

### Urethane tube



Realizing magnified bore size and strength increases but still same outer diameter due to new manufacturing process. Meeting needs of large flow rate. Also economical.

#### Common specifications

Descriptions	Descriptions
Working fluid	Air
Ambient temperature range °C	0 to 60
Burst pressure MPa	4 (20°C)
Working pressure MPa	1.0 (20°C)
Use vacuum kPa	-100

#### Specifications

Descriptions	NU-04	NU-06	NU-08	NU-10	NU-12
O.D. x I.D. mm x mm	4 x 2.5	6 x 4.5	8 x 6	10 x 7.5	12 x 9
Burst pressure MPa	4 to 2.4				
Ambient temperature range °C	0 to 60 (no freezing)				
Durometer hardness (JIS K 7215)	HDD 64				
Min. bending radius (JIS B 8381) mm	8	16	24	30	36
Min. installation radius mm	12	26	36	42	52
Outer diameter precision mm	+0.1 -0.1		+0.1 -0.15		
Weight g/m	10	15	28	42	62
Tube color	Black, white				
Length per roll m	20/100 (only black)				

Note: Refer to Intro 63 for relation of tube length and effective sectional area.

#### How to order

**NU - 04 - 20 - W**

A: Tube size (O.D.) B: Length per roll C: Tube color

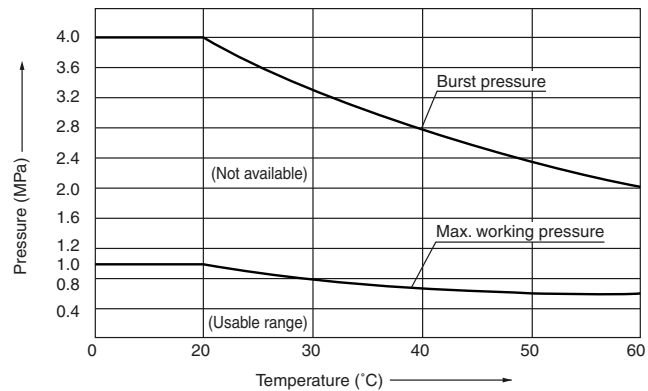
A	Tube size (O.D.)	B	Length per roll	C	Tube color
04	ø4	20	20m	Blank	Black (standard)
06	ø6	100	100m	W	White (standard)
08	ø8	Note: If tube color is white "W", length per roll 100m is not available.			
10	ø10				
12	ø12	Note: Consult with CKD of other color.			

#### Clean room specifications (catalog No. CB-033SA)

● Dust generation preventing structure for use in cleanrooms

NU..... P80

#### Relevant of working temperature and pressure (use / burst)



Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending

Tube Joint / tube

### Soft urethane tube

AOI Co., Ltd.

#### How to order

**U-92 - 06 - 20 - N**

A: Applicable tube O.D. size B: Length per roll C: Tube color

A	Applicable tube O.D. size	B	Length per roll	C	Tube color
04	ø4	20	20m	Blank	Black
06	ø6	100	100m	N	Clear
08	ø8				PW White pure
10	ø10				R Red
12	ø12				BU Blue
					Y Yellow
					G Green
					O Orange

#### Clean room specifications

(catalog No. CB-033SA)

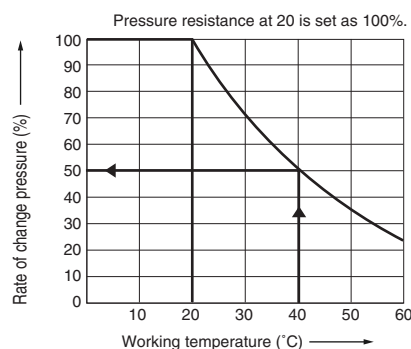
U-92..... P80

#### Specifications

This table indicates the value at 20°C.

Descriptions	U-9204	U-9206	U-9208	U-9210	U-9212
Working fluid	Compressed air				
O.D. x I.D. mm x mm	4 x 2	6 x 3.7	8 x 5	10 x 6.5	12 x 8
Burst pressure MPa	4.1	2.9	2.8	2.6	2.6
Working pressure MPa	1.3	0.9	0.9	0.8	0.8
Durometer hardness JIS K7215	HDA 92				
Min. bending radius mm	4	10	11	13	16.5
Min. installation radius mm	8	17	25	30	36
Standard color	Black, clear, red, blue, yellow, green, orange, white pure				
Standard length per roll m	20/100				

#### Relevant of working temperature and working pressure



Working pressure = Vacuum breaker pressure x variation rate x 1/3 at 20°C

When the temperature rises, the constant pressure gradually drops. Special care must be taken for temperature in use.

Example) U-9208, working temperature 40°C  
Working pressure = Vacuum breaker pressure x variation rate x 1/3

$$= 2.0 \times \frac{50}{100} \times \frac{1}{3} = 0.33 \text{ MPa}$$

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact conf. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

Urethane tube

AOI Co., Ltd.

Since urethane tube has high mechanical strength, the tube strongly endures external force, and also has flexibility. This is widely used in general pneumatic lines, etc.

How to order

U-95

04

N

A

B

Urethane tube

A Applicable tube O.D. size		B Tube color	
32	ø3.2	Blank	Black
04	ø4	N	Clear
06	ø6		
08	ø8		
10	ø10		
12	ø12		

Note: Indicate tube color in the remarks on the order slip.

Clean room specifications (catalog No. CB-033SA)

U-95-----P80

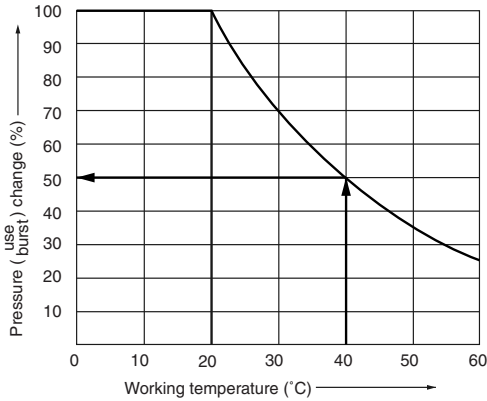
Specifications

This table indicates the value at 20°C.

Descriptions	U-9532	U-9504	U-9506	U-9508	U-9510	U-9512
Working fluid	Compressed air					
O.D. × I.D. mm × mm	3.2 × 1.8	4 × 2	6 × 4	8 × 5	10 × 6.5	12 × 8
Ambient temperature range °C	0 to 60 (no freezing)					
Burst pressure MPa	6.1	5.2	3.2	3.6	3.4	3.2
Max. working pressure MPa	2.0	1.7	1.0	1.2	1.1	1.0
Durometer hardness JIS K 7215	HDA 97					
Min. bending radius (JIS B 8381) mm	4	5	13	14	16	20
Min. installation radius mm	7	10	20	30	40	50
Standard color	Clear and black					
Standard length per roll m	20	20/100			20	

\* IF U-9506 or less, tolerance of outer diameter may vary within  $+0.1/-0.15$  mm, U-9508 over, may vary within  $+0.1/-0.2$  mm.

Relevant of working temperature and pressure (use / burst)



Working pressure = Vacuum breaker pressure × variation rate × 1/3 at 20°C  
When the temperature rises, the constant pressure gradually drops. Special care must be taken for temperature in use.

Example)  
U-9506, working temperature 40°C  
Working pressure = Vacuum breaker pressure × variation rate × 1/3  
 $= 3.2 \times \frac{50}{100} \times 1/3$   
 $= 0.53 \text{ MPa}$

Coiling tube

AOI Co., Ltd.

A coiling tube is a coil-like manufactured extensible tube. Differing from the conventional way, a joint is easily installed, since a straight section is provided with the specified length to the extensible direction from end of the coil, and the coil shrinks and extends very smoothly. Durability of coil end is also excellent.

How to order

KX-12

06

A

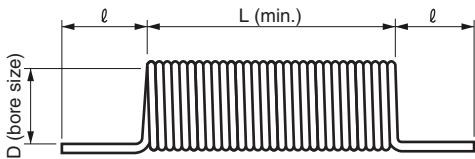
Coiling tube

A O.D. size	
06	ø6
08	ø8
10	ø10
12	ø12

Specifications

Descriptions	KX-1206	KX-1208	KX-1210	KX-1212
O.D. × I.D. mm × mm	6 × 4	8 × 6	10 × 7.5	12 × 9.2
Ambient temperature range °C	-10 to 60 (no freezing)			
Use extension m	2.5			
D mm	50	70	90	
L mm	250	240	290	275
ℓ	100			
Color	Orange			

\* Tolerance of outer diameter may vary within  $+0.07/-0.1$  mm.  
\* Tubing is made of hard nylon. Consult with CKD for urethane tubing.





### Flame resistant tube

AOI Co., Ltd.

Flame retardant material used epoch-making tube. If welding spatter, etc. contact, the tube is not burning.

(Equivalent to UL standards 94V-0: Self extinguish)

### How to order

SR - 04 - 100 -  

Flame resistant tube

A Applicable tube O.D. size		B Tube color	
04	ø4	Blank	Black
06	ø6	R	Red
08	ø8	BU	Blue
10	ø10	G	Green
12	ø12		

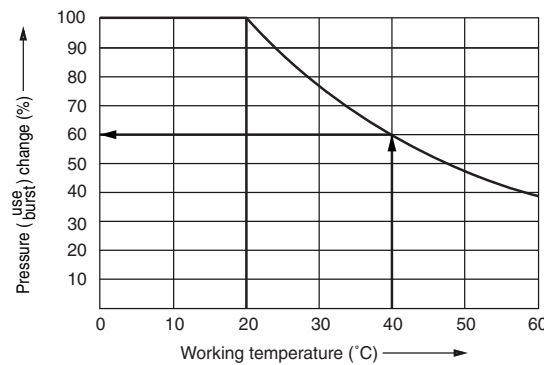
Note: Indicate tube color in the remarks on the order slip.

### Specifications

Descriptions	SR-04	SR-06	SR-08	SR-10	SR-12
O.D. × I.D. mm × mm	4 × 2	6 × 3.8	8 × 5.5	10 × 7	12 × 8.5
Ambient temperature range °C	0 to 60 (no freezing)				
Burst pressure MPa	4.8	4.3	3.4	3.3	3.3
Max. working pressure MPa	1.6	1.4	1.1	1.1	1.1
Min. bending radius mm	15	22	30	40	50
Standard color	Black, red, blue, green				
Standard length per roll m	100				

This table indicates the value at 20°C.

### Relevant of working temperature and pressure (use / burst)



Working pressure = Vacuum breaker pressure × variation rate × 1/3 at 20°C

When the temperature rises, the constant pressure gradually drops. Special care must be taken for temperature in use.

Example)

SR-06, working temperature 40°C

Working pressure = Vacuum breaker pressure × variation rate × 1/3

$$= 4.3 \times \frac{60}{100} \times 1/3$$

$$= 0.86 \text{ MPa}$$

Refrigerating type dryer

Desiccant type dryer

High polymer membrane type dryer

Air filter

Auto. drain / others

F.R.L. (Module unit)

F.R.L. (Separate)

Compact F.R.

Precise regulator

F.R.L. (Related products)

Clean F.R.

Electro pneumatic regulator

Air booster

Speed control valve

Silencer

Check valve / others

Joint / tube

Vacuum filter

Vacuum regulator

Suction plate

Magnetic spring buffer

Mechanical pressure SW

Electronic pressure SW

Contact / close contact cont. SW

Air sensor

Pressure SW for coolant

Small flow sensor

Small flow controller

Flow sensor for air

Flow sensor for water

Total air system

Total air system (Gamma)

Ending

Tube Joint / tube