



Product catalog

—
Manufacturer of
comprehensive grain elevators

An aerial photograph of a large-scale grain elevator facility. The facility consists of several tall, cylindrical metal silos with green conical roofs, interconnected by a complex network of metal walkways, ladders, and conveyor systems. In the background, there are several industrial buildings with flat roofs. The facility is situated in a rural area with green and brown fields visible in the distance. A semi-transparent orange circle is overlaid on the top left portion of the image, containing a white graphic element and text.

Our devices allow for a significant reduction of costs in agricultural production and for maintaining the high quality of the stored grain.

The best at caring for grain.

FEERUM is one of the world's leading manufacturers of comprehensive grain elevators. The activities of FEERUM include the design and production of equipment and the implementation of modern technologies for drying and storing agricultural produce.

We offer comprehensive solutions – from the analysis of customer needs, through the proposition of technological solutions, production of devices, to commissioning of the facility and starting the operation. We guarantee service and stable delivery of components for devices.

What makes us stand out?

- › Comprehensive offer - silos, seed dryers and devices for vertical and horizontal transport of grain
- › Own R&D center
- › Patent protection for projects and products
- › Experienced team - nearly 80 engineers
- › 30 robotic production lines, nearly 3 ha of production area, a large warehouse and spare parts base
- › Intelligent control systems for drying and storage facilities
- › Design and production based on CAD Solidworks software integrated with the PDM base and ERP Impuls EVO system
- › Online service

We have nearly 20 years of experience on Polish and on the foreign markets.

In May 2013, we successfully debuted on the Warsaw Stock Exchange.

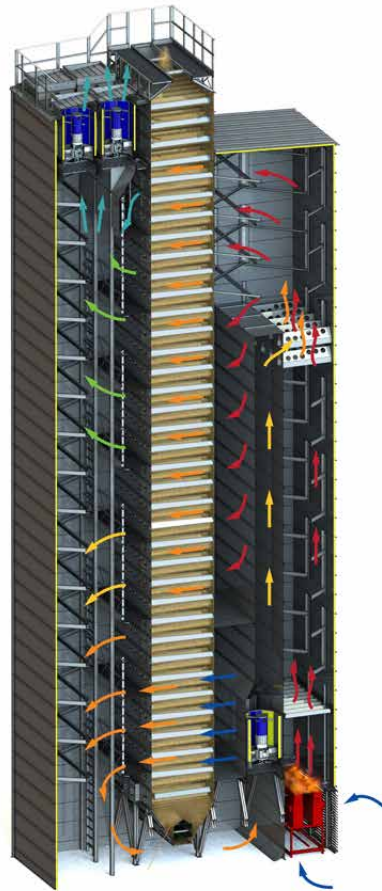


FTD



- > Quiet work
- > Reduction of noise emissions - silencers as standard
- > Minimization of dust during work
- > Modulating burners (smooth flame regulation)
- > Fully insulated construction - as standard
- > Optional: fire protection installation

- Cold outside air
- Hot air from the burner
- Hot air for drying
- Moist air slightly warmed up
- Tepid air with less humidity
- Warm air with low humidity - directed for reuse



Important! The drying process should be preceded by cleaning the grain in a cleaner and after drying, the air separator should be used.

Model		2/16	2/20	3/16	3/20	3/28	4/16	4/20	4/28	4/32	6/28	6/32	8/28	8/32	8/36	8/40	10/28	10/32	10/36	10/40
Section width	[m]	2	2	3	3	3	4	4	4	4	6	6	8	8	8	8	10	10	10	10
Number of sections (drying + cooling)	[pcs]	16	20	16	20	28	16	20	28	32	28	32	28	32	36	40	28	32	36	40
Number of cooling sections		6	7	6	7	9	6	7	9	11	9	11	9	11	12	14	9	11	12	14
Dimensions	A [m]	2,6	2,6	3,6	3,6	3,6	4,4	4,4	4,4	4,4	7,7	7,7	9,0	9,0	9,0	9,0	12,1	12,1	12,1	12,1
	B [m]	9,2	9,2	9,2	9,2	9,2	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4	9,4
	H [m]	16,8	19,2	16,8	19,2	24,0	16,8	19,2	24,0	26,4	24,0	26,4	24,0	26,4	28,8	31,2	24,0	26,4	28,8	31,2
Backfill capacity	[t]	30	35	43	52	70	58	70	93	105	138	158	185	210	233	255	232	262	290	320
Upper fans	[pcs]	1	1	2	2	2	4	4	4	4	6	6	9	9	9	9	10	10	10	10
	[kW]	15	22	11	15	22	7,5	11	15	15	11	15	11	15	18,5	22	15	18,5	22	30
Bottom fans	[pcs]	1	1	1	1	1	2	2	2	2	2	2	4	4	4	4	4	4	4	4
	[kW]	5,5	7,5	7,5	11	18,5	5,5	7,5	11	11	18,5	18,5	7,5	7,5	11	11	11	11	15	15
Electric power	[kW]	20,5	29,5	29,5	41	62,5	41	56	82	82	103	127	129	165	210,5	242	194	229	280	360
Thermal power*	[MW]	2	2	3	3	4	3,5	5	5	6	8	10	10	12	14	16	14	16	20	20
Number of burners		1	1	1	1	1	1	1	1	1	1	1	1	1	1+1	1+1	1+1	1+1	1+1	1+1
Capacity for moist grain [t/day]																				
Maize	30-14,5%	152	200	225	300	370	300	390	505	600	759	909	1011	1203	1385	1550	1264	1516	1719	1910
Rapeseed	14-7%	197	263	292	388	482	390	510	657	772	986	1183	1315	1564	1790	2010	1643	1971	2235	2483
Wheat	18-14%	456	608	684	890	1110	898	1180	1516	1800	2277	2729	3033	3609	4130	4650	3793	4549	5157	5730
Sunflower	13-7%	113	142	170	215	290	227	284	390	454	600	705	782	917	1032	1146	1028	1175	1322	1469
Capacity for moist grain [t/day]																				
Maize	30-14,5%	6	8	9	13	15	13	16	21	25	32	38	42	50	58	65	53	63	72	80
Rapeseed	14-7%	8	11	12	16	20	16	21	27	32	41	49	55	65	75	84	68	82	93	103
Wheat	18-14%	19	25	29	37	46	37	49	63	75	95	114	126	150	172	194	158	190	215	239
Sunflower	13-7%	5	6	7	9	12	9	12	16	19	25	29	33	38	43	48	43	49	55	61

Ambient air temperature: for maize 5°C; for rapeseed, wheat and sunflower seeds 15°C. Drying air temperature: for maize 110/125°C; for rapeseed 90°C; for wheat 100°C; for sunflower 50°C. Relative humidity of outside air: 85% for maize; for rapeseed, wheat and sunflower 65%.

* The above parameters should be treated as indicative due to the complexity of physico-chemical phenomena in the drying process and the multitude of factors affecting the obtained results (including grain properties, degree of contamination, air humidity, temperature, quality and calorific value of fuel, operating and maintenance conditions for equipment).



SGG

natural or liquid gas fuel

SGO

light fuel oil

SGOw

heat exchanger, light fuel oil

DGG

natural or liquid gas fuel

DGO

light fuel oil

DGOw

heat exchanger, light fuel oil; recirculation as standard

Type/ Batch operation dryer PG	PG					
Type/ Continuous operation dryer SG, DG		SG	SG	SG	DG	DG
Model	6	10	12	16	18	24
Filling volume - grain [t]	13	19	21,8	29,5	50	66,2
Drying sections [pc]	0-6	7/8	9/10	12/13	14/13	20/19
Cooling sections [pc]	6-0	3/2	3/2	4/3	4/5	4/5
Heat power* [kW]	500	1 100/1 200	1 400/1 500	1 750/1 920	2 200	3 600
Dryer airflow [m³/h]	27 000	44 000	53 000	71 000	120 000	160 000
Installed max. electrical power - fans [kW]	1x11 kW	2x11 kW	2x11 kW	2x18,5 kW	-	-
Installed max. electrical power - cycle - ventilators [kW]	-	1x22 kW	1x30 kW	2x15 kW	2x22 kW	3x22 kW
Power of the discharge system (air recirculation system) [kW]	-	+1,1	+1,1	+2,2	+2,2 + 15 kW	+2,2 + 15 kW
Device height [m]	8,8	11,25	12,5	15,64	16,9	21,3
No. of buffer sections [pc]	2	2	2	3	3	4
Buffer volume [t]	4,3	4,4	4,4	6,3	8,8	11,4
Grain column volume [t]	8,7	14,5	17,4	23,2	41,2	54,8
LPG gas consumption [l/t/%]	2,25	2,22	2,22	2,22	-2,22	-2,22
Natural gas consumption [m³/t/%]	-1,9	-1,9	-1,9	-1,9	-1,9	-1,9
Oil consumption [l/t/%]	1,5-2,0	1,5-2,0	1,5-2,0	1,5-2,0	1,4-1,9	1,5-1,9
Maize - capacity for drying from 30% to 14,5% grain humidity						
Relative humidity of outside air [%]	85	85	85	85	85	85
Capacity for moist grain [t/h]	2,17	3,3	5,6	7	9,2	11,3
Capacity for moist grain [t/day]	52	80	135	168	220	270
Rapeseed - capacity for drying from 14% to 7% grain humidity						
Relative humidity of outside air [%]	65	65	65	65	65	65
Capacity for moist grain [t/h]	3,25	4,3	7,3	9,1	11,9	14,6
Capacity for moist grain [t/day]	78	104	175,5	218,4	286	350
Wheat - capacity for drying from 18% to 14% grain humidity						
Relative humidity of outside air [%]	65	65	65	65	65	65
Capacity for moist grain [t/h]	4,3	10	16,8	21	27,5	33,7
Capacity for moist grain [t/day]	104	240	405	504	660	810

Ambient air temperature: for maize 5°C; for rapeseed and wheat 15°C. Drying air temperature: for maize in the PG dryer 80/110/130°C; in a SG/DG dryer 100/130°C; for rapeseed in the PG/SG/DG dryer 90°C; for wheat in the PG/SG/DG dryer 100°C.

Batch operation dryers

PGG

liquid or natural gas fuel

PGO

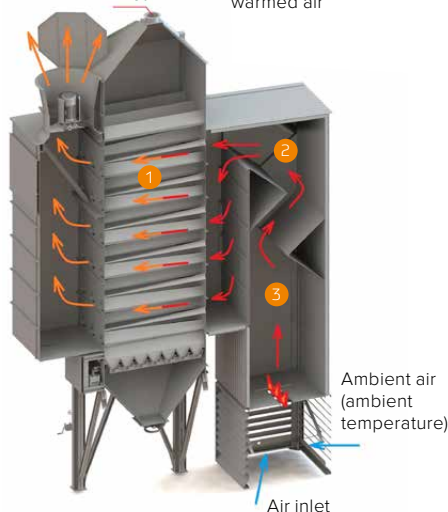
light fuel oil

PGOw

with heat exchanger, light fuel oil

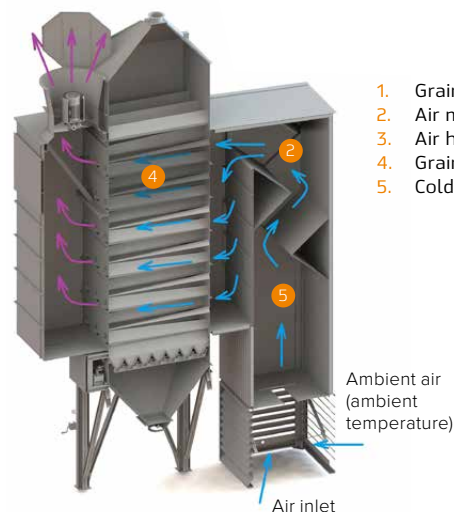
Drying process

Moist air outlet
 Grain inlet
 Heated air
 Cold air
 Moist, lightly warmed air



Cooling process

Cool, slightly moist air outlet
 Cold and dry air
 Slightly moist and cool air

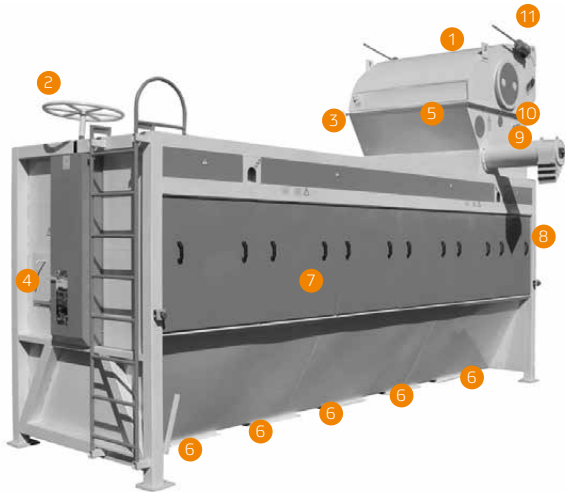


1. Grain heating zone
2. Air mixing zone
3. Air heating zone
4. Grain cooling zone
5. Cold air inlet area

* The above parameters should be treated as indicative due to the complexity of physico-chemical phenomena in the drying process and the multitude of factors affecting the obtained results (including grain properties, degree of contamination, air humidity, temperature, quality and calorific value of fuel, operating and maintenance conditions for equipment).

The manufacturer reserves the right to change the visual and technical parameters without giving any reason.

Model	Type	Primary cleaning	Preliminary	Electrical power	Sieve number/surface	∅ drum	Length	Width	Height	Weight [kg]
FEERUM 40	drum and sieve	25	40	1,85	4	600	4 145	1 860	3 370	1 690
FEERUM 75	drum and sieve	50	75	2,6	4	900	4 150	2 355	3 640	2 470
FEERUM 100	drum and sieve	50	100	5,1	3	1 260	4 505	2 685	4 015	3 550
FEERUM 150	drum and sieve	100	150	5,1	4	1 260	5 565	2 685	4 045	4 250
FEERUM 200	drum and sieve	150	200	6,6	5	1 260	6 600	2 780	4 060	5 450
FEERUM 300	drum and sieve	200	300	8,1	6	1 900	8 000	2 670	5 833	6 700
FEERUM Horizon 130	sieve	40	130	5,1	8	-	3 410	2 230	3 785	3 384
FEERUM Horizon 250	sieve	80	250	6,6	16	-	3 440	2 520	4 762	6 131
FEERUM Horizon 300	sieve	120	300	8,6	24	-	3 500	3 130	5 050	8 259
FEERUM Horizon 400	sieve	160	400	12,1	32	-	3 550	3 630	5 050	8 607
FEERUM Horizon 500	sieve	240	500	12,5	48	-	3 900	3 720	6 550	10 550

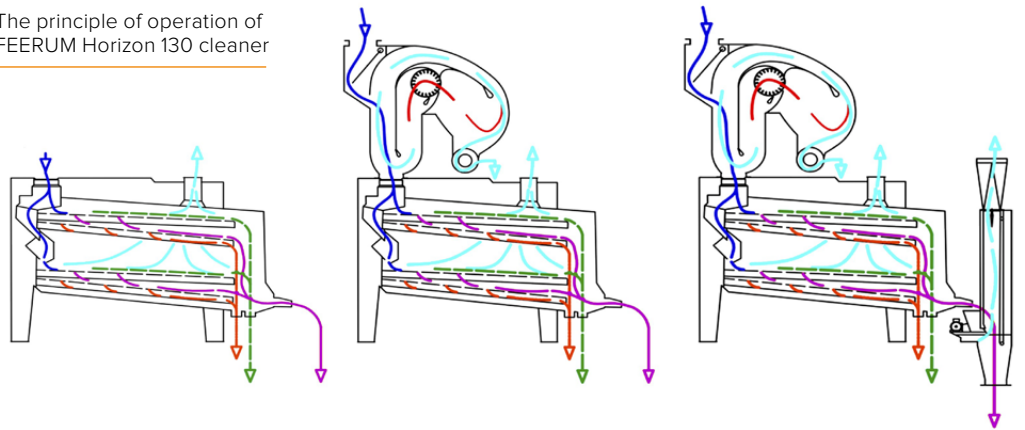


Construction of a drum-sieve cleaner

1. Grain inlet
2. Sieve drum inclination angle control
3. Drive of screw conveyor for small contaminants
4. Control flap for cleaning process
5. Air separator
6. Outlets
7. Sieve repair and replacement flaps
8. Drum drive
9. Screw conveyor for small contaminants
10. Air volume adjustment
11. Grain flow stabilization flap

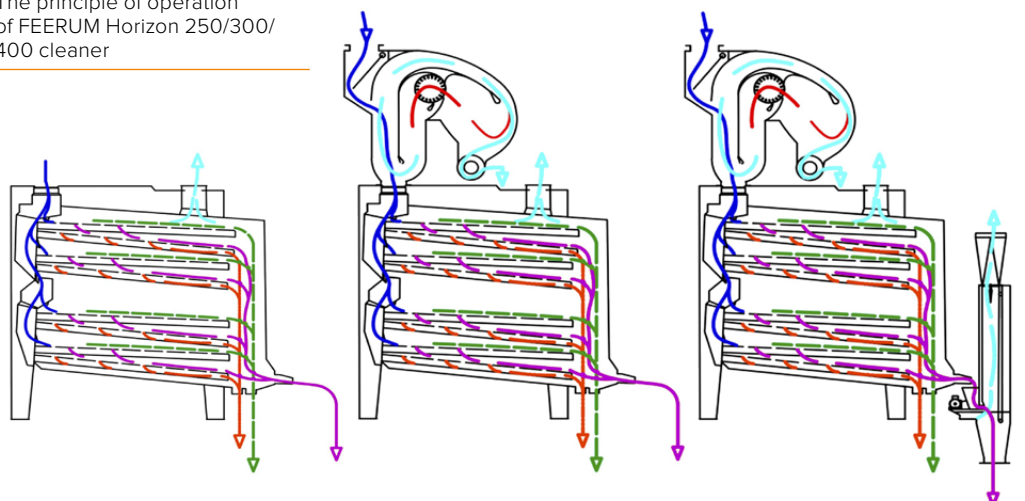


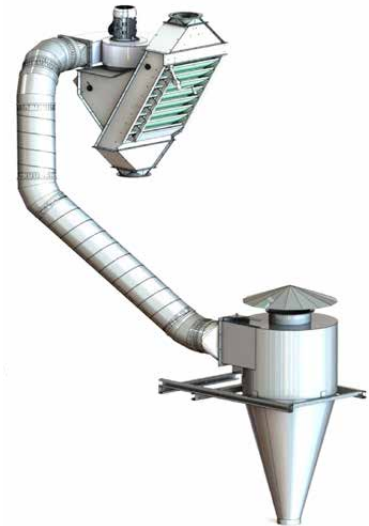
The principle of operation of FEERUM Horizon 130 cleaner



The principle of operation of FEERUM Horizon 250/300/400 cleaner

- Input grain
- Small contaminants
- Cleaned grain
- Light contaminants
- Coarse contaminants





Model		30t	50t	80t	130t	175t	200t	250t
Efficiency for wheat*	t/h	30	50	80	130	175	200	250
Electric power demand	kW	3,0	3,0	3,0	7,5	8,0	15,0	15,0
Configuration								
Air separator		yes	yes	yes	yes	yes	yes	yes
Fan		yes	yes	yes	yes	yes	yes	yes
Connecting system fi - standard		yes	yes	yes	yes	yes	yes	yes
Mounting the cyclone air separator to the bucket elevator		yes	yes	yes	yes	yes		
Cyclone air separator		yes	yes	yes	yes	yes	yes	yes

*Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³.
 The air separator can be installed elsewhere than on the bucket elevator.
 Then an individually designed non-standard support is used.

SILOS



FEERUM silos roofs have a special polymer coating that reduces surface heating, and thus allows to keep the lower temperature above the stored grain. This has a particularly positive effect on the storage of oilseeds such as rapeseed or sunflower seeds (available as an option).



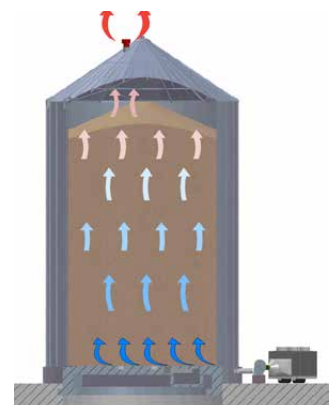
Over 26 700 m³ of grain in one tank

Number of cargo / Height of tubular part - h [m]	Volume [m ³] / Permissible load* [tons]																		
	Silo type / Diameter - D [m]																		
	FSP 3,8 3,82	FSP 4,8 4,78	FSP 5,7 5,73	FSP 6,7 6,68	FSP 7,6 7,63	FSP 8,6 8,60	FSP 9,6 9,55	FSP 10,5 10,50	FSP 11,5 11,46	FSP 12,4 12,42	FSP 15,3 15,30	FSP 17,2 17,19	FSP 18,2 18,15	FSP 20,1 20,06	FSP 22,1 22,10	FSP 23,8 23,80	FSP 27,7 27,70	FSP 30,6 30,56	FSP 33,4 33,42
2 / 2,24	23 (17)																		
3 / 3,37	38 (29)	61 (46)	90 (68)																
4 / 4,49	51 (38)	81 (61)	119 (90)	169 (128)															
5 / 5,61	63 (48)	101 (77)	148 (112)	208 (158)	276 (210)	355 (270)	445 (338)	542 (412)											
6 / 6,73	76 (58)	121 (92)	177 (134)	247 (188)	327 (249)	420 (319)	525 (400)	639 (485)	770 (585)										
7 / 7,85	89 (68)	141 (107)	206 (156)	287 (218)	379 (288)	485 (369)	605 (460)	736 (560)	885 (673)	1057 (803)									
8 / 8,98	102 (78)	161 (123)	235 (178)	326 (248)	430 (327)	550 (418)	686 (521)	833 (633)	1001 (761)	1192 (906)	1861 (1414)								
9 / 10,10	115 (85)	181 (138)	264 (200)	365 (278)	482 (366)	615 (467)	766 (582)	931 (707)	1117 (849)	1328 (1009)	2067 (1571)	2654 (2017)	2977 (2262)						
10 / 11,22		201 (153)	293 (222)	405 (308)	533 (405)	680 (517)	846 (643)	1028 (781)	1233 (937)	1464 (1112)	2273 (1727)	2914 (2215)	3267 (2483)	4047 (3075)	4938 (3753)				
11 / 12,34			321 (244)	444 (337)	585 (444)	745 (566)	927 (704)	1125 (855)	1348 (1025)	1600 (1216)	2479 (1884)	3174 (2412)	2558 (2704)	4401 (3345)	5364 (4076)				
12 / 13,46			350 (266)	484 (367)	636 (483)	810 (616)	1007 (765)	1222 (930)	1464 (1113)	1736 (1319)	2685 (2040)	3435 (2610)	3848 (2924)	4755 (3614)	5789 (4400)				
13 / 14,59			379 (288)	523 (397)	687 (522)	875 (665)	1087 (826)	1320 (1003)	1580 (1201)	1871 (1422)	2891 (2197)	3695 (2808)	4139 (3145)	5110 (3883)	6215 (4723)	7416 (5635)	10200 (7752)	12622 (9493)	14910 (11332)
14 / 15,71			408 (310)	562 (427)	739 (561)	941 (715)	1168 (887)	1417 (1077)	1696 (1289)	2007 (1525)	3098 (2354)	3955 (3006)	4429 (3366)	5464 (4152)	6640 (5046)	7932 (6028)	10895 (8280)	13384 (10172)	15892 (12078)
15 / 16,83				602 (457)	790 (600)	1006 (764)	1248 (948)	1514 (1150)	1811 (1376)	2143 (1629)	3304 (2511)	4216 (3204)	4720 (3587)	5818 (4422)	7066 (5370)	8434 (6409)	11570 (8793)	14207 (10797)	16877 (12826)
16 / 17,95				641 (487)	842 (640)	1071 (814)	1328 (1010)	1611 (1225)	1927 (1464)	2279 (1732)	3510 (2667)	4476 (3401)	5010 (3807)	6173 (4691)	7491 (5693)	8935 (6790)	12245 (9306)	15030 (11423)	17862 (13575)
17 / 19,07				680 (517)	893 (697)	1136 (863)	1409 (1071)	1709 (1299)	2043 (1552)	2415 (1835)	3716 (2824)	4736 (3600)	5301 (4028)	6527 (4960)	7917 (6017)	9438 (7172)	12920 (9819)	15853 (12048)	18847 (14323)
18 / 20,20					1201 (913)	1490 (1132)	1806 (1372)	2158 (1640)	2550 (1938)	3922 (2980)	5000 (3800)	5591 (4249)	6881 (5230)	8342 (6340)	9940 (7554)	13600 (10336)	16676 (12674)	19832 (15072)	
19 / 21,32						2686 (2041)	4128 (3137)	5257 (3996)	5882 (4470)	7236 (5499)	8768 (6663)	10442 (7936)	12472 (9306)	14272 (10847)	17500 (13300)	20817 (15820)			
20 / 22,44										4335 (3294)	5518 (4194)	6172 (4690)	7590 (5768)	9193 (6986)	10944 (8317)	14950 (11362)	18322 (13924)	21801 (16569)	
21 / 23,56											4541 (3451)	5778 (4392)	6463 (4911)	7945 (6038)	9619 (7310)	11448 (8700)	15625 (11875)	19144 (14550)	22786 (17318)
22 / 24,68												6038 (4590)	751 (5131)	8300 (6308)	10044 (7633)	11950 (9082)	16300 (12388)	19967 (15175)	23771 (18066)
23 / 25,81																	16958 (12888)	20790 (15800)	24756 (18815)
24 / 26,93																		21613 (16426)	25741 (19563)
25 / 28,05																		22436 (17051)	26726 (20312)
	Roof height - Hd [m]																		
	1,17	1,50	1,80	2,10	2,42	2,77	3,09	3,46	3,79	4,12	5,06	5,65	5,95	6,53	7,20	7,82	9,12	9,91	10,79

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³

Grain cooler

An additional equipment for flat-bottom and funnel silos and flat warehouses. Its task is to cool the stored material in order to better maintain biological parameters. Additionally, it ventilates and dries the grain.





The funnel-shaped discharge allows the silo to be emptied quickly and without maintenance.



FSL

with a funnel of 40 degrees

Number of cargo / Height of tubular part - h [m]	Volume [m³] / Permissible load* [tons]					
	Silo type / Diameter - D [m]					
	FSL 3,8	FSL 4,8	FSL 5,7	FSL 6,7	FSL 7,6	FSL 8,6
	3,82	4,78	5,73	6,68	7,63	8,60
3 / 3,37	45 (34)	75 (57)	107 (81)			
4 / 4,49	58 (44)	95 (72)	136 (103)	193 (147)	264 (201)	342 (256)
5 / 5,61	71 (54)	115 (87)	165 (125)	233 (177)	315 (239)	407 (309)
6 / 6,73	84 (64)	135 (103)	194 (147)	272 (207)	366 (278)	472 (359)
7 / 7,85	97 (74)	155 (118)	223 (169)	312 (237)	418 (317)	538 (409)
8 / 8,98	109 (83)	176 (134)	252 (191)	351 (267)	469 (356)	603 (458)
9 / 10,10		196 (149)	281 (213)	390 (297)	520 (395)	668 (508)
10 / 11,22		216 (164)	310 (235)	430 (326)	572 (434)	733 (557)
11 / 12,34			339 (257)	469 (356)	623 (474)	798 (606)
12 / 13,46			367 (279)	509 (386)	675 (513)	863 (656)
13 / 14,59			396 (301)	548 (416)	726 (552)	928 (704)
14 / 15,71			425 (323)	587 (446)	777 (591)	994 (755)
15 / 16,83				631 (480)	829 (630)	1059 (805)
16 / 17,95				671 (510)	881 (670)	1124 (854)
17 / 19,07				710 (540)	938 (713)	1200 (912)
	Roof height - Hd [m]					
	1,22	1,50	1,80	2,10	2,42	2,77
	Height of the hopper structure - Hl [m]					
	2,80	3,20	3,55	4,00	4,49	4,87

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³

FSL

with a funnel of 50 degrees

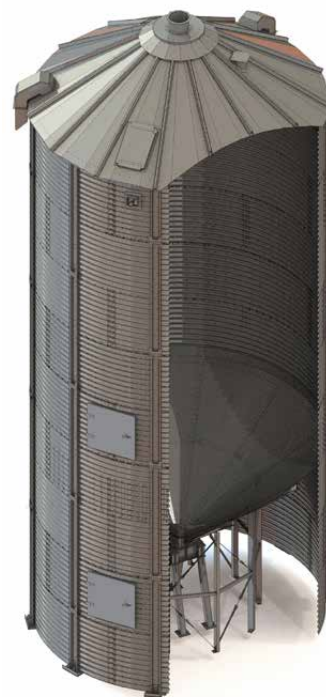
Number of cargo / Height of tubular part - h [m]	Volume [m³] / Permissible load* [tons]					
	Silo type / Diameter - D [m]					
	FSL 3,8	FSL 4,8	FSL 5,7	FSL 6,7	FSL 7,6	FSL 8,6
	3,82	4,78	5,73	6,68	7,63	8,60
3 / 3,37	48 (36)	80 (61)	116 (88)			
4 / 4,49	61 (46)	100 (76)	145 (110)	207 (157)	284 (216)	371 (282)
5 / 5,61	74 (56)	120 (91)	174 (132)	247 (187)	335 (255)	437 (332)
6 / 6,73	86 (65)	140 (106)	203 (154)	286 (217)	387 (294)	502 (382)
7 / 7,85	99 (75)	161 (122)	232 (176)	325 (247)	438 (333)	567 (431)
8 / 8,98	112 (85)	181 (138)	260 (198)	365 (277)	490 (372)	632 (493)
9 / 10,10	125 (95)	201 (153)	289 (220)	404 (307)	541 (411)	697 (530)
10 / 11,22		221 (168)	318 (242)	444 (337)	592 (450)	762 (579)
11 / 12,34		241 (183)	347 (264)	483 (367)	644 (489)	827 (629)
12 / 13,46		262 (199)	376 (286)	522 (397)	695 (528)	893 (679)
13 / 14,59			405 (308)	562 (427)	747 (567)	958 (728)
14 / 15,71			434 (330)	601 (457)	798 (606)	1023 (778)
15 / 16,83				643 (489)	849 (645)	1088 (827)
16 / 17,95				682 (518)	904 (687)	1158 (880)
17 / 19,07				721 (548)	956 (726)	1223 (929)
	Roof height - Hd [m]					
	1,22	1,50	1,80	2,10	2,42	2,77
	Height of the hopper structure - Hl [m]					
	3,42	4,00	4,49	5,10	5,64	6,38

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³

SILOS Hopper - bottomed with internal basket



A built-in funnel protects against weather conditions (rain, snow).



FSW

with a funnel of 40 degrees

Number of cargo / Height of tubular part - h [m]	Volume [m³] / Permissible load* [tons]						
	Silo type / Diameter - D [m]						
	FSW 3,8	FSW 4,8	FSW 5,7	FSW 6,7	FSW 7,6	FSW 8,6	FSW 9,6
	3,82	4,78	5,73	6,68	7,63	8,60	9,55
3 / 3,37	45 (34)	75 (57)	126 (96)				
4 / 4,49	58 (44)	95 (72)	155 (118)	211 (161)			
5 / 5,61	71 (54)	115 (87)	184 (140)	251 (190)	319 (242)	456 (346)	540 (410)
6 / 6,73	84 (64)	135 (103)	213 (162)	290 (220)	370 (281)	521 (396)	620 (471)
7 / 7,85	97 (74)	155 (118)	242 (184)	330 (250)	421 (320)	586 (445)	700 (532)
8 / 8,98	109 (83)	176 (134)	271 (206)	369 (280)	473 (359)	651 (495)	780 (593)
9 / 10,10		196 (149)	300 (228)	408 (310)	524 (398)	716 (544)	860 (654)
10 / 11,22		216 (164)	329 (250)	448 (340)	576 (437)	781 (594)	940 (715)
11 / 12,34			358 (272)	487 (370)	627 (476)	846 (643)	1020 (776)
12 / 13,46			387 (294)	526 (400)	678 (516)	912 (693)	1100 (837)
13 / 14,59			415 (316)	566 (430)	730 (555)	977 (742)	1180 (900)
14 / 15,71			444 (338)	605 (460)	781 (594)	1042 (792)	1260 (960)
15 / 16,83					833 (633)	1107 (841)	1340 (1020)
16 / 17,95					884 (672)	1172 (891)	1420 (1081)
17 / 19,07					936 (711)	1237 (940)	1500 (1142)
18 / 20,20						1302 (990)	1580 (1203)
	Roof height - Hd [m]						
	1,22	1,50	1,80	2,10	2,42	2,77	3,22
	Height of the hopper structure - Hl [m]						
	3,37	3,37	4,49	4,49	4,49	5,61	5,61

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³

FSW

with a funnel of 50 degrees

Number of cargo / Height of tubular part - h [m]	Volume [m³] / Permissible load* [tons]						
	Silo type / Diameter - D [m]						
	FSW 3,8	FSW 4,8	FSW 5,7	FSW 6,7	FSW 7,6	FSW 8,6	FSW 9,6
	3,82	4,78	5,73	6,68	7,63	8,60	9,55
3 / 3,37	48 (36)	83 (62)	118 (89)				
4 / 4,49	61 (46)	103 (78)	147 (111)	223 (169)			
5 / 5,61	74 (56)	123 (93)	176 (133)	262 (199)	335 (255)	470 (357)	582 (439)
6 / 6,73	86 (65)	143 (108)	204 (155)	302 (229)	387 (294)	535 (407)	662 (500)
7 / 7,85	99 (75)	163 (124)	233 (177)	341 (259)	438 (333)	600 (456)	742 (561)
8 / 8,98	112 (85)	183 (139)	262 (199)	381 (289)	490 (372)	666 (506)	822 (622)
9 / 10,10	125 (95)	203 (154)	291 (221)	420 (319)	541 (411)	731 (555)	902 (683)
10 / 11,22		223 (170)	320 (243)	459 (349)	592 (450)	796 (605)	982 (744)
11 / 12,34			349 (265)	499 (379)	644 (489)	861 (654)	1062 (805)
12 / 13,46			378 (287)	538 (409)	695 (528)	926 (704)	1142 (866)
13 / 14,59			407 (309)	577 (439)	747 (567)	991 (753)	1222 (927)
14 / 15,71			436 (331)	617 (469)	798 (606)	1056 (802)	1302 (988)
15 / 16,83					849 (645)	1121 (852)	1382 (1049)
16 / 17,95					901 (685)	1186 (901)	1462 (1110)
17 / 19,07					952 (724)	1251 (950)	1542 (1172)
18 / 20,20						1316 (1000)	1622 (1232)
	Roof height - Hd [m]						
	1,22	1,50	1,80	2,10	2,42	2,77	3,22
	Height of the hopper structure - Hl [m]						
	3,37	4,49	4,49	5,61	5,61	6,73	6,73

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³



FSS

road transport

Number of cargo / Height of tubular part - h [m]	Volume [m ³] / Permissible load* [tons]		
	Silo type / Hopper angle		
	FSS 3,8		
	40 deg.	50 deg.	60 deg.
2 / 2,24	29 (22)	32 (24)	35 (27)
3 / 3,37	42 (32)	44 (34)	48 (37)
4 / 4,49	55 (41)	57 (43)	61 (46)
5 / 5,61	68 (51)	70 (53)	74 (56)
6 / 6,73	80 (61)	83 (63)	87 (66)
7 / 7,85	93 (71)	96 (73)	100 (76)
8 / 8,98	106 (81)	109 (82)	113 (85)
Roof height - Hd [m]			
	1,22	1,22	1,22
Hopper height - Hl [m]			
	1,50	2,12	2,70

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³

FSS

railway transport

Number of cargo / Height of tubular part - h [m]	Volume [m ³] / Permissible load* [tons]		
	Silo type / Hopper angle		
	FSS 5,7		
	40 deg.	50 deg.	60 deg.
3 / 3,37	107 (81)	116 (88)	127 (97)
4 / 4,49	136 (103)	145 (110)	156 (119)
5 / 5,61	165 (125)	174 (132)	185 (141)
6 / 6,73	194 (147)	203 (154)	214 (163)
7 / 7,85	223 (169)	232 (176)	242 (184)
8 / 8,98	252 (191)	260 (198)	271 (206)
9 / 10,10	281 (213)	289 (220)	300 (228)
10 / 11,22	310 (235)	318 (242)	329 (250)
Roof height - Hd [m]			
	1,80	1,80	1,80
Hopper height - Hl [m]			
	2,25	3,20	4,64

* Approximate value for wheat with a moisture content of 14% and a density of 0.76 t/m³

Vertical grain transport

Bucket elevators

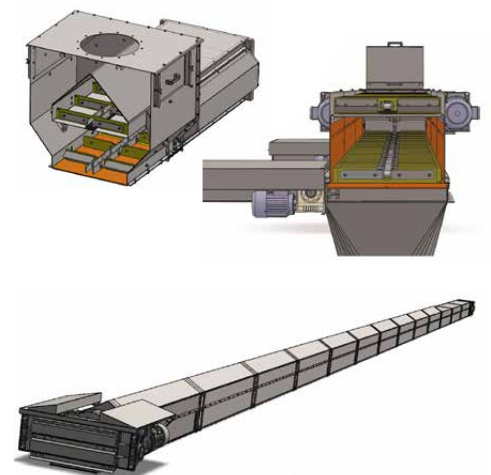
- > Capacity up to **400 t/h (optional - 600 t/h, 800 t/h)**
- > Height up to **55 m** without drive and tensioning station
- > Buckets (steel, synthetic)
- > Elements exposed to abrasion covered with a wear-resistant coating (* PUR), incl. elements receiving and discharging grain from the bucket elevator (drive station cover)
- > Single or double drive (**above 9.2 kW**) on the torque arm
- > Industrial bearings
- > Helical-bevel gear (s)
- > Mechanical belt lock - backstop
- > Optimized head shape
- > Multiple drive belt



Horizontal grain transport

Straight chain conveyors

- > Capacity up to **400 t/h (optional - 600 t/h, 800 t/h)**, lengths ranging from **2.0 m to 55.0 m with a pitch of 0.5 m**
- > Steel chain + PE plastic plate as an option
- > Elements exposed to abrasion covered with a wear-resistant coating (* PUR) - floor, inlet and outlet
- > Single or double drive on the torque arm
- > Helical-bevel gear (s)
- > Conveyor overflow sensor
- > Industrial bearings
- > Adaptation of the speed of the collecting device to the transported material - interaction between the current energy measurement and the inverter (optional)



Inclined, arched and Z-type chain conveyors

Capacity from 30 to 400 t/h

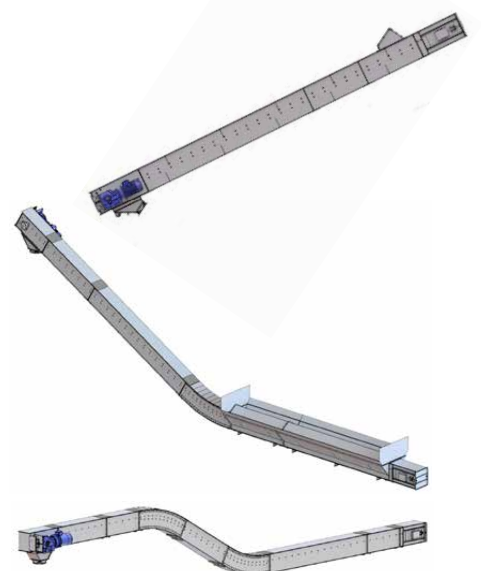
Inclined chain conveyors

- > Channel length from 2,0 to 20,0 m
- > Can be used at any angle in the range from 5 to 40 deg.

Arched and Z-type conveyor

- > The arched chain conveyor makes it possible to shallow the technological pit for the next device in the technological line. It is perfect for receiving baskets
- > The possibility of using an angle of up to 30 degrees
- > The main function of the Z-type chain conveyor is to move material at a level difference without the use of additional vertical transport

*PUR (polyurethane coating) - additional equipment

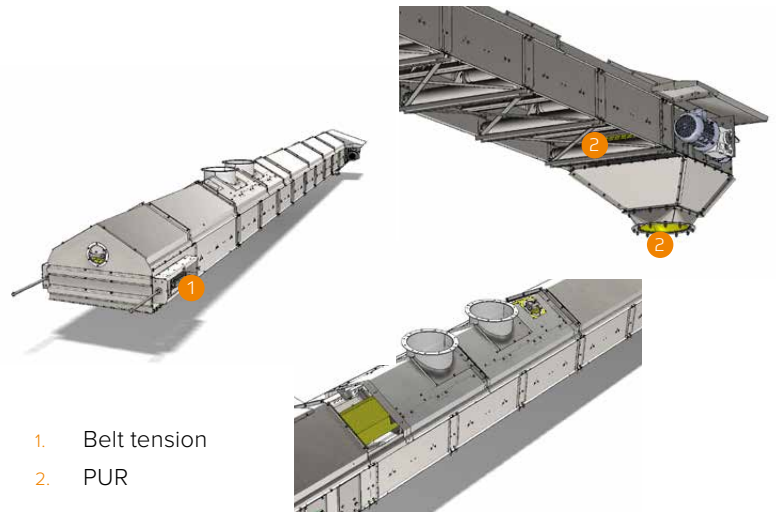




Horizontal grain transport

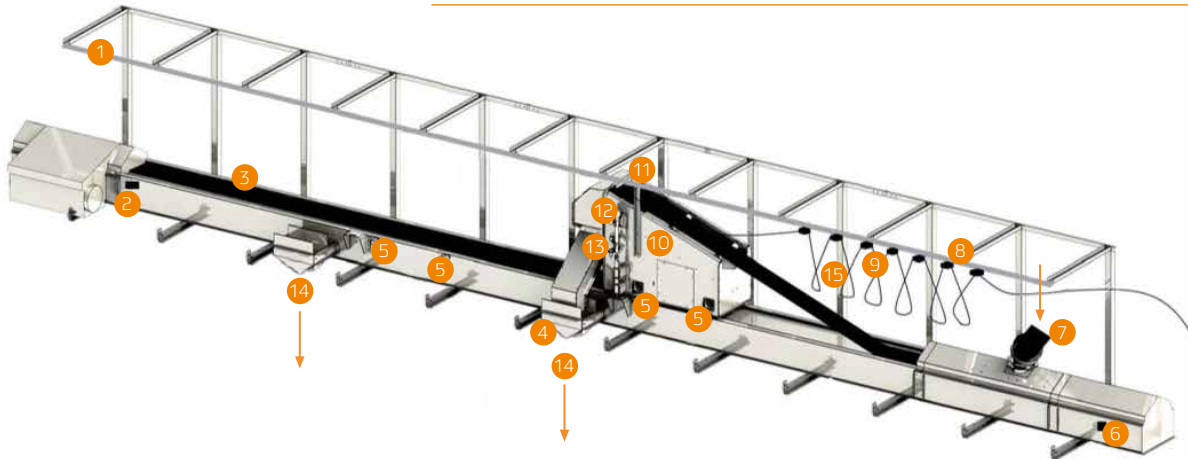
Belt conveyors

- > Capacities up to **400 t/h (optional - 600 t/h, 800 t/h)**
- > A belt with a width of **400, 650, 800, 1000 mm**
- > Elements exposed to abrasion covered with a wear-resistant coating (* PUR) - outlet, driving drum and tensioning drum
- > Single or double-sided drive on the torque arm
- > Helical-bevel gear (s)



1. Belt tension
2. PUR

Belt conveyor with a trolley - view of an example installation



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Guide bar 2. Belt convergence sensor 3. Transport belt 4. Distribution outlet 5. Trolley location sensor 6. Rotation sensor 7. Grain inlet 8. Guide trolleys | <ol style="list-style-type: none"> 9. Power cables for trolley and splitter 10. Conveyor trolley 11. Cable support 12. Brake 13. Trolley brake sensor 14. Grain outlet 15. Conveyor support structure (reference drawing) |
|--|--|

Screw auger

- > Capacity **30, 50, 80 and 120 t/h**



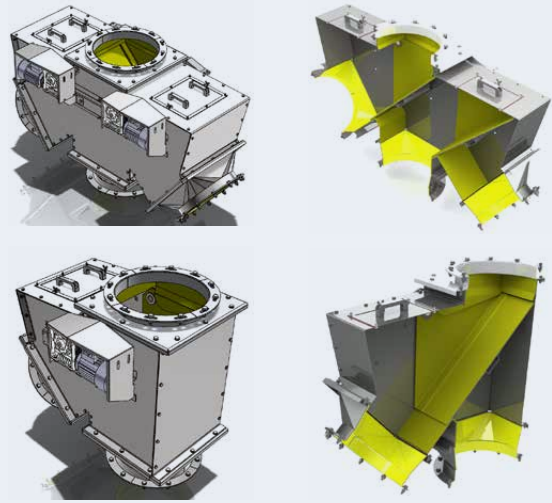
* PUR (polyurethane coating) - additional equipment

All FEERUM devices and technological connections are made mainly of hot-dip galvanized steel, with polyurethane filling as an option.

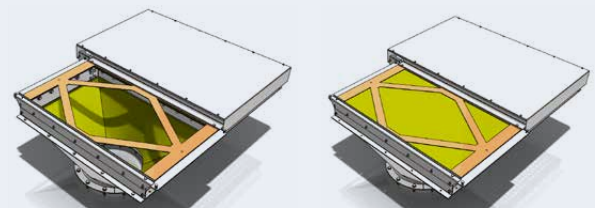
- > Electric, pneumatic and manual splitters
- > Pipes, elbows, reductions, symmetrical and asymmetrical three-way distribution valves and cross-pieces
- > Spedition rotation rings
- > Vertical brakes (maintenance-free)
- > Angled brakes (maintenance-free)
- > Electric, pneumatic and manual valves
- > Dust lock
- > Percentage selector
- > Capacity controller

In FEERUM devices we use a filling made of a material with high abrasion resistance. The polyurethane coating increases their service life several times.

Distributors with PUR coating



Valve under chain conveyor with wear-resistant floor (PUR and HARDOX)

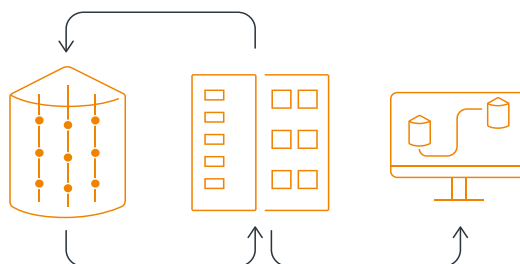


Intelligent online management system



The FEERUM system constantly monitors the properties of the stored grain and its flow, so it not only informs about the occurrence of any irregularities, but also adjusts the operating parameters of individual elements of the assembly to avoid failure, prevent overheating of the grain or stop the entire process.

Supervision over the operation of the drying and storage facility can be carried out by one operator, conveniently - using a computer or smartphone.





FEERUM S.A.

6 Okrzei Street
59-225 Chojnów

tel. +48 76 81 88 485 / +48 663 555 443 / +48 603 900 660
sekretariat@feerum.pl
marketing@feerum.pl

www.feerum.pl

