MATERIAL HANDLING

KLEEN-DRAG CONVEYORS

InterSystems®

PROVEN & DEPENDABLE™

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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.

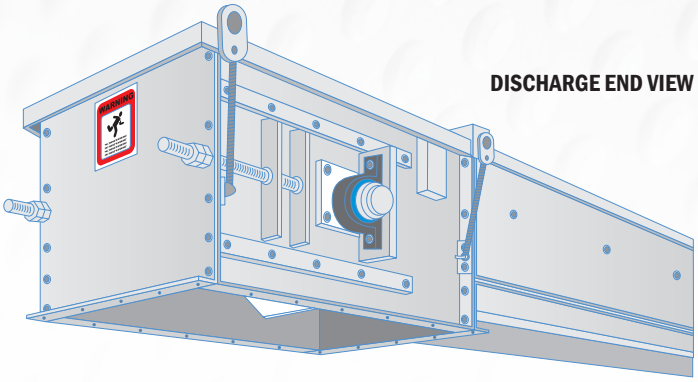
From a modest beginning in 1959 as a maker of cardboard doors for rail boxcars, InterSystems has evolved into a worldwide manufacturer of a full line of bulk material handling equipment. Placing a customer-centric focus on the engineering and manufacturing process, InterSystems' product solutions include 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.

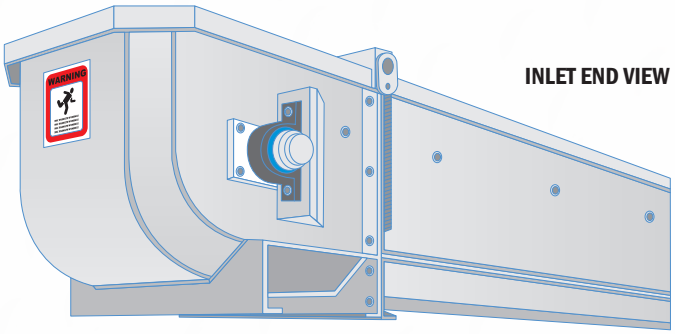
INTERSYSTEMS KLEEN-DRAG CONVEYORS

InterSystems responded to the specific needs of the feed industry with the development of the Kleen-Drag Conveyor (patent #US6505727). The self-cleaning bottom and complete enclosure mean cleanout is easier and your plant operation remains sanitary. The Kleen-Drag Conveyor eliminates cross-contamination that can occur during receiving, manufacturing and packaging. For further prevention of co-mingling between production cycles, disinfectant can be run through the Kleen-Drag. The chance of pockets of material accumulating in the gates is all but eliminated through the flush-mount design. Additionally, the Kleen-Drag is specifically engineered to utilize slower chain speeds, promoting easy handling of sensitive products. Features also include a roller return system, beveled flights and a capacity of up to 35,000 CFH. It can be constructed of stainless, hot-rolled or galvanized steel with a variety of Abrasion Resistant (A.R.) liner packages.

When your operation calls for handling a variety of commodities, the InterSystems Kleen-Drag Conveyor is the ultimate solution.



DISCHARGE END VIEW



INLET END VIEW

CONTOURED TAIL DESIGN RESISTS ACCUMULATION OF MATERIAL

LARGE CAPACITIES CONVEYED IN COMPACT SPACE

BEND (KNEE) SECTIONS UP TO 60 DEGREES

CONVEYING INCLINE UP TO 60 DEGREES

UNIQUE TAPERED RAIL DESIGN

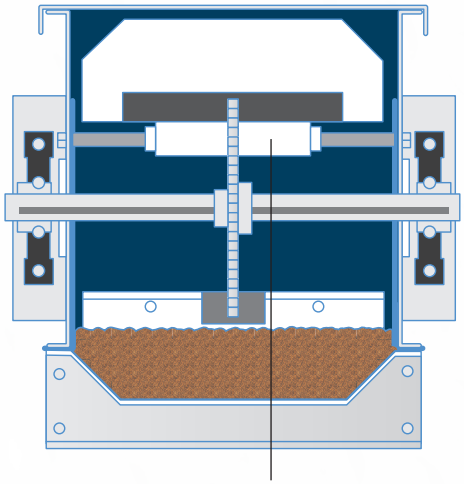
LINER FASTENERS PLACED CLEAR OF MATERIAL FLOW

LINERS CAN BE QUICKLY REPLACED WITHOUT PARTING OR REMOVING CHAIN

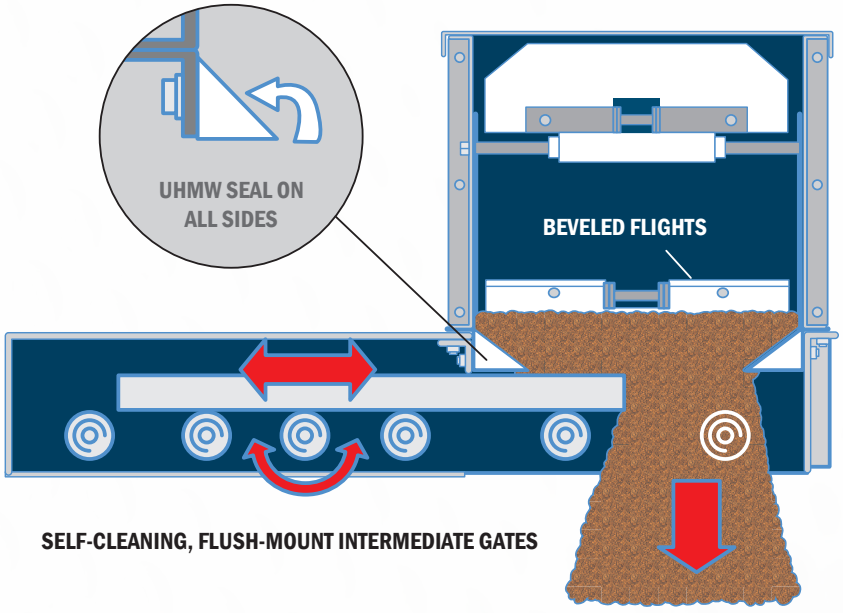
INTERMEDIATE GATES

Special attention was given to the design of these conveyors where intermediate discharges are required and “pockets” of material cannot be tolerated.

Intermediate discharge gates are used when there is a requirement for multiple discharge points. The Kleen-Drag gates open perpendicular to the conveyor and are flush with the bottom which means there is no “pocket” where material will collect and potentially cause cross-contamination.



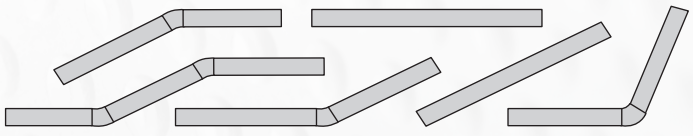
ROLLER RETURN



SELF-CLEANING, FLUSH-MOUNT INTERMEDIATE GATES

OPERATIONAL CONFIGURATIONS

InterSystems Kleen-Drag Conveyors are very adaptable and may be configured in a series of horizontal and/or inclined segments as shown. An application that might have formerly required multiple conveyor runs, drives and transitions, may be accomplished with a single Kleen-Drag Conveyor.



FEATURES

Take-Up - allows for proper chain adjustment

Lid Seals - weather resistant protection at the lid joints

10 or 12 Gauge Housing

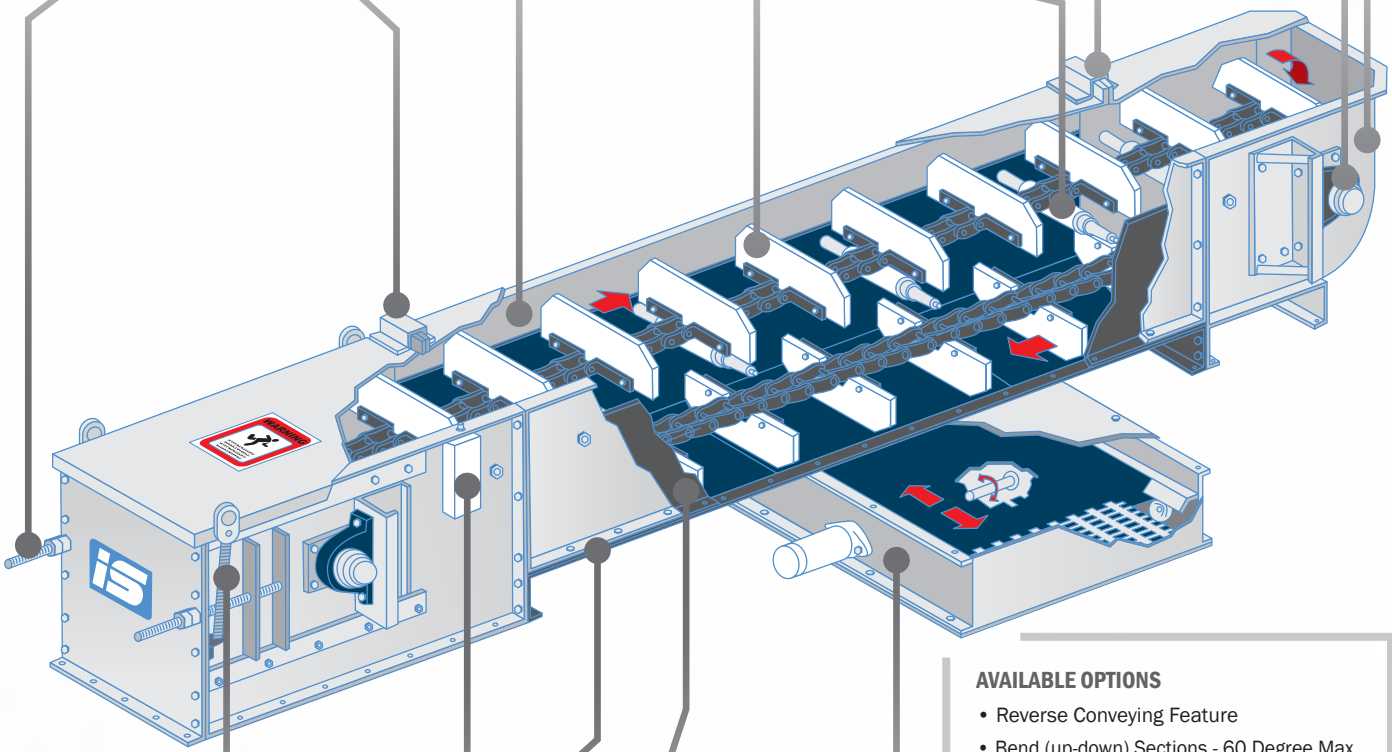
UHMW Polyethylene Flights - no steel-to-steel contact, designed to minimize carry-over

Return Rollers – support flights and resist accumulation of material

Lid Joints - formed up for weather seal and stiffness

Pillow Block Bearings - complete with shaft seals, no contact with material flow

Adjustable Contoured Tail Section - resists accumulation of material



Spring Retention Lid Clips - used on ends

Slack Chain/ Choke Switch - automatic shut-off device for both conditions

Bottom Panels - easily replaceable

A.R. Steel Liners - match application requirements

Intermediate Discharge Gates - manual, electric (shown), pneumatic or hydraulic drive

AVAILABLE OPTIONS

- Reverse Conveying Feature
- Bend (up-down) Sections - 60 Degree Max.
- Painted, Galvanized or Stainless Housings
- Tall-Flight Systems for Inclines
- A.R. Steel Liners
- Transitions
- Motion, Alignment and Bearing Sensors
- Support Structures
- Various Types of Drives
- Knee Sections
- Inclined Operation
- Rail or Roller Return
- Special Inlets
- Intermediate Discharge Gates

SPECIFICATIONS

			14 HIGH MODELS			19 HIGH MODELS					28 HIGH MODELS		
	FEET/MIN	METERS/ SEC	914	1314	1714	1319	1719	2119	2519	3019	2128	2528	3028
CAPACITY - CUBIC FEET PER HOUR													
EN-MASSE	95	0.48	2641	3887	5132	5916	7770	9610	11450	13750	14897	17745	20666
0-7 DEG.	110	0.56	3058	4501	5944	6851	9001	11127	13258	15921	17250	20546	23929
	130	0.66	3615	5319	7025	8097	10635	13150	15668	18816	20386	24282	28280
	160	0.82	4451	6549	8648	9967	13090	16185	19284	23158	25090	29886	34806
	200	1.02	5564	8188	10811	12460	16363	20231	24105	28947	31363	37357	43507
PURE DRAG	95	0.48	1173	1767	2360	1737	2305	2954	3525	4240	3354	4002	4768
0-15 DEG.	110	0.56	1359	2048	2733	2012	2670	3420	4082	4909	3884	4634	5521
	130	0.66	1605	2420	3231	2380	3158	4042	4824	5802	4590	5477	6525
	160	0.82	1980	2979	3948	2929	3887	4974	5937	7141	5649	6741	8030
	200	1.02	2474	3725	4974	3663	4861	6218	7422	8926	7062	8426	10038
CAPACITY - BUSHELS PER HOUR													
EN-MASSE	95	0.48	2122	3123	4124	4754		7724	9202	11051	11973	14262	16610
0-7 DEG.	110	0.56	2451	3607	4776	5505	7233	8943	10656	12796	13864	16514	19232
	130	0.66	2905	4274	5646	6506	8546	10569	12593	15123	16385	19516	22729
	160	0.82	3576	5262	6949	8009	10519	13008	15499	18612	20166	24020	27974
	200	1.02	4471	6580	8687	10012	13149	16260	19374	23265	25207	30025	34968
PURE DRAG	95	0.48	942	1419	1896	1395	1852	2374	2833	3408	2696	3217	3832
0-15 DEG.	110	0.56	1092	1645	2196	1616	2145	2749	3281	3946	3122	3725	4437
	130	0.66	1298	1945	2596	1912	2559	3248	3877	4663	3689	4402	5244
	160	0.82	1591	2394	3172	2353	3123	3998	4772	5739	4541	5418	6454
	200	1.02	1988	2993	3997	2943	3906	4998	5965	7174	5676	6772	8068
CAPACITY - TONS PER HOUR													
EN-MASSE	95	0.48	63	93	123	142	186	231	275	330	356	426	496
0-7 DEG.	110	0.56	73	108	143	164	216	267	319	382	414	494	575
	130	0.66	87	128	169	194	255	316	376	452	490	583	679
	160	0.82	107	157	208	239	314	389	463	556	602	718	836
	200	1.02	134	197	259	299	393	486	579	695	753	897	1045
PURE DRAG	95	0.48	28	42	57	42	55	71	85	102	81	97	115
0-15 DEG.	110	0.56	33	49	66	48	64	82	98	118	94	112	133
	130	0.66	39	58	78	57	76	97	116	139	111	132	157
	160	0.82	48	71	95	70	93	120	143	172	136	162	193
	200	1.02	59	89	119	88	117	149	179	214	170	203	241
CAPACITY - METRIC TONS PER HOUR													
EN-MASSE	95	0.48	57	84	112	129	169	210	250	300	323	387	450
0-7 DEG.	110	0.56	66	98	129	149	196	242	290	347	376	449	522
	130	0.66	79	116	153	176	232	287	341	410	445	529	616
	160	0.82	97	143	189	217	285	353	420	505	547	652	759
	200	1.02	122	179	235	271	357	441	526	631	684	814	949
PURE DRAG	95	0.48	25	38	52	38	50	65	77	93	73	88	104
0-15 DEG.	110	0.56	30	45	60	44	58	74	89	107	85	102	121
	130	0.66	35	53	71	52	69	88	105	126	101	120	143
	160	0.82	44	65	86	64	84	109	130	156	123	147	175
	200	1.02	54	81	108	80	106	135	163	194	154	184	219

Based on material weight of 48 pounds per cubic foot.

SPECIFICATIONS

DESCRIPTION	14 HIGH MODELS			19 HIGH MODELS					28 HIGH MODELS		
	914	1314	1714	1319	1719	2119	2519	3019	2128	2528	3028
HEAD HEIGHT (W/LID)	18 1/16	18 1/16	18 1/16	23 1/16	23 1/16	23 1/16	23 1/16	23 1/16	32 1/16	32 1/16	32 1/16
HEAD LENGTH (BODY)	36	36	36	36	36	36	36	36	51	51	51
HEAD LENGTH (TAKEUP)	43	43	43	43	43	43	43	43	58	58	58
SECTION HEIGHT (INCLUDING BTM FLANGE)	18 1/16	18 1/16	18 1/16	23 1/16	23 1/16	23 1/16	23 1/16	23 1/16	32 1/16	32 1/16	32 1/16
SECTION LENGTH	116	116	116	116	116	116	116	116	116	116	116
SECTION WIDTH (INCLUDING SIDE FLANGES)	12	16	20	16	20	24	28	33	24	28	33
TAIL LENGTH	22	22	22	22	22	22	22	22	28	28	28
STANDARD INLET HEIGHT	4	4	4	4	4	4	4	4	4	4	4
STANDARD INLET LENGTH	18	18	18	18	18	18	18	18	18	18	18
GATE HEIGHT	6	6	6	6	6	6	6	6	6	6	6
GATE DISCHARGE LENGTH	36	36	36	36	36	36	36	36	43 1/2	43 1/2	43 1/2
GATE EXTENSION (CROSSCUT)	19 1/4	23 1/4	27 1/4	23 1/4	27 1/4	31 1/4	35 1/4	40 1/4	31 1/4	35 1/4	40 1/4
MAXIMUM HEAD BEARINGS (VERTICAL)	2 15/16	2 15/16	2 15/16	3 7/16	3 7/16	3 7/16	3 7/16	3 7/16	5 7/16	5 7/16	5 7/16

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 & 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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