



24 Hour Shipment available on specific sizes. Consult a sales engineer for further information.

1.9 in. dia. x .145 in. wall rollers	212
2 1/2 in. dia. x 11 ga. rollers or 2 9/16 in. dia. x .180 in. wall rollers	214
3 1/2 in. dia. x .300 in. wall rollers	216
4 in. dia. x 1/2 in. wall rollers or 5 in. dia. x 3/4 in. wall rollers	218
ZERO PRESSURE CDLR	
1.9 in. dia. x .145 in. wall rollers	220
2 1/2 in. dia. x 11 ga. rollers or 2 9/16 in. dia. x .180 in. wall rollers	222
3 1/2 in. dia. x .300 in. wall rollers	224
CDLR OPTIONS AND ACCESSORIES	226

# Chain Driven Live Roller Conveyor 1.9 in. dia. x .145 in. Wall Rollers



- **Positive Drive**
- Ideal for Heavy Loads, Loaded Pallets, Drums, etc.
- Reversible
- **Built to Order Modifications Easily Made.**

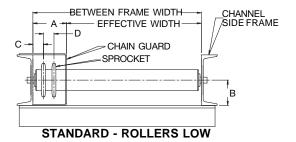
RO	LL	CHAIN	SPROCKET	ROLLER	FRAME	OPTION	AL SIDE FRAME	Δ.	В	С	D
DI	A.	CHAIN	SPROCKET	CENTERS	FRAIVIE	Channel	Angle	4	Ь		ا
1.	9	RC40	40A18	3.5" & Up in 1/4" increments	5 x 6.7#		3 1/2 x 2 1/2 x 5/16	3 1/4"	2 3/4"	1 1/8"	1 1/8"
1.	9	RC50	50A15	3.75" & Up in 5/16" Increments	5 x 6.7#		3 1/2 x 2 1/2 x 5/16	3 1/4"	2 3/4"	1 1/8"	1 1/8"
1.	9	RC60	60A13	4.125" & Up in 3/8" Increments	6 X 8.2#	4 X 5.5#	4 X 3 X 5/16	4	3 1/4"	1 1/4"	1 1/4"

Note: "B" dimension may vary if angle side frame is used.

Effective Widths - 3" to 48" in any Increment.

**Lengths:** - 1 ft. thru 12 ft. bed sections call for maximum overall length possible with 1 drive package

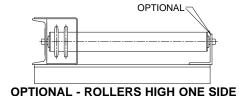
**Speeds** - 5 - 150 FPM fixed or variable speed.



#### **Special Close Roller Centers:**

Roll Diameter	Sprocket	Min. Roll Centers	"A" Chain Guard Width
1.9	40A18	2 3/4"	5 1/2"
1.9	50A15	3 1/8"	5 1/2"
1.9	40A18	2 1/4"	3 1/4" *
1.9	50A15	2 1/2"	3 1/4" *

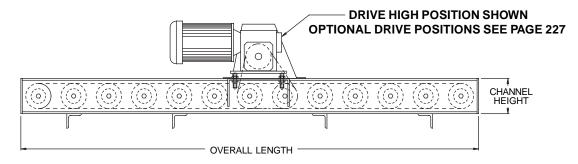
\* Chain Guards on Both Sides.



- Available With:
  - Semi precision or precision internal bearings
  - Flange or pillow block mount external bearings
- Please Specify Special Environmental Conditions:

Hot, cold, wet, dust/dirt, chemicals, explosive, other

- Paint to customer color choice or choose standard color on inside back cover of this book.
- Private labeling available on request.



**Frame** - 5 in. x 6.7# or 6 in. x 8.2# structural channel with welded cross members, primer coat and finish paint coat, welded end couplers for bolting sections together.

**Chain Guard** - 10 gage formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Upper portion painted safety yellow.

**Rollers** - 1.9 in. dia. x .145 in. wall steel tubing with (2) Type A sprockets welded to tube. For location, see chart on opposite page or specify location. Bearings are labyrinth shielded and grease packed. Capacity = 300 lbs. per roller. See page 224 for optional roller and bearing combinations.

**Axle** - 7/16 in. pin retained hex axle. Spring retained optional. **Motor** - 1/4 HP through 2 HP or as required - 230/460V - 3 Phase - 60 Hz., totally enclosed, fan cooled, "C" face mount - or specify other motor requirements.

**Speed Reducer** - Sealed worm gear "C" face speed reducer or specify other reducer requirements.

**Electrical Controls (Optional)** - See Electrical Controls Section Page 299

Capacity - Max. recommended wt. per product on 1.9" rollers with 7/16" Hex is 1500#

	LOAD CAPACITY CHART								
	Chain Driven Live Roller Bed @ 30 FPM								
HP	Total Uniform	n Load (Lbs.)*							
	Up To 20 Ft.	Up To 50 Ft.							
1/3	2900	2300							
1/2	4700	4000							
3/4	7300	6600							
1 1	9900	9300							
1 1/2	15000	14000							

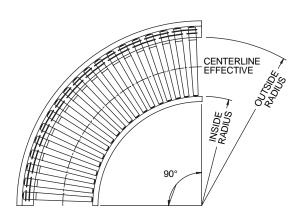
<sup>\*</sup> Capacities based on 23" effective width and 5" approximate roller centers. Chain size dependent on chain pull requirements.

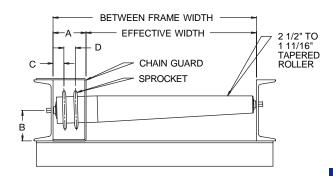
**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.

## **Chain Driven Live Roller Curve**

- Built to customer specifications or based on product dimensions & weight.
- With drive or slave driven from straight section 10° thru 180° any degree available.
- Specify inside radius, outside radius, or product dimensions.

Note: Inside radius should be same or greater than longest product dimension.











**CUSTOM "TRUE" TAPERS UP TO 51" BF** 

Roller	Sprocket	Sprocket Min. Roller		Channel Side Optional Side Frame			В	_	Б	
Diameter	Size	Centers at O.R.	Frame	channel angle		A	Ь	J		
2 1/2 tapered to 1 11/16	40A22 40A17 60A15	4 1/4 4 3/8 4 1/2	5 x 6.7# 5 x 6.7# 6 x 8.2#	  4 x 5.4#	3 1/2 x 2 1/2 x 5/16 3 1/2 x 2 1/2 x 5/16 4 x 3 x 5/16	3 1/4" 3 1/4" 4"	2 5/8" 2 5/8" 3"	1 1/8" 1 1/8" 1 1/4"	1 1/8" 1 1/8" 1 1/4"	

Note: "B" dimension may vary if angle side frame is used.



## **Chain Driven Live Roller Conveyor**



2 1/2 in. dia. x 11 ga. Rollers or 2 9/16 in. dia. x .180 in. Wall Rollers



- Positive Drive
- Ideal for Heavy Loads, Loaded Pallets, Drums, etc.
- Reversible
- Built to Order Modifications Easily Made.

ROLL	CHAIN	SPROCKET	ROLLER	FRAME -	OPTION	OPTIONAL SIDE FRAME		В	С	D
DIA.	CHAIN	SPROCKET	CENTERS		Channel	Angle	A	Ь	C	
2 1/2	RC40	40A22	4 1/4" & Up in 1/4" increments	5 x 6.7#		3 1/2 x 2 1/2 x 5/16	3 1/4"	2 5/8"	1 1/8"	1 1/8"
2 1/2	RC50	50A17	4 3/8" & Up in 5/16" Increments	5 x 6.7#		3 1/2 x 2 1/2 x 5/16	3 1/4"	2 5/8"	1 1/8"	1 1/8"
2 1/2	RC60	60A15	4 1/2" & Up in 3/8" Increments	6 X 8.2#	4 X 5.4#	4 X 3 X 5/16	4"	3"	1 1/4"	1 1/4"
2 9/16	RC40	40A22	4 1/4" & Up in 1/4" increments	5 x 6.7#		3 1/2 x 2 1/2 x 5/16	3 1/4"	2 5/8"	1 1/8"	1 1/8"
2 9/16	RC50	50A18	4 3/8" & Up in 5/16" Increments	5 x 6.7#		3 1/2 x 2 1/2 x 5/16	3 1/4"	2 5/8"	1 1/8"	1 1/8"
2 9/16	RC60	60A15	4 1/2" & Up in 3/8" Increments	6 X 8.2#	4 X 5.4#	4 X 3 X 5/16	4"	3"	1 1/4"	1 1/4"
2 9/16	RC80	80A13	5 1/2" & Up in 1/2" Increments	6 X 8.2#	4 X 5.4#	4 X 3 X 5/16	4 1/4"	3 1/4"	1 1/4"	1 3/4"

Note: "B" dimension may vary if angle side frame is used.

Effective Widths - 3" to 95" in any increment.

**Lengths:** - 1 ft. thru 12 ft. bed sections call for maximum overall length possible with 1 drive package

**Speeds** - 5 - 150 FPM fixed or variable speed.

#### **Special Close Roller Centers:**

Roll Diameter	Sprocket	Min. Roll Centers	"A" Chain Guard Width
2 1/2	50A17	3 7/16"	5 1/2"
2 1/2 & 2 9/16	60A15	3 3/4"	6 1/2"
2 9/16	50A18	3 3/4"	5 1/2"
2 1/2 & 2 9/16	40A22	2 3/4"	3 1/4" *
2 1/2	50A17	2 13/16"	3 1/4" *
2 1/2 & 2 9/16	60A16	3"	4" *
2 9/16	50A18	2 13/16"	3 1/4" *

<sup>\*</sup>Chain guard on both sides.

#### Available With:

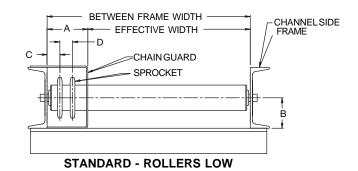
- Semi precision or precision internal bearings
- Flange or pillow block mount external bearings

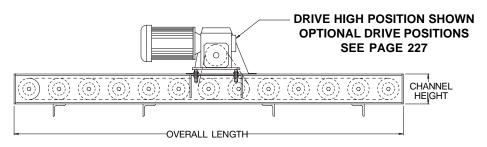
#### **Please Specify Special Environmental Conditions:**

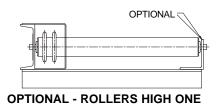
Hot, cold, wet, dust/dirt, chemicals, explosive, other

**Paint** to customer color choice or choose standard color on inside back cover.

Private labeling available on request.







Omni <u>Metalcraft</u> corp.

**Frame** - 5 in. x 6.7# or 6 in. x 8.2# painted structural channel with welded cross members. Optional structural angle available on one side for rollers high. Welded in butt couplers allow sections to be bolted together.

**Effective Widths** - 3 through 95 inch in any increment. (Other widths available).

Side Mount Drive - Available mounted high or low.

**Drive Chain** - No. 40, 50, 60 or 80 chain dependent upon chain pull requirements for conveying a specified load.

**Chain Guard** - 10 Ga. formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Top portion painted safety yellow.

**Rollers** - 2 1/2 in. dia. x 11 ga. or 2 9/16 in. dia. x .180 in. wall steel tubing with (2) Type A sprockets welded to tube. For location, see chart on opposite page or specify. Bearings are sealed and grease packed. Capacity = 580 lbs. per roller. See page 16 for optional roller and bearing combinations.

Axle - 11/16 in. pin retained hex axle. Spring retained optional.

Speed Reduction - Sealed worm gear "C" face speed reducer.

**Motor** - 1/4 HP through 5 HP as required - 230/460V - 3 Phase - 60 Hz., totally enclosed, fan cooled, "C" face.

**Electrical Controls (Optional)** - Reversing or non-reversing motor starter mounted and wired or shipped loose. Additional control devices available. See page 226.

**Capacity** - Max. recommended wt. per product on 2 1/2 rollers is 3500#.

	LOAD CAPACITY CHART								
Chain Driven Live Roller Bed @ 30 FPM									
HP	Total Uniform Load (Lbs.)*								
	Up To 20 Ft.	Up To 50 Ft.							
3/4	7000	5800							
1	9600	8400							
1 1/2	14,500	13,500							
2	20,000	18,500							

<sup>\*</sup> Capacities based on 2 1/2" dia. rollers with 34" effective width and 6" approximate roller centers. Chain size dependent on chain pull requirements. Capacities are same for CDLR with 2 9/16" dia. rollers.

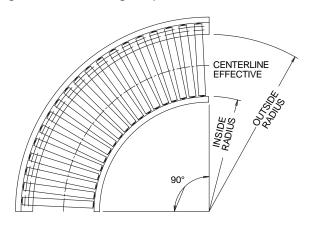
**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.

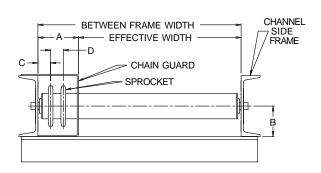
24 Hour Shipment available on specific sizes. Consult a Sales Engineer for further information.

## **Chain Driven Live Roller Curve**

- Built to customer specifications or based on product dimensions & weight.
- With drive or slave driven from straight section 10° thru 180° any degree available.
- Specify inside radius, outside radius, or product dimensions.

Note: Inside radius should be same or greater than longest product dimension.









**CUSTOM "TRUE" TAPERS UP TO 64" BF** 

## Chain Driven Live Roller Conveyor

3 1/2 in. dia. x .300 in. Wall Rollers



- Positive Drive
- Ideal for Heavy Loads, Loaded Pallets, Drums, etc.
- Reversible
- Built to Order Modifications Easily Made.

ROLL	CHAIN	SPROCKET	ROLLER	FRAME	OPTION	AL SIDE FRAME	_	В	С	D
DIA.	CHAIN	SPROCKET	CENTERS	S	Channel	Angle	^	В		
3 1/2	RC60	60A20	6" & up in 3/8" increments	7 x 9.8#	5 x 6.7#	5 x 3 x 5/16	4"	3 1/2"	1 1/4"	1 1/4"
3 1/2	RC80	80A16	6 1/2" & up in 1/2" increments	8 x 11.5#	6 x 8.2#	6 x 4 x 3/8	4 1/4"	4 1/2"	1 1/4"	1 3/4"
3 1/2	RC100	100A13	6 7/8" & up in 5/8" increments	8 x 11.5#	6 x 8.2#	6 x 4 x 3/8	5"	4 1/2"	1 3/8"	2"

Effective Widths - 3" to 120" in any Increment.

**Lengths:** - 1 ft. thru 12 ft. bed sections call for maximum overall length possible with 1 drive package

**Speeds** - 5 - 150 FPM fixed or variable speed.

#### **Special Close Roller Centers:**

•								
Roll Diameter	Sprocket	Min. Roll Centers	"A" Chain Guard Width					
3 1/2	60A20	4 7/8"	6 1/2"					
3 1/2	80A16	5"	7 3/4"					
3 1/2	60A20	3 3/4"	4" *					
3 1/2	80A16	3 3/4"	4 1/4" *					

\*Chain guard on both sides

#### Available With:

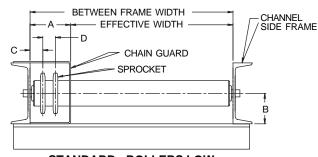
- Semi precision or precision internal bearings
- Flange or pillow block mount external bearings

#### Please Specify Special Environmental Conditions:

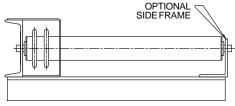
Hot, cold, wet, dust/dirt, chemicals, explosive, other

Paint to customer color choice or choose standard color on inside back cover.

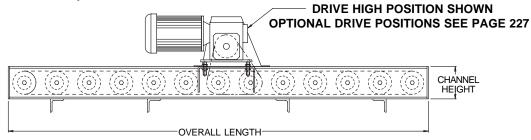
#### Private labeling available on request.



STANDARD - ROLLERS LOW



**OPTIONAL - ROLLERS HIGH ONE SIDE** 



**Frame** - 7 in. x 9.8# or 8 in. x 11.5# painted structural channel with welded cross members. Optional structural angle available on one side for rollers high. Welded in butt couplers allow sections to be bolted together.

**Effective Widths** - 3 through 120 inch in any increment. (Other widths available.)

Side Mount Drive - Available mounted high or low.

**Drive Chain** - No. 60, 80 or 100 chain dependent upon chain pull requirements for conveying a specified load.

**Chain Guard** - Formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Upper portion painted safety yellow.

**Rollers** - 3 1/2 in. dia. x .300 in. wall steel tubing with (2) Type A sprockets welded to tube. For location, see chart on opposite page or specify location. Bearings are shielded, sealed and grease packed. Capacity = 1040 lbs. per roller. See page 226 for optional roller and bearing combinations.

Axle - 1 1/16 in. pin retained hex axle.

**Optional Axles** - 1 1/16 in. hex axle with sealed semi-precision bearing or 1 1/8 hex axle or 1 7/16 round axle, both with sealed precision bearings.

Speed Reduction - Sealed worm gear "C" face speed reducer.

**Motor** - 1/4 HP through 7 1/2 HP as required - 230/460V - 3 Phase - 60 Hz., totally enclosed, fan cooled, "C" face.

**Electrical Controls (Optional)** - Reversing or non-reversing motor starter mounted and wired or shipped loose. Additional control devices available. See page 226.

Capacity - Not to exceed frame and total roller capacity.

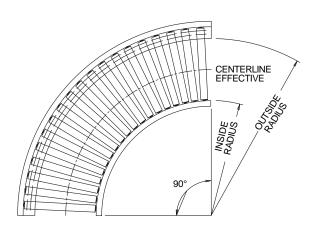
	LOAD CAPACITY CHART								
Chain Driven Live Roller Bed @ 30 FPM									
HP	Total Uniform Load (Lbs.)*								
	Up To 20 Ft.	Up To 50 Ft.							
1 1/2 2 3	19,500 27,000 42,000	14,900 22,400 37,500							

<sup>\*</sup> Capacities based on 57" effective width and 7 1/2" approximate roller centers. Chain size dependent on chain pull requirements.

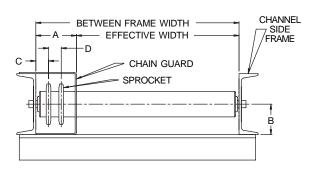
**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.

## **Chain Driven Live Roller Curve**

- Built to customer specifications or based on product dimensions & weight.
- With drive or slave driven from straight section 10° thru 180° any degree available.
- Specify inside radius, outside radius, or product dimensions.



Note: Inside radius should be same or greater than longest product dimension





## Chain Driven Live Roller Conveyor

4 in. dia. x 1/2 in. Wall Rollers or 5 in. dia. x 3/4 in. Wall Rollers



- Side mount drive
- Reversible
- Ideal for heavy loads, loaded pallets, drums, etc.
- 5 in. to 120 in. effective widths

ROLL	CHAIN	SPROCKET	ROLLER	FRAME	OPTION	AL SIDE FRAME	Α	В	С	D
DIA.	CHAIN	SPHOCKET	CENTERS	FRANC	Channel	Angle	A	Ь		
4	RC60	60A22	6 3/8" and up in 3/8" increments	7 x 9.8#	5 x 6.7#	5 x 3 x 5/16	4	3 1/2	1 1/4	1 1/4
4	RC80	80A17	7" and up in 1/2" increments	8 X 11.5#	6 x 8.2#	6 x 4 x 1/2	4 1/4	4 1/2	1 1/4	1 3/4
4	RC100	100A14	7 1/2" and up in 5/8" increments	8 X 11.5#	6 x 8.2#	6 x 4 x 1/2	5	4 1/2	1 3/8	2
5	RC80	80A20	8" and up in 1/2" increments	10 X 15.3#	7 x 9.8#	7 x 4 x 1/2	4 1/4	5 1/2	1 1/4	1 3/4
5	RC100	100A17	8 3/4" and up in 5/8" increments	10 X 15.3#	7 x 9.8#	7 x 4 x 1/2	5	5 1/2	1 3/8	2

Effective Widths - 5" to 120" in any increment.

**Lengths:** - 1 ft. thru 12 ft. bed sections call for maximum overall length possible with 1 drive package

**Speeds** - 5 - 150 FPM fixed or variable speed.

#### **Special Close Roller Centers:**

Roll Diameter	Sprocket	Min. Roll Centers	"A" Chain Guard Width
4	60A22	5 1/4	6 1/2
4	80A17	5 1/2	7 3/4
4	100A14	5 5/8	9
5	80A20	6 1/2	7 3/4
5	100A17	6 7/8	9

#### Available With:

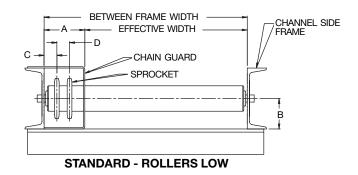
- Semi precision or precision internal bearings
- Flange or pillow block mount external bearings

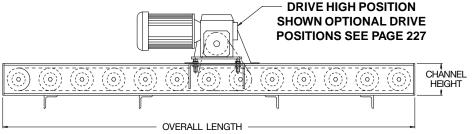
#### Please Specify Special Environmental Conditions:

Hot, cold, wet, dust/dirt, chemicals, explosive, other

Paint to customer color choice or choose standard color on inside back cover.

Private labeling available on request.







**Effective Widths** - 5 through 120 inch in any increment. (Other widths available.)

Side Mount Drive - Available mounted high or low.

**Drive Chain** - No. 60, 80 or 100 chain dependent upon chain pull requirements for conveying a specified load.

**Chain Guard** - Formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Upper portion painted safety yellow.

CDLR Curves - Built to your specifications.

Speed Reduction - Sealed worm gear "C" face speed reducer.

**Motor** - 1/4 HP through 7 1/2 HP as required - 230/460V - 3 Phase - 60 Hz., totally enclosed, fan cooled, "C" face.

**Electrical Controls (Optional)** - Reversing or non-reversing motor starter mounted and wired or shipped loose. Additional control devices available. See page 226.

Conveying Speed - Constant 30 FPM. (Other speeds available.)

Capacity - Not to exceed frame and total roller capacity.

	LC	AD CAPACITY CH	ART							
Roller		Chain Driven Live Roller Bed @ 30 FPM								
Dia.	HP	Total Uniform Load (Lbs.)*								
		Up To 20 Ft.	Up To 50 Ft.							
	2	24,200	15,500							
4 in.	3	39,300	30,600							
5 in.	3	36,700	24,200							
J III.	5	66,800 54,300								

Capacities based on 75" effective width and 8 3/4" approximate roller centers for 4" dia. roller; 10" approximate roller centers for 5" dia. rollers. Chain size dependent on chain pull requirements.

**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.

#### **Specifications for 4 in. dia.** x 1/2 Wall Rollers:

**Frame** - 7 in. x 9.8# or 8 in. x 11.5# painted structural channel with welded cross members. Optional structural angle available on one side for rollers high. Welded in butt couplers allow sections to be bolted together.

**Rollers** - 4 in. dia. x 1/2 in. wall steel tubing with (2) Type A sprockets welded to tube. For location, see chart at left or specify. Sealed precision bearings. Capacity per roller = 6172. See page 226 for optional roller and bearing combinations.

**Axle** - 1 7/16 in. round axle retained by keeper bar and pin. Minimum centers in chart at left.

**Optional Axles** - 1 1/8 in. hex axle with sealed precision bearings or 1 1/16 hex axle with sealed semi-precision or non-precision bearings.

#### Specifications for 5 in. dia. x 3/4 Wall Rollers:

**Frame** - 7 in.  $\times$  9.8#, 8 in.  $\times$  11.5# or 10  $\times$  15.3# painted structural channel with welded cross members. Optional structural angle available on one side for rollers high. Welded in butt couplers allow sections to be bolted together.

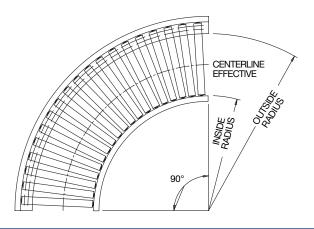
**Rollers** - 5 in. dia. x 3/4 in. wall steel tubing with (2) Type A sprockets welded to tube. For location, see chart at left or specify. Sealed precision bearings. Capacity per roller 7836 lbs. See page 226 for optional roller and bearing combinations.

**Axle** - 1 11/16 in. round axle retained by keeper bar and pin. Minimum centers in chart at left.

**Optional Axle** - 1 7/16 in. round axle with sealed precision bearings.

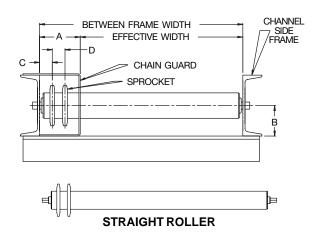
## Chain Driven Live Roller Curve 4 in. dia. x 1/2 in. Wall Rollers

- Built to customer specifications or based on product dimensions & weight.
- With drive or slave driven from straight section 10° thru 180° any degree available.



Specify inside radius, outside radius, or product dimensions.

Note: Inside radius should be same or greater than longest product dimension



## **Zero Pressure CDLR Conveyor**

(Zero Pressure Accumulation)
1.9 in. dia. x .145 in. Wall Rollers



- Zero back pressure reduces possibility of product damage
- 1500 lbs. per zone
- Multiple zones driven from single drive
- Each zone powered through a pneumatic clutch

Overall	Effective Width	13"	15"	17"	19"	21"	23"	25"	27"	30"	33"	36"	39"
Length	Between Frame Width	16 1/4"	18 1/4"	20 1/4"	22 1/4"	24 1/4"	26 1/4"	28 1/4"	30 1/4"	33 1/4"	36 1/4"	39 1/4"	42 1/4"
5'		376	384	391	397	403	410	417	424	434	444	455	465
10'		640	654	667	683	695	709	722	735	756	777	797	817
15'	Weights	904	924	943	969	987	1008	1027	1046	1078	1110	1139	1169
20'	(lbs.)	1168	1194	1219	1255	1279	1307	1332	1357	1400	1443	1481	1521
25'	(155.)	1432	1464	1495	1541	1571	1606	1637	1668	1722	1776	1823	1873
30'	\\/aiahta	1696	1734	1771	1827	1863	1905	1942	1979	2044	2109	2165	2225
40'	Weights	2224	2274	2323	2399	2447	2503	2552	2601	2688	2775	2849	2929
50'	Based on	2752	2814	2875	2971	3031	3101	3162	3223	3332	3441	3533	3633
60'	1.9" dia. x .145 ga. Roller	3280	3354	3427	3543	3615	3699	3772	3845	3976	4107	4217	4337
70'	6" Roller Centers	3808	3894	3979	4115	4199	4297	4382	4467	4620	4773	4901	5041
80'	and 40A18 Sprockets	4336	4434	4531	4687	4783	4895	4992	5089	5264	5439	5585	5745
90'		4864	4974	5083	5259	5367	5493	5602	5711	5908	6105	6269	6449
100'		5392	5514	5635	5831	5951	6091	6212	6333	6552	6771	6953	7153

Other		Add Weight Per 10 ft. Section											
Roller Centers	Effective Width	13"	15"	17"	19"	21"	23"	25"	27"	30"	33"	36"	39"
3" 4 1/2"	Add Weight (lbs.) Add Weight (lbs.)	78 43	90 50	102 56	113 62	125 69	137 75	149 82	161 89	179 98	197 108	215 118	233 128

Note: Overall length of conveyor may change slightly depending on roller spacing desired. (Weights based on 60" L zones)

#### **Standard Specifications:**

**Frame** - 6 in. x 8.2# painted structural channel with welded cross members. Welded in butt couplers allow sections to be bolted together.

**Effective Widths** - 13 through 39 inch in any increment. (Other widths available.)

Drive Chain - No. 40 chain roll to roll. No. 60 chain zone to zone.

**Chain Guard** - Formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Upper portion painted safety yellow.

**Rollers** - 1.9 in. dia. x .145 wall steel tubing with (2) 40A18 sprockets welded to tube. Bearings are sealed and grease packed. Capacity = 300 lbs. per roller. See page 226 for optional roller and bearing combinations.

**Axle** - 7/16 in. pin retained hex axle. Available with 3 in., 4 1/2 in. and 6 in. axle centers.

**Drive** - Sealed worm gear "C" face speed reducer with 230/460 V - 60 Hz - 3 phase motor. Totally enclosed fan cooled. Other specifications available. Mounted side high.

**Clutches** - Conveyor zones are controlled by pneumatic friction disk type clutches (not tooth type clutches) for a smoother start. Air pressure can be regulated to adjust smoothness of start.

Conveying Speed - Constant 30 FPM. (Other speeds available.)

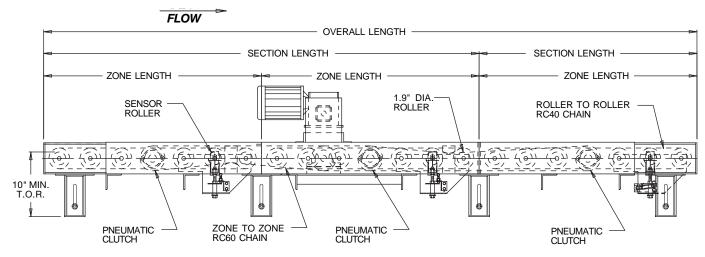
**Electrical Controls (Standard)** - 115 VAC - single phase - 60 Hz. solenoid valve in discharge zone to override sensor roller. Limit switch is also supplied to revert control back to the sensor roller once the product is clear.

Capacity - Max. load capacity per zone is 1500 lbs. Max. load capacity per roller is 300 lbs. Note: Drive is sized to power 50% of zones loaded simultaneously. HP required for given lengths are shown below.

	LOAD CAPACITY CHA	RT (LIVE)									
	Chain Driven Live Roller @ 30 FPM										
HP	Total Uniform L	Total Uniform Load (lbs.)*									
	Up To 50 ft.	Up To 100 ft.									
3/4	6500	4500									
1	9500	7000									
1 1/2	15500 13000										
2	21500	19000									

\* Capacities based on 1.9" dia. rollers with 23" effective width and 4 1/2" approximate roller centers. Chain size dependent on chain pull requirements.

**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.



DRIVE HIGH POSITION SHOWN
OPTIONAL DRIVE POSITION SEE PAGE 227

#### **General Operating Principle: "Cascade Release"**

The Zero Pressure CDLR is a chain driven live roller conveyor divided into individual zones controlled by air logic. Each zone is powered when its corresponding pneumatic clutch is engaged. When a load reaches the sensing roller in the last unoccupied zone, the zone clutch is disengaged and the preceding zone is armed. When the next load depresses the sensing roller in the preceding zone, its clutch is disengaged. This sequence repeats itself until all zones are full. When a load is removed from the conveyor's discharge end, preceding zone loads will move forward one at a time. This type of flow is called "Cascade Release".

				4 1/2"	Roller	Cent	ers			3" or 6" Roller Centers							
No. of Zones Per Section	Zone Length (in.)	36	40 1/2	45	49 1/2	54	58 1/2	63	72	36	42	48	54	60	72		
1		36	40 1/2	45	49 1/2	54	58 1/2	63	72	36	42	48	54	60	72		
2	Section	72	81	90	99	108	117	126	144	72	84	96	108	120	144		
3	Lengths (in.)	108	121 1/2	135						108	126	144					
4		144								144							

#### **Optional Equipment:**

Rollers Set High - 4 in. x 3 in. x 5/16 in. structural angle available on one side for rollers set high.

**Zone Control** - Photoelectric sensors available to detect load instead of sensor roller.

**Clutch Brake Combination** - Available for higher conveying speeds and uneven product weight.

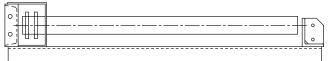
**On Line Work Stations** - Allows for stopping and starting of loads along conveyor's overall length.

Entry/Discharge Zones - Can be equipped with cutouts in side frame to allow for loading or unloading with a forklift. Includes time delay to ensure forklift is clear before conveyor starts.

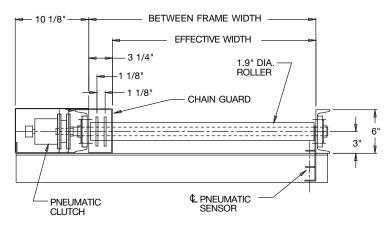
**Accumulation** - "Slug release" also available where multiple zones move ahead all at once when a forward zone becomes vacant.

**Electrical Controls** - Non-reversing motor starter mounted and wired or shipped loose. Additional control devices available. See page 226.

Drive - Mounted below and within.



#### **ROLLERS HIGH ONE SIDE**



**ROLLERS LOW BOTH SIDES** 

## **Zero Pressure CDLR Conveyor**

(Zero Pressure Accumulation) 2 1/2 in. dia. x 11 ga. Rollers or 2 9/16 in. dia. x .180 in. Wall Rollers



- Multiple zones driven from single drive
- Each zone powered through a pneumatic clutch
- Zero back pressure reduces possibility of product damage
- 3500 lbs. per zone

Overall	Effective Width	16"	20"	24"	28"	32"	36"	40"	44"	48"	52"	56"	60"
Length	Between Frame Width	19 1/4"	23 1/4"	27 1/4"	31 1/4"	35 1/4"	39 1/4"	43 1/4"	47 1/4"	51 1/4"	55 1/4"	59 1/4"	63 1/4"
5'		448	464	481	498	515	532	548	565	582	599	616	632
10'		783	817	851	884	918	951	985	1019	1052	1086	1119	1153
15'	Weights	1119	1169	1220	1270	1321	1371	1421	1472	1522	1573	1623	1673
20'	(lbs.)	1455	1522	1589	1656	1723	1791	1858	1925	1992	2059	2127	2194
25'		1790	1876	1960	2042	2127	2208	2296	2380	2462	2547	2628	2716
30'	Weights	2130	2230	2330	2428	2530	2627	2733	2834	2932	3034	3132	3237
40'	Based on	2800	2935	3070	3200	3336	3465	3607	3740	3872	4008	4137	4279
50'	2 1/2" dia. x 11 ga. Roller	3470	3641	3811	3970	4140	4303	4481	4646	4812	4982	5143	5321
60'	6" Roller Centers	4140	4347	4550	4740	4948	5140	5355	5552	5752	5956	6149	6363
70'	and 40A22 Sprockets	4815	5053	5290	5510	5750	5979	6229	6458	6692	6930	7155	7405
80'	5' zones	5485	5759	6030	6280	6560	6817	7103	7364	7632	7904	8161	8447
90'	5 Zones	6159	6465	6770	7050	7360	7655	7975	8270	8572	8878	9167	9489
100'		6830	7170	7510	7820	8170	8490	8850	9175	9512	9852	10173	10531

Other Roller	Add Weight per 10 ft. Section											
Centers	Effective Width	Effective Width 16" 20" 24" 28" 32" 36" 40" 44" 48" 52" 56" 60"									60"	
3" 4 1/2"	Add Weight (lbs.) 144 173 203 232 262 292 321 351 380 410 440 469 Add Weight (lbs.) 79 88 99 109 119 130 140 151 161 171 182 192											

Note: Overall length of conveyor may change slightly depending on roller spacing desired. (Weights based on 60" L zones)

#### **Standard Specifications:**

 $\label{eq:Frame-6} \textbf{Frame} - 6 \ \text{in.} \ x \ 8.2 \ \text{# painted structural channel with welded cross} \\ \text{members. Welded-in butt couplers allow sections to be bolted} \\ \text{together.}$ 

**Effective Widths** - 16 through 60 inch in any increment. (Other widths available.)

**Drive Chain** - No. 40 chain roll to roll. No. 60 chain zone to zone.

**Chain Guard** - Formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Upper portion painted safety yellow.

**Rollers** - 2 1/2 in. dia. x 11 ga. or 2 9/16 in. dia. x .180 wall steel tubing with (2) 40A22 sprockets welded to tube. Bearings are sealed and grease packed. Capacity = 580 lbs. per roller. See page 16 for optional roller and bearing combinations.

**Axle** - 11/16 in. pin retained hex axle. Available with 3 in., 4 1/2 in. and 6 in. axle centers.

**Drive** - Sealed worm gear "C" face speed reducer with 230/460 V - 60 Hz - 3 phase motor. Totally enclosed fan cooled. Other specifications available. Mounted side high.

**Clutches** - Conveyor zones are controlled by pneumatic friction disk type clutches (not tooth type clutches) for a smoother start. Air pressure can be regulated to adjust smoothness of start.

Conveying Speed - Constant 30 FPM. (Other speeds available.)

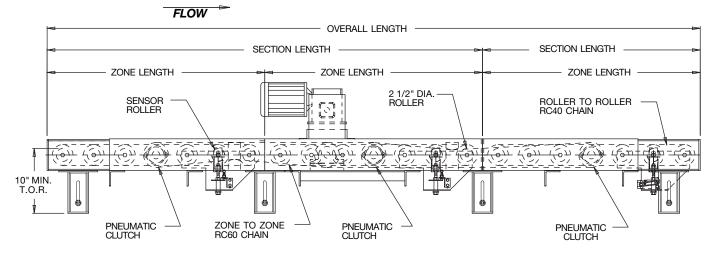
**Electrical Controls (Standard)** - 115 VAC - single phase - 60 Hz. solenoid valve in discharge zone to override sensor roller. Limit switch is also supplied to revert control back to the sensor roller once the product is clear.

**Capacity** - Max. load capacity per zone is 3500 lbs. Max. load capacity per roller is 580 lbs. Note: Drive is sized to power 50% of zones loaded simultaneously. HP required for given lengths are shown below.

LO	AD CAPACITY CHA	RT (LIVE)								
	Chain Driven Live Roller @ 30 FPM									
HP	Total Uniform L	oad (lbs.)*								
	Up To 50 ft.	Up To 100 ft.								
3/4	6000	3750								
1	9000	6500								
1 1/2	15000 12500									
2	21000	18500								

<sup>\*</sup> Capacities based on 2 1/2" dia. rollers with 34" effective width and 4 1/2" approximate roller centers. Chain size dependent on chain pull requirements. Capacities are same for CDLR with 2 9/16" dia. rollers.

**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.



DRIVE HIGH POSITION SHOWN
OPTIONAL DRIVE POSITION SEE PAGE 227

#### General Operating Principle: "Cascade Release"

The Zero Pressure CDLR is a chain driven live roller conveyor divided into individual zones controlled by air logic. Each zone is powered when its corresponding pneumatic clutch is engaged. When a load reaches the sensing roller in the last unoccupied zone, the zone clutch is disengaged and the preceding zone is armed. When the next load depresses the sensing roller in the preceding zone, its clutch is disengaged. This sequence repeats itself until all zones are full. When a load is removed from the conveyor's discharge end, preceding zone loads will move forward one at a time. This type of flow is called "Cascade Release".

				4 1/2"	Roller	Cente	ers			3" or 6" Roller Centers						
No. of Zones Per Section	Zone Length (in.)	36	40 1/2	45	49 1/2	54	58 1/2	63	72	36	42	48	54	60	72	
1		36	40 1/2	45	49 1/2	54	58 1/2	63	72	36	42	48	54	60	72	
2	Section	72	81	90	99	108	117	126	144	72	84	96	108	120	144	
3	Lengths (in.)	108	121 1/2	135						108	126	144				
4		144								144						

#### **Optional Equipment:**

**Rollers Set High** - 4 in. x 3 in. x 5/16 in. structural angle available on one side for rollers set high.

**Zone Control** - Photoelectric sensors available to detect load instead of sensor roller.

**Clutch Brake Combination** - Available for higher conveying speeds and uneven product weight.

**On Line Work Stations** - Allows for stopping and starting of loads along overall length of conveyor.

Entry/Discharge Zones - Can be equipped with cutouts in side frame to allow for loading or unloading with a forklift. Includes time delay to ensure forklift is clear before conveyor starts.

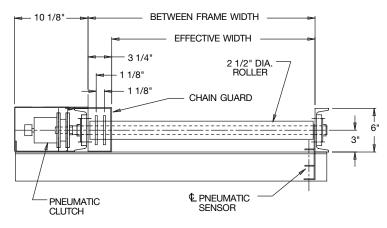
**Accumulation** - "Slug release" also available where multiple zones move ahead all at once when a forward zone becomes vacant.

**Electrical Controls** - Non-reversing motor starter mounted and wired or shipped loose. Additional control devices available. See page 226.

Drive - Mounted below and within.



#### **ROLLERS HIGH ONE SIDE**



**ROLLERS LOW BOTH SIDES** 

## **Zero Pressure CDLR Conveyor**

(Zero Pressure Accumulation) 3 1/2 in. dia. x .300 in. Wall Rollers



- Multiple zones driven from single drive
- Each zone powered through a pneumatic clutch
- Zero back pressure reduces possibility of product damage
- 6000 lbs. per zone

Overall	Effective Width	30"	34"	39"	44"	49"	54"	59"	64"	69"	74"	79"	84"
Length	Between Frame Width	34"	38"	43"	48"	53"	58"	63"	68"	73"	78"	83"	88"
5'	Maighta	841	891	953	1015	1077	1139	1202	1264	1326	1390	1670	1743
10'		1532	1631	1755	1880	2004	2129	2253	2377	2502	2625	3189	3336
15'	Weights	2223	2371	2557	2745	2931	3119	3304	3490	3678	3860	4708	4929
20'	(lbs.)	2914	3111	3359	3610	3858	4109	4355	4603	4854	5095	6227	6522
25'	Weights	3605	3851	4161	4475	4785	5099	5406	5716	6030	6330	7746	8115
30'		4296	4591	4963	5340	5712	6089	6457	6829	7206	7565	9265	9708
40'	Based on	5678	6071	6567	7070	7566	8069	8559	9055	9558	10035	12303	12894
50'	3 1/2" dia. x .300 Wall Roller	7060	7551	8171	8800	9420	10049	10661	11281	11910	12505	15341	16080
60'	6" Roller Centers	8442	9031	9775	10530	11274	12049	12763	13507	14262	14975	18379	19266
70'		9824	10511	113799	12260	13128	14009	14865	15733	16614	17445	21417	22452
80'	and 60A20 Sprockets	11206	11991	12983	13990	14982	15989	16967	17959	18966	19915	24455	25638
90'	5' zones	12588	13471	14587	15720	16836	17969	19069	20185	21318	22385	27493	28824
100'		13970	14951	16191	17450	18690	19949	21171	22411	23670	24855	30531	32010

#### **Standard Specifications:**

**Frame** - 7 in. x 9.8# painted structural channel with welded cross members. Welded-in butt couplers allow sections to be bolted together.

**Effective Widths** - 30 through 84 inch in any increment. (Other widths available.)

Drive Chain - No. 60 chain roll to roll. No. 80 chain zone to zone.

**Chain Guard** - Formed steel upper and lower. Lower portion welded to bottom of frame; upper portion bolted to top of side frame to totally enclose drive chains. Upper portion painted safety yellow.

**Rollers** - 3 1/2 in. dia. x .300 wall steel tubing with (2) 60A20 sprockets welded to tube. Bearings are sealed and grease packed. Capacity = 1040 lbs. per roller. See page 226 for optional roller and bearing combinations.

Axle - 1 1/16 in. pin retained hex axle.

**Drive** - Sealed worm gear "C" face speed reducer with 230/460 V - 60 Hz - 3 phase motor. Totally enclosed fan cooled. Other specifications available. Mounted side high.

**Clutches** - Conveyor zones are controlled by pneumatic friction disk type clutches (not tooth type clutches) for a smoother start. Air pressure can be regulated to adjust smoothness of start.

**Conveying Speed** - Constant 30 FPM max. (Other speeds available.)

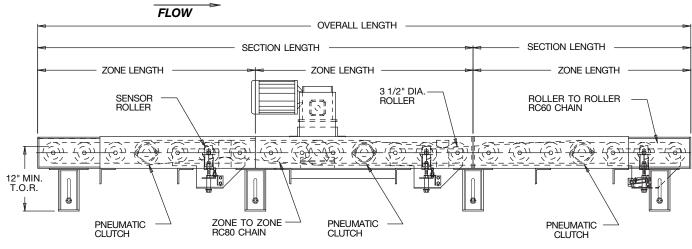
**Electrical Controls (Standard)** - 115 VAC - single phase - 60 Hz. solenoid valve in discharge zone to override sensor roller. Limit switch is also supplied to revert control back to the sensor roller once the product is clear.

**Capacity** - Max. load capacity per zone is 6000 lbs. Max. load capacity per roller is 1040 lbs. Note: Drive is sized to power 50% of zones loaded simultaneously.

L	OAD CAPACITY CHAR	T (LIVE)								
Other	Chain Driven Live Roller @ 30 FPM									
Roller	Total Uniform L	oad (lbs.)*								
Centers	Up To 20 ft.	Up To 50 ft.								
3/4	5500	1250								
1	8200	3750								
1 1/2	13300 9250									
2	19200 14750									

\* Capacities based on 3 1/2" dia. rollers with 60" effective width and 6" approximate roller centers. Chain size dependent on chain pull requirements.

**Note:** Effective widths, lengths and roller spacings listed are only general guidelines. Many variations are easily accommodated. See page 226 for CDLR Options and Accessories.



DRIVE HIGH POSITION SHOWN
OPTIONAL DRIVE POSITION SEE PAGE 227

#### General Operating Principle: "Cascade Release"

The Zero Pressure CDLR is a chain driven live roller conveyor divided into individual zones controlled by air logic. Each zone is powered when its corresponding pneumatic clutch is engaged. When a load reaches the sensing roller in the last unoccupied zone, the zone clutch is disengaged and the preceding zone is armed. When the next load depresses the sensing roller in the preceding zone, its clutch is disengaged. This sequence repeats itself until all zones are full. When a load is removed from the conveyor's discharge end, preceding zone loads will move forward one at a time. This type of flow is called "Cascade Release".

		6" Roller Centers				
No. of Zones Per Section	Zone Length (in.)	42	48	54	60	72
1	Section Lengths (in.)	42	48	54	60	72
2		84	96	108	120	144
3		126	144			
4						

#### **Optional Equipment:**

**Rollers Set High** - 5 in. x 3 in. x 5/16 in. structural angle available on one side for rollers set high.

**Zone Control** - Photoelectric sensors available to detect load instead of sensor roller.

**Clutch Brake Combination** - Available for higher conveying speeds and uneven product weight.

**On Line Work Stations** - Allows for stopping and starting of loads along overall length of conveyor.

Entry/Discharge Zones - Can be equipped with cutouts in side frame to allow for loading or unloading with a forklift. Includes time delay to ensure forklift is clear before conveyor starts.

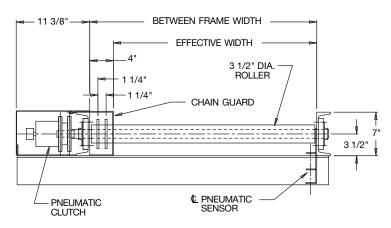
**Accumulation** - "Slug release" also available where multiple zones move ahead all at once when a forward zone becomes vacant.

**Electrical Controls** - Non-reversing motor starter mounted and wired or shipped loose. Additional control devices available. See page 226.

Drive - Mounted below and within.



#### **ROLLERS HIGH ONE SIDE**



**ROLLERS LOW BOTH SIDES** 

## **CDLR Options and Accessories**

**Built to Your Specifications** - Effective widths, lengths and roller spacings listed in this catalog are only general guidelines. Any variation is easily accommodated. Notches, special drive bases, multiple lanes, etc. can be provided. Conveyors can be built directly from your blueprints.

**Drive Below and Within** - Reducer-motor unit mounted underneath conveyor and within the side frames.

**Conveying Speed** - Several constant and variable speeds available. Variable speed options include DC motor and controller, AC frequency controllers and variable pitch sheaves.

Note: Capacity is affected by speed change.

**Spurs** - 30° and 45° spurs available. Built to customer requirements. Specify length of long rail and effective width. Refer to straight sections for roller, sprocket and frame combinations.

**Other Rollers** - Other roller and bearing options below. See Roller and Bearing Section 3 for detailed information.

OPTIONAL ROLLER AND BEARING SELECTION							
Tube Description	Axle Size	Bearing Description	Roller* Capacity				
1.9" dia x .145 wall	7/16" Hex.	Semi-Precision/Sealed/Shield	585 lbs.				
2 1/2" dia. x 11 ga.	11/16" Hex.	Non-Precision/Regreasable	580 lbs.				
2 1/2" dia. x 11 ga.	11/16" Hex.	Semi-Precision/Sealed	700 lbs.				
2 9/16" dia. x .180 wall	11/16" Hex.	Non-Precision/Regreasable	580 lbs.				
2 9/16" dia. x .180 wall	11/16" Hex.	Semi-Precision/Sealed	2226 lbs.				
3 1/2" dia. x .300 wall	1 1/16" Hex.	Semi-Precision/Sealed	4130 lbs.				
3 1/2" dia. x .300 wall	1 7/16" Dia.	Precision/Sealed/Shield	6172 lbs.				
4" dia. x 1/2" wall	1 7/16" Dia.	Precision/Sealed/Shield	6172 lbs.				
5" dia. x 3/4" wall	1 11/16" Dia.	Precision/Sealed/Shield	7836 lbs.				
6" dia. x 3/4" wall	1 15/16" Dia.	Precision/Sealed/Shield	8390 lbs.				
6" dia. x 3/4" wall	2 7/16" Dia.	Precision/Sealed/Shield	12550 lbs.				

<sup>\*</sup> Optimal roller capacities listed. Refer to the Roller and Bearing Catalog for complete capacity and description information.

**Every Other Roller Powered** - This option allows rollers to be spaced closer together. Example for 2 1/2 in. dia. rollers with 60A15 sprockets: With **every** roller powered, roller centers are limited to 4 1/2 in. to allow for sprocket clearance. With **every other** roller powered, 3 in. roller centers are possible. Warning - Special safety considerations required.

**Powered Both Sides** - Allows rollers to be spaced closer together with **every** roller powered. Every other roller driven on one side and remainder of rollers driven on opposite side. Chain guards both sides. Specify effective width.

**Coated Rollers** - Rollers available zinc plated, urethane coated or teflon coated.

**Heat Treated Rollers** - Rollers available with hardened tube surface to prevent wear when transporting abrasive products. Specify hardness depth and Rockwell hardness.

**UHMW Sleeves** - UHMW sleeves assembled over rollers enable products to accumulate. When product is stopped, sleeves slip on roller

STANDARD UHMW SLEEVES				
Roller Dia.	Sleeve Description			
1.9" O.D. 2 1/2" O.D. 2 9/16" O.D. 2 7/8" O.D.	2 3/8" O.D. x 2" I.D. 3" O.D. x 2 5/8" I.D. 3" O.D. x 2 5/8" I.D. 3 1/2" O.D. X 3" I.D.			

**Ultrex Sleeves** - The maximum load on Ultrex sleeves is determined by the lesser of the two: A.) 20 lb. per inch surface length or B.) 500 lb. maximum weight.

**Floor Supports** - Specify top-of-roller height (TOR) +/- 3 inches. Available up to 7 ft. Ceiling supports available for heights above 7 ft.

Chain Transfer - See Chain Transfer Section starting on page 229.

**Belt Transfer** - Similar to chain transfer except round urethane belts instead of chains transfer the product. The belts are pneumatically lifted above the conveying surface. Ideal for transporting boxes, tote pans, etc.

**Clutch** - Mounted between motor and reducer. Provides soft start and intermittent overload protection.

**Brake** - Mounted between motor and reducer. Provides fail-safe stopping of conveyor when motor is not running.

**Electrical Controls** - Reversing or non-reversing motor starter mounted and wired or shipped loose. Additional options include: remote start/stop, emergency stop pullcord or push-buttons, fused disconnect, variable speed AC or DC controller, photoeye auto stop/start.

**Diverter Arm** - Diverts flow of product from main conveyor line to spur line. Mounted to side of conveyor. Manual or pneumatically operated.

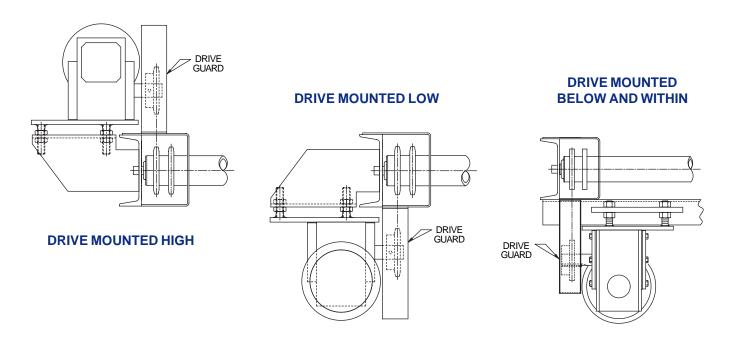
**Pop-Up Stops** - Manual or pneumatically operated roller, blade or pin stops mounted to underside of conveyor. Raises above conveying surface to stop product. See Pin Stop on page 228.

**Turntable** - Motor-reducer, pneumatic, hydraulic or manual operated turntable allows short conveyor mounts to rotate. Conveyor mounts to table surface.

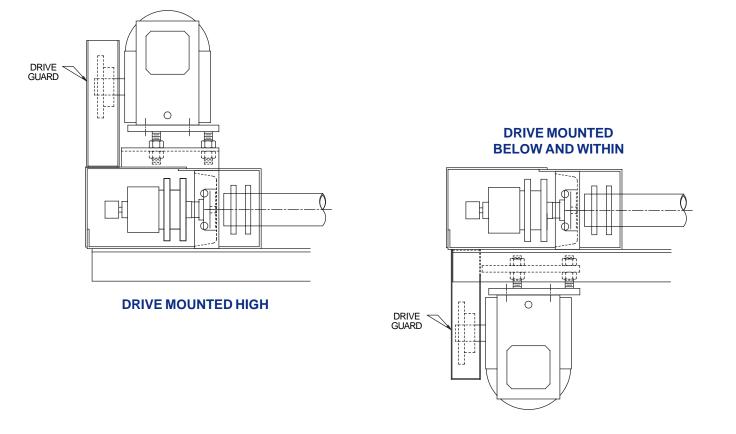


# Chain Driven Live Roller Conveyors

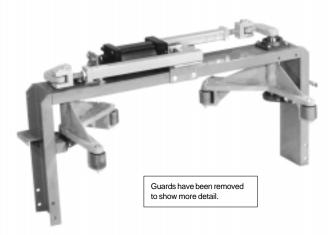
## **CDLR Drive Options**



## Zero Pressure CDLR Drive Options



### **CDLR Accessories**

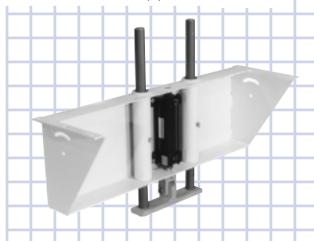


## **Escapement Device**

- Designed for round products such as barrels, pails, tires, etc. Controls flow of product by releasing one at a time.
- Mounted to CDLR straight sections.
- Pneumatically operated device.
- Built to customer requirements. Specify conveyor effective width, between frame width, channel size, product diameter and product height.
- Optional equipment includes limit switches for arm positioning and pneumatic valves.

## **Square 90° Transfer**

- Bolts in line with CDLR straight sections. Allows round product to negotiate corners in a conveyor system.
- Built to customer requirements. Specify effective width, roller diameter and spacing, speed and drive requirements.
- Available with flow rail, drip pans and hold downs.



## **Pin Stop**

- Designed for round products such as barrels, pails, tires, etc.
- Mounted to CDLR straight sections.
- Pneumatically operated pins protrude between rollers to stop product in conveying line.
- Built to customer requirements. Specify product diameter and height, conveyor effective width, between frame width, channel size, roller diameter and spacing.
- Optional equipment includes limit switches for up/down positioning and pneumatic valves.

## **Chain Transfer Device**

- Bolts in line with CDLR straight sections. Transfers product 90° to adjacent conveying line. Ideal for transporting loaded pallets or products with a sturdy conveying surface.
- Powered chains are pneumatically lifted above roller surface.
- Can be built within frame or to span multiple conveyors.
- Built to customer requirements. Specify effective width, length, roller diameter and spacing, number of chain strands, chain speed and drive requirements.
- Optional equipment includes limit switches for up/down positioning and pneumatic valves.

