



# Big Dutchman®



## **Feed storage and feed transport**

hygienic, safe and efficient

# Silos

## Prerequisite for hygienic and safe feed storage

Big Dutchman offers high-quality silos for inside and outside use along with all the accessories required for hygienic feed storage. This includes:

- silos made of galvanized sheet steel
- silos made of glass-fibre reinforced plastic

- inside silos made of Trevira fabric
  - systems for silo weighing
  - an electric silo discharge aid
- Select the right silo from a wide range of different products. The silo size depends on daily feed consumption and required storage time.

All silos can be filled pneumatically or mechanically. Let the Big Dutchman experts advise you about the available options regarding feed storage, transport and weighing.

## Silos made of galvanized sheet steel



The Big Dutchman steel silos are characterised by a high-quality zinc aluminium coating. This coating protects the silos from corrosion, ensuring a long service life. The roof is shaped in such a way that the entire silo storage volume can be used. Trouble-free feed withdrawal is guaranteed by the optimum degree of slope in the silo funnel. The corresponding silo boot can be adjusted between 0° and 45°.

### Key

- 1 Lid with opener
- 2 Pneumatic filling pipe
- 3 Breather pipe
- 4 Inspection window in ring
- 5 Ladder
- 6 Safety cage
- 7 Manhole (optional)
- 8 Connection to silo boot
- 9 Silo leg
- 10 Base plate (provided by customer)



Silos made of galvanized sheet steel with manhole

Type	Code no.	Volume m <sup>3</sup>	Overall height m	Silo diameter m	Type	Code no.	Volume m <sup>3</sup>	Overall height m	Silo diameter m
BD-P-EU*	25-18-2010	4.1	3.5	1.80	BD-P**	25-17-9410	4.1	3.5	1.80
BD-P-EU*	25-18-2020	6.3	4.4	1.80	BD-P**	25-17-9420	6.3	4.4	1.80
BD-P-EU*	25-18-2030	8.6	5.3	1.80	BD-P**	25-17-9430	8.6	5.3	1.80
BD-P-EU*	25-18-2120	9.2	4.7	2.10	BD-P**	25-17-9520	9.2	4.7	2.10
BD-P-EU*	25-18-2130	12.3	5.6	2.10	BD-P**	25-17-9530	12.3	5.6	2.10
BD-P-EU*	25-18-2140	15.4	6.5	2.10	BD-P**	25-17-9540	15.4	6.5	2.10
BD-P-EU*	25-18-2220	16.6	5.5	2.75	BD-P**	25-17-9620	16.6	5.5	2.75
BD-P-EU*	25-18-2230	21.8	6.4	2.75	BD-P**	25-17-9630	21.8	6.4	2.75
BD-P-EU*	25-18-2240	27.0	7.2	2.75	BD-P**	25-17-9640	27.0	7.2	2.75
BD-P-EU*	25-18-2320	32.6	6.5	3.66	BD-P**	25-17-9650	32.6	6.5	3.66
BD-P-EU*	25-18-2330	41.8	7.4	3.66	BD-P**	25-17-9660	41.8	7.4	3.66
BD-P-EU*	25-18-2250	32.2	8.1	2.75	BD-P**	25-17-9670	51.0	8.3	3.66
BD-P-EU*	25-18-2260	37.4	8.9	2.75					
BD-P-EU*	25-18-2270	42.6	9.8	2.75					

\* with EU structural standards (wind zone 2, inland)

All silos made of galvanized sheet steel are unassembled upon delivery.

**Note:** The average weight of the feed amounts to 0.65 t/m<sup>3</sup> – for example: 8.4 m<sup>3</sup> silo x 0.65 t/m<sup>3</sup> = 5.5 t feed.

\*\* without EU structural standards

BD-P-EU and BD-P: silos with pneumatic filling – all silos can also be filled mechanically or pneumatic-mechanically.

## Silos made of glass-fibre reinforced plastic

Silos made of glass-fibre reinforced plastic (GRP) are delivered fully assembled, including filling and breather pipes. GRP silos are available for holding contents from 4 m<sup>3</sup> to 66 m<sup>3</sup>, with a height of 3.7 m to 12.2 m and in a great variety of types. They are corrosion-resistant and weatherproof as well as virtually maintenance-free. The material is transparent for easy monitoring of the level of contents. The very smooth interior ensures that the feed flows without obstructions. As an option, GRP silos can be delivered with an optional inspection hatch.



GRP silos with FlexVey conveyor spiral



GRP silos with DR 1500 conveyor chain

## Inside silos made of Trevira fabric

Interior silos are a low-cost alternative for storing feed inside buildings. They consist of a Trevira bag and a steel stand. Trevira fabric is breathable and dust-proof and prevents the formation of condensation. The silo bag with an outlet diameter of 400 mm has a sewn-on collar for connection to a silo boot. Inside silos are easy to set up and maintenance-free with a long service life. The Big Dutchman inside silos are available with volumes from 5.15 m<sup>3</sup> to 20.95 m<sup>3</sup>.

Type	Code no.	Volume in m <sup>3</sup>	Overall height in m
GS-1	25-30-3206	5.15	3.05
GS-A	25-30-3207	6.15	3.30
GS-B	25-30-3209	8.15	3.80
GS-C	25-30-3211	10.15	4.30
GS-D	25-30-3214	12.95	4.80
GS-E	25-30-3217	15.95	5.30
GS-F	25-30-3220	18.95	5.80
GS-G	25-30-3222	20.95	6.30

Other types upon request



Inside silos made of Trevira fabric

## Systems for silo weighing

To record and check the contents of a silo and the amount of feed withdrawn, Big Dutchman offers easy-to-use options for silo weighing:

- ✓ UniScale
- ✓ QuadScale

Both weighing systems are well-suited for outside installation directly at the silo (protection rating IP 66/67) and equipped with a display (optional for UniScale). This display means that suppliers can see for themselves how much feed they are adding, and provides you with a fast and accurate overview of your silos' filling levels. Each set of scales can weigh up to four silos.



UniScale



QuadScale



Both scales are available as a stand-alone solution. For easy data analysis, UniScale also comes as a BigFarmNet application. With QuadScale, data can be analysed using Big Dutchman's digital platform BFN Fusion by means of the IoT gateway OrbitX. QuadScale is easy to retrofit onto existing silos without having to lift the entire silo.



Cover for silo foot for accurate weighing even in extreme weather



The QuadScale weighing module can be retrofitted without lifting the entire silo

## Electric discharge aid for silos

Where slow-flowing or bridging feed is stored in a silo, Big Dutchman recommends using an electric vibrator. A sensor installed in the silo boot transmits a signal to the vibrator when it is no longer surrounded by feed, causing the problem to be solved. The vibrator then switches off when the silo

boot has been refilled. By default, the electric vibrator operates for ten seconds. This running time can be changed if required. The Big Dutchman discharge aid is available for silos made of galvanized sheet steel and for GRP silos.



Silo with electric vibrator

## Spirals, augers and conveyor chains

### For effective and safe feed transport from the silo into the building

With Big Dutchman conveying systems, your feed – be it meal, pellets or crumbles – passes from the silo into the house safely and without any loss of quality. The product range includes spirals, augers and conveyor

chains of different sizes. For conveying capacities of up to 4.5 t/h, spirals are used. When capacities are higher or pitches reach up to 75°, an auger is the ideal option.

Conveyor chains should be selected for very long conveying lengths and complicated building layouts. The feed runs in a circuit in this case.



FlexVey conveying system: simple and flexible

- ✓ FlexVey conveyor spirals consist of high-quality and extremely flexible spring steel
- ✓ feed can be transported into the house around bends of up to 90° safely, rapidly and without being separated
- ✓ good conveying capacity
- ✓ completely closed conveying system
- ✓ universal application
- ✓ fast and easy assembly
- ✓ can be driven by means of a V-belt motor or a gear motor

FlexVey		FlexVey 60	FlexVey 75	FlexVey 90	FlexVey 125	FlexVey 90 HS
<b>Horizontal conveying capacity*</b>	t/h	0.7	1.4	2.5	4.5	4.0
<b>Maximum conveying length</b>	m	80	60	40	25	40
<b>Outside pipe diameter</b>	mm	60	75	90	125	90
<b>Material</b>	mm	PVC	PVC**	PVC**	PVC**	PVC/stainless steel
<b>Pipe bend radius – 45°</b>	mm	3000	1533	1568	2750	1568
<b>Spiral diameter</b>	mm	45	60	70	100	70
<b>Spiral pitch</b>	mm	45	60/40	65	70	65

\* for a bulk density of 0.65 t/m<sup>3</sup> of the material to be conveyed; the conveying capacity decreases by approx. 30 % at a pitch of 45°

\*\* also available made of stainless steel upon request

## FlexVey PUR: flexible and wear-resistant

FlexVey PUR is an extremely flexible and wear-resistant conveying pipe that transports feed around curves and bends. FlexVey PUR conveys your feed safely and

without quality losses around any corner. The bends can be cut to size on site for angles of 15° up to a maximum of 45°. An additional bracket prevents the pipe from

sagging and therefore reduces wear and tear. FlexVey PUR is available in diameters of 75, 90 and 125 mm.



FlexVey PUR for wear-resistant feed transport around curves and bends



Use of FlexVey PUR in combination with a rigid FlexVey pipe

### Important advantages

- ✓ high resistance to wear
- ✓ well-suited for curves and bends
- ✓ very quiet operation
- ✓ good conveying capacity
- ✓ made of high-quality, wear-resistant polyurethane
- ✓ suitable for any type of house
- ✓ significantly reduced risk of failures
- ✓ can also be retrofitted

- ✓ augers have a very high conveying capacity
- ✓ completely closed conveying system
- ✓ well-suited for pitches of up to 75°, even 90° pitches can be realised in exceptional cases; the auger can then be no longer than 10 m
- ✓ quiet to operate, even when empty
- ✓ can be driven by means of a V-belt motor or a gear motor
- ✓ low maintenance requirements



Feed augers with large conveying capacities

Augers		S102	S150	S200	K150	K200
<b>Horizontal conveying capacity*</b>	t/h	4.3	19	48	26	34
<b>Maximum conveying length</b>	m	12	14	12	30	15
<b>Outside pipe diameter</b>	mm	102	152	226	–	–
<b>Material</b>		galvanized pipe	galvanized pipe	galvanized pipe	galvanized trough	galvanized trough

\* for a bulk density of 0.65 t/m<sup>3</sup> of the material to be conveyed; the conveying capacity decreases by approx. 30 % at a pitch of 45°  
Gear motor available upon request



DryRapid conveying pipe with conveyor chains

DryRapid is a versatile conveying system and, therefore, ideally suited when refurbishing existing houses. Feed can be taken directly from the silo, i.e. additional conveying augers are not necessary. Converting the system into a computer-controlled feeding system is possible at any time. DR 6500, a centralised system that distributes feed from the main silo to the silos directly at the house, is always an especially good choice.

- ✓ high conveying capacity
- ✓ smooth feed transport with minimal losses
- ✓ separate adjustment of the feeders' filling level by means of a telescopic drop pipe
- ✓ low maintenance requirements and a long service life

Chain conveyor		DryRapid 1500	DryRapid 6500
<b>Drive power</b>	kW	1.5	5.5
<b>Chain speed</b>	m/min	27	42
<b>Conveying capacity*</b>	t/h	up to 1.5**	up to 6.5
<b>Max. conveying length with 4 corners</b>	m	300 (standard)	300

\* for a filling level of 66 % and a feed density of 650 kg/m<sup>3</sup>

\*\* in case of forced infeed, the capacity may vary depending on the feed texture

## Examples for feed transport from the silo into the house



FlexVey conveyor spiral



FlexVey tandem system for two silos



FlexVey conveyor spiral with FlexVey PUR bend



Tandem auger with forced transfer



Elevating and cross conveying auger



Conveyor chain (DR 1500)



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