

QUALITY

EXPERIENCE

PASSION



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FLAT BOTTOM SILOS FOR GRAIN STORAGE

MADE OF FLAT AND CORRUGATED SHEETS OF STEEL



European
Funds
Smart Growth

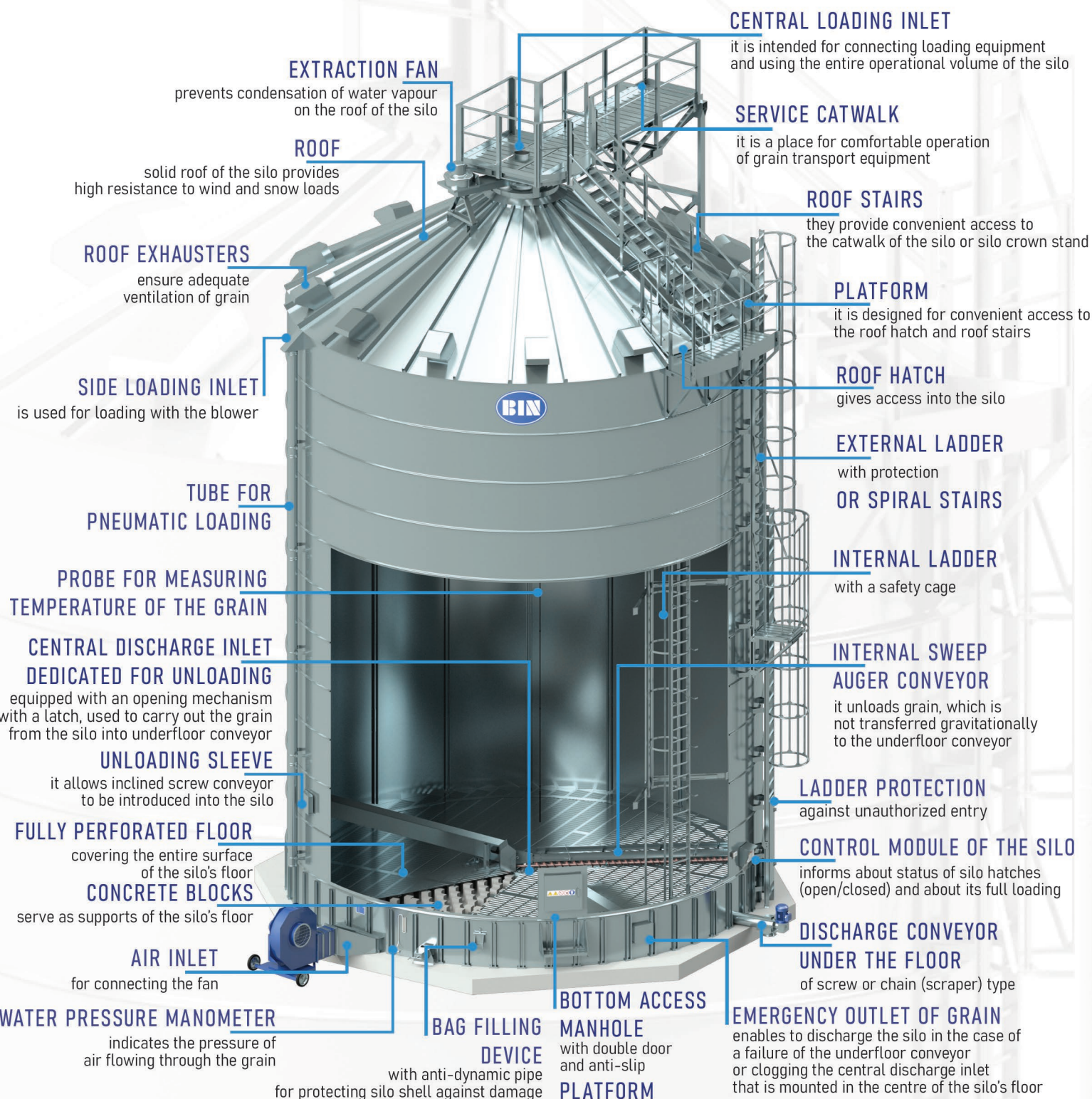


Republic
of Poland



European Union
European Regional
Development Fund





Type of this equipment varies depending on the silo model.

ADVANTAGES OF THE SILO



long-term grain storage



reasonable price



reduces the risk of
mould and pests

FUNCTIONALITY



for the storage of grain, cereals,
corn and oilseeds



cooling and drying of stored grain



equipment for mechanized loading and unloading of grain

DESIGN



high-quality galvanized
sheets of steel and fasteners



the roof is ribbed
to prevent rain entering the silo



they meet required
parameters of fire resistance

ENSURE PROPER CONDITIONS OF GRAIN STORAGE IN THE SILO

■ FORCED VENTILATION FAN

FOR COOLING, AERATING AND DRYING GRAIN

■ AIR HEATER

FOR HEATING AIR THAT DRIES GRAIN

■ PERFORATED FLOOR

PERFORATION OF ENTIRE FLOOR SURFACE
ENSURES EFFICIENT VENTILATION

■ TEMPERATURE PROBE

FOR MEASURING TEMPERATURE
OF STORED GRAIN

■ EXTRACTION FAN

REMOVES DUST AND HUMID AIR
FROM THE SPACE ABOVE GRAIN,
PREVENTS CONDENSATION
UNDER ROOF OF THE SILO

SILOS UNLOADING

■ BAG FILLING DEVICE

- used for unloading small quantities of grain
- installed in small silos

■ UNLOADING SLEEVE

- is used to house the inclined screw conveyor
- we recommend the SLEEVE EXTENSION – the conveyor will be able to take more grain without the need to manually scooping it to the conveyor inlet

■ UNDERFLOOR CONVEYOR

- of screw or chain (scraper) type
- the grain is provided to this conveyor through the inlet in the middle of the floor
- it transfers grain outside the silo

■ INTERNAL SWEEP AUGER CONVEYOR

- it gathers grain that could not be transferred gravitationally to the underfloor conveyor

■ EMERGENCY OUTLET OF GRAIN

- it is located on the floor or under the floor
- it is used in the case of a failure of unloading equipment or grain caking above the inlet to the underfloor conveyor

SILOS LOADING

■ SILOS LOADING BLOWER

- it is a pneumatic loading system designed for small silos
- with own charging hopper
- the same fan is used to ventilate the silo
- it transports grain vertically to a height of 7m and offers a conveying capacity up to 6t/h

■ VERTICAL SCREW CONVEYOR

- very compact
- with own charging hopper
- suitable for connecting to the underfloor conveyor and using for unloading grain to a trailer
- it transports grain vertically to a height of 14m and offers a conveying capacity up to 24t/h

■ BUCKET ELEVATOR

- it is used to load the grain storages consisting of several silos
- it can be supported by a tower, pipe roller support (PRS) or fixed to the silo
- it transports grain to a height of 29,9m and offers a conveying capacity up to 45t/h

■ INTAKE HOPPERS

- of overrun and non-overrun type
- of screw or scraper type

- ☒ since 1990 we have delivered over 65 000 silos to Polish and European farmers
- ☒ since 2014 we have been controlling the quality of anti-corrosion coating of connectors in a brine chamber
- ☒ we have been granted a Certificate of Factory Production Control issued by the Institute of Welding in Gliwice city
- ☒ our silos are designed according to European construction standards called Eurocodes and provide our customers with free project in the electronic version

		NBIN10	NBIN10W	NBIN20N	NBIN20	NBIN20W	NBIN20WW	NBIN40N	NBIN40	NBIN40W	NBIN40WW	NBIN60	NBIN60W
LOADING CAPACITY (t)*		10,5	13,5	19,7	22,4	28,1	33,8	35,0	44,0	52,0	61,0	57,7	68,8
VOLUME (m ³)		15,6	19,5	26,3	29,9	37,4	45,0	45,0	56,0	67,0	78,0	76,9	91,7
HEIGHT (m)**		4,6	5,5	4,3	4,8	5,8	6,7	5,0	5,9	6,9	7,8	6,1	7,1
DIAMETER (m)		2,3	2,3	3,2	3,2	3,2	3,2	3,8	3,8	3,8	3,8	4,5	4,5
ACCESS	external ladder	S		S		S		0		0		S	S
	internal ladder	S		S		S		0		0		S	S
	spiral stairs	-		-		-		-		-		-	-
	roof stairs	-		-		-		-		-		-	-
	crown stand	-		-		-		-		-		-	-
	service catwalk	-		-		-		-		-		0	0
	bottom access manhole	-		0		0		0		0		0	0
	roof hatch	S		S		S		0		0		S	S
ACTIVE VENTILATION	flat perforated floor	S		S		S		0		0		S	S
	inside perforated hopper	-		-		-		0		0		0	0
	air inlet	S Ø180		S Ø180		S Ø180		0 Ø180 or Ø310		0 Ø180 or Ø310		S Ø310	S Ø310
	universal air inlet	-		-		-		-		-		-	-
	fan	0 PPZ		0 PPZ		0 PPZ		0 PPZ		0 PPZ		0 PPZ	0 PPZ
	extraction fan	0		0		0		0		0		0	0
	air heater	0 4,5kW		0 4,5kW		0 4,5kW		0 4,5kW		0 4,5kW		0 4,5kW	0 4,5kW
	roof exhauster	-		-		-		S 1pc		S 1pc		S 1pc	S 1pc
LOADING AND UNLOADING	water-filled manometer	S		S		S		0		0		S	S
	temperature probe	0		0		0		0		0		0	0
	central loading inlet	S		S		S		S		S		S	S
	side loading inlet	S		S		S		0		0		S	S
	bag filling device	S		S		S		0		0		S	S
	anti-dynamic pipe of bag filling device	-		-		S		-		0		-	S
	unloading sleeve	-		0		0		0		0		0	0
	unloading sleeve extension	-		0		0		0		0		0	0
	emergency outlet of grain	-		-		-		0		0		0	0
	underfloor discharge conveyor	0		0		0		0		0		0	0
	internal sweep auger conveyor	-		-		-		-		-		0	0
control module of the silo		0		0		0		0		0		0	0

* the loading capacity for wheat with a density 750kg/m³ (780kg/m³ for NBIN40N, NBIN40, NBIN40W and NBIN40WW) related to the usable volume; the actual volume of material gathered in the silo depends among others on the method of loading, bulk properties of the material, allowable maximum level of silo filling

** height measured from the surface of the foundation to the central loading inlet in the roof

STANDARD AND OPTIONAL EQUIPMENT:



NBIN60WW NBIN100U NBIN100WU NBIN200U NBIN200WU NBIN500 NBIN501W NBIN1001 NBIN1001W NBIN1500N NBIN1500P NBIN1500 NBIN1500W

91,0	99,8	132	211	261	521	604	948	1095	1170	1285	1514	1744
121,3	133	176	281	348	695	805	1264	1460	1560	1713	2019	2325
9,0	7,2	9,1	9,6	11,5	13,9	15,8	14,7	16,6	12,7	13,7	15,5	17,4
4,5	5,4	5,4	6,7	6,7	8,6	8,6	11,5	11,5	14,3	14,3	14,3	14,3
S	0	0	0	0	0	0	0	0				
S	S	S	S	S	S	S	S	S				
-	-	-	0	0	0	0	0	0				
-	0	0	0	0	0	0	0	0				
-	0	0	0	0	0	0	0	0				
0	0	0	0	0	0	0	0	0				
S	S	S	S	S	S	S	S	S				
S	S	S	S	S	S	S	S	S				
S	S	S	S	S	S	S	S	S				
0	S	S	S	S	S	S	S	S				
S Ø310	S Ø310	S Ø310	S Ø310	S Ø310	S Ø400	S Ø400	S Ø400	S Ø400				
-	-	-	0	0	0	0	0	0				
0 PPZ	0 PPZ	0 PPZ	0 PPZ	0 PPZ	0 WPR	0 WPR	0 WPR	0 WPR				
0	0	0	0	0	0	0	0	0				
0 4,5kW	0 4,5kW	0 4,5kW	0 9kW	0 9kW	-	-	-	-				
S 1pc	S 2pcs	S 3pcs	S 10pcs	S 10pcs	S 12pcs	S 18pcs	S 32pcs	S 32pcs				
S	S	S	S	S	S	S	S	S				
0	0	0	0	0	0	0	0	0				
S	S	S	S	S	S	S	S	S				
0	S	S	0	-	-	-	-	-				
+0	+0	+0	-	-	-	-	-	-				
-0	-0	-0	-	-	-	-	-	-				
0	0	0	-	-	-	-	-	-				
0	0	0	-	-	-	-	-	-				
S	S	S	S	S	S	S	S	S				
0	0	0	0	0	0	0	0	0				
0	0	0	0	0	0	0	0	0				
0	0	0	0	0	0	0	0	0				

S - standard, O - optional



FLAT BOTTOM SILO FOR GRAIN STORAGE MADE OF CORRUGATED SHEETS OF STEEL



Type of this equipment varies depending on the silo model.



CORRUGATED STEEL SILOS WITH FLAT BOTTOM MODELS FBIN:

TYPE	FBIN9 DIAMETER 8,6m					FBIN11 DIAMETER 11,5m									
	FBIN 9/10	FBIN 9/11	FBIN 9/12	FBIN 9/13	FBIN 9/14	FBIN 11/10	FBIN 11/11	FBIN 11/12	FBIN 11/13	FBIN 11/14	FBIN 11/15	FBIN 11/16	FBIN 11/17	FBIN 14/10	FBIN 14/11
LOADING CAPACITY (t)*	560	605	657	708	760	1005	1097	1190	1281	1373	1464	1556	1647	1606	1750
VOLUME (m³)	709	775	842	908	974	1289	1407	1525	1642	1760	1877	1995	2112	2059	2243
HEIGHT (m)**	13,88	15,00	16,15	17,30	18,44	14,74	15,88	17,02	18,16	19,30	20,44	21,58	22,70	15,57	16,71

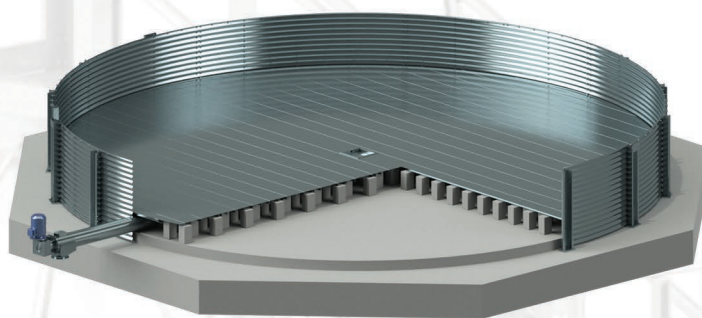
* the loading capacity for wheat with a density 780kg/m³ related to the silo volume given below; the actual volume of material gathered in the silo depends among others on the method of loading, bulk properties of the material, allowable maximum level of silo filling, floor type etc.

** height measured from the surface of the foundation to the central loading inlet in the roof

WE CAN OFFER **VARIOUS TYPES OF FLOORS** TO THE SILOS MADE OF CORRUGATED SHEETS OF STEEL:

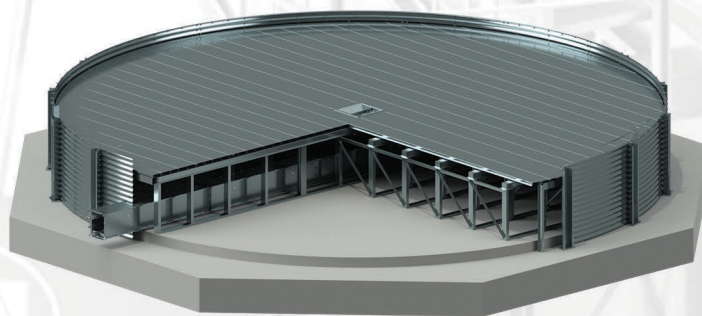
FULLY PERTORATED FLOOR MADE OF STEEL MOUNTED ON THE CONCRETE BLOCKS

- suitable for the silos with the shell up to 12 rings high
- there is a space to mount PS220 screw conveyor with the conveying capacity of up to 45 tons per hour under the floor
- foundation slab is easy to build and inexpensive
- one or two fans for grain ventilation
- whole surface of the floor is perforated



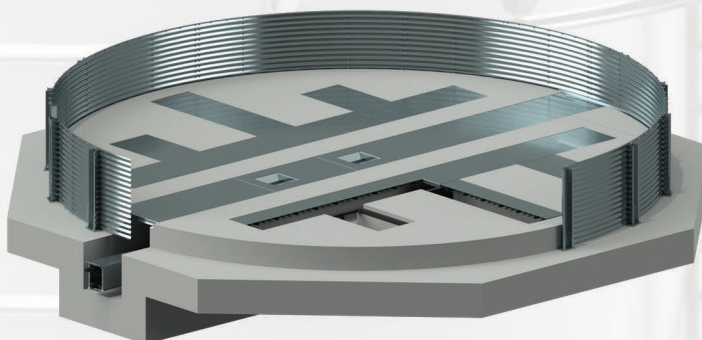
FULLY PERTORATED FLOOR MADE OF STEEL BASED ON SUPPORTING GRILL MADE OF STEEL

- suitable for all types of silos
- there is a space to mount chain conveyor (scraper conveyor) with the conveying capacity of up to 150 tons per hour under the floor
- foundation slab is easy to build and inexpensive
- one or two fans for grain ventilation
- whole surface of the floor is perforated



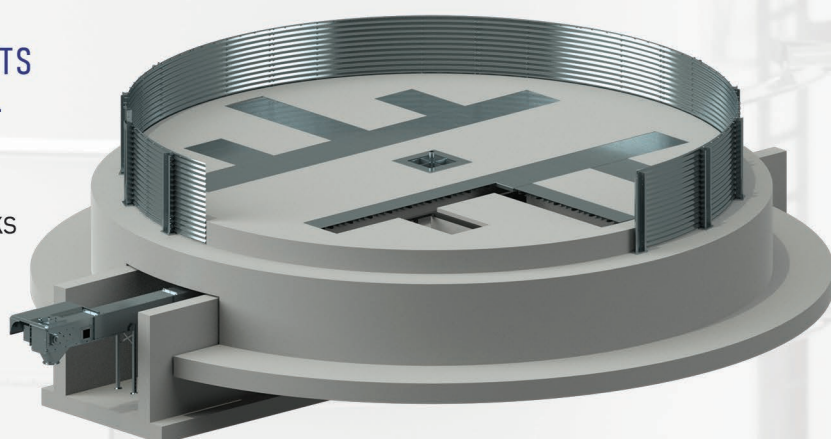
CONCRETE FLOOR WITH VENTILATION DUCTS

- there is channel dedicated for chain conveyor (scraper conveyor) in the concrete foundation
- we offer prefabricated foundation formworks that helps to build up ventilation ducts
- two fans for grain ventilation
- up to 35 % of the floor can be ventilated



CONCRETE FLOOR WITH VENTILATION DUCTS AND A PASSABLE MAINTENANCE CHANNEL

- constant and convenient access to the chain conveyor (scraper conveyor)
- we offer prefabricated foundation formworks that helps to build up ventilation ducts
- two fans for grain ventilation
- up to 35 % of the floor can be ventilated



FBIN14 DIAMETER 14,3m						FBIN17 DIAMETER 16,7m						FBIN19 DIAMETER 19,1m			
FBIN 14/12	FBIN 14/13	FBIN 14/14	FBIN 14/15	FBIN 14/16	FBIN 14/17	FBIN 17/14	FBIN 17/15	FBIN 17/16	FBIN 17/17	FBIN 17/18	FBIN 17/19	FBIN 19/15	FBIN 19/16	FBIN 19/17	FBIN 19/18
1893	2036	2179	2323	2466	2609	3005	3200	3395	3590	3785	3981	4232	4487	4741	4996
2427	2610	2794	2978	3161	3345	3853	4103	4353	4603	4853	5104	5425	5752	6078	6405
17,85	18,99	20,13	21,27	22,41	23,55	20,87	22,01	23,15	24,29	25,43	26,57	22,70	23,84	24,98	26,12

WE DESIGN AND INSTALL FULLY INTEGRATED SYSTEMS FOR GRAIN STORAGE



4 x NBIN1001W + 3 x NBIN1500W

PLEASE FIND OUR FULL OFFER:

FLAT BOTTOM SILOS FOR GRAIN STORAGE

HOPPER SILOS FOR GRAIN STORAGE

SILOS FOR ANIMAL FEED

EQUIPMENT FOR FEED MIXING PLANTS

DEVICES FOR GRAIN TRANSPORTATION

AGRICULTURAL SHEDS



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