Drinking Systems
for rearing and heavier poultry
Drinking systems – for the correct amount of fresh and clean drinking water

To achieve the optimum performance from your birds, it is extremely important to provide fresh and clean drinking water. For this, water must be available reliably, free from contamination and within easy reach for the birds. Big Dutchman satisfies all of these requirements in an ideal way – offering a wide range of drinking systems for broilers, turkeys, and breeders, as well as pullets and layers. Our product range includes:

- **nipple drinkers with and without drip cup**
- **special broiler and turkey drinkers**
- **round drinkers for open water supply**
- **cable winches**
- **water connection unit with medicator**

The choice of the right drinking system depends on the type of bird, on the field of use, on the situation in the house and on your individual requirements. Please let our experts advise you.

Nipple drinkers – hygienic supply of drinking water

In modern poultry production, nipple drinkers have proven to be a reliable and hygienic solution for the supply of water. They can be composed of the following parts:

1. pressure regulator with rinsing system and indicator for water column height – side supply for a line length of up to 60 m
2. pressure regulator with rinsing system – central supply for a line length of up to 120 m
3. swivelling aeration unit with indicator for water column height
4. pressure regulator with automatic rinsing system
5. automatic rinsing aeration unit
6. slope regulator – evens out a 10 to 15 cm incline
7. aeration nozzle with valve – under normal operation, the valve is open to allow the air to escape
8. circular tube with anti-roost wire
9. aluminium profile with double anti-roost wire
10. 22 mm nipple tube with SaniStar®
11. ... Top Nipple orange with drip cup
12. ... Top Nipple with drip cup
13. suspension system.

DuoFlow

for actively circulating drinking water

With **DuoFlow**, Big Dutchman offers its customers a new drinking system which uses a pump to circulate the drinking water inside the drinker line. This prevents the water from stagnating inside the line.

**Advantages:**

- constant water temperatures in the drinker line;
- even concentration of additives along the whole length of the drinker line –> no sedimentation;
- no stagnant water in the drinker line –> less risk of contamination;
- even water pressure;
- maximum length of drinker line with side supply up to 120 m;
- simple assembly by means of a patented snap-on system.
During the development of SaniStar® 4.5 with a passage rate of 45 ml/min*, we attached great importance to good hygiene. Summarised, this means:

- reliable valve –> water is dispensed according to demand and without spilling or leaking;
- the saddle is welded onto the square nipple tube –> the inner plug-in and fixation mechanism ensures maximum housing hygiene and does not create any crevices for dirt deposits;
- precise valve pin with 4.5 mm diameter and sharp-edged cut –> larger water drops adhere to the pin, allowing the birds to take in water easily;
- utilisation of high-quality materials (stainless steel and special synthetic material) –> long service life.

SaniStar® 4.5 hygienic nipple without drip cup

Advantages

- smooth outside surface without corners and edges –> maximum hygiene;
- 100 % vertical orientation and optimum resetting features –> dry litter;
- easy horizontal and vertical activation of the valve pin –> optimum water intake even for day-old birds;
- vertical activation of the valve pin –> super-proportional increase of passage rate, also suitable for larger birds;
- double-sealed surface –> high operational reliability.
The new PremiumDrinker was developed specifically for broiler finishing and consists of three main parts:

- larger nipple tube;
- CombiMaster drinking nipple;
- special drinking nipple protector.

This well thought-out system ensures that the birds always receive a sufficient amount of water and at the same time reduces wastage by splash water significantly.

Thanks to the use of high-quality materials (special synthetic material and stainless steel), the drinker is very resistant to chemicals. The passage rate amounts to approx. 45 ml/min at a 20 cm water column.

Advantages

- large lower pin → big and noticeable water drop;
- nipple cannot be activated from the side → less splash water;
- drip cup is not attached to the nipple tube any longer → improved hygiene;
- maximum length of the drinker line 90 m (side supply).

With Penduval, our product range offers a drinker specifically designed for turkeys (patent-no. EP 02023938.0-1260).

It supplies turkeys of every age (even heavy-weight toms with a live weight of over 20 kg) with sufficient amounts of clean drinking water. The drinker consists of a cup which offers the birds open water, and a nipple with a pendulum.
Round drinkers – open water supply for all kinds of poultry

In addition to nipple drinkers, Big Dutchman also offers various round drinkers which are used depending on the bird type and bird weight. These drinkers are usually installed in a suspended position. The JUMBO-T and JUMBO-98 round drinkers are ideally suited for heavy turkeys from 2 to 25 kg live weight. The JUMBO-B drinker is suitable for turkeys of up to 12 kg live weight as well as layers and broiler breeders.

Each time a bird drinks, the bird’s head causes the pendulum to move sideways. Due to this movement, the nipple valve opens and water flows into the cup, either along the pendulum or from its inside. At a raised water level, the birds drink directly from the cup without activating the pendulum, thus preventing the cup from overflowing.

A float ball facilitates drinking for day-old birds. At a low water level, the float ball pushes the pendulum sideways so that water can flow into the cup.

Thanks to the narrow water jet running along its side, the bell remains substantially clear. The water does not splash over the rim and is thus not wasted. This reduces ammonia emissions in the house.

Since the ballast body (JUMBO-T and B) is fitted directly to the suspension, there is no load on the valve and the water level can be adjusted precisely.
In floor management, it is very important to adjust the height of the drinker lines in relation to the birds’ age. For easy and sufficient intake of water without spillages, the animals should have to stretch when drinking. Suspended feeder and drinker lines can easily be winched under the ceiling. This also significantly facilitates cleaning and moving birds in and out of the house. The required suspension system consists of:

- cable winch, pulley and fixing material;
- cable and cable clamp and suspension material.

To allow for easy and secure raising of the drinker lines, Big Dutchman offers several cable winches both for manual and electrical operation:

- cable winch for ceiling or gable suspension with a hoisting power of 340 kg;
- cable winch for wall suspension including a crank with a hoisting power of 350, 650 or 900 kg;
- electrical cable winch, 0.09 kW, 230/400 V, 50/60 Hz for ceiling suspension including a limit stop with a hoisting power of 320/240 kg.

In addition to the described winches, Big Dutchman offers several other electrical winches that allow for the raising of several feeder and drinker lines at the same time.
**Water connection unit and medicator for poultry houses**

Today, a complete drinking system comes not only with the actual drinker, but increasingly with a water connection unit. This unit is installed between the main water system and the house water line and can consist of different modules which may be composed according to your requirements.

The medicator dispenses the correct amount of vitamins and medicines into the drinking water. The amount to be dispensed can be adjusted precisely as the compounds are admitted to the drinking system proportionally to the actual water consumption. The respective compound and the water are mixed at the homogeniser outlet. Thus, the motor does not come into contact with the medications used –> no blockages occur, longer service life.

Water-soluble medicines are extracted directly from their original packaging. In the case of pulverized or viscous substances, a mixing tank (60 l) with circulating pump (code no. 30-61-3105) should be employed.

Water connection unit with medicator, available with nominal widths of 3/4", 1" and 1 1/2"

The correct water pressure is adjusted via the pressure regulator.

1. filter with manometer to avoid blockage at the nipples – optionally with reversible flow filter in the event of a high degree of water contamination
2. valve for separate drawing off of water
3. electronic water meter for connection to a computer – for exact measuring of the water consumption (optional: conventional water meter)
4. bypass with three ball valves – for connection of a medicator
5. medicator – to carry out the prophylaxis easily and reliably
6. pressure reducer with filter and ball valve – for protection against excessive supply pressure, and simple rinsing

**Advantages of the water connection unit**

- compact design –> also suited for very small service rooms;
- easy assembly and easy to extend –> all parts are screwed together, no sticking joints;
- all connecting elements are made of PVC –> optimum corrosion protection.

**Advantages of the medicator**

- precise dispensing for all flow rates;
- high dosing range;
- high flow rate;
- long service life and high operational safety due to the use of high-quality materials (low sensitivity to a broad spectrum of chemicals when cleaned regularly);
- selective spare part kits for rapid replacement of worn parts.

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**Technical data of the medicator**

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosing range</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Flow rate</td>
<td>l/h</td>
<td></td>
</tr>
<tr>
<td>Working pressure</td>
<td>bar</td>
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</tr>
<tr>
<td>Code no.</td>
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<td></td>
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<tr>
<td>Code no. (incl. connection set 3/4&quot;)</td>
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<tr>
<td>Code no. (incl. connection set 1&quot;)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Dosing range: 0.2 - 2.0 %, 1.0 - 5.0 %
- Flow rate: 10 - 2500 l/h, 10 - 2500 l/h
- Working pressure: 0.3 - 6.0 bar, 0.3 - 6.0 bar
- Code no.: 30-61-3540, 30-61-3545
- Code no. (incl. connection set 3/4") 30-62-3070, 30-62-3120
- Code no. (incl. connection set 1") 30-62-3071, 30-62-3121

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1. filter with manometer to avoid blockage at the nipples – optionally with reversible flow filter in the event of a high degree of water contamination
2. valve for separate drawing off of water
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4. bypass with three ball valves – for connection of a medicator
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### Planning Aid

**Top Nipple and Top Nipple orange**

Use of max. 300 nipples per pressure regulator

<table>
<thead>
<tr>
<th>Use</th>
<th>Broilers**</th>
<th>Pullets (up to 1.5 kg)**</th>
<th>Broiler breeders (0-18 weeks)</th>
<th>Ducks (up to 3.5 kg)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broilers**</td>
<td>20 - 25</td>
<td>10 - 16</td>
<td>10</td>
<td>8 - 12</td>
</tr>
</tbody>
</table>

**SaniStar®**

Use of max. 450 nipples per pressure regulator

<table>
<thead>
<tr>
<th>Use</th>
<th>Broilers**</th>
<th>Recommended number of birds per nipple*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broilers**</td>
<td>12 - 15</td>
<td>12 - 15</td>
</tr>
</tbody>
</table>

**Screw nipples (50 and 100 ml)**

<table>
<thead>
<tr>
<th>Use</th>
<th>Layers (50 ml nipple)</th>
<th>Broiler breeders (100 ml nipple)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layers (50 ml nipple)</td>
<td>8 - 10</td>
<td>8 - 10</td>
</tr>
<tr>
<td>Broiler breeders (100 ml nipple)</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**CombiMaster**

Use of max. 300 nipples per pressure regulator

<table>
<thead>
<tr>
<th>Use</th>
<th>Broilers**</th>
<th>Recommended number of birds per nipple*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broilers**</td>
<td>12 - 15</td>
<td>12 - 15</td>
</tr>
</tbody>
</table>

**Round drinkers**

Use of max. 300 nipples per pressure regulator

<table>
<thead>
<tr>
<th>Use</th>
<th>JUMBO-T</th>
<th>JUMBO-98</th>
<th>JUMBO-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkeys 2 to 25 kg</td>
<td>80 - 120</td>
<td>80 - 100</td>
<td>-</td>
</tr>
<tr>
<td>Turkeys 0 to 12 kg</td>
<td>-</td>
<td>-</td>
<td>80 - 100</td>
</tr>
<tr>
<td>Broiler breeders and layers</td>
<td>-</td>
<td>-</td>
<td>100 - 150</td>
</tr>
<tr>
<td>Broilers</td>
<td>-</td>
<td>-</td>
<td>100 - 150</td>
</tr>
<tr>
<td>Day-old chicks***</td>
<td>-</td>
<td>-</td>
<td>300</td>
</tr>
</tbody>
</table>

**Turkey drinker Penduval**

<table>
<thead>
<tr>
<th>Use</th>
<th>Rearing</th>
<th>Hen finishing</th>
<th>Tom finishing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rearing</td>
<td>30-40 birds/cup</td>
<td>25-30 birds/cup</td>
<td>approx. 20 birds/cup</td>
</tr>
<tr>
<td>Hen and tom finishing</td>
<td>1 drinker line per feed line</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

* The number of birds per drinker has to be reduced proportionally for very heavy birds and in a hot climate.

**Note:**

National or regional regulations may stipulate different bird numbers.

*** With spacer ring only.

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**In addition to the drinking systems described, we offer a vast range of fount and cup drinkers. Our experts will be glad to advise you. To achieve dry litter and good results, please follow our assembly, user and operation manuals.**

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**Technical details subject to change. en 3/2015**