/** This is a reverse bevel of AH type used when installing the main units face-to-face.

Plastic







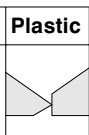
Model No.	Size (mm)			d	e	L	Weight (g)	Material	Application model
	a	b	c						
NY05AH	31	19	5	10.5	5.5	62	37	Special alloy steel	GT-NY05(-4) / NF05
NY05RAH	30	12	5	10.5	5	61	31	Special alloy steel	GT-NY05R(-4) / NF05
NY10AH	33	20	5	12	8	66	43	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S
NY15AH	38	21.5	5.5	13	11	76	63	Special alloy steel	GT-NY15(-4) / NF15
NY15RAH	35	13.2	5.5	13	9	73	52	Special alloy steel	GT-NY15R(-4) / NF15
NY25AH	46	24	6	17	13	92	110	Special alloy steel	GT-NY25(-6) / NY25S
NY25RAH	42	16	6	16	12	88	89	Special alloy steel	GT-NY25R(-6) / NY25S


BJ/ RBJ

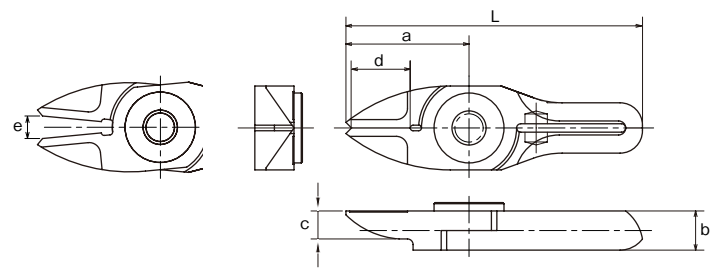
Straight thin blades for metal

BJ/ This is a set of vertical blades with an unbeveled cutting edge for metal. **RBJ/** This is a reverse bevel of BJ type.

Plastic





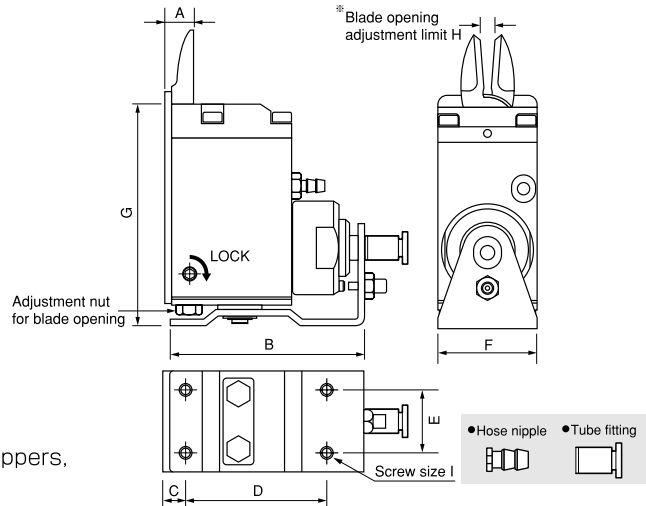


Model No.	Size (mm)			d	e	L	Weight (g)	Material	Application model
	a	b	c						
NY05BJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05
NY05RBJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05

Slide-off air nipper vertical-type

GT-NT03/05/10/20 Slide-Off Air Nippers Vertical-type

NT



Blade gape is adjustable, and fine adjustments are easy to make after mounting the nippers, ensuring clean, unblemished cut surfaces.

Capacity ϕ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)									Air Consumption ($\text{cm}^3/\text{str.}$)	Weight (g)	Slide Direction/ Distance (mm)	Spec. & Size of the Hose Port
		A	B	C	D	E	F	G	H	I				
1.5 1.0	GT-NT03	9	62	7	43	14	19	68.1	1.5~3	M3	0.4~0.5	178	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
1.5 1.0	GT-NT03R													
1.5 1.0	GT-NT03-4													
1.5 1.0	GT-NT03R-4													
2.5 1.5	GT-NT05	9	64	7	45	20	32	71.1	3~6	M4	0.4~0.5	325	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
2.5 1.5	GT-NT05R													
2.5 1.5	GT-NT05-4													
2.5 1.5	GT-NT05R-4													
3.5 2.3	GT-NT10	11	73	8	53	24	38	88.1	4~7	M4	0.4~0.5	515	Pull 0~3	W/hose nipple Hose I.D. ϕ 2.5mm
3.5 2.3	GT-NT10R													
3.5 2.3	GT-NT10-6													
3.5 2.3	GT-NT10R-6													
5.0 3.4	GT-NT20	14	103	10	80	28	44	102.1	4.5~9	M5	0.5~0.6	930	Pull 0~8	W/hose nipple Hose I.D. ϕ 4mm
5.0 3.4	GT-NT20R													
5.0 3.4	GT-NT20-6										0.5~0.6	930	Pull 0~8	W/tube fitting Hose I.D. ϕ 4XO.D. ϕ 6mm
5.0 3.4	GT-NT20R-6													

※Blade opening adjustment limit (H) is the dimension adjusted for standard blade (AJ type). ※Air Pressure...0.4~0.5 MPa

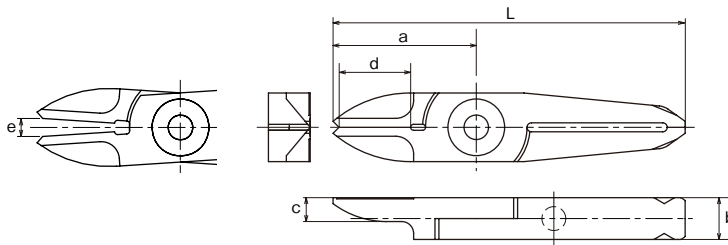
Slide-off air nipper vertical-type blades

AJ/AJH
AJB

Straight blades for plastic

AJ/ This is a set of vertical blades with an unbeveled cutting edge. You can apply it at a right angle to the gate. **AJH/** This has a brazed high-speed steel tip suitable for cutting hard plastic. **AJB/** This has a brazed carbide tip used for cutting hard plastic or plastic containing glass fiber. Improved durability.

Plastic



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NT03AJ	24	7	4	11	3	59	20	Special alloy steel	GT-NT03 type
NT05AJ	29	7	5	15	6	65	30	Special alloy steel	
NT05AJH	29	7	5	15	6	65	30	High Speed Steel	GT-NT05 type
NT05AJB	29	7	5	15	6	65	30	Sintered Alloy	
NE5AJ	24	7	3.5	12	6	60	35	Special alloy steel	GT-NT10 type
NT10AJ	35	9	6	17	7	82	62	Special alloy steel	
NT10AJH	35	9	6	17	7	82	76	High Speed Steel	GT-NT10 type
NT10AJB	35	9	6	17	7	82	76	Sintered Alloy	
NE10AJ	27	9	4.5	12	7	74	70	Special alloy steel	GT-NT20 type
NT20AJ	40	12	6	20	9	97	120	Special alloy steel	
NT20AJH	40	12	6	20	9	97	120	High Speed Steel	GT-NT20 type
NT20AJB	40	12	6	20	9	97	120	Sintered Alloy	

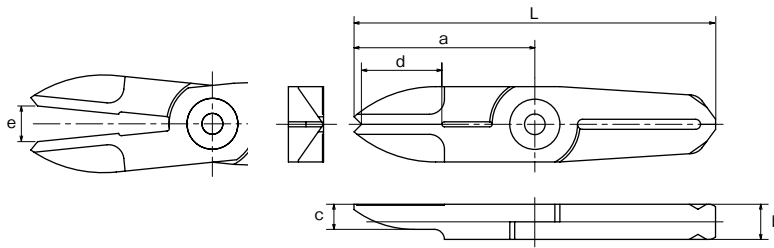
Slide-off air nipper vertical-type blades

AJL

Straight long blades for plastic

AJL/ This is a long type set of straight blades. This is useful when there is distance between the nippers and the gate cut portion of the workpiece.

Plastic



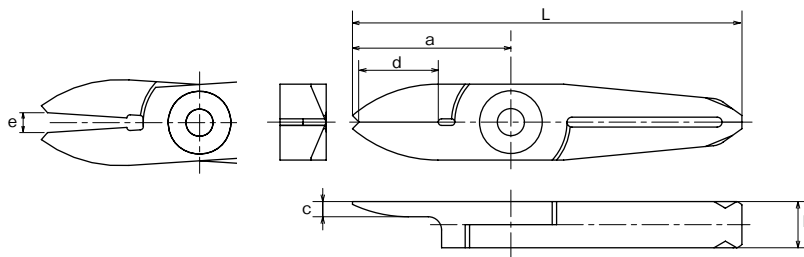
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NT05AJL	36	7	5	15	7	72	39	Special alloy steel	GT-NT05 type
NT10AJL	47	9	6	17	9	94	62	Special alloy steel	GT-NT10 type
NT20AJL	57	12	6	20	12	114	156	Special alloy steel	GT-NT20 type

AJT

Thin, straight blades for plastic

AJT/ This is a set of straight blades with a thin cutting edge. It can cleanly finish cross sections without remnants.

Plastic



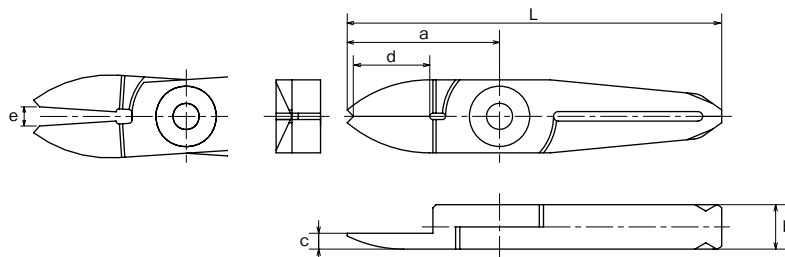
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NT03AJT	24	7	2.3	11	3	59	19	Special alloy steel	GT-NT03 type
NT05AJT	29	7	3	15	6	65	29	Special alloy steel	GT-NT05 type
NT10AJT	35	9	4	17	7	82	65	Special alloy steel	GT-NT10 type

AJY

Thin, straight blades for plastic

AJY/ This is effective when the width between the opposing gates is too short and the thickness of the blades will not go in.

Plastic

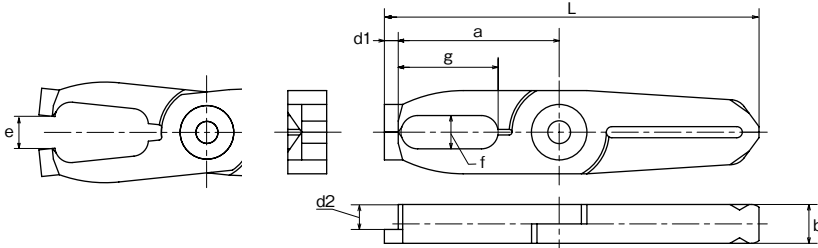



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NT03AJY	24	7	2.5	11	3	59	19	Special alloy steel	GT-NT03 type
NT05AJY	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type
NT10AJY	35	9	4	17	7	72	82	Special alloy steel	GT-NT10 type

Slide-off air nipper vertical-type blades

AD **Lift blades for plastic** **Plastic**

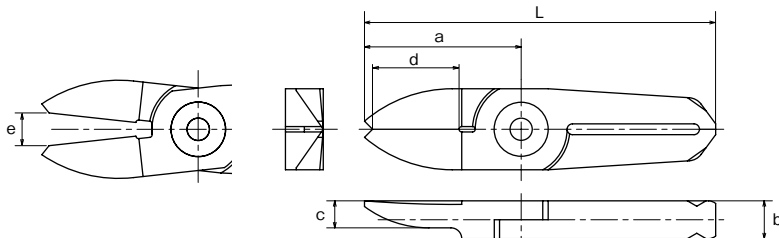

AD/ This is used for batch processing of the three-dimensional gate such as ride gate.

Model No.	Size (mm)			d1 (mm)	d2 (mm)	e (mm)	L (mm)	Weight (g)	Material	Application model
	a	b	f×g							
NT05AD	31.5	7	6×18	2.5	4.5	6	67.5	37	Special alloy steel	GT-NT05 type
NT10AD	39	9	8×21.5	4	5	7	86	65	Special alloy steel	GT-NT10 type
NT20AD	46	12	9×24.5	6	7	9	103	141	Special alloy steel	GT-NT20 type

AJV **V shaped straight blades for plastic** **Plastic**

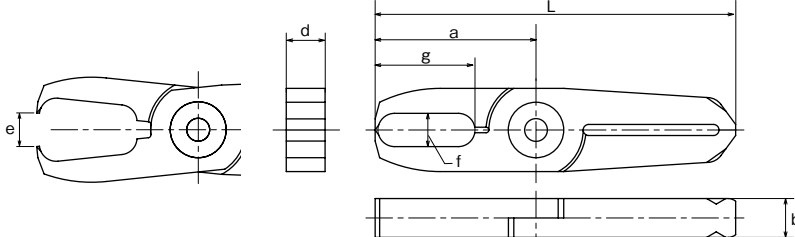

AJV/ This is suitable for gate processing when the cross section is curved or the cut end must not be left.

Model No.	Size (mm)				e (mm)	L (mm)	Weight (g)	Material	Application model
	a	b	c	d					
NT05AJV	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type
NT10AJV	35	9	6	17	7	82	63	Special alloy steel	GT-NT10 type

AE **Nipping blades for plastic** **Plastic**

AE/ Used for processing plastic gates such as ride gates and discard gates.

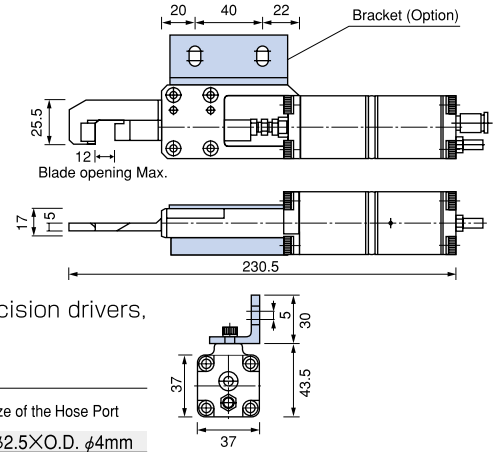
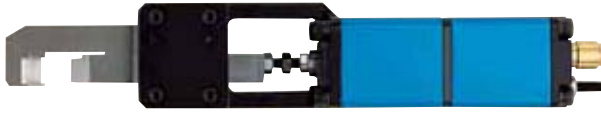



Model No.	Size (mm)				e (mm)	L (mm)	Weight (g)	Material	Application model
	a	b	f×g	d					
NT05AE	29	7	6×18	7	6	65	36	Special alloy steel	GT-NT05 type
NT10AE	35	9	8×21.5	9	7	82	75	Special alloy steel	GT-NT10 type

Thrust-Cut Air Nipper

GT-NK10 Thrust-Cut Air Nipper

NK



These nippers are equipped with a foot switch and are linked to high precision drivers, enabling the cutting of film-shaped gates from the thin end, preventing wrinkles around the cut.

Capacity ϕ (mm) ABS Plastic	Model No.	Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Applied Pressure (N)	Spec. & Size of the Hose Port
5	GT-NK10	110	0.4~0.5	800	735	Hose I.D. ϕ 2.5XO.D. ϕ 4mm

*Hose Coupling: I.D. ϕ 4 X O.D. ϕ 6 mm *Piston stroke...Max.12 mm

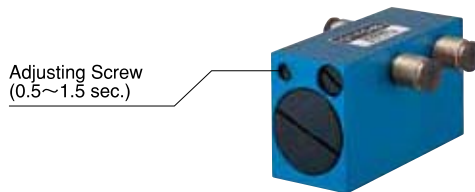
Thrust-Cut Air Nipper blades

Thrust-Cut Air Nipper blades		Plastic				
NK10AJ	This is a dedicated set of blades for GT-NK10. Suitable for processing of film gates attached to robot hands.					
Model No.	Size (mm)	Shape	O.A.L. (mm)	Weight (g)	Material	Application model
NK10AJ	As above	For metal cutting (Knife type)	95	96	Special alloy steel	GT-NK10

Related items

GT-TC-02 Timing Controller

TC



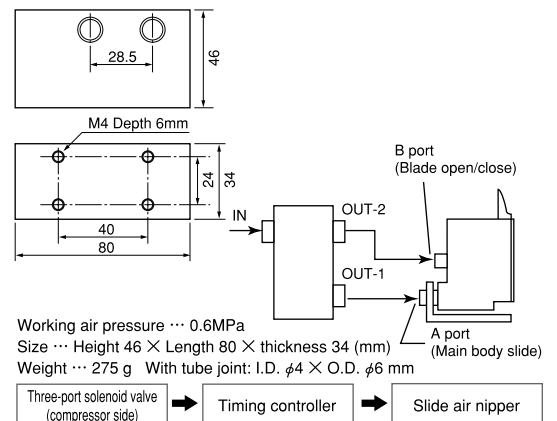
Adjusting Screw
(0.5~1.5 sec.)

Connected between the compressor and the air nippers, the timing controller enables adjustments to the slide and cutting timing. (Approximately 0.5 seconds to 1.5 seconds)

Connectable nippers (Reference)

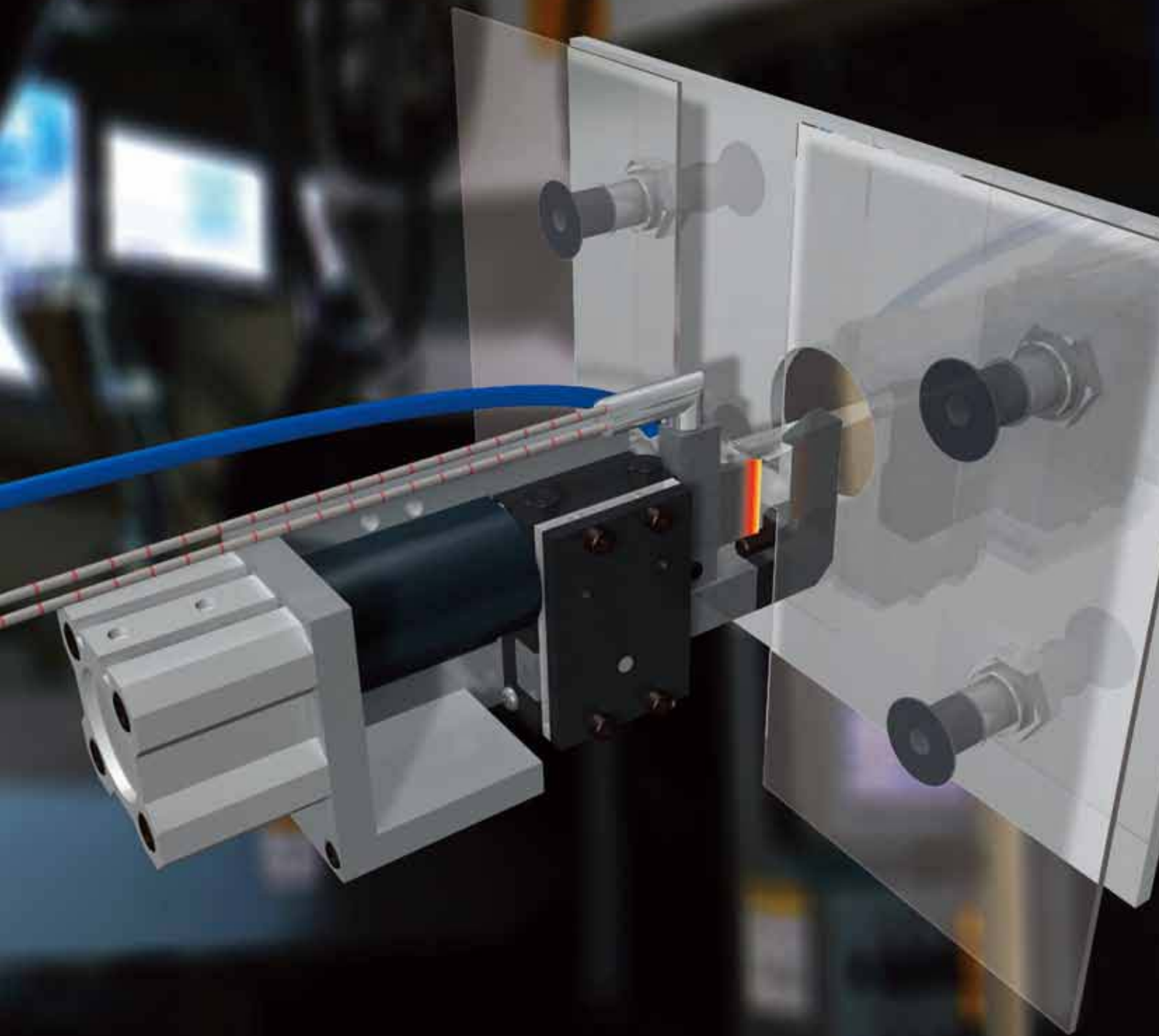
No. GT-	NY05	NY10	NY15	NY25	NT03	NT05	NT10	NT20	NB20	NB30	NB20LW	NB30LW
Connectable unit	4	3	1	1	6	4	2	1	2	1	2	1

(pcs)



Heat Air Nippers

These air nippers are connected to a heater to suppress cracks and whitening of clear materials such as acrylic. The gate is slowly melted as it's cut, resulting in a clean, unblemished cut surface.

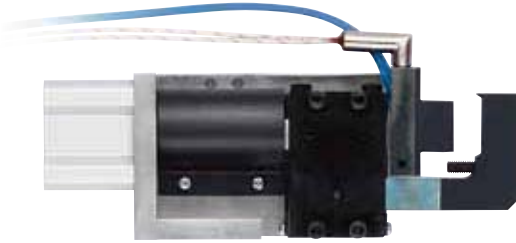


Heat Air Nippers

GT-NKH20A/20AR Heat Air Nippers (Air Hydro Type)

NKH

Air-hydro cylinders produce high power from air and oil. These units are ideal for high precision cuts required for products such as optical resin lenses.



- Requires separately sold Hydro Controller.
- Custom-made blade lengths and cylinder capacities available.

Model No.	Cutting Capacity φ (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec/cut)	Air Consumption (cm ³ /str.)	Piston Stroke (mm)	Weight (g)
GT-NKH20A-25/20AR-25	Thickness 1.5 Width 10	180	4~5	60	10	720

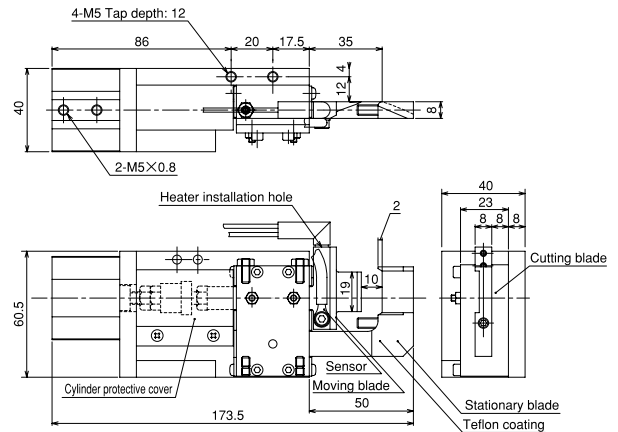
• Included heater: HTL-28.5-6.25-300L 80W1H (80W/100V) Cord length 300mm Recommended temp. 140°C
 • Included temperature sensor: SNO300L Thermal couple type K (Nickel-Chromium/Nickel-Aluminum) Recommended temp. 140°C Cord length 1,000mm
 • Air Pressure: 0.6MPa • Working air hose inner diameter: 4mm
 ※200V/240V heaters are also available to order.

Blades Specifications

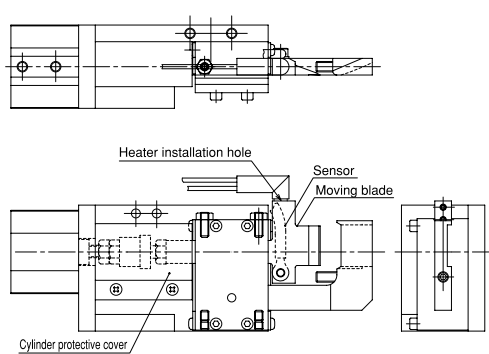
Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
Special Alloy Steel	Knife type (resin)	10	19	125

- Option Parts**
- Hydro-converter (Recommended: KOGANEI AHC 32X50)
 - Working fluid: Petroleum hydraulic fluid or turbine oil with antifoaming agent additive (VG22~100)
 - Temperature controller (DTC-001)

GT-NKH20A-25 (Forward-facing blades)



GT-NKH20AR-25 (Backward-facing blades)



GT-NKH10 Heat Air Nippers

NKH

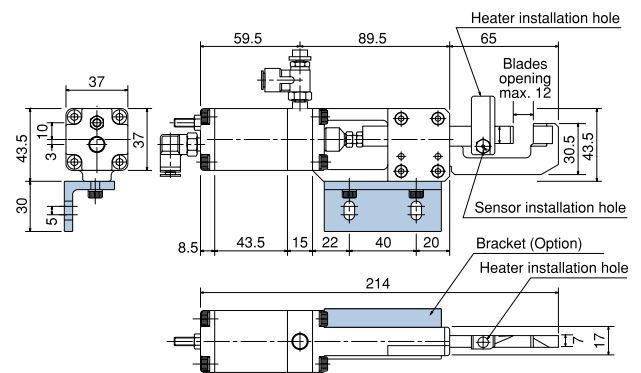
Speed control of cut speed and heater temperature allows for variable cutting surface solutions for extremely high precision cutting demands.



Model No.	Cutting Capacity φ (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec/cut)	Air Consumption (cm ³ /str.)	Piston Stroke (mm)	Weight (g)
GT-NKH10	Thickness 1.5 Width 7	200	4~5	73	12	715

• Included heater: 80W/120V Cord length: 300mm
 • Included temperature sensor: Thermal couple type K (Nickel-Chromium/Nickel-Aluminum) Cord length: 1,000mm
 • Air Pressure: 0.4~0.5MPa

- Option Parts**
- Temperature controller (DTC-001)



Blades Specifications

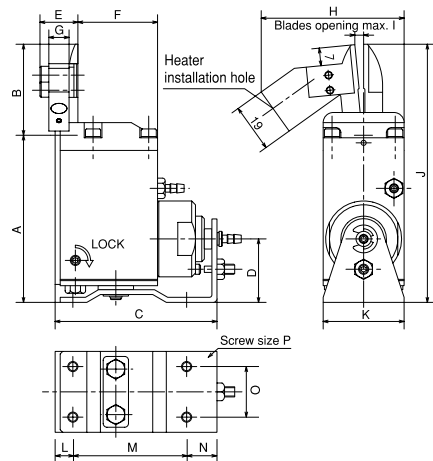
Model No.	Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
NKH10AJ/NKH10ARJ	Special Alloy Steel	Knife type (resin)	12	10	137

Heat Air Nippers

GT-NTH05/10 Heat Air Nippers (Vertical sliding type)

NTH

One blade is fixed in position, facilitating easy gate alignment. In addition, a slide function presses the product into position.



Model No.	Cutting Capacity φ (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec/cut)	Air Consumption (cm ³ /str.)	Slide Distance (mm)	Weight (g)	Dimensions (mm)															
							A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
GT-NTH05	2.5	200	4~5	47	0~3	325	66.1	36	64	25.1	15	31.5	8	56.5	3.5	102.1	32	7	45	12	20	M4
GT-NTH10	3.5	200	4~5	82	0~3	515	83	47	73	29	16.2	37.5	8	63	4.5	130	38	8	53	12	24	M4

- Included heater: 80W/120V Cord length: 300mm
- Included temperature sensor : Thermal couple type K (Nickel-Chromium/Nickel-Aluminum) Cord length: 1,000mm
- Air Pressure: 0.4~0.5MPa

Blades Specifications

Model No.	Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
NTH05AJ	Special Alloy Steel	Nipper type (resin)	3.5	15	40
NTH10AJ	Special Alloy Steel	Nipper type (resin)	4.5	17	88

HTH type blade weight does not include heater and sensor.

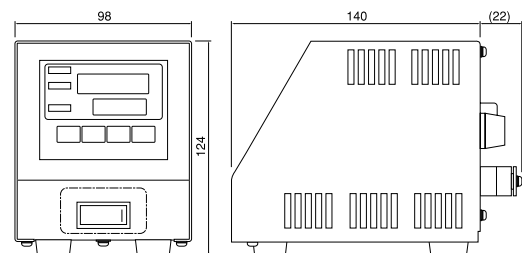
Option Parts • Temperature controller (DTC-001)

Temperature Controller

DTC-001 Benchtop Temperature Controller

DTC

The heating element can be connected directly to the main unit, a useful feature that saves labor during wiring installation. Compact construction enables the unit to be easily carried, allowing for changing the work site at any time.



Please inform us of the product number of the heat nipper when placing an order.

Model No.	Temperature range Thermocouple K (°C)	Power supply (V)	Power consumption (with 100 VAC input)	Ambient temperature and humidity (°C)	Protection fuse	Weight (g)
DTC-001	0~200	AC100~240	Approx. 3W (Approx. 5VA) (With no load)	0~40 RH35~85% (No condensing)	One 15A fuse is incorporated.	900

※Please ensure the input voltage in prior to operation as it is directly connected to the heater.

Option Parts • Power supply cable : Model No. DTC-001-□-□

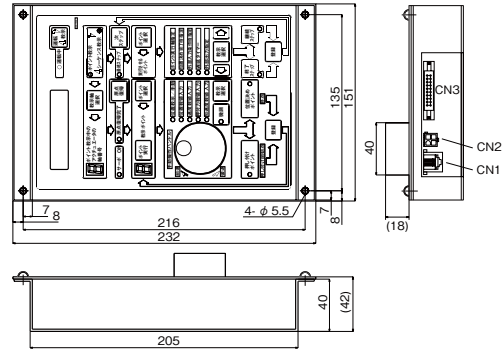
- : Cable for connection to the terminal block is necessary to be included.
- : (N/ A) Cable not necessary.
- : 2m power cable w/ Japanese type plug (A-type)
- : 2m power cable w/ European type plug (C-type)
- : (N/ A) Cable not necessary.

Special Controller (optionally available)

Controller
CTC-33



Model No.	CTC-33
Sequence	41 steps
Power	Supplied by amplifier
P I O connector	Hirose HIF3BA (20PIN)
S I O connector	RS485
A D P connector	AMP 172167-1
Size (mm)	235x150x40
Weight (kg)	0.9



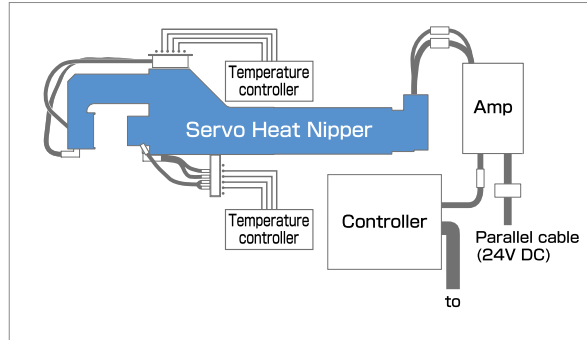
Features

Freely Settable Blade Travel Distance and Speed
Heating nippers that optimally uses the prime control features of the servomotor.

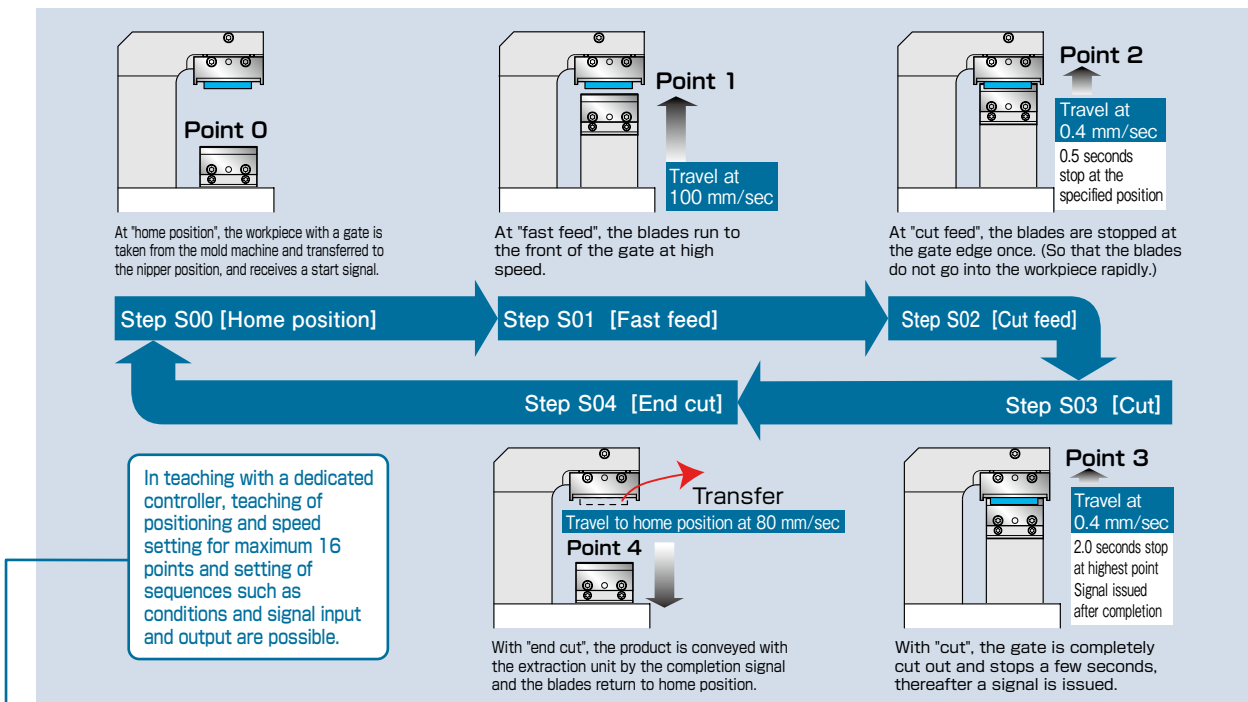
Reduces Fusing, Cracking and Bad Cuts
Fine pitch feeding is possible, therefore cutting can be performed at low temperature and low speed.

Stable Cutting
The blades are fed by servomotor control, therefore cutting quality is stable.

System Connections



Practical example of gate-cut



Practical example of input data

Teaching content		Home position	Fast feed	Cut feed	Cut	End cut
Point data	Point No.	0	1	2	3	4
	Positioning (*)	Home position	Leaving 7 mm	Leaving 0.5 mm	Maximum	value
	Speed setting	-	100 mm/sec	0.4 mm/sec	0.4 mm/sec	80 mm/sec
	Pushing force setting	-	-	-	-	-
	Acceleration setting	-	-	-	-	-
Sequencer data	Step No.	S00	S01	S02	S03	S04
	Waiting for positioning to complete	-	-	-	-	-
	Waiting for external input conditions	-	-	-	-	-
	Delay timer	-	-	0.5sec	2.0sec	-
	Specified external output	-	-	-	ON	-

(*) Input of positioning is actually done with a numerical value.

Air Nippers For Cutting and Crimping

A tough body for hard jobs.

With a frame diameter range of 23mm to 75mm, this product line was developed by piston size.

These models are ideal for a broad spectrum of cutting and crimping work.

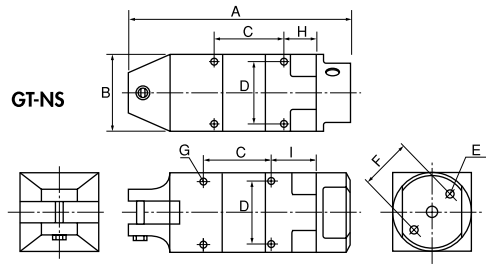


Air Nippers

GT-NS2/3/5/7/10L/20/30 Square Air Nippers

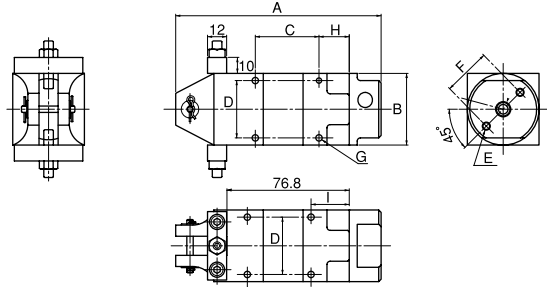
NS

VESSEL provides a generous selection of blades for all wire cutting needs, including resin product gate cuts and automatic welding equipment.



Customization

GT-NS20H-1 (Blade opening adjustable)



- The main body end is 180° rotatable.
- Two suction (intake) ports are provided, and so the suction position can be optionally changed depending on the mounting place.

Capacity φ (mm)				Model No.	Size (mm)						Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling			
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F					G	H	I
2.0		1.0	0.5	GT-NS2	109	20	40	16	—	—	M3 Depth4	19	24	35	0.4~0.5	85	Rc1/8
2.0		1.0	0.5	GT-NS3	110	23	40	19	M3 Depth8	17	M3 Depth3.5	19	24	45	0.4~0.5	95	
2.0		1.0	0.5	GT-NS5	94	30	30	24	M4 Depth10	20	M3 Depth5	14	19	64	0.4~0.5	135	
3.0	2.0	1.6	1.0	GT-NS7	113	36	30	28	M4 Depth10	24	M4 Depth5.5	18	23	116	0.4~0.5	215	
4.0	2.6	1.8	1.2	GT-NS10L	113	36	30	28	M4 Depth10	24	M4 Depth5.5	18	23	116	0.4~0.6	215	
7.0	5.0	2.6	2.0	GT-NS20	129	45	40	36	M5 Depth12	30	M4 Depth7	19	24	230	0.5~0.6	370	
10.0	6.5	3.3	2.8	GT-NS30	170	56	60	46	M6 Depth12	40	M5 Depth10	20	30	584	0.5~0.6	685	
7.0	5.0	2.6	2.0	GT-NS20H-1	129	45	40	36	M5 Depth12	30	M4 Depth7	19	24	230	0.5~0.6	455	

•Air hose inner dia. : 5mm •Overall length/Weight: Accessories not included.

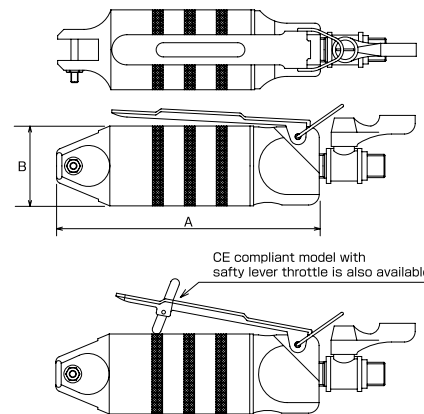
※Before mounting of exclusive/automatic machines, check the following product dimensions. (Frame O.D., screw dia. (screw to screw) dimensions, etc.)

※Model GT-NS50 is a special order item. Please contact VESSEL for details.

GT-N3/5/7/10/12/20/30/50 Hand Held Air Nippers

N

VESSEL's special order blades provide solutions for a virtually unlimited range of needs, leading to safer, and more efficient work with less fatigue.



- N20, N30 and N50 have the air cock.

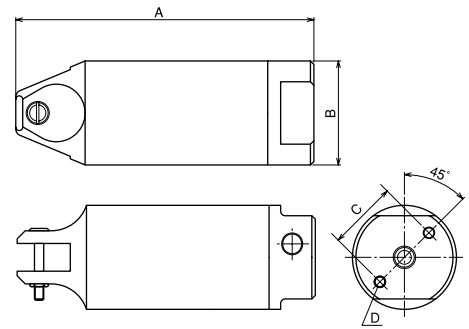
Capacity φ (mm)				Model No.	Size (mm)		Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Body	Hose coupling
Soft Plastic	Hard Plastic	Copper	Steel		A	B					
2.0		1.0	0.5	GT-N3	112	23	45	0.4~0.5	95	Rc1/8	R1/4
2.0		1.0	0.5	GT-N5	103	30	64	0.4~0.5	135	Rc1/8	
3.0	2.0	1.6	1.0	GT-N7	123	34	116	0.4~0.5	180	Rc1/4	
4.0	2.6	1.8	1.2	GT-N10	132	34	116	0.4~0.5	185	Rc1/4	
4.5	4.0	2.3	1.7	GT-N12	142	36	116	0.5~0.6	210	Rc1/4	
7.0	5.0	2.6	2.0	GT-N20	156	45	230	0.5~0.6	375	Rc1/4	
10.0	6.5	3.3	2.8	GT-N30	193	56	584	0.5~0.6	625	Rc1/4	
		5.5	4.5	GT-N50	237	75	1,170	0.5~0.6	1,220	Rc1/4	

•Hose coupling: R 1/4 •Air hose inner dia. : 5mm •Overall length: Accessories, Hunger not included. •Weight: Accessories not included.

Air nippers

GT-NR3/5/7/10L/20/30/50 Air Nipper Round-Type without Lever

NR



- The main body end is 180° rotatable.
- Two suction (intake) ports are provided, the suction position can be optionally changed depending on the mounting plate.

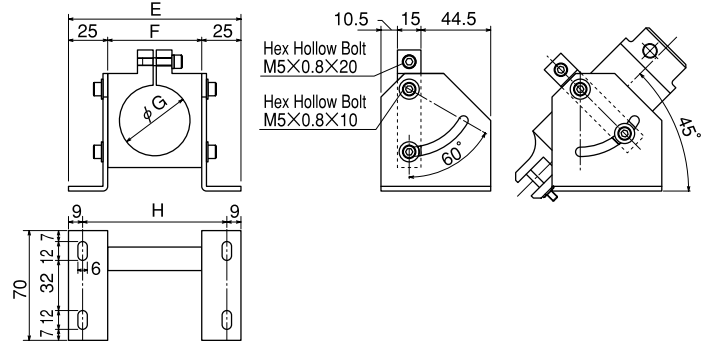
Soft Plastic	Hard Plastic	Copper	Steel	Model No.	Size (mm)				Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling
					A	B	C	D				
2.0		1.0	0.5	GT-NR3	110	23	17	M3 Depth8	45	0.4~0.5	70	Rc1/8
2.0		1.0	0.5	GT-NR5	94	30	20	M4 Depth10	64	0.4~0.5	110	
3.0	2.0	1.6	1.0	GT-NR7	113	34	22	M4 Depth10	116	0.4~0.5	150	
4.0	2.6	1.8	1.2	GT-NR10L	113	36	24	M4 Depth10	116	0.4~0.6	215	
7.0	5.0	2.6	2.0	GT-NR20	129	45	30	M5 Depth12	230	0.5~0.6	280	
10.0	6.5	3.3	2.8	GT-NR30	165	56	40	M6 Depth12	584	0.5~0.6	505	
12.0	6.5	5.5	4.5	GT-NR50	222	75	50	M8 Depth12	1,170	0.5~0.6	1,190	

•Air hose inner dia. : 5mm •Overall length/Weight: Accessories not included.

※Before mounting of exclusive/automatic machines, check the following product dimensions. (Frame O.D., screw dia. (screw to screw) dimensions, etc.)

Stand

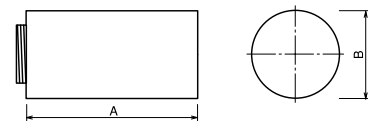
Stands for installing air nippers.
The angle is easily adjustable.



Model No.	E	Size (mm)			Weight (g)
		F	G	H	
NR10LST	102	52	36	84	335
NR20ST	110	60	45	92	385
NR30ST	130	80	56	112	535
NR50ST Option	150	100	75	132	835

P-10L/20/30/50 Powerful Intensifiers (With Extra pressure Booster)

P This unit is to be used in case the originally required pressure is not obtainable by the limit of space and air pressure.



Capacity φ (mm)				Application model		Model No.	Size (mm)		Air Consumption (cm ³ /str.)	Air Pressure	Weight (g)
Soft Plastic	Hard Plastic	Copper	Steel				A	B			
5.0	4.0	2.6	1.6	NS10L, NR10L, N12	P-10L	71	36	223	Up to 0.4MPa	115	
8.0	6.0	3.0	2.2	N20, NS20, NR20	P-20	87	45	508	Up to 0.5MPa	215	
13.0	7.0	4.8	4.0	N30, NS30, NR30	P-30	92	56	956	Up to 0.5MPa	330	
		6.5	5.5	N50, NR50	P-50	133	75	2,670	Up to 0.5MPa	840	

•Above figures of overall length and the weight are defined for the extra booster specs only. And these figures in the installation.

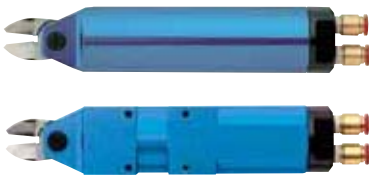
Air nippers

GT-NWR1/10/20/30 GT-NWS1/10/20 Double Action Air Nippers

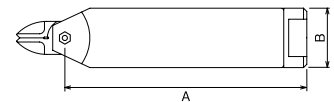
Patented

NWR · NWS

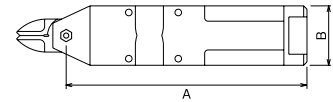
Blade opening and closing is air piston driven. Having no spring mechanism in the main unit facilitates maintenance operations.



GT-NWR



GT-NWS



Model No.	Capacity ϕ (mm)			Air Consumption (cm ³ /str.)	Applied Pressure (N)	Air Pressure (MPa)	Size (mm)		Weight (g)
	Copper	Steel	ABS Plastic				A	B	
Double Action Air Scissors (Round Type without Lever)									
GT-NWR1	1.0	0.5	2.0	45	294	0.4~0.5	95	ϕ 20	116
GT-NWR10	1.8	1.2	4.0	116	588	0.4~0.5	146	ϕ 36	280
GT-NWR20	2.6	2.0	6.5	230	1,372	0.5~0.6	165	ϕ 45	523
GT-NWR30	3.3	2.8	9.5	584	2,744	0.5~0.6	216	ϕ 56	980
Double Action Air Scissors (Square Type)									
GT-NWS1	1.0	0.5	2.0	45	294	0.4~0.5	95	23×20	116
GT-NWS10	1.8	1.2	4.0	116	588	0.4~0.5	146	36×36	356
GT-NWS20	2.6	2.0	6.5	230	1,372	0.5~0.6	165	45×45	610

GT-NB20/30/20LW/30LW Slide-Off Air Nipper Bracket-Type

NB

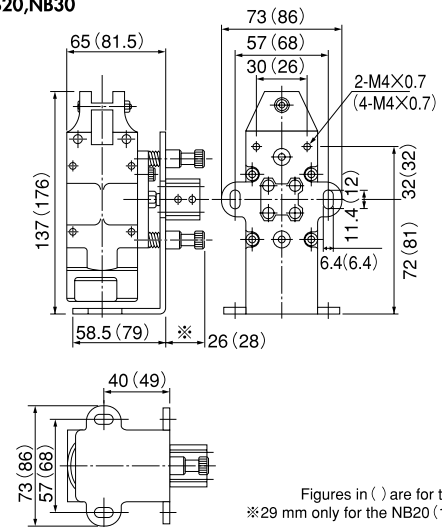
VESSEL has achieved smooth, continuous slide movement even for large diameter gate cuts, which produce a large shock at each cut.



GT-NB20LW-10TM
Accurate slide function with slide stroke

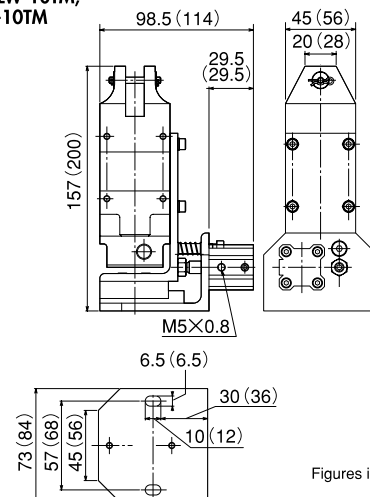
GT-NB20

GT-NB20, NB30



Figures in () are for the NB30.
※29 mm only for the NB20 (10-HIKU)

GT-NB20LW-10TM, NB30LW-10TM



Figures in () are for the NB30LW-10TM.
Unit : mm

Model No.	Size (mm)		Slide Direction/ Distance (mm)	Weight (g)
	A	B		
GT-NB20 (5-OSHI)	59	22	Push 0~5	755
GT-NB20 (5-HIKU)	61.5	27	Pull 0~5	755
GT-NB20 (10-OSHI)	59	27	Push 0~10	755
GT-NB20 (10-HIKU)	66.5	29	Pull 0~10	755
GT-NB30 (10-HIKU)	77.5	28.5	Pull 0~10	1,435
GT-NB20LW-10TM	65	28.5	Pull 0~10	785
GT-NB30LW-10TM		28.5	Pull 0~10	1,315
GT-NB20LW-10SM		29.5	Push 0~10	785
GT-NB30LW-10SM		29.5	Push 0~10	1,315

Blade is optional.

Air nipper standard blades for metal

AS/HS **Standard** **Metal**

AS/ Standard type. This is a general set of blades used for cutting copper wire and steel wire. **HS/** Improved durability with brazed high-speed steel.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(*)	d	e	L			
N3AS	24	7	25	12	4	64	35	Special alloy steel	GT-N3 / NS3 / NR3
N3HS	24	7	25	12	4	64	35	High Speed Steel	GT-N3 / NS3 / NR3
N5AS	24	7	25	12	4	64	40	Special alloy steel	GT-N5 / NS5 / NR5
N5HS	24	7	25	12	4	64	40	High Speed Steel	GT-N5 / NS5 / NR5
N7AS	27	9	30	13.5	4	81	80	Special alloy steel	GT-N7 / NS7 / NR7
N7HS	27	9	30	13.5	4	81	80	High Speed Steel	GT-N7 / NS7 / NR7
N10AS	27	9	30	13.5	5	91	85	Special alloy steel	GT-N10
N10HS	27	9	30	13.5	5	91	85	High Speed Steel	GT-N10
N10LAS	35	12	30	20	5	89	120	Special alloy steel	GT-NS10L / NR10L
N12AS	35	12	30	20	5	105	135	Special alloy steel	GT-N12
N12HS	35	12	30	20	5	105	135	High Speed Steel	GT-N12
N20AS	35	12	30	20	9	95	140	Special alloy steel	GT-NS20 / NR20 / N20
N30AS	43	17	30	25	9	127	370	Special alloy steel	GT-NS30 / NR30 / N30

BJ **Straight blades for metals** **Metal**

BJ/ This is a set of vertical blades with an unbeveled cutting edge for metal.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NW1BJ	20	5	3	10.5	3.5	50	16	Special alloy steel	GT-NWR1 / NWS1
N3BJ	24	7	5.8	13	5	64	35	Special alloy steel	GT-N3 / NS3 / NR3 / NS2
N5BJ	24	7	5.8	13	4	64	40	Special alloy steel	GT-N5 / NS5 / NR5
N7BJ	27	9	7.5	13	5	81	75	Special alloy steel	GT-N7 / NS7 / NR7
NW10BJ	30	9	6	14	5	85	76	Special alloy steel	GT-NWR10 / NWS10
NW20BJ	40	12	6	21.5	8	100	142	Special alloy steel	GT-NWR20 / NWS20
NW30BJ	55	17	8	29.5	11	140	367	Special alloy steel	GT-NWR30

AG **Powerful cutting blades** **Metal**

AG/ This is a set of blades with increased strength with a shorter cutting edge than the standard type. Increases the pressure because it cuts at the base of the blades.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(*)	d	e	L			
N20AG	28	12	40	12	7	88	135	Special alloy steel	GT-NS20 / NR20 / N20
N20HS	26	12	40	10	7	86	135	High Speed Steel	GT-NS20 / NR20 / N20

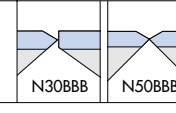
Air nipper standard blades for metal


☐ Sintered Alloy Hardest, most durable material. For cutting hard steel wire, glassfiber-reinforced resin, etc.

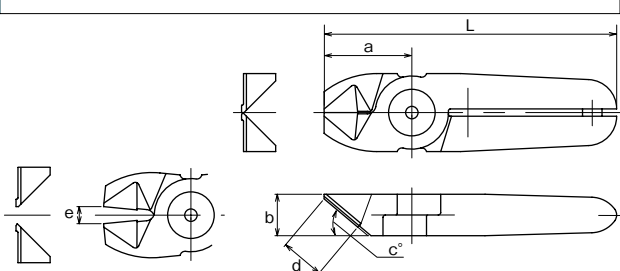
BBB

Powerful cutting blades with carbide tips

BBB/ With carbide tips suitable for cutting hard wire such as high steel wire and piano wire.

Metal




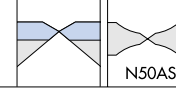



Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(*)	d	e	L			
N30BBB	36	17	40	18	7	120	365	Sintered Alloy	GT-NS30 / NR30 / N30
N50BBB	46	25	35	19	9	166	955	Sintered Alloy	GT-NR50 / N50

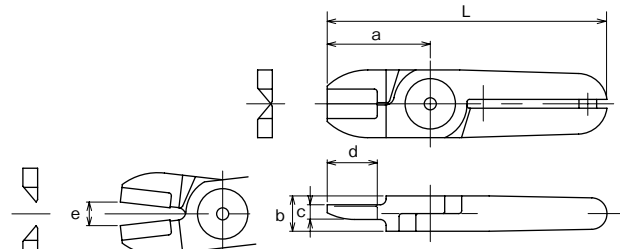
BFB/AS

Clipper blades with carbide tips

BFB/ The shape is clipper type. With carbide tips, suitable for cutting metal wire and thin pipe. **AS/** Standard clipper type blades.

Metal








Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N20BFB	35	12	5	17	8	95	150	Sintered Alloy	GT-NS20 / NR20 / N20
N50AS	60	25	10	30	11	180	950	Special alloy steel	GT-NR50 / N50

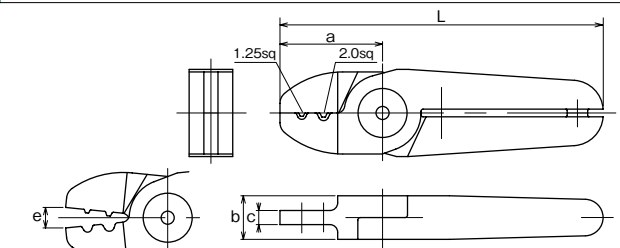
ACD

Crimp edge for solderless terminals

ACD/ This is a set of blades for crimping solderless terminals. (Bare terminal 1.25 sq/2.0 sq)

Metal






Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	e	L				
N30ACD	40	17	5.5	8	126	335	Special alloy steel	GT-NS30 / NR30 / N30	

NM Blades

NM Blades

Patented



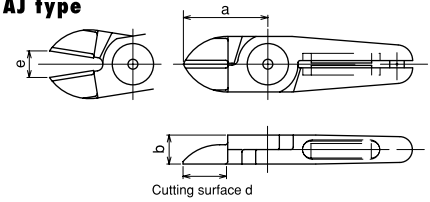
NM blades shut down the Spring breakage. Applicable to your VESSEL current air nipper. Spring replacement is no longer required as the neodymium magnet works semi-permanently.



Specifications

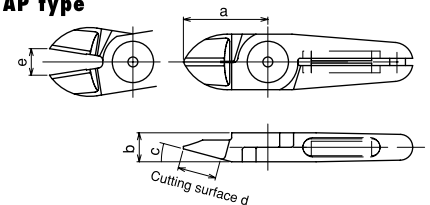
Straight / Thin

AJ type



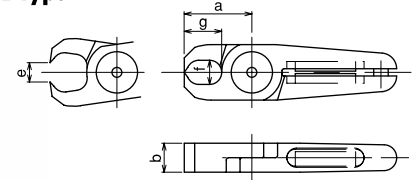
For plastic parts

AP type



Cutting-off / For plastic parts

AE type



Capacity φ (mm)		Application model	Model No.	Size (mm)					Weight (g)	
Soft Plastic	Hard Plastic			a	b	c(°)	d	e		f × g
7.0	5.0	GT-N20	NM20AJ	35	12		18.0	11.0		116
7.0	5.0	GT-NS20	NM20AP	35	12	15	16.0	11.0		124
7.0	5.0	GT-NR20	NM20AE	28	12		12.0	8.0	10×15.5	129
10.0	6.5	GT-N30	NM30AJ	52	17		28.0	11.0		360
10.0	6.5	GT-NS30	NM30AP	66	17	15	38.0	16.0		380
10.0	6.5	GT-NR30	NM30AE	45	17		17.0	12.0	13×28	358

※Customization also available upon request.

⚠ Utmost Care

Handling care due to its powerful magnet.

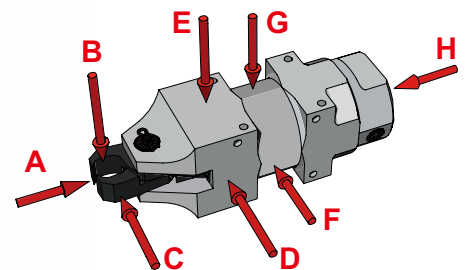


Magnetic repulsive force



■ Result of magnetic force measurement.

If a magnetic sensor is installed nearby for operation check, please confirm the magnetic force level in the following diagram.



Model No.	A	B	C	D	E	F	G	H
NM20AE	85	10	10	5	32	5	2	0
NM30AE	34	8	8	6	42	15	30	3

Measurement unit: Gauss / Measuring device: Gaussmeter GM-1200 manufactured by DENSHIJIKI INDUSTRY Co., Ltd., Japan

Features

Ideal for around-the-clock operations

NM blades eliminate possibilities of spring breakage.

Semi-permanent magnetic force

NM blades utilize repulsion force of powerful neodymium magnet. The decrease of magnetic force is only several percent over 20 years.

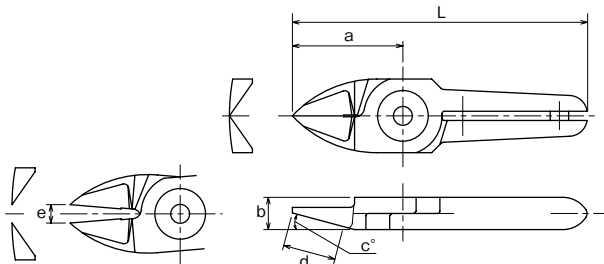

Compatible with our standard nipper bodies

The sizes of NM blades are the same as those of our standard N20, N30 blades, therefore, they can replace these previous models.

Air nipper standard blades for plastic

AP **For plastic** **Plastic**

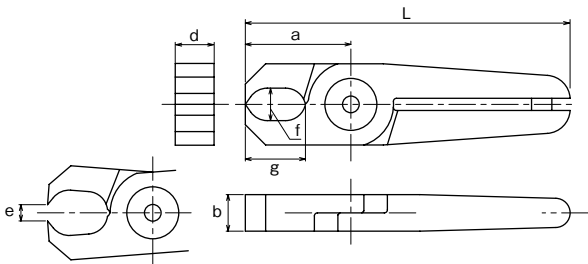

AP/ This is a standard set of blades used to cut plastic. A broad, gentle curve is provided in the cross section for gate processing where the cut end must not be left. (The cutting edge is curved.)

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(°)	d	e	L			
N3AP	24	7	15	11.5	4	64	35	Special alloy steel	GT-N3 / NS3 / NR3
N5AP	24	7	15	11.5	4	64	40	Special alloy steel	GT-N5 / NS5 / NR5
N7AP	27	9	30	11.5	4	81	80	Special alloy steel	GT-N7 / NS7 / NR7
N10AP	27	9	30	11.5	5	91	85	Special alloy steel	GT-N10
N10LAP	35	12	15	16	5	89	120	Special alloy steel	GT-NS10L / NR10L
N12AP	35	12	15	16	5	105	135	Special alloy steel	GT-N12
N20AP	35	12	15	16	11	95	125	Special alloy steel	GT-NS20 / NR20 / N20
N30AP	66	17	15	38	16	150	380	Special alloy steel	GT-NS30 / NR30 / N30

AE **Nipping blades for plastic** **Plastic**

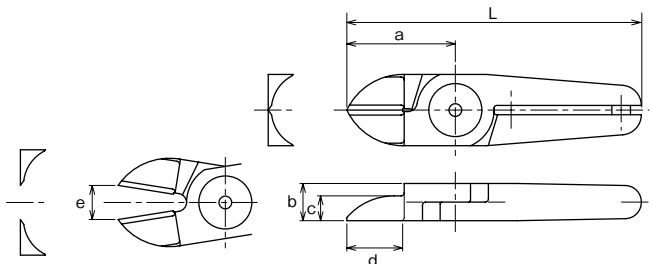

AE/ Used for processing plastic gates such as ride gates and discard gates.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	f×g	d	e	L			
N3AE	20	7	6×11	7	3.5	60	35	Special alloy steel	GT-N3 / NS3 / NR3
N5AE	20	7	6×6.6	7	3.5	60	40	Special alloy steel	GT-N5 / NS5 / NR5
N7AE	26	9	8×14.8	9	4	80	85	Special alloy steel	GT-N7 / NS7 / NR7
N20AE	28	12	10×15.5	12	8	88	135	Special alloy steel	GT-NS20 / NR20 / N20
N30AE	45	17	13×28	17	12	129	395	Special alloy steel	GT-NS30 / NR30 / N30

AJ **Thin, straight blades for plastic** **Plastic**

AJ/ This is a set of vertical blades with an unbeveled cutting edge for plastic. You can apply it at a right angle to the gate.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
NW10AJ	30			14	5		76	Special alloy steel	GT-NWR10 / NWS10
N20AJ	35	12	8	18	11	95	125	Special alloy steel	GT-NS20 / NR20 / N20
N20AJB	35	12	8	18	11	95	125	Sintered Alloy	GT-NS20 / NR20 / N20
NW20AJ	40			21.5	8		142	Special alloy steel	GT-NWR20 / NWS20
N30AJ	52	17	8	28	11	136	370	Special alloy steel	GT-NS30 / NR30 / N30
NW30AJ	55			29.5	8		368	Special alloy steel	GT-NWR30

Air nipper standard/quasi-standard blades for plastic

AJL/
Quasi-standard products

Straight long blades for plastic

Plastic

AJL/ This is a long type set of straight blades. This is suitable when there is distance between the nippers and the gate cut portion of the workpiece. N30AJL163 is useful for wide gate processing.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N10LAJ141	61	12	7	34	10	115	165	Special alloy steel	GT-NS10L / NR10L
N20AJL	65	12	7	20	16	125	230	Special alloy steel	GT-NS20 / NR20 / N20
N20AB39	61	12	7	36	14	121	185	Special alloy steel	GT-NS20 / N20
N30AJ163	65	17	7	41	17.5	149	355	Special alloy steel	GT-NS30 / NR30 / N30
N30AJL	75	17	8	25	19	159	470	Special alloy steel	GT-NS30 / NR30 / N30

PF

Flat blades for plastic

Plastic

PF/ This is a set of blades for cutting the cut end flat for plastic. A large R is provided in the cross section for gate processing where the cut end must not be left.

Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(°)	d	e	L			
N7PF	27	9	40	10.5	4	81	80	Special alloy steel	GT-N7 / NS7 / NR7
N10LPF	35	12	40	13.5	5	89	120	Special alloy steel	GT-NS10L / NR10L
N20PF	35	12	40	13.5	11	95	130	Special alloy steel	GT-NS20 / NR20 / N20
N30PF	58	17	30	25	15	142	390	Special alloy steel	GT-NS30 / NR30 / N30

AH

Crank blades for plastic

Plastic

AH/ This is a set of blades with a crank cutting edge for plastic. It is effective when there are obstructions or the gate is narrow.

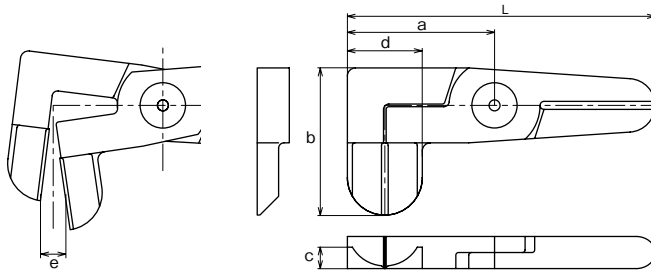
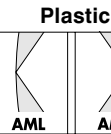
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N20AH	60	31	7	23	16	120	240	Special alloy steel	GT-NS20 / NR20 / N20

Air nipper standard/quasi-standard blades for plastic

**AMR/
AML**

Laterally facing blades for plastics

AMR/AML This is a set of blades for plastic where the ML cutting edge is bent 90 degrees. It is useful when restricted to confined spaces hard for the nipper to get into.



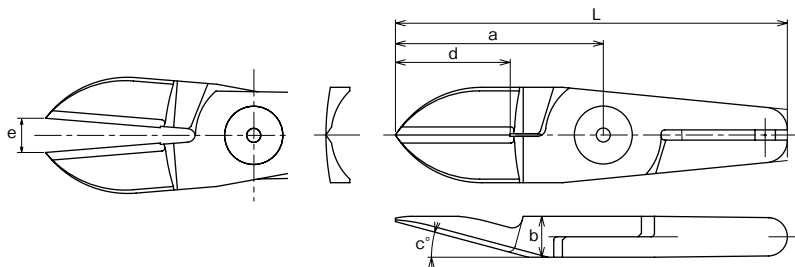
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c	d	e	L			
N20AML1498	55	55	8	26	9.5	115	270	Special alloy steel	GT-NS20 / NR20 / N20
N20AMR1499	55	55	8	26	9.5	115	270	Special alloy steel	GT-NS20 / NR20 / N20

Quasi-standard products

R blades for plastic

A large R is provided in the cross section for gate processing where the cut end must not be left. An angled blades can be selected in accordance with the installation angle of the main unit.

Plastic



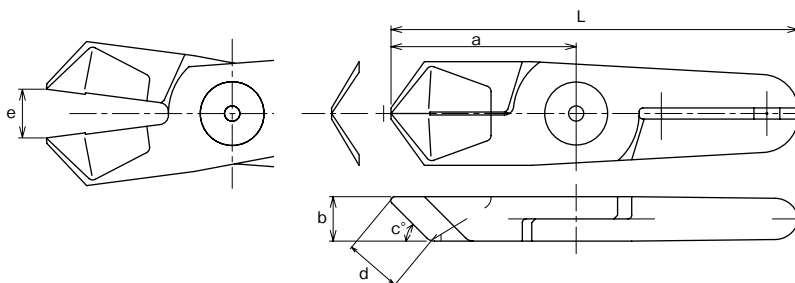
Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(°)	d	e	L			
N10LAB152	61	12	15	35	10	115	165	Special alloy steel	GT-N10 / NS10
N20AA27	45	12	23	25	12	105	145	Special alloy steel	GT-N20 / NS20
N20AA239	52.3	12	40	27	14	112.3	195	Special alloy steel	GT-N20 / NS20
N20AB360	61	12	15	35	16	121	185	Special alloy steel	NGT-20 / NS20
N30AA114	76.3	17	30	50	20	160.3	385	Special alloy steel	GT-N30 / NS30 / NR30

Quasi-standard products

Angled nipping blades for plastic



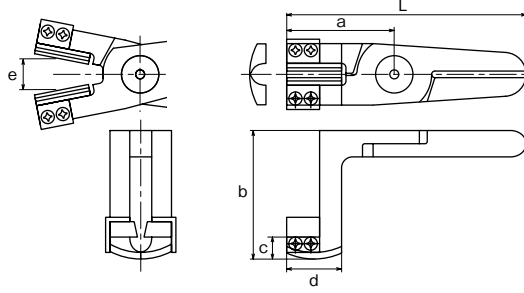
AE/ Used for processing plastic gates such as ride gates, discard gates. The cutting edge is angled so that the main unit can set up diagonally.



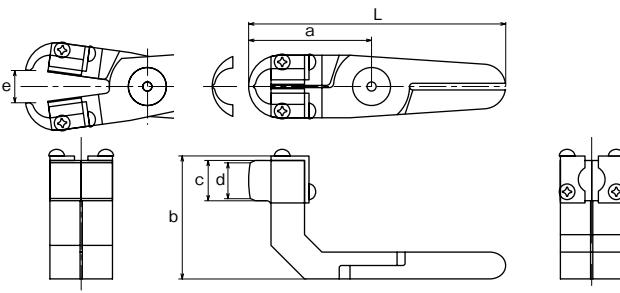
Plastic



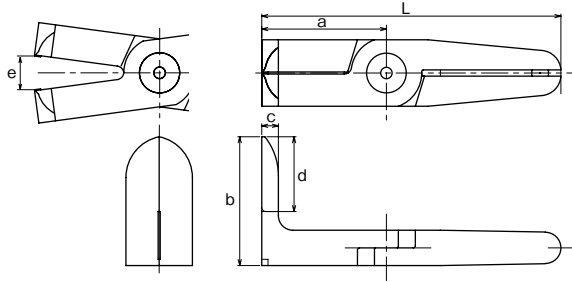


Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(°)	d	e	L			
N20AE19	50	12	45	13	13	110	200	Special alloy steel	GT-NS20 / NR20 / N20
N30AE53	65	17	65	18.5	16	149	440	Special alloy steel	GT-NS30 / NR30 / N30

Air nipper quasi-standard blades for plastic

Quasi-standard products	Comes with sprue chuck function①						Plastic		
	Mainly in gate processing for direct gates, the sprue is caught with urethane rubber. A large R is provided in the cross section for gate processing where the cut end must not be left.								
									
Model No.	Size (mm)						Weight (g)	Material	Application model
N20AH533	a	b	c	d	e	L	280	Special alloy steel	GT-N20 / NS20 / NR20

Quasi-standard products	Comes with sprue chuck function②						Plastic		
	Mainly in gate processing for direct gates, the sprue is caught with urethane rubber. A large R is provided in the cross section for gate processing where the cut end must not be left.								
									
Model No.	Size (mm)						Weight (g)	Material	Application model
N20AH152	a	b	c	d	e	L	330	Special alloy steel	GT-N20 / NS20 / NR20

Quasi-standard products	L blades for sprue cut						Plastic		
	This is an angled long type straight set of blades with a 90-degree angle. Ideal for direct gate cut.								
									
Model No.	Size (mm)						Weight (g)	Material	Application model
N30AL525	a	b	c	d	e	L	520	Special alloy steel	GT-N30 / NS30 / NR30

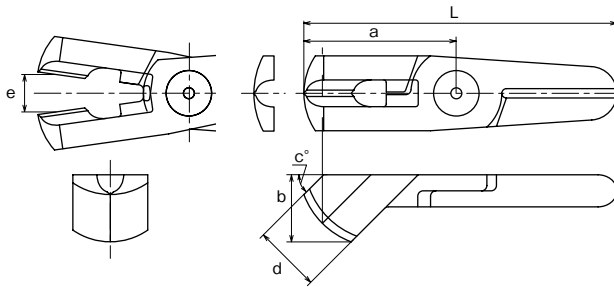
Air nipper quasi-standard blades for plastic

Quasi-standard products

Nipping blades for sprue cut

This is the perfect spherical set of cutting blades for sprue cut. The blades can be inserted precisely in narrow areas that have ribs around them and the finish is very clean.

Plastic

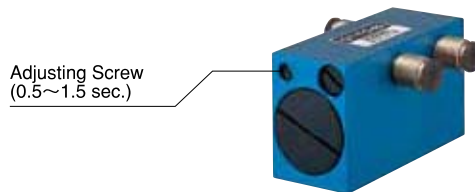


Model No.	Size (mm)						Weight (g)	Material	Application model
	a	b	c(°)	d	e	L			
N20AK249	57	25	45	25	14	117	240	Special alloy steel	GT-N20 / NS20 / NR30

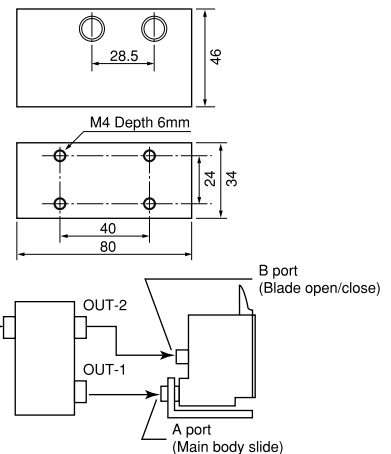
Related items

GT-TC-02 Timing Controller

TC



Adjusting Screw
(0.5~1.5 sec.)



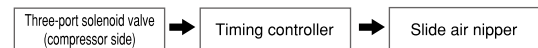
Connected between the compressor and the air nippers, the timing controller enables adjustments to the slide and cutting timing. (Approximately 0.5 seconds to 1.5 seconds)

Connectable nippers (Reference)

No. GT-	NY05	NY10	NY15	NY25	NT03	NT05	NT10	NT20	NB20	NB30	NB20LW	NB30LW
Connectable unit	4	3	1	1	6	4	2	1	2	1	2	1

(pcs)

Working air pressure ... 0.6MPa
Size ... Height 46 × Length 80 × thickness 34 (mm)
Weight ... 275 g With tube joint: I.D. φ4 × O.D. φ6 mm



Air Nipper Troubleshooting

Inspection items when a malfunction occurs during use

Symptoms	Causes	Treatment
1. Blades or slide not working properly.	Air is not being supplied	Supply air
	The hose is twisted	Extend the hose
	Low air pressure	Air pressure adjustment
	Corrosion, wear, or contamination of sliding part of the blades	Lubrication/disassembly adjustment
	Sliding parts burned by heat (heat nipper)	Component replacement
	Broken blade spring	Component replacement
	Broken return spring	Component replacement
	Broken blades	Replace blades
	Wear of the cutting unit/rivet	Replace blades
	2. Air leakage	Valve malfunction/wear, damage (O-rings, ball valves, etc.)
Packing is broken		Component replacement

Air Scissors

GT-H12K/H30/H120K/HS30 Air Scissors

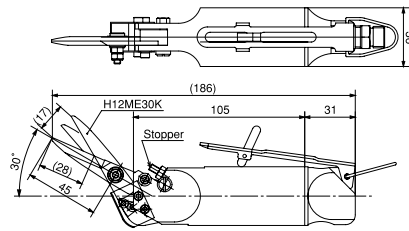


Two types of blades, standard and micro-edge, are available for use in accordance with the demands of each specific job.



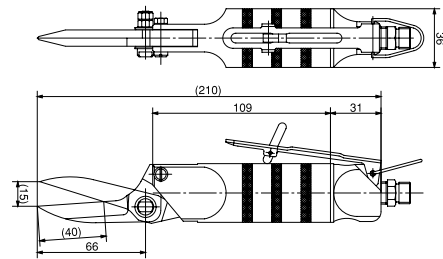
Enlarged view of blade edge

GT-H12K+H12ME30K



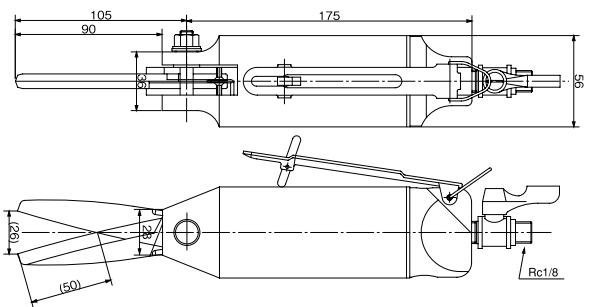
GT-H12K Small lightweight type with single stationary blade

GT-H120K+H120SK



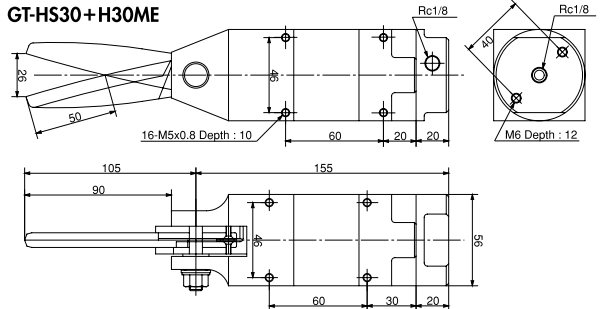
GT-H120K Single stationary blade specification

GT-H30+H30ME



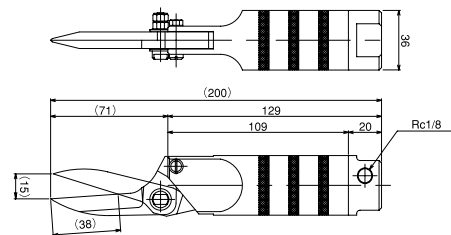
GT-H30 Double movable blades

GT-HS30+H30ME



GT-HS30 Double movable blades

GT-HR120K (Special Order) + H12ME30K



Model No.	Capacity (max) (mm)	Air Consumption (cm ³ /str.)	Applied Pressure (MPa)	Overall Length (with Blade) (mm)	Weight (with Blade) (g)
GT-H30	Kevlar t=1	584	0.3	280	1,030
GT-H12K	Kevlar t=0.3	116	0.2	186.2	290
GT-H120K	Band steel 15×0.5t	116	0.5~0.6	211	340
GT-HS30	Kevlar t=1	584	0.3	260	970
GT-HR120K (Special Order)	Band steel 15×0.5t	116	0.5~0.6	211	310

•Hose coupling: R 1/4(Body Rc 1/8) •Air hose inner dia. : 5mm

•Overall length/Weight: Accessories not included.

•Total length and weight of the GT-HS30 and HS30 are given with the H30ME blade mounted.

Blades specifications

Model No.	Applicable Nippers	Blade Shape	Blade Aperture (mm)	Effective Blade Length (mm)	Weight (g)
H30ME	H30	Scissors type	26	50	280
H30MEL	HS30		34	67	285
H12ME30K	H12K	Serrated micro edge	17	28	56
H120SK	H120K	Scissors type	15	38	115

Blade is optional.

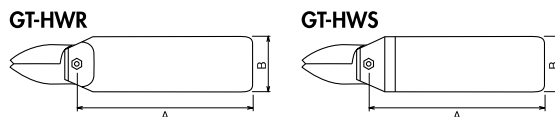
GT-HWR1/10 GT-HWS1/10 Double Action Air Scissors

Patented

Blades are optional.

HWR · HWS

Blade opening and closing is air piston driven. Having no spring mechanism in the main unit facilitates maintenance operations.



Model No.	Capacity ϕ (mm)		Air Consumption (cm ³ /str.)	Applied Pressure (N)	Air Pressure (MPa)	A (mm)	B (mm)	Weight (g)
	Copper	Steel						
Double Action Air Scissors (Round Type without Lever)								
GT-HWR1	1.0	0.5	45	294	0.4~0.5	95	20	84
GT-HWR10	1.8	1.2	116	588	0.4~0.5	146	36	295
Double Action Air Scissors (Square Type)								
GT-HWS1	1.0	0.5	45	294	0.4~0.5	95	23×20	116
GT-HWS10	1.8	1.2	116	588	0.4~0.5	146	36	356

Applicable Blade Specifications

Model No.	Blade Opening (mm)	Cutting blade effective length (mm)	A (mm)	Weight (g)
For GT-HWR1/HWS1				
HW1J	3.0	10	25	16
For GT-HWS10				
HW10J	5.0	28	40	76



Custom-made blades

Vessel customizes blades for a wide variety of uses. Custom-made blades are available at low cost, speedy delivery and guaranteed flexible adaptation to a wide range of work. See the below examples. Orders are accepted from 1 up.

No. **NY10 A E H 15**

Mounting body symbol: NY

Outside view: 10

Material: H → High-speed steel, B → Carbide

Blade edge: A: For plastic (Both blades), B: Standard (One blades), C: Crimping, D: Other

Drawing registered No.: 15

Type of blades

A Angled	B Angled	C Crimping	D Mounted gate	E Disposable gate treatment	F Power cutting
G Punching	H Crankshaft	I Pilers type	J(JL) Long blade for plastic Straight Long blade Product is vertically long, and if nipper does not reach gate with ordinary blades, long	K L-shaped (disposable gate treatment)	L L-shaped
M/XL/XR Side opening blades	TN Tube cutting	VO Nail pulling	DI Bending	VHA Scissors	
Cutting of stranded wire	Film gate	Direct gate ...Sprue is gate as it is.	AHE Pin gate treatment ...Treatment of small gate to be automatically cut at de-gating.	AHW Double blades	NH Double heating blades

Manufactured by
VESSEL CO., INC.

17-25, Fukae-Kita 2-chome,
Higashinari-ku, Osaka 537-0001 Japan
Tel : +81 6 6976 7778 Fax : +81 6 6972 9441
E-mail : export@vessel.co.jp
URL : <http://www.vessel.co.jp/english/>

Distributed by

Printed in Japan

10093033.03

