TOTAKU

TOTAKU Non-PVC Hoses ECO Series

Founded in 1952, Nagase RooTAC INDUSTRIES, INC. has been a pioneer in the pipes and hose industry, creating the world's first flexible hose. Driven by our core principle of prioritizing customer satisfaction through exceptional quality, we continuously innovate to meet the evolving needs of our customers. We are dedicated to making a positive impact on the world by developing unique, thoughtful products that address modern challenges.



Featured Products

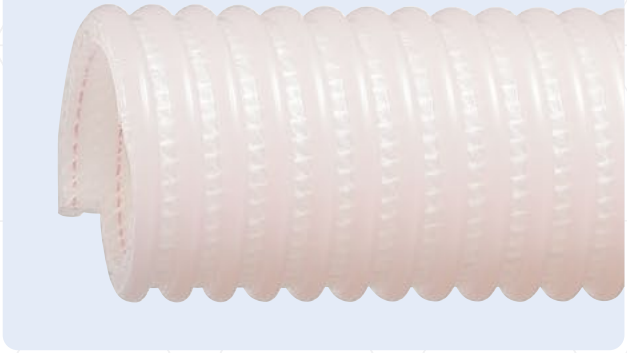
ECO LINE-HO 100°C 02
SHIMETAC for TOTAKU ECO LINE-HO 100°C 03
ECO LINE 04
ECO LINE-HO 05
SHIMETAC for TOTAKU ECO LINE 06
ECO PP-SPRING 07
ECO SD-AS 08
ECO SD-C 09
ECO DUCT 10
ECO DUCT-AS 11

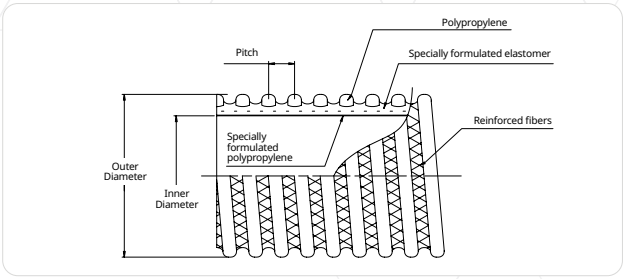
Notice:

- The data in this catalog uses values in a straight hose configuration.
- The permissible pressure is not the maximum operating pressure. Please refer to the "Operating Pressure Design Table" in the hose handling precautions and configure according to the operating pressure (normal working pressure). Also, please note that the combination of fittings and clamps, operating temperature, and bending conditions may affect performance.

TOTAKU ECO LINE-HO 100°C

Part Number - 22188





Features

- Suitable for transporting oils, fatty foods, and general food products.
- Complies with standards for food and additives established by the Japanese Ministry of Health and Labour and Welfare (Notification No. 370). But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- Can be cleaned with hot water at temperatures up to 212°F (100°C) or with 95% ethanol, ensuring hygienic use.
- Safe for incineration after use without emitting harmful gases. (Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.)
- Semi-transparent construction allows for easy inspection of transported materials.
- Reinforced with a reinforcing fiber, offering pressure resistance up to 101.5 psi (0.7 MPa).

Applications

- Suitable for transporting edible oils, fatty foods, sake, shochu, and other alcoholic beverages, as well as soft drinks and various liquids or powders.
- Ideal for hygienic piping applications, such as transporting purified water.
- Designed for transporting hot water or similar liquids at temperatures below 212°F (100°C). (Refer to the table below for pressure resistance performance at temperatures above 104°F [40°C].)

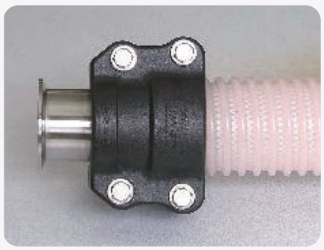
Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1	25	1.00	25.4	1.52	38.6	0.30	7.5	0.31	460	65/164	20/50	101.53	0.70	4.72	120
1.5	38	1.50	38.0	2.17	55.0	0.39	10.0	0.57	850	65/164	20/50	101.53	0.70	9.45	240
2	50	2.00	50.8	2.72	69.0	0.43	11.0	0.81	1210	65/164	20/50	101.53	0.70	11.81	300

Nominal Diameter		Allowable Pressure					
		104°F to 140°F (40°C to 60°C)		140°F to 176°F (60°C to 80°C)		176°F to 212°F (80°C to 100°C)	
inch	mm	inch	mm	inch	mm	inch	mm
1	25	87.02	0.60	72.52	0.50	58.02	0.40
1.5	38	87.02	0.60	72.52	0.50	58.02	0.40
2	50	79.77	0.55	58.02	0.40	43.51	0.30

The recommended operating temperature range is 32°F to 212°F (0°C to 100°C). However, allowable pressure may vary depending on the operating temperature and installation method.

Recommended Fitting Installation Examples



SHIMETAC
(for IDF Ferrule)



EPDM Corrugated Sealing with Stainless Steel Crimping
(for IDF Ferrule)

Operating Temperature Range:

°F: 32 to 212 °C: 0 to 100

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

Scan, tap, or touch for product videos

Product Overview

SHIMETAC for TOTAKU ECO LINE-HO 100°C

Applicable Sizes: 1.5 inches (ϕ38 mm) and 2 inches (ϕ50 mm)

Part number 92413
Material: Fiber-Reinforced Polypropylene



Features

- Made from resin, ensuring a lightweight design.
- Rust-free due to its resin construction.
- Equipped with Stainless Steel 304 bolts, flat washers, and nuts.
- Reliable pressure resistance performance.
- Fittings are removable for easy cleaning.
- Designed with a secure structure to prevent detachment.

Notes

- Be sure to use the *dedicated fittings* for SHIMETAC.
- The fittings shown below are examples.

Pressure Resistance Performance at 212°F (100°C)

Nominal Diameter		Processing Methods					
		EPDM Corrugated Sealing with Stainless Steel Crimping		Band Tightening		SHIMETAC Tightening	
inch	mm	inch	mm	inch	mm	inch	mm
1	25	58.02	0.40	14.50	0.10	—	—
1.5	38	58.02	0.40	14.50	0.10	58.02	0.40
2	50	43.51	0.30	14.50	0.10	43.51	0.30

Dedicated Fittings for SHIMETAC

Part Number 92313



IDF Ferrule with SHIMETAC shank
(Stainless Steel)

Part Number 92312



M1 SHIMETAC shank
(Stainless Steel)

Part Number 92305



Flange with SHIMETAC shank
(Stainless Steel)

Part Number 92333



Camlock 633-CTS
(Stainless Steel)

Part Number 92332



Camlock 633-ETS
(Stainless Steel)

Part Number 92416



TS Flange with SHIMETAC shank
(PVC)

Part Number 92417



Loose Flange with SHIMETAC shank
(Polypropylene)
(Flange Part: Structural Steel)

Hose Installation Example



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Product Overview

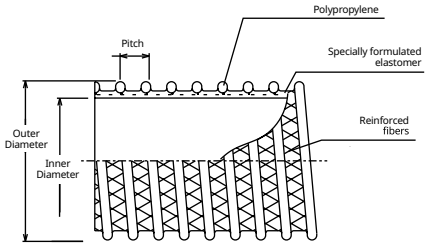
Compatible Hoses

Installation Method

TOTAKU ECO LINE

Part Number - 22166





TOTAKU ECO LINE with Grounding Wire

Part Number - 22167



Note: This product is made to order. Please contact us for more information.

Features

- Safe for use in food applications.
  Note: Not suitable for transporting foods or liquids containing oils or fats.
- Meets the standards for food and additives set by the Japanese Ministry of Health, Labour and Welfare (Notification No. 370), excluding elution testing for fatty and oily foods. But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- The U.S. standard is currently under development.
- Can be cleaned with hot water[1] and 95% ethanol, ensuring hygienic use.
- Safe for incineration after use without emitting harmful gases[2] (Incineration ash residue is less than 0.1%).
- Semi-transparent construction allows for easy inspection of transported materials.
- Flexible design enables easy handling during use.
- It is equipped with a reinforcement fiber, providing an allowable pressure of 72.5 psi (0.50 MPa).

Applications

- Suitable for transporting alcoholic beverages such as sake and shochu, as well as soft drinks.
- Ideal for transporting other food products, including liquids and powders.
- Designed for general water suction and discharge applications.

Cautions

- Do not use or store outdoors for extended periods.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1	25	1.00	25.4	1.44	36.7	0.31	7.8	0.24	350	164	50	72.52	0.50	4.72	120
1.25	32	1.26	32.0	1.73	44.0	0.35	8.8	0.30	445	164	50	72.52	0.50	5.91	150
1.5	38	1.50	38.0	2.01	51.0	0.37	9.3	0.39	580	164	50	72.52	0.50	8.27	210
2	50	2.00	50.8	2.57	65.2	0.40	10.2	0.54	800	164	50	72.52	0.50	9.45	240
2.5	65	2.50	63.5	3.17	80.5	0.55	14.0	0.74	1105	65/164	20/50	72.52	0.50	12.99	330
3	75	3.00	76.2	3.76	95.5	0.59	15.0	1.03	1530	65/164	20/50	72.52	0.50	15.35	390

The recommended operating temperature range is 32°F to 122°F (0°C to 50°C). However, allowable pressure may vary depending on the operating temperature and installation method. For continuous use, keep the temperature below 104°F (40°C).

Operating Temperature Range:

°F: 32 to 122 °C: 0 to 50

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

Additional Notes:

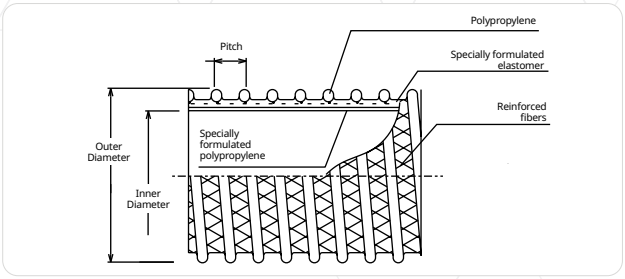
[1] Hot water cleaning should be performed under the following conditions: temperature below 176°F (80°C), pressure below 14.5 psi (0.1 MPa), and a pressurization time of 3 minutes or less.

[2] Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.

TOTAKU ECO LINE-HO

Part Number - 22168





Features

- Suitable for transporting oils, fatty foods, and general food products.
- Meets the standards for food and additives set by the Japanese Ministry of Health, Labour and Welfare (Notification No. 370), excluding elution testing for fatty and oily foods. But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- Can be cleaned with hot water[1] and 95% ethanol, ensuring hygienic use.
- Safe for incineration after use without emitting harmful gases[2] (Incineration ash residue is less than 0.1%).
- Semi-transparent construction allows for easy inspection of transported materials.
- It is equipped with a reinforcement fiber, providing an allowable pressure of 72.5 psi (0.50 MPa).

Applications

- Suitable for transporting edible oils, fatty foods, sake, shochu, and other alcoholic beverages, as well as soft drinks and various liquids or powders.

Cautions

- Do not use or store outdoors for extended periods.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1	25	1.00	25.4	1.47	37.4	0.31	7.8	0.24	360	164	50	72.52	0.50	4.72	120
1.25	32	1.26	32.0	1.73	44.0	0.35	9.0	0.31	455	164	50	72.52	0.50	5.91	150
1.5	38	1.50	38.0	2.01	51.0	0.39	10.0	0.39	580	164	50	72.52	0.50	9.45	240
2	50	2.00	50.8	2.55	64.8	0.41	10.5	0.55	820	164	50	72.52	0.50	11.81	300

The recommended operating temperature range is 32°F to 140°F (0°C to 60°C). However, allowable pressure may vary depending on the operating temperature and installation method. For continuous use, keep the temperature below 122°F (50°C).

Operating Temperature Range:

°F: 32 to 140 °C: 0 to 60

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

Additional Notes:

[1] Hot water cleaning should be performed under the following conditions: temperature below 176°F (80°C), pressure below 14.5 psi (0.1 MPa), and a pressurization time of 3 minutes or less.

[2] Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.

SHIMETAC for TOTAKU ECO LINE

Applicable Sizes: 1 inch (ϕ25 mm), 1.5 inches (ϕ38 mm), 2 inches (ϕ50 mm), 2.5 inches (ϕ65 mm), 3 inches (ϕ75 mm)

SHIMETAC for TOTAKU ECO LINE and TOTAKU ECO LINE-HO

***1 inch (φ25 mm) is compatible with Line Ace**
***1.5inch-3inch(φ38mm-φ75mm) is compatible with ECO SD-AS**



φ 25



Part Number 92311
Material: Fiber-Reinforced Polypropylene

TOTAKU ECO LINE

Allowable Pressure: 72.5 psi (0.5 MPa) or less (at room temperature)

Hot Water Wash: 14.5 psi (0.1 MPa) or less (up to 176°F [80°C], within 3 minutes)

TOTAKU ECO LINE-HO

Allowable Pressure: 72.5 psi (0.5 MPa) or less (at room temperature)

Hot Water Wash: 14.5 psi (0.1 MPa) or less (up to 176°F [80°C], within 30 minutes)

Features

- Made from resin, ensuring a lightweight design.
- Rust-free due to its resin construction.
- Equipped with Stainless Steel 304 bolts, flat washers, and nuts.
- Reliable pressure resistance performance.
- Fittings are removable for easy cleaning.
- Designed with a secure structure to prevent detachment.

Notes

- Be sure to use the *dedicated fittings* for SHIMETAC.
- The fittings shown below are examples.

Suggested Food-Grade Assembly

TOTAKU ECO LINE:
(1 inch [ϕ25 mm], 1.5 inches [ϕ38 mm], 2 inches [ϕ50 mm], 2.5 inches [ϕ65 mm], 3 inches [ϕ75 mm])

TOTAKU ECO LINE-HO:
(1 inch [ϕ25 mm], 1.5 inches [ϕ38 mm], 2 inches [ϕ50 mm])



Dedicated Fittings for SHIMETAC

Part Number 92312



M1 SHIMETAC shank *(Stainless Steel)*
Also available in Steel Structure

Part Number 92313



IDF Ferrule with SHIMETAC shank *(Stainless Steel)*

Part Number 92333



Camlock 633-CTS *(Stainless Steel)*

Part Number 92332



Camlock 633-ETS *(Stainless Steel)*

Part Number 92417



Loose Flange with SHIMETAC shank *(Polypropylene)* *(Flange Part: Steel Structure)*

Part Number 92305



Flange with SHIMETAC shank *(Stainless Steel)*

Scan, tap, or touch for product videos

Product Overview | **Compatible Hoses** | **Installation Method**

TOTAKU ECO PP-SPRING

Applicable Sizes: 1 inch (ϕ25 mm), 1.25 inches (ϕ32 mm), 1.5 inches (ϕ38 mm), 2 inches (ϕ50 mm), 2.5 inches (ϕ65 mm), 3 inches (ϕ75 mm)

ECO PP Spring Installation Example

Part Number 22176





Sold in lengths of 100 corrugations.

Applications

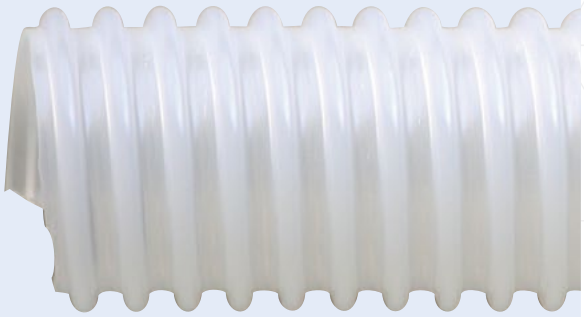
- Designed for use as a corrugated sealing material when securing TOTAKU ECO LINE with flat bands or similar fasteners.
- Ideal for preventing localized bending near fittings.

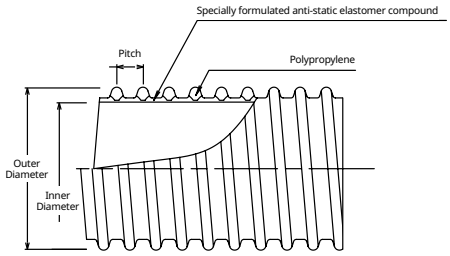
Example of TOTAKU ECO LINE in Use



TOTAKU ECO SD-AS

Part Number - 22183





SHIMETAC for TOTAKU ECO LINE is now available!

(Applicable Sizes: 1.5 inches (φ38 mm) to 3 inches (φ75 mm))



Features

- Safe for use in food applications.
  Note: Not suitable for transporting foods or liquids containing oils or fats.
- Meets the standards for food and additives set by the Japanese Ministry of Health, Labour and Welfare (Notification No. 370), excluding elution testing for fatty and oily foods. But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- Safe for incineration after use without emitting harmful gases.[1]
- The smooth inner surface boosts transport efficiency.
- Ensures strong anti-static properties.
- Lightweight, flexible, and offers excellent abrasion resistance.
- Semi-transparent construction allows for easy inspection of transported materials.

Applications

- Ideal for transporting resin pellets used in food packaging, toys, and other applications.
- Suitable for transporting granular and powdered food products.
- Appropriate for transporting pharmaceuticals.
- Also used for transporting non-food granular and powdered materials.

Cautions

- Do not use or store outdoors for extended periods.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1.5	38	1.50	38.0	1.89	48.0	0.35	9.0	0.23	340	164	50	14.50	0.10	5.91	150
2	50	2.00	50.8	2.44	62.0	0.39	10.0	0.37	550	164	50	14.50	0.10	7.68	195
2.5	65	2.50	63.5	2.99	76.0	0.56	14.3	0.47	695	65/164	20/50	14.50	0.10	10.04	255
3	75	3.00	76.2	3.62	92.0	0.62	15.8	0.64	950	65	20	14.50	0.10	10.04	255
4	100	4.00	101.6	4.67	118.5	0.71	18.0	1.08	1600	65	20	14.50	0.10	17.72	450

The recommended operating temperature range is 32°F to 122°F (0°C to 50°C). However, allowable pressure may vary depending on the operating temperature and installation method. For continuous use, keep the temperature below 104°F (40°C).

Operating Temperature Range:

°F: 32 to 122 °C: 0 to 50

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

Scan, tap, or touch for product videos

Product Overview and More

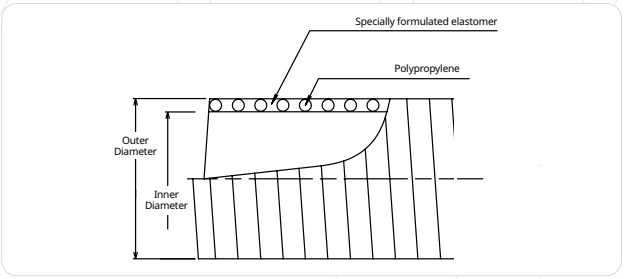
Additional Notes:

[1] Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.

TOTAKU ECO SD-C

Part Number - 22182





Features

- Safe for use in food applications.
  Note: Not suitable for transporting foods or liquids containing oils or fats.
- Meets the standards for food and additives set by the Japanese Ministry of Health, Labour and Welfare (Notification No. 370), excluding elution testing for fatty and oily foods. But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- Provides outstanding heat resistance and flexibility.
- Can be cleaned with hot water[1] and 95% ethanol, ensuring hygienic use.
- Safe for incineration after use without emitting harmful gases.[2]
- Lightweight, and offers excellent abrasion resistance.
- Features smooth surfaces on both the interior and exterior.
- Semi-transparent construction allows for easy inspection of transported materials.

Applications

- Suitable for transporting alcoholic beverages such as sake and shochu, as well as soft drinks.
- Ideal for transporting food products and others.
- Designed for general water suction and discharge applications.

Cautions

- Do not use or store outdoors for extended periods.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1.5	38	1.50	38.0	1.83	46.6	0.33	485	164	50	43.51	0.30	9.45	240
2	50	2.00	50.8	2.39	60.6	0.54	805	164	50	29.01	0.20	14.17	360

The recommended operating temperature range is 32°F to 122°F (0°C to 50°C). However, allowable pressure may vary depending on the operating temperature and installation method. For continuous use, keep the temperature below 104°F (40°C).

Operating Temperature Range:

°F: 32 to 122 °C: 0 to 50

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5inHg (-0.1 MPa) is feasible at room temperature.

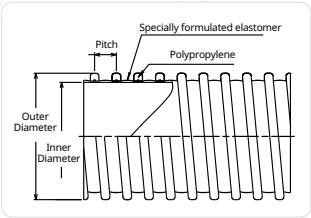
Additional Notes:

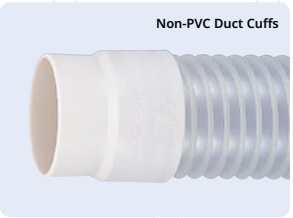
[1] Hot water cleaning should be performed under the following conditions: temperature below 176°F (80°C), pressure below 14.5 psi (0.1 MPa), and a pressurization time of 3 minutes or less.

[2] Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.

TOTAKU ECO DUCT







Features

- Lightweight and flexible, allowing for easy handling.
- Safe for use in food applications.
  Note: Not suitable for transporting foods or liquids containing oils or fats.
- Meets the standards for food and additives set by the Japanese Ministry of Health, Labour and Welfare (Notification No. 370), excluding elution testing for fatty and oily foods. But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- Exceptional bending durability.
  (No defects observed after 1,000,000 bending cycles)
- Transparent construction allows for easy inspection of transported materials
- Safe for incineration after use without emitting harmful gases.[1]
  (Incineration ash residue is 0.05% or less)

Applications

- Suitable for air supply and exhaust in equipment and machinery.
- Appropriate for use in intake and exhaust systems of food-grade machinery.
- Ideal for air supply and exhaust in cleanrooms and other environments requiring low particle emission.
- Suitable for drainage purposes (for surface-level drainage).

Cautions

- Do not use or store outdoors for extended periods.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Depressurization *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inHg	kPa	inch	mm
1.25	32	1.26	32.0	1.50	38.0	0.30	7.5	0.11	170	98	30	5.80	0.04	14.97	-50.7	1.57	40
1.5	38	1.50	38.0	1.77	45.0	0.31	7.8	0.16	235	98	30	5.80	0.04	14.97	-50.7	1.97	50
2	50	2.00	50.8	2.32	59.0	0.39	10.0	0.22	325	98	30	5.80	0.04	14.97	-50.7	2.36	60
2.5	65	2.50	63.5	2.83	72.0	0.49	12.5	0.27	405	98	30	4.35	0.03	14.97	-50.7	2.95	75
3	75	3.00	76.2	3.35	85.0	0.51	13.0	0.32	470	98	30	4.35	0.03	9.74	-33.0	3.54	90
3.5	90	3.50	88.9	3.90	99.0	0.53	13.5	0.39	575	98	30	4.35	0.03	5.91	-20.0	3.54	90
4	100	4.00	101.6	4.39	111.5	0.59	15.0	0.43	635	98	30	4.35	0.03	5.17	-17.5	4.33	110
5	125	5.00	127.0	5.45	138.5	0.83	21.0	0.66	975	65	20	2.90	0.02	3.69	-12.5	5.31	135
6	150	6.00	152.4	6.46	164.0	0.79	20.0	0.76	1125	65	20	2.90	0.02	3.69	-12.5	6.30	160
8	200	8.00	203.2	8.50	216.0	0.89	22.5	1.04	1545	65	20	1.45	0.01	1.77	-6.0	8.27	210
10	250	9.92	252.0	10.67	271.0	1.02	26.0	2.00	2975	32	10	1.45	0.01	1.18	-4.0	11.81	300
12	300	11.93	303.0	12.68	322.0	1.02	26.0	2.51	3735	32	10	1.45	0.01	0.74	-2.5	13.78	350

This product uses materials designed to minimize dust generation; however, under certain conditions (such as temperature, fluid type, or pressure), particle emission may still occur. Please verify emission characteristics based on your operating conditions before use.

Operating Temperature Range:

°F: -4 to 122 °C: -20 to 50

Notes:

- The permissible pressure varies with operating temperature.

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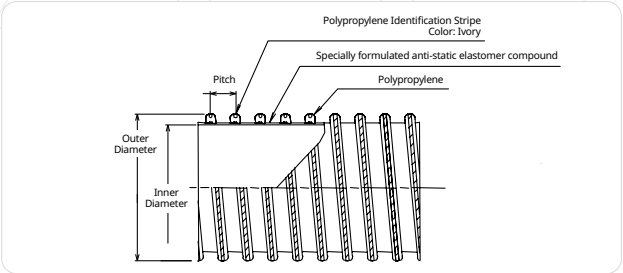
Product Overview

Additional Notes:

[1] *Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.*

TOTAKU ECO DUCT-AS





Features

- Lightweight and flexible, allowing for easy handling.
- Safe for use in food applications.
  Note: Not suitable for transporting foods or liquids containing oils or fats.
- Meets the standards for food and additives set by the Japanese Ministry of Health, Labour and Welfare (Notification No. 370), excluding elution testing for fatty and oily foods. But they do not meet U.S. standards. They are currently under development, so please contact us for more details.
- Exceptional bending durability.
  (No defects observed after 1,000,000 bending cycles)
- Transparent construction allows for easy inspection of transported materials
- Safe for incineration after use without emitting harmful gases.[1]
  (Incineration ash residue is 0.05% or less)

Applications

- Suitable for air supply and exhaust in equipment and machinery.
- Appropriate for use in intake and exhaust systems of food-grade machinery.
- Ideal for air supply and exhaust in cleanrooms and other environments requiring low particle emission.
- Suitable for drainage purposes (for surface-level drainage).

Cautions

- Do not use or store outdoors for extended periods.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Depressurization *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inHg	kPa	inch	mm
1.5	38	1.50	38.0	1.77	45.0	0.31	7.8	0.15	220	98	30	5.80	0.04	14.97	-50.7	1.97	50
2	50	2.00	50.8	2.32	59.0	0.39	10.0	0.22	325	98	30	5.80	0.04	14.97	-50.7	2.36	60
2.5	65	2.50	63.5	2.83	72.0	0.49	12.5	0.27	405	98	30	4.35	0.03	14.97	-50.7	2.95	75
3	75	3.00	76.2	3.35	85.0	0.51	13.0	0.32	470	98	30	4.35	0.03	9.74	-33.0	3.54	90
4	100	4.00	101.6	4.39	111.5	0.59	15.0	0.43	635	98	30	4.35	0.03	5.17	-17.5	4.33	110
5	125	5.00	127.0	5.45	138.5	0.83	21.0	0.54	805	65	20	2.90	0.02	3.69	-12.5	5.31	135
6	150	6.00	152.4	6.46	164.0	0.79	20.0	0.71	1055	65	20	2.90	0.02	3.69	-12.5	6.30	160
8	200	8.00	203.2	8.50	216.0	0.89	22.5	0.97	1440	65	20	1.45	0.01	1.77	-6.0	8.27	210

This product uses materials designed to minimize dust generation; however, under certain conditions (such as temperature, fluid type, or pressure), particle emission may still occur. Please verify emission characteristics based on your operating conditions before use.

Operating Temperature Range:

°F: -4 to 122 °C: -20 to 50

Notes:

- The permissible pressure varies with operating temperature.

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Static Electricity Prevention

Additional Notes:

[1] Includes hydrogen chloride, sulfur oxides, nitrogen oxides, hydrogen cyanide, and ammonia.