

# argo

## Drainage

Argonomy of drainage systems:  
because proper size matters



ARGO d.o.o. is a Slovenian company established in 1990. We deal with manufacturing and trade activities. Initially it was engaged in designing and production of specialised nautical equipment, deck equipment of vessels for recreational and competitive sailing. Today the sailing boat production represents 5% of the whole production.

In 1991 we added a programme of house sewage systems to the nautical programme. The programme of the production of pipes and polypropylene fittings has successfully expanded and soon surpassed the nautical programme. Today it represents as much as 70% of the production. Argo is a manufacturer of sanitary plastic products with the most wide-ranging programme in the country. The quality of our products is second to none in Slovenia and we are also successfully proving our worth in the markets of Western and Eastern Europe.

In 2001 we launched the third programme: the programme of polyethylene cable ducts which currently represents 25% of our production.

We are operating on an area of 17,000 m<sup>2</sup>, 4,000 m<sup>2</sup> of those are covered.

Yearly we produce approximately 1,000 tons of polyethylene and 3,000 tons of polypropylene. We also offer our clients a comprehensive programme of pipe systems including pipes and fittings for house sewage systems, street sewage systems, drainage, plumbing etc.

Despite the fact that we are already successful in our activities we do not intend to rest. We are expanding, complementing and improving our offer. So it is no coincidence that we named our company Argo. In mythology Argo was the name of Jason's ship that carried the fearless and daring sailors into the unknown world to find the Golden Fleece. Daring, boldness and the desire to make new discoveries is the entrepreneurial spirit of the Argonauts that also pervades our company. This is why we constantly expand and upgrade our manufacturing capacities, invest in professional training, follow the world trends and develop innovative solutions.

All this enables us to reach our most important goal: the satisfaction of our customers. We strive to offer our every client not just products of high quality but also solutions that are tailored for the client's specific needs and wishes. Following this mission is also the best guarantee for an even greater success on the broader European market, including Slovenia.

## Drainage pipes

For use them there is too much water – whether it be a surplus of rain water, high groundwater or in wetland areas. With a suitable water collection and drainage system the appropriate wetness of agricultural areas can be achieved, areas with sport and recreational facilities can be drained, and surplus water can be drained away during construction works or even after the completion of traffic, industrial and housing constructions. You can choose between single-layer or double-layer drainage pipes.

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## Single layer drainage pipes

### ■ Single-layer drainage pipes in drums

In areas where there was a surplus of water, the first drainage systems were made of clay pipes. These were effective, but required a difficult installation process demanding a lot of labour and time to install. In recent years new materials have been introduced for drainage systems that are the result of technological processes in the plastic materials industry. Flexible pvc pipes for drainage systems are an important part of these new materials.. They have all the properties required by the DIN 1187 standard used by all the modern drainage pipes manufacturers to supervise the quality of pipes in their own laboratories.

The pipe diameters available are 50, 65, 80, 100, 125, 160 and 200mm, coiled in rolls in lengths from 50 to 200m or depending on the client's request. The pipes are ribbed which increases their firmness and flexibility at the same time. Pipe weight is minimal; a drum roll with 200 meters of 50mm diameter pipe weighs only 30kg.

Drainage pipes can be laid manually or with machinery, depending on the surface area intended for draining. In agriculture where the surface areas are large, laying pipes with machines is unavoidable as it is more precise and several times faster.

When laying pipes in the ground they can be lined with filter material. The purpose of filters is to increase the hydraulic capability of draining and prevents pipe clogging. Natural materials (gravel, rough sand, coir) or synthetic materials (synthetic fibres, foamy plastic materials) can be used as filter material.

### ■ Single-layer drainage pipes in bars

They are suitable for draining all types of roads, railway tracks, air strips and other terrains. When properly installed they enable permanent draining of water which gathers under the road surface or facility structure.

These single layer pipes are 5 meters long. They have a specific profiled shape (tunnel profile): trapeze bottom

and circular circumference. The pipe circumference with an arc at 220° is longitudinally channeled, the traversal notches are made one after the other in lines of four at a distance of 22mm.

The longitudinal channels on the pipe circumference accept the water that leaks through the filter sand and drain the water to the traversal notches through which it falls into the pipe and is drained through the trapeze bottom of the pipe to the sewer system.

The pipes are connected easily: one end of the pipe has a specially shaped socket into which the second pipe is inserted. The pipeline should always be laid in the direction of the water outflow.

## Double-layer drainage pipes

Double-layer drainage pipes are an excellent solution for draining larger amounts of surplus water from expansive areas. They can be used for collecting, draining and transferring of drainage water, ground water, underground watercourse and also of water that under exceptional circumstances situations overflows the channels. They are extremely resistant to static and dynamic pressure . The smooth inner surface enables large waterflow which makes these pipes especially appropriate for draining motorway areas and other road traffic structures such as tunnels, escarpmentss, complex roundabouts and common crossings. We also recommend them for use in draining surplus water from areas with railway tracks, air strips and also from larger housings, sport fields and children's playgrounds, golf terrains and pedestrian areas. They perform excellently in draining areas where the highest quality, reliability and economy standards are required during the construction phase or the use of facilities.

Double-layer pipes have a ribbed outer wall and a smooth inner wall. They are made from high density polyethylene (PE-HD). These pipes are the result of several years of development and fully meet the requirements for drainage and canalisation systems while at the same time allow low-cost installation, economical material use and pose a low burden to the natural environment.

The leaking of water to the inner side of the pipe is enabled by longitudinal channels for water entry located in the groove between two ribs. The possibility of pipe holes clogging is minimal, while capturing of water is optimal.

### Properties that make double-layer pipes appropriate even under the most difficult conditions

- due to high circumferential rigidity and excellent impact resistance the pipes offer a greater protection, are long-lasting and enable lower maintenance costs
- transport and installation are less difficult due to their extremely light weight
- the smooth inner surface reduces friction along the wall and enables excellent waterflow
- the pipes are cleaned automatically
- fast and simple installation
- excellent chemical resistance to aggressive substances and surrounding soil
- excellent corrosion resistance
- these pipes are environment friendly as, in comparison to conventional full-wall pipes, they allow more than 30% material and energy saving and at the same time allow simple recycling



PRODUCT – PVC AND PE DRAINAGE PIPE

PVC SINGLE-LAYER

| Ø (mm) | L/mm | EAN code | Unit | units per roll |
|--------|------|----------|------|----------------|
|--------|------|----------|------|----------------|

PVC DRAINAGE PIPE  
SINGLE-LAYER, RIBBED  
PERFORATED



|     |  |                  |   |    |
|-----|--|------------------|---|----|
| 50  |  | 383 10205 0486 8 | m | 50 |
| 65  |  | 383 10205 0487 5 | m | 50 |
| 80  |  | 383 10205 0488 2 | m | 50 |
| 100 |  | 383 10205 0489 9 | m | 50 |
| 125 |  | 383 10205 0490 5 | m | 50 |
| 160 |  | 383 10205 0491 2 | m | 50 |
| 200 |  | 383 10205 0492 9 | m | 40 |

PVC PIPE  
SINGLE-LAYER, RIBBED,  
UNPERFORATED



|     |  |                  |   |    |
|-----|--|------------------|---|----|
| 50  |  | 383 10205 0600 8 | m | 50 |
| 65  |  | 383 10205 0601 5 | m | 50 |
| 80  |  | 383 10205 0602 2 | m | 50 |
| 100 |  | 383 10205 0603 9 | m | 50 |
| 125 |  | 383 10205 0604 6 | m | 50 |
| 160 |  | 383 10205 0605 3 | m | 50 |
| 200 |  | 383 10205 0606 0 | m | 40 |

PVC DRAINAGE PIPE  
OVAL – FLAT BOTTOM






|     |      |                  |   |  |
|-----|------|------------------|---|--|
| 100 | 5000 | 383 10205 0494 3 | m |  |
| 150 | 5000 | 383 10205 0495 0 | m |  |
| 200 | 5000 | 383 10205 0496 7 | m |  |
| 250 | 5000 | 383 10205 0497 4 | m |  |
| 350 | 5000 | 383 10205 0498 1 | m |  |

PVC DRAINAGE PIPE  
OVAL – FLAT BOTTOM



|     |      |                  |   |  |
|-----|------|------------------|---|--|
| 80  | 6000 | 383 10205 0530 8 | m |  |
| 100 | 6000 | 383 10205 0531 5 | m |  |
| 150 | 6000 | 383 10205 0532 2 | m |  |
| 200 | 6000 | 383 10205 0533 9 | m |  |
| 250 | 6000 | 383 10205 0534 6 | m |  |

| PRODUCT – PVC AND PE DRAINAGE PIPE  |  |        |           |        |                  |                          |
|---|--|--------|-----------|--------|------------------|--------------------------|
| PE DOUBLE-LAYER   |  | Ø (mm) | ID Ø (mm) | L (mm) | EAN code         | Unit package bars/ piece |
| PE DRAINAGE PIPE – DOUBLE-LAYER, RIBBED, 120°, 220°, 360° PERFORATION<br> |  | 110    | 92        | 6000   | 383 10205 0540 7 | pcs 76                   |
|   |  | 160    | 140       | 6000   | 383 10205 0541 4 | pcs 33                   |
|   |  | 200    | 180       | 6000   | 383 10205 0542 1 | pcs 20                   |
|   |  | 250    | 218       | 6000   | 383 10205 0543 8 | pcs 16                   |
|   |  | 315    | 271       | 6000   | 383 10205 0544 5 | pcs 9                    |
| PE DRAINAGE PIPE – DOUBLE-LAYER, RIBBED, 220° PERFORATION<br>             |  | 120    | 100       | 6000   | 383 10205 0949 8 | pcs 108                  |
|   |  | 177    | 150       | 6000   | 383 10205 0950 4 | pcs 48                   |
|   |  | 232    | 198       | 6000   | 383 10205 0951 1 | pcs 23                   |
|   |  | 288    | 248       | 6000   | 383 10205 0952 8 | pcs 16                   |
|   |  | 345    | 296       | 6000   | 383 10205 0953 5 | pcs 9                    |
|   |  | 397    | 347       | 6000   | 383 10205 0954 2 | pcs 9                    |

| PRODUCT – PVC AND PE DRAINAGE PIPE  |  |        |                  |      |
|---|--|--------|------------------|------|
| ACCESSORIES   |  | Ø (mm) | EAN code         | Unit |
| CONNECTOR FOR PVC ONE-LAYER PIPE<br> |  | 50     | 383 10205 0850 7 | pcs  |
|   |  | 65     | 383 10205 0851 4 | pcs  |
|   |  | 80     | 383 10205 0852 1 | pcs  |
|   |  | 100    | 383 10205 0853 8 | pcs  |
|   |  | 125    | 383 10205 0854 5 | pcs  |
|   |  | 160    | 363 10205 0855 2 | pcs  |











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