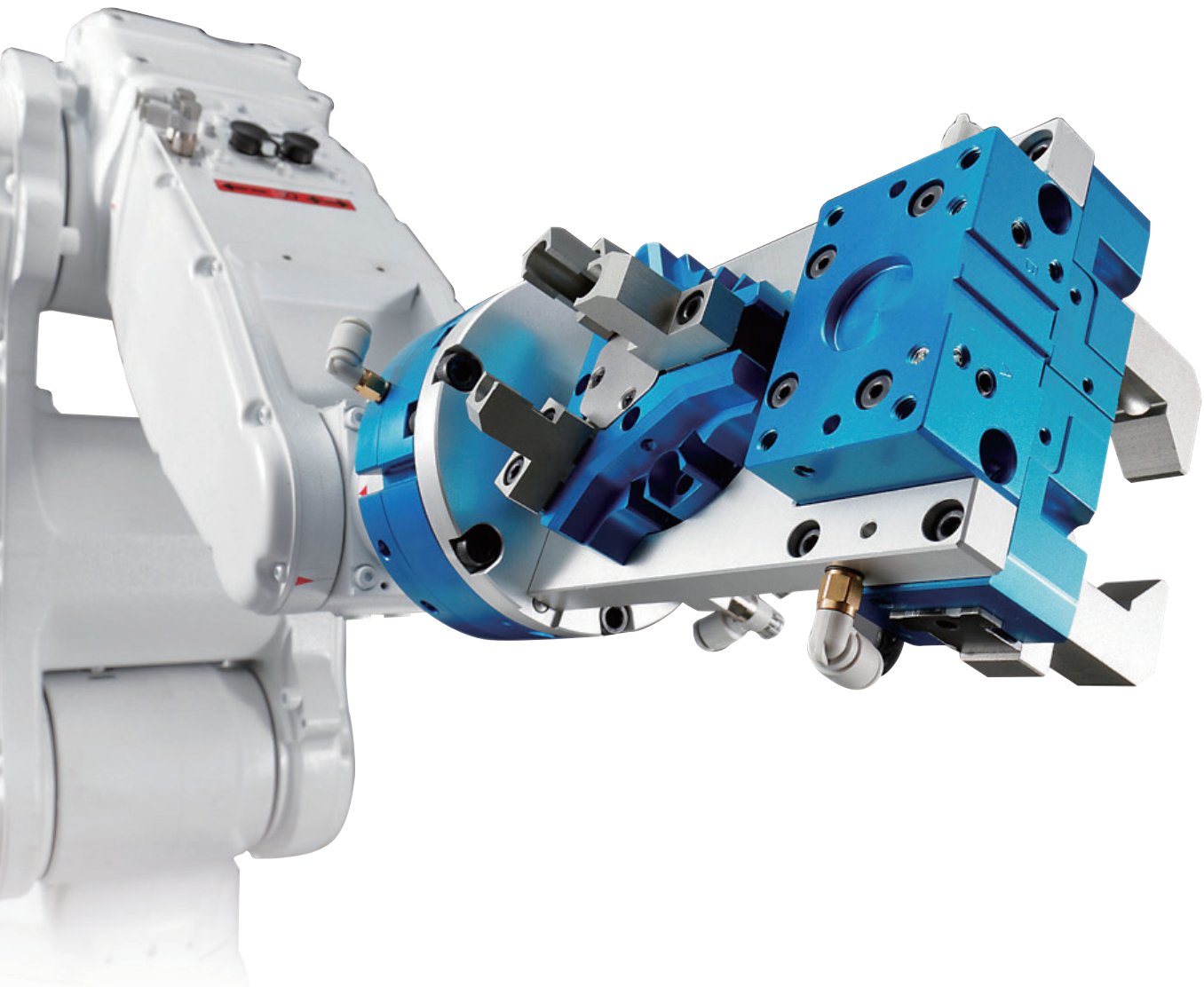
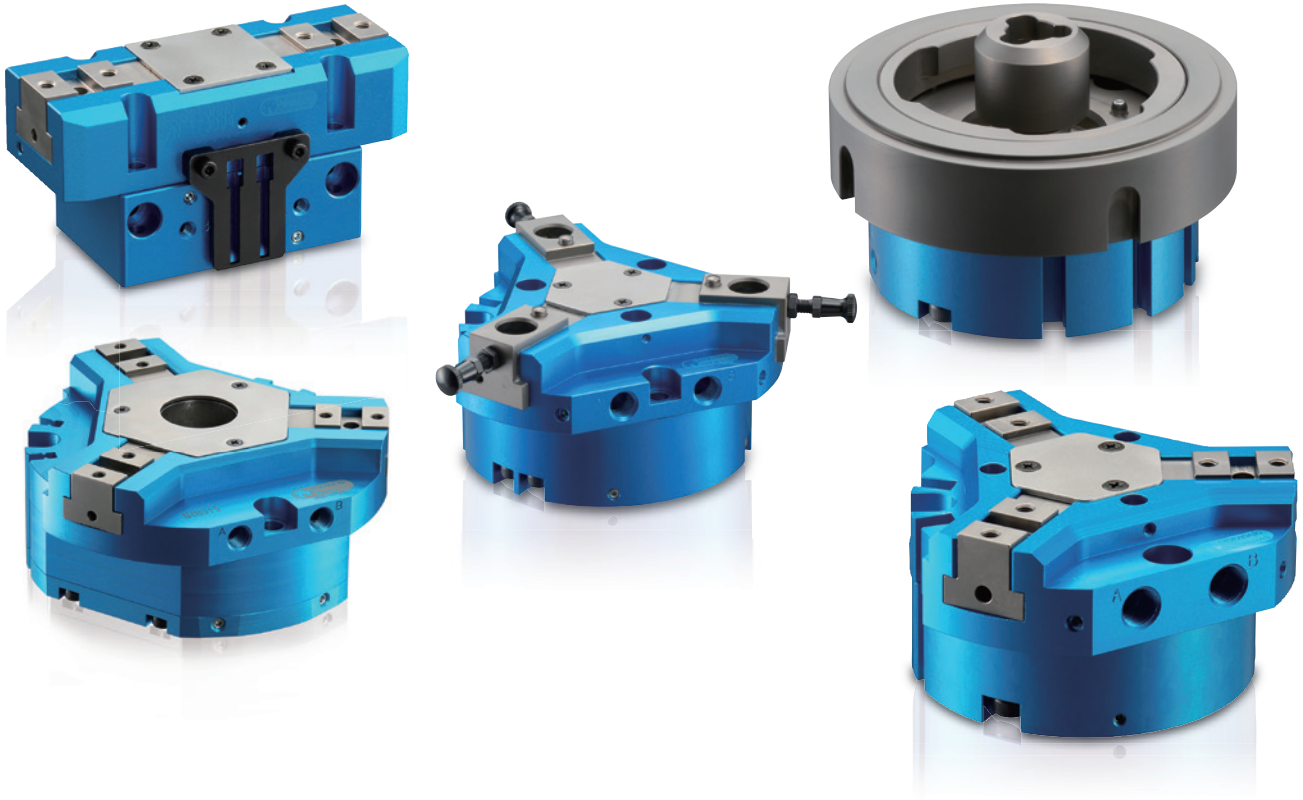


Gripper



Gripper Innova



Innovation

KITAGAWA is continuing our technical development based on our "Workholding solution" by supplying the ultimate automation solution. KITAGAWA Gripper supplies an innovative automation solution to increase your productivity.

Character

KITAGAWA Gripper is high specification and well-balanced gripper.

The compact body provides a stable gripping force and high repeatability. A lightweight and rigid body design is made capable by using a high-tensile alloy. The high quality and original design makes maintenance, disassembly and cleaning easy.

Universal Design

KITAGAWA Gripper responds to your requirements with a high quality, easy-to-use and wide ranging series of grippers. Designed for any industry with competitive pricing and fast delivery.

Global Standard

KITAGAWA Gripper is a global standard gripper. Constant research and development ensure that KITAGAWA gripper meets current and future automation requirements. High quality and competitively priced gripper is supplied by KITAGAWA anywhere in the world to meet your production needs.

tion

Tough

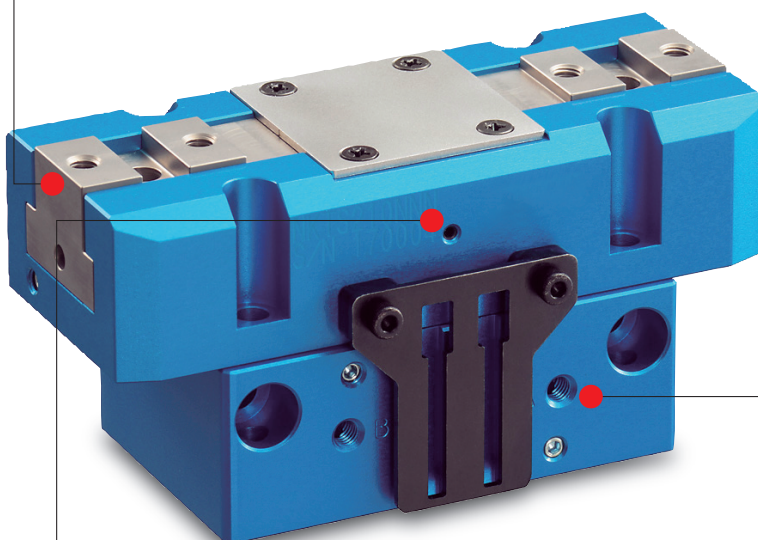
High load bearing T-slot

Special alloy master jaws provide high abrasion resistance and long term stable gripping force.

Compact

Compact Body

High tensile alloy body provides lightweight and high rigidity. Its compact body makes it possible to grip workpieces even within the narrow space without interference.



Powerful

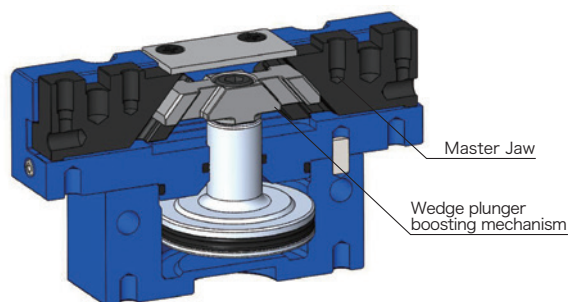
Wedge mechanism

High efficient boosting mechanism ensures firm gripping of workpiece without dropping.

Reliable

Simple structure

Optimum design minimizes the number of parts and provides high reliability.



I N D E X

Standard series with high quality and high durability

Parallel Jaw Gripper

NTS series ————— 5–9

Using the advantage of NTS, NTB series - designed with a large through-hole

Parallel Jaw Gripper with Through-hole

NTB series ————— 10–11

Thin and lightweight 2-jaw gripper

Thin 2-jaw parallel gripper

NPGT series ————— 12–13

Thin and lightweight 2-jaw gripper

Thin 2-jaw parallel gripper with measuring function

NPGT_S series ————— 14

A quick jaw exchange and new gripping confirmation are achieved

Quick Jaw Change Gripper

————— 15–17

Suitable for robot application of high-mix low volume production

Quick Plate Change Gripper

(Face Plate change type) ————— 18–22

Switch Compatibility Table

————— 23

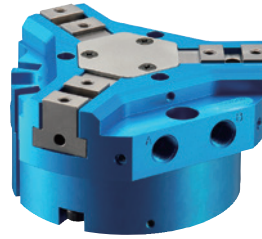
Proximity switch bracket ————— 24

Seal Kit Compatibility Table ————— 25

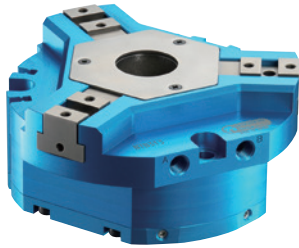
Other Products ————— 26



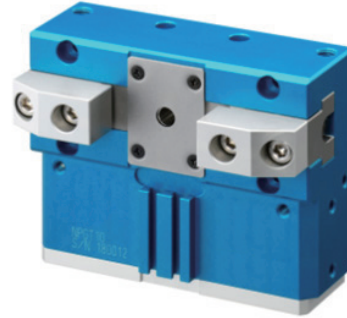
NTS2 series



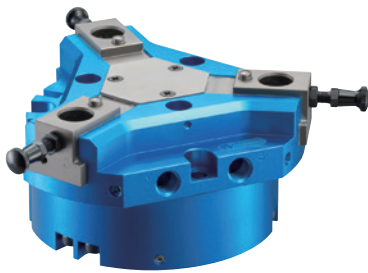
NTS3 series



NTB series



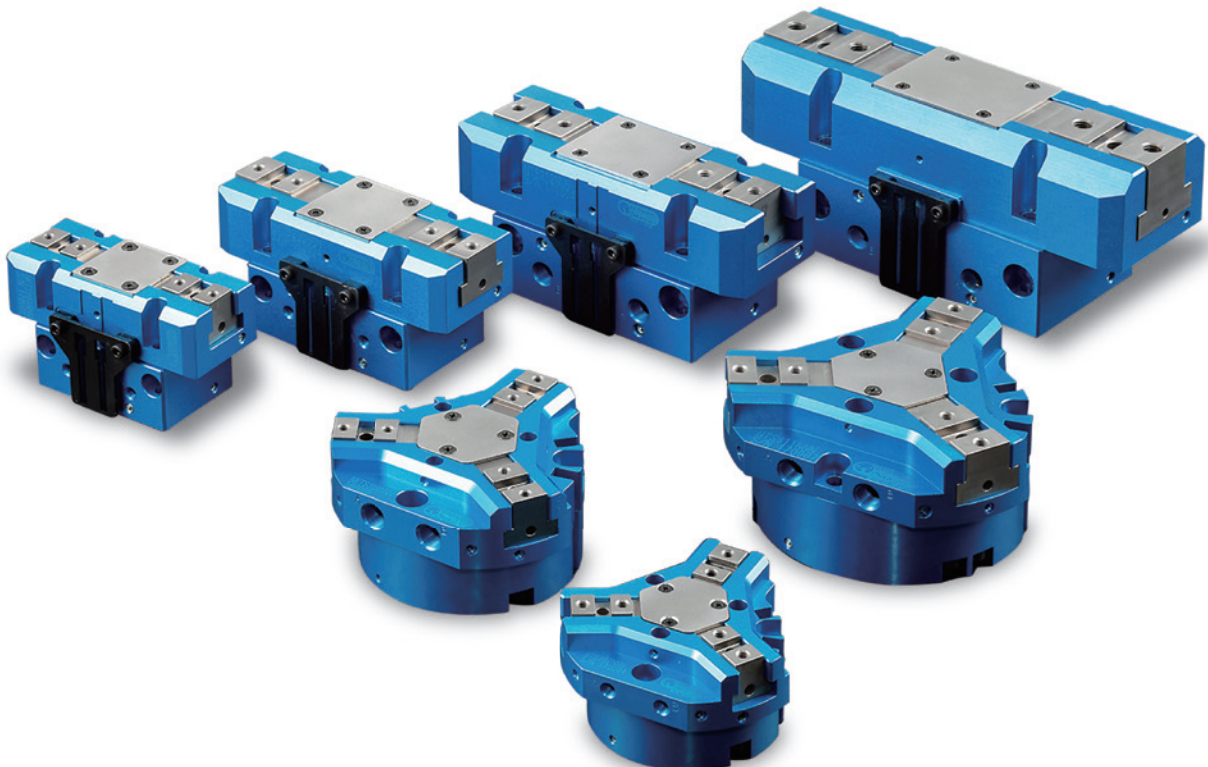
NPGT series



NTS-QM series



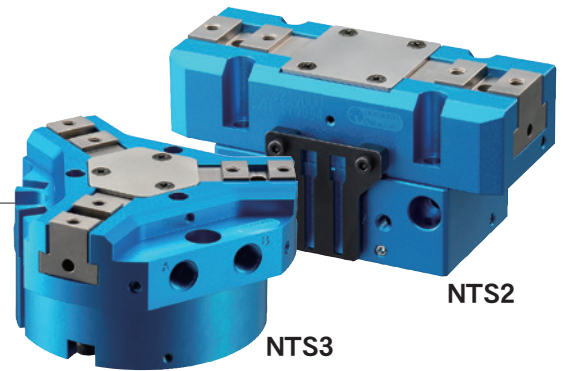
QGB series



NTS series

Parallel Jaw Gripper

Standard series with high quality and high durability

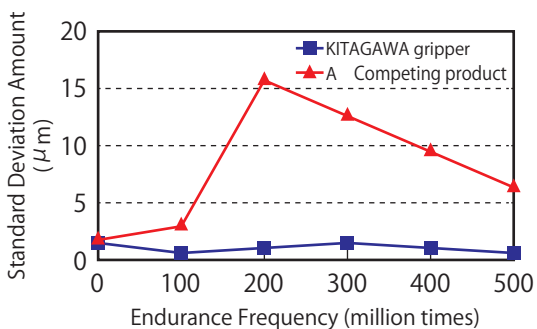


Features

- Swarf protection and maintenance improved
- High Gripping force for stable gripping of heavy work piece
- Lightweight and compact body
- Improved gripping accuracy due to high rigidity body

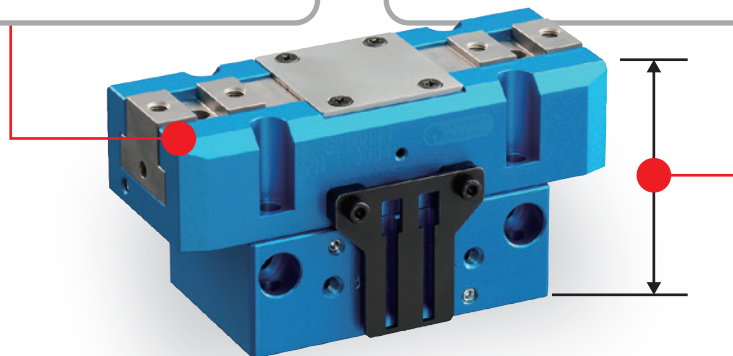
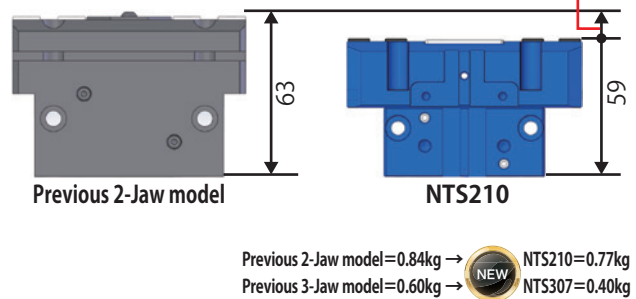
High Durability • High Accuracy

Measurement of Repeatability (3-Jaw model)



Thin and lightweight body design

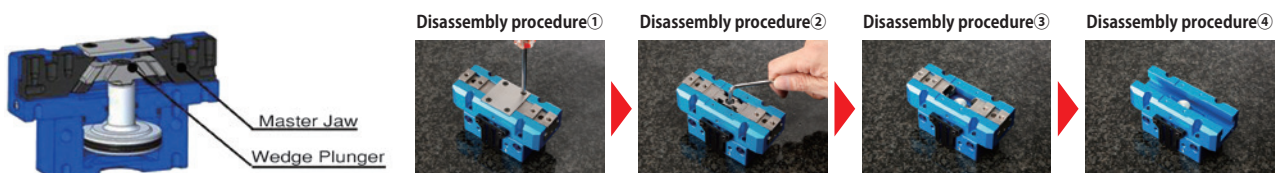
Up to 10% thinner than previous model
Up to 30% lighter than previous model



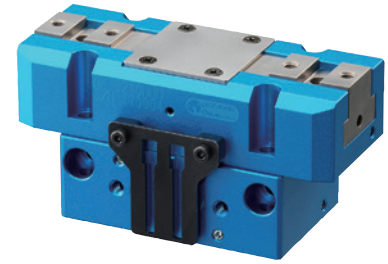
Improved wedge plunger mechanism for maintenance

Easy cleaning of the sliding surfaces without detaching the gripper from the robot by removing the master jaw from the front.

※NTS206 is not applicable due to its structure.



NTS2 series

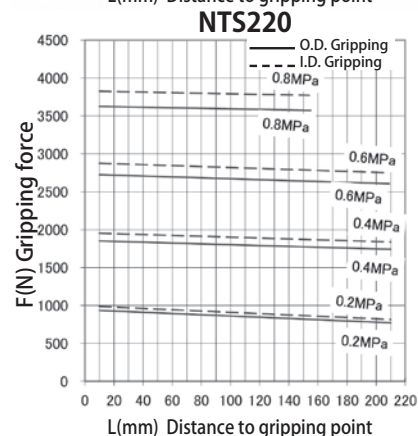
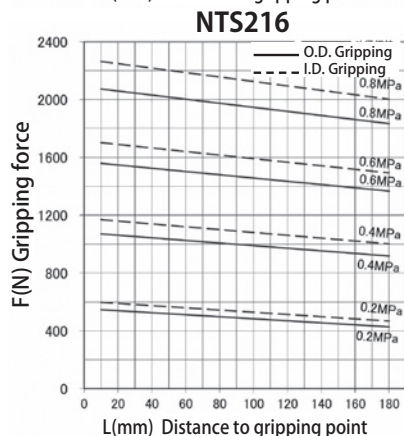
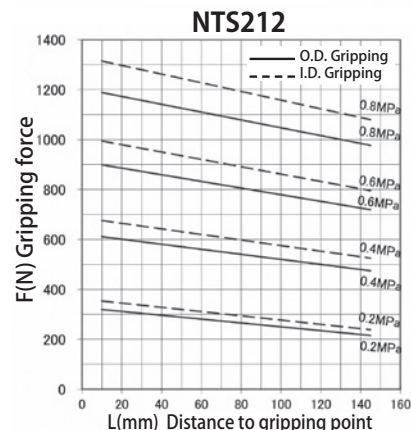
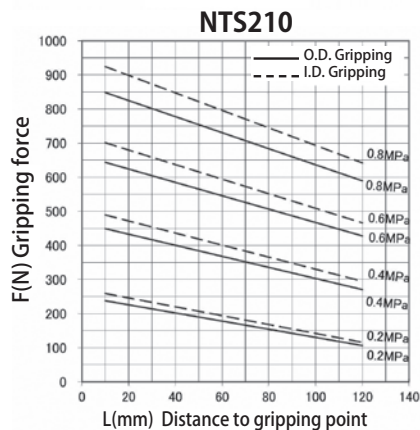
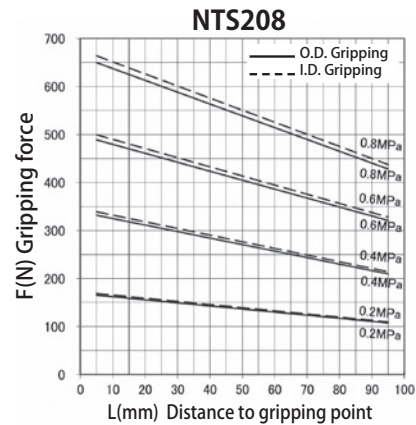
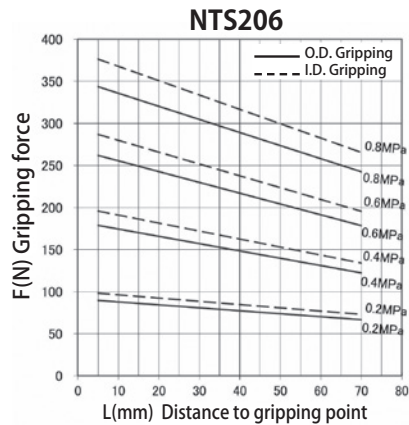


Specifications

Item Model	Jaw Stroke (diameter) (mm)	Gripping Force (Note1)			Repeatability (mm)	Mass of products (kg)	Amount of Air Consumption (cm ³ /Round Trip)	Working Air Pressure (Mpa)	Operating Temperature (°C)
		Measurement Distance L (mm)	O. D. Gripping (N)	I. D. Gripping (N)					
NTS206	12	10	250	280	±0.01	0.29	8.4	0.2~0.8	5~60
NTS208	16	10	460	490	±0.01	0.48	18.8	0.2~0.8	5~60
NTS210	20	20	610	680	±0.01	0.78	35.1	0.2~0.8	5~60
NTS212	24	20	850	970	±0.01	1.34	52.4	0.2~0.8	5~60
NTS216	32	20	1520	1690	±0.01	2.52	123.2	0.2~0.8	5~60
NTS220	40	20	2700	2870	±0.01	5.14	272.2	0.2~0.8	5~60

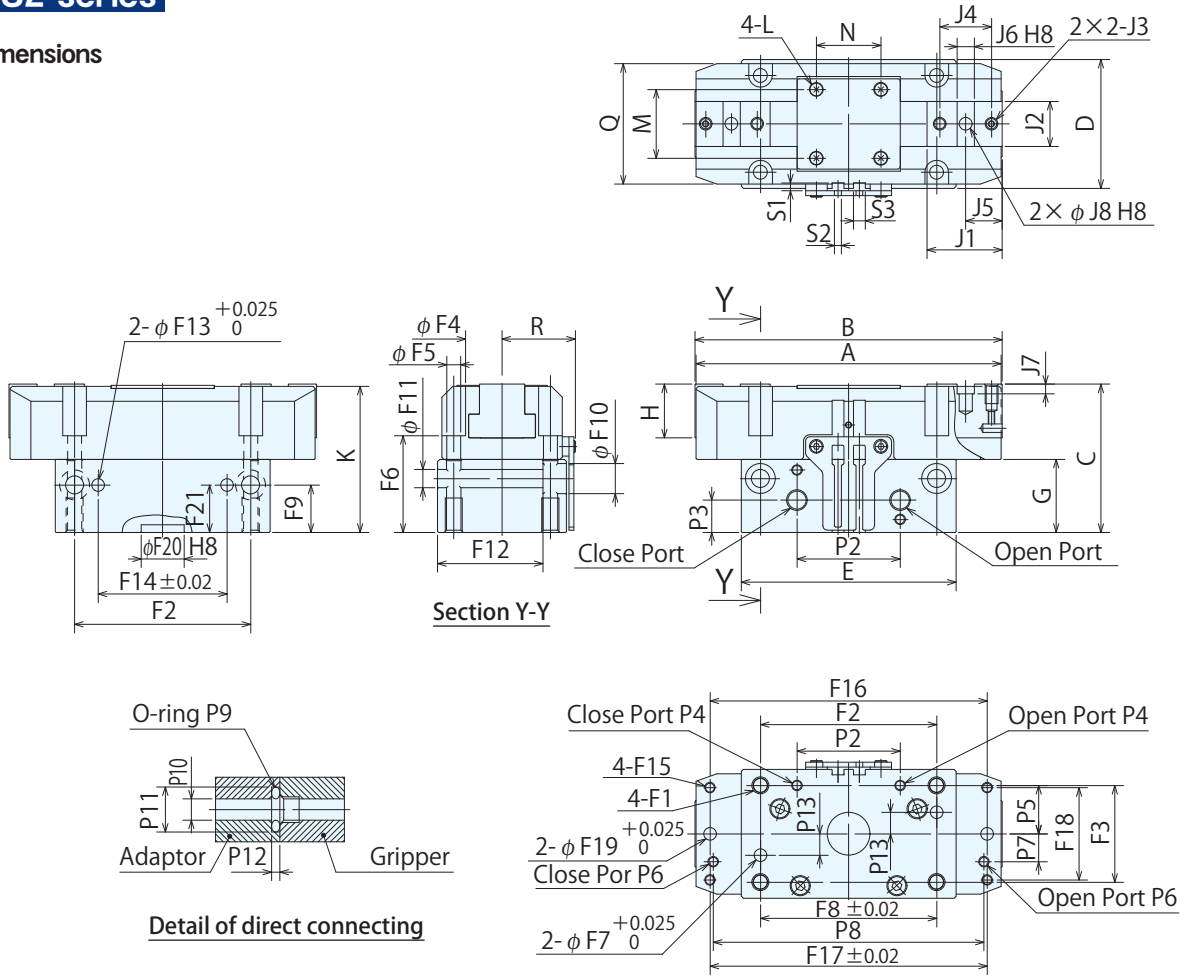
(Note1) Value at supply air pressure 0.6MPa

Gripping force diagram



NTS2 series

■ Dimensions



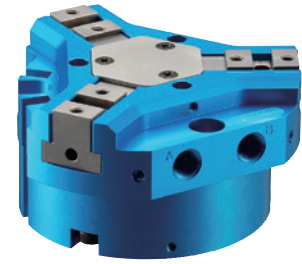
■ Dimensions

Model	Outline Dimensions													Dimensions of Jaw Mounting										
	A	B		C	D	E	G	H	K	L	M	N	Q	R	J1	J2	J3		J4	J5	J6	J7	J8	
		MAX	MIN														Diameter	Depth					Diameter	Depth
NTS206	76	77	65	45.5	36	52	22.5	15	44.5	M2.5	21	18	34	22	20	11	M4	6	13	10.5	5	3	φ 4	5
NTS208	92	94	78	54	42	63	27	18	53	M3	24	20	40	26	23	13.5	M4	7	16	11.5	6	3.5	φ 5	6
NTS210	115	117	97	59	50	81	30	20	58	M3	30	24	47	30	28.5	18.5	M5	8	20	14.5	8	4	φ 6	8
NTS212	142	143	119	69	60	100	34	25	68	M3	32	30	56	34	35	21	M6	9	24	17	8	4.5	φ 6	8
NTS216	187	188	156	83	72	120	40	32	82	M3	36	40	67	42	46	28.5	M8	12	32	23	10	4.5	φ 8	12
NTS220	235	236	196	98	100	145	46	40	97	M3	66	50	95	50	59.5	36	M10	15	40	30.5	12	4.5	φ 10	15

Model	Dimensions of Body Fixed Part																										
	F1		F2	F3	F4	F5	F6	F7		F8	F9	F10	F11	F12	F13		F14	F15		F16	F17	F18	F19		F20		F21
	Diameter	Depth						Diameter	Depth						Diameter	Depth		Diameter	Depth				Diameter	Depth	Diameter	Depth	
NTS206	M5	8	42	27	φ 7.5	φ 4.2	29.5	φ 4	5.5	42	15.5	φ 8	φ 4.5	29	φ 4	5	20	M3	7	65	65	27	φ 4	5.5	—	—	15.5
NTS208	M5	10	52	32	φ 8	φ 4.5	33	φ 4	6	52	19	φ 9.5	φ 5.5	33	φ 4	6	40	M4	7	79	79	32	φ 4	6	20	3.5	19
NTS210	M6	12	66	38	φ 9	φ 5.5	38	φ 5	8	66	21	φ 11	φ 6.5	39	φ 5	8	50	M4	7	102	102	38	φ 5	5	20	3.5	21
NTS212	M8	16	82	45	φ 11	φ 6.6	45	φ 6	10	82	25	φ 14	φ 8.5	49	φ 6	10	60	M5	11	129	129	45	φ 6	7	20	3.5	25
NTS216	M8	16	100	56	φ 11	φ 6.6	50	φ 6	10	100	23	φ 14	φ 8.5	59	φ 6	10	76	M5	9	174	150	54	φ 6	7	40	3.5	23
NTS220	M10	15	120	70	φ 14	φ 9	57	φ 10	15	120	25	φ 17	φ 11	80	φ 10	15	120	M6	12	200	200	70	φ 8	8	40	3.5	39

Model	Dimensions of Air Supplying Part													Dimensions of Switch Attaching Part		
	P1	P2	P3	P4	P5	P6	P7	P8	P9 (NOK)	P10	P11	P12	P13	Reed Switch		
														S1	S2	S3
NTS206	M5	30	10.5	M3	12	M3	7	65	S4	φ 3	φ 6.6	1	0	3.6	3.2	5.5
NTS208	M5	31	12	M4	16	M4	9	79	S6	φ 4	φ 8.3	1	0	3.6	3.2	5.5
NTS210	M5	38	15	M4	19	M4	11	98	S6	φ 4	φ 8.3	1	0	3.6	3.2	5.5
NTS212	G1/8	48	15	M5	21	M5	13	126	S8	φ 5	φ 10.3	1	0	3.6	3.2	5.5
NTS216	G1/8	56	15	M5	26	M5	18	167	S8	φ 5	φ 10.3	1	0	3.6	3.2	5.5
NTS220	G1/8	75	21	M6	35	M5	22	200	S8	φ 5	φ 10.3	1	20	3.6	3.2	5.5

NTS3 series



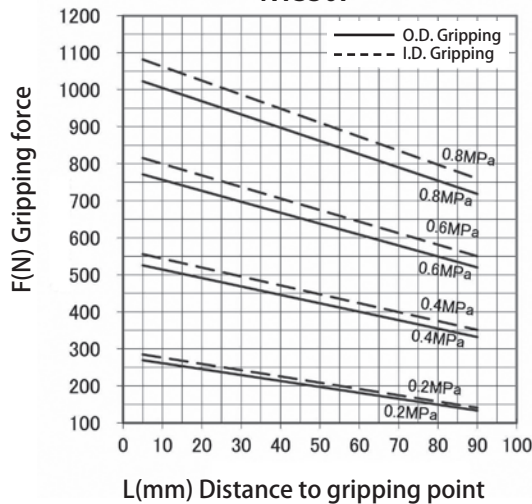
Specifications

Item Model	Jaw Stroke (diameter) (mm)	Gripping Force (Note1)			Repeatability (mm)	Mass of products (kg)	Amount of Air Consumption (cm ³ /Round Trip)	Working Air Pressure (Mpa)	Operating Temperature (°C)
		Measurement Distance L (mm)	O. D. Gripping (N)	I. D. Gripping (N)					
NTS307	12	10	750	800	±0.01	0.40	24.1	0.2~0.8	5~60
NTS309	16	20	1010	1120	±0.01	0.70	50.2	0.2~0.8	5~60
NTS311	20	20	1810	1930	±0.01	1.21	112	0.2~0.8	5~60
NTS313	24	20	3180	3400	±0.01	2.25	201	0.2~0.8	5~60
NTS317	32	20	6400	6900	±0.01	4.53	505.8	0.2~0.8	5~60

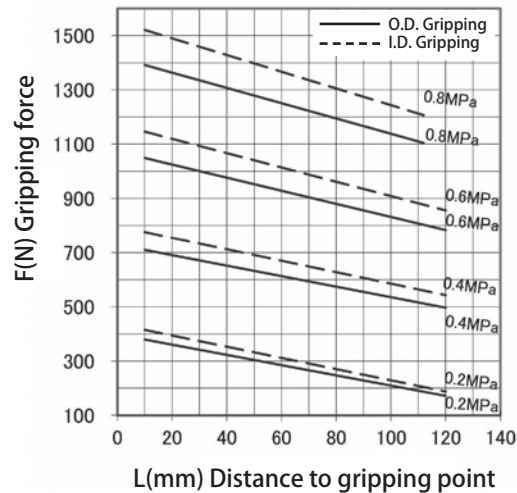
(Note1) Value at supply air pressure 0.6MPa

Gripping force diagram

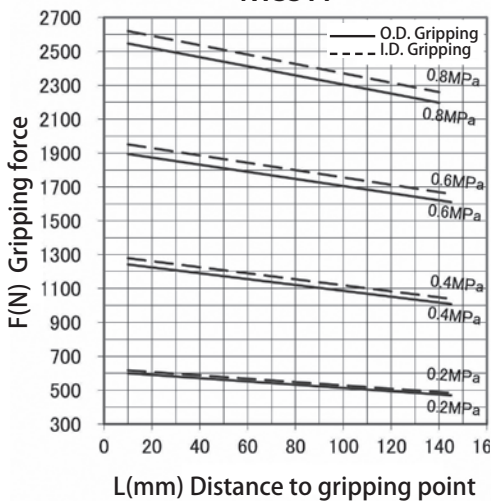
NTS307



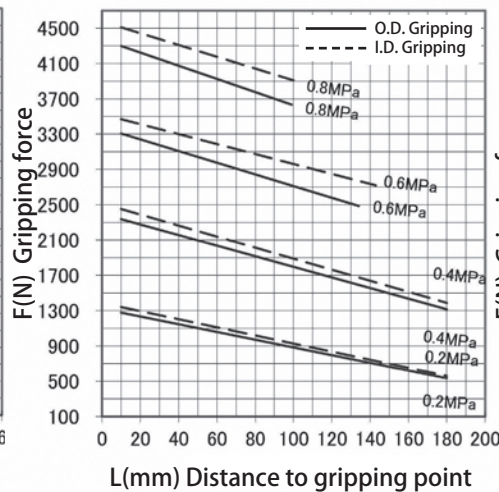
NTS309



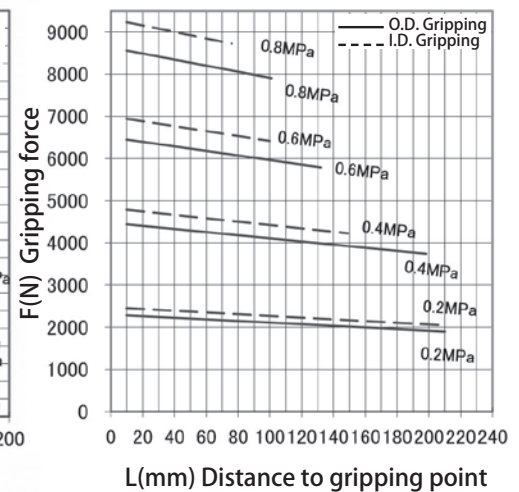
NTS311



NTS313

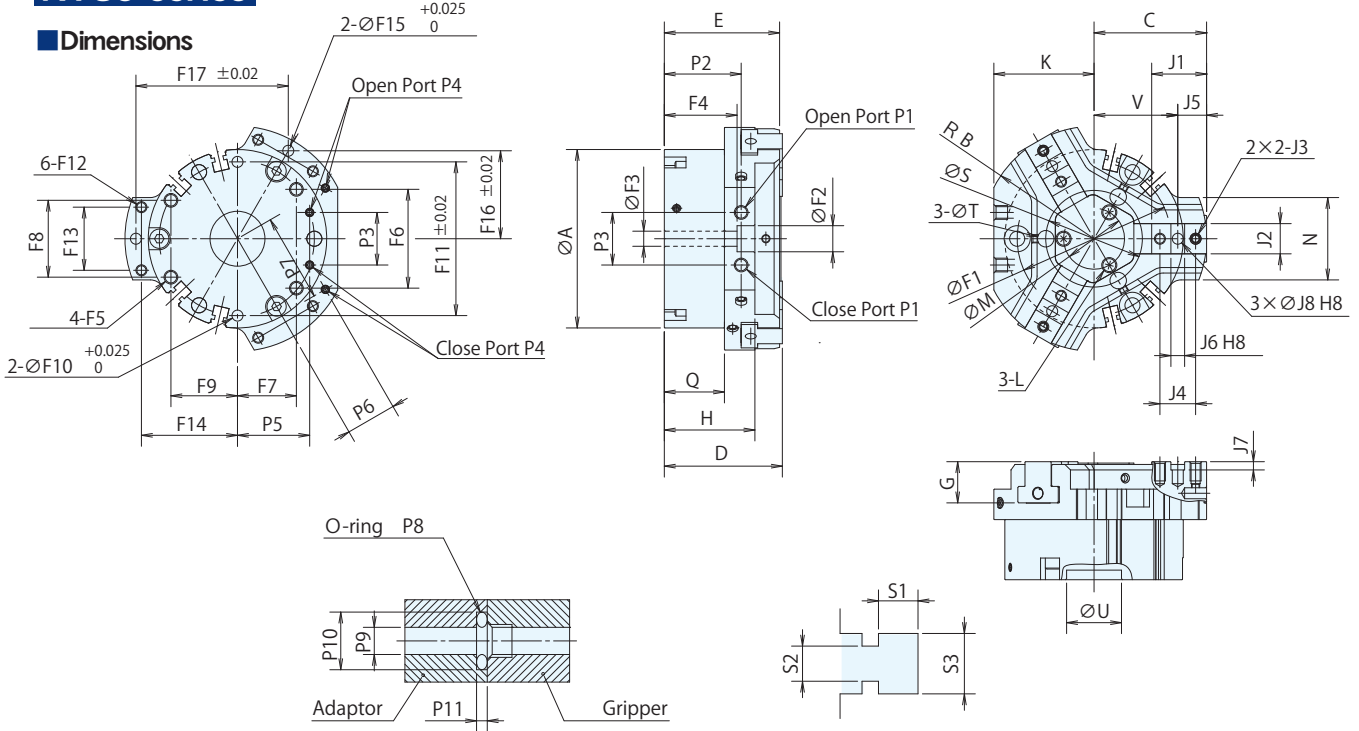


NTS317



NTS3 series

Dimensions



Detail of direct connecting

Detail of reed switch mounting groove

Dimensions

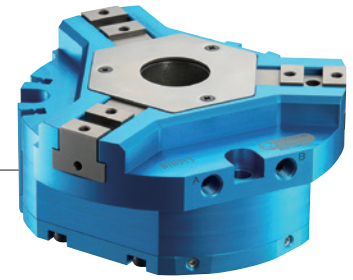
Model	Outline Dimensions																		
	A	B	C	D	E	G	H	K	L	M	N	Q	S	T		U		V	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Diameter	Depth	Diameter	Depth	MAX	MIN
NTS307	φ 65	41	41	43	42	15	33	36.5	M2.5	φ 22.2	30	21.9	φ 35.2	φ 6	15	φ 20	3.5	30.5	24.5
NTS309	φ 80	49	49.5	50.5	49.5	18	41.4	42.5	M3	φ 26	33.5	25	φ 42	φ 6	15	φ 20	3.5	38	30
NTS311	φ 100	60.5	61	59	58	20	45	50.5	M3	φ 30	39.5	31	φ 52	φ 10	17	φ 20	3.5	46.5	36.5
NTS313	φ 125	74.5	75	67	66	25	46.5	63	M3	φ 35	49	32.5	φ 59	φ 10	17	φ 20	3.5	58	46
NTS317	φ 168	98.5	99	86	85	32	59.5	84.5	M4	φ 48	70	43	φ 75	φ 10	17	φ 20	3.2	76	60

Model	Dimensions of Jaw Mounting									
	J1	J2	J3		J4	J5	J6	J7	J8	
	mm	mm	Diameter	Depth	mm	mm	mm	mm	Diameter	Depth
NTS307	20	11	M4	6	13	10.5	5	3	φ 4	5
NTS309	23	13.5	M4	7	16	11.5	6	3.5	φ 5	6
NTS311	28.5	18.5	M5	8	20	14.5	8	4	φ 6	8
NTS313	35	21	M6	9	24	17	8	4.5	φ 6	8
NTS317	46	28.5	M8	12	32	23	10	4.5	φ 8	12

Model	Dimensions of Body Fixed Part																				
	F1	F2	F3	F4	F5		F6	F7	F8	F9	F10		F11	F12		F13	F14	F15		F16	F17
	mm	mm	mm	mm	Diameter	Depth	mm	mm	mm	mm	Diameter	Depth	mm	Diameter	Depth	mm	mm	Diameter	Depth	mm	mm
NTS307	φ 56	φ 9.5	φ 5.5	26.5	M5	9	36	21.45	28	24.25	φ 4	6	56	M4	7	23	35	φ 4	4	32.043	55.5
NTS309	φ 70	φ 11	φ 6.6	30.5	M6	11	45	26.8	35	30.3	φ 5	10	70	M4	7	26.5	43	φ 5	5	38.538	66.75
NTS311	φ 90	φ 11	φ 6.6	36.5	M6	9	57.9	34.5	45	39	φ 5	10	90	M4	7	32.5	53	φ 5	5	47.631	82.5
NTS313	φ 112	φ 14	φ 9	38.5	M8	12	72	42.9	56	48.5	φ 6	10	112	M5	8	39	65.5	φ 6	5	58.89	102
NTS317	φ 146	φ 14	φ 9	49.5	M8	12	94	55.9	73	63.2	φ 6	10	138	M6	10	54	88	φ 6	5	92	138

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part			
	P1	P2	P3	P4	P5	P6	P7	P8 (NOK)	P9	P10	P11	Reed Switch		
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	S1	S2	S3
NTS307	M5	28	19.15	M3	26.3	18.5	32	S4	φ 3	φ 6.6	1	3.6	3.2	5.5
NTS309	G1/8	33.65	23.3	M3	31.95	21	39	S4	φ 3	φ 6.6	1	3.6	3.2	5.5
NTS311	G1/8	38	30.1	M4	41.35	24	49	S6	φ 4	φ 8.3	1	3.6	3.2	5.5
NTS313	G1/8	39.5	38.6	M5	53.1	29	62	S8	φ 5	φ 10.3	1	3.6	3.2	5.5
NTS317	G1/8	50	52	M5	71.4	40	81.5	S8	φ 5	φ 10.3	1	3.6	3.2	5.5

NTB series



Parallel Jaw Gripper with Through-hole

Using the advantage of NTS series for high quality and high durability, NTB series - designed with a large through-hole

Features

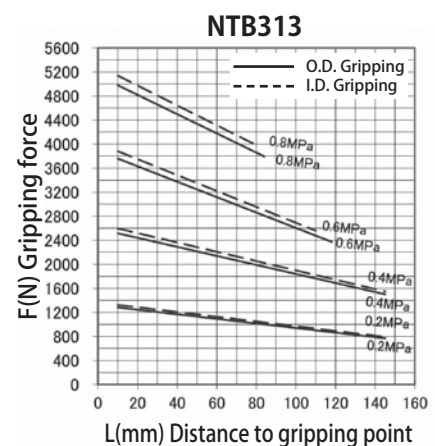
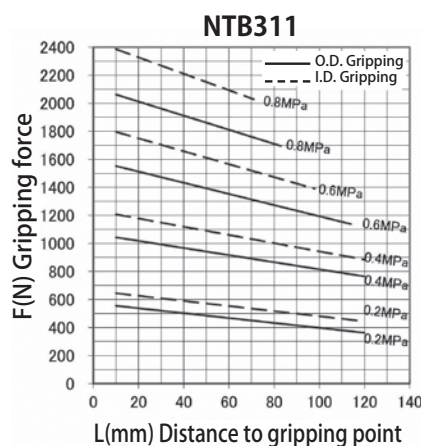
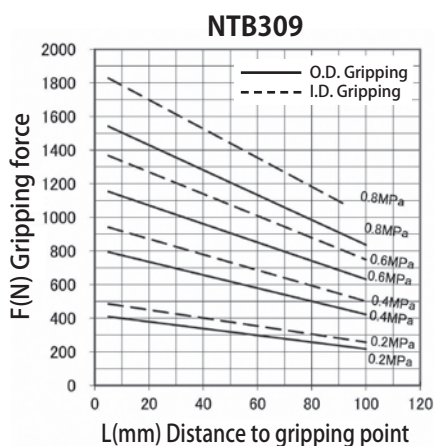
- Large through-hole suitable for attaching fixtures
- Swarf protection and maintenance improved
- High gripping force for stable gripping of heavy work piece
- Lightweight and compact body
- Improved gripping accuracy due to high rigidity body

Specifications

Item Model	Jaw Stroke (diameter) (mm)	Through-hole diameter (mm)	Gripping Force (Note1)			Repeatability (mm)	Mass of products (kg)	Amount of Air Consumption (cm ³ /Round Trip)	Working Air Pressure (Mpa)	Operating Temperature (°C)
			Measurement Distance L (mm)	O. D. Gripping (N)	I. D. Gripping (N)					
NTB309	12	14.3	10	1110	1270	±0.015	0.70	38.0	0.2~0.8	5~60
NTB311	16	25	20	1510	1750	±0.015	1.20	80.4	0.2~0.8	5~60
NTB313	20	29.9	20	3580	3750	±0.015	2.10	190.1	0.2~0.8	5~60

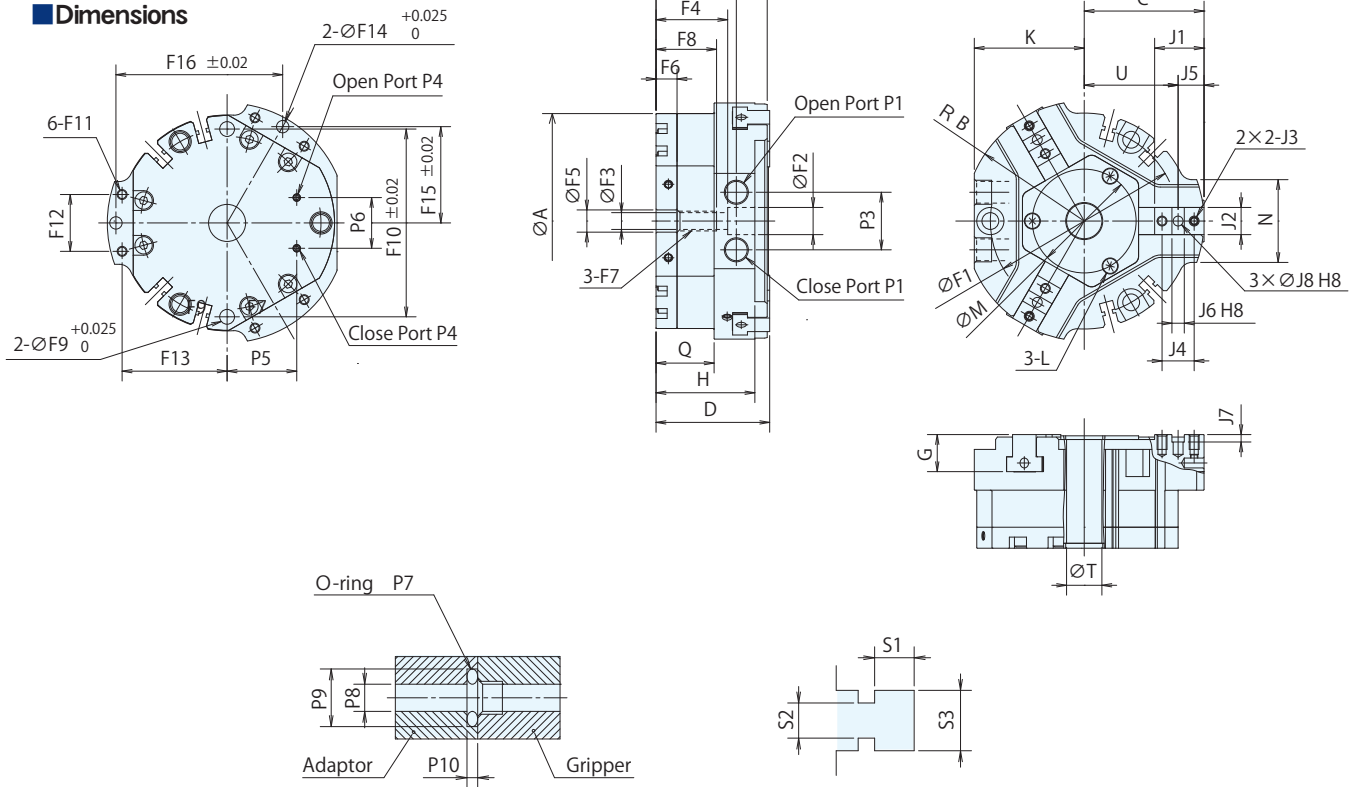
(Note1) Value at supply air pressure 0.6MPa

Gripping force diagram



NTB3 series

Dimensions



Detail of direct connecting

Detail of reed switch mounting groove

Dimensions

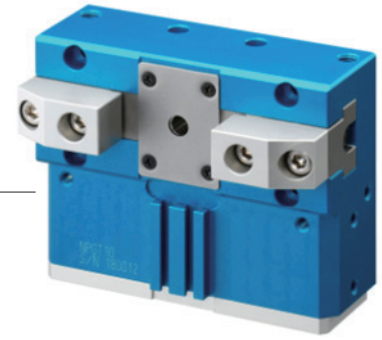
Model	Outline Dimensions														
	A	B	C	D	E	G	H	K	L	M	N	Q	T	U	
														MAX	MIN
NTB309	∅ 87	48.5	48.5	46	45	15	40	44.5	M3	∅ 42	33.5	23.5	∅ 14.3	38	32
NTB311	∅ 105	60.5	60.5	55	54	18	43	53	M3	∅ 52	39.5	29	∅ 25	49	41
NTB313	∅ 135	74.5	74.5	64	63	20	50	68	M3	∅ 60	51	34	∅ 29.9	60	50

Model	Dimensions of Jaw Mounting									
	J1	J2	J3		J4	J5	J6	J7	J8	
			Diameter	Depth					Diameter	Depth
NTB309	20	11	M4	6	13	10.5	5	3	∅ 4	5
NTB311	23	13.5	M4	7	16	11.5	6	3.5	∅ 5	6
NTB313	28.5	18.5	M5	8	20	14.5	8	4	∅ 6	8

Model	Dimensions of Body Fixed Part																	
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11		F12	F13	F14		F15	F16
											Diameter	Depth			Diameter	Depth		
NTB309	∅ 76	∅ 11	∅ 6.8	29	∅ 9	8.5	M8	24.5	∅ 5	76	M4	9	23	42.5	∅ 5	5	38.971	67.5
NTB311	∅ 94	∅ 11	∅ 6.8	35.5	∅ 9	8.5	M8	25.5	∅ 5	94	M4	9	26.5	54.5	∅ 5	5	48.497	84
NTB313	∅ 122	∅ 14	∅ 8.5	41.5	∅ 11	9	M10	29	∅ 8	122	M4	9	32.5	67	∅ 5	5	59.756	103.5

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part		
	P1	P2	P3	P4	P5	P6	P7 (NOK)	P8	P9	P10	Reed Switch		
											S1	S2	S3
NTB309	G1/8	32.5	23.3	M3	28.19	20.52	S4	∅ 3	∅ 6.6	1	3.6	3.2	5.5
NTB311	G1/8	36	30.1	M4	37.6	27.4	S6	∅ 4	∅ 8.3	1	3.6	3.2	5.5
NTB313	G1/8	43	35	M5	46.04	33.52	S8	∅ 5	∅ 10.3	1	3.6	3.2	5.5

NPGT series



2-jaw Parallel Thin Gripper

Thin type for 2-jaw parallel gripper

Features

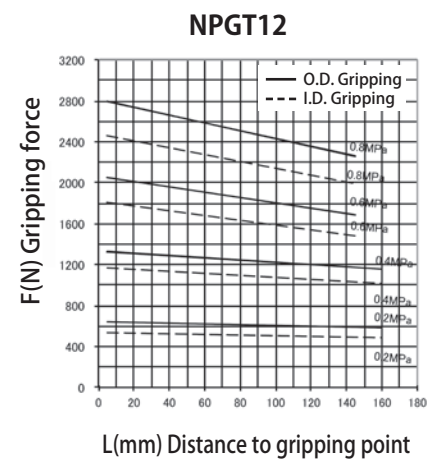
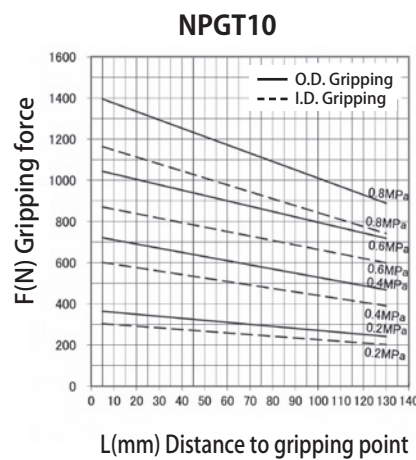
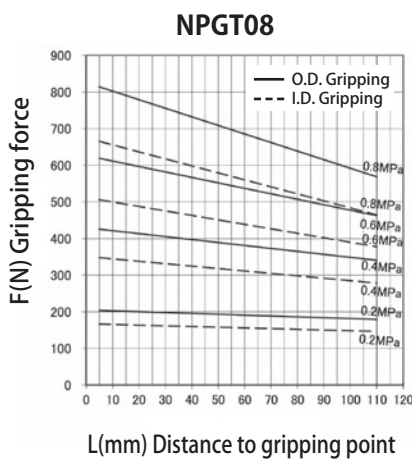
- The thin body enables flexible system design
- The high restoration accuracy
- NPGT achieves higher gripping force than the similar stroke model.

Specifications

Item Model	Jaw Stroke (diameter) (mm)	Gripping Force (Note1)			Repeatability (mm)	Mass of products (kg)	Amount of Air Consumption (cm ³ /Round Trip)	Working Air Pressure (Mpa)	Operating Temperature (°C)
		Measurement Distance L (mm)	O. D. Gripping (N)	I. D. Gripping (N)					
NPGT08	16.6	10	600	500	±0.008	0.79	34	0.2~0.8	5~60
NPGT10	20.8	10	1000	860	±0.008	1.25	64	0.2~0.8	5~60
NPGT12	26.4	10	2000	1700	±0.008	2.45	152	0.2~0.8	5~60

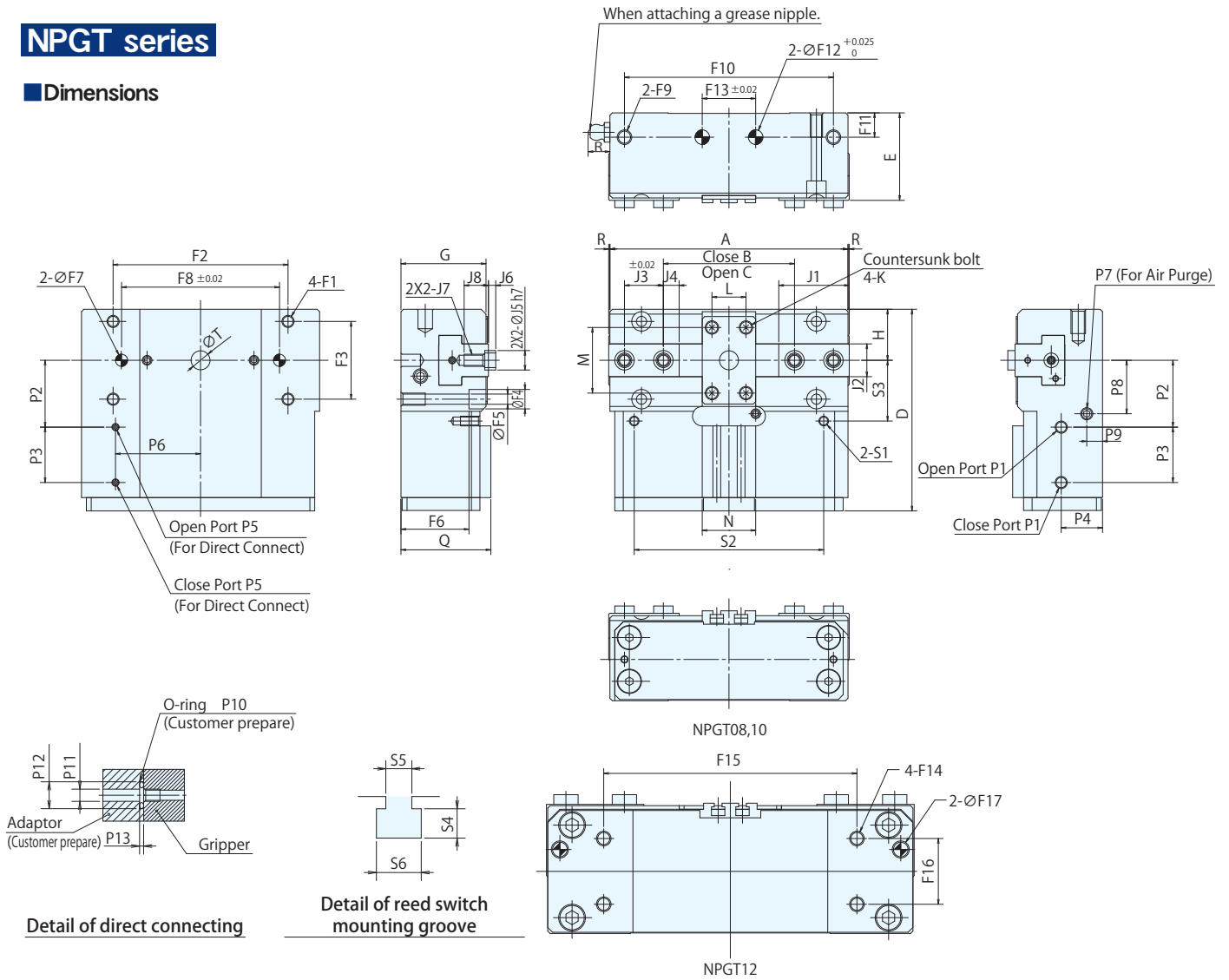
(Note1) Value at supply air pressure 0.6Mpa

Gripping force diagram



NPGT series

Dimensions



Dimensions

Model	Outline Dimensions													Dimensions of Jaw Mounting								
	A	B	C	D	E	G	H	K	L	M	N	Q	R	T	J1	J2	J3	J4	J5 (h7)	J6	J7	J8
NPGT08	98	37.2	54	83	36	35	21	M2.5	14	27	22	37	0.5	—	29	13.5	16	6.5	8	3	M5	10
NPGT10	120	46.4	67.2	95.5	41	40	25	M3	24	32	22	42	0.2	ϕ 7.8	32.5	18.5	20	6	10	4	M6	12
NPGT12	150	60.4	87	116	53	52.5	30	M3	32	40	22	53.5	0.5	ϕ 11	39.5	21	24	8	10	4	M6	15

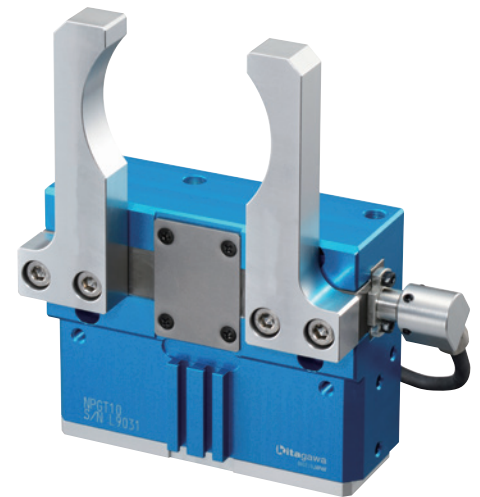
Model	Dimensions of Body Fixed Part																						
	F1		F2	F3	F4	F5	F6	F7		F8		F9		F10	F11	F12		F13	F14	F15	F16	F17	
	Diameter	Depth						(+0.025) 0	Depth	(\pm 0.02)	Diameter	Depth			(+0.025) 0	Depth	(\pm 0.02)	Diameter	Depth			(+0.025) 0	Depth
NPGT08	M5	10	72	32	ϕ 8	ϕ 4.2	28	ϕ 5	8	65	M6	12	86	10	ϕ 6	8	22	—	—	—	—	—	—
NPGT10	M6	12	86	38	ϕ 9.5	ϕ 5.2	32	ϕ 6	10	80	M8	12	106	10	ϕ 8	10	32	—	—	—	—	—	—
NPGT12	M8	12	110	45	ϕ 11	ϕ 6.6	43.5	ϕ 8	11	100	M10	15	130	16.5	ϕ 10	12	40	M6	10.5	104	27	ϕ 6	20.5

Model	Dimensions of Air Supplying Part													Dimensions of Switch Attaching Part					
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10 (NOK)	P11	P12	P13	Proximity Switch			Reed Switch		
														S1	S2	S3	S4	S5	S6
NPGT08	M5	27.5	22.8	17	M3	35	M5	22	6.5	S4	ϕ 3	ϕ 6.6	1	M4	78	25	3.6	3.2	5.5
NPGT10	M5	32.5	25.8	19.5	M3	45	M5	26.5	8	S4	ϕ 3	ϕ 6.6	1	M5	96	30	3.6	3.2	5.5
NPGT12	M5	38.5	30.8	25.5	M5	58	M5	31.5	10.5	S8	ϕ 5	ϕ 10.3	1	M5	120	35	3.6	3.2	5.5

NPGT_S series

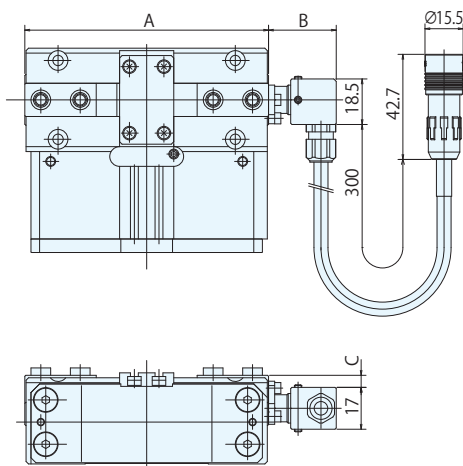
2-jaw Parallel Thin Gripper with measuring function

Possible to measure gripping length with a optional magnet scale



※Specifications and dimensions not listed below are equivalent to NPGT series.

Scale dimensions



Model	Outline Dimensions		
	A	B	C
NPGT08S	99	27.5	4.9
NPGT10S	120.4	30	6.3
NPGT12S	151	33.5	12.5



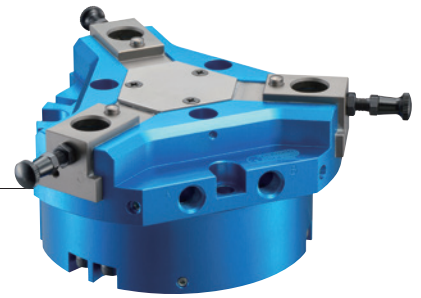
Check the video of work identifying demonstration by inner diameter measurement

Connection method

	Product name	Model	Note
TTL specification	NPGT for measuring function	NPGT_S	
	cable with interpolator	TTL030ST01	3m
	counter unit	LT20A-101C	
Line driver specification	NPGT for measuring function	NPGT_S	
	line driver cable	LD-050DT01	5m
	output cable	CK-T210	7m

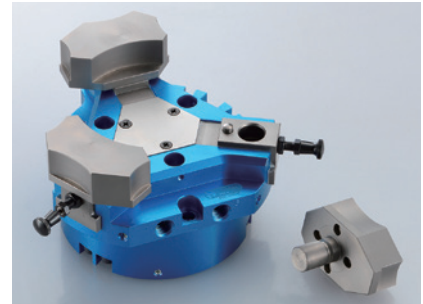
- ※The output cable can be extended up to 25m, however, if you need the cable longer than 7m, please prepare it by yourself.
- ※If water splashes during use, please consult us.
- ※If NPGT with measuring functions is needed, please consult us.

Quick Jaw Change Gripper



Parallel Jaw Gripper
NTS309/NTS311 (Option)

A quick jaw exchange and new gripping confirmation are achieved.



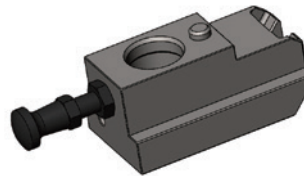
(Option)

※Possible to divert NTS3 series gripper body.

● Quick Master Jaw / NTS-QM309,311

※For NTS309,311

- Reduce a jaw exchange time.
- Replace jaws without tools.

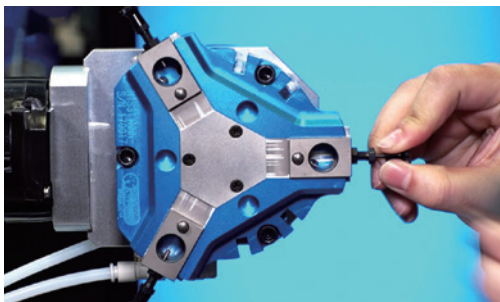


English video



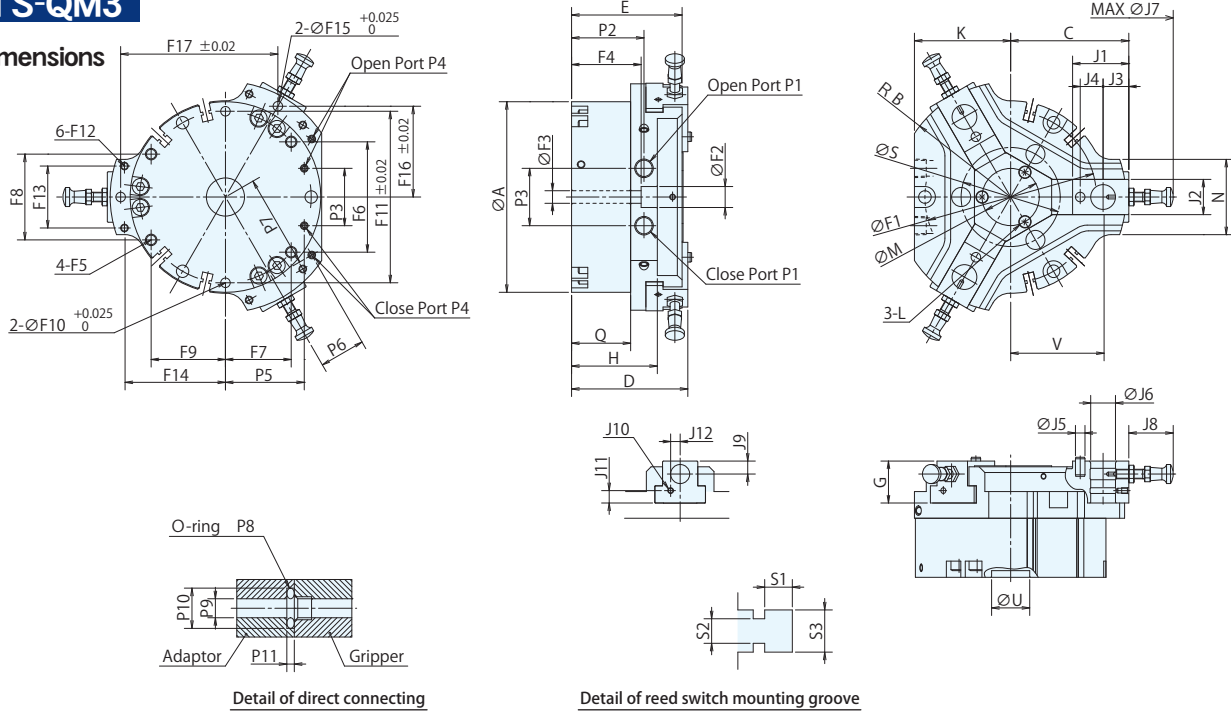
[Exchanging procedure]

1. Pull the knob of the master jaw end
2. Insert the jaw to the master jaw hole
Fit the direction pin in and fix the jaw direction
3. Release the knob and confirm the jaw has been fixed



NTS-QM3

Dimensions



Dimensions

Model	Outline Dimensions																		
	A	B	C	D	E	G	H	K	L	M	N	Q	S	T		U		V	
	Diameter		Depth		Diameter		Depth		MAX	MIN									
NTS-QM309	∅ 80	49	49.5	50.5	49.5	18	41.4	42.5	M3	∅ 26	33.5	25	∅ 42	∅ 6	15	∅ 20	3.5	39	31
NTS-QM311	∅ 100	60.5	62	61	58	22	45	50.5	M3	∅ 30	39.5	31	∅ 52	∅ 10	17	∅ 20	3.5	48.5	38.5

Model	Dimensions of Jaw Mounting														
	J1	J2	J3	J4	J5		J6	J7	J8		J9	J10		J11	J12
	Diameter		Height		MAX		MIN		Diameter		Depth				
NTS-QM309	24.5	13.5	12	9	∅ 4	2	10	∅ 158.6	28.3	23.3	6.8	—	—	—	—
NTS-QM311	29.5	18.5	13.5	12	∅ 5	2	13	∅ 181.6	28.3	23.3	6.8	M3	3.5	6.5	5

Model	Dimensions of Body Fixed Part																						
	F1	F2	F3	F4	F5		F6	F7	F8	F9	F10		F11	F12		F13	F14	F15		F16	F17		
	Diameter		Depth		Diameter		Depth		Diameter		Depth		Diameter		Depth		Diameter		Depth		Diameter		Depth
NTS-QM309	∅ 70	∅ 11	∅ 6.6	30.5	M6	11	45	26.8	35	30.3	∅ 5	10	70	M4	7	26.5	43	∅ 5	5	38.538	66.75		
NTS-QM311	∅ 90	∅ 11	∅ 6.6	36.5	M6	9	57.9	34.5	45	39	∅ 5	10	90	M7	7	32.5	53	∅ 5	5	47.631	82.5		

Model	Dimensions of Air Supplying Part											Dimensions of Switch Attaching Part		
	P1	P2	P3	P4	P5	P6	P7	P8 (NOK)	P9	P10	P11	Reed Switch		
	Diameter			Depth			Diameter			Depth			S1	S2
NTS-QM309	G1/8	33.65	23.3	M3	31.95	21	39	S4	∅ 3	∅ 6.6	1	3.6	3.2	5.5
NTS-QM311	G1/8	38	30.1	M4	41.35	24	49	S6	∅ 4	∅ 8.3	1	3.6	3.2	5.5

Specifications

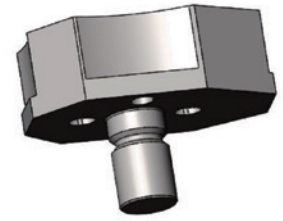
Item	Jaw Stroke (diameter) (mm)	Gripping Force (Note1)				Repeatability (Reference only) (mm)	Mass of products (kg)	Amount of Air Consumption (cm ³ /Round Trip)	Working Air Pressure (Mpa)	Allowable jaw mass (g) per pc.			Operating Temperature (°C)
		Measurement Distance L (mm)	O. D. Gripping (N)	I. D. Gripping (N)	Acceleration of robot								
					3m/s ²					6m/s ²	10m/s ²		
Model													
NTS-QM309	16	20	1010	1120	±0.02	0.70	50.2	0.2~0.8	240	210	150	5~60	
NTS-QM311	20	20	1810	1930	±0.02	1.29	112	0.2~0.8	240	210	150	5~60	

(Note1) Value at supply air pressure 0.6Mpa

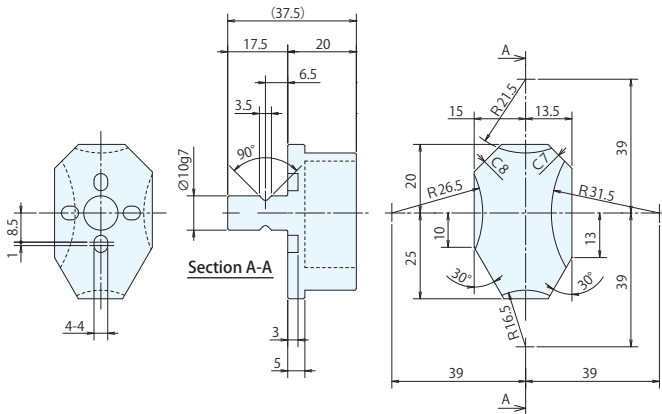
● Quick Hard Jaw / NTS-HJ309,311

※For NTS-QM309,311

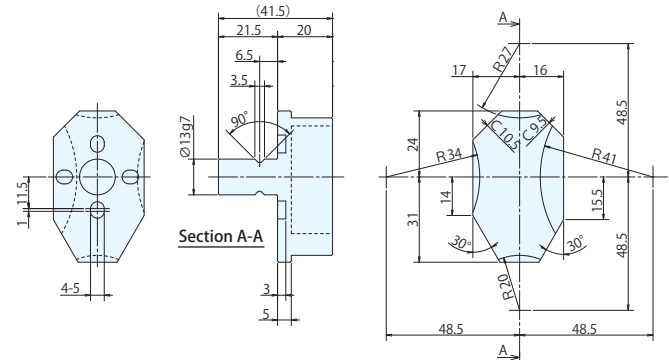
Possible to set more than one kind of grip face by one set of jaws



■ NTS-HJ309 Dimensions

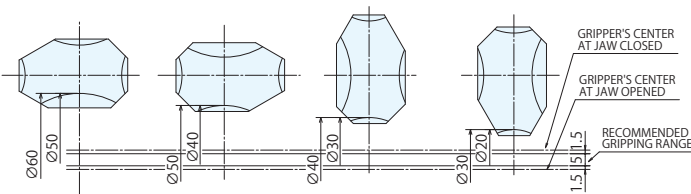


■ NTS-HJ311 Dimensions

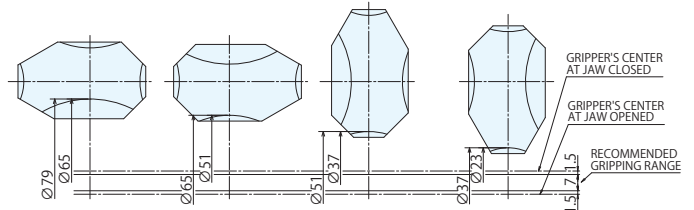


※GRIPPING RANGE OF NTS-HJ

NTS-HJ309 (φ 20 ~ φ 60)



NTS-HJ311 (φ 23 ~ φ 79)



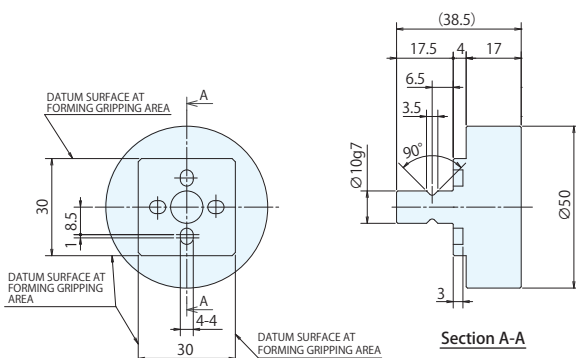
● Quick Soft Jaw / NTS-SJ309,311

※For NTS-QM309,311

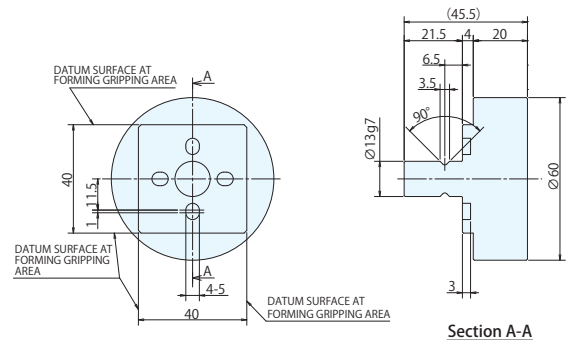
Possible to mold 4 gripping parts of soft jaw with any dimensions.



■ NTS-SJ309 Dimensions



■ NTS-SJ311 Dimensions



Quick Plate Change Gripper

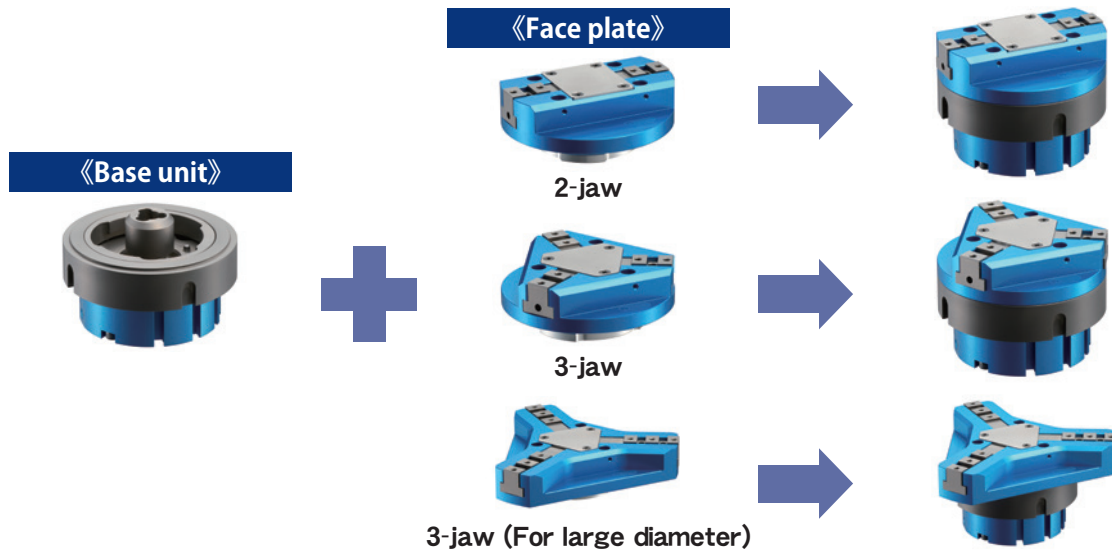
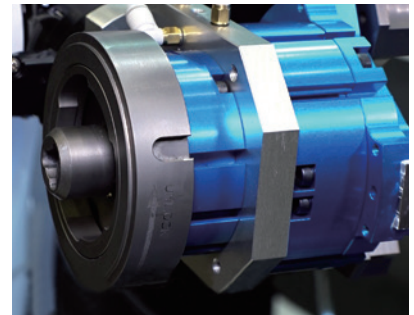
(Face Plate Change type)

Suitable for robot application of high-mix low volume production



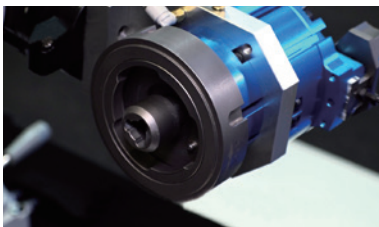
Features

- Simple and quick setup change
- Starting up time reduced for new workpiece
- Manual setup change minimizes number of teaching points.
- There are six reed switch installation grooves for plural sensors to be properly used without exchanging.

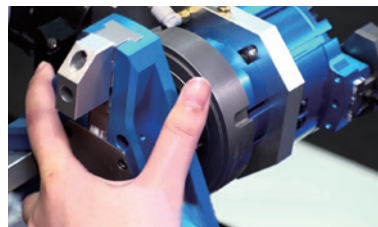


【Exchange procedure】

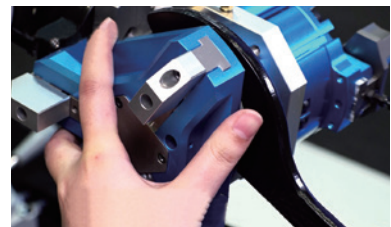
1. Insert the Jaw plate to the piston



2. Rotate the Jaw plate by 60°

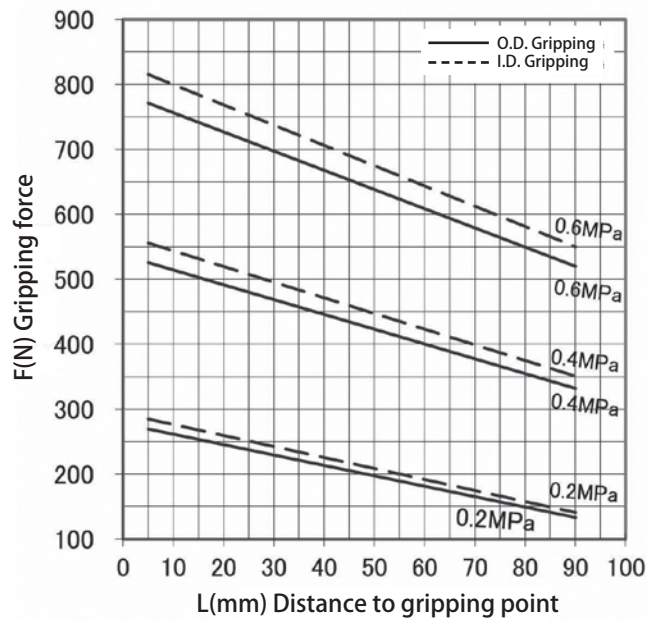


3. Tighten the lock nut of the Base unit

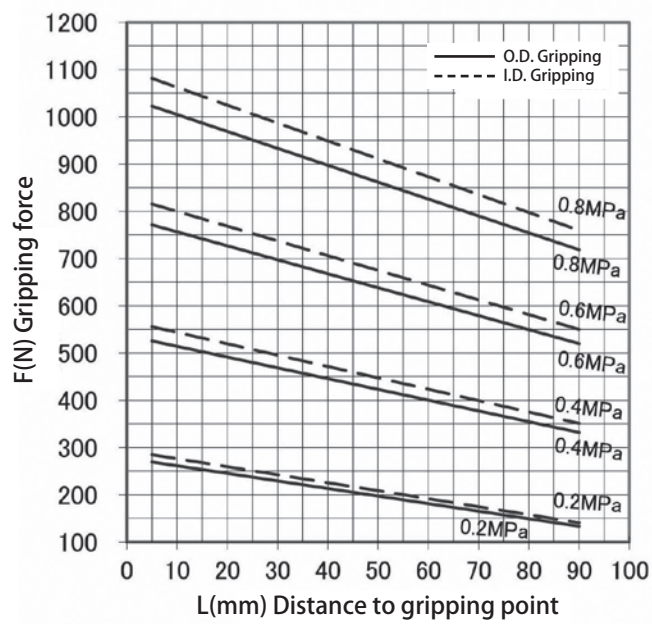


Gripping force diagram

QG20608

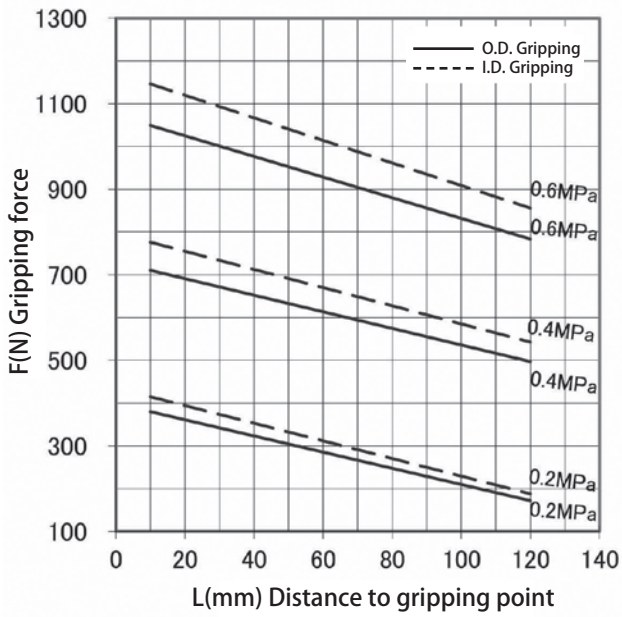


QG30608

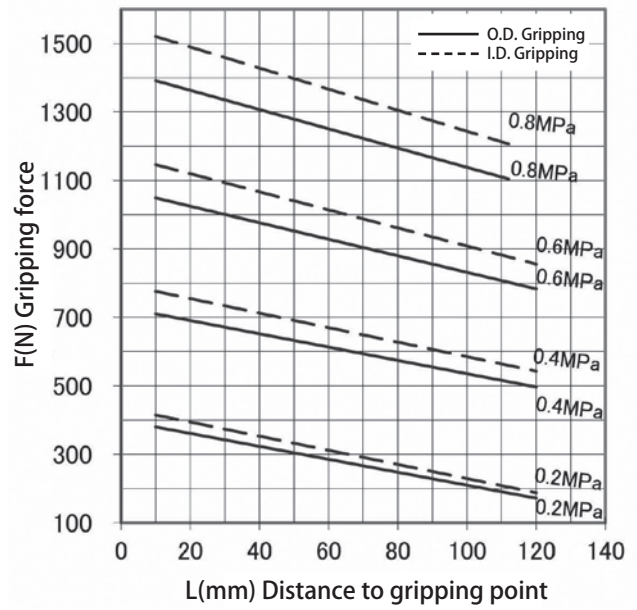


Gripping force diagram

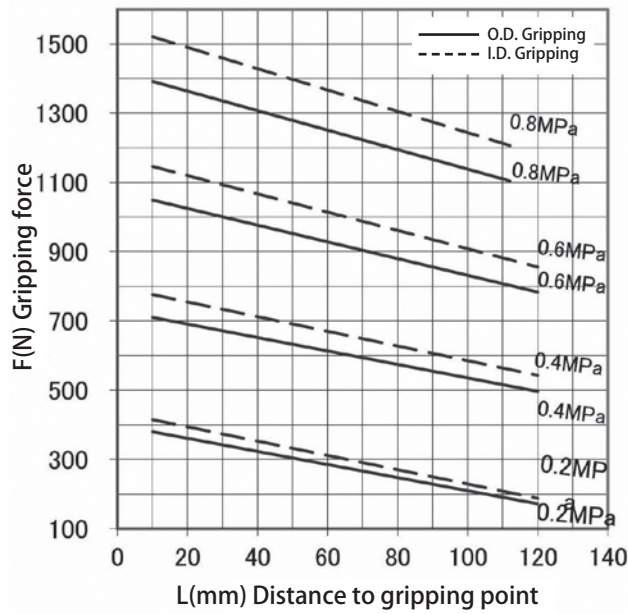
QG20810



QG30810

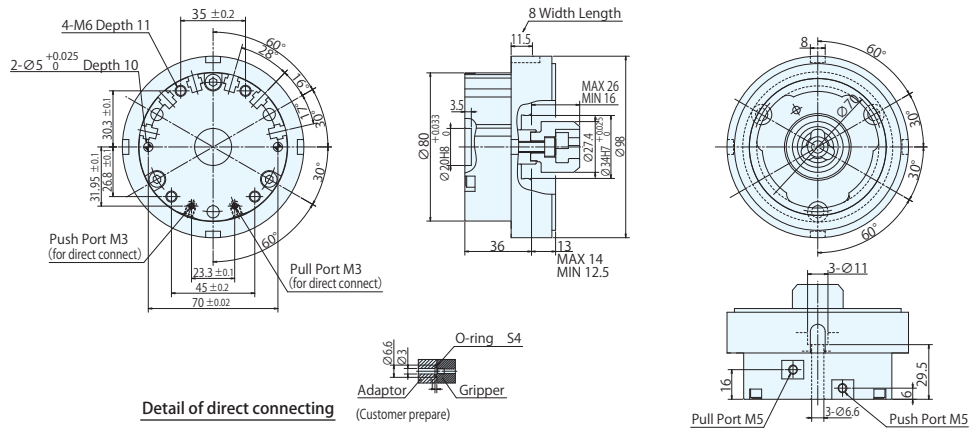


QG30815



QGB08

Dimensions



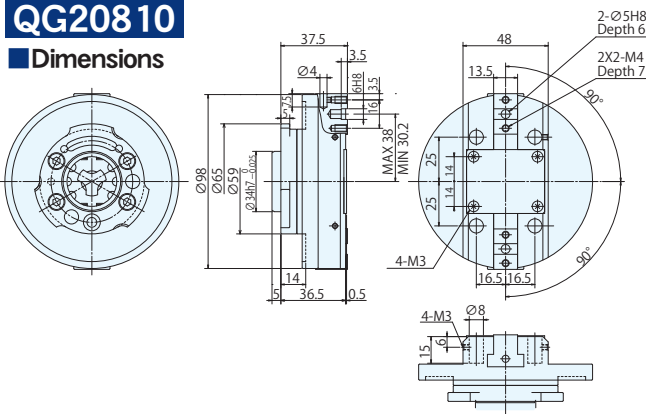
Specifications

Item	Piston Stroke (mm)	Piston Thrust (Note 1)		Mass of products (kg)	Amount of Air Consumption (cm ³ /Reciprocating)	Working Air Pressure (Mpa)	Operating Temperature (°C)	Lock nut tightening torque (N · m)
		Pull (N)	Push (N)					
Model								
QGB08	10	1353	1506	1.15	50.2	0.2~0.8	5~60	20

(Note 1) Value at supply air pressure 0.6Mpa

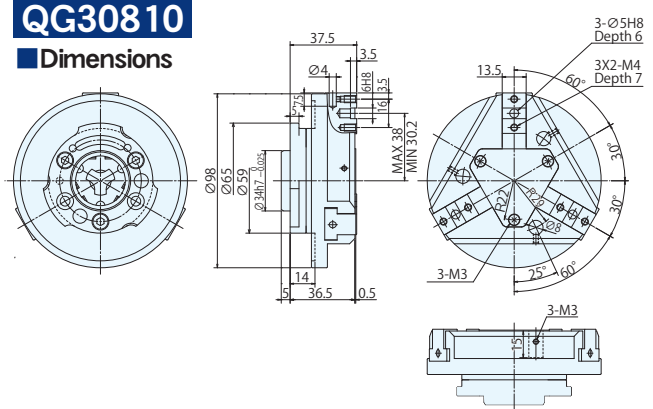
QG20810

Dimensions



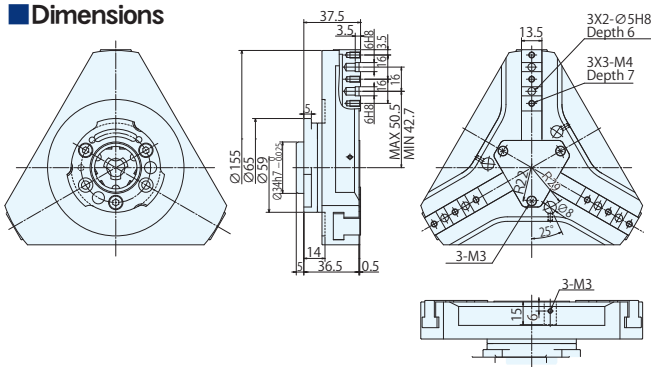
QG30810

Dimensions



QG30815

Dimensions



Specifications

Item	Base model	Jaw Stroke (diameter) (mm)	Gripping Force (Note 1)			Repeatability (mm)	Mass of products (kg)	Working Air Pressure (Mpa)	Operating Temperature (°C)
			Measurement Distance L (mm)	O. D. Gripping (N)	I. D. Gripping (N)				
Model									
QG20810							0.40	0.2~0.6	
QG30810	QGB08	15.6	20	1010	1120	±0.03	0.55	5~60	
QG30815							0.9	0.2~0.8	

(Note 1) Value at supply air pressure 0.6Mpa

Switch Compatibility Table

Switches to confirm the jaws open-close

- ※ Proximity switch brackets will be required to attach the proximity switches.
- ※ Reed switches will be attached on the switch housing on the external body.

Proximity Switch Specifications

Item	azbil (Yamatake)	B&PLUS	Balluff
Model	FL7M-2J6HD-C	BR3-0801D-PU03	BES M08MG-GSC20B-BP02
Operation Mode	N.O.	N.O.	N.O.
Sensor Head Shape	M8×1	M8×1	M8×1
Usable Sensing Distance	2.0mm	1.5mm	2.0mm
Operating Voltage	DC10~30V	DC10~30V	DC10~36V
Connecting Cable Length	2m	3m	2m
Connecting Cable Size	2×0.12mm ²	2×0.14mm ²	2×0.14mm ²
Operating Temperature	-25°C~+70°C	-25°C~+70°C	-25°C~+70°C
Ingress Protection Code	IP67	IP67	IP67
Outline Dimensions			
Electrical Diagram			

Compatible Model

Type	Model	azbil (Yamatake)	B&PLUS	Balluff
2-Jaw Parallel	NTS2	●	●	●
	NPGT	●	●	●
3-Jaw Parallel	NTS3	●	●	●
	NTS-QM311	—	—	—
Quick Plate Change Gripper	NTB3	●	●	●
	QGB	—	—	—

Reed Switch Specifications

Item	CKD			SMC	
	Noncontact/2-Wire System			Noncontact/2-Wire System	
Model	F2H	F2V	F2S	D-M9B	D-M9BV
Lead Wire Output Shape	Straight	L-Shape	L-Shape Short	Straight	L-Shape
Operating Voltage	DC10~30V			DC10~28V	
Operating Current	5~20mA			2.5~40mA	
Lead Wire Length	The lead wire length depends on the character located after the model number. Please refer to the sensor manufacturer's catalog for selection.			The lead wire length depends on the character located after the model number. Please refer to the sensor manufacturer's catalog for selection.	
Operating Temperature	-10°C~+60°C			-10°C~+60°C	
Ingress Protection Code	IP67			IP67	
Outline Dimensions					
Electrical Diagram					

Compatible Model

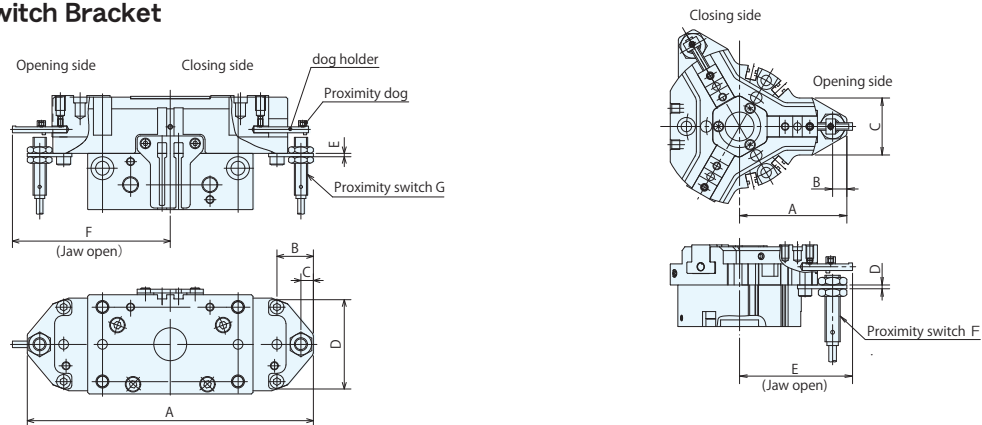
Type	Model	CKD		SMC
		F2H F2V	F2S	D-M9B D-M9BV
2-Jaw Parallel	NTS2	●	●	●
	NPGT	●	●	●
3-Jaw Parallel	NTS3	●	●	●
	NTS-QM311	●	●	●
Quick Plate Change Gripper	NTB3	●	●	●
	QGB06	●	●	●
	QGB08	●		●

※ If a reed switch not listed on the table is used, the sensor reaction may not be stable.

Proximity switch bracket

Option

■ Proximity Switch Bracket

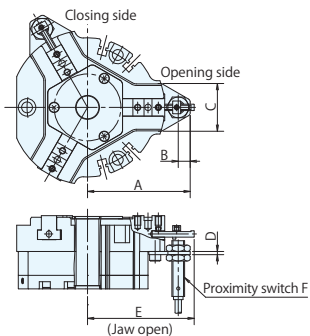


■ NTS2 series

Model	Outline Dimensions						
	A	B	C	D	E	F	G
NTS206-B	108	21.5	7.5	34	2	57	M8
NTS208-B	125	23	7.5	39.5	2	67	M8
NTS210-B	146	22	7.5	47	2	80.5	M8
NTS212-B	173	22	7.5	54	2	95.5	M8
NTS216-B	218	22	7.5	64	2	122	M8
NTS220-B	271	35.5	7.5	82	2	152	M8

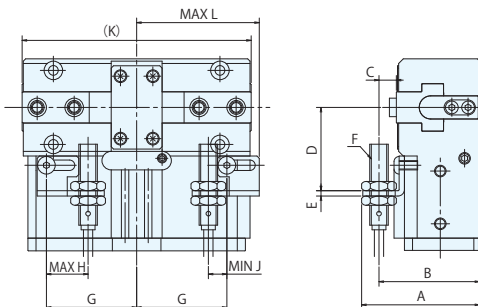
■ NTS3 series

Model	Outline Dimensions					
	A	B	C	D	E	F
NTS307-B	56.5	7.5	30	2	59.5	M8
NTS309-B	64.5	7.5	33.5	2	69.5	M8
NTS311-B	76	7.5	39.5	2	83	M8
NTS313-B	90.5	7.5	50	2	105	M8
NTS317-B	113	6.5	65	2	127	M8



■ NTB series

Gripper Model	Bracket Model	Outline Dimensions					
		A	B	C	D	E	F
NTB309	NTS307-B	64.5	7.5	30	2	67	M8
NTB311	NTS309-B	76	7.5	33.5	2	80.5	M8
NTB313	NTS311-B	90	7.5	39.5	2	96.5	M8



■ NPGT series

Model	Outline Dimensions											
	A	B	C	D	E	F	G	H	J	K	L	
NPGT08-B	51	43.5	7.5	36	2.3	M8	39	18	8	99	53	
NPGT10-B	55.5	48.5	7.5	40	2.3	M8	48	21	9	120	66	
NPGT12-B	150	63	10	44	2.3	M8	60	29	11	150	84	

Seal Kit Compatibility Table

(Maintenance Parts)

The material of our seal kit is nitrile rubber (NBR).
In case of fluoroc seals are needed, please contact us separately.

■ 2-Jaw Parallel

Gripper Model			Seal Kit Model
2-Jaw Parallel	NTS	206	NTS206-P
		208	NTS208-P
		210	NTS210-P
		212	NTS212-P
		216	NTS216-P
		220	NTS220-P
	NPGT	08	NPGT08-P
		10	NPGT10-P
		12	NPGT12-P

■ 3-Jaw Parallel

Gripper Model			Seal Kit Model
3-Jaw Parallel	NTS	307	NTS307-P
		309	NTS309-P
		311	NTS311-P
		313	NTS313-P
		317	NTS317-P
	NTB	309	NTB309-P
		311	NTB311-P
		313	NTB313-P

■ Quick Plate Change Gripper

Gripper Model			Seal Kit Model
Quick Plate Change Gripper	QGB	06	NTS307-P
		08	NTS309-P

Other Products



BR series (6", 8", 10", 12")

The standard has evolved.



- Gripping accuracy of 0.01 mm T.I.R. or less.*
- Reduced jaw-lift
- Interchangeable with B-200 & BB200
- With the optional special T-nut "Tnut-Plus" the jaw repeatability will become 0.01 mm T.I.R. or less.*

*Both gripping accuracy and repeatability for only BR12 are 0.015 mm T.I.R.



MK series (200, 250, 350)

Strong & Compact NC Rotary Table



- Performance improved
- Improved mounting
- Wide selection of rotary joints



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