Automatic chain feeding
For modern poultry management
Automatic chain feeding for rearing and management of broilers

**Feed hopper**

The feed hopper is available in different versions matching perfectly the respective requirements. Its capacity varies according to the number of feed lines and the size of the hopper extensions.

The feed level in the trough can be precisely adjusted by the feed level slide. As an option, the feed hopper can be equipped with a feed return wheel preventing feed from overflowing.

**Drive unit**

The chain drive is always separate from the feeder, so that the feeding system can be simply adapted without problems to any house situation. Drives are available in 1 or 2-line designs, with a simple height adjuster.

The chain speed can be 12, 18 or 36 m/min depending on the type of feeding (ad libitum or restricted).

The solid housing and reversible chain wheel guarantee a trouble-free operation.

**90° corner**

Quality is a prerequisite for trouble-free operation. This applies especially to this maintenance-free 90° corner.

The technical solution:

- corner wheel with plastic bushing that needs no lubrication
- use of fully hardened guide rail
- solid housing with detachable cover
- heat-sealed plastic coating

This means: long service life, minimal deterioration, no maintenance.

**Feed trough**

The ideal shape and width of the feed trough guarantees that the birds do not disturb each other when feeding. Feed losses are reduced to an unavoidable minimum. The feed trough is available with two different trough profiles:

- **Regular trough model**
  for broilers and pullets
- **Medium trough model**
  for layers and breeders

The respective trough coupler for either standing or suspended version ensures a perfectly straight feeding line.
In the poultry industry, a new era dawned in 1938 when Big Dutchman introduced the world’s first automated chain feeding system. Thanks to its robust and simple principle, this feeding system has proved itself a million times over. The basic concept – hopper, drive unit, trough, corner and the Big Dutchman CHAMPION feed chain – has remained unchanged. The entire system, however, has been continuously improved and adapted to today’s requirements for modern poultry management.

Big Dutchman developed the ideal fast feeding system for restricted broiler breeder feeding by increasing the conveying speed to 36 m/min.

The first chain feeding system in 1938 in the US

Typical example for equipping a broiler breeder house

**Chain feeding system on stands**

Only the CHAMPION feed chain distributes the feed evenly, rapidly and reliably throughout the entire house. Since the chain carries the feed to the birds, feed separation is avoided, achieving uniform weights. A conveying capacity of 0.7 to 1.5 kg feed/m can be adjusted at the feeder. The rugged plastic legs (with an inclination of 4° or 8° depending on the manure pit) ensure a long service life, even when they are standing in the litter.

![Chain feeding system on stands](image)

![Hens are fed through model with high-profile ended](image)

**Autolimit – the prerequisite for controlled rationed feeding.**

Precise feed weighing is a pre-requisite for controlled rationed feeding. The desired daily feed quantity is adjusted at the scale and is then filled into the large weighing container. As a result, the birds always receive the right amount of feed – no more and no less.

The weighing container is available in two different sizes: 1250 l and 1850 l.

A further type of feed weighing is the Big Dutchman self-weighing system – either mechanical or electronic.
INTEGRA plastic slats

The INTEGRA plastic flooring designed by Big Dutchman is ideally suited for broiler breeder management. Its advantages:

- comfortable and soft, anti-slip
  - secure foothold for the birds
  - healthy undersides of the feet
  - improved bird welfare
- no sharp edges or corners
  - no danger of injury
  - no chest bruises
- integrated perch in the shape of a double bar with an additional soft cover
  - maximum comfort when sitting
  - minimum infection pressure on the undersides of the feet
- very small upper surface similar to wire mesh
  - optimum manure penetration
  - flooring stays clean throughout the entire grow-out period
- no contact surface between the slats
  - prevents hotbeds for mites and other parasites
  - simple and thorough cleaning
- simply and rapidly placed in position

Accessories

Apart from the main components of the Big Dutchman chain feeding system, we offer a variety of useful accessories: Among these are feed cleaners, chain breakers and chain tighteners, time controls, chick savers, feeder lids, feed drops etc. Our experts will be glad to advise you.

Male Pan 330 for separate male feeding

If males have to be fed separately, an Augermatic system is used. The respective feed pan with a diameter of 330 mm is particularly suited for male feeding. One pan is sufficient for feeding 7 to 9 males. The fixed and very stable connection to the pipe withstands the weight of the males during feeding. The volume-reducing insert inside the feed pan ensures fast, uniform and simultaneous feed supply to all pans. MP 330 is available with or without slide shut-off.
Three typical examples of the system in broiler breeder houses

Type 1
- manure pit in the centre of the house
- automatic group laying nest arranged in the centre
- separate feeding of males at both longitudinal house walls
- chain feeding either on stands or suspended
- nipple watering lines on the manure pit, in front of the nest

Type 2
- manure pit at both longitudinal house walls
- automatic group laying nest on the manure pit
- separate male feeding in the centre of the house
- chain feeding system with stands on the manure pit
- nipple drinkers or bell drinkers on the manure pit in front of the nest

Type 3
- two rows of hand gathering nests
- chain feeding either on stands or suspended
- separate male feeding in the centre of the house
- nipple watering lines close to the nest
- no manure pit

Key
1 chain feeding, on stands
2 chain feeding, suspended
3 separate male feeding
4 nipple drinkers
5 bell drinkers
6 automatic group laying nest
7 hand gathering nest
8 Track and Carry system for eggs
9 manure pit with plastic slats
10 silo with weighing system
**General planning instructions**

<table>
<thead>
<tr>
<th>Type of bird</th>
<th>Stocking density birds/m²</th>
<th>Type of feeding</th>
<th>No. of birds/ cm trough side per bird</th>
<th>Feed requirements per bird per day in g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broiler breeders (rearing)</td>
<td>7 - 10</td>
<td>restricted</td>
<td>14 - 17</td>
<td>12 - 14</td>
</tr>
<tr>
<td>Broiler breeders (prod.) Ø 3.5 kg</td>
<td>4.5 - 6.5</td>
<td>restricted</td>
<td>12 - 15</td>
<td>12 - 15</td>
</tr>
<tr>
<td>Layers Ø 2 kg</td>
<td>6 - 8</td>
<td>ad libitum</td>
<td>20 - 25</td>
<td>8 - 10</td>
</tr>
<tr>
<td>Pullets Ø 1.5 kg</td>
<td>8 - 10</td>
<td>rationed</td>
<td>20 - 25</td>
<td>8 - 10</td>
</tr>
<tr>
<td>Broilers 1.5-1.7 kg</td>
<td>22 - 24</td>
<td>ad libitum</td>
<td>50 - 65</td>
<td>3 - 4</td>
</tr>
<tr>
<td>Broilers 1.7-2.5 kg</td>
<td>18 - 20</td>
<td>controlled</td>
<td>30 - 40</td>
<td>5 - 7</td>
</tr>
</tbody>
</table>

The bird numbers shown in the diagram are average values and can vary depending on the breed and climate.

![Diagram](image)

There are many other configurations for the feed lines. Let our experts advise you.

**Feeders**

<table>
<thead>
<tr>
<th>Type of feeder</th>
<th>MPF 1 line</th>
<th>MPF 2 lines</th>
<th>MPF 3 lines</th>
<th>Mini 1 lines</th>
<th>Mini 2 lines</th>
<th>Mini 3 lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder*</td>
<td>110 litres</td>
<td>150 litres</td>
<td>190 litres</td>
<td>50 litres</td>
<td>70 litres</td>
<td>90 litres</td>
</tr>
<tr>
<td>MPF extension*</td>
<td>258 litres</td>
<td>305 litres</td>
<td>357 litres</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mini extension*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>240 litres</td>
<td>240 litres</td>
<td>240 litres</td>
</tr>
<tr>
<td>Weighing container*</td>
<td>1250 litres</td>
<td>1250 litres/1850 litres</td>
<td>1250 litres/1850 litres</td>
<td>1250 litres/1850 litres</td>
<td>1250 litres/1850 litres</td>
<td>1850 litres/1850 litres</td>
</tr>
<tr>
<td>Legs</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Feed return wheel</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

*1 100 litres correspond to approx. 65 kg feed
*2 standard equipment
*3 special accessory

**Drives**

<table>
<thead>
<tr>
<th>Type description</th>
<th>MPF 12 m/min</th>
<th>MPF 18 m/min</th>
<th>MPF 36 m/min*2</th>
<th>MPF 18/36 m/min*2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor capacity in kW (3 Ph, 50 Hz)</td>
<td>0.37</td>
<td>0.75</td>
<td>1.1</td>
<td>1.1 / 1.4</td>
</tr>
<tr>
<td>Max. chain length in m*3 (1 line)</td>
<td>180</td>
<td>300</td>
<td>300</td>
<td>180</td>
</tr>
<tr>
<td>Max. chain length in m*3 (2 lines)</td>
<td>2 x 125</td>
<td>2 x 125</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 For rationed feeding, chain speed and circuit length should be adjusted in such a way that 1 circuit takes 5 minutes max.
*2 For the drives 36 m/min we recommend a time control with seconds program. Feed cleaners cannot be used here.
*3 The indicated length of chain is valid incl. four 90° corners. For each additional chain reduce the max. chain length by 12.50 m; for single-phase motors and for chain feeding in the area, reduce the max. chain length by 30 %

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**Asia**

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Technical details subject to change. e 2/2002