

VESSEL

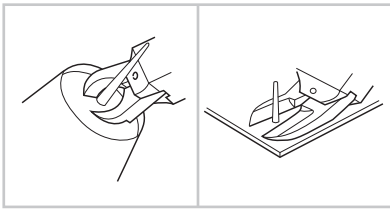
AIR NIPPER



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

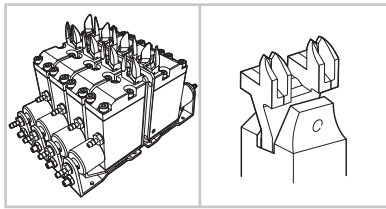
Applications

Cutting direct gate molded components



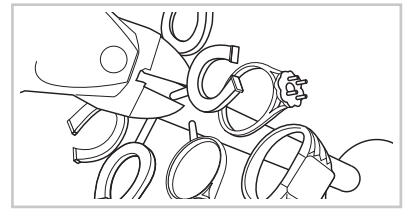
Cuts large diameter sprues such as garment cases, helmets, pipe joint parts, trash cans, planters. Superb durability in long term use.

Gate cut for multiple impression molded components



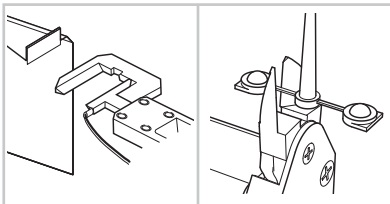
Compact, lightweight body and with a large selection of blade items, easy mounting on chuck board and standby jig. Achieves efficient cuts matching cycle time.

Taking products from a jewelry tree



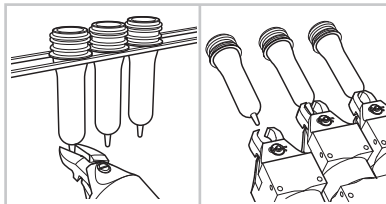
Cutting of precious metals for rings, necklaces etc. Superb durability and increased efficiency with powerful nipper blades.

Gate cutting for lenses, LGP, and transparent products



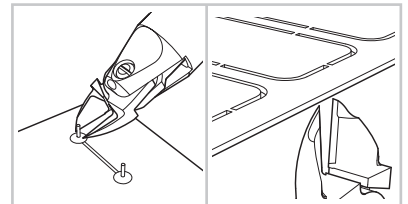
Various heated nippers prevent cracks and whitening, the decisive factor is the heating temperature of the blades and cutting speed. Supports demands for improved flexibility and high precision cutting.

Pre-form cutting for food and drug cases



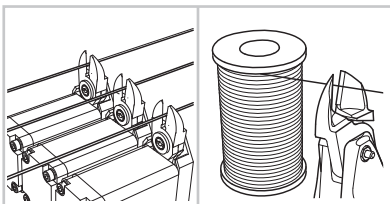
Improved efficiency in pre-forming, nippers attached to flat finish pre-form molding machine. Cut precision is linked to product quality.

Cutting electronic components and around boards



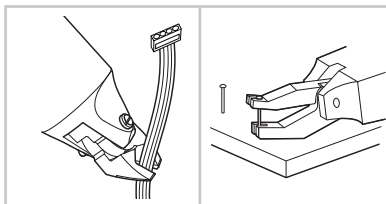
Optimal handy nippers for cutting lead lines after soldering to significantly reduce wrist strain. Substrate is attached to the desktop robot...

Wire cutting with coil winding machine



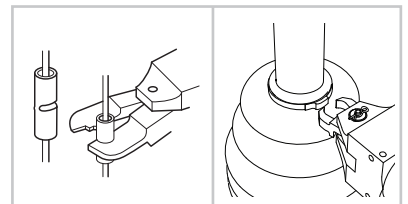
Attach to the nipper unit of automatic coil winding machine for power transformers, fan motors and ignition. Cutting thick diameter wires that cannot be torn off.

Hand tools for dismantling in recycling plants



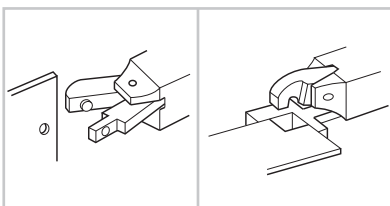
Cuts a variety of wires, copper tubing and steel bands in recycling plants such as PCs and OA equipment, pachinko machines, TVs, and refrigerators, washing machines, etc. Nippers for the purpose of pulling out the pachinko machine pins.

Crimping task for solderless terminals



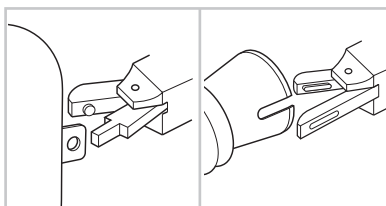
For crimping terminals with various wiring harnesses such as for switchboards, electrical products and lighting equipment. Less strain on fingers and wrists. Increased work efficiency for stop rings for auto parts.

Die cutter for aluminum products and plastic components



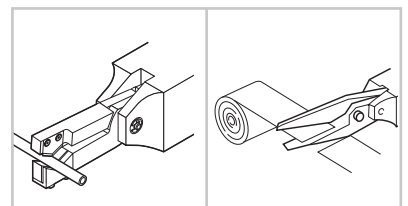
By support for separate blades, allows punching and form cutting of aluminum sash and thin plates.

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.

Selection method for air nipper

Check materials

What is the "cutting target (workpiece) "?

- Metal wire ——— Steel wire
 - Copper wire
 - Piano wire (not heat processed/HV320 or below) , precious metals etc.
- Molded plastic ——— Soft plastic (polyvinyl chloride, polyethylene)
 - Hard plastic (acrylic, polycarbonate, ABS, etc.)
- Other applications ——— Check materials, applications and work.
 - (Bending, caulking, punching, robotic hand, and scissors.)

Check dimensions

How big is the "size of the cut portion"?

- Metal ——— Angle (mm×mm) [select model by cross-section area]
 - Round (Φ mm)
- Plastic ——— Angle (mm×mm) [select model by cross-section area]
- Other applications ——— Check materials, applications and work.

Usage

What is the "state/environment of the work"?

- Used mounted on automated machinery and robots.
- Used for manual work.
- Used mounted on a jig. And so forth

Select model

Choose a model suitable for the purpose.

- Choose based on "usage and cut dimensions" for the main unit, and "material and dimensions/shape" for the blades.
- Refer to "product specifications" for the main unit/blade characteristics/usage, respectively. Also when selecting the machine, refer to "capability selection chart".
- The shape/material of the workpiece may not be compatible with standard products.

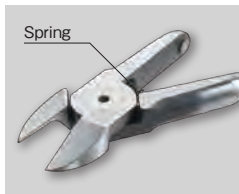
Guidance for capability selection

Note: Reference value when a standard blade is mounted.Values vary depending on the blade shapes and types of cut objects.

Types	Cutting material							Applicable models	Air pressure (MPa)
	Copper wire	Steel wire (Non-heat treated)	Piano Wire (HV320 or below)	Soft Plastic		Hard Plastic	Solderless terminals		
				Dia.	Cross-section				
N ・ NS ・ NR	1.0mm	0.5mm	0.2mm	2.0mm	3.1mm ²			NS2,N3,NS3,NR3	0.4~0.5
	1.0	0.5	0.3	2.0	3.1			N5,NS5,NR5	0.4~0.5
	1.6	1.0	0.5	3.0	7.0	2.0mm		N7,NS7,NR7	0.4~0.5
	1.8	1.2	0.5	4.0	12.5	2.6		N10,NS10L,NR10L	0.5~0.6
	2.3	1.7	0.6	4.5	15.8	4.0		N12	0.5~0.6
	2.6	2.0	1.0	7.0	38.4	5.0		N20,NS20,NR20	0.5~0.6
	3.3	2.8	1.2	10.0	78.5	6.5	1.25/2.0	N30,NS30,NR30	0.5~0.6
	5.5	4.5	2.0	12.0	113.0	6.5		N50,NR50	0.5~0.6
With pressure booster	2.6	1.6		5.0	19.6	4.0	1.25/2.0	P-10L	
	3.0	2.2		8.0	50.2	6.0	2.0/5.5	P-20	
	4.8	4.0		13.0	132.6	7.0	~0.8	P-30	
	6.5	5.5						P-50	
NY				2.0	3.1	1.3		NY03	0.4~0.5
	1.6	1.0		3.0	7.0	2.0		NF05,NY05	0.4~0.5
				3.5	9.6	2.3		NF10,NY10	0.4~0.5
				4.0	12.5	2.6		NF15,NY15	0.4~0.5
				5.0	19.6	3.4		NY25	0.5~0.6
NT				1.5	1.7	1.0		NT03	0.4~0.5
				2.5	4.9	1.5		NT05	0.4~0.5
				3.5	9.6	2.3		NT10	0.4~0.5
				5.0	19.6	3.4		NT20	0.4~0.5
	AS, HS, BJ type		BBB	AP, PF, AJ type			ACD type		

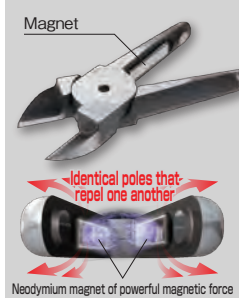
AIR NIPPER TECHNICAL

Tough aluminum body



Standard blades

Blades open and close by a spring repulsion.



NM blades

Special blade without spring for 24-hour operation; blades open and close by a magnet repulsion.



Air nippers

Model **NY10 A J** Blade shape

No. **NY10 A J**



- AJ** : Straight blades for plastic ——— **RAJ** : Straight blades for plastic reverse bevel
AJL : Straight long blades for plastic
AJT : Thin, straight blades for plastic
AE : Nipping blades for plastic
AJY : Thin, straight blades for plastic
AD : Lift blades for plastic
AH : Crank blades for plastic ——— **RAH** : Crank blades for plastic reverse bevel
AJB : Straight blades for plastic, a brazed carbide tip
AJV : V shaped straight blades for plastic
AJH : Straight blades for plastic, a brazed high-speed steel tip
BJ : Straight thin blades for metal ——— **RBJ** : Straight thin blades for metal reverse bevel

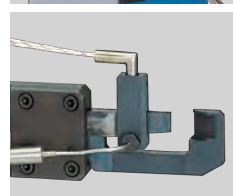
For more precise gate-cutting:



Heat air nippers

These nippers perform cutting by applying heat to the blade edges. They are good for cutting acrylic lens.

15P



Heat air nippers Thrust-cut type

Cutting by the application of heat; thrust-cutting type ensuring a clean, unblemished cut surface constantly.

15P

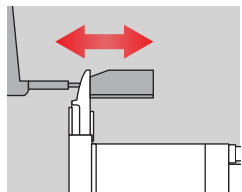
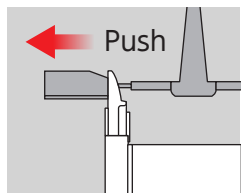
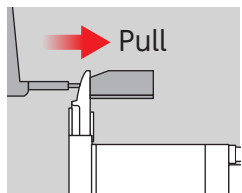


Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether)
This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).

Slide-off air nippers

The main unit of the nipper slides and the blade comes into intimate contact with a gate, enabling to cut it without resin residue.



Pull/Push

A wide selection of models can support various applications. Possible to fix the highly precise positioning against the gate as there is less rattling or deflection.

5P

Double action type

Slide mechanism not using a spring ensures smooth action. It is free from concerns about spring wear or metal fatigue, resulting in high durability.

7P

Square type

Provided with threaded holes on the 5 faces of the main unit. Suitable for incorporating into a machine or equipment.

19P

Round type

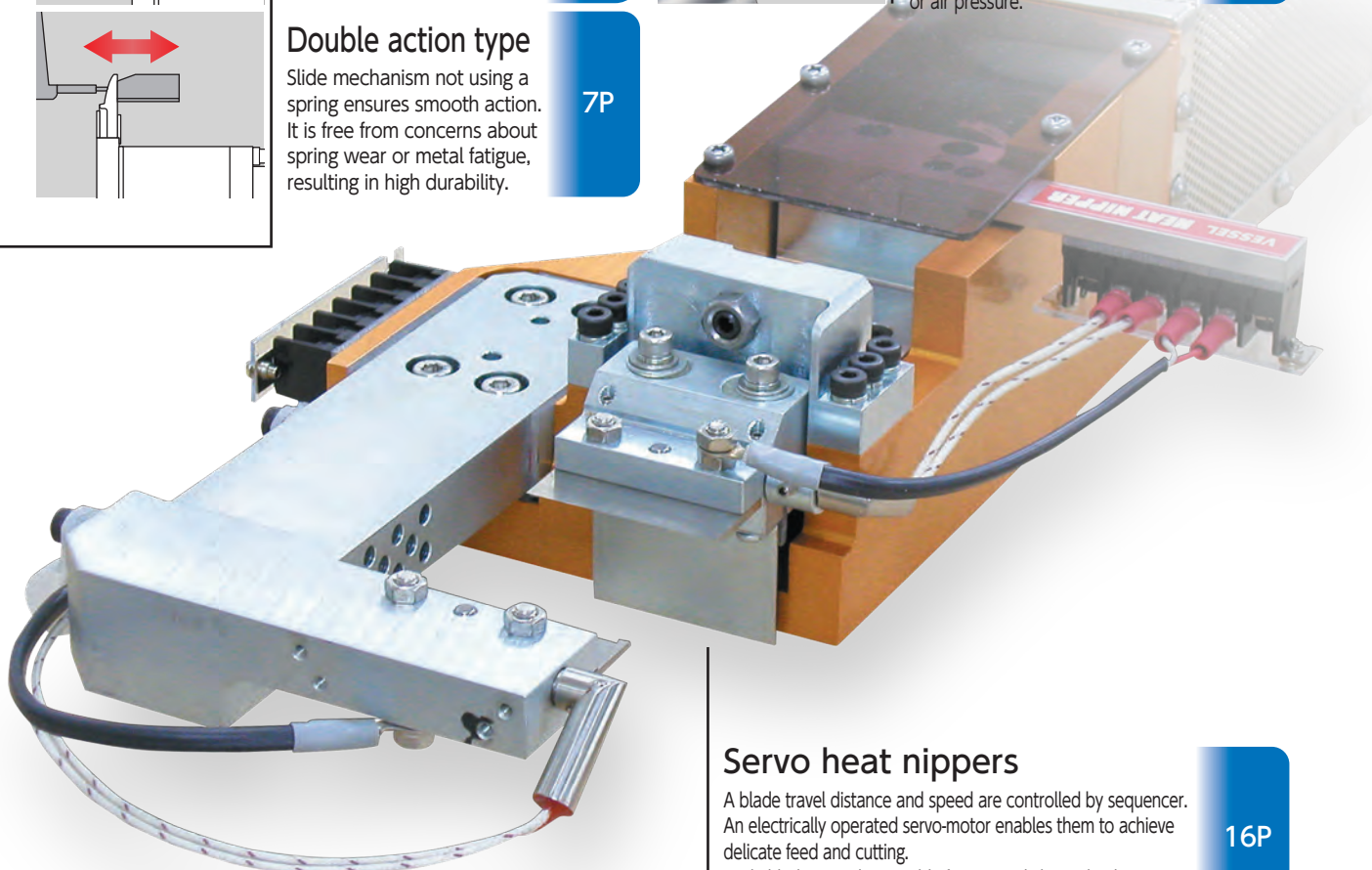
Possible to adjust freely the mounting angle by a stand (option). Suitable for installation on a robotic arm or chuck plate.

20P

Extra Pressure Booster

Installing this unit on either square or round air nipper enables a pressure to be boosted. Ideal for applications where the radical pressure cannot be attained because of installation space or air pressure.

20P



Servo heat nippers

A blade travel distance and speed are controlled by sequencer. An electrically operated servo-motor enables them to achieve delicate feed and cutting. Wide blades are also suitable for cutting light guide plates.

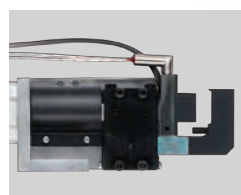
16P

Differences in the cut surfaces when using heat nippers

Standard Blades
(Not Heat Nipper)

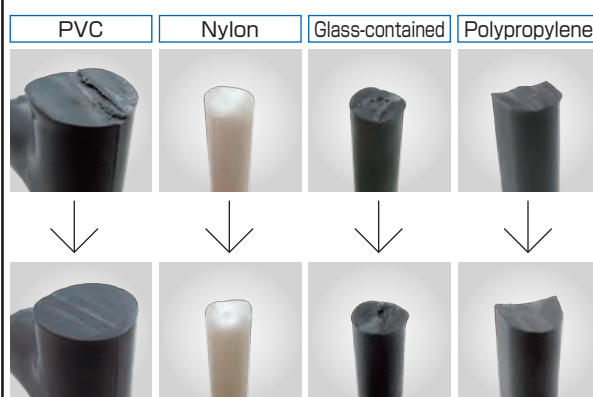
Heat Nippers

14P



Air-hydro nippers Thrust-cut type

An air-hydro cylinder of air + oil provides low speeds and high power. These nippers are suitable for precision cutting in which gate projecting allowance is strict.



No. GT-NY25

Sliding Air Nippers



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 not only for around-the-clock operations but also for the highly precise cutting accuracy.



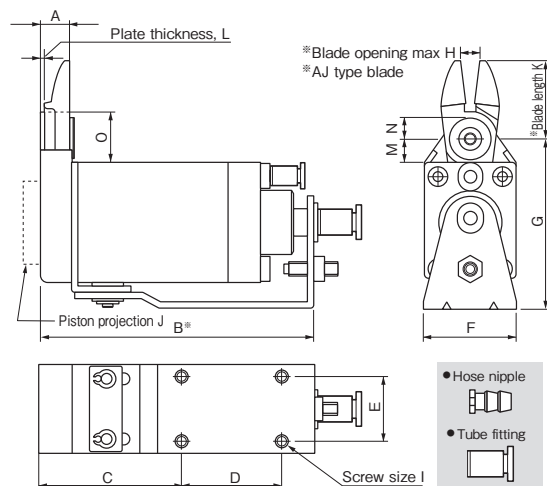
No. GT-NY25

Sliding Air Nippers Horizontal-Type

The horizontal slide enables space to be utilized effectively. The low profile of the nipper body allows objects to be removed from the machine without obstructing the operations of the chuck plate.

No. GT-NY05/10/15/25 Sliding Air Nippers Horizontal-Type

- The horizontal slide enables space to be utilized effectively.
- The low profile of the nipper body allows objects to be removed from the machine without obstructing the operations of the chuck plate.

**Reference**

Capacity ϕ (mm)				Model No.	Size (mm)															Air Consumption (cfl /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O					
3.0	2.0	1.6	1.0	GT-NY05																48	155	Pull 0~3	W/hose nipple	360646
3.0	2.0	1.6	1.0	GT-NY05R																48	155	Push 0~3	Hose I.D. ϕ 2.5 mm	360647
3.0	2.0	1.6	1.0	GT-NY05-4	8.6	75.9	40.9	25	15	23	47.6	4	M4	3	22	1.6	8.5	6.25	16.5	48	155	Pull 0~3	W/tube fitting	360648
3.0	2.0	1.6	1.0	GT-NY05R-4																48	155	Push 0~3	Hose I.D. ϕ 2.5xO.D. ϕ 4 mm	360649
3.5	2.3			GT-NY10																68	210	Pull 0~3	W/hose nipple	360652
3.5	2.3			GT-NY10R																68	210	Push 0~3	Hose I.D. ϕ 2.5 mm	360656
3.5	2.3			GT-NY10-4	8.8	82.1	42.1	30	20	28	51.6	6	M4	5	24	1.6	7.5	6.25	15.5	68	210	Pull 0~3	W/tube fitting	360660
3.5	2.3			GT-NY10R-4																68	210	Push 0~3	Hose I.D. ϕ 2.5xO.D. ϕ 4 mm	360664
4.0	2.6			GT-NY15																136	319	Pull 0~3	W/hose nipple	360672
4.0	2.6			GT-NY15R																136	319	Push 0~3	Hose I.D. ϕ 2.5 mm	360673
4.0	2.6			GT-NY15-4	10.2	93	48	35	25	33	58	8	M4	5	27	2	7.5	6.25	16.5	136	319	Pull 0~3	W/tube fitting	360674
4.0	2.6			GT-NY15R-4																136	319	Push 0~3	Hose I.D. ϕ 2.5xO.D. ϕ 4 mm	360675
5.0	3.4			GT-NY25																184	580	Pull 0~5	W/hose nipple	360680
5.0	3.4			GT-NY25R																184	580	Push 0~5	Hose I.D. ϕ 4 mm	360681
5.0	3.4			GT-NY25-6	12.5	108.5	54.5	40	30	42	69	9	M5	2	31	2.5	10.5	7	20.5	184	580	Pull 0~5	W/tube fitting	360682
5.0	3.4			GT-NY25R-6																184	580	Push 0~5	Hose I.D. ϕ 4xO.D. ϕ 6 mm	360683

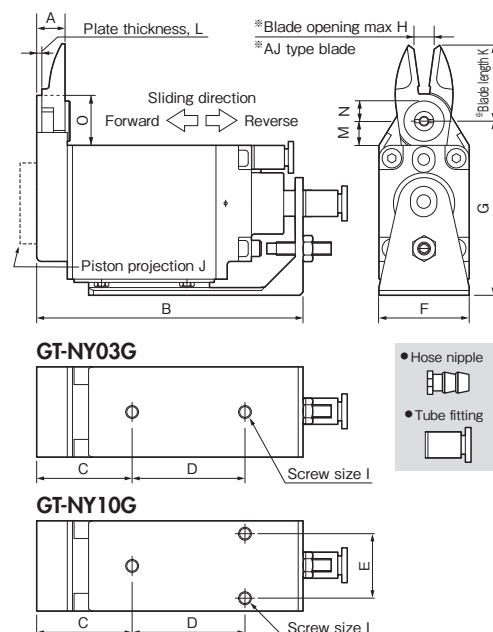
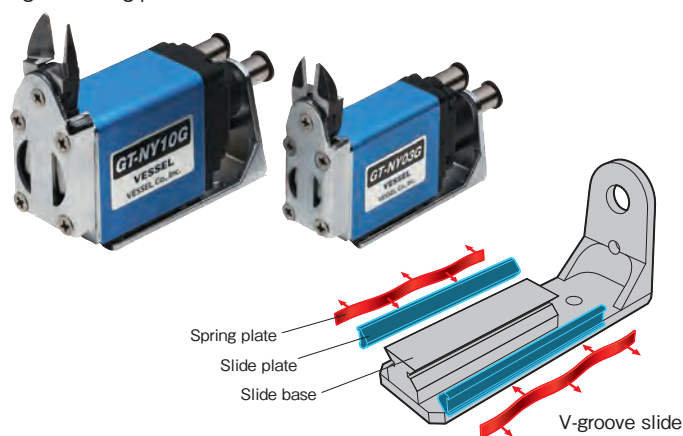
※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.

※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted. ※Air Pressure...0.4~0.5MPa (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.

No. GT-NY03G/10G Sliding Air Nippers Horizontal-Type

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

**Reference**

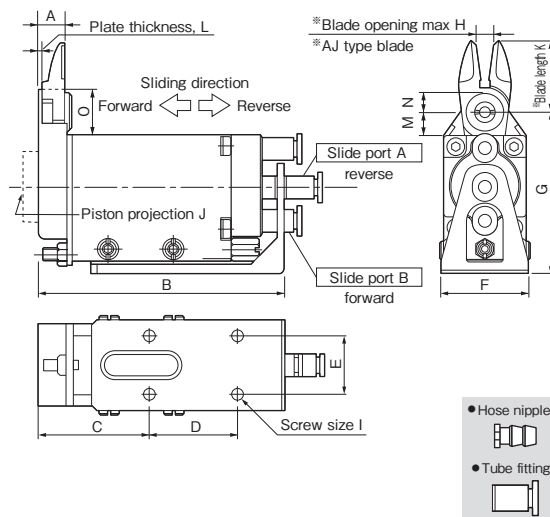
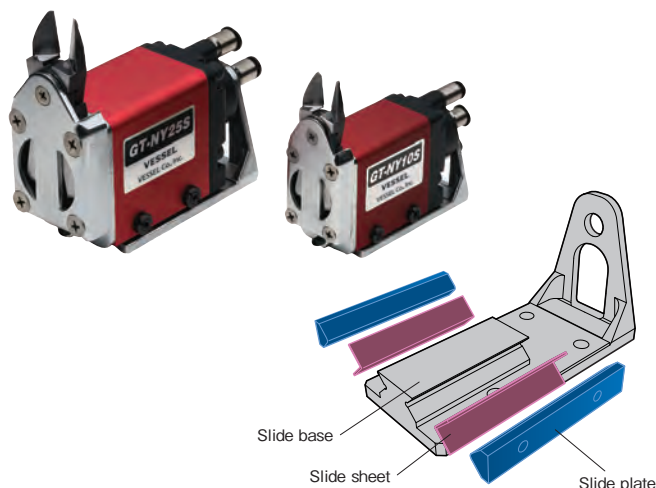
Capacity ϕ (mm)				Model No.	Size (mm)															Air Consumption (cfl /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
Soft Plastic	Hard Plastic				A	B	C	D	E	F	G	H	I	J	K	L	M	N	O					
2.0	1.3			GT-NY03G																37	160	Pull 0~3	W/hose nipple	360741
2.0	1.3			GT-NY03GR																37	160	Push 0~3	Hose I.D. ϕ 2.5 mm	360742
2.0	1.3			GT-NY03G-4	8.6	74.5	29.5	30	-	19	46.5	3	M4	0	21	1.6	7.5	5.25	14.5	37	160	Pull 0~3	W/tube fitting	360743
2.0	1.3			GT-NY03GR-4																37	160	Push 0~3	Hose I.D. ϕ 2.5xO.D. ϕ 4 mm	360744
3.5	2.3			GT-NY10G																68	275	Pull 0~3	W/hose nipple	360753
3.5	2.3			GT-NY10GR																68	275	Push 0~3	Hose I.D. ϕ 2.5 mm	360754
3.5	2.3			GT-NY10G-4	8.8	82.6	29.6	35	20	28	54	6	M4	5	24	1.6	7.5	6.25	15.5	68	275	Pull 0~3	W/tube fitting	360755
3.5	2.3			GT-NY10GR-4																68	275	Push 0~3	Hose I.D. ϕ 2.5xO.D. ϕ 4 mm	360756

※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects. ※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted. ※Air Pressure...0.4~0.5MPa

※Blades are optional. Note that a forward or a backward-facing blades are respectively available.

No. GT-NY10S/25S Double Action Sliding Air Nippers

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



Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)															Air Consumption (cm ³ /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O					
3.5 2.3	GT-NY10S	8.8	84.5	38	30	20	32	55	6	M4	5	24	1.6	7.5	6.25	15.5	68	300	0~3.5	W/tube fitting Hose I.D. $\phi 2.5 \times \phi 4$, $\phi 4$ mm	360731
5.0 3.4	GT-NY25S	12.5	106.5	47	40	30	47	72	9	M5	2	31	2.5	10.5	7	20.5	184	695	0~5.0	W/tube fitting Hose I.D. $\phi 4 \times \phi 6$, $\phi 6$ mm	360732

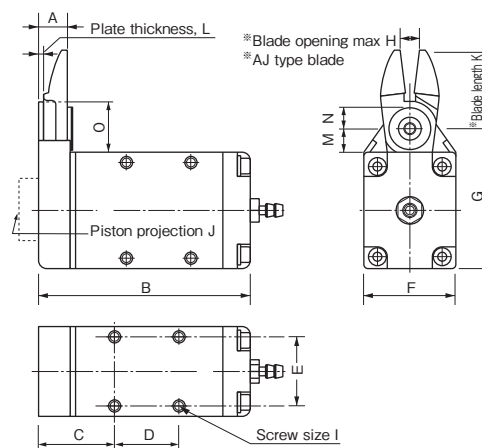
※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.

※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted.

※Air Pressure...NY10S: 0.4~0.5MPa / NY25S: 0.5~0.6MPa

No. GT-NF05/10/15 Type-F Air Nippers

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



Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic Copper Steel	Model No.	Size (mm)															Air Consumption (cm ³ /str.)	Weight (g)	Hose Port	EDP No.
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O				
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	1.6	8.4	6.25	16.4	43	101	W/hose nipple	360606
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	1.6	7.4	6.25	15.4	63	143	Hose I.D.	360607
4.0 2.6 1.8 1.2	GT-NF15	10.2	73	25	25	26	33	48.5	8	M4	5	27	2	7.4	6.25	16.4	128	219	$\phi 2.5 \times \phi 4$ mm	360608

※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.

※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted. Mounting screw for NF10 (M3.5) is regarded as spare part.

※Air Pressure...0.4~0.5MPa

List of Blade Springs

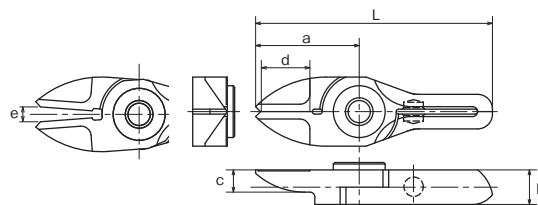
EDP No.	Size (mm)	Material	Applicable Models
	Wire Dia. x O/D x Free Length + Pitch (or No. of Turns)		
859116	$\phi 0.4 \times \phi 3.6 \times 10$ No. of Turns7.5T	SUS	NY03G
859111	$\phi 0.5 \times \phi 3.8 \times 11$ P=1.5	SWP	NY05
859115	$\phi 0.4 \times \phi 3.6 \times 16.5$ No. of Turns11.5T	SUS	NY10,NY15
859114	$\phi 0.6 \times \phi 5.2 \times 17$ No. of Turns10.5T	SUS	NY25
859110	$\phi 0.5 \times \phi 3.8 \times 14$ P=1.5	SWP	NT03,NT05
859112	$\phi 0.8 \times \phi 5.2 \times 17$ P=2.0	SWP	NT10
859113	$\phi 0.8 \times \phi 5.5 \times 23$ P=2.0	SWP	NT20

No. AJ/RAJ/AJB Straight blades for plastic

Plastic **AJ/**This is a set of vertical blades with an unbeveled cutting edge. This can cut a gate of molded objects vertically and straight.

RAJ/This is a reverse bevel of AJ type.

eco **AJB/**This has a brazed carbide tip used for cutting hard plastic or plastic containing glass fiber.

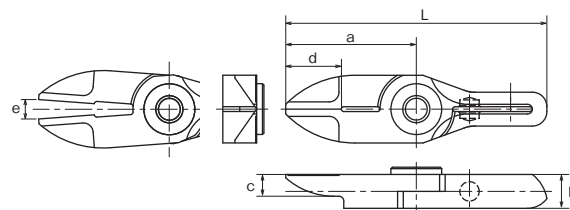


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY03AJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)	360591
NY03RAJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03GR(-4)	360594
NY05AJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05	360551
NY05RAJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05	360556
NY05AJB	22	7	5	10.5	4	53	22	w/Carbide chip	GT-NY05(-4) / NF05	360553
NY10AJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360561
NY10RAJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S	360566
NY10AJB	24	7.2	5	12	6	57	28	w/Carbide chip	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360563
NY15AJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15(-4) / NF15	360571
NY15RAJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15R(-4) / NF15	360576
NY15AJB	27	8.2	5.5	13	8	65	41	w/Carbide chip	GT-NY15(-4) / NF15	360573
NY25AJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25(-6) / NY25S	360583
NY25RAJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25R(-6) / NY25S	360587
NY25AJB	31	10	6	16	9	77	65	w/Carbide chip	GT-NY25(-6) / NY25S	360585

>> For guidance on cutting capability, see P30 of the technical material.

No. AJL Straight long blades for plastic

Plastic **AJL/**This is a long type set of straight blades. This is useful when there is distance between the nipper and the gate cut portion of the molded object.

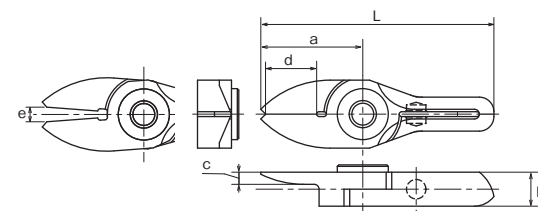


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY03AJL	27	7	4.5	10.5	4	54	21	Special alloy steel	GT-NY03G(-4)	360592
NY05AJL	31	7	5	10.5	5.5	62	29	Special alloy steel	GT-NY05(-4) / NF05	360552
NY10AJL	33	7.2	5	12	8	66	37	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360562
NY15AJL	38	8.2	5.5	13	11	76	50	Special alloy steel	GT-NY15(-4) / NF15	360572
NY25AJL	46	10	6	16	13	92	88	Special alloy steel	GT-NY25(-6) / NY25S	360584

>> For guidance on cutting capability, see P30 of the technical material.

No. AJT Thin, straight blades for plastic

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

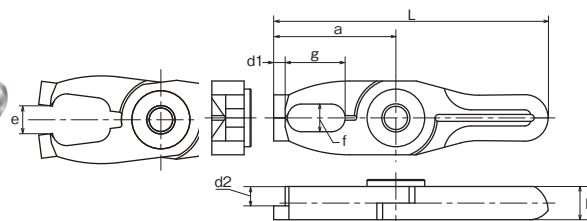


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY03AJT	21	7	2.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)	360593
NY05AJT	22	7	3	10.5	4	53	21	Special alloy steel	GT-NY05(-4) / NF05	360554
NY10AJT	24	7.2	3	12	6	57	26	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360564
NY15AJT	27	8.2	3.5	13	8	65	38	Special alloy steel	GT-NY15(-4) / NF15	360574

>> For guidance on cutting capability, see P30 of the technical material.

No. AD Lift blades for plastic

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



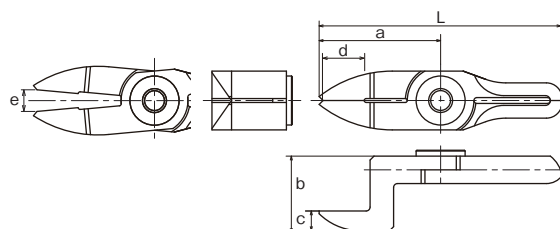
Model No.	Size (mm)			d1 (mm)	d2 (mm)	e: Blade opening (mm)	L (mm)	Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g								
NY10AD	26.5	7.2	6×13	2.5	4.2	6	59.5	31	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360568
NY15AD	30	8.2	7×14	3	4.7	8	68	45	Special alloy steel	GT-NY15(-4) / NF15	360578
NY25AD	35	10	8×17	4	6	9	81	75	Special alloy steel	GT-NY25(-6) / NY25S	360589

>> For guidance on cutting capability, see P30 of the technical material.

No. AH/RAH Crank blades for plastic

Plastic **AH**/This is a set of crank shaped blade 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.



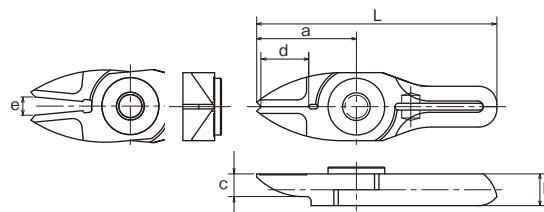
Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY05AH	31	19	5	10.5	5.5	62	37	Special alloy steel	GT-NY05(-4) / NF05	360555
NY05RAH	30	12	5	10.5	5	61	31	Special alloy steel	GT-NY05R(-4) / NF05	360557
NY10AH	33	20	5	12	8	66	43	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360565
NY10RAH	32	12.2	5	12	7	65	36	Special alloy steel	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S	360567
NY15AH	38	21.5	5.5	13	11	76	63	Special alloy steel	GT-NY15(-4) / NF15	360575
NY15RAH	35	13.2	5.5	13	9	73	52	Special alloy steel	GT-NY15R(-4) / NF15	360577
NY25AH	46	24	6	17	13	92	110	Special alloy steel	GT-NY25(-6) / NY25S	360586
NY25RAH	42	16	6	16	12	88	89	Special alloy steel	GT-NY25R(-6) / NY25S	360588

>> For guidance on cutting capability, see P30 of the technical material.

No. BJ/RBJ Straight blades for metals

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.



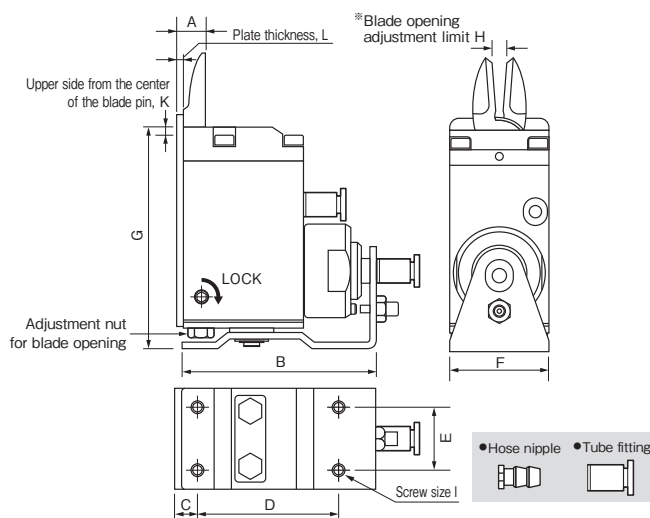
Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY05BJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05	360558
NY05RBJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05	360559

>> For guidance on cutting capability, see P30 of the technical material.

No. GT-NT03/05/10/20 Sliding Air Nippers Vertical-type

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

● Blade can be installed either with the cutting edge outside or inside.



Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)											Air Consumption (cyl / str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
		A	B	C	D	E	F	G	H	I	J	K					
1.5 1.0	GT-NT03												27	178	Pull 0~3	W/hose nipple	360601
1.5 1.0	GT-NT03R												27	178	Push 0~3	Hose I.D ϕ 2.5 mm	360611
1.5 1.0	GT-NT03-4	9	62	7	43	14	19	68.1	1.5~3	M3	2	5	27	178	Pull 0~3	W/tube fitting	360621
1.5 1.0	GT-NT03R-4												27	178	Push 0~3	Hose I.D ϕ 2.5×O.D. ϕ 4 mm	360631
2.5 1.5	GT-NT05												47	325	Pull 0~3	W/hose nipple	360602
2.5 1.5	GT-NT05R												47	325	Push 0~3	Hose I.D ϕ 2.5 mm	360612
2.5 1.5	GT-NT05-4	9	64	7	45	20	32	71.1	3~6	M4	2	5	47	325	Pull 0~3	W/tube fitting	360622
2.5 1.5	GT-NT05R-4												47	325	Push 0~3	Hose I.D ϕ 2.5×O.D. ϕ 4 mm	360632
3.5 2.3	GT-NT10												82	515	Pull 0~3	W/hose nipple	360603
3.5 2.3	GT-NT10R												82	515	Push 0~3	Hose I.D ϕ 2.5 mm	360613
3.5 2.3	GT-NT10-6	11	73	8	53	24	38	88.1	4~7	M4	2	5	82	515	Pull 0~3	W/tube fitting	360623
3.5 2.3	GT-NT10R-6												82	515	Push 0~3	Hose I.D ϕ 4×O.D. ϕ 6 mm	360633
5.0 3.4	GT-NT20												203	930	Pull 0~8	W/hose nipple	360604
5.0 3.4	GT-NT20R												203	930	Push 0~8	Hose I.D ϕ 4 mm	360614
5.0 3.4	GT-NT20-6	14	103	10	80	28	44	102.1	4.5~9	M5	2	6	203	930	Pull 0~8	W/tube fitting	360624
5.0 3.4	GT-NT20R-6												203	930	Push 0~8	Hose I.D ϕ 4×O.D. ϕ 6 mm	360634

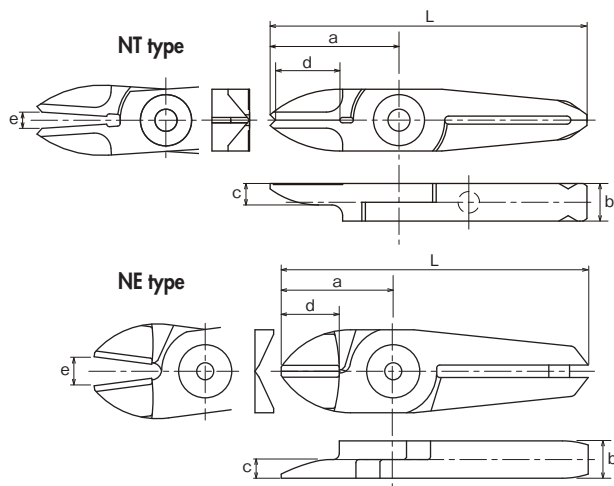
*Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.

*Blade opening adjustment limit (H) is the dimension adjusted for standard blade (AJ type) . *Air Pressure--0.4~0.5MPa (NT20 type: 0.5~0.6)

*Blades are optional. Note that a forward or a backward-facing blades are respectively available.

No. AJ/AJH/AJB Straight blades for plastic

Plastic **AJ**/This is a set of vertical blades with an unbeveled cutting edge. This can cut a gate of molded objects vertically and straight.
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.

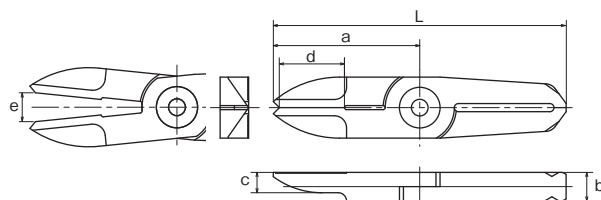


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT03AJ	24	7	4	11	3	59	20	Special alloy steel	GT-NT03 type	360511
NT05AJ	29	7	5	15	6	65	30	Special alloy steel	GT-NT05 type	360512
NT05AJH	29	7	5	15	6	65	30	High Speed Steel		360534
NT05AJB	29	7	5	15	6	65	30	w/Carbide chip		360515
NE5AJ	24	7	3.5	12	6	60	35	Special alloy steel	GT-NT10 type	360184
NT10AJ	35	9	6	17	7	82	62	Special alloy steel		360513
NT10AJH	35	9	6	17	7	82	76	High Speed Steel		360539
NT10AJB	35	9	6	17	7	82	76	w/Carbide chip		360518
NE10AJ	27	9	4.5	12	7	74	70	Special alloy steel		360185
NT20AJ	40	12	6	20	9	97	120	Special alloy steel	GT-NT20 type	360514
NT20AJH	40	12	6	20	9	97	120	High Speed Steel		360544
NT20AJB	40	12	6	20	9	97	120	w/Carbide chip		360543

>> For guidance on cutting capability, see P30 of the technical material.

No. AJL Straight long blades for plastic

Plastic **AJL**/This is a long type set of straight blades. This is useful when there is distance between the nipper and the gate cut portion of the molded object.

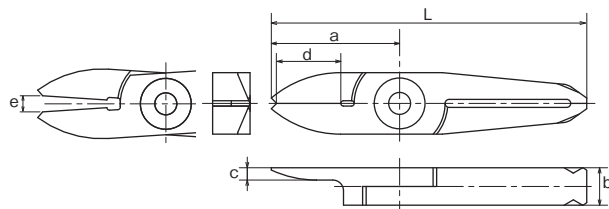


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT05AJL	36	7	5	15	7	72	39	Special alloy steel	GT-NT05 type	360516
NT10AJL	47	9	6	17	9	94	62	Special alloy steel	GT-NT10 type	360520
NT20AJL	57	12	6	20	12	114	156	Special alloy steel	GT-NT20 type	360541

>> For guidance on cutting capability, see P30 of the technical material.

No. AJT Thin, straight blades for plastic

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

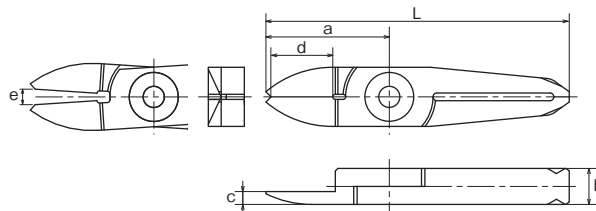
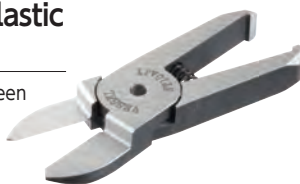


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT03AJT	24	7	2.3	11	3	59	19	Special alloy steel	GT-NT03 type	360526
NT05AJT	29	7	3	15	6	65	29	Special alloy steel	GT-NT05 type	360531
NT10AJT	35	9	4	17	7	82	65	Special alloy steel	GT-NT10 type	360536

>> For guidance on cutting capability, see P30 of the technical material.

No. AJY Thin, straight blades for plastic (approaching to a gate)

Plastic **AJY**/This is effective when the width between the opposing gates is too short and the blade cannot go in due to its thickness.

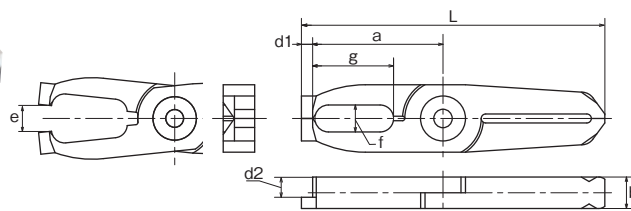
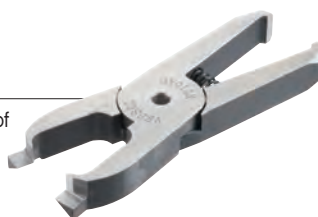


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT03AJY	24	7	2.5	11	3	59	19	Special alloy steel	GT-NT03 type	360527
NT05AJY	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type	360532
NT10AJY	35	9	4	17	7	72	82	Special alloy steel	GT-NT10 type	360537

>> For guidance on cutting capability, see p30 of the technical material.

No. AD Lift blades for plastic

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

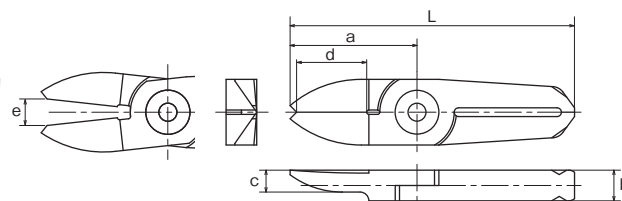


Model No.	Size (mm)			Effective Length (mm)		e: Blade opening (mm)	L (mm)	Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g	d1	d2						
NT05AD	31.5	7	6×18	2.5	4.5	6	67.5	37	Special alloy steel	GT-NT05 type	360533
NT10AD	39	9	8×21.5	4	5	7	86	65	Special alloy steel	GT-NT10 type	360538
NT20AD	46	12	9×24.5	6	7	9	103	141	Special alloy steel	GT-NT20 type	360542

>> For guidance on cutting capability, see p30 of the technical material.

No. 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.

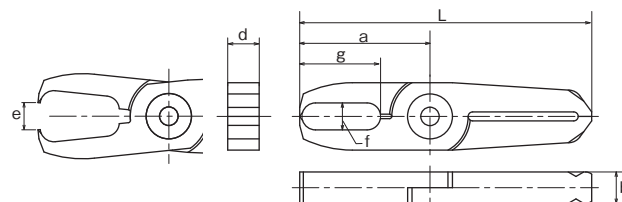


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT05AJV	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type	360535
NT10AJV	35	9	6	17	7	82	63	Special alloy steel	GT-NT10 type	360540

>> For guidance on cutting capability, see p30 of the technical material.

No. AE Nipping blades for plastic

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

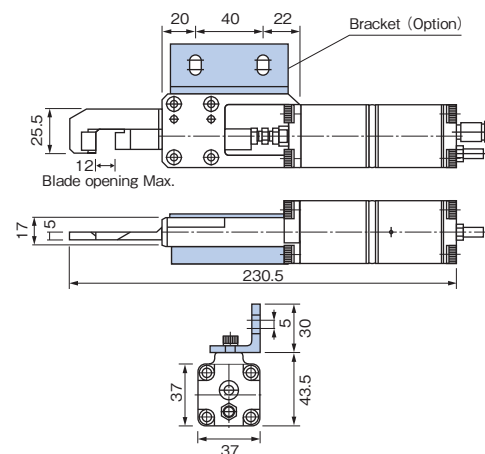


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g	d: Effective Length	e: Blade opening	L				
NT05AE	29	7	6×18	7	6	65	36	Special alloy steel	GT-NT05 type	360517
NT10AE	35	9	8×21.5	9	7	82	75	Special alloy steel	GT-NT10 type	360519

>> For guidance on cutting capability, see p30 of the technical material.

No. GT-NK10

-

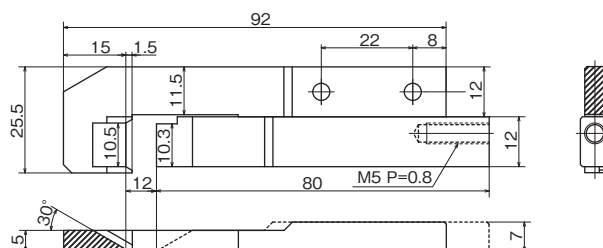


• Hose Coupling: I.D. $\phi 4 \times$ O.D. $\phi 6$ mm • Piston stroke: Max. 12 mm

No. NK10AJ



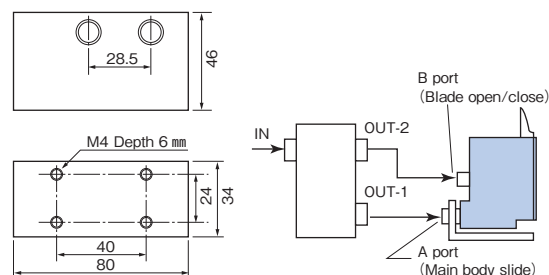
Plastic



>> For guidance on cutting capability, see p30 of the technical material.

No. GT-TC-02

-



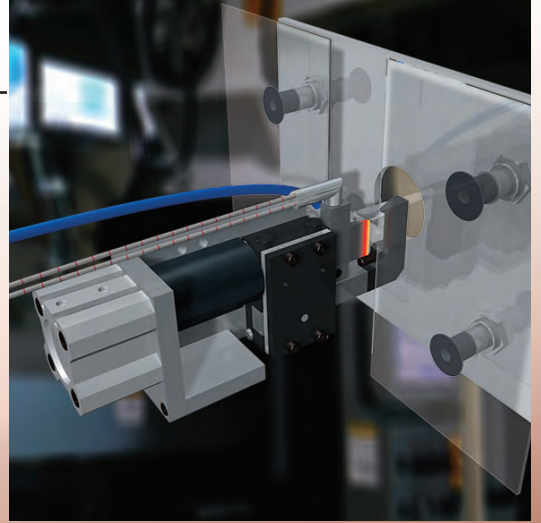
- ```

graph LR
 A[Three-port solenoid valve
(compressor side)] --> B[Timing controller]
 B --> C[Slide air nipper]

```

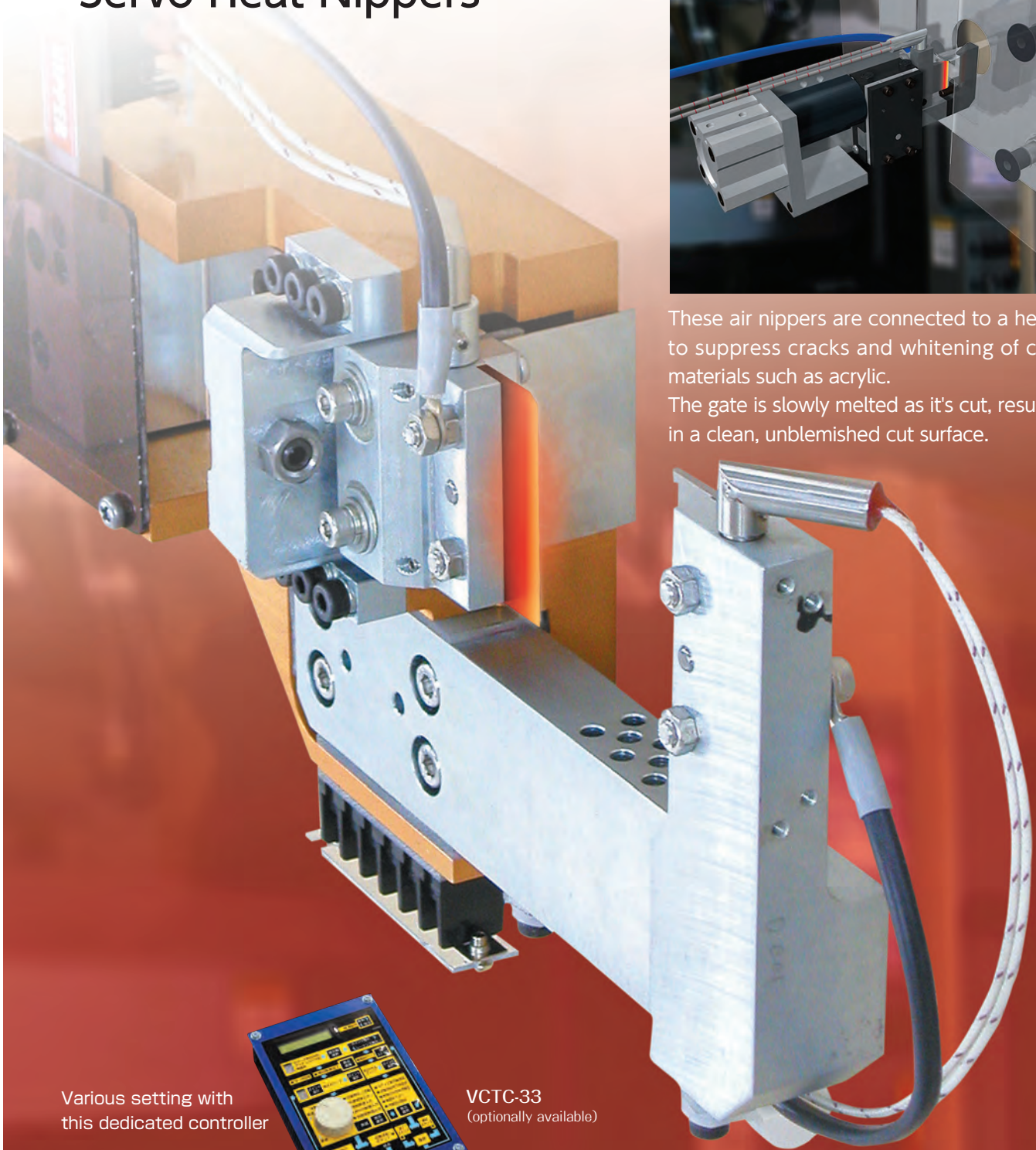
Connectable  
unit numbers

# Servo Heat Nippers



These air nippers are connected to a heater to suppress cracks and whitening of clear materials such as acrylic.

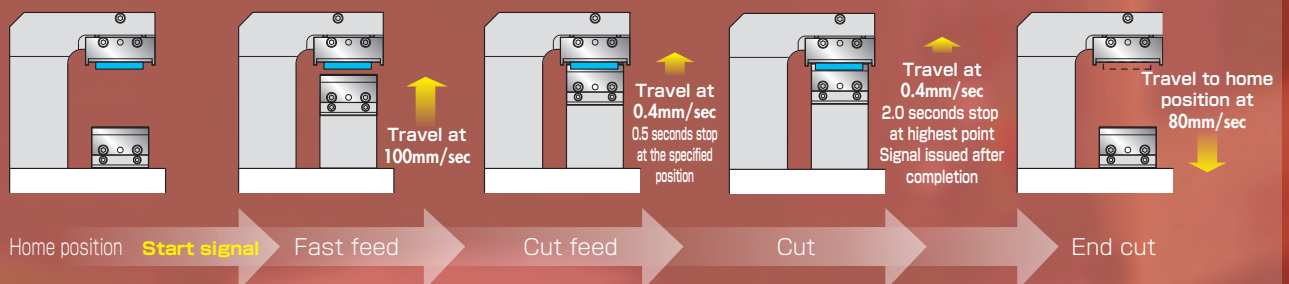
The gate is slowly melted as it's cut, resulting in a clean, unblemished cut surface.



Various setting with  
this dedicated controller

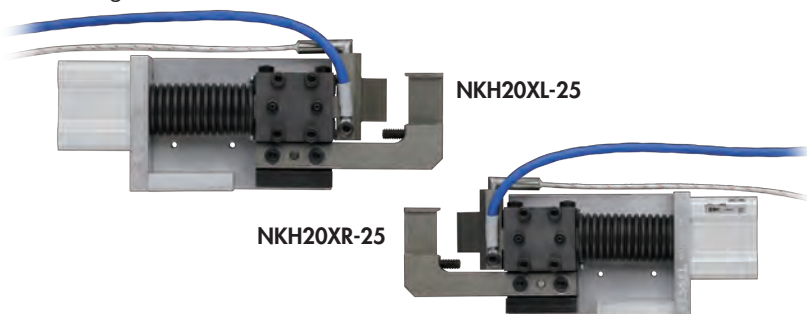
VCTC-33  
(optionally available)

## Practical example of gate-cut



## No. NKH20XL-25/NKH20XR-25 Air-hydro nippers (thrust cut type) **NEW**

- Highly durable PTFE Plating blades; melted resin does not adhere to them.
- Improved durability of blades with High-Speed chip brazed.
- Easier blade replacement than conventional models; take out the blade unit and exchange with the new one.



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

| Model No.              | Cutting Capacity<br>width × thickness<br>(mm) Acrl | Blade Edge<br>Temp.<br>(MAX °C) | Air Consumption<br>(cm <sup>3</sup> /str.) | Piston Stroke<br>(mm) | Weight<br>(g) | EDP No. |
|------------------------|----------------------------------------------------|---------------------------------|--------------------------------------------|-----------------------|---------------|---------|
| NKH20XL-25<br>/20XR-25 | 10×1.5                                             | 180                             | 60                                         | 10                    | 690           | —       |

- Working air hose inner diameter: 4 mm • Air Pressure: 0.6MPa
- ※ The above weight is the product only. The weight of heater and sensor is not included.
- ※ A heater for 200V AC, 220V AC, and 240V AC respectively can be made-to-order.
- ※ The following specifications can be made on request: change in blade length; replacement of cylinder for improvement in performance; additional KINECHEK which does not require a hydro converter (oil).
- Accessory heater: HTL-28.5-6.25-300L-80W1H (80W/100V AC) Recommended operating temperature 140°C, Cord length 300mm, Weight 13g
- Accessory temperature sensor: SNO-300L-H (K thermocouple) , Recommended operating temperature 140°C, Cord length 300mm, Weight 7g

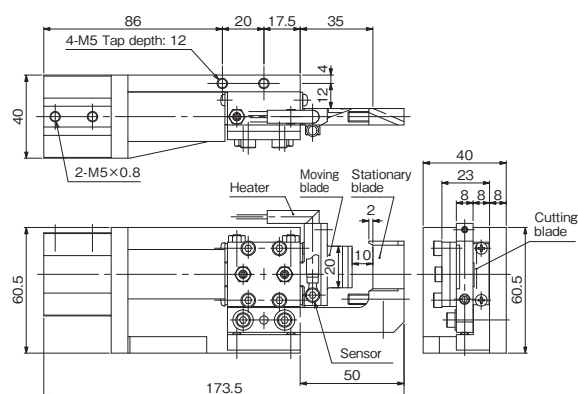
### Blades Specifications

| Material            | Blade Shape        | Blade Opening<br>(mm) | Cutting blade<br>effective<br>(mm) | Weight<br>(g) |
|---------------------|--------------------|-----------------------|------------------------------------|---------------|
| Special alloy steel | Knife type (resin) | 10                    | 20                                 | 125           |

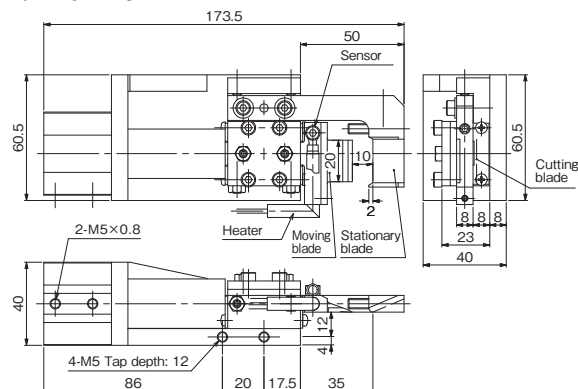
### Option Parts

- Hydro-converter (Recommended: KOGANEI AHC 32×50)  
Working fluid: Petroleum hydraulic fluid or turbine oil with antifoaming agent additive (VG22~100)
- Temperature controller (DTC-001)

### NKH20XL-25

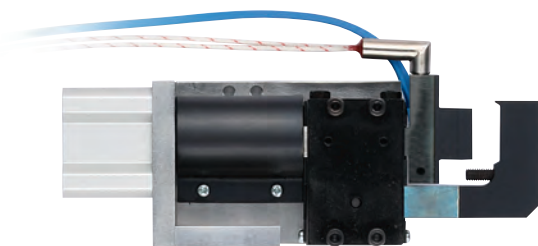


### NKH20XR-25



## No. NKH20A/20AR Air-hydro nippers (thrust cut type)

- Air-hydro cylinders produce high power from air and oil.
- Ideal for high precision cutting of products such as optical resin lenses.



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

| Model No.             | Cutting Capacity<br>width × thickness<br>(mm) Acrl | Blade Edge<br>Temp.<br>(MAX °C) | Air Consumption<br>(cm <sup>3</sup> /str.) | Piston Stroke<br>(mm) | Weight<br>(g) | EDP No. |
|-----------------------|----------------------------------------------------|---------------------------------|--------------------------------------------|-----------------------|---------------|---------|
| NKH20A-25<br>/20AR-25 | 10×1.5                                             | 180                             | 60                                         | 10                    | 720           | —       |

- Included heater • Included temperature sensor • Air Pressure: 0.6MPa
- Working air hose inner diameter: 4 mm
- ※ A heater for 200V AC and 240V AC respectively can be made-to-order.

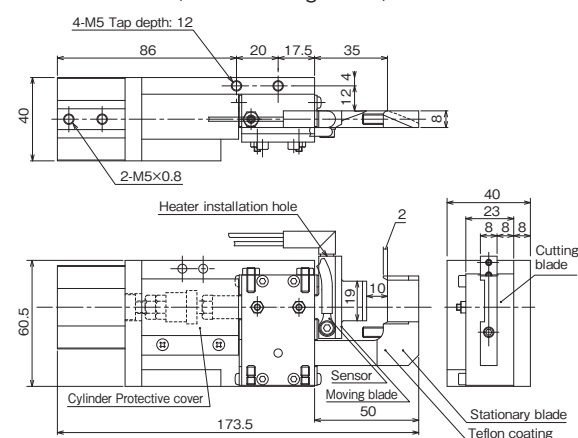
### Blades Specifications

| Material            | Blade Shape        | Blade Opening<br>(mm) | Cutting blade<br>effective<br>(mm) | Weight<br>(g) |
|---------------------|--------------------|-----------------------|------------------------------------|---------------|
| Special alloy steel | Knife type (resin) | 10                    | 19                                 | 125           |

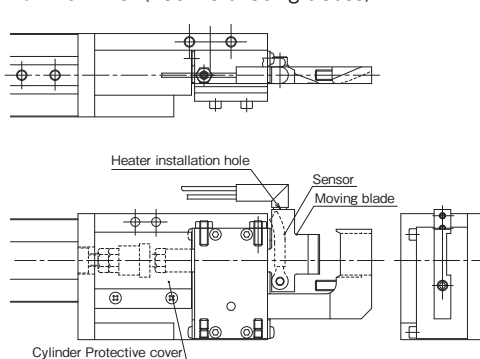
### Option Parts

- Hydro-converter (Recommended: KOGANEI AHC 32×50)  
Working fluid: Petroleum hydraulic fluid or turbine oil with antifoaming agent additive (VG22~100)
- Temperature controller (DTC-001)

### NKH20A-25 (Forward-facing blades)

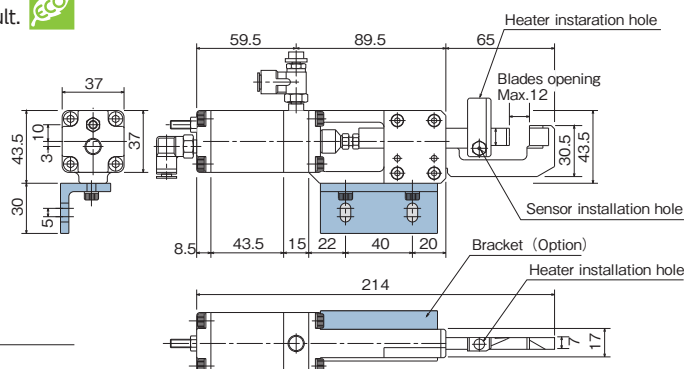
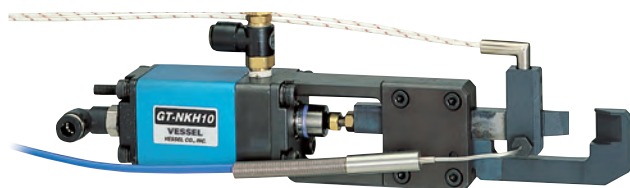


### NKH20AR-25 (Backward-facing blades)



## No. GT-NKH10 Heat Air Nippers

- Speed control of cutting speed and heater temperature allows for various cutting surface solutions and meets demands for high precision cutting result. 



| Model No. | Cutting Capacity<br>width x thickness<br>(mm) Acril | Blade<br>Edge Temp.<br>(MAX. °C) | Cutting Cycle<br>(sec./cut) | Air Consumption<br>(cyl /str.) | Piston Stroke<br>(mm) | Weight<br>(g) | EDP No.                                   |
|-----------|-----------------------------------------------------|----------------------------------|-----------------------------|--------------------------------|-----------------------|---------------|-------------------------------------------|
| GT-NKH10  | 7×1.5                                               | 200                              | 4~5                         | 73                             | 12                    | 715           | 360643 (w/NKH10AJ)<br>360644 (w/NKH10RAJ) |

- Included heater
- Included temperature sensor
- Air Pressure: 0.5~0.6MPa

### Blades Specifications

| Model No.           | Material            | Blade Shape        | Blade<br>Opening<br>(mm) | Cutting blade<br>effective<br>(mm) | Weight<br>(g) | EDP No.          |
|---------------------|---------------------|--------------------|--------------------------|------------------------------------|---------------|------------------|
| NKH10AJ<br>NKH10RAJ | Special alloy steel | Knife type (resin) | 12                       | 10                                 | 137           | 360548<br>360549 |

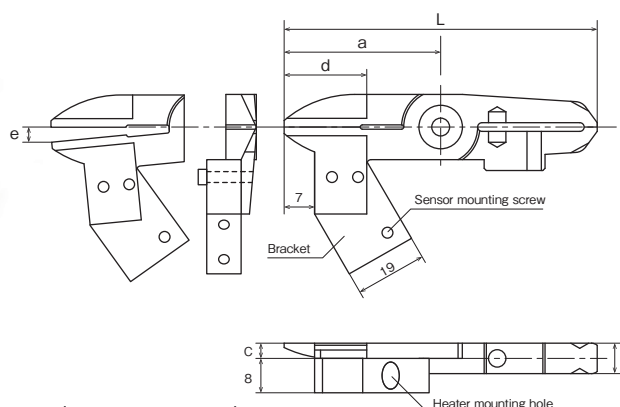
Option Parts • Temperature controller (DTC-001)

## No. NTH05AJ/10AJ Heat air nipper Blade

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

Plastic

Example of blade mounting



- Use these blades in combination with the Sliding Air Nippers vertical type (GT-NT05/10 type) .
- For the main unit dimensions, see the Sliding Air Nippers vertical type on P186.

| Model No. | Size (mm) |   |     |                        |                     |    | Weight<br>(g) | Cutting Capacity<br>φ (mm) Acrylic | Set<br>temperature<br>(MAX. °C) | Material            | Applicable models        | EDP No. |
|-----------|-----------|---|-----|------------------------|---------------------|----|---------------|------------------------------------|---------------------------------|---------------------|--------------------------|---------|
|           | a         | b | c   | d: Effective<br>Length | e: Blade<br>opening | L  |               |                                    |                                 |                     |                          |         |
| NTH05AJ   | 36        | 7 | 3.5 | 15                     | 3.5                 | 72 | 40            | 2.5                                | 200                             | Special alloy steel | GT-NT05(-4)/GT-NT05R(-4) | 360546  |
| NTH10AJ   | 47        | 9 | 4.7 | 17                     | 4.5                 | 94 | 88            | 3.5                                | 200                             | Special alloy steel | GT-NT10(-6)/GT-NT10R(-6) | 360547  |

The above information on weight does not include heater or sensor.

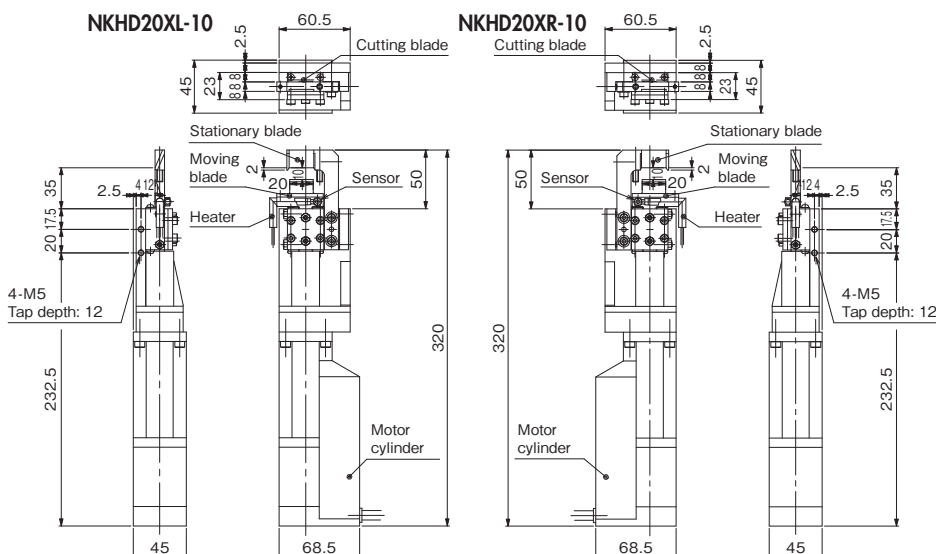
The following parts are not provided; purchase them separately.

- Special heater (80 W/120 V, cord length: 300 mm) , temperature sensor (type-K thermocouple, cord length: 1,000 mm) , speed controller, and bracket (for heater mounting)

Option Parts • Temperature controller (DTC-001)

## No. NKHD20XL/NKHD20XR Servo Heat Nipper (with Electric Cylinder) **NEW**

- Blade travel distance and speed can be easily programmed.
- Servo motor ensures delicate blade feeding and quiet gate cutting.
- Improved durability of blades with high speed chip brazed.
- Easier blade replacement than conventional models; take out the blade unit and exchange with the new one.



| Model No.               | Cutting Capacity<br>width × thickness<br>φ (mm) Acril | Blade<br>Edge Temp.<br>(MAX °C) | Blade<br>Opening<br>(mm) | Cutting Blade<br>effective<br>(mm) | Max. Thrust<br>(N) | Max. Speed<br>(mm /s) | Positioning<br>Points (pts) | Power Supply<br>Voltage | Current Consumption<br>Power<br>Control<br>circuit | Weight<br>(kg) | EDP No. |
|-------------------------|-------------------------------------------------------|---------------------------------|--------------------------|------------------------------------|--------------------|-----------------------|-----------------------------|-------------------------|----------------------------------------------------|----------------|---------|
| NKHD20XL-10<br>/20XR-10 | 10×1.5                                                | 180                             | 10                       | 20                                 | 100                | 400                   | 16                          | DC24V±10%               | 2.0A                                               | 1.57           | —       |

※The above weight is the product only. The weight of heater and sensor is not included. ※A heater for 200V AC, 220V AC, and 240V AC respectively can be made-to-order.  
 ※The following specifications can be made on request: change in blade length; replacement of cylinder for improvement in performance; additional KINECHECK which does not require a hydro converter (oil).  
 ・Accessory heater: HTL-28.5-6.25-300L-80W1H (80W/100V AC) Recommended operating temperature 140°C, Cord length 300mm, Weight 13g  
 ・Accessory temperature sensor: SNO-300L-H (K thermocouple) , Recommended operating temperature 140°C, Cord length 300mm, Weight 7g

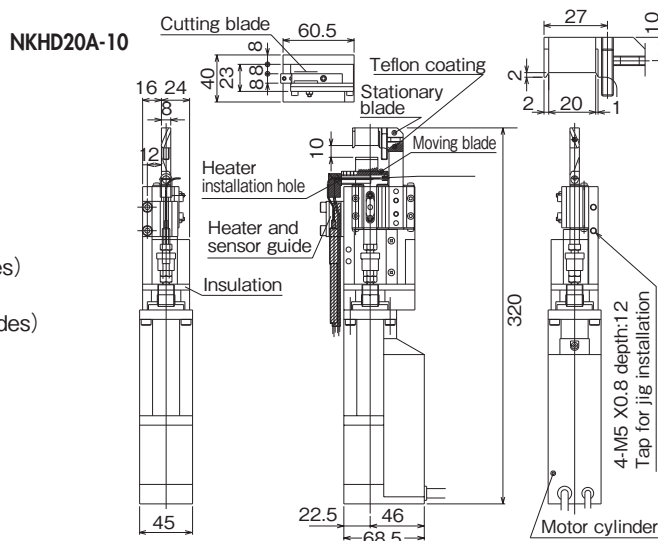
**Option Parts** ・ Temp. controller (DTC-001) ・ Power supply ・ Heater code ・ Parallel cable ・ ADP cable ・ Controller (CTC-33) ・ Power cord ・ Sensor cord  
 For the options noted above, contact us because required items or the numbers of them may change depending on the installation method, use details, etc. of servo heat nippers.

## No. NKHD20A(R) Servo Heat Nipper (with Electric Cylinder)

- Blade travel distance and speed can be easily programmed.
- Servo motor ensures delicate blade feeding and quiet gate cutting.



Compact type  
**NKHD20A-10**  
 (Forward-facing blades)  
**NKHD20AR-10**  
 (Backward-facing blades)



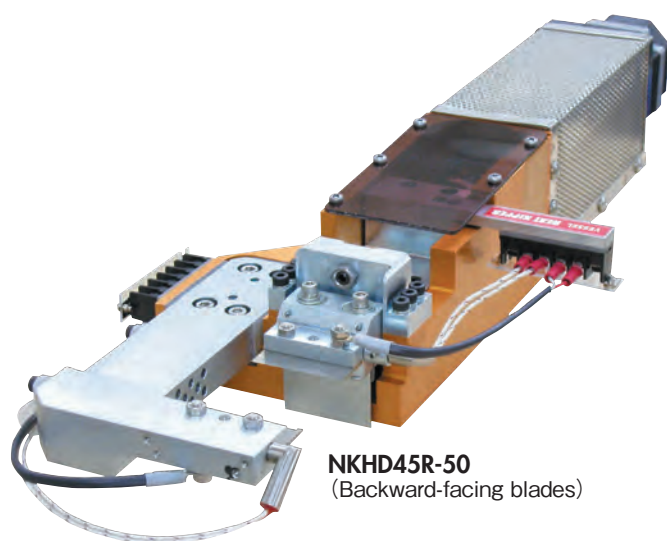
| Model No.     | Cutting Capacity<br>width × thickness<br>φ (mm) Acril | Blade<br>Edge Temp.<br>(MAX °C) | Blade<br>Opening<br>(mm) | Cutting Blade<br>effective<br>(mm) | Max. Thrust<br>(N) | Max. Speed<br>(mm /s) | Positioning<br>Points (pts) | Power Supply<br>Voltage | Current Consumption<br>Power<br>Control<br>circuit | Weight<br>(kg) | EDP No. |
|---------------|-------------------------------------------------------|---------------------------------|--------------------------|------------------------------------|--------------------|-----------------------|-----------------------------|-------------------------|----------------------------------------------------|----------------|---------|
| NKHD20A(R)-10 | 10×1.5                                                | 180                             | 10                       | 19                                 | 100                | 400                   | 16                          | DC24V±10%               | 2.0A                                               | 1.6            | —       |

※A heater for 200V AC and 240V AC respectively can be made-to-order.  
 ・Accessory heater: HTL-28.5-6.25-300L-80W1H (80W/100V AC) Recommended operating temperature 140°C, Cord length 300mm  
 ・Accessory temperature sensor: SNO-300L-H (K thermocouple) , Recommended operating temperature 140°C, Cord length 300mm

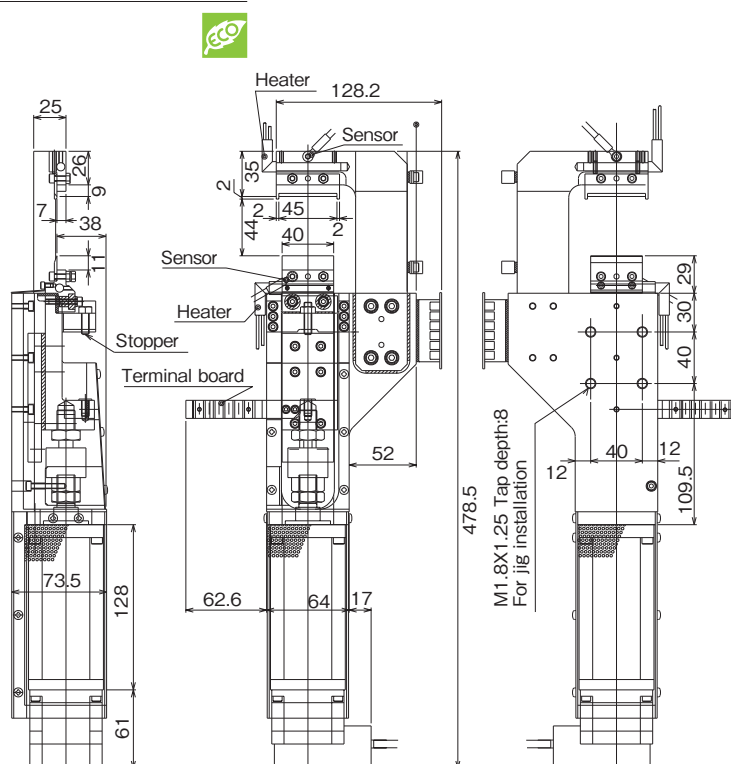
**Option Parts** ・ Temp. controller (DTC-001) ・ Power supply ・ Heater code ・ Parallel cable ・ ADP cable ・ Controller (CTC-33) ・ Power cord ・ Sensor cord  
 For the options noted above, contact us because required items or the numbers of them may change depending on the installation method, use details, etc. of servo heat nippers.

## No. NKHD45R Servo Heat Nippers (With Motor Cylinder)

- Blade travel distance and speed can be easily programmed.
- Servo motor ensures delicate blade feeding and quiet gate cutting.



**NKHD45R-50**  
(Backward-facing blades)



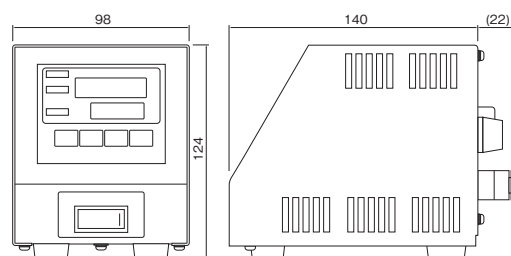
| Model No.  | Cutting Capacity<br>width x thickness<br>φ (mm) Acrl | Blade<br>Edge Temp.<br>(MAX °C) | Blade<br>Opening<br>(mm) | Cutting Blade<br>effective<br>(mm) | Max. Thrust<br>(N) | Max. Speed<br>(mm /s) | Positioning<br>Points (pts) | Power Supply<br>Voltage | Current Consumption<br>Power<br>Control<br>circuit | Weight<br>(kg) | EDP No. |
|------------|------------------------------------------------------|---------------------------------|--------------------------|------------------------------------|--------------------|-----------------------|-----------------------------|-------------------------|----------------------------------------------------|----------------|---------|
| NKHD45R-50 | 24×1.2                                               | 180                             | 46                       | 40                                 | 500                | 100                   | 16                          | DC24V±10%               | 3.0A 0.2A                                          | 5              | —       |

※A heater for 200V AC and 240V AC respectively can be made-to-order.  
 ・ Accessory heater: Recommended operating temperature 140°C  
 ・ Accessory temperature sensor: Recommended operating temperature 140°C

**Option Parts** ・ Temp. controller (DTC-001) ・ Power supply ・ Heater code ・ Parallel cable ・ ADP cable ・ Controller (CTC-33) ・ Power cord ・ Sensor cord  
 For the options noted above, contact us because required items or the numbers of them may change depending on the installation method, use details, etc. of servo heat nippers.

## No. DTC-001 Benchtop Temperature Controller

- 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 model No. of the heat nipper when placing an order.

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

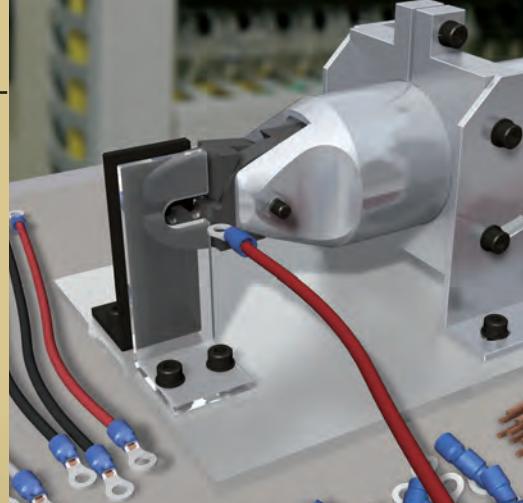
※Please ensure the input voltage in prior to operation as it is directly connected to the heater.  
 ※Two types of heaters are available for 100V and 240V.

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

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

No. GT-NR20

# Air Nippers For Cutting and Crimping



Various models are available:  
Square type for automation cutting equipment;  
Round type, together with optional stand,  
for resin or direct gate-cutting;  
Lever type for manual operation.



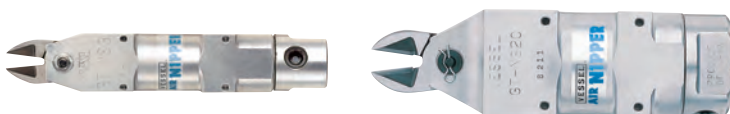
No. GT-NR20

## Air Nipper Round-Type without Lever

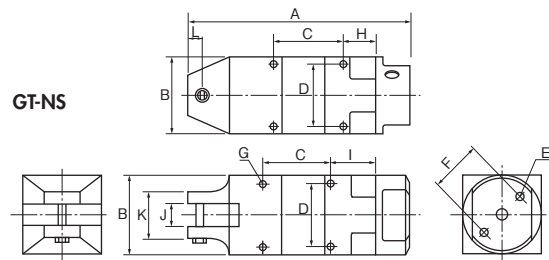
A tough body for hard jobs. The parts machined at high precision enable smooth cutting jobs to be accomplished.  
With convenient scales facilitating the installation position adjustment.

## No. GT-NS3/5/7/10L/20/30 Square Air Nippers

●VESSEL provides a generous selection of blades for gate-cutting of resin molded products and various wire cutting in a welding automatic machine and wire winding machine. 

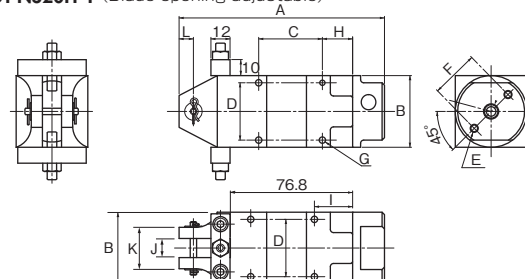


- The position of air intake port is 180-degree rotatable.
- Two air intake ports are provided, so they can be switched depending on the mounting place.



Made-to-order

GT-NS20H-1 (Blade opening adjustable)



### Reference

| Capacity $\phi$ (mm) |              |        |       | Model No.  | Size (mm) |    |    |    |            |    |             |    |    |    |    |    | Air Consumption (cm <sup>3</sup> /str.) | Air Pressure (MPa) | Weight (g) | Hose coupling | EDP No. |
|----------------------|--------------|--------|-------|------------|-----------|----|----|----|------------|----|-------------|----|----|----|----|----|-----------------------------------------|--------------------|------------|---------------|---------|
| Soft Plastic         | Hard Plastic | Copper | Steel |            | A         | B  | C  | D  | E          | F  | G           | H  | I  | J  | K  | L  |                                         |                    |            |               |         |
| 2.0                  | 1.0          | 0.5    |       | GT-NS3     | 110       | 23 | 40 | 19 | M3 Depth8  | 17 | M3 Depth3.5 | 19 | 24 | 7  | 23 | 7  | 45                                      | 0.4~0.5            | 95         | Rc 1/8        | 360012  |
| 2.0                  | 1.0          | 0.5    |       | GT-NS5     | 94        | 30 | 30 | 24 | M4 Depth10 | 20 | M3 Depth5   | 14 | 19 | 7  | 23 | 7  | 64                                      | 0.4~0.5            | 135        |               | 360013  |
| 3.0                  | 2.0          | 1.6    | 1.0   | GT-NS7     | 113       | 36 | 30 | 28 | M4 Depth10 | 24 | M4 Depth5.5 | 18 | 23 | 9  | 23 | 7  | 116                                     | 0.4~0.5            | 215        |               | 360014  |
| 4.0                  | 2.6          | 1.8    | 1.2   | GT-NS10L   | 113       | 36 | 30 | 28 | M4 Depth10 | 24 | M4 Depth5.5 | 18 | 23 | 12 | 26 | 7  | 116                                     | 0.5~0.6            | 215        |               | 360009  |
| 7.0                  | 5.0          | 2.6    | 2.0   | GT-NS20    | 129       | 45 | 40 | 36 | M5 Depth12 | 30 | M4 Depth7   | 19 | 24 | 12 | 26 | 9  | 230                                     | 0.5~0.6            | 375        |               | 360010  |
| 10.0                 | 6.5          | 3.3    | 2.8   | GT-NS30    | 170       | 56 | 60 | 46 | M6 Depth12 | 40 | M5 Depth10  | 20 | 30 | 17 | 36 | 15 | 584                                     | 0.5~0.6            | 685        |               | 360011  |
| 7.0                  | 5.0          | 2.6    | 2.0   | GT-NS20H-1 | 129       | 45 | 40 | 36 | M5 Depth12 | 30 | M4 Depth7   | 19 | 24 | 12 | 26 | 9  | 230                                     | 0.5~0.6            | 455        |               | —       |

※The capacity in the above table is given for reference, when mounting a standard type of blade.

The capacity depends on the blade shape and the material of the object to cut.

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

• Check the dimensions of the VESSEL nippers and blades when installing them in an automation machine (outer diameter of the frame, screw diameter, distance between installation screws, and others)

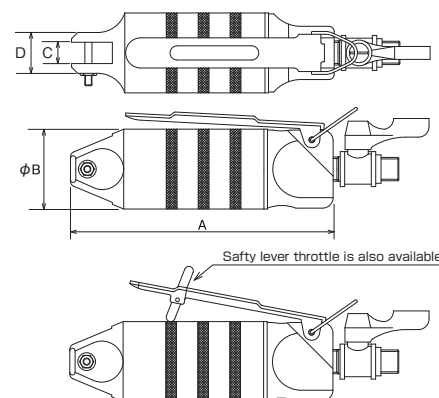
• The GT-NS50 is available as made-to-order. Please consult us for more detail.

## No. GT-N3/5/7/10/12/20/30/50 Hand Held Air Nippers

●VESSEL's made-to-order blades provide solutions for a virtually unlimited range of needs, leading to safer and more efficient working conditions, and less fatigue for the operator. 



- N20, N30 and N50 have the air cock.



Safety lever throttle is also available.

### Reference

| Capacity $\phi$ (mm) |              |        |       | Model No. | Size (mm) |    |      |    | Air Consumption (cm <sup>3</sup> /str.) | Air Pressure (MPa) | Weight (g) | Body   | Hose coupling | EDP No. |
|----------------------|--------------|--------|-------|-----------|-----------|----|------|----|-----------------------------------------|--------------------|------------|--------|---------------|---------|
| Soft Plastic         | Hard Plastic | Copper | Steel |           | A         | B  | C    | D  |                                         |                    |            |        |               |         |
| 2.0                  | 1.0          | 0.5    |       | GT-N3     | 112       | 23 | 7    | 14 | 45                                      | 0.4~0.5            | 95         | Rc 1/8 | Rc 1/4        | 360002  |
| 2.0                  | 1.0          | 0.5    |       | GT-N5     | 103       | 30 | 7    | 17 | 64                                      | 0.4~0.5            | 135        | Rc 1/8 |               | 360003  |
| 3.0                  | 2.0          | 1.6    | 1.0   | GT-N7     | 123       | 34 | 9    | 17 | 116                                     | 0.4~0.5            | 180        | Rc 1/4 |               | 360004  |
| 4.0                  | 2.6          | 1.8    | 1.2   | GT-N10    | 132       | 34 | 9    | 17 | 116                                     | 0.4~0.5            | 185        | Rc 1/4 |               | 360005  |
| 4.5                  | 4.0          | 2.3    | 1.7   | GT-N12    | 142       | 36 | 12   | 20 | 116                                     | 0.5~0.6            | 210        | Rc 1/4 |               | 360006  |
| 7.0                  | 5.0          | 2.6    | 2.0   | GT-N20    | 148       | 45 | 12   | 23 | 230                                     | 0.5~0.6            | 375        | Rc 1/4 |               | 360007  |
| 10.0                 | 6.5          | 3.3    | 2.8   | GT-N30    | 185       | 56 | 17   | 30 | 584                                     | 0.5~0.6            | 625        | Rc 1/4 |               | 360008  |
|                      |              |        |       | GT-N50    | 237       | 75 | 25.2 | 43 | 1,170                                   | 0.5~0.6            | 1,220      | Rc 1/4 |               | 360001  |
|                      |              |        |       |           |           |    |      |    |                                         |                    |            |        |               |         |
|                      |              |        |       |           |           |    |      |    |                                         |                    |            |        |               |         |

※The capacity in the above table is given for reference, when mounting a standard type of blade. The capacity depends on the blade shape and the material of the object to cut.

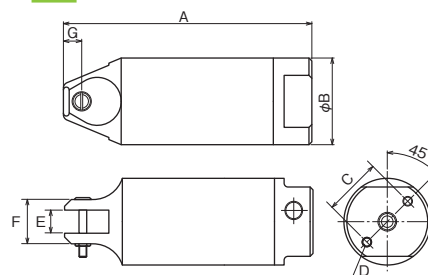
• Hose coupling: R 1/4 • Air hose inner dia. : 5 mm • Overall length: Accessories, Hunger not included. • Weight: Accessories not included.

## No. GT-NR3/5/7/10L/20/30/50 Air Nipper Round-Type without Lever

- The position of air intake port is 180-degree rotatable.
- Two air intake ports are provided, so they can be switched depending on the mounting place.



- The NR20 has a scale for installation guide on both sides.



### Reference

| Capacity $\phi$ (mm)<br>Soft Plastic Hard Plastic Copper Steel | Model No. | Size (mm) |    |    |            |      |    |      | Air Consumption<br>( $\text{cm}^3/\text{str.}$ ) | Air Pressure<br>(MPa) | Weight<br>(g) | Hose coupling | EDP No. |
|----------------------------------------------------------------|-----------|-----------|----|----|------------|------|----|------|--------------------------------------------------|-----------------------|---------------|---------------|---------|
|                                                                |           | A         | B  | C  | D          | E    | F  | G    |                                                  |                       |               |               |         |
| 2.0 1.0 0.5                                                    | GT-NR3    | 110       | 23 | 17 | M3 Depth8  | 7    | 14 | 7    | 45                                               | 0.4~0.5               | 70            | Rc 1/8        | 360015  |
| 2.0 1.0 0.5                                                    | GT-NR5    | 94        | 30 | 20 | M4 Depth10 | 7    | 17 | 7    | 64                                               | 0.4~0.5               | 110           |               | 360016  |
| 3.0 2.0 1.6 1.0                                                | GT-NR7    | 113       | 34 | 22 | M4 Depth10 | 9    | 17 | 7    | 116                                              | 0.4~0.5               | 150           |               | 360017  |
| 4.0 2.6 1.8 1.2                                                | GT-NR10L  | 113       | 36 | 24 | M4 Depth10 | 12   | 20 | 7    | 116                                              | 0.5~0.6               | 215           |               | 360018  |
| 7.0 5.0 2.6 2.0                                                | GT-NR20   | 129       | 45 | 30 | M5 Depth12 | 12   | 23 | 9.5  | 230                                              | 0.5~0.6               | 280           |               | 360019  |
| 10.0 6.5 3.3 2.8                                               | GT-NR30   | 165       | 56 | 40 | M6 Depth12 | 17   | 30 | 10.5 | 584                                              | 0.5~0.6               | 505           | Rc 1/4        | 360020  |
| 12.0 6.5 5.5 4.5                                               | GT-NR50   | 222       | 75 | 50 | M8 Depth12 | 25.2 | 43 | 15   | 1,170                                            | 0.5~0.6               | 1,190         |               | 360024  |

※The capacity in the above table is given for reference, when mounting a standard type of blade.  
The capacity depends on the blade shape and the material of the object to cut.  
• Air hose inner dia.: 5mm • Overall length and Weight: Accessories not included.

※Before mounting on dedicated/automatic machines, check the following product dimensions.  
(Flame O.D., screw dia. (screw to screw) dimensions, etc.)  
※Capacity ( $\phi$ ) is for reference purpose only. It varies depending on products.

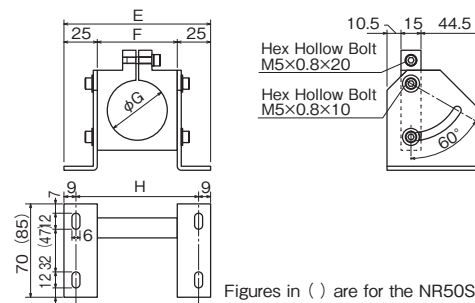
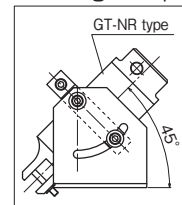
## No. NR10LST/20ST/30ST/50ST Stand for GT-NR

- Fixing hardware for sprue cutting of direct gates or mounting to an automatic machine.
- Mounted angle can be adjusted (0 to 60°).



| Model No.       | Size (mm) |     |    |     | Weight<br>(g) | EDP No. |
|-----------------|-----------|-----|----|-----|---------------|---------|
|                 | E         | F   | G  | H   |               |         |
| NR10LST         | 102       | 52  | 36 | 84  | 335           | 360057  |
| NR20ST          | 110       | 60  | 45 | 92  | 385           | 360058  |
| NR30ST          | 130       | 80  | 56 | 112 | 535           | 360059  |
| NR50ST [Option] | 150       | 100 | 75 | 132 | 835           | —       |

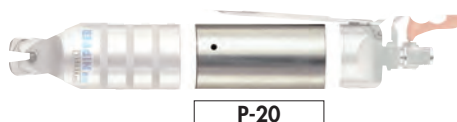
### Mounting example



Figures in ( ) are for the NR50ST

## No. P-10L/20/30/50 Extra Pressure Boosters

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



### Reference

| Capacity $\phi$ (mm)<br>Soft Plastic Hard Plastic Copper Steel | Applicable models | Model No. | Size (mm) |    | Air Consumption<br>( $\text{cm}^3/\text{str.}$ ) | Air Pressure<br>(MPa) | Weight<br>(g) | EDP No. |
|----------------------------------------------------------------|-------------------|-----------|-----------|----|--------------------------------------------------|-----------------------|---------------|---------|
|                                                                |                   |           | A         | B  |                                                  |                       |               |         |
| 5.0 4.0 2.6 1.6                                                | NS10L, NR10L, N12 | P-10L     | 71        | 36 | 223                                              | Up to 0.5MPa          | 115           | 360051  |
| 8.0 6.0 3.0 2.2                                                | N20, NS20, NR20   | P-20      | 87        | 45 | 508                                              | Up to 0.5MPa          | 215           | 360052  |
| 13.0 7.0 4.8 4.0                                               | N30, NS30, NR30   | P-30      | 92        | 56 | 956                                              | Up to 0.5MPa          | 330           | 360053  |
| 6.5 5.5                                                        | N50, NR50         | P-50      | 133       | 75 | 2,670                                            | Up to 0.5MPa          | 840           | 360054  |

※The capacity in the above table is given for reference, when mounting a standard type of blade. The capacity depends on the blade shape and the material of the object to cut.  
• Above figures of overall length and the weight are defined for the extra booster specs only. And these figures in the installation.

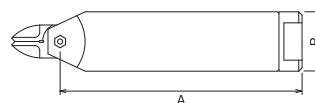
※Blades are optional.

## No. GT-NWR10/20/30 GT-NWS1/10/20/30 Double Action Air Nippers

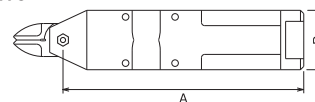
- Blade opening and closing is driven by air piston.
- Having no spring mechanism in the main unit facilitates maintenance.



GT-NWR



GT-NWS



| Model No.                                             | Capacity $\phi$ (mm) |       |             | Air Consumption<br>(cm <sup>3</sup> /str.) | Applied Pressure<br>(N) | Air Pressure<br>(MPa) | Size (mm) |           | Weight<br>(g) | EDP No. |
|-------------------------------------------------------|----------------------|-------|-------------|--------------------------------------------|-------------------------|-----------------------|-----------|-----------|---------------|---------|
|                                                       | Copper               | Steel | ABS Plastic |                                            |                         |                       | A         | B         |               |         |
| Double Action Air Scissors (Round Type without Lever) |                      |       |             |                                            |                         |                       |           |           |               |         |
| GT-NWR10                                              | 1.8                  | 1.2   | 4.0         | 116                                        | 588                     | 0.4~0.5               | 146       | $\phi 36$ | 280           | 360710  |
| GT-NWR20                                              | 2.6                  | 2.0   | 6.5         | 230                                        | 1,372                   | 0.5~0.6               | 165       | $\phi 45$ | 523           | 360711  |
| GT-NWR30                                              | 3.3                  | 2.8   | 9.5         | 584                                        | 2,744                   | 0.5~0.6               | 230.5     | $\phi 56$ | 980           | 360712  |
| Double Action Air Scissors (Square Type)              |                      |       |             |                                            |                         |                       |           |           |               |         |
| GT-NWS1                                               | 1.0                  | 0.5   | 2.0         | 45                                         | 294                     | 0.4~0.5               | 95        | 23×20     | 116           | 360702  |
| GT-NWS10                                              | 1.8                  | 1.2   | 4.0         | 116                                        | 588                     | 0.4~0.5               | 146       | 36×36     | 356           | 360706  |
| GT-NWS20                                              | 2.6                  | 2.0   | 6.5         | 230                                        | 1,372                   | 0.5~0.6               | 165       | 45×45     | 610           | 360707  |
| GT-NWS30                                              | 3.3                  | 2.8   | 9.5         | 584                                        | 2,744                   | 0.5~0.6               | 230.5     | 56×56     | 1115          | 360708  |

NEW

## No. GT-NB20/30/20LW/30LW

### Sliding Air Nippers Bracket-Type

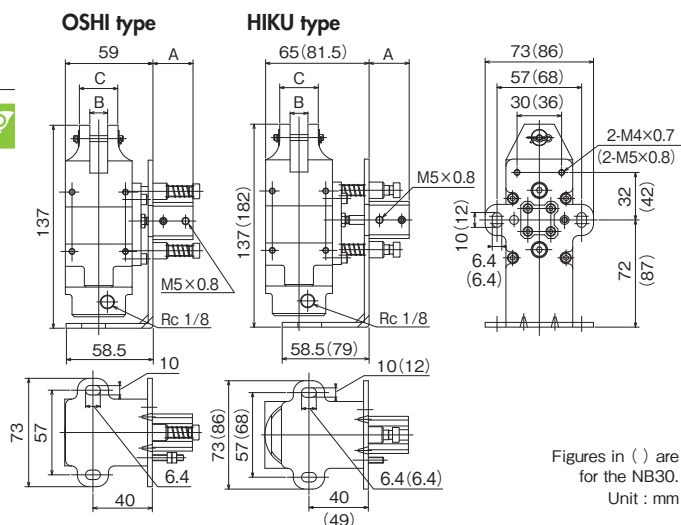
- VESSEL has achieved smooth and continuous slide movement even for large diameter gate cuts, which produces a large shock at each cut.



GT-NB20LW-10TM  
Slide Mechanism Accurate Model

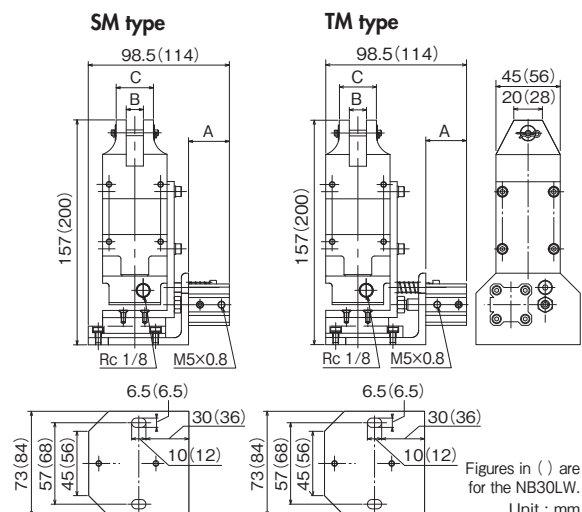


GT-NB20



Figures in ( ) are for the NB30.  
Unit : mm

| Model No.         | Dimensions (mm) |    |    | Slide Direction/<br>Distance (mm) | Weight<br>(g) | EDP No. |
|-------------------|-----------------|----|----|-----------------------------------|---------------|---------|
|                   | A               | B  | C  |                                   |               |         |
| GT-NB20 (5-OSHI)  | 22              | 12 | 26 | Push 0~5                          | 755           | 360073  |
| GT-NB20 (5-HIKU)  | 22              | 12 | 26 | Pull 0~5                          | 755           | 360071  |
| GT-NB20 (10-OSHI) | 27              | 12 | 26 | Push 0~10                         | 755           | 360074  |
| GT-NB20 (10-HIKU) | 27              | 12 | 26 | Pull 0~10                         | 755           | 360072  |
| GT-NB30 (10-HIKU) | 28.5            | 17 | 36 | Pull 0~10                         | 1,420         | 360076  |
| GT-NB20LW-10TM    | 28.5            | 12 | 26 | Pull 0~10                         | 795           | 360069  |
| GT-NB30LW-10TM    | 29.5            | 17 | 36 | Pull 0~10                         | 1,315         | 360077  |
| GT-NB20LW-10SM    | 28.5            | 12 | 26 | Push 0~10                         | 795           | 360068  |
| GT-NB30LW-10SM    | 29.5            | 17 | 36 | Push 0~10                         | 1,325         | 360078  |

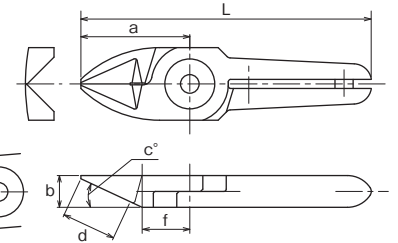


Figures in ( ) are for the NB30LW.  
Unit : mm

## No. AS/HS Standard



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



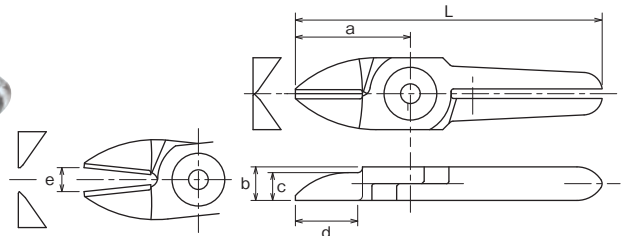
| Model No. | Size (mm) |    |       |                     |                  |      |     | Weight (g) | Material                | Applicable models           | EDP No. |
|-----------|-----------|----|-------|---------------------|------------------|------|-----|------------|-------------------------|-----------------------------|---------|
|           | a         | b  | c (°) | d: Effective Length | e: Blade opening | f    | L   |            |                         |                             |         |
| N3AS      | 24        | 7  | 25    | 12                  | 4                | 10.5 | 64  | 35         | Special alloy steel     | GT-NS3 / N3 / NR3           | 360102  |
| N3HS      | 24        | 7  | 25    | 12                  | 4                | 10.5 | 64  | 35         | w/High speed steel chip | GT-NS3 / N3 / NR3           | 360101  |
| N5AS      | 24        | 7  | 25    | 12                  | 4                | 10.5 | 64  | 40         | Special alloy steel     | GT-NS5 / N5 / NR5           | 360112  |
| N5HS      | 24        | 7  | 25    | 12                  | 4                | 10.5 | 64  | 40         | w/High speed steel chip | GT-NS5 / N5 / NR5           | 360111  |
| N7AS      | 27        | 9  | 30    | 13.5                | 4                | 12.5 | 81  | 80         | Special alloy steel     | GT-NS7 / N7 / NR7           | 360122  |
| N7HS      | 27        | 9  | 30    | 13.5                | 4                | 12.5 | 81  | 80         | w/High speed steel chip | GT-NS7 / N7 / NR7           | 360121  |
| N10AS     | 27        | 9  | 30    | 13.5                | 5                | 12.5 | 91  | 85         | Special alloy steel     | GT-N10                      | 360132  |
| N10HS     | 27        | 9  | 30    | 13.5                | 5                | 12.5 | 91  | 85         | w/High speed steel chip | GT-N10                      | 360131  |
| N10LAS    | 35        | 12 | 30    | 20                  | 5                | 15   | 89  | 120        | Special alloy steel     | GT-NS10L / NR10L            | 360181  |
| N12AS     | 35        | 12 | 30    | 20                  | 5                | 15   | 105 | 135        | Special alloy steel     | GT-N12                      | 360142  |
| N12HS     | 35        | 12 | 30    | 20                  | 5                | 15   | 105 | 135        | w/High speed steel chip | GT-N12                      | 360141  |
| N20AS     | 35        | 12 | 30    | 20                  | 9                | 15   | 95  | 140        | Special alloy steel     | GT-NS20 / N20 / NR20 / NB20 | 360151  |
| N30AS     | 43        | 17 | 30    | 25                  | 9                | 18   | 127 | 370        | Special alloy steel     | GT-NS30 / N30 / NR30 / NB30 | 360161  |

>> For guidance on cutting capability, see P30 of the technical material.

## No. BJ Straight blades for metals



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



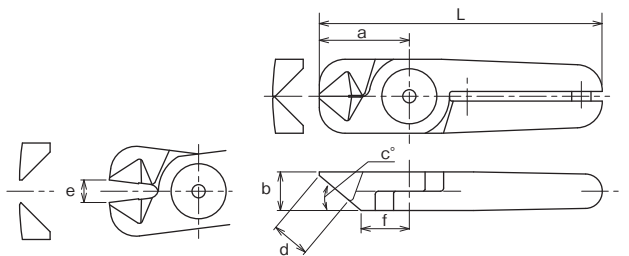
| Model No. | Size (mm) |    |     |                     |                  |     |     | Weight (g) | Material            | Applicable models | EDP No. |
|-----------|-----------|----|-----|---------------------|------------------|-----|-----|------------|---------------------|-------------------|---------|
|           | a         | b  | c   | d: Effective Length | e: Blade opening | f   | L   |            |                     |                   |         |
| NW1BJ     | 20        | 5  | 3   | 10.5                | 3.5              | 50  | 16  | 16         | Special alloy steel | GT-NWR1 / NWS1    | 360450  |
| N3BJ      | 24        | 7  | 5.8 | 13                  | 5                | 64  | 35  | 35         | Special alloy steel | GT-NS3 / N3 / NR3 | 360106  |
| N5BJ      | 24        | 7  | 5.8 | 13                  | 4                | 64  | 40  | 40         | Special alloy steel | GT-NS5 / N5 / NR5 | 360119  |
| N7BJ      | 27        | 9  | 7.5 | 13                  | 5                | 81  | 75  | 75         | Special alloy steel | GT-NS7 / N7 / NR7 | 360128  |
| NW10BJ    | 30        | 9  | 6   | 14                  | 5                | 85  | 76  | 76         | Special alloy steel | GT-NWR10 / NWS10  | 360453  |
| NW20BJ    | 40        | 12 | 6   | 21.5                | 8                | 100 | 142 | 142        | Special alloy steel | GT-NWR20 / NWS20  | 360459  |
| NW30BJ    | 55        | 17 | 8   | 29.5                | 11               | 140 | 367 | 367        | Special alloy steel | GT-NWR300 / NWS30 | 360460  |

>> For guidance on cutting capability, see P30 of the technical material.

## No. AG Powerful cutting blades



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



| Model No. | Size (mm) |    |       |                     |                  |      |    | Weight (g) | Material                | Applicable models           | EDP No. |
|-----------|-----------|----|-------|---------------------|------------------|------|----|------------|-------------------------|-----------------------------|---------|
|           | a         | b  | c (°) | d: Effective Length | e: Blade opening | f    | L  |            |                         |                             |         |
| N20AG     | 28        | 12 | 40    | 12                  | 7                | 15   | 88 | 135        | Special alloy steel     | GT-NS20 / N20 / NR20 / NB20 | 360159  |
| N20HS     | 26        | 12 | 40    | 10                  | 7                | 13.5 | 86 | 135        | w/High speed steel chip | GT-NS20 / N20 / NR20 / NB20 | 360157  |

>> For guidance on cutting capability, see P231 of the technical material.

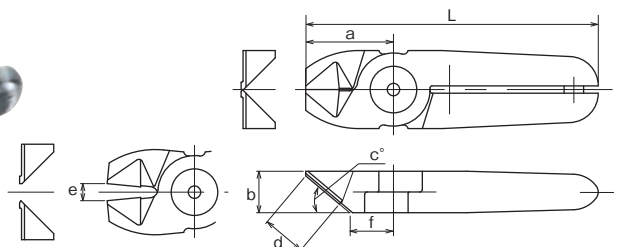
## No. BBB Powerful cutting blades with carbide tips



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



Carbide tips  
 Recommended to the applications where more durable blade than the special alloy steel is required (i.e. when cutting piano wires)



| Model No. | Size (mm) |    |       |                     |                  |    |     | Weight (g) | Material       | Applicable models           | EDP No. |
|-----------|-----------|----|-------|---------------------|------------------|----|-----|------------|----------------|-----------------------------|---------|
|           | a         | b  | c (°) | d: Effective Length | e: Blade opening | f  | L   |            |                |                             |         |
| N30BBB    | 36        | 17 | 40    | 18                  | 7                | 18 | 120 | 365        | w/Carbide chip | GT-NS30 / N30 / NR30 / NB30 | 360172  |
| N50BBB    | 46        | 25 | 35    | 19                  | 9                | 24 | 166 | 955        | w/Carbide chip | GT-N50 / NR50               | 360177  |

>> For guidance on cutting capability, see P30 of the technical material.

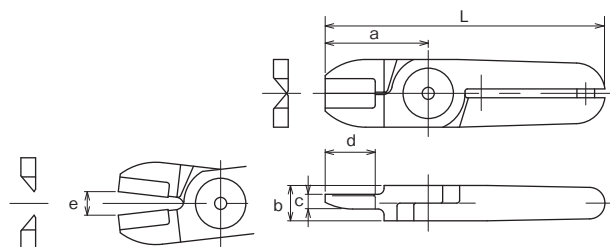
## Air nipper standard blades for metal

**No. BFB/AS** Clipper blades with carbide tips

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



N50AS

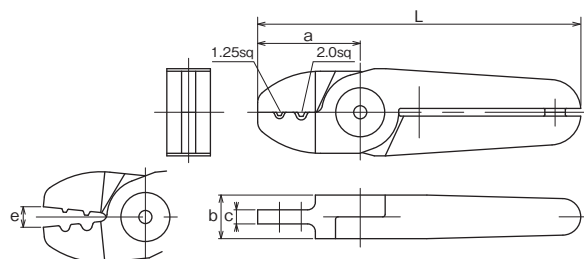


| Model No.     | Size (mm) |    |    |                     |                  |     | Weight (g) | Material            | Applicable models           | EDP No. |
|---------------|-----------|----|----|---------------------|------------------|-----|------------|---------------------|-----------------------------|---------|
|               | a         | b  | c  | d: Effective Length | e: Blade opening | L   |            |                     |                             |         |
| <b>N20BFB</b> | 35        | 12 | 5  | 17                  | 8                | 95  | 150        | w/Carbide chip      | GT-NS20 / N20 / NR20 / NB20 | 360156  |
| <b>N50AS</b>  | 60        | 25 | 10 | 30                  | 11               | 180 | 950        | Special alloy steel | GT-N50 / NR50               | 360175  |

&gt;&gt; For guidance on cutting capability, see P30 of the technical material.

**No. ACD** Crimp edge for solderless terminals

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



| Model No.     | Size (mm) |    |     |                     |                  |     | Weight (g) | Material            | Applicable models           | EDP No. |
|---------------|-----------|----|-----|---------------------|------------------|-----|------------|---------------------|-----------------------------|---------|
|               | a         | b  | c   | d: Effective Length | e: Blade opening | L   |            |                     |                             |         |
| <b>N30ACD</b> | 40        | 17 | 5.5 | 8                   | 8                | 126 | 335        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360171  |

&gt;&gt; For guidance on cutting capability, see P30 of the technical material.

## Air nipper standard blades for plastic

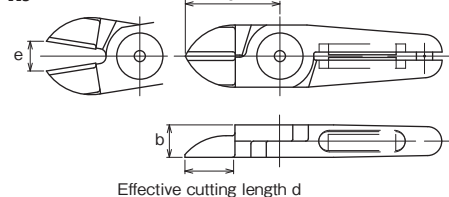
**No. NM** NM Blades

NM blades eliminate troubles caused by spring breakage. Can be mounted on the VESSEL current air nippers. Periodic replacement of spring is no more necessary as the magnet works semi-permanently.

**PAT.**

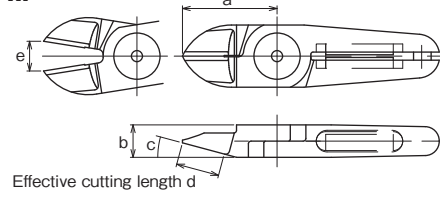
- Ideal for around-the-clock operations
- Semi-permanent magnetic force
- Compatible with our standard nipper bodies

Thin, straight type / For plastic parts

**AJ**

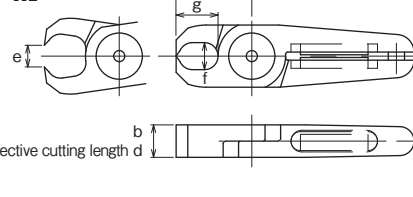
Effective cutting length d

For plastic parts

**AP**

Effective cutting length d

Nipping type / For plastic parts

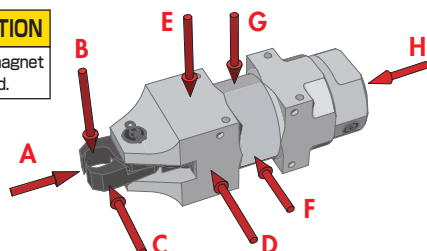
**AE**

Effective cutting length d

| Model No.     | Size (mm) |    |       |    |    |         | Weight (g) | Applicable models           | EDP No. |
|---------------|-----------|----|-------|----|----|---------|------------|-----------------------------|---------|
|               | a         | b  | c (°) | d  | e  | f×g     |            |                             |         |
| <b>NM20AJ</b> | 35        | 12 | -     | 18 | 11 | -       | 116        | GT-NS20 / N20 / NR20 / NB20 | 360246  |
| <b>NM20AP</b> | 35        | 12 | 15    | 16 | 11 | -       | 124        | GT-NS20 / N20 / NR20 / NB20 | 360247  |
| <b>NM20AE</b> | 28        | 12 | -     | 12 | 8  | 10×15.5 | 129        | GT-NS20 / N20 / NR20 / NB20 | 360248  |
| <b>NM30AJ</b> | 52        | 17 | -     | 28 | 11 | -       | 360        | GT-NS30 / N30 / NR30 / NB30 | 360261  |
| <b>NM30AP</b> | 66        | 17 | 15    | 38 | 16 | -       | 380        | GT-NS30 / N30 / NR30 / NB30 | 360262  |
| <b>NM30AE</b> | 45        | 17 | -     | 17 | 12 | 13×28   | 358        | GT-NS30 / N30 / NR30 / NB30 | 360263  |

&gt;&gt; For guidance on cutting capability, see P30 of the technical material.

\*Customization also available upon request.



## Result of magnetic force measurement

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

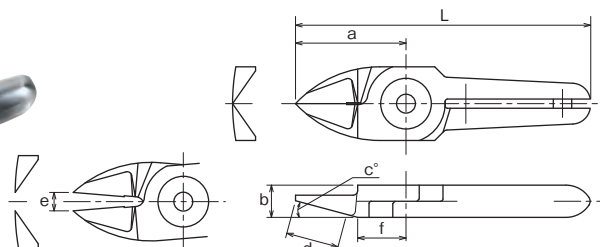
| 品番 No.        | A  | B  | C  | D | E  | F  | G  | H | EDP No. |
|---------------|----|----|----|---|----|----|----|---|---------|
| <b>NM20AE</b> | 85 | 10 | 10 | 5 | 32 | 5  | 2  | 0 | 360248  |
| <b>NM30AE</b> | 34 | 8  | 8  | 6 | 42 | 15 | 30 | 3 | 360263  |

Measurement unit: Gauss

Measurement device: Gaussmeter GM-1200 manufactured by DENSHIJIKI INDUSTRY Co., Ltd.

## No. AP Standard blades for plastic

**Plastic** **AP**/Standard set of blades used to cut plastic.  
A large R is provided in the cross section for gate cutting in which the cut end must not be left.  
(The cutting edge is curved.)

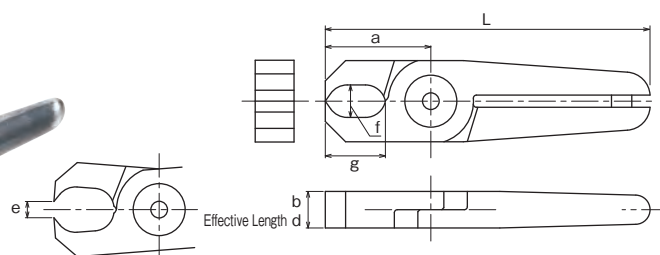


| Model No. | Size (mm) |    |       |                     |                  |      |     | Weight (g) | Material            | Applicable models           | EDP No. |
|-----------|-----------|----|-------|---------------------|------------------|------|-----|------------|---------------------|-----------------------------|---------|
|           | a         | b  | c (°) | d: Effective Length | e: Blade opening | f    | L   |            |                     |                             |         |
| N3AP      | 24        | 7  | 15    | 11.5                | 4                | 10.5 | 64  | 35         | Special alloy steel | GT-NS3 / N3 / NR3           | 360104  |
| N5AP      | 24        | 7  | 15    | 11.5                | 4                | 10.5 | 64  | 40         | Special alloy steel | GT-NS5 / N5 / NR5           | 360114  |
| N7AP      | 27        | 9  | 30    | 11.5                | 4                | 14.5 | 81  | 80         | Special alloy steel | GT-NS7 / N7 / NR7           | 360124  |
| N10AP     | 27        | 9  | 30    | 11.5                | 5                | 14.5 | 91  | 85         | Special alloy steel | GT-N10                      | 360134  |
| N10LAP    | 35        | 12 | 15    | 16                  | 5                | 15   | 89  | 120        | Special alloy steel | GT-NS10L / NR10L            | 360182  |
| N12AP     | 35        | 12 | 15    | 16                  | 5                | 15   | 105 | 135        | Special alloy steel | GT-N12                      | 360144  |
| N20AP     | 35        | 12 | 15    | 16                  | 11               | 15   | 95  | 125        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360155  |
| N30AP     | 66        | 17 | 15    | 38                  | 16               | 24   | 150 | 380        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360165  |

>> For guidance on cutting capability, see P30 of the technical material.

## No. AE Nipping blades for plastic

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

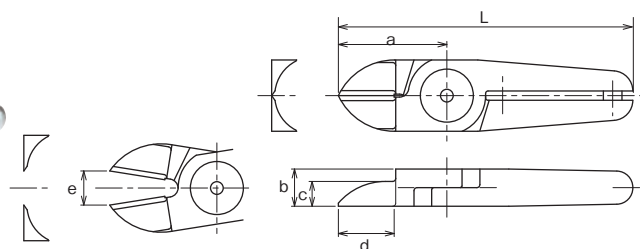


| Model No. | Size (mm) |    |         |                     |                  |     |     | Weight (g)          | Material                    | Applicable models | EDP No. |
|-----------|-----------|----|---------|---------------------|------------------|-----|-----|---------------------|-----------------------------|-------------------|---------|
|           | a         | b  | f×g     | d: Effective Length | e: Blade opening | L   |     |                     |                             |                   |         |
| N3AE      | 20        | 7  | 6×11    | 7                   | 3.5              | 60  | 35  | Special alloy steel | GT-NS3 / N3 / NR3           | 360108            |         |
| N5AE      | 20        | 7  | 6×6.6   | 7                   | 3.5              | 60  | 40  | Special alloy steel | GT-NS5 / N5 / NR5           | 360118            |         |
| N7AE      | 26        | 9  | 8×14.8  | 9                   | 4                | 80  | 85  | Special alloy steel | GT-NS7 / N7 / NR7           | 360126            |         |
| N20AE     | 28        | 12 | 10×15.5 | 12                  | 8                | 88  | 135 | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360158            |         |
| N30AE     | 45        | 17 | 13×28   | 17                  | 12               | 129 | 395 | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360166            |         |

>> For guidance on cutting capability, see P30 of the technical material.

## No. AJ Straight blades for plastic

**Plastic** **AJ**/Vertical blades with an unbeveled cutting edge for plastic.  
You can apply it at a right angle to the gate.

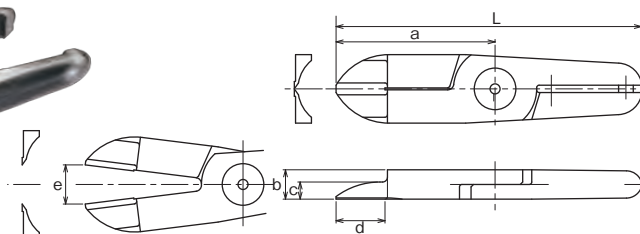


| Model No. | Size (mm) |    |   |                     |                  |     |     | Weight (g)          | Material                    | Applicable models | EDP No. |
|-----------|-----------|----|---|---------------------|------------------|-----|-----|---------------------|-----------------------------|-------------------|---------|
|           | a         | b  | c | d: Effective Length | e: Blade opening | L   |     |                     |                             |                   |         |
| NW10AJ    | 30        | 9  | 6 | 14                  | 5                | 85  | 76  | Special alloy steel | GT-NWR10 / NWS10            | 360454            |         |
| N20AJ     | 35        | 12 | 8 | 18                  | 11               | 95  | 125 | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360152            |         |
| N20AJB    | 35        | 12 | 8 | 18                  | 11               | 95  | 125 | w/Carbide chip      | GT-NS20 / N20 / NR20 / NB20 | 360381            |         |
| NW20AJ    | 40        | 12 | 6 | 21.5                | 8                | 100 | 142 | Special alloy steel | GT-NWR20 / NWS20            | 360457            |         |
| N30AJ     | 52        | 17 | 8 | 28                  | 11               | 136 | 370 | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360169            |         |
| NW30AJ    | 55        | 17 | 8 | 29.5                | 11               | 140 | 368 | Special alloy steel | GT-NWR30 / NWS30            | 360461            |         |

>> For guidance on cutting capability, see P30 of the technical material.

**No. AJL/Quasi-standard products** Straight long blades for plastic

**Plastic** **AJL/Long type straight blades.**  
Suitable when there is distance between the nippers and the gate cut portion of the workpiece.  
N30AJL163 is useful for cutting wide gates.



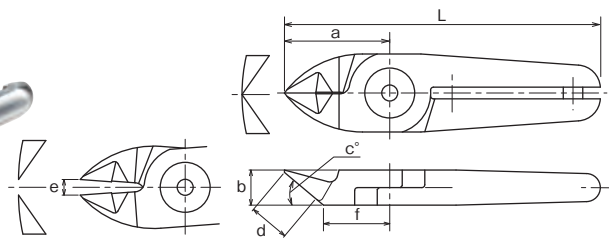
| Model No.  | Size (mm) |    |   |                     |                  |     |     | Weight (g)          | Material                    | Applicable models | EDP No. |
|------------|-----------|----|---|---------------------|------------------|-----|-----|---------------------|-----------------------------|-------------------|---------|
|            | a         | b  | c | d: Effective Length | e: Blade opening | f   | L   |                     |                             |                   |         |
| ※N10LAJ141 | 61        | 12 | 7 | 34                  | 10               | 115 | 165 | Special alloy steel | GT-NS10L / NR10L            | 360369            |         |
| N20AJL     | 65        | 12 | 7 | 20                  | 16               | 125 | 230 | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360150            |         |
| ※N20AB39   | 61        | 12 | 7 | 36                  | 14               | 121 | 185 | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360376            |         |
| ※N30AJ163  | 65        | 17 | 7 | 41                  | 17.5             | 149 | 355 | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360389            |         |
| N30AJL     | 75        | 17 | 8 | 25                  | 19               | 159 | 470 | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360170            |         |

>> For guidance on cutting capability, see P30 of the technical material.

Blade with a mark ※ is a quasi-standard.

**No. PF** Flat blades for plastic

**Plastic** **PF/A set of blades for cutting plastic gates with cutting end flat.** A large R is provided in the cross section for gate cutting in which the cut end must not be left.

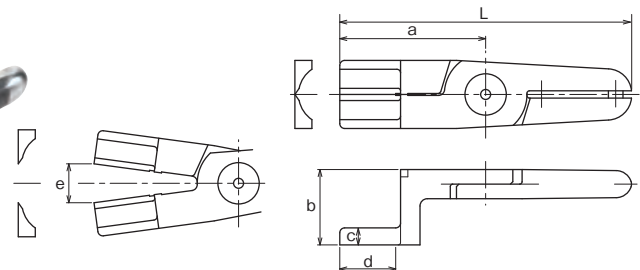


| Model No. | Size (mm) |    |       |                     |                  |    |     | Weight (g) | Material            | Applicable models           | EDP No. |
|-----------|-----------|----|-------|---------------------|------------------|----|-----|------------|---------------------|-----------------------------|---------|
|           | a         | b  | c (°) | d: Effective Length | e: Blade opening | f  | L   |            |                     |                             |         |
| N7PF      | 27        | 9  | 40    | 10.5                | 4                | 17 | 81  | 80         | Special alloy steel | GT-NS7 / N7 / NR7           | 360127  |
| N10LPF    | 35        | 12 | 40    | 13.5                | 5                | 21 | 89  | 120        | Special alloy steel | GT-NS10L / NR10L            | 360183  |
| N20PF     | 35        | 12 | 40    | 13.5                | 11               | 21 | 95  | 130        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360160  |
| N30PF     | 58        | 17 | 30    | 25                  | 15               | 33 | 142 | 390        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360167  |

>> For guidance on cutting capability, see P30 of the technical material.

**No. Quasi-standard products** Crank blades for plastic

**Plastic** **AH/Crank shaped blade for plastic.**  
It is effective when there are obstructions or the gate is narrow.



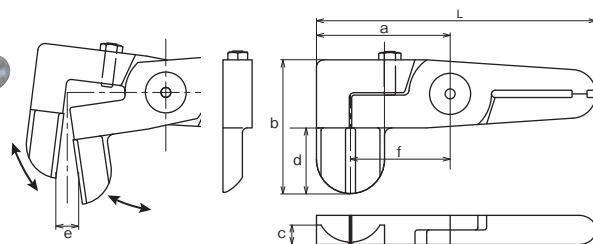
| Model No. | Size (mm) |    |   |                     |                  |     |     | Weight (g)          | Material                    | Applicable models | EDP No. |
|-----------|-----------|----|---|---------------------|------------------|-----|-----|---------------------|-----------------------------|-------------------|---------|
|           | a         | b  | c | d: Effective Length | e: Blade opening | f   | L   |                     |                             |                   |         |
| N20AH     | 60        | 31 | 7 | 23                  | 16               | 120 | 240 | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360149            |         |

>> For guidance on cutting capability, see P30 of the technical material.

**No. Quasi-standard products** Laterally facing blades for plastics

**Plastic** **AML/AMR** This is a set of blades for plastic where the cutting area is bent 90 degrees. It is useful when it is hard for the nipper to get into, for example, in cramped spaces.

AML AMR

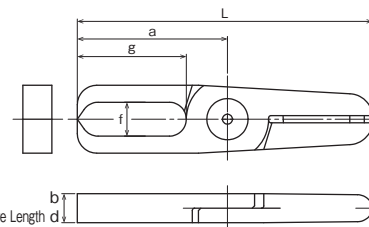
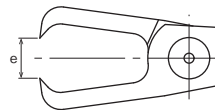
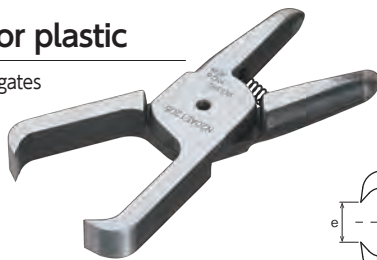


| Model No.      | Size (mm) |    |    |                     |                  |    |     | Weight (g) | Material            | Applicable models           | EDP No. |
|----------------|-----------|----|----|---------------------|------------------|----|-----|------------|---------------------|-----------------------------|---------|
|                | a         | b  | c  | d: Effective Length | e: Blade opening | f  | L   |            |                     |                             |         |
| N20AML1498     | 55        | 55 | 8  | 26                  | 9.5              | 41 | 115 | 270        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360384  |
| N20AMR1499     | 55        | 55 | 8  | 26                  | 9.5              | 41 | 115 | 270        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360385  |
| NEW N30AML1435 | 55        | 68 | 10 | 35                  | 13               | 39 | 139 | 520        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360370  |
| NEW N30AMR1395 | 55        | 68 | 10 | 35                  | 13               | 39 | 139 | 520        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360371  |

>> For guidance on cutting capability, see P30 of the technical material.

## No. Quasi-standard products Nipping blades for plastic

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

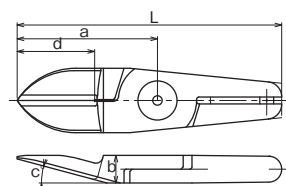
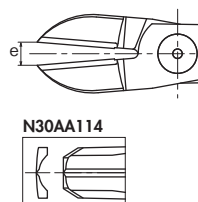


| Model No.            | Size (mm) |    |       |                     |                  |     | Weight (g) | Material            | Applicable models           | EDP No. |
|----------------------|-----------|----|-------|---------------------|------------------|-----|------------|---------------------|-----------------------------|---------|
|                      | a         | b  | f×g   | d: Effective Length | e: Blade opening | L   |            |                     |                             |         |
| <b>NEW N20AE1205</b> | 62        | 12 | 14x45 | 12                  | 16.5             | 122 | 202        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360378  |

>> For guidance on cutting capability, see P30 of the technical material.

## No. Quasi-standard products R blades for plastic

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.

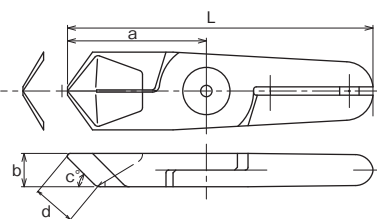
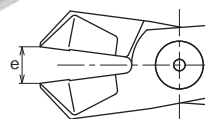


| Model No.        | Size (mm) |    |    |                     |                  |       | Weight (g) | Material            | Applicable models           | EDP No. |
|------------------|-----------|----|----|---------------------|------------------|-------|------------|---------------------|-----------------------------|---------|
|                  | a         | b  | c  | d: Effective Length | e: Blade opening | L     |            |                     |                             |         |
| <b>N10LAB152</b> | 61        | 12 | 15 | 35                  | 10               | 115   | 165        | Special alloy steel | GT-NS10 / NR10L             | 360367  |
| <b>N20AA27</b>   | 45        | 12 | 23 | 25                  | 12               | 105   | 145        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360373  |
| <b>N20AA239</b>  | 52.3      | 12 | 40 | 27                  | 14               | 112.3 | 195        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360372  |
| <b>N20AB360</b>  | 61        | 12 | 15 | 35                  | 16               | 121   | 185        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360375  |
| <b>N30AA114</b>  | 76.3      | 17 | 30 | 50                  | 20               | 160.3 | 385        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360386  |

>> For guidance on cutting capability, see P30 of the technical material.

## No. Quasi-standard products Angled nipping blades for plastic

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.

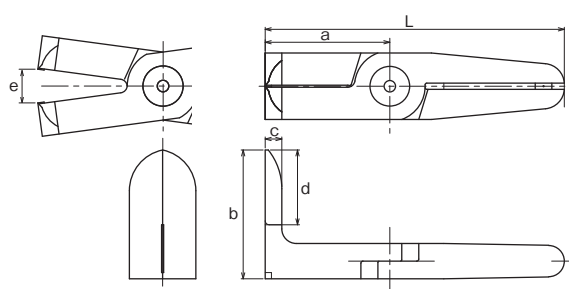
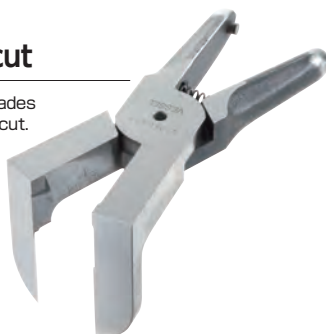


| Model No.      | Size (mm) |    |    |                     |                  |     | Weight (g) | Material            | Applicable models           | EDP No. |
|----------------|-----------|----|----|---------------------|------------------|-----|------------|---------------------|-----------------------------|---------|
|                | a         | b  | c  | d: Effective Length | e: Blade opening | L   |            |                     |                             |         |
| <b>N20AE19</b> | 50        | 12 | 45 | 13                  | 13               | 110 | 20         | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360377  |
| <b>N30AE53</b> | 65        | 17 | 65 | 18.5                | 16               | 149 | 440        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360388  |

>> For guidance on cutting capability, see P30 of the technical material.

**No.** Quasi-standard products**L blades for sprue cut**

This is an angled long type straight set of blades with a 90-degree angle. Ideal for direct gate cut.

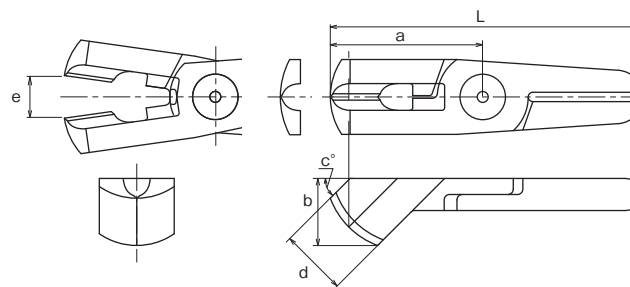
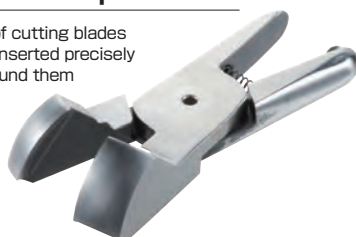


| Model No.       | Size (mm) |    |   |                     |                  |     | Weight (g) | Material            | Applicable models           | EDP No. |
|-----------------|-----------|----|---|---------------------|------------------|-----|------------|---------------------|-----------------------------|---------|
|                 | a         | b  | c | d: Effective Length | e: Blade opening | L   |            |                     |                             |         |
| <b>N30AL525</b> | 60        | 62 | 8 | 36                  | 16               | 144 | 520        | Special alloy steel | GT-NS30 / N30 / NR30 / NB30 | 360390  |

>> For guidance on cutting capability, see P30 of the technical material.

**No.** 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.



| Model No.       | Size (mm) |    |    |                     |                  |     | Weight (g) | Material            | Applicable models           | EDP No. |
|-----------------|-----------|----|----|---------------------|------------------|-----|------------|---------------------|-----------------------------|---------|
|                 | a         | b  | c  | d: Effective Length | e: Blade opening | L   |            |                     |                             |         |
| <b>N20AK249</b> | 57        | 25 | 45 | 25                  | 14               | 117 | 240        | Special alloy steel | GT-NS20 / N20 / NR20 / NB20 | 360383  |

>> For guidance on cutting capability, see P30 of the technical material.

**List of Blade Springs**

| EDP No.       | Size (mm)<br>Wire Dia. x O/D x Free Length | Material | Applicable       |                             |
|---------------|--------------------------------------------|----------|------------------|-----------------------------|
|               |                                            |          | Standard Models  | Custom-made or Other Models |
| <b>859100</b> | $\phi 0.45 \times \phi 3.7 \times 13$      | SWP-B    | N3.5             |                             |
| <b>859101</b> | $\phi 0.7 \times \phi 5.1 \times 16.6$     | SWP-B    | N7.10            |                             |
| <b>859102</b> | $\phi 0.7 \times \phi 5.6 \times 22.5$     | SWP-B    | N10L..12.20      | F55U23H                     |
| <b>859103</b> | $\phi 1.0 \times \phi 8.0 \times 24$       | SWP-B    | N30AS.AG.BBB.ACD | H120SK.SKE                  |
| <b>859104</b> | $\phi 1.0 \times \phi 8.0 \times 28$       | SWP-B    | N30              |                             |
| <b>859105</b> | $\phi 1.2 \times \phi 11.2 \times 37$      | SWP-B    | N50              | H30ME.MEL.SK                |
| <b>859106</b> | $\phi 0.8 \times \phi 7.8 \times 25$       | SWP-B    |                  | H12ME30K                    |

**Air Nipper Troubleshooting**

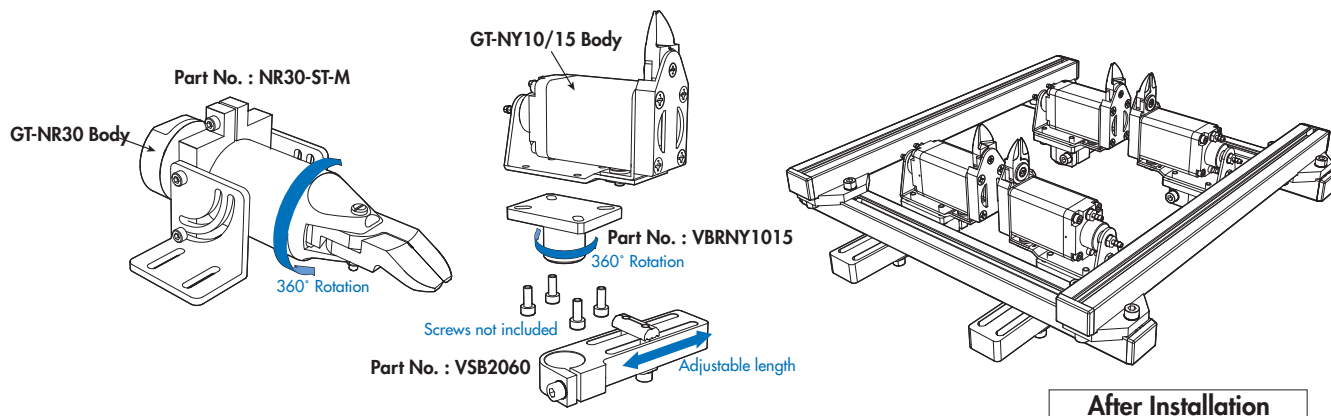
Inspection items when a malfunction occurs during use

| Symptoms                                        | Causes                                                          | Treatment                          |
|-------------------------------------------------|-----------------------------------------------------------------|------------------------------------|
| <b>1. Blades or slide not working properly.</b> | 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                     |
| <b>2. Air leakage</b>                           | Valve malfunction/wear, damage (O-rings, ball valves, etc.)     | Component replacement              |
|                                                 | Packing is broken                                               | Component replacement              |

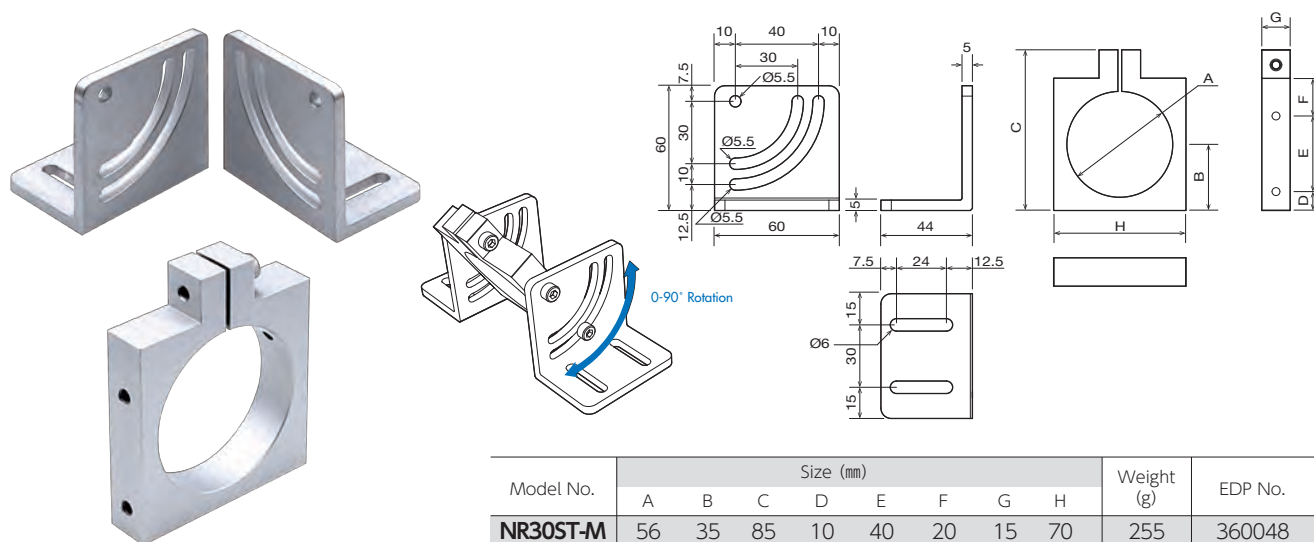


# Nipper Fixture Parts

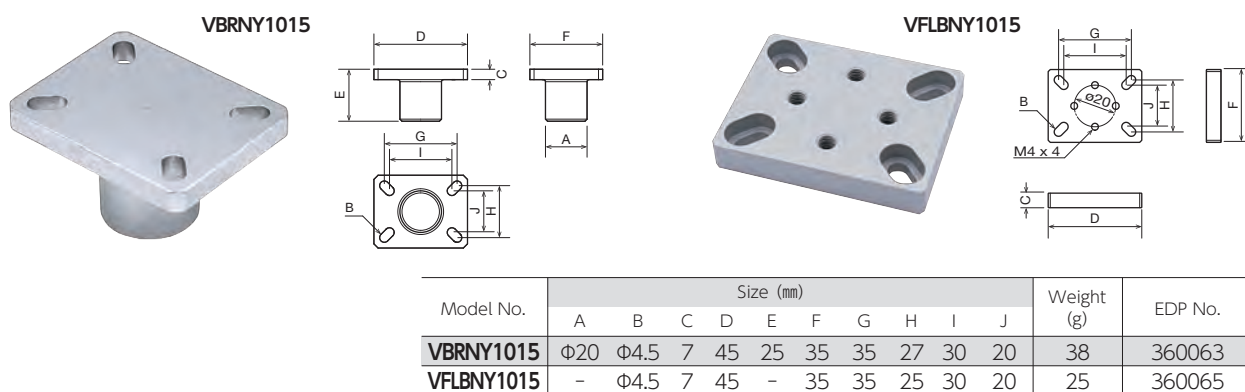




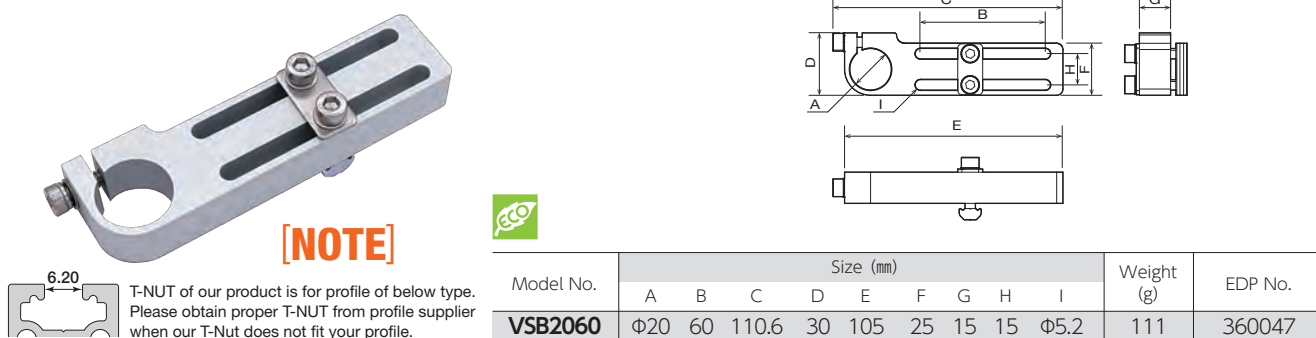
## No. NR30ST-M Stand for the GT-NR30

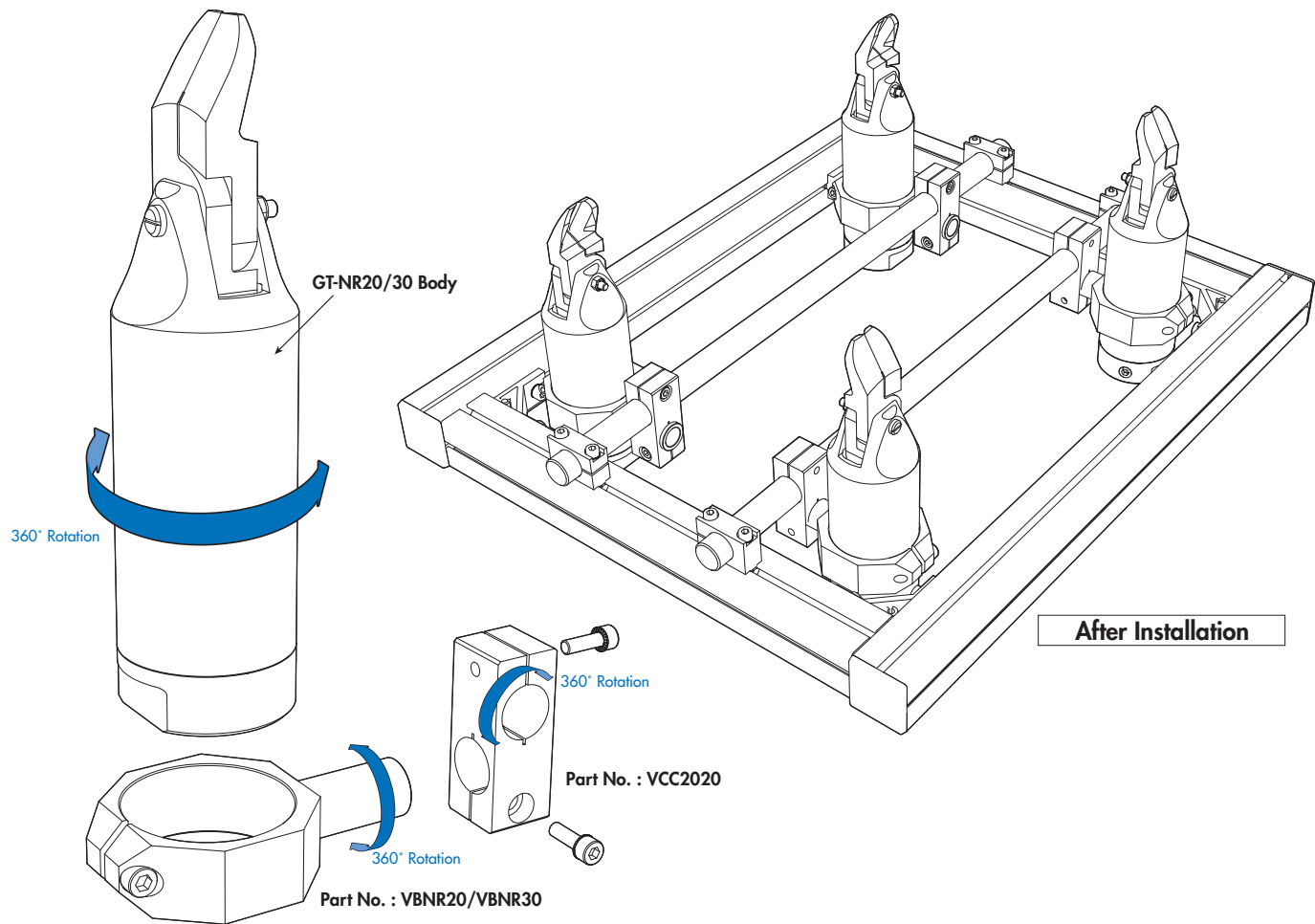


## No. VBRNY1015/VFLBNY1015 Mounting/Flat Bracket for the GT-NY10/15

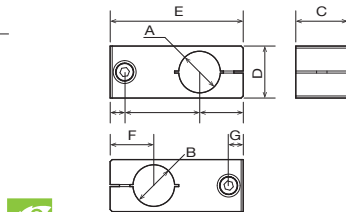


## No. VSB2060 Slide Base



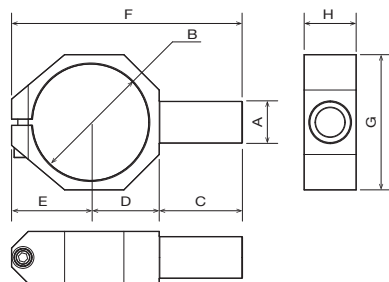


**No. VCC2020** Cross Connector

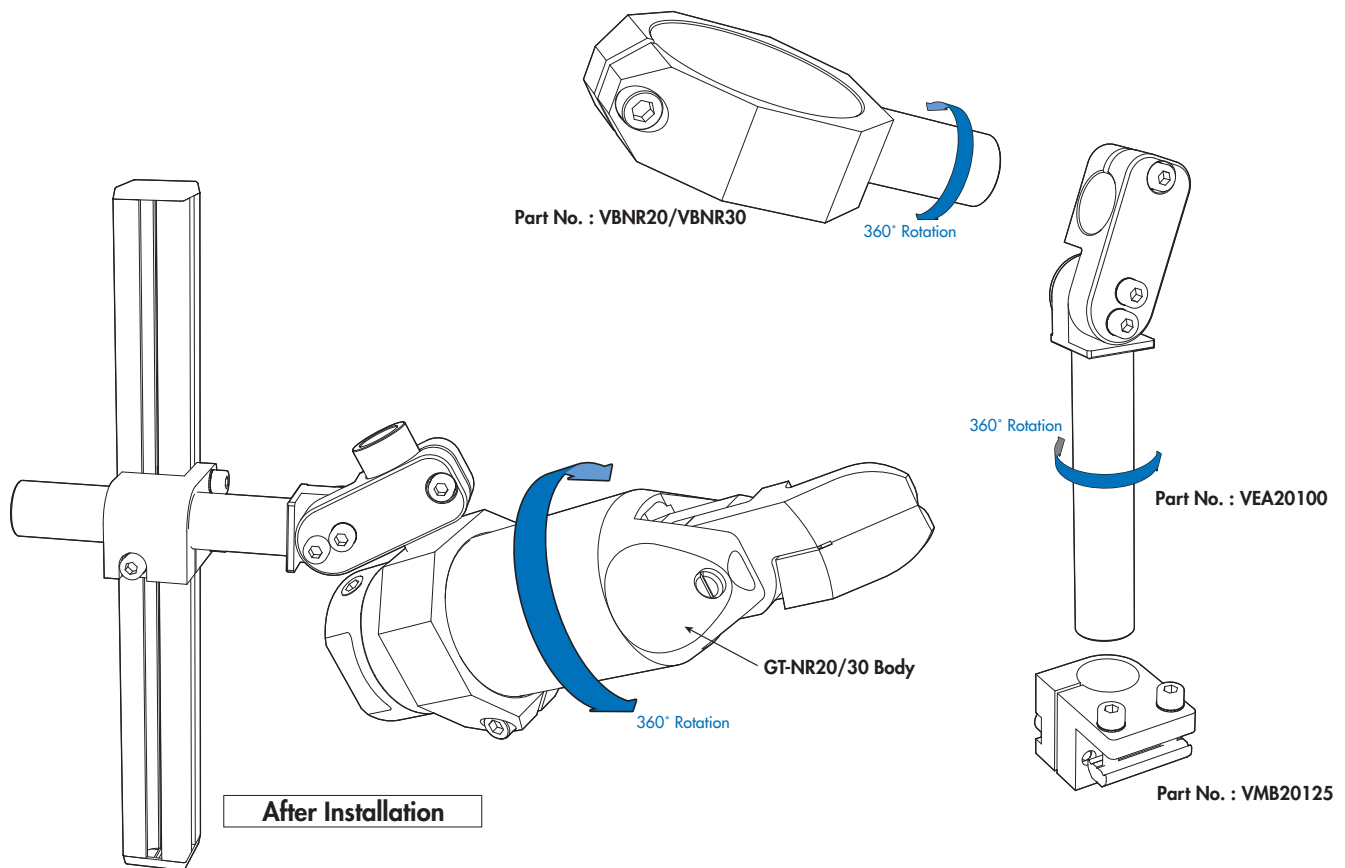


| Model No. | Size (mm) |     |    |    |    |    |   | Weight (g) | EDP No. |
|-----------|-----------|-----|----|----|----|----|---|------------|---------|
|           | A         | B   | C  | D  | E  | F  | G |            |         |
| VCC2020   | Φ20       | Φ20 | 25 | 25 | 64 | 21 | 7 | 68         | 360050  |

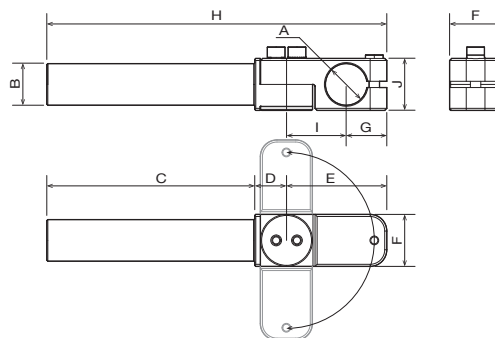
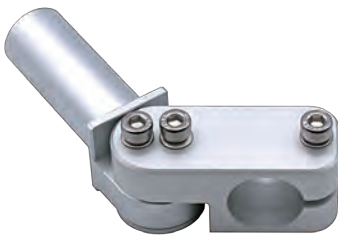
**No. VBNR20/VBNR30** Bracket for the GT-NR20/30



| Model No. | Size (mm) |     |    |    |      |      |    |    | Weight (g) | EDP No. |
|-----------|-----------|-----|----|----|------|------|----|----|------------|---------|
|           | A         | B   | C  | D  | E    | F    | G  | H  |            |         |
| VBNR20    | Φ20       | Φ45 | 35 | 28 | 31.5 | 94.5 | 53 | 20 | 65         | 360060  |
| VBNR30    | Φ20       | Φ56 | 40 | 33 | 38   | 111  | 65 | 25 | 110        | 360061  |

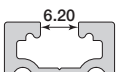
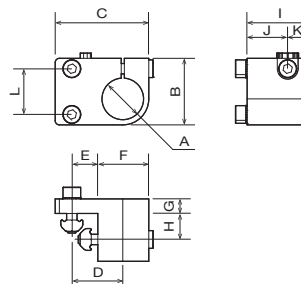


**No. VEA20100 Elbow Arm**



| Model No.       | Size (mm) |     |     |      |      |    |      |       |      |    | Weight (g) | EDP No. |
|-----------------|-----------|-----|-----|------|------|----|------|-------|------|----|------------|---------|
|                 | A         | B   | C   | D    | E    | F  | G    | H     | I    | J  |            |         |
| <b>VEA20100</b> | φ20       | φ20 | 100 | 15.3 | 48.2 | 25 | 19.5 | 163.5 | 28.7 | 25 | 115        | 360062  |

**No. VMB20125 Mounting Bracket**

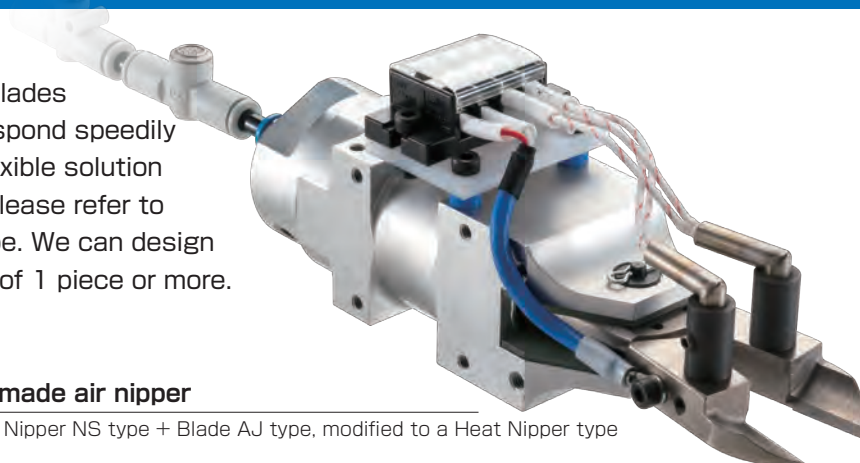


T-NUT of our product is for profile of below type. Please obtain proper T-NUT from profile supplier when our T-Nut does not fit your profile.

| Model No.       | Size (mm) |    |    |      |      |      |   |      |    |      |      |    | Weight (g) | EDP No. |
|-----------------|-----------|----|----|------|------|------|---|------|----|------|------|----|------------|---------|
|                 | A         | B  | C  | D    | E    | F    | G | H    | I  | J    | K    | L  |            |         |
| <b>VMB20125</b> | φ20       | 32 | 45 | 24.5 | 12.5 | 24.5 | 7 | 12.5 | 30 | 19.5 | 10.5 | 22 | 70         | 360049  |

An order of even one piece of custom-made air nipper or blade can be accepted.

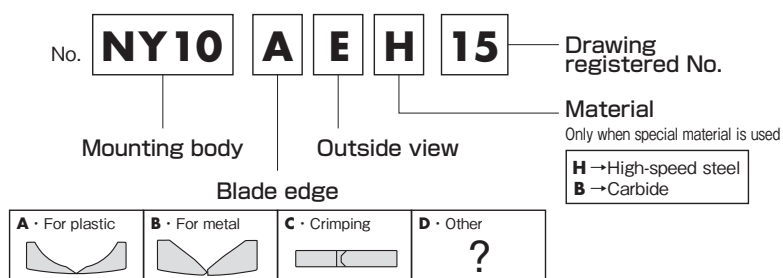
VESSEL manufactures custom-made air nippers and blades for various applications. We respond speedily to your request and offers a flexible solution for a wide range of requests. Please refer to the following examples of shape. We can design other blades and accept order of 1 piece or more.



## Example of a custom-made air nipper

A combination of Square Air Nipper NS type + Blade AJ type, modified to a Heat Nipper type

Ref: What the model code stands for



## Type for blades

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

## Guideline for Air Nipper Cutting Capability

For air nipper blades, the cutting capability changes depending on the shape and types of articles to be cut. Use the values in the following table as reference.



### Slide-off air nipper blade

| Model No. |       | Capacity Φ    |              |        |       |
|-----------|-------|---------------|--------------|--------|-------|
| Body No.  | Shape | Soft palastic | Hard Plastic | Copper | Steel |
| NY03      | AJ    | 2.0           | 1.3          |        |       |
| NY03      | AJL   | 1.6           | 1.1          |        |       |
| NY03      | AJT   | 2.0           | 1.3          |        |       |
| NY03      | RAJ   | 2.0           | 1.3          |        |       |
| NY05      | BJ    |               | 2.0          | 1.6    | 1.0   |
| NY05      | AJ    | 3.0           | 2.0          |        |       |
| NY05      | AJL   | 2.8           | 1.6          |        |       |
| NY05      | AJB   | 3.0           | 2.0          |        |       |
| NY05      | AJT   | 3.0           | 2.0          |        |       |
| NY05      | AH    | 3.0           | 2.0          |        |       |
| NY05      | RBJ   |               | 2.0          | 1.6    | 1.0   |
| NY05      | RAJ   | 3.0           | 2.0          |        |       |
| NY05      | RAH   | 3.0           | 2.0          |        |       |
| NY10      | AJ    | 3.5           | 2.3          |        |       |
| NY10      | AJL   | 3.2           | 2.1          |        |       |
| NY10      | AD    | 2.3           | 1.6          |        |       |
| NY10      | AJB   | 3.5           | 2.3          |        |       |
| NY10      | AJT   | 3.5           | 2.3          |        |       |
| NY10      | AH    | 3.5           | 2.3          |        |       |
| NY10      | RAJ   | 3.5           | 2.3          |        |       |
| NY10      | RAH   | 3.5           | 2.3          |        |       |
| NY15      | AJ    | 4.0           | 2.6          |        |       |
| NY15      | AJL   | 3.7           | 2.3          |        |       |
| NY15      | AD    | 2.6           | 2.2          |        |       |
| NY15      | AJB   | 4.0           | 2.6          |        |       |
| NY15      | AJT   | 4.0           | 2.6          |        |       |
| NY15      | AH    | 4.0           | 2.6          |        |       |
| NY15      | RAJ   | 4.0           | 2.6          |        |       |
| NY15      | RAH   | 4.0           | 2.6          |        |       |
| NY25      | AJ    | 5.0           | 3.4          |        |       |
| NY25      | AJL   | 4.7           | 3.0          |        |       |
| NY25      | AD    | 3.3           | 2.0          |        |       |
| NY25      | AJB   | 5.0           | 3.4          |        |       |
| NY25      | AH    | 5.0           | 3.4          |        |       |
| NY25      | RAJ   | 5.0           | 3.4          |        |       |
| NY25      | RAH   | 5.0           | 3.4          |        |       |

For Horizontal-Type  
(Normal • Reversed)

| Model No. |       | Capacity Φ    |              |        |       |
|-----------|-------|---------------|--------------|--------|-------|
| Body No.  | Shape | Soft palastic | Hard Plastic | Copper | Steel |
| NT03      | AJ    | 1.5           | 1.0          |        |       |
| NT03      | AJT   | 1.5           | 1.0          |        |       |
| NT03      | AJY   | 1.5           | 1.0          |        |       |
| NE5       | AJ    | 2.5           | 1.5          |        |       |
| NT05      | AJ    | 2.5           | 1.5          |        |       |
| NT05      | AJL   | 2.0           | 1.3          |        |       |
| NT05      | AJB   | 2.5           | 1.5          |        |       |
| NT05      | AJT   | 2.5           | 1.5          |        |       |
| NT05      | AJY   | 2.5           | 1.5          |        |       |
| NT05      | AD    | 2.5           | 1.2          |        |       |
| NT05      | AJH   | 2.5           | 1.5          |        |       |
| NT05      | AJV   | 2.5           | 1.5          |        |       |
| NT05      | AE    | 2.5           | 1.3          |        |       |
| NE10      | AJ    | 3.5           | 2.3          |        |       |
| NT10      | AJ    | 3.5           | 2.3          |        |       |
| NT10      | AJL   | 3.0           | 2.0          |        |       |
| NT10      | AJB   | 3.5           | 2.3          |        |       |
| NT10      | AJT   | 3.5           | 2.3          |        |       |
| NT10      | AJY   | 3.5           | 2.3          |        |       |
| NT10      | AD    | 3.5           | 2.1          |        |       |
| NT10      | AJH   | 3.5           | 2.3          |        |       |
| NT10      | AJV   | 3.5           | 2.3          |        |       |
| NT10      | AE    | 3.5           | 2.1          |        |       |
| NT20      | AJ    | 5.0           | 3.4          |        |       |
| NT20      | AJL   | 4.5           | 3.2          |        |       |
| NT20      | AD    | 5.0           | 2.0          |        |       |
| NT20      | AJB   | 5.0           | 3.4          |        |       |
| NT20      | AJH   | 5.0           | 3.4          |        |       |

For Vertical-Type  
(Normal and Reversed combined)

### Air nipper blade

| Model No. |       | Capacity Φ                   |              |        |       |            |
|-----------|-------|------------------------------|--------------|--------|-------|------------|
| Body No.  | Shape | Soft palastic                | Hard Plastic | Copper | Steel | Piano Wire |
| N3        | AS    |                              | 1.0          | 0.5    |       |            |
| N3        | HS    |                              | 1.0          | 0.5    |       |            |
| N3        | AP    | 2.0                          |              |        |       |            |
| N3        | AE    | 2.0                          |              |        |       |            |
| N3        | BJ    |                              | 1.0          | 0.5    |       |            |
| N5        | AS    |                              | 1.0          | 0.5    |       |            |
| N5        | HS    |                              | 1.0          | 0.5    |       |            |
| N5        | AP    | 2.0                          |              |        |       |            |
| N5        | AE    | 2.0                          |              |        |       |            |
| N5        | BJ    |                              | 1.0          | 0.5    |       |            |
| N7        | AS    |                              | 1.6          | 1.0    |       |            |
| N7        | HS    |                              | 1.6          | 1.0    |       |            |
| N7        | AP    | 3.0                          | 2.0          |        |       |            |
| N7        | PF    | 3.0                          | 2.0          |        |       |            |
| N7        | AE    | 3.0                          | 2.0          |        |       |            |
| N7        | BJ    |                              | 1.6          | 1.0    |       |            |
| N10       | AS    |                              | 1.8          | 1.2    |       |            |
| N10       | HS    |                              | 1.8          | 1.2    |       |            |
| N10       | AP    | 4.0                          | 2.6          |        |       |            |
| N10L      | AS    |                              | 1.8          | 1.2    |       |            |
| N10L      | AP    | 4.0                          | 2.6          |        |       |            |
| N10L      | PF    | 4.0                          | 2.6          |        |       |            |
| N12       | AS    |                              | 2.3          | 1.7    |       |            |
| N12       | HS    |                              | 2.3          | 1.7    |       |            |
| N12       | AP    | 4.5                          | 4.0          |        |       |            |
| N20       | AS    |                              | 2.6          | 2.0    |       |            |
| N20       | HS    |                              | 2.6          | 2.0    |       |            |
| N20       | AG    |                              | 2.6          | 2.0    |       |            |
| N20       | AP    | 7.0                          | 5.0          |        |       |            |
| N20       | AJ    | 7.0                          | 5.0          |        |       |            |
| N20       | AJL   | 6.0                          | 4.0          |        |       |            |
| N20       | AJB   |                              | 5.0          |        |       |            |
| N20       | PF    | 7.0                          | 5.0          |        |       |            |
| N20       | AE    | 7.0                          | 5.0          |        |       |            |
| N20       | BFB   |                              | 2.6          | 2.0    | 1.2   |            |
| N30       | AS    |                              | 3.3          | 2.8    |       |            |
| N30       | BBB   |                              | 3.3          | 2.8    | 1.2   |            |
| N30       | AP    | 10.0                         | 6.5          |        |       |            |
| N30       | AJ    | 10.0                         | 6.5          |        |       |            |
| N30       | AJL   | 8.0                          | 5.0          |        |       |            |
| N30       | PF    | 10.0                         | 6.5          |        |       |            |
| N30       | AE    | 10.0                         | 6.5          |        |       |            |
| N30       | ACD   | (Bare terminal 1.25sq 2.0sq) |              |        |       |            |
| N50       | AS    |                              | 5.5          | 4.5    |       |            |
| N50       | BBB   |                              | 5.5          | 4.5    | 2.0   |            |

### NM blade

|      |    |      |     |
|------|----|------|-----|
| NM20 | AJ | 7.0  | 5.0 |
| NM20 | AP | 7.0  | 5.0 |
| NM20 | AE | 7.0  | 5.0 |
| NM30 | AJ | 10.0 | 6.5 |
| NM30 | AP | 10.0 | 6.5 |
| NM30 | AE | 10.0 | 6.5 |

### For Double Action Air Nipper

|      |    |     |     |
|------|----|-----|-----|
| NW1  | BJ | 1.0 | 0.5 |
| NW10 | AJ | 4.0 |     |
| NW10 | BJ | 1.8 | 1.2 |
| NW20 | AJ | 6.5 |     |
| NW20 | BJ | 2.6 | 2.0 |
| NW30 | AJ | 9.5 |     |
| NW30 | BJ | 3.3 | 2.8 |

### Quasi-standard products

| Model No. |         | Capacity Φ    |              |
|-----------|---------|---------------|--------------|
| Body No.  | Shape   | Soft palastic | Hard Plastic |
| N10       | LAB152  | 3.5           | 2            |
| N10       | LAJ141  | 3.5           | 2            |
| N20       | AH      | 6.0           |              |
| N20       | AML1498 | 10×1.5        | 8×1          |
| N20       | AMR1499 | 10×1.5        | 8×1          |
| N20       | AB360   | 6.5           | 4.5          |
| N20       | AA239   | 6.5           | 4.5          |
| N20       | AB39    | 6.5           | 4.5          |
| N20       | AE19    | 6             | 4            |
| N20       | AA27    | 6.5           | 4.5          |
| N20       | AK249   | 5.5           | 3.5          |
| N20       | AE1205  | 5.5           | 3.5          |
| N30       | AA114   | 8             | 5            |
| N30       | AE53    | 7             | 4.5          |
| N30       | AL525   | 7             | 4.5          |
| N30       | AJ163   | 8             | 5            |
| N30       | AML1435 | 15×2          | 10×1.5       |
| N30       | AMR1395 | 15×2          | 10×1.5       |

• Steel wire is non-heat treated.

• Piano wire=HV320 or below. The unit of cutting capability of N20AML and N20AMR is (t) .

# VESSEL Co., Inc.

17-25, Fukae-Kita 2-chome, Higashinari-ku, Osaka 537-0001 JAPAN  
Tel : +81(0)6 6976 7778 Fax : +81(0)6 6972 9441

## VESSEL EUROPE

6, avenue du 1er Mai, ZAE Les Glaises, 91120 Palaiseau FRANCE  
Tel : +33(0)1 69 19 17 42 Fax : +33(0)1 69 19 42 20

E-mail : [export@vessel.co.jp](mailto:export@vessel.co.jp) URL : <http://www.vessel.co.jp/english/>

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