High-Power Pneumatic Work Support

Model **WNC**

Due to the design number change, environmental durability has been improved.

Variation added : Model WNC-EQ、WNC-M-Q、WNC-M-E

Strong Support Force with Wedge Function

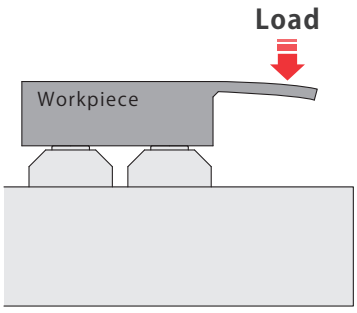
PAT.

Work support prevents chattering and deformation caused by pressing load during workpiece machining.

※ Work Support exerts higher supporting force than that of Auto Backup Pin (model WDC).
For various purposes: To prevent chattering caused by machining load. To prevent dislocation and deformation caused by load during assembly or press fit. To maintain a workpiece position during transfer.

Before

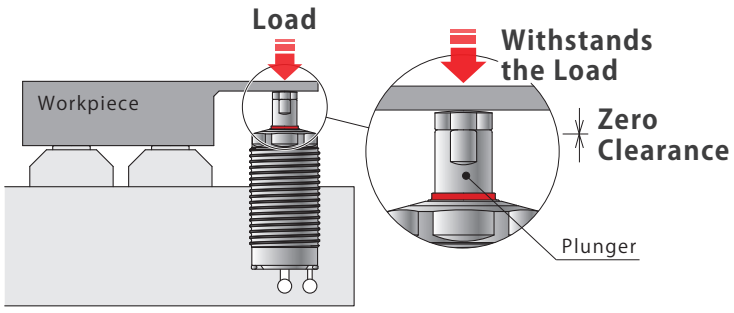
No Work Support



Chattering • Deformation

After

With Work Support

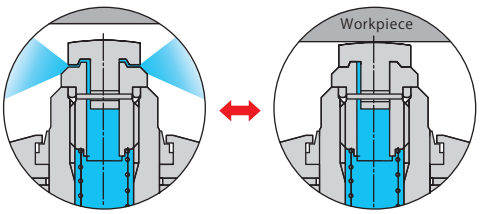


Prevents Chattering • Deformation

The plunger contacts with slight spring force.
Wedge function locks the plunger firmly and holds it.

- **Air Sensing Option**

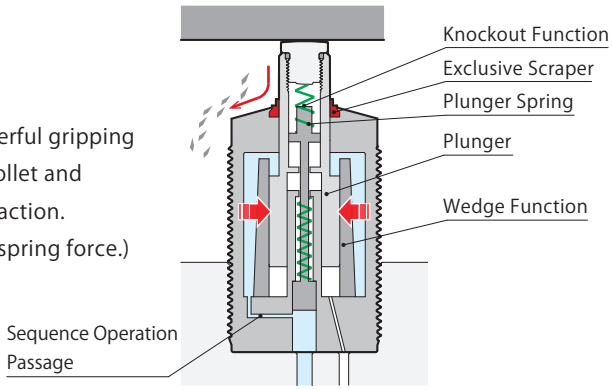
Enables plunger advance action confirmation.
Suitable for automation.



Sensing OPEN (OFF)　　Sensing CLOSE (ON)

Strong Support and Smooth Action

KOSMEK was the first to develop the collet design in 1996.
Compared with the traditional sleeve design, it ensures powerful gripping force via a wedge effect. In addition, a larger gap between collet and plunger is designed to prevent sticking and allow smoother action.
(The load applied to the workpiece is soft with only plunger spring force.)



< Image of Internal Action >

Certain Sequence Action

As it is equipped with a spool type air passage, the action sequences as such ; Plunger goes up → work piece touches → collet locks.
This is carried out via one air circuit system.

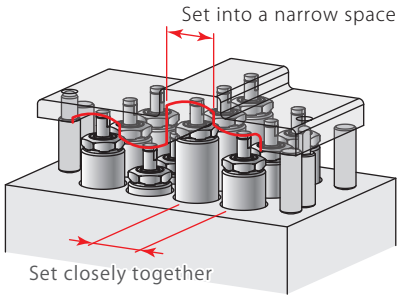
Superior Environmental Durability NEW

The work support can be used in various environments with the exclusive scraper to prevent the accumulation of dust such as cutting chips and the knockout function to release adherence after a long-time machine stop.

The World's Smallest Work Support

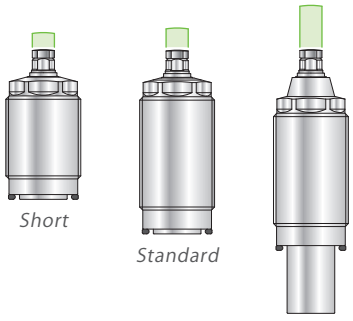
Line-up of 7 Body Sizes (External Thread Part) : M16, M22, M26, M30, M36, M45 and M60. One of the world's smallest M16 size allows multiple units to be arranged in a compact system.

Excellent machining quality with multiple work supports

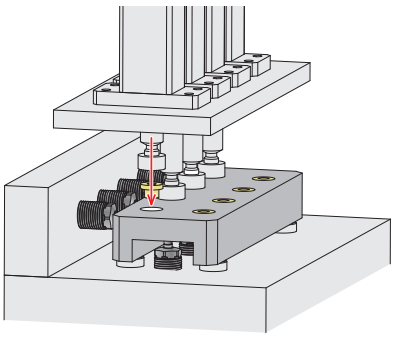


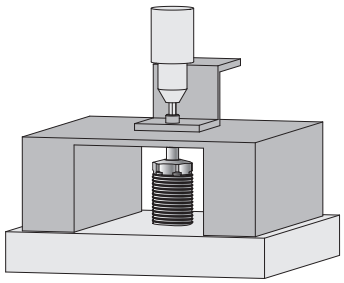
A Wider Variety of Options

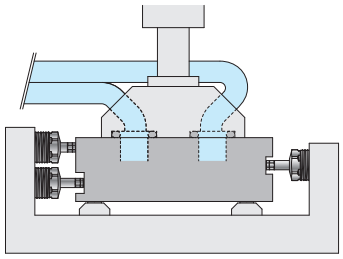
The M22 short model and the M22~M60 long stroke model can be installed in spaces that could not be arranged before, increasing design flexibility.

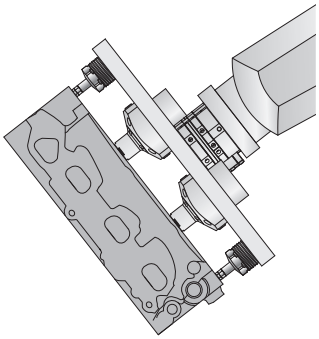


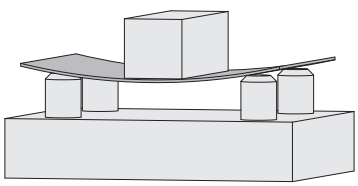
Application Examples

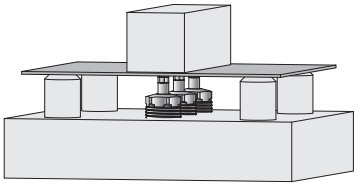

To Support Press Fit Machine


To Support Screw Fastener / Nut Runner


To Prevent Workpiece Misalignment of Leak Testing Device


To Keep Position of Workpiece during Transfer

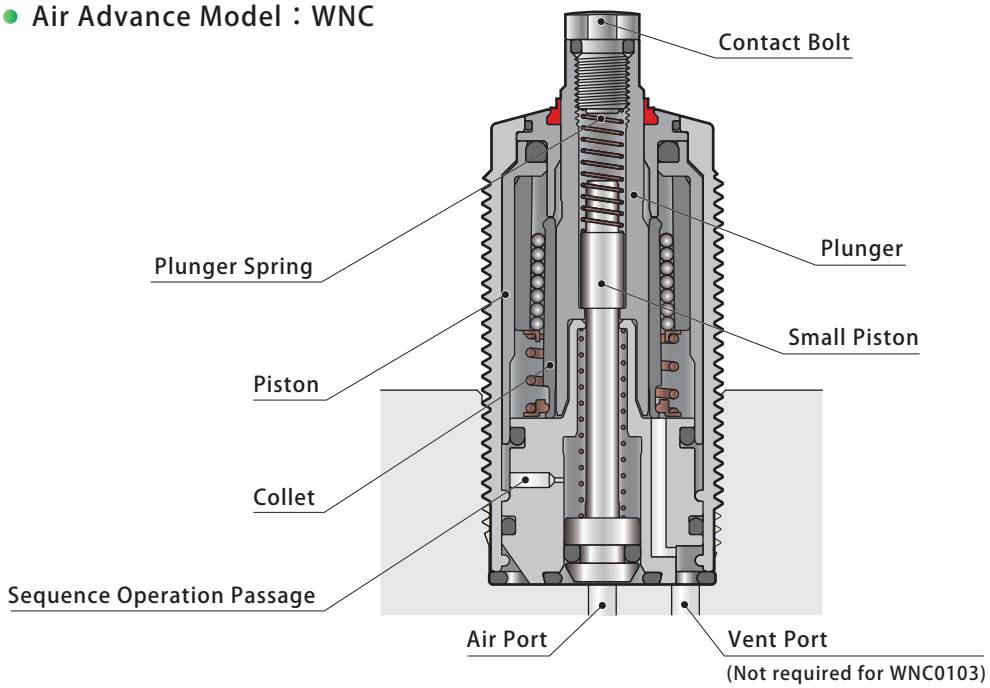

Without Work Support


With Work Support

To Prevent Deformation of Thin Plate Caused by Heavy Load

Cross Section

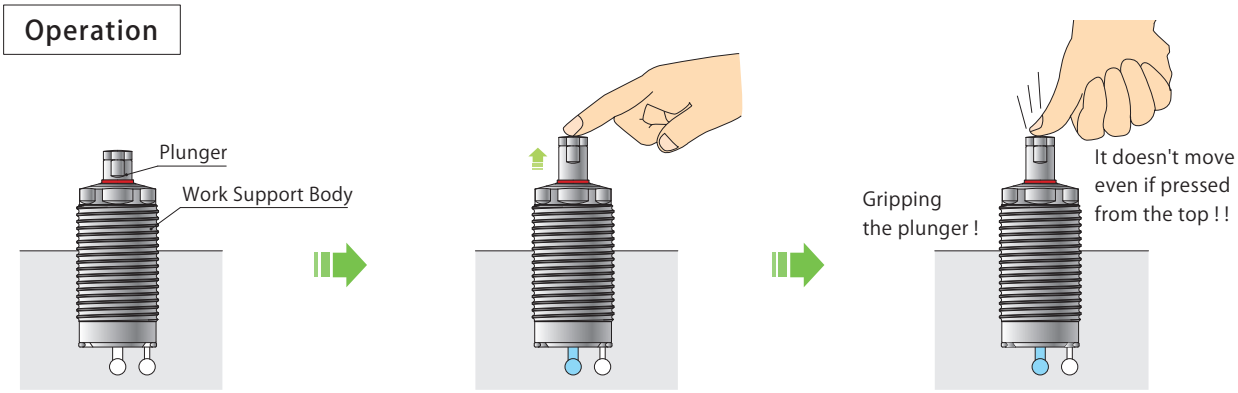
Air Advance Model : WNC



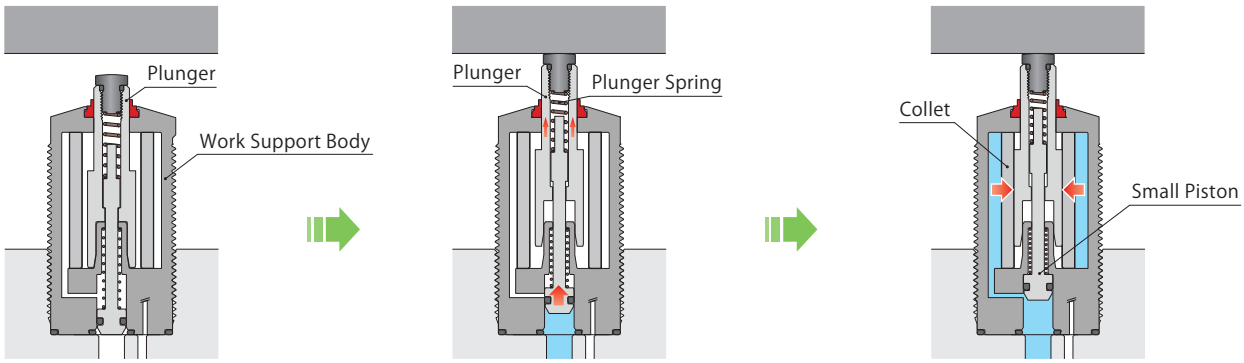
Action Description

Air Advance Model : WNC

Operation



Cross Section ※ Simplified drawing. The actual components are different.

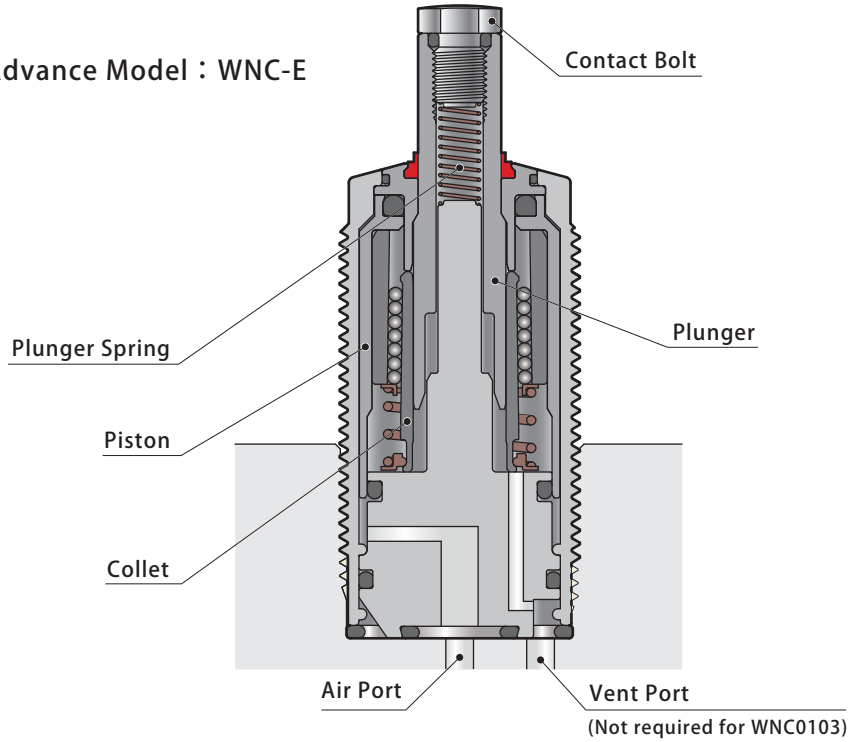


Air Pressure : OFF
The state of plunger down.

Air Pressure : ON (Pressure Rising)
The plunger lifts up with air pressure and stops after touching the workpiece.
※ The load applied to the workpiece is only the plunger spring force.
The workpiece may be lifted up, if the plunger spring force is higher than the workpiece weight.

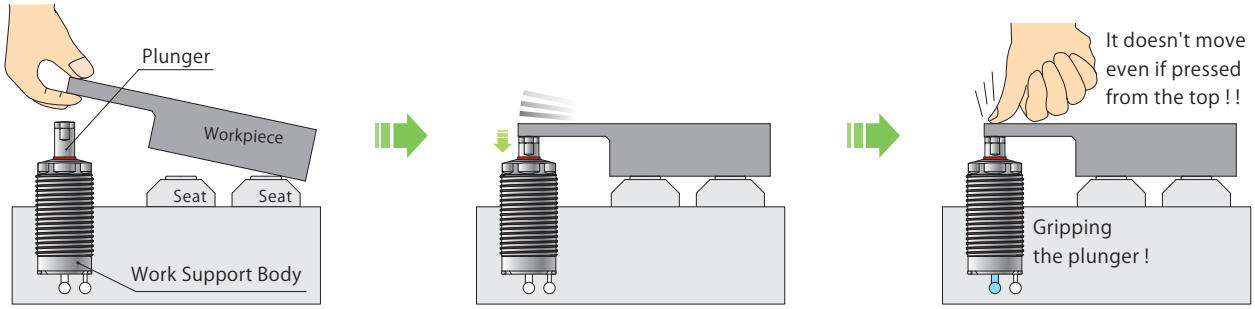
Air Pressure : ON (Pressurization Completed)
When the small piston is fully stroked, the air goes through outside of the collet and the collet grips the plunger.
After gripping, the plunger does not go down even if pressed from above.

● Spring Advance Model : WNC-E



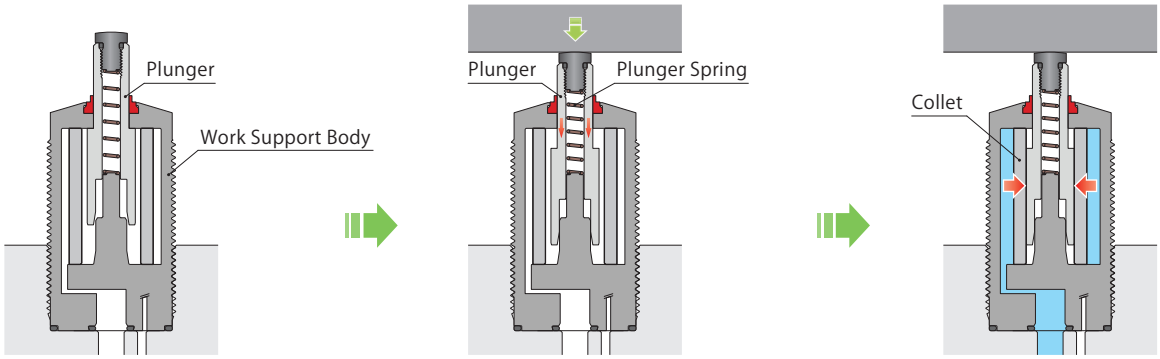
● Spring Advance Model : WNC-E

Operation



Cross Section

※ Simplified drawing. The actual components are different.



Air Pressure : OFF
The state of plunger up.

Air Pressure : OFF
The plunger descends according to the workpiece weight and stops at the seating (Prepared by Customer).
※The load applied to the workpiece is only the plunger spring force.
The workpiece may be lifted up, if the plunger spring force is higher than the workpiece weight.

Air Pressure : ON (Pressurization Completed)
When air pressure rises inside of the main body, the collet grips the plunger with other internal parts. After gripping, the plunger does not go down even if pressed from above.

Model No. Indication

WNC 060 3 - L □ - E

1 2 3 4 5

1 Support Force

010：Support Force 0.12 kN (Supply Air Pressure 0.5MPa)
035：Support Force 0.34 kN (Supply Air Pressure 0.5MPa) (WNC0353-□-S：Support Force 0.08kN)
060：Support Force 0.6 kN (Supply Air Pressure 0.5MPa)
100：Support Force 1.0 kN (Supply Air Pressure 0.5MPa)
160：Support Force 1.5 kN (Supply Air Pressure 0.5MPa)
300：Support Force 3.0 kN (Supply Air Pressure 0.5MPa)
600：Support Force 5.7 kN (Supply Air Pressure 0.5MPa)

2 Design No.

3 ：Revision Number

3 Plunger Spring Force

L ：Low Spring Force
H ：High Spring Force
Blank：When selecting 5 Option **Q**.

4 Plunger Action Confirmation

Blank ：No Action Confirmation (Standard)
M ：Air Sensing Option※1

5 Options

Blank ：Air Advance Model (Standard)
S ：Air Advance Short Model
Q ：Air Advance Long Stroke Model
E ：Spring Advance Model
ES ：Spring Advance Short Model
EQ ：Spring Advance Long Stroke Model※1

● = Available Option

4 Plunger Action Confirmation Symbol / 5 Option Symbol	M16×1.0 WNC 0103	M22×1.5 WNC 0353	M26×1.5 WNC 0603	M30×1.5 WNC 1003	M36×1.5 WNC 1603	M45×1.5 WNC 3003	M60×2 WNC 6003
Blank	●	●	●	●	●	●	●
S		●					
Q		●	●	●	●	●	●
E	●	●	●	●	●	●	●
ES		●					
EQ		●	●	●	●	●	●
M			●	●	●	●	●
M-Q			●	●	●	●	●
M-E			●	●	●	●	●

Notes :
※1. Please contact us for a combination of 4 Air Sensing Option and 5 Spring Advance Long Stroke Model.

Specifications

Option 5 Blank / E

Model No.		WNC0103-□ WNC0103-□-E	WNC0353-□ WNC0353-□-E	WNC0603-□ WNC0603-□M WNC0603-□-E WNC0603-□M-E	WNC1003-□ WNC1003-□M WNC1003-□-E WNC1003-□M-E	WNC1603-□ WNC1603-□M WNC1603-□-E WNC1603-□M-E	WNC3003-□ WNC3003-□M WNC3003-□-E WNC3003-□M-E	WNC6003-□ WNC6003-□M WNC6003-□-E WNC6003-□M-E
Support Force (at 0.5MPa) kN	4 Blank	0.12	0.34	0.6	1.0	1.5	3.0	5.7
	4 M	–		0.4	0.7	1.0	2.1	4.1
Support Force (Calculation Formula) ※2	4 Blank	0.522×P−0.141	1.26×P−0.29	2.00×P−0.40	3.33×P−0.67	5.00×P−1.00	9.09×P−1.55	16.29×P−2.44
	4 M	–		2.00×P−0.60	3.33×P−1.00	5.00×P−1.50	9.09×P−2.45	16.29×P−4.07
Plunger Stroke mm		5.0	6.5	6.5	6.5	8.0	8.0	10
Effective Stroke	5 Blank	4.7	6.0	6.0	6.0	7.5	7.5	9.5
Cylinder Capacity cm³	5 Blank	0.44	0.9	1.5	2.2	3.5	6.6	12.2
	5 E	0.29	0.6	1.0	1.7	2.9	5.7	11.1
Plunger Spring Force※3 N	L :Low Spring	1.2～1.7	1.3～2.5	1.8～2.9	2.1～2.9	2.3～2.9	3.6～4.3	6.4～7.5
	H :High Spring	1.5～2.4	1.5～3.5	2.1～4.3	3.0～4.4	3.2～4.4	4.9～6.1	8.7～10.4
Max. Operating Pressure MPa		0.7						
Min. Operating Pressure MPa	4 Blank	0.3	0.25					
	4 M	–		0.35				
Withstanding Pressure MPa		1.0						
Operating Temperature ℃		0～70						
Usable Fluid		Dry Air						
Weight kg		0.04	0.10	0.15	0.25	0.40	0.70	1.3

Option 5 S / ES

Model No.		WNC0353-□-S WNC0353-□-ES
Support Force (at 0.5MPa) kN		0.08
Support Force (Calculation Formula) ※2 kN		0.57×P−0.21
Plunger Stroke mm		5.0
Effective Stroke	5 S	4.7
Cylinder	5 S	0.5
Capacity cm³	5 ES	0.2
Plunger Spring Force※3 N	L :Low Spring	1.0～2.4
	H :High Spring	1.2～3.5
Max. Operating Pressure MPa		0.7
Min. Operating Pressure MPa		0.4
Withstanding Pressure MPa		1.0
Operating Temperature ℃		0～70
Usable Fluid		Dry Air
Weight kg		0.07

Option 5 Q / EQ

Model No.		WNC0353-Q WNC0353-EQ	WNC0603-Q WNC0603-M-Q WNC0603-EQ	WNC1003-Q WNC1003-M-Q WNC1003-EQ	WNC1603-Q WNC1603-M-Q WNC1603-EQ	WNC3003-Q WNC3003-M-Q WNC3003-EQ	WNC6003-Q WNC6003-M-Q WNC6003-EQ
Support Force (at 0.5MPa) kN	4 Blank	0.34	0.6	1.0	1.5	3.0	5.7
	4 M	–	0.4	0.7	1.0	2.1	4.1
Support Force (Calculation Formula) ※2 kN	4 Blank	1.26×P−0.29	2.00×P−0.40	3.33×P−0.67	5.00×P−1.00	9.09×P−1.55	16.29×P−2.44
	4 M	–	2.00×P−0.60	3.33×P−1.00	5.00×P−1.50	9.09×P−2.45	16.29×P−4.07
Plunger Stroke mm		13	13	13	16	16	20
Effective Stroke	5 Q	12.5	12.5	12.5	15.5	15.5	19.5
Cylinder	5 Q	1.1	1.8	2.5	3.9	7.2	13.0
Capacity cm³	5 EQ	0.6	1.0	1.7	2.9	5.7	11.1
Plunger Spring Force※3 N		1.5～3.8	2.1～4.9	3.1～5.1	3.1～5.5	4.8～6.6	8.7～12.5
Max. Operating Pressure MPa		0.7					
Min. Operating Pressure MPa	4 Blank	0.25					
	4 M	–	0.35				
Withstanding Pressure MPa		1.0					
Operating Temperature ℃		0～70					
Usable Fluid		Dry Air					
Weight kg	5 Q	0.12	0.17	0.30	0.45	0.75	1.4
	5 EQ	0.10	0.15	0.25	0.40	0.70	1.3

Notes： ※2. P：Supply Air Pressure (MPa).
In case of 4 M：Air sensing option, supply air pressure to an air catch sensor is 0.1MPa (Refer to P.799).
※3. The plunger spring force indicates the spring design value. It may vary depending on sliding resistance of the plunger and characteristic of the spring, etc. Please read it as a reference value of workpiece contact force.
For the workpiece contact force of 4 M：Air sensing option, refer to the air sensing option on P.799.

Performance Curve (WNC-□ : Air Advance Model / WNC-□-E : Spring Advance Model)

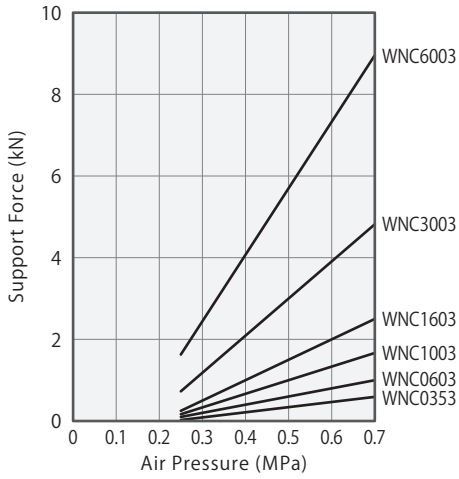
Applicable Model No.

WNC 060 3 - L H - Blank E

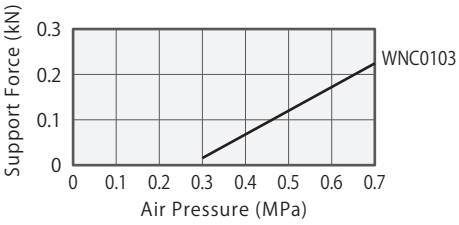
5 Option : Blank / E

1 Support Force

Support Force Graph ※ This graph shows the support force under static load condition.



	Support Force (kN)					
Model No.	WNC0353-□	WNC0603-□	WNC1003-□	WNC1603-□	WNC3003-□	WNC6003-□
Supply Air Pressure(MPa)	WNC0353-□-E	WNC0603-□-E	WNC1003-□-E	WNC1603-□-E	WNC3003-□-E	WNC6003-□-E
0.7	0.59	1.0	1.7	2.5	4.8	9.0
0.6	0.47	0.8	1.3	2.0	3.9	7.3
0.5	0.34	0.6	1.0	1.5	3.0	5.7
0.4	0.21	0.4	0.7	1.0	2.1	4.1
0.3	0.09	0.2	0.3	0.5	1.2	2.4
0.25	0.03	0.1	0.2	0.3	0.7	1.6
Support Force Formula※1 kN	1.26×P-0.29	2.00×P-0.40	3.33×P-0.67	5.00×P-1.00	9.09×P-1.55	16.29×P-2.44



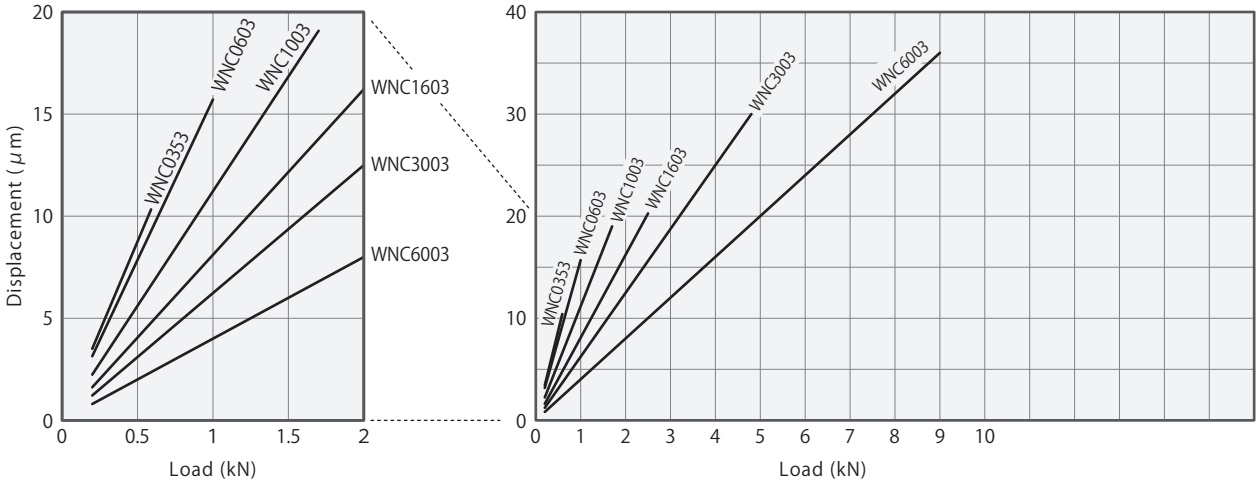
	Support Force (kN)
Model No.	WNC0103-□
Supply Air Pressure(MPa)	WNC0103-□-E
0.7	0.22
0.6	0.17
0.5	0.12
0.4	0.07
0.3	0.02
Support Force Formula※1 kN	0.522×P−0.141

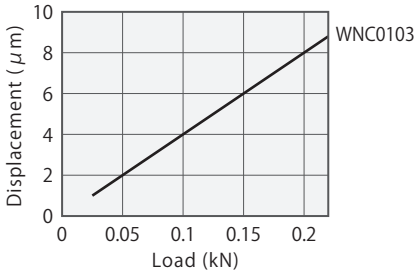
Note :

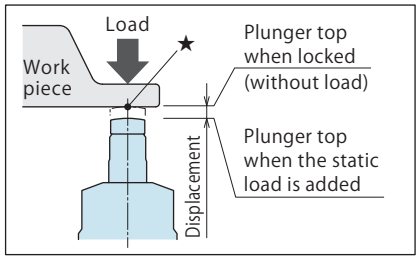
※1. P : Supply Air Pressure (MPa)

Load / Displacement Graph

※ This graph shows the static load-displacement of a single work support at supply air pressure 0.7MPa.
(Not including the displacement of the workpiece side due to unevenness at ★ mark and surrounding clamps.)







Performance Curve (WNC-□-S : Air Advance Short Model / WNC-□-ES : Spring Advance Short Model)

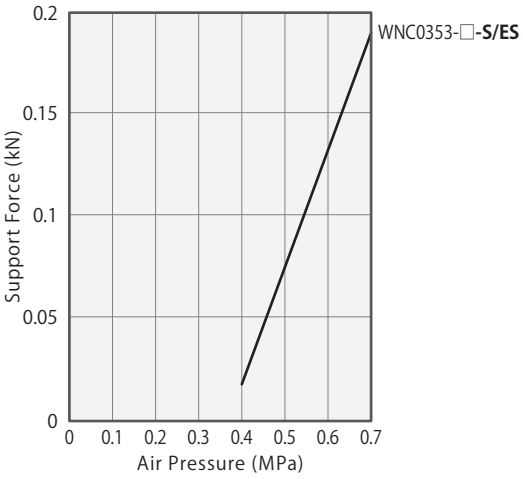
Applicable Model No.

WNC 060 3 - L H - S ES

1 Support Force

5 Option : S / ES

Support Force Graph ※ This graph shows the support force under static load condition.

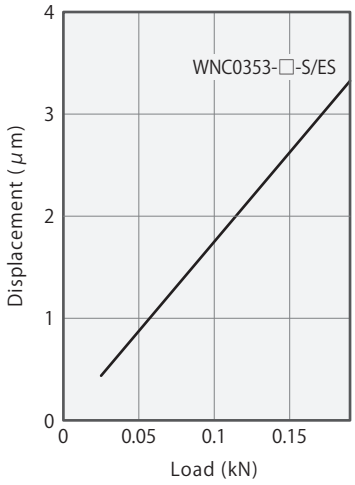


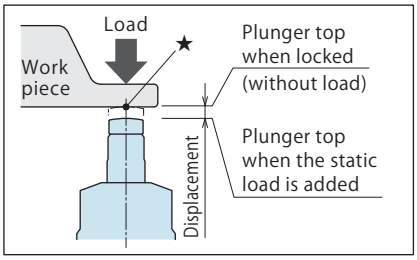
Model No. / Supply Air Pressure(MPa)	Support Force (kN) WNC0353-□-S / WNC0353-□-ES
0.7	0.19
0.6	0.13
0.5	0.08
0.4	0.02
Support Force Formula※1 kN	0.57×P-0.21

Note : ※1. P : Supply Air Pressure (MPa)

Load / Displacement Graph

※ This graph shows the static load-displacement of a single work support at supply air pressure 0.7MPa.
(Not including the displacement of the workpiece side due to unevenness at ★ mark and surrounding clamps.)





Performance Curve (WNC-Q : Air Advance Long Stroke Model)

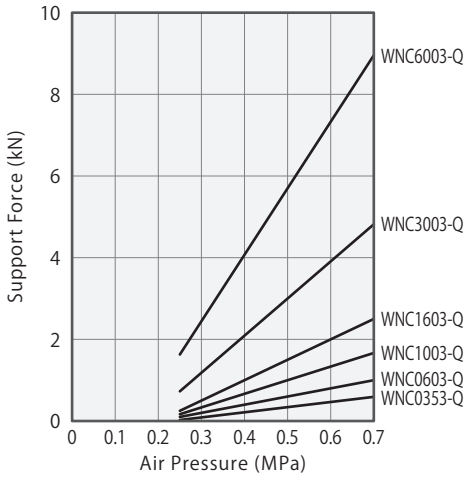
Applicable Model No.

WNC 060 3 - Q

5 Option : Q

1 Support Force

Support Force Graph ※ This graph shows the support force under static load condition.

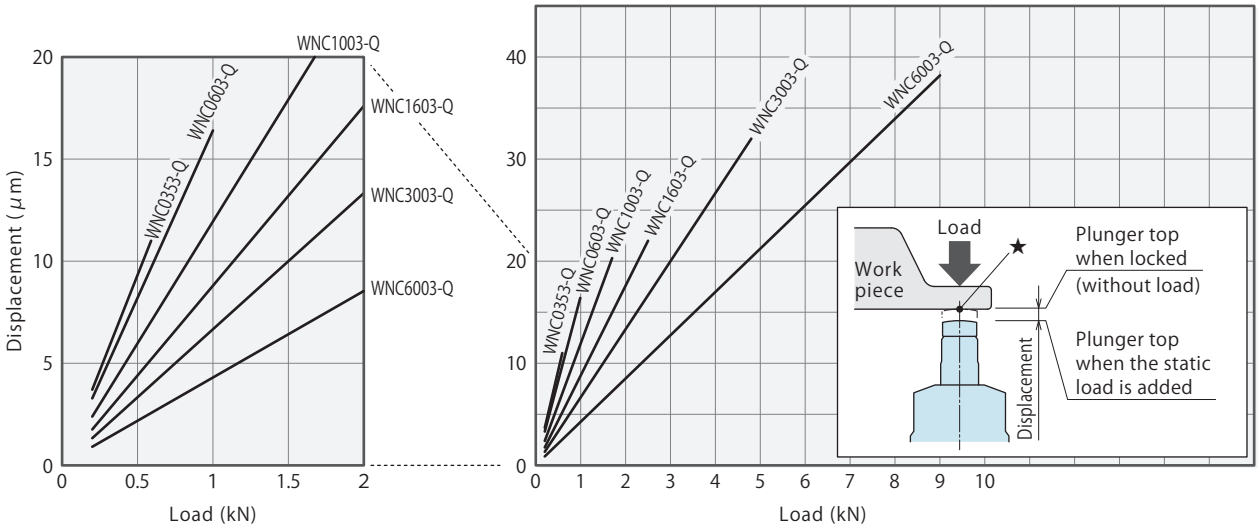


Model No. / Supply Air Pressure(MPa)	Support Force (kN)					
	WNC0353-Q	WNC0603-Q	WNC1003-Q	WNC1603-Q	WNC3003-Q	WNC6003-Q
0.7	0.59	1.0	1.7	2.5	4.8	9.0
0.6	0.47	0.8	1.3	2.0	3.9	7.3
0.5	0.34	0.6	1.0	1.5	3.0	5.7
0.4	0.21	0.4	0.7	1.0	2.1	4.1
0.3	0.09	0.2	0.3	0.5	1.2	2.4
0.25	0.03	0.1	0.2	0.3	0.7	1.6
Support Force Formula※1 kN	1.26×P-0.29	2.00×P-0.40	3.33×P-0.67	5.00×P-1.00	9.09×P-1.55	16.29×P-2.44

Note : ※1. P : Supply Air Pressure (MPa)

Load / Displacement Graph

※ This graph shows the static load-displacement of a single work support at supply air pressure 0.7MPa.
(Not including the displacement of the workpiece side due to unevenness at ★ mark and surrounding clamps.)



※ The displacement of WNC-Q : long stoke model becomes larger than WNC-□ / WNC-□-E : standard model.
※ Please contact us in case of WNC-M-Q.

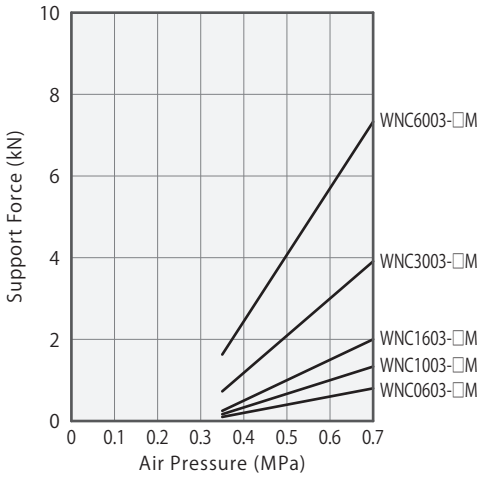
Performance Curve (WNC-□M : Air Advance Air Sensing Model)

Applicable Model No.

WNC 060 3 - L/H M - Blank

1 Support Force
4 Plunger Action Confirmation : M
5 Option : Blank

Support Force Graph ※ This graph shows the support force under static load condition.

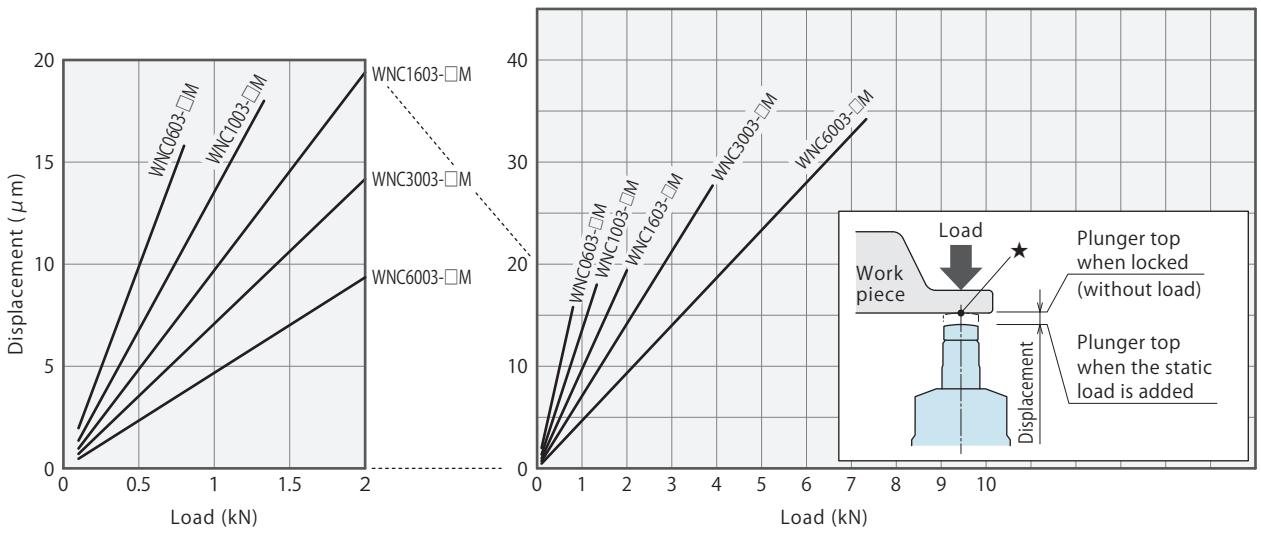


Model No. / Supply Air Pressure(MPa)	Support Force (kN) ※2 WNC0603-□M	WNC1003-□M	WNC1603-□M	WNC3003-□M	WNC6003-□M
0.7	0.80	1.33	2.00	3.91	7.33
0.6	0.60	1.00	1.50	3.00	5.70
0.5	0.40	0.67	1.00	2.09	4.07
0.4	0.20	0.33	0.50	1.18	2.44
0.35	0.10	0.17	0.25	0.73	1.63
Support Force Formula※1 kN	2.00×P-0.60	3.33×P-1.00	5.00×P-1.50	9.09×P-2.45	16.29×P-4.07

Note : ※1. P : Supply Air Pressure (MPa)
※2. Supply air pressure to an air catch sensor is 0.1MPa (Refer to P.799).

Load / Displacement Graph

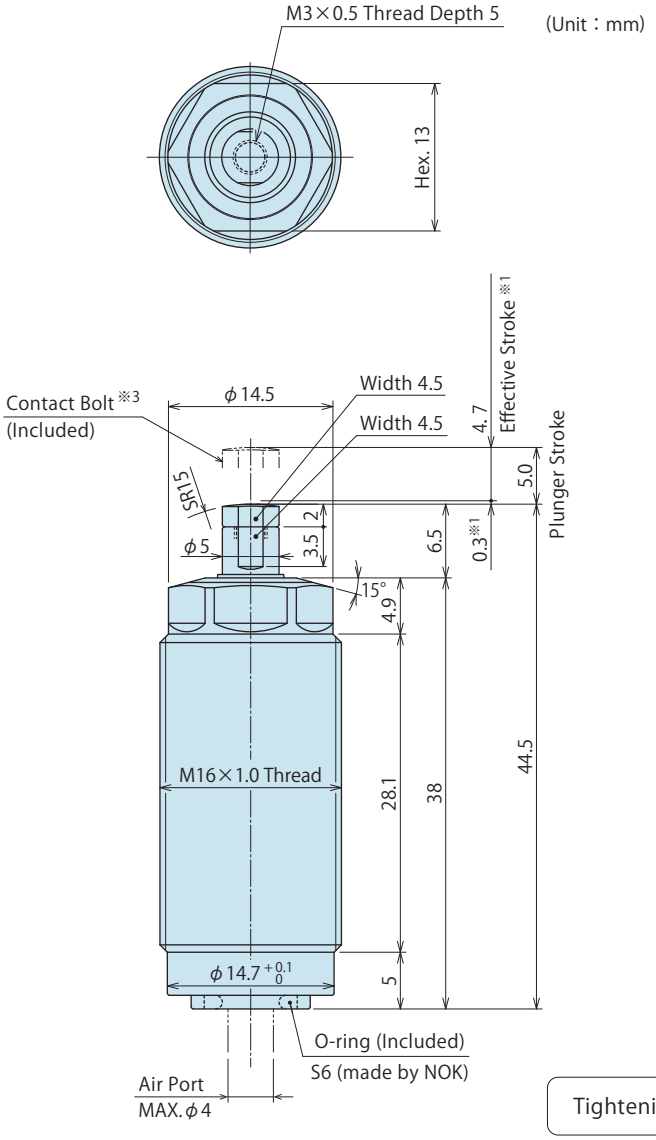
※ This graph shows the static load-displacement of a single work support at supply air pressure 0.7MPa.
(Not including the displacement of the workpiece side due to unevenness at ★ mark and surrounding clamps.)



※ The displacement of WNC-□M : air sensing option becomes larger than WNC-□ : standard model.
※ Please contact us in case of WNC-M-Q.

External Dimensions (WNC0103-□)

※ This drawing shows the released state of WNC0103-□ (before the plunger is lifted).



Tightening Torque for Main Body of WNC0103-□※2 ：5 N・m

Notes :

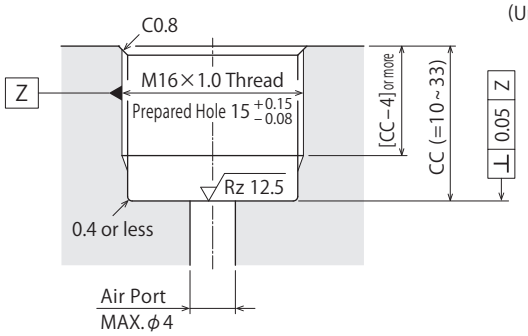
※1. When the work support touches a workpiece within 0.3mm stroke from the plunger retract-end, a larger force than the plunger spring force will be applied to the workpiece. Please use the work support within the effective stroke range.

※2. Tightening torque of WNC0103 should be 5N・m.
Excessive tightening torque causes deformation of the product resulting in malfunction.
Insufficient tightening torque causes looseness of the product resulting in air leakage.

※3. Refer to the contact bolt design dimensions on P.801 in case a contact bolt (attachment) is designed and manufactured by a customer.

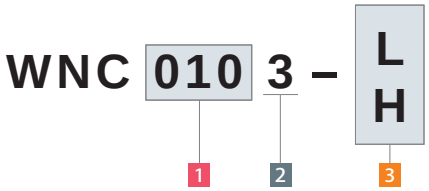
Machining Dimensions of Mounting Area (WNC0103-□)

(Unit：mm)



A vent port is not required for WNC0103.

Model No. Indication



(Format Example：WNC0103-L, WNC0103-H)

1 Support Force

2 Design No.

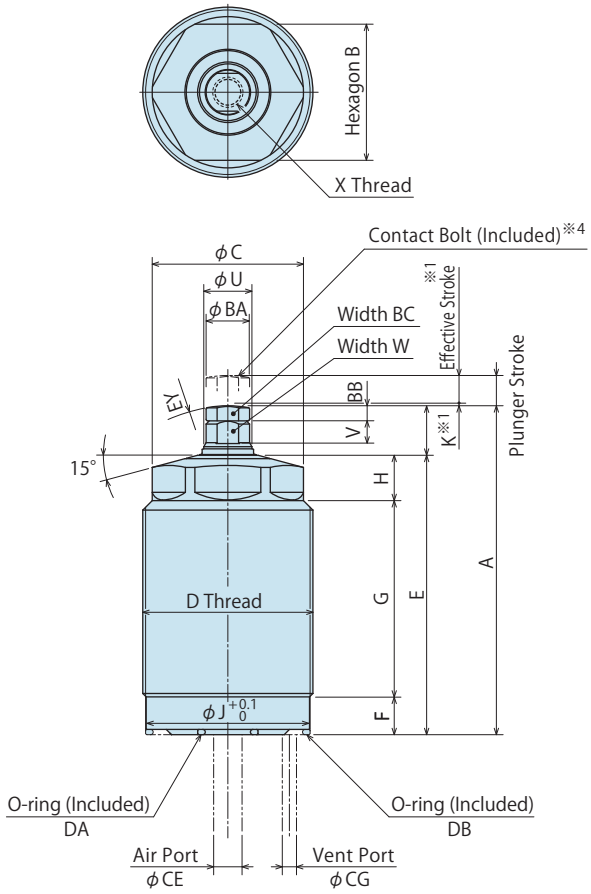
3 Plunger Spring Force

5 Options (In case of Blank)
Blank：Air Advance Standard Model

Please refer to P.789 ~ P.790 for external dimensions of WNC0353 and larger models.

External Dimensions

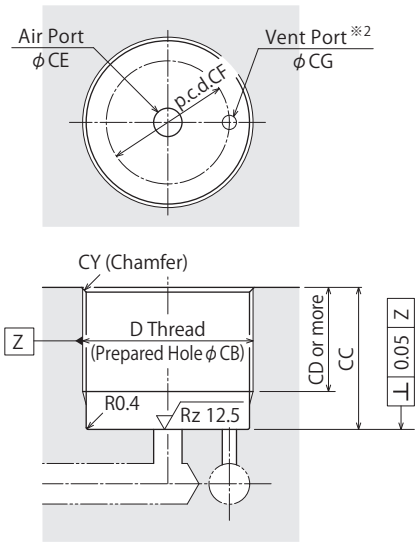
※ This drawing shows the released state of WNC0353-□, WNC0603-□, WNC1003-□, WNC1603-□, WNC3003-□ (before the plunger is lifted).



Note :

※1. When the work support touches a workpiece within short stroke range, K(mm) from the plunger retract-end, a force which is larger than the plunger spring force will be applied to the workpiece. Please use the work support within the effective stroke range.

Machining Dimensions of Mounting Area

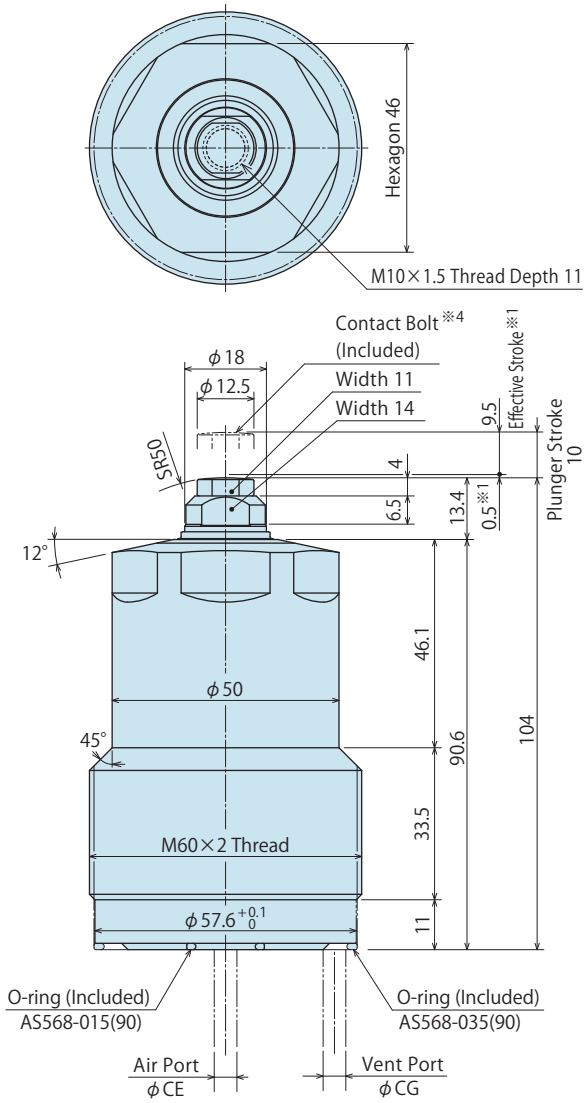


Note :

※2. The vent port needs to be machined in an open air environment without the presence of coolant and etc. to avoid any internal contamination. (Refer to P.803 : Appropriate Measures for the Air Vent Hole.)

External Dimensions (WNC6003-□)

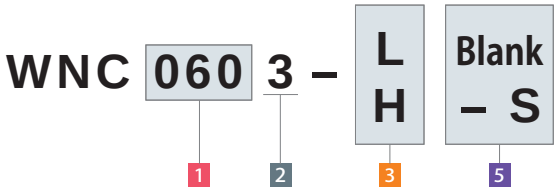
※This drawing shows the released state of WNC6003-□ (before the plunger is lifted).



Note :

※1. When the work support touches a workpiece within short stroke range, 0.5 mm from the plunger retract-end, a force which is larger than the plunger spring force will be applied to the workpiece. Please use the work support within the effective stroke range.

Model No. Indication



(Format Example：WNC0353-L-S, WNC1003-H)

1 Support Force
2 Design No.
3 Plunger Spring Force
5 Options (In case of Blank/S)
Blank：Air Advance Standard Model
S：Air Advance Short Model

Please refer to P.787 ~ P.788 for external dimensions of WNC0103.

External Dimensions and Machining Dimensions for Mounting

(mm)

Model No.	WNC0353-□	WNC0353-□-S (Short Model)	WNC0603-□	WNC1003-□	WNC1603-□	WNC3003-□	WNC6003-□
Plunger Stroke	6.5	5.0	6.5	6.5	8.0	8.0	10
Effective Stroke	6.0	4.7	6.0	6.0	7.5	7.5	9.5
A	54	44	62	69	73	87	-
B	18		22	24	30	36	-
C	20		24	27	33	40	-
D (Nominal × Pitch)	M22×1.5		M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
E	46	36.1	51.6	58.6	62.8	74.1	-
F	7	6	8	10	10	10	-
G	33.3	24.4	36.9	40.4	43.1	51.9	-
H	5.7	5.7	6.7	8.2	9.7	12.2	-
J	20.2		24.2	28.2	34.2	43.2	-
K	0.5	0.3	0.5	0.5	0.5	0.5	-
T	8	7.9	10.4	10.4	10.2	12.9	-
U	7		9	9	10	12	-
V	3.5		5	5	5	6	-
W	5.5		8	8	8	10	-
X (Nominal × Pitch × Depth)	M4×0.7×7		M6×1×9	M6×1×9	M6×1×9	M8×1.25×12	-
BA	6.5		9	9	9	11.5	-
BB	2.5		3	3	3	4	-
BC	5.5		8	8	8	10	-
CB	$20.5^{+0.17}_{-0.12}$		$24.5^{+0.17}_{-0.12}$	$28.5^{+0.17}_{-0.12}$	$34.5^{+0.17}_{-0.12}$	$43.5^{+0.17}_{-0.12}$	$58^{+0.21}_{-0.17}$
CC	14 ~ 37	14 ~ 30	16 ~ 43	17 ~ 48	18 ~ 52	21 ~ 61	25 ~ 77
CD	CC-6	CC-5	CC-7	CC-9	CC-9	CC-9	CC-10
CE	max. 2.5		max. 3	max. 3	max. 3	max. 5	max. 5
CF	P.C.D. 15		P.C.D. 18	P.C.D. 22	P.C.D. 26	P.C.D. 30	P.C.D. 48
CG	max. 2.5		max. 3	max. 3	max. 3	max. 5	max. 5
CY (Chamfer)	C1		C1	C1	C1	C1	C1.5
DA	AS568-011(90)		AS568-012(90)	AS568-012(90)	AS568-012(90)	AS568-014(90)	-
DB	AS568-017(90)		AS568-020(90)	AS568-022(90)	AS568-026(90)	AS568-030(90)	-
EY	SR20		SR30	SR30	SR30	SR30	-
Tightening Torque for Main Body ※3 N·m	10		16	25	40	63	80

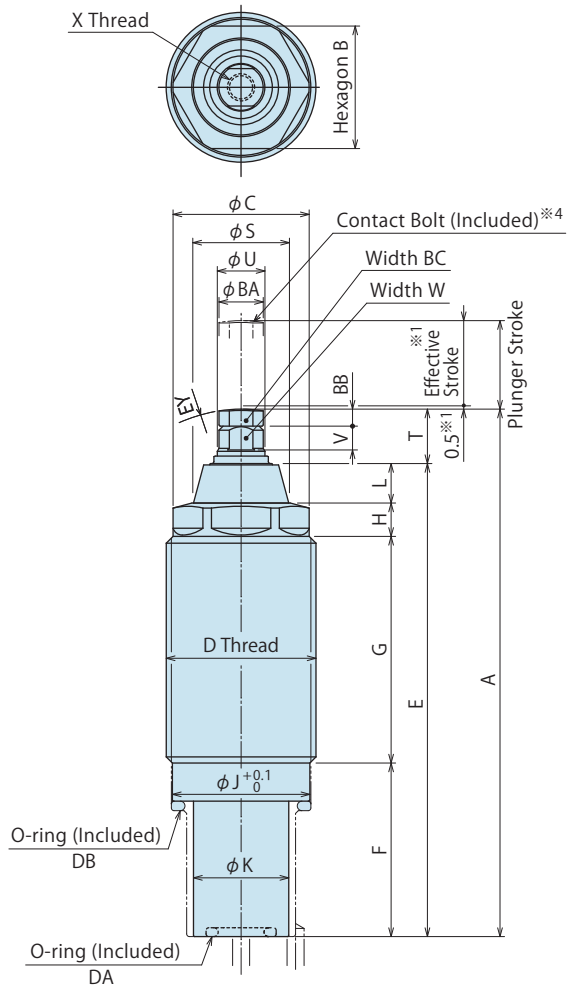
Notes：

※3. Please follow the tightening torque in the list when mounting Work Support.
Excessive tightening torque causes deformation of the product resulting in malfunction.
Insufficient tightening torque causes looseness of the product resulting in air leakage.

※4. Refer to the contact bolt design dimensions on P.801 in case a contact bolt (attachment) is designed and manufactured by a customer.

External Dimensions

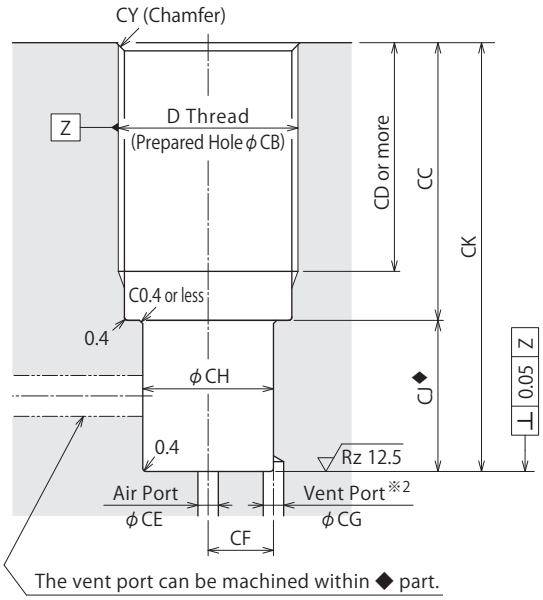
※ This drawing shows the released state of WNC0353-Q, WNC0603-Q, WNC1003-Q, WNC1603-Q, WNC3003-Q (before the plunger is lifted).



Note :

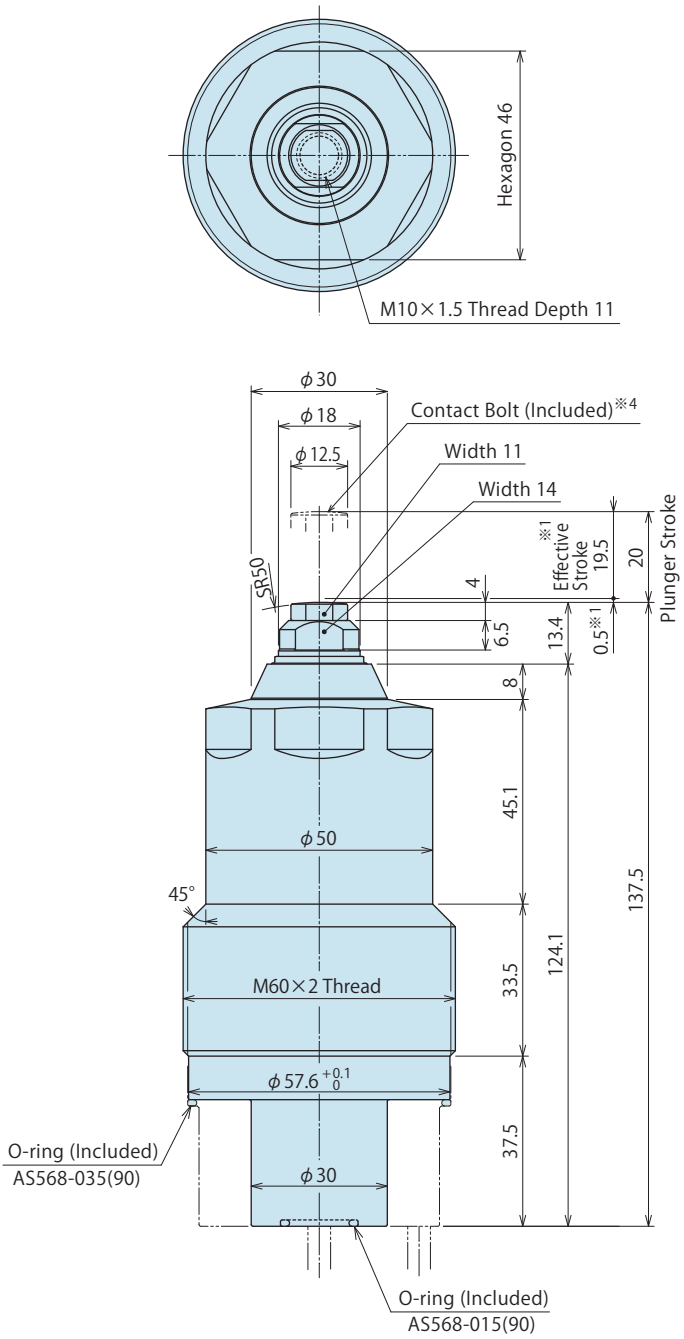
※1. When the work support touches a workpiece within short stroke range, 0.5 mm from the plunger retract-end, a force which is larger than the plunger spring force will be applied to the workpiece. Please use the work support within the effective stroke range.

Machining Dimensions of Mounting Area



External Dimensions (WNC6003-Q)

※This drawing shows the released state of WNC6003-Q (before the plunger is lifted).



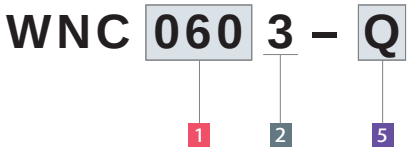
Note :

※1. When the work support touches a workpiece within short stroke range, 0.5 mm from the plunger retract-end, a force which is larger than the plunger spring force will be applied to the workpiece. Please use the work support within the effective stroke range.

Note：

※2. The vent port needs to be machined in an open air environment without the presence of coolant, etc. to avoid any internal contamination. (Refer to P.803：Appropriate Measures for the Air Vent Hole.)

Model No. Indication



(Format Example：WNC1003-Q)

1 Support Force

2 Design No.

5 Options (In case of Q)
Q：Air Advance Long Stroke Model

External Dimensions and Machining Dimensions for Mounting

(mm)

Model No.	WNC0353-Q	WNC0603-Q	WNC1003-Q	WNC1603-Q	WNC3003-Q	WNC6003-Q
Plunger Stroke	13	13	13	16	16	20
Effective Stroke	12.5	12.5	12.5	15.5	15.5	19.5
A	77.5	84	91	99	113.5	-
B	18	22	24	30	36	-
C	20	24	27	33	40	-
D (Nominal × Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
E	69.5	73.6	80.6	88.8	100.6	-
F	25.5	26.5	28.5	31.5	31.5	-
G	33.3	36.9	40.4	43.1	51.9	-
H	4.9	5.8	7.3	8.5	11.1	-
J	20.2	24.2	28.2	34.2	43.2	-
K	14	16	20	20	22	-
L	5.8	4.4	4.4	5.7	6.1	-
S	14	16.8	16.8	20	22	-
T	8	10.4	10.4	10.2	12.9	-
U	7	9	9	10	12	-
V	3.5	5	5	5	6	-
W	5.5	8	8	8	10	-
X (Nominal×Pitch×Depth)	M4×0.7×7	M6×1×9	M6×1×9	M6×1×9	M8×1.25×12	-
BA	6.5	9	9	9	11.5	-
BB	2.5	3	3	3	4	-
BC	5.5	8	8	8	10	-
CB	$20.5^{+0.17}_{-0.12}$	$24.5^{+0.17}_{-0.12}$	$28.5^{+0.17}_{-0.12}$	$34.5^{+0.17}_{-0.12}$	$43.5^{+0.17}_{-0.12}$	$58^{+0.21}_{-0.17}$
CC	14 ~ 37	16 ~ 43	17 ~ 48	18 ~ 52	21 ~ 61	25 ~ 77
CD	CC−6	CC−7	CC−9	CC−9	CC−9	CC−10
CE	max. 2.5	max. 3	max. 3	max. 3	max. 5	max. 5
CF	8	10	12	13	15	22
CG	max. 2.5	max. 3	max. 3	max. 3	max. 5	max. 5
CH	16	20	24	30	39	53
CJ	18.5	18.5	18.5	21.5	21.5	26.5
CK	CC+18.5	CC+18.5	CC+18.5	CC+21.5	CC+21.5	CC+26.5
CY (Chamfer)	C1	C1	C1	C1	C1	C1.5
DA	AS568-011(90)	AS568-012(90)	AS568-012(90)	AS568-012(90)	AS568-014(90)	-
DB	AS568-017(90)	AS568-020(90)	AS568-022(90)	AS568-026(90)	AS568-030(90)	-
EY	SR20	SR30	SR30	SR30	SR30	-
Tightening Torque for Main Body※3 N·m	10	16	25	40	63	80

Notes：

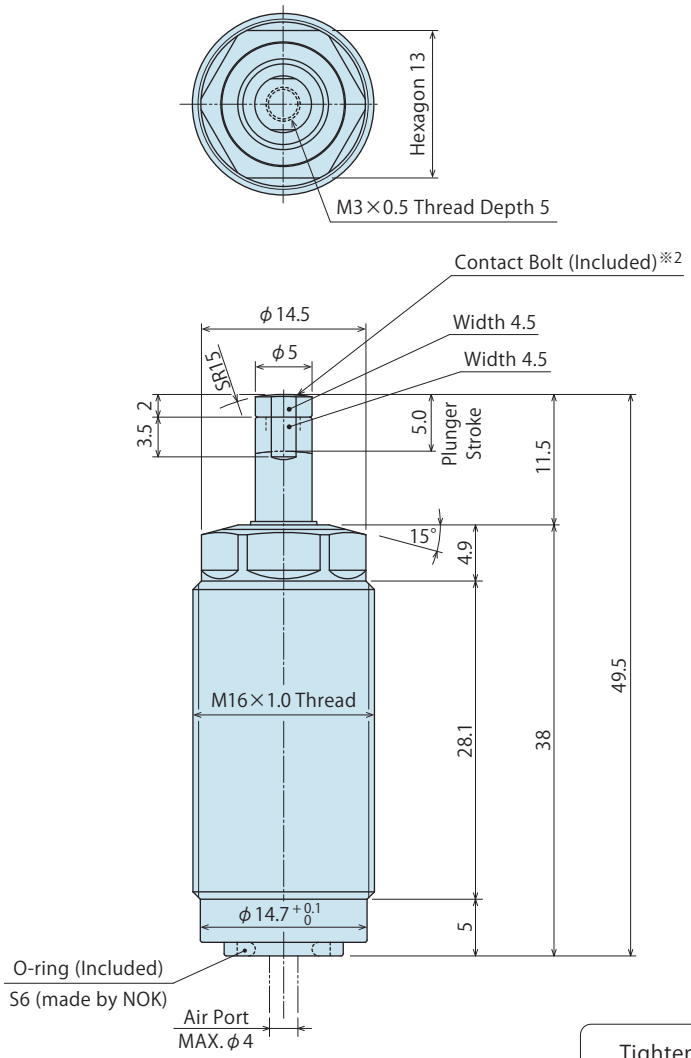
※3. Please follow the tightening torque in the list when mounting Work Support.
Excessive tightening torque causes deformation of the product resulting in malfunction.
Insufficient tightening torque causes looseness of the product resulting in air leakage.

※4. Refer to the contact bolt design dimensions on P.801 in case a contact bolt (attachment) is designed and manufactured by a customer.

External Dimensions (WNC0103-□-E)

※ This drawing shows the released state of WNC0103-□-E (before the plunger is lifted).

(Unit：mm)



Tightening Torque for Main Body of WNC0103※1 ：5 N・m

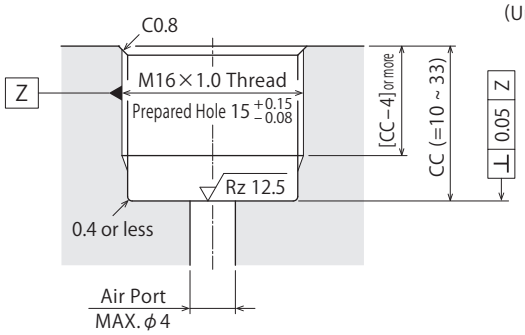
Notes :

※1. Tightening torque of WNC0103 should be 5N・m.
Excessive tightening torque causes deformation of the product resulting in malfunction.
Insufficient tightening torque causes looseness of the product resulting in air leakage.

※2. Refer to the contact bolt design dimensions on P.801 in case a contact bolt (attachment) is designed and manufactured by a customer.

Machining Dimensions of Mounting Area (WNC0103-□-E)

(Unit：mm)



A vent port is not required for WNC0103.

Model No. Indication

(Format Example：WNC0103-L-E, WNC0103-H-E)

WNC 010 3 – L H – E

1 Support Force

2 Design No.

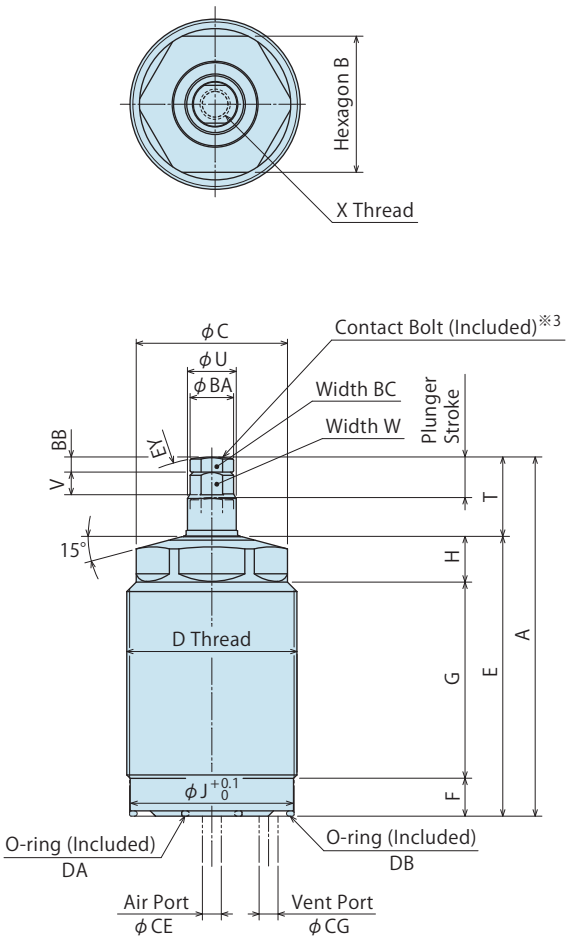
3 Plunger Spring Force

5 Options (In case of E)
E：Spring Advance Model

Please refer to P.795 ~ P.796 for external dimensions of WNC0353-□-E and larger models.

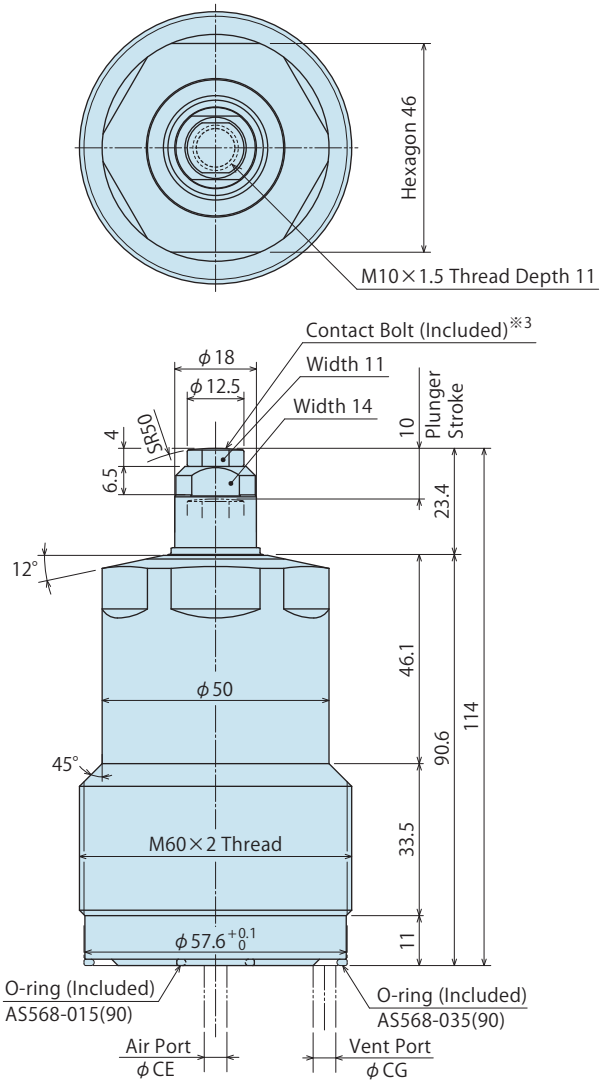
External Dimensions

※ This drawing shows the released state of WNC0353-□-E, WNC0603-□-E, WNC1003-□-E, WNC1603-□-E, WNC3003-□-E (before the plunger is lifted).

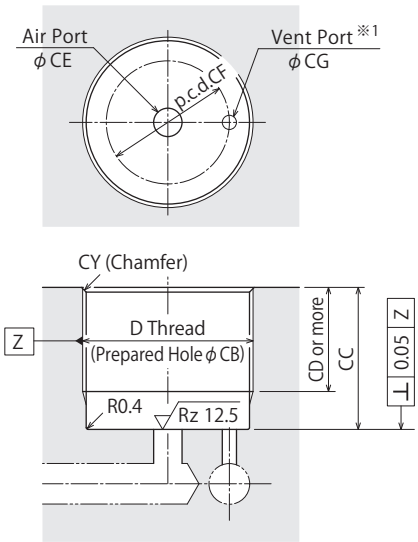


External Dimensions (WNC6003-□-E)

※ This drawing shows the released state of WNC6003-□-E (before the plunger is lifted).



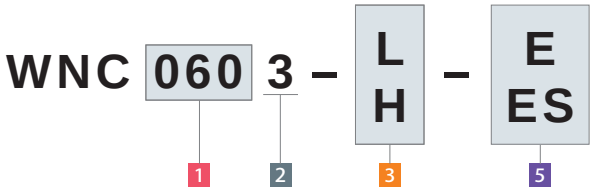
Machining Dimensions of Mounting Area



Note：

※1. The vent port needs to be machined in an open air environment without the presence of coolant, dust, etc. to avoid any internal contamination. (Refer to P.803：Appropriate Measures for the Air Vent Hole.)

Model No. Indication



(Format Example：WNC0353-L-ES, WNC3003-H-E)

1 Support Force

2 Design No.

3 Plunger Spring Force

5 Options (In case of E / ES)
E ：Spring Advance Model
E S ：Spring Advance Short Model

Please refer to P.793 ~ P.794 for external dimensions of WNC0103-□-E.

External Dimensions and Machining Dimensions for Mounting

(mm)

Model No.	WNC0353-□-E	WNC0353-□-ES (Short Model)	WNC0603-□-E	WNC1003-□-E	WNC1603-□-E	WNC3003-□-E	WNC6003-□-E
Plunger Stroke	6.5	5.0	6.5	6.5	8.0	8.0	10
A	60.5	49	68.5	75.5	81	95	-
B	18		22	24	30	36	-
C	20		24	27	33	40	-
D (Nominal × Pitch)	M22×1.5		M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
E	46	36.1	51.6	58.6	62.8	74.1	-
F	7	6	8	10	10	10	-
G	33.3	24.4	36.9	40.4	43.1	51.9	-
H	5.7		6.7	8.2	9.7	12.2	-
J	20.2		24.2	28.2	34.2	43.2	-
T	14.5	12.9	16.9	16.9	18.2	20.9	-
U	7		9	9	10	12	-
V	3.5		5	5	5	6	-
W	5.5		8	8	8	10	-
X (Nominal×Pitch×Depth)	M4×0.7×7		M6×1×9	M6×1×9	M6×1×9	M8×1.25×12	-
BA	6.5		9	9	9	11.5	-
BB	2.5		3	3	3	4	-
BC	5.5		8	8	8	10	-
CB	$20.5^{+0.17}_{-0.12}$		$24.5^{+0.17}_{-0.12}$	$28.5^{+0.17}_{-0.12}$	$34.5^{+0.17}_{-0.12}$	$43.5^{+0.17}_{-0.12}$	$58^{+0.21}_{-0.17}$
CC	14 ~ 37	14 ~ 30	16 ~ 43	17 ~ 48	18 ~ 52	21 ~ 61	25 ~ 77
CD	CC - 6	CC - 5	CC - 7	CC - 9	CC - 9	CC - 9	CC - 10
CE	max. 2.5		max. 3	max. 3	max. 3	max. 5	max. 5
CF	P.C.D. 15		P.C.D. 18	P.C.D. 22	P.C.D. 26	P.C.D. 30	P.C.D. 48
CG	max. 2.5		max. 3	max. 3	max. 3	max. 5	max. 5
CY (Chamfer)	C1		C1	C1	C1	C1	C1.5
DA	AS568-011(90)		AS568-012(90)	AS568-012(90)	AS568-012(90)	AS568-014(90)	-
DB	AS568-017(90)		AS568-020(90)	AS568-022(90)	AS568-026(90)	AS568-030(90)	-
EY	SR20		SR30	SR30	SR30	SR30	-
Tightening Torque for Main Body ※2 N·m	10		16	25	40	63	80

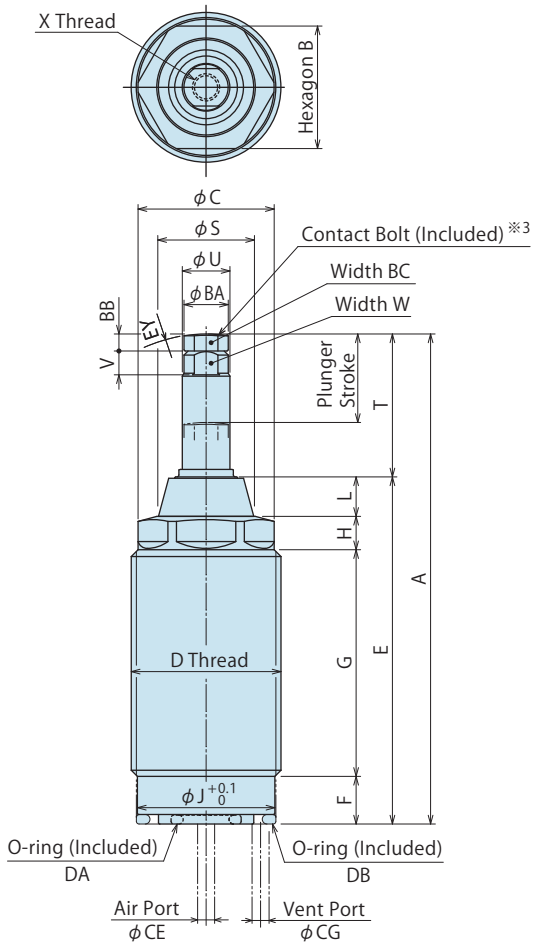
Notes：

※2. Please follow the tightening torque in the list when mounting Work Support.
Excessive tightening torque causes deformation of the product resulting in malfunction.
Insufficient tightening torque causes looseness of the product resulting in air leakage.

※3. Refer to the contact bolt design dimensions on P.801 in case a contact bolt (attachment) is designed and manufactured by a customer.

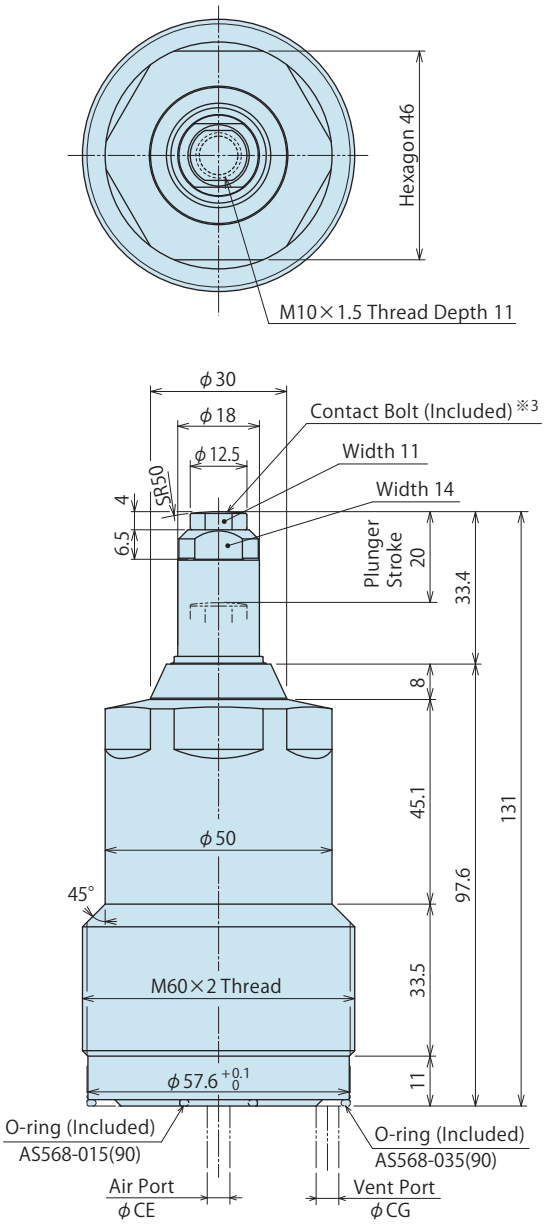
External Dimensions

※ This drawing shows the released state of WNC0353-EQ, WNC0603-EQ, WNC1003-EQ, WNC1603-EQ, WNC3003-EQ (before the plunger is lifted).

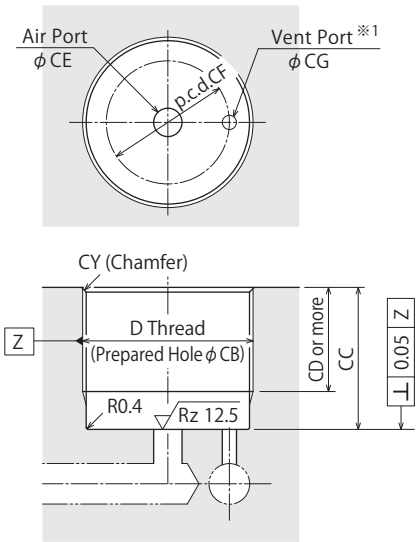


External Dimensions (WNC6003-EQ)

※ This drawing shows the released state of WNC6003-EQ (before the plunger is lifted).



Machining Dimensions of Mounting Area



Note：

※1. The vent port needs to be machined in an open air environment without the presence of coolant, dust, etc. to avoid any internal contamination.
(Refer to P.803：Appropriate Measures for the Air Vent Hole.)

Model No. Indication

(Format Example：WNC1003-EQ)

WNC 060 3 – EQ

1 Support Force
2 Design No.
5 Options (In case of EQ)
EQ：Long Stroke Option Spring Advance Model

Please contact us for Specifications and Performance Curve.

External Dimensions and Machining Dimensions for Mounting

(mm)

Model No.	WNC0353-EQ	WNC0603-EQ	WNC1003-EQ	WNC1603-EQ	WNC3003-EQ	WNC6003-EQ
Plunger Stroke	13	13	13	16	16	20
A	72	78.5	85.5	93.5	108	-
B	18	22	24	30	36	-
C	20	24	27	33	40	-
D(Nominal × Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
E	51	55.1	62.1	67.3	79.1	-
F	7	8	10	10	10	-
G	33.3	36.9	40.4	43.1	51.9	-
H	4.9	5.8	7.3	8.5	11.1	-
J	20.2	24.2	28.2	34.2	43.2	-
L	5.8	4.4	4.4	5.7	6.1	-
S	14	16.8	16.8	20	22	-
T	21	23.4	23.4	26.2	28.9	-
U	7	9	9	10	12	-
V	3.5	5	5	5	6	-
W	5.5	8	8	8	10	-
X(Nominal×Pitch×Depth)	M4×0.7×7	M6×9	M6×9	M6×9	M8×12	-
BA	6.5	9	9	9	11.5	-
BB	2.5	3	3	3	4	-
BC	5.5	8	8	8	10	-
CB	$20.5^{+0.17}_{-0.12}$	$24.5^{+0.17}_{-0.12}$	$28.5^{+0.17}_{-0.12}$	$34.5^{+0.17}_{-0.12}$	$43.5^{+0.17}_{-0.12}$	$58^{+0.21}_{-0.17}$
CC	14～37	16～43	17～48	18～52	21～61	25～77
CD	CC−6	CC−7	CC−9	CC−9	CC−9	CC−10
CE	max. 2.5	max. 3	max. 3	max. 3	max. 5	max. 5
CF	p.c.d.15	p.c.d.18	p.c.d.22	p.c.d.26	p.c.d.30	p.c.d.48
CG	max. 2.5	max. 3	max. 3	max. 3	max. 5	max. 5
CY(Chamfer)	C1	C1	C1	C1	C1	C1.5
DA	AS568-011(90)	AS568-012(90)	AS568-012(90)	AS568-012(90)	AS568-014(90)	-
DB	AS568-017(90)	AS568-020(90)	AS568-022(90)	AS568-026(90)	AS568-030(90)	-
EY	SR20	SR30	SR30	SR30	SR30	-
Tightening Torque for Main Body ※2	N·m 10	16	25	40	63	80

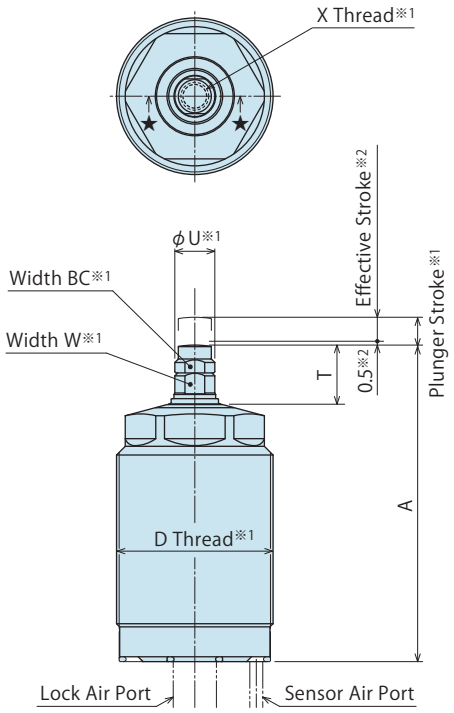
Notes：

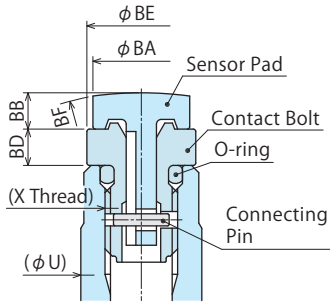
※2. Please follow the tightening torque in the list when mounting Work Support.
Excessive tightening torque causes deformation of the product resulting in malfunction.
Insufficient tightening torque causes looseness of the product resulting in air leakage.

※3. Refer to the contact bolt design dimensions on P.801 in case a contact bolt (attachment) is designed and manufactured by a customer.

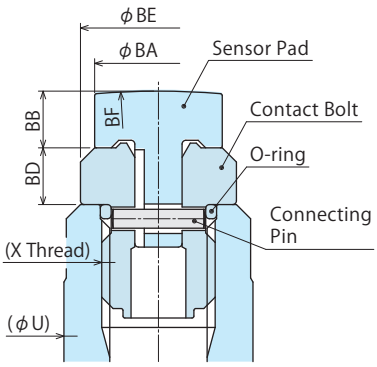
External Dimensions

※ This drawing shows the released state of WNC0603-□M, WNC1003-□M, WNC1603-□M, WNC3003-□M (before the plunger is lifted).
For unlisted dimensions, please refer to external dimensions of Air Advance Model (Standard) on P.789, P.790.





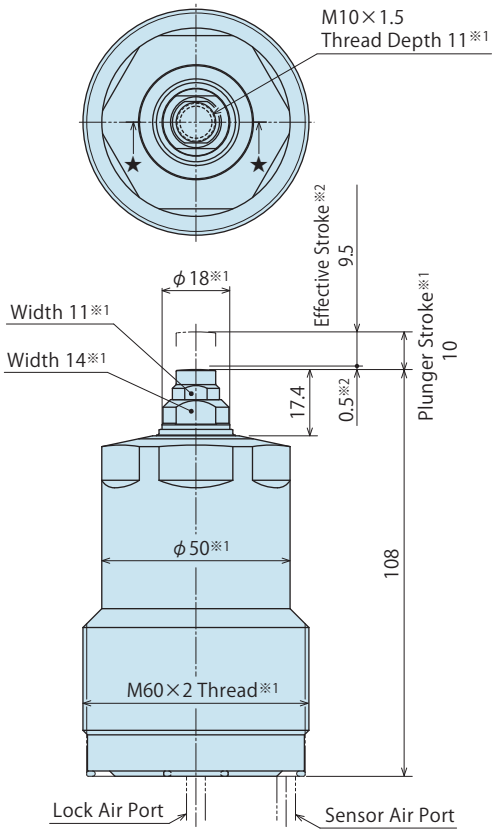
A Section of ★-★
(In the case of WNC0603/1003/1603)



A Section of ★-★
(In the case of WNC3003/6003)

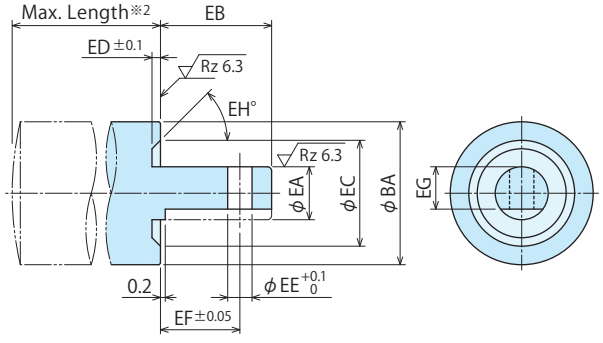
External Dimensions (WNC6003-□M)

※ This drawing shows the released state of WNC6003-□M (before the plunger is lifted).
For unlisted dimensions, please refer to external dimensions of Air Advance Model (Standard) on P.789, P.790.



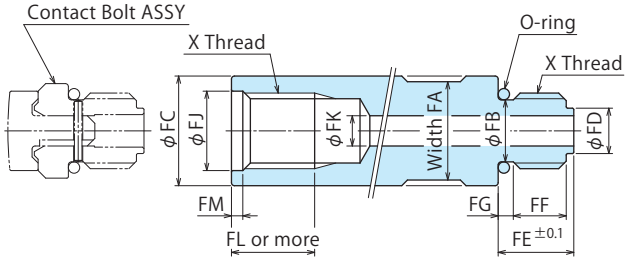
Notes :
※1. Dimensions with ※1 are the same as WNC standard model.
※2. When the work support touches a workpiece within short stroke range, 0.5mm from the plunger retract-end, a force which is larger than the workpiece contact force (Refer to P.799 workpiece contact force formula when using air catch sensor) will be applied to the workpiece.
1. Even if the contact bolt for WNC standard model is exchanged with air sensing option, it does not work as air sensing option. An internal part must be changed with air sensing corresponding product.
2. Please refer to P.799, P.800 for Air Sensing Chart.

Sensor Pad Design Dimensions



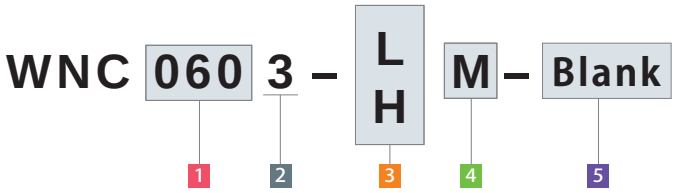
※ When replacing the sensor pad, please design it according to the sensor pad design dimensions.
※ When replacing the sensor pad, please be careful not to lose the connecting pin.

Contact Bolt Adapter Design Dimensions



※ When a longer contact bolt is required, design it according to the contact bolt adapter design dimensions.

Model No. Indication



(Format Example：WNC0603-LM, WNC6003-HM)

1 Support Force

2 Design No.

3 Plunger Spring Force

4 Plunger Action Confirmation (In case of M)
M ：Air Sensing Option

5 Option
Blank：Air Advance Model

External Dimension List

(mm)

Model No.	WNC0603-□M	WNC1003-□M	WNC1603-□M	WNC3003-□M	WNC6003-□M
Plunger Stroke ※1	6.5	6.5	8.0	8.0	10
Effective Stroke	6.0	6.0	7.5	7.5	9.5
A	65	72	76	91	-
D (Nominal×Pitch) ※1	M26×1.5	M30×1.5	M36×1.5	M45×1.5	-
T	13.4	13.4	13.2	16.9	-
U※1	9	9	10	12	-
W※1	8	8	8	10	-
X (Nominal×Pitch×Depth) ※1	M6×1×9	M6×1×9	M6×1×9	M8×1.25×12	-
BA	8	8	8	9.5	10.5
BB	3	3	3	4	4
BC※1	8	8	8	10	-
BD	3	3	3	4	4
BE	9	9	9	11.5	12.5
BF	SR30	SR30	SR30	SR30	SR50
Connecting Pin (Diameter×Length)	ϕ1×4	ϕ1×4	ϕ1×4	ϕ1×5.8	ϕ1×7.8
O-ring	S5 (made by NOK)	S5 (made by NOK)	S5 (made by NOK)	S6 (made by NOK)	S8 (made by NOK)

Note : ※1. Dimensions with ※1 are the same as WNC Standard Model.

Sensor Pad Design Dimension List

(mm)

Corresponding Model No.	WNC0603-□M	WNC1003-□M	WNC1603-□M	WNC3003-□M	WNC6003-□M
EA	$2.5g7^{-0.002}_{-0.012}$	$2.5g7^{-0.002}_{-0.012}$	$2.5g7^{-0.002}_{-0.012}$	$3g7^{-0.002}_{-0.012}$	$4g7^{-0.004}_{-0.016}$
EB	9.5	9.5	9.5	7.5	7.5
EC	6	6	6	7.5	8.5
ED	0.8	0.8	0.8	0.8	0.8
EE	1.4	1.4	1.4	1.2	1.2
EF	7.5	7.5	7.5	5.3	5.3
EG	1.7	1.7	1.7	2.1	3.2
EH	20°	20°	20°	45°	45°
Max. Length ※2	max. 6	max. 6	max. 6	max. 8	max. 8

Note : ※2. Sensor response may decrease if the pad is longer than the maximum length.

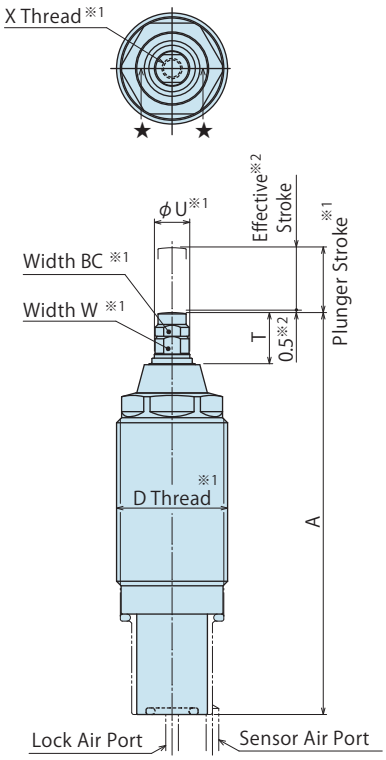
Contact Bolt Adapter Design Dimension List

(mm)

Corresponding Model No.	WNC0603-□M WNC1003-□M WNC1603-□M	WNC3003-□M	WNC6003-□M
FA	8	10	13
FB	4.5	6	8.2
FC	9	11.5	14.5
FD	3.5	5	6
FE	8	10	10
FF	6	7	7
FG	1.5	2	2
FJ	6.8	8.3	10.5
FK	2	3	4
FL	9	12	11
FM	1.5	1.5	1.5
X	M6	M8	M10
O-ring	S5 (made by NOK)	S6 (made by NOK)	S8 (made by NOK)
Contact Bolt ASSY	XLD-M6SP	XLD-M8SP	XLC-M10SP
Reference：Material	SCM435 Quenched and Tempered Material		
Reference：Surface Finishing	Nitriding		

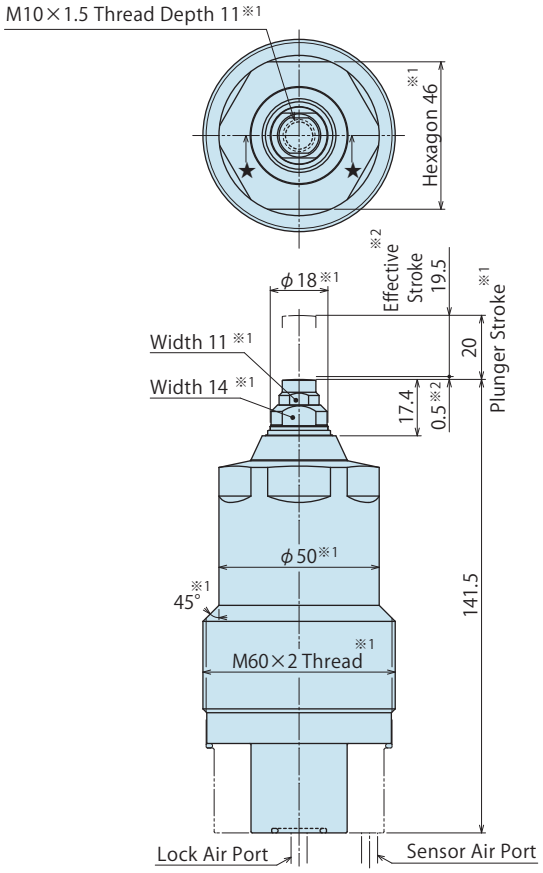
External Dimensions

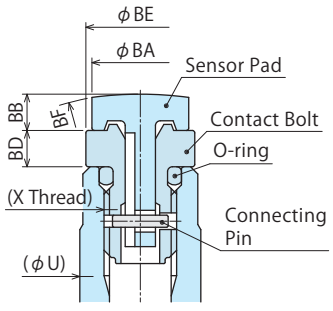
※ This drawing shows the released state of WNC0603-M-Q、WNC1003-M-Q、WNC1603-M-Q、WNC3003-M-Q (before the plunger is lifted).
For unlisted dimensions, please refer to external dimensions of Air Advance Model (Long Stroke Model) on P.791, P.792.



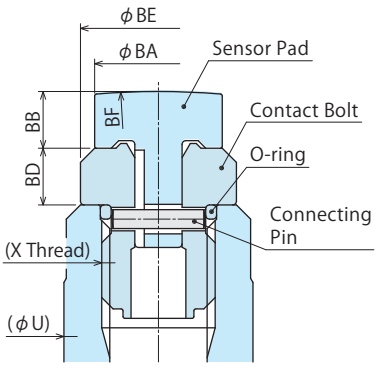
External Dimensions(WNC6003-M-Q)

※ This drawing shows the released state of WNC6003-M-Q (before the plunger is lifted).
For unlisted dimensions, please refer to external dimensions of Air Advance Model (Long Stroke Model) on P.791, P.792.





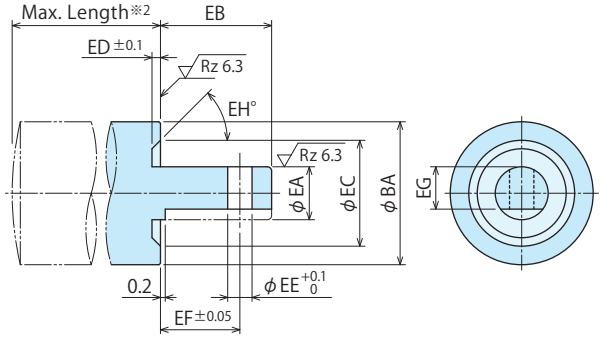
A Section of ★-★
(In the case of WNC0603/1003/1603)



A Section of ★-★
(In the case of WNC3003/6003)

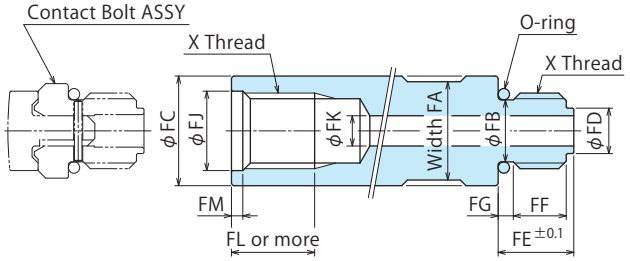
Notes :
※1. Dimensions with ※1 are the same as WNC-Q Long Stroke model.
※2. When the work support touches a workpiece within short stroke range, 0.5mm from the plunger retract-end, a force which is larger than the workpiece contact force (Refer to P.799 workpiece contact force formula when using air catch sensor) will be applied to the workpiece.
1. Even if the contact bolt for WNC-Q Long Stroke model is exchanged with air sensing option, it does not work as air sensing option. An internal part must be changed with air sensing corresponding product.
2. Please refer to P.799, P.800 for Air Sensing Chart.

Sensor Pad Design Dimensions



※ When replacing the sensor pad, please design it according to the sensor pad design dimensions.
※ When replacing the sensor pad, please be careful not to lose the connecting pin.

Contact Bolt Adapter Design Dimensions



※ When a longer contact bolt is required, design it according to the contact bolt adapter design dimensions.

Model No. Indication

(Format Example：WNC0603-M-Q、WNC6003-M-Q)

WNC 060 3 – M – Q

1 Support Force
2 Design No.
4 Plunger Action Confirmation (In case of M)
M ：Air Sensing Option
5 Options (In case of Q)
Q：Air Advance Long Stroke Model

Please contact us for Specifications and Performance Curve.

External Dimension List

(mm)

Model No.	WNC0603-M-Q	WNC1003-M-Q	WNC1603-M-Q	WNC3003-M-Q	WNC6003-M-Q
Plunger Stroke※1	13	13	16	16	20
Plunger Stroke※1	12.5	12.5	15.5	15.5	19.5
A	87	94	102	117.5	-
D(Nominal×Pitch)※1	M26×1.5	M30×1.5	M36×1.5	M45×1.5	-
T	13.4	13.4	13.2	16.9	-
U※1	9	9	10	12	-
W※1	8	8	8	10	-
X(Nominal×Pitch×Depth)※1	M6×9	M6×9	M6×9	M8×12	-
BA	8	8	8	9.5	10.5
BB	3	3	3	4	4
BC※1	8	8	8	10	-
BD	3	3	3	4	4
BE	9	9	9	11.5	12.5
BF	SR30	SR30	SR30	SR30	SR50
Connecting Pin(Diameter×Length)	ϕ1×4	ϕ1×4	ϕ1×4	ϕ1×5.8	ϕ1×7.8
O-ring	S5(made by NOK)	S5(made by NOK)	S5(made by NOK)	S6(made by NOK)	S8(made by NOK)

注意事項 ※1. Dimensions with ※1 are the same as WNC-Q Long Stroke Model.

Sensor Pad Design Dimension List

(mm)

Corresponding Model No.	WNC0603-M-Q	WNC1003-M-Q	WNC1603-M-Q	WNC3003-M-Q	WNC6003-M-Q
EA	$2.5g7^{-0.002}_{-0.012}$	$2.5g7^{-0.002}_{-0.012}$	$2.5g7^{-0.002}_{-0.012}$	$3g7^{-0.002}_{-0.012}$	$4g7^{-0.004}_{-0.016}$
EB	9.5	9.5	9.5	7.5	7.5
EC	6	6	6	7.5	8.5
ED	0.8	0.8	0.8	0.8	0.8
EE	1.4	1.4	1.4	1.2	1.2
EF	7.5	7.5	7.5	5.3	5.3
EG	1.7	1.7	1.7	2.1	3.2
EH	20°	20°	20°	45°	45°
Max. Length ※2	max. 6	max. 6	max. 6	max. 8	max. 8

Note : ※2. Sensor response may decrease if the pad is longer than the maximum length.

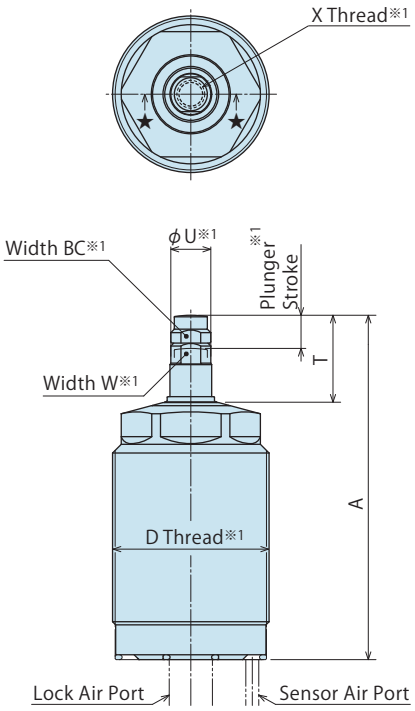
Contact Bolt Adapter Design Dimension List

(mm)

Corresponding Model No.	WNC0603-M-Q WNC1003-M-Q WNC1603-M-Q	WNC3003-M-Q	WNC6003-M-Q
FA	8	10	13
FB	4.5	6	8.2
FC	9	11.5	14.5
FD	3.5	5	6
FE	8	10	10
FF	6	7	7
FG	1.5	2	2
FJ	6.8	8.3	10.5
FK	2	3	4
FL	9	12	11
FM	1.5	1.5	1.5
X	M6	M8	M10
O-ring	S5 (made by NOK)	S6 (made by NOK)	S8 (made by NOK)
Contact Bolt ASSY	XLD-M6SP	XLD-M8SP	XLC-M10SP
Reference：Material	SCM435 Quenched and Tempered Material		
Reference：Surface Finishing	Nitriding		

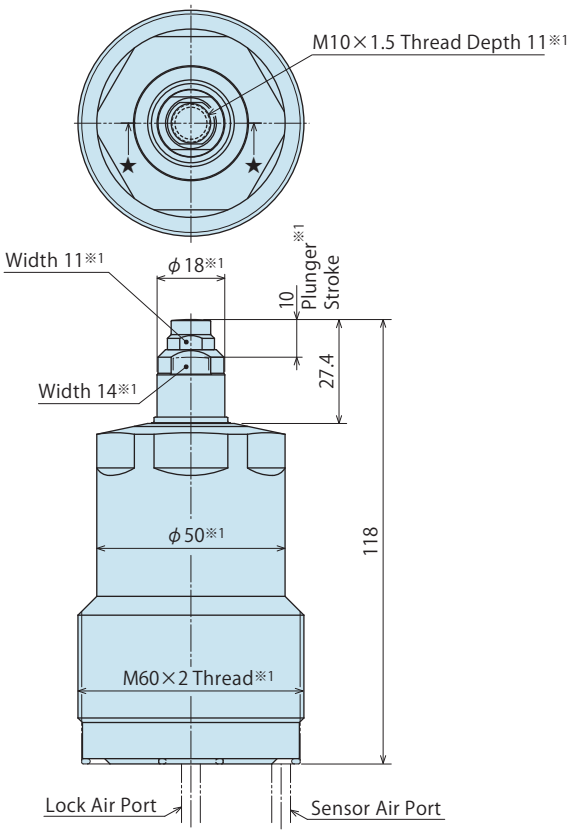
External Dimensions

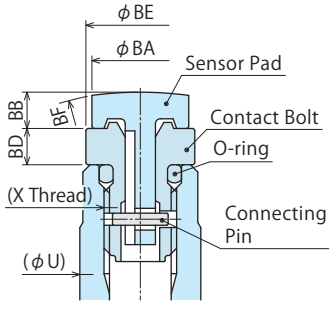
※ This drawing shows the released state of WNC0603-□M-E、WNC1003-□M-E、WNC1603-□M-E、WNC3003-□M-E (before the plunger is lifted).
For unlisted dimensions, please refer to external dimensions of Spring Advance Model on P.795, P.796.



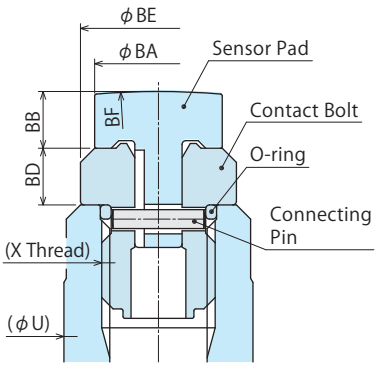
External Dimensions(WNC6003-□M-E)

※ This drawing shows the released state of WNC6003-□M-E (before the plunger is lifted).
For unlisted dimensions, please refer to external dimensions of Spring Advance Model on P.795, P.796.





A Section of ★-★
(In the case of WNC0603/1003/1603)

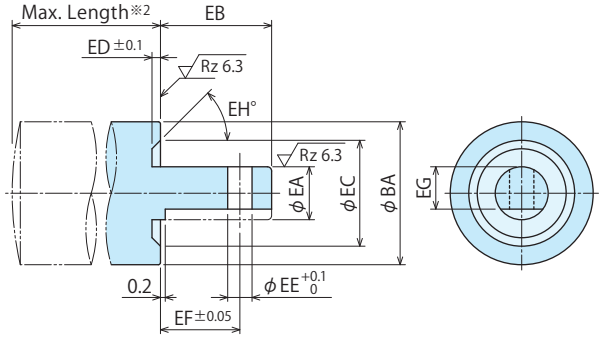


A Section of ★-★
(In the case of WNC3003/6003)

注意事項

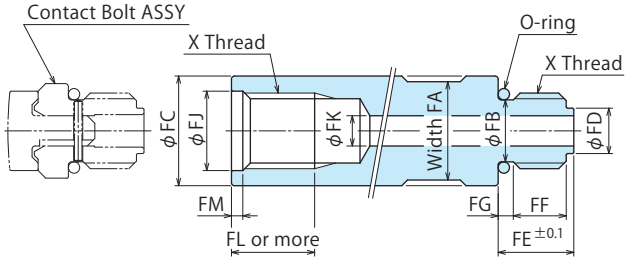
※1. Dimensions with ※1 are the same as WNC-E Spring Advance model.
1. Even if the contact bolt for WNC-E Spring Advance model is exchanged with air sensing option, it does not work as air sensing option. An internal part must be changed with air sensing corresponding product.
2. Please contact us for the dimensions of Long Stroke Model.
3. Please refer to P.799, P.800 for Air Sensing Chart.

Sensor Pad Design Dimensions



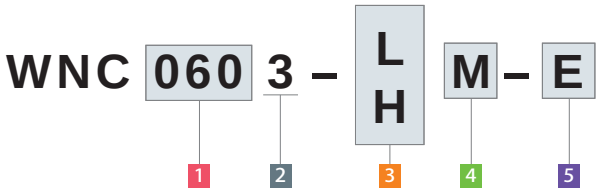
※ When replacing the sensor pad, please design it according to the sensor pad design dimensions.
※ When replacing the sensor pad, please be careful not to lose the connecting pin.

Contact Bolt Adapter Design Dimensions



※ When a longer contact bolt is required, design it according to the contact bolt adapter design dimensions.

Model No. Indication



Please contact us for Specifications and Performance Curve.

(Format Example：WNC0603-LM-E、WNC6003-HM-E)

1 Support Force

2 Design No.

3 Plunger Spring Force

4 Plunger Action Confirmation (In case of M)
M ：Air Sensing Option

5 Options (In case of E)
E ：Spring Advance Model

External Dimensions and Machining Dimensions for Mounting

(mm)

Model No.	WNC0603-□M-E	WNC1003-□M-E	WNC1603-□M-E	WNC3003-□M-E	WNC6003-□M-E
Plunger Stroke※1	6.5	6.5	8.0	8.0	10
A	71.5	78.5	84	99	-
D (Nominal × Pitch) ※1	M26×1.5	M30×1.5	M36×1.5	M45×1.5	-
T	19.9	19.9	21.2	24.9	-
U※1	9	9	10	12	-
W※1	8	8	8	10	-
X (Nominal×Pitch×Depth) ※1	M6×9	M6×9	M6×9	M8×12	-
BA	8	8	8	9.5	10.5
BB	3	3	3	4	4
BC※1	8	8	8	10	-
BD	3	3	3	4	4
BE	9	9	9	11.5	12.5
BF	SR30	SR30	SR30	SR30	SR50
Connecting Pin (Diameter×Length)	ϕ1×4	ϕ1×4	ϕ1×4	ϕ1×5.8	ϕ1×7.8
O-ring	S5(made by NOK)	S5(made by NOK)	S5(made by NOK)	S6(made by NOK)	S8(made by NOK)

Note : ※1. Dimensions with ※1 are the same as WNC-E Spring Advance Model.

Sensor Pad Design Dimension List

(mm)

Corresponding Model No.	WNC0603-□M-E	WNC1003-□M-E	WNC1603-□M-E	WNC3003-□M-E	WNC6003-□M-E
EA	$2.5g7^{-0.002}_{-0.012}$	$2.5g7^{-0.002}_{-0.012}$	$2.5g7^{-0.002}_{-0.012}$	$3g7^{-0.002}_{-0.012}$	$4g7^{-0.004}_{-0.016}$
EB	9.5	9.5	9.5	7.5	7.5
EC	6	6	6	7.5	8.5
ED	0.8	0.8	0.8	0.8	0.8
EE	1.4	1.4	1.4	1.2	1.2
EF	7.5	7.5	7.5	5.3	5.3
EG	1.7	1.7	1.7	2.1	3.2
EH	20°	20°	20°	45°	45°
Max. Length ※2	max. 6	max. 6	max. 6	max. 8	max. 8

Note : ※2. Sensor response may decrease if the pad is longer than the maximum length.

Contact Bolt Adapter Design Dimension List

(mm)

Corresponding Model No.	WNC0603-□M-E WNC1003-□M-E WNC1603-□M-E	WNC3003-□M-E	WNC6003-□M-E
FA	8	10	13
FB	4.5	6	8.2
FC	9	11.5	14.5
FD	3.5	5	6
FE	8	10	10
FF	6	7	7
FG	1.5	2	2
FJ	6.8	8.3	10.5
FK	2	3	4
FL	9	12	11
FM	1.5	1.5	1.5
X	M6	M8	M10
O-ring	S5 (made by NOK)	S6 (made by NOK)	S8 (made by NOK)
Contact Bolt ASSY	XLD-M6SP	XLD-M8SP	XLC-M10SP
Reference：Material	SCM435 Quenched and Tempered Material		
Reference：Surface Finishing	Nitriding		

Air Sensing Option (Plunger Action Confirmation･･･M：Air Sensing Option)

Plunger action is detected by the circuit at the air port like the drawing below. This is done by detecting the differential pressure between P1 and P2 with air sensor.

Applicable Model

WNC 060 3 - L/H **M** - Blank

4 Plunger Action Confirmation：In case of M

- Workpieces even with rough, casting or forged surface can be accurately detected since the structure does not detect the workpiece surface directly.
- Detected with higher accuracy compared to a switch detection with a dog, etc.
- Designed to prevent coolant from entering into the sensing area.

Structure Drawing

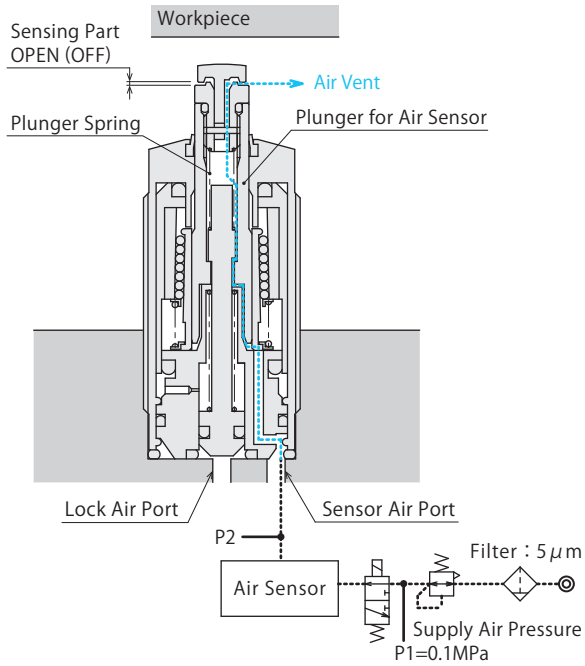
Supply Air Pressure to Air Sensor：0.1MPa

Recommended Air Sensor

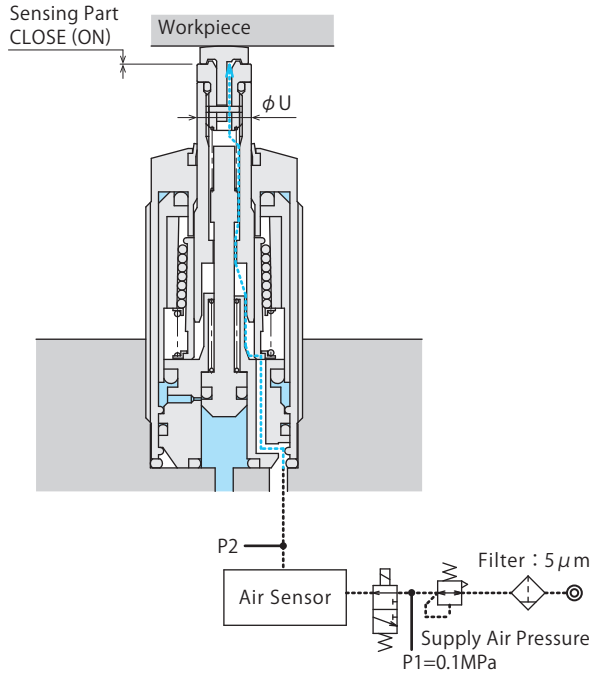
Manufacturer	SMC	CKD
Name	Air Catch Sensor	Gap Switch
Model No.	ISA3-G	GPS3-E

● The Number of Work Supports Connected per Air Sensor：1 ~ 4

WNC Released State (Air Sensor OFF)



WNC Plunger Extends・Contacts Workpiece (Air Sensor ON)



Workpiece Contact Force Formula when using Air Sensor ※1

Workpiece Contact Force (N) = Plunger Spring Force (N) + Supply Air Pressure (MPa) × U^2 (mm) × π ／4

Model No.		WNC0603-□M-□	WNC1003-□M-□	WNC1603-□M-□	WNC3003-□M-□	WNC6003-□M-□
U mm		9	9	10	12	18
Plunger※2 Spring Force N	**L** :Low Spring Force	1.8~2.9	2.1~2.9	2.3~2.9	3.6~4.3	6.4~7.5
	H :High Spring Force	2.1~4.3	3.0~4.4	3.2~4.4	4.9~6.1	8.7~10.4
	Q :Long Stroke Model	2.1~4.9	3.1~5.1	3.1~5.5	4.8~6.6	8.7~12.5

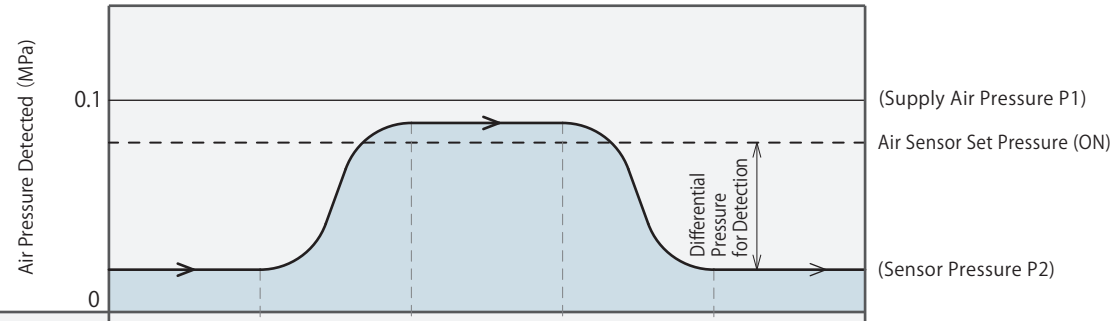
Notes：

※1. Please prepare a stopper if necessary when using a light and/or thin workpiece. Otherwise it might be pushed up by work support.

※2. The plunger spring force indicates the spring design value. It may vary depending on sliding resistance of the plunger and characteristic of the spring , etc. Please read it as a reference value of workpiece contact force.

Air Sensing Chart

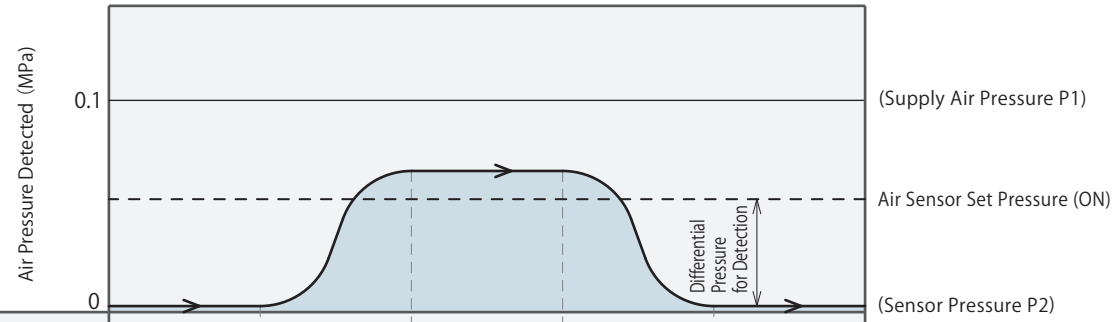
Connect one work support with one air sensor
Supply Pressure of Air Sensor P1=0.1MPa



Air Sensor		OFF	OFF→ON	ON	ON→OFF	OFF
Air Advance Model	Air Pressure Valve	Air Pressure OFF	Air Pressure ON	Air Pressure ON	Air Pressure OFF	Air Pressure OFF
	Work Support Action	Released State	Ascending Completed Locking State	Locking Completed	Releasing State Descending State	Releasing Completed
Spring Advance Model	Air Pressure Valve	Air Pressure OFF	Air Pressure OFF	Air Pressure ON	Air Pressure OFF	Air Pressure OFF
	Work Support Action	Released State	Loading Workpiece	Locking Completed	Unloading Workpiece	Releasing Completed

Note : 1. Depending on the usage condition, the detection differential pressure may be decreased by repeated action.
Please contact us for overhaul when the detection differential pressure is decreased.

Connect four work supports with one air sensor
Supply Pressure of Air Sensor P1=0.1MPa



Air Sensor		OFF	OFF→ON	ON	ON→OFF	OFF
Air Advance Model	Air Pressure Valve	Air Pressure OFF	Air Pressure ON	Air Pressure ON	Air Pressure OFF	Air Pressure OFF
	Work Support Action	Released State	Ascending Completed Locking State	Locking Completed	Releasing State Descending State	Releasing Completed
Spring Advance Model	Air Pressure Valve	Air Pressure OFF	Air Pressure OFF	Air Pressure ON	Air Pressure OFF	Air Pressure OFF
	Work Support Action	Released State	Loading Workpiece	Locking Completed	Unloading Workpiece	Releasing Completed

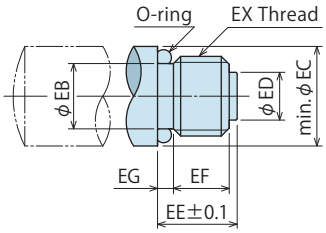
Notes : 1. Depending on the usage condition, the detection differential pressure may be decreased by repeated action.
Please contact us for overhaul when the detection differential pressure is decreased.
2. In order to carry out stabilized detection, the number of work supports connected per air sensor should be four or less.

Notes

1. This specification is designed for confirming the plunger action of the work support.
If it is used for confirming the close contact with the workpiece, other clamping (force) is necessary.
2. If the plunger goes up too fast, it may bounce back and locks itself. Resulting in a gap with the workpiece and possible damage to the internal parts due to the impact force. Set the plunger action time at 0.5-1.0 sec. to adjust the air supply with the flow control valve with check valve (meter-in), and make sure that there is no clearance with the workpiece for operation.
3. The sensor air port needs to have air supply at all the times. If it is used when the air supply is shut off, the coolant or cutting chips may contaminate the sensing area, leading to malfunctioning of the work support and breakage of the air sensor.
4. Even if the contact bolt for WNC standard model is exchanged with air sensing option, it does not work as air sensing option.
An internal part must be changed with air sensing corresponding product.
5. In case plunger descending is slower due to air pressure or workpiece unloading condition, stop air supply temporarily during descending action.

Contact Bolt Design Dimensions

※ Please use as reference in case contact bolts (attachment) other than the attached contact bolt are designed and manufactured to the customer. Please be sure to refer to "Notes on Contact Bolt (Attachment) Design".

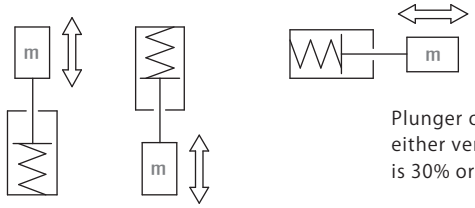


(mm)

Corresponding Model No.		WNC0103	WNC0353	WNC0603	WNC1003	WNC1603	WNC3003	WNC6003
EB		2.2	3	4.5	4.5	4.5	6	8.2
EC		5	6	8.5	8.5	8.5	10	12.5
ED		1.5	2	3.5	3.5	3.5	5	6
EE		4.5	6	8	8	8	10	10
EF		3	4.5	6	6	6	7	7
EG		1	1	1.5	1.5	1.5	2	2
EX		M3×0.5	M4×0.7	M6×1	M6×1	M6×1	M8×1.25	M10×1.5
O-ring		SS2.5 (NOK)	SS3 (NOK)	S5 (NOK)	S5 (NOK)	S5 (NOK)	S6 (NOK)	S8 (NOK)
Contact Bolt Tightening Torque		0.6 N·m	1.6 N·m	5 N·m	5 N·m	5 N·m	10 N·m	16 N·m
Reference	Material	Pre-Hardened Steel	S45C					
	Quenching Hardness	HRC29 ~ 33	HRC45 ~ 50				HRC50 ~ 55	
	Surface Finishing	—	Alkaline Blackening					

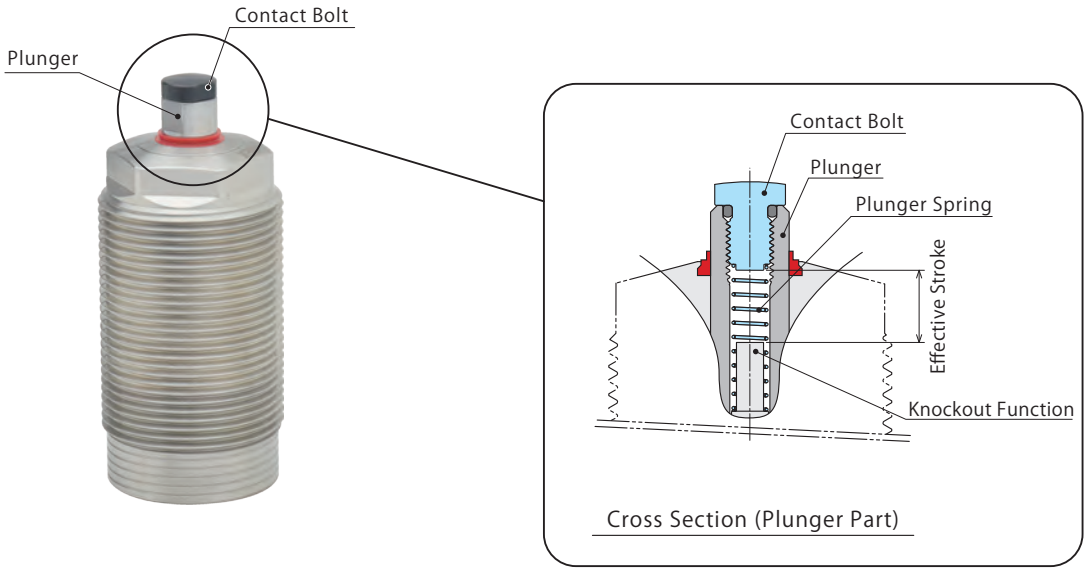
Notes on Contact Bolt (Attachment) Design

- The weight of a contact bolt (attachment) has to be 30% or less of the plunger spring force.



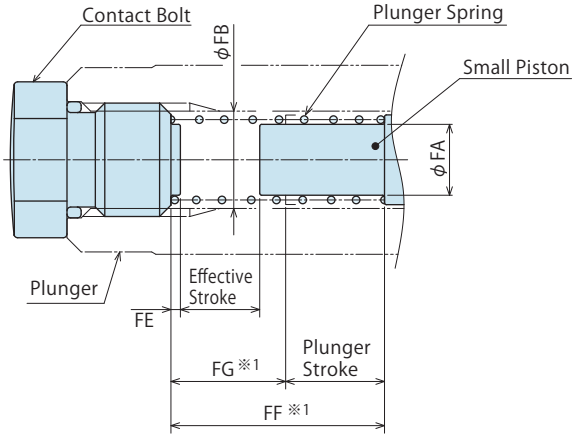
Plunger operating direction,
either vertical or horizontal,
is 30% or less of the spring force.

- ex) In case of WNC1003-L, the plunger spring force is 2.1~ 2.9N,
  and the maximum weight of a contact bolt becomes: 2.1×0.3 / 9.807 = 0.06 kg.
  It may vary depending on sliding resistance of the plunger and characteristic of the spring,
  so it is recommended to design a contact bolt as light as possible.
- Dimensions of the mounting thread part should be designed according to the contact bolt design dimensions.
- The knockout function is used to release fixation of plunger spring and adherence after machine stop for a long time.
  Using an attachment with different thread part dimension leads to inappropriate spring force and effective stroke, causing damage and malfunctions.



Plunger Spring Chamber Dimensions

※ Reference in case springs (except an attached plunger spring) are designed by a customer.
When designing springs, please make sure to check "Notes on Contact Bolt (Attachment) Design".
※ This drawing shows at the released state.
※ There is no effective stroke range for the option **E**, **ES** and **EQ**.



(mm)

Corresponding Model No.	WNC0103-□ WNC0103-□-E	WNC0353-□ WNC0353-□-E	WNC0603-□ WNC0603-□M WNC0603-□-E	WNC1003-□ WNC1003-□M WNC1003-□-E	WNC1603-□ WNC1603-□M WNC1603-□-E	WNC3003-□ WNC3003-□M WNC3003-□-E	WNC6003-□ WNC6003-□M WNC6003-□-E
FA	1.5	2	3.5	3.5	3.5	5	6
FB	2.6	3.4	5.1	5.1	5.1	6.8	8.5
FE	0.5	0.5	0.5	0.5	0.5	1	1
FF※1	14	13	11.1	13	17	24.6	31.6
FG※1	9	6.5	4.6	6.5	9	16.6	21.6
Plunger Stroke	5	6.5	6.5	6.5	8.0	8.0	10
Effective Stroke	4.7	6.0	6.0	6.0	7.5	7.5	9.5

(mm)

Corresponding Model No.	WNC0353-Q WNC0353-EQ	WNC0603-Q WNC0603-EQ	WNC1003-Q WNC1003-EQ	WNC1603-Q WNC1603-EQ	WNC3003-Q WNC3003-EQ	WNC6003-Q WNC6003-EQ
FA	2	3.5	3.5	3.5	5	6
FB	3.4	5.1	5.1	5.1	6.8	8.5
FE	0.5	0.5	0.5	0.5	1	1
FF※1	24	24	31	31.6	38	45
FG※1	11	11	18	15.6	22	25
Plunger Stroke	13	13	13	16	16	20
Effective Stroke	12.5	12.5	12.5	15.5	15.5	19.5

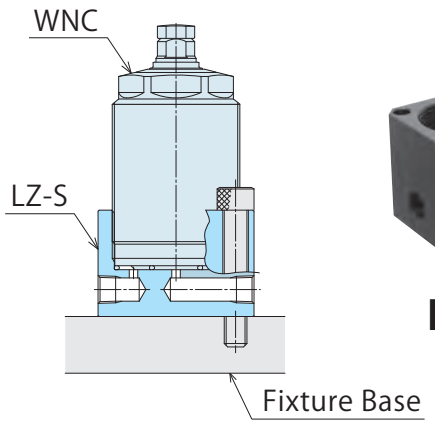
(mm)

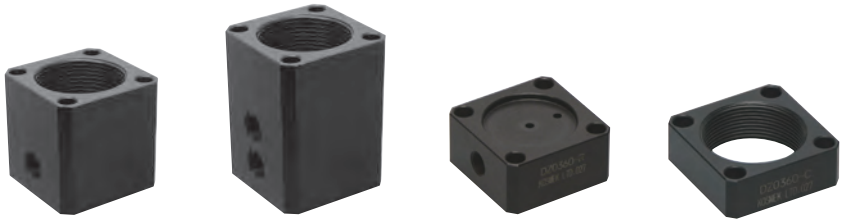
Corresponding Model No.	WNC0353-□-S WNC0353-□-ES
FA	2
FB	3.4
FE	0.5
FF※1	9.5
FG※1	4.5
Plunger Stroke	5
Effective Stroke	4.7

Note: ※1. When designing a spring, make sure that the spring set length is below FF dimension and the spring contact length is below FG dimension.

Accessories

● With these accessories, machining for mounting hole will be more simple.
Please refer to P.813 for further information.





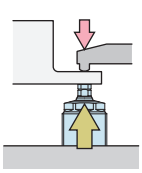
LZ-S WNZ-SQ DZ-R DZ-C

Cautions

Notes for Design

1) Check Specifications

- Please use each product according to the specifications.
- When using a work support opposite to the clamp, set the support force at more than 1.5 times the clamping force.



Clamping Force

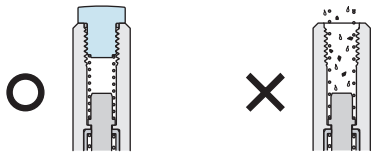
Support Force ≧ Clamping Force×1.5

2) Install a temporary stopper for a workpiece if necessary.

- When multiple work supports are used for a light workpiece, the plunger spring force may be higher than the weight of the workpiece causing it to lift the workpiece.

3) Contact Bolt or Attachment Required for the Plunger

- Always use the contact bolt or attachment with the plunger. The plunger doesn't rise since the plunger spring is free to move.
- You must set an O-ring to the attachment. Without O-ring, cutting fluid or other contaminants will enter into the product easily, causing malfunction.



4) Protect the plunger surface when using on a welding fixture.

- If spatter attaches to the plunger it may lead to sliding failure and insufficient supporting function.

5) For Using on a Lathe, High-Speed Tilting Table, and etc.

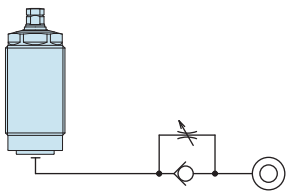
- When using in a cycle where the centrifugal force is acting, the work support should be in a locked state. Please contact us for further information.

6) For Using in a Clean Environment

- Please contact us for the use in an environment that does not tolerate oil or grease. The lubricating oil inside the work support may leak out due to repeated operation.

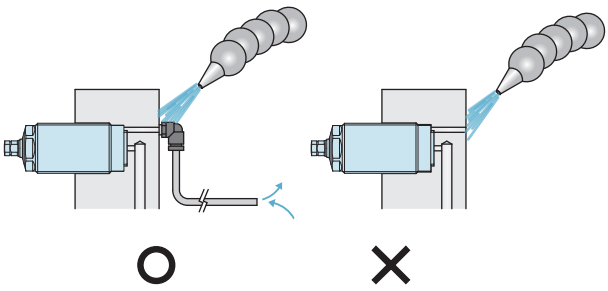
7) Adjust plunger operating time by the amount of supply air.

- A rough guideline for the full stroke is between 0.5 and 1 second.
- As with single-acting cylinders, use a flow regulating valve with a check valve (meter-in) in consideration of the decreasing speed at release.
- If the action speed is too fast, it may bounce back due to shock impact and will lock itself with the clearance between the plunger and the workpiece.



8) Appropriate Measures for the Air Vent Hole

- The work support, although only slightly, breathes like a single-acting cylinder. Consider the environment and avoid cutting fluid, coolant or any contaminants.
- If using it without air vent hole, it will not function properly.
- The vent port is not required for WNC0103 (External Thread M16×1.0).

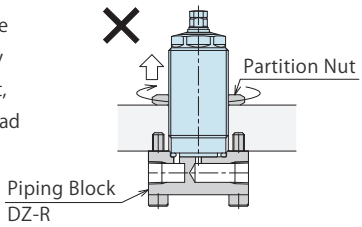


9) Work Support Mounting Method

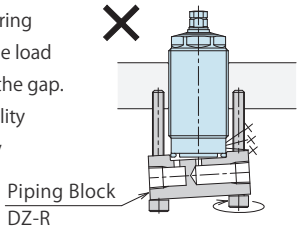
- The base should be horizontal to the bearing surface, and a load should be received on the base. By the following mounting methods, a load cannot be received on the base causing damage to the equipment and the increase of the displacement amount by load.

Examples of Improper Use

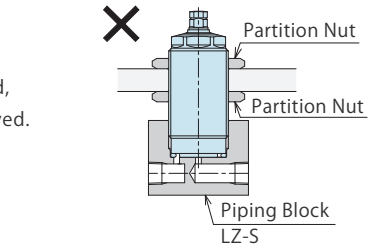
① Work support is lifted up by tightening the partition nut, and it cannot receive the load on the bearing surface.



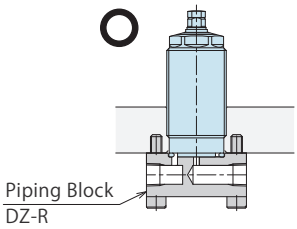
② The contact part of the bearing surface is not horizontal. The load cannot be received due to the gap. Moreover, there is a possibility of damaging equipment by tightening bolts.



③ Since the piping block to receive the load is floated, the load cannot be received.

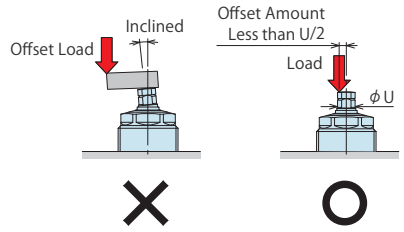


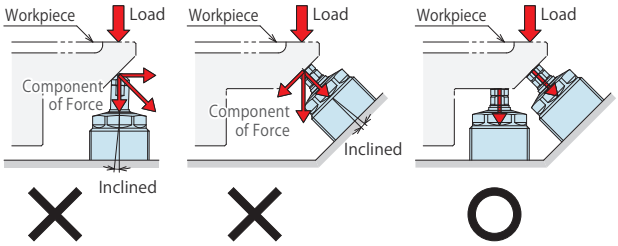
Example of Proper Use



10) Make sure that offset load and component of force do not affect the product.

- If using the product as illustrated below, the displacement against load will be increased. Also large load will damage the internal parts.





Installation Notes

1) Check the Usable Fluid

- Please supply filtered clean dry air.
- Oil supply with a lubricator etc. is unnecessary.

2) Preparation for Piping

- The pipeline, piping connector and fixture circuits should be cleaned and flushed thoroughly.
  Dust and cutting chips in the circuit can lead to fluid leakage and malfunction.
- There is no filter provided with this product for prevention of contaminants in the air circuit.

3) Applying Sealing Tape

- Wrap with tape 1 to 2 times following the screwing direction.
  Wrapping in the wrong direction will cause air leakage and malfunction.
- Pieces of the sealing tape can lead to air leakage and malfunction.
- In order to prevent contaminants from going into the product during the piping work, it should be carefully cleaned before working.

4) Installation of the Product

- Before mounting, make sure there are no scratches or damage on the O-ring or the sealing. Tighten it with the tightening torque shown in the following table.

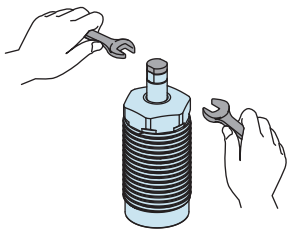
Model No.	Thread Size	Tightening Torque (N·m)
WNC0103	M16×1.0	5
WNC0353	M22×1.5	10
WNC0603	M26×1.5	16
WNC1003	M30×1.5	25
WNC1603	M36×1.5	40
WNC3003	M45×1.5	63
WNC6003	M60×2	80

- Apply an adequate amount of grease to the O-ring.
- If it is mounted under dry state, the O-ring may have twisting or be defective.
- If it is tightened with higher torque, it may lead to malfunction.

5) Replacement of attachment.

- Be careful not to lose the plunger spring.
- In a state that supplying pressure to the work support is released, stop the plunger with a spanner at its front end and tighten it with the tightening torque as shown in the following table.

Model No.	Front Thread Size	Tightening Torque (N·m)
WNC0103	M3×0.5	0.6
WNC0353	M4×0.7	1.6
WNC0603	M6×1	5
WNC1003	M6×1	5
WNC1603	M6×1	5
WNC3003	M8×1.25	10
WNC6003	M10×1.5	16



※ Please refer to P.905 for common cautions. • Notes on Handling • Maintenance/Inspection • Warranty

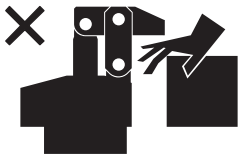
Cautions

Notes on Handling

1) It should be operated by qualified personnel.
- The hydraulic machine and air compressor should be operated and maintained by qualified personnel.

2) Do not operate or remove the product unless the safety protocols are ensured.
① The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
② Before the product is removed, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
③ After stopping the product, do not remove until the temperature drops.
④ Make sure there is no trouble/issue in the bolts and respective parts before restarting the machine or equipment.

3) Do not touch a clamp (cylinder) while it is working.
Otherwise, your hands may be injured.

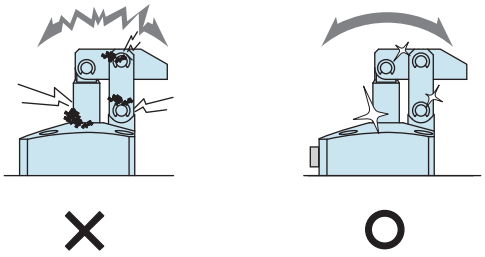


4) Do not disassemble or modify.
- If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.

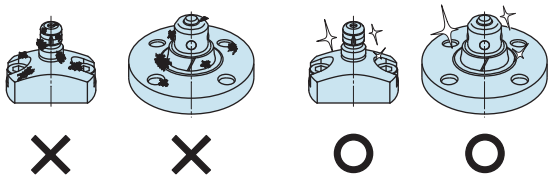
Maintenance and Inspection

1) Removal of the Machine and Shut-off of Pressure Source
- Before removing the product, make sure that the safety devices are in place. Shut off the pressure and power source and make sure no pressure exists in the air and hydraulic circuits.
- Make sure there is no trouble/issue in the bolts and respective parts before restarting.

2) Regularly clean the area around the piston rod and plunger.
- If it is used when the surface is contaminated with dirt, it may lead to packing seal damage, malfunctioning, fluid leakage.



3) Regularly clean the reference surfaces (taper reference surface and seating surface) of locating products (SWT/SWQ/SWP/VRA/VRC/VX/VXE/VXF/WVS/WVG/VWH/VWM/VWK).
- Locating products (except VRA/VRC/VX/VXE/VXF and SWR without air blow port) can remove contaminants with the cleaning function. When installing a workpiece or a pallet, make sure there are no contaminants such as thick sludge.
- Continuous use with dirt on components will lead to locating failure, fluid leakage and malfunction.



4) Regularly tighten pipe, mounting bolt, nut, snap ring, cylinder and others to ensure proper use.

5) Make sure the hydraulic fluid has not deteriorated.

6) Make sure there is a smooth action without an irregular noise.
- Especially when it is restarted after left unused for a long period, make sure it can be operated correctly.

7) The products should be stored in the cool and dark place without direct sunshine or moisture.

8) Please contact us for overhaul and repair.

Warranty

1) Warranty Period

- The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.

2) Warranty Scope

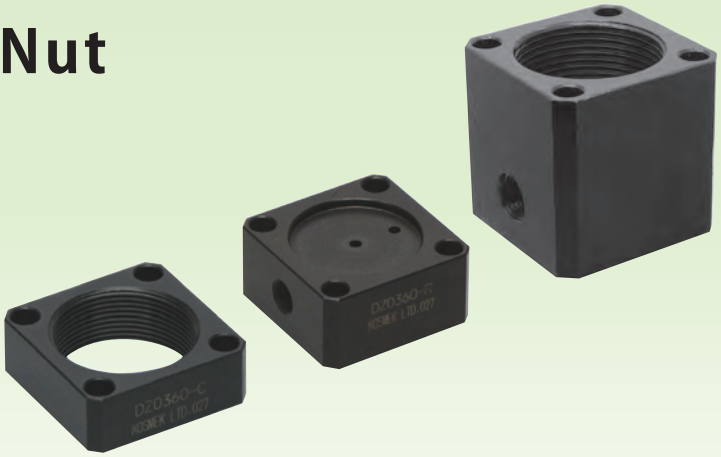
- If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
  Defects or failures caused by the following are not covered.

① If the stipulated maintenance and inspection are not carried out.
② Failure caused by the use of the non-confirming state at the user's discretion.
③ If it is used or operated in an inappropriate way by the operator.
(Including damage caused by the misconduct of the third party.)
④ If the defect is caused by reasons other than our responsibility.
⑤ If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
⑥ Other caused by natural disasters or calamities not attributable to our company.
⑦ Parts or replacement expenses due to parts consumption and deterioration.
(Such as rubber, plastic, seal material and some electric components.)

Damages excluding from direct result of a product defect shall be excluded from the warranty.

Manifold Block / Nut

Model DZ-R
Model DZ-C
Model LZ-S
Model WNZ-SQ

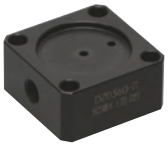


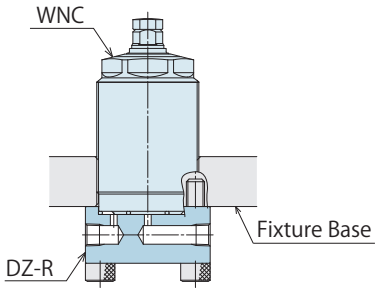
Applicable Model/Application Examples

DZ-R

Manifold Block for WNC

Corresponding Item Model No. : WNC
WNC-E
WNC-EQ

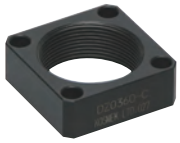


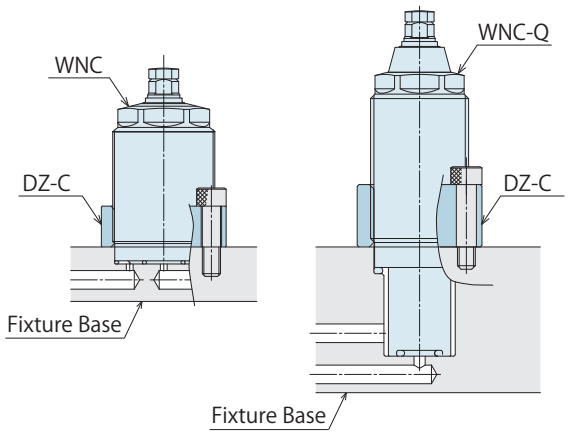


DZ-C

Flanged Nut for WNC

Corresponding Item Model No. : WNC
WNC-E
WNC-EQ
WNC-Q



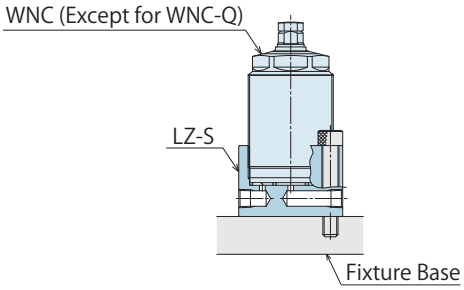


Applicable Model/Application Examples

LZ-S

Manifold Block for WNC

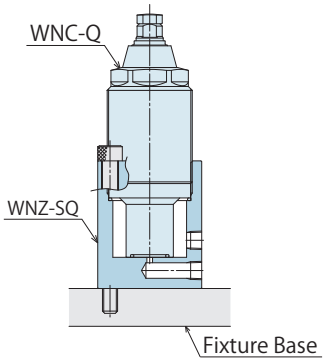
Corresponding Item Model No. : WNC
WNC-E
WNC-EQ



WNZ-SQ

Manifold Block for WNC-Q

Corresponding Item Model No. : WNC-Q

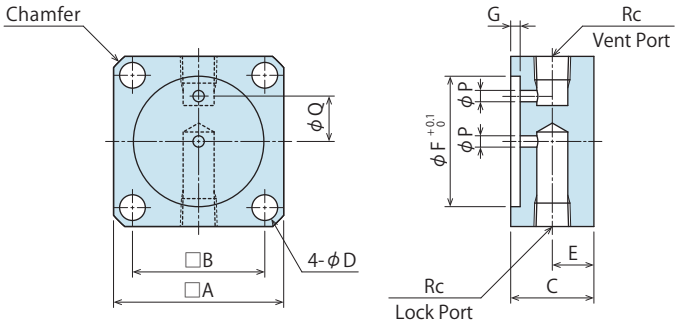


Manifold Block for WNC

Model No. Indication

DZ 036 0 – R

- 036: Size (Refer to the following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	DZ0220-R	DZ0260-R	DZ0300-R	DZ0360-R	DZ0450-R	DZ0600-R
Corresponding Model No.	WNC0353-□ WNC0353-□-E WNC0353-EQ WNC0353-□-S	WNC0603-□ WNC0603-□-E WNC0603-EQ	WNC1003-□ WNC1003-□-E WNC1003-EQ	WNC1603-□ WNC1603-□-E WNC1603-EQ	WNC3003-□ WNC3003-□-E WNC3003-EQ	WNC6003-□ WNC6003-□-E WNC6003-EQ
A	28	35	38	45	55	75
B	21	26	29	35	42	59
C	19	19	22	22	25	25
D	4.5	5.5	5.5	6.8	9	11
E	9.5	9.5	11	11	12.5	12.5
F	20.5	24.5	28.5	34.5	43.5	58
G	2.5	2.5	2.5	2.5	3.5	3.5
P	2	2.5	3	3	5	5
Q	7	9.5	10	12.5	15	24
Rc	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
Chamfer	C2	C3	C3	C3	C4	C4
Weight kg	0.1	0.2	0.2	0.3	0.6	0.9

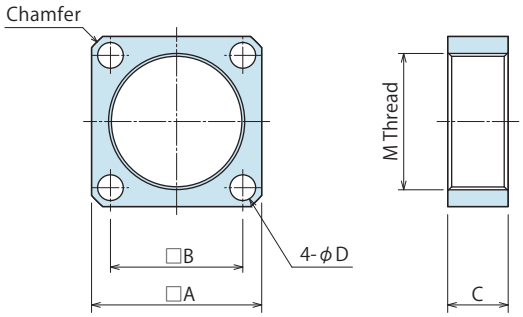
Notes : 1. Material : S45C Surface Finishing : Alkaline Blackening
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
3. It is not applicable for WNC-Q : Long Stroke Option. (Please select from WNZ-SQ.)

Flange Nut for WNC

Model No. Indication

DZ 036 0 – C

- 036: Size (Refer to the following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	DZ0220-C	DZ0260-C	DZ0300-C	DZ0360-C	DZ0450-C	DZ0600-C
Corresponding Model No.	WNC0353-□ WNC0353-□-E WNC0353-EQ WNC0353-□-S WNC0353-Q	WNC0603-□ WNC0603-□-E WNC0603-EQ WNC0603-Q	WNC1003-□ WNC1003-□-E WNC1003-EQ WNC1003-Q	WNC1603-□ WNC1603-□-E WNC1603-EQ WNC1603-Q	WNC3003-□ WNC3003-□-E WNC3003-EQ WNC3003-Q	WNC6003-□ WNC6003-□-E WNC6003-EQ WNC6003-Q
A	28	35	38	45	55	75
B	21	26	29	35	42	59
C	14	14	15	16	18	22
D	4.5	5.5	5.5	6.8	9	11
M (Nominal × Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
Chamfer	C2	C3	C3	C3	C4	C4
Weight kg	0.04	0.07	0.08	0.1	0.2	0.45

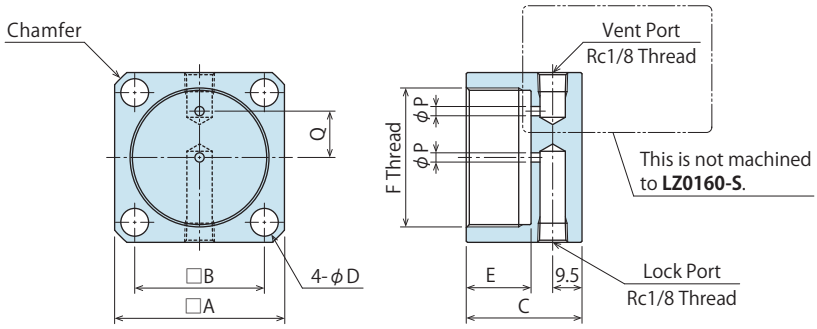
Notes : 1. Material : S45C Surface Finishing : Alkaline Blackening
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

Manifold Block for WNC

Model No. Indication

LZ 036 0 – S

- 036: Size (Refer to the following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	LZ0160-S	LZ0220-S	LZ0260-S	LZ0300-S	LZ0360-S	LZ0450-S	LZ0600-S
Corresponding Model No.	WNC0103-□ WNC0103-□-E	WNC0353-□ WNC0353-□-E WNC0353-EQ WNC0353-□-S	WNC0603-□ WNC0603-□-E WNC0603-EQ	WNC1003-□ WNC1003-□-E WNC1003-EQ	WNC1603-□ WNC1603-□-E WNC1603-EQ	WNC3003-□ WNC3003-□-E WNC3003-EQ	WNC6003-□ WNC6003-□-E WNC6003-EQ
A	25	28	35	38	45	55	75
B	18	21	26	29	35	42	59
C	26.5	30.5	32.5	33.5	34.5	37.5	41.5
D	4.5	4.5	5.5	5.5	6.8	9	11
E	10	14	16	17	18	21	25
F (Nominal × Pitch)	M16×1.0	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
P	2	2	2.5	3	3	3	3
Q	–	7	9.5	11	13	15	24
Chamfer	C2	C2	C3	C3	C3	C4	C4
Weight kg	0.10	0.12	0.20	0.24	0.34	0.52	1.12

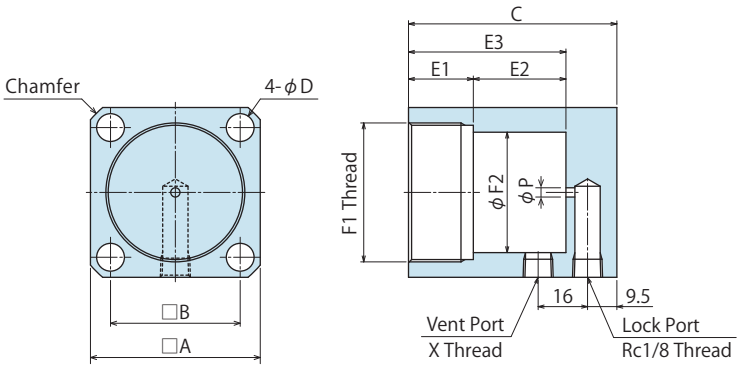
Notes : 1. Material : S45C Surface Finishing : Alkaline Blackening
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
3. It is not applicable for WNC-Q : Long Stroke Option. (Please select from WNZ-SQ.)

Manifold Block for WNC-Q

Model No. Indication

WNZ 035 0 – SQ

- 035: Size (Refer to the following table)
- 0: Design No. (Revision Number)



(mm)

Model No.	WNZ0350-SQ	WNZ0600-SQ	WNZ1000-SQ	WNZ1600-SQ	WNZ3000-SQ	WNZ6000-SQ
Corresponding Model No.	WNC0353-Q	WNC0603-Q	WNC1003-Q	WNC1603-Q	WNC3003-Q	WNC6003-Q
A	28	35	38	45	55	75
B	21	26	29	35	42	59
C	49	51	52	56	59	68
D	4.5	5.5	5.5	6.8	9	11
E1	14	16	17	18	21	25
E2	18.5	18.5	18.5	21.5	21.5	26.5
E3	32.5	34.5	35.5	39.5	42.5	51.5
F1 (Nominal × Pitch)	M22×1.5	M26×1.5	M30×1.5	M36×1.5	M45×1.5	M60×2
F2	16	20	24	30	39	53
P	3	3	3	3	3	3
X Thread	M5×0.8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8
Chamfer	C2	C3	C3	C3	C4	C4
Weight kg	0.20	0.32	0.37	0.55	0.79	1.75

Notes : 1. Material : S45C Surface Finishing : Alkaline Blackening
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

Sales Offices

Sales Offices across the World

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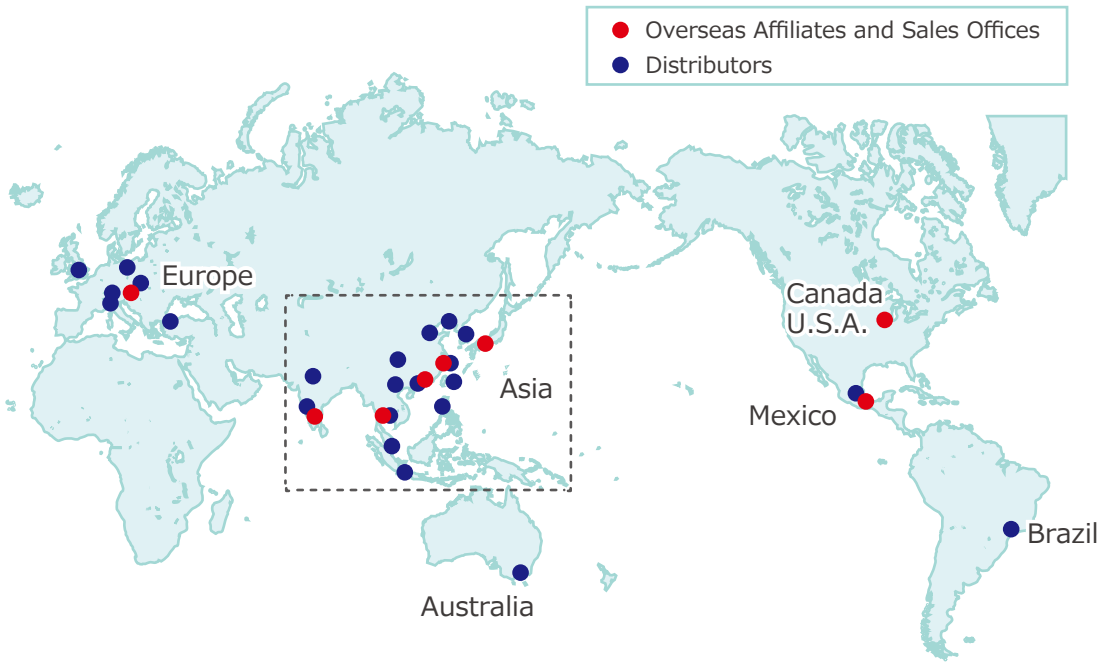
Global Network



Asia Detailed Map

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