## **KONAN**<sup>®</sup>

# AIR CLEANING SYSTEM

# Compressed air cleaning system

Air Cleaning System

Refrigerated Air Dryer

Air Filter



#### Air cleaning system product lineup

Compressed air is produced by the compressor which sucks, compresses, and concentrates suspended substances in the air. Compressed air is added with impurities generated in the line, resulting in further contamination.

#### What is a KONAN air cleaning system?

We developed the system to efficiently remove contaminated substances in the compressed air according to usage in combination with 5 types of air filters that satisfy the quality standard of compressed air based on ISO8573.1. We offer this cleaning system to help customers improve the quality control in various types of production processes.

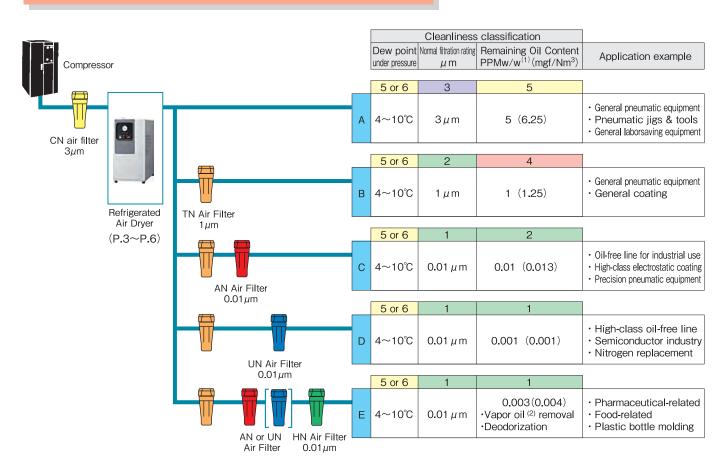
A wide variety of systems compatible with air purity satisfying the customers' needs are available. It's our pleasure to help you with your order.

### ISO 8573-1 (2001)/JIS B 8392-1 (2003) contaminated substances and cleanliness classification

		Solid particle		Humidity and moisture	C	Dil
Classification	Partic	le diameter	dμm	Humidity	Total oil concentration	
Classification	0.10 <d≦0.5< td=""><td></td><td></td><td>Dew point under pressure</td><td>Liquid oil, aer</td><td>osol and vapor</td></d≦0.5<>			Dew point under pressure	Liquid oil, aer	osol and vapor
	Maximum nu	mber of partic	cles per 1m3	℃	mg/m <sup>3</sup>	PPMw/w
0		*1		*1	*	:1
1	100	1	0	≦-70	≦0.01	≦0.008
2	100,000	1,000	10	≦-40	≦0.1	≦0.08
3	_	100,000	500	≦-20	≦1	≦0.8
4	_	_	1,000	<b>≦</b> +3	<b>≦</b> 5	<b>≦</b> 4
5	_	_	20,000	≦+7		
6				≦+10		
				Moisture		
				Moisture concentration		
				Cw g/m <sup>3</sup>		
7				Cw≦0.5		
8				0.5 <cw≦5< td=""><td></td><td></td></cw≦5<>		
9				5 <cw≦10< td=""><td></td><td></td></cw≦10<>		

<sup>\*1:</sup> The severer conditions than classification 1 determined by users and suppliers.

#### System for dew point under pressure: 4°C to 10°C



# Refrigerated Air Dryer

## REFRIGERATED AIR DRYER



## NH-80 SERIES

#### Refrigerated Air Dryer

- Tube-in-tube heat exchanger and hot gas by-pass cooling temperature adjusting system enable pressure dew point 4°C.
- Ozone-safe refrigerant R-134a and R-407C
   Medium pressure, Max. 1.4MPa is available as requested



#### Specification / Model

		Model	NH-	NH-			
Spe	cification		8007N	8012N			
	Rated Flow	50Hz	270	470			
ភ្ល	L/min(ANR) (1)	60Hz	330	570			
ated	Applicable compresso	r kW	2.2	3.7			
Rated condition ®	Inlet Temperature		35	°C			
nditi:	Inlet Pressure		0.7N	MPa			
90	Ambient Temperature	е	32	°C			
	Dew Point		Under pressure: 10°C (Under	atmospheric pressure: 17°C)			
US	Inlet Temperature		5~6	50°C			
Usable range	Inlet Pressure		0.14~1	1.0MPa			
ran	Ambient Temperature	е	1.7~43°C				
	Dew Point		Under pres	sure: 10°C			
Electric specifications	Rated power supply	(3)	Single-phase AC100V 50/60Hz				
ic spe	Power consumption kW	50Hz	0.150	0.205			
cifica	Tower consumption kw	60Hz	0.170	0.240			
tions	Rated current A		2.5	3.0			
Equipment component	Cooler		Tube-in-t	ube type			
pmer	Condenser		Air-cool	ed type			
nt co	Refrigerant control m	ethod	Capillary	tube type			
mpor	Refrigerant temperature control	method	Hot-gas bypass type based	on volume-adjustment valve			
nent	Refrigerant		R-1;	34a			
Air	inlet/outlet piping bore		Rc 3/8	Rc 1/2			
Dra	in discharge port piping	g bore	Rc 1/4	G 1/4			
Dra	in trap type #		NH-503J2				
App	earance dimensions		Please refer to page 5				
Mas	ss kg		15	17			

- (1) L/min (ANR) shows the volume of standard air (air of temperature 20°C, absolute pressure 0.1MPa and relative humidity 65%)
- (2) In case of use on conditions other than rated conditions, calculate based on the following coefficients.
- (3) Units for power voltage other than rated power supply can be created as an option.

#### Treated air volume calculation method

Treated air volume (Q) on arbitrary conditions (other than rated conditions)

can be obtained by the following formula.

 $Q = (Treated air volume on rated conditions) \times (Coefficient (1)) \times (Coefficient (2)) \times (Coefficient (3)) \times (Coefficient (4))$ 

Item			ln	let Press	sure MF	Pa			
	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
Coefficient (1)	0.76	0.76							
	\ \frac{1}{2}								

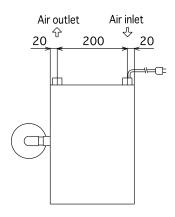
Item			Inlet To	emperatu	ure °C					
	30	35	40	45	50	55	60			
Coefficient (3)	1.19	1.19								

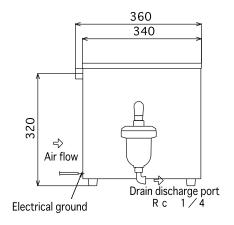
Item	Dew Point °C					
	4	10				
Coefficient (2)	0.71	1.00				

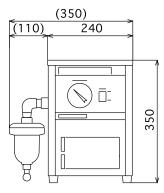
Item	,	Ambient	Tempera	ature °C	;			
	25	30	32	35	40			
Coefficient (4)	1.05 1.02 1.00 0.97 0.92							

#### NH-8007N / NH-8012N

Model Name	Air inlet/outlet piping bore
NH-8007N	Rc 3/8
NH-8012N	Rc 1/2







## **NH-NDK** SERIES

### Refrigerated Air Dryer(After-cooler built-in type)

● Inlet Temperature MAX.80°C

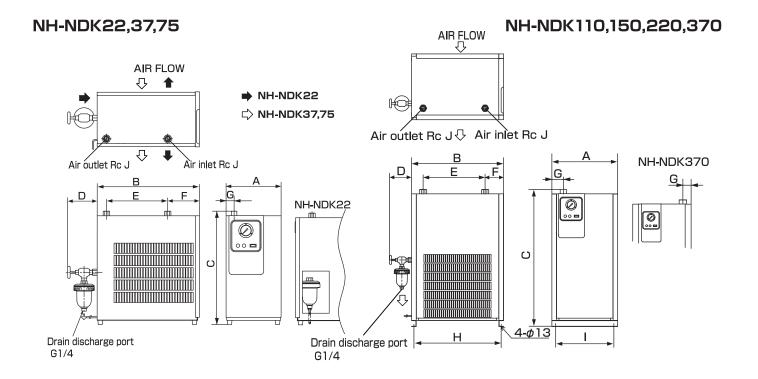
• Ozone-safe refrigerant R-134a (NH-NDK22、NH-NDK37)



#### Specification / Model

		Model	NH-NDK22	NH-NDK37	NH-NDK75	NH-NDK110	NH-NDK150	NH-NDK220	NH-NDK370
Spe	ecification								
æ	Rated Flow L/min(ANR) (**)	50Hz 60Hz	310	500	1100	1600	2400	4100	7100
ateo	Applicable compr	essor kW	2.2	3.7	7.5	11	15	22	37
Rated condition	Inlet Temperatur	е				55°C		1	
nditi	Inlet Pressure					0.7MPa			
9	Ambient Temper	ature				32°C			
	Dew Point					10℃以下			
Us	Inlet Temperatur	е				MAX.80°C			
able	Inlet Pressure					0.2~1.0MPa			
Usable range	Ambient Temper	ature				2~40°C			
1ge	Dew Point				U	nder pressure: 10	°C		
Е	Rated power supply		Single-phase AC100V 50/60Hz	Single-phase AC200V 50/60Hz	Three-phase AC200V 50/60Hz				
Ċtri.		50Hz	0.20	0.26	0.47	0.63	0.85	1.55	2,00
Electric specifications	Power consumption kW	60Hz	0.22	0.23	0.55	0.74	1.00	1.80	2,40
ecifi	Data di autoria A	50Hz	3.0	1.8	1.7	2.3	3.1	5.7	6.8
cati	Rated current A	60Hz	2.8	1.3	1.9	2.5	3.3	5.9	7.6
snc	Power supply connec	tion method	Cord with plug : 1.5m	Cabtyre cord : Triplex 1.25mm 3m		Cabtyre o	cord : quadruple 2	2mm³ 3m	
Co	oler		R-13	34a			R-407C		
Air	Air inlet/outlet piping bore Rc 1/2				Rc 3/4		Rc 1		Rc 1 <sup>1</sup> / <sub>2</sub>
Dra	ain discharge port p	iping bore				G 1/4			
App	pearance dimension	ns			Refer to	Page 6.			
Ма	ss kg		26	32	43	61	65	73	120

<sup>\*</sup> L/min (ANR) shows the volume of standard air (air of temperature 20°C, absolute pressure 760mmHg and relative humidity 65%).



Dimensions symbol Model	А	В	С	D	E	F	G	Н	I	J
NH-NDK22	244	410	544	_	220	80	39	_	_	Rc <sup>1</sup> / <sub>2</sub>
NH-NDK37	269	500	554	144	300	155	39	_	_	Rc 1/2
NH-NDK75	267	541	601	144	350	145	103	_	_	Rc <sup>3</sup> / <sub>4</sub>
NH-NDK110	350	600	795	144	405	120	75	570	300	Rc1
NH-NDK150	350	600	795	144	405	120	75	570	300	Rc1
NH-NDK220	430	600	895	144	405	120	75	570	380	Rc1
NH-NDK370	510	700	1148	144	500	115	72	650	460	Rc1-1/2

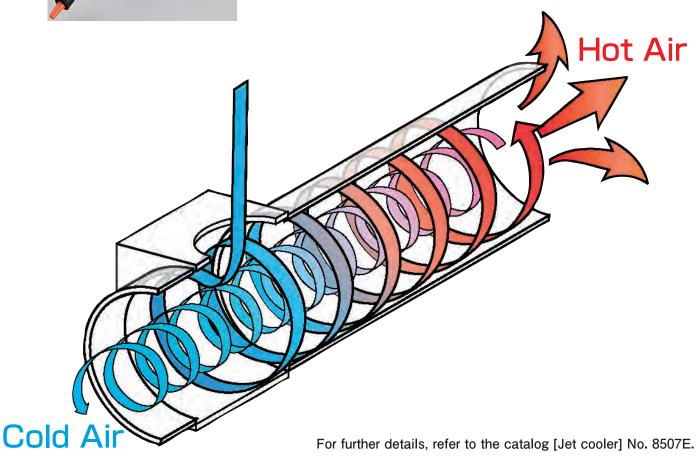
# Optimal for spot cooling in various fields

## **N/K Series**

JET COOLER (COLD AIR GENERATOR)



**JET COOLER** 



## Cost down by clean air!

Increases the quality of compressed air

# NI AIR FILTER SERIES

NI AIR FILTER SERIES

Realization of high performance, high quality and innovative design



## NI air filter/cleaning system

Each element was passed the quality standard for ISO 8573.1 Quality Class of compressed air. Wide-variety of lineup to widen the range of choice

#### Element

A choice of five elements allows you to design a system that delivers the air quality which you required.





(Compatible with 10A to 65A as an option)

#### Modular connection

Bracket



Plural filters can be easily connected in a space-saving manner by the special connection kit.

(Compatible with 10A to 65A as an option)

#### Level gauge



Resin-made level gauge resistant to synthetic lubricating oil. Units of 10A to 40A other than HN series are equipped with the level gauge as standard.

#### Stop valve



The valve is used to prevent air leakage if the auto drain malfunctions.

Units of 10A to 65A other than HN series are equipped with the stop valve as standard.

#### Maintenance

Plug-in element enables easy replacement and minimizes a lower space for replacement.

(Compatible with 10A to 65A as an option)

#### Auto drain



The system to capture dust causing auto drain operation failure in the element increases the reliability of auto drain. Units of all sizes other than HN series are equipped with this system as standard.

#### Drain hose kit



The drain hose kit is available for units of all sizes other than HN series as an option.

The stop valve is available for units of 10A to 65A other than HN series as an option.

Low pressure loss: Employment of mixed-fiber-made coalescing filter media with a very large surface area achieves the high capturing ratio and low decrease in pressure.

**Increased corrosion resistance**: Use of stainless-steel-made punching metal and screen increases corrosion resistance to oil and acid.

Silicon free: Non-use of silicon prevents troubles such as welding failure and coating material adhesion failure on the filter downstream side.

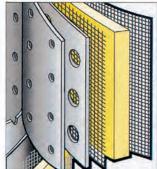
66°C heat-resistant temperature: Optimal as a drain separator of after-cooler.

**Plug-in type:** Plug-in element enables easy replacement and minimizes a lower space for replacement.

**Unified processing ability:** Even when series is changed, if the housing type is the same, the treated air volume is the same. Filter selection, mounting and piping are easy as a system.

**Lineup:** Elements selectable from 5 types achieve appropriate system combination suitable for applications.

#### (CN SERIES)



#### Separator filter

Two-stage type element which maintains the condensate water separation efficiency of 99% even under the maximum drain loading conditions of 25,000PPM w/w is mounted.

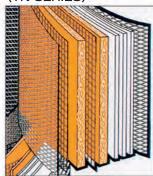
• First stage

two stainless steel orifice tubes provide 10 micron mechanical separation

Second stage

in-depth fiber media captures solid and liquid particles to 3 microns

#### **(TN SERIES)**



#### Line filter

Two-stage type element which removes oil content up to 1PPM w/w even under the maximum drain loading conditions of 2,000PPM w/w is mounted.

Suitable for protection of AN/UN series

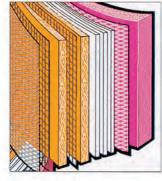
First stage

captures larger particles alternate layers of fiber media and media screen

Second stage

coalesces aerosols and captures solid and multiple layers of epoxy bonded, blended fiber media

#### (AN SERIES)



#### Oil removal filter

Two-stage type element which removes condensed oil content up to 0.01PPM w/w even under the maximum drain loading conditions of 1,000PPM w/w is mounted to remove mist oil content.

●First stage

multiple layers of fiber media and media screen remove larger particles, prefiltering the air for the second stage

Second stage

multiple layers of bonded, blended fiber media for fine coalescence -Outer coated, closed cell foam sleeve

(UN SERIES)



#### Ultra filter

Two-stage type element which removes condensed oil content up to 0.001PPM w/w even under the maximum drain loading conditions of 100PPM w/w is mounted to remove mist oil content.

●First stage

coated, closed cell foam sleeve acts as prefilter and flow disperser

Second stage

imultiple layers of matrix blended fiber media for ultra-fine coalescence -Outer coated, closed cell foam sleeve

#### (HN SERIES)



#### Oil vapor removal filter

Two-stage type element which removes oil and hydrocarbon vapor up to 0.003PPM w/w by activated carbon from compressed air which does not include liquid or mist-like drain is mounted to remove vapor-like oil content.

First stage

a stabilized bed finely divided carbon particles removes the majority of the oil vapor

Second stage

multiple layers of fiber media with bonded microfine carbon particles removes the majority of the oil vapor

-Multiple layers of fine media prevent particle migration

-Outer coated, closed cell foam sleeve prevent fiber migration

-- Designed for 1000 hour life at rated conditions

#### Maintenance sticker

CN · TN · AN · UN series Replace the elements

HN series

Replace the elements every year or every 1000 hours under the rated conditions.

Month

#### Necessary to replace elements

All filters are delivered with the maintenance stickers attached. Replace elements at least once a year. (However, replacement interval varies depending on quality of air.)

The service life of activated carbon of HN series is determined by time and an amount of vapor oil which inflows (depending on temperature, kind of oil, etc.). The reference service life is 1,000 hours on the rated conditions. Replace elements every 1,000 hours or replace them earlier if odor of oil is detected.

#### Specification

N.I.		0	General purpose air	High Efficiency Oil	Ultra High Efficiency	Oil Vapor	
Na	me	Separator filter	Line Filter	Removal Filter	Oil Removal Filter	Removal Filter	
Ser	ies	CN Series	TN Series	AN Series	UN Series	HN Series	
Flu	uid			Air			
Usable pressure	10A∼65A		0.14~1.72	(Note 1)		0~2.06	
MPa	80A~250A		0.07~0.98 (Note 2)				
Na	me ℃			2~66			
Pressure loss	Dry		0.007		0.014	0.007	
MPa	Wet	0.011	0.014	0.021	0.041		
Service life	of element	Every year (Ex. Replace	ality of air.) (Note 4)	Every year or approx. 1,000 hours at rated flow rate (Note 5).			
	Standard	Auto drain Level gauge : 10A~4 Stop valve : 10A~65					
Accessories	Option	Drain hose kit					
	Option	Modular connection Bracket kit: 10A~6					

- (Note 1) In case of NI-CN8 to NI-CN23, 0.14 to 1.37MPa. In the case where auto drain is not equipped, 0 to 2.06MPa.
- (Note 2) In the case where auto drain is not equipped, 0 to 0.98MPa. 0 to 1.55MPa as an option.
- (Note 3) 0 to 1.55MPa as an option
- (Note 4) Increase the replacement frequency when the quality of air is not good.
- (Note 5) Cannot be judged by a differential pressure because the service life is determined by time and an amount of vapor oil which inflows. Replace elements every 1,000 hours or replace them earlier if odor of oil is detected.

#### Separation efficiency

Name		Separator filter	General purpose air	High Efficiency Oil	Ultra High Efficiency	Oil Vapor
Ivaille		Separator filter	Line Filter	Removal Filter	Oil Removal Filter	Removal Filter
Series		CN Series	TN Series	AN Series	UN Series	HN Series
Normal filtration ration	ng	$3\mu$ m	1µm	0.01 <i>µ</i> m	0.01 <i>µ</i> m	0.01 <i>µ</i> m
Residual oil amount in ou	tlet air	EDDM/	1 DDM/	0.01PPMw/w	0.001PPMw/w	0.001PPMw/w
(Oil removal ratio)		5PPMw/w	1PPMw/w	(99.99%)	(99.999%)	Vapor oil removal (Note 1)
ISO8573.1 quality class	Solid	Class3	Class2	Class1	Class1	Class1
1506575.1 quality class	Oil content	Class5	Class4	Class2	Class1	Class1
Max. loading amount of liquid at inlet side		25,000PPMw/w	2,000PPMw/w	1,000PPMw/w	100PPMw/w	Be sure to use AN or UN series at inlet side as a pre-filter. Be sure to use dry air for them.

(Note 1) In the feed-oil type air compressor, aerosol-like oil particle and vapor-like oil particle are mixed with compressed air and discharged together.

Aerosol-like oil particle can be removed up to 0.001PPM w/w by UN series, however, vapor-like oil particle is formed by gas molecule, which cannot be mechanically removed.

In HN series, vapor-like oil particle and odor of hydrocarbon are removed by activated carbon (0.003PPM w/w)

#### Model selection

Do not select filters based on the pipe size but select them with a sufficient margin in consideration of treated air amount and usable pressure.

For the maximum treated air amount except for rated pressure conditions of 0.69MPa, multiply the treated air amount on P.3 "Standard specifications" by the correction coefficient equivalent to the minimum usable pressure at the filter inlet.

Minimum usable output [MPa]	0.20	0.29	0.39	0.49	0.59
Correction coefficient	0.38	0.49	0.62	0.75	0.87
Minimum usable output [MPa]	0.69	0.98	1.37	1.67	2.06
Correction coefficient	1.00	1.17	1.36	1.50	1.65

#### ISO8573.1 quality class

Quality class	Maximum contaminated	Maximum dew point	Maximum contaminated particle			
	particle $\mu$ m	under pressure ℃	PPM w/w(mgf/N)			
1	0.1	<del>-7</del> 0	0.008(0.01)			
2	1	-40	0.08(0.1)			
3	5	-20	0.8(1)			
4	15	3	4(5)			
5	40	7	21 (25)			
6		10				

## NI- CN 11 - 25A - DL - BADVDK

#### Series type

CN: Separator filter

TN: General purpose air Line Filter

AN: High Efficiency Oil Removal Filter

UN: Ultra High Efficiency Oil Removal Filter

HN: Oil Vapor Removal Filter

Element type

9:Separator filter

7:General purpose air Line Filter
5:High Efficiency Oil Removal Filter
3:Ultra High Efficiency Oil Removal Filter

1:Oil Vapor Removal Filter

#### Element/ parts model number

E Element type - Element number 例) E7-36

#### •Modular connection kit/ parts model number

NI-CN Housing type - Connection bore -MK 例)NI-CN11-25A-MK

(Note 1) Pressure at inlet side: 0.69MPa (Note 2) Connection bore Rp screw

_	_		_
	Housir	ng	Pipe connection bore (Note 2)
	Type	Treated air amount (Note 1) m³/min(ANR)	
	Modul	ar type	
	06	0.57	10A
	1	1.00	15A
	2	1.72	ISA
	2 3 5	2.86	20A
	5	4.86	25A
	8	7.15	25A
	11	10.7	40A
	14	13.8	50A
	14	10.0	65A
	18	17.8	65A
	23	22.3	054
		ure vessel type	
	18	17.8	
	30	28.6	80A
	36	35.7	(3B Flange)
	54	53.6	
	72	71.5	100A
	90	89.4	(4B Flange)
	150	143	150A
	200	196	(6B Flange)
	250	250	
	350	339	200A
	470	465	(8B Flange)
	610	608	250A (10B Flange)

#### Accessories

- BA: Bracket Kit (Option) (Compatible with 10A to 65A)
- **DV**: Stop valve (standard equipment) (Excluding HN series. Compatible with 10A to 65A)
- DK: Drain hose kit (Option) (Excluding HN series.)

#### Accessories

- **D: Auto drain (standard equipment)** (Excluding HN series. )
- DM: DM: Manual drain (Option)
  (Standard equipment for HN series)
- L: Level gauge(standard equipment) (Compatible with 10A to 40A)

#### Standard specifications

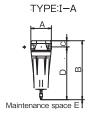
Model number	Housing type	Treated air amount (Note 2)	Connection bore	Standard equipment accessories CN/TN/AN/UN series	Element		
(Note 1)	Housing type	m³/min(ANR)	Connection bore	(Note 1)	Number	Quantity	
Modular type							
NI- 06- DL-DV	06	0.57	10A		E□-12		
NI- 1- DL-DV	1	1.00	15A		E□-16	]	
NI- 2- DL-DV	2	1.72	TOA	Auto drain	E□-20		
NI- 3- DL-DV	3	2.86	20A	Level gauge	E□-24		
NI- 5- DL-DV	5	4.86	25A	Stop valve	E□-28		
NI-	8	7.15	25A	Stop valve	E□-32	1	
NI- 11- DL-DV	11	10.7	40A		E□-36		
	14	13.8	50A		E _ 40	]	
NI- 14- D-DV	14	13.8	65A	Auto drain	E□-40		
NI- 18- D-DV	18	17.8	054	Stop valve	E44	1	
NI- 23- D-DV	23	22.3	65A		E□-48	1	
Pressure vessel type							
NI- 18- D	18	17.8			E□-PV	1	
NI- 30- D	30	28.6	80A:3B Flange		E□-54	2	
NI- 36- D	36	35.7	OUA.SD Hange			2	
NI- 54- D	54	53.6				3	
NI- 72- D	72	71.5	100A:4B Flange			4	
NI- 90- D	90	89.4	100A.4b Flatige	Auto drain		5	
NI- 150- D	150	143		Auto diairi		8	
NI- 200- D	200	196	150A:6B Flange		E□-PV	11	
NI- 250- D	250	250				14	
NI- 350- D	350	339	200A:8B Flange			19	
NI- 470- D	470	465	ZUUA-OD Flatige			26	
NI- 610- D	610	608	250A:10B Flange			34	

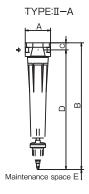
(Note 1) Since HN series/oil vapor removal filter do not need auto drain and level gauge, accessory model number is not displayed. (Note 2) Pressure at inlet side: 0.69MPa

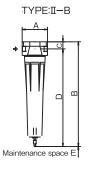
Series	Quality of compressed air	Main application examples	Normal filtration rating $\mu$ m	Residual oil amount in outlet air PPMw/w(mgf/Nm³)		
CN Series	Condensed water of 99% Oil content of 5PPM w/w or less Solid body of 3µm or more The above materials are removed.	General pneumatic equipment Pneumatic jigs & tools General labor-saving equipment At the inlet side of refrigerating-type dryer CN Refrigerating-type  At the outlet side of after-cooler After-cooler CN	3	5(6.25)		
TN Series	Condensed water of 100% Oil content of 1PPM w/w or less Solid body of 1 µm or more The above materials are removed.	General industrial equipment General coating  At the inlet side of AN/UN series  TN AN TN UN  At the outlet side of adsorption-type dryer  Adsorption-type TN	1	1(1.25)		
AN Series	Condensed water of 99.99% Oil content of 0.01 PPM w/w or less Solid body of 0.01 µm or more The above materials are removed.	Industrial oil-free line     Static and high-class coating     Precision pneumatic equipment     At the inlet side of adsorption-type/membrane dryer     TN AN Adsorption-type TN AN Membrane     For removal of fine particles at the outlet side of adsorption-type dryer     Adsorption-type AN	0.01	0.01(0.013)		
UN Series	Condensed water of 99.999% Oil content of 0.001PPM w/w or less Solid body of 0.01 µm or more The above materials are removed.	High-class oil-free line     Semiconductor industry     Nitrogen replacement     At the inlet side of adsorption-type/membrane dryer     TN UN Adsorption-type TN UN Membrane	0.01	0.001 (0.001)		
HN Series	Vapor oil removal Condensed water of 99.999% Oil content of 0.001PPM w/w or less Solid body of 0.01    The above materials are removed. Deodorization (Be sure to use dry air)	Pharmaceutical-related Food-related Plastic bottle molding At the outlet side of AN/UN series AN HN UN HN H	0.01	0.003(0.004) Vapor oil removal		

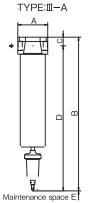
(Note) A dryer is required to remove moisture.

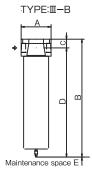
#### **Dimensions**

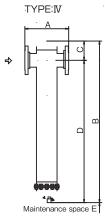


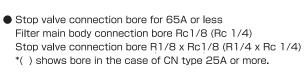


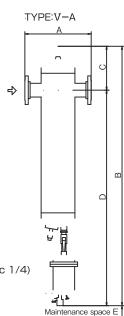


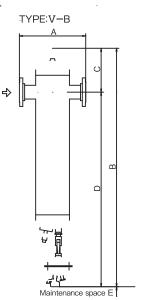












#### Modular type

Series dimension	TY	'PΕ					Mass (kgf)								
symbol	CN TN-AN		Α	В		С	, D			_	CN	TN · AN · UN · HN			
Housing type	011	UN·HN (注1)		CN	TN·AN·UN	HN(注1)	C	CN	TN·AN·UN	HN (注1)	Е	CIN	IN AN ON THI		
06	I-A			2	:47	203		2	210	166			1.2		
1			105	2	99	255 37	37	262 21		218	76	1.3			
2			I-A 133		60	316		323		279		1.4			
3					82	338 40		342 298		298	89	2.6			
5			133	4	89 445		40	449		405	09	3.0			
8	II-A	II-B	164	711	568	524	46	665	522	478		5.8	4.4		
11	II-A   II-B		II-B 164		678	634	40	775	632	588		6.0	4.6		
14	Ш-А Ш-					1011	766	722		954	709	665	102	11.2	9.6
18		Ш-В	194	1157	912	868	57	1100	855	811		12.4	10.6		
23	1			1313	1068	1024		1256	1011 967			14.0	12.2		

#### Pressure vessel type

Series dimension	TY	'PΕ		Dimensions (mm)										Mass (kgf)							
symbol	CN TN·AN A		В			с		D			E			TN	AN	HN					
Housing type		(注1)		CN	TN·AN·UN	HN(注1)	(注1)	CN	TN·AN·UN	HN (注1)	CN	TN·AN·UN	HN	CN		UN					
18	I/	V	284	34 1076		1038	124	952		914	610 610			21							
30			430	1644	1509	1219		1398	1263	973				52	50	48	45				
36			450	1044	1309	1219	246	1330	1203	373				J2	30	40	43				
54		V-B		437	1670	1535	1245		1424	999	999		320		65	6	3	58			
72								508	1752	1617	1327	295	1457	1322	1032				89	0	7
90	V-A			1732	1017	1321 4	293	1437	1322	1032				09	87	02					
150	• ^	•	610	18	812	1387	341	1471	1471	1046	185		610	10	30	128	123				
200			744	0.	01.4	1500	400			1100				24	12	240	235				
250						711	2	014	1589	429	'	585	1160				24	45	243	238	
350			838	2	180	1755	498	1	682	1257		185		32	29	327	322				
470				991	2	151	1726	497	1	654	1229					423		416			
610			1165	2:	227	1802	548	1	679	1254					647		660				

(Note 1) HN series is not equipped with auto drain or stop valve.

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**Distributing Agent**