

Big Bin Series

M40 - M48 (131' - 157')



Engineered to a Higher Standard

Behlen does it BIGGER and BETTER.

➤ CAPACITIES TO 1.5 MILLION BUSHELS

➤ HIGHER PEAK LOAD RATINGS

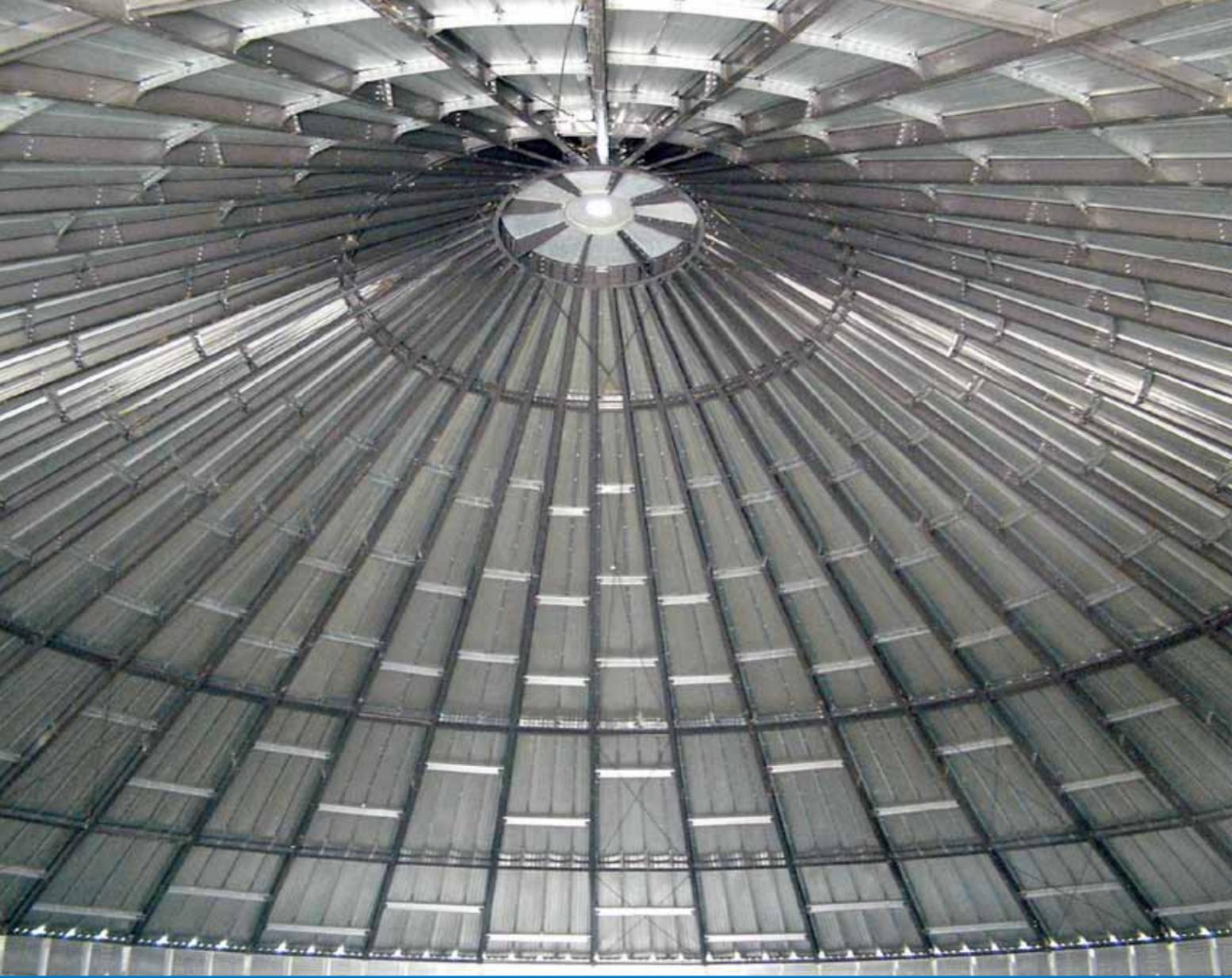
➤ LARGER ROOF DECKS

BIG BIN® SERIES

Behlen is proud to introduce the Big Bin® series designed for high capacity operations. As with our entire line of equipment, Behlen includes outstanding features, with an extensive history of excellence in design, quality, and service. The Big Bin® Series includes clear-span roof structures and capacities of more than 1,500,000 bushels of storage.

In addition to larger capacities, the Big Bin® series has higher load ratings, and larger equipment mounting areas, all with the Behlen reputation of sturdy, long-lasting construction. The clear-span roof system allows for an open floor to improve unloading efficiencies which adds to bottom-line profitability.





UNMATCHED ROOF SYSTEM

The Big Bin® Series offers an enormous, clear span roof system designed for strong winds, snow loads, temperature cables and high volume filling equipment. The 30° roof allows for optimum filling, and the huge deck at the peak easily accepts today's ever larger catwalks and higher capacity filling equipment.

The 11" or 15" deep continuous

I-beam rafters from eave to peak provide a strong framework for roof loads. The compression beams, tension pipes, and zee-spreaders supplement the rafters to develop maximum load-carrying capacity. This roof system is capable of supporting uniform loads of 50,000-70,000 lbs. (depending on model) at the peak and 40 lbs. per sq. ft. ground snow load.



INNOVATIVE ROOF DESIGN

The Behlen roof is supplied with many exclusive features that work together to provide a strong system that keeps the weather out and grain secure. This system uses a "standing seam" panel (right) to elevate the roof fasteners above the roof valley, reducing the potential for leaks. The 3½" tall, four step ribs provide additional strength, and are roll formed for a precise fit.



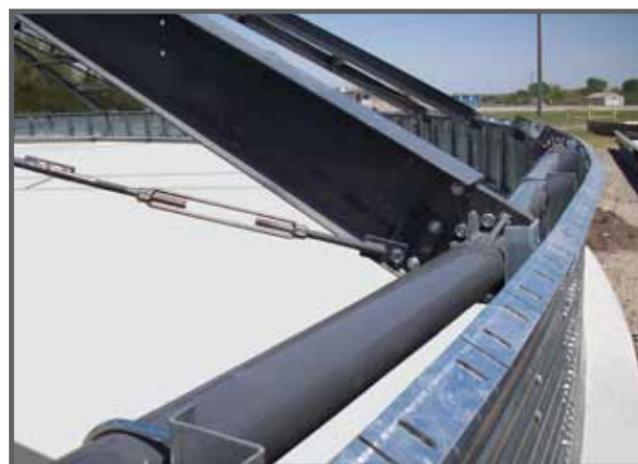
The roof panels are attached to the roof skeleton with standing seam roof straps (above) minimizing penetrations in the valley and creating a more weather tight roof. The roof panels are rigidized (right) across the entire width to produce a more rigid panel for longer life. The roof panels attach with numerous bolts to the wall system through a continuous angle (below) at the eave. This Behlen feature prevents roof panels from tearing loose in high wind conditions.





EXTRA HEAVY-DUTY TENSION PIPE

The use of large diameter structural pipe with welded end plates at the eave brings all of the major components of the bin together. These massive pipes (up to 4½” diameter) connect the rafters to the wall panels and stiffeners for outstanding strength at this critical location. This full-circle ring at the eave stabilizes the roof and walls under all loading conditions and provides unmatched strength in both tension and compression situations, and provides support of non-uniform loads created by snow-drifts, high winds and earthquake forces.



LARGE ROOF DECK

The Big Bin® series boasts an immense 13’ 4” diameter deck with easily accessible catwalk attachment points. The fill opening can easily accommodate up to 4’ diameter spouting for maximum flexibility in choosing your fill equipment.



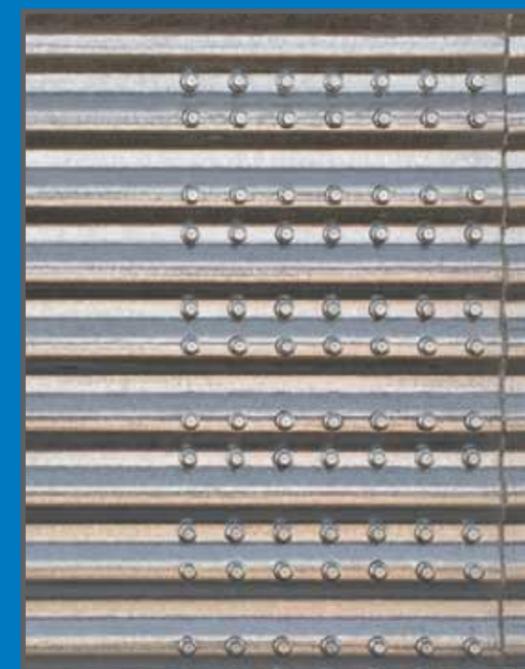
UNIQUELY DESIGNED WALL SYSTEM

The Behlen flat-sided (trapezoidal) corrugation uses a flat surface for bolt-to-wall panel connection. This flat-sided configuration provides for maximum strength while giving a superior weather seal where the bolt, washer, and wall sheet connect. The Grade 8.2 bolts are formed with a pocket in the head which helps to hold the washer in place and channel moisture away, providing another level of protection for the grain inside. Behlen bin bolts are coated with JS1000™ extreme life plating, providing superior corrosion protection.



SUPERIOR PANEL STRENGTH

The vertical seam lines have an extensive overlap with up to seven rows of bolts. The precision manufactured panels speed assembly resulting in lower erection cost.



STIFFENERS WITH EXCEPTIONAL LOAD CARRYING CAPABILITIES

The Behlen hat-shaped stiffeners provide superior resistance to grain loads. Each stiffener is formed from a single piece of steel up to 5/16" thick. This use of thick, solid steel eliminates the need to laminate stiffener material. Each of the stiffeners supports the next with a load bearing plate to ensure positive load transfer into the concrete foundation. The use of three heavy duty stiffeners per wall sheet gives Behlen bins the ability to be cleaned with a single pass sweeping operation.



ACCESS DOORS

Behlen stiffened bins offer ample sized openings for access to the interior.

1. All stiffened bins come standard with a 27" square single ring door.
2. Optional walk through door comes with inner and outer doors with 2' wide by 5' tall opening.



ROOF VENTS

3. A pre-punched opening in the roof panel has a raised lip for improved weather protection.

4. Behlen's 1.56 sq. ft. opening gooseneck vents used with pre-punched opening allow for fast assembly.

5. Behlen exclusive low profile roof vents. These vents set down close to the roof panel to reduce the potential for wind damage. They are an excellent choice in port facilities or high wind locations. This design is available in 3.13 sq. ft. openings reducing the number of vents.



STIFFENER EXTENSIONS

6. Stiffener extensions are offered to transfer loads from the base of the stiffener columns to the bottom of customer installed aeration tunnels. They are available in heights of 12 1/4", 11 3/4" and 7 3/4". These extensions reduce the time and expense of field fabrication of this critical component.



Accessories to meet ever increasing demands for safety and convenience.



LADDERS AND PLATFORMS

➤ Behlen now offers as standard equipment double wide eave and rest platforms, along with hoop and strap safety cage.

➤ Standard outside ladder.



PLATFORMS AND STAIRS

Behlen offers two options of exterior wall stairs. Our commercial stairs offer sturdy industrial construction with rest platform landings. The light duty version provides an economical alternative, giving our customers the ability to select the option that best fits their needs.



➤ Optional commercial grade wall stairs pictured above.

SAFETY RAIL AND ROOF STAIRS

The Behlen Big Bin™ series can be supplied with an optional peak safety rail. The rail encloses the flat peak area for added safety protection.

The Behlen hot-dipped galvanized roof stairs come in pre-assembled sections. The mounting brackets and handrails are easily attached and make quick work of installation on the bin roof. The full tread steps and handrails offer safe and secure access from eave to peak.



Big Bin Series

Diameter 40 Meters (131' 3")

Model (dia. x eave ht. in meters)	Eave Height (ft/in)	Overall Height (ft/in)	Overall Height (meters)	Bushels* (maximum)	Metric Tons* (maximum)			Cubic Meters
					Wheat	Corn	Rice	
40x9	29' 8"	64' 8"	19.76	475,221	13,395	12,061	9,723	15,797
40x10	32' 11"	68' 0"	20.76	513,013	14,461	13,020	10,495	17,054
40x11	36' 3"	71' 3"	21.76	550,805	15,527	13,979	11,267	18,311
40x12	39' 6"	74' 8"	22.76	588,597	16,593	14,938	12,039	19,568
40x13	42' 10"	77' 11"	23.76	626,389	17,659	15,897	12,811	20,825
40x14	46' 1"	81' 2"	24.76	664,181	18,725	16,856	13,583	22,082
40x15	49' 4"	84' 6"	25.76	701,973	19,791	17,815	14,355	23,339
40x16	52' 8"	87' 8"	26.76	739,765	20,857	18,774	15,127	24,596
40x17	55' 11"	91' 0"	27.76	777,557	21,923	19,733	15,899	25,853
40x18	59' 3"	94' 4"	28.76	815,349	22,989	20,692	16,671	27,110
40x19	62' 6"	97' 7"	29.76	853,141	24,055	21,651	17,443	28,367
40x20	65' 9"	100' 11"	30.76	890,933	25,121	22,610	18,215	29,624
40x21	69' 0"	104' 2"	31.76	928,725	26,187	23,569	18,987	30,881
40x22	72' 4"	107' 5"	32.76	966,517	27,253	24,528	19,759	32,138
40x23	75' 8"	110' 9"	33.76	1,004,309	28,319	25,487	20,531	33,395
40x24	78' 11"	114' 0"	34.76	1,042,101	29,385	26,446	21,303	34,652
40x25	82' 2"	117' 3"	35.76	1,079,893	30,451	27,405	22,075	35,909
40x26	85' 6"	120' 7"	36.76	1,117,685	31,517	28,363	22,847	37,166

Big Bin Series

Diameter 44 Meters (144' 4")

Model (dia. x eave ht. in meters)	Eave Height (ft/in)	Overall Height (ft/in)	Overall Height (meters)	Bushels* (maximum)	Metric Tons* (maximum)			Cubic Meters
					Wheat	Corn	Rice	
44x9	29' 8"	68' 7"	20.91	591,236	16,671	15,004	12,086	19,659
44x10	32' 11"	71' 10"	21.91	636,964	17,960	16,164	13,021	21,180
44x11	36' 3"	75' 2"	22.91	682,692	19,250	17,325	13,956	22,700
44x12	39' 6"	78' 5"	23.91	728,421	20,539	18,485	14,891	24,221
44x13	42' 10"	81' 8"	24.91	774,149	21,828	19,645	15,825	25,741
44x14	46' 1"	85' 0"	25.91	819,877	23,118	20,806	16,760	27,262
44x15	49' 4"	88' 3"	26.91	865,606	24,407	21,966	17,695	28,782
44x16	52' 8"	91' 6"	27.91	911,334	25,697	23,127	18,630	30,303
44x17	55' 11"	94' 10"	28.91	957,062	26,986	24,287	19,565	31,823
44x18	59' 3"	98' 1"	29.91	1,002,790	28,275	25,448	21,316	33,344
44x19	62' 6"	101' 4"	30.91	1,048,519	29,565	26,608	21,434	34,864
44x20	65' 9"	104' 8"	31.91	1,014,247	30,854	27,769	22,369	36,385
44x21	69' 0"	107' 11"	32.91	1,139,975	32,144	28,929	23,304	37,905
44x22	72' 4"	111' 3"	33.91	1,185,703	33,433	30,090	24,239	39,426
44x23	75' 8"	114' 6"	34.91	1,231,432	34,723	31,250	25,174	40,946
44x24	78' 11"	117' 9"	35.91	1,277,160	36,012	32,411	26,109	42,467

Typical Grain Densities: • Wheat approximately 800 kg/m3 (50 lb/ft3) • Corn approximately 720 kg/m3 (45 lb/ft3) • Rice approximately 580 kg/m3 (36 lb/ft3)

*Capacities based on bin filled to eave with grain peaked in roof area at 28 degree slope. Bushels based on 1.25 cubic ft./bu. Metric ton calculations assume wheat at 800 kg/cubic meter; corn at 720 kg/cubic meter and rice at 580 kg/cubic meters. All maximum capacities include a 6% compaction allowance as determined by the American Society of Agricultural Engineers (ASAE) standard S413



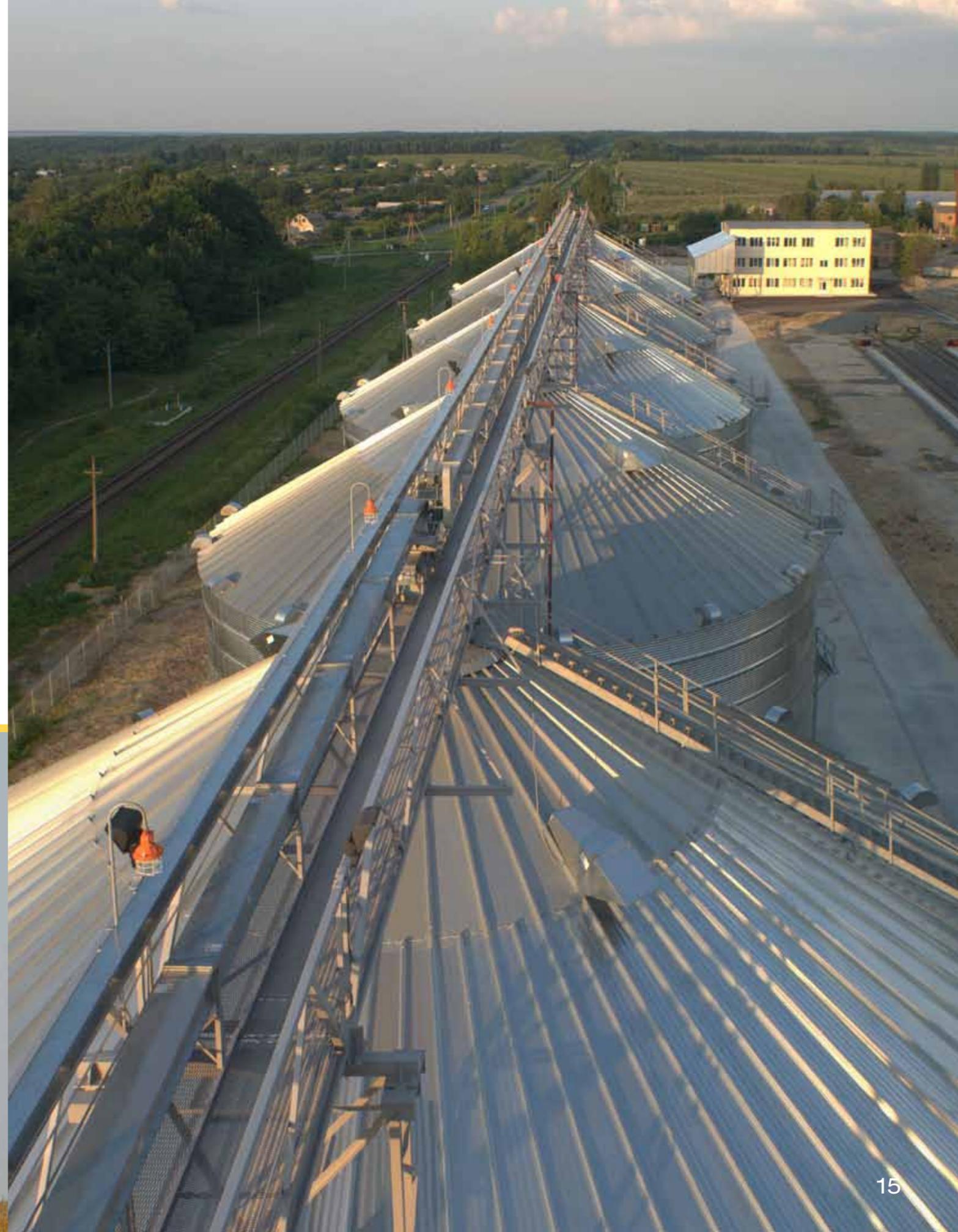
Big Bin Series

Diameter 48 Meters (157' 6")

Model (dia. x eave ht. in meters)	Eave Height (ft/in)	Overall Height (ft/in)	Overall Height (meters)	Bushels* (maximum)	Metric Tons* (maximum)			Cubic Meters
					Wheat	Corn	Rice	
48x9	29' 8"	72' 4"	22.06	722,894	20,391	18,346	14,771	24,046
48x10	32' 11"	75' 7"	23.06	777,315	21,925	19,727	15,884	25,855
48x11	36' 3"	78' 11"	24.06	831,736	23,459	21,100	16,997	27,664
48x12	39' 6"	82' 2"	25.06	886,157	24,993	22,489	18,110	29,473
48x13	42' 10"	85' 6"	26.06	940,578	26,527	23,870	19,223	31,282
48x14	46' 1"	88' 9"	27.06	994,999	28,061	25,251	20,336	33,091
48x15	49' 4"	92' 0"	28.06	1,049,420	29,595	26,632	21,449	34,900
48x16	52' 8"	95' 4"	29.06	1,103,841	31,129	28,013	22,262	36,709
48x17	55' 11"	98' 7"	30.06	1,115,262	32,663	29,394	23,675	38,518
48x18	59' 3"	101' 10"	31.06	1,212,683	34,197	30,775	24,798	40,327
48x19	62' 6"	105' 2"	32.06	1,267,104	35,731	32,156	25,901	42,136
48x20	65' 9"	108' 5"	33.06	1,321,525	37,265	33,537	27,014	43,945
48x21	69' 0"	111' 9"	34.06	1,375,946	38,799	34,918	28,127	45,754
48x22	72' 4"	115' 0"	35.06	1,430,367	40,333	36,299	29,240	47,563
48x23	75' 8"	118' 3"	36.06	1,484,788	41,867	37,680	30,353	49,371
48x24	78' 11"	121' 7"	37.06	1,539,209	42,401	39,061	31,466	51,180

Typical Grain Densities: • Wheat approximately 800 kg/m³ (50 lb/ft³) • Corn approximately 720 kg/m³ (45 lb/ft³) • Rice approximately 580 kg/m³ (36 lb/ft³)

*Capacities based on bin filled to eave with grain peaked in roof area at 28 degree slope. Bushels based on 1.25 cubic ft./bu. Metric ton calculations assume wheat at 800 kg/cubic meter; corn at 720 kg/cubic meter and rice at 580 kg/cubic meters. All maximum capacities include a 6% compaction allowance as determined by the American Society of Agricultural Engineers (ASAE) standard S413



GRAIN STORAGE BUILDINGS

Behlen flat storage buildings offer the versatility of storing grain or equipment. They can be designed to meet virtually any grain storage requirement. Behlen engineers can turn all-steel, rigid frame buildings into highly efficient, low-cost grain storage structures, allowing you to store grain up to 20' against building sidewalls. Behlen buildings can provide the storage alternative you have been looking for to solve your large storage needs.



GRAIN STORAGE SYSTEMS

Behlen offers large capacity bins with diameters from 16' to 157' and capacities exceeding 1,500,000 bushels. Our bins are offered in a multitude of sizes to ensure we will have the bin you need to meet your storage requirements. With our years of experience we know the importance of quality products and dedication to customer service. We are ready to help you with storage solutions that can assist you in gaining a competitive advantage.



COMMERCIAL HOPPER TANKS

Behlen Hoppers offer flow-through convenience with many of the same features found in our Big Bin™ Series. They're designed with state-of-the-art computer technology to ensure strength, ease of assembly, and trouble-free operation. We invite you to compare the features and benefits of these tanks. We believe you will recognize that Behlen tanks provide exceptional value.



AD-20623E 1.15



Behlen Mfg. Co.

P.O. Box 569 • Columbus, NE 68602-0569

PH 402.564.3111 • FAX 402.563.7405

www.behlenmfg.com • E-MAIL behlen@behlenmfg.com