

## INCLINE BELT CONVEYOR (Roller Bed)



The BRI belt conveyor is ideal for transporting heavier products from floor-to-floor or as a booster conveyor in gravity flow systems. The roller bed design reduces belt friction and provides greater capacity. It includes an adjustable double nose-over to ensure smooth transfer from incline to horizontal that can be easily adjusted up to 30 degrees. The frame design makes it ideal for matching up with other roller bed conveyors.

- 12 belt widths
- Double nose-over
- Readily bolts up to other roller bed conveyors in a system

BED LENGTH		DIMENSIONS @ 25° WITH 4" DIA. TAIL PULLEY*		CONVEYOR WEIGHT (LBS.)												
				OVERALL LENGTH (REF.)	BELT WIDTH								OVERALL LENGTH (REF.)	BELT WIDTH		
VERTICAL LIFT "VL"	HORIZONTAL DISTANCE ALONG FLOOR "HF"	10"	12"		14"	16"	18"	20"	22"	24"	28"	30"		34"	36"	
				BETWEEN FRAME WIDTH									BETWEEN FRAME WIDTH			
				13"	15"	17"	19"	21"	23"	25"	OVERALL FRAME WIDTH					
				16"	18"	20"	22"	24"	26"	28"	OVERALL FRAME WIDTH					
				4 IN. DIA. TAIL PULLEYS								6 IN. DIA. TAIL PULLEYS				
10'	4' - 7"	12' - 10"	13'-10"	669	726	792	842	899	954	1,020	14'	1,344	1,485	1,565	1,714	1,792
12'	5' - 5"	14' - 7"	15'-10"	699	759	827	880	939	998	1,069	16'	1,399	1,543	1,626	1,779	1,861
14'	6' - 3"	16' - 5"	17'-10"	730	792	862	917	980	1,042	1,118	18'	1,453	1,601	1,687	1,844	1,929
16'	7' - 1"	18' - 3"	19'-10"	763	828	899	955	1,020	1,084	1,165	20'	1,505	1,655	1,744	1,903	1,990
18'	8' - 0"	20' - 1"	21'-10"	792	861	934	992	1,061	1,128	1,214	22'	1,559	1,713	1,805	1,968	2,058
20'	8' - 10"	21' - 10"	23'-10"	822	893	967	1,026	1,096	1,166	1,256	24'	1,606	1,763	1,857	2,023	2,115
22'	9' - 8"	23' - 8"	25'-10"	852	926	1,002	1,063	1,137	1,210	1,305	26'	1,660	1,821	1,918	2,088	2,184
24'	10' - 6"	25' - 6"	27'-10"	881	959	1,037	1,101	1,178	1,254	1,355	28'	1,715	1,879	1,980	2,153	2,252
26'	11' - 4"	27' - 4"	29'-10"	913	992	1,071	1,135	1,213	1,291	1,395	30'	1,759	1,926	2,028	2,204	2,304
28'	12' - 2"	29' - 1"	31'-10"	942	1,024	1,106	1,172	1,254	1,335	1,445	32'	1,813	1,984	2,089	2,269	2,372
30'	13' - 0"	30' - 11"	33'-10"	972	1,056	1,139	1,206	1,290	1,372	1,487	34'	1,860	2,034	2,141	2,323	2,429
32'	13' - 11"	32' - 9"	35'-10"	1,002	1,089	1,174	1,243	1,330	1,416	1,536	36'	1,915	2,092	2,203	2,388	2,498
34'	14' - 9"	34' - 7"	37'-10"	1,031	1,122	1,209	1,280	1,371	1,460	1,585	38'	1,969	2,150	2,264	2,453	2,566
36'	15' - 7"	36' - 4"	39'-10"	1,063	1,155	1,242	1,315	1,407	1,498	1,626	40'	2,013	2,197	2,312	2,504	2,618
38'	16' - 5"	38' - 2"	41'-10"	1,092	1,188	1,277	1,352	1,447	1,541	1,675	42'	2,068	2,255	2,374	2,569	2,686
40'	17' - 3"	40' - 0"	43'-10"	1,122	1,220	1,310	1,385	1,483	1,579	1,717	44'	2,115	2,305	2,425	2,624	2,743

\* See incline dimensional chart for full list of vertical and horizontal dimensions at different bed lengths and degrees of incline

## STANDARD SPECIFICATIONS

**BELT** – Black Trackmate 120 Roughtop with PVC cover

**BED** – 6 1/2 in. deep x 12 ga. powder coated steel channel frame with 1.9 dia. roller x 16 ga. tube spaced every 6 in. Standard 4 ft., 6 ft., 8ft. and 10 ft. long bolt-together sections with splice plates.

**DOUBLE NOSE-OVER** – A 26 in. long horizontal and 12 in. long nose-over section provides a 2 stage transition from incline to horizontal. Provides 30 degrees of adjustment.

**POWERED INFEEED** – Short section of roller bed belt conveyor chain driven from tail pulley of incline.

**CENTER DRIVE** – Located on incline bed section. Chain guard is on left hand side when standing at infeed looking toward discharge.

- **DRIVE PULLEY** – 8 in. dia. with 1 7/16 in. dia. shaft at bearings. Machined crowned and fully lagged.
- **TAKE-UP PULLEY** – 6 in. dia. with 1 3/16 in. dia. shaft at bearings. Machined crown.
- **TAKE-UP** – Provides 16 in. of belt take-up in center drive

**TAIL PULLEY** – 4 in. dia. with 1 in. dia. shaft at bearing or 6 in. dia. with 1-3/16 in. dia. shaft at bearing. Machined crown.

**SNUB / NOSE-OVER ROLLERS** – Adjustable 2 1/2 in. dia. rollers. Grease packed ball bearings. Includes guard.

**RETURN ROLLERS** – Adjustable 1.9 in. dia. rollers. Grease packed ball bearings.

**BEARINGS** – Sealed, pre-lubricated, self-aligning, ball bearings on drive and tail pulleys

**BELT SPEED** – Constant 65 FPM

**SPEED REDUCTION** - Sealed worm gear C-face speed reducer with No. 50 roller chain to drive pulley

**MOTOR** – 1 HP – 230/460 V – 3 phase – 60 Hz totally enclosed fan cooled brake motor, energy efficient

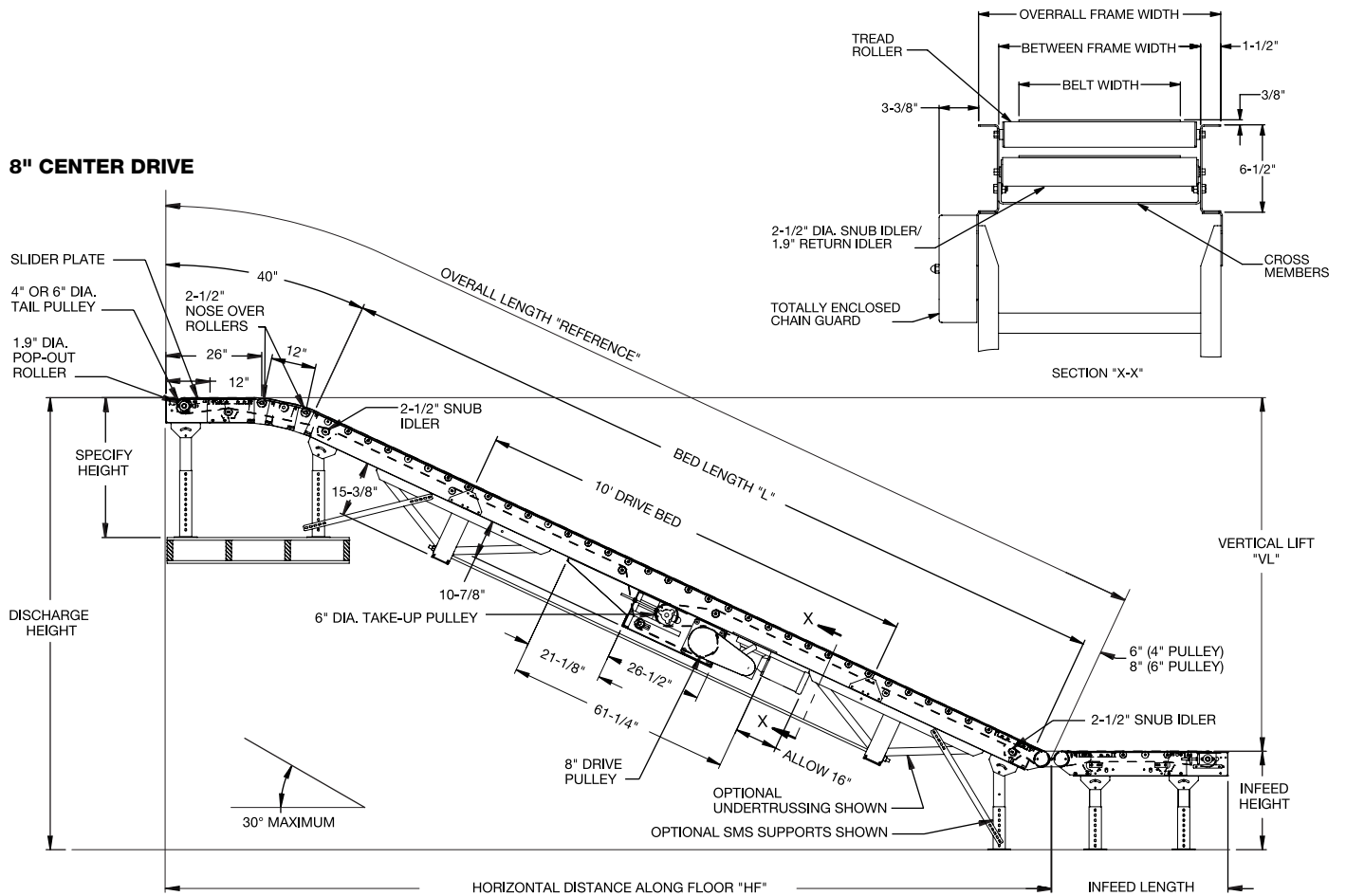
**FRAME CAPACITY** – Maximum load per linear foot of conveyor is 225 lbs. Not to exceed drive capacity in chart.

FPM	HP	BELT WIDTH	LOAD CAPACITY (LBS.)	
			24'	44'
35	1	10"-16"	1,240	1,224
		18"-24"	1,232	1,207
		28"-36"	1,216	1,181
65	1	10"-16"	652	636
		18"-24"	645	619
		28"-36"	629	593
65	2	10"-16"	1,341	1,322
		18"-24"	1,330	1,305
		28"-36"	1,314	1,279
100	1	10"-16"	415	396
		18"-24"	405	379
		28"-36"	389	353
100	2	10"-16"	861	842
		18"-24"	850	825
		28"-36"	834	799
135	1	10"-16"	300	281
		18"-24"	289	261
		28"-36"	273	238
135	2	10"-16"	630	611
		18"-24"	619	594
		28"-36"	603	568

Note: Capacities shown assume a constant speed and maximum of 6 starts/stops per minute with no more than 30 starts/stops per hour.

**SECTION VIEW "X-X"**

**8" CENTER DRIVE**



**OPTIONAL EQUIPMENT**

**FLOOR SUPPORTS** – SMS floor supports are available in wide range of adjustments. Specify top of belt elevation. One support is required at every bed joint and at ends of conveyor. Holes in feet are provided for lagging to floor. Knee braces supplied on SMS-3 support and above.

**BELT** – Brown Polymate Roughtop w/ Nitrile cover, Pure Gum Rubber Roughtop

**BELT SPEED** – Other constant and variable speeds: 17 - 135 FPM in any increment. Contact factory for speeds not listed above.

**MOTORS** – Premium energy efficient, single phase, other characteristics. 2 HP maximum.

**OTHER DRIVE VARIATIONS**

- Side mount center drive
- End drive with underhung or side mount drive. Requires underside take-up.

**PULLEYS** – 6 in. dia. tail with 1-3/16 in. dia. shaft at bearing in place of 4 in. when not furnished as standard.

**UNDERTRUSSING** – Available under incline bed sections in place of floor supports or ceiling hangers. Maximum bed length is 40 ft. Maximum belt width is 24 in. See bed and undertrussing information.

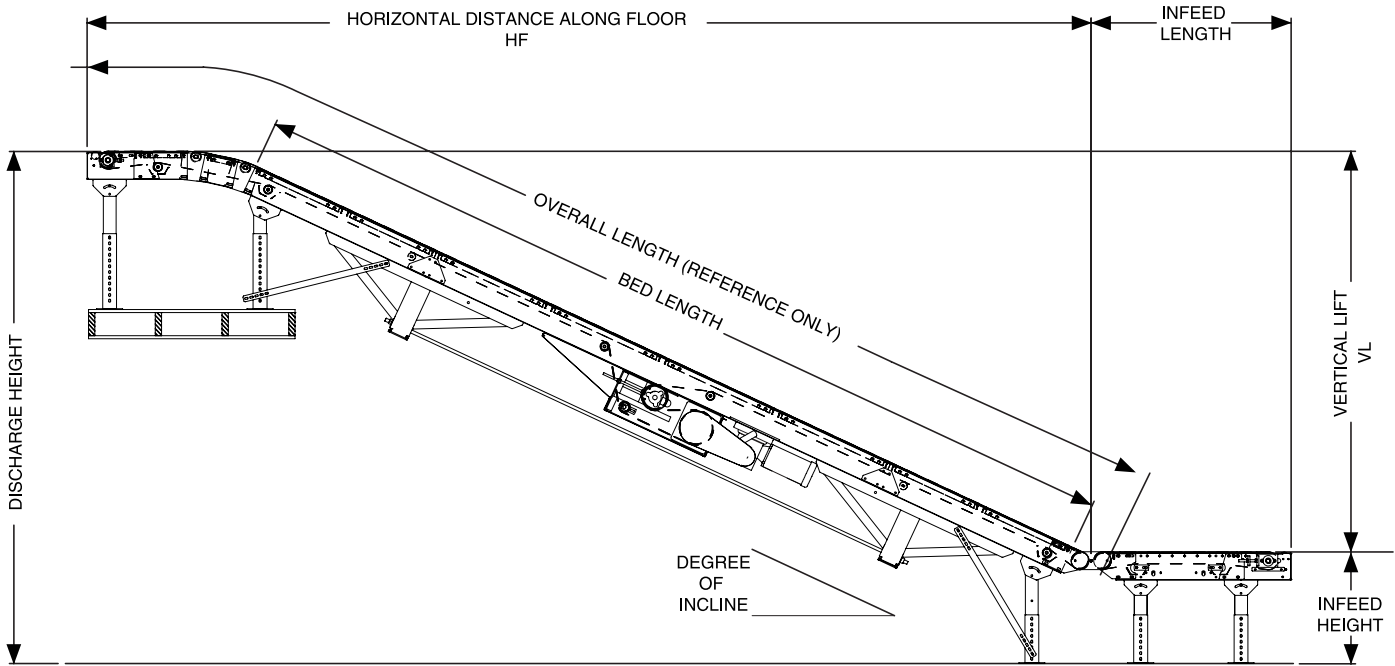
**GUIDE RAILS** – Adjustable channel guide rails, fixed angle and channel guide rails.

**OTHER ACCESSORIES** – Ceiling hangers. See accessory section.

**ELECTRICAL CONTROLS** – One direction manual start switch, reversing drum switch, non-reversing and reversible IEC starters, push button stations, AC variable frequency drive.

# INCLINE DIMENSIONAL CHART

**(MODELS BSI & BRI)**



INCLINE BED LENGTH	DEGREE OF INCLINE																				OVERALL LENGTH (REF.)
	7.5°		10°		12.5°		15°		17.5°		20°		22.5°		25°		27.5		30		
	VL	HF	VL	HF	VL	HF	VL	HF	VL	HF	VL	HF	VL	HF	VL	HF	VL	HF	VL	HF	
10	1'-5"	13'-9"	1'-10"	13'-8"	2'-4"	13'-7"	2'-10"	13'-5"	3'-3"	13'-4"	3'-8"	13'-2"	4'-2"	13'-0"	4'-7"	12'-10"	5'-0"	12'-7"	5'-5"	12'-4"	13'-10"
12	1'-8"	15'-9"	2'-3"	15'-8"	2'-9"	15'-6"	3'-4"	15'-5"	3'-10"	15'-3"	4'-5"	15'-1"	4'-11"	14'-10"	5'-5"	14'-7"	5'-11"	14'-4"	6'-5"	14'-1"	15'-10"
14	1'-11"	17'-8"	2'-7"	17'-7"	3'-2"	17'-6"	3'-10"	17'-4"	4'-5"	17'-2"	5'-1"	16'-11"	5'-8"	16'-8"	6'-3"	16'-5"	6'-10"	16'-2"	7'-5"	15'-10"	17'-10"
16	2'-2"	19'-8"	2'-11"	19'-7"	3'-8"	19'-5"	4'-4"	19'-3"	5'-1"	19'-0"	5'-9"	18'-10"	6'-5"	18'-6"	7'-1"	18'-3"	7'-9"	17'-11"	8'-5"	17'-7"	19'-10"
18	2'-5"	21'-8"	3'-3"	21'-6"	4'-1"	21'-4"	4'-10"	21'-2"	5'-8"	20'-11"	6'-5"	20'-8"	7'-3"	20'-5"	8'-0"	20'-1"	8'-8"	19'-8"	9'-5"	19'-4"	21'-10"
20	2'-8"	23'-8"	3'-7"	23'-6"	4'-6"	23'-4"	5'-5"	23'-1"	6'-3"	22'-10"	7'-1"	22'-7"	8'-0"	22'-3"	8'-10"	21'-10"	9'-8"	21'-6"	10'-5"	21'-0"	23'-10"
22	3'-0"	25'-8"	3'-11"	25'-6"	4'-11"	25'-3"	5'-11"	25'-0"	6'-10"	24'-9"	7'-10"	24'-5"	8'-9"	24'-1"	9'-8"	23'-8"	10'-7"	23'-3"	11'-5"	22'-9"	25'-10"
24	3'-3"	27'-7"	4'-4"	27'-5"	5'-4"	27'-3"	6'-5"	27'-0"	7'-6"	26'-8"	8'-6"	26'-4"	9'-6"	25'-11"	10'-6"	25'-6"	11'-6"	25'-0"	12'-5"	24'-6"	27'-10"
26	3'-6"	29'-7"	4'-8"	29'-5"	5'-10"	29'-2"	6'-11"	28'-11"	8'-1"	28'-7"	9'-2"	28'-2"	10'-3"	27'-9"	11'-4"	27'-4"	12'-5"	26'-9"	13'-5"	26'-3"	29'-10"
28	3'-9"	31'-7"	5'-0"	31'-5"	6'-3"	31'-2"	7'-5"	30'-10"	8'-8"	30'-6"	9'-10"	30'-1"	11'-0"	29'-7"	12'-2"	29'-1"	13'-4"	28'-7"	14'-5"	27'-11"	31'-10"
30	4'-0"	33'-7"	5'-4"	33'-4"	6'-8"	33'-1"	8'-0"	32'-9"	9'-3"	32'-5"	10'-7"	31'-11"	11'-10"	31'-6"	13'-0"	30'-11"	14'-3"	30'-4"	15'-5"	29'-8"	33'-10"
32	4'-3"	35'-7"	5'-8"	35'-4"	7'-1"	35'-1"	8'-6"	34'-8"	9'-10"	34'-4"	11'-3"	33'-10"	12'-7"	33'-4"	13'-11"	32'-9"	15'-2"	32'-1"	16'-5"	31'-5"	35'-10"
34	4'-6"	37'-6"	6'-0"	37'-4"	7'-6"	37'-0"	9'-0"	36'-8"	10'-6"	36'-2"	11'-11"	35'-9"	13'-4"	35'-2"	14'-9"	34'-7"	16'-1"	33'-11"	17'-5"	33'-2"	37'-10"
36	4'-9"	39'-6"	6'-5"	39'-3"	8'-0"	38'-11"	9'-6"	38'-7"	11'-1"	38'-1"	12'-7"	37'-7"	14'-1"	37'-0"	15'-7"	36'-4"	17'-0"	35'-8"	18'-5"	34'-11"	39'-10"
38	5'-1"	41'-6"	6'-9"	41'-3"	8'-5"	40'-11"	10'-1"	40'-6"	11'-8"	40'-0"	13'-3"	39'-6"	14'-10"	38'-10"	16'-5"	38'-2"	17'-11"	37'-5"	19'-5"	36'-7"	41'-10"
40	5'-4"	43'-6"	7'-1"	43'-2"	8'-10"	42'-10"	10'-7"	42'-5"	12'-3"	41'-11"	14'-0"	41'-4"	15'-8"	40'-8"	17'-3"	40'-0"	18'-10"	39'-2"	20'-5"	38'-4"	43'-10"

Note: Dimensions "VL" and "HF" are based on 4" tail pulleys. For 6" tail pulleys, overall length increases by 2 inches and dimensions "VL" and "HF" will change slightly. Contact factory if exact dimensions are required.

# BED & UNDERTRUSSING INFORMATION

(MODELS BRI & BSI)

