

Fig. 1: Euro-system separator GENO®-DK 2-Maxi

### Euro-system separator GENO®-DK 2-Maxi GENO®-DK-Maxi

#### Designated application

The Euro system separator, construction design BA, is a safety device to be installed in water pipes if special withdrawal points or appliances are connected to the drinking water supply. The Euro-system separator prevents the back-flow, back-pressure and back-suction of modified drinking water into the drinking water network. The construction design BA is approved by the DVGW for hazard classes 1 to 4.

#### Determination of hazard classes (acc. to DIN EN 1717)

In order to be able to correctly select and use the proper safety measures which differ with regard to their function and effectiveness, it is necessary to classify substances or micro-organisms that could get into the drinking water and might cause adverse effects or risks due to the modified drinking water into 5 classes - irrespective of the concentration of such substances or micro-organisms. If several substances or micro-organisms might get into the drinking water at the same time, the most hazardous substance or micro-organism shall determine the hazard class.

##### Class 1

Without health risk or adverse effects (e.g. regarding taste, odour or colour).

*Examples:* Heated drinking water, temporary turbidity due to air bubbles.

##### Class 2

Without health risk but with adverse effects (detectable for example due to changes regarding taste, odour or colour).

*Examples:* Coffee, iron bacteria, stagnating drinking water in the drinking water installation.

##### Class 3

Health risk due to slightly poisonous substances. These are substances that cannot be classified in class 4.

*Examples:* Ethylene glycol, copper sulphate solution, heating water without additives or with additives as per class 3.

##### Class 4

Health risk due to poisonous, highly poisonous, carcinogenic or radioactive substances (danger to life). (for a more detailed definition refer to DIN EN 1717).

*Examples:* Lindane, phosalone, parathion (insecticides), hydrazine.

##### Class 5

Health risk due to pathogens of communicable diseases (contagion, danger to life).

*Examples:* Hepatitis viruses, salmonellae

#### Design

System separator with reduced pressure zones; controllable. Housing made of cast material. Interior parts made of red bronze, stainless steel and high-quality plastics. All water-contacting parts meet the requirements of the German Food and Commodities Act (LFGB). All materials are recyclable.

#### Scope of supply

Euro-system separator, ready for installation and operation, without counter flanges and seals, incl. operation manual, packed in a cardboard box.

#### Installation requirements

Please observe local installation directives, general guidelines and technical specifications regarding the Euro-system separator.

The installation site must be accessible for maintenance work, flood and frost proof and ensure the system's protection from chemicals, dyes, solvents and vapours.

As per DIN 1988 and DIN EN 1717, the system separator has to be protected from impurities by means of appropriate fittings such as a fine filter. If there is a chance that deposits might come off the pipes, the fine filter must be installed directly upstream of the system separator.

As indicated in the installation example - refer to fig. 3 - shut-off valves for maintenance and inspection purposes have to be provided on the inlet and outlet side. The shut-off valve on the inlet side must be combined with a draining valve.

According to DIN EN 806, part 2, quick-closing shut-off fittings that might cause positive or negative water hammer may only be used for continuous actuation in water installations if the max. admissible water hammer pressure and operating pressure are taken into account. Exceptions apply for fittings that are only used for test purposes and are operated by experts.

A drain connection (refer to technical specifications) must be provided for the discharge of the "dripping water". As the drain connection of the Euro-system separator is designed as a free outlet in compliance with the applicable regulations, the waste water pipe must ensure the discharge without back-water.

The Euro-system separator should only be installed horizontally and into pipes of the same dimensions as its nominal diameter.

| Technical specifications                           | Euro-system separator<br>GENO®-DK 2-Maxi |                |                |                | Euro-system separator<br>GENO®-DK-Maxi |                |                |
|--|--|----------------|----------------|----------------|--|----------------|----------------|
| <b>Connection data</b>                             |  |                |                |                |  |                |                |
| Nominal connection diameter [DN]                   | 50                                       | 65             | 80             | 100            | 150                                    | 200            | 250            |
| <b>Performance data</b>                            |  |                |                |                |  |                |                |
| Nominal pressure (PN) [bar]                        | 10                                       |                |                |                |  |                |                |
| Min. flow pressure [bar]                           | 1  |                |                |                |  |                |                |
| Max. flow [m³/h]                                   | 25                                       | 35             | 50             | 80             | 227                                    | 363            | 523            |
| KV value ( $\Delta p = 1$ bar) [m³/h]              | 35                                       | 55             | 88             | 122            | >250                                   | >400           | >550           |
| <b>Dimensions and weights</b>                      |  |                |                |                |  |                |                |
| A Drain connection $\varnothing$ [mm]              | 50                                       |                | 80             |                | 90                                     |                |                |
| B Installation length without counter flanges [mm] | 302                                      | 305            | 470            |                | 600                                    | 780            | 930            |
| C System height incl. outlet funnel [mm]           | 382                                      | 385            | 484            |                | 839                                    | 922            |                |
| D Height above centre of pipe connection [mm]      | 129                                      | 132.5          | 170            |                | 310                                    | 350            |                |
| Empty weight [kg]                                  | 13.2                                     | 17             | 26.5           | 28             | 103                                    | 111            | 142            |
| Operating weight [kg]                              | 16                                       | 19.8           | 33.1           | 34.2           | 123                                    | 150            | 200            |
| <b>Test certificate/Certification mark</b>         |  |                |                |                |  |                |                |
| DVGW-test mark                                     | NW-6305BR0345                            |                |                |                | -                                      |                |                |
| <b>Ambient data</b>                                |  |                |                |                |  |                |                |
| Max. water temperature [°C]                        | 65                                       |                |                |                | 60                                     |                |                |
| Max. ambient temperature [°C]                      | 70                                       |                |                |                | -                                      |                |                |
| <b>Order no.</b>                                   | <b>132 460</b>                           | <b>132 465</b> | <b>132 470</b> | <b>132 475</b> | <b>132 720</b>                         | <b>132 725</b> | <b>132 730</b> |

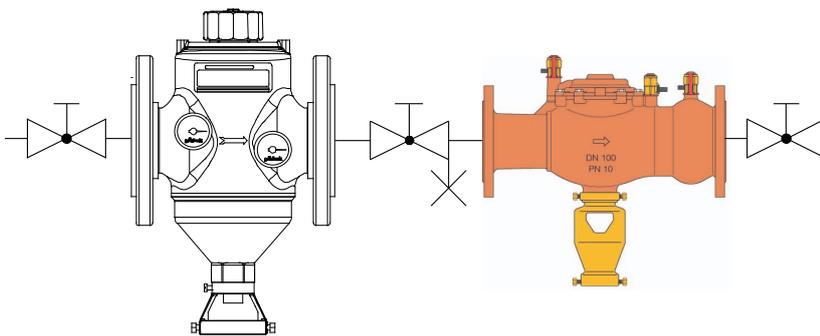


Fig. 2: Installation example GENO®-backwash filter MX DN 100 with Euro-system separator GENO®-DK-Maxi DN 100

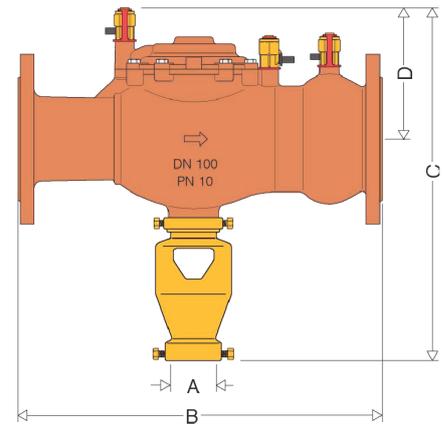


Fig. 3: Dimensional drawing of Euro system separator GENO®-DK 2-Maxi DN 100

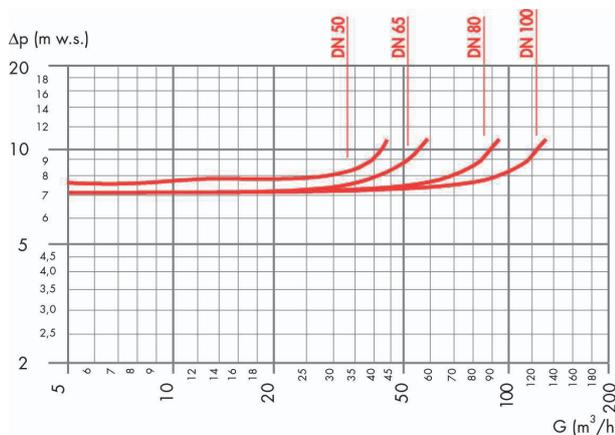


Fig. 4: Pressure loss curve of Euro-system separator GENO®-DK 2-Maxi

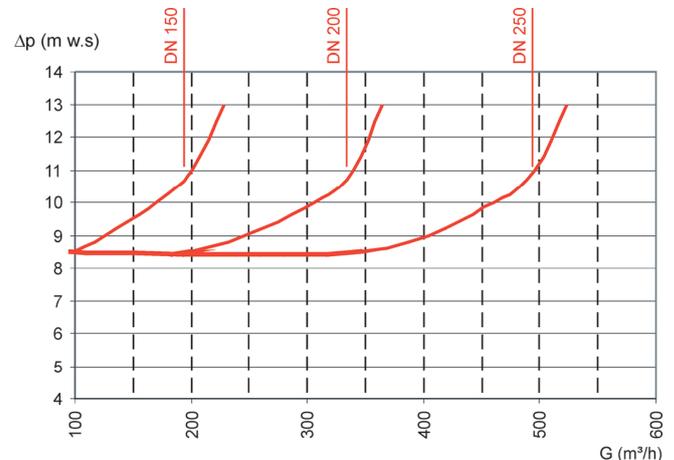


Fig. 5: Pressure loss curve of Euro-system separator GENO®-DK-Maxi