

## STANDARD SPECIFICATIONS:



Model 31 - Incline/Decline Roller Bed Belt Conveyor

### INCLINE/DECLINE ROLLER BED BELT CONVEYORS

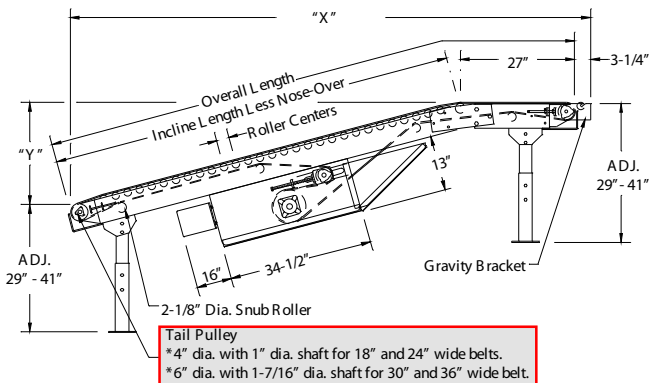
Bed Lengths:	5'-0" or 10'-0" increments.
Overall Widths:	24", 30", 36", 42"
Between Frame Widths:	21", 27", 33", 39"
Belt Widths:	18", 24", 30", 36"
Rollers:	1.9" dia. x 16 gauge galvanized with 7/16" spring loaded hex shafts.
Roller Centers:	3", 6", 9"
Bed Frame:	6" deep x 1-1/2" x 10 gauge steel "J" channel bed with cross bracing.
Undertrussing:	Provide as standard on conveyors 25' to 45' in length. Joint support angles at bed joints are provided as standard on machines under 25' long.
Drive / Pulley:	8" dia. underside center drive with 1-7/16" diameter shaft, crowned and fully lagged.
Tail Pulley:	4" dia. with 1" dia. shaft for 18" and 24" wide belts; 6" dia. with 1-7/16" dia. shaft for 30" and 36" wide belts. Both pulleys are crowned.
Bearings:	Self-aligning, sealed, flanged ball bearings.
Snub Rollers:	2-1/8" dia. x 11 ga. with 7/16" hex shaft.
Return Rollers:	1.9" dia. x 16 ga. galvanized adjustable roller with 7/16" hex shaft.
Belt:	2 ply nylon, 150 black roughtop.
Belt Take-Up:	6" take-up bolts at tail pulleys to insure proper belt tension.
Motor:	3/4 H.P. 230/460 V., 3 phase, totally enclosed C-faced.
Belt Speed:	60 FPM.
Speed Reduction:	Right angle worm gear reducer connected to drive pulley by #50 roller chain and sprockets.
Nose-Over:	Single or double nose-over.
Paint:	Uniflo Dark Blue.
Guards:	Pinch points are guarded for increased safety.
Supports:	29" - 41" measuring from floor to top of belt.
Capacity:	750 lbs. belt pull. See capacity chart on page 2 of this brochure for more details.

### OPTIONAL EQUIPMENT:

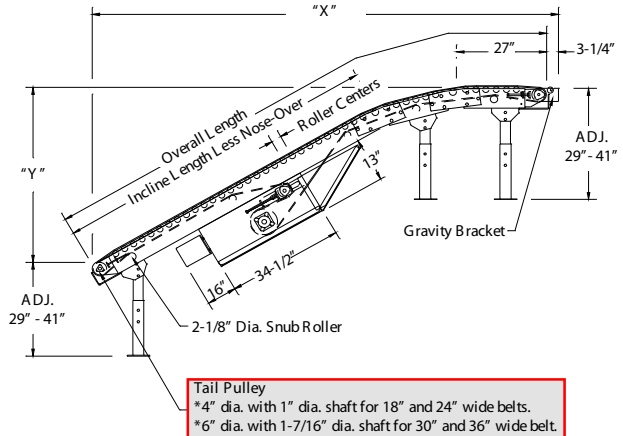
- Motors:** 1 horsepower.
- Underside Take-up:** 18" of additional belt take-up.
- Power Feeders:** Chain driven.
- Dust Pans:** Consult accessories section of this brochure for more details.
- Guard Rails:** Consult accessories section of this brochure for more details.
- Supports:** Consult accessories section of this brochure for more details.
- Ceiling Hangers:** Consult accessories section of this brochure for more details.
- Paint:** Special colors, powder coat.
- Electrical Controls:** Consult factory.

## STANDARD SPECIFICATION DRAWINGS:

8" Center Drive Single Nose-Over - (Guarding removed for clarity.)



8" Center Drive Double Nose-Over - (Guarding removed for clarity.)



## CONVEYOR WEIGHTS:

	Overall Widths	24"	30"	36"	42"
	Between Frame Widths	21"	27"	33"	39"
	Belt Widths	18"	24"	30"	36"
3" Centers	10' Conveyor Weight (Lbs.)	630#	658#	697#	781#
	Weight Per Foot (Lbs.)	36#	46#	52#	59#
6" Centers	10' Conveyor Weight (Lbs.)	560#	588#	617#	681#
	Weight Per Foot (Lbs.)	30#	39#	44#	49#
9" Centers	10' Conveyor Weight (Lbs.)	539#	561#	589#	646#
	Weight Per Foot (Lbs.)	28#	36#	41#	45#

**HORSEPOWER CAPACITY (MODEL 31):**

- Step #1: Determine the Overall Length of the conveyor from Incline/Decline Calculation Chart.
- Step #2: On the Live Load Capacity Chart, choose the Overall Length nearest your requirements.
- Step #3: Select the incline or decline angle appropriate to determine the correct horsepower needed to conveyer the load.

Incline/Decline Calculation Charts									
8" Center Drive									
Double Nose-Over					Single Nose-Over				
Up to 24" Belt Width (4" Dia. Tail Pulley with 1" Dia. Shaft)									
Overall Lengths	∠ = 15°		∠ = 25°		Overall Lengths	∠ = 15°		∠ = 25°	
	X	Y	X	Y		X	Y	X	Y
10'	9'-8"	2'-1"	9'-4"	2'-11"	8'	7'-9"	1'-6"	7'-5"	2'-10"
15'	14-6	3-4	13-10	5-0	13'	12-7	2-10	11-11	4-11
20'	19-4	4-8	18-5	7-2	18'	17-5	4-2	16-5	7-0
25'	24-1	5-11	22-11	9-3	23'	23-3	5-3	21-1	9-2
30'	29-0	7-3	27-6	11-4	28'	27-1	6-9	25-6	11-3
35'	33-9	8-6	32-0	13-6	33'	31-10	8-0	30-0	13-4
40'	38-8	9-10	36-6	15-7	38'	36-9	9-4	34-7	15-6
45'	43-5	11-2	41-1	17-9	43'	44-6	10-7	39-1	17-7
Double Nose-Over					Single Nose-Over				
30" Belt Width (6" Dia. Tail Pulley with 1-7/16" Dia. Shaft)									
Overall Lengths	∠ = 15°		∠ = 25°		Overall Lengths	∠ = 15°		∠ = 25°	
	X	Y	X	Y		X	Y	X	Y
10'-4"	10'-0"	2'-1"	9'-8"	2'-11"	8'-4"	8'-1"	1'-6"	7'-9"	2'-10"
15'-4"	14-10	3-4	14-2	5-0	13'-4"	12-11	2-10	12-3	4-11
20'-4"	19-8	4-8	18-9	7-2	18'-4"	17-9	4-2	16-9	7-0
25'-4"	24-5	5-11	23-3	9-3	23'-4"	22-7	5-6	21-4	9-4
30'-4"	29-4	7-3	27-10	11-4	28'-4"	27-5	6-9	25-10	11-3
35'-4"	34-1	8-6	32-4	13-6	33'-4"	32-2	8-0	32-4	13-4
40'-4"	39	9-10	36-10	15-7	38'-4"	37-1	9-4	34-11	15-6
45'-4"	43-9	11-2	41-5	17-9	43'-4"	41-10	10-7	39-5	17-7

LIVE LOAD CAPACITY IN POUNDS/FT. (WITH FEEDER)						
Calculations based on 60 FPM						
Conveyor Dimensions			∠ = 15°		∠ = 25°	
Overall Widths	Belt Widths	Overall Lengths	Horsepower		Horsepower	
			3/4	1	3/4	1
24"	18"	10'0"	46	67	38	56
		20'0"	25	38	19	28
		30'0"	17	26	12	19
30"	24"	10'0"	45	67	37	55
		20'0"	25	37	18	28
		30'0"	17	25	12	18
36"	30"	10'4"	44	65	36	54
		20'4"	24	34	18	27
		30'4"	16	24	11	17

LIVE LOAD CAPACITY IN POUNDS/FT. (WITH FEEDER)						
Calculations based on 60 FPM						
Conveyor Dimensions			∠ = 15°		∠ = 25°	
Overall Widths	Belt Widths	Overall Lengths	Horsepower		Horsepower	
			3/4	1	3/4	1
24"	18"	10'0"	76	111	57	83
		20'0"	33	49	23	34
		30'0"	21	31	14	21
30"	24"	10'0"	75	110	56	83
		20'0"	33	49	23	34
		30'0"	20	31	14	21
36"	30"	10'4"	74	109	56	82
		20'4"	32	48	22	33
		30'4"	20	30	13	20