# **GRAVITY CONVEYOR**

### **SECTION CONTENT**

Gravity Roller Conveyor Straight Curve Straight and Curve Spur Gravity Roller Conveyor - Welded Construction Straight Curve Gravity Skatewheel Conveyor Straight Curve Straight and Curve Spur Gravity Flowrail Wheels **Ball Transfer Table** Supports **Optional Equipment and Devices** Mounting Hardware





### **GRAVITY ROLLER CONVEYOR**

#### WHY GRC?

- PP
- Economical solution for manual product transport or gravity flow
- Versatility allows items from small to large and light to heavy to be handled
- Supports products with irregular surfaces including loosely bagged products
- Bolts to Omni standard leg supports or most mounting surfaces
- Common applications include moving or staging products and aiding in the transport of goods

### **GRAVITY ROLLER CONVEYOR - STRAIGHT**







### **GRAVITY ROLLER CONVEYOR - CURVE**



	1.4"*	1.9"	2 1/2"	2 9/16"		
Α	12" - 30"	6" - 51"	13" - 55"			
В	48", 60"	45 1/2" - 87"	61" - 99"			
C	9" - 84"	17" - 86"				
D	30", 33", 36", 39"	32 1/2", 48"				
E	30°, 45°, 60° and 90°					

A = Between Frame (BF) or Overall Width (OAW) (1" Increments)

B = Outside Radius (OR)

C = Top of Roller (TOR) D = Inside Radius (IR)

E = Degree

E = Dogroo

\*1.4" gravity roller conveyor dimensions are based on OAW Taper and straight rollers available for curves



<sup>\*1.4&</sup>quot; gravity roller conveyor dimensions are based on OAW

### **GRAVITY ROLLER CONVEYOR - STRAIGHT AND CURVE SPUR**



A (in.

12

15

18

21

24

30

Overall W

		1.4"*	1.	.9"	
	30°	45°	90°	45°	90°
Α		12" - 30"	13"	- 39"	
В	9" - 84"			17"	- 86"

A = Between Frame (BF) or Overall Width (OAW) (1" Increments) B = Top of Roller (TOR) C = Short Rail Length

A (in.)

Between Frame

Width

13

D = Throat E = Shelf Bracket Length

\*1.4" gravity roller conveyor dimensions are based on OAW

C (in.)

Short Rail

Length

24

36

1.9" ROLLER 45° STRAIGHT SPUR CONVEYOR

D (in.)

Throat

18.6

E (in.)

Shelf Bracket

Length

31.5

			1.4" ROL	LER		
30° STRAIGHT SPUR CONVEYOR			45° \$	STRAIGHT S CONVEYOR	PUR	
)	C (in.)	D (in.)	E (in.)	C (in.)	D (in.)	E (in.)
idth	Short Rail Length	Throat	Shelf Bracket Length	Short Rail Length	Throat	Shelf Bracket Length
		í.				
	24			24		
	36	20.8	29.3	36	14.4	22.9
	60			60		
	24	26.9	25.2	24	19.7	27.2
	60	20.0	55.5	60	10.7	21.2
	24			24		
	36	32.8	41.3	36	22.9	31.4
	60			60		
	24			24		
	36	38.8	47.3	36	27.2	35.7
	60			60		
	24			24		
	36	44.8	53.3	36	31.4	39.9
	60			60		
	24			24		
	36	56.8	65.3	36	39.9	48.4
	60			60		

#### STRAIGHT SPUR 30° and 45° only





	60			
	24			
15	36	22.8	31.5	
	60			
	24		1	
17	36	24.2	31.5	
	60			
	24			
19	36	27.1	40	
	60			
	24			
21	36	29.9	40	
	60			
	24			
23	36	32.7	40	
	60			
	24			
25	36	35.5	48.5	
	60			
	24			
27	36	38.3	48.5	
	60			
	24		48.5	
29	36	41.1		
	60			
	24			
31	36	48.5	61.2	
	60			
	24			
33	36	51	61.2	
	60			
	24			
35	36	53.8	61.2	
	60			
	24			
37	36	52.5	61.2	
	60			
	24			
39	36	55.3	61.2	
	60			

Spurs available with larger diameter rollers based on application







		1.4"*	1.9"		
	30°	45°	90°	45°	90°
Α		12" - 30"	13"	- 39"	
В	9" - 84"			17"	- 86"

A = Between Frame (BF) or Overall Width (OAW) (1" Increments) B = Top of Roller (TOR) C = Inside Radius (IR) D = Throat E = Shelf Bracket Length

\*1.4" gravity roller conveyor dimensions are based on OAW Taper and straight rollers available for curve spurs

1.4" ROLLER								
90° CURVE SPUR CONVEYOR								
A (in.) C (in.) D (in.) E (in.)								
Overall Width	Inside Radius (IR)	Throat	Shelf Bracket Length					
12	37	29.6	36.8					
15	34	32.9	40					
18	31	35.6	42.7					
21	40	43.7	51					
24	37	46.2	53.4					
30	31	50.3	57.5					

A (in.)	C (in.)	D (in.)	E (in.)				
Between Frame Width	Inside Radius (IR)	Throat	Shelf Bracket Length				
13		31.8	42.5				
15		34.5	42.5				
17		37.1	42.5				
19		39.7	48.6				
21	32.5	41.9	48.6				
23		44.6	54.7				
25		46.9	54.7				
27		49.5	54.7				
29		59.4	69.8				
31		61.9	69.8				
33	48	64.4	69.8				
35		66.9	77.1				
37		69.3	77.1				
39		71.7	77.1				

Spurs available with larger diameter rollers based on application

### **ROLLER AND FRAME SPECIFICATIONS**

ROLLER DIAMETER (in.)	AXLE DETAIL		TUBE DETAIL		ROLLER SPACING	MAXIMUM LOAD PER ROLLER
	Size (in.)	Туре	Wall Thickness	Material	Centers (in.)	(lbs.)
1.4	1/4	Round	18 ga.	Galvanized	1.5, 3, 4, 4.5, 6, 8, 9,12	94
1.4	1/4	Round	18 ga.	Aluminum	1.5, 3, 4, 4.5, 6, 8, 9,12	94
1.9	7/16	Hex	16 ga.	Galvanized	2*, 3, 4, 4.5, 6, 8, 9,12	269
1.9	7/16	Hex	16 ga., 13 ga., 9 ga.	Mild Steel	2*, 3, 4, 4.5, 6, 8, 9,12	269
2.5	11/16	Hex	11 ga.	Mild Steel	3, 4, 6, 8, 9,12	645
2.6	11/16	Hex	7 ga.	Mild Steel	3, 4, 6, 8, 9,12	645
1.9 Taper (2 1/2 - 1 11/16)	7/16	Hex	14 ga.	Mild Steel or Zinc Plated	3	290
1.4 Taper (1 1/2 - 1)	5/16	Hex	18 ga.	Zinc Plated	1.5, 3	150

\*2 1/8 for between frame over 40"

ROLLER DIAMETER	ROLLERS HIGH FRAME	ROLLERS LOW FRAME	FRAME HEIGHT	FRAME TO TOR
1 4"	2 1/2" x 1" x 12 ga. galvanized steel or 1/8"	4" x 1" x 12 ga. galvanized steel or 1/8" thick	2 1/2"	3/32"
1.4	thick aluminum or powder coated steel	aluminum or powder coated steel	4"	-1 13/32"
1.0"	3 1/2" x 1 1/2" x 10 ga. galvanized or powder	4 1/2" x 1 1/2" x 10 ga. galvanized or powder	3 1/2"	1/4"
1.9	coated steel	coated steel	4 1/2"	-3/4"
0.1/0" 0.0/16"	4" x 1 1/0" x 7 co	<b>A</b> "	1/4"	
2 1/2", 2 9/16"	4 x 1 1/2 x / ga.	4	-3/4"	

### FRAME LOAD CAPACITY CHART

			FRAME CAPACITY*
ROLLER DIAMETER	FRAME MATERIAL	SUPPORT CENTERS	Maximum Uniformly Distributed Load
	Steel	5' 10'	1300
1.4"			330
	Aluminum	5' 10'	160
1.0"	Steel	5'	3300
1.9	Steel	10'	1200
0.1/0# 0.0/16#	Steel	5'	5200
2 1/2", 2 9/16"	Sieel	10'	2100

\*Capacity listed could be lower due to roller capacity and BF

### END COUPLER AND ROLLER STYLES



#### HOOK AND ROD

For portable quick disconnect



#### END CAP

For permanent installation applications



#### **BRIDGE PLATE**

For permanent installation application. Required to hold roller spacing across the splice.

FINISHES - Galvanized steel standard. Powder coat available.

Expanded product parameters available. For more information see Tech Handbook.



**ROLLERS LOW** 



### **GRAVITY ROLLER CONVEYOR-WELDED CONSTRUCTION**

#### WHY GRCW?

- - Roller size and centers optimized to handle nearly any load Robust, welded construction using structural steel with nearly unlimited between
  - frame dimensions, length options and roller diameters Roller coatings, heat-treat, frame cut outs and modifications, fork loading
  - protection and other specialized provisions are our "standard"
  - Mounts to Omni standard leg supports or most surfaces
  - Common applications include floor mounted pallet transport, rack-mounted product storing and staging, workstations and assembly lines

### WELDED GRAVITY ROLLER - STRAIGHT





	1"	1.4"	1.9"	2 1/2"	2 9/16"	3 1/2"	4"
Α	6" - 39"	6" - 48"	6" - 78"	6" - 108"	6" - 102"	6" - 156"	6" - 168"
в	6" - 144"	6" - 144"	6" - 240"	6" - 240"	6" - 240"	7" - 240"	8" - 240"
С	1/32"	3/16"	5/16"	5/8"	9/16"	1/2"	3/4"
D	8"- 41"	8" - 50"	9" - 81"	9" - 111"	9" - 111"	10" - 160"	10" - 172"

 $\begin{array}{l} \mathsf{A} = \mathsf{Between \ Frame \ (BF) \ (Any \ Increment)^*} \\ \mathsf{B} = \mathsf{Overall \ Length \ (OAL) \ (Any \ Increment)} \\ \mathsf{C} = \mathsf{Frame \ to \ Top \ of \ Roller \ (TOR)} \end{array}$ 

D = Overall Width (OAW)

\*Custom widths available

WELDED GRAVITY ROLLER - CURVE



	1"	1.4"	1.9"	2 1/2"	2 9/16"	3 1/2"	4"
Α	6" - 39"	6" - 48"	6" - 78"	6" - 108"	6" - 102"	6" - 156"	6" - 168"
В	18"	18"	24"	24"	24"	42"	42"
С	12" - 174"	12" - 174"	18" - 294"	18" - 294"	18" - 294"	36" - 294"	36" - 294"
D	10° - 180°	10°- 180°	10° - 180°	20° - 180°	20° - 180°	30° - 180°	30° - 180°

A = Between Frame (BF) (Any Increment)\* B = Outside Radius (OR) (Minimum)

C = Inside Radius (IR) D = Degree

Taper and straight rollers available for curves \*Custom widths available



### MULTI-LANE OPTIONS



	A (in.)										
Between Frame Width											
Lane	ane 1" 1.4" 1.9" 2 1/2" 2 9/16" 3 1/2" 4"										
Single	6 - 39	6 - 39	6 - 51	6 - 96	6 - 96	6 - 156	6 - 168				
Double	15 - 78	15 - 78	15 - 96		15 Mir	nimum*					
Triple	18 Minimum*										
Quadruple				27 Minimum*							

\*See sales for maximum

Some configurations will require special short lengths in order to ship via common carrier Some configurations will require special intermediate frame construction Some configurations can share a common axle across multiple lanes

# STYLE CHART

STYLE	CHANNEL	ANGLE TOED OUT	ANGLE TOED IN
SINGLE LANE HIGH			
SINGLE LANE LOW	° • • • •		
MULTI-LANE HIGH			
MULTI-LANE LOW			

## STANDARD CONFIGURATIONS

	1" AND 1.4" ROLLERS													
Product			Roller			Frame Size and Capacity Per Foot								
						Formed Chanr	nel	Form	ed Angle		Struct	ural Angle		
Max Product Weight	Roller Dia. (in.)	Axle Size (in.)	Between Frame Range	n Per Roller (lbs.)	Minimum Roller Centers	Size Options	Capacity Per Foot (lbs.)	Size Options	Capacity (Ib	Per Foot s.)	Size Options	Capacity (Ib	Per Foot os.)	
(lbs.)			(in.)		(in.)	(in.) Supports on 10' Centers	(in.)	Supports on 5' Centers	Supports on 10' Centers	(in.)	Supports on 5' Centers	Supports on 10' Centers		
				1		25 x 1 x 12 Ga	35							
			6 - 21	59		4 x 1 x 12 Ga.	112							
					1.125	2.5 x 1 x 12 Ga.	35	1						
		1/4 Ø	22 - 30	37		4 x 1 x 12 Ga.	112							
	1		21 20	15	1.05	2.5 x 1 x 12 Ga.	35							
			31-39	15	1.25	4 x 1 x 12 Ga.	112						30	
		5/16 Ø	6 - 21	59		2.5 x 1 x 12 Ga.	35							
			0 21	00	1 125	4 x 1 x 12 Ga.	112							
Up to			22 - 30	58		2.5 x 1 x 12 Ga.	35	2 x 2 x 10 Ga.	32	16	2 x 2 x 1/4	60		
300						4 x 1 x 12 Ga.	112							
			31 - 39	31	1.25	2.5 x 1 x 12 Ga.	35							
						4 x 1 x 12 Ga.	112							
			6 - 21	59	59	2.5 X   X  2 Ga.	35							
					1.125 58	4 X I X I Z Ga.	25							
		5/16 Hex	22 - 30	58		2.5 X 1 X 12 Ga.	112							
					1.25	25 x 1 x 12 Ga.	35							
			31 - 39	34		4 x 1 x 12 Ga	112							
						2.5 x 1 x 12 Ga.	35						<b> </b>	
			6 - 9	114		4 x 1 x 12 Ga.	112							
		1/1 0	10 00		1.5	2.5 x 1 x 12 Ga.	35							
		1/4 Ø	10 - 20	44		4 x 1 x 12 Ga.	112							
			21 20	14	1 605	2.5 x 1 x 12 Ga.	35							
Up to	14		21-39	14	1.020	4 x 1 x 12 Ga.	112	2 1/2 x 2 1/2 x	96	18	2 1/2 x 2 1/2 x	96	18	
300	1.4		6-9	119		2.5 x 1 x 12 Ga.	35	7 Ga.	30	40	3/16	90	40	
			0 0		15	4 x 1 x 12 Ga.	112							
		5/16 Hex	10 - 20	119	1.0	2.5 x 1 x 12 Ga.	35							
		0, 10 110,0				4 x 1 x 12 Ga.	112							
			21 - 39	53	1.625	2.5 x 1 x 12 Ga.	35							
						4 x 1 x 12 Ga.	112							
			6 - 9	148		3.5 x 1.5 x 10 Ga.	122							
Unto						4 X I X I2 Ga.	102	01/0×01/0×			21/2×21/2×			
600	1.4	3/8 Ø	10 - 20	146	1.50	4 x 1 x 12 Go	112	7 Ga	96	48	2 1/2 X 2 1/2 X 3/16	96	48	
600			J/U = 20	0,0 0 10 - 20		1.50	35 x 1 5 x 10 Ga	122	7 Ga.			3/16		
			21 - 48	62		4 x 1 x 12 Ga.	112							

Expanded product parameters available

## STANDARD CONFIGURATIONS

						1.9", 2 1/2	1.9", 2 1/2" AND 2 9/16" ROLLERS								
Product			Roller		_			Frame	Size and	Capacit	y Per Foo	t	0		
						Formed Chann	el	Forme	d Angle		Structura	Channel	Struc	ctural Angle	э
Max Product Weight	Roller Dia.	Axle Size	Between Frame	Capacity Per Roller	Minimum Roller	Size Options	Capacity Per Foot (lbs.)	Size Options	Capacity (Ib	Per Foot os.)	Size	Capacity Per Foot (lbs.)	Size Options	Capacity (lb	Per Foot s.)
(lbs.)	(in.)	(in.)	nange (m.) (ibs.	(lbs.)	(in.)	(in.) Support on 10' Centers	Supports on 10' Centers	(in.) Support on s Cent		Supports on 10' Centers	(in.)	Supports on 10' Centers	(in.)	Supports on 5' Centers	Supports on 10' Centers
			6 - 36	267		3.5 x 1.5 x 10 Ga.	122 248				3 x 4.1	170			
		7/16 Hex	37 - 51	155		<u>3.5 x 1.5 x 10 Ga.</u> 4 x 1 5 x 7 Ga	122				$3 \times 4.1$ $4 \times 5.4$	170			
		TIOX	52 - 65	75		3.5 x 1.5 x 10 Ga.	122				3 x 4.1	170			
			6 - 36	262		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				3 x 4.1 4 x 5.4	170			
Up to 1500	1.9	5/8 Ø	37 - 51	120	2	3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248	4 x 3 x 1/4	230	115	3 x 4.1 4 x 5.4	170 272	4 x 3 x 5/16	280	140
			52 - 65	50		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				3 x 4.1 4 x 5.4	170 272			
			6 - 36	348		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				3 x 4.1 4 x 5.4	170 272	1		
		3/4 Ø	37 - 51	183		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				3 x 4.1 4 x 5.4	170 272	1		
			52 - 78	39		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				3 x 4.1 4 x 5.4	170 272			
			6 - 42	275		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				5 x 6.7 6 x 8.2	408 586		1112	556
		7/16 Hex	43 - 66	108		3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				5 x 6.7 6 x 8.2	408			
			67 - 96	30	2 3/4	3.5 x 1.5 x 10 Ga. 4 x 1.5 x 7 Ga.	122 248				5 x 6.7 6 x 8.2	408			
Unto		11/16 Hex	6 - 42	700		4 x 1.5 x 7 Ga.	122 248 122	5 x 3 x 1/4			5 x 6.7 6 x 8.2	408 586	5 4 2 4		
3500	2 1/2		43 - 66	373		5 x 1.5 x 1/4	545		908	454	6 x 8.2	586 408	5/16		
			67 - 102	54		5 x 1.5 x 1/4 3.5 x 1.5 x 10 Ga.	545				6 x 8.2 5 x 6.7	586 408			
		3/4	6 - 42	700		5 x 1.5 x 1/4 3.5 x 1.5 x 10 Ga.	545 122				6 x 8.2 5 x 6.7	586 408			
		Ø	43 - 00	54		5 x 1.5 x 1/4 3.5 x 1.5 x 10 Ga.	545 122				6 x 8.2 5 x 6.7	586 408			
			6 - 42	634		5 x 1.5 x 1/4 3.5 x 1.5 x 10 Ga.	545 122				6 x 8.2 5 x 6.7	586 408			
		11/16	43 - 66	625		4 x 1.5 x 7 Ga. 3.5 x 1.5 x 10 Ga.	248 122				6 x 8.2 5 x 6.7	586 408			
		Hex	67 - 102	106		4 x 1.5 x 7 Ga. 3.5 x 1.5 x 10 Ga.	248 122				6 x 8.2 5 x 6.7	586 408	5.0		
Up to 3500	2 9/16		6 - 42	200	2 3/4	4 x 1.5 x 7 Ga. 3.5 x 1.5 x 10 Ga.	248 122	5 x 3 x 1/4	908	454	6 x 8.2 5 x 6.7	408	5 x 3 x 5/16	1112	556
		1/2	43 - 66	65		4 x 1.5 x 7 Ga. 3.5 x 1.5 x 10 Ga.	248 122				6 x 8.2 5 x 6.7	408			
		Ø	67 - 72	34		4 x 1.5 x 7 Ga. 3.5 x 1.5 x 10 Ga.	122 248				5 x 6.7	408			
			6 - 42	600		3.5 x 1.5 x 10 Ga. 5 x 1.5 x 1/4	122 545				5 x 6.7	408			
Up to 5000	2 9/16	3/4 Ø	43 - 66	500	2 3/4	3.5 x 1.5 x 10 Ga. 5 x 1.5 x 1/4	122 545	5 x 3 x 1/4	908	454	5 x 6.7 6 x 8.2	408	5 x 3 x 5/16	1112	556
	2 0/10		67 - 102	90	1	3.5 x 1.5 x 10 Ga. 5 x 1.5 x 1/4	122 545				5 x 6.7 6 x 8.2	408			

Expanded product parameters available

# Omni Metalcraft<sub>corp.</sub>

## **STANDARD CONFIGURATIONS**

	3 1/2" AND 4" ROLLERS										
Product			Roller			Frame Size and Capacity Per Foot					
						Structural Ch	annel	Str	uctural Angle		
Max Product Weight (lbs.)	Roller Dia. (in.)	Axle Size (in.)	Between Frame Range (in.)	Capacity Per Roller (lbs.)	Minimum Roller Centers (in.)	Size Options	Capacity Per Foot (lbs.)	Size Options	Capacity P	er Foot (lbs.)	
						(in.)	Supports on 10' Centers	(in.)	Supports on 5' Centers	Supports on 10' Centers	
			6 - 42	1184		7 x 9.8	824				
					4	8 x 11.5	1122				
		1-1/16 Hex	43 - 78	1165		7 x 9.8	824		1680		
			79 - 144		4 }	8 X 11.5	1122				
				104		7 X 9.0 9 v 11 5	024			840	
Up to 6000	3 1/2				3 3/4	7 1 9 8	824	6 x 4 x 1/2			
			6 - 42	2465		8 x 11 5	1122				
						7 x 9 8	824				
		1-3/16 Ø	43 - 78	2263		8 x 11.5	1122				
				70 444 400		7 x 9.8	824				
			79 - 144	199	i i	8 x 11.5	1122				
			6 40	5010		7 x 9.8	824	6 x 4 x 1/2		840	
			43 - 78	5615	] [	8 x 11.5	1122				
Up to 10000	3 1/2	1-7/16 Ø		3043	2.2/4	7 x 9.8	824		1690		
001010000				3043	3 3/4	8 x 11.5	1122		1000		
			79 - 156	172		7 x 9.8	824				
			10 100			8 x 11.5	1122				
			6 - 48	5081		10 x 15.3	970				
					4 4	12 x 20.7	1650				
		1 1/8 Hex	49 - 84	2448		10 x 15.3	970				
					4 }	12 X 20.7	1650				
			85 - 144	260		10 x 15.5	1650				
Up to 10000	4				4 1/2	10 x 15 3	970				
			6 - 48	4482		12 x 20.7	1650				
					1 1	10 x 15.3	970				
		1 3/16 Ø	49 - 84	2153	i i	12 x 20.7	1650		N/A		
			05 144	000	1 1	10 x 15.3	970				
			85 - 144	223		12 x 20.7	1650				
			6 - 18	5927		10 x 15.3	970				
			0 - 40	5521	] ]	12 x 20.7	1650				
Up to 15000	4	1 7/16 Ø	49 - 84	3303	4 1/2	10 x 15.3	970				
						12 x 20.7	1650	_			
			85 - 168	260		10 x 15.3	970				
				200		12 x 20.7	1650				

Expanded product parameters available Capacities not recommended for a sloped application

# GSC GRAVITY SKATEWHEEL CONVEYOR



#### WHY GSC?

- Economical, lightweight, non-powered conveyor suitable for conveying light products
- Ideal for portable applications
- Close axle centers and tight wheel patterns allows small products to be handled
- Multiple wheel pattern choices for your product
- Built to your length or easily field cut to length
- Bolts to Omni standard leg supports or most mounting surfaces
- Common applications include truck loading and unloading, rack-mounted product storing and staging, workstations and assembly lines

### GRAVITY SKATEWHEEL CONVEYOR - STRAIGHT





### **GRAVITY SKATEWHEEL CONVEYOR - STRAIGHT AND CURVE SPUR**



STRAIGHT SPUR 30° and 45° only



	30°	45°	90°				
Α	12", 15", 18", 21", 24", 30"						
В	9" - 85"						

A = Overall Width (OAW) B = Top of Wheel (TOW) C = Short Rail Length / Inside Radius (IR) D = Throat E = Shelf Bracket Length

	30° STRAIGI CONVE	HT SPL YOR	JR	45° STRAIGHT SPUR CONVEYOR			
A (in.)	C (in.)	D (in.)	E (in.)	C (in.)	D (in.)	E (in.)	
Overall Width	Short Rail/Inside Radius (IR)	Throat	Shelf Bracket Length	Short Rail/Inside Radius (IR)	Throat	Shelf Bracket Length	
	24			24			
12	36	20.8	29.3	36	14.4	22.9	
	60			60			
	24			24			
15	36	26.8	35.3	36	18.7	27.2	
	60			60			
	24			24			
18	36	32.8	41.3	36	22.9	31.4	
	60			60			
	24			24			
21	36	38.8	47.3	36	27.2	35.7	
	60			60			
	24			24			
24	36	44.8	53.3	36	31.4	39.9	
	60			60			
	24			24		48.4	
30	36	56.8	65.3	36	39.9		
	60			60			

#### **CURVE SPUR** 90° only



**RIGHT HAND** 

90°	CURVE SPUR		/EYOR
A (in.)	C (in.)	D (in.)	E (in.)
Overall Width	Short Rail/Inside Radius (IR)	Throat	Shelf Bracket Length
12	37	29.6	36.8
15	34	32.9	40
18	31	35.6	42.8
21	40	43.7	51
24	37	46.2	53.4
30	31	50.3	57.5



## **CONVEYOR SPECIFICATIONS**

WHEEL HEIGHT	AXLE SPACING	WHEELS PER FOOT MINIMUM	WHEELS PER FOOT MAXIMUM	FRAME	FRAME HEIGHT "E"	FRAME TO TOW "F"	
	1 1/2"	12	72				
Wheels High	3"	6	36	2 1/2 X 1 X 12 ga., gaivanized steel	2 1/2"	3/8"	
	4"*	4	27	or powder coaled steel			
	1 1/2"	12	72				
Wheels Low	3"	6	36	4" x 1" x 12 ga., galvanized steel or	4"	-1 1/8"	
	4"*	4	27	powder coaled steel			
	1 1/2"	12	72				
Wheels High	3"	6	36	2 1/2" x 1" x 1/8" aluminum	2 1/2"	3/8"	
_	4"*	4	27				
	1 1/2"	12	72				
Wheels Low	3"	6	36	4" x 1" x 1/8" aluminum	4"	-1 1/8"	
	4"*	4	27	1			

\*Only available on straight skatewheel conveyor. Curve spacing is nominal.

## WHEELS PER FOOT

1 1/2" AXLE SPACING											
12" Overall Width	15" Overall Width	18" Overall Width	21" Overall Width	24" Overall Width	30" Overall Width						
12	12	24	24	32	32						
16	16	28	28	36	40						
20	20	32	32	40	48						
24	24	36	40	48	56						
32	32	40	48	56	72						

3" AXLE SPACING										
12" Overall Width	15" Overall Width	18" Overall Width	21" Overall Width	24" Overall Width	30" Overall Width					
6	6	12	12	16	16					
8	8	14	14	18	20					
10	10	16	16	20	24					
12	12	18	20	24	28					
16	16	20	24	28	36					

4" AXLE SPACING										
12" Overall Width	15" Overall Width	18" Overall Width	21" Overall Width	24" Overall Width	30" Overall Width					
4	4	9	9	12	12					
6	6	11	11	14	15					
8	8	12	12	15	18					
9	9	14	15	18	21					
12	12	15	18	21	27					

# WHEEL OPTIONS

ТҮРЕ	DIAMETER	MATERIAL	BEARING	CAPACITY
Steel	1 15/16"	Zinc plated steel	Oiled steel ball bearings	50
Aluminum	1 15/16"	Aluminum	Oiled steel ball bearings	50
White	1 15/16"	Nylon	Oiled steel ball bearings	40
Black	1 15/16"	Nylon	Oiled steel ball bearings	40
Steel wheel with orange urethane cover	2 3/16"*	Zinc plated steel with orange urethane cover	Oiled steel ball bearings	50

\*1/8" thick urethane cover on 1 15/16" diameter wheel

### LOAD CAPACITY CHART

		FRAME CAPACITY		
FRAME MATERIAL	SUPPORT CENTERS	Maximum Uniformly Distributed Load (lbs.)		
Steel	5'	1300		
Steel	10'	350		
Aluminum	5'	710		
Aluminum	10'	160		

# Omni Metalcraft<sub>corp.</sub>

END COUPLER STYLES



#### HOOK AND ROD

For portable quick disconnect



#### END CAP

For permanent installation applications





#### BRIDGE PLATE

For permanent installation application. Required to hold roller spacing across the splice.

**FINISHES** - Galvanized steel standard. Powder coat available.

Expanded product parameters available. For more information see Tech Handbook.



### WHY FR?



### Five different channel and wheel mounting styles

- Built to your length or easily field cut to length
- Bolts to Omni standard leg supports or most mounting surfaces
- Common applications include use as guiderail on other conveyor, storage racking or floor mounted conveyor



### WHEEL OPTIONS

ТҮРЕ	DIAMETER	MATERIAL	BEARING	CAPACITY
Steel	1 15/16"	Zinc plated steel	Oiled steel ball bearings	50
Aluminum	1 15/16"	Aluminum	Oiled steel ball bearings	50
White	1 15/16"	Plastic	Oiled steel ball bearings	40
Black	1 15/16"	Plastic	Oiled steel ball bearings	40
Steel wheel with orange urethane cover	2 3/16"*	Zinc plated steel with orange urethane cover	Oiled steel ball bearings	50

\*1/8" thick urethane cover on 1 15/16" diameter wheel

# LOAD CAPACITY CHART

SUPPORT	MAXIMUM LOAD PER FOOT							
CENTERS	Style 1	Style 2	Style 3	Style 4	Style 5			
3'	179	200*	200*	400*	200*			
4'	100	168	200*	278	200*			
5'	62	107	200*	142	144			
6'	36	74	166	82	83			
7'	22	54	104	51	52			
8'	15	42	70	34	35			
10'	7	23	35	17	18			

\*Wheel capacity is limiting factor







U-Channel







Opposing Channels



STYLE 4 Top Hat



STYLE FRAME DESCRIPTION WHEEL ORIENTATION U-Channel, 12 ga. galvanized steel In line 1 J-Channel, 12 ga. galvanized steel 2 In line Opposing Channels, 12 ga. galvanized steel 3 In line 4 Top Hat, 14 ga. galvanized steel Paired or Staggered 5 Single Channel, 12 ga. galvanized steel In line

FINISHES - Galvanized steel standard. Powder coat available. Expanded product parameters available





#### BODY DIAMETER = .875"

- Non-precision wheel
- 45 lbs. per bearing load rating
- Eight 5/32" dia. hardened steel balls
- Pressed steel outer shell



Part No. 102149

#### BODY DIAMETER = 1.375"

- Precision ground bearing
- 75 lbs. per bearing load rating
- Six 5/32" dia. hardened steel balls
- Molded nylon outer shell



Part No. 113062

#### BODY DIAMETER = 2.268"

- Non-precision wheel
- 3/8-16 threaded stud
- 290 lbs. per bearing load rating
- Eleven 3/8" dia. hardened steel balls
- Pressed steel outer shell



Part No. 102150

#### BODY DIAMETER = 1.938"

- Non-precision wheelSeven 1/4" dia. hardened steel balls
- Pressed steel outer shell
- Rubber and neoprene boots available
- Skatewheels available with black or white plastic



Part No. 102143 Galvanized Wheel





Part No. 102144 Aluminum Wheel 55 lbs. Per Wheel Load Capacity



150 lbs. Per Wheel Load Capacity

# BTT BALL TRANSFER TABLE



#### WHY BTT?

- Economical solution where products must be manually transferred
- Utilized when products need to be manually rotated or positioned
- Multiple ball spacing choices, lengths and widths available
- Secure stud-style mounting
- Bolts to Omni standard leg supports or most mounting surfaces
- Common applications include workstations, assembly lines, manual product staging and feeding



CROSS SECTION FOR 2 1/2" X 1" X 12 GA. FRAME



## LOAD CAPACITY CHART

	SUPPORT	FRAME CAPACITY	BALL CAPACITY	
FRAME SIZE	CENTER	Maximum Uniformly Distributed Load Per Foot (lbs.)	Maximum Load Per Ball	
	5'	260		
2 1/2 X 1 X 12 Ga.	10'	35	CE.	
2 1/0 × 1 1/0 × 10 Co	5'	660	60	
3 1/2 X 1 1/2" X 10 Ga.	10'	120		

Maximum product weight should not exceed 195 lbs. as product may only rest on 3 ball transfers at one time

### STANDARD SPECIFICATIONS

BALL UNITS - 1" dia. standard ball, zinc plated, 1/4-20 stud, 65 lbs. per ball unit load rating

FRAME - 3 1/2" high x 1 1/2" flange x 10 ga. or 2 1/2" high x 1" flange x 12 ga. galvanized steel formed channel

PANS - 10 ga. galvanized steel formed

BETWEEN FRAME WIDTH - 10" to 48" in 1" increments

Expanded product parameters available

OVERALL LENGTH - 1' to 12' in any increment

BALL SPACING - Square spacing of 2", 3", 4" and 6". Nominal diagonal spacing of 3" and 6".

SUPPORTS - Adjustable H-style, bolted, 10" to 86" from floor to top of ball. One support at every bed joint and at ends of conveyor. Supports are shipped loose.

FINISHES - Galvanized steel standard. Powder coat available.

### BALL PATTERNS AND SPACING

SPACING	SOLIARE PATTE	BN									
→	(2" shown)										
0 0		0	0		0	0	0		Ball S	spacing	
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	<u>MAAAAA</u>		, ) • • @		<u>.</u>				*Diagonal	3", 6"	tual
					• @ • @		<b>.</b>		values are nominal.	. 2.8 and 5.7 ad	lual.
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0 0		0	0					NOMINAL			
					(3" show	NAL PATTERN vn)	<b>x</b>	SPACING			
					(0 3110)	viij					
BALL TRA	NSFER UNITS										
1" DIA. BALL	TRANSFER		1" D	DIA. BALL TR	ANSFER			1 1/2" DIA. B	ALL TRANSFER		
<b>1/4 - 20</b>	stud			Two hole - f	lange mounte	d		<mark>=</mark> 3/8 - 16	6 stud		
📕 65 lbs. p	per ball transfer load	d rating		75 lbs. per b	oall transfer lo	ad rating		250 lbs	. per ball transfer le	oad rating	
Pressed	d steel outer shell			Pressed ste	el outer shell			Carbon	steel outer shell		
250° F r	maximum temperatu	ure		Sealed prot	ective cover			Sealed	protective cover		
Availabl	le with nylon ball			250° F max	imum temper	ature		250° F	maximum tempera	ature	
	-			Available wi	th nylon ball						
<b>↓</b> 1 5	55/64"			<b>◄</b> —2 11	/64"			◀	—2 11/16" ——		
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			-	◀2 3	3/4" ——•	►					

Part No. 102106



Part No. 111681



#### H STYLE LEG SUPPORT (BOLT-TOGETHER CONSTRUCTION) - For skatewheel, 1 3/8", 1.9", 2 1/2" or 2 9/16" roller conveyors

LIGHT DUTY (LHST) AND MEDIUM DUTY (MHST) HEAVY DUTY (HHST)



3" x 12 ga. formed channel galvanized bolt-together leg supports

H-STYLE LEG	DJUSTMENTS				
Skatewheel, 1 3/8" and 1.9" Roller Conveyor Top of Leg	2 1/2" and 2 9/16" Roller Conveyor Top of Leg				
6" - 8"	N/A				
8" - 10"	N/A				
10" - 12 1/4"	N/A				
12 1/4" -	· 16 1/4"				
14 1/4" - 20 1/4"					
18 1/4" - 24 1/4"					
22 1/4" - 28 1/4"					
26 1/4" -	32 1/4"				
30 1/4" -	42 1/4"				
38 1/4" -	· 50 1/4"				
46 1/4" -	58 1/4"				
54 1/4" -	66 1/4"				
62 1/4" -	74 1/4"				
70 1/4" -	82 1/4"				



3 1/2" x 7 ga. formed channel mild steel, powder coated bolt-together leg supports

H STYLE LEG SUPPORT (WELDED CONSTRUCTION) - For welded roller conveyor

PIVOT TOP





**RIGID TOP** 

3" or 4" pivot or rigid top and 5" or 6" rigid top only, structural channel supports

Supports are shipped loose

### OPTIONAL EQUIPMENT AND DEVICES

SIDE GUIDES - Available in fixed or adjustable with multiple contact surfaces. Allows product to be guided and kept in place within the conveying surface. Side guides are bolted to the conveyor frame.

Fixed Angle Side Guides - Standard 2" high or 6" high, 12 ga. formed angle

Fixed Channel Side Guides - Standard 2 1/2" high or 3 1/2" high, 12 ga. formed channel

Adjustable Channel Side Guides - Standard 1 5/8" high x 1" high, 12 ga. formed channel, width and height adjustable

Adjustable Angle Side Guides - Angle guides typically formed angle, width adjustable

UHMW Lined Fixed Angle Side Guides - Replaceable UHMW face provides wear protection for angle guides

Adjustable Rail UHMW Side Guides - Replaceable UHMW face provides wear protection on rails, width and height adjustable

Skatewheel Side Guides - Vertically mounted skatewheels

Bead Rail Side Guides - Vertically mounted, tightly spaced small wheels supported by axles and a metal channel

Roller Side Guides - Vertically mounted rollers

SUPPORTS - Available in single or multi-tier and with caster options for portability. Supports are designed to be bolted to the conveyor frame. Supports are shipped loose.

Multi-Tier Supports - 3" x 1 1/2" x 12 ga. formed channel leg uprights (1500 lbs. capacity)

Knee Brace Supports - Formed angle brace adds stability to conveyor and leg supports

Portable H-Stands - 3" x 1 1/2" x 12 ga. formed channel leg uprights (800 lbs. capacity)



FIXED CHANNEL SIDE GUIDES



ADJUSTABLE CHANNEL SIDE GUIDES



UHMW LINED FIXED ANGLE SIDE GUIDES



SKATEWHEEL SIDE GUIDES BEAD RAIL SIDE GUIDES SIDE GUIDES

ADJUSTABLE ANGLE

SIDE GUIDES



ADJUSTABLE RAIL UHMW SIDE GUIDES



**ROLLER SIDE GUIDES** 

MULTI-TIER SUPPORTS





SUPPORTS

### **OPTIONAL EQUIPMENT AND DEVICES**







WELDED STRUCTURAL STEEL WITH JACKBOLTS







ADJUSTABLE END STOP END STOPS





 $0 \oplus 0$ 1 13/16" Ô Ô Ô Ô  $\bigcirc$  $\bigcirc$  $\bigcirc$ 0 0 0 FIXED ROLLER STOP

#### SUPPORTS (CONTINUED)

Tripod Leg Supports - For skatewheel or 1 3/8" dia. roller conveyor (350 lbs. capacity)

#### TRIPOD LEG ADJUSTMENTS

Top of Leg
11" - 17"
17" - 29"
23" - 39"
29" - 51"
39" - 71"

Welded Structural Steel with Jackbolts - 4", 5" or 6" structural channel, welded construction with structural angle spreaders. Rigid top, optional pivot top. +/-1" or +/-2" adjustment.

**CEILING HANGERS** - Allows conveyor to be suspended from the ceiling. Threaded rod is attached to support steel under the conveyor frame. Ceiling attachments to threaded rod by others.

**END STOPS** - Allows product to stop at the end of a conveyor line. Fixed and adjustable end stops are available.

Fixed Angle Stop - Formed angle end stop bolted to top flange of conveyor frame

Fixed Channel Stop - Formed channel end stop bolted to conveyor end coupling

Fixed Roller Stop - 1.9" dia. rollers mounted in formed angle brackets, bolted to the top flange of conveyor frame

Adjustable End Stop - Formed steel adjustable end stop bolted to conveyor frame with manually adjusted stop position. Height is not adjustable.

### OPTIONAL EQUIPMENT AND DEVICES

**PIN AND BLADE STOPS** - Pneumatically or manually operated pin, blade and roller stop that pops up between rollers in order to accumulate product

Manual Pop-Up Blade Stop - Used to stop products in the conveying line. Mounted to underside of conveyor. Side handle for manually raising blade. Load capacity is rated for maximum accumulated back pressure of 75 lbs.

**Pneumatic Pop-Up Blade Stop** - Used to stop products in the conveying line. Mounted to underside of conveyor. Pneumatic cylinder raises blade. Load capacity is rated for maximum accumulated back pressure of 75 lbs.

**Pin Stop** - Mounted to underside of conveyor. Pneumatic cylinder raises pins. Typically utilized on round product.

BRAKE ROLLERS - Installed below gravity conveyor

SPRING ASSISTED GATE SECTION - Gate sections provide easy access for personnel and equipment. The

gate rests against a support which is mounted to the next conveyor in line. Springs provide counter-balancing forces

MANUAL GATE SECTION - Gate sections provide easy

a support which is mounted to the next conveyor in line.

**ROLLER COATINGS OR SLEEVES** - Rollers available with urethane and vinyl sleeves. Coatings available in cast urethane, millable urethane, black rubber, food grade and

**ROLLER OPTIONS** - Non-precision, semi-precision and ABEC precision bearings available. Mild steel, galvanized

steel, stainless steel, aluminum, industrial pipe and PVC tubes available. Zinc, chrome and nickel plating available. **STAINLESS STEEL** - Conveyors are available in

other materials based on the application.

access for personnel and equipment. The gate rests against

to assist in raising and lowering of the gate.

rollers to provide speed control of the product

LIFT GATES





PNEUMATIC POP-UP BLADE STOP



#### PIN STOP

PIN AND BLADE STOPS (0 0)  $(\circ)$ (@) (@) 0 (⊚) β 00 ര് (00 SIDE VIEW END VIEW **BRAKE ROLLERS** NNN () () ...... () () MINI -WIN - ANNA UP DOWN SPRING ASSISTED GATE SECTION DOWN UP MANUAL GATE SECTION



**ROLLER COATINGS OR SLEEVES** 

Omni<u>Metalcraft<sub>corp.</sub></u>

stainless steel materials in washdown applications or harsh environments DECLINES - Available upon request

**BALL TRANSFER TABLE OPTIONS** - Bolt-in pans with units only (less sideframes)

FINISHES - Powder coat and epoxy available

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# MOUNTING HARDWARE

#### **ROLLER HEX TABS**



Tack welded to existing frames with worn holes or used to modify round holes for hex axles







Part No. 28750

Bolted to existing frames with worn holes or used to modify round holes for hex axles