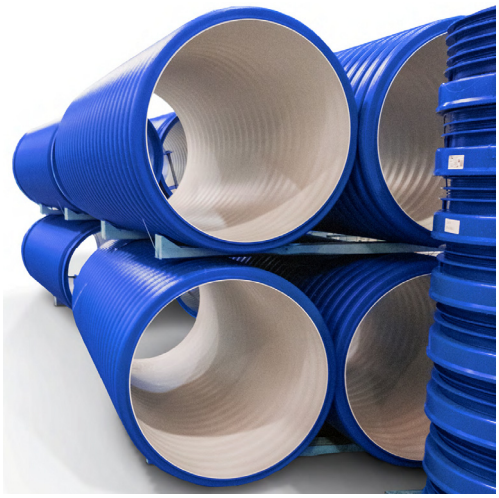

UNDERGROUND VENTILATION SYSTEM
ELGOCELL UVS

VENTILATION DUCTS DESIGNED FOR UNDERGROUND INSTALLATION

The **Underground Ventilation System (UVS)** is a durable and efficient duct system designed for underground installation in commercial and industrial applications. The ducts have been in use across Europe for decades, proving their reliability and efficiency.

The system is highly suitable for applications such as schools, swimming pools, office buildings, industrial facilities, apartment complexes, and more.

Made from **polypropylene (PP)**, the ducts offer **exceptional durability** and can withstand **high loads**.

To ensure easy identification, the **ducts are blue**, according to the standard for underground ventilation.

All pipes and fittings are supplied **clean, pre-packed, and with enclosed ends,** for optimal handling and protection.

ELGOCELL UVS - Key Features

- Certified according to **Nordic Poly Mark** – Ensures high quality and compliance with industry standards.
- **Pressure resistance SN8** – Designed to withstand high loads and demanding conditions.
- **The complete standard range** covers dimensions from **DN150 to DN1000.**
- All dimensions are referred to by their inside diameter.
- Ducts and fittings are **kept in stock** with short delivery times.
- **Lightweight ducts** – The advanced production method results in a **lighter design** compared to conventional systems, simplifying handling and installation.

Single air towers, combined air towers, and hoods are available upon request.

Ducts and fittings in sizes DN1200 to DN2000 can be supplied upon request.

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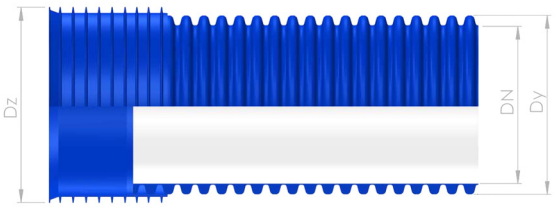
SPECIFICATIONS



DUCTS

MODEL UVS	ART. NR	DN / DY	DZ
DN150	UVSU1506	150 / 171 mm	192 mm
DN200	UVSU2006	200 / 225 mm	254 mm
DN250	UVSU2506	250 / 282 mm	317 mm
DN300	UVSU3006	300 / 340 mm	376 mm
DN400	UVSU4006	400 / 455 mm	499 mm
DN500	UVSU5006	500 / 569 mm	615 mm
DN600	UVSU6006	600 / 683 mm	731 mm
DN800	UVSU8006	800 / 905 mm	970 mm
DN1000	UVSU1006	1000 / 1135 mm	1212 mm

DUCTS BEND 90°

MODEL UVS	ART. NR	DN / DY
DN150	UVSB1590	150 / 171 mm
DN200	UVSB2090	200 / 225 mm
DN250	UVSB2590	250 / 282 mm
DN300	UVSB3090	300 / 340 mm
DN400	UVSB4090	400 / 455 mm
DN500	UVSB5090	500 / 569 mm
DN600	UVSB6090	600 / 683 mm
DN800	UVSB8090	800 / 905 mm
DN1000	UVSB1090	1000 / 1135 mm

DUCTS BEND 45°

MODEL UVS	ART. NR	DN / DY
DN150	UVSB1545	150 / 171 mm
DN200	UVSB2045	200 / 225 mm
DN250	UVSB2545	250 / 282 mm
DN300	UVSB3045	300 / 340 mm
DN400	UVSB4045	400 / 455 mm
DN500	UVSB5045	500 / 569 mm
DN600	UVSB6045	600 / 683 mm
DN800	UVSB8045	800 / 905 mm
DN1000	UVSB1045	1000 / 1135 mm

DUCTS BEND 30°

MODEL UVS	ART. NR	DN / DY
DN150	UVSB1530	150 / 171 mm
DN200	UVSB2030	200 / 225 mm
DN250	UVSB2530	250 / 282 mm
DN300	UVSB3030	300 / 340 mm
DN400	UVSB4030	400 / 455 mm
DN500	UVSB5030	500 / 569 mm
DN600	UVSB6030	600 / 683 mm
DN800	UVSB8030	800 / 905 mm
DN1000	UVSB1030	1000 / 1135 mm

DUCTS BEND 15°

MODEL UVS	ART. NR	DN / DY
DN150	UVSB1530	150 / 171 mm
DN200	UVSB2030	200 / 225 mm
DN250	UVSB2530	250 / 282 mm
DN300	UVSB3030	300 / 340 mm
DN400	UVSB4030	400 / 455 mm
DN500	UVSB5030	500 / 569 mm
DN600	UVSB6030	600 / 683 mm
DN800	UVSB8030	800 / 905 mm
DN1000	UVSB1030	1000 / 1135 mm

Fittings are only available in orange or black.

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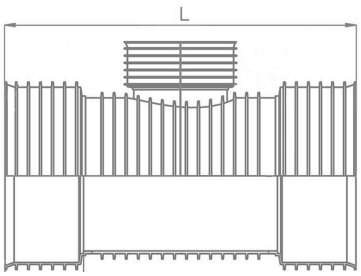
SPECIFICATIONS



OTHER CONFIGURATIONS ARE AVAILABLE UPON REQUEST.

CONTACT US FOR MORE INFORMATION.

DUCTS TEE 90°

MODEL UVS			ART. NR	L
DN150	Tee	200-150-200	UVST1515	449 mm
DN200	Tee	200-150-200	UVST2015	497 mm
	Tee	200-200-200	UVST2020	487 mm
DN250	Tee	250-200-250	UVST2520	650 mm
	Tee	250-250-250	UVST2525	700 mm
DN300	Tee	300-200-300	UVST3020	700 mm
	Tee	300-250-300	UVST3025	750 mm
	Tee	300-300-300	UVST3030	800 mm
DN400	Tee	400-200-400	UVST4020	800 mm
	Tee	400-250-400	UVST4025	850 mm
	Tee	400-300-400	UVST4030	900 mm
	Tee	400-400-400	UVST4040	1000 mm
DN500	Tee	500-200-500	UVST5020	900 mm
	Tee	500-250-500	UVST5025	950 mm
	Tee	500-300-500	UVST5030	1000 mm
	Tee	500-400-500	UVST5040	1100 mm
	Tee	500-500-500	UVST5050	1200 mm
DN600	Tee	600-200-600	UVST6020	1060 mm
	Tee	600-250-600	UVST6025	1110 mm
	Tee	600-300-600	UVST6030	1210 mm
	Tee	600-400-600	UVST6040	1310 mm
	Tee	600-500-600	UVST6050	1410 mm
	Tee	600-600-600	UVST6060	1510 mm
DN800	Tee	800-300-800	UVST8030	1240 mm
	Tee	800-400-800	UVST8040	1340 mm
	Tee	800-500-800	UVST8050	1440 mm
	Tee	800-800-800	UVST8080	1740 mm
DN1000	Tee	1000-1000-1000	UVST1010	2110 mm

DOUBLE SLEEVE

MODEL UVS	ART. NR
DN150	UVSM1511
DN200	UVSM2011
DN250	UVSM2511
DN300	UVSM3011
DN400	UVSM4011
DN500	UVSM5011
DN600	UVSM6011
DN800	UVSM8011
DN1000	UVSM1011

SLIDING SLEEVE

MODEL UVS	ART. NR
DN150	UVSM1511
DN200	UVSM2011
DN250	UVSM2511
DN300	UVSM3011
DN400	UVSM4011
DN500	UVSM5011
DN600	UVSM6011
DN800	UVSM8011
DN1000	UVSM1011

SPIGOT REDUCTION

MODEL UVS	ART. NR	MODELL UVS	ART. NR
200-150	UVSR2070	600-250	UVSR6071
250-200	UVSR2570	600-300	UVSR6072
300-200	UVSR3070	600-400	UVSR6073
300-250	UVSR3071	600-500	UVSR6074
400-200	UVSR4070	800-300	UVSR8072
400-250	UVSR4071	800-400	UVSR8073
400-300	UVSR4072	800-500	UVSR8074
500-200	UVSR5070	800-600	UVSR8075
500-250	UVSR5071	1000-500	UVSR1074
500-300	UVSR5072	1000-600	UVSR1075
500-400	UVSR5073	1000-800	UVSR1076

TRANSITION NIPPLE TO SPIAL DUCT

MODEL UVS	ART. NR
DN150 - 160	UVSN1510
DN200 - 200	UVSN2010
DN250 - 250	UVSN2510
DN300 - 315	UVSN3010
DN400 - 400	UVSN4010
DN500 - 500	UVSN5010
DN600 - 630	UVSN6010
DN800 - 800	UVSN8010
DN1000 - 1000	UVSN1010

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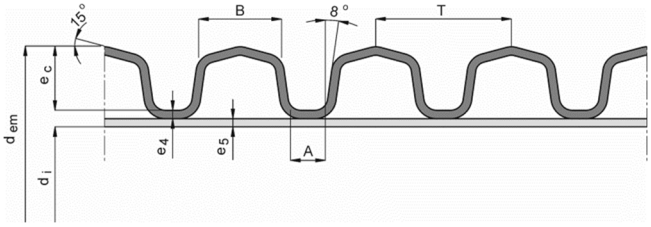
SPECIFICATIONS

DUCT SPECIFICATION

DIMENSIONS / DN		200	250	300	400	500	600	800	1000
Inner Diameter	D_i	200 ±1.0	250 ±1.5	300 ± 2.0	400 ± 2.5	500 ± 3.0	600 ± 3.5	800 ± 4.0	1000 ± 5.0
Outer Diameter	D_y min	223.6	280.2	337.0	452.2	563.5	676.0	899.5	1127.4
	D_y max	225.7	282.9	340.0	456.4	568.8	682.0	907.8	1137.2
Wall Height	e_c	11.3	14.4	17.5	24.9	30.3	36.3	47.8	58.0
Minimum Wall Thickness	e_{4min}	1.3	1.8	2.0	2.5	3.0	3.5	4.5	5.0
	e_{5min}	1.2	1.5	1.7	2.3	3.0	3.5	4.5	5.0
Wave Distance	T	22.0	26.4	35.2	48.0	58.6	66.0	88.0	105.6
Wave Bottom Width	A	5.3	6.8	9.0	12.2	14.5	16.0	23.2	27.7
Wave Top Width	B	13.5	16.0	21.5	29.0	36.0	40.0	53.0	64.0
Weight [6m]	kg	14.8	21.4	28,0	48.0	74.3	100.2	192.2	309.4



MATERIAL PROPERTIES

PROPERTY	UNIT	PP MATERIAL
Density	kg/m^3	900
Coefficient of Linear Expansion	mm/m · °K	0.15
Thermal Conductivity	$W \cdot m^{-1} \cdot K^{-1}$	0.20
E-modulus (1 min)	Mpa	1250÷1850
Tensile Strength	Mpa	30
Roughness Coefficient	K [mm]	0.00011

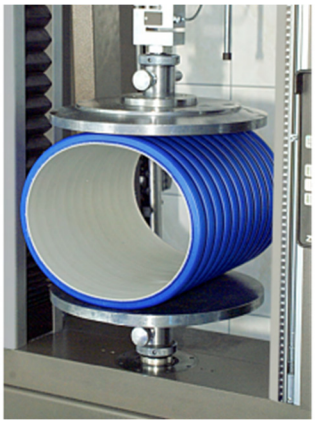
SPECIFICATIONS

The duct system is manufactured from PP material (polypropylene), known for its long lifespan and ability to withstand significant stress. In accordance with EN13476-3, the system is classified as a structural pipe (i.e., corrugated and profiled).

The duct consists of a smooth inner layer and a corrugated outer layer, both made of PP-B.
The production technology ensures that any external pressure is absorbed directly by the outer layer, preventing deformation of the inner layer. As a result, the system withstands high loads (SN8).

The manufacturing method also makes the ducts approximately 30% lighter compared to conventional systems, facilitating installation and improving the working environment.

The ducts are colored blue in accordance with underground ventilation duct standard classification.



CERTIFICATION - NORDIC POLY MARK

Nordic Poly Mark is a **quality certification** for plastic piping systems in **Nordic countries**. It guarantees that pipes and fittings meet the **strict durability, performance, and safety standards**.

Key Features of Nordic Poly Mark:

- **Compliance with European and Nordic Standards** – Ensures compliance with EN (European Norms) and national regulations.
- **Third-party Quality Control** – Continuous **testing and audits** by independent certification bodies.
- **High Durability & Performance** – Pipes certified with Nordic Poly Mark are tested for **pressure resistance, material quality, and lifespan**.
- **Joint Tightness:** Ensuring leak-proof connections
- **Environmental & Safety Assurance** – Ensures the use of **safe and sustainable** materials.

This certification is widely recognized in the **Nordic infrastructure and construction industry** as a mark of **high-quality plastic piping systems**.

NORDIC POLY MARK - DETAILS

The **Nordic Poly Mark** certification ensures that plastic pipes and fittings meet stringent quality standards suitable for the demanding Nordic climate. To achieve this certification, products must comply with specific properties and undergo rigorous testing.

Product Certification:

- **Third-Party Type Testing:** Independent verification of product performance.
- **Internal Quality Control:** Manufacturer's ongoing self-monitoring processes.
- **Third-Party External Control:** Regular inspections by accredited bodies.

Material Properties:

- **Density:** Ensuring appropriate material compactness.
- **Melt Mass Flow Rate (MFR):** Assessing the flow characteristics of the polymer.
- **Thermal Stability:** Determining resistance to heat-induced degradation.
- **Long-Term Strength:** Evaluating durability under prolonged stress.

Product Characteristics:

- **Dimensions:** Adherence to specified size tolerances.
- **Appearance:** Visual inspection for defects or inconsistencies.
- **Marking:** Proper labeling for identification and traceability.
- **Surface Quality:** Ensuring smoothness and absence of imperfections.
- **Longitudinal Reversion:** Assessing dimensional stability after heating.
- **Impact Resistance:** Ability to withstand sudden forces without damage.
- **Ring Stiffness:** Measuring resistance to deformation under external pressure.
- **Pressure Testing:** Confirming the pipe's ability to handle internal pressures.
- **Weather Resistance:** Ensuring durability under various environmental conditions.

System Performance:

- **Joint Tightness:** Ensuring leak-proof connections.
- **Resistance to Combined Soil Load and Elevated Temperatures (BLT):** Evaluating performance under soil pressure and high temperatures for buried pipes.
- **Influence on Drinking Water Quality:** Ensuring materials do not adversely affect water quality.

These comprehensive requirements ensure that certified plastic piping systems are reliable, durable, and suitable for the challenging conditions in Nordic countries.

Nordic Poly Mark

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