

MATERIAL HANDLING

BUCKET ELEVATORS



PROVEN & DEPENDABLE™

WWW.INTERSYSTEMS.NET

MATERIAL HANDLING SOLUTIONS



PROVEN & DEPENDABLE

From receiving to load-out, each day your facility moves, weighs, loads, and samples millions of tons of material. The success of your operation relies not only on the quality of the commodity but the dependability of the equipment used to keep it moving. InterSystems' bulk material handling systems offer the speed and reliability you need to satisfy customers and grow profits.

From a modest beginning in 1959 as a maker of cardboard doors for rail boxcars, InterSystems has evolved into a worldwide manufacturer of a full line of bulk material handling equipment. Placing a customer-centric focus on the engineering and manufacturing process, InterSystems' product solutions include bucket elevators, bulk weighers, enclosed belt conveyors, en-masse and self-cleaning en-masse conveyors, gravity screeners, truck probes, automatic samplers, micro ingredient systems, bolted bin systems and distributors. Purchased by GSI in 2014, InterSystems' material handling equipment can be found around the world at grain elevators, in processing plants and at port facilities handling a wide variety of commodities including grains, powders, rock and wood pellets.

InterSystems believes that "custom" is standard, displaying a willingness to change in order to meet the needs of your specific applications with a solution. Behind each product line is an engineer leading a team dedicated to design improvements which promote efficiency and keep current with changes in industry regulations. Our in-house customer service team is on-call to assist with replacement parts or installation questions and can deploy a field technician to analyze problems and recommend solutions. InterSystems does it all while maintaining industry-leading delivery times.

INTERSYSTEMS BUCKET ELEVATORS

FOR OVER 40 YEARS...

InterSystems has been designing and manufacturing bucket elevators for grain operations, flour mills and fertilizer, ethanol, malt and feed processing plants. Though constructed of heavy duty materials for durability, InterSystems' bucket elevators are designed to handle materials with care.

The design of each bucket elevator is considered an InterSystems' custom order and begins with a detailed computer analysis. The unique expectations of each project, including capacity requirements, commodity specifications and site conditions, are incorporated in the design and manufacturing process. InterSystems' calculated approach ensures that the delivered system exceeds the expectations of our clients.

PULLEY SIZE	24"	30"	36"	42"	48"	60"
CAPACITY RANGE (BPH)	2,000 - 4,000	4,000 - 7,000	5,000 - 9,000	8,000 - 16,000	10,000 - 80,000	10,000 - 80,000
CASING WIDTH	14.5"	18"	20"	19" - 24"	21" - 72"	21" - 72"
MAXIMUM NOMINAL CUP PROJECTION	6"	7"	7"	8"	10"	10"

OUR METHOD OF SHIPPING UNITIZED TRUNKING SECTIONS ENSURES STRAIGHT AND PLUMB STACKING AND YOU'LL HAVE LESS CONSTRUCTION IN THE FIELD.

INTERSYSTEMS' PROVEN DESIGN MEANS YOUR CAPACITY NEEDS ARE MET.

INTERSYSTEMS' BUCKET ELEVATORS ARE MANUFACTURED WITH PRECISION TO RUN SMOOTHLY AND OPERATE QUIETLY.

INTERSYSTEMS BUCKET ELEVATORS

Multiple Piece Hood Assembly - allows for easy installation and replacement of head lining sections

Crown Faced Head Pulley with Replaceable Slide Lagging

Heavy Duty Motor Mount

UHMW Shaft Seal Plate

Engineered Head Shafts - supported by externally mounted double roller bearings for maximum service life and safe operation

Bearing Jack Bolts - adjustable bearing height for easy belt alignment

Hinged Lagging Inspection Door with Quick Latch

Horizontal Trunking Flanges - fixture-welded to ensure trunking stacks straight, saving erection costs

Pressure Relief Panel - designed to current NFPA standards

Durable Rubber or PVC Belting - engineered to PPIW strength requirements

Heavy-Gauge Trunking - ensures structural integrity and is available in single or double leg casing

Screw Take-Up - designed for rugged duty

Clean Out Shovel Pocket (optional)

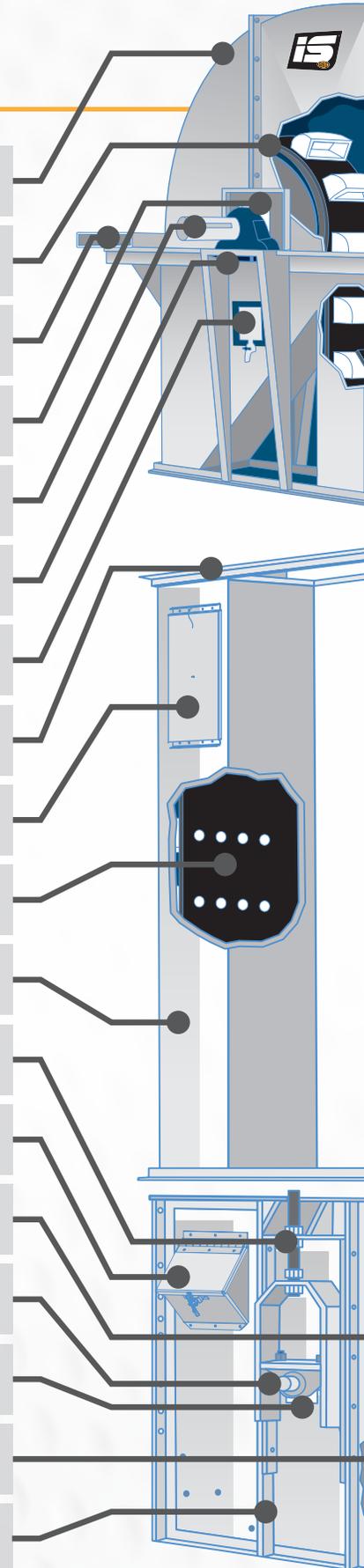
Hinged Inspection Door with Quick Latch - allows easy access for inspection

Externally Mounted Pillow Block Bearings - prevent bearing exposure to boot interior

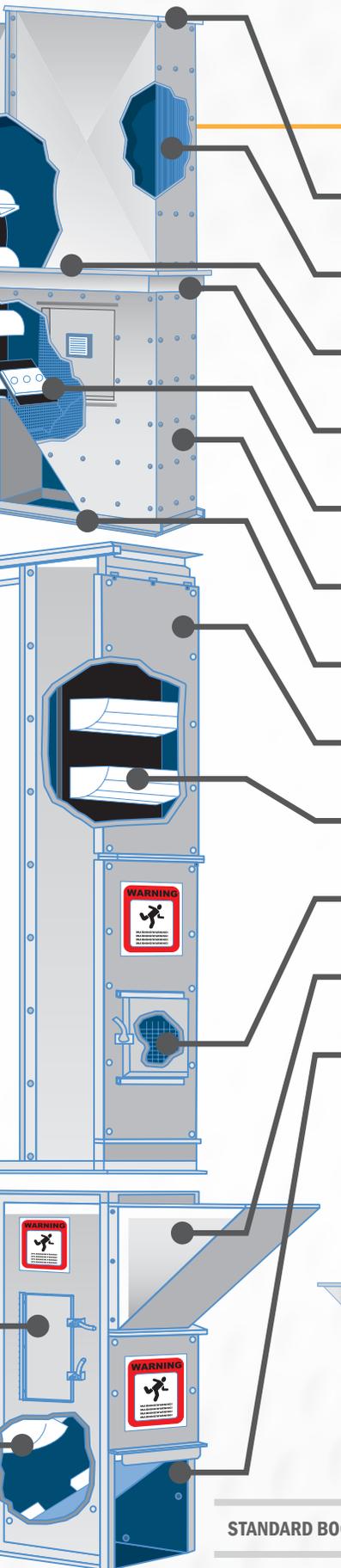
UHMW Shaft Seal Plate

Crown Faced Boot Pulley - ensures proper belt tracking and is available in winged styles

Boot Side Panels - reinforced with structural angle iron



FEATURES



Large Top Pressure Relief Panel - designed to current NFPA standards

Replaceable Head and Hood Lining - supplied in standard Abrasion Resistant (A.R.) steel or optional urethane, ceramic tile or ceramic chip urethane

Lip Seal - provides protection from the elements

Heavy Gauge Angle Iron - provides structural integrity for drive mounts

Adjustable Wiper Belt

Oversized Discharge - designed for gentle material handling and lined for longer wear

Angle Reinforcement Kicker - increases structural integrity of leg discharge

Oversized Removable Access Panels - make belt and bucket installation and maintenance more efficient

Elevator Buckets - supplied standard in UHMW polyethylene or in optional steel, nylon or urethane

Hinged Inspection Door - features quick latch and mesh cover for convenient and safe monitoring of belt and buckets

Large Boot Hopper - directs material flow for proper bucket fill

Drop Down Clean-Out Panels - to provide easy access and clean out

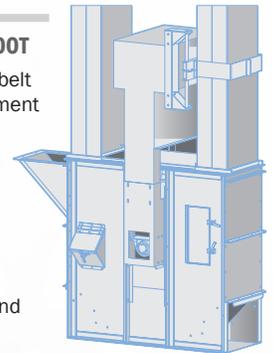
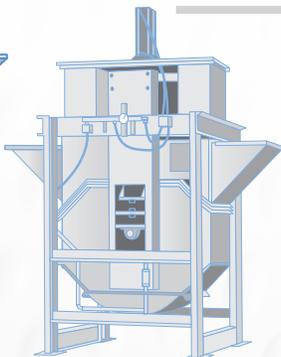
ADDITIONAL BOOT STYLES

SELF-CLEANING BOOT

- Self-cleaning bottom plate
- Totally enclosed housing for clean operation
- Easily replaceable A.R. steel bottom
- Adjustable bucket clearance from 1/16 to 3 inches
- Adjustable shaft alignment for belt tracking
- Optional motion and belt-misalignment detection
- Belt tension devices include manual, gravity, pneumatic and hydraulic
- Optional air-assist clean-out jets

SELF-ADJUSTING BOOT

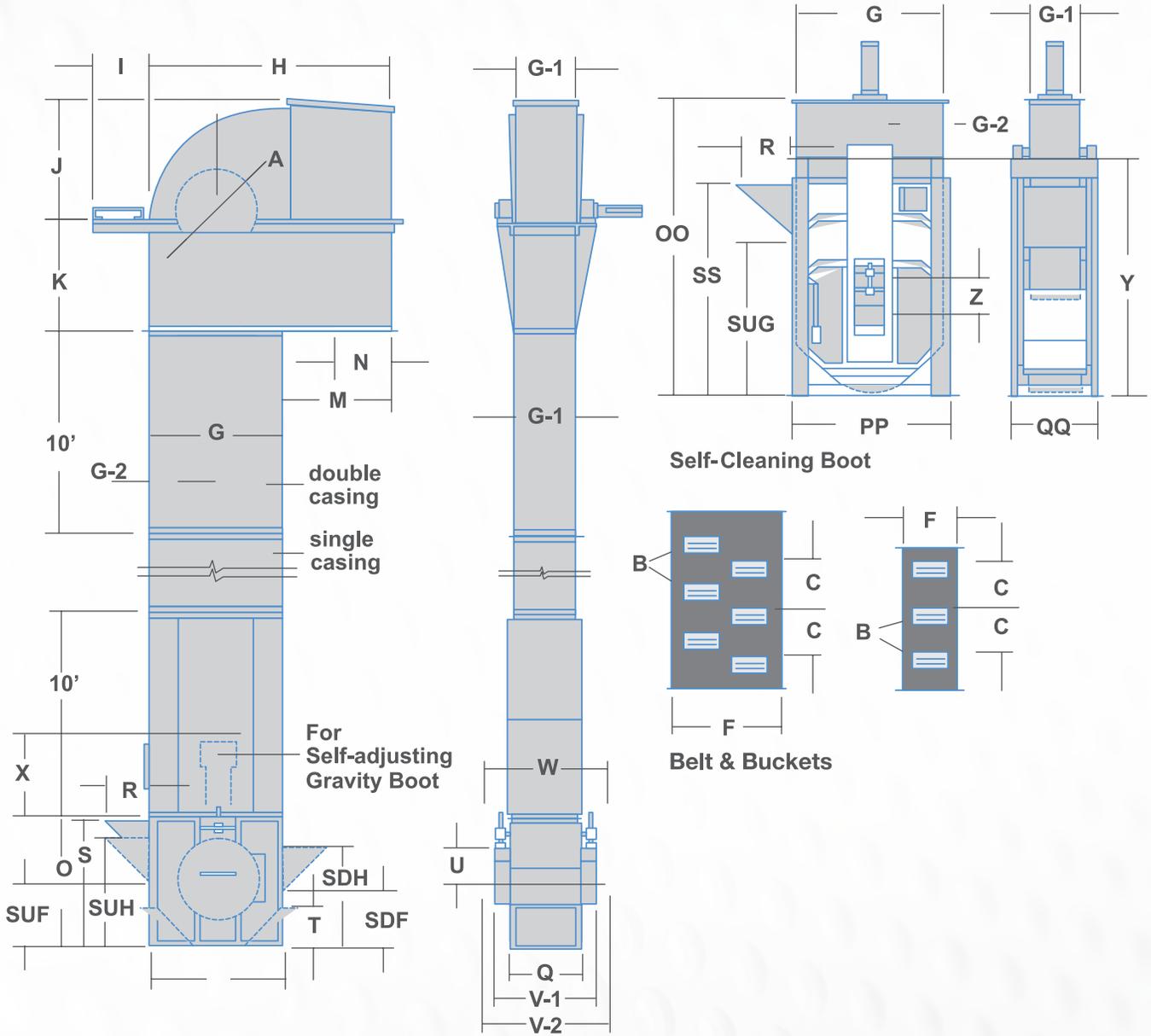
- Automatic gravity belt tension and alignment
- Self-adjusting to temperature and humidity changes
- Adjustable shaft alignment for belt tracking
- Optional motion and belt misalignment detection
- Totally enclosed housing for clean operation



STANDARD BOOT

SPECIFICATIONS

Every application is unique with its own capacity requirements, location specifications, materials to be handled, environmental needs, service requirements, clean-out solutions and much more.



SPECIFICATIONS

INTERSYSTEMS BUCKET ELEVATORS

MODEL	2414	3018	3620	4219	4224	4821	4824	4828	4834	4838	4844	4859	4872
A PULLEY DIA.	25	25	25	31	31	37	43	43	43	49	49	49	49
B CUP SIZE	6x5	9x5	11x6	12x6	12x7	14x7	12x8	14x8	18x8	14x8	16x8	18x8	20x8
C CUP SPACING	6	6	7	7	8	8	9	9	9	9	9	9	9
D PULLEY RPM	76	76	65	70	70	65	60	62	60	56	56	56	56
E BELT SPEED FPM	497	497	425	568	568	630	675	698	675	718	718	718	718
F BELT WIDTH	7	10	12	13	13	15	13	15	19	15	17	19	21
G OAL SECTION	42	42	42	52	52	58	65	65	65	72	72	72	72
G1 SECTION WIDTH	14.5	14.5	14.5	18	18	20	19	19	24	21.25	21.25	24	28
G2 SECTION DEPTH	10	10	10	12	12	12	12.5	12.5	12.5	13.125	13.125	13.125	13.125
H HEAD LENGTH	64.5	64.5	64.5	89	89	95	109	109	109	119	119	119	119
I MOTOR MOUNT LGTH.	19	19	19	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
J HOOD HEIGHT	39	39	39	49.5	49.5	52.5	58.5	58.5	58.5	66.5	66.5	66.5	66.5
K HEAD HEIGHT	36	36	36	48	48	48	54	54	54	60	60	60	60
M OUTLET OFFSET	22.5	22.5	22.5	38	38	38	44	44	44	47	47	47	47
N OUTLET SIZE	12x14.5	12x14.5	12x14.5	17x18	17x18	17x20	19x19	19x19	19x24	21.25 sq	21.25 sq	21.25x24	21.25x28
O BOOT HEIGHT	44	44	44	56	56	56	60	60	60	72	72	72	72
OO BOOT HEIGHT (air take-up)	83	83	83	90	90	93	101	101	101	113	113	113	113
P BOOT LENGTH	42	42	42	52	52	58	65	65	65	72	72	72	72
PP BOOT LENGTH	46	46	46	56	56	62	69	69	69	76	76	76	76
Q BOOT WIDTH	17.5	17.5	17.5	22	22	24	23	23	28	25.25	25.25	28	32
QQ BOOT WIDTH	27.25	27.25	27.25	30.75	30.75	32.75	31.75	31.75	36.75	34	34	36.75	40.75
R HOPPER LENGTH	16	16	16	19	19	19	23	23	23	26	26	26	26
S HOPPER HEIGHT	44	44	44	54	54	54	58	58	58	70	70	70	70
SS HOPPER HEIGHT	57	57	57	64	64	67	75	75	75	84	84	84	84
SUH (self cleaning)	44	44	44	54	54	54	58	58	58	70	70	70	70
SUF HOPPER FEED	28	28	28	35	35	35	35	35	35	44	44	44	44
SUG POINT (up side min)	42	42	42	46	46	49	53	53	53	59	59	59	59
SDH HOPPER HEIGHT (down side min)	34	34	34	42.5	42.5	43	52	52	52	57	57	57	57
SDF HOPPER FEED POINT (down side min)	19	19	19	24.5	24.5	25	30	30	30	31	31	31	31
T CLEAN OUT DOOR HT.	12	12	12	16	16	16	12	12	12	18	18	18	18
U PULLEY ADJUSTMENT	8	8	8	11	11	11	11	11	11	14	14	14	14
V1 OA BOOT WIDTH	22.5	22.5	22.5	26	26	28.25	27.25	27.25	32.25	30.25	30.25	33	37
V2 OA GRAVITY BOOT WIDTH	33.75	33.75	33.75	37.25	37.25	39.25	38.625	38.625	43.625	40.75	40.75	43.5	47.5
W WEIGHT BOX WIDTH	35	35	35	38.5	38.5	40.5	38.75	38.75	43.75	38.75	38.75	41.5	45.5
X MIN CLEARANCE REQ'D	47.25	47.25	47.25	50.25	50.25	50.25	50.25	50.25	50.25	63.75	63.75	63.75	63.75
Y BOOT HEIGHT (self cleaning)	65	65	65	72	72	75	83	83	83	92	92	92	92
Z PULLEY ADJUSTMENT	11	11	11	11	11	11	11	11	11	14	14	14	14
* TRUNKING GA. 0'-160' D.H.	12 ga.												
* TRUNKING GA. 160'-200' D.H.	10 ga.												
* TRUNKING GA. ABOVE 200' D.H.	10 ga. w/brace												
HEAD GAUGE	10 ga.	7 ga.	7 ga.	7 ga.	7 ga.								
HOOD GAUGE	10 ga.												
BOOT GAUGE	10 ga.	10 ga.	10 ga.	7 ga.	7 ga.	7 ga.	7 ga.	7 ga.	7 ga.	1/4"	1/4"	1/4"	1/4"
BOOT SHAFT	2-3/16"	2-3/16"	2-3/16"	2-3/16"	2-3/16"	2-3/16"	2-3/16"	2-3/16"	2-3/16"	2-15/16"	2-15/16"	2-15/16"	2-15/16"
** CAPACITY TPH @ 48#/cu.ft.	63.2	90	118	175.2	204.1	256.9	301	362.8	468.5	373.4	442.5	498.3	562.2
** CAPACITY MTH @ 48#/cu.ft.	57.3	81.7	107.1	158.9	185.1	233	273	329.1	425	338.7	401.4	452	509.9
** CAPACITY CFH	2,632	3,751	4,918	7,300	8,503	10,704	12,542	15,116	19,523	15,559	18,439	20,763	23,424
** CAPACITY BPH	2,115	3,014	3,952	5,866	6,833	8,601	10,078	12,147	15,687	12,502	14,817	16,684	18,822

* INDICATES GAUGE OF LOWER SECTIONS

** CAPACITIES BASED ON DRY, FREE FLOWING, GRANULAR MATERIAL WITH PROPER LOADING CONDITIONS AT 48 LBS/CUBIC FOOT (746 KG/CUBIC METER).

^ INDICATES BEARING AND DUST SEAL SIZE

Excessive loads through guying or optional equipment should be avoided. Due to program of constant improvements, specifications are subject to change without notice or obligation. All dimensions are given in inches unless otherwise noted.

COMPLETE YOUR GSI SYSTEM

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40-SERIES™ GRAIN BIN

When determining the best system for your operation, we know that what's protected inside the bin is what counts most. Each GSI bin is efficiently designed to handle maximum loads for unmatched strength. All GSI bins are constructed using the highest-strength steel available.



TOWERS AND CATWALKS

GSI offers a full line of structures to support material handling equipment. Built to perform for the long haul, GSI's all new QuickBolt™ Towers and Catwalks are engineered to your facility's layout, taking wind, seismic and snow loading into consideration. GSI structures feature bolt-up assembly and hot-dipped galvanized finish.



ZIMMERMAN TOWER DRYERS

Not all tower dryers are created equal. What sets Zimmerman dryers apart is over 50 years of innovative design expertise and industry proven drying principles. The result is an easy-to-operate, easy-to-maintain, durable, fuel-efficient grain dryer, supported by an expert dealer network.



PREMIUM TRAINING, SERVICE AND SUPPORT

InterSystems reaches a worldwide market and numerous industries with expertise in the manufacturing of material handling products and industrial sampling systems. Purchased by GSI in 2014, InterSystems is based in Omaha, Nebraska and operates out of a 200,000 square foot state-of-the-art manufacturing facility. InterSystems is ISO 9001 and 14001 certified.



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