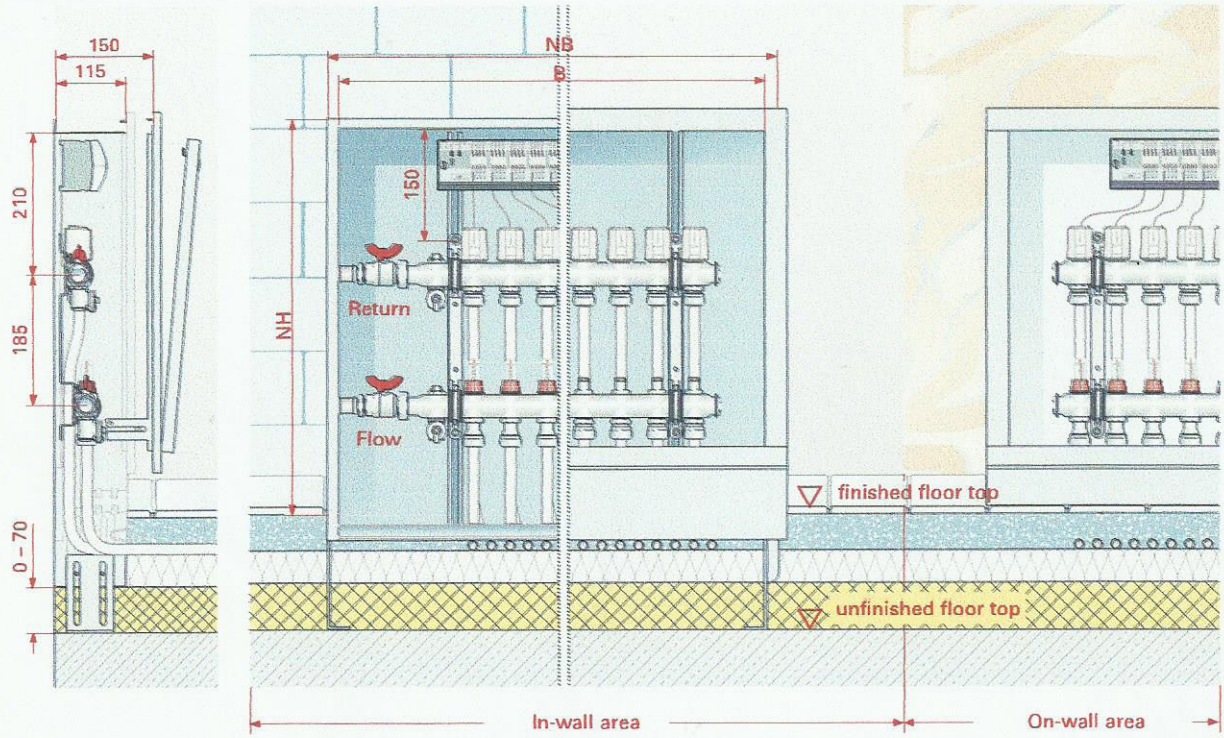
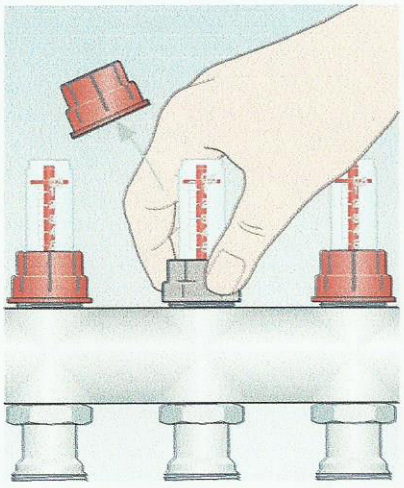
## The manifold

**The overview shows which manifold possibilities can be selected from the profitherm surface heating technology product line to create a functional system in accordance with building contractor specifications.**



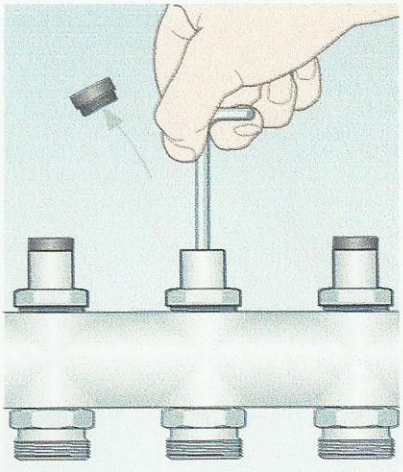

## Hydraulic adjustment

**The required hydraulic adjustment, in accordance with DIN 18380, must be set on the Topmeter or the fine adjustment valves, according to the calculated water quantity. Hydraulic adjustment of the distribution system ensures that the actual required water quantity is in the heating circuit, and thus, that the system is functional.**



**Topmeter with viewing glass**

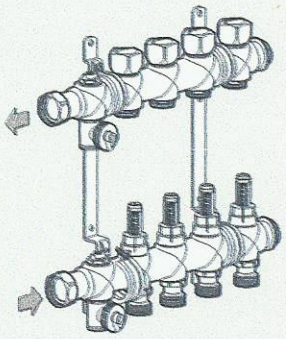
**The flow trunk with integrated Topmeters, adjustable flow meter from 0.5 – 5 l/min., no longer requires equalization via the valve curve diagram.**

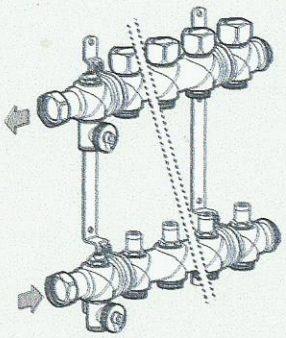


**Fine control valve with valve spindle**

**The flow trunk with integrated fine control valve, adjustable from 1-5 revolutions according to the pressure loss diagram in the calculation section of the documentation.**

## Heating manifold





The profitherm manifold for 2 to 12 loops are designed for water based systems in accordance with VDI 2035, at a maximum operating pressure of 6 bar and a max. permanent operating temperature of 95 °C. The manifolds are made of stainless steel (no. 1.4301). Specific advantages of manifolds are low-weight, high-quality material, a cross-section that is approximately 10% bigger than that of comparable bronze distribution systems, as well as sound-insulated anchoring, in accordance with DIN 52218, on the distribution system mounting bracket. The distribution system consists of two manifold trunks, (flow and return) that are installed on the distribution system mounting bracket. Depending on how the distribution system is installed on the mounting bracket, it can be concurrently connected left or right and on alternating sides. Stainless steel profile pipe distribution systems with integrated M 30 x 1.5 thermostat valves and manual regulating caps in the return trunk can be retrofitted with profitherm actuators in 230 V or 24 V. The manifold trunk connection is flat sealing and fitted with a cap nut with 1" internal thread. The manifold offers a 1/2" drain-off and air venting possibility, as well as 3/4" external thread heating circuit connections with Eurokonus, in accordance with DIN V 3838. The profitherm manifold can be installed in the distribution cabinet or on the body of the structure.

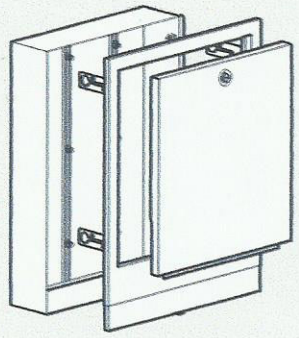
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manifold length [mm] without comp. | 292 | 342 | 392 | 442 | 492 | 542 | 592 | 642 | 692 | 742 | 792 |
| Manifold + ball valve [mm] | 372 | 422 | 472 | 522 | 572 | 622 | 672 | 722 | 772 | 822 | 872 |
| Heat consumption meter connection vertical [mm] | 442 | 492 | 542 | 592 | 642 | 692 | 742 | 792 | 842 | 892 | 942 |
| Heat consumption meter connection horizontal [mm] | 512 | 562 | 612 | 662 | 712 | 762 | 812 | 862 | 912 | 962 | 1012 |
| Manifold + mixing unit [mm] | 585 | 635 | 685 | 735 | 785 | 835 | 885 | 935 | 985 | 1035 | 1085 |
| Total volume flow | max. 2.500 l/h at Topmeter or max. 3.000 l/h at fine control valve | | | | | | | | | | |

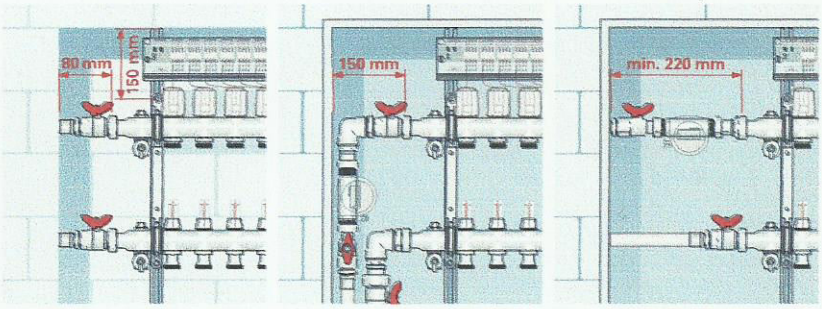
**Note** All length including 100 mm mounting distance.

## Manifold cabinet UP

The profitherm in-wall manifold cabinets can be installed in 5 sizes, with or without heat consumption meter. profitherm in-wall manifold cabinets include a recessed frame of hot-dip galvanized sheet steel with laterally punched pipe guides, as well as mounting rails on the rear wall of the cabinet for anchoring the manifold. The manifold cabinet feet are height-adjustable (70 mm). The screed distributing deflector is adjustable and is removable like the pipe diverter rail. The cabinet front is galvanized, and is free of grease for problem-free painting. The front frame with door and recessed twist lock is removable and adjustable in depth from 110 mm to 150 mm.

profitherm manifolds can be installed with two to 12 flow and return connections depending on size. The flow and return connecting lines must be connected vertically and without tension on the manifold. There is a direct manifold connection on the ascending pipe flow and return lines via the distribution ball valves (3/4" interior thread or 1" interior thread), as well as the heat consumption meter which may be required, including its blocking device.





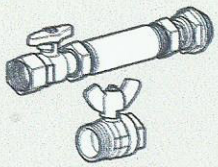

| Cabinet size | Size 1 | Size 2 | Size 3 | Size 4 | Size 5 |
|---|---|---|---|---|---|
| Cabinet width [mm] | 435 | 575 | 725 | 875 | 1025 |
| Heating circuits w. ball valves w/o heat consumption meter | 2 - 3 | 4 - 6 | 7 - 9 | 10 - 12 | – |
| Heating circuits w. heat consumption meter vertical | – | 2 - 4 | 5 - 7 | 8 - 10 | 11 - 12 |
| Heating circuits w. heat consumption meter horizontal | – | 2 - 3 | 4 - 6 | 7 - 9 | 10 - 12 |
| Heating circuits w. mixing unit | – | – | 2 - 4 | 5 - 7 | 8 - 10 |
| Cabinet height interior [mm] | 705 | 705 | 705 | 705 | 705 |
| Cabinet width interior [mm] | 435 | 575 | 725 | 875 | 1025 |
| Cabinet depth interior [mm] | 110 - 150 | 110 - 150 | 110 - 150 | 110 - 150 | 110 - 150 |
| Niche dimensions/shell construction height [mm] | 800 | 800 | 800 | 800 | 800 |
| Niche dimensions/shell construction width [mm] | 470 | 610 | 760 | 910 | 1060 |
| Niche dimensions/shell construction width [mm] | 115 - 150 | 115 - 150 | 115 - 150 | 115 - 150 | 115 - 150 |

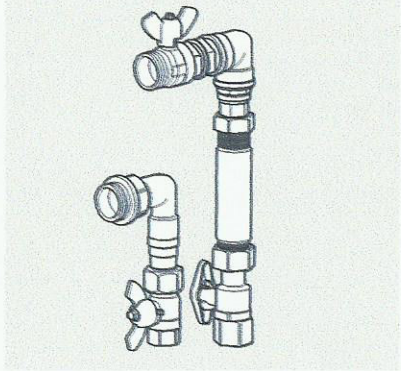
# 2.3 Distribution technique

## Manifold cabinet AP

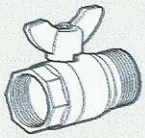
The profitherm on-wall manifold cabinet is made of galvanized sheet steel and is available either without paint or with a gloss white paint finish (RAL 9010). The profitherm on-wall manifold cabinets can be installed in 5 sizes, with or without heat consumption meter. The manifolds in the on-wall manifold cabinets can only be connected with a vertical pipe connection. profitherm on-wall manifold cabinets have mounting rails on the rear wall of the cabinet to anchor the manifold. The manifold cabinet feet are height adjustable (70 mm). The screed distribution deflector is removable. The cabinet has a slide-in door with twist lock. The cabinet depth is 125 mm. Additional information is available on request.

## Distribution accessories

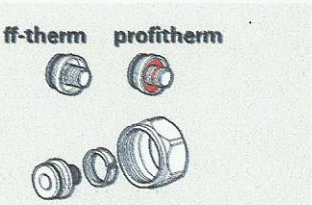




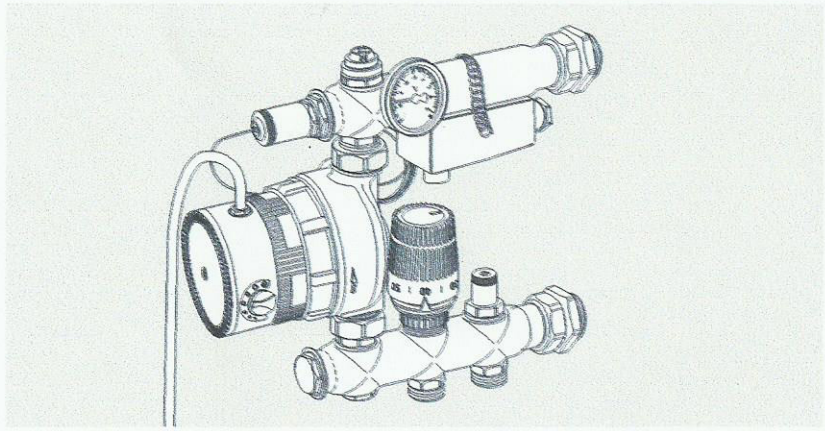
**Heat consumption meter 3/4" – vertical and horizontal**
Heat consumption meter tubing in vertical or horizontal design with a spacing pipe 3/4" exterior thread – 110 mm long flat sealing, for the installation of a heat consumption meter provided by the building contractor (Pollux, allmess or equivalent) with possibility to install a heat consumption meter immersion sleeve on the distribution system. Please consider the dimensions of the distribution cabinet!



**Ball valve 3/4" and 1"**
Made of bronze, for shutting off flow and return lines on the profitherm distribution system, available in 3/4" and 1".



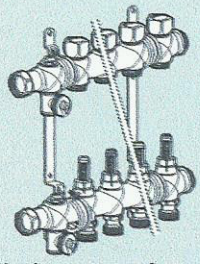

**Threaded unions**
Threaded unions with Eurokonus (3/4" – 18 series threaded union) for connecting 12/14/16/17/18/20 mm ff-therm pipes, and 16 mm profitherm AL heating pipes on the distribution system or heating element.



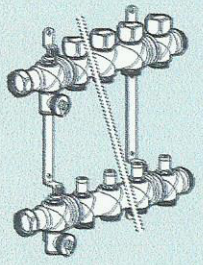
**The constant supply temperature module** is used to regulate a constant inlet temperature to a low-temperature area heater that is connected to a high-temperature heating system. The control group is designed for a direct connection with profitherm stainless steel manifolds with 1" union nut.

**Note**
Only use FRÄNKISCHE threaded unions with 3/4" Eurokonus; they conform to DIN V 3838.
DIN Certco system tests in accordance with DIN 4726 – for ff-therm multi pipes and FRW connection unions.

## Distribution technique

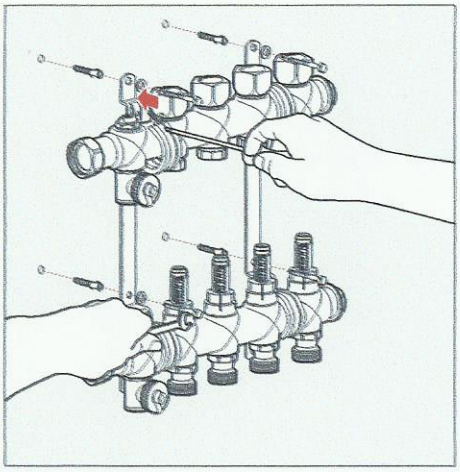


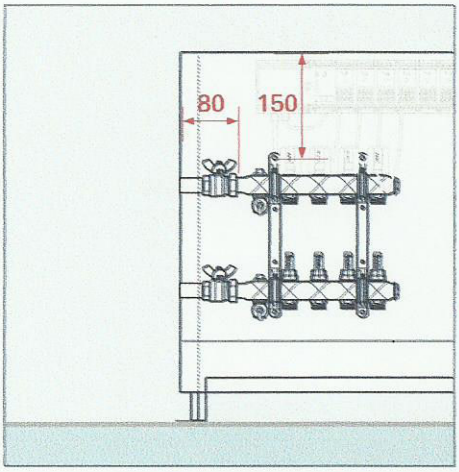
| Circuits | Part no. |
|---|---|
| 2 | 79501102 |
| 3 | 79501103 |
| 4 | 79501104 |
| 5 | 79501105 |
| 6 | 79501106 |
| 7 | 79501107 |
| 8 | 79501108 |
| 9 | 79501109 |
| 10 | 79501110 |
| 11 | 79501111 |
| 12 | 79501112 |

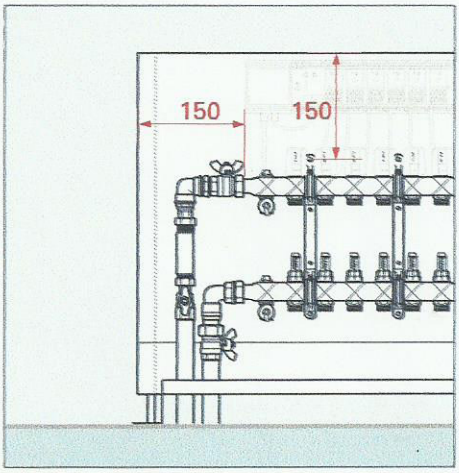


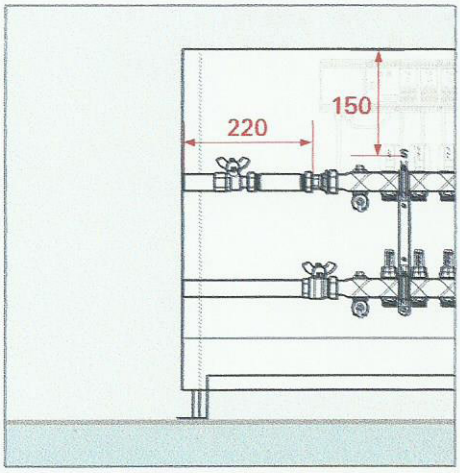
| Circuits | Part no. |
|---|---|
| 2 | 79502102 |
| 3 | 79502103 |
| 4 | 79502104 |
| 5 | 79502105 |
| 6 | 79502106 |
| 7 | 79502107 |
| 8 | 79502108 |
| 9 | 79502109 |
| 10 | 79502110 |
| 11 | 79502111 |
| 12 | 79502112 |

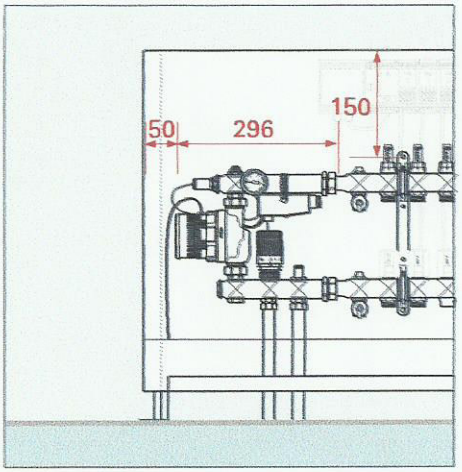
| DIM | Part no. |
|---|---|
| 1" | 79501130 |

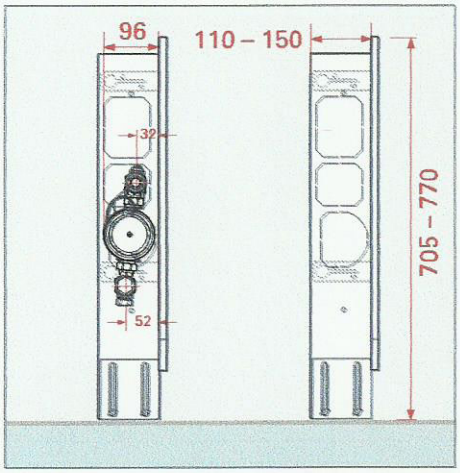


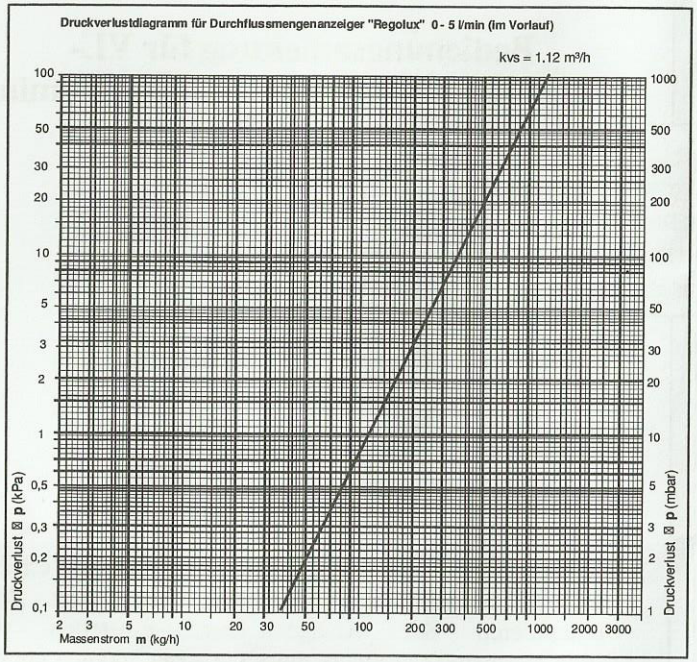


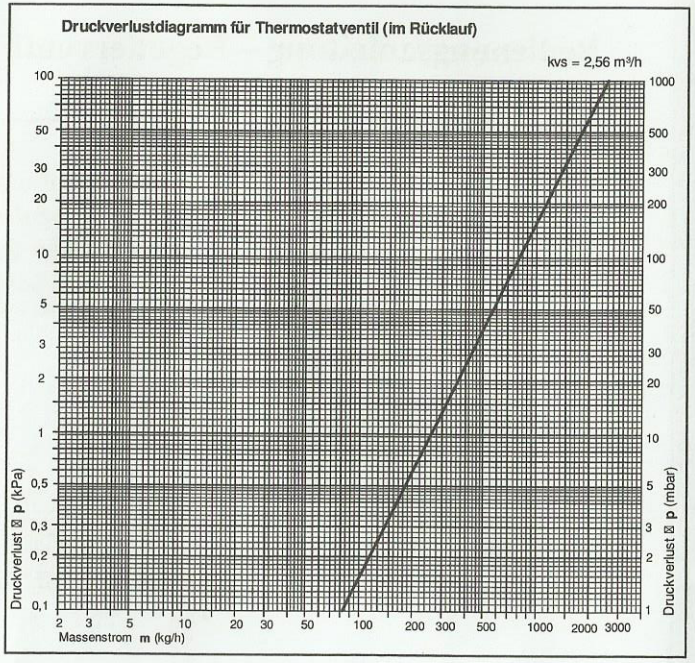



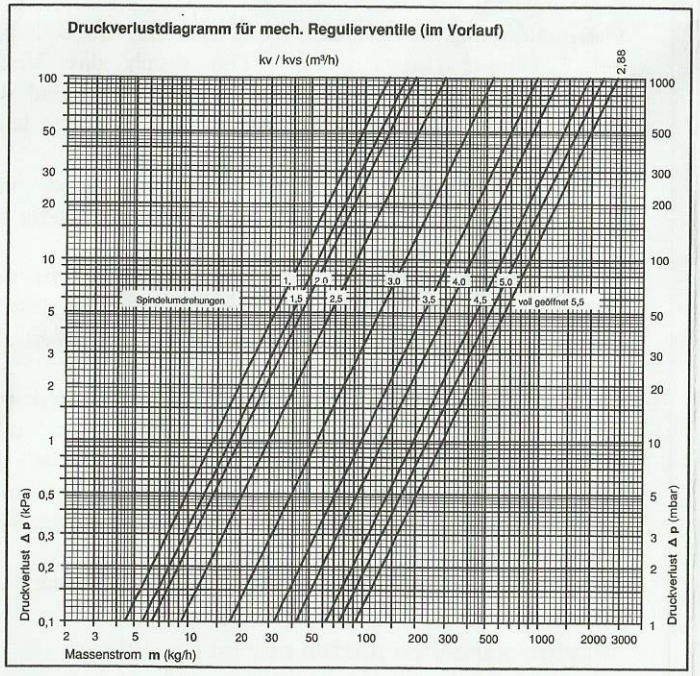






**Für die Dauer der kalten Jahreszeit haben Sie Ihre Heizungsleitung entleert. Dennoch stellen Sie im Frühjahr fest, dass ein Kugelhahn am Gussgehäuse Risse bekommen hat:**

**Die Ursache hierfür ist simpel:**

Sie haben den Kugelhahn nach dem Entleeren ganz auf Durchfluss gestellt.
Somit ist die Heizungsleitung gegen Rohrbruch geschützt. Allerdings setzt sich ein Wasserrest im Gehäuse zwischen Kugel und Gehäusewand fest.

**Unser Tipp:**

Drehen Sie, nachdem Sie die Leitung entleert haben, Ihren Kugelhahn in eine Stellung zwischen "ganz auf" und "ganz zu". Dadurch kann das Wasser zwischen Kugel und der Außenwand des Kugelhahngehäuses entweichen. Sie beugen somit einer Zerstörung des Kugelhahns durch Frost vor.