

**MATERIAL HANDLING**

# EN-MASSE CONVEYORS



**PROVEN & DEPENDABLE™**

[WWW.GRAINSYSTEMS.COM](http://WWW.GRAINSYSTEMS.COM)

# 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 to keep it moving.

GSI bulk material handling systems offer the speed and reliability you need to satisfy customers and your bottom line.

GSI places a customer-centric focus on the engineering and manufacturing of commercial-strength InterSystems bucket elevators, bulk weighers, enclosed belt conveyors, en-masse and self-cleaning en-masse conveyors, gravity screeners, truck probes, automatic samplers, micro ingredient systems and bolted bin systems.

High-quality products are only part of the solution. Behind each project is an engineering team and on-call customer service dedicated to your productivity and profitability.

# INTERSYSTEMS EN-MASSE CONVEYORS

From simple storage to critical environments, there is an InterSystems conveyor to meet your needs.

Two InterSystems En-Masse Conveyor models were developed based on capacity needs. The 12/17 Series, for average capacity, utilizes a horizontal bearing mount. The higher capacity 26/33 Series has a much stronger, reinforced head design with a 90-degree rotated bearing mount which facilitates the application of bigger drive components.

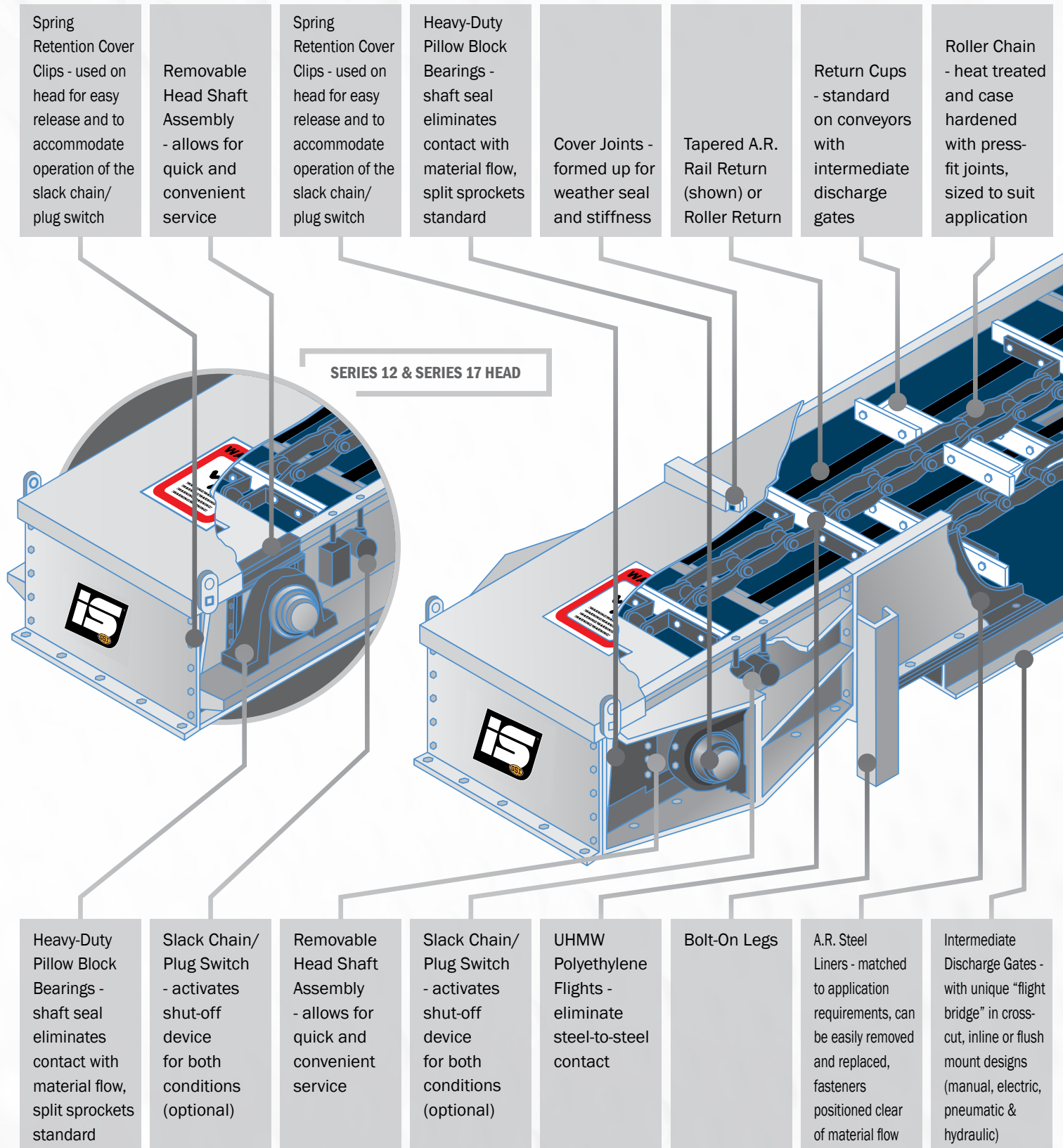
CONVEYOR HEIGHT	12" TALL	17" TALL	26" TALL	33" TALL
CONVEYOR WIDTH	9" - 17"	9" - 30"	17" - 30"	21" - 38"
CAPACITIES	3,000 - 6,000 BPH	5,000 - 18,000 BPH	16,000 - 28,000 BPH	27,000 - 48,000 BPH

InterSystems models of En-Masse Conveyors offer the best value in the industry. The brand has popularized features including a bolted box design which eases the replacement of liners. Knowing the heart of any conveyor is the chain, the design includes slack chain and plug switches, speed-to-length ratio chain calculations, and specific chain working load calculations – all developed to ensure precise applications.

For higher strength and longer life, the majority of InterSystems En-Masse Conveyor models utilize roller chains, precision-built with press-fit joints.

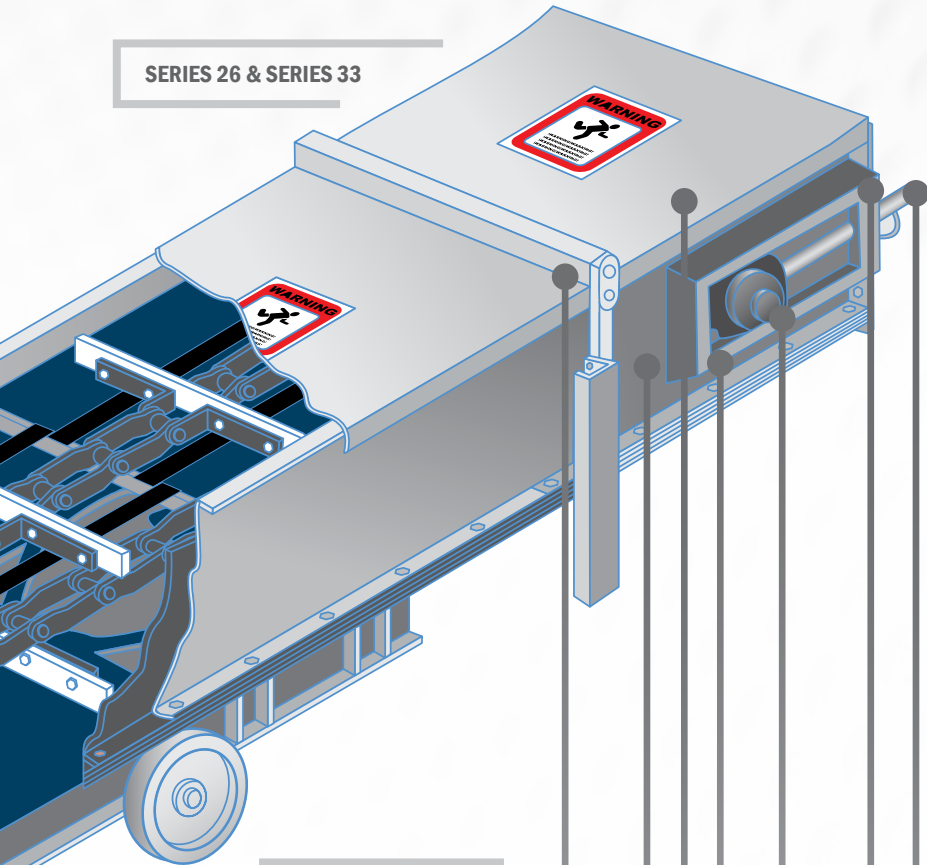
- Completely enclosed for clean operation
- Large capacity to convey in compact spaces
- A.R. steel liners for sides and bottom
- Quickly replace liners without parting or removing the chain
- Liner fasteners positioned clear of material flow
- Unique tapered rail design
- Tall Flight configurations available

# INTERSYSTEMS EN-MASSE CONVEYORS



# FEATURES

**SERIES 26 & SERIES 33**



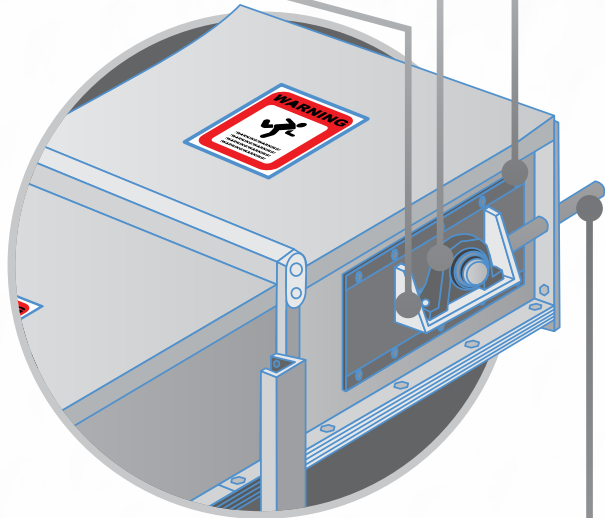
**AVAILABLE OPTIONS**

- Galvanized, Painted or Stainless Steel Housings
- Motion and Bearing Sensors
- Reverse Conveying Feature
- Various Types of Drives
- In-Line or Cross-Cut Gates
- Discharge Transitions

**Removable Tail Shaft Assembly**  
- allows for quick and convenient service

**Pillow Block Bearings** - with shaft seal that eliminates contact with material flow (center pull take-up option available), \*split sprockets standard

**Internally Contoured Tail Section**  
- reduces accumulation of material in tail section



**SERIES 12 & SERIES 17 TAIL**

**Lid Seals**  
- weather resistant protection at the cover joints

**10 Gauge Housing**

**Bolt-On Lids**

**Removable Tail Shaft Assembly**  
- allows for quick and convenient service

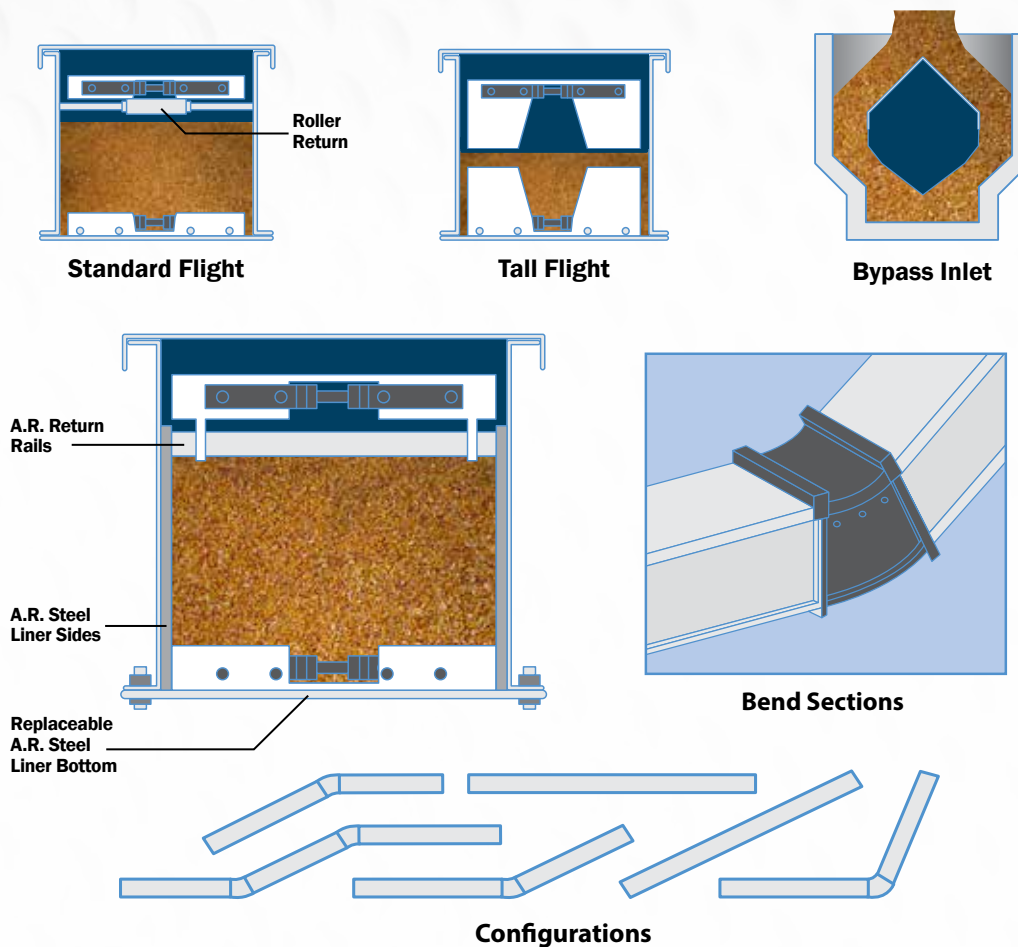
**Pillow Block Bearings** - with shaft seal that eliminates contact with material flow (center pull take-up option shown), \*split sprockets standard

**Internally Contoured Tail Section**  
- reduces accumulation of material in tail section

**Take-Up on Tail**

**Take-Up on Tail**

# OPERATIONAL CONFIGURATIONS



## HORIZONTAL & UP TO 15° OPERATION

When in horizontal or slightly inclined position, the En-Masse requires standard flights. The close tolerance design provides for excellent cleanout.

## 15° TO 60° INCLINED OPERATION

"Tall Flight" configurations are available for steeper inclines, as shown.

## BYPASS INLET

Bypass Inlet for plug free operation. Flared designs available.

## UP TO 60° BENDS

Bend sections allow for up to 60° angle. Reverse bends are also available.

## CONFIGURATIONS

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

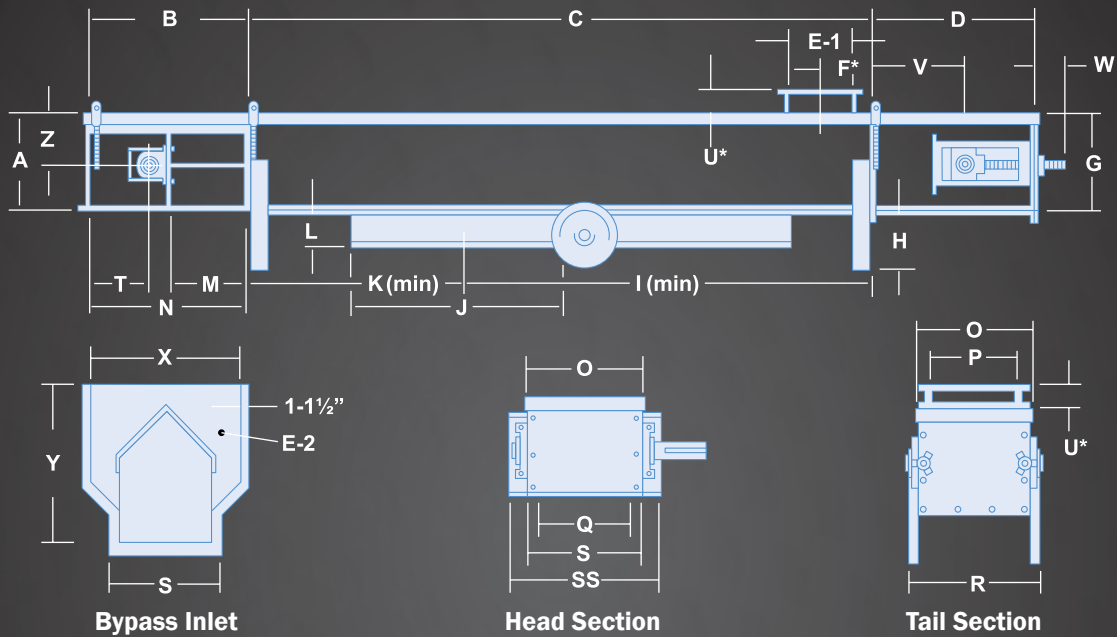


# 12-17 SERIES EN-MASSE CONVEYORS

## CONVEYOR WEIGHTS

DESCRIPTION	9x12	13x12	17x12	9x17	13x17	17x17	21x17	25x17	30x17
Standard without A.R. liner	25.42	27.46	32.71	48.49	53.10	58.43	65.27	68.78	73.17
W/#1 Liner 10 ga. sides, 3/16" ga. bottom	36.20	39.11	44.93	64.73	70.07	75.91	83.52	87.61	92.73
W/#2 Liner 3/16" ga. sides, 1/4" bottom	41.06	44.62	54.34	72.18	78.65	85.53	94.25	99.19	105.37
W/#3 Liner 1/4" sides, 3/8" bottom	49.40	54.14	62.56	82.62	90.44	98.78	108.89	115.54	123.85

Average weight per foot of empty conveyor in pounds



## DIMENSIONS & SPECIFICATIONS

DESCRIPTION	9x12	13x12	17x12	9x17	13x17	17x17	21x17	25x17	30x17
<b>A</b>	HEAD HEIGHT	12 5/16	12 5/16	12 5/16	17 3/8	17 3/8	17 3/8	17 3/8	17 3/8
<b>B</b>	HEAD LENGTH	37 5/8	37 5/8	37 5/8	37 5/8	37 5/8	37 5/8	37 5/8	37 5/8
<b>C</b>	SECTION LENGTH	116	116	116	116	116	116	116	116
<b>D</b>	TAIL LENGTH	27 1/8	27 1/8	27 1/8	27 1/8	27 1/8	27 1/8	27 1/8	27 1/8
<b>E-1</b>	STD. INLET LENGTH	18	18	18	18	18	18	18	18
<b>E-2</b>	BYPASS INLET LENGTH	24	24	24	24	24	24	24	24
<b>F*</b>	OFFSET MINIMUM	13 3/4	13 3/4	13 3/4	13 3/4	13 3/4	13 3/4	13 3/4	13 3/4
<b>G</b>	TAIL HEIGHT	12 1/16	12 1/16	12 1/16	17 1/8	17 1/8	17 1/8	17 1/8	17 1/8
<b>H</b>	CLEARANCE	11	11	11	11	11	11	11	11
<b>I</b>	DISCHARGE CL (MIN)	62	62	62	62	62	62	62	62
<b>J</b>	DISCHARGE LENGTH	36	36	36	36	36	36	36	36
<b>K</b>	DISCHARGE CL (MIN)	21	21	21	21	21	21	21	21
<b>L</b>	GATE HEIGHT CL	5	5	5	5	5	5	5	5
<b>M</b>	DISCHARGE OFFSET	18 3/4	18 3/4	18 3/4	18 3/4	18 3/4	18 3/4	18 3/4	18 3/4
<b>N</b>	DISCHARGE LENGTH	37 1/2	37 1/2	37 1/2	37 1/2	37 1/2	37 1/2	37 1/2	37 1/2
<b>O</b>	COVER WIDTH	12 3/4	16 3/4	20 3/4	12 3/4	16 3/4	20 3/4	24 3/4	28 3/4
<b>P</b>	INLET WIDTH	9	13	17	9	13	17	21	25
<b>Q</b>	DISCHARGE WIDTH	9	13	17	9	13	17	21	25
<b>R</b>	LEG WIDTH	14 1/2	18 1/2	22 1/2	14 1/2	18 1/2	22 1/2	26 1/2	30 1/2
<b>S</b>	SECTION WIDTH	12	16	20	12	16	20	24	28
<b>T</b>	HEAD SHAFT CL	12	12	12	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
<b>U*</b>	INLET HEIGHT	4	4	4	4	4	4	4	4
<b>V</b>	TAIL SHAFT CL	16 1/2	16 1/2	16 1/2	19	19	19	19	19
<b>W</b>	SCREW EXTENSION	7	7	7	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
<b>X</b>	BYPASS INLET WIDTH	23	27	31	23	27	31	35	39
<b>Y</b>	BYPASS INLET HEIGHT	23	23	23	28	28	28	28	28
<b>Z</b>	SHAFT HEIGHT	6 3/16	6 3/16	6 3/16	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
	MATERIAL DEPTH	7 1/4	7 1/4	7 1/4	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2

Dimensions above are given in inches and subject to change without notice.



## SERIES 12-17 EN-MASSE CONVEYOR CAPACITIES

DESCRIPTION		Standard	9x12	13x12	17x12	9x17	13x17	17x17	21x17	25x17	30x17
TPH	EN MASSE 0°-15°	95	58.9	85.2	111.5	96.0	139.2	182.5	226.0	268.9	323.0
		110	68.2	98.6	129.1	111.2	161.2	211.3	262.0	311.4	374.0
		130	80.6	116.5	152.6	131.4	190.6	249.7	309.0	368.0	442.0
		160	99.1	143.4	187.8	161.7	234.5	307.3	381.0	452.9	544.0
		200	123.9	179.3	234.8	202.2	293.2	384.2	476.0	566.2	680.0
	TALL FLIGHT 15°-60°	95	23.3	33.8	44.1	34.4	54.3	71.3	88.0	105.3	127.0
		110	27.0	39.1	51.1	39.8	62.9	82.6	102.0	122.0	147.0
		130	31.9	46.2	60.4	47.0	74.4	97.6	121.0	144.2	173.0
		160	39.3	56.9	74.4	57.9	91.5	120.2	149.0	177.4	213.0
		200	49.1	71.1	93.0	72.3	114.4	150.2	186.0	221.8	267.0
		<b>FPM (without liner)</b>	<b>9x12</b>	<b>13x12</b>	<b>17x12</b>	<b>9x17</b>	<b>13x17</b>	<b>17x17</b>	<b>21x17</b>	<b>25x17</b>	<b>30x17</b>
MTPH	EN-MASSE 0°-15°	95	53.47	77.34	101.22	87.15	126.37	165.67	205.16	244.11	293.22
		110	61.91	89.51	117.20	100.95	146.34	191.82	237.84	282.69	339.52
		130	73.17	105.76	138.53	119.28	173.03	226.68	280.51	334.07	401.25
		160	89.96	130.18	170.48	146.79	212.88	278.97	345.87	411.14	493.84
		200	112.48	162.77	213.15	183.56	217.15	348.78	432.11	514.00	617.30
	TALL FLIGHT 15°-60°	95	21.15	30.18	40.03	31.23	49.29	64.73	79.89	95.59	115.29
		110	24.51	35.50	46.39	36.13	57.10	74.98	92.60	110.75	133.45
		130	28.96	41.94	54.83	42.67	67.54	88.60	109.84	130.90	157.05
		160	35.68	51.65	67.54	52.56	83.06	109.12	135.26	161.04	193.36
		200	44.57	64.54	84.43	65.63	103.85	136.35	168.85	201.35	242.38
		<b>FPM</b>	<b>9x12</b>	<b>13x12</b>	<b>17x12</b>	<b>9x17</b>	<b>13x17</b>	<b>17x17</b>	<b>21x17</b>	<b>25x17</b>	<b>30x17</b>
CFPH	EN-MASSE 0°-15°	95	2,453	3,549	4,647	4,001	5,802	7,603	9,415	11,205	13,457
		110	2,840	4,109	5,380	4,633	6,718	8,804	10,901	12,974	15,581
		130	3,356	4,856	6,359	5,475	7,940	10,404	12,884	15,333	18,414
		160	4,131	5,977	7,826	6,739	9,772	12,805	15,857	18,872	22,664
		200	5,164	7,471	9,783	8,423	12,215	16,007	19,821	23,590	28,329
	TALL FLIGHT 15°-60°	95	971	1,408	1,841	1,432	2,265	2,973	3,681	4,389	5,275
		110	1,125	1,630	2,131	1,658	2,622	3,442	4,262	5,083	6,108
		130	1,329	1,926	2,518	1,959	3,099	4,068	5,037	6,007	7,218
		160	1,636	2,371	3,101	2,411	3,814	5,007	6,200	7,393	8,884
		200	2,045	2,963	3,876	3,014	4,768	6,259	7,750	9,241	11,105
		<b>FPM</b>	<b>9x12</b>	<b>13x12</b>	<b>17x12</b>	<b>9x17</b>	<b>13x17</b>	<b>17x17</b>	<b>21x17</b>	<b>25x17</b>	<b>30x17</b>
BPH	EN-MASSE 0°-15°	95	1,971	2,852	3,317	3,216	4,663	6,111	7,567	9,006	10,815
		110	2,283	3,303	4,304	3,723	5,400	7,076	8,762	10,428	12,523
		130	2,698	3,903	5,087	4,400	6,381	8,362	10,355	12,324	14,800
		160	3,320	4,804	6,260	5,416	7,854	10,292	12,745	15,618	18,215
		200	4,150	6,005	7,826	6,770	9,817	12,865	15,931	18,960	22,769
	TALL FLIGHT 15°-60°	95	781	1,131	1,478	1,151	1,820	2,389	2,959	3,528	4,240
		110	904	1,310	1,711	1,332	2,107	2,767	3,429	4,085	4,909
		130	1,068	1,548	2,022	1,575	2,491	3,270	4,049	4,828	5,801
		160	1,315	1,905	2,490	1,938	3,065	4,024	4,983	5,942	7,140
		200	1,644	2,382	3,113	2,422	3,832	5,030	6,229	7,427	8,925

The above capacities are rated under ideal conditions with dry material being properly fed into the conveyor.

The horizontal to 15° capacities are listed for horizontal usage, capacities will decrease as the conveyor is inclined. The 15° to 60° conveying capacities are rated for conveying at 30°.

The capacities given are for reference only. Please contact customer service for capacities in your specific application.

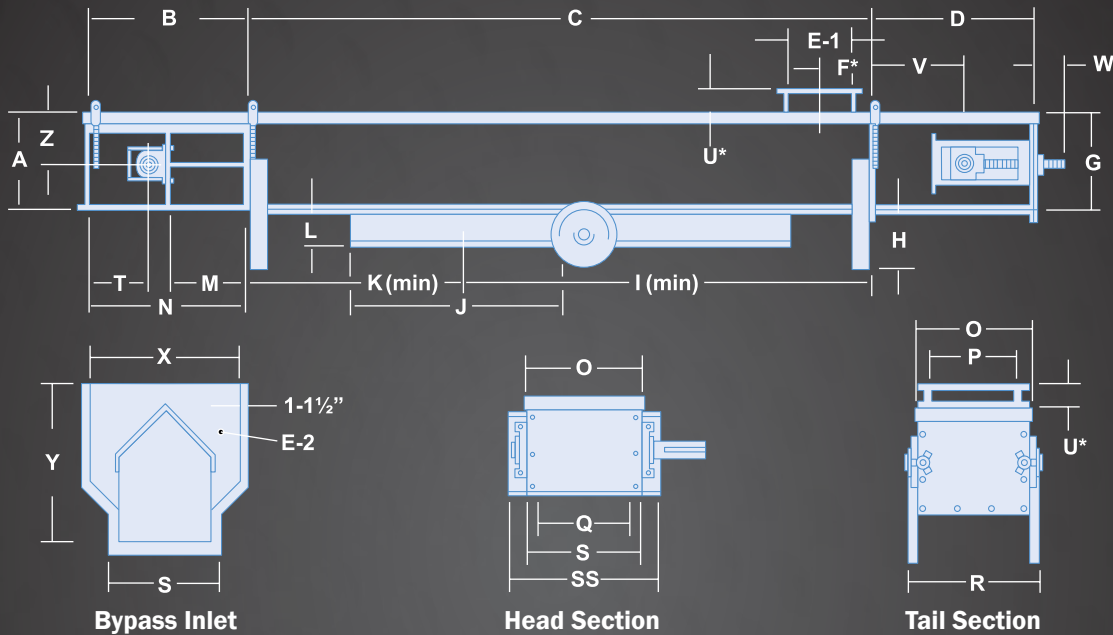
TPH capacities based on 48 pounds per cubic foot material density.

# 26-33 SERIES EN-MASSE CONVEYORS

## CONVEYOR WEIGHTS

DESCRIPTION	17x26	21x26	25x26	30x26	21x33	25x33	30x33	38x33
Standard without A.R. liner	64.8	70.0	79.0	89.5	86.8	94.0	101.1	120.0
W/#1 Liner 10 ga. sides, 3/16" ga. bottom	95.3	103.1	114.7	128.5	124.9	134.8	145.1	183.0
W/#2 Liner 3/16" ga. sides, 1/4" bottom	108.4	117.1	129.5	144.4	141.4	152.1	163.5	207.0
W/#3 Liner 1/4" sides, 3/8" bottom	125.9	136.2	150.5	167.4	163.1	175.5	189.1	259.0

Average weight per foot of empty conveyor in pounds



## DIMENSIONS & SPECIFICATIONS

DESCRIPTION	17x26	21x26	25x26	30x26	21x33	25x33	30x33	38x33
<b>A</b> HEAD HEIGHT	26 5/16	26 5/16	26 5/16	26 5/16	33 5/16	33 5/16	33 5/16	33 5/16
<b>B</b> HEAD LENGTH	37 5/8	37 5/8	37 5/8	37 5/8	45 1/8	45 1/8	45 1/8	45 1/8
<b>C</b> SECTION LENGTH	116	116	116	116	116	116	116	116
<b>D</b> TAIL LENGTH	37 5/8	37 5/8	37 5/8	37 5/8	45 1/8	45 1/8	45 1/8	45 1/8
<b>E-1</b> STD. INLET LENGTH	18	18	18	18	24	24	24	24
<b>E-2</b> BYPASS INLET LENGTH	24	24	24	24	24	24	24	24
<b>F*</b> OFFSET MINIMUM	13 3/4	13 3/4	13 3/4	13 3/4	16 3/4	16 3/4	16 3/4	16 3/4
<b>G</b> TAIL HEIGHT	26 1/16	26 1/16	26	26 1/16	33 1/16	33 1/16	33 1/16	33 1/6
<b>H</b> CLEARANCE	11	11	11	11	11	11	11	11
<b>I</b> DISCHARGE CL (MIN)	62	62	62	62	62	62	62	75
<b>J</b> DISCHARGE LENGTH	36	36	36	36	45	45	45	45
<b>K</b> DISCHARGE CL (MIN)	21	21	21	21	21	21	21	26
<b>L</b> GATE HEIGHT CL	5	5	5	5	5	5	5	6
<b>M</b> DISCHARGE OFFSET	18 3/4	18 3/4	18 3/4	18 3/4	22 1/2	22 1/2	22 1/2	22 1/2
<b>N</b> DISCHARGE LENGTH	37 1/2	37 1/2	37 1/2	37 1/2	45	45	45	45
<b>O</b> LID WIDTH	20 3/4	24 3/4	28 3/4	33 3/4	24 3/4	28 3/4	33 3/4	41 3/4
<b>P</b> INLET WIDTH	17	21	25	30	21	25	30	38
<b>Q</b> DISCHARGE WIDTH	17	21	25	30	21	25	30	38
<b>R</b> LEG WIDTH	25 1/2	29 1/2	33 1/2	38 1/2	29 1/2	33 1/2	38 1/2	47 1/2
<b>S</b> SECTION WIDTH	20	24	28	33	24	28	33	41
<b>SS</b> HEAD WIDTH	<i>Changes with dimensions of head shaft</i>							
<b>T</b> HEAD SHAFT CL	<i>Changes with dimensions of head shaft</i>							
<b>U*</b> INLET HEIGHT	4	4	4	4	4	4	4	4
<b>V</b> TAIL SHAFT CL	21	21	21	21	30	30	30	30
<b>W</b> SCREW EXTENSION	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2	12 1/2
<b>X</b> BYPASS INLET WIDTH	38	51	46	51	42	46	51	59
<b>Y</b> BYPASS INLET HEIGHT	40	40	40	40	52	52	52	52
<b>Z</b> SHAFT HEIGHT	14 3/16	14 3/16	14 1/5	14 3/16	17 1/8	17 1/8	17 1/8	17 1/8
MATERIAL DEPTH	18	18	18	18	24	24	24	24

Dimensions above are given in inches and subject to change without notice.

## SERIES 26-33 EN-MASSE CONVEYOR CAPACITIES

DESCRIPTION		FPM (without liner)	17x26	21x26	25x26	30x26	21x33	25x33	30x33	38x33
TPH	EN MASSE 0°-15°	95	286.0	356.0	421.4	508.0	495.0	563.9	707.0	864.0
		110	331.2	412.0	487.9	588.0	573.0	652.9	819.0	1000.5
		130	391.8	487.0	576.7	695.0	677.0	771.6	968.0	1182.4
		160	481.8	599.0	709.8	856.0	834.0	949.8	1192.0	1455.2
		200	602.3	749.0	887.2	1069.0	1042.0	1187.2	1489.0	1591.6
	TALL FLIGHT 15°-60°	95	127.9	142.0	188.5	204.0	174.0	230.0	249.0	424.4
		110	148.1	165.0	218.2	236.0	202.0	266.4	288.0	491.4
		130	175.0	195.0	257.9	278.9	238.0	314.8	340.0	580.7
		160	215.4	240.0	317.4	343.0	293.0	387.4	419.0	714.7
		200	269.2	300.0	396.8	428.0	367.0	484.3	524.0	781.7
		FPM (without liner)	17x26	21x26	25x26	30x26	21x33	25x33	30x33	38x33
MTPH	EN-MASSE 0°-15°	95	259.6	323.2	382.5	461.2	449.4	511.9	641.8	784.0
		110	300.7	374.0	442.9	533.8	520.2	592.7	743.5	908.0
		130	355.7	442.1	523.5	630.9	614.6	700.5	878.8	1073.0
		160	437.4	543.8	644.4	777.1	757.1	862.2	1082.1	1320.0
		200	546.8	679.9	805.4	970.4	945.9	1077.7	1351.7	1444.0
	TALL FLIGHT 15°-60°	95	116.1	128.9	171.1	185.2	158.0	208.8	226.0	385.0
		110	134.4	149.8	198.1	214.2	183.4	241.8	261.4	446.0
		130	158.9	177.0	234.1	252.4	216.1	285.8	308.7	527.0
		160	195.4	217.9	288.1	311.4	266.0	351.7	380.4	648.0
		200	244.4	272.3	360.2	388.5	333.2	439.6	475.7	709.0
		FPM (without liner)	17x26	21x26	25x26	30x26	21x33	25x33	30x33	38x33
CFPH	EN-MASSE 0°-15°	95	11,918	14,818	17,559	21,164	20,626	23,496	29,477	36,001
		110	13,801	17,158	20,332	24,506	23,882	27,206	34,131	41,686
		130	16,324	20,278	24,029	28,962	28,225	32,152	40,337	49,265
		160	20,074	24,957	29,575	35,645	34,738	39,573	49,645	60,634
		200	25,094	31,196	36,968	44,557	43,423	49,466	62,057	66,318
	TALL FLIGHT 15°-60°	95	5,328	5,933	7,953	8,477	7,255	9,585	10,361	17,681
		110	6,169	6,870	9,093	9,816	8,400	11,098	11,997	20,473
		130	7,291	8,119	10,746	11,600	9,927	13,116	14,178	24,196
		160	8,974	9,993	13,226	14,277	12,218	16,142	17,450	29,779
		200	11,217	12,491	16,533	17,847	15,273	20,179	21,812	32,571
		FPM (without liner)	17x26	21x26	25x26	30x26	21x33	25x33	30x33	38x33
BPH	EN-MASSE 0°-15°	95	9,581	11,910	14,115	17,010	16,577	18,884	23,691	28,801
		110	11,094	13,790	16,344	19,696	19,195	21,866	27,432	33,348
		130	13,122	16,297	19,316	23,277	22,685	25,841	32,420	39,412
		160	16,137	20,058	23,774	28,649	27,920	31,806	39,901	48,507
		200	20,172	25,073	29,717	35,811	34,900	39,756	49,876	53,054
	TALL FLIGHT 15°-60°	95	4,282	4,769	6,312	6,813	5,831	7,703	8,327	14,145
		110	4,958	5,522	7,308	7,889	6,751	8,920	9,642	16,379
		130	5,860	6,526	8,637	9,323	7,979	10,542	11,395	19,356
		160	7,212	8,032	10,630	11,475	9,820	12,974	14,025	23,823
		200	9,015	10,040	13,288	14,344	12,275	16,218	17,531	26,057

The above capacities are rated under ideal conditions with dry material being properly fed into the conveyor.

The horizontal to 15° capacities are listed for horizontal usage, capacities will decrease as the conveyor is inclined. The 15° to 60° conveying capacities are rated for conveying at 30°.

The capacities given are for reference only. Please contact customer service for capacities in your specific application.

TPH capacities based on 48 pounds per cubic foot (768 Kg/cm) material density.

# COMPLETE YOUR GSI SYSTEM

WWW.GRAINSYSTEMS.COM



## 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 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

The InterSystems brand is known worldwide for expertise in the manufacturing of material handling products and industrial sampling systems. GSI manufactures InterSystems products in a 200,000 sq. ft. state-of-the-art, ISO 9001 and 14001 certified facility in Omaha, Nebraska.



WWW.GRAINSYSTEMS.COM



 **AGCO**  
Your Agriculture Company

Copyright ©2020 All rights reserved.  
GSI reserves the right to change designs and specifications without notice.

**IS-104 FEBRUARY 2020**