# Automated Conveyor Systems, Inc.





We take the load off!



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## MODEL"LPB"

## Medium Duty Slider Bed Conveyor



#### STANDARD SPECIFICATIONS

Belt - 8", 12", 18", 20", 24" and 30" Black PVC 120 belt.

Bed - 12 gauge powder painted formed steel, 4" deep. Bed sections are 5 feet and 10 feet long bolted together with splice plates and floor supports.

Tail Pulley - 4" diameter crowned with 13/16" diameter shaft. Drive Pulley - 4" diameter and 8" diameter crowned and fully lagged. 4" diameter pulley with 13/16" diameter shaft, 8" diameter pulley with 17/16" diameter shaft.

**Snub-Roller** - 2" diameter for 4" diameter pulley, 21/2" diameter for 8" diameter pulley.

Return Roller - 1.9" diameter adjustable on 10'0" centers. Floor Supports - Adjustable 281/2" to 421/2" from floor to top of

belt. One support supplied at each end of conveyor and at each

**Take-Up** - 6" long screws located at tail pulley to tighten belt. Bearings - Sealed-prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer. Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - Maximum load per lineal foot of conveyor - 75 lbs. Not to exceed Load Capacity Chart.

Belt - Nitrile (white or black) with smooth top cover, Black PVC rough top, Brown Nitrile rough top. Special belts on application. Side Tables - 10", 16" or 22" wide formed steel side tables provide 12", 18" or 24" work area. Tables are supported by angles bolted to

Guard Rails - Adjustable channel, continuous channel, or solid steel quard rails available.

Floor Supports - Lower or higher than standard. Castered supports with 4" diameter or 6" diameter rigid or swivel casters.

Ceiling Hangers - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Gravity Conveyor Brackets - Adjustable bracket with 13/8" diameter pop-out roller for attaching wheel or roller conveyor.

**Nose-Over** - Adjustable single or double nose-over provides smooth transfer from incline to horizontal. See drawing on page 96 for details.

Center Drive - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Side Mounted Drive - End drive mounted to side of conveyor section. Specify side. Minimum 6" elevation with 4" drive pulley, minimum 9" elevation with 8" drive pulley.

Overhead Drive - End drive mounted above conveyor. Specify clearance required.

Auxiliary Take-Up - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Motor - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Belt Speed** - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

## **MODEL"LPB"**



		Diameter	Belt Width	8"	12"	18"	20"	24"	30"
Bed	Overall	Drive	Bed Width	12"	16"	22"	24"	28"	34"
Length	Length	Pulley	Bed		12 <b>G</b>	auge Formed	Steel Bed		
5'	5'10"	4"		252	272	315	343	366	389
10'	10'10"	4"		286	314	382	397	422	447
15'	15'10"	4"		343	380	475	494	528	562
20'	20'10"	4"		377	422	542	565	607	649
25'	25'10"	4"	Weight	434	488	635	662	713	764
30'	30'10"	4"	(lbs.)	468	530	702	733	792	851
35'	35'10"	4"		525	596	795	830	898	966
40'	40'10"	4"		559	638	862	901	977	1053
45'	45'10"	4"		616	704	955	998	1083	1168
50'	50'10"	4"		655	753	1032	1081	1176	1271
55'	56' 2"	8"		712	819	1125	1178	1282	1386
60'	61' 2"	8"		746	861	1192	1249	1351	1453
65'	66' 2"	8"		803	927	1285	1346	1457	1568
70'	71' 2"	8"	Weight	839	971	1364	1420	1549	1678
75'	76' 2"	8"	(lbs.)	896	1037	1457	1517	1655	1793
80'	81' 2"	8"		930	1079	1514	1588	1734	1880
85'	86' 2"	8"		987	1145	1607	1685	1840	1995
90'	91' 2"	8"		1021	1187	1673	1756	1920	2084
95'	96' 2"	8"		1078	1253	1766	1853	2026	2199
100'	101' 2"	8"		1112	1295	1833	1924	2105	2286

## Load Capacity Chart

	_						
60 FPM							
HP TOTAL LOAD							
1/2	435 lbs.						
3/4	650 lbs.						
1	810 lbs.						
NOTE: 1 HP I	Max. for this model						

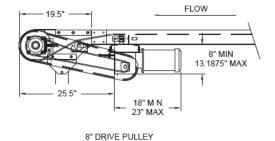
BED

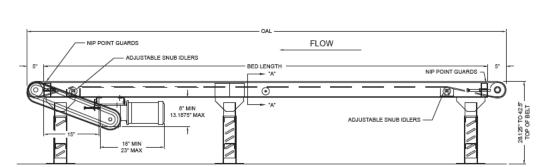
V EW A-A

ADJUSTABLE RETURN IDLER

\*For minimum OAL, contact factory.







5



Packing

Sorting

Testing

## **MODEL**"HPB"

## Heavy Duty Slider Bed Conveyor



#### STANDARD SPECIFICATIONS

Belt - 12", 14", 18", 24", 30" and 36" Black PVC 120 belt.

Bed - 12 gauge powder painted formed steel, 61/2" deep. Bed sections are 5 feet and 10 feet long bolted together with splice plates and floor supports.

Tail Pulley - 4" diameter for belt widths through 30" wide. 6" diameter for 36" and wider belts. 4" diameter pulley has 13/16" diameter shaft, 6" diameter pulley has 17/16" diameter shaft turned down on ends to 13/16" diameter.

Drive Pulley - 8" diameter crowned and fully lagged with 17/16" diameter shaft.

Snub Roller - 21/2" diameter directly behind drive pulley; 2" diameter at tail pulley.

Return Roller - 1.9" diameter adjustable, on 10'0" centers.

Floor Supports - Adjustable 31" to 45" from floor to top of belt. One support supplied at each end of conveyor and at each bed joint.

Take-Up - 6" long screws located at tail pulley to tighten belt.

Bearings - Sealed-prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - Maximum load per lineal foot of conveyor - 100 lbs. Not to exceed Load Capacity Chart.

#### OPTIONAL EQUIPMENT

Belt - Nitrile (white or black) with smooth top cover, Black PVC rough top, Brown Nitrile rough top. Special belts on application.

Guard Rails - Adjustable channel, continuous channel, or solid steel quard rails available.

Floor Supports - Lower or higher than standard. Castered supports with 4" diameter or 6" diameter rigid or swivel casters.

Ceiling Hangers - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Gravity Conveyor Brackets - Adjustable bracket with 13/8" diameter pop-out roller for attaching wheel or roller conveyor.

Nose-Over - Adjustable single or double nose-over provides smooth transfer from incline to horizontal. See drawing on page 96 for details.

Center Drive - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Side Mounted Drive - End drive mounted to side of conveyor section. Specify side. Minimum elevation - 9".

Overhead Drive - End drive mounted above conveyor. Specify clearance required.

Auxiliary Take-Up - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Motor - Single phase, energy efficient, explosion proof, etc. Other HP available.

Belt Speed - Constant and variable belt speeds available.

Electrical Controls - Magnetic starters and push button stations; manual motor starters with overload protection, others.

## **MODEL**"HPB"



Bed	Overall	Belt Width	12"	14"	18"	24"	30"	36"
Length	Length	Bed Width	18"	20"	24"	30"	36"	42"
5'	7'		355	370	396	425	455	490
10'	12'		401	450	485	525	565	605
15'	17'		487	558	615	675	736	802
20'	22'		533	638	704	775	846	917
25'	27'		619	746	834	925	1017	1115
30'	32'		665	826	923	1025	1127	1230
35'	37'		751	934	1053	1175	1298	1427
40'	42'		797	1014	1142	1275	1408	1542
45'	47'		883	1122	1272	1425	1579	1740
50'	52'		929	1202	1361	1525	1689	1855
55'	57'		1015	1310	1491	1675	1860	2052
60'	62'	Weight	1061	1390	1580	1755	1970	2167
65'	67'	(lbs.)	1147	1498	1710	1925	2141	2365
70'	72'		1193	1578	1799	2025	2251	2480
75'	77'		1279	1686	1929	2175	2422	2677
80'	82'		1325	1766	2018	2275	2532	2792
85'	87'		1411	1874	2148	2425	2703	2990
90'	92'		1457	1954	2237	2525	2813	3105
95'	97'		1543	2062	2367	2675	2984	3302
100'	102'		1589	2142	2456	2775	3094	3417
105'	107'		1675	2250	2586	2925	3265	3615
110'	112'	]	1721	2330	2675	3025	3375	3730
115'	117'		1807	2438	2805	3175	3546	3927
120'	122'		1853	2518	2894	3275	3656	4042
125'	127'		1939	2626	3024	3425	3777	4240
130'	132'		1985	2706	3113	3525	3937	4355

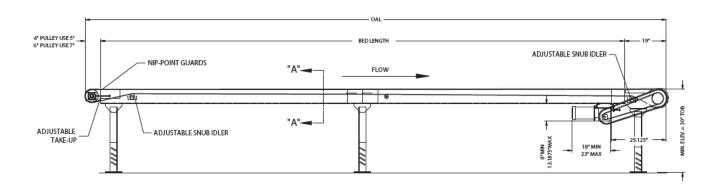
## Load Capacity Chart

	•						
60 FPM							
HP TOTAL LOAD							
1/2	435 lbs.						
3/4	650 lbs.						
1	810 lbs.						
11/2	1080 lbs.						
2	1300 lbs.						

61/2'
ADJUSTABLE SNUB IDLER
VIEW "A-A"

BED

\*For minimum OAL, contact factory.





## **MODEL**"TSB"

## Trough Bed Belt Conveyor



 Built-in guard rails allow overhead conveying



#### STANDARD SPECIFICATIONS

Belt - 8", 12", 18", 20", 24" and 30" Black PVC 120 belt.

**Bed** - 12 gauge powder painted formed steel with 2<sup>1</sup>/<sub>2</sub>" high vertical sides bolted to top of bed. Standard sections are 5 and 10 feet long bolted together with floor supports and splice plates.

Tail Pulley - 4" diameter crowned with 13/16" diameter shaft.

**Drive Pulley** - 4" diameter and 8" diameter crowned and fully lagged. 4" diameter pulley with 1<sup>3</sup>/1<sub>6</sub>" diameter shaft, 8" diameter pulley with 1<sup>7</sup>/1<sub>6</sub>" diameter shaft.

**Snub-Roller** - 2" diameter for 4" diameter pulley, 21/2" diameter for 8" diameter pulley.

Return Idler - 1.9" diameter adjustable, on 10'0" centers.

**Floor Supports** - Adjustable  $28\frac{1}{2}$ " to  $42\frac{1}{2}$ " from floor to top of belt. One support supplied at each end of conveyor and at each bed joint.

**Take-Up** - 6" long screws located at tail pulley to provide belt tension. **Bearings** - Sealed-prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer.

**Motor** - 1/2 HP 230/460-3-60 TE motor. **Belt Speed** - 60 FPM constant.

**Capacity** - Maximum load per lineal foot of conveyor - 75 pounds. Not to exceed Load Capacity Chart.

#### OPTIONAL EQUIPMENT

**Belt** - Nitrile (white or black), with smooth top cover, Black PVC rough top, Brown Nitrile rough top. Special belts on application.

**Guard Rail** - Higher than 2½" vertical sides, 4", 6", 9", to 12" max.

**Floor Supports** - Lower or higher than standard. Castered supports with 4" diameter or 6" diameter rigid or swivel casters.

**Ceiling Hangers** - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Gravity Conveyor Brackets - Adjustable bracket, with 13/8" diameter

pop-out roller, for attaching wheel or roller conveyor.

**Nose-Over** - Adjustable single or double nose-over provides smooth transfer from incline to horizontal. See drawing on page 96 for details.

**Center Drive** - Mounted below conveyor or bed section. Can be placed most anywhere in conveyor length.

**Side Mounted Drive** - End drive mounted to side of conveyor section. Specify side. Minimum 6" elevation with 4" drive pulley, minimum 9" elevation with 8" drive pulley.

**Overhead Drive** - End drive mounted above conveyor. Specify clearance required.

**Auxiliary Take-Up** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Belt Speed** - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

**Hugging Strip** - Steel bars each side bolt to guard rail to prevent material from getting under belt. Must be used with a solid guard rail.

**Troughing Attachment** - Steel bars each side under belt form trough for handling loose material.

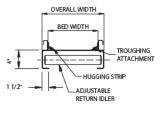
## **MODEL"TSB"**



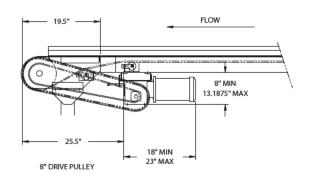
		Diameter	Belt Width	8"	12"	18"	20"	24"	30"
Bed	Overall	Drive	Overall Width	12"	16"	22"	24"	28"	34"
Length	Length	Pulley	Bed Width	9"	13"	19"	21"	25"	31"
5'	5'10"	4"		270	290	335	360	380	410
10'	10'10"	4"		320	350	415	430	450	480
15'	15'10"	4"		390	425	520	535	570	605
20'	20'10"	4"		445	490	558	580	625	695
25'	25'10"	4"	Weight	520	570	650	680	735	820
30'	30'10"	4"	(lbs.)	570	630	730	755	820	920
35'	35'10"	4"		621	700	810	850	920	1030
40'	40'10"	4"		695	780	890	935	1020	1140
45'	45'10"	4"		750	835	980	1020	1120	1250
50'	50'10"	4"		825	920	1070	1120	1220	1370
55'	56' 2"	8"		880	995	1160	1215	1320	1480
60'	61' 2"	8"		950	1070	1248	1303	1420	1590
65'	66' 2"	8"		1000	1130	1325	1390	1520	1705
70'	71' 2"	8"		1080	1220	1420	1490	1620	1825
75'	76' 2"	8"	Weight	1130	1280	1504	1575	1720	1935
80'	81' 2"	8"	(lbs.)	1205	1360	1590	1665	1818	2048
85'	86' 2"	8"		1255	1420	1670	1752	1920	2155
90'	91' 2"	8"		1330	1500	1755	1840	2035	2325
95'	96' 2"	8"		1380	1560	1835	1925	2135	2433
100'	101' 2"	8"		1460	1640	1920	2015	2204	2485

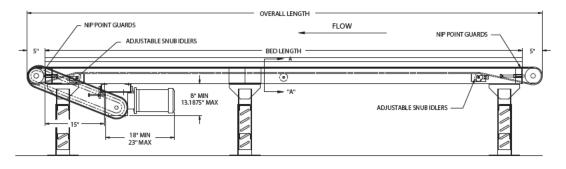
## Load Capacity Chart

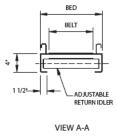
60 FPM								
HP	TOTALLOAD							
1/2	435 lbs.							
3/4	650 lbs.							
1	810 lbs.							
NOTE:1 HD	May for this model							



OPTIONAL HUGGING STRIP AND TROUGHING ATTACHMENT



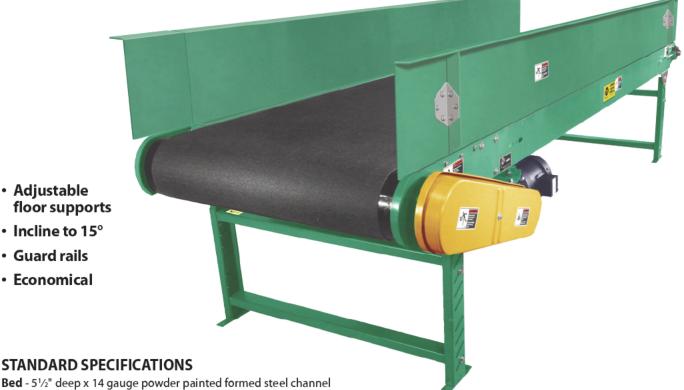






## **MODEL** "SBT"

## Slider Bed Trash Conveyor



**Bed** - 5½" deep x 14 gauge powder painted formed steel channel frame. Bed sections are 10 feet and 5 feet long, bolted together with splice plates and floor supports.

**Belt** - 12", 18", 24", 30", 36", 42" and 48" wide, black PVC 90, FS top side, brushed bottom side, with clipper lacing.

**Guard Rail** - 6" high x 16 gauge formed, powder painted steel on both sides, full length of bed sections.

**Underside Guards** - Formed 16 gauge pans full length of bed sections, removable, secured with TEK screws.

**Tail Pulley** - 4" or 6" diameter (see chart) crowned with 13/16" diameter shaft.

**Drive Pulley** - 4", 6" and 8" diameter crowned and fully lagged. 4" and 6" diameter pulleys have  $1\frac{3}{16}$ " diameter shaft, 8" diameter pulley has  $1\frac{7}{16}$ " diameter shaft.

**Snub-Roller** - 2" diameter for 4" and 6"diameter pulleys, 2½" diameter for 8" diameter pulley.

Return Rollers - 1.9" diameter placed on 10' centers.

**Floor Supports** - Adjustable 30" to 44" from floor to top of belt. One floor support provided at each end of conveyor and at each bed joint.

**Take-Up** - 6" long screws located at tail pulley to provide belt tension.

**Bearings** - Sealed, prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

**Capacity** - 10 pounds per foot maximum live load. See Load Capacity Chart.

#### **OPTIONAL EQUIPMENT**

**Guard Rails** - 12", 18", or 24" high; vertical or 30 degree flare, for one or both sides.

Floor Supports - Higher than standard supports available to 121".

**Ceiling Hangers** - ½" diameter threaded rods, 8 feet long with locking nuts and mounting hardware.

**Nose-Over** - Fixed single nose-over at 10, 12½ or 15 degrees. Adjustable nose-over roller for belt tracking.

**Center Drive** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Auxiliary Belt Take-Up** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Side Mounted End Drive** - Mounted to side of conveyor bed. Minimum elevations: 4" pulley -  $7\frac{1}{2}$ ", 6" pulley -  $8\frac{1}{2}$ ", 8" pulley -  $10\frac{1}{2}$ ". Specify side.

**Two Pulley Hitch** - For transferring material from horizontal to incline section.

**Inline Transfer Unit** - For transferring material from one horizontal conveyor to another.

Belt - #100 PVC rough top belt for incline applications.

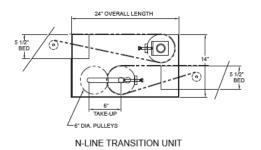
Belt Speed - 45, 75, 90 and 120 FPM. Please specify.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

## **MODEL**"SBT"

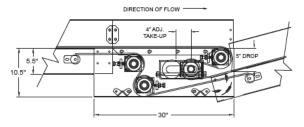


	MODEL SBT - WEIGHTS										
Belt Width	Belt Width   12"   18"   24"   30"   36"   42"   48"										
Bed Width	Bed Width 14" 20" 26" 32" 38" 44" 50"										
Drive Pulley Dia.	4"	4"	4"	6"	6"	8"	8"				
Tail Pulley Dia.	4"	4"	4"	6"	6"	6"	6"				
10'0" OAL	723	858	993	1125	1260	1510	1650				
Per Foot	25	28	32	37	42	47	51				

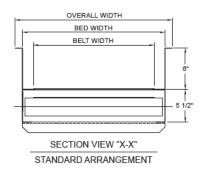


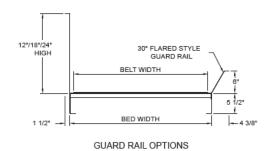
## Load Capacity Chart

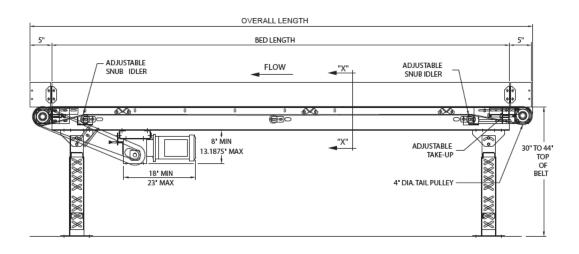
60 FPM						
HP	TOTAL LOAD					
1/2	435 lbs.					
3/4	650 lbs.					
1	810 lbs.					
11/2	1080 lbs.					
2	1300 lbs.					



4 PULLEY INCLINE HITCH









## MODEL"190RB"

## Roller Bed Belt Conveyor



## Packing

- Inspecting
- Sorting
- Assembling
- Testing
- Transporting horizontally or on incline

#### STANDARD SPECIFICATIONS

Belt - 12", 18", 24", 30", 36", 42" and 48" Black PVC 120 belt.

**Bed** - Roller bed with 1.9" diameter galvanized steel rollers. Rollers spaced on 6" centers. Rollers mounted in 7" deep x 12 gauge powder painted formed steel channel frames. Frames bolted together with butt couplings and floor supports.

**X-Bracing** - Frame squaring device supplied on conveyors 40 feet and longer for every other bed section. X-bracing insures good product and belt tracking.

**Drive Pulley** - 8" diameter crowned and fully lagged, 1<sup>7</sup>/<sub>16</sub>" shaft. **Tail Pulley** - 4" diameter crowned supplied through 30" wide belts. 6" diameter crowned supplied for 36" and wider belts. 4" diameter pulley has 1<sup>3</sup>/<sub>16</sub>" diameter shaft; 6" diameter pulley has 1<sup>7</sup>/<sub>16</sub>" diameter shaft turned down on ends to 1<sup>3</sup>/<sub>16</sub>" diameter.

**Pop-Out Roller** - 1.9" diameter roller, located at drive pulley and tail pulley.

**Snub Roller** - 2<sup>1</sup>/<sub>2</sub>" diameter adjustable roller, located directly behind drive pulley, 2" diameter located behind tail pulley.

Return Rollers - 1.9" diameter adjustable on 10'0" centers.

Take-Up - Located at tail end, provides 12" of belt take-up.

Bearings - Sealed-prelubricated with cast iron housings.

Floor Supports - Adjustable 31½" to 45½" from floor to top of belt. One support supplied at each end of conveyor and at each bed joint.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer. **Motor** -  $\frac{1}{2}$  HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

**Capacity** - 200 pounds per foot maximum. Not to exceed Load Capacity Chart.

#### OPTIONAL EQUIPMENT

**Belt** - Nitrile (white or black) with smooth top cover, Black PVC rough top, Brown Nitrile rough top. Special belts on application.

**Roller Centers** - 1.9" diameter galvanized steel rollers spaced on 3", 4½", 9" or 12" centers.

**Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

**Floor Supports** - Lower or higher than standard. Castered supports with 4" diameter or 6" diameter rigid or swivel casters.

Ceiling Hangers - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

**Nose-Over** - Adjustable single or double nose-over provides smooth transfer from incline to horizontal. See drawing on page 96 for details.

**Side Mounted Drive** - End drive mounted to side of conveyor section. Specify side. Minimum elevation – 10".

**Center Drive** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Auxiliary Take-Up** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

Belt Speed - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

**Power Feeder** - Separate belt section with (2) MD-6 ( $28^{1}/_{2}$ " to  $42^{1}/_{2}$ " adjustable) supports. Feeder driven by roller chain from main conveyor. Auxiliary take-up required on inclined conveyor. Integral feeder available.

## MODEL"190RB"

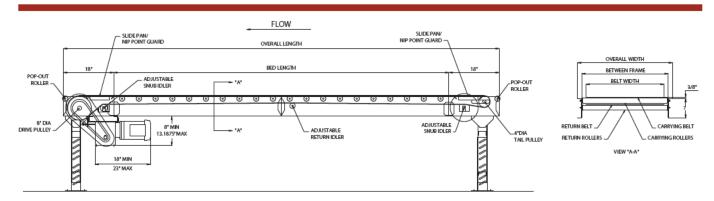


		Belt Width	12"	18"	24"	30"	36"	42"	48"
Bed	Overall	Bed Width	15"	21"	27"	33"	39"	45"	51"
Length	Length	Overall Width	18"	24"	30"	36"	42"	48"	54"
			Rollers Spaced on 6" Centers						
5'	8'		290	330	370	410	450	500	540
10'	13'		370	440	500	560	620	670	740
15'	18'		460	540	610	690	770	870	960
20'	23'		550	660	750	850	950	1070	1190
25'	28'		650	780	890	1010	1140	1290	1420
30'	33'		750	900	1040	1180	1330	1500	1660
35'	38'		820	990	1150	1310	1490	1670	1880
40'	43'		940	1146	1320	1500	1700	1930	2140
45'	48'	Weight	1060	1280	1480	1680	1900	2160	2400
50'	53'	(lbs.)	1150	1380	1610	1830	2070	2360	2620
55'	58'		1260	1520	1770	2020	2280	2690	2880
60'	63'		1350	1640	1900	2170	2460	2800	3110
65'	68'		1450	1770	2050	2350	2650	3020	3360
70'	73'		1550	1880	2200	2500	2830	3230	3590
75'	78'		1660	2003	2350	2680	3030	3450	3840
80'	83'		1750	2130	2480	2830	3210	3660	4070
85'	88'		1860	2270	2640	3010	3410	3892	4350
90'	93'		1950	2380	2770	3160	3590	4080	4550
95'	98′		2060	2510	2930	3340	3790	4320	4800
100'	103'		2150	2630	3663	3500	3960	4520	5040

	For Weights Other Than 6" Centers, Add Or Deduct													
Roller 15"B.F. 21"B.F. 27"B.F. 33"B.F. 39"B.F. 45"B.F.									51"	51" B.F.				
Centers	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'
3"	+30	+60	+40	+80	+50	+100	+60	+120	+70	+140	+80	+160	+90	+180
41/2"	+15	+30	+20	+40	+25	+50	+30	+60	+35	+70	+40	+80	+45	+90
9"	-12	-13	-16	-24	-20	-30	-14	-36	-18	-42	-32	-48	-36	-54
12"	-15	-28	-20	-40	-25	-50	-30	-60	-35	-70	-40	-80	-45	-90

# Load Capacity Chart @ 60 FPM

НР	Overall Fra 18" to Total Lo	o 22"		ame Width o 30" oad (lbs.)	Overall Frame Width 36" to 42" Total Load (lbs.)		
	Up to 53'	Up to 103'	Up to 53'	Up to 103'	Up to 53'	Up to 103'	
1/2	2400	1700	2100	1100	1600	250	
3/4	3600	3000	3400	2500	2900	1700	
1	4600	4100	4300	3600	4000	2800	
11/2	6500	6000	6200 5500		5900	4900	
2	7800	7400	7600	7000	7300	6400	





## MODEL"190RBW"

## Roller Bed Wire Mesh Belt Conveyor



#### STANDARD SPECIFICATIONS

Belt Width - 12", 18", 24" and 36" wide, 1/2"x1" flat wire belt.

**Bed** - 1.9" diameter rollers mounted on 6" centers in  $6\frac{1}{2}$ " deep x 12 gauge powder painted formed channel, bolted together with splice plates and supports.

**Drive Sprockets** - 6" pitch diameter cast iron sprockets machined for  $1\frac{3}{16}$ " diameter shaft.

**Tail Pulley** - 4" diameter with 4" pitch diameter cast iron sprockets on each end of pulley,  $1^3/_{16}$ " diameter shaft.

**Snub Roller** - Adjustable 2" diameter roller located directly behind drive sprockets and tail sprockets.

Return Idlers - 1.9" diameter, adjustable, on 10'0" centers.

Take-Up - 6" long screws located at tail pulley to tighten belt.

Bearings - Sealed and prelubricated with heavy duty housing.

Floor Supports - Adjustable 31" to 45" from floor to top of belt. One support supplied at each end of conveyor and at each bed joint

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

**Capacity** - Maximum load per linear foot of conveyor - 75 pounds. Not to exceed Load Capacity Chart.

#### **OPTIONAL EQUIPMENT**

Belt - 1/2" x 1/2" flat wire, galvanized, stainless steel. Others.

**Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

Floor Supports - Lower or higher supports available.

**Ceiling Hangers** - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

**Side Mounted Drive** - End drive mounted to side of conveyor. Specify side. Minimum elevation – 10".

**Overhead Drive** - End drive mounted above conveyor. Specify clearance required.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Belt Speed** - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

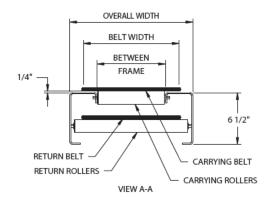
## MODEL"190RBW"

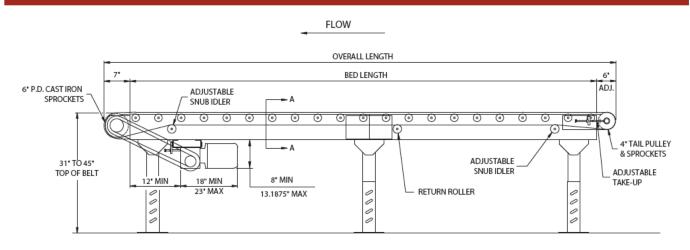


		Between Frames	8"	14"	20"	32"
Bed	Overall	Belt Width	12"	18"	24"	36"
Length	Length	Bed Width	16"	22"	28"	40"
5'	6'1"		299	320	365	431
10'	11'1"		368	413	465	562
15'	16'1"		461	523	593	725
20'	21'1"		530	605	693	856
25'	26'1"		623	715	821	1019
30'	31'1"		692	800	921	1150
35'	36'1"		773	943	1035	1297
40'	41'1"	Weight	854	990	1149	1444
45'	46'1"	(lbs.)	939	1045	1270	1602
50'	51'1"		1023	1195	1391	1759
55'	56'1"		1104	1290	1500	1896
60'	61'1"		1185	1385	1609	2033
65'	66'1"		1270	1487	1736	2201
70'	71'1"		1355	1590	1862	2369
75'	76'1"		1436	1685	1976	2516
80'	81'1"		1517	1785	2090	2663
85'	86'1"		1598	1880	2205	2811
90'	91'1"		1679	1975	2319	2959
95'	96'1"		1760	2072	2433	3106
100'	101'1"		1841	2170	2547	3253

## Load Capacity Chart

60 FPM								
HP TOTAL LOAD								
1/2	1300 lbs.							
3/4	2000 lbs.							
1	2500 lbs.							







## MODEL"138CAP"

## Belt Driven Live Roller Accumulating Conveyor

Accumulates light boxes, tote bins, baskets, etc.

Minimum back pressure

Economical



STANDARD SPECIFICATIONS

Driving Belt - 4" wide Black PVC 120 belt.

**Bed** - Roller bed width between frames, 10", 13", 16" and 22".  $5\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 12 gauge powder painted formed steel channel frame, bolted together with butt couplings and floor supports.

**Tread Rollers** - 13/s" diameter x 18 gauge galvanized tread rollers with 5/16" hex shafts on 11/2" and 3" centers. Safety pop-out design prevents damage to product or harm to personnel if caught between belt and tread rollers.

**Pressure Rollers** - 13/8" diameter x 18 gauge galvanized pressure rollers with 5/16" hex shafts on 6" centers.

**X-Bracing** - Frame Squaring device supplied on conveyors 40 feet and longer on every other bed section. X-bracing insures good product and belt tracking.

Tail Pulley - 4" diameter crowned with 13/16" shaft.

Drive Pulley - 4" diameter crowned and fully lagged, with 13/16" diameter shaft. Located at infeed end of conveyor.

**Snub Roller** - 2" diameter adjustable, located directly behind drive and tail pulley.

Return Idler - 1.9" diameter, adjustable, on 10'0" centers.

**Floor Supports** - 30" to 44" adjustable from floor to top of rollers. One support supplied at each end of conveyor and at each bed joint.

**Take-Up** - Located at discharge end of conveyor, provides 12" of belt take-up.

Bearings - Sealed, prelubricated with cast iron housings.

**Speed Reducer** - Heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

**Capacity** - 100 pounds per foot. Not to exceed Load Capacity Chart.

#### **OPTIONAL EQUIPMENT**

**Center Drive** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Side Mounted Drive** - End drive mounted to side of conveyor section. Specify side. Minimum elevation – 8".

**Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

Floor Supports - Lower or higher supports available.

Ceiling Hangers - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

Belt Speed - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

## MODEL"138CAP"

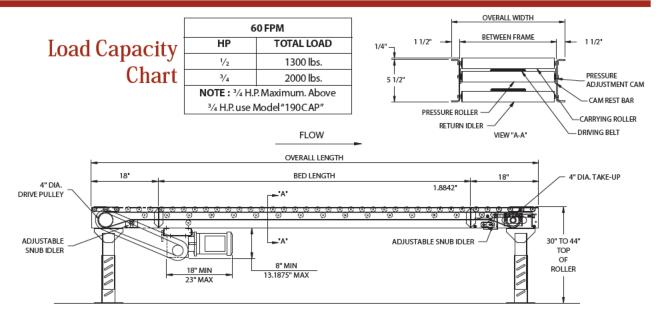


		Belt Width		4"						
Bed	Overall	Width Between Frames	10"	13"	16"	22"				
Length	Length	Overall Width	13"	16"	19"	25"				
			Rollers Spaced on 3" Centers							
7'	10'		400	425	445	480				
12'	15'		535	555	580	610				
17'	20'		545	650	670	710				
22'	25'		750	770	790	830				
27'	30'		840	870	885	925				
32'	35'		950	970	990	1040				
37'	40'		1055	1085	1100	1150				
42'	45'		1160	1180	1205	1250				
47'	50'	Weight	1265	1290	1310	1350				
52'	55'	(lbs.)	1370	1390	1415	1455				
57'	60'		1480	1500	1520	1550				
62'	65'		1580	1605	1625	1670				
67'	70'		1690	1710	1730	1775				
72'	75'		1800	1820	1835	1880				
77'	80'		1910	1925	1945	1990				
82'	85'		2010	2120	2130	2160				
87'	90'		2170	2180	2190	2200				
92'	95'		2210	2230	2250	2295				
97'	100'		2320	2350	2380	2400				

For Weights on other than 3" centers adjust as follows:											
Roller	10"	22" BF									
Centers	5'	10'	5'	10'	5'	10'	5'	10'			
11/2"	+30 +60 +45 +90 +45 +90 +52 +104										

Driving force is adjustable through the use of a 9 position cam which raises and lowers each individual pressure roller. Each position of the cam is numbered so that once the desired driving force has been determined, all of the other cams can be easily set to the same driving position.

For minimum pressure accumulation, the driving force is set to convey the heaviest product. Product will then accumulate with approximately 2% back pressure depending on the footprint of the product.





## MODEL"190CAP"

## Belt Driven Live Roller Accumulating Conveyor

Accumulates tote pans, cartons, boxes, etc.
Minimum back pressure

#### STANDARD SPECIFICATIONS

**Driving Belt** - 8" wide for 15" and 21" between frames, 12" wide for 27" between frames, 16" wide for 33" and 39" between frames; black PVC 120 belt.

**Bed** - Roller bed width between rails, 15", 21", 27", 33", or 39". 7" x  $1^{1}/_{2}$ " x 12 gauge powder painted formed steel channel frame, bolted together with butt couplings and floor supports.

**Tread Rollers** - 1.9" diameter x 16 gauge galvanized steel rollers spaced on  $2^{1}/4$ ", 3",  $4^{1}/2$ " or 6" centers. Safety pop-out design prevents damage to product or harm to personnel if caught between belt and tread rollers.

**Pressure Rollers** - 1.9" diameter x 16 gauge galvanized steel rollers spaced on 6", 9" or 12" centers, cam adjusted.

**X-Bracing** - Frame Squaring device supplied on conveyors 40 feet and longer on every other bed section. X-bracing insures good product and belt tracking.

**Tail Pulley** - 4" diameter crowned with 13/16" diameter shaft. **Drive Pulley** - 8" diameter, crowned and fully lagged, with 17/16" diameter shaft.

**Snub Roller** - 21/2" diameter adjustable, located directly behind drive pulley. 2" diameter at each end directly behind terminal pulleys.

Return Idler - 1.9" diameter, adjustable, on 10'0" centers.

**Floor Supports** - Adjustable  $31^{1}/_{2}$ " to  $45^{1}/_{2}$ " from floor to top of rollers. One support supplied at each end of conveyor and at each bed joint.

Take-Up - Located in center drive, provides 24" of belt takeup.

Bearings - Sealed prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - 150 lbs. per foot. Not to exceed Load Capacity Chart.

#### OPTIONAL EQUIPMENT

**Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

**Floor Supports** - Lower or higher supports available. Minimum elevation 20".

Ceiling Hangers  $-\frac{1}{2}$ " diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

**Side Mounted Drive** - End drive mounted to side of conveyor bed section. Specify side. Minimum 9" elevation with 4" drive pulley, minimum 12" elevation with 8" drive pulley.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Belt Speed** - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

## MODEL"190CAP"



		Belt Width	6	8	12	16	16"
Bed	Overall	Width Between Frames	15"	21"	27"	33"	39"
Length	Length	Overall Width	18"	24"	30"	36"	42"
				Roller	s Spaced on 3" Co	enters	•
7'	10'		600	730	850	960	1070
12'	15'		790	932	1080	1200	1370
17'	20'		926	1100	1280	1420	1640
22'	25'		1090	1300	1520	1890	1950
27'	30'		1220	1470	1720	1970	2220
32'	35'		1380	1650	1940	2230	2520
37'	40'		1530	1840	2160	2480	2800
42'	45'	Weight (lbs.)	1680	2025	2380	2735	3070
47'	50'	(lbs.)	1830	2210	2600	2990	3360
52'	55'		1980	2390	2820	3250	3650
57'	60'		2130	2580	3040	3500	3930
62'	65'		2290	2760	3260	3760	4220
67'	70'		2441	2950	3470	4010	4560
72'	75'		2590	3130	3690	4150	4710
77'	80'		2740	3310	3910	4500	5100
82'	85'		2890	3500	4130	4760	5360
87'	90'		3047	3680	4350	5040	5730
92'	95'		3200	3870	4570	5270	5940
97'	100′		3350	4050	4790	5530	6270

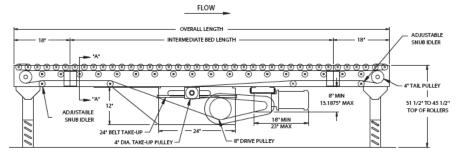
For W	For Weights other than 3" centers add/deduct the following:													
Roller	15"	15" <b>B</b> F 21" <b>B</b> F			27" <b>B</b> F		33"	BF	39" BF					
Centiers	5'	10°	5'	10°	5"	10°	5'	10°	5'	10°				
21/4"	+16	+32	+21	+43	+26	+53	+31	+62	+37	+73				
41/2"	-23	-45	-30	-60	-37	-75	-45	-90	-53	-105				
6"	-45	-90	-60	-120	-75	-150	-90	-180	-105	-210				

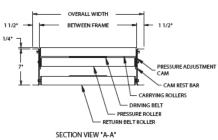
Driving force is adjustable through the use of a 7 position cam which raises and lowers each individual pressure roller. Each position of the cam is numbered so that once the desired driving force has been determined, all of the other cams can be easily set to the same driving position.

For minimum pressure accumulation, the driving force is set to convey the heaviest product. Product will then accumulate with approximately 2% back pressure depending on the footprint of the product.

## Load Capacity Chart 60 FPM

HP	18" 1	ame Width to 22" ad (fbs.)	Overall Fra 24" to Total Lo	o 30"	Overall Frame Width 36" to 42" Total Load (lbs.)		
	<b>U</b> p to 50°	<b>U</b> p to 100*	Up 0o 50°	Up to 100'	<b>U</b> p to 50°	Upto 100'	
1/2	1100 200		600	-	-	-	
3/4	2200 1300		1700 500		1100	-	
1	3300 2400		2800 1600		2200	-	
11/2	5600 4600		5000	3800	4400	1900	
2	7000 6000		6400	5200	5800 3300		







## **MODEL**"251 and 267CAP"

Heavy Duty Belt Driven Live Roller Conveyor



- Heavy duty conveying
- Limited accumulation
- Rugged design
- Easy installation & adjustment

#### STANDARD SPECIFICATIONS

Driving Belt - Black PVC 120 belt.

**Bed** - Roller bed width between frames 27", 33", 39", 45", 51", 57", and 61".  $7\frac{1}{2}$ " x 7 gauge powder painted formed steel channel frame bolted together with butt couplings and floor supports.

Tread Rollers - 21/2" diameter x 11 gauge or 25%" diameter x 7 gauge, adjustable, both with 11/16" hex shaft mounted on 3", 4" or 6" centers. Safety pop-out design prevents damage to product or harm to personnel if caught between belt and tread rollers.

**Pressure Rollers** - 2" diameter x 12 gauge steel pressure rollers. Spaced every 6", 8" or 12" centers.

**X-Bracing** - Frame Squaring device supplied on conveyors 40 feet and longer for every other bed section. X-bracing insures good product and belt tracking.

Tail Pulley - 8" diameter crowned with 17/16" diameter shaft.

Drive Pulley - 12" diameter crowned and fully lagged with 115/16" diameter shaft.

Snub Roller - 21/2" diameter adjustable.

Return Idler - 1.9" diameter, adjustable, on 10'0" centers.

**Floor Supports** - Adjustable  $27^3/4$ " to  $37^1/2$ " (HD-6) on 5'0" centers with knee braces.

Take-Up - Located in center drive, provides 12" of belt takeup.

Bearings - Sealed prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 2 HP 230/460-3-60 TE motor.

Conveyor Speed - 30 FPM constant

**Capacity** - 450 pounds per foot maximum. Not to exceed Load Capacity Chart.

#### OPTIONAL EQUIPMENT

**Drive Pulley** - 16" diameter crowned and fully lagged with 215/16" diameter shaft.

**Guard Rails** - Adjustable channel, continuous channel or solid steel quard rails available.

Floor Supports - Lower or higher supports available. Minimum elevation 23" with 12" drive pulley and 25" with 16" drive pulley.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Belt Speed** - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

## **MODEL**"251 and 267CAP"



## "251 CAP" weights

## "267 CAP" weights

					_						
	Belt Width	16"	20"	20"	24"	24"	30"	30"			
Overall Length	Width Between Frames	27"	33"	39"	45"	51"	57"	61"			
	Overall Width	30"	36"	42"	48"	54"	60"	64"			
	wiath	Rollers on 3" Centers									
14'		2320	2660	2950	3390	3680	3850	4250			
19'		2880	3200	3560	4000	4330	4800	5270			
24'		3220	3710	4140	4630	5060	5640	6120			
29'		3700	4240	4750	5300	5810	6480	7090			
34'		4180	4760	5340	5960	6550	7330	7940			
39'		4700	5270	5930	6630	7280	8170	8890			
44'		5130	5790	6380	7240	7530	8480	9680			
49'	Weight	5530	6310	7010	7960	8770	9760	10500			
54'	(lbs.)	5930	6820	7610	8540	9370	10570	11480			
59'		6280	7350	8300	9290	10160	11500	12600			
64'		6780	7850	8810	9900	10970	12130	13510			
69'		7320	8310	9390	10620	11620	13120	14420			
74'		7750	8810	10000	11240	12430	14030	15520			
79'		8180	9350	10660	11950	13190	14900	16610			
84'		8710	9850	11350	12540	13930	15690	17700			
89'		9230	10350	12080	13060	14640	16520	18780			
99'		9780	10810	12810	13680	15330	17300	19890			

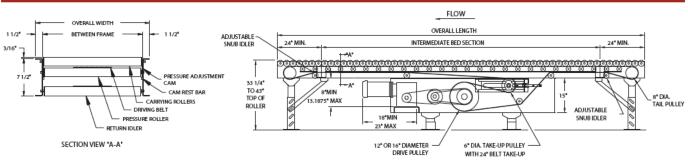
	Belt Width	16"	20"	20"	24"	24"	30"	30"				
Overall Length	Width Between Frames	27"	33"	39"	45"	51"	57"	61"				
	Overall	30"	36"	42"	48"	54"	60"	64"				
	Width	Rollers on 3" Centers										
14'		2520	3030	3260	3630	4060	4510	5157				
19'		3120	3550	3610	4450	5000	5680	6411				
24'		3600	3930	4130	4910	5970	6750	7635				
29'		4110	4770	4870	6000	6800	7814	8900				
34'		4660	5380	5500	6780	7710	8890	10060				
39'		5250	5980	6120	7670	8610	10262	11300				
44'		5750	6590	6750	8300	9030	11766	12410				
49'	Weight	6220	7200	7480	9140	10450	11990	13530				
54'	(lbs.)	6690	7810	8010	9840	11210	13020	14820				
59'		6990	8420	8640	10610	12170	14170	16240				
64'		7680	9010	9250	11440	13150	15030	17530				
69'		8290	9560	9820	12280	13970	16440	18670				
74'		8790	10150	10430	13020	14150	17380	20060				
79'		9290	10780	11180	13850	15880	18470	21470				
84'		9890	11370	11700	14550	16790	19480	22850				
89'		10480	11960	12300	15200	17670	20540	24250				
99'		11170	12510	12870	15940	18530	21540	25660				

	"251 CAP" — For Weights other than 3" centers deduct the following:													
Roller	27" BF		33" BF		39" BF		45" BF		51" BF		57"	BF	61"BF	
Centers	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'
4"	-77	-154	-92	-184	-106	-212	-122	-244	-144	-288	-160	-320	-164	-328
6"	-154	-308	-183	-366	-212	-424	-243	-486	-288	-576	-618	-636	-329	-658

	"267 CAP" — For Weights other than 3" centers deduct the following:														
Roller Centers	27"	27" BF		33" BF		39" BF		45" BF		51" BF		57" BF		61" BF	
	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	
4"	-92	-184	-113	-226	-131	-262	-153	-306	-176	-352	-195	-390	-207	-414	
6"	-184	-368	-227	-454	-265	-530	-306	-612	-353	-706	-390	-780	-413	-828	

## Load Capacity Chart 30 FPM Roller Speed

Diameter Drive		B/F Width	27" to 33"	B/F Width	39" to 51"	B/F Width 57" to 61"		
Pulley	HP	50' OAL	100' OAL	50' OAL	100' OAL	50' OAL	100' OAL	
12"	2	8000	6000	6000	-	5000	-	
16"	3	15000	12000	12000	8000	12000	6000	
10	5	18000	17000	17000	12000	16000	11000	





## MODEL "190ZPA"

Medium Duty Belt Driven Live Roller **Accumulating Conveyor** 



- Air operated zones
- Easy installation and adjustment
- Economical



Driving Belt - Black PVC 120 belt.

Bed - Roller bed width between frames, 15", 21", 27", 33" and 39". 7" x 1½" x 12 gauge powder painted formed steel channel frame, bolted together with butt couplings and floor supports. Frame sections are 10'0" and 5'0" long.

**Tread Rollers** - 1.9" diameter x 16 gauge galvanized steel rollers spaced on 3" centers. Safety pop-out design prevents damage to product or harm to personnel if caught between belt and tread

Pressure Rollers - 1.9" diameter x 16 gauge galvanized steel rollers with 7/16" hex shaft spaced on 6" and 12" centers. Raised by air to drive tread rollers, lowered when sensing device is activated.

Tail Pulley - 4" diameter crowned with 13/16" diameter shaft.

Drive Pulley - 8" diameter crowned and fully lagged with 17/16" diameter shaft. Located at infeed end of conveyor.

**Snub Roller** - 2½" diameter adjustable mounted directly behind drive pulley, 2" diameter adjustable mounted directly behind tail pulley.

Floor Supports - Adjustable 31½" to 45½" from floor to top of roller. One support supplied at each end of conveyor and at each

Sensing Roller - 1" diameter galvanized, mounted in counter balanced carriage, one for each zone.

Zones - Standard zones are 18", 24", 30" and 36" long.

Take-Up - Screw type take-up located at end of conveyor to maintain belt tension. 12" of belt take-up provided.

Bearings - Sealed prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer. Motor - 1/2 HP 230/460-3-60 TE motor.

Conveyor Speed - 60 FPM constant. Some higher and lower speeds available. However, most efficient accumulation occurs at 60 FPM.

Capacity - See Load Capacity Chart. 150 pounds max. unit load. For loads less than 5 pounds, consult factory.

#### OPTIONAL EQUIPMENT

Center Drive - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Floor Supports - Higher or lower supports available. Minimum elevation with standard end drive, 25".

Sensing Devices - Limit switches, photo cells, etc.

Slug Release - Allows for conveyor to be unloaded quickly when accumulation feature not required.

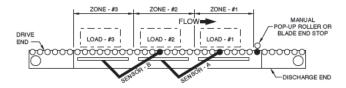
Guard Rails - Adjustable channel, continuous channel or solid steel guard rails are available.

Ceiling Hangers -  $\frac{1}{2}$ " diameter threaded rods 8'0" long with locking nuts and mounting hardware. Other lengths are available.

Air Control Zone Stop - Pneumatic brake to stop rollers in work station area

Motor - Single phase, energy efficient, explosion proof, etc. Other HP available.

Electrical Controls - Magnetic starters and push button stations; manual motor starters with overload protection, others.



#### **OPERATIONAL SEQUENCE**

- 1. Model "190 ZPA" is loaded at infeed end of conveyor. First load travels to Zone #1 and comes to rest against blade or roller stop, and depresses sensor roller "A", deactivating Zone #2.
- 2. Second load travels into Zone #2 and comes to rest over sensor roller "B" deactivating Zone #3.
- 3. The Model "190 ZPA" will continue to accumulate at "Zero" pressure until conveyor is fully loaded. NOTE: Zone #1 at discharge end is supplied with low pressure accumulation feature. If "ZERO" pressure zone is required, optional pneumatic operated end zone should be ordered.
- 4. To unload, remove end load or lower roller stop which will advance second load into first zone and third load into second, etc.

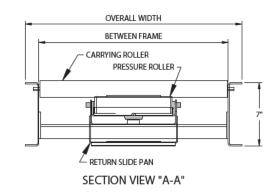
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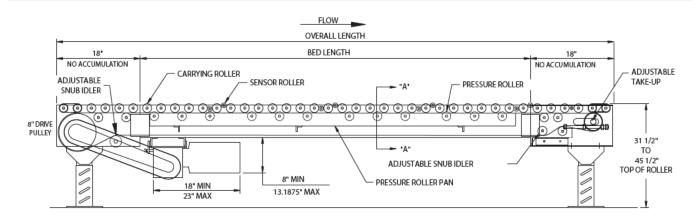


		Belt Width	6"	6"	6"	6"	6"
Bed	Overall	Width Between Frames	15"	21"	27"	33"	39"
Length	Length	Overall Width	18"	24"	30"	36"	42"
				Ro	ollers on 3" Cente	ers	
10'	13'		560	630	700	770	840
15'	18'		780	890	1000	1200	1310
20'	23'		960	1070	1180	1290	1400
25'	28'		1150	1270	1390	1510	1630
30'	33'		1320	1450	1580	1710	1840
35'	38'		1550	1690	1830	1970	2110
40'	43'		1720	1870	2020	2170	2320
45'	48'	Weight	1950	2100	2250	2400	2550
50'	53'	(lbs.)	2120	2280	2440	2600	2760
55'	58'		2310	2480	2650	2820	2990
60'	63'	1	2480	2650	2820	2990	3160
65'	68'	1	2690	2870	3050	3230	3410
70'	73'		2890	3070	3250	3430	3610
75'	78'		3080	3280	3480	3680	3880
80'	83'	]	3250	3460	3670	3880	4090
85'	88'	]	3460	3680	3900	4120	4340
90'	93'	]	3630	3850	4070	4290	4510
95'	98'	]	3850	4090	4330	4570	4810

#### Load Capacity Chart 60 FPM

HP	Overall Frame Width 18" to 24" Total Load (lbs.)		25" t	ame Width to 30" oad (lbs.)	Overall Frame Width 36" to 42" Total Load (lbs.)		
	Up to 50'	Up to 100'	Up to 50'	Up to 100'	Up to 50'	Up to 100'	
1/2	1100	200	600	-	-	-	
3/4	2200	1300	1700	500	1100	-	
1	3300	2400	2800	1600	2200	-	
11/2	5600	4600	5000	3800	4400	1900	
2	7000	6000	6400	5200	5800	3300	







## MODEL"190ABE"

# Medium Duty Belt Driven Live Roller Photo Eye Controlled Accumulating Conveyor

- Zero pressure accumulation
- Air operated zones
- Easy installation
- Economical
- No mechanical sensor rollers
- Photo eye controlled

#### STANDARD SPECIFICATIONS

Driving Belt - Black PVC 120 belt.

**Bed** - Roller bed width between frames, 15", 21", 27", 33" and 39". 7"  $\times$  1½"  $\times$  12 gauge powder painted formed steel channel frame, bolted together with butt couplings and floor supports. Frame sections are 10'0" and 5'0" long.

Tread Rollers - 1.9" diameter x 16 gauge galvanized steel rollers spaced on 3" or 6" centers. Safety pop-out design prevents damage to product or harm to personnel if caught between belt and tread rollers.

**Pressure Rollers** - 1.9" diameter x 16 gauge galvanized steel rollers with  $^{7}/_{16}$ " Hex Shaft spaced on 6" and 12" centers. Raised by air to drive tread rollers, lowered when sensing device is activated.

**Sensing Device** - NEMA 1 photoelectric sensor in each zone detects presence of product and activates accumulation feature in the trailing zone if upstream zone is occupied.

**Power Supply** - 120 VAC power supply controls accumulation feature with 24 VDC output. Power supply will control 50 accumulation zones.

**Air Requirements** - Operating pressure is 20-35 psi on main trunk line. **Accumulation Zones** - 24", 30", or 36" long, air operated. Conveyor frame lengths change with zone lengths. NOTE: Zone length must be evenly divisible by roller centers.

Filter/Regulator - Supplied loose for mounting to conveyor side frame, with 3/8"NPT ports. 35 to 40 psi recommended operating pressure with free air consumption of .0062 cu.ft. per sensor operation.

**Guard Rails** -  $1\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 12 gauge galvanized angle guard rails, both sides. NOTE: Product contact with guard rails will affect product flow.

**Tail Pulley** - 4" diameter crowned with 13/16" diameter shaft.

Drive Pulley - 8" diameter crowned and fully lagged with 17/16" diameter shaft. Located at infeed end of conveyor.

**Snub Roller** - 2<sup>1</sup>/<sub>2</sub>" diameter adjustable mounted directly behind drive pulley, 2" diameter adjustable mounted directly behind tail pulley.

**Floor Supports** - Adjustable  $31\frac{1}{2}$ " to  $45\frac{1}{2}$ " from floor to top of roller. One support supplied at each end of conveyor and at each bed joint.

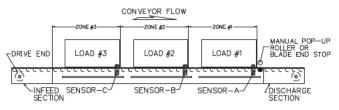
**Take-Up** - Screw type take-up located at end of conveyor to maintain belt tension. 12" of belt take-up provided.

Bearings - Sealed prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer. **Motor** -  $\frac{1}{2}$  HP 230/460-3-60 TE motor.

**Conveyor Speed** - 60 FPM constant. Some higher and lower speeds available. However, most efficient accumulation occurs at 60 FPM.

Capacity - See Load Capacity Chart. 150 pounds max. unit load.





#### OPTIONAL EQUIPMENT

**Center Drive** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Floor Supports - Higher or lower supports available. Minimum elevation with standard end drive, 25".

**Accumulation Zones** - 18" long, air operated. Note: Zone length must be evenly divisible by roller centers.

Roller Brakes - (4) per zone.

Slug Release - Allows for conveyor to be unloaded quickly when accumulation feature not required.

Ceiling Hangers - 1/2" diameter threaded rods 8'0" long with locking nuts and mounting hardware. Other lengths are available.

Air Control Zone Stop - Pneumatic brake to stop rollers in work station area.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

#### OPERATIONAL SEQUENCE

- 1) Model "190LSE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.
- 2) The second load travels the length of the conveyor until it reaches Zone #2. If Zone #1 is occupied, the second load will stop in Zone #2. Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.
- 3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor for the accumulation process to continue.

## MODEL"190ABE"

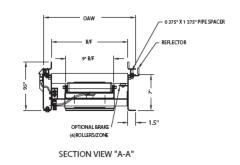


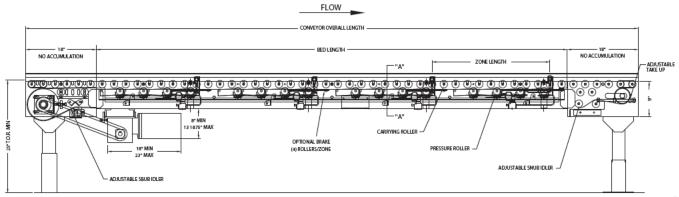
		Belt Width	6"	6"	6"	6"	6"
Bed	Overall	Width Between Frames	15"	21"	27"	33"	39"
Length	Length	Overall Width	18"	24"	30"	36"	42"
				Ro	ollers on 3" Cente	rs	
10'	13'		560	630	700	770	840
15'	18'		780	890	1000	1200	1310
20'	23'		960	1070	1180	1290	1400
25'	28'		1150	1270	1390	1510	1630
30'	33'		1320	1450	1580	1710	1840
35'	38'		1550	1690	1830	1970	2110
40'	43'		1720	1870	2020	2170	2320
45'	48'	Weight	1950	2100	2250	2400	2550
50'	53'	(lbs.)	2120	2280	2440	2600	2760
55'	58'		2310	2480	2650	2820	2990
60'	63'		2480	2650	2820	2990	3160
65'	68'		2690	2870	3050	3230	3410
70'	73'		2890	3070	3250	3430	3610
75'	78'		3080	3280	3480	3680	3880
80'	83'		3250	3460	3670	3880	4090
85'	88'		3460	3680	3900	4120	4340
90'	93'		3630	3850	4070	4290	4510
95'	98'		3850	4090	4330	4570	4810

For Weights other than 3" centers deduct the following:										
6"	15" BF		21" BF		27" BF		33" BF		39" BF	
Roller	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'
Centers	-37	-74	-45	-90	-61	-122	-70	-140	-82	-164

## Load Capacity Chart 60 FPM

	НР	Overall Frame Width 18" to 24" Total Load (lbs.)		25"1	ame Width to 30" oad (lbs.)	Overall Frame Width 36" to 42" Total Load (lbs.)		
		Up to 50'	Up to 100'	Up to 50'	Up to 100'	Up to 50'	Up to 100'	
1	1/2	1100	200	600	-	-	-	
1	3/4	2200	1300	1700	500	1100	-	
	1	3300	2400	2800	1600	2200	-	
	11/2	5600	4600	5000	3800	4400	1900	
Į	2	7000	6000	6400	5200	5800	3300	







## **MODEL**"22ACDE"

Air Operated Accumulating Conveyor Photo Eye Controlled



- · Drum Filling Operations
- Large Carton Accumulation
- Handles Product on Slip Sheets
- Photo eye controlled



#### STANDARD SPECIFICATIONS

**Frame** - Conveying surface width 14", 16", 18", 24", 28", and 34".  $5\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 10 gauge powder painted formed steel channel both sides. Sections are bolted together with butt couplings and floor supports.

**Tread Rollers** - 2" dia. x 12 gauge steel with #40 sprockets welded to roller tube,  $\frac{7}{16}$ " hex shaft. Rollers spaced on 4", or 6" centers, set low  $\frac{1}{2}$ ". Roller to roller driven.

**Drive** - Located near center of conveyor length, under conveyor frame.

**Drive Chain** - RC #40 for roller to roller connections, RC #50 chain drive for each zone. Chains are totally enclosed by metal guards.

**Floor Supports** - Adjustable 28" to 42" from floor to top of rollers. One support supplied for each end of conveyor and at each bed joint.

**Accumulation Zones** - Standard zone lengths are 24", 30", and 36" with a maximum of 30 zones per drive. Conveyor frame lengths change with zone lengths and zone length must be divisible by roller centers. Each zone is driven by an air dutch and controlled by a photo eye sensor.

**Sensing Device** - NEMA 1 photo electric sensor in each zone detects product presence and activates accumulation feature in trailing zone if upstream zone is occupied.

**Power Supply** - 120VAC power supply controls accumulation feature with 24VDC output. Power supply will control 50 accumulation zones.

**Filter/Regulator** - Mounted to conveyor side frame. 50 PSI recommended operating pressure with free air consumption of .001 cu. ft. per sensor operation.

Motor - 1/2 HP 230/460-3-60 TE Motor.

Conveyor Speed - 30 FPM constant.

**Capacity** - Maximum load 250 lbs. per foot; maximum unit load 1000 lbs. Not to exceed load capacity chart.

#### OPTIONAL EQUIPMENT

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters, others.

**Pneumatic Stop** - Pneumatic roller/blade stop can be located most anywhere in conveyor length to stop loads in work zones.

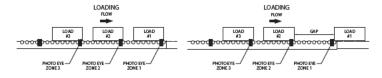
## **MODEL"22ACDE"**



	Conveying Surface	14"	16"	18"	24"	28"	34"
Bed	Between Frame Width	17"	19"	21"	27"	31"	37"
Length	Overall Frame Width	26.5"	28.5"	30.5"	36.5"	40.5"	46.5"
10'		328	375	424	564	660	796
20'		617	703	795	1057	1237	1496
30'		925	1055	1192	1585	1854	2244
40'		1160	1322	1495	1987	2325	2814
50'	Weight	1450	1653	1868	2484	2907	3517
60'	(lbs.)	1740	1983	2241	2981	3488	4220
70'	Based On	2030	2314	2615	3478	4069	4924
80'	4" Roller	2320	2645	2989	3975	4651	5627
90'		2610	2975	3362	4472	5232	6331

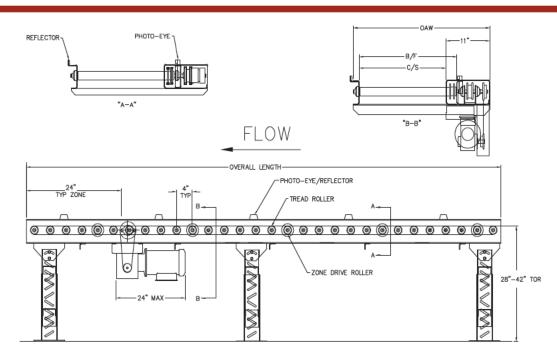
#### **OPERATIONAL SEQUENCE**

- Model "22ACDE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.
- 2) The second load travels the length of the conveyor until it reaches Zone #2. If Zone #1 is occupied, the second load will stop in Zone #2. Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.
- 3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor for the accumulation process to continue.



## **Load Capacity Charts**

Ac	cumula	ited	I	Moving	g	
Convey	or Speed @	30 FPM	Conveyor Speed @ 30 FPM			
HP Total Load (lbs.)			HP	Total Lo	ad (lbs.)	
	Up to 50'	Up to 100'		Up to 50'	Up to100'	
1/2	6000	5000	1/2	3000	2000	
3/4	7500	6500	3/4	4500	3500	
1	9000	8000	1	6000	5000	
11/2	10500	9500	11/2	7500	6500	
2	12000	11000	2	9000	8000	





## MODEL "251CDA"

## Chain Driven Pallet Accumulating Conveyor



#### STANDARD SPECIFICATIONS

**Frame** - Heavy duty 12<sup>1</sup>/<sub>2</sub>" deep x 7 gauge powder painted formed steel channel with heavy duty cross braces. Frames are bolted together with splice plates and floor supports.

**Rollers** -  $2^{1/2}$ " diameter x 11 gauge steel rollers, grease packed and labyrinth sealed bearings,  $^{11}/_{16}$ " hex shaft. Rollers are spaced on 4" or 6" centers, set  $^{7}/_{8}$ " low.

**Floor Supports** - Adjustable  $25^5/8$ " to  $30^1/4$ " (HD-4) from floor to top of roller, for each end of conveyor and at each bed joint along with knee braces for each support. Supports on 5 foot centers, change with zone length. Minimum elevation with standard drive location 24".

**Drive** - Located near center of conveyor length, underneath conveyor frame.

**Drive Chain** - RC 40 chain used for roller-to-roller connections, RC 60 chain drives each zone. Chains are totally enclosed by metal guards.

**Accumulation Zones** - Standard zones are 60" long with maximum of 30 zones per single drive.

Motor - 3/4 HP 230/460-3-60 TE motor.

**Electrical Controls** - Input to a power supply.

Conveyor Speed - 30 FPM constant roller speed.

**Capacity** - Minimum unit load - 50 pounds. 4000 pounds maximum unit load. Total conveyor live load not to exceed Load Capacity Chart. For loads less than 50 lbs., consult factory.

**Speed Reducer** - Heavy duty, sealed worm gear, C-Face.

**Bearings** - Non-reversing, sealed prelubricated with cast iron housings.

#### OPTIONAL EQUIPMENT

**Accumulation Zones** - 4" roller centers 36", 40", 44", 48", 52", 56" and 72" long. 6" roller centers 36", 42", 48", 54" and 72" long. Frame lengths change with zone lengths.

Tread Rollers - 25/8" diameter x 7 gauge steel, 1/16" hex shaft.

**Floor Supports** - Higher or lower supports available, adjustable or fixed type.

**Side Mounted Drive** - Drive unit mounted to side of conveyor in lieu of underneath conveyor frame. 14" minimum elevation to the top of roller.

**Conveyor Speed** - Constant and variable speeds between 10 and 70 FPM available.

**Limit Switch** - To provide signal for customers infeed equipment. **Time Delay** - Allows for product to be unloaded from discharge zone of conveyor without immediate movement of next load into discharge zone.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

Optional Loads - Capacity available to 6000 lbs. unit loads.

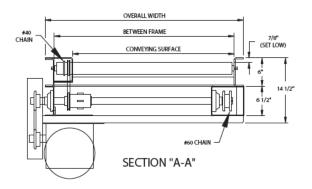
**Rollers Set High** - Rollers set  $\frac{1}{4}$ " high above side rail. Frame is  $\frac{13}{8}$ " deep x 7 gauge formed steel channel.

## MODEL"251CDA"



	Conveying Surface	34"	40"	46"	52"	59"
Bed Length	Between Frame Width	37"	43"	49"	55"	61"
Length	Overall Frame Width	41"	47"	53"	59"	65"
			Ro	llers on 4" Cent	ers	
10'		1378	1483	1588	1693	1799
15'		1964	2117	2270	2423	2577
20'		2549	2570	2951	3152	3354
25'	Weights	3135	3384	3633	3882	4132
30'	(lbs.)	3720	4017	4314	4611	4909
40'		4891	5284	5677	6070	6464
50'		6062	6551	7040	7529	8019
60'		7233	7818	8403	8988	9574
70'		8404	9085	9766	10447	11129
80'		9575	10352	11129	11906	12684
90'		10746	11619	12492	13365	14239
100'		11917	12886	13855	14824	15794

Note: Overall lengths in chart are for 60" zones. Other zone lengths will affect overall length.

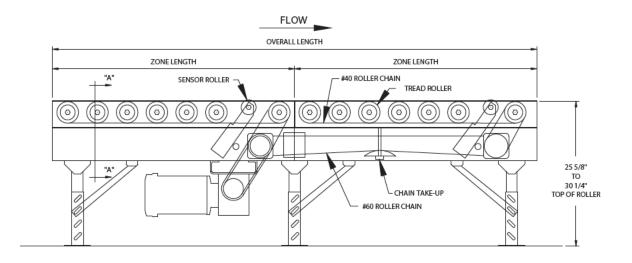


## **Load Capacity Charts**

Ac	cumula	ated		Moving	g	
Convey	or Speed @	30 FPM	Conveyor Speed @ 30 FPM			
HP	Total Lo	ad (lbs.)	HP	Total Lo	ad (lbs.)	
	Up to 50'	Up to 100'		Up to 50'	Up to 100'	
3/4	12000	7500	3/4	6000	3750	
1	18000	13000	1	9000	6500	
1 1/2	30000	25000	1 <sup>1</sup> / <sub>2</sub>	15000	12500	
2	42000	37000	2	21000	18500	

NOTE- Minimum elevation with  $^3\!/_4$  H.P. motor drive mounted underneath conveyor is 24".

Capacities based on 50% of load moving at same time.





## MODEL "251CDE"

# Chain Driven Photo Eye Controlled Pallet Accumulating Conveyor

- Zero pressure accumulation
- Electrically operated
- Heavy duty construction
- · Chain driven rollers
- Photo eye controlled
- Zone connections outside frame for easy installation



#### STANDARD SPECIFICATIONS

**Frame** - Heavy duty 12<sup>1</sup>/<sub>2</sub>" deep x 7 gauge powder painted formed steel channel with heavy duty cross braces. Frames are bolted together with splice plates and floor supports.

**Rollers** -  $2\frac{1}{2}$ " diameter x 11 gauge steel rollers, grease packed and labyrinth sealed bearings,  $\frac{11}{16}$ " hex shaft. Rollers are spaced on 4" or 6" centers, set  $\frac{7}{8}$ " low.

**Floor Supports** - Adjustable  $25^5/8$ " to  $30^1/4$ " (HD-4) from floor to top of roller, for each end of conveyor and at each bed joint along with knee braces for each support. Supports on 5 foot centers, change with zone length. Minimum elevation with standard drive location 24".

**Drive** - Located near center of conveyor length, underneath conveyor frame.

**Drive Chain** - RC 40 chain used for roller-to-roller connections, RC 60 chain drives each zone. Chains are totally enclosed by metal guards.

**Accumulation Zones** - Standard zones are 60" long with maximum of 30 zones per single drive. Each zone is controlled by photo eye.

**Sensing Device** - NEMA 1 photoelectric sensor in each zone detects presence of product and activates accumulation feature in the trailing zone if upstream zone is occupied.

Motor - 3/4 HP 230/460-3-60 TE motor.

**Electrical Controls** - 120 VAC Input to power supply. Power supply has an output of 24 VDC, 4 amp maximum

**Power Supply** - 120 VAC power supply controls accumulation feature with 24 VDC output. Power supply will control 50 accumulation zones.

Conveyor Speed - 30 FPM constant roller speed.

**Capacity** - Minimum unit load - 50 pounds. 4000 pounds maximum unit load. Total conveyor live load not to exceed Load Capacity Chart. For loads less than 50 lbs., consult factory.

**Speed Reducer** - Heavy duty, sealed worm gear, C-Face.

**Bearings** - Non-reversing, sealed prelubricated with cast iron housings.

**Filter/Regulator** - Mounted to conveyor side frame. 50 PSI recommended operating pressure with free air consumption of .001 cu. ft. per sensor operation.

#### OPTIONAL EQUIPMENT

Accumulation Zones - 4" roller centers 36", 40", 44", 48", 52", 56" and 72" long. 6" roller centers 36", 42", 48", 54" and 72" long. Frame lengths change with zone lengths.

Tread Rollers - 25/8" diameter x 7 gauge steel, 11/16" hex shaft.

**Floor Supports** - Higher or lower supports available, adjustable or fixed type.

**Side Mounted Drive** - Drive unit mounted to side of conveyor in lieu of underneath conveyor frame. 14" minimum elevation to the top of roller.

**Time Delay Restart** - Allows for product to be unloaded from discharge zone of conveyor without immediate movement of next load into discharge zone.

**Conveyor Speed** - Constant and variable speeds between 10 and 70 FPM available.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

Optional Loads - Capacity available to 6000 lbs. unit loads.

**Rollers Set High** - Rollers set  $\frac{1}{4}$ " high above side rail. Frame is  $11\frac{3}{8}$ " deep x 7 gauge formed steel channel.

## MODEL"251CDE"



	Conveying Surface	34"	40"	46"	52"	59"
Bed Length	Between Frame Width	37"	43"	49"	55"	61"
Length	Overall Frame Width	41"	47"	53"	59"	65"
			Re	ollers on 4" Cente	ers	
10'		1378	1483	1588	1693	1799
15'		1964	2117	2270	2423	2577
20'		2549	2570	2951	3152	3354
25'	Weights	3135	3384	3633	3882	4132
30'	(lbs.)	3720	4017	4314	4611	4909
40'		4891	5284	5677	6070	6464
50'		6062	6551	7040	7529	8019
60'		7233	7818	8403	8988	9574
70'		8404	9085	9766	10447	11129
80'		9575	10352	11129	11906	12684
90'		10746	11619	12492	13365	14239
100'		11917	12886	13855	14824	15794

Note: Overall lengths in chart are for 60" zones. Other zone lengths will affect overall length.

#### **OPERATIONAL SEQUENCE**

for the accumulation process to continue.

- Model "251CDE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.
- 2) The second load travels the length of the conveyor until it reaches Zone #2. If Zone #1 is occupied, the second load will stop in Zone #2. Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.
- 3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor

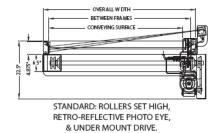
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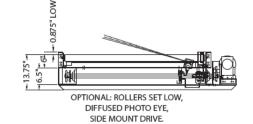
## **Load Capacity Charts**

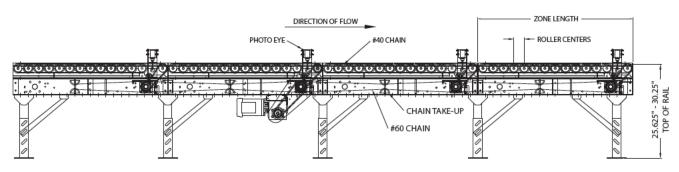
Ac	cumula	ated		Movin	g
Conve	yor Speed @	9 30 FPM	Convey	or Speed @	30 FPM
HP Total Load (lbs.)			HP	Total Lo	ad (lbs.)
	Up to 50'	Up to 100'		Up to 50'	Up to 100'
3/4	12000	7500	3/4	6000	3750
1	18000	13000	1	9000	6500
11/2	30000	25000	11/2	15000	12500
2	42000	37000	2	21000	18500

NOTE- Minimum elevation with  $^{3}\!/_{4}$  H.P. motor drive mounted underneath conveyor is 24".

Capacities based on 50% of load moving at same time.









## MODEL "251ACDA"

Air Operated Sensor Roller Controlled Pallet Accumulator

Zero pressure accumulation



Heavy duty construction

Chain driven rollers

 Zone connections outside frame for easy installation



#### STANDARD SPECIFICATIONS

Frame - Heavy duty 7" deep x 4 gauge powder painted formed steel channel with heavy duty cross braces. Frames are bolted together with splice plates and floor supports.

Rollers - 21/2" diameter x 11 gauge steel rollers, grease packed and labyrinth sealed bearings, 11/16" hex shaft. Rollers are spaced on 4" or 6" centers, set 21/4" low.

Floor Supports - Adjustable 183/4" to 233/8" (HD-4) from floor to top of roller, for each end of conveyor and at each bed joint along with knee braces for each support. Supports on 5 foot centers, changes with zone length.

**Drive** - Located near center of conveyor length, shaft mount motor and reducer.

Drive Chain - RC 40 chain used for roller-to-roller connections, RC 60 chain drive each zone. Chains are totally enclosed by metal

Accumulation Zones - Standard zones are 60" long with a maximum of 30 zones per single drive. Each zone is driven by an air clutch and controlled by a sensor roller.

Motor - 3/4 HP 230/460-3-60 TE motor.

Electrical Controls - 110/1/60 Electric Solenoid and Air switch for discharge zone.

Conveyor Speed - 30 FPM constant roller speed.

Capacity - 4,000 lbs. Maximum unit load. Total conveyor live load not to exceed Load Capacity Chart.

Speed Reducer - Heavy duty, sealed worm gear, C-Face.

Bearings - Sealed prelubricated with cast iron housings.

#### OPTIONAL EQUIPMENT

Accumulation Zones - 4" roller centers - 36", 40", 44", 48", 52", 56" and 72" long. 6" roller centers 36", 42", 48", 54" and 72" long. Frame lengths change with zone lengths.

Tread Rollers - 25/8" diameter x 7 gauge steel, 11/16" hex shaft.

Floor Supports - Higher or lower supports available, adjustable or fixed type.

Conveyor Speed - Constant and variable speeds (Contact Factory). **Limit Switch** - to provide signal for customers infeed equipment.

Time Delay - Allows for product to be unloaded from discharge zone of conveyor without movement of next load into discharge

Sensing Devices - Photo cells, limit switches, etc. can be supplied for electrically operated zones in lieu of mechanical sensing de-

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

Electrical Controls - Magnetic starters and push button stations; Manual motor starters with overload protection, others. 24V DC solenoid can be supplied in lieu of 110V AC solenoid in discharge

Optional Loads - Larger capacity clutch is available for 6000 lb. unit loads.

Reversible - can be supplied with reversing feature to allow accumulation in both directions.

## **MODEL**"251ACDA"



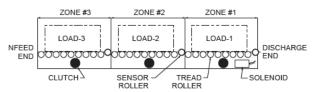
	Conveying Surface	34"	40"	46"	52"	58"
Bed	Between Frame Width	37"	43"	49"	55"	61"
Length	Overall Frame Width	48"	54"	60"	66"	72"
10'		1137	1227	1317	1407	1497
15'		1632	1767	1902	2037	2172
20'		2127	2307	2487	2667	2847
25'		2622	2847	3072	3297	3522
30 <sup>'</sup>		3117	3387	3657	3927	4197
40'	Weight	4107	4467	4827	5187	5547
50'	(lbs.)	5097	5547	5997	6447	6897
60'	Based On	6087	6627	7167	7707	8247
70'	4" Roller	7077	7707	8337	8967	9597
80'	Centers	8067	8787	9507	10227	10947
90'		9057	9867	10677	11487	12297
100'		10047	10947	11847	12747	13647

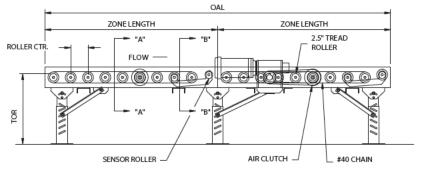
#### **OPERATIONAL SEQUENCE**

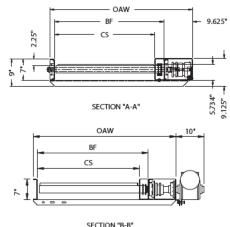
- 1. When a load is placed on infeed end of conveyor it will continue to travel the length of the conveyor until it reaches the last zone (at discharge end) of the conveyor (Zone#1). At this time the load will depress sensor roller #1 which activates a pneumatic pressure switch to indicate a load is in Zone #1. This pressure switch sends a signal to external controls (not supplied by ACSI). External controls will determine whether or not to accumulate the load. If accumulation is desired a solenoid will be activated to stop the load in Zone#1.
- 2. As soon as sensor roller #1 is depressed, it sends an air signal to Zone #2 indicating Zone #1 is occupied.
- When load #2 depresses sensor roller #2, the clutch/brake in Zone #2 is disengaged allowing load #2 to
  accumulate. At the same time, an air signal is sent to Zone #3 indicating Zone #2 is occupied. This sequence of events will continue until the conveyor is fully loaded.
- To activate Zone #1 to release load #1, an electrical signal (120VAC) must be sent to the solenoid switch
  controlling the clutch/brake in Zone #1. THIS EXTERNAL SIGNAL IS NOT SUPPLIED AS PART OF THE CONVEYOR EQUIPMENT.
- When the electrical signal is received by the solenoid switch controlling the clutch/brake in Zone #1, load #1 will be discharged from conveyor.
- As soon as load #1 clears the sensor roller in Zone #1, load #2 will advance into Zone #1 and stop when it
  depresses sensor roller #1. The 120VAC external signal must again be sent to the solenoid controlling
  the clutch/brake in Zone #1 to discharge load #2.
- 7. As soon as load #2 clears sensor roller #2, load #3 will advance to Zone #2 and stop on sensor roller #2.
- 8. This sequence continues automatically as long as the loads in Zone #1 are removed, creating an opening for the loads to advance.

## **Load Capacity Charts**

Ac	cumul	ated	Moving			
Conveyor Speed @ 30 FPM			Conveyor Speed @ 30 FPM			
HP	Total Load (lbs.)		HP	Total Load (lbs.)		
	Up to 50'	Up to 100'		Up to 50'	Up to 100'	
3/4	12000	7500	3/4	6000	3750	
1	18000	13000	1	9000	6500	
11/2	30000	25000	11/2	15000	12500	
2	42000	37000	2	21000	18500	









## MODEL"251ACDE"

Air Operated Photo Eye Controlled Pallet Accumulator

- Zero pressure accumulation
- Air operated
- Heavy duty construction
- Chain driven rollers
- Zone connections outside frame for easy installation
- Photo eye controlled



#### STANDARD SPECIFICATIONS

**Frame** - Heavy duty 7" deep x 4 gauge powder painted formed steel channel with heavy duty cross braces. Frames are bolted together with splice plates and floor supports.

**Rollers** -  $2^{1}/2^{n}$  diameter x 11 gauge steel rollers, grease packed and labyrinth sealed bearings,  $1^{1}/16^{n}$  hex shaft. Rollers are spaced on 4" or 6" centers, set  $2^{1}/4^{n}$  low.

**Floor Supports** - Adjustable  $18^3/4$ " to  $23^3/8$ " (HD-4) from floor to top of roller, for each end of conveyor and at each bed joint along with knee braces for each support. Supports on 5 foot centers, changes with zone length.

**Drive** - Located near center of conveyor length, shaft mount motor and reducer.

**Drive Chain** - RC 40 chain used for roller-to-roller connections, RC 60 chain drive each zone. Chains are totally enclosed by metal quards.

**Accumulation Zones** - Standard zones are 60" long with a maximum of 30 zones per single drive. Each zone is driven by an air clutch and controlled by a photo eye.

Motor - 3/4 HP 230/460-3-60 TE motor.

Electrical Controls - 120 VACInput to power supply.

Conveyor Speed - 30 FPM constant roller speed.

**Capacity** - 4,000 lbs. Maximum unit load. Total conveyor live load not to exceed Load Capacity Chart.

**Speed Reducer** - Heavy duty, sealed worm gear, C-Face.

**Bearings** - Sealed prelubricated with cast iron housings.

**Sensing Device** - NEMA 1 photoelectric sensor in each zone detects presence of product and activates accumulation feature in the trailing zone if upstream zone is occupied.

**Power Supply** - 120 VAC power supply controls accumulation feature with 24 VDC output. Power supply will control 50 accumulation zones.

Air Requirements - Operating pressure is 20-35 psi on main trunk line

Filter/Regulator - Supplied loose for mounting to conveyor side frame, with 3/8"NPT ports. 35 to 40 psi recommended operating pressure with free air consumption of .0062 cu. ft. per sensor operation.

#### OPTIONAL EQUIPMENT

**Accumulation Zones** - 4" roller centers - 36", 40", 44", 48", 52", 56" and 72" long. 6" roller centers 36", 42", 48", 54" and 72" long. Frame lengths change with zone lengths.

Tread Rollers - 25/8" diameter x 7 gauge steel, 11/16" hex shaft.

**Floor Supports** - Higher or lower supports available, adjustable or fixed type.

Conveyor Speed - Constant and variable speeds (Contact Factory).

Limit Switch - to provide signal for customers infeed equipment.

**Time Delay** - Allows for product to be unloaded from discharge zone of conveyor without movement of next load into discharge zone.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Electrical Controls** - Magnetic starters and push button stations; Manual motor starters with overload protection, others. 24V DC solenoid can be supplied in lieu of 110V AC solenoid in discharge zone.

**Optional Loads** - Larger capacity clutch is available for 6000 lb. unit loads.

**Reversible** - can be supplied with reversing feature to allow accumulation in both directions.

## **MODEL "251ACDE"**



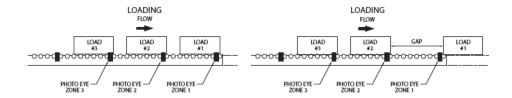
	Conveying Surface	34"	40"	46"	52"	58"
Bed	Between Frame Width	37"	43"	49"	55"	61"
Length	Overall Frame Width	48"	54"	60"	66"	72"
10'		1137	1227	1317	1407	1497
15'		1632	1767	1902	2037	2172
20'		2127	2307	2487	2667	2847
25'		2622	2847	3072	3297	3522
30'		3117	3387	3657	3927	4197
40'	Weight (lbs.)	4107	4467	4827	5187	5547
50'		5097	5547	5997	6447	6897
60'	Based On	6087	6627	7167	7707	8247
70'	4" Roller Centers	7077	7707	8337	8967	9597
80'		8067	8787	9507	10227	10947
90'		9057	9867	10677	11487	12297
100'		10047	10947	11847	12747	13647

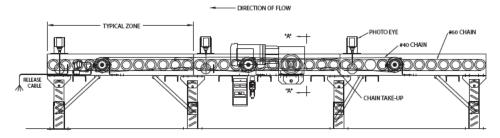
#### **OPERATIONAL SEQUENCE**

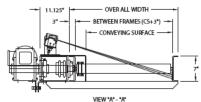
- 1) Model"251ACDE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.
- 2) The second load travels the length of the conveyor until it reaches Zone #2.If Zone #1 is occupied, the second load will stop in Zone #2.Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.
- 3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor for the accumulation process to continue.

## **Load Capacity Charts**

Accumulated			Moving			
Conveyor Speed @ 30 FPM			Conveyor Speed @ 30 FPM			
HP	HP Total Load (Ibs.)			Total Load (lbs.)		
	Up to 50'	Up to 100'		Up to 50'	Up to 100'	
3/4	12000	7500	3/4	6000	3750	
1	18000	13000	1	9000	6500	
11/2	30000	25000	11/2	15000	12500	
2	42000	37000	2	21000	18500	









## MODEL"138CLR"

V-Belt Curve

- Transports around turns with positive drive
- Can be slave driven from "138CAP"



#### STANDARD SPECIFICATIONS

Driving Belt - "B" section V-belt.

**Bed** - Roller bed width between frames, 10", 13", 16" and 22".  $5^{1}/_{2}$ " x  $1^{1}/_{2}$ " x 12 gauge powder painted formed steel channel frame.

**Tread Rollers** -  $1^3/8$ " diameter x 18 gauge galvanized steel tread rollers,  $1^1/2$ " centers,  $5^1/6$ " hex shaft for 13"-19" OAW.  $2^1/2$ " to  $1^{11}/16$ " tapered roller for 25" OAW conveyor,  $7^1/6$ " hex shaft.

Pressure Sheaves - 3" diameter x 3/8" bore, adjustable to give required driving force.

**Floor Supports** - Adjustable 30" to 44" from floor to top of rollers. One support at each end, center leg on outer rail.

Tangent - 12" long, one on each end.

**Take-Up** - Screw take-up provided to insure proper V-belt tension. Mounted underneath conveyor.

End Drive - Mounted below bed section.

Bearings - Sealed prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Conveying Speed - 60 FPM constant.

Capacity - 300 lbs. total distributed live load.

#### OPTIONAL EQUIPMENT

**Guard Rails** - Adjustable channel, continuous channel, steel guard rails available.

Floor Supports - Lower or higher supports are available. Minimum elevation 151/2".

Ceiling Hangers - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available. Side Mounted Drive - End drive mounted to side of conveyor bed section. Minimum elevation 8". Specify side. Minimum tangent length - 18".

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

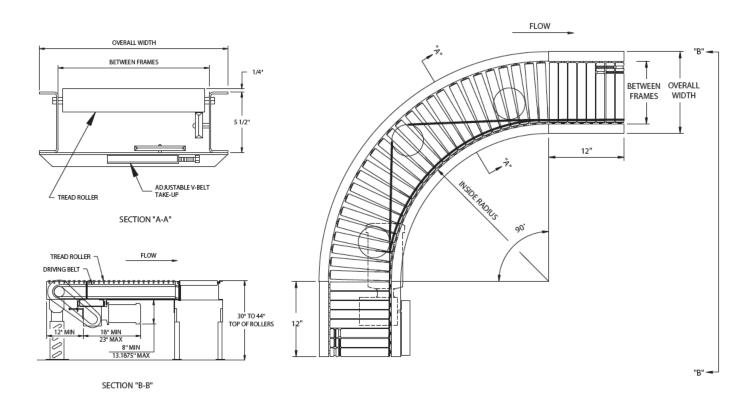
**Conveying Speed** - Variable and other constant speeds available. **Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

## MODEL"138CLR"



Overall	Width Between	R	Number Of Rollers			Weight (Lbs.)			
Width	Frames		90°	45°	30°	90°	45°	30°	
13"	10"					280	265	245	
16"	13"	25"	42	29	24	295	275	255	
19"	16"					315	285	265	
25"	22"	32 1/2"	36	26	23	435	415	395	

Note: 22" between rail curves are furnished with  $2\frac{1}{2}$ " to  $1\frac{11}{16}$ " diameter tapered rollers. 10", 13" and 16" between rail curves are furnished with  $1\frac{3}{8}$ " diameter straight rollers.





# MODELS "138CLRS" and "138CLRSS"

V-Belt Spur



#### STANDARD SPECIFICATIONS

Driving Belt - "B" section V-belt.

**Bed** - Roller bed width between frames, 10", 13", 16" and 22".  $5\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 12 gauge powder painted formed steel channel frame.

**Tread Rollers** - 13% diameter x 18 gauge galvanized steel tread rollers, 11/2 centers, 5/16 hex shaft for 13" to 19" OAW. 21/2" to 111/16" tapered roller for 25" OAW conveyor, 7/16 hex shaft.

Pressure Sheaves - 3" diameter x  $\frac{3}{8}$ " bore, adjustable to give required driving force.

**Floor Supports** - One support adjustable 30" to 44" from floor to top of rollers. Center leg on outer rail of "138 CLRS".

Tangent - 12" long, on one end of curved spur.

**Take-Up** - Screw take-up provided to insure proper V-belt tension. Mounted in conveyor frame.

End Drive - Mounted below bed section.

Bearings - Sealed prelubricated with cast iron housings.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Conveying Speed - 60 FPM constant.

Capacity - 300 lbs. total distributed live load.

#### **OPTIONAL EQUIPMENT**

**Guard Rails** - Adjustable channel, continuous channel, steel guard rails available.

**Floor Supports** - Lower or higher supports are available. Minimum elevation  $15\frac{1}{2}$ ".

Ceiling Hangers - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available. Side Mounted Drive - End drive mounted to side of conveyor bed section. Minimum elevation 8". Specify side.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Conveying Speed** - Variable and other constant speeds available. **Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

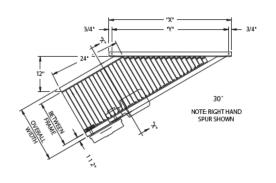
# MODELS "138CLRS" and "138CLRSS"



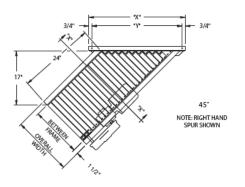
	CURVE SPUR "138CLRS"											
	Width		- 1	A	E	3	Weight (lbs.					
Overall Width	Between Frame	Radius	45°	30°	45°	30°	45°	30°				
13"	10"		45 ¼"	48 3/8"	343/8"	49 3/8"	130	140				
16"	13"	25"	471/4"	51"	391/2"	57"	135	145				
19"	16"		49 1/2"	53 <sup>1</sup> / <sub>2</sub> "	44 1/8"	641/2"	140	150				
25"	22"	321/2"	59"	65 <sup>1</sup> /4"	57"	83"	145	155				

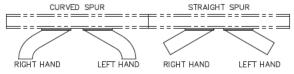
	STRAIGHT SPUR "138CLRSS"										
	Width	Α		E	}	Weigh	nt (lbs.)				
Overall Width	Between Frame	45°	30°	45°	30°	45°	30°				
13"	10"	211/2"	29"	20"	271/2"	160	185				
16"	13"	25 1/2"	35"	24"	33 1/2"	165	190				
19"	16"	30"	41"	281/2"	39 1/2"	170	195				
25"	22"	381/2"	53"	37"	51½"	175	200				

#### "138CLRSS" STRAIGHT SPUR - 30°

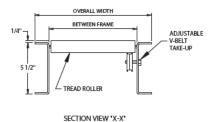


#### "138CLRSS" STRAIGHT SPUR - 45°

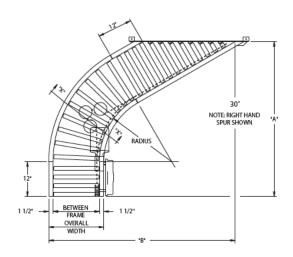




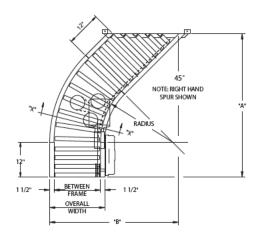
- a. Specify "right" or "left" hand unit.
- b. Specify direction of flow.
- Specify conveyor to be attached to in order for proper attachment bracket to be furnished.



#### "138CLRS" CURVE SPUR - 30°



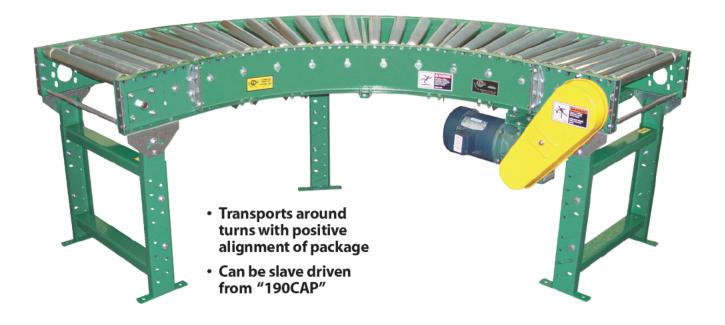
#### "138CLRS" CURVE SPUR - 45°





# MODEL"190CLR"

V-Belt Curve



#### STANDARD SPECIFICATIONS

Driving Belt - "B" section V-belt.

**Bed** - Roller bed width between frames, 15", 21", 27", 33" and 39".  $2^{1}/_{2}$ " diameter tapered to  $1^{11}/_{16}$ " diameter x 14 gauge wall plated tread rollers.  $^{7}/_{16}$ " hex shafts. Steel pressure sheaves. Mounted in 7" x  $1^{1}/_{2}$ " x 12 gauge powder painted formed steel channel frame.

**Floor Supports** - Adjustable  $31\frac{1}{2}$ " to  $45\frac{1}{2}$ " from floor to top of rollers. One support at each end, and center leg on outer rail.

**Take-Up** - Screw take-up provided to insure proper V-belt tension. Mounted underneath conveyor.

Tangent - 12" long, one on each end.

End Drive - Mounted below bed section.

Bearings - Sealed prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - 540 lbs. total distributed live load.

#### **OPTIONAL EQUIPMENT**

**Guard Rails** - Adjustable channel, continuous channel, steel guard rails available.

**Floor Supports** - Lower or higher supports are available. Minimum elevation, 17" from floor to top of rollers.

**Ceiling Hangers** - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Side Mounted Drive - End drive mounted to side of conveyor bed section. Minimum elevation 91/2". Specify side.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

Belt Speed - Constant and variable belt speeds available.

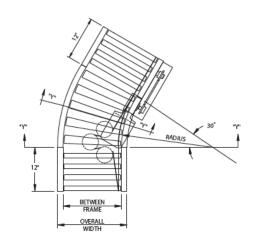
**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

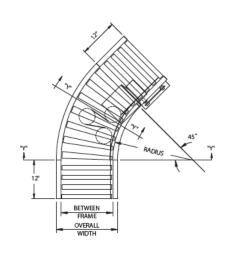
**Tangents** - Standard tangents are 12" long, located at each end of curve. Longer tangents available. Contact Factory.

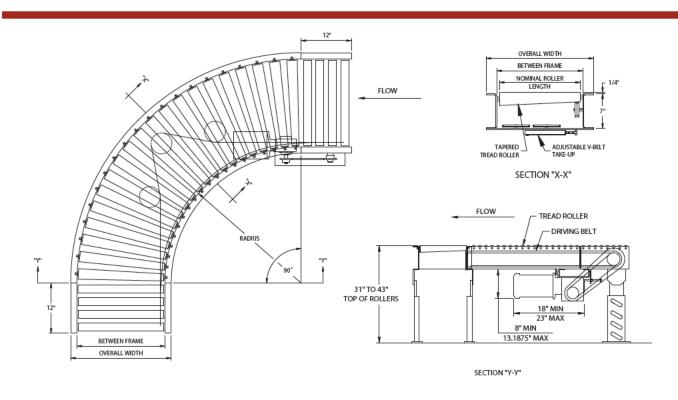
# MODEL"190CLR"



Overall			No. Tapered Rollers		No. Straight Rollers			Weight (lbs.)			
Width	Frames		90°	45°	30°	90°	45°	30°	90°	45°	30°
18"	15"		20	10	7	8	8	8	428	407	396
24"	21"	321/2"	20	10	7	8	8	8	470	449	438
30"	27"		20	10	7	8	8	8	512	491	480
36"	33"	48"	30	15	10	8	8	8	540	519	508
42"	39"	40	30	15	10	8	8	8	568	547	526









# MODELS "190CLRS" and "190CLRSS"

**V-Belt Spurs** 



#### STANDARD SPECIFICATIONS

Driving Belt - "B" section V-belt.

**Bed** - Roller bed width between rails 15", 21", 27", 33" and 39".  $7\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 12 gauge powder painted formed steel channel frame.

**Tread Rollers** -  $2^{1}/2^{"}$  diameter tapered to  $1^{11}/_{16}^{"}$  diameter plated and 1.9" diameter x 16 gauge plated steel tread rollers,  $^{7}/_{16}^{"}$  hex shaft.

**Pressure Sheaves** - 3" diameter x  $\frac{3}{6}$ " bore, adjustable to give required driving force.

**Take-Up** - Screw take-up provided to insure proper V-belt tension. Mounted underneath conveyor.

Tangent - 12" long, on one end of curved spur.

**Floor Supports** - Adjustable  $31\frac{1}{2}$ " to  $45\frac{1}{2}$ " from floor to top of rollers.

End Drive - Mounted below bed section.

Bearings - Sealed prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - 540 lbs. total distributed live load.

#### OPTIONAL EQUIPMENT

**Guard Rails** - Adjustable channel, continuous channel, steel guard rails available.

**Floor Supports** - Lower or higher supports are available. Minimum elevation, 17" from floor to top of rollers.

**Ceiling Hangers** - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

**Center Drive** - Mounted underneath bed section in center of spur. **Side Mounted Drive** - End drive mounted to side of conveyor section. Specify side. Minimum elevation - 9½" from floor to top of rollers.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

Belt Speed - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

# MODELS "190CLRS" and "190CLRSS"

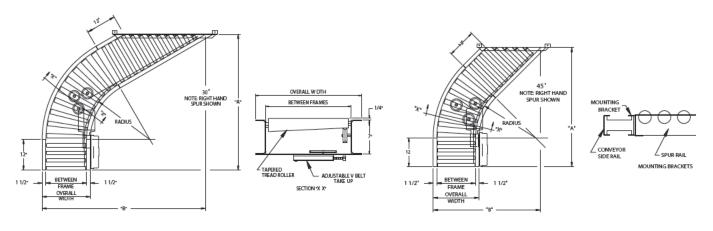


	CURVE SPUR "190CLRS"											
Overall	Width Between			Α		В	Weight (lbs.					
Width	Frame	Radius	45°	30°	45°	30°	45°	30°				
18"	15"		541/8"	59 <sup>1</sup> / <sub>8</sub> "	45 1/8"	65 %"	290	310				
24"	21"	321/2"	58 %"	643/8"	553/8"	80 5/8"	335	355				
30"	27"		621/2"	691/2"	65 5/8"	95 5/8"	380	405				
36"	33"	48"	77 3/4"	881/8"	803/8"	118³/8"	403	450				
42"	39"	70	82"	933/8"	905/8"	133 %"	432	490				

STRAIGHT SPUR "190CLRSS"										
Overall	Width Between	P	١	E	3	Weight (lbs.)				
Width	Frame	45°	30°	45°	30°	45°	30°			
18"	15"	27"	40"	251/2"	381/2"	209	251			
24"	21"	36"	52"	341/2"	50 <sup>1</sup> / <sub>2</sub> "	238	286			
30"	27"	45"	64"	431/2"	621/2"	269	323			
36"	33"	53"	76"	51 <sup>1</sup> / <sub>2</sub> "	741/2"	303	363			
42"	39"	61"	88"	59 <sup>1</sup> / <sub>2</sub> "	861/2"	332	398			

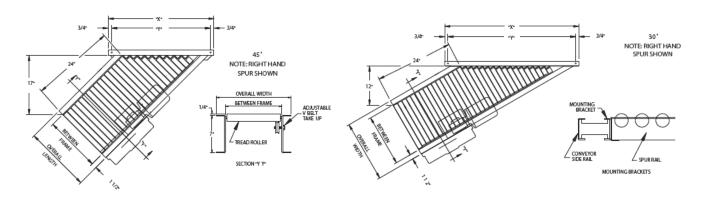
#### "190CLRS" 30° CURVE SPUR

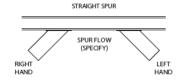
#### "190CLRS" 45° CURVE SPUR

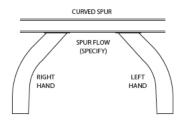


#### "190CLRSS" 45° STRAIGHT SPUR

#### "190CLRSS" 30° STRAIGHT SPUR



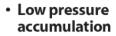






# **MODEL "190LS"**

## Line Shaft Live Roller Conveyor



- Clean room installation
- Economical transportation conveyor
- Assembly conveyor



#### STANDARD SPECIFICATIONS

**Driving Belts** - 3/16" diameter round urethane "O" rings from drive shaft to tread rollers.

**Bed** - 7" x  $1\frac{1}{2}$ " x 12 gauge powder painted formed steel channel frame with heavy duty cross braces and splice plates.

**Rollers** - 1.9" diameter x 16 gauge galvanized steel tread rollers with  $\frac{7}{16}$ " hex shaft and sealed, greased for life bearings, spaced on 3" centers.

Floor Supports - Adjustable 31½" to 45½" from floor to top of tread roller. One support supplied at each end of conveyor and at each bed joint.

**Drive** - 2 foot module with motor and reducer. Drive module will be bolted to intermediate section.

**Drive Shaft** - 1" diameter steel shaft, driven by motor and reducer, runs full length of conveyor. Chain coupling supplied at bed joints to couple sections together.

**Drive Spools** - Delrin spools located on drive shaft supplies driving power to tread rollers.

**Drive Shaft Bearings** - Sealed, prelubricated, self aligning, precision ball bearings on drive shaft.

**Speed Reducer** - C-Face mounted, heavy duty worm gear reducer. **Motor** - ½ HP 230/460/3-60 TE motor.

**Drive Guard** - Perforated metal guard full length of conveyor covers drive shaft and other moving drive components.

Conveying Speed - 60 FPM constant.

**Capacity** - 15 lbs. per tread roller maximum. Not to exceed Load Capacity Chart.

#### OPTIONAL EQUIPMENT

**Conveying Speed** - Constant and variable speeds from 30 to 120 FPM available.

**Timing Belt Drive** - For speeds over 90 FPM a timing belt drive in lieu of #50 chain drive is recommended.

**Roller Centers** - Tread rollers can be placed on 2<sup>1</sup>/<sub>4</sub>", 4", 6", or 8" centers. NOTE: Capacities change as roller centers change. See engineering section of price list for capacity changes.

Floor Supports - Lower or higher supports available. Minimum elevation with standard drive mounting is 18" from floor to top of rollers.

**Powered Right Angle Belt Transfer** - Air operated pop-up round belt transfer mounted in 32" long modular section, 75 lbs. maximum unit load.

**Package Stops** - Manual or air operated blade or roller stops available.

**Guard Rails** - Adjustable channel or solid fixed guard rails available. **Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

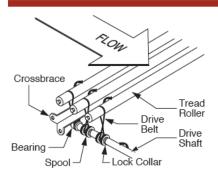
**Ceiling Hangers** - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware.

**Jump Chain** - One-to-one chain drive moves drive shaft to opposite side for driving various optional accessories.

# **MODEL** "190LS"



Overall	Intermediate	Between Frames	15"	21"	27"	33"	39"
Length	Length	Overall Frame Width	18"	24"	30"	36"	42"
5'	3'		224	260	295	329	364
10'	8'		361	428	491	553	616
15'	13'		498	595	686	776	868
18'	20'		635	762	882	1000	1120
25'	23'		773	930	1077	1224	1371
30'	28'		910	1097	1273	1448	1623
35'	33'		1047	1264	1468	1671	1875
40'	38'	Weight	1184	1432	1664	1895	2127
45'	43'	(lbs.)	1322	1599	1859	2119	2379
50'	48'		1459	1766	2055	2342	2631
55'	53'	Weights	1596	1934	2250	2566	2883
58'	60'	Based on	1733	2101	2446	2790	3135
65'	63'	3" Roller	1871	2268	2641	3014	3387
70'	68'	Centers	2008	2436	2837	3237	3639
75'	73'		2145	2603	3032	3461	3891
80'	78'		2282	2770	3228	3685	4143
85'	83'		2420	2937	3423	3909	4394
90'	88'		2557	3105	3619	4132	4646
95'	93'		2694	3272	3815	4357	4898
100'	98′		2831	3439	4010	4580	5150

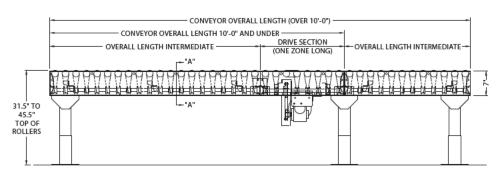


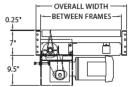
НР		Overall Frame Width 16" to 22"			all Frame \ 24" to 30"	1	Overall Frame Width 34" to 42"			
	Total Load (lbs.)			To	tal Load (ll	bs.)	To	tal Load (l	bs.)	
	Up to 60'	Up to 90'	Up to 120'	Up to 60'	Up to 90'	Up to 120'	Up to 60'	Up to 90'	Up to 120'	
1/2	1550	580	-	1340	250	-	1020	-	-	
3/4	3310	2330	1360	3090	2010	920	2770	1530	280	
1	*3600	4090	3110	*3600	3770	2680	*3600	3280	2040	
11/2	-	*5400	6620	-	*5400	6190	-	*5400	5550	
2	*7200		*7200	-	-	*7200	-	-	*7200	

\*NOTE: Capacities based on 3" roller centers with all rollers driven. Rollers limited to 15 lbs. maximum live load per roller. See Engineering Section of Price List for capacities with other than 3" roller centers.

# OPERATIONAL SEQUENCE

- 1) 1" diameter drive shaft is powered by motor reducer drive. Drive shaft is supported by bearings mounted to conveyor cross braces and coupled at bed joints with chain coupling.
- Drive spools are located on drive shaft and held in place with lock collars. When drive shaft turns, spools turn and by means of drive belt, transmits power to tread roller.
- When package flow is interrupted for accumulation, drive spool will slip on drive shaft eliminating power to tread roller.







# MODEL"190LSE"

## Line Shaft Live Roller Conveyor

- Zero pressure accumulation
- Clean room installation
- Easy installation
- True product singulation
- · No mechanical sensor rollers
- Photo eye controlled



**Driving Belts** -  $\frac{3}{16}$ " diameter round urethane "O" rings from drive shaft to tread rollers.

**Bed** -  $7" \times 1^{1}/2" \times 12$  gauge powder painted formed steel channel frame with heavy duty cross braces and splice plates.

**Rollers** - 1.9" diameter x 16 gauge galvanized steel tread rollers with <sup>7</sup>/<sub>16</sub>" hex shaft and sealed, greased for life bearings, spaced on 3" centers.

**Sensing Device** - NEMA 1 photoelectric sensor in each zone detects presence of product and activates accumulation feature in the trailing zone if upstream zone is occupied.

**Power Supply** - 120 VAC power supply controls accumulation feature with 24 VDC output. Power supply will control 50 accumulation zones

**Air Requirements** - 20 to 35 psi recommended operating pressure with free air consumption of .0062 cu. ft. per sensor operation.

**Accumulation Zones** - 24",30", or 36" long, air operated. Conveyor frame length changes with zone lengths. Note: Zone length must be evenly divisible by roller centers.

**Filter/Regulator** - Supplied loose for mounting to conveyor side frame, with <sup>3</sup>/<sub>8</sub>" NPT ports.

**Guard Rails** - 11/2" x 11/2" x 12 guage galvanized guard rails - both sides. NOTE: Product contact with guard rails will affect product flow.

**Floor Supports** - Adjustable  $31\frac{1}{2}$ " to  $45\frac{1}{2}$ " from floor to top of tread roller. One support supplied at each end of conveyor and at each bed joint.

**Drive** - 2 foot module with motor and reducer. Drive module will be bolted to intermediate section.

**Drive Shaft** - 1" diameter steel shaft, driven by motor and reducer, runs full length of conveyor. Chain coupling supplied at bed joints to couple sections together.

**Drive Spools** - Delrin spools located on drive shaft supplies driving power to tread rollers.

**Drive Shaft Bearings** - Sealed, prelubricated, self aligning, precision ball bearings on drive shaft.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer. **Motor** - 1/2 HP 230/460/3-60 TE motor.

**Drive Guard** - Expanded metal guard full length of conveyor covers drive shaft and other moving drive components.

Conveying Speed - 60 FPM constant.

Capacity - 15 lbs. per tread roller maximum. Not to exceed Load Capacity Chart.



#### OPTIONAL EQUIPMENT

**Conveying Speed** - Constant and variable speeds from 30 to 120 FPM available.

**Timing Belt Drive** - For speeds 90 FPM and above a timing belt drive in lieu of #50 chain drive is recommended.

Roller Centers - 21/4", 4", 6", or 8" centers. NOTE: Capacities change as roller centers change. See engineering section of price list for capacity changes.

**Accumulation Zones** - 18" long, air operated. Conveyor frame lengths change with zone lengths. NOTE: Zone length must be evenly divisible by roller centers.

Floor Supports - Lower or higher supports available. Minimum elevation with standard drive mounting is 18" from floor to top of rollers

**Powered Right Angle Belt Transfer** - Air operated pop-up round belt transfer mounted in 32" long modular section, 75 lbs. maximum unit load. - Reversing UBT is 39" long.

**Package Stops** - Manual or air operated, blade or roller stops available.

**Slug Release** - Allows for conveyor to be quickly unloaded when accumulation feature is not required.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Ceiling Hangers** - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware.

**Jump Chain** - One-to-one chain drive moves drive shaft to opposite side for driving various optional accessories.

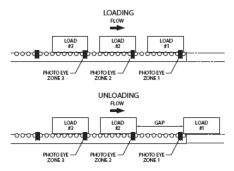
# MODEL"190LSE"



Overall	Intermediate	Between Frames	15"	21"	27"	33"	39"
Length	Length	Overall Frame Width	18"	24"	30"	36"	42"
5'	3'		224	260	295	329	364
10'	8'		361	428	491	553	616
15'	13'		498	595	686	776	868
18'	20'		635	762	882	1000	1120
25'	23'		773	930	1077	1224	1371
30'	28'		910	1097	1273	1448	1623
35'	33'		1047	1264	1468	1671	1875
40'	38'	Weight	1184	1432	1664	1895	2127
45'	43'	(lbs.)	1322	1599	1859	2119	2379
50'	48'		1459	1766	2055	2342	2631
55'	53'	Weights	1596	1934	2250	2566	2883
58'	60'	Based on	1733	2101	2446	2790	3135
65'	63'	3" Roller Centers	1871	2268	2641	3014	3387
70'	68'	centers	2008	2436	2837	3237	3639
75'	73'		2145	2603	3032	3461	3891
80'	78'		2282	2770	3228	3685	4143
85'	83'		2420	2937	3423	3909	4394
90'	88'		2557	3105	3619	4132	4646
95'	93'		2694	3272	3815	4357	4898
100'	98′		2831	3439	4010	4580	5150

#### **OPERATIONAL SEQUENCE**

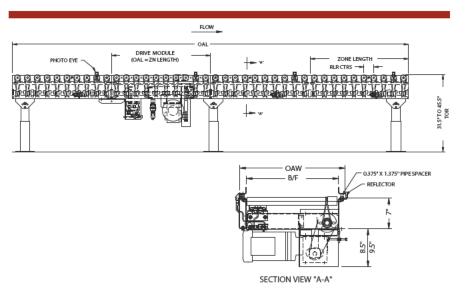
- Model "190LSE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.
- 2) The second load travels the length of the conveyor until it reaches Zone #2. If Zone #1 is occupied, the second load will stop in Zone #2. Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.



3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor for the accumulation process to continue.

НР	Overall Frame Width 16" to 22"			Ove	rall Frame \ 24" to 30"		Overall Frame Width 34" to 42"			
	Total Load (lbs.)			To	tal Load (II	os.)	To	tal Load (lb	s.)	
	Up to 60' Up to 90' Up to 120'			Up to 60'	Up to 90'	Up to 120'	Up to 60'	Up to 90'	Up to 120'	
1/2	1550	580	-	1340	250	-	1020	-	-	
3/4	3310	2330	1360	3090	2010	920	2770	1530	280	
1	*3600	4090	3110	*3600	3770	2680	*3600	3280	2040	
11/2	-	*5400	6620	-	*5400	6190	-	*5400	5550	
2	-	-	*7200	-	-	*7200	-	-	*7200	

\*NOTE: Capacities based on 3" roller centers with all rollers driven. Rollers limited to 15 lbs. maximum live load per roller. See Engineering Section of Price List for capacities with other than 3" roller centers.





# MODEL"190LSC"-Curve MODEL"190LSCS"-Curve Spur MODEL"190LSS"-Straight Spur

- 5 bed widths
- Slave driven from Model "190LS"
- High speed capabilities



#### STANDARD SPECIFICATIONS

**Bed** - Roller bed with  $2^{1}/2^{n}$  diameter tapered to  $1^{11}/_{16}^{n}$  diameter x 14 gauge galvanized and 1.9" diameter x 16 gauge galvanized tread rollers. Mounted in 7" x 12 gauge powder painted formed steel channel frame.

**Floor Supports** - Adjustable  $31\frac{1}{2}$ " to  $45\frac{1}{2}$ " from floor to top of rollers. One support at ends of 190LSC (Curve), 190LSCS (Curve Spur) and 190LSS (Straight Spur). Single leg supplied for center of outside rail on 90° 190LSC only.

**Slave Driven** - Curves or spurs are slave driven from drive shaft of Model 190LS conveyor. Shafts are coupled by chain coupling at bed joints.

**Drive Shaft** - 1" diameter steel shaft extends full length of conveyor, coupled with universal joints ("U" joints) at necessary intervals.

**Drive Spools** - 2" diameter Delrin spool held in place on drive shaft with "snap-on" lock collars.

**Drive Guard** - Underside of drive shaft with spools and drive belts guarded full length of conveyor.

**Drive Belts** - 3/16" diameter urethane belt from drive spool to tread roller.

**Bearings** - Tread rollers, pre-lubricated ball bearings. Sealed, pre-lubricated, self-aligning ball bearings on drive shaft.

Butt Couplings - Standard for connecting to 190LS.

Capacity - See Load Capacity Chart.

#### **OPTIONAL EQUIPMENT**

**Conveying Speed** - Other constant and variable speeds from 30 to 120 FPM.

**Guard Rails** - Adjustable channel, continuous channel, steel guard rails available.

Floor Supports - Lower or higher supports available. Minimum elevation with standard drive mounting is 18" to top of rollers.

**Ceiling Hangers** - 1/2" diameter x 8'0" long threaded rods with locking nuts and mounting hardware.

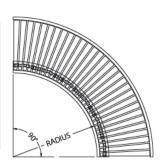
#### **Load Capacity Chart**

	190LSC	190L	.SCS	190LSS		
Between Rail Width	Capacity Per Curve (lbs.)	Capa Per S (lb	pur	Capacity Per Straight Spur (lbs.)		
		45° 30°		45°	30°	
15"	240	300	285			
21"-27"	300	405	435	375	480	
33"-39"	450	540	720			

#### MODEL "190LSC" - CURVE

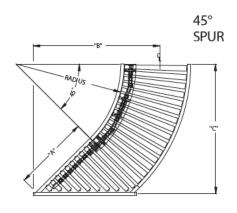
Between Rail	Overall Frame	me "R"	ı		tal of Rollers	;	Weight (lbs.)				
Width	Width		90°	60°	45°	30°	90°	60°	45°	30°	
15"	18"	321/2"	20T	20T*	10T	10T*	208	189	170	140	
21"	24"	321/2"	20T	20T*	10T	10T*	244	221	198	162	
27"	30"	321/2"	20T	20T*	10T	10T*	283	245	227	187	
33"	36"	48"	30T	20T	15T	10T	430	370	309	246	
39"	42"	48"	30T	20T	15T	10T	480	382	344	271	

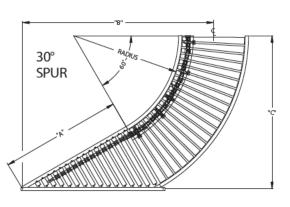




# MODEL "190LSC"-Curve MODEL "190LSCS"-Curve Spur MODEL "190LSS"-Straight Spur







# OVER ALL WIDTH B/F O 7 7.25"

The "190LSCs" Spur, and "190LSS" Straight Spur have been designed to be slave driven from the "190LS" conveyor. Curves are used where turns in the conveyor line are necessary. Spurs are used in diverging or converging applications.

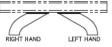
#### MODEL "190LSCS" - 45° & 30° CURVE SPURS

Between Frame	Overall Frame	me		"A"		"B"		"C"		Weight (lbs.)	
Width	Width	45°	30°	45°	30°	45°	30°	45°	30°	45°	30°
15"	18"	32.5"	48"	22.1875"	33.0"	34.125"	60.3125"	37.25"	57.75"	200	230
21"	24"	32.5"	48"	28.1875"	43.5"	41.3125"	72.3125"	41.5"	63.0"	229	261
27"	30"	32.5"	48"	34.1875"	54.0"	48.5625"	84.3125"	45.75"	68.125"	259	293
33"	36"	48.0"	48"	40.1875"	64.25"	60.375"	96.3125"	61.0"	73.3125"	372	457
39"	42"	48.0"	48"	46.1875"	74.75"	67.625"	108.3125"	65.25"	78.5"	408	498

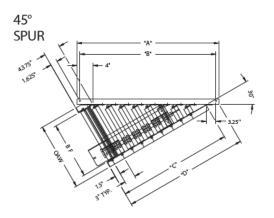


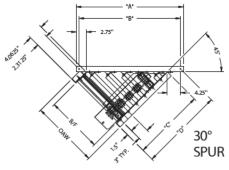


#### CURVED SPUR



- a. Specify "right" or "left" hand unit.
- b. Specify direction of flow.
- Specify conveyor to be attached to in order for proper attachment bracket to be furnished.





#### MODEL"190LSS" - 45° & 30° STRAIGHT SPURS

Between Frame	Overall Frame	"A	"	"B'	,	"C	"	"D	)"		ight is.)
Width	Width	45°	30°	45° 30°		45°	30°	45°	30°	45°	30°
15"	18"	28.25"	37.5"	26.75"	36"	19.875"	30.25"	22.1875"	33.0"	157	198
21"	24"	36.75"	49.5"	35.25"	48"	25.1875"	40.5"	28.1875"	43.5"	178	222
27"	30"	45.25"	61.5"	43.75"	60"	31.1875"	51.0"	34.1875"	54.0"	200	245
33"	36"	53.75"	73.5"	52.25"	72"	37.1875"	61.5"	40.1875"	64.25"	218	264
39"	42"	62.25"	85.5"	60.75"	84"	43.1875"	72.0"	46.1875"	74.75"	234	280



Wash down operations
 Oily conditions
 Positive drive — no belt slippage

# **MODEL"22CRR"**

## Chain Driven Live Roller Conveyor



## STANDARD SPECIFICATIONS

Drive Chain - No. 40 roller chain on straight sections.

**Bed** - Conveying surface width 14", 16", 18", 24", 28", and 34".  $3\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 10 gauge powder painted formed steel channel on one side, 5" x  $1\frac{1}{2}$ " x 10 gauge formed steel channel on chain drive side. Sections are bolted together with butt couplings and floor supports.

**Tread Rollers** - 2" diameter x 12 gauge steel with #40 sprockets welded to roller tube,  $\frac{7}{16}$ " hex shafts. Rollers spaced on 4", 6", 8" and 12" centers. Rollers are roller to roller driven.

**Chain Guard** - Chain guard is mounted to frame to totally enclose drive chain.

Center Drive - Mounted underneath conveyor, near center of section. Can be placed most anywhere in conveyor length. Specify.

**Floor Supports** - Adjustable 28" to 42" from floor to top of rollers. One support supplied at each end of conveyor and at each bed joint.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer. **Motor** - ½ HP 230/460/3/60 TE motor.

Roller Speed - 60 FPM constant.

**Capacity** - Maximum load 150 lbs. per foot; maximum unit load 500 pounds. Not to exceed Load Capacity Chart.

#### **OPTIONAL EQUIPMENT**

**Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

**Floor Supports** - Lower or higher supports are available. Minimum elevation 17<sup>1</sup>/<sub>2</sub>" from floor to top of rollers.

Ceiling Hangers - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available. Side Mounted Drive - Drive mounted to side of conveyor section. Specify side. Minimum elevation - 7" from floor to top of rollers.

**Rollers Set Low** - Tread rollers mounted low in  $4^{1}/_{2}$ " x 10 gauge formed steel channel frame to form  $3^{1}/_{4}$ " high guard rails.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Roller Speed** - Constant and variable roller speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

# **MODEL**"22CRR"

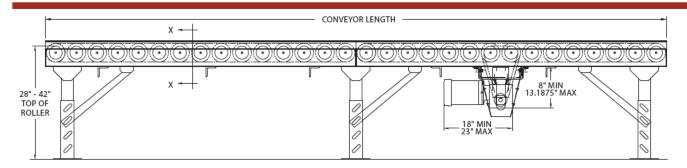


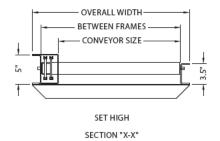
Conveyor	Conveying Surface	14"	16"	18"	24"	28"	34"
Length	Width Between Frames	17"	19"	21"	27"	31"	37"
Size"A"	Overall Width	20"	22"	24"	30"	34"	40"
5'		393	406	418	454	477	507
10'		526	557	576	633	671	718
15'		692	740	759	840	894	960
20'	Weight	825	883	917	1019	1088	1171
25'	(lbs.)	991	1058	1100	1226	1311	1413
30'	Based On	1124	1209	1258	1405	1505	1624
40'	4" Roller Centers	1423	1535	1599	1791	1922	2077
50'		1722	1861	1940	2177	2339	2530
60'		2021	2187	2280	2563	2756	2983
70'		2320	2513	2622	2949	3173	3436
80'		2619	2839	2963	3335	3590	3389
90'		2918	3165	3304	3721	4007	4342
100'		3217	3491	3645	4107	4424	4795

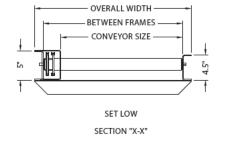
			FOR 6",	8" OR 12'	'CENTER	S DEDUC	TTHEW	EIGHTS B	ELOW						
Roller															
Centers	Bed Length	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'		
6"	Weight	-25	-50	-28	-55	-30	-59	-36	-72	-40	-80	-45	-89		
8"	Deduction	-37	-74	-41	-81	-44	-87	-53	-105	-59	-118	-66	-132		
12"	12" ( <b>Ibs.</b> ) -49 -98 -55 -108 -59 -116 -71 -142 -79 -158 -89 -176														

# Load Capacity Chart

6	0 FPM
H.P.	TOTAL LOAD
1/2	1625 Lbs.
3/4	2375 Lbs.
1	3025 Lbs.
11/2	3900 Lbs.









# MODEL"22CRRCT"

#### Chain Driven Live Roller Curve



# erations

Wash down op-

- Oily conditions
- Positive drive

#### STANDARD SPECIFICATIONS

Drive Chain - No. 40 circular roller chain.

Bed - Conveying surface width 14", 16", 18", 24", 28", and 34". 21/2" diameter to 111/16" diameter tapered rollers, 7/16" hex shafts. Mounted in 10 gauge powder painted formed steel channel frame. Roller to roller driven.

Chain Guard - Chain guard is mounted above frame to totally enclose drive chain.

Center Drive - Mounted underneath conveyor in center of curve. Floor Supports - Adjustable 28" to 42" from floor to top of rollers. One support at each end and center leg on outer rail.

Motor - 1/2 HP 230/460/3-60 TE Motor.

**Speed Reducer** - C-Face heavy duty worm gear.

Roller Speed - 60 FPM.

Capacity - 850 pounds distributed live load.

#### OPTIONAL EQUIPMENT

Guard Rails - Adjustable channel, continuous channel, steel guard rails available.

Floor Supports - Lower or higher are available. Minimum elevation, 18" from floor to top of rollers.

Ceiling Hangers - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Side Mounted Drive - Drive mounted to side of conveyor bed. Minimum elevation to top of rollers is 6". Specify side.

Rollers Set Low - Tread rollers mounted low in 41/2" x 10 gauge formed steel channel frame to form 3/4" high guard rails.

Motor - Single phase, energy efficient, explosion proof, etc. Other HP are available.

**Roller Speed** - Constant and variable roller speeds available.

Electrical Controls - Magnetic starters and push button stations; manual motor starters with overload protection, others.

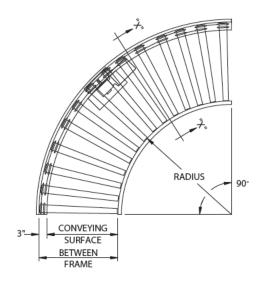
22CRRCT - Can be slave driven.

# **MODEL**"22CRRCT"

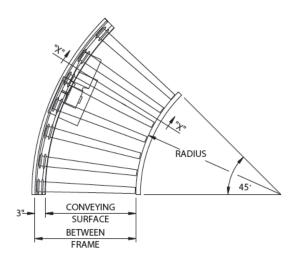


Conveying Surface	Width Between	Overall Width	"R"		Number of Rollers			Weight (lbs.)	
	Frames			90°	45°	30°	90°	45°	30°
14"	17"	20"					325	335	300
16"	19"	22"	32 <sup>1</sup> /2"	14	7	6	333	343	308
18"	21"	24"	3272	14	/	6	341	351	316
24"	27"	30"					365	375	340
28"	31"	34"	401	21	1.4	0	395	405	375
34"	37"	40"	48"	21	14	9	419	429	399

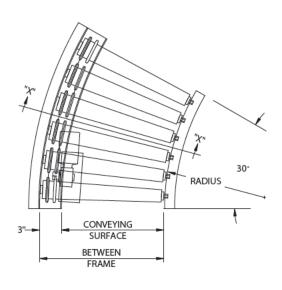
#### MODEL"22 CRRCT" - 90° CURVE

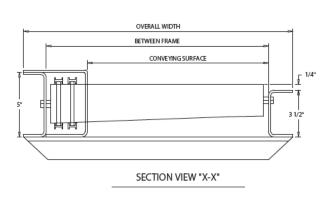


#### MODEL "22 CRRCT" - 45° CURVE



#### MODEL"22 CRRCT"-30° CURVE

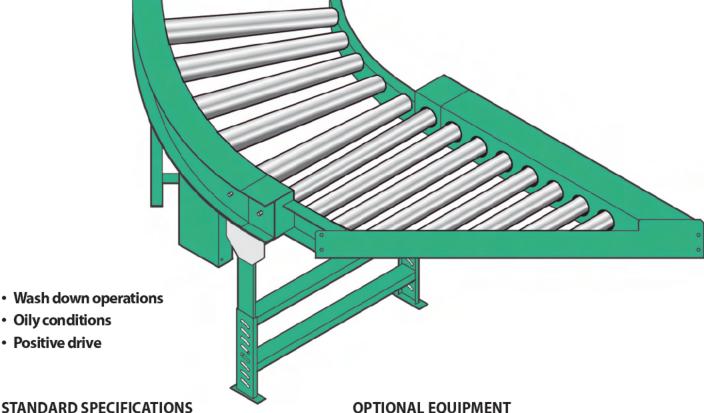






# **MODEL**"22CRRCTS"

Chain Driven Live Roller Spur



Drive Chain - No. 40 circular roller chain.

Bed - Conveying surface width 14", 16", 18", 24", 28" and 34". 21/2" diameter to 111/16" diameter tapered rollers, 7/16" hex shafts. Mounted in 10 gauge powder painted formed steel channel frame. Rollers are roller to roller driven.

Rollers - Tapered rollers in curve sections; Straight rollers in straight sections.

Chain Guard - Chain guard is mounted above frame to totally enclose drive chain.

Center Drive - Mounted underneath conveyor in center of curve. Floor Supports - Adjustable 28" to 42" from floor to top of rollers. One support at each end and center leg on outer rail.

Motor - 1/2 HP 230/460-3-60 TE motor.

Speed Reducer - C-Face heavy duty worm gear.

Roller Speed - 60 FPM.

Capacity - 850 lbs. total distributed live load.

#### OPTIONAL EQUIPMENT

Guard Rails - Adjustable channel, continuous channel, steel guard rails available.

Floor Supports - Lower or higher are available. Minimum elevation, 18" from floor to top of rollers.

Ceiling Hangers - 1/2" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Side Mounted Drive - Drive mounted to side of conveyor bed. Minimum elevation 6". Specify which side drive is to be located.

Rollers Set Low - Tread rollers mounted low in 41/2" x 10 gauge formed steel channel frame to form 3/4" high guard rails.

Motor - Single phase, energy efficient, explosion proof, etc. Other HP are available.

**Roller Speed** - Constant and variable roller speeds available.

Electrical Controls - Magnetic starters and push button stations; manual motor starters with overload protection, others.

# **MODEL**"22CRRCTS"



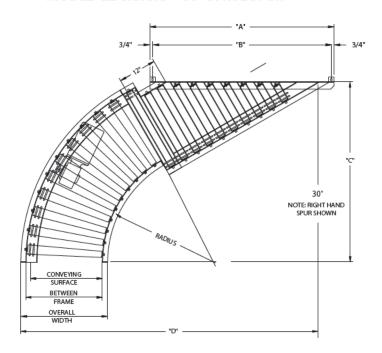
Conveying	Width Between	Overall	"R"	"A"	,	"B"	,	"C"		"D"	,	Num of Ro			ight os.)
Surface	Frames	Width		45°	30°	45°	30°	45°	30°	45°	30°	45°	30°	45°	30°
14"	17"	20"		311/2"	43"	30"	41 <sup>1</sup> / <sub>2</sub> "	43%16"	49"	489/16"	6811/16"	6S-7T	9S-9T	275	325
16"	19"	22"	321/2"	341/2"	47"	33"	45 <sup>1</sup> / <sub>2</sub> "	4415/16"	50 <sup>11</sup> / <sub>16</sub> "	51 15/16"	75 <sup>11</sup> /16"	7S-7T	9S-9T	285	335
18"	21"	24"	32/2	37"	51"	351/2"	491/2"	463/8"	52 <sup>7</sup> /16"	55 ³/8"	8011/16"	8S-7T	10S-9T	310	360
24"	27"	30"		451/2"	63"	44"	61 <sup>1</sup> / <sub>2</sub> "	50 <sup>5</sup> /8"	57 <sup>5</sup> /8"	65 <sup>5</sup> /8"	9511/16"	9S-7T	11S-9T	355	405
28"	31"	34"	40"	51"	71"	491/2"	69 <sup>1</sup> / <sub>2</sub> "	643/8"	68 <sup>1</sup> / <sub>2</sub> "	77"	113³/ <sub>8</sub> "	10S-10T	12S-14T	380	430
34"	37"	40"	48"	59 <sup>1</sup> / <sub>2</sub> "	83"	58"	81 <sup>1</sup> / <sub>2</sub> "	685/8"	73 <sup>3</sup> / <sub>4</sub> "	87 <sup>1</sup> / <sub>4</sub> "	128 3/8"	11S-10T	13S-14T	415	465

<sup>\*</sup> S = Straight Roller T = Tapered Roller

#### MODEL"22 CRRCTS" - 45° CURVE SPUR

# 3/4" 45" NOTE RIGHT HAND SPUR SHOWN "CONVEYING SURFACE BETWEEN FRAME OWERALL WIDTH 'D'

#### MODEL "22 CRRCTS" - 30° CURVE SPUR





# MODEL"251CRR" and MODEL"267CRR"

Chain Driven Live Roller Conveyor



#### STANDARD SPECIFICATIONS

**Bed** - Conveying surface width 28", 34", 40", 46", 52", 58", and 64".  $2^{1}/2$ " diameter x 11 gauge and  $2^{5}/8$ " x 7 gauge steel tread rollers,  $1^{1}/16$ " hex shafts. No. 50 chain is used on 5",  $7^{1}/2$ ", 10" roller centers only. No. 60 chain is used on 6",  $7^{1}/2$ ", and 12" centers only. Tread rollers mounted in 4" and 6" x 4 gauge powder painted formed steel channel frame. Sections are bolted together with butt couplings and floor supports.

**Drive Chain** - No. 50 roller chain or No. 60 roller chain can be used with either the 251 CRR or 267 CRR as above.

**Floor Supports** - Heavy duty supports are adjustable 30<sup>1</sup>/<sub>4</sub>" to 40" from floor to top of roller. One support at every bed joint and each end of conveyor.

**Center Drive** - Mounted underneath conveyor, center of section. Can be placed most any where in conveyor length.

Bearings - Sealed, prelubricated ball bearings.

**Chain Guard** - Lower chain guard is mounted on bottom of roller frame, and upper chain guard is mounted above roller frame to totally enclose drive chain.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 3/4 HP 230/460-3-60 TE motor.

Speed - 30 FPM.

**Capacity** - Maximum load per linear foot of conveyor; 300 lbs. with supports on 10' centers, 1000 lbs. with supports on 5'0" centers.

#### **OPTIONAL EQUIPMENT**

**Floor Supports** - Lower or higher supports are available. Minimum elevation, 18" from floor to top of rollers.

**Side Mounted Drive** - Motor-reducer unit can be mounted to side of conveyor frame. Drive is higher than conveyor frame. Minimum elevation to top of rollers is 7".

**Roller Set Low** - 5" deep x 4 gauge non-driven side rail to provide <sup>3</sup>/<sub>4</sub>" high guard rail.

 ${\bf Motor}$  - Single phase, energy efficient, explosion proof, etc. Other HP available.

Roller Speed - Constant and variable speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

# MODEL"251CRR" and MODEL"267CRR"



#### MODEL "251CRR" & "267CRR" WEIGHTS

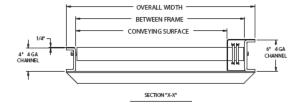
	Conveying Surface	28	3"	34	4"	40	)"	40	6"	5	2"	5	8"	6	4"
Conveyor Length	Width Between Frames	31	Ι"	37	7"	43	3"	49	9"	5	5"	6	1"	6	7"
	Overall Width	34	1"	40	0"	46	5"	52	2"	5	8"	6	4"	7	0"
	Model	251	267	251	267	251	267	251	267	251	267	251	267	251	267
5'		392	458	430	501	463	544	496	587	529	630	562	673	595	716
10'		679	804	744	886	806	967	868	1048	930	1130	992	1212	1054	1294
15'		964	1152	1059	1272	1149	1391	1239	1510	1329	1629	1419	1748	1509	1867
20'	Weight	1498	1533	1567	1688	1814	1835	2061	2182	2308	2429	2555	2676	2755	2923
25'	Based on	1818	1846	2003	2043	2178	2238	2353	2433	2468	2628	2583	2823	2988	3018
30'	5"	2102	2192	2317	2428	2521	2661	2725	2894	2929	3127	3133	3366	3337	3599
40'	Roller	2671	2886	2946	3199	3207	3508	3468	3817	3729	4126	3990	4435	4251	4744
50'	Centers	3240	3580	3575	3970	3893	4355	4211	4740	4529	5125	4847	5510	5165	5895
60'	(lbs.)	3809	4274	4204	4741	4579	5202	5040	5663	5502	6124	5964	6585	6426	7046
70'		4378	4968	4833	5512	5265	6049	5697	6586	6129	7123	6561	7660	6993	8197
80'		4947	5652	5462	6283	6294	6896	7126	7509	7958	8122	7590	8735	9622	9348
90'		5516	6376	6091	7054	6673	7743	7255	8432	7837	9121	8419	9810	9001	10399
100'		6085	7070	6720	7825	7359	8590	7998	9355	8637	10120	9276	10885	9915	11650

#### FOR 6", 71/2", 10", 12" CENTERS DEDUCT WEIGHT LISTED BELOW - 5'0" OAL BED SECTION

Roller	Width Between Frames	31	Ι"	3	7"	43	3"	4	9"	5	5"	6	1"	67	7"
Centers	Model	251	267	251	267	251	267	251	267	251	267	251	267	251	267
6"		55	74	64	85	72	98	80	111	88	124	96	137	104	150
71/2"	Weight	55	74	64	85	72	98	80	111	88	124	96	137	104	150
10"	Deduction (lbs.)	82	109	96	127	109	145	122	163	135	181	148	199	161	217
12"		94	116	110	130	134	152	158	174	182	196	206	218	230	240

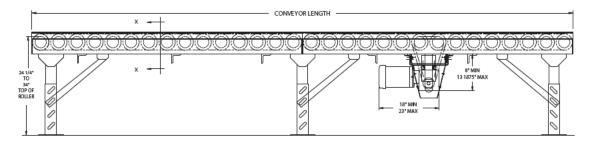
#### FOR 6", 71/2", 10", 12" CENTERS DEDUCT WEIGHT LISTED BELOW – 10'0" OAL BED SECTION

Roller	Width Between Frames	31	l"	3	7"	43	3"	4	9"	5	5"	6	1"	67	7"
Centers	Model	251	267	251	267	251	267	251	267	251	267	251	267	251	267
6"		108	146	127	170	145	194	163	218	181	242	199	266	217	290
71/2"	Weight	108	146	127	170	145	194	163	218	181	242	199	266	217	290
10"	Deduction (lbs.)	168	184	190	214	212	244	234	274	256	304	278	334	300	364
12"		189	218	220	254	251	290	282	336	313	376	344	416	375	456





	Total Distributed	Live Load
HP	Up to 40' Long	Up to 100'Long
3/4	6000 lbs.	2800 lbs.
1	9000 lbs.	6000 lbs.
11/2	15000 lbs.	12000 lbs.
2	22000 lbs.	18000 lbs.





# **MODEL**"251CRR-3"

#### Chain Driven Live Roller - 3" Centers



**Bed** - Conveying surface width 16", 20", 24", 28", 30", 34", 36", 40", 44", 48", 52", and 56". Heavy duty 4" and 4<sup>3</sup>/<sub>4</sub>" deep x 4 gauge powder painted formed steel channel frame with heavy duty cross braces. Frames are bolted together with butt couplings and floor supports.

Rollers - 2<sup>1</sup>/<sub>2</sub>" diameter x 11 gauge steel rollers, grease packed and labyrinth sealed bearing, <sup>11</sup>/<sub>16</sub>" hex shaft. Rollers are spaced on 3" centers and set <sup>1</sup>/<sub>4</sub>" high on side rail opposite chain drive.

Drive Chain - RC40 chain is used for roller connections.

**Floor Supports** - Heavy duty supports are adjustable 24½" to 34" from floor to top of roller. One support at every bed joint and end of conveyor. Formed angle knee braces are supplied for each support.

**Center Drive** - Mounted underneath conveyor near center of conveyor length. Minimum elevation with standard drive mounting is 18" to top of roller.

Bearings - Sealed prelubricated ball bearings.

**Chain Guard** - Chain guard is on one side only, extends <sup>7</sup>/<sub>8</sub>" above top of rollers. Lower chain guard is mounted on bottom of conveyor frame. Upper chain guard is mounted to top of conveyor frame to totally enclose drive chains.

Speed Reducer - Heavy duty, sealed worm gear reducer.

Motor - 3/4 HP 230/460-3-60 TE motor.

Speed - 30 FPM.

**Capacity** - 4,000 lbs. maximum distributed live load on any conveyor length.

**Maximum Conveyor Length** - Maximum conveyor length with one drive not to exceed 40 feet.

#### **OPTIONAL EQUIPMENT**

Floor Supports - Lower or higher floor supports are available. Side Mounted Drive - Motor-reducer unit can be mounted to side of conveyor frame. Drive is higher than conveyor frame. Minimum elevation to top of roller is 7".

**Conveyor Speed** - Other constant and variable speeds available. Contact factory.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

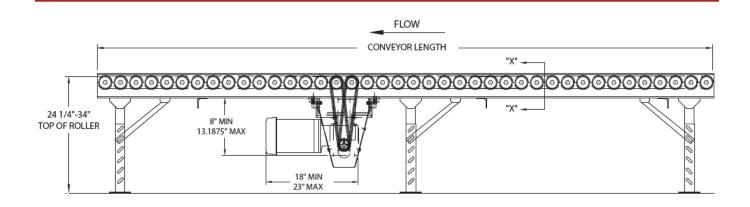
**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

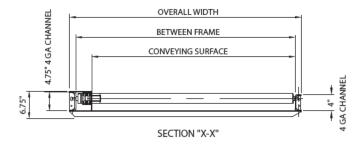
Rollers Set Low - Rollers mounted in 43/4" deep channel both sides. Rollers set low 5/8".

# **MODEL**"251CRR-3"



	Conveying Surface	16"	20"	24"	28"	30"	34"	36"	40"	44"	48"	52"	56"
Bed Length	Between Frames	20"	24"	28"	32"	34"	38"	40"	44"	48"	52"	56"	60"
	Overall Width	23"	27"	31"	35"	37"	41"	43"	47"	51"	55"	59"	63"
5'		446	480	516	551	568	604	623	656	691	727	763	799
10'		742	810	882	952	986	1058	1096	1162	1232	1304	1376	1448
15'		1038	1140	1248	1353	1404	1512	1569	1668	1773	1881	1989	2097
20'	Weights	1334	1470	1614	1754	1822	1966	2042	2174	2314	2458	2602	2746
25'	(lbs.)	1630	1800	1980	2155	2240	2420	2515	2680	2855	3035	3215	3395
30'		1926	2130	2346	2556	2658	2874	2988	3186	3396	3612	3828	4044
35'		2222	2460	2712	2957	3076	3328	3461	3692	3937	4189	4441	4693
40'		2518	2790	3078	3358	3494	3782	3934	4198	4478	4766	5054	5342







# **MODEL**"251CRRC"

## Chain Driven Live Roller Conveyor



#### STANDARD SPECIFICATIONS

**Bed** - Conveying surface width 28", 34", 40", 46", 52", 58" and 64".  $2^{1}/2^{1}$  diameter x 11 gauge steel tread rollers,  $1^{1}/6^{1}$  hex shaft. Tread rollers mounted in 4" and 6" x 4 gauge powder painted formed steel channel frame. Sections are bolted together with butt couplings and floor supports.

Drive Chain - No. 50 circular roller chain.

**Floor Supports** - Heavy duty supports are adjustable 30<sup>1</sup>/<sub>4</sub>" to 40" from floor to top of roller. One support at each end of conveyor and one center leg with knee brace.

Center Drive - Mounted underneath conveyor.

Bearings - Sealed, prelubricated ball bearings.

**Chain Guard** - Lower chain guard is mounted on bottom of roller frame, and upper chain guard is mounted above roller frame to totally enclose drive chain.

Speed Reducer - Heavy duty worm gear C-Face mounted.

Motor - 3/4 HP 230/460-3-60 TE motor.

Speed - 30 FPM.

Capacity - 4,000 pounds distributed live load.

#### OPTIONAL EQUIPMENT

**Floor Supports** - Lower or higher supports are available. Minimum elevation,18" from floor to top of rollers.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Side Mounted Drive** - Motor reducer unit can be mounted to side of conveyor frame. Drive is higher than conveyor frame. Minimum elevation to top of rollers is 7".

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

Roller Speed - Constant and variable speeds available.

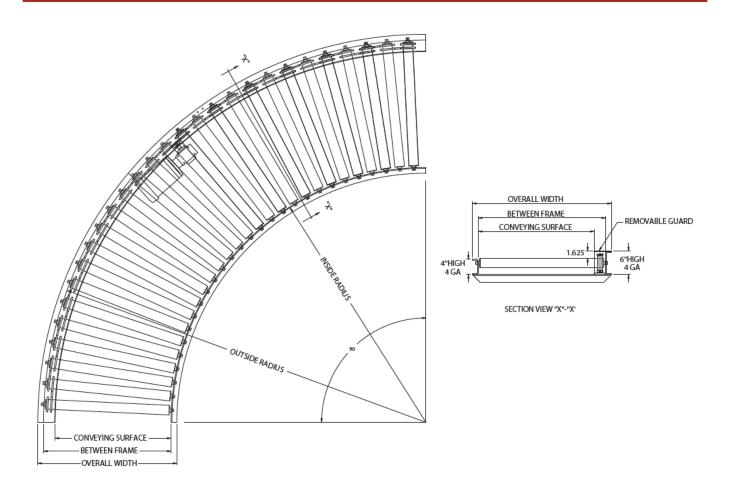
**Rollers Set Low** - 5" deep x 4 gauge non-driven side rail to provide 3/4" high guard rail.

**Rollers** - Tapered rollers available. Requires different size frame.

# MODEL"251CRRC"



Conveying Surface Width	Between Rail Width	Overall Bed Width	Outside Radius "OR"	Inside Radius "IR"	Number of Rollers	Weight (lbs.)
28"	31"	34"		68"		809
34"	37"	40"	]	62"	28	903
40"	43"	46"	1	56"		968
46"	49"	52"	99"	50"	21	1033
52"	55"	58"	1	44"	21	1098
58"	61"	64"	1	38"	10	1163
64"	67"	70"		32"	19	1228





# **MODEL**"251CRRCT"

Chain Driven Live Roller Conveyor



#### STANDARD SPECIFICATIONS

**Bed** - Conveying surface width 28", 34", 40", 46", 52", 58" and 64". Tapered tread rollers mounted in 4" and 6" x 4 gauge powder painted formed steel channel frame. Sections are bolted together with butt couplings and floor supports.

Drive Chain - No. 50 roller chain.

**Floor Supports** - Heavy duty supports are adjustable 30<sup>1</sup>/<sub>4</sub>" to 40" from floor to top of roller. One support at each end of conveyor and one center leg with knee brace.

Center Drive - Mounted underneath conveyor.

Bearings - Sealed, prelubricated ball bearings.

**Chain Guard** - Lower chain guard is mounted on bottom of roller frame, and upper chain guard is mounted above roller frame to totally enclose drive chain.

Speed Reducer - Heavy duty worm gear C-Face mounted.

Motor - 3/4 HP 230/460/3-60 TE motor.

Capacity - 4000 lbs. distributed live load.

Speed - 30 FPM.

#### **OPTIONAL EQUIPMENT**

**Floor Supports** - Lower or higher supports are available. Minimum elevation, 18" from floor to top of rollers.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

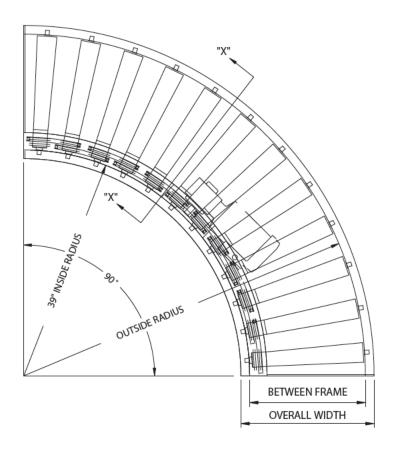
Roller Speed - Constant and variable speeds available.

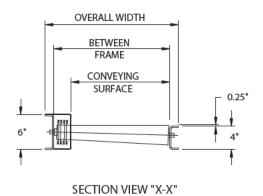
**Rollers Set Low** - 5'' deep x 4 gauge non-driven side rail to provide  $\frac{3}{4}$ " high guard rail.

# **MODEL**"251CRRCT"



Conveyor	Between			Weigl	nts (lbs.)	Tread Roller Taper Dimensions
Surface	Frames	Width	Radius	90°	45°	(Nominal)
28"	31"	34"	70"	732	600	21/2" to 4"
34"	37"	40"	76"	796	648	2½" to 4½"
40"	43"	46"	82"	860	696	2½" to 4¾"
46"	49"	52"	88"	924	744	2½" to 5"
52"	55"	58"	94"	988	792	2½" to 5"
58"	61"	64"	100"	1052	840	2½" to 5"
64"	67"	70"	106"	1116	888	2½" to 5"







## MODEL "350CRR"

## Heavy Duty Chain Driven Live Roller Conveyor



#### STANDARD SPECIFICATIONS

Pallets

Bed - Conveying surface width 19", 27", 29", 33", 41", 47", 53" and 55".6" x 8.2 lb. and 8" x 11.5 lb. powder painted structural channel frame with powder painted structural channel cross braces in each section. Sections are 5 feet long and bolted together with butt couplings and floor supports.

Tread Rollers - 31/2" diameter x .30 wall steel tread rollers spaced on 6" or 12" centers, No. 80 sprockets, 11/16" hex shaft.

Drive Chain - No. 80 roller chain.

Floor Supports - Heavy duty structural supports are fixed at 18" elevation from floor to top of roller. One support at each end of conveyor and at each bed joint.

Center Drive - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Bearings - Removable, sealed, prelubricated ball bearings.

**Chain Guard** - Lower chain guard is mounted on bottom of roller frame, and upper chain guard is mounted above roller frame to totally enclose drive chain.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer. Motor - 2 HP 230/460-3-60 TE motor.

Capacity - 2000 lbs. per foot maximum. Not to exceed Load Capacity Chart.

Speed - 30 FPM constant.

#### OPTIONAL EQUIPMENT

Floor Supports - Lower or higher supports are available.

Side Mounted Drive - Center drive mounted to side of conveyor frame. Drive is higher than conveyor frame. Minimum elevation to top of rollers is 103/8". Specify which side.

Rollers Set Low - Tread rollers set low in 8" x 11.5 pound structural steel channel frame to form 15/8" high guards.

Tread Rollers - 31/2" diameter x .30 wall steel tread rollers spaced on 6" or 12" centers, No. 60 sprockets, 11/16" hex shaft.

Drive Chain - No. 60 roller chain.

Motor - Single phase, energy efficient, explosion proof, etc. Other HP available.

Electrical Controls - Magnetic starter and push button stations; manual motor starters with overload protection, others.

**Speed** - Constant and variable speeds available.

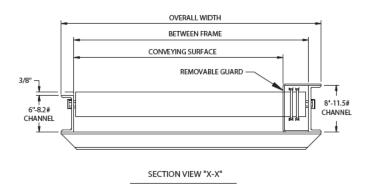
# MODEL"350CRR"

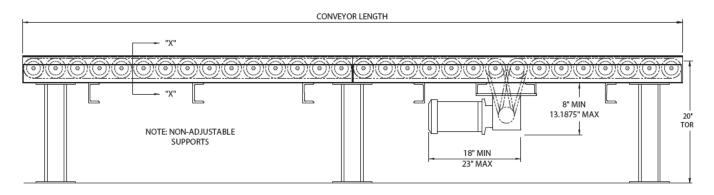


	Conveying Surface	19"	27"	29"	33"	41"	47"	53"	55"
Conveyor	Between Rail Width	23"	31"	33"	37"	45"	51"	57"	59"
Length	Overall Frame Width	27"	35"	37"	41"	49"	55"	61"	63"
5'		792	900	927	981	1089	1170	1251	1278
10'	WEIGHTS	1284	1490	1541	1644	1849	2003	2157	2208
15'	(Lbs.)	1776	2079	2155	2306	2609	2836	3063	3138
20'		2268	2668	2768	2968	3368	3668	3968	4068
25'		2760	3258	3382	3631	4128	4501	4873	4998
30'	Weights	3252	3863	4015	4320	4931	5388	5846	5998
40'	Based on 6"	4236	5026	5223	5617	6407	6999	7590	7788
50'	Roller Centers	5220	6204	6450	6942	7926	8664	9402	9648
60'		6204	7383	7678	8267	9446	10330	11214	11508
70'		7188	8562	8905	9592	10965	11995	13025	13368
80'		8172	9740	10132	10916	12484	13660	14836	15228
90'		9156	10918	11360	12241	14004	15236	16648	17088
100'		10140	12096	12588	13566	15524	16812	18460	18948

## **Load Capacity Chart**

HORIZONTAL CONVEYOR ROLLER BED @ 30 FPM										
	27	"-38" OA\	N	40"- 52" OAW			58"-66" OAW			
НР	TOTALLOAD			T	TOTAL LOAD			TOTAL LOAD		
пР	30'	60'	90'	30'	60'	90'	30'	60'	90'	
2	21000	19200	17400	20400	18000	15600	19400	16000	12500	
3	27000	25200	23400	26400	24000	21600	25400	22000	18500	







# **MODEL "FTC"**

## Inclined Floor-to-Floor Conveyor

 Booster conveyor for gravity flow systems

Transporting between floors

· Center drive



STANDARD SPECIFICATIONS

Belt - 14", 18", 24", 30" and 36" wide rough-top belt.

**Bed** - 20", 24", 30", 30", 36" and 42" wide 12 gauge powder painted formed steel slider bed. Bed is  $6^{1}/_{2}$ " deep x 6 feet, 8 feet or 10 feet long spliced together with splice plates.

**Under-Trussed Bed** - Extra reinforcement to prevent sag in longer bed sections in addition to reinforcing angles, 24 feet and longer.

**Double Nose-Over** - Two 16" long adjustable bed sections provide a two step transition from incline to horizontal with 15° to 35° adjustment.

**Tail Pulley** - 4" diameter, crowned with  $1\frac{3}{16}$ " diameter shaft through 30" wide belt. 6" diameter tail pulley with  $1\frac{7}{16}$ " diameter shaft turned down on ends for wider than 30" belt.

**Drive Pulley** - 8" diameter crowned and lagged.  $1^{7}/_{16}$ " diameter. **Snub Roller** -  $2^{1}/_{2}$ " diameter at drive pulley and 2" diameter at tail pulley.

Return Idlers - 1.9" diameter, adjustable.

**Take-Up** - Located in center drive assembly, provides 24" of belt take-up.

**Pop-Out Roller** - Free floating, 13/8" diameter rollers located at tail pulleys with gravity connector rods. Will lift out if anything is caught between pulleys and rollers.

Floor Supports - Adjustable stands to give 31" to 45" height at each end; with knee braces.

Bearings - Sealed prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer.

Motor - 3/4 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - 100 lbs. per foot maximum. Not to exceed Load Capacity Chart.

**Belt** - Neoprene ruff-top, PVC rough-top, other types and styles. **Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

**Ceiling Hangers** - ½" diameter threaded rods of 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Floor Stands - Lower or higher than standard.

**Lower Powered Feeder Section** - Separate belt section with (2) supports, adjustable from 28½" to 42½". Driven by roller chain from tail pulley of inclined section. Integral feeder available.

**Single Nose-Over** - A straight section 23<sup>1</sup>/<sub>2</sub>" from tail pulley to center of nose-over roller provides for smooth transition from 0° to 15° incline.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Belt Speed** - Constant and variable belt speeds available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

# **MODEL**"FTC"

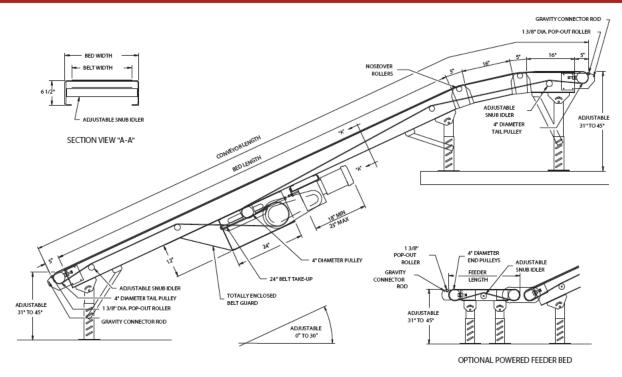


Overall Length	Bed Length	Net Lift 25°	Horizontal Floor Space @ 25°	Belt Width Bed Width	14" 20"	18" 24"	24" 30"	30" 36"
14'4"	10'	4'8"	13'2"		650	720	825	925
18'4"	14'	6'4"	16'10"		730	815	935	1050
20'4"	16'	7'2"	18'7"		760	850	980	1100
22'4"	18'	8'0"	20'5"		800	895	1030	1165
24'4"	20'	8'10"	22'3"		825	930	1070	1210
26'4"	22'	9'8"	24'1"		970	1085	1240	1390
28'4"	24'	10'7"	25'10"	Weight	1005	1125	1295	1460
30'4"	26'	11'5"	27'8"	(lbs.)	1040	1160	1330	1500
32'4"	28'	12'3"	29'6"		1070	1200	1380	1560
34'4"	30'	13'1"	31'4"		1110	1240	1430	1610
36'4"	32'	13'11"	33'1"		1190	1330	1530	1720
38'4"	34'	14'9"	34'11"		1220	1370	1580	1780
40'4"	36'	15'7"	36'9"		1250	1410	1620	1830
42'4"	38'	16'6"	38'7"		1290	1450	1670	1890
44'4"	40'	17'4"	40'4"		1320	1490	1715	1940

# Load Capacity Chart

60 FPM						
HP TOTAL LOAD						
3/4	430 lbs.					
1	540 lbs.					
11/2	810 lbs.					
2	1080 lbs.					







# MODEL"190RBI"

#### Incline Roller Bed Conveyor

- Transporting between floors
- Booster conveyor for gravity flow systems
- Heavier loads can be conveyed because of less friction build-up



#### STANDARD SPECIFICATIONS

Belt - 12", 16", 18", 20", 24" and 30" wide rough-top belt.

**Bed** - Roller bed with 1.9" diameter x 16 gauge galvanized rollers spaced on 6" centers. Rollers mounted in  $7" \times 1^{1}/2" \times 12$  gauge powder painted formed steel channel frames. Frames bolted together with butt couplings.

**Under-Trussed Bed** - Extra reinforcement to prevent sag in longer bed sections in addition to reinforcing angles, 20 feet and longer.

X-Bracing - Supplied on conveyors 40 feet and longer. Used to square bed sections to insure proper product and belt tracking.

Double Nose-Over - Adjustable from 0° to 30°.

**Center Drive** - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

**Tail Pulley** - 4" diameter, crowned with  $1^3/16$ " diameter shaft through 30" wide belt. 6" diameter tail pulley with  $1^7/16$ " diameter shaft turned down on ends for wider than 30" belt.

**Drive Pulley** - 8" diameter and fully lagged, 1<sup>7</sup>/<sub>16</sub>" diameter shaft. **Snub Roller** - 2<sup>1</sup>/<sub>2</sub>" diameter at drive pulley, 2" diameter at terminal pulleys.

Return Roller - 1.9" diameter.

**Take-Up** - Located in center drive, provides 24" of belt take-up. **Gravity Brackets** - Adjustable rod with 13/8" diameter pop-out transfer roller to attach wheel or 13/8" diameter roller conveyor.

Bearings - Sealed prelubricated with cast iron housings.

Floor Supports - Adjustable 31½" to 45½" from floor to top of belt. One support supplied at each end of conveyor and at nose-over, with knee braces.

**Speed Reducer** - C-Face mounted heavy duty worm gear reducer.

Motor - 3/4 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

Capacity - See Load Capacity Chart.

#### OPTIONAL EQUIPMENT

**Belt** - Neoprene ruff-top, PVC rough-top, other types and styles. **Guard Rails** - Adjustable channel, continuous channel, or solid steel guard rails available.

**Ceiling Hangers** - ½" diameter threaded rods 8 feet long with locking nuts and mounting hardware. Other lengths are available.

Floor Supports - Lower or higher than standard.

**Lower Powered Feeder Section** - Separate belt section with (2) supports, adjustable from 28½" to 42½". Driven by roller chain from tail pulley of inclined section. Integral feeders available.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP are available.

**Belt Speed** - Constant and variable belt speeds available. **Electrical Controls** - Magnetic starters, push button stations; manual motor starters with overload protection, others.

Single Noseover - Available.

# MODEL"190RBI"

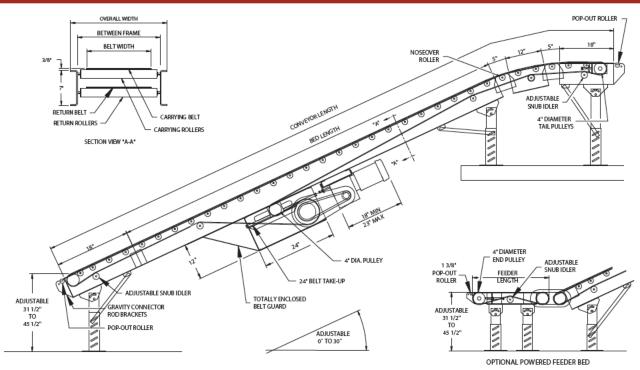


			Horizontal	Between Frames	15"	19"	21"	23"	27"	33"
Conveyor	Bed	Net Lift	Floor	Belt Width	12"	16"	18"	20"	24"	30"
Length	Length	25°	Space 25°	Overall Frame Width	18"	22"	24"	26"	30"	36"
14'10"	10'	4'8"	11'9"		900	1040	1120	1190	1330	1470
16'10"	12'	6'5"	15'5"		1050	1230	1305	1385	1570	1740
18'10"	14'	7'3"	17'3"		1130	1320	1410	1500	1695	1890
20'10"	16'	8'1"	19'0"		1200	1400	1510	1610	1810	2020
22'10"	18'	8'11"	20'10"		1280	1508	1615	1730	1950	2170
24'10"	20'	9'9"	22'8"		1450	1690	1800	1925	2160	2300
26'10"	22'	10'7"	24'6"	Weight	1530	1780	1910	2040	2300	2570
28'10"	24'	11'6"	26'4"	(lbs.)	1600	1880	2010	2150	2420	2690
30'10"	26'	12'4"	28'1"		1680	1960	2112	2250	2540	2820
32'10"	28'	13'2"	29'11"		1760	2070	2220	2370	2680	2990
34'10"	30'	14'0"	31'9"		1860	2180	2340	2500	2820	3140
36'10"	32'	14'10"	33'7"		1940	2280	2450	2620	2960	3300
38'10"	34'	15'8"	35'4"		2020	2370	2550	2730	3080	3430
40'10"	36'	16'6"	37'2"		2090	2460	2650	2830	3200	3570
42'10"	38′	17'5"	39'0"		2180	2560	2760	2950	3340	3730

# Load Capacity Chart

60 FPM - 25° Incline						
НР	50' OAL Max. Total Live Load					
3/4	450 lbs.					
1	675 lbs.					
11/2	1125 lbs.					
2	1345 lbs.					







# MODEL "SPC" Portable Belt Conveyor



- Small parts
- · Portable or permanent

# STANDARD SPECIFICATIONS

**Belt** - 3 ply PVG (Oil resistant PVC) with  $1\frac{1}{2}$ " high molded cleats on 12" centers. Available in widths of 4", 6", 8", 10", 12", 16", 18" and 24".

**Bed** -  $6\frac{1}{2}$ " deep x 12 gauge powder painted formed steel with  $3\frac{1}{2}$ " high solid guard rails both sides.

**Tail Pulley** - 4" diameter crowned with 13/16" diameter shaft. **Overhead Drive** - 10" clearance over belt, standard.

**Drive Pulley** - 4" diameter crowned and fully lagged with 13/16" diameter shaft.

**Belt Return** - Belt is returned on smooth sheet metal slide. **Take-Up** - 6" long screws located at tail pulley to tighten belt. **Portable Supports** - Heavy duty pipe support with 4" diameter

**Bearings** - Sealed prelubricated with cast iron housings. **Speed Reducer** - C-Face mounted heavy duty worm gear reducer. **Motor** - 1/2 HP 230/460-3-60 TE motor.

Belt Speed - 60 FPM constant.

casters permit easy mobility of conveyor.

Capacity - Total distributed live load not to exceed Capacity Chart.

#### **OPTIONAL EQUIPMENT**

**Belt** -  $\frac{1}{2}$ " x 1" flat wire mesh with  $\frac{1}{2}$ " high angle cleats bolted on 12" centers. Others.

**Bed** - Special bed sizes and special material such as stainless steel, galvanized, etc.

Supports - Permanent type with adjustment.

**Hopper** - Infeed hopper located on tail pulley end. Sized to suit application.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

Belt Speed - Constant and variable belt speeds available.

# **MODEL**"SPC"



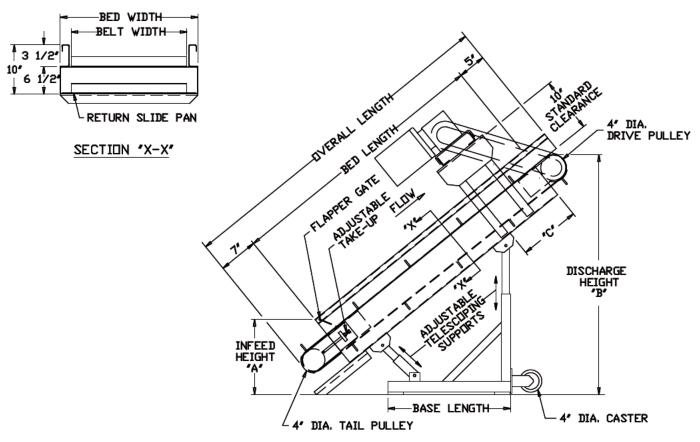
	Belt Width	4"	6"	8"	10"	12"	16"	18"	24"
Conveyor Length	Bed Width	8"	12"	12"	16"	16"	20"	24"	30"
Length	Bed Thickness	12 Gauge Steel							
5′		348	416	420	473	477	530	583	635
7′		379	447	451	504	508	563	620	675
9′	Weight (lbs.)	410	478	482	535	539	596	657	714
11'		441	509	513	566	570	629	694	753
13'		472	540	544	597	601	662	731	792

#### Portable Base Adjustment Chart (5' to 13' Lengths)

Overall Length	Bed Length	Base Length		ı. Tail Drive	Min. Max. I		Max Min. I		Max. Max. I		
Lengui	Lengui	Lengui	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	"C"
5'	4'	22"	11"	41 <sup>1</sup> / <sub>2</sub> "	10"	56"	251/2"	371/2"	26"	54 <sup>1</sup> / <sub>2</sub> "	11"
7'	6'	34"	11 "	51 <sup>1</sup> / <sub>2</sub> "	10"	76 <sup>1</sup> / <sub>2</sub> "	441/2"	441/2"	45"	731/2"	11"
9'	8'	46"	11"	641/2"	10"	971/2"	57 <sup>1</sup> / <sub>2</sub> "	571/2"	48"	95 <sup>1</sup> / <sub>2</sub> "	11"
11'	10'	58"	11"	741/2"	10"	118"	671/2"	671/2"	55 <sup>1</sup> / <sub>2</sub> "	116"	11"
13'	12'	58"	11"	86 <sup>1</sup> / <sub>2</sub> "	10"	139"	67 <sup>1</sup> /2"	671/2"	55 <sup>1</sup> / <sub>2</sub> "	128"	35"

# Load Capacity Chart

60 FPM						
HP	TOTAL LOAD					
1/2	300 lbs.					
3/4	380 lbs.					





# MODEL "SL" Slat Conveyor



#### STANDARD SPECIFICATIONS

Slats -  $5\sqrt[3]{4}$ " x 10 gauge formed slat standard, bolted to A-2 attachments on chain. Slat length is effective conveying surface.

**Conveyor Frame** - Heavy duty, powder painted 7 gauge, bolted construction.

**Chain & Slat Return** - Returns on angle track, supplied as part of conveyor framework.

Chain - Heavy duty 6" pitch with A-2 attachments on each pitch.

Driving Sprockets - 6 Tooth SR 196 12" pitch diameter.

**Floor Supports** - Supplied as part of conveyor framework, not adjustable. Specify height. 24" min. elevation.

Drive Shaft - 215/16" diameter CRS.

Tail Shaft - 27/16" diameter CRS.

**Take-Up** - Mounted at tail end of conveyor for adjustment of chain tension.

Drive - Floor mounted at discharge end of conveyor.

Speed - 30 FPM constant.

**Reducer** - Heavy duty worm gear reducer.

Motor - 2 HP 230/460-3-60 TE motor.

Capacity - 400 lbs. per foot maximum. Not to exceed Load Capacity Chart.

#### **OPTIONAL EQUIPMENT**

Slats - Heavier gauge and hardwood slats available.

Chain - 4" pitch heavier duty chain available; inquire.

**Dwell Station** - Gravity section mounted level with slat surface. Allows product to be inspected, tested, etc., while conveyor remains running.

**Speed** - Other constant speeds and variable speeds available.

**Motor** - Single phase, energy efficient, explosion proof, etc. Other HP available.

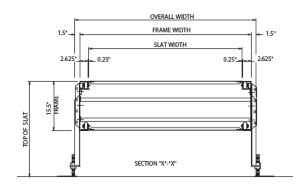
**Electrical Controls** - Magnetic starters, push button stations; manual motor starters with overload protection, others.

# **MODEL**"SL"



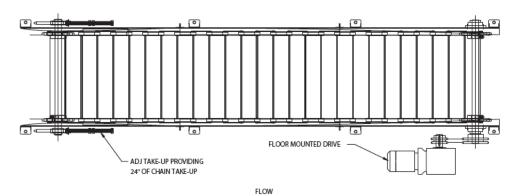
Conveyor	Slat Width	24"	30"	36"	42"	48"
Length	Overall Width	33"	39"	45"	51"	57"
10'		2225	2471	2717	2963	3209
20'		3821	4313	4805	5297	5789
30'		5417	6155	6893	7631	8369
40'	Weights Based On	7013	7997	8981	9965	10949
50'	Standard 5 ³/4" Wide	8582	9812	11042	12272	13502
60'	10 Gauge Formed Slats	10178	11654	13130	14606	16082
70'		11774	13496	15218	16940	18662
80'		13370	15338	17306	19274	21242
90'		14966	17180	19394	21608	23822
100'		16562	19022	21482	23942	26402

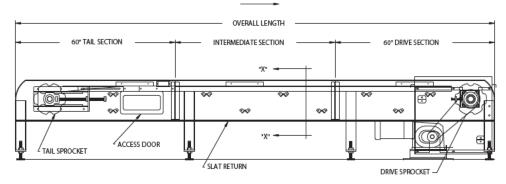
NOTE: Elevation changes are critical on this model. Please contact factory.



# Load Capacity Chart

	30 FPM					
HP	Up to 40 ft.	Up to 100 ft.				
2	6500 lbs.	2100 lbs.				
3	11000 lbs.	6800 lbs.				







## MODEL"DC" Drag Chain Conveyor



 Available with zero pressure accumulation feature

#### STANDARD SPECIFICATIONS

**Frame** - 9" x 7 gauge powder painted formed steel channel frames. Sections are bolted together with splice plates and floor supports. **Chain** - (2) 60F single pitch conveyor chains, straight side bar, on 36" centers.

Chain Guide - UHMW

**Floor Supports** - 24" to top of chain. One support supplied at each end of conveyor and at each bed joint.

**Motor** - 1 HP 230/460-3-60 TE motor, C-Face. Motor and speed reducer are located underneath conveyor frame.

**Speed Reducer** - Heavy duty worm gear for C-Faced mounted motor.

Sprockets - Hardened sprockets with  $1^{15}/_{16}"$  diameter CRS drive shaft.

Bearings - Sealed, pre-lubricated with cast iron housing.

Speed - 30 FPM constant speed.

Capacity - 10,000 lbs. maximum distributed live load at 30 FPM. Maximum motor size 3 HP.

#### **OPTIONAL EQUIPMENT**

**Elevation** - 12" minimum (with adjustment to 13") to top of chain, made available by modification. Contact factory.

Motors - Single phase, energy efficient.

**Chain Centers** - Other chain centers and multiple chains available, 18" minimum chain centers. Contact factory.

 ${\bf Speeds}$  - For speeds greater than 30 FPM, contact factory.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

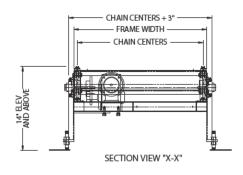
### MODEL"DC"

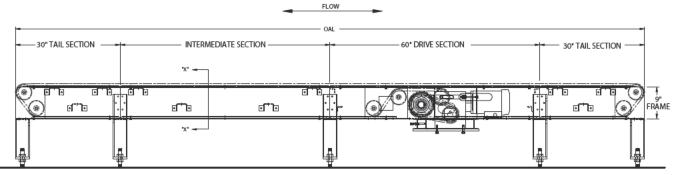


Overall	Frame Width	20"	26"	32"	38"	44"	50"
Length	Chain Center	18"	24"	30"	36"	42"	48"
10'		540	585	630	678	723	768
15'		726	790	855	918	983	1048
20'		911	995	1080	1158	1243	1328
25'		1096	1200	1305	1398	1503	1608
30'		1281	1405	1530	1638	1763	1888
35'		1466	1610	1755	1878	2023	2168
40'	Weights	1651	1815	1980	2118	2283	2446
45'	(in lbs.)	1836	2020	2205	2358	2543	2728
50'		2021	2225	2430	2598	2803	3008
55'		2206	2430	2655	2838	3063	3288
65'		2576	2840	3105	3318	3583	3848
75'		2946	3250	3555	3798	4103	4408
85'		3316	3660	4005	4248	4623	4968
95'		3686	4070	4455	4698	5143	5528
105'	]	4056	4480	4905	5148	5663	6088

### Load Capacity Chart

30 FPM WITH 2 STRANDS				
НР	TOTAL LIVE LOAD (lbs.)			
111	Up to 50' Up to 100'			
1	4,000	3,000		
2	6,500	6,000		
3	10,000	9,500		







### **MODEL** "DCE"

Drag Chain Photo Eye Controlled Accumulating Conveyor



#### STANDARD SPECIFICATIONS

**Frame** - 9" x 7 gauge powder painted formed steel channel frames. Sections are bolted together with splice plates and floor supports.

**Chain** - (2) 60F single pitch conveyor chains, straight side bar, on 36" centers.

Chain Guide - UHMW

**Floor Supports** - 24" to top of chain. One support supplied at each end of conveyor and at each bed joint.

**Motor** - 1 HP 230/460-3-60 TE motor, C-Face. Motor and speed reducer are located underneath conveyor frame.

**Speed Reducer** - Heavy duty worm gear for C-Faced mounted motor.

**Sprockets** - Hardened sprockets with 1<sup>15</sup>/<sub>16</sub>" diameter CRS drive shaft.

**Bearings** - Sealed, pre-lubricated with cast iron housing.

**Accumulation Zones** - Standard zones are 60" long with a maximum of 20 zones per single drive. Each zone is driven by an air clutch and controlled by a photo eye.

**Power Supply** - 120VAC power supply controls accumulation feature with 24VDC output. Power supply will control 50 accumulation zones.

**Sensing Device** - NEMA 1 photo electric sensor in each zone. Detects product presence and activates accumulation feature if downstream zone is occupied.

Speed - 30 FPM constant speed.

Capacity - 10,000 lbs. maximum distributed live load at 30 FPM. Maximum motor size 3 HP.

#### OPTIONAL EQUIPMENT

**Elevation** - 12" minimum (with adjustment to 13") to top of chain, made available by modification. Contact factory.

**Accumulation Zones** - 48", 54", and 72" long. Frame lengths change with zone lengths. For other zone lengths, contact factory.

Motors - Single phase, energy efficient.

**Chain Centers** - Other chain centers and multiple chains available, 18" minimum chain centers. Contact factory.

**Speeds** - For speeds greater than 30 FPM, contact factory.

**Electrical Controls** - Magnetic starters and push button stations; manual motor starters with overload protection, others.

### **MODEL**"DCE"



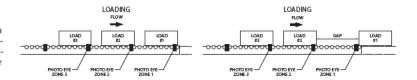
Overall	Frame Width	20"	26"	32"	38"	44"	50"
Length	Chain Center	18"	24"	30"	36"	42"	48"
10'		540	585	630	678	723	768
15'		726	790	855	918	983	1048
20'		911	995	1080	1158	1243	1328
25'		1096	1200	1305	1398	1503	1608
30'		1281	1405	1530	1638	1763	1888
35'		1466	1610	1755	1878	2023	2168
40'	Weights	1651	1815	1980	2118	2283	2446
45'	(in lbs.)	1836	2020	2205	2358	2543	2728
50'		2021	2225	2430	2598	2803	3008
55'		2206	2430	2655	2838	3063	3288
65'		2576	2840	3105	3318	3583	3848
75'		2946	3250	3555	3798	4103	4408
85'		3316	3660	4005	4248	4623	4968
95'		3686	4070	4455	4698	5143	5528
105'		4056	4480	4905	5148	5663	6088

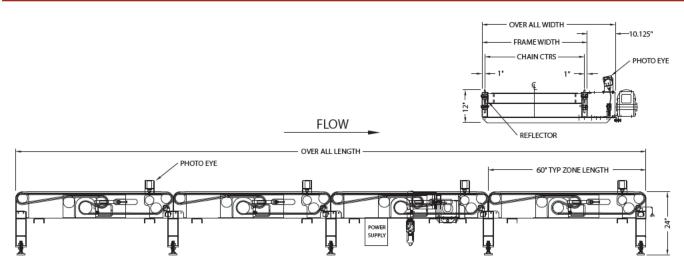
#### **OPERATIONAL SEQUENCE**

- Model "251ACDE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.
- 2) The second load travels the length of the conveyor until it reaches Zone #2. If Zone #1 is occupied, the second load will stop in Zone #2. Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.
- 3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor for the accumulation process to continue.

### Load Capacity Chart

30 FPM WITH 2 STRANDS				
НР	TOTAL LIVE LOAD (lbs.)			
•••	Up to 50'	Up to 100'		
1	4,000	3,000		
2	6,500	6,000		
3	10,000	9,500		



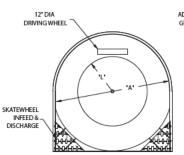


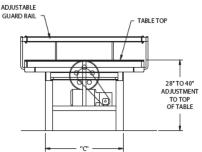


### **Powered Accessories**



Weight (Lbs.)	"A"	"B"	"C"	Speed L of Plate
655	4'	51"		
825	5'	63"	31 <sup>1</sup> / <sub>2</sub> "	90 FPM
960	6'	75"		





### **Powered Turntable**

The Powered Turntable is used when two parallel conveyor lines must be close together with a 180° turn at one (or both) ends. The turning radius is held to a minimum, less than would be available with gravity or powered curve sections. Turntable Plow and Guard Rails insure product safety while negotiating 180° turn. Unit is reversible and all bearings are sealed. Table top mean speed is 90 FPM.

Motor - 1/2 HP 230/460V-3-60 TE motor.

Capacity - 500 lbs. total distributed load - maximum unit load - 150 lbs.

Adjustment - 28" to 40" adjustable top of table.



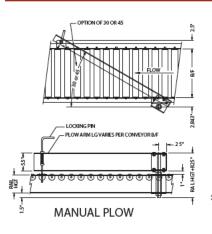
### 251CRR - Powered Turntable

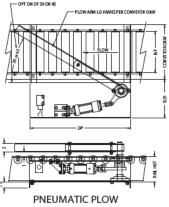
**Motor** -  $\frac{3}{4}$  HP 230/460-3-60 TE motor.

**Capacity** - Model 251CRR chain driven live roller mounted to the top of the table, designed for handling up to 4,000 lb. pallets **Normal Operation** - 90 degree or 180 degree indexing

Turntable - Motor driven.

**Floor Supports** - Heavy duty supports, with minimum elevation of 20" to top of roller





## Plows - Manual and Pneumatic

MANUAL AND PNEUMATIC

Plow Arm - 51/2" x 2" x 7 gauge

Plow Angle - 30° or 45°

PNEUMATIC ONLY

Air Cylinder - 2" bore double acting 2" stroke for 30° 3" stroke for 45°

Air Requirements - Minimum pressure 60 PSI - max. 100 PSI

**Valve** - Single solenoid 4 way valve, ½"-20NPT valve ports Electrical Requirements: 120V, single phase, 60 Hertz, current draw .07 amps, or 24VDC.

### **Powered Accessories**



### **Air Operated Chain Transfer**

#### STANDARD SPECIFICATIONS

Capacity - 2,000 lbs. unit load. (Higher capacities available.)

Chain - Two strands of #60 high side bar roller chain; min. 10" chain centers.

Mounting - Designed to install in standard "251 CRR" frames.

Speed - 30 FPM constant.

Cycles - Up to 4 cycles per minute.

**Air Requirements** - Min. pressure 60 PSI, max. pressure 125 PSI. Free air consumption @ 60 PSI .035 cu.ft. per cycle.

Electrical requirements – 120V, single phase, 60 Hz. Current draw - .07 amps, or 24VDC.

Motor - 3/4 HP 230/460-3-60 TEFC motor.

Electrical Controls - None furnished as standard.

**INSTALLATION NOTE:** To eliminate contaminants in air supply line, a filter, regulator, (FR) should be installed prior to valve.



## Auto-Sort Air Operated Wheel Diverter

#### STANDARD SPECIFICATIONS

Capacity - 75 lbs. max. package weight.

Package Size - Min. 6" wide x 9" long, max. 25" wide x 36" long.

Cycles - Up to 40 times per minute.

Speeds - Wheels 180 FPM.

**Mounting** - Mounts in "190LS" conveyor. Being modular in design, it can be located almost anywhere in length of conveyor. Specify right hand or left hand operation.

**Diverting Wheels** - Consists of a double row of 3" diameter wheels spaced proportionately across conveyor width. Driven by high capacity poly belts by it's own drive. May also be slave driven-consult factory.

Supports - Minimum elevation 21". Specify height conveyor will be installed.

Air Cylinder - 2" bore x 1" stroke double acting.

**Air Requirements** - Min. pressure 60 PSI, maximum 125 PSI. Free air consumption @ 60 PSI - .018 cu. ft. per cycle.

Valve - Single solenoid 4 way valve. 1/4" - 20 NPT valve ports.

**Electrical requirements** -120V, single phase, 60 Hertz, current draw .07 amps, or 24VDC.

Shaft - 5/8" diameter



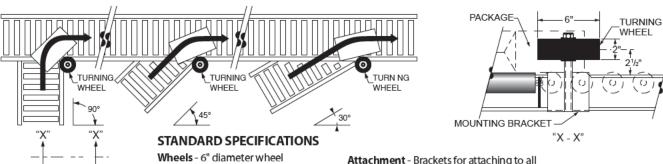
Motor - 1/2 HP 230/460-3-60 TE motor.

Speed Reducer - Heavy duty worm gear, C-Face.

**Electrical Controls** - Not furnished as standard equipment.

**INSTALLATION NOTE:** To eliminate contaminants in air supply line, a filter, regulator, (FR) should be installed prior to valve.

### **Turning Wheel**



**Attachment** - Brackets for attaching to all conveyors, specify model.

# TOWNEYOR SYSTEMS, INC.

### Powered Accessories

### **Air Operated Blade/Roller Stop**



**INSTALLATION NOTE:** To eliminate contaminants in air supply line, a filter, regulator (FR) should be installed prior to valve.

Air Operated Stops are used where automatic line control is required such as assembly work stations, shipping areas, etc. Can be mounted to underside of models 138SR, 190SR, 20SR, 190CAP, 138CAP, 190ZPA.

#### STANDARD SPECIFICATIONS

**Capacity** - Blade -150 lbs., 13/8" roller -50 lbs., 1.9" diameter roller -150 lbs. All are live load capacities @ 60 FPM.

Bearings - High capacity (2) bolt flange bearings.

**Stop** - 13%" diameter x 18 gauge unplated steel roller for 13%" conveyors. 1.9" diameter x 16 gauge galvanized steel roller for 1.9" x 2.0" conveyors.

Blade - 1/4" steel plate.

**Position** - Supplied normally down. Can be supplied normally upspecify.

Air Cylinder - 11/4" bore x 2" stroke double acting air cylinder to raise or lower stop.

Air Requirements - Minimum pressure 60 PSI, maximum 100 PSI. Free air consumption @ 60 PSI - .014 cu. ft. per cycle, @ 100 PSI - .022 cu.ft.

Valve - Single solenoid 4 way valve. 1/4" spring return - 20 NPT valve ports.

**Electrical requirements** - 120V, single phase, 60 Hertz. Current draw - .068 amps, or 24VDC.

### Hand Operated Blade/Roller Stop



Hand Operated Stops are used where manual line control is required such as assembly work stations, shipping areas, etc. Can be mounted to underside of Models 138SR, 190SR, 20SR, 190CAP, 138CAP and 190ZPA.

#### STANDARD SPECIFICATIONS

Capacity - Blade -150 lbs., 13/8" diameter roller - 50 lbs., 1.9" diameter roller -150 lbs. All are live load capacities @ 60 FPM.

Bearings - High capacity (2) bolt flange bearings.

**Operation** - Hand operated lever to raise or lower stop can be used in normally up or down positions.

**Blade** - 7 gauge formed angle 1" x  $1\frac{1}{2}$ " for  $1\frac{3}{8}$ " conveyors -  $1\frac{1}{2}$ " for 1.9" and 2.0" conveyors.

Roller - 13/8" diameter x 18 gauge galvanized steel roller for 13/8" conveyors. 1.9" diameter x 16 gauge galvanized steel roller for 1.9" and 2.0" conveyors.

Stroke - 2"above rollers.



### Foot Operated Blade/Roller Stop

Foot Operated Stops are used where "hands free" manual line control is required such as assembly work stations, shipping areas, etc. Can be mounted to underside of models 138SR, 190SR, 20SR, 190CAP, 138CAP and 190ZPA.

#### STANDARD SPECIFICATIONS

Capacity - Blade - 75 lbs., 13/ $\!_{8}$ " diameter roller - 50 lbs., 1.9" diameter roller - 150 lbs. All are live load capacities @ 60 FPM

Operation - Foot operated lever to lower stop. Spring return to up position.

**Stop** - Blade -  $\frac{1}{4}$ " steel plate - roller  $\frac{1}{8}$ " diameter x 18 gauge galvanized steel roller for  $\frac{1}{8}$ " conveyors. 1.9" diameter x 16 gauge galvanized steel roller for 1.9" and 2.0" conveyors.

**Position** - Supplied normally up. Can be supplied normally down - specify.

Stroke - 11/2" above roller.

### **Powered Accessories**



### **Traffic Controller**

Used to control product flow from two conveyor lines into a converging point. It prevents both lines from feeding into the converging point at the same time. When an item contacts one arm it immediately locks out the opposite arm. When the product is clear, the arm returns to its normal position.

Arm Length	Conveyor O.A.W.	Model No.
12"	12"	12-TC
15"	15"	15-TC
18"	18"	18-TC
22"	22"	22-TC
24"	24"	24-TC
28"	28"	28-TC
30"	30"	30-TC
36"	36"	36-TC
42"	42"	42-TC



#### STANDARD SPECIFICATIONS

Capacity - 75 lbs. impact capacity at 60 FPM; 250 lbs. accumulated capacity. Minimum Weight - 10 lbs. minimum package weight required to operate arms.

Application - Available for 30°,45°,90° or 180° operation - specify.

### **High Speed Push-Off**

Used for 90° transfers when package specifications allow product to be pushed from side. Can also be used to divert packages from one lane to another in parallel conveyor lanes.

#### STANDARD SPECIFICATIONS

Capacity - 75 lbs. maximum package weight.

Pusher Face - 24" long. Pusher Stroke - 20" to 30"

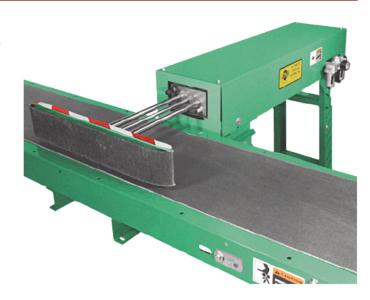
Cycles - Up to 40 times per minute, up to 24" stroke only, @ 80 PSI

Air Cylinder - 2" bore double acting, automatic return, with jam protection Air Requirements - Minimum pressure 60 PSI; maximum 125 PSI. Free air consumption @ 60 PSI - .235 cu. ft. per cycle for 20" stroke, .355 cu. ft. for 30" stroke.

**Valve** - Single solenoid 4 way, automatic return valve,  $\frac{1}{2}$ " - NPT valve ports; filter-regulator included.

**Electrical requirements** - 120V, single phase, 60 Hertz. Current draw, .07 amps.

Electrical Controls - PLC included



### **Guard Rails**

#### **SOLID STEEL GUARDS**

Mounts to side of conveyor bed sections. Guard heights above belt: 2.5", 3.5", 4.5", 6.125", 9.125", 10", and 12.5", 12 gauge galvanized or powder painted steel.

#### **ANGLE GUARDS**

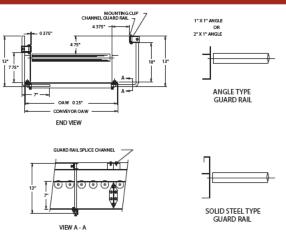
Sizes - 1"x1" or 2"x1". Mounts easily to top flange of conveyor frame.

**Applications** - Available for gravity or powered conveyors with 1" or  $1\frac{1}{2}$ " wide channel flanges.

Angle guards - 12 gauge galvanized steel.

#### **ADJUSTABLE CHANNEL**

Aluminum or steel. Use with powered and gravity conveyors. 5/s" steel rods provide vertical and horizontal adjustment. Available for straight conveyors, curves and spurs. Continuous (system type) or standard flared ends available. (Specify)



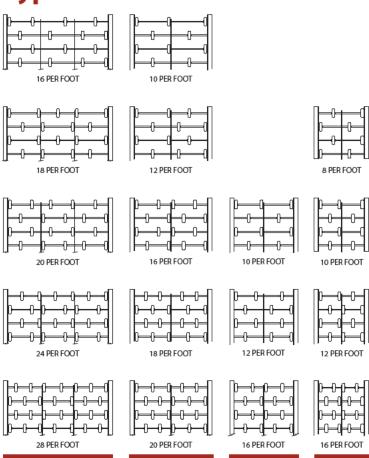
ADJUSTABLE CHANNEL GUARD RAIL



# **Gravity Skatewheel Conveyor**



### **Typical Wheel Patterns**



18" OAW

15" OAW

12" OAW

#### STANDARD SPECIFICATIONS

**Frame** - Frames are  $2^{1}/2^{n} \times 1^{n} \times 12$  gauge powder painted formed steel or  $2^{1}/2^{n} \times 1^{n} \times 1^{n}$  aluminum formed channels. The 12", 15" and 18" wide sections have one  $1/8^{n} \times 1^{n}$  axle supports and the 24" wide has two  $1/8^{n} \times 1^{n}$  axle supports.

**Wheels** - Zinc plated steel or aluminum wheels are  $1^{15}/16^{"}$  diameter x  $^{5}/8$  face with a steel hardened raceway and a  $^{13}/16$  wide cone. Each wheel contains (7)  $^{1}/_4$  hardened and ground steel balls. The lightly oiled baffled construction is designed to keep dirt out.

**Cross Braces** - 5 ft. long sections have (2) bolted cross members and 10 ft. long sections have (3) bolted cross members.

**Axles** - All axles are  $\frac{1}{4}$ " diameter cold drawn steel, set on 3" centers and secured with a  $\frac{1}{4}$ " - 20 stop nut.

Wheel Capacity - Steel, 50 lbs; aluminum, 45 lbs.

**Wheels Per Foot** - Standard patterns include 8, 10, 12, 16, 18, 20, 24 and 28 wheels per foot.

**Couplings** - Each 5' and 10' section is equipped with a hook and rod connector. The slotted hook permits minor lateral movement. No tools are necessary for assembly, just hook together.

Widths - Standard widths are 12", 15", 18" and 24".

Lengths - Standard lengths are 5' and 10'.

**Curves** - Standard curves are 45° and 90°. The outside radius is 4 feet. Capacity same as straight sections.

Conveyor Capacity - See Capacity Chart.

24" OAW

# **Gravity Skatewheel Conveyor**



#### GALVANIZED STEEL STRAIGHT SECTIONS

12" OAW					
Model	Wheels	Weig	ght		
Model	Per Foot	10'	5'		
12G8-25	8	65	35		
12G10-25	10	68	37		
12G12-25	12	72	38		
12G16-25	16	80	43		

15" OAW					
Madal	Wheels	Wei	ght		
Model	Per Foot	10'	5'		
-	-	-	-		
15G10-25	10	73	40		
15G12-25	12	78	43		
15G16-25	16	87	48		

18" OAW					
Model	Wheels Per	Wei	ght		
Model	Foot	10'	5'		
18G10-25	10	72	38		
18G12-25	12	77	41		
18G16-25	16	87	46		
18G18-25	18	92	49		
18G20-25	20	98	53		

24" OAW					
Model	Wheels Per	Wei	ght		
Model	Foot	10'	5'		
24G16-25	16	95	52		
24G18-25	18	100	55		
24G20-25	20	103	57		
24G24-25	24	112	62		
24G28-25	28	118	65		

#### **GALVANIZED STEEL CURVE SECTIONS**

12" OAW					
Model	Wheels Per	Wei	ght		
Model	Foot	90°	45°		
12G90-25	12	72	1		
12G45-25	12	_	35		

15 UAW					
Model	Wheels Per	Wei	ght		
Model	Foot	90°	45°		
15G90-25	12	77	-		
15G45-25	12	-	40		

18" OAW				
Model	Wheels Weigh		eight	
Model	Foot	90°	45°	
18G90-25	18	82	-	
18G45-25	18	ı	46	

Model	Wheels Per	Wei	ght
Model	Foot	90°	45°
24G90-25	24	112	-
24G45-25	24	_	60

#### **ALUMINUM STRAIGHT SECTIONS**

Model	Wheels Per	Wei	ght
Model	Foot	10'	5'
12A8-25	8	35	19
12A10-25	10	36	20
12A12-25	12	39	21
12A16-25	16	43	23

15" OAW			
Wheels	Wei	ght	
Foot	10'	5'	
-	-	-	
10	39	22	
12	42	23	
16	44	26	
	Wheels Per Foot - 10 12	Wheels Per Foot 10' 10 39 12 42	

18" OAW			
Model	Wheels Model Per		ght
Model	Foot	10'	5'
18A10-25	10	40	20
18A12-25	12	41	22
18A16-25	16	46	25
18A18-25	18	49	27
18A20-25	20	52	28

24" OAW			
Model	Wheels Per	Wei	ght
Model	Foot	10'	5'
24A16-25	16	51	28
24A18-25	18	53	29
24A20-25	20	55	30
24A24-25	24	59	32
24A28-25	28	63	34

#### ALUMINUM CURVE SECTIONS

12" OAW				
Wheels Weig Model Per				
Model	Foot	90°	45°	
12A90-25	12	45	-	

	15" OAW		
Model	Wheels Per	Wei	ght
Model	Foot	90°	45°
15A90-25	12	48	-
15A45-25	12	-	25

18" OAW			
Model	Wheels Per	Weight	
Model	Foot	90°	45°
18A90-25	18	51	-
18A45-25	18	-	27

Model	Wheels Per	Wei	ght
model	Foot	90°	45°
24A90-25	24	65	-
24A45-25	24	-	34

#### Frame Capacity Chart

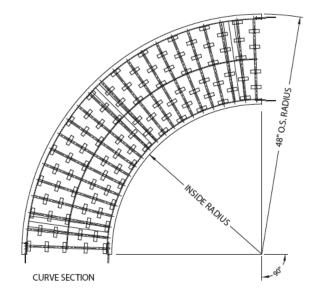
	Support Centers	Distributed Live Load Per Foot	Maximum Load Per Wheel
Galvanized	10'	38 lbs.	50 lbs.
Steel	5'	270 lbs.	ou ibs.

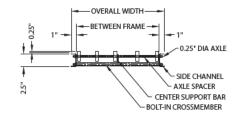
**NOTE:** All capacities are based on distributed loads with a maximum deflection of '/a" over 10'. Section capacities are subject to the total capacity of all wheels in a section but should not exceed above listed frame capacities.

#### Frame Capacity Chart

	Support Centers	Distributed Live Load Per Foot	Maximum Load Per Wheel
Aluminum	10'	18 lbs.	45 lbs.
Aluminum	5'	150 lbs.	45 IDS.

**NOTE:** All capacities are based on distributed loads with a maximum deflection of 11/4" over 10.' Section capacities are subject to the total capacity of all wheels in a section but should not exceed above listed frame capacities.







#### INSIDE RADIUS

Inside Radius										
36"										
33"										
30"										
24"										

#### OUTSIDE RADIUS

Overall Width	Outside Radius
12"	48"
15"	48"
18"	48"
24"	48"



# MODELS "138SR, 138AR and 138SRH"

**Gravity Roller Conveyor** 



### Steel, Model 138SR and Model 138SRH

#### STANDARD SPECIFICATIONS

Frames - 2½" deep x 1" flange x 12 gauge powder painted formed steel. Rugged cross members bolted between channels.

**Rollers** - 13/8" diameter x 18 gauge galvanized steel tubing with swaged ends for a firm bearing seat. Rollers have spring loaded axle for easy removal or insertion.

**Axles** -  $\frac{1}{4}$ " diameter cold rolled steel for Model 138SR;  $\frac{5}{16}$ " hex for Model 138SRH.

Couplings - Hook and rod.

Widths - 12", 15", 18" and 24" overall width. Length - 5' and 10' long straight sections. Capacity - See Frame Capacity Chart.

#### Aluminum, Model 138AR

#### STANDARD SPECIFICATIONS

Frames -  $2^1/2^n$  deep x 1" flange x  $^1/8^n$  heat treated aluminum. Rugged aluminum cross members bolted between channels.

Rollers - 13/8" diameter heat treated aluminum tubing with swaged ends for a firm bearing seat. Rollers have spring loaded axle for easy removal or insertion.

Axles - 1/4" diameter cold rolled steel.

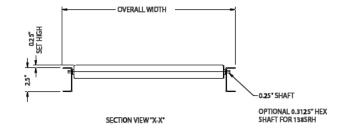
Couplings - Hook and rod.

Widths - 12", 15", 18" and 24" overall width. Length - 5' and 10' long straight sections.

Capacity - See Frame Capacity Chart.

### **Frame Capacity Chart**

Frame Material	Support Centers	Frame Capacity (lbs.) Maximum Distributed Live Load Per Foot	Roller Capacity (lbs.) Maximum Load Per Roller
Galvanized	5'	270	50
Steel	10'	38	30
Aluminum	5'	150	35
Aldillillani	10'	18	. 33



# MODELS "138SR, 138AR and 138SRH"



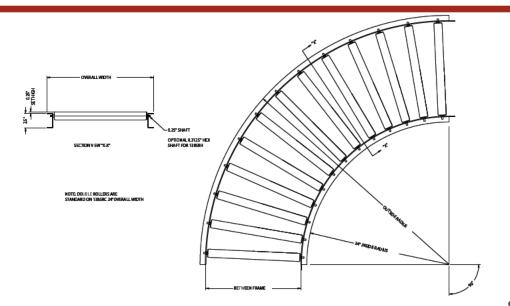
	12" 0/	AW.			15" O	w			18" OA	W			24" OA	W	
M <b>o</b> del	Roller	Weig	jht	Model	Roller	Weig	jht	Model	Roller	Weig	phit	Model	Roller	Wei	ght
(1100)(1)	Centers	10'	5°	MOGC	Cerriers	10'	5'	(MDQC)	Centers	10'	5'	MOGE	Centers	10°	5°
				ALUMIN	UM (Mo	odel 13	8AR) S	TRAIGHT SECTI	ONS - V	VEIGHT	S				
138AR-12-11/2	11/2"	53	29	138AR-15-1½	11/2"	56	33	138AR-18-11/2	11/2"	70	38	138AR-24-1½	11/2"	88	48
138AR-12-3	3"	36	20	138AR-15-3	3"	41	23	138AR-18-3	3"	51	27	138AR-24-3	3"	56	30
138AR-12-4 <sup>1</sup> / <sub>2</sub>	41/2"	30	17	138AR-15-4½	41/2"	32	18	138AR-18-41/2	41/2"	38	20	138AR-24-4 <sup>1</sup> / <sub>2</sub>	41/2"	46	25
138AR-12-6	6"	27	15	138AR-15-6	6"	29	16	138AR-18-6	6"	33	18	138AR-24-6	6"	41	22
138AR-12-9	9"	24	14	138AR-15-9	9"	26	14	138AR-18-9	9"	30	16	138AR-24-9	9"	36	19
138AR-12-12	12"	23	12	138AR-15-12	12"	24	13	138AR-18-12	12"	27	14	138AR-24-12	12"	33	18
	STEEL (Model 138SR) STRAIGHT SECTIONS - WEIGHTS														
138SR-12-11/2	11/2"	101	55	138SR-15-1½	11/2"	122	62	138SR-18-11/2	11/2"	135	72	138SR-24-1½	11/2"	168	91
138SR-12-3	3"	68	37	138SR-15-3	3"	78	42	138SR-18-3	3"	97	47	138SR-24-3	3"	108	58
138SR-12-4 <sup>1</sup> / <sub>2</sub>	41/2"	58	32	138SR-15-4 <sup>1</sup> / <sub>2</sub>	41/2"	61	33	138SR-18-41/2	41/2"	73	40	138SR-24-41/2	41/2"	88	47
138SR-12-6	6"	52	29	138SR-15-6	6"	55	30	138SR-18-6	6"	63	32	138SR-24-6	6"	78	42
138SR-12-9	9"	47	26	138SR-15-9	9"	50	27	138SR-18-9	9"	57	29	138SR-24-9	9"	69	37
138SR-12-12	12"	44	24	138SR-15-12	12"	46	26	138SR-18-12	12"	52	27	138SR-24-12	12"	63	34
				STEE	L (Mod	el 1385	RH) ST	RAIGHT SECTION	ONS - W	EIGHTS	5				
138SRH-12-1½	11/2"	111	61	138SRH-15-1½	11/2"	134	68	138SRH-18-1½	11/2"	148	79	138SRH-24-1½	11/2"	184	100
138SRH-12-3	3"	75	41	138SRH-15-3	3"	86	46	138SRH-18-3	3"	106	51	138SRH-24-3	3"	118	64
138SRH-12-41/2	41/2"	64	35	138SRH-15-41/2	41/2"	67	36	138SRH-18-4½	41/2"	80	44	138SRH-24-4½	41/2"	97	52
138SRH-12-6	6"	57	32	138SRH-15-6	6"	60	33	138SRH-18-6	6"	69	35	138SRH-24-6	6"	85	46
138SRH-12-9	9"	52	28	138SRH-15-9	9"	55	30	138SRH-18-9	9"	62	32	138SRH-24-9	9"	76	40
138SRH-12-12	12"	48	26	138SRH-15-12	12"	50	28	138SRH-18-12	12"	57	29	138SRH-24-12	12"	69	37

#### **WEIGHTS - CURVE SECTION**

12" OAW - 3	3'0" O/R	*	15" OAW -	3'3" O/F	<b>{</b> *	18" OAW - 3	'6" O/R*		24" OAW -	4'0" O/R	*				
Model	Wei	ght	Model	Wei	ght	<i>M</i> o <b>d</b> el	We	ight	Model	Weig	ghit				
(Model)	9 <b>0</b> °	<b>4</b> 5°	(HOGE)	90°	<b>4</b> 5°	(FID GC)	90° 45°		(F)OGE)	9 <b>0</b> °	<b>4</b> 5°				
	ALUMINUM (Model 138ARC) CURVED SECTIONS - WEIGHTS														
138ARC-12-90	28	-	138ARC-15-90	31	-	138ARC-18-90	35	-	138ARC-24-90	50	-				
138ARC-12-45	-	12	138ARC-15-45	-	17	138ARC-18-45	-	19	138ARC-24-45	-	26				
	STEEL (Model 138SRC) CURVED SECTIONS - WEIGHTS														
138SRC-12-90	70	-	138SRC-15-90	75	-	138SRC-18-90	80	-	138SRC-24-90	141	-				
138SRC-12-45	-	35	138SRC-15-45	-	40	138SRC-18-45	-	45	138SRC-24-45	-	66				
			STEEL (Mo	del 138	SRCH) CU	RVED SECTIONS - W	/EIGHTS		_						
138SRCH-12-90	77	-	138SRCH-15-90	82	-	138SRCH-18-90	88	-	138SRCH-24-90	155	-				
138SRCH-12-45	-	38	138SRCH-15-45	-	44	138SRCH-18-45	-	49	138SRCH-24-45	-	72				
*Outside radius			•			•			•	'					

DABILLO	CHART										
RADIUS CHART											
Overall Width	Inside Radius										
12"	24"										
15"	24"										
18"	24"										
24"	24"										

**Note:** Double rollers are standard on 24" OAW for 138SRC.





### **MODELS "190SR, 190SRC,** 190HSR and 190HSRC"

**Gravity Roller Conveyor** 

#### STANDARD SPECIFICATIONS

Frames - 31/2" deep x 11/2" flange x 10 gauge powder painted formed steel with bolt-in cross members, rollers set 1/4" high. Galvanized channels optional.

Rollers - 1.9" diameter x 16 gauge steel tubing with swaged ends to provide a firm bearing seat and rounded ends. Galvanized rollers optional. Tapered rollers in curve are 21/2" to 111/16" taper.

Bearings - Labyrinth sealed, lightly oiled.

Axles - 7/16" hex shaft, spring-loaded.

Couplings - Butt type, for bolting sections together.

Widths - From 13" between frames (B/F) and wider in two inch increments up to 27"; also 31", 33", 37" and 39" between rails.

Lengths - 5' and 10' long straight sections.

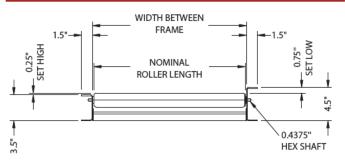
Capacity - 240 pounds per roller with 1,350 pounds maximum distributed live load over 10 foot length; 3,100 pounds maximum distributed live load over 5 foot length.

Curve Degree - 45° and 90° with 2' 81/2" inside radius for widths up to 27" between frames. 4'0" inside radius for 31", 33", 37", and 39" between frames.

#### **CURVED SECTIONS - WEIGHTS** TAPERED ROLLERS ARE UNPLATED (21/2" to 111/16" taper)

	Nominal Roller Length (Inches)	Width Between Frames (Inches)	Model No. (For 90°)	(Unplated) Model No. (For 90°)	90° Weight (lbs.)	45° Weight (lbs.)
	12	13	190SRC-13-90T	190HSRC-13-90T	94	52
	14	15	190SRC-15-90T	190HSRC-15-90T	126	68
20	16	17	190SRC-17-90T	190HSRC-17-90T	137	74
Rollers	18	19	190SRC-19-90T	190HSRC-19-90T	152	91
Per	20	21	190SRC-21-90T	190HSRC-21-90T	167	89
Curve	22	23	190SRC-23-90T	190HSRC-23-90T	178	94
	24	25	190SRC 25-90T	190HSRC-25-90T	204	107
	26	27	190SRC-27-90T	190HSRC-27-90T	235	120
32	30*	31	190SRC-31-90T	190HSRC-31-90T	338	174
Rollers	32*	33	190SRC-33-90T	190HSRC-33-90T	349	180
Per	36*	37	190SRC-37-90T	190HSRC-37-90T	371	191
Curve	38*	39	190SRC-39-90T	190HSRC 39-90T	410	210
			STRAIGHT RO	LLERS		
Single	12	13	190SRC-13-90S	190HSRC-13-90S	97	50
Rollers	14	15	190SRC-15-90S	190HSRC-15-90S	105	53
22 Per	16	17	190SRC-17-90S	190HSRC-17-90S	114	58
90°	18	19	190SRC-19-90S	190HSRC-19-90S	122	63
Curve	20	21	190SRC-21-90S	190HSRC-21-90S	131	67
	22	23	190SRC-23-90D	190HSRC-23-90D	161	82
Double	24	25	190SRC-25-90D	190HSRC-25-90D	169	85
Rollers	26	27	190SRC-27-90D	190HSRC-27-90D	177	89
42 Per	30*	31	190SRC-31-90D	190HSRC-31-90D	211	108
90°	32*	33	190SRC-33-90D	190HSRC-33-90D	220	112
Curve	36*	37	190SRC-37-90D	190HSRC-37-90D	238	120
	38*	39	190SRC-39-90D	190HSRC-39-90D	247	124

<sup>\*4&#</sup>x27;0" inside radius. All others 2'81/2" inside radius.



Nominal Roler   No.   No.   Centers (liches)   Weight (liches)	STRAIGHT SECTIONS - WEIGHTS												
Length	Nominal	Width	Model	Model	Roller	10'	5'						
1905R-13-3   1904SR-13-3   3   167   85     1905R-13-4   1904SR-13-3   3   167   70     1905R-13-6   1904SR-13-9   9   104   53     1905R-13-12   1904SR-13-9   9   104   53     1905R-13-12   1904SR-13-12   12   94   48     1905R-15-3   1904SR-13-12   12   94   48     1905R-15-3   1904SR-15-3   3   180   91     1905R-15-4   1904SR-15-4   4   4   145   74     15"   1905R-15-6   1904SR-15-9   9   108   55     1905R-15-19   1904SR-15-9   9   108   55     1905R-15-19   1904SR-15-12   12   97   50     1905R-17-3   1904SR-15-12   12   97   50     1905R-17-3   1904SR-17-6   6   131   66     107"   1905R-17-6   1904SR-17-6   6   131   66     1905R-19-19   1904SR-19-10   12   100   51     1905R-19-13   1904SR-19-12   12   100   51     1905R-19-13   1904SR-19-40   4   4   6   137   70     1905R-19-14   1904SR-19-6   6   137   70     1905R-19-10   1904SR-19-10   9   117   60     1905R-19-10   1904SR-19-12   12   103   53     1905R-21-3   1904SR-19-13   3   217   110     1905R-21-1   1904SR-19-10   9   117   60     1905R-21-1   1904SR-19-10   9   121   62     1905R-23-3   1904SR-23-3   3   229   116     1905R-23-4   1904SR-23-3   3   229   116     1905R-23-1   1904SR-23-3   3   229   116     1905R-23-1   1904SR-23-3   3   229   116     1905R-23-1   1904SR-23-1   12   100   54     22"   23"   1905R-23-6   1904SR-23-9   9   125   64     1905R-23-1   1904SR-23-1   12   109   56     1905R-23-1   1904SR-23-1   12   12   12   15     26"   27"   1905R-23-6   1904SR-23-1   12   12   12   15     1905R-23-1   1904SR-23-1   12   12   12   12   12     26"   27"   1905R-23-6   1904SR-23-1   12   12   12   12   12     1905R-23-1   1904SR-23-1   12   12   12   12   12     1905R-23-1   1904SR-23-1   12   12   12   12   12     1905R-23-1   1904SR-23-1   12   12   12   12   12   12     1905R-23-1   1904SR-23-1   12   1													
1905R-13-41/, 1904SR-13-4/, 41/, 137	Length	Frames			·								
12"													
1905R-13-19   190HSR-13-9   9   104   53   1905R-13-19   190HSR-13-12   112   94   48   48   1905R-15-3   1905R-15-3   190HSR-15-4/2   41/2   145   74   1905R-15-4/2   190HSR-15-4/2   41/2   145   74   1905R-15-6   1905R-15-6   1905R-15-9   1905R-15-9   1905R-15-9   1905R-15-12   12   97   50   1905R-15-12   190HSR-15-12   12   97   50   1905R-17-4/2   190HSR-17-3   3   192   97   1905R-17-4/2   190HSR-17-4/3   190HSR-17-4/3   190HSR-17-4/3   190HSR-17-6   6   131   66   1905R-17-6   1905R-17-6   6   131   66   1905R-17-12   190HSR-17-9   112   57   1905R-17-12   190HSR-17-12   12   100   51   190SR-19-4/2   190HSR-19-13   3   204   103   190SR-19-4/2   190HSR-19-9   9   117   60   1905R-19-12   12   103   53   190SR-19-12   190HSR-19-12   12   103   53   190SR-19-12   190HSR-19-12   12   103   53   190SR-19-12   190HSR-19-12   12   103   53   190SR-12-13   190SR-12-6   190SR-12-6   6   143   73   73   190SR-12-6   190SR-12-9   9   121   62   190SR-12-9   190HSR-12-19   9   121   62   190SR-12-9   190HSR-12-19   190SR-12-19   190HSR-12-19   9   121   62   190SR-12-19   190HSR-12-12   12   106   54   190SR-13-13   190SR-13-13   190HSR-13-14   41/2   178   90   190SR-13-13   190HSR-13-14   41/2   178   90   190SR-13-13   190HSR-13-12   12   109   56   190SR-13-13   190SR-13-13   190HSR-13-13   3   279   141   122   122   62   190SR-13-13   190SR-13-13   190HSR-13-14   41/2   1914   19	10!!	1 28											
1905R-13-12	12"	13"											
1905R-15-4    1904SR-15-4    4    145													
1905R-15-4\rangle_1   1905R-15-4\rangle_1   1905R-15-6   1905R-15-6   1905R-15-9   1905R-15-9   1905R-15-12   1905R-15-12   1905R-15-12   12   97   50     1905R-17-13   1905R-17-3   3   192   97   50     1905R-17-4\rangle_1   1905R-17-3   3   192   97   50     1905R-17-4\rangle_1   1905R-17-6   6   131   66     17"   1905R-17-6   1905R-17-9   9   112   57     1905R-17-12   1905R-17-9   9   112   57     1905R-17-12   1905R-17-9   9   112   57     1905R-19-3   1905R-19-3   3   204   103     1905R-19-3   1905R-19-4\rangle_1   4\rangle_1   161   82     1905R-19-1   1905R-19-4\rangle_1   4\rangle_1   161   82     1905R-19-1   1905R-19-9   9   117   60     1905R-19-1   1905R-19-9   9   117   60     1905R-11-1   1905R-19-12   12   103   53     1905R-21-3   1905R-21-4\rangle_1   1905R-21-3   3   217   110     20"   21"   1905R-21-6   1905R-21-6   6   143   73     1905R-21-3   1905R-21-6   6   143   73     1905R-21-3   1905R-21-6   6   143   73     1905R-21-3   1905R-21-12   12   106   54     1905R-23-4\rangle_1   1905R-23-3   3   229   116     1905R-23-12   1905R-23-3   3   229   116     22"   23"   1905R-23-6   1905R-23-12   12   109   56     1905R-23-12   1905R-23-12   12   109   56     1905R-23-12   1905R-23-12   12   109   56     1905R-23-12   1905R-23-12   12   109   56     1905R-25-3   1905R-23-3   3   241   122     24"   25"   1905R-25-6   1905R-25-6   6   156   79     1905R-25-13   1905R-25-6   6   162   82     1905R-25-14   1905R-27-3   3   254   128     26"   27"   1905R-27-9   1905R-27-12   12   112   57     1905R-31-4   1905R-31-3   3   279   141     1905R-31-14   1905R-31-3   3   279   141     1905R-33-19   1905R-33-6   6   147   91     1905R-33-19   1905R-33													
14"   15"   190SR-15-6   190HSR-15-6   6   125   64   190SR-15-12   190HSR-15-12   12   97   50   190SR-15-12   190HSR-15-12   12   97   50   190SR-17-3   190HSR-17-3   3   192   97   190SR-17-3   190HSR-17-4   41/2   153   78   78   190SR-17-9   190HSR-17-9   9   112   57   190SR-17-9   190HSR-17-9   9   112   57   190SR-17-9   190HSR-17-12   12   100   51   190SR-19-3   190SR-19-3   190SR-19-3   3   204   103   190SR-19-4   190HSR-19-3   3   204   103   190SR-19-4   190HSR-19-6   6   137   70   190SR-19-12   190HSR-19-12   12   103   53   190SR-21-4   190HSR-19-12   12   103   53   190SR-21-4   190HSR-19-12   12   103   53   190SR-21-4   190HSR-19-12   12   103   53   190SR-21-9   190HSR-21-3   3   217   110   140HSR-19-12   12   103   53   190SR-21-9   190HSR-21-3   3   217   110   140HSR-19-12   12   103   53   190SR-21-9   190HSR-21-3   3   217   110   140HSR-19-12   12   103   53   190SR-21-9   190HSR-21-3   3   217   110   140HSR-19-12   12   105   54   190SR-21-9   190HSR-21-9   9   121   62   190SR-23-3   190HSR-23-3   3   229   116   54   190SR-23-3   190HSR-23-3   3   229   116   190SR-23-3   190HSR-23-3   3   241   122   124   125   12													
1905R-15-9	14"	15"											
1905R-15-12   190HSR-15-12   12   97   50	17	13											
190SR-17-3													
190SR-17-4 /s   190HSR 17-4 /s   4 /s   153   78													
16" 17" 1905R-17-6 190HSR-17-6 6 131 66 1905R-17-9 190HSR-17-9 9 112 57 1905R-17-9 190HSR-17-12 12 100 51 1905R-17-12 190HSR-17-12 12 100 51 1905R-19-4½ 190HSR-19-3 3 204 103 1905R-19-4½ 190HSR-19-4½ 4½ 161 82 1905R-19-6 190HSR-19-9 9 117 60 1905R-19-12 190HSR-19-9 9 117 60 1905R-19-12 190HSR-19-12 12 103 53 1905R-21-3 190HSR-21-3 3 217 110 35 1905R-21-4½ 190HSR-21-4½ 4½ 170 86 1905R-21-4½ 190HSR-21-6 6 143 73 1905R-21-12 190HSR-21-9 9 121 62 1905R-23-4½ 190HSR-23-3 3 229 116 1905R-23-4½ 190HSR-23-3 3 229 116 1905R-23-4½ 190HSR-23-6 6 150 76 1905R-23-12 190HSR-23-12 12 100 56 1905R-23-12 190HSR-23-12 12 109 66 150 70 1905R-23-12 190HSR-23-12 12 109 66 150 70 1905R-23-12 190HSR-23-12 12 109 66 150 70 1905R-23-12 190HSR-23-12 12 10 10 56 1905R-23-12 190HSR-23-12 12 10 10 56 1905R-23-12 190HSR-23-12 12 112 57 1905R-23-13 1905R-23-14½ 190HSR-23-12 12 112 57 1905R-23-13 1905R-23-14½ 190HSR-23-12 12 112 57 1905R-23-12 190HSR-23-12 12 112 57 1905R-23-13 1905R-23-12 12 12 12 62 1905R-23-13 1905R-23-14½ 190HSR-23-12 12 12 12 62 1905R-23-13 190HSR-23-12 12 12 12 62 1905R-23-13 190HSR-23-13 3 291 147 1905R-23-12 190HSR-23-12 12 12 12 62 1905R-23-13 190HSR-23-13 3 291 147 1905R-23-13 190HSR-23-12 12 12 12 62 1905R-23-13 190HSR-23-12 12 12 12 62 1905R-23-13 190HSR-23-12 12 12 62 1905R-23-13 190HSR-23-12 12 12 62 1905R-23-13 190HSR-23-12 12 12 62 1905R-23-14½ 190HSR-23-12 12 12 62 1905R-23-14½ 190HSR-23-12 12 12 62 1905R-23-14½ 190HSR-23-12													
190SR-17-9   190HSR-17-9   9   112   57     190SR-19-3   190HSR-17-12   12   100   51     190SR-19-3   190HSR-19-3   3   204   103     190SR-19-4   190HSR-19-4   4 ½   161   82     190SR-19-6   190HSR-19-6   6   137   70     190SR-19-9   190HSR-19-9   9   117   60     190SR-19-12   190HSR-19-12   12   103   53     190SR-21-3   190HSR-21-3   3   217   110     190SR-21-4   190HSR-21-3   3   217   110     190SR-21-4   190HSR-21-3   3   217   110     190SR-21-4   190HSR-21-6   6   143   73     190SR-21-12   190HSR-21-6   6   143   73     190SR-21-12   190HSR-21-9   9   121   62     190SR-21-12   190HSR-21-12   12   106   54     190SR-23-3   190HSR-23-3   3   229   116     190SR-23-3   190HSR-23-3   3   229   116     190SR-23-3   190HSR-23-6   6   150   76     190SR-23-6   190HSR-23-6   6   150   76     190SR-23-12   190HSR-23-6   6   150   76     190SR-25-4   190HSR-23-6   6   150   76     190SR-25-13   190HSR-23-6   6   150   76     190SR-25-14   190HSR-23-6   6   156   79     190SR-25-15   190HSR-25-6   9   125   64     190SR-25-17   190HSR-25-6   9   129   66     190SR-25-18   190HSR-25-6   9   129   66     190SR-25-19   190HSR-27-3   3   241   122     190SR-25-10   190HSR-27-3   3   254   128     190SR-27-12   190HSR-27-3   3   254   128     190SR-27-12   190HSR-27-12   12   115   58     190SR-31-3   190HSR-31-6   6   162   82     190SR-31-3   190HSR-31-6   6   174   88     190SR-31-3   190HSR-31-6   6   174   88     190SR-33-4   190HSR-31-6   6   147   91     190SR-33-4   190HSR-33-6   6   147   91     190SR-33-4   190HSR-33-6   6   147   91     190SR-33-1   190HSR-33-3   3   291   147     190SR-33-1   190HSR-33-3   3   328   165     190SR-37-12   190HSR-37-3   3   316   159     190SR-37-12   190HSR-33-6   6   193   96     190SR-37-12   190HSR-33-6   6   193   96     190SR-37-12   190HSR-39-6   6   199   101     38"   39"   190SR-39-6   190HSR-39-6   6   199   101     390SR-39-9   190HSR-39-9   9   155   81	16"	17"											
190SR-17 12   190HSR-17-12   12   100   51     190SR-19-3   190HSR-19-3   3   204   103     190SR-19-4   190HSR-19-4   4		.,											
190SR-19-3													
18"   19"   1905R-19-4\/2   190HSR-19-4\/2   4\/2   161   82   190FSR-19-9   190HSR-19-6   6   137   70   190FSR-19-12   190HSR-19-12   12   103   53   190FSR-19-12   190HSR-19-12   12   103   53   190FSR-19-12   190FSR-19-12   12   103   53   190FSR-1-4\/2   4\/2   170   86   143   73   190FSR-21-6   190FSR-21-6   6   143   73   190FSR-21-12   190FSR-21-9   9   121   62   190FSR-21-12   190FSR-21-9   9   121   62   190FSR-23-3   190FSR-23-3   190FSR-23-3   3   229   116   54   190FSR-23-4   190FSR-23-4   4\/2   178   90   120   6   54   190FSR-23-4   190FSR-23-6   6   150   76   190FSR-23-9   190FSR-23-6   6   150   76   190FSR-23-12   190FSR-23-9   9   125   64   190FSR-23-12   190FSR-23-12   12   109   56   190FSR-23-12   190FSR-23-12   12   109   56   190FSR-23-12   190FSR-23-12   12   109   56   190FSR-23-12   190FSR-23-13   190FSR-23-12   190FSR-23-13   190FSR-23-3   190FSR-23							$\overline{}$						
1905R-19-9   190HSR-19-9   9   117   60     1905R-19-12   190HSR-19-12   12   103   53     1905R-21-3   190HSR-21-3   3   217   110     1905R-21-4\s\zerosim-1   190HSR-21-4\s\zerosim-2   4\s\zerosim-2   170   86     20"   21"   1905R-21-6   190HSR-21-6   6   143   73     1905R-21-9   190HSR-21-9   9   121   62     1905R-21-12   190HSR-21-12   12   106   54     1905R-23-3   190HSR-23-3   3   229   116     1905R-23-3   190HSR-23-3   3   229   116     22"   23"   1905R-23-6   190HSR-23-6   6   150   76     1905R-23-9   190HSR-23-6   6   150   76     1905R-23-12   190HSR-23-9   9   125   64     1905R-23-12   190HSR-23-9   9   125   64     1905R-23-12   190HSR-23-12   12   109   56     1905R-25-3   190HSR-25-3   3   241   122     24"   25"   1905R-25-6   190HSR-25-6   6   156   79     1905R-25-9   190HSR-25-9   9   129   66     1905R-25-12   190HSR-25-9   9   129   66     1905R-25-12   190HSR-25-9   9   129   66     1905R-27-4\s\sigma   190HSR-27-3   3   254   128     1905R-27-4\sigma   190HSR-27-3   3   254   128     26"   27"   1905R-27-6   190HSR-27-9   9   134   68     1905R-27-12   190HSR-27-9   9   134   68     1905R-31-3   190HSR-31-3   3   279   141     30"   31"   1905R-31-6   190HSR-31-9   9   142   72     1905R-31-12   190HSR-31-9   9   142   72     1905R-33-3   190HSR-31-9   9   142   72     1905R-33-3   190HSR-33-9   9   125   75     1905R-33-3   190HSR-33-9   9   125   75     1905R-33-12   190HSR-33-9   9   125   75     1905R-33-12   190HSR-33-9   9   155   79     1905R-37-12   190HSR-37-9   9   155   79     1905R-37-12   190HSR-37-9   9   155   79     1905R-37-12   190HSR-37-9   9   155   79     1905R-33-9   190HSR-39-9   9   159   81			190SR-19-4 <sup>1</sup> / <sub>2</sub>		41/2	161	l I						
1905R-19-12   190HSR-19-12   12   103   53     1905R-21-3	18"	19"	190SR-19-6	190HSR-19-6	6	137	70						
1905R-21-3			190SR-19-9	190HSR-19-9	9	117	60						
1905R-21-4\rangle   190HSR-21-4\rangle   4\rangle   170   86   1905R-21-6   190HSR-21-6   6   143   73   1905R-21-12   190HSR-21-9   9   121   62   1905R-23-3   190HSR-21-12   12   106   54   1905R-23-3   190HSR-23-3   3   229   116   1905R-23-4\rangle   1905R-23-4\rangle   190HSR-23-6   6   150   76   1905R-23-6   1905R-23-6   6   150   76   1905R-23-12   190HSR-23-12   12   109   56   1905R-23-12   190HSR-23-12   12   109   56   1905R-23-12   190HSR-23-12   12   109   56   1905R-25-3   190HSR-25-3   3   241   122   1905R-25-4\rangle   1905R-25-6   1905R-25-4\rangle   1905R-25-6   6   156   79   1905R-25-6   1905R-25-9   9   129   66   156   79   1905R-25-12   12   111   57   1905R-25-12   190HSR-25-12   12   112   57   1905R-25-13   190HSR-25-12   12   112   57   1905R-27-4\rangle   1905R-27-3   190HSR-27-4\rangle   1905R-27-6   1905R-27-6   1905R-27-9   9   134   68   1905R-27-12   190HSR-27-12   12   115   58   1905R-27-12   190HSR-27-12   12   115   58   1905R-27-12   190HSR-31-3   3   279   141   107   30"   31"   1905R-31-6   190HSR-31-6   6   174   88   1905R-31-6   1905R-31-6   190HSR-31-9   9   142   72   1905R-31-12   12   12   62   1905R-33-13   190HSR-33-19   9   142   72   1905R-33-13   190HSR-33-19   9   142   72   1905R-33-12   190HSR-33-12   12   128   64   1905R-37-3   190HSR-33-4\rangle   190HSR-33-6   6   147   91   1905R-37-6   190HSR-37-3   3   328   165   1905R-37-6   190HSR-37-6   6   193   96   1905R-37-6   190HSR-37-9   9   155   79   1905R-37-9   190HSR-37-9   9   155   79   1905R-37-6   190HSR-37-9   9   155   79   1905R-37-6   190HSR-37-9   9   155   79   1905R-37-9   190HSR-39-9   9   159   81   1005R-39-9   190HSR-39-9   9   159   81   1005R-39-9			190SR-19-12	190HSR-19-12	12	103	53						
20" 21" 1905R-21-6 190HSR-21-6 6 143 73 1905R-21-9 190HSR-21-9 9 121 62 1905R-21-12 190HSR-21-12 12 106 54 1905R-23-3 190HSR-23-3 3 229 116 1905R-23-4½ 190HSR-23-4½ 4½ 178 90 22" 23" 1905R-23-6 190HSR-23-6 6 150 76 1905R-23-9 190HSR-23-9 9 125 64 1905R-23-12 190HSR-23-12 12 109 56 1905R-23-14 190HSR-23-12 12 109 56 1905R-25-4½ 190HSR-25-3 3 241 122 1905R-25-4½ 190HSR-25-6 6 156 79 1905R-25-6 190HSR-25-6 6 156 79 1905R-25-9 190HSR-25-9 9 129 66 156 79 1905R-25-12 190HSR-25-12 12 112 57 1905R-25-12 190HSR-25-12 12 112 57 1905R-27-4½ 190HSR-27-3 3 254 128 1905R-27-4½ 190HSR-27-3 3 254 128 1905R-27-12 190HSR-27-9 9 134 68 1905R-27-12 190HSR-27-9 9 134 68 1905R-27-12 190HSR-27-9 9 134 68 1905R-27-12 190HSR-27-12 12 115 58 1905R-31-3 190HSR-31-3 3 279 141 107 30" 31" 1905R-31-6 190HSR-31-6 6 174 88 1905R-31-9 190HSR-31-9 9 142 72 1905R-31-9 190HSR-31-9 9 142 72 1905R-31-12 12 122 62 1905R-33-1 190HSR-33-3 3 291 147 1905R-33-1 190HSR-33-3 3 291 147 1905R-33-1 190HSR-33-1 12 12 122 62 1905R-33-1 190HSR-33-3 3 316 159 1905R-33-1 190HSR-33-1 12 12 122 62 1905R-33-1 190HSR-33-1 12 12 121 13 67 1905R-33-1 190HSR-33-1 12 12 131 67 1905R-33-1 190HSR-33-9 9 155 79 1905R-33-9 190HSR-33-9 9 155 81 100HSR-33-9 9 150HSR-33-9 9 1			190SR-21-3	190HSR-21-3	3	217	110						
1905R-21-9			190SR-21-4 <sup>1</sup> / <sub>2</sub>	190HSR-21-4 <sup>1</sup> / <sub>2</sub>	41/2	170	86						
1905R-21-12   190HSR-21-12   12   106   54     1905R-23-3   190HSR-23-3   3   229   116     1905R-23-4½   190HSR-23-4½   4½   178   90     1905R-23-4½   190HSR-23-6   6   150   76     1905R-23-9   190HSR-23-12   12   109   56     1905R-23-12   190HSR-23-12   12   109   56     1905R-25-3   190HSR-25-3   3   241   122     1905R-25-4½   190HSR-25-3   3   241   122     1905R-25-4½   190HSR-25-4½   4½   186   99     1905R-25-6   190HSR-25-6   6   156   79     1905R-25-12   190HSR-25-9   9   129   66     1905R-25-12   190HSR-25-12   12   112   57     1905R-27-12   190HSR-27-3   3   254   128     1905R-27-4½   190HSR-27-3   3   254   128     1905R-27-4½   190HSR-27-6   6   162   82     1905R-27-12   190HSR-27-9   9   134   68     1905R-27-12   190HSR-27-12   12   115   58     1905R-31-3   190HSR-31-3   3   279   141     1905R-31-4½   190HSR-31-6   6   174   88     1905R-31-10   190HSR-31-9   9   142   72     1905R-33-3   190HSR-31-9   9   142   72     1905R-33-4½   190HSR-33-6   6   147   91     1905R-33-13   190HSR-33-9   9   125   75     1905R-33-14   190HSR-33-9   9   125   75     1905R-37-14   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-9   9   155   79     1905R-37-12   190HSR-37-9   9   155   79     1905R-39-4½   190HSR-39-9   9   159   81	20"	21"	190SR-21-6	190HSR-21-6	6	143	73						
190SR-23-3			190SR-21-9	190HSR-21-9	9	121	62						
190SR-23-4½   190HSR-23-4½   4½   178   90			190SR-21-12	190HSR-21-12	12	106	54						
22" 23" 190SR-23-6 190HSR-23-6 6 150 76 190SR-23-9 190HSR-23-9 9 125 64 190SR-23-9 190HSR-23-9 9 125 64 190SR-23-12 190HSR-23-12 12 109 56 190SR-25-3 190HSR-25-3 3 241 122 190SR-25-41/2 190HSR-25-41/2 41/2 186 99 125 66 156 79 190SR-25-6 190HSR-25-6 6 156 79 190SR-25-9 190HSR-25-9 9 129 66 156 156 156 156 156 156 156 156 156			190SR-23-3	190HSR-23-3	3	229	116						
190SR-23-9   190HSR-23-9   9   125   64     190SR-23-12   190HSR-23-12   12   109   56     190SR-25-3   190HSR-25-3   3   241   122     190SR-25-41/2   190HSR-25-41/2   41/2   186   99     24"   25"   190SR-25-6   190HSR-25-6   6   156   79     190SR-25-12   190HSR-25-9   9   129   66     190SR-25-12   190HSR-25-9   9   129   66     190SR-27-3   190HSR-27-3   3   254   128     190SR-27-3   190HSR-27-3   3   254   128     190SR-27-41/2   190HSR-27-3   3   254   128     190SR-27-41/2   190HSR-27-6   6   162   82     190SR-27-12   190HSR-27-6   6   162   82     190SR-27-12   190HSR-27-12   12   115   58     190SR-31-3   190HSR-31-3   3   279   141     190SR-31-41/2   190HSR-31-3   3   279   141     30"   31"   190SR-31-6   190HSR-31-6   6   174   88     190SR-31-12   190HSR-31-12   12   122   62     190SR-33-3   190HSR-33-9   9   142   72     190SR-33-3   190HSR-33-3   3   291   147     32"   33"   190SR-33-6   190HSR-33-6   6   147   91     190SR-37-3   190HSR-33-9   9   125   75     190SR-37-3   190HSR-33-12   12   128   64     190SR-37-3   190HSR-33-12   12   128   64     190SR-37-12   190HSR-37-6   6   193   96     190SR-37-12   190HSR-37-9   9   155   79     190SR-39-41/2   190HSR-37-12   12   131   67     190SR-39-41/2   190HSR-39-9   9   155   79     190SR-39-3   190HSR-39-9   9   159   81			190SR-23-4 <sup>1</sup> / <sub>2</sub>	190HSR-23-4 <sup>1</sup> / <sub>2</sub>	41/2	178	90						
1905R-23-12   190HSR-23-12   12   109   56     1905R-25-3   190HSR-25-3   3   241   122     1905R-25-4\gamma'_2   190HSR-25-3   3   241   122     1905R-25-4\gamma'_2   190HSR-25-4\gamma'_2   4\gamma'_2   186   99     24"   25"   190SR-25-6   190HSR-25-6   6   156   79     1905R-25-12   190HSR-25-9   9   129   66     1905R-25-12   190HSR-25-12   12   112   57     1905R-27-3   190HSR-27-3   3   254   128     1905R-27-4\gamma'_2   190HSR-27-4\gamma'_2   4\gamma'_2   194   98     26"   27"   1905R-27-6   190HSR-27-4\gamma'_2   4\gamma'_2   194   98     1905R-27-6   190HSR-27-9   9   134   68     1905R-27-9   190HSR-27-9   9   134   68     1905R-27-12   190HSR-27-12   12   115   58     1905R-31-3   190HSR-31-3   3   279   141     1905R-31-4\gamma'_2   190HSR-31-3   3   279   141     30"   31"   1905R-31-6   190HSR-31-6   6   174   88     1905R-31-12   190HSR-31-6   6   174   88     1905R-33-12   190HSR-31-12   12   122   62     1905R-33-3   190HSR-33-12   12   122   62     1905R-33-4\gamma'_2   190HSR-33-4\gamma'_2   4\gamma'_2   180   111     32"   33"   1905R-33-6   190HSR-33-6   6   147   91     1905R-33-12   190HSR-33-12   12   128   64     1905R-37-3   190HSR-33-12   12   128   64     1905R-37-14   190HSR-37-3   3   316   159     1905R-37-12   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-9   9   155   75     1905R-37-12   190HSR-37-9   9   155   75     1905R-39-3   190HSR-39-6   6   199   101     1905R-39-9   190HSR-39-9   9   159   81	22"	23"	190SR-23-6	190HSR-23-6	6	150	76						
190SR-25-3			190SR-23-9	190HSR-23-9	9	125	64						
24" 25" 190SR-25-4\/2 190HSR-25-4\/2 4\/2 186 99 190SR-25-6 190HSR-25-6 6 156 79 190SR-25-9 190HSR-25-9 9 129 66 190SR-25-12 190HSR-25-12 12 112 57 190SR-27-3 190HSR-27-3 3 254 128 190SR-27-4\/2 190HSR-27-3 3 254 128 190SR-27-4\/2 190HSR-27-6 6 162 82 190SR-27-9 190HSR-27-9 9 134 68 190SR-27-12 190HSR-27-12 115 58 190SR-31-3 190HSR-31-3 3 279 141 107 30" 31" 190SR-31-6 190HSR-31-3 3 279 141 107 30" 31" 190SR-31-6 190HSR-31-6 6 174 88 190SR-31-9 190HSR-31-9 9 142 72 190HSR-31-9 190HSR-31-9 190HSR-31-9 190HSR-31-9 190HSR-31-9 190HSR-31-9 190HSR-31-9 9 142 72 190SR-33-3 190HSR-33-4\/2 190HSR-33-3 3 291 147 190SR-33-4 190HSR-33-4\/2 4\/2 180 111 32" 33" 190SR-33-6 190HSR-33-6 6 147 91 190SR-33-9 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-12 12 128 64 190SR-37-3 190HSR-33-12 12 128 64 190SR-37-3 190HSR-37-3 3 316 159 190SR-37-12 190HSR-37-6 6 193 96 190SR-37-12 190HSR-37-9 9 155 79 190SR-37-12 190HSR-37-12 12 131 67 190SR-39-3 190HSR-39-3 3 328 165 190SR-39-9 190HSR-39-9 9 159 81			190SR-23-12	190HSR-23-12	12	109	56						
24" 25" 1905R-25-6 190HSR-25-6 6 156 79 1905R-25-9 190HSR-25-9 9 129 66 1905R-25-12 190HSR-25-12 12 112 57 190SR-27-3 190HSR-27-3 3 254 128 190SR-27-41/2 190HSR-27-41/2 41/2 194 98 190SR-27-6 190HSR-27-6 6 162 82 190SR-27-12 190HSR-27-9 9 134 68 190SR-27-12 190HSR-27-12 12 115 58 190SR-31-3 190HSR-31-3 3 279 141 107 30" 31" 190SR-31-6 190HSR-31-3 3 279 141 107 30" 31" 190SR-31-6 190HSR-31-6 6 174 88 190SR-31-9 190HSR-31-9 9 142 72 190HSR-31-12 12 12 62 190SR-33-3 190HSR-31-12 12 12 62 190SR-33-3 190HSR-33-41/2 41/2 122 62 190SR-33-41/2 190HSR-33-41/2 12 122 62 190SR-33-6 190HSR-33-41/2 41/2 180 111 32" 33" 190SR-33-6 190HSR-33-6 6 147 91 190SR-33-9 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-12 12 128 64 190SR-37-3 190HSR-37-3 3 316 159 190SR-37-12 190HSR-37-6 6 193 96 190SR-37-12 190HSR-37-6 6 193 96 190SR-37-12 190HSR-37-9 9 155 79 190SR-37-12 190HSR-37-12 12 131 67 190SR-39-3 190HSR-39-3 3 328 165 190SR-39-4 190HSR-39-9 9 159 81						241							
1905R-25-9   190HSR-25-9   9   129   66     1905R-25-12   190HSR-25-12   12   112   57     1905R-27-3   190HSR-27-3   3   254   128     1905R-27-41/2   190HSR-27-41/2   41/2   194   98     26"   27"   1905R-27-6   190HSR-27-6   6   162   82     1905R-27-12   190HSR-27-9   9   134   68     1905R-27-12   190HSR-27-12   12   115   58     1905R-31-3   190HSR-31-3   3   279   141     1905R-31-3   190HSR-31-3   3   279   141     1905R-31-41/2   190HSR-31-3   3   279   141     1905R-31-6   190HSR-31-6   6   174   88     1905R-31-9   190HSR-31-6   6   174   88     1905R-31-12   120   122   62     1905R-31-12   190HSR-31-12   12   122   62     1905R-33-3   190HSR-33-3   3   291   147     1905R-33-41/2   190HSR-33-41/2   41/2   180   111     32"   33"   190SR-33-6   190HSR-33-6   6   147   91     1905R-33-12   190HSR-33-12   12   128   64     1905R-33-13   190HSR-33-12   12   128   64     1905R-37-3   190HSR-37-3   3   316   159     1905R-37-12   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-9   9   155   79     1905R-39-3   190HSR-37-12   12   131   67     1905R-39-41/2   190HSR-39-3   3   328   165     1905R-39-41/2   190HSR-39-6   6   199   101     1905R-39-9   190HSR-39-6   6   199   101     1905R-39-9   190HSR-39-9   9   159   81													
190SR-25-12   190HSR-25-12   12   112   57     190SR-27-3   190HSR-27-3   3   254   128     190SR-27-41/2   190HSR-27-3   3   254   128     190SR-27-41/2   190HSR-27-6   6   162   82     190SR-27-9   190HSR-27-9   9   134   68     190SR-27-12   190HSR-27-12   12   115   58     190SR-31-3   190HSR-31-3   3   279   141     190SR-31-41/2   190HSR-31-6   6   174   88     190SR-31-6   190HSR-31-6   6   174   88     190SR-31-9   190HSR-31-9   9   142   72     190SR-31   12   190HSR-31-12   12   122   62     190SR-33-3   190HSR-33-3   3   291   147     190SR-33-41/2   190HSR-33-41/2   41/2   180   111     32"   33"   190SR-33-6   190HSR-33-6   6   147   91     190SR-33-12   190HSR-33-9   9   125   75     190SR-33-12   190HSR-33-12   12   128   64     190SR-37-3   190HSR-37-3   3   316   159     190SR-37-41/2   190HSR-37-6   6   193   96     190SR-37-12   190HSR-37-6   6   193   96     190SR-37-12   190HSR-37-12   12   131   67     190SR-37-12   190HSR-37-12   12   131   67     190SR-39-41/2   190HSR-39-3   3   328   165     190SR-39-41/2   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-9   9   159   81	24"	25"											
190SR-27-3													
26" 27" 190SR-27-4\/2 190HSR-27-4\/2 4\/2 194 98 190SR-27-6 190HSR-27-6 6 162 82 190SR-27-9 190HSR-27-9 9 134 68 190SR-27-12 190HSR-27-12 12 115 58 190HSR-31-3 3 279 141 190SR-31-4\/2 190HSR-31-3 3 279 141 107 30" 31" 190SR-31-4\/2 190HSR-31-4\/2 4\/2 211 107 30" 31" 190SR-31-6 190HSR-31-6 6 174 88 190SR-31-9 190HSR-31-9 9 142 7 62 190SR-31 12 190HSR-31-12 12 122 62 190SR-33-3 190HSR-33-3 3 291 147 190SR-33-3 190HSR-33-3 3 291 147 190SR-33-4\/2 190HSR-33-6 6 147 91 190SR-33-9 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-12 12 128 64 190SR-37-3 190HSR-37-3 3 316 159 190SR-37-4\/2 190HSR-37-3 3 316 159 190SR-37-4\/2 190HSR-37-3 3 316 159 190SR-37-4\/2 190HSR-37-6 6 193 96 190SR-37-12 190HSR-37-9 9 155 79 190SR-37-9 190HSR-37-9 9 155 79 190SR-39-3 190HSR-39-3 3 328 165 190SR-39-4\/2 4\/2 244 123 190HSR-39-4\/2 4\/2 244 123 190HSR-39-9 9 159 81													
26" 27" 190SR-27-6 190HSR-27-6 6 162 82 190SR-27-9 190HSR-27-9 9 134 68 190SR-27-12 12 115 58 190SR-31-3 190HSR-31-3 3 279 141 107 141 141 141 141 141 141 141 141 141 14													
1905R-27-9   190HSR-27-9   9   134   68     1905R-27-12   190HSR-27-12   12   115   58     1905R-31-3   190HSR-31-3   3   279   141     1905R-31-4   2   190HSR-31-3   3   279   141     1905R-31-4   2   190HSR-31-4   2   211   107     30"   31"   190SR-31-6   190HSR-31-6   6   174   88     1905R-31-9   190HSR-31-9   9   142   72     1905R-31-12   190HSR-31-12   12   122   62     1905R-33-3   190HSR-33-3   3   291   147     1905R-33-4   2   190HSR-33-3   3   291   147     1905R-33-4   2   190HSR-33-6   6   147   91     1905R-33-9   190HSR-33-6   6   147   91     1905R-33-12   190HSR-33-12   12   128   64     1905R-33-12   190HSR-33-12   12   128   64     1905R-37-3   190HSR-37-3   3   316   159     1905R-37-4   2   190HSR-37-4   4   2   236   119     36"   37"   1905R-37-6   190HSR-37-6   6   193   96     1905R-37-12   190HSR-37-9   9   155   75     1905R-37-12   190HSR-37-12   12   131   67     1905R-39-3   190HSR-37-12   12   131   67     1905R-39-3   190HSR-39-3   3   328   165     1905R-39-4   2   190HSR-39-6   6   199   101     1905R-39-9   190HSR-39-6   6   199   101     1905R-39-9   190HSR-39-9   9   159   81	2.51	0.70											
190SR-27-12   190HSR-27-12   12   115   58     190SR-31-3   190HSR-31-3   3   279   141     190SR-31-4\gamma_2   190HSR-31-3   3   279   141     190SR-31-4\gamma_2   190HSR-31-4\gamma_2   4\gamma_2   211   107     30"   31"   190SR-31-6   190HSR-31-6   6   174   88     190SR-31-9   190HSR-31-9   9   142   72     190SR-31-12   190HSR-31-12   12   122   62     190SR-33-3   190HSR-33-3   3   291   147     190SR-33-4\gamma_2   190HSR-33-4\gamma_2   4\gamma_2   180   111     32"   33"   190SR-33-6   190HSR-33-6   6   147   91     190SR-33-9   190HSR-33-9   9   125   75     190SR-33-12   190HSR-33-12   12   128   64     190SR-37-3   190HSR-37-3   3   316   159     190SR-37-4\gamma_2   190HSR-37-4\gamma_2   4\gamma_2   236   119     36"   37"   190SR-37-6   190HSR-37-6   6   193   96     190SR-37-12   190HSR-37-9   9   155   79     190SR-39-3   190HSR-37-12   12   131   67     190SR-39-3   190HSR-39-3   3   328   165     190SR-39-4\gamma_2   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-9   9   159   81	26"	27"											
1905R-31-3													
30" 31" 190SR-31-41/2 190HSR-31-41/2 41/2 211 107 30" 31" 190SR-31-6 190HSR-31-6 6 174 88 190SR-31-9 190HSR-31-9 9 142 72 190SR-31 12 190HSR-31-12 12 122 62 190SR-33-3 190HSR-33-3 3 291 147 190SR-33-41/2 190HSR-33-41/2 41/2 180 111 32" 33" 190SR-33-6 190HSR-33-6 6 147 91 190SR-33-9 190HSR-33-9 9 125 75 190SR-33-12 190HSR-33-12 12 128 64 190SR-37-3 190HSR-37-3 3 316 159 190SR-37-41/2 190HSR-37-6 6 193 96 190SR-37-6 190HSR-37-6 6 193 96 190SR-37-12 190HSR-37-9 9 155 79 190SR-37-12 190HSR-37-9 9 155 79 190SR-37-12 190HSR-37-12 12 131 67 190SR-39-3 190HSR-37-12 12 131 67 190SR-39-41/2 190HSR-39-3 3 328 165 190SR-39-41/2 190HSR-39-6 6 199 101 38" 39" 190SR-39-6 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81													
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190SR-33-3 190HSR-33-3 3 291 147 190SR-33-4\/\(\frac{1}{2}\) 190HSR-33-4\/\(\frac{1}{2}\) 190HSR-33-4\/\(\frac{1}{2}\) 180 111 132" 33" 190SR-33-6 190HSR-33-6 6 147 91 190SR-33-9 190HSR-33-9 9 125 75 190SR-33-12 12 128 64 190SR-37-3 190HSR-37-3 3 316 159 190SR-37-4\/\(\frac{1}{2}\) 190SR-37-4\/\(\frac{1}{2}\) 190HSR-37-3 3 316 159 190SR-37-4\/\(\frac{1}{2}\) 190HSR-37-4\/\(\frac{1}{2}\) 236 119 190SR-37-6 190HSR-37-6 6 193 96 190SR-37-12 190HSR-37-9 9 155 79 190SR-37-12 190HSR-37-12 12 131 67 190SR-37-12 190HSR-39-3 3 328 165 190SR-39-4\/\(\frac{1}{2}\) 190HSR-39-3 3 190HSR-39-3 3 328 165 190SR-39-4\/\(\frac{1}{2}\) 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81													
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190SR-33-9   190HSR-33-9   9   125   75     190SR-33-12   190HSR-33-12   12   128   64     190SR-37-3   190HSR-37-3   3   316   159     190SR-37-4\sigma'_2   190HSR-37-4\sigma'_2   4\sigma'_2   236   119     36"   37"   190SR-37-6   190HSR-37-6   6   193   96     190SR-37-12   190HSR-37-9   9   155   76     190SR-37-12   190HSR-37-12   12   131   67     190SR-39-3   190HSR-39-3   3   328   165     190SR-39-4\sigma'_2   190HSR-39-4\sigma'_2   4\sigma'_2   244   123     38"   39"   190SR-39-6   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-9   9   159   81	32"	33"					l I						
190SR-33-12   190HSR-33-12   12   128   64     190SR-37-3   190HSR-37-3   3   316   159     190SR-37-4\gamma'_2   190HSR-37-4\gamma'_2   4\gamma'_2   236   119     36"   37"   190SR-37-6   190HSR-37-6   6   193   96     190SR-37-9   190HSR-37-9   9   155   79     190SR-37-12   190HSR-37-12   12   131   67     190SR-39-3   190HSR-39-3   3   328   165     190SR-39-4\gamma'_2   190HSR-39-4\gamma'_2   4\gamma'_2   244   123     38"   39"   190SR-39-6   190HSR-39-6   6   199   101     190SR-39-9   190HSR-39-9   9   159   81	32	33					l I						
190SR-37-3 190HSR-37-3 3 316 159 190SR-37-4\(\frac{1}{2}\) 190HSR-37-4\(\frac{1}{2}\) 4\(\frac{1}{2}\) 236 119 36" 37" 190SR-37-6 190HSR-37-6 6 193 96 190SR-37-9 190HSR-37-9 9 155 79 190SR-37-12 190HSR-37-12 12 131 579 190SR-39-3 190HSR-39-3 3 328 165 190SR-39-4\(\frac{1}{2}\) 190HSR-39-4\(\frac{1}{2}\) 244 123 38" 39" 190SR-39-6 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81						l							
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190SR-37-12 190HSR-37-12 12 131 67 190SR-39-3 190HSR-39-3 3 328 165 190SR-39-4 <sup>1</sup> / <sub>2</sub> 190HSR-39-4 <sup>1</sup> / <sub>2</sub> 4 <sup>1</sup> / <sub>2</sub> 244 123 38" 39" 190SR-39-6 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81						l	l I						
190SR-39-3 190HSR-39-3 3 328 165 190SR-39-4\(\frac{1}{2}\) 190HSR-39-4\(\frac{1}{2}\) 4\(\frac{1}{2}\) 244 123 38" 39" 190SR-39-6 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81						l	l I						
38" 39" 190SR-39-41/2 190HSR-39-41/2 41/2 244 123 190SR-39-6 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81													
38" 39" 190SR-39-6 190HSR-39-6 6 199 101 190SR-39-9 190HSR-39-9 9 159 81			190SR-39-4 <sup>1</sup> / <sub>2</sub>	190HSR-39-4 <sup>1</sup> / <sub>2</sub>	41/2		l I						
	38"	39"	190SR-39-6	190HSR-39-6		199	101						
100CD-20-12 100HCD 20-12 12 124 60			190SR-39-9	190HSR-39-9	9	159	81						
134   15   ארדו ביאכטעו   ארדעכיאכטעו   12   134   154			190SR-39-12	190HSR-39-12	12	134	68						

### MODELS "20SR and 20SRC"

### **Gravity Roller Conveyor**



#### STANDARD SPECIFICATIONS

**Frames** -  $3\frac{1}{2}$ " deep x  $1\frac{1}{2}$ " flange x 10 gauge powder painted formed steel with bolt-in cross members, rollers set  $\frac{1}{4}$ " high.

**Rollers** - 2" diameter x 12 gauge unplated steel tubing with swaged ends to provide a firm bearing seat and rounded ends. Tapered rollers in curve are  $2^{1}/_{2}$ " to  $1^{11}/_{16}$ " taper, unplated.

Bearings - Labyrinth sealed, lightly oiled.

Axles - 7/16" hex shaft, spring-loaded.

Couplings - Butt type, for bolting sections together.

**Widths** - From 13" between frames (B/F) and wider in two inch increments up to 27"; also 31", 33", 37" and 39" between rails.

**Lengths** - 10' and 5' long straight sections.

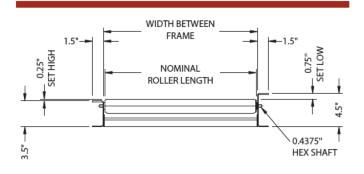
**Capacity** - 300 pounds per roller with 1,350 pounds maximum distributed live load over 10 foot length; 3,100 pounds maximum distributed live load over 5 foot length.

**Curve Degree** - 45° and 90° with 2' 81/2" inside radius for widths up to 27" between frames. 4'0" inside radius for 31", 33", 37", and 39" between frames.

#### **CURVED SECTIONS - WEIGHTS**

		TAI	PERED ROLLERS		
	Nominal Roller Length (Inches)	Width Between Frames (Inches)	Model No.	90° Weight (lbs.)	45° Weight (lbs.)
	12	13	20SRC-13-90T	104	58
	14	15	20SRC-15-90T	115	63
20	16	17	20SRC-17-90T	126	68
Rollers	18	19	20SRC-19-90T	139	75
Per	20	21	20SRC-21-90T	171	91
Curve	22	23	20SRC-23-90T	182	96
	24	25	20SRC-25-90T	208	109
	26	27	20SRC-27-90T	234	122
32	30*	31	20SRC-31-90T	348	179
Rollers	32*	33	20SRC-33-90T	359	185
Per	36*	37	20SRC-37-90T	381	197
Curve	38*	39	20SRC-39-90T	420	215
		STI	RAIGHT ROLLERS		
Single	12	13	20SRC-13-90S	119	61
Rollers	14	15	20SRC-15-90S	131	68
22 Per	16	17	20SRC-17-90S	144	73
90°	18	19	20SRC-19-90S	155	80
Curve	20	21	20SRC-21-90S	166	84
	22	23	20SRC-23-90D	199	101
Double	24	25	20SRC-25-90D	211	106
Rollers	26	27	20SRC-27-90D	223	112
42 Per	30*	31	20SRC-31-90D	262	134
90° Curve	32*	33	20SRC-33-90D	275	140
curve	36*	37	20SRC-37-90D	301	152
	38*	39	20SRC-39-90D	314	158

<sup>\*4&#</sup>x27;0" inside radius. All others 2' 81/2" inside radius.



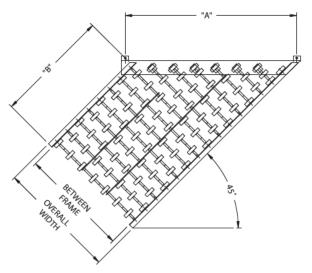
#### STRAIGHT SECTIONS - WEIGHTS

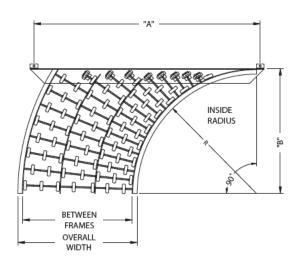
STRAIGHT SECTIONS - WEIGHTS												
Nominal Roller Length	Width Between Frames	Model No.	Roller Centers (Inches)	10' Weight (lbs.)	5' Weight (lbs.)							
		20SR-13-3	3	207	105							
		20SR-13-4 <sup>1</sup> / <sub>2</sub>	41/2	164	84							
12"	13"	20SR-13-6	6	139	70							
		20SR-13-9	9	118	60							
		20SR-13-12	12	104	53							
		20SR-15-3	3	227	115							
		20SR-15-4 <sup>1</sup> / <sub>2</sub>	41/2	177	85							
14"	15"	20SR-15-6	6	148	76							
		20SR-15-9	9	124	63							
		20SR-15-12	12	109	56							
		20SR-17-3	3	245	124							
		20SR-17-4 <sup>1</sup> / <sub>2</sub>	41/2	189	96							
16"	17"	20SR-17 6	6	158	80							
	.,	20SR-17-9	9	131	67							
		20SR-17-12	12	113	58							
		20SR-19-3	3	284	133							
		20SR-19-3	41/2	202	103							
18"	19"	20SR-19-4 /2 20SR-19-6	6	167	85							
10	19	20SR-19-6 20SR-19-9	9	138	71							
					1							
		20SR-19-12 20SR-21-3	12	118	61							
			3	284	144							
201	24"	20SR-21-4 <sup>1</sup> / <sub>2</sub>	41/2	215	109							
20"	21"	20SR21-6	6	176	90							
		20SR-21-9	9	144	74							
		20SR-21-12	12	123	63							
		20SR-23-3	3	302	153							
		20SR-23-4 <sup>1</sup> / <sub>2</sub>	41/2	227	115							
22"	23"	20SR-23-6	6	187	95							
		20SR-23-9	9	151	77							
		20SR-23-12	12	127	65							
		20SR-25 3	3	321	162							
		20SR 25-41/2	41/2	240	126							
24"	25"	20SR-25-6	6	196	99							
		20SR-25-9	9	157	80							
		20SR-25-12	12	132	67							
		20SR-27-3	3	341	172							
		20SR-27-4 <sup>1</sup> / <sub>2</sub>	41/2	253	128							
26"	27"	20SR-27-6	6	205	104							
		20SR-27-9	9	164	83							
		20SR-27-12	12	137	69							
		20SR-31-3	3	379	191							
		20SR-31-4 <sup>1</sup> / <sub>2</sub>	41/2	279	141							
30"	31"	20SR-31-6	6	224	113							
		20SR-31-9	9	117	90							
		20SR-31-12	12	147	75							
		20SR-33-3	3	389	201							
		20SR-33-4 <sup>1</sup> / <sub>2</sub>	41/2	291	147							
32"	33"	20SR 33-6	6	233	118							
32	33	20SR-33-9	9		1							
				184	94							
		20SR-33-12	12	152	78							
		20SR-37-3	3	436	219							
26"	278	20SR-37-4½	41/2	350	175							
36"	37"	20SR-37-6	6	317	160							
		20SR-37-9	9	253	128							
		20SR-37-12	12	161	82							
		20SR-39 3	3	455	229							
		20SR-39-4 <sup>1</sup> / <sub>2</sub>	41/2	330	166							
38"	39"	20SR-39-6	6	262	133							
		20SR-39-9	9	203	103							
		20SR-39-12	12	166	84							



### **MODEL "GS"**

### Gravity Skatewheel Spur Conveyor





#### **SPECIFICATIONS**

Widths - 12", 15", 18" and 24" Bolt in cross members

Couplings - Bar or hooks on one end

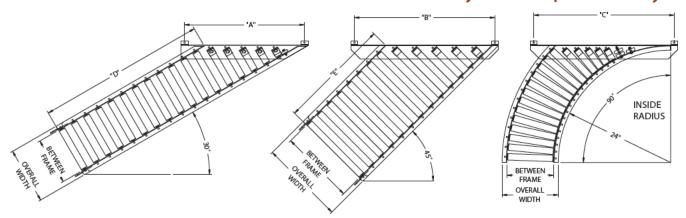
Right and left hand units Spurs - 45° and 90°

Overall	45° SPUR						Model		90° SPUR					
Frame	Model No.	"A"	WPF	"B"	Weights	s (lbs.)	Model No.	"A"	"B"	"D"	WPF	Weights		
Width	140.	^	WFI	2'	3'	5'	140.	^		I.	WFI	(lbs.)		
12"	12GS-45-25	21"	16	31	39	56	12GS-90-25	39"	37 1/2"	36"	16	67		
15"	15GS-45-25	30"	16	34	43	62	15GS-90-25	39"	341/2"	33"	16	72		
18"	18GS-45-25	30"	20	38	47	66	18GS-90-25	39"	311/2"	30"	20	77		
24"	24GS-45-25	39"	28	44	57	83	24GS-90-25	51"	37 1/2"	24"	28	107		

NOTE: Same per foot capacities as straight sections shown on page 83.

### MODEL"138SRS"

### **Gravity Roller Spur Conveyor**



#### **SPECIFICATIONS**

Widths - 12", 15", 18" and 24" Spurs - 30°, 45° and 90° Couplings - Bar or hooks on one end

Right and left hand units Bolt in cross members Rollers - 13/8" diameter x 18 gauge galvanized rollers

Overall	Model	30° SPUR Model 45° SP			45° SPUR			Model	90	90° SPUR			
Frame	No.	"A"	"D" W	eig hts	(lbs.)	No.	"B"	"E" W	eights	(lbs.)	No.	"C"	Weights
Width	110.	_ ^	2'	3'	5'	1401		2'	3'	5'	140.	_	(lbs.)
12"	138SRS-12-30	30"	35	43	64	138SRS-12-45	21"	31	39	60	138SRS-12-90	30"	29
15"	138SRS-15-30	39"	42	54	79	138SRS-15-45	30"	38	50	75	138SRS-15-90	39"	36
18"	138SRS-18-30	39"	48	62	91	138SRS-18-45	30"	44	58	87	138SRS-18-90	39"	42
24"	138SRS-24-30	51"	59	77	113	138SRS-24-45	39"	55	73	109	138SRS-24-90	51"	53

NOTE: Same per foot capacities as straight sections shown on page 84.

# MODEL"190SRS, 190HSRS, and 20SRS"

Gravity Roller Spur Conveyor





#### **SPECIFICATIONS**

Spurs - 30°, 45° and 90° models available

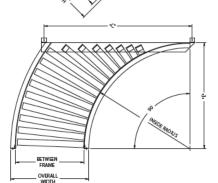
Right or left hand units

Couplings - Butt couplings one end

12 available Widths

**Set high or low** - set high is standard **Rollers** - 1.9" diameter x 16 gauge unplated or galvanized steel; 2" diameter x 12 gauge unplated

gauge



NOTE: Same per foot capacities as straight sections shown on pages 86 and 87.

			30° SPUR:				1	Neights	(lbs.)		
Between	Nominal		Model No.				"D"			"D"	
Rail	Roller				"A"		.9" Rolle		2" Roller		
Width	Length	1.9"Roller	1.9" Roller	2" Roller		2'	3'	5'	2'	3'	5'
13"	12"	19OSRS-13-30	19OHSRS-13-30	20SRS-13-30	42"	56	73	107	68	89	131
15"	14"	19OSRS-15-30	19OHSRS-15-30	20SRS-15-30	42"	59	77	113	74	97	143
17"	16"	19OSRS-17-30	19OHSRS-17 30	20SRS-17-30	42"	62	81	119	77	101	149
19"	18"	190SRS-19-30	190HSRS-19-30	20SRS-19-30	54"	65	85	125	83	109	161
21"	20"	19OSRS-21-30	19OHSRS-21-30	20SRS-21-30	54"	71	93	137	89	117	173
23"	22"	190SRS-23-30	190HSRS-23-30	20SRS-23-30	54"	74	97	143	95	125	185
25"	24"	190SRS-25-30	190HSRS-25-30	20SRS-25-30	66"	77	101	149	101	133	197
27"	26"	190SRS-27-30	190HSRS-27-30	20SRS-27-30	66"	80	105	155	107	141	209
31"	30"	190SRS-31-30	190HSRS-31-30	20SRS-31-30	78"	89	117	173	119	157	223
33"	32"	190SRS-33-30	190HSRS-33-30	20SRS-33-30	78"	92	121	179	131	173	257
37"	36"	190SRS-37-30	190HSRS-37-30	20SRS-37-30	87"	95	125	185	134	177	263
39"	38"	19OSRS-39-30	19OHSRS-39-30	20SRS-39-30	87"	104	137	203	139	180	275
			45° SPUR:		"B"						
13"	12"	190SRS-13-45	190HSRS-13-45	20SRS-13-45	33"	51	67	100	63	83	124
15"	14"	190SRS-15-45	190HSRS-15-45	20SRS-15-45	33"	54	71	112	72	95	142
17"	16"	19OSRS-17-45	190HSRS-17-45	20SRS-17-45	33"	58	75	112	72	95	142
19"	18"	190SRS-19-45	190HSRS-19-45	20SRS-19-45	42"	60	79	119	78	103	154
21"	20"	190SRS-21-45	190HSRS-21-45	20SRS-21-45	42"	66	88	130	84	111	166
23"	22"	190SRS-23-45	190HSRS-23-45	20SRS-23-45	42"	69	91	136	90	119	179
25"	24"	190SRS-25-45	19OHSRS-25-45	20SRS-25-45	48"	72	95	142	96	127	190
27"	26"	190SRS-27-45	190HSRS-27-45	20SRS-27-45	48"	75	99	148	102	135	202
31"	30"	190SRS-31-45	190HSRS-31-45	20SRS-31-45	54"	84	111	166	114	151	216
33"	32"	190SRS-33-45	190HSRS-33-45	20SRS-33-45	54"	84	115	172	126	166	250
37"	36"	19OSRS-37-45	190HSRS-37-45	20SRS-37-45	66"	90	119	178	129	171	256
39"	38"	190SRS-39-45	190HSRS-39-45	20SRS-39-45	66"	99	131	196	134	174	269
				OU CDIID							

90°	SP	UR:

	Between Rail	Roller		Model No.		"C"	"E"	Inside	Weights
	Width Leng		1.9" Roller	1.9" Roller	2" Roller		-	Radius	(lbs.)
SI		12"	190SRS-13-90	190HSRS-13-90	20SRS-13-90	42"			92
I I C		14"	190SRS-15-90	190HSRS-15-90	20SRS-15-90	42"			100
6 1		16"	190SRS-17-90	19OHSRS-17-90	205RS-17-90	48"			109
LE		18"	19OSRS-19-90	19OHSRS-19-90	20SRS-19-90	48"	33"	32 <sup>1</sup> / <sub>2</sub> "	117
EF	21"	20"	190SRS-21-90	190HSRS-21-90	20SRS-21-90	48"			126
	23"	22"	190SRS-23-90	190HSRS-23-90	20SRS-23-90	54"			156
D F	25"	24"	190SRS-25-90	190HSRS-25-90	20SRS-25-90	54"			164
0.0	27"	26"	190SRS-27-90	190HSRS-27-90	20SRS-27-90	54"			172
U I		30"	190SRS-31-90	190HSRS-31-90	20SRS-31-90	66"			206
L		32"	190SRS-33-90	190HSRS-33-90	20SRS-33-90	78"	48 <sup>1</sup> / <sub>2</sub> "	48"	215
E		36"	190SRS-37-90	190HSRS-37-90	20SRS-37-90	78"			233
	39"*	38"	190SRS-39-90	190HSRS-39-90	20SRS-39-90	78"			242

<sup>\*4&#</sup>x27;0" inside radius. All others 2'81/2" inside radius.



### MODEL"199SR & 199SRC"

**Gravity Roller Conveyor** 

#### STANDARD SPECIFICATIONS

Frames - 3<sup>1</sup>/<sub>2</sub>" deep x 1<sup>1</sup>/<sub>2</sub>" x 10 gauge powder painted formed steel; powder painted bolt-in cross members; rollers set <sup>1</sup>/<sub>4</sub>" high.

**Rollers** - 1.9" diameter x 9 gauge steel tubing. 21/2" to 111/16" tapered rollers available for curves.

Bearings - Labyrinth sealed and lightly oiled.

Axles - 7/16" hex shaft, spring-loaded.

Couplings - Butt type, for bolting sections together.

**Widths** - From 13" between frames (B/F) and wider in two inch increments up to 27" between frames. Also 31",33",37" and 39" between frames.

Lengths - 10' and 5' straight sections.

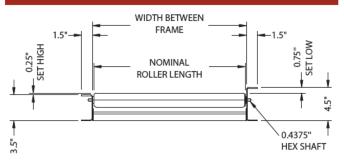
**Curve Degree** -  $45^{\circ}$  and  $90^{\circ}$  with 2'8'/2" inside radius for widths up to 27'' between frames. 4'0'' inside radius for 31'', 33'', 37'', and 39'' between frames.

**Capacity** - 300 pounds per roller with 1,350 pounds maximum distributed live load over 10' length; 3,150 pounds maximum distributed live load over 5' length.

### CURVED SECTIONS - WEIGHTS TAPERED ROLLER CURVE

	Nominal Roller Length (Inches)	Width Between Frames (Inches)	Model No.	90° Weight (lbs.)	45° Weight (lbs.)
	12	13	199SRC-13-90T	94	52
	14	15	199SRC-15-90T	126	68
20	16	17	199SRC-17-90T	137	74
Rollers	18	19	199SRC-19-90T	152	81
Per	20	21	199SRC-21-90T	167	89
Curve	22	23	199SRC-23-90T	178	94
	24	25	199SRC 25-90T	204	107
	26	27	199SRC-27-90T	230	120
32	30*	31	199SRC-31-90T	338	174
Rollers	32*	33	199SRC-33-90T	349	180
Per	36*	37	199SRC-37-90T	371	191
Curve	38*	39	199SRC-39-90T	410	210
		STRAI	GHT ROLLER CU	RVE	
Single	12	13	199SRC-13-90S	97	50
Rollers	14	15	199SRC-15-90S	105	53
22 Per	16	17	199SRC-17-90S	114	58
90°	18	19	199SRC-19-90S	122	63
Curve	20	21	199SRC-21-90S	131	67
	22	23	199SRC-23-90D	161	82
Double	24	25	199SRC-25-90D	169	85
Rollers	26	27	199SRC-27-90D	177	89
42 Per	30*	31	199SRC-31-90D	211	108
90°	32*	33	199SRC-33-90D	220	112
Curve	36*	37	199SRC-37-90D	238	120
	38*	39	199SRC-39-90D	247	124

<sup>\*4&#</sup>x27;0" inside radius. All others 2'81/2" inside radius.



#### STRAIGHT SECTIONS - WEIGHTS

Nominal Roller	Width Between	Model No.	Roller Centers	10' Weight	5' Weight
Length	Frames		(Inches)	(lbs.)	(lbs.)
		199SR-13-3	3	233	119
"	45"	199SR-13-4 <sup>1</sup> / <sub>2</sub>	41/2	180	92
12"	13"	199SR-13-6	6	152	78
		199SR-13-9	9	125	65
		199SR-13-12	12	110	57
		199SR-15-3	3	255	130
		199SR-15-4 <sup>1</sup> / <sub>2</sub>	41/2	194	113
14"	15"	199SR-15-6	6	163	84
		199SR-15-9	9	132	69
		199SR-15-12	12	116	60
		199SR-17-3	3	276	141
		199SR-17-4 <sup>1</sup> / <sub>2</sub>	41/2	208	107
16"	17"	199SR-17-6	6	173	89
		199SR-17-9	9	140	73
		199SR-17 12	12	121	62
		199SR-19-3	3	299	152
		199SR-19-4 <sup>1</sup> / <sub>2</sub>	41/2	223	114
18"	19"	199SR-19-6	6	185	95
10	19	1995R-19-0	9	148	78
		1995R-19-9	12	127	66
			3		
		199SR-21-3	_	322	164
"		199SR-21-4 <sup>1</sup> / <sub>2</sub>	41/2	238	121
20"	21"	199SR-21-6	6	196	100
		199SR-21-9	9	155	73
		199SR-21-12	12	132	68
		199SR-23-3	3	344	175
		199SR-23-4 <sup>1</sup> / <sub>2</sub>	41/2	253	128
22"	23"	199SR-23-6	6	208	106
		199SR-23-9	9	162	85
		199SR-23-12	12	138	71
		199SR-25-3	3	366	186
		199SR-25-4 <sup>1</sup> / <sub>2</sub>	41/2	267	136
24"	25"	199SR-25-6	6	219	111
		199SR-25-9	9	170	89
		199SR-25-12	12	143	74
		199SR-27-3	3	389	196
		199SR-27-4 <sup>1</sup> / <sub>2</sub>	41/2	282	143
26"	27"	199SR-27-6	6	230	117
		199SR-27-9	9	178	103
		199SR-27-12	12	149	77
		199SR-31-3	3	434	219
		1995R-31-4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	312	157
30"	31"	1995R-31-6	6	252	128
30	٠,١	1995R-31-9	9	192	100
		1995R-31-9 1995R-31 12	12	101	82
		1995R-31-12 1995R-33-3	3	456	230
			_	l	
2.0"	221	199SR-33-4 <sup>1</sup> / <sub>2</sub>	41/2	326	166
32"	33"	199SR-33-6	6	263	133
		199SR-33-9	9	201	105
		199SR-33-12	12	166	86
		199SR-37-3	3	501	252
		199SR-37-4 <sup>1</sup> / <sub>2</sub>	41/2	356	180
36"	37"	199SR-37-6	6	286	145
		199SR-37-9	9	215	112
		199SR-37-12	12	177	91
		199SR-39-3	3	523	263
		199SR-39-4 <sup>1</sup> / <sub>2</sub>	41/2	371	187
38"	39"	199SR-39-6	6	297	151
		199SR-39-9	9	222	116
		199SR-39-12	12	183	93

### MODEL"254SR & 254SRC"

### **Gravity Roller Conveyor**



#### STANDARD SPECIFICATIONS

Frames -  $3^{1}/_{2}$ " deep x  $1^{1}/_{2}$ " x 10 gauge powder painted formed steel with bolted cross members. Rollers set 1/4" high.

Rollers - 21/2" diameter x 14 gauge steel tubing with swaged ends to provide firm bearing seat. 21/2" to 111/16" tapered rollers available for curves.

Bearings - Labyrinth sealed and lightly oiled.

Axles - 7/16" hex shaft, spring-loaded.

Couplings - Butt type, for bolting sections together.

Widths - From 13" between frames (B/F) and wider in two inch increments up to 27" between frames. Also 31", 33", 37", 39", 45", 51" and 55" between frames.

Lengths - 10' and 5' straight sections.

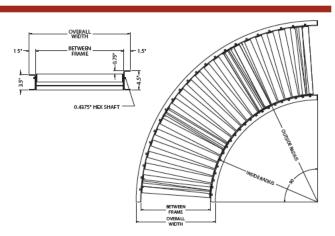
Curve Degree - 45° and 90° with 2' 81/2" inside radius for widths up to 27" between frames. 4'0" inside radius for 31", 33", 37", and 39" between frames.

Capacity - 350 pounds per roller on narrow sizes, with 1,350 pounds maximum live load on 10' sections; 3,300 pounds maximum live load on 5' section.

#### **CURVED SECTIONS - WEIGHTS**

	Nominal Roller Length (Inches)	Width Between Frames (Inches)	Model No.	90° Weight (lbs.)	45° Weight (lbs.)
Single	12	13	254SRC-13-90S	119	61
Rollers	14	15	254SRC-15-90S	131	68
18 Per	16	17	254SRC-17-90S	144	73
90°	18	19	254SRC-19-90S	155	80
Curve	20	21	254SRC-21-90S	166	84
	22	23	254SRC-23-90D	199	101
Double	24	25	254SRC 25-90D	211	106
Rollers	26	27	254SRC-27-90D	223	112
37 Per	30*	31	254SRC-31-90D	262	134
90°	32*	33	254SRC-33-90D	275	140
Curve	36*	37	254SRC-37-90D	301	152
	38*	39	254SRC-39-90D	314	158
	12	13	254SRC-13-90T	104	58
	14	15	254SRC-15-90T	115	63
20T	16	17	254SRC-17-90T	126	68
Rollers	18	19	254SRC-19-90T	139	75
Per	20	21	254SRC-21-90T	171	91
Curve	22	23	254SRC-23-90T	182	96
	24	25	254SRC-25-90T	208	109
	26	27	254SRC-27-90T	210	110
32T	30*	31	254SRC-31-90T	348	179
Rollers	32*	33	254SRC-33-90T	359	185
Per	36*	37	254SRC-37-90T	381	197
Curve	38*	39	254SRC-39-90T	420	215

<sup>\*4&#</sup>x27;0" inside radius. All others 2' 81/2" inside radius.



STRAIGHT SECTIONS - WEIGHTS							
Nominal Roller Length	Width Between Frames	Model No.	Roller Centers (Inches)	10' Weight (lbs.)	5' Weight (lbs.)		
		254SR-13-3 254SR-13-4 <sup>1</sup> / <sub>2</sub>	3 4¹/₂	230	128		
12"	13"	2545R-13-472 2545R-13-6	6	178 134	98 83		
12	13	254SR-13-9	9	125	69		
		254SR-13-12	12	110	59		
		254SR-15-3	3	250	137		
14"	15"	254SR-15-4½ 254SR-15-6	4¹/₂ 6	190 160	104 87		
14	13	254SR-15-9	9	131	72		
		254SR-15-12	12	114	62		
		254SR-17-3	3	268	146		
16"	17"	254SR-17-4½ 254SR-17-6	4¹/₂ 6	203 169	110 92		
10	17	254SR-17-9	9	137	78		
		254SR-17 12	12	119	64		
		254SR-19-3	3	287	156		
1.01	1011	254SR-19-4½	41/2	215	117		
18"	19"	254SR-19-6 254SR-19-9	6 9	178 145	97 79		
		254SR-19-12	12	124	67		
		254SR-21-3	3	307	166		
	2411	254SR-21-4½	41/2	228	123		
20"	21"	254SR-21-6 254SR-21-9	6	178 151	101 82		
		254SR-21-12	12	128	69		
		254SR-23-3	3	325	175		
		254SR-23-4 <sup>1</sup> / <sub>2</sub>	41/2	241	129		
22"	23"	254SR-23-6	6	198	106		
		254SR-23-9 254SR-23-12	9 12	157 133	85 72		
		254SR-25-3	3	344	184		
		254SR-25-4 <sup>1</sup> / <sub>2</sub>	41/2	253	135		
24"	25"	254SR-25-6	6	208	111		
		254SR-25-9	9 12	163 138	89 73		
		254SR-25-12 254SR-27-3	3	364	190		
		254SR-27-4 <sup>1</sup> / <sub>2</sub>	41/2	265	141		
26"	27"	254SR-27-6	6	217	115		
		254SR-27-9	9	170	92		
		254SR-27-12 254SR-31-3	12 3	142 402	76 213		
		254SR-31-4 <sup>1</sup> / <sub>2</sub>	41/2	291	153		
30"	31"	254SR-31-6	6	233	125		
		254SR-31-9	9	182	92		
		254SR-31 12 254SR-33-3	12 3	153 421	81 223		
		254SR-33-4 <sup>1</sup> / <sub>2</sub>	41/2	303	161		
32"	33"	254SR-33-6	6	245	129		
		254SR-33-9	9	223	102		
		254SR-33-12 254SR-37-3	12 3	157 459	84 241		
		254SR-37-4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	329	173		
36"	37"	254SR-37-6	6	264	140		
		254SR-37-9	9	202	108		
		254SR-37-12 254SR-39-3	12 3	167 477	88 251		
		2545R-39-4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	341	179		
38"	39"	254SR-39-6	6	274	143		
		254SR-39-9	9	208	112		
		254SR-39-12	12	171	90		
		254SR-45-3 254SR-45-4 <sup>1</sup> / <sub>2</sub>	3 4¹/₂	534 380	278 197		
44"	45"	254SR-45-6	6	303	160		
		254SR-45-9	9	226	121		
		254SR-45-12	12	186	96		
		254SR-51-3 254SR-51-41/2	3 4¹/₂	591 419	305 215		
50"	51"	254SR-51-6	6	331	176		
-		254SR-51-9	9	244	130		
		254SR-51-12	12	201	102		
		254SR-55-3 254SR-55-4 <sup>1</sup> / <sub>2</sub>	3 4¹/2	629 445	323 227		
54"	55"	254SR-55-6	6	350	187		
		254SR-55-9	9	256	136		
		254SR-55-12	12	211	106		



### MODEL"251SR & 251SRC"

**Gravity Roller Conveyor** 

#### STANDARD SPECIFICATIONS

Frames - 4" x 4 gauge steel channel with bolted cross members, powder painted. Rollers set 1/4" high.

Rollers - 21/2" x 11 gauge steel tubing with swaged bearings.

**Bearings** - Labyrinth sealed and grease packed.

Axles - 11/16" hex shaft, spring-loaded.

Couplings - Splice plates, for bolting sections together.

**Widths** - 13" between frames (B/F) and wider in two inch increments up to 27" between frames. Also 31", 33", 37", 39", 45", 51", 55" and 59" between frames.

Lengths - 10' and 5' straight sections.

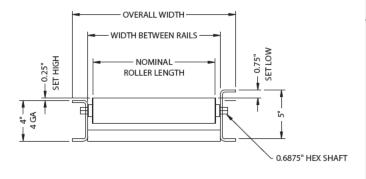
**Curve Degree** -  $45^{\circ}$  and  $90^{\circ}$  with  $2' \, 8^{1}/2"$  inside radius for widths up to 27" between frames. 4'0" inside radius for 31", 33", 37", and 39" between frames. Tapered roller curve available.

Capacity - 650 pounds per roller with 3,750 pounds maximum distributed live load over 10 feet for 12" nominal roll to 3,500 pounds on widest sizes; 8,000 pounds maximum distributed live load over 5' lengths. Curve sections same as 10'. All capacities based on 3" centers.

#### **CURVED SECTIONS - WEIGHTS**

	Nominal Roller Length (Inches)	Width Between Frames (Inches)	Model No. (For 90°)	90° Weight (lbs.)	45° Weight (lbs.)
Single	12	13	251SRC-13-90S	165	84
Roller	14	15	251SRC-15-90S	180	91
16 Per	16	17	251SRC-17-90S	195	99
90°	18	19	251SRC-19-90S	210	106
Curve	22	23	251SRC-23-90S	240	121
	26	27	251SRC-27-90S	270	136
Double	30*	31	251SRC-31-90D	400	216
Rollers	32*	33	251SRC-33-90D	418	236
37 Per	36*	37	251SRC-37-90D	453	245
90°Curve	38*	39	251SRC-39-90D	471	255

<sup>\*4&#</sup>x27;0" inside radius. All others 2' 81/2" inside radius.



#### STRAIGHT SECTIONS - WEIGHTS

Nominal Roller Length	Width Between Frames	Model No.	Roller Centers (Inches)	10' Weight (lbs.)	5' Weight (lbs.)
		251SR-13-3	3	364	185
		251SR-13-4	4	303	155
12"	13"	251SR-13-6	6	242	125
		251SR-13-9	9	212	113
		251SR-13-12	12	182	95
		251SR-15-3 251SR-15-4	3 4	395 327	202 168
14"	15"	251SR-15-4 251SR-15-6	6	259	134
		251SR-15-9	9	225	120
		251SR-15-12	12	191	100
		251SR-17-3	3	427	218
		251SR-17-4	4	351	180
16"	17"	251SR-17-6	6	276	142
		251SR-17-9 251SR-17 12	9 12	238 200	127 104
		251SR-17-12 251SR-19-3	3	458	234
		251SR-19-4	4	375	192
18"	19"	251SR-19-6	6	292	151
		251SR-19-9	9	251	134
		251SR-19-12	12	209	110
		251SR-23-3	3	521	266
22"	22"	251SR-23-4	4	423 325	217
22"	23"	251SR-23-6 251SR-23-9	6 9	325 276	168 149
		251SR-23-12	12	276	120
		251SR-27-3	3	583	289
		251SR-27-4	4	471	242
26"	27"	251SR-27-6	6	358	186
		251SR-27-9	9	302	163
		251SR-27-12	12	246	129
		251SR-31-3	3	646	331
2011	2411	251SR-31-4	4	519	267
30"	31"	251SR-31-6 251SR-31-9	6 9	391 328	203 178
		251SR-31-9 251SR-31 12	12	264	139
		251SR-33-3	3	679	347
		251SR-33-4	4	544	280
32"	33"	251SR-33-6	6	409	213
		251SR-33-9	9	341	185
		251SR-33-12	12	273	145
		251SR-37-3 251SR-37-4	3 4	740 590	379 304
36"	37"	251SR-37-4 251SR-37-6	6	441	229
30	3,	251SR-37-9	9	366	199
		251SR-37-12	12	291	154
		251SR-39-3	3	771	395
		251SR-39-4	4	614	316
38"	39"	251SR-39-6	6	457	238
		251SR-39-9 251SR-39-12	9 12	379 300	207 159
		2515R-39-12 2515R-45-3	3	863	443
		251SR-45-4	4	694	352
44"	45"	251SR-45-6	6	473	291
		251SR-45-9	9	417	229
		251SR-45-12	12	327	173
		251SR-51-3	3	955	491
EO!!	E 1 "	251SR-51-4 251SR-51-6	4	754	388
50"	51"	251SR-51-6 251SR-51-9	6 9	489 455	344 251
		251SR-51-9 251SR-51-12	12	354	187
		251SR-55-3	3	1016	523
		251SR-55-4	4	800	412
54"	55"	251SR-55-6	6	521	360
		251SR-55-9	9	480	265
		251SR-55-12	12	372	196
		251SR-59-3 251SR-59-4	3	1077	555
58"	59"	251SR-59-4 251SR-59-6	4 6	846 553	436 376
36	39	251SR-59-9	9	505	279
		251SR-59-12	12	309	205

### MODEL"267SR & 267SRC"

### **Gravity Roller Conveyor**



#### STANDARD SPECIFICATIONS

Frames - 4" deep x 4 gauge channel with bolted cross members, powder painted. Rollers set 1/4" high.

**Rollers** - 2<sup>5</sup>/<sub>8</sub>" diameter x 7 gauge steel tubing with swaged bearings.

Bearings - Labyrinth sealed and grease packed.

Axles - 11/16" hex shaft, spring-loaded.

Couplings - Splice plates, for bolting sections together.

**Widths** - From 13" between frames (B/F) and wider in two inch increments up to 27" between frames. Also 31", 33", 37", 39", 45", 51", 55" and 59" between rails.

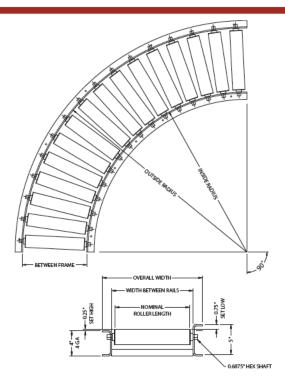
Lengths - 10' and 5' straight sections.

Curve Degree - 45° and 90° with 2' 81/2" inside radius for widths up to 27" between frames. 4' 0" inside radius for 31", 33", 37" and 39" between frames. Tapered roller curves available. Capacity - 650 pounds per roller with 3,750 pounds maximum distributed live load over 10'; 8,000 pounds maximum distributed live load over 5' lengths. Curve sections same as 10'. All capacities based on 3" centers.

#### **CURVED SECTIONS - WEIGHTS**

	Nominal Roller Length (Inches)	Width Between Rails (Inches)	Model No. (For 90°)	90° Weight (Ibs.)	45° Weight (lbs.)
	12	13	267SRC-13-90S	190	96
Single	14	15	267SRC-15-90S	209	106
Rollers	16	17	267SRC-17-90S	229	116
16 Per	18	19	267SRC-19-90S	248	125
90°Curve	22	23	267SRC-23-90S	286	144
	26	27	267SRC-27-90S	325	164
Double	30*	31	267SRC-31-90D	451	247
Rollers	32*	33	267SRC-33-90D	493	268
37 Per	36*	37	267SRC-37-90D	538	292
90°Curve	38*	39	267SRC-39-90D	561	305

<sup>\*4&#</sup>x27;0" inside radius. All others 2' 81/2" inside radius.



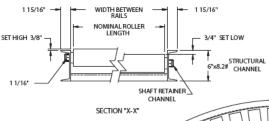
#### STRAIGHT SECTIONS - WEIGHTS

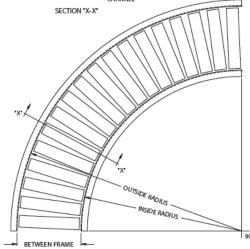
Nominal Roller Length	Width Between Frames	Model No.	Roller Centers (Inches)	10' Weight (lbs.)	5' Weight (lbs.)
		267SR-13-3	3	427	217
		267SR-13-4	4	351	179
12"	13"	267SR-13-6	6	274	141
		267SR-13-9	9	236	125
		267SR-13-12	12	198	102
		267SR-15-3	3	469	239
14"	15"	267SR-15-4 267SR-15-6	4 6	383 296	195 152
14	'3	267SR-15-9	9	253	135
		267SR-15-12	12	209	109
		267SR-17-3	3	511	260
		267SR-17-4	4	415	212
16"	17"	267SR-17-6	6	318	163
		267SR-17-9	9	269	144
		267SR-1712 267SR-19-3	12	221 553	115 282
		267SR-19-4	4	446	228
18"	19"	267SR-19-6	6	340	175
		267SR-19-9	9	286	153
		267SR-19-12	12	233	212
		267SR-23-3	3	637	324
22"	23"	267SR-23-4 267SR-23-6	6	510 383	261 198
22	23	267SR-23-9	9	320	172
		267SR-23-12	12	256	134
		267SR-27-3	3	721	367
		267SR-27-4	4	574	294
26"	27"	267SR-27-6	6	427	220
		267SR-27-9	9	353	191
		267SR-27-12	12	280	147
	31"	267SR-31-3 267SR-31-4	3 4	805 638	410 326
30"		267SR-31-6	6	471	243
50		267SR-31-9	9	387	209
		267SR-3112	12	304	159
		267SR-33-3	3	847	431
"		267SR-33-4	4	670	343
32"	33"	267SR-33-6 267SR-33-9	6	492	254
		267SR-33-9 267SR-33-12	9 12	404 315	219 166
		267SR-37-3	3	931	474
		267SR-37-4	4	733	376
36"	37"	267SR-37-6	6	536	277
		267SR-37-9	9	438	237
		267SR-37-12	12	339	178
		267SR-39-3 267SR-39-4	3 4	973 765	496 392
38"	39"	267SR-39-4 267SR-39-6	6	558	288
50	"	267SR-39-9	9	455	247
		267SR-39-12	12	351	185
		267SR-45-3	3	1099	561
4 411	4511	267SR-45-4	4	860	441
44"	45"	267SR-45-6 267SR-45-9	6	624 506	322 275
		267SR-45-9 267SR-45-12	12	387	2/5
		267SR-51-3	3	1225	626
		267SR-51-4	4	955	490
50"	51"	267SR-51-6	6	690	356
		267SR-51-9	9	557	303
		267SR-51-12	12	423	223
		267SR-55-3 267SR-55-4	3	1309	669
54"	55"	2675R-55-4 2675R-55-6	6	1018 734	523 379
54	33	267SR-55-9	9	591	321
		267SR-55-12	12	447	235
		267SR-59-3	3	1393	712
		267SR-59-4	4	1081	556
58"	59"	267SR-59-6	6	778	402
		267SR-59-9	9 12	625 471	339
		267SR-59-12	12	7/1	247



### MODELS "350SR & 350SRC"

**Gravity Roller Conveyor** 





#### STANDARD SPECIFICATIONS

Frames -  $6" \times 8.2$  pound structural steel channel with welded cross members powder painted. Rollers set  $\frac{3}{8}"$  high.

Rollers - 31/2" diameter x .30 wall with machined ends for press fit bearings.

Bearings - Labyrinth sealed and grease packed.

**Axles** - 1<sup>1</sup>/<sub>16</sub>" hex shaft, pinned in curved conveyor, retainer panels in straight conveyor.

Couplings - Butt type, for bolting frames together.

Widths - 7" between frames (B/F) and wider up to 51" between frames

Length - 5' and 10' straight sections.

Capacity - 1200 pounds per roller, with 8400 pounds maximum distributed live load over 10 feet; 16,700 pounds maximum distributed live load over 5 feet lengths. All capacities are based on 4"

Curve Degree - 45° and 90° with 4'0" inside radius only. Tapered rollers not available.

#### STRAIGHT SECTIONS - WEIGHTS

Nominal Roller Length	Width Between Frames	Model No.	Roller Centers (Inches)	10' Weight (lbs.)	5' Weight (lbs.)
		350SR-7-4	4	468	236
6"	7"	350SR-7-6	6	366	185
		350SR-7-8	8	315	160
		350SR-7-12	12	264	134
		350SR-11-4	4	611	315
10"	11"	350SR-11-6	6	464	234
	''	350SR-11-8	8	390	204
		350SR-11-12	12	317	168
		350SR-15-4	4	755	387
14"	15"	350SR-15-6	6	563	291
		350SR-15-8	8	466	242
		350SR-15-12	12	370	194
		350SR-19-4	4	899	454
18"	19"	350SR-19-6	6	661	332
	'	350SR-19-8	8	542	273
		350SR-19-12	12	423	214
		350SR-23-4	4	1042	523
22"	23"	350SR23-6	6	759	383
		350SR-23-8	8	617	311
		350SR-23-12	12	476	240
		350SR-27-4	4	1185	595
26"	27"	350SR-27-6	6	857	431
20		350SR-27-8	8	693	349
		350SR-27-12	12	529	267
		350SR-31-4	4	1329	677
30"	31"	350SR-31-6	6	955	480
50		350SR-31-8	8	769	397
		350SR-31-12	12	582	293
		350SR-35-4	4	1472	736
34"	35"	350SR-35-6	6	1053	529
5.	55	350SR-35-8	8	844	424
		350SR-35-12	12	634	319
		350SR-39-4	4	1615	810
38"	39"	350SR-39-6	6	1151	578
		350SR-39-8	8	919	462
		350SR-39-12	12	687	346
		350SR-43-4	4	1759	892
42"	43"	350SR-43-6	6	1250	627
		350SR-43-8	8	994	500
		350SR-43-12	12	741	373
		350SR-47-4	4	1903	954
46"	47"	350SR-47-6	6	1348	676
		350SR-47-8	8	1071	538
		350SR-47-12	12	795	399
		350SR-51-4	4	2045	1025
50"	51"	350SR-51-6	6	1446	727
		350SR-51-8	8	1147	575
		350SR-51-12	12	846	425
		55051151 12	1.2	0.10	123

#### **CURVED SECTIONS - WEIGHTS**

	Nominal Roller Length*	Width Between Frames	Model No. (for 90°)	90° Weight (lbs.)	45° Weight (lbs.)
	6"	7"	350SRC-7-90S	328	165
18 Rollers	10"	11"	350SRC-11-90S	428	220
per 90°	14"	15"	350SRC-15-90S	529	270
Curve	18"	19"	350SRC-19-90S	630	318
	22"	23"	350SRC-23-90S	729	366
	26"	27"	350SRC-27-90D	1066	535
	30"	31"	350SRC-31-90D	1196	609
33 Rollers	34"	35"	350SRC-35-90D	1324	662
per 90°	38"	39"	350SRC-39-90D	1453	802
Curve	42"	43"	350SRC-43-90D	1583	858
	46"	47"	350SRC-47-90D	1712	948
	50"	51"	350SRC-51-90D	1840	1264

<sup>\*4&#</sup>x27;0" Inside Radius only.

### **Gravity Accessories**



### **Spring Balanced / Manual Gate**

#### Skatewheel & 13/8" Roller

Width - 12", 15", 18" and 24" Length - 3', 4' and 5' lengths

 $\textbf{Wheels/Rollers} - \textbf{Steel or aluminum}, \ \textbf{skatewheels or rollers}$ 

Construction - 21/2" x 1" channels - 12 gauge powder

painted steel or .125" aluminum Latching - Safety gate latch 1.9" and 2.0" Roller

Width -12 widths (13" to 39" BR)\* Length -3' and 4' lengths

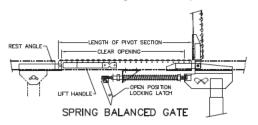
Rollers -1.9" galvanized or 2.0" unplated rollers

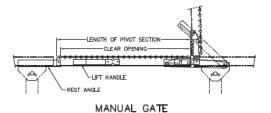
Construction -10 gauge powder painted steel channels

- 31/2" x 11/2" (set high) or 41/2" x 11/2" (set low)

Latching - Safety gate latch

\*NOTE: Maximum width and length determined by roller centers and type of roller. Inquire. Minimum length of spring balanced gate is 3'0".







### **Multi-Poly Tier Support**

**Application** - Use with skatewheel, 13/s", 1.9", 2" and most powered conveyors

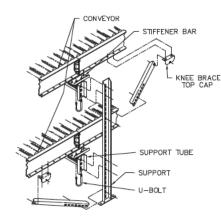
Widths - Conveyor widths to 42" wide

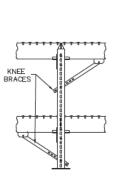
**Capacity** - 4,500 pounds capacity per set of uprights,1,500 pounds per cross supports

Braces - Knee braces

**Height** - 36" to 120" support height in 6" increments

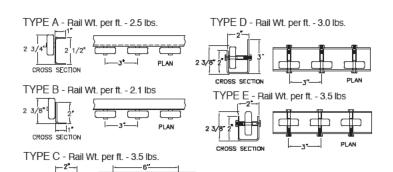
Versatility - Infinite adjustability







### **Wheel Rails**



#### STANDARD SPECIFICATIONS

Frame - 12 Ga. powder painted formed HRS steel.

#### **Load Capacity Chart**

Support	Maximum Load Per Foot (lbs.)						
Centers	Type A	Type B	Type C	Type D	Type E		
3'	260*	223	260*	260*	260*		
4'	260*	92	233	260*	210		
5'	146	50	125	198	113		
6'	83	28	71	112	64		
7'	51	17	44	69	50		
8'	35	12	38	49	27		
10'	18	6	15	24	14		

\*Wheel Capacity



### **Gravity Accessories**



### Manually Operated Turntable

Capacity - 2000 lbs.

Rollers - 1.9" or 2.0" diameter spaced on 3" centers

Adjustment - Spring-loaded foot pedal to position and lock

table at 90° intervals **Length** - 36" or 48" long

Elevation - 81/2" minimum elevation



#### STANDARD SPECIFICATIONS

Frames -  $3\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 10 gauge powder painted formed steel channel with powder painted, formed channel ball mounting plates bolted in frame; or  $2\frac{1}{2}$ " x 1" x 12 gauge powder painted formed steel channel frame with same ball mounting plates (Model BT). Also available in "drop-in" type (Model BTD) that replaces rollers in gravity conveyors. Bolts into existing roller axle holes for easy field mounting.

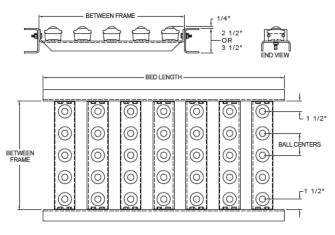
Balls - 1" diameter stud mounted.

**Widths** - From 13" between frames (B/F) and wider in two inch increments up to 27"; also 31", 33", 37" and 39" between frames.

**Lengths** - Available 1 foot to 10 feet.

**Couplings** - Butt type for bolting sections together. Matches gravity conveyor.

**Capacity** - 50 pounds per ball transfer, 1,300 pounds maximum load with supports on 10 feet centers; 3,200 pounds maximum load with supports on 5 feet centers.



### **Ball Transfer Tables**

#### WEIGHTS

B/F Dimension	Ball Centers	Model Number	Wt.per Foot	Model Number	Weight Per Strip
	2*	BT-13-2	21	BTD-13-2	10
4.211	3	BT-13-3	12	BTD-13-3	4
13"	41/2	BT-13-4 <sup>1</sup> / <sub>2</sub>	10	BTD-13-4 <sup>1</sup> / <sub>2</sub>	3
	6	BT-13-6	9	BTD-13-6	2
	2*	BT-15-2	24	BTD-15-2	12
. = !!	3	BT-15-3	13	BTD-15-3	4.5
15"	41/2	BT-15-4 <sup>1</sup> / <sub>2</sub>	12	BTD-15-4 <sup>1</sup> / <sub>2</sub>	3.5
	6	BT-15-6	10	BTD-15-6	2.5
	2*	BT-17-2	28	BTD-17-2	14
4.711	3	BT-17-3	15	BTD-17-3	5
17"	41/2	BT-17-4 <sup>1</sup> / <sub>2</sub>	13	BTD-17-4 <sup>1</sup> / <sub>2</sub>	4
	6	BT-17-6	11	BTD-17-6	3
	2*	BT-19-2	31	BTD-19-2	16
	3	BT-19-3	16	BTD-19-3	5.5
19"	41/2	BT-19-4 <sup>1</sup> / <sub>2</sub>	14	BTD-19-4 <sup>1</sup> / <sub>2</sub>	4.5
	6	BT-19-6	12	BTD-19-6	3.5
	2*	BT-21-2	35	BTD-21-2	17
	3	BT-21-3	18	BTD-21-3	6
21"	41/2	BT-21-4 <sup>1</sup> / <sub>2</sub>	15	BTD-21-4 <sup>1</sup> / <sub>2</sub>	5
	6	BT-21-6	12	BTD-21-472	4
	2*	BT-23-2	38	BTD-21-0	19
	3	BT-23-2	20	BTD-23-2	6.5
23"	41/2	BT-23-3	16	BTD-23-4 <sup>1</sup> / <sub>2</sub>	5.5
	6	BT-23-4 /2	13	BTD-23-4 /2	4.5
	2*	BT-25-2		BTD-25-2	
			41		21
25"	3 4 <sup>1</sup> / <sub>2</sub>	BT-25-3	21	BTD-25-3	7
		BT-25-4 <sup>1</sup> / <sub>2</sub>	18	BTD-25-4 <sup>1</sup> / <sub>2</sub>	6
	6	BT-25-6	14	BTD-25-6	5
	2*	BT-27-2	45	BTD-27-2	22
27"	3	BT-27-3	23	BTD-27-3	7.5
	41/2	BT-27-4 <sup>1</sup> / <sub>2</sub>	19	BTD-27-4 <sup>1</sup> / <sub>2</sub>	6.5
	6	BT-27-6	15	BTD-27-6	5.5
	2*	BT-31-2	52	BTD-31-2	26
31"	3	BT-31-3	26	BTD-31-3	8
31	41/2	BT-31-4 <sup>1</sup> / <sub>2</sub>	21	BTD-31-4 <sup>1</sup> / <sub>2</sub>	7
	6	BT-31-6	17	BTD-31-6	6
	2*	BT-33-2	55	BTD-33-2	27
33"	3	BT-33-3	29	BTD-33-3	8.5
33	41/2	BT-33-4 <sup>1</sup> / <sub>2</sub>	23	BTD-33-4 <sup>1</sup> / <sub>2</sub>	7.5
	6	BT-33-6	19	BTD-33-6	6.5
	2*	BT-37-2	62	BTD-37-2	31
37"	3	BT-37-3	32	BTD-37-3	9.5
3/	41/2	BT-37-4 <sup>1</sup> / <sub>2</sub>	25	BTD-37-4 <sup>1</sup> / <sub>2</sub>	8.5
	6	BT-37-6	21	BTD-37-6	7.5
	2*	BT-39-2	65	BTD-39-2	33
39"	3	BT-39-3	35	BTD-39-3	11.5
39	41/2	BT-39-4 <sup>1</sup> / <sub>2</sub>	27	BTD-39-4 <sup>1</sup> / <sub>2</sub>	10.5
	6	BT-39-6	23	BTD-39-6	9.5

<sup>\*</sup>With balls on 2" centers, mounting strips have three(3) rows of balls.

### **Gravity Accessories**



### **Stationary Supports**

Finish - Welded and powder painted H.R.S. Height - Adjustable feet with lagging holes. Capacity - LD, MD=1,500 lbs., 12 gauge. HD=3,000 lbs., 10 gauge.

	HD SUPPORT									
Model Number	251SR 267SR 251CRR 251CRR 251CRRC 267CRRC 267CRRC 251CRR-3	350CRR 350SR	251CAP 267CAP	251CDA 251CDE 267CDA	251ACDA 251ACDE	Weight	"H" Frame Only Height			
HD-1*	13 <sup>1</sup> / <sub>4</sub> "-14 <sup>1</sup> / <sub>8</sub> "	15 <sup>1</sup> / <sub>4</sub> "-16 <sup>1</sup> / <sub>8</sub> "	16 <sup>3</sup> / <sub>4</sub> "-17 <sup>1</sup> / <sub>8</sub> "	205/8"-211/2"	13 <sup>3</sup> / <sub>4</sub> "-14 <sup>5</sup> / <sub>8</sub> "	16	9"-9 <sup>7</sup> / <sub>8</sub> "			
HD-2*	14 <sup>1</sup> / <sub>8</sub> "-16 <sup>1</sup> / <sub>8</sub> "	16 <sup>1</sup> /s"-18 <sup>1</sup> /s"	17 <sup>5</sup> /8"-19 <sup>5</sup> /8"	211/2"-231/2"	145/8"-165/8"	18	9 <sup>7</sup> / <sub>8</sub> "-11 <sup>7</sup> / <sub>8</sub> "			
HD-3*	15 <sup>1</sup> / <sub>8</sub> "-18 <sup>1</sup> / <sub>8</sub> "	17 <sup>1</sup> /s"-20 <sup>7</sup> /s"	18 <sup>5</sup> / <sub>8</sub> "-22 <sup>3</sup> / <sub>8</sub> "	221/2"-261/4"	15 <sup>5</sup> /8"-19 <sup>3</sup> /8"	19 <sup>1</sup> / <sub>2</sub>	11 <sup>3</sup> / <sub>4</sub> "-14 <sup>5</sup> / <sub>8</sub> "			
HD-4*	18 <sup>1</sup> / <sub>4</sub> "-22 <sup>7</sup> / <sub>8</sub> "	201/4"-247/8"	213/4"-263/8"	25 <sup>5</sup> /8"-30 <sup>1</sup> /4"	18 <sup>3</sup> / <sub>4</sub> "-23 <sup>3</sup> / <sub>8</sub> "	27	14"-18 <sup>5</sup> /8"			
HD-5*	211/4"-241/4"	231/4"-261/4"	243/4"-273/4"	285/8"-315/8"	213/4"-243/4"	28 <sup>1</sup> / <sub>2</sub>	17"-20"			
HD-6*	24 <sup>1</sup> / <sub>4</sub> "-34"	261/4"-36"	273/4"-371/2"	315/8"-413/8"	24 <sup>3</sup> / <sub>4</sub> "-34 <sup>1</sup> / <sub>2</sub> "	31 <sup>1</sup> / <sub>2</sub>	20"-293/4"			
HD-7*	301/4"-40"	321/4"-42"	333/4"-431/2"	37 <sup>5</sup> / <sub>8</sub> "-47 <sup>3</sup> / <sub>8</sub> "	30 <sup>3</sup> / <sub>4</sub> "-40 <sup>1</sup> / <sub>2</sub> "	35	26"-353/4"			
HD-8*	361/4"-573/8"	381/4"-593/8"	391/4"-607/8"	435/8"-643/4"	36 <sup>3</sup> / <sub>4</sub> "-57 <sup>7</sup> / <sub>8</sub> "	43	32"-53 <sup>1</sup> / <sub>8</sub> "			
HD-9*	481/4"-693/8"	501/4"-713/8"	513/4"-72 <sup>7</sup> /8"	555/8"-763/4"	483/4"-697/8"	491/2	44"-65 <sup>1</sup> / <sub>8</sub> "			
HD-10*	601/4"-813/8"	621/4"-833/8"	633/4"-847/8"	675/8"-883/4"	603/4"-817/8"	56	56"-77 <sup>1</sup> / <sub>8</sub> "			
HD-11*	721/4"-933/8"	741/4"-953/8"	75 <sup>3</sup> / <sub>4</sub> "-96 <sup>7</sup> / <sub>8</sub> "	795/8"-1003/4"	723/4"-937/8"	62	68"-89 <sup>1</sup> / <sub>8</sub> "			
HD-12*	84 <sup>1</sup> / <sub>4</sub> "-105 <sup>1</sup> / <sub>8</sub> "	86 <sup>1</sup> / <sub>4</sub> "-107 <sup>3</sup> / <sub>8</sub> "	87 <sup>1</sup> / <sub>4</sub> "-108 <sup>7</sup> / <sub>8</sub> "	915/8"-1123/4"	843/4"-1065/8"	68	80"-101 <sup>1</sup> /s"			



	LD SUPPORT					MD SUPPO	RT				
Model Number	138AR 138SRH 138SR Wheel	Weight (lbs.)	"H" Frame Only Height	Model Number	LPB TSB	HPB FTC 190RBW SPC	190ABE 190RB 190LS 190CAP 190CLRS 190CLRS 190CLRSS 190RBI 190ZPA	190SRH 190SR 20SR 199SR 254SR 22ACDE 22CRR 22CRR 22CRRC 22CRRCS 22CRRCS	138CAP 138CLR 138CLRS 138CLRSS SBT	Weight (lbs.)	"H" Frame Only Height
LD-1	10"-121/8"	8	71/4"-93/8"	MD-1	111/2"-133/8"	14"-161/8"	141/2"-163/8"	11"-131/8"	13"-151/8"	8	71/2"-93/8"
LD-2	12"-13 <sup>1</sup> / <sub>2</sub> "	81/2	91/4"-101/4"	MD-2	13 <sup>1</sup> / <sub>2</sub> "-15"	16"-171/2"	16 <sup>1</sup> / <sub>2</sub> "-18"	13"-14 <sup>1</sup> / <sub>2</sub> "	15"-16 <sup>1</sup> / <sub>2</sub> "	81/2	91/4"-101/4"
LD-3	131/4"-16"	11	101/2"-131/4"	MD-3	141/4"-171/2"	171/4"-20"	173/4"-201/2"	141/4"-17"	161/4"-19"	11	101/2"-131/4"
LD-4	151/4"-21"	131/2	13"-181/4"	MD-4	171/4"-221/2"	193/4"-25"	201/4"-251/2"	161/4"-22"	181/4"-24"	13 <sup>1</sup> / <sub>2</sub>	13"-181/4"
LD-5	191/4"-29"	191/2	17"-261/4"	MD-5	211/4"-301/2"	233/4"-33"	241/4"-331/2"	203/4"-30"	223/4"-32"	191/2	17"-261/4"
LD-6	27"-41"	221/2	241/4"-381/4"	MD-6	281/2"-421/2"	31"-45"	311/2"-451/2"	28"-42"	30"-44"	221/2	241/4"-381/4"
LD-7	37"-61"	24	341/4"-581/4"	MD-7	381/2"-621/2"	41"-65"	411/2"-651/2"	38"-62"	40"-64"	24	341/4"- 581/4"
LD-8*	49"-72"	261/2	461/4"-691/4"	MD-8*	501/2"-731/2"	53"-76"	531/2"-761/2"	50"-73"	52"-75"	26 <sup>1</sup> / <sub>2</sub>	461/4"- 691/4"
LD-9*	61"-84"	291/2	581/4"-811/4"	MD-9*	621/2"-851/2"	65"-88"	651/2"-881/2"	62"-85"	64"-87"	291/2	581/4"-811/4"
LD-10*	73"-96"	351/2	701/4"-931/4"	MD-10*	741/2"-971/2"	77"-100"	771/2"-1001/2"	74"-97"	76"-99"	351/2	701/4"- 931/4"
LD-11*	83"-106"	391/2	801/4"-1031/4"	MD-11*	841/2"-1071/2"	87"-110"	871/2"-1101/2"	84"-107"	86"-109"	391/2	801/4"- 1031/4"
LD-12*	95"-118"	42	921/4"-1151/4"	MD-12*	96 <sup>1</sup> /2"-119 <sup>1</sup> /2"	99"-122"	991/2"-1221/2"	96"-119"	98"-121"	42	921/4"-1151/4"

<sup>\*(1)</sup> Pair knee braces included with each support.

### **Ceiling Hangers**

Size - 1/2" diameter x 8' long threaded galvanized rods.

Sturdy - 11/2" diameter crosspipe mounts to underside of bed section.

Ceiling hangers provide an economical and safe means of utilizing valuable floor space when higher conveyor elevations are required. 1/2" diameter x 8' long galvanized all thread rods (with locking nuts) attach to 11/2" diameter standard pipe which bolts to underside of conveyor frame with pipe collars. Ceiling hangers can be used with gravity or powered conveyors. Also, guard rails are required on ceiling hung conveyors.



# THE CONVEYOR SYSTEMS, INC.

### **Gravity Accessories**



### **Tripod Supports**

- For portable applications
- Easily adjusted with locking "L" rod
- Heavy steel pipe construction
- Capacity-350 lbs.

Model	Width		ght	Weight	Model	Width	Heig		Weight
No.	1100000	Min.	Max.	((bs.)	No.	1100000	Min.	Max.	(lbs.)
T-12-18	12"	12"	18"	6	T-18-18	18"	12"	18"	8
T-12-30	12"	18"	30"	9	T-18-30	18"	18"	30"	10
T-12-40	12"	24"	40"	11	T-18-40	18"	24"	40"	12
T-12-52	12"	30"	52"	14	T-18-52	18"	30"	52"	15
T-12-72	12"	40"	72"	20	T-18-72	18"	40"	72"	21
T-15-18	15"	12"	18"	7	T-18-110	18"	60"	110"	25
T-15-30	15"	18"	30"	10	T-24-18	24"	12"	18"	9
T-15-40	15"	24"	40"	12	T-24-30	24"	18"	30"	11
T-15-52	15"	30"	52"	15	T-24-40	24"	24"	40"	13
T-15-72	15"	40"	72"	21	T-24-52	24"	30"	52"	16
T-15-110	15"	60"	110"	25	T-24-72	24"	40"	72"	22
					T-24-110	24"	60"	110"	26

Adjustable Tripod Supports are used with straight or curved sections of gravity skatewheel and 13% diameter roller conveyor only.

### **Portable Castered Support**

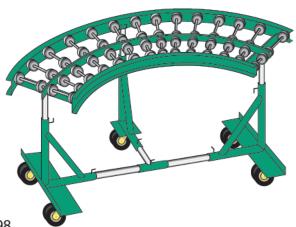


**Portable Castered Support** allows straight sections of gravity skatewheel or 13/8" diameter roller conveyor to be easily moved from one area to another. 4" diameter hard rubber swivel casters with brake.

NOTE: Floor locks optional.

12" Wide	15"Wide	18" Wide	24" Wide	Height to top of Conveyor	Weight (lbs.)
PSC-12-28	PSC-15-28	PSC-18-28	PSC-24-28	18" - 28"	53
PSC-12-40	PSC-15-40	PSC-18-40	PSC-24-40	24" - 40"	55
PSC-12-52	PSC-15-52	PSC-18-52	PSC-24-52	30" - 52"	57
PSC-12-72	PSC-15-72	PSC-18-72	PSC-24-72	40" - 72"	62

### **Portable Castered Curve Support**



**Portable Castered Curve Support** allows curved sections of gravity skatewheel or 13/8" roller curves to be easily moved. 4" diameter hard rubber swivel casters with brake.

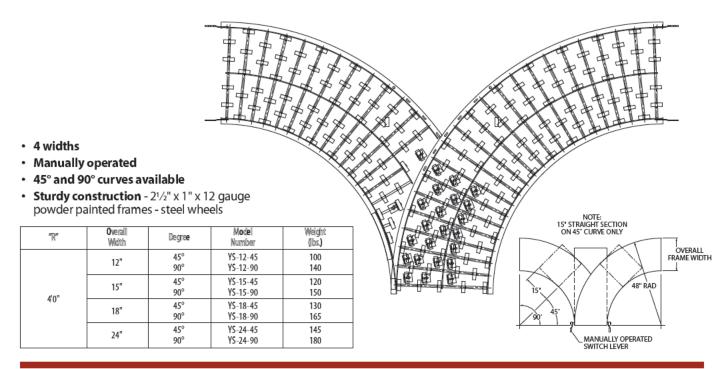
NOTE: Floor locks optional.

12" Wide	15" Wide	18" Wide	24" Wide	Height to top of Conveyor	Weight (lbs.)
PSCC-12-28	PSCC-15-28	PSCC-18-28	PSCC-24-28	18" - 28"	75
PSCC-12-40	PSCC-15-40	PSCC-18-40	PSCC-24-40	24" - 40"	77
PSCC-12-52	PSCC-15-52	PSCC-18-52	PSCC-24-52	30" - 52"	79
PSCC-12-72	PSCC-15-72	PSCC-18-72	PSCC-24-72	40" - 72"	84

### **Skatewheel Switches**



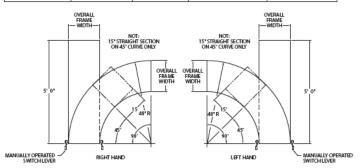
### Skatewheel "Y" Switch

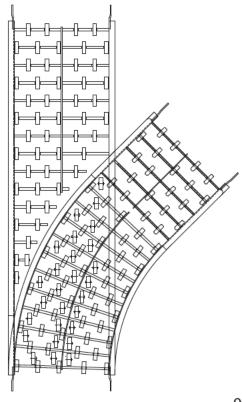


### **Skatewheel Spur Curve Switch**

- 4 widths
- · Manually operated
- 45° and 90° curves available
- Sturdy construction 21/2" x 1" x 12 gauge powder painted frames steel wheels
- · Right and left hand units

"R"	<b>O</b> verall Width	Degr <b>e</b> e	<b>M</b> odel Number	Weight (lbs.)
	12"	45° 90°	CS-12-45-R or L CS-12-90-R or L	145 160
4'0"	15"	45° 90°	CS-15-45-R or L CS-15-90-R or L	155 170
40	18"	45° 90°	CS-18-45-R or L CS-18-90-R or L	170 190
	24"	45° 90°	CS-24-45-R or L CS-24-90-R or L	195 210





# TOWNEYOR SYSTEMS, INC.

### **MODEL "HSS"**

### **High Speed Sortation Conveyor**





#### LOOK AT THE FEATURES AND CAPABILITIES OF THIS CONVEYOR:

#### **FACTS ABOUT THE SORTER**

There is virtually no limit to the length of the sorter. Units up to 500 feet long with as many as 30 diverts have been successfully built and installed. By using multiple "helper drives", the sort system becomes very flexible and can meet most user requirements. It can either sort "left" or "right" or it can be designed to sort both "left" and "right" (both sides). Recommended conveyor speeds are 200 FPM minimum to 300 FPM maximum. At 300 FPM, 16" long packages can be sorted at a rate of 80 per minute.

#### MINIMAL PRODUCT LIMITATIONS

Package weights can range from a minimum of 3 pounds up to a maximum of 100 pounds. Package weight distribution (center of gravity) is more critical to a successful divert than the total weight of the product. Package sizes can be as short as 10" up to a maximum length of 72". Maximum product length is determined by the divert spur width and the divert spur radius. Minimum gap between products is 9", depending upon the response time of the sortation control system.

#### **ABOUT THE DIVERTER**

The diverter is modular in design and can be installed at desired intervals as close as 3 feet centers minimum, up to any desired spacing. It utilizes a 3" long driven urethane coated roller, that on demand, rises 1/4"

to 3/8" and skews 30 degrees to divert the package. When in the down position, these rollers act as a bridge to stabilize small packages. Required air pressure is 40 PSI minimum, to 60 PSI maximum.

#### **BELT TAKE-UP**

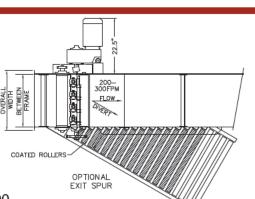
A mechanical (screw type) take-up is supplied when no more than two diverters are required. With three or more diverters, an air take-up is supplied to automatically maintain proper belt tension.

#### INDUCTION SYSTEM

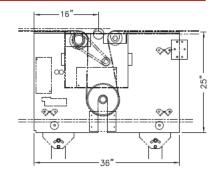
Although it's not necessarily a part of the sortation conveyor, the induction conveyor plays a key roll in the success of the diverting system. ACSI can supply the right equipment to ensure products are merged properly to traverse the sortation line.

#### HORSEPOWER REQUIREMENTS

In determining horsepower, product live load and diverter horsepower requirements are the deciding factors. Each diverter requires ½ HP.

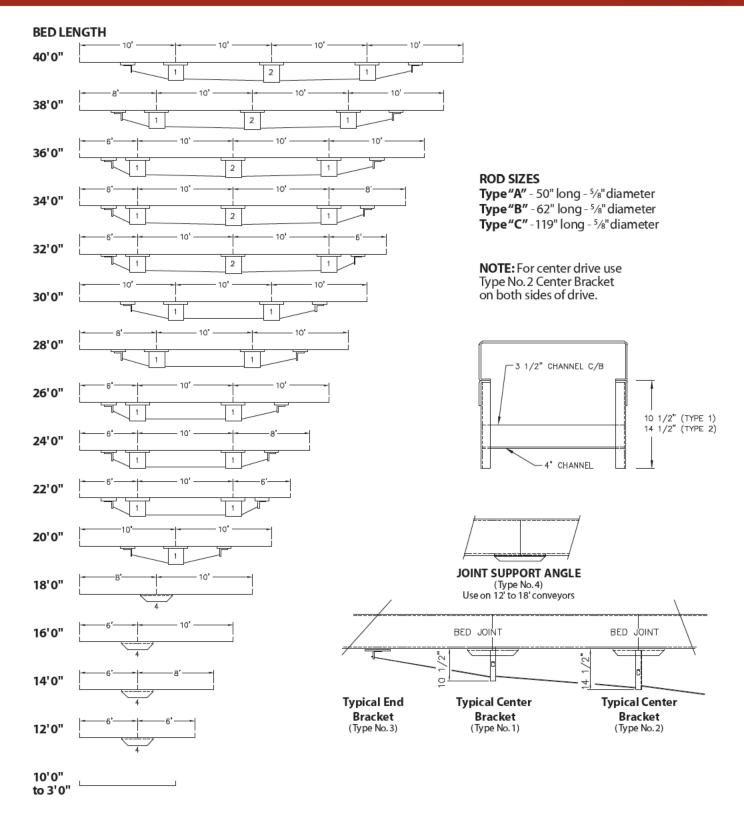


- Standard belt widths: 15", 21", 27", 33" and 39"
- Spur discharge conveyor with urethane covered rollers is slave driven by sorter
- Maximum motor: 5 HP for every 6 sorts
- · Gentle sort based on dynamics of design
- Standard sort module is 36" OAL
- Alignment rollers at induction end
- All pulleys are machine crowned
- · All rollers have precision bearings



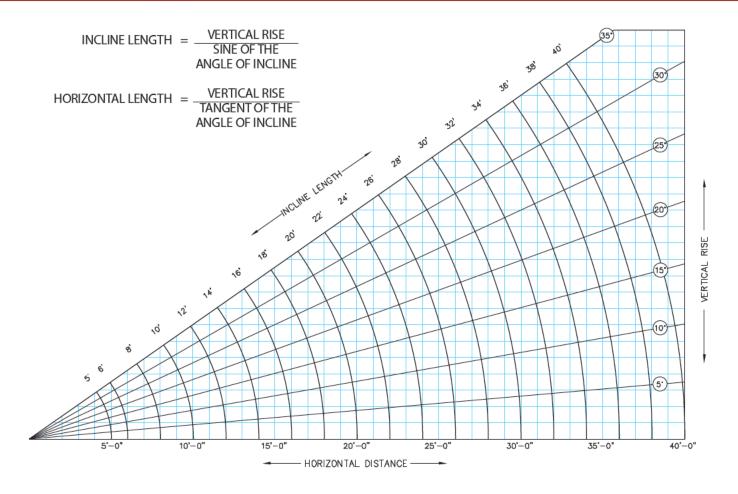
### **Bed & Undertrussing Chart**







### **Net Lift Chart**



Angle	Sine	Tangent	Angle	Sine	Tangent	Angle	Sine	Tangent
1°	.02	.02	11°	.19	.20	21°	.36	.38
2°	.03	.03	12°	.21	.21	22°	.37	.40
3°	.05	.05	13°	.23	.23	23°	.39	.42
4°	.07	.07	14°	.24	.25	24°	.41	.45
5°	.09	.09	15°	.26	.27	25°	.42	.47
6°	.10	.11	16°	.28	.29	26°	.44	.49
7°	.12	.12	17°	.29	.31	27°	.45	.51
8°	.14	.14	18°	.31	.32	28°	.47	.53
9°	.16	.16	19°	.33	.34	29°	.48	.55
10°	.17	.17	20°	.34	.36	30°	.50	.58

### **Engineering**



#### BELT PULL AND HORSEPOWER CALCULATIONS

#### I. LIVE LOAD ON THE CONVEYOR:

- A. Horizontal Conveyor: Summation of total load being conveyed.
- B. Incline Conveyor: Live load on incline portion multiplied by the sine of the angle of incline. (See "Net Lift Chart").

#### II. BELT OR CHAIN WEIGHT:

A. Belt Driven Conveyor: Belt weight from chart below multiplied by the width of the belt multiplied by the length of the conveyor for the weight of both the carrying belt and the return belt.

Type of Belt	Weight per Lineal Foot of Conveyor per Inch of Belt Width
3 Ply FS x FS	.1 Pound
3 Ply Ruff Top	.25 Pounds
3 Ply Neoprene	.125 Pounds

B. Chain Driven Conveyor: Chain weight from chart below multiplied by conveyor length.

Conveyor Model	Chain Type	Weight per Lineal Foot of Conveyor
22CRR	#50	1.38 Pounds
251-267CRR	#50	3.0 Pounds
251-267CRR	#60	3.52 Pounds
Slat Conveyor	SR196	26.4 Pounds

#### III. A. Roller Weight: See Chart below

 Slat Weight: 1.95 pounds per lineal foot of conveyor per inch of slat width.

#### **IV. ADDITIONAL FACTORS:**

- A. Feeder Beds: 10% of the live load on the feeder bed.
- B. Stopped product on running conveyor (case stop, traffic controller, etc.): 10% of the stopped product.
- C. Deflectors and Plows: 33% of the heaviest unit load.

#### V. COEFFICIENT OF FRICTION:

Slider Bed	.30
Belt on Roller	.05
Belt Driven Live Roller	.10
Chain Driven Live Roller	.075
Slat Conveyor	.15

Belt Pull Calculation: Summation of items I thru IV multiplied by item V.

Belt Pull = [(1A+II+III+IV)xV]+1B

#### VI. EFFECTIVE BELT PULL:

Belt pull from item V multiplied by 1.25 equals effective belt pull.

#### VII. DRIVETRAIN EFFICIENCY FACTORS:

A. Gear Reduction: 100 minus one half of the ratio of each step of reduction.

Example: Single Reduction 30:1 Reduction 100 - 30/2 = 85% efficient.

Double Reduction 800:1 Reduction

100 - 40/2 - 20/2 = 70% efficient.

B. Chain Reduction: 95% efficient.

Horsepower Calculation: Effective belt pull times speed in feet per minute divided by 33,000 dived by the gear reduction efficiency factor divided by the chain reduction efficiency factor.

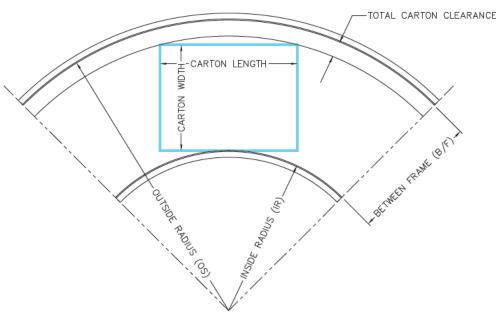
Horsepower =  $\frac{\text{Effective Belt Pull x Speed in F.P.M.}}{33,000 \times (\text{VII.A}) \times .95}$ 

#### **ROLLER WEIGHT CHART**

ROLLE	R DESCRIPT	ION	WEIGHT PER BETWEEN FRAME DIMENSION								
Cat. No.	Diameter	Gage	11"	15"	19"	21"	23"	27"	31"	33"	39"
190SR	1.9	16	2.2	2.7	3.3	3.6	3.8	4.4	4.9	5.2	6.1
20SR	2.0	12	3.4	4.5	5.6	6.1	6.6	7.7	8.8	9.4	11.0
199SR	1.9	9	3.4	4.5	5.6	6.1	6.6	7.7	8.8	9.4	11.0
254SR	2.5	14	3.0	3.9	4.8	5.3	5.7	6.6	7.5	8.0	9.3
251SR	2.5	11	5.6	7.1	8.5	8.9	9.3	11.5	12.9	13.6	15.7
267SR	2.63	7	6.7	8.7	10.8	11.8	12.8	14.9	16.9	17.9	21.0
350SR	3.5	.30"	14.9	19.6	24.3	26.7	29.0	33.7	38.4	40.8	47.8



### **Curve Sizing Diagram**



#### **CURVE SIZING FORMULA AND CHART**

Use of the Pythagorean Theorem to determine the between frame (BF) dimension of curved conveyor sections relative to carton size:

$$BF = \sqrt{\left[\frac{carton\ length}{2}\right]^2 + \left[\frac{carton\ width + inside\ radius}{2}\right]^2} + carton\ clearance - inside\ radius$$

#### BF REQUIRED FOR CURVES HAVING 2'81/2" RADIUS & SMALLER

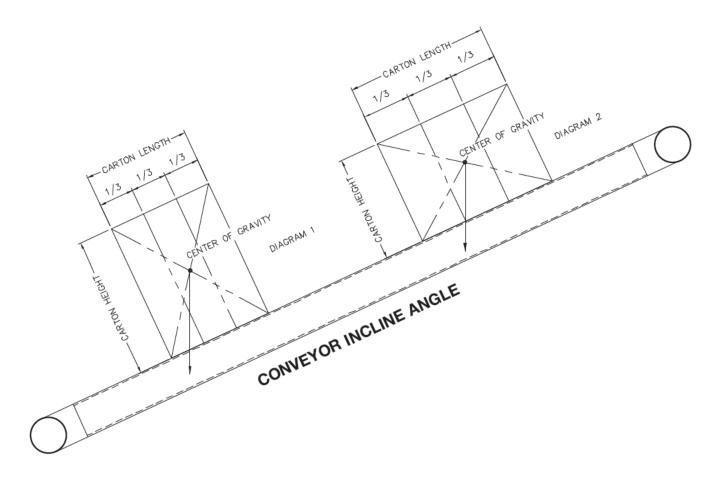
Package		Package Width										
Length	4"	8"	12"	16"	20"	24"	28"	32"	36"	40"	44"	48"
4"	6	10	14	18	22	26	30	34	38	42	46	50
8"	6	10	14	18	22	26	30	34	38	42	46	50
12"	6	10	14	18	22	26	30	34	38	42	46	50
16"	7	11	15	19	22	26	30	34	38	42	46	50
20"	8	12	15	19	23	27	31	35	38	42	46	50
24"	9	12	16	20	23	27	31	35	39	43	47	51
28"	10	13	17	20	24	28	32	36	39	43	47	51
32"	11	14	18	21	25	29	32	36	40	44	48	51

#### BF REQUIRED FOR CURVES HAVING 3'79/16" RADIUS & LARGER

Package	Package Width											
Length	4"         8"         12"         16"         20"         24"         28"         32"         36"         40"         44"         48"											
4"	6	10	14	18	22	26	30	34	38	42	46	50
8"	6	10	14	18	22	26	30	34	38	42	46	50
12"	6	10	14	18	22	26	30	34	38	42	46	50
16"	6	10	14	18	22	26	30	34	38	42	46	50
20"	7	10	14	18	22	26	30	34	38	42	46	50
24"	7	11	15	19	23	27	31	34	38	42	46	50
28"	8	11	15	19	23	27	31	35	39	43	47	51
32"	8	12	16	20	24	27	31	35	39	43	47	51
36"	9	13	16	20	24	28	32	36	40	43	47	51
40"	10	13	17	21	25	28	32	36	40	44	48	52
44"	10	14	18	22	25	29	33	37	41	44	48	52
48"	11	15	19	22	26	30	33	37	41	45	49	53
52"	12	16	19	23	27	30	34	38	42	46	49	53
56"	13	17	20	24	27	31	35	39	42	46	50	54
60"	14	18	21	25	28	32	36	39	43	47	51	54
64"	15	19	22	26	29	33	36	40	44	47	51	55

### **Box Tumbling Diagram**





#### **DETERMINING FACTORS ON BOX TUMBLING:**

- 1. Draw conveyor angle of incline.
- 2. Draw box size on conveyor.
- 3. Draw diagonal lines to find center of box.
- 4. Divide lower portion of box into thirds.
- 5. Draw vertical line as shown

- 6. If vertical line falls within the lower third (See Diagram #1) the box may tumble depending on weight distribution.
- 7. If vertical line falls within the upper two thirds (See Diagram #2) the box will not tumble.

General guideline rate of fall chart for flow on gravity roller conveyor. Exact rate of fall should be determined at time of installation with actual product to be conveyed.

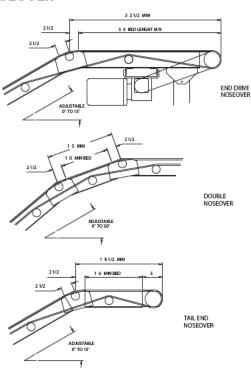
#### **GRAVITY ROLLER RATE OF FALL CHART**

Product with Conveyable Underside Surface	Weight Range in Pounds	Fall in 10'0"
Cartons	1 to 5	8" to 9"
Cartons	5 to 15	7" to 8"
Cartons	15 to 50	6" to 7"
Cartons	50 to 75	5" to 6"
Wood Boxes	20 to 50	5" to 6"
Wood Boxes	50 to 150	4" to 5"
Wood Boxes	150 to 200	3" to 4"
Steel Tote Bins	15 to 50	3" to 4"

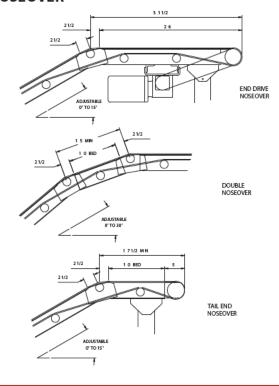


### **Noseover Arrangements**

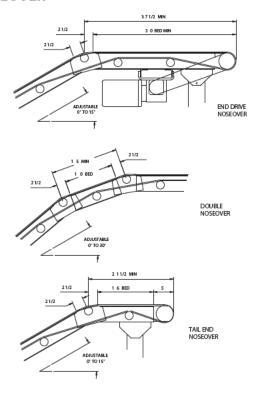
#### **190RB NOSEOVER**



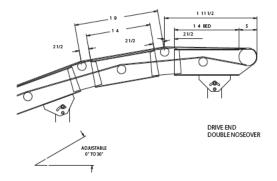
#### LPB NOSEOVER



#### **TSB NOSEOVER**



#### **FTC & HPB NOSEOVER**



### **Application Data Sheet**



		Date:							
OPERATION A	AL DATA PO#	Distributor:							
OF ETU THO TO	PO#	i Salesman:							
		Phone:							
Environment:	☐ Normal ☐ Dirty/Dusty								
Liivii oiiiii eiit.	□ Washdown □ Oily								
	☐ Clean Room Class	PRODUCT INFORMATION							
	☐ Other	Product to be Conveyed: ☐ Box ☐ Palle	t 🗆 Drum						
		☐ Wire Basket	( Diam						
<b>Hours of Operation:</b>	:	☐ Other							
Hrs./Day	Days/Week	Product Size: Min Max	Avg						
		Length:							
Average Rate:	per Minute:	Width:							
		Height:							
	per Hour:	Weight:							
		Description of Product:							
Maximum Rate:	per Minute:	Product Bottom: ☐ Smooth ☐ F	Hard □ Firm						
	man Harry	☐ Soft ☐ Flat ☐ Solid ☐ Pict	ure frame						
	per Hour:	☐ Slats ☐ Wood ☐ Corrugated ☐ Metal	l						
Camuayan Smaadi	EDM	☐ Plastic							
Conveyor Speed:	nstant	Other:	_						
	versing	Product Sides:							
	nveyor: lbs.:	Lip at top (Protrusions) (Supply Product Orientation In Direction of Trav							
Total live load on co	or lbs./ft:	Product Orientation in Direction of Trave							
Electric Motor Volta			□ width						
	es:	ENGINEEDING INFORMATION	<u> </u>						
	FC 🖵 Washdown 🗀 DC	ENGINEERING INFORMATION	_						
☐ Inv	rerter Duty⊒ EX.PR.	And leavest discussion to a scralled le 2	—						
Control Operating Vo	oltage:	Are layout drawings available?	☐ Yes ☐ No						
☐ AC	☐ DC Volts:	Are they being provided to ACSI?	☐ Yes ☐ No						
Control Class of Ser	vice: ☐ Gen Purpose NEMA1	Are <b>Approval Drawings</b> required?	☐ Yes ☐ No						
☐ Other:		Is product testing required?	☐ Yes ☐ No						
		If so, is customer supplying test product?	☐ Yes ☐ No						
Special Brand Equip									
(Customer Specificati		Testing Requirements:							
	Describe								
☐ Reducers									
☐ Solenoids		5 110							
☐ Bearings _		Special Notes:							
□ Otner									



### **ACSI Order Entry Form**

		a changes whe	-							Tout completely.
Conve	eyor Mark:					Re	_		UPS 🗀 1	Third Party □
Qty.	Model	Length (OAL)	BF	C/S	OAW	Roller Ctrs.	Belt Wid	dth/Type	Speed FPM	Base Price
Motor_	НР	<i></i>	TE_		INV. I	DUTY	EXPR	l	_	
Elevatio	on: Infeed	Discharge _		Caster	's	_ Knee Braces	·			
	<b>/pe:</b> er □ End □ O g Belt Drive □ (		ide Mo	ount	☐ Floor	Mount				
<b>DrivePu</b> □ 4" Dia □ 6" Dia □ 8" Dia □ 12" D	meter meter meter			i <b>l Pulle</b> : 4" Diam 6" Diam 8" Diam	eter leter					
□ 1 7/1	h <b>aft:</b> 5″ Diameter 5″ Diameter 16″ Diameter		0	1 7/16"	: Diamete Diamete "Diame	er				
Guard F ☐ Adj. C ☐ Solid ☐ Chan	hannel	☐ One Side ☐ Both Sides ☐ Angle	He	Ę	☐ To Ext	ed Length Only end Over Pull j. Guard Rail:_	eys			
Feeder: Integ Chain	ral	Feeder Length Elevations								
	le Noseover ocation:	☐ Single Noseo		Ţ	Locate	ed as standar	d			
☐ Manu ☐ One [	starters: al (Start/Stop On Direction (Magnet sing (Magnetic) Motor Voltage: _		t Mour	nted/Wi		Push Button  ☐ Start/Stop  ☐ Up/Down/ ☐ For/Rev/St ing Voltage:	Stop op			
ACSI	tandard powder Green 📮 ACSI Paint:	Gray 🖵 AC	SI Whit		ACSI D	ark Blue 📮	ACSI Tan	□ ACS	SI Black	

# Warranty Automated Conveyor Systems, Inc., warrants its products to be free of defects in materials and workmanship for a period of one year from the date of shipment or 2080 operating hours, whichever occurs first. ACSI, will repair or replace, at ACSI's option, F.O.B. West Memphis, AR, any part proving defective according to the terms of this warranty. ACSI must be notified in writing of the claimed defect, including a description of the part, a description of the defect and date defect was discovered. ACSI reserves the right to inspect said

defect at purchaser's installation site or to have said defective part or parts returned to ACSI via commercial freight carrier for inspection. Installation expense and any other expense associated with the removal of claimed defective part shall be borne by purchaser and ACSI's liability is extended only to furnishing said part or parts.

ACSI is not liable for incidental or consequential damages, such as loss of profit, delays or expenses incurred by failure of said part or parts or for failure of equipment to comply with any federal, state, or local laws.

Failure due to abuse, negligence, accident, improper repair, improper maintenance, incorrect adjustments, exposure to a corrosive or abrasive environment, operation under any degree of moisture or alteration/modification to the equipment without ACSI's written authorization, does not constitute failure due to defects in workmanship or materials.

Component parts not manufactured by ACSI (i.e.: motors, gear reducers, etc.) will be repaired or replaced at the option of the manufacturer. Contact the nearest authorized service center for those warranty claims. The warranty as specifically set forth here-in shall be purchaser's exclusive warranty and is hereby provided by ACSI in lieu of any and all other warranties, actual or implied.

NOTE: ANY COMPONENT PART (OR PARTS) NOT MANUFACTURED BY ACSITHAT HAS (HAVE) BEEN TAMPERED WITH PRIOR TO INSPECTION BY THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE, SHALL BE DEEMED FREE OF ALL WARRANTY CLAIMS.

> AUTOMATED CONVEYOR SYSTEMS, INC. **WEST MEMPHIS, ARKANSAS**

