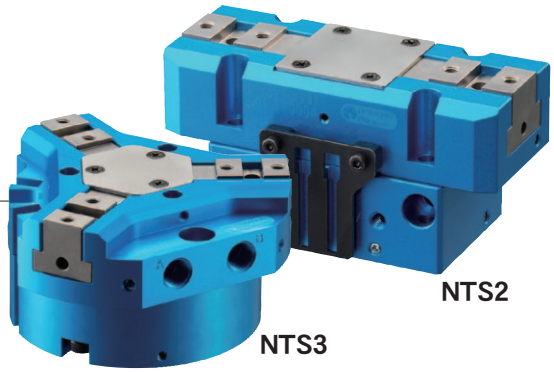
NTS series



平行グリッパ　Parallel Jaw Gripper

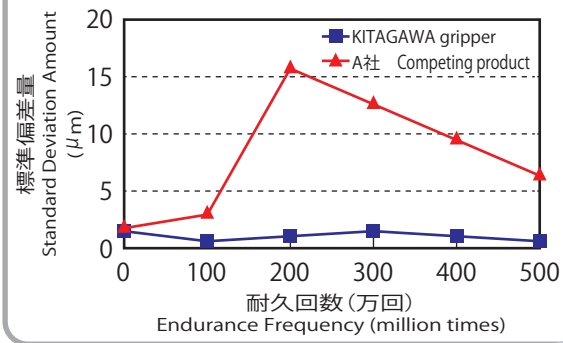
高品質高耐久のスタンダードモデル
Standard series with high quality and high durability

特長　Features

- ●切粉対策強化とメンテナンス性の向上を実現
  Swarf protection and maintenance improved
- ●高把持力で重量ワークも安定した把持が可能
  High Gripping force for stable gripping of heavy work piece
- ●軽量短寸コンパクトボデー
  Lightweight and compact body
- ●高剛性ボデー採用により把持精度向上を実現
  Improved gripping accuracy due to high rigidity body

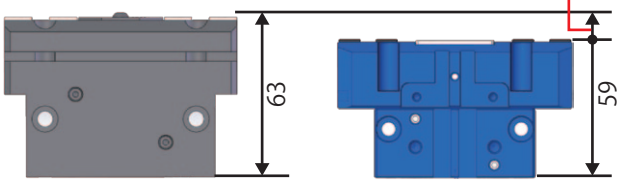
高耐久・高精度　High Durability・High Accuracy

繰り返し精度測定（3爪平行タイプ）
Measurement of Repeatability (3-Jaw model)



薄型／軽量　Thin and lightweight body design

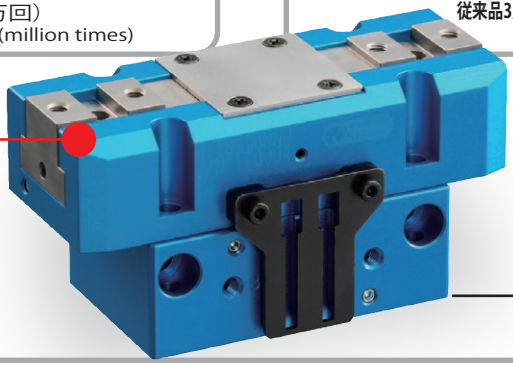
従来モデルと比較して最大約10%薄型化
従来モデルと比較して最大約30%軽量化
Up to 10% thinner than previous model
Up to 30% lighter than previous model



従来品2爪
Previous 2-Jaw model

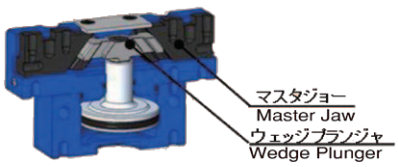
NTS210

従来品2爪　Previous 2-Jaw model=0.84kg →
従来品3爪　Previous 3-Jaw model=0.60kg →
NEW
NTS210=0.77kg
NTS307=0.40kg

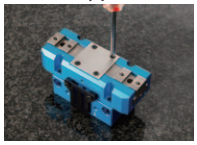


メンテナンス性向上のウェッジ機構　Improved wedge plunger mechanism for maintenance

マスタジョーを前面から取り外せるので、グリッパをロボットから取り外すことなく、摺動面の清掃が簡単にできます。
※構造上によりNTS206は対象外　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.



分解手順①
Disassembly procedure①

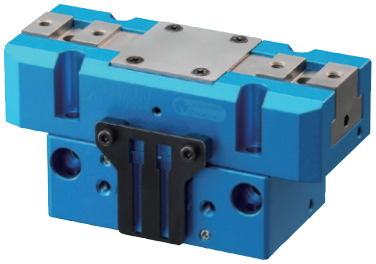


分解手順②
Disassembly procedure②

分解手順③
Disassembly procedure③

分解手順④
Disassembly procedure④

NTS2 series



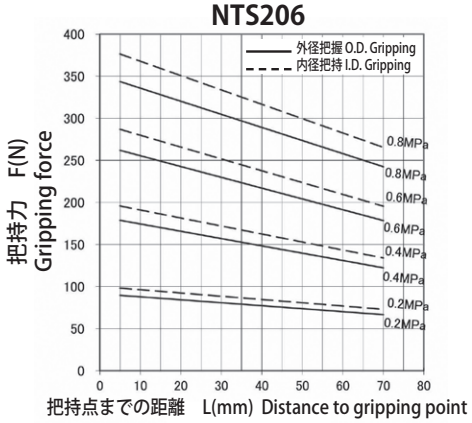
■仕様表　Specifications

項目 Item / 型式 Model	ジョーストローク直径 Jaw Stroke (diameter) (mm)	把持力 (注1) Gripping Force (Note1) 測定距離 Measurement Distance L (mm)	外径把持 O. D. Gripping (N)	内径把持 I. D. Gripping (N)	繰り返し精度 Repeatability (mm)	本体質量 Mass of products (kg)	流体消費量 (cm³/往復) Amount of Air Consumption (cm³/Round Trip)	使用空圧力 Working Air Pressure (MPa)	周囲温度 Operating Temperature (℃)
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

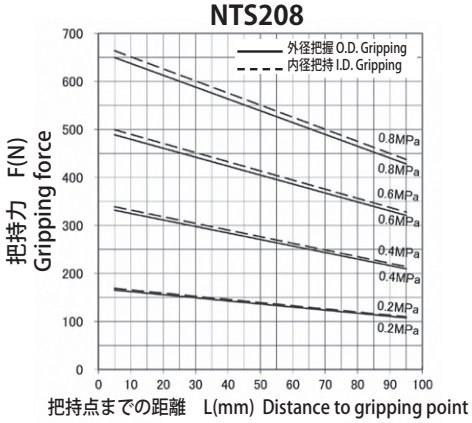
(注1) 供給空圧力0.6MPaでの値です。
(Note1) Value at supply air pressure 0.6MPa

把持力曲線　Gripping force diagram

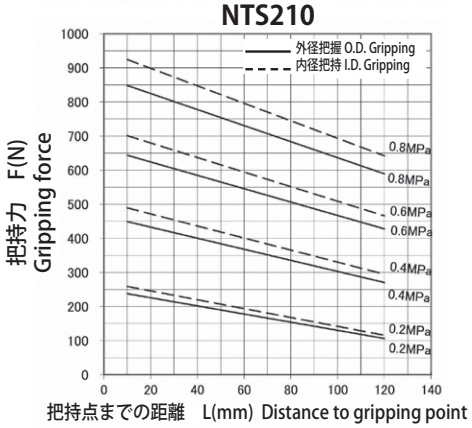
NTS206



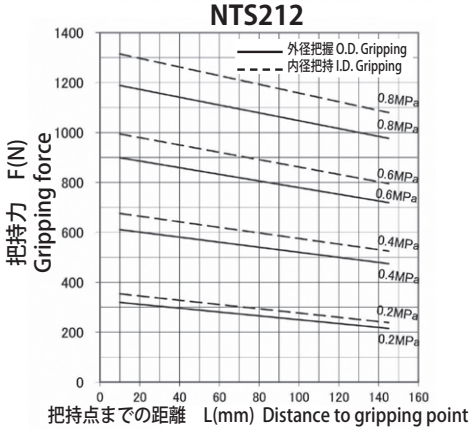
NTS208



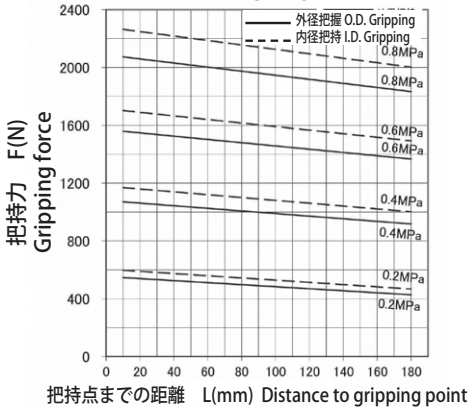
NTS210



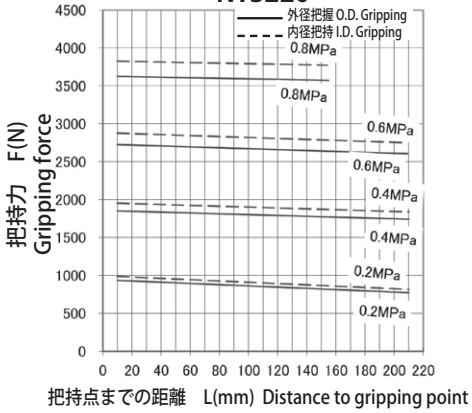
NTS212



NTS216

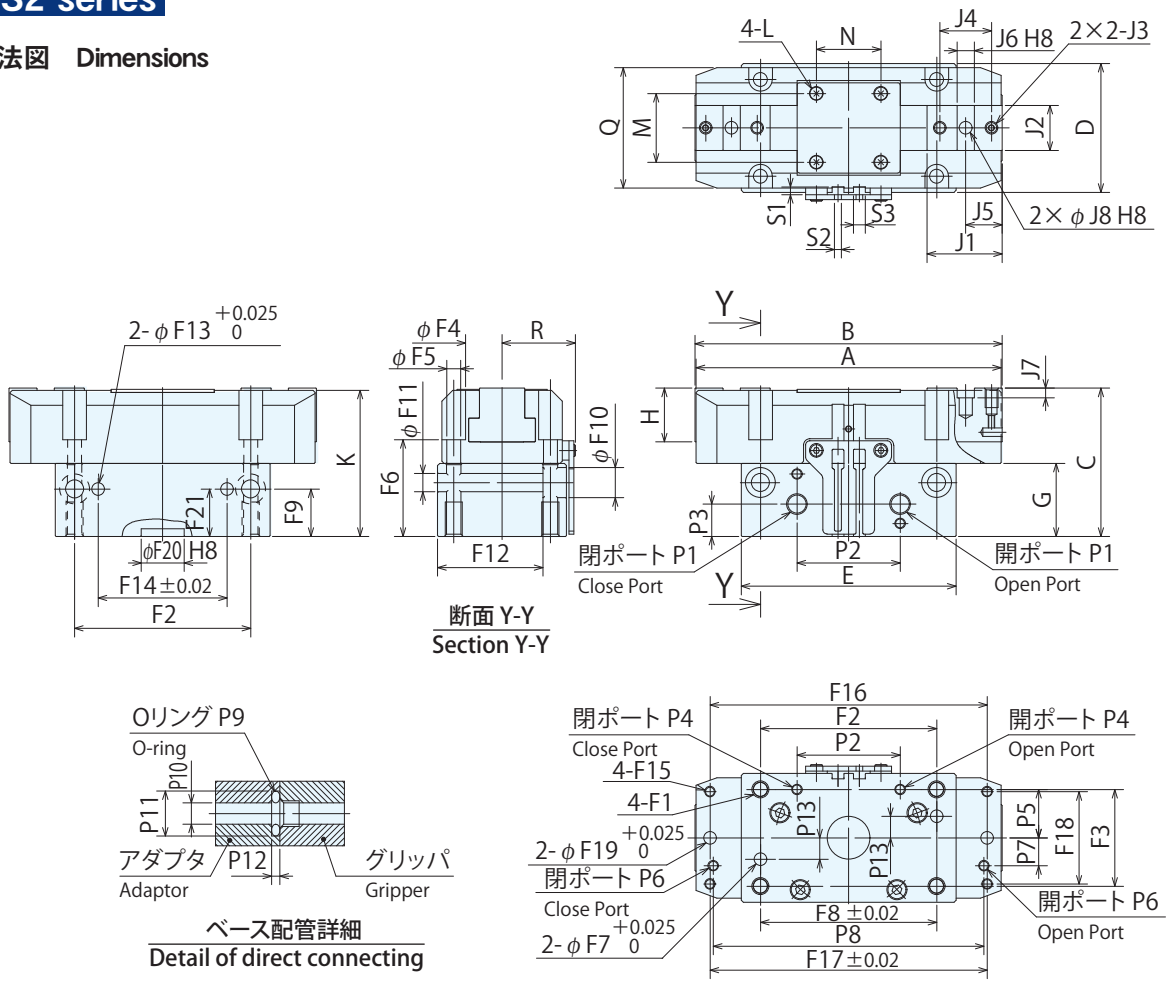


NTS220



NTS2 series

■寸法図　Dimensions



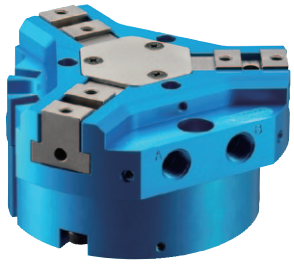
■寸法表　Dimensions

型式 Model	外形寸法 Outline Dimensions														ジョー取付け部寸法 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														径 Diameter	深さ Depth					径 Diameter	深さ 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	φ4	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	φ5	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	φ6	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	φ6	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	φ8	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	φ10	15

型式 Model	本体固定部寸法 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
	径 Diameter	深さ Depth						径 Diameter	深さ Depth						径 Diameter	深さ Depth		径 Diameter	深さ Depth				径 Diameter	深さ Depth	径 Diameter	深さ Depth	
NTS206	M5	8	42	27	φ7.5	φ4.2	29.5	φ4	5.5	42	15.5	φ8	φ4.5	29	φ4	5	20	M3	7	65	65	27	φ4	5.5	—	—	15.5
NTS208	M5	10	52	32	φ8	φ4.5	33	φ4	6	52	19	φ9.5	φ5.5	33	φ4	6	40	M4	7	79	79	32	φ4	6	20	3.5	19
NTS210	M6	12	66	38	φ9	φ5.5	38	φ5	8	66	21	φ11	φ6.5	39	φ5	8	50	M4	7	102	102	38	φ5	5	20	3.5	21
NTS212	M8	16	82	45	φ11	φ6.6	45	φ6	10	82	25	φ14	φ8.5	49	φ6	10	60	M5	11	129	129	45	φ6	7	20	3.5	25
NTS216	M8	16	100	56	φ11	φ6.6	50	φ6	10	100	23	φ14	φ8.5	59	φ6	10	76	M5	9	174	150	54	φ6	7	40	3.5	23
NTS220	M10	15	120	70	φ14	φ9	57	φ10	15	120	25	φ17	φ11	80	φ10	15	120	M6	12	200	200	70	φ8	8	40	3.5	39

型式 Model	空圧供給部寸法 Dimensions of Air Supplying Part													スイッチ取付け部寸法 Dimensions of Switch Attaching Part リードスイッチ Reed Switch		
	P1	P2	P3	P4	P5	P6	P7	P8	P9 (NOK規格)	P10	P11	P12	P13	S1	S2	S3
NTS206	M5	30	10.5	M3	12	M3	7	65	S4	φ3	φ6.6	1	0	3.6	3.2	5.5
NTS208	M5	31	12	M4	16	M4	9	79	S6	φ4	φ8.3	1	0	3.6	3.2	5.5
NTS210	M5	38	15	M4	19	M4	11	98	S6	φ4	φ8.3	1	0	3.6	3.2	5.5
NTS212	G1/8	48	15	M5	21	M5	13	126	S8	φ5	φ10.3	1	0	3.6	3.2	5.5
NTS216	G1/8	56	15	M5	26	M5	18	167	S8	φ5	φ10.3	1	0	3.6	3.2	5.5
NTS220	G1/8	75	21	M6	35	M5	22	200	S8	φ5	φ10.3	1	20	3.6	3.2	5.5

NTS3 series



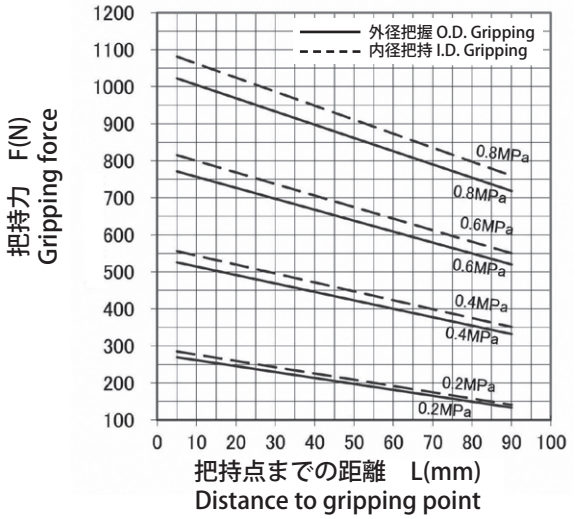
■仕様表　Specifications

項目 Item / 型式 Model	ジョーストローク直径 Jaw Stroke (diameter) (mm)	把持力 (注1) Gripping Force (Note1) 測定距離 Measurement Distance L (mm)	外径把持 O. D. Gripping (N)	内径把持 I. D. Gripping (N)	繰り返し精度 Repeatability (mm)	本体質量 Mass of products (kg)	流体消費量 (cm³/往復) Amount of Air Consumption (cm³/Round Trip)	使用空圧力 Working Air Pressure (MPa)	周囲温度 Operating Temperature (℃)
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

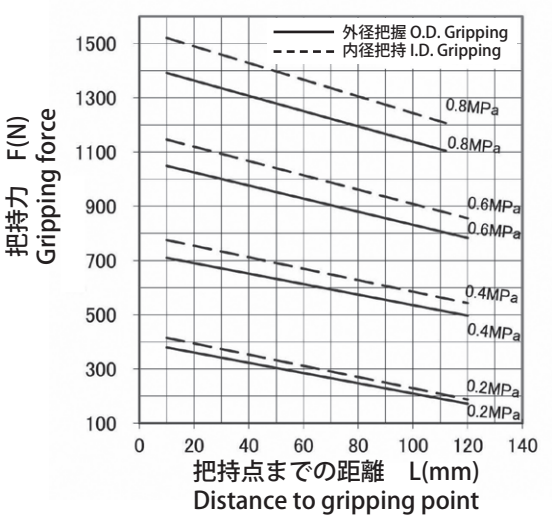
(注1) 供給空圧力0.6MPaでの値です。
(Note1) Value at supply air pressure 0.6MPa

把持力曲線　Gripping force diagram

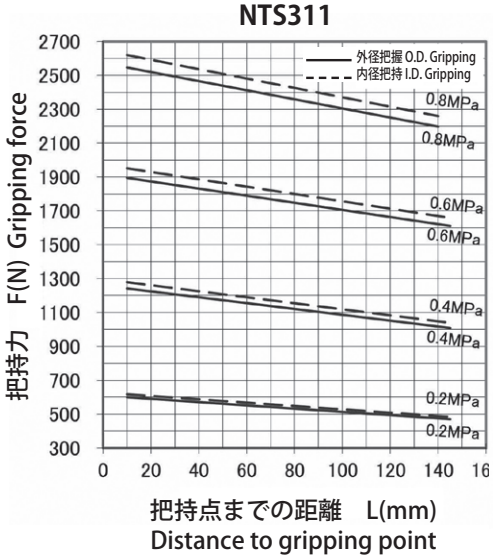
NTS307



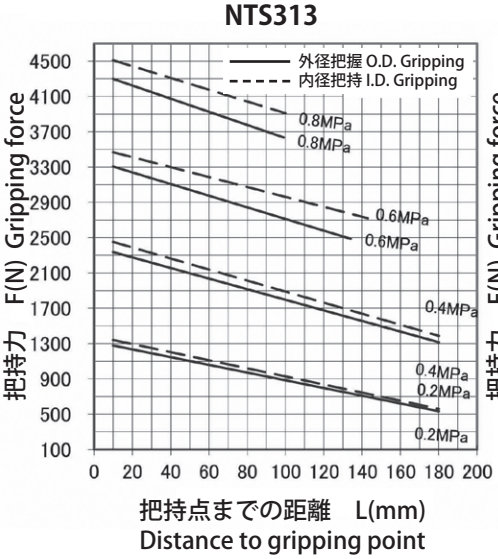
NTS309



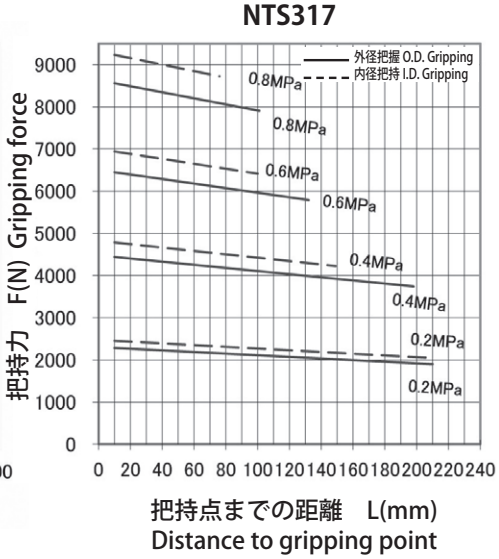
NTS311



NTS313

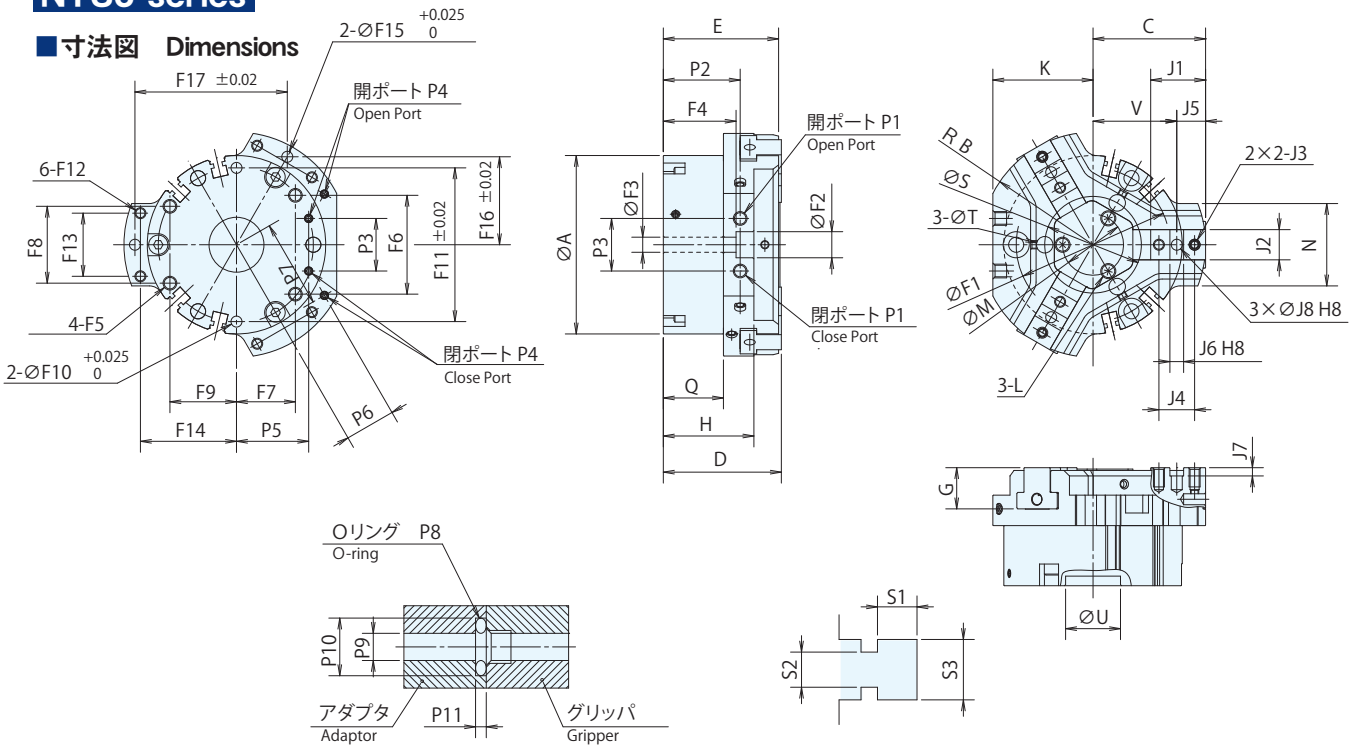


NTS317



NTS3 series

■寸法図　Dimensions



ベース配管詳細
Detail of direct connecting

リードスイッチ取付け溝詳細図
Detail of reed switch mounting groove

■寸法表　Dimensions

型式 Model	外形寸法　Outline Dimensions																		
	A	B	C	D	E	G	H	K	L	M	N	Q	S	T 径 Diameter	T 深さ Depth	U 径 Diameter	U 深さ Depth	V MAX	V MIN
NTS307	ϕ65	41	41	43	42	15	33	36.5	M2.5	ϕ22.2	30	21.9	ϕ35.2	ϕ6	15	ϕ20	3.5	30.5	24.5
NTS309	ϕ80	49	49.5	50.5	49.5	18	41.4	42.5	M3	ϕ26	33.5	25	ϕ42	ϕ6	15	ϕ20	3.5	38	30
NTS311	ϕ100	60.5	61	59	58	20	45	50.5	M3	ϕ30	39.5	31	ϕ52	ϕ10	17	ϕ20	3.5	46.5	36.5
NTS313	ϕ125	74.5	75	67	66	25	46.5	63	M3	ϕ35	49	32.5	ϕ59	ϕ10	17	ϕ20	3.5	58	46
NTS317	ϕ168	98.5	99	86	85	32	59.5	84.5	M4	ϕ48	70	43	ϕ75	ϕ10	17	ϕ20	3.2	76	60

型式 Model	ジョー取付け部寸法　Dimensions of Jaw Mounting									
	J1	J2	J3 径 Diameter	J3 深さ Depth	J4	J5	J6	J7	J8 径 Diameter	J8 深さ Depth
NTS307	20	11	M4	6	13	10.5	5	3	ϕ4	5
NTS309	23	13.5	M4	7	16	11.5	6	3.5	ϕ5	6
NTS311	28.5	18.5	M5	8	20	14.5	8	4	ϕ6	8
NTS313	35	21	M6	9	24	17	8	4.5	ϕ6	8
NTS317	46	28.5	M8	12	32	23	10	4.5	ϕ8	12

型式 Model	本体固定部寸法　Dimensions of Body Fixed Part																				
	F1	F2	F3	F4	F5 径 Diameter	F5 深さ Depth	F6	F7	F8	F9	F10 径 Diameter	F10 深さ Depth	F11	F12 径 Diameter	F12 深さ Depth	F13	F14	F15 径 Diameter	F15 深さ Depth	F16	F17
NTS307	ϕ56	ϕ9.5	ϕ5.5	26.5	M5	9	36	21.45	28	24.25	ϕ4	6	56	M4	7	23	35	ϕ4	4	32.043	55.5
NTS309	ϕ70	ϕ11	ϕ6.6	30.5	M6	11	45	26.8	35	30.3	ϕ5	10	70	M4	7	26.5	43	ϕ5	5	38.538	66.75
NTS311	ϕ90	ϕ11	ϕ6.6	36.5	M6	9	57.9	34.5	45	39	ϕ5	10	90	M4	7	32.5	53	ϕ5	5	47.631	82.5
NTS313	ϕ112	ϕ14	ϕ9	38.5	M8	12	72	42.9	56	48.5	ϕ6	10	112	M5	8	39	65.5	ϕ6	5	58.89	102
NTS317	ϕ146	ϕ14	ϕ9	49.5	M8	12	94	55.9	73	63.2	ϕ6	10	138	M6	10	54	88	ϕ6	5	92	138

型式 Model	空圧供給部寸法　Dimensions of Air Supplying Part											スイッチ取付け部寸法 Dimensions of Switch Attaching Part リードスイッチ Reed Switch		
	P1	P2	P3	P4	P5	P6	P7	P8 (NOK規格)	P9	P10	P11	S1	S2	S3
NTS307	M5	28	19.15	M3	26.3	18.5	32	S4	ϕ3	ϕ6.6	1	3.6	3.2	5.5
NTS309	G1/8	33.65	23.3	M3	31.95	21	39	S4	ϕ3	ϕ6.6	1	3.6	3.2	5.5
NTS311	G1/8	38	30.1	M4	41.35	24	49	S6	ϕ4	ϕ8.3	1	3.6	3.2	5.5
NTS313	G1/8	39.5	38.6	M5	53.1	29	62	S8	ϕ5	ϕ10.3	1	3.6	3.2	5.5
NTS317	G1/8	50	52	M5	71.4	40	81.5	S8	ϕ5	ϕ10.3	1	3.6	3.2	5.5