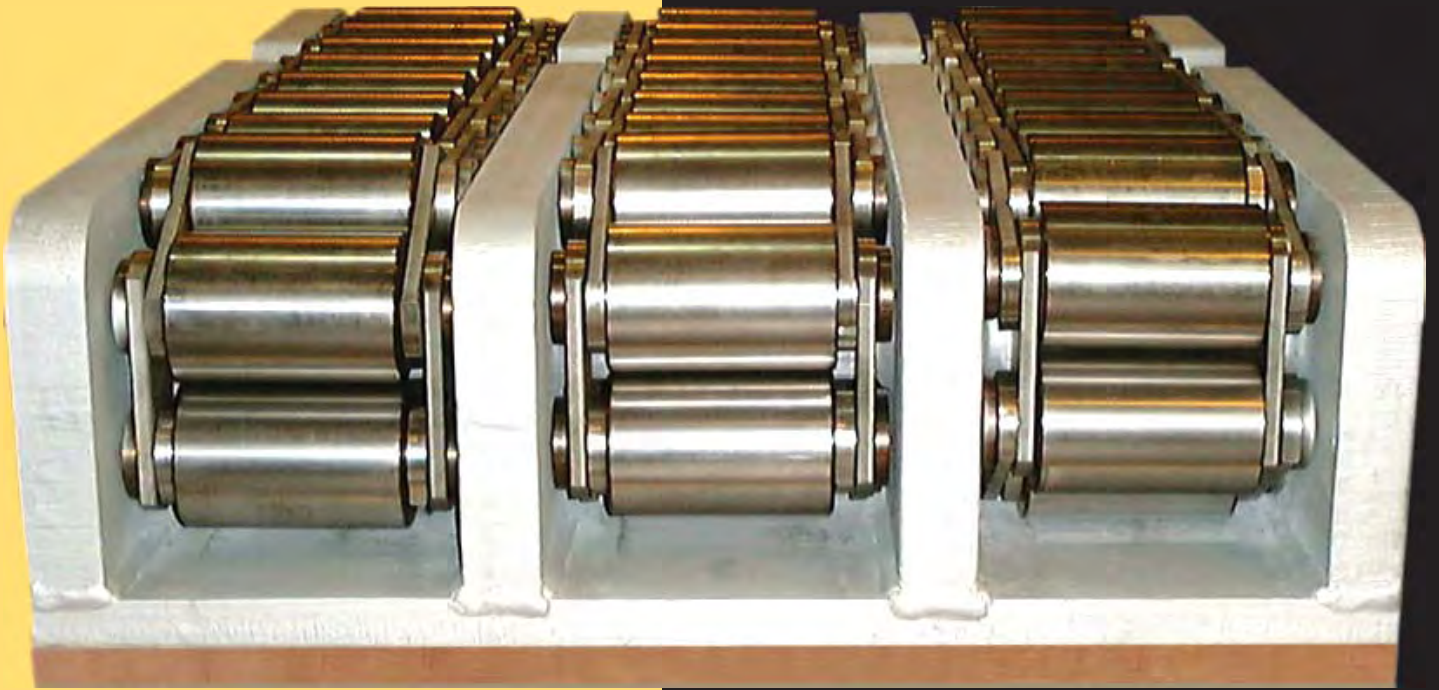
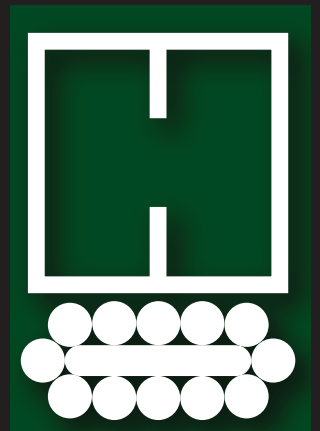


HILMAN ROLLERS



**ENGINEERED
PRODUCTS AND
SYSTEMS FOR
HEAVY MOVING
PROJECTS**



HILMAN ROLLERS



Hilman Rollers has manufactured high capacity load rollers and skidding systems since 1953. We offer an extensive line of standard roller model designs, with capacities from 1 to 1000 metric tons. We also offer a wide array of value-added modifications that can be added to these standard

designs to ensure proper performance.

Because no two applications for Hilman Rollers are ever exactly the same, over the years we have designed and manufactured many different engineered solutions to ensure proper fit and function. If you feel a Hilman Roller is the solution for you, but in searching through

our standard products can not find one that fits your application precisely the way you want; then perhaps we can design something that specifically addresses your requirements.

This brochure is intended to convey some of the possible, more common, modifications that are requested. Special materials, guidance capability as well as articulation and swivel ability are just a few examples of some of the more common requests for modifications. We do not just make rollers anymore, either. We can supply entire skidding systems; with fabricated steel carts, integrated hydraulics components, control panels and even the steel tracks for the rollers to ride on. And by no means is what you see here any limit of our ability.



Hilman Rollers' mission statement summarizes our commitment to our customers:

Hilman Rollers strives to provide the highest quality products at a fair price and in a timely manner, to work as equal partners with our customers and distributors by assessing their needs and providing the right products to meet or exceed those requirements; to constantly improve quality and reduce cost through continued improvement of each internal department; and to provide proper support by maintaining a knowledgeable staff who possess the tools and technology to perform their jobs.





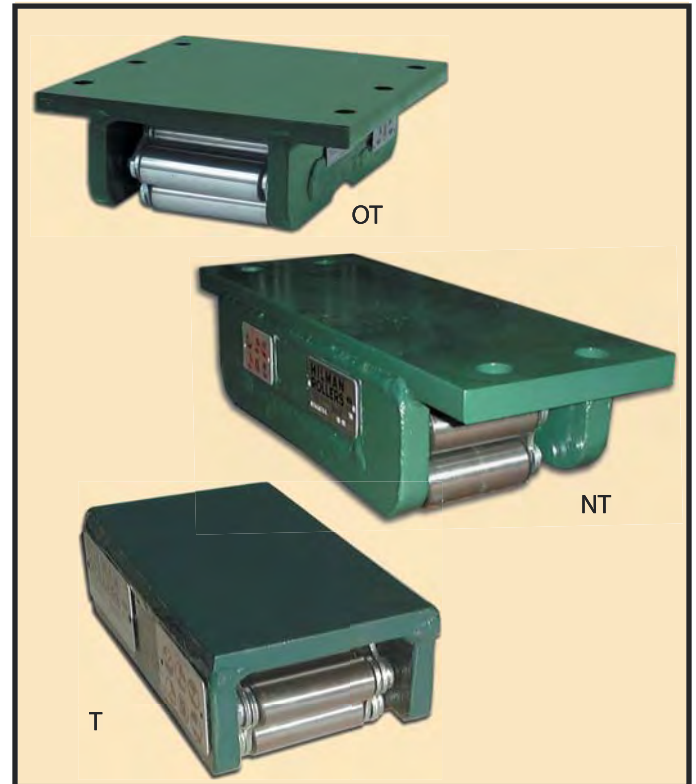
OT • T • NT Series

OT • T • NT Series Features

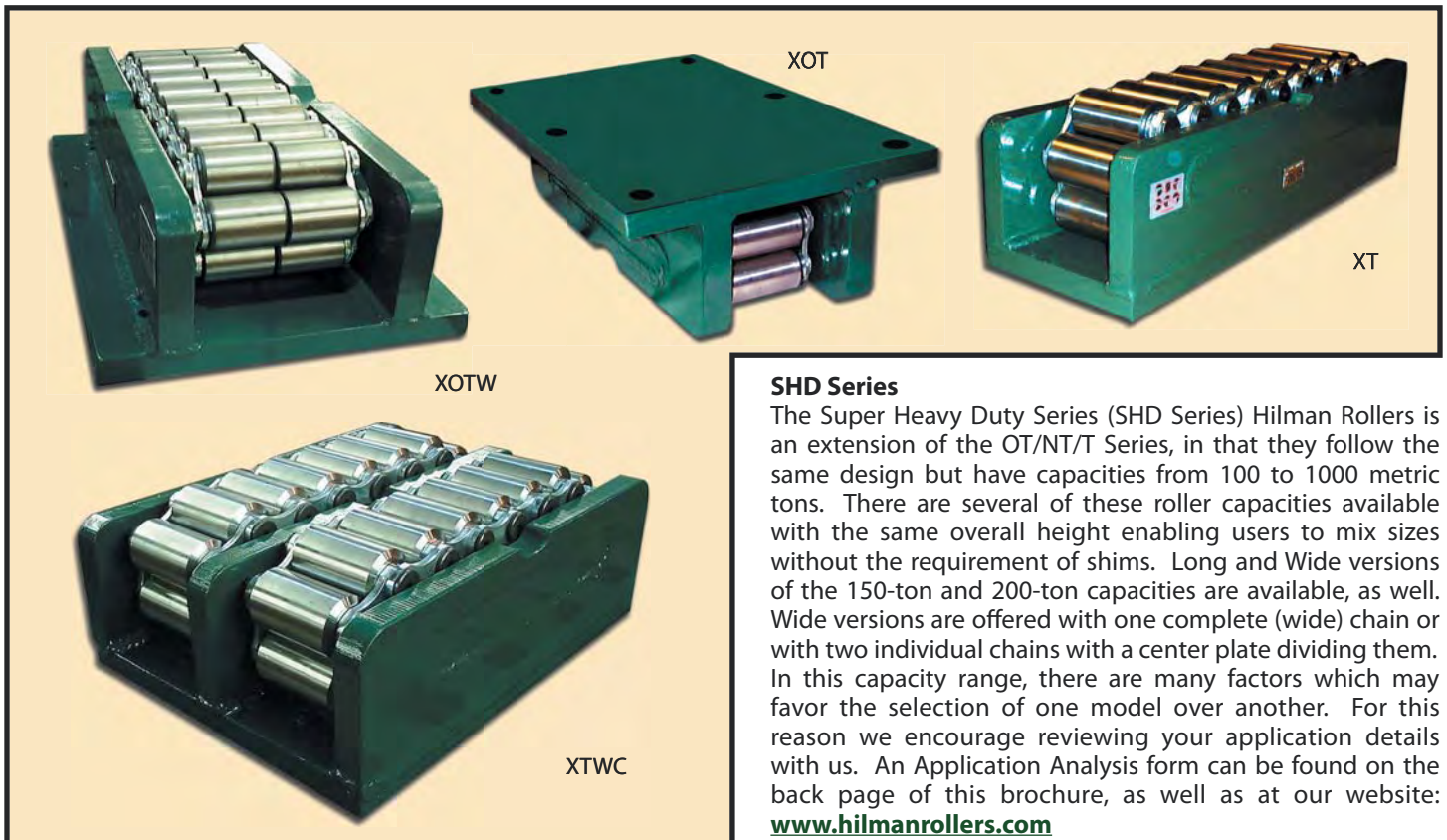
Hilman OT/NT/T Series Rollers offer a variety of top configurations. Selection is usually dependent upon the application. OT and NT style Rollers are bolt-on styles offered with standard hole patterns in oversized top plates. The hole patterns can be altered as needed or eliminated. T style Rollers have tops that are flush on all sides, ideal for weld or cavity mounting. Roller frames are fabricated from high strength steel. Load plates of 37.5-ton and higher capacities undergo a special machine process to minimize side-to-side movement of chain.

Advantages

These rollers can withstand high static loading over long periods of time, often carrying the full load weight for more than a year with no adverse effects. Because loads are spread over a wide area and carried by the load plate and the contact rolls, rollers are ideal for many applications requiring the frequent movement of heavy loads. Rollers can also be used inverted, as static conveyors.



SHD Series



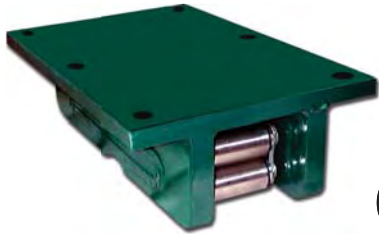
SHD Series

The Super Heavy Duty Series (SHD Series) Hilman Rollers is an extension of the OT/NT/T Series, in that they follow the same design but have capacities from 100 to 1000 metric tons. There are several of these roller capacities available with the same overall height enabling users to mix sizes without the requirement of shims. Long and Wide versions of the 150-ton and 200-ton capacities are available, as well. Wide versions are offered with one complete (wide) chain or with two individual chains with a center plate dividing them. In this capacity range, there are many factors which may favor the selection of one model over another. For this reason we encourage reviewing your application details with us. An Application Analysis form can be found on the back page of this brochure, as well as at our website: www.hilmanrollers.com

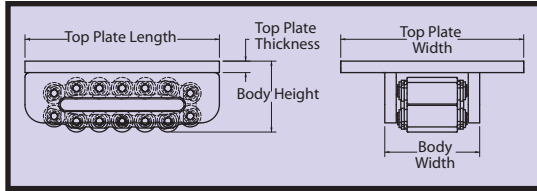
OT • T • NT Series



Dimensions



OT

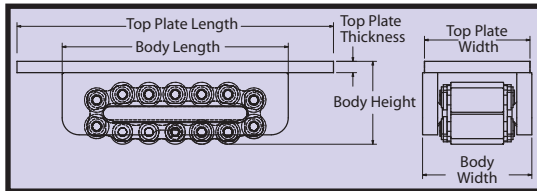


Capacity Metric Tons	<<<<<Body Dimensions>>>><			<<<Top Plate Dimensions>>>			<<<<Footprint>>>>			Weight lbs.(kgs)	
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<<Inches (mm)>>>	Roll Width		
	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><			
.75-OT	3/4-ton	6.5 (165)	3.125 (79)	3.625 (92)	.375 (10)	7.0 (178)	6.5 (165)	6	11/16 (17)	2 (51)	13 (6)
1-OT	1-ton	6.0 (152)	2.375 (60)	3.5625 (91)	.375 (10)	6.0 (152)	6.0 (152)	6	11/16 (17)	2 (51)	11 (5)
2.5-OT	2.5-tons	6.5 (165)	3.625 (92)	4.125 (105)	.375 (10)	7.0 (178)	6.5 (165)	4	15/16 (24)	2-7/16 (62)	19 (9)
5-OT	5-tons	8.0 (203)	3.125 (79)	4.4375 (113)	.375 (10)	8.0 (203)	8.0 (203)	5	15/16 (24)	2-7/16 (62)	22 (10)
8-OT	8-tons	8.0 (203)	3.125 (79)	5.3125 (135)	.375 (10)	8.0 (203)	8.0 (203)	5	15/16 (24)	3-5/16 (84)	24 (11)
15-OT	15-tons	10.625 (270)	3.875 (98)	5.1875 (132)	.625 (16)	10.0 (254)	10.625 (270)	5	1-3/16 (30)	2-3/4 (70)	47 (21)
20-OT	20-tons	10.625 (270)	3.875 (98)	6.4375 (164)	.625 (16)	10.0 (254)	10.625 (270)	5	1-3/16 (30)	4 (102)	54 (24)
37.5-OT	37.5-tons	15.0 (381)	5.5 (140)	7.25 (184)	.75 (19)	12.0 (305)	15.0 (381)	6	1-5/8 (41)	3-1/2 (89)	119 (54)
50-OT	50-tons	18.5 (470)	5.5 (140)	7.25 (184)	.75 (19)	12.0 (305)	18.5 (470)	8	1-5/8 (41)	3-1/2 (89)	153 (69)
75-OT	75-tons	21.0 (533)	6.75 (171)	7.375 (187)	1.00 (25)	14.0 (356)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	235 (107)

* Height includes Top Plate Thickness



NT

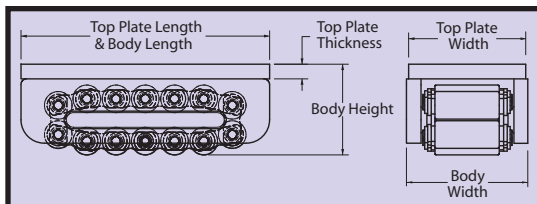


Capacity Metric Tons	<<<<<Body Dimensions>>>><			<<<Top Plate Dimensions>>><			<<<<Footprint>>>><			Weight lbs.(kgs)	
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia.	Roll Width		
	<<<<<<Inches (mm)>>>>>><	<<<<<<Inches (mm)>>>>>><	<<<<<<Inches (mm)>>>>>><	<<<<<<Inches (mm)>>>>>><	<<<<<<Inches (mm)>>>>>><	<<<<Inches (mm)>>><					
.75-NT	3/4-ton	6.5 (165)	3.125 (79)	3.625 (92)	.375 (10)	3.5 (89)	8.0 (203)	6	11/16 (17)	2 (51)	11 (5)
1-NT	1-ton	6.0 (152)	2.375 (60)	3.5625 (91)	.375 (10)	3.5 (89)	8.0 (203)	6	11/16 (17)	2 (51)	10 (5)
2.5-NT	2.5-tons	6.5 (165)	3.625 (92)	4.125 (105)	.375 (10)	4.0 (102)	9.5 (241)	4	15/16 (24)	2-7/16 (62)	19 (9)
5-NT	5-tons	8.0 (203)	3.125 (79)	4.4375 (113)	.375 (10)	4.5 (114)	11.75 (298)	5	15/16 (24)	2-7/16 (62)	20 (9)
8-NT	8-tons	8.0 (203)	3.125 (79)	5.3125 (135)	.375 (10)	5.0 (127)	11.75 (298)	5	15/16 (24)	3-5/16 (84)	24 (11)
15-NT	15-tons	10.625 (270)	3.875 (98)	5.1875 (132)	.625 (16)	5.0 (127)	14.75 (375)	5	1-3/16 (30)	2-3/4 (70)	41 (19)
20-NT	20-tons	10.625 (270)	3.875 (98)	6.4375 (164)	.625 (16)	6.5 (165)	14.75 (375)	5	1-3/16 (30)	4 (102)	52 (24)
37.5-NT	37.5-tons	15.0 (381)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	21.0 (533)	6	1-5/8 (41)	3-1/2 (89)	112 (51)
50-NT	50-tons	18.5 (470)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	22.5 (572)	8	1-5/8 (41)	3-1/2 (89)	140 (64)
75-NT	75-tons	21.0 (533)	6.75 (171)	7.375 (187)	1.00 (25)	7.5 (191)	27.0 (686)	7	1-15/16 (49)	3-5/8 (92)	210 (95)

* Height includes Top Plate Thickness



T



Capacity Metric Tons	<<<<<Body Dimensions>>>><			<<<Top Plate Dimensions>>><			<<<<Footprint>>>><			Weight lbs.(kgs)	
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia.	Roll Width		
	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<<Inches (mm)>>>><	<<<<Inches (mm)>>><	<<<<Inches (mm)>>><	<<<<Inches (mm)>>><		
.75-T	3/4-ton	6.5 (165)	3.125 (79)	3.625 (92)	.375 (10)	3.5 (89)	6.5 (165)	6	11/16 (17)	2 (51)	11 (5)
1-T	1-ton	6.0 (152)	2.375 (60)	3.5625 (91)	.375 (10)	3.5 (89)	6.0 (152)	6	11/16 (17)	2 (51)	9 (4)
2.5-T	2.5-tons	6.5 (165)	3.625 (92)	4.125 (105)	.375 (10)	4.0 (102)	6.5 (165)	4	15/16 (24)	2-7/16 (62)	17 (8)
5-T	5-tons	8.0 (203)	3.125 (79)	4.4375 (113)	.375 (10)	4.5 (114)	8.0 (203)	5	15/16 (24)	2-7/16 (62)	19 (9)
8-T	8-tons	8.0 (203)	3.125 (79)	5.3125 (135)	.375 (10)	5.0 (127)	8.0 (203)	5	15/16 (24)	3-5/16 (84)	22 (10)
15-T	15-tons	10.625 (270)	3.875 (98)	5.1875 (132)	.625 (16)	5.0 (127)	10.625 (270)	5	1-3/16 (30)	2-3/4 (70)	38 (17)
20-T	20-tons	10.625 (270)	3.875 (98)	6.4375 (164)	.625 (16)	6.5 (165)	10.625 (270)	5	1-3/16 (30)	4 (102)	47 (21)
37.5-T	37.5-tons	15.0 (381)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	15.0 (381)	6	1-5/8 (41)	3-1/2 (89)	103 (47)
50-T	50-tons	18.5 (470)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	18.5 (470)	8	1-5/8 (41)	3-1/2 (89)	134 (61)
75-T	75-tons	21.0 (533)	6.75 (171)	7.375 (187)	1.00 (25)	7.5 (191)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	198 (90)

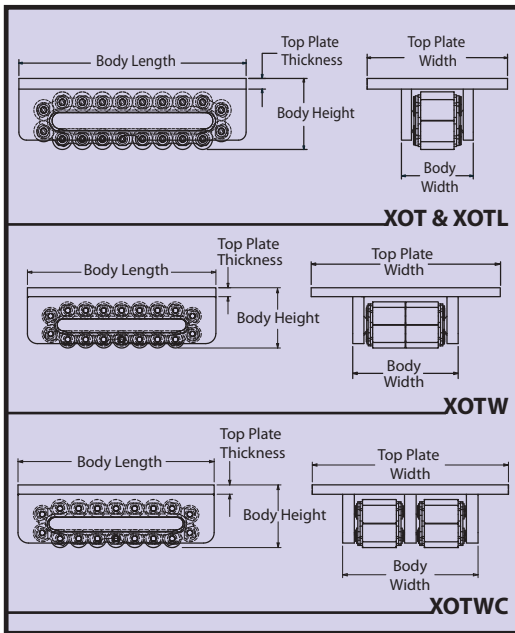
* Height includes Top Plate Thickness



SHD Series

Dimensions

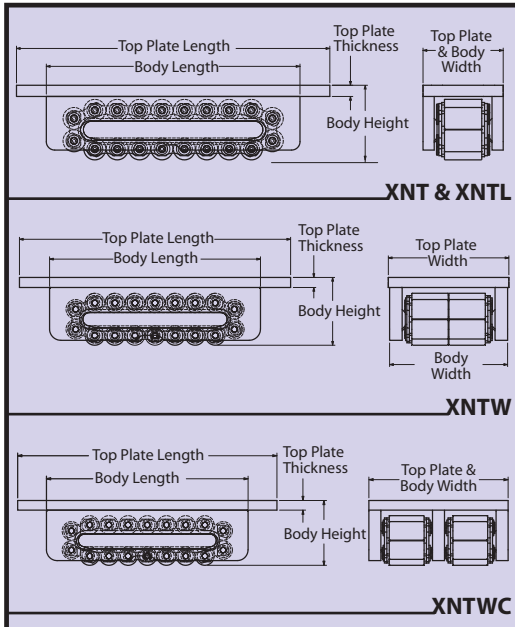
XOT XOT • XOTL • XOTW • XOTWC



	Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
		Length	Height *	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<Inches (mm)>>	Roll Width <<Inches (mm)>>	
100-XOT	100-tons	21.0 (533)	6.75 (171)	7.875 (200)	1.00 (25)	14.0 (356)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	250 (113)
150-XOTL	150-tons	32.0 (813)	6.75 (171)	7.875 (200)	1.00 (25)	14.0 (356)	32.0 (813)	11	1-15/16 (49)	3-5/8 (92)	381 (172)
150-XOTW	150-tons	21.0 (533)	6.75 (171)	9.875 (251)	1.00 (25)	16.0 (406)	21.0 (533)	14	1-15/16 (49)	2-3/4 (70)	299 (136)
200-XOTL	200-tons	36.0 (914)	6.75 (171)	7.875 (200)	1.00 (25)	14.0 (356)	36.0 (914)	14	1-15/16 (49)	3-5/8 (92)	443 (201)
200-XOTW	200-tons	21.0 (533)	6.75 (171)	11.5625 (294)	1.00 (25)	21.0 (533)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	364 (165)
200-XOTWC	200-tons	21.0 (533)	6.75 (171)	14.5 (368)	1.00 (25)	21.0 (533)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	423 (192)
300-XOT	300-tons	34.0 (864)	10.0 (254)	10.75 (273)	1.50 (38)	21.0 (533)	34.0 (864)	8	2-15/16 (74)	5 (127)	849 (385)
500-XOT	500-tons	34.0 (864)	10.0 (254)	20.0 (508)	1.50 (38)	30.0 (762)	34.0 (864)	16	2-15/16 (74)	5 (127)	1430 (649)
750-XOT	750-tons	34.0 (864)	10.0 (254)	27.5 (699)	1.50 (38)	37.5 (953)	34.0 (864)	24	2-15/16 (74)	5 (127)	2044 (927)
1000-XOT	1000-tons	Consult factory for product specifications and weight									

* Height includes Top Plate Thickness

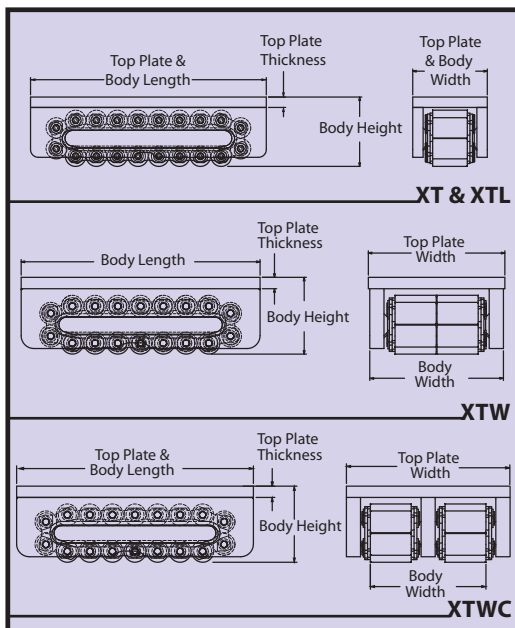
XNT XNT • XNTL • XNTW • XNTWC



	Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
		Length	Height *	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<Inches (mm)>>	Roll Width <<Inches (mm)>>	
100-XNT	100-tons	21.0 (533)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	27.0 (686)	7	1-15/16 (49)	3-5/8 (92)	228 (103)
150-XNTL	150-tons	32.0 (813)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	38.0 (965)	11	1-15/16 (49)	3-5/8 (92)	341 (155)
150-XNTW	150-tons	21.0 (533)	6.75 (171)	9.875 (251)	1.00 (25)	9.875 (251)	27.0 (686)	14	1-15/16 (49)	2-3/4 (70)	280 (127)
200-XNTL	200-tons	36.0 (914)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	42.0 (1067)	14	1-15/16 (49)	3-5/8 (92)	396 (180)
200-XNTW	200-tons	21.0 (533)	6.75 (171)	11.5625 (294)	1.00 (25)	11.5625 (294)	27.0 (686)	14	1-15/16 (49)	3-5/8 (92)	333 (151)
200-XNTWC	200-tons	21.0 (533)	6.75 (171)	14.5 (368)	1.00 (25)	14.5 (368)	27.0 (686)	14	1-15/16 (49)	3-5/8 (92)	408 (185)
300-XNT	300-tons	34.0 (864)	10.0 (254)	10.75 (273)	1.50 (38)	10.75 (273)	42.0 (1067)	8	2-15/16 (74)	5 (127)	739 (335)
500-XNT	500-tons	34.0 (864)	10.0 (254)	20.0 (508)	1.50 (38)	20.0 (508)	42.0 (1067)	16	2-15/16 (74)	5 (127)	1355 (615)
750-XNT	750-tons	34.0 (864)	10.0 (254)	27.5 (699)	1.50 (38)	27.5 (699)	42.0 (1067)	24	2-15/16 (74)	5 (127)	2009 (911)
1000-XOT	1000-tons	Consult factory for product specifications and weight									

* Height includes Top Plate Thickness

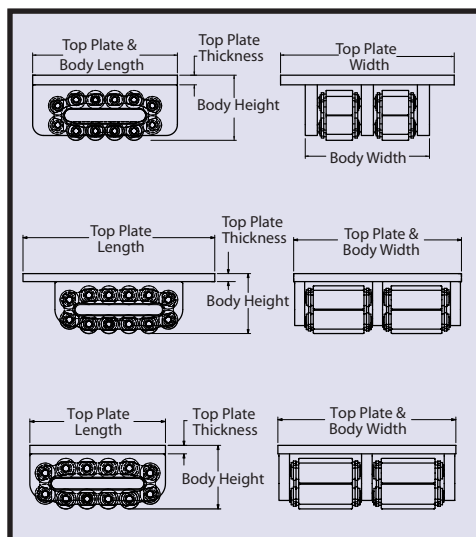
XT XT • XTL • XTW • XTW



	Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
		Length	Height *	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<Inches (mm)>>	Roll Width <<Inches (mm)>>	
100-XT	100-tons	21.0 (533)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	217 (98)
150-XTL	150-tons	32.0 (813)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	32.0 (813)	11	1-15/16 (49)	3-5/8 (92)	329 (149)
150-XTW	150-tons	21.0 (533)	6.75 (171)	9.875 (251)	1.00 (25)	9.875 (251)	21.0 (533)	14	1-15/16 (49)	2-3/4 (70)	265 (120)
200-XTL	200-tons	36.0 (914)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	36.0 (914)	14	1-15/16 (49)	3-5/8 (92)	384 (174)
200-XTW	200-tons	21.0 (533)	6.75 (171)	11.5625 (294)	1.00 (25)	11.5625 (294)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	313 (142)
200-XTWC	200-tons	21.0 (533)	6.75 (171)	14.5 (368)	1.00 (25)	14.5 (368)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	387 (175)
300-XT	300-tons	34.0 (864)	10.0 (254)	10.75 (273)	1.50 (38)	10.75 (273)	34.0 (864)	8	2-15/16 (74)	5 (127)	706 (320)
500-XT	500-tons	34.0 (864)	10.0 (254)	20.0 (508)	1.50 (38)	20.0 (508)	34.0 (864)	16	2-15/16 (74)	5 (127)	1290 (585)
750-XT	750-tons	34.0 (864)	10.0 (254)	27.5 (699)	1.50 (38)	27.5 (699)	34.0 (864)	24	2-15/16 (74)	5 (127)	1892 (858)
1000-XOT	1000-tons	Consult factory for product specifications and weight									

* Height includes Top Plate Thickness

WB Series



WBOT

WBNT

WBT

	Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
		Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia.	Roll Width	
		<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>		<<<Inches (mm)>>>>	<<<Inches (mm)>>>>	
10-WBOT	10-tons	8.00 (203)	3.50 (89)	10.50 (267)	0.50 (13)	13.00 (330)	8.00 (203)	8	15/16 (24)	3-5/16 (84)	48 (22)
20-WBOT	20-tons	8.00 (203)	3.75 (95)	10.625 (270)	0.50 (13)	13.00 (330)	8.00 (203)	6	1-3/16 (30)	3-11/64 (81)	54 (25)
30-WBOT	30-tons	8.00 (203)	3.75 (95)	10.375 (264)	0.50 (13)	13.00 (330)	8.00 (203)	8	1-3/16 (30)	3-11/64 (81)	60 (27)
60-WBOT	60-tons	10.00 (254)	5.81 (148)	13.50 (343)	1.00 (25)	18.00 (457)	10.00 (254)	6	1-5/8 (41)	3-1/2 (89)	151 (69)
90-WBOT	90-tons	15.00 (381)	6.75 (171)	12.875 (327)	1.00 (25)	18.00 (457)	15.00 (381)	8	1-15/16 (49)	2-3/4 (70)	250 (114)
125-WBOT	125-tons	15.00 (381)	6.75 (171)	12.875 (327)	1.00 (25)	18.00 (457)	15.00 (381)	10	1-15/16 (49)	2-3/4 (70)	269 (122)
10-WBNT	10-tons	8.00 (203)	3.50 (89)	10.50 (267)	0.50 (13)	10.50 (267)	12.00 (305)	8	15/16 (24)	3-5/16 (84)	52 (24)
20-WBNT	20-tons	8.00 (203)	3.75 (95)	10.625 (270)	0.50 (13)	10.50 (267)	12.00 (305)	6	1-3/16 (30)	3-11/64 (81)	58 (26)
30-WBNT	30-tons	8.00 (203)	3.75 (95)	10.375 (264)	0.50 (13)	10.50 (267)	12.00 (305)	8	1-3/16 (30)	3-11/64 (81)	63 (29)
60-WBNT	60-tons	10.00 (254)	5.81 (148)	13.50 (343)	1.00 (25)	13.00 (330)	14.00 (356)	6	1-5/8 (41)	3-1/2 (89)	152 (69)
90-WBNT	90-tons	15.00 (381)	6.75 (171)	12.875 (327)	1.00 (25)	13.00 (330)	19.00 (483)	8	1-15/16 (49)	2-3/4 (70)	245 (111)
125-WBNT	125-tons	15.00 (381)	6.75 (171)	12.875 (327)	1.00 (25)	13.00 (330)	19.00 (483)	10	1-15/16 (49)	2-3/4 (70)	264 (120)
10-WBT	10-tons	8.00 (203)	3.50 (89)	10.50 (267)	0.50 (13)	10.50 (267)	8.00 (203)	8	15/16 (24)	3-5/16 (84)	46 (21)
20-WBT	20-tons	8.00 (203)	3.75 (95)	10.625 (270)	0.50 (13)	10.50 (267)	8.00 (203)	6	1-3/16 (30)	3-11/64 (81)	51 (23)
30-WBT	30-tons	8.00 (203)	3.75 (95)	10.375 (264)	0.50 (13)	10.50 (267)	8.00 (203)	8	1-3/16 (30)	3-11/64 (81)	58 (26)
60-WBT	60-tons	10.00 (254)	5.81 (148)	13.50 (343)	1.00 (25)	13.00 (330)	10.00 (254)	6	1-5/8 (41)	3-1/2 (89)	138 (62)
90-WBT	90-tons	15.00 (381)	6.75 (171)	12.875 (327)	1.00 (25)	13.00 (330)	15.00 (381)	8	1-15/16 (49)	2-3/4 (70)	231 (105)
125-WBT	125-tons	15.00 (381)	6.75 (171)	12.875 (327)	1.00 (25)	13.00 (330)	15.00 (381)	10	1-15/16 (49)	2-3/4 (70)	250 (114)

* Height includes Top Plate Thickness



Wide Body OT/NT/T Series (WBOT)

WBOT/WBNT/WBT Series Hilman Rollers are generally used where a traditional OT/NT/T Series roller might be too long, or if a larger contact area is desired. Wide Body Series Hilman Rollers utilize two chains independently to increase the footprint of the roller. Increasing the footprint means the load is spread over a greater area, thus minimizing 'point' loading.

ERF Series



ERF Series Features

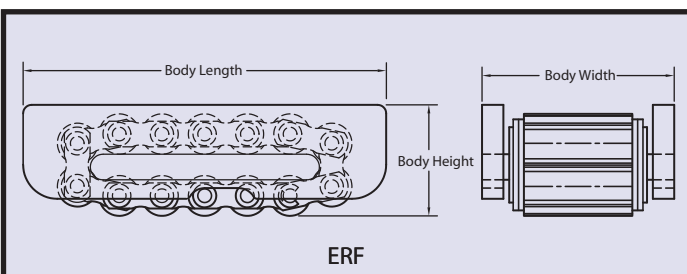
The ERF Series of Hilman Rollers are essentially the same as the OT/NT/T Series rollers but without the top plates. The lack of a top plate means the roller is lower in overall height and lighter in weight. These are ideal if a user intends to weld-mount the rollers. The tops of the side plates can be machined to close tolerance.

ERF Advantages

ERF Rollers, an ideal series for use in a Roller System, are often used where a trunnion mount is required, where an existing "foot pad" will become the roller's top plate, or where the load has a built-in cavity mount. Used upside down, the ERF Rollers become a heavy duty conveyor allowing the load to slide with extremely low friction.



	Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
		Length	Height	Width	Contact Rolls	Roll Dia.	Roll Width	
		<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	<<<<<Inches (mm)>>>>>	
1-ERF	1-Ton	6.00 (152)	2.00 (51)	3.58 (91)	5	11/16 (17)	2 (51)	7 (3)
4-ERF	4-Tons	8.00 (203)	2.75 (70)	4.44 (113)	5	15/16 (24)	2-7/16 (62)	14 (6)
12-ERF	12-Tons	10.625 (270)	3.25 (83)	5.625 (143)	5	1-3/16 (30)	3-11/64 (81)	32 (15)
30-ERF	30-Tons	15.00 (381)	4.75 (121)	7.00 (178)	6	1-5/8 (41)	3-1/2 (89)	82 (37)
65-ERF	65-Tons	21.00 (533)	5.75 (146)	7.375 (187)	7	1-15/16 (49)	3-5/8 (92)	165 (75)
100-ERF	100-Tons	21.00 (533)	5.75 (146)	7.875 (200)	7	1-15/16 (49)	3-5/8 (92)	180 (82)
125-ERF	125-Tons	21.00 (533)	5.75 (146)	9.875 (251)	14	1-15/16 (49)	5-1/2 (140)	229 (104)





OTB • NTB • TB • SHDB Series

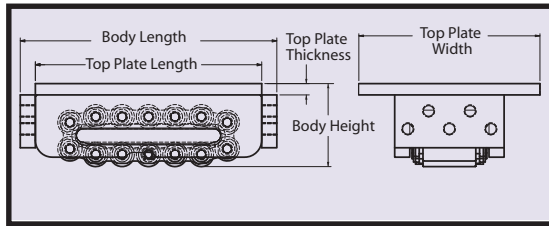
OTB/NTB/TB Series

With a few exceptions, this series is nearly identical to the standard OT/NT/T Series Rollers. The major advantage of this series is that users can purchase a standard OTB/NTB/TB Series roller for which a separate, bolt-on style Accu-Roll Guidance System may be added at some point in the future. Note that these models do not come standard with any guidance system. These models can be particularly handy for users who frequently need to change the type of track that the rollers will ride upon. The NTB models have longer top plates than their NT counterparts to prevent interference when mounting the load to the top plate. The SHDB Series is an extension of the OTB/NTB/TB Series.

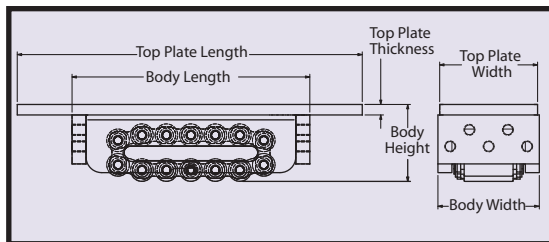


TB

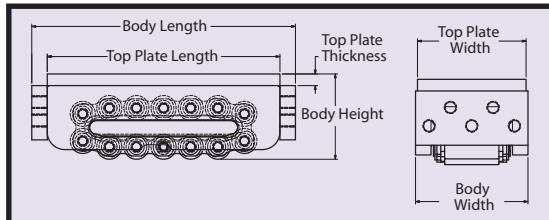
OTB



NTB



TB



Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<<<Inches (mm)>>>>	Roll Width	
5-OTB 5-tons	9.0 (229)	3.125 (79)	4.4375 (113)	.375 (10)	8.0 (203)	8.0 (203)	5	15/16 (24)	2-7/16 (62)	24 (11)
8-OTB 8-tons	9.0 (229)	3.125 (79)	5.3125 (135)	.375 (10)	8.0 (203)	8.0 (203)	5	15/16 (24)	3-5/16 (84)	27 (12)
15-OTB 15-tons	12.125 (308)	3.875 (98)	5.1875 (132)	.625 (16)	10.0 (254)	10.625 (270)	5	1-3/16 (30)	2-3/4 (70)	52 (24)
20-OTB 20-tons	12.125 (308)	3.875 (98)	6.4375 (164)	.625 (16)	10.0 (254)	10.625 (270)	5	1-3/16 (30)	4 (102)	60 (27)
37.5-OTB 37.5-tons	17.0 (432)	5.5 (140)	7.25 (184)	.75 (19)	12.0 (305)	15.0 (381)	6	1-5/8 (41)	3-1/2 (89)	132 (60)
50-OTB 50-tons	20.5 (521)	5.5 (140)	7.25 (184)	.75 (19)	12.0 (305)	18.5 (470)	8	1-5/8 (41)	3-1/2 (89)	166 (75)
75-OTB 75-tons	23.0 (584)	6.75 (171)	7.375 (187)	1.00 (25)	14.0 (356)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	250 (113)

5-NTB 5-tons	9.0 (229)	3.125 (79)	4.4375 (113)	.375 (10)	4.5 (114)	14.25 (362)	5	15/16 (24)	2-7/16 (62)	24 (11)
8-NTB 8-tons	9.0 (229)	3.125 (79)	5.3125 (135)	.375 (10)	5.0 (127)	14.25 (362)	5	15/16 (24)	3-5/16 (84)	28 (13)
15-NTB 15-tons	12.125 (308)	3.875 (98)	5.1875 (132)	.625 (16)	5.0 (127)	17.25 (438)	5	1-3/16 (30)	2-3/4 (70)	49 (22)
20-NTB 20-tons	12.125 (308)	3.875 (98)	6.4375 (164)	.625 (16)	6.5 (165)	17.25 (438)	5	1-3/16 (30)	4 (102)	62 (28)
37.5-NTB 37.5-tons	17.0 (432)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	24.5 (622)	6	1-5/8 (41)	3-1/2 (89)	131 (59)
50-NTB 50-tons	20.5 (521)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	28.0 (711)	8	1-5/8 (41)	3-1/2 (89)	161 (73)
75-NTB 75-tons	23.0 (584)	6.75 (171)	7.375 (187)	1.00 (25)	7.5 (191)	31.5 (800)	7	1-15/16 (49)	3-5/8 (92)	235 (107)

5-TB 5-tons	9.0 (229)	3.125 (79)	4.4375 (113)	.375 (10)	4.5 (114)	8.0 (203)	5	15/16 (24)	2-7/16 (62)	21 (10)
8-TB 8-tons	9.0 (229)	3.125 (79)	5.3125 (135)	.375 (10)	5.0 (127)	8.0 (203)	5	15/16 (24)	3-5/16 (84)	25 (11)
15-TB 15-tons	12.125 (308)	3.875 (98)	5.1875 (132)	.625 (16)	5.0 (127)	10.625 (270)	5	1-3/16 (30)	2-3/4 (70)	43 (20)
20-TB 20-tons	12.125 (308)	3.875 (98)	6.4375 (164)	.625 (16)	6.5 (165)	10.625 (270)	5	1-3/16 (30)	4 (102)	54 (24)
37.5-TB 37.5-tons	17.0 (432)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	15.0 (381)	6	1-5/8 (41)	3-1/2 (89)	117 (53)
50-TB 50-tons	20.5 (521)	5.5 (140)	7.25 (184)	.75 (19)	7.0 (178)	18.5 (470)	8	1-5/8 (41)	3-1/2 (89)	147 (67)
75-TB 75-tons	23.0 (584)	6.75 (171)	7.375 (187)	1.00 (25)	7.5 (191)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	213 (97)

* Height includes Top Plate Thickness

XOTB • XOTLB • XOTWB • XOTWCB

Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<<<Inches (mm)>>>>	Roll Width	
100-XOTB 100-tons	23.0 (584)	6.75 (171)	7.875 (200)	1.00 (25)	14.0 (356)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	267 (121)
150-XOTLB 150-tons	34.0 (863)	6.75 (171)	7.875 (200)	1.00 (25)	14.0 (356)	32.0 (813)	11	1-15/16 (49)	3-5/8 (92)	397 (180)
150-XOTWB 150-tons	23.0 (584)	6.75 (171)	9.875 (251)	1.00 (25)	16.0 (406)	21.0 (533)	14	1-15/16 (49)	2-3/4 (70)	320 (145)
200-XOTLB 200-tons	38.0 (964)	6.75 (171)	7.875 (200)	1.00 (25)	14.0 (356)	36.0 (914)	14	1-15/16 (49)	3-5/8 (92)	458 (208)
200-XOTWB 200-tons	23.0 (584)	6.75 (171)	11.5625 (294)	1.00 (25)	21.0 (533)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	389 (176)
200-XOTWCB 200-tons	23.0 (584)	6.75 (171)	14.5 (368)	1.00 (25)	21.0 (533)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	454 (206)
300-XOTB 300-tons	36.0 (914)	10.0 (254)	10.75 (273)	1.50 (38)	21.0 (533)	34.0 (864)	8	2-15/16 (74)	5 (127)	891 (404)
500-XOTB 500-tons	36.0 (914)	10.0 (254)	20.0 (508)	1.50 (38)	30.0 (762)	34.0 (864)	16	2-15/16 (74)	5 (127)	1508 (684)
750-XOTB 750-tons	36.0 (914)	10.0 (254)	27.5 (699)	1.50 (38)	37.5 (953)	34.0 (864)	24	2-15/16 (74)	5 (127)	2150 (975)
1000-XNTB 1000-tons	*****CONSULT FACTORY FOR SPECIFICATIONS AND WEIGHT*****									

* Height includes Top Plate Thickness

XNTB • XNTLB • XNTWB • XNTWCB

Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<<<Inches (mm)>>>>	Roll Width	
100-XNTB 100-tons	23.0 (584)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	31.5 (800)	7	1-15/16 (49)	3-5/8 (92)	256 (116)
150-XNTLB 150-tons	34.0 (863)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	42.5 (1080)	11	1-15/16 (49)	3-5/8 (92)	367 (166)
150-XNTWB 150-tons	23.0 (584)	6.75 (171)	9.875 (251)	1.00 (25)	9.875 (251)	32.0 (813)	14	1-15/16 (49)	2-3/4 (70)	316 (143)
200-XNTLB 200-tons	38.0 (964)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	48.0 (1219)	14	1-15/16 (49)	3-5/8 (92)	426 (193)
200-XNTWB 200-tons	23.0 (584)	6.75 (171)	11.5625 (294)	1.00 (25)	11.5625 (294)	32.0 (813)	14	1-15/16 (49)	3-5/8 (92)	374 (170)
300-XNTB 300-tons	36.0 (914)	10.0 (254)	10.75 (273)	1.50 (38)	14.5 (368)	32.0 (813)	14	1-15/16 (49)	3-5/8 (92)	464 (210)
500-XNTB 500-tons	36.0 (914)	10.0 (254)	20.0 (508)	1.50 (38)	20.0 (508)	46.0 (1168)	16	2-15/16 (74)	5 (127)	1470 (667)
750-XNTB 750-tons	36.0 (914)	10.0 (254)	27.5 (699)	1.50 (38)	27.5 (699)	46.0 (1168)	24	2-15/16 (74)	5 (127)	2060 (934)
1000-XNTB 1000-tons	*****CONSULT FACTORY FOR SPECIFICATIONS AND WEIGHT*****									

* Height includes Top Plate Thickness

TB • XTB • XTLB • XTWB • XTWCB

Capacity Metric Tons	<<<<<Body Dimensions>>>>>			<<<<Top Plate Dimensions>>>>			<<<<<Footprint>>>>>			Weight lbs.(kgs)
	Length	Height*	Width	Thickness	Width	Length	Contact Rolls	Roll Dia. <<<<Inches (mm)>>>>	Roll Width	
100-XTB 100-tons	23.0 (584)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	21.0 (533)	7	1-15/16 (49)	3-5/8 (92)	233 (106)
150-XTLB 150-tons	34.0 (863)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	32.0 (813)	11	1-15/16 (49)	3-5/8 (92)	344 (156)
150-XTWB 150-tons	23.0 (584)	6.75 (171)	9.875 (251)	1.00 (25)	9.875 (251)	21.0 (533)	14	1-15/16 (49)	2-3/4 (70)	286 (130)
200-XTLB 200-tons	38.0 (964)	6.75 (171)	7.875 (200)	1.00 (25)	7.875 (200)	36.0 (914)	14	1-15/16 (49)	3-5/8 (92)	400 (181)
200-XTWB 200-tons	23.0 (584)	6.75 (171)	11.5625 (294)	1.00 (25)	11.5625 (294)	21.0 (533)	14	1-15/16 (49)	3-5/8 (92)	338 (153)
300-XTB 300-tons	36.0 (914)	10.0 (254)	10.75 (273)	1.50 (38)	10.75 (273)	34.0 (864)	8	2-15/16 (74)	5 (127)	735 (333)
500-XTB 500-tons	36.0 (914)	10.0 (254)	20.0 (508)	1.50 (38)	20.0 (508)	34.0 (864)	16	2-15/16 (74)	5 (127)	1343 (609)
750-XTB 750-tons	36.0 (914)	10.0 (254)	27.5 (699)	1.50 (38)	27.5 (699)	34.0 (864)	24	2-15/16 (74)	5 (127)	1965 (893)
1000-XTB 1000-tons	*****CONSULT FACTORY FOR SPECIFICATIONS AND WEIGHT*****									

* Height includes Top Plate Thickness

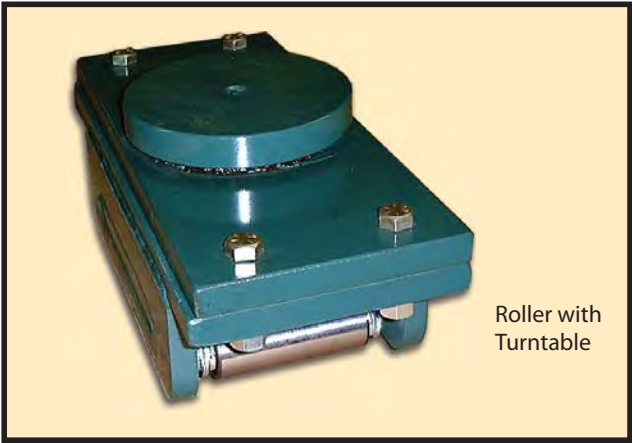
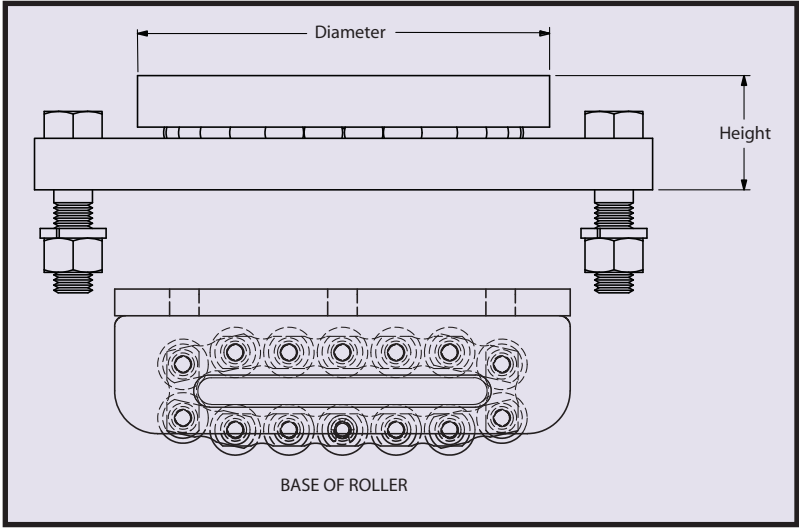
TURNTABLES

Turntable Features

Standard Turntable tops are available for all OT or NT style rollers with capacities from 5-tons to 75-tons. We can also design and manufacture them for rollers with greater capacities and special models, upon request. Standard Turntable tops add a maximum height of 2-3/8" to the roller. Turntables can be manufactured with chrome steel ball bearings or corrosive resistant thrust bearings. Turntable tops are bolted to the OT and NT style rollers with high strength bolts, which are included in the cost. Swivel locks and steering handles have also been supplied as options.

Turntable Advantages

Turntables are particularly advantageous in applications where the rolling surface is imperfect. In applications where the rollers with Accu-Roll are required to follow a slightly irregular or skewed track, turntables provide the ability to navigate the track without binding.



Roller with Turntable

	Fits Top Plate of Roller	Height <<<<Inches (mm)>>>>	Turntable Dia.	Weight Lbs.(kgs)
T-5-OT	5-OT	1.56 (48)	6.00 (152)	18 (8)
T-8-OT	8-OT	1.56 (48)	6.00 (152)	18 (8)
T-15-OT	15-OT	1.56 (48)	6.00 (152)	26 (12)
T-20-OT	20-OT	1.56 (48)	6.00 (152)	26 (12)
T-37.5-OT	37.5-OT	2.22 (56)	8.00 (203)	67 (30)
T-50-OT	50-OT	2.22 (56)	8.00 (203)	79 (36)
T-75-OT	75-OT	2.22 (56)	8.00 (203)	103 (47)

	Fits Top Plate of Roller	Height <<<<Inches (mm)>>>>	Turntable Dia.	Weight Lbs.(kgs)
T-5-NT	5-NT	1.56 (48)	4.50 (115)	13 (6)
T-8-NT	8-NT	1.56 (48)	4.50 (115)	14 (6)
T-15-NT	15-NT	1.56 (48)	4.50 (115)	18 (8)
T-20-NT	20-NT	1.56 (48)	6.00 (152)	24 (11)
T-37.5NT	37.5-NT	2.22 (56)	8.00 (203)	61 (28)
T-50-NT	50-NT	2.22 (56)	8.00 (203)	64 (29)
T-75-NT	75-NT	2.22 (56)	8.00 (203)	77 (35)

PRELOAD & FABRIC PADS

Many heavy moves benefit by the addition of an elastomeric connection between the Hilman Roller and the load being moved. For this purpose, Hilman offers two styles of pad: the Preload Pad (P-Pad) and the Flexmount Fabric Pad (F-Pad). Both types are valuable accessories, providing increased service life and trouble-free movement.

The Flexmount Fabric Pad is a high 90 durometer (shore A) pad which is made up of organic material with multilayered impregnated fabric. It has a maximum recommended compressive strength of 2000 psi (13.8 MPa) with an excellent spring rate. F-Pads' aid in reducing load vibration from the roller. It is advised to use this type of pad if the load is being moved repeatedly or in a marine environment. Additional data is available on the F-Pad Data Sheet.

The Preload Pad (P-Pad) is a neoprene elastomer that measures 80 durometer (shore A). P-Pads, a lower-cost alternative to the F-Pad, are designed for occasional moves. Its compressive strength is between 20-30% of its thickness. P-Pads' primary benefits are to negate slippage while equalizing load-bearing over the entire footprint of the Roller. Additional specifications are found on the P-Pad Data Sheet.



Preload Pad



3.75 OT with P-Pad

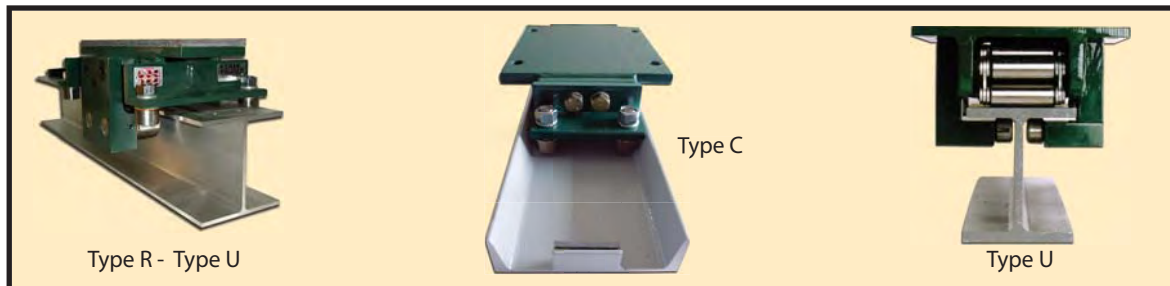


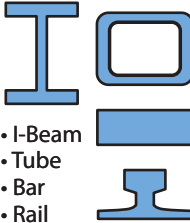
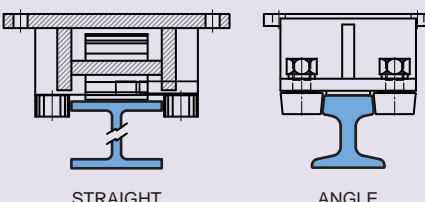
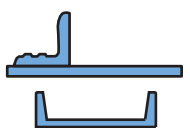
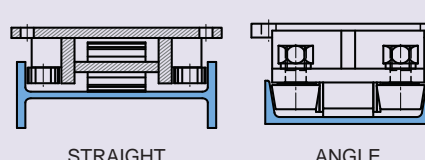
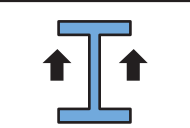
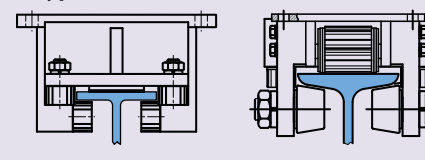

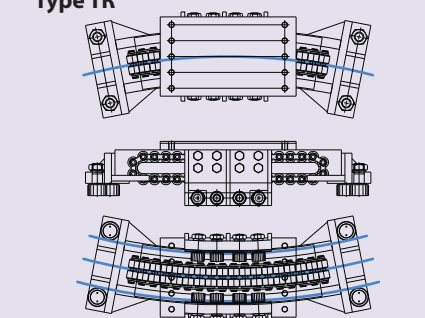

Hilman's Accu-Roll Guidance System is a positive external alignment system. Most often used on OT/NT/T and SHD Series Hilman Rollers, Accu-Roll can be added to any Hilman Roller and custom designed to interface with almost any type of track. Common tracks are I-beams, Wide-flanged beams, channels, rails, steel flat bars, tubes and trenches. Accu-Roll Systems are an ideal solution where load alignment is critical, a close tolerance must be maintained, where load movement is repetitive or where dynamic uplift prevention is desired.

Because there are virtually thousands of possibilities with regards to tracks, each Accu-Roll System is custom designed and built to fit the chosen track. Once the track size has been

selected and the preferred width and depth locations for the Accu-Roll guides known; drawings are prepared for customer approval. We have included in the back of this brochure (and also at our website www.hilmanrollers.com) an Application Analysis form that will assist in gathering details of a project. This includes the details of the rolling surface, or track.

Accu-Roll Systems may have one to four or more guide rolls per roller to guide on the track or to insure that the rollers follow the intended path of travel. Normally designed to withstand a maximum of 20% of the vertical load in side-force; higher or lower capacities can be designed.



Track Type	Accu-Roll Type	Application Guidelines	Roller Capacity Range (Tons)	Guide Roll Dia. in (mm)	System Code	
					With 4 Guides	With 2 Guides
 <ul style="list-style-type: none">• I-Beam• Tube• Bar• Rail	Type R  <p>STRAIGHT ANGLE</p>	<ul style="list-style-type: none">• Most common system for guidance on OUTSIDE of track• Can consist of one to four Accu-Rolls, mounted to Roller• Ideal for any system, permanent or temporary• Flat bar mounted to factory floor provides low height, accessible rolling system with minimal floor surface obstacles	.75 - 8 5 - 20 15 - 50 37.5-100 75-200 100 - up	1 (25) 2 (51) 2.5 (64) 3 (76) 3.5 (89) 4 (102)	4R-1 4R-1 4R-2.5 4R-3 4R-3.5 4R-4	2R-1 2R-2 2R-2.5 2R-3 2R-3.5 2R-4
 <ul style="list-style-type: none">• Fabricated Track• Channel	Type C  <p>STRAIGHT ANGLE</p>	<ul style="list-style-type: none">• Common System for Guidance INSIDE a track or a track imbedded in concrete floor• Can consist of one to four Accu-Rolls; two can be installed on one end or on one side, or in center of Roller frame side• Track can be standard channel, inside flanges of H-Beam, fabricated track from back-to-back angles, etc.	.75 - 8 5 - 20 15 - 50 37.5-100 75-200 100 - up	1 (25) 2 (51) 2.5 (64) 3 (76) 3.5 (89) 4 (102)	4C-1 4C-1 4C-2.5 4C-3 4C-3.5 4C-4	2C-1 2C-2 2C-2.5 2C-3 2C-3.5 2C-4
 <ul style="list-style-type: none">• I-Beam• Rail	Type RU  <p>STRAIGHT ANGLE</p>	<ul style="list-style-type: none">• Most often added to Type R System• Can consist of one or more Accu-Rolls per side• Prevents UPLIFT in dynamic condition• Resistance against wind and buoyancy• Protection against overturning moment• Aids in moving top-heavy or eccentrically loaded equipment	.75 - 8 5 - 20 15 - 50 37.5-100 75-200 100 - up	1 (25) 2 (51) 2.5 (64) 3 (76) 3.5 (89) 4 (102)	4U-1 4U-2 4U-2.5 4U-3 4U-3.5 4U-4	2U-1 2U-2 2U-2.5 2U-3 2U-3.5 2U-4
 <ul style="list-style-type: none">• I-Beam• Rail• Bar• Any Radius Track	Type TR 	<ul style="list-style-type: none">• Accu-Roll System for FIXED RADIUS TRACK• Applications: turntables, revolving or rotation machinery, equipment moving in fixed radius• Usually consists of three Accu-Rolls, two mounted on one side, with one in center of opposite side• Roller chains are also modified to fit the required radius• Rollers of the 37.5-OT size and larger can track on diameters as tight as 8 feet (2.5 meters).	Consult Factory			
			 <p>Type TR</p>			

SPECIAL ROLLERS FOR SPECIAL JOBS



In addition to the versatile Accu-Roll systems, many other common modifications can be added to Hilman Rollers. Hilman will gladly design a Roller to fit a specific application. Contact our Sales Staff for additional information.

TOP MODIFICATIONS

Modifications to the top plates of Hilman Rollers can range greatly. Some relatively simple top modifications might be special drilled and tapped hole patterns, connecting studs or tops machined to close tolerances. Top clamps, hinged adaptations or container fittings can be added to the rollers, as well as other types of attachments, for the purpose of mounting to a specific type of footing or pad. Below are several examples.



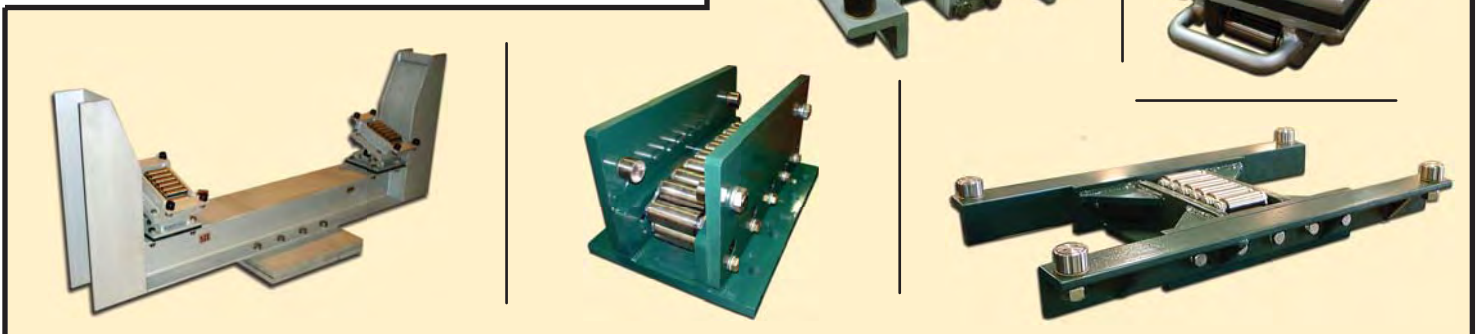
CHAIN MODIFICATIONS

There are several different modifications that Hilman can do to the chains. Tapered roller chains allow Hilman Rollers to follow a fixed radius. Keyway chains are an internal guidance feature to maximize chain life. In highly repetitive applications or where rollers encounter bursts of speed; the Keyway feature keeps the chain centered in the roller frame. Concave and Convex chain and frame solutions are also possible. Hilman can even design specially contoured chain where the rolls are machined to match the contour of crowned rails, ensuring sufficient contact area.



FRAME MODIFICATIONS

Roller frames and tops can be modified in any number of ways to suit specific requirements. Special materials can be used for corrosive resistant or non sparking applications. Mounting surfaces can have custom hole patterns or machined finishes.





SPECIAL ROLLERS FOR SPECIAL JOBS

SPECIAL MATERIALS & COATINGS

Many different alloys and coatings are available for making Hilman rollers meet the requirements of different applications. Alloys to resist varying levels of corrosion, high heat, and non-sparking conditions are just some of what is available for the chain assembly. Special coatings, paint finishes, galvanizing processes or platings can be applied to help in a variety of environments. Hilman typically uses the highest grade alloys and stainless steels available to insure that the rollers operate continuously in the manner intended.



OTHER MODIFICATIONS

Hilman's extensive experience in custom modifications of rollers and rolling systems design covers a broad spectrum of applications. Below are some of our more elaborate modifications.

TRACK WIPERS OR DIRT SHIELDS

Many wiper and shield styles can be added to Rollers for use in extremely dirty or abusive conditions to minimize the exposure of dirt and dust to the roller chain.



STEEL FABRICATIONS



Other than rollers...

Hilman Rollers can supply custom steel fabrications for a variety of components to be integrated, or used in conjunction, with our heavy-duty rollers. We have designed and built several heavy-duty carts that utilize our rollers to move heavy equipment and materials.



Precision machined steel components can be supplied by Hilman Rollers to be used as tracks for rollers outfitted with Accu-Roll Guidance Systems.



Motive Force can be applied in any number of ways. Solid chain-drive systems and/or hydraulic push-pull cylinders are just a couple of the solutions that Hilman Rollers has supplied with complete control systems for easy user interface.

We employ high tech CNC machinery. Robotic welding and high tech inspection equipment. Hilman has gained the approval of DNV, Lloyds, BV, SGS, ABS and other third parties. We are ISO-9000 approved and CE approved.



The following technical data will serve as a guide in selecting the proper Hilman Roller for many applications. The **Application Analysis Form** (see back cover) provides an excellent basis upon which to formulate a complete proposal. **HILMAN SALES ENGINEERING SHOULD BE CONSULTED TO CONFIRM OR AID IN THE SELECTION PROCESS.**

Capacity Formulas

The formulas below can help determine the capacity required for Hilman Rollers, depending how they are used. These formulas do not guarantee a proper selection for the Hilman rollers; they are intended as a guideline only. Contact Hilman sales or engineering for further guidance. If the capacity determined in FORMULA A is less or greater than that of FORMULA B, the higher capacity should take precedence.

Formula A Occasional Moves

The large majority of roller moves are of an occasional nature on a smooth, level steel surface. To help in the selection of roller capacity for these occasional moves, use the following formula. When moving on a crowned rail, contact Hilman sales engineering. The formula assumes that entire roll of the chain is in full contact with the surface.

$$C = \frac{W}{N \times P}$$

- C = capacity of roller in metric tons
W = weight of total load, converted to metric tons
N = number of rollers to be used
P = load Coefficient (see table for correct load Coefficient)

Load Coefficient	
Coefficient up to 100 tons	.75
Coefficient up to 300 tons	.70
Coefficient up to 1000 tons	.65
Coefficient over 1000 tons	.50

Formula B Extended Service Life

For extended use or repetitive moves, both the number of cycles and the rolling surface should be considered in the roller selection. The Cycle Life Factor is based on the number of cycles of stress produced in any roll in the chain during the total distance the Roller will move during the life of the Roller. The following formula takes into account the higher number of moves.

$$C = \frac{L}{S \times F}$$

- C = capacity of roller in metric tons
L = load per roller
S = surface Coefficient
F = cycle life factor

Surface Coefficient	
Yield Strength	Coefficient
100,000 psi (690 MPa)	.85
80,000 psi (550 MPa)	.75
50,000 psi (345 MPa)	.65
36,000 psi (250 MPa)	.50

Cycle Life Factor	
No. of Cycles	Factor
10^2	.85
10^3	.70
10^4	.50
10^5	.30
10^6	.15

$$\text{no. of cycles} = \frac{\text{dist}}{\pi D \times 2}$$

- dist = total distance roller will move
D = roll diameter

Coefficient of Friction Level surface

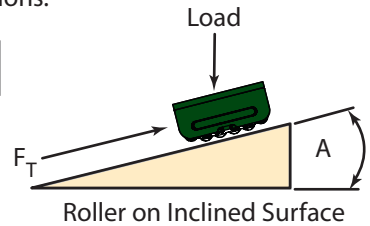
The coefficient of friction for breakaway for moving a load on a smooth, hard, level surface should not exceed 5%. On a hardened steel surface, this should be a little less. Hilman has friction test results on file that show actual ratings under ideal laboratory conditions. As job site conditions vary greatly, it is best to use 5% of the vertical dead load. In a dynamic state, the load will most often be moved slowly enough that the rating will almost always approach breakaway.

Coefficient of Friction Inclined surface

The following formula solves for F_T , a total force rating when defection or uphill moving is encountered. This formula considers friction and gravity. Please contact our sales or engineering staff with any questions.

$$F_T = \text{LOAD} (\sin A + \mu \cos A)$$

- A = Angle of the inclined surface
 μ = Coefficient of breakaway friction $\leq 5\%$
 F_T = Total force required to move up an incline



Lubrication

Hilman Rollers as a standard product have no internal bearings. Rollers most often do not require lubrication because of their occasional use at a relatively slow speed. When used outside or in a marine environment, it is best to protect them with an environmentally safe grease. GNLI Grade 2 (PTFE) is a suggested temporary lubricant. If marine use is constant, a corrosion resistant alloy should be specified.

Materials Standards

Hilman Rollers as a standard product are manufactured as an all-steel product. The frame material is available in various grades of steel materials and a variety of coatings and paint finishes are available. Chain material is available in several different grades, but furnished in Grade A as standard product.

CHAIN MATERIAL GRADES	
Grade A	Standard High Alloy Steel
Grade B	Bearing Quality Steel
Grade D	Chrome Vanadium Steel
Grade S	Stainless Steel
Grade N	Nyton TM brand *(Nylon)

Moving Speeds

Most Hilman Roller applications involve very slow speeds for moving because most heavy loads dictate very slow movement. Some applications do require faster speeds, but in short or occasional bursts. Most moving speeds do not exceed 30 feet (10 meters) per minute. With special precautions taken, speeds up to 50 feet (15 meters) per minute and beyond are possible. Please contact us with the project parameters.

Accuracy

Hilman Rollers are able to be supplied with one or more dimensions having an accuracy of .002 inch (.05 mm). In some cases the tolerances can be tightened even more. Hilman welcomes request for special tolerances.

Rail or Track Conditions

In some cases, the rail or track intended to interface with the Hilman Rollers may need to be set to a specific tolerance. The application results can have a great bearing on how the track is set. Hilman can and will supply a track and installation for your application. Please contact our sales staff with the application details.



BRIDGE CONSTRUCTION

- Casting Yard Transfer
- Casting Machines
- Segment launching
- Roll-in entire spans
- Launching trusses
- Traveling formwork
- Segmental bridge forms
- Incremental Bridge Launching



OEM



- Quick Die Change Carts
- Bridge Arms - Cart to Press
- Storage Racks
- Just in Time Automation Systems
- Prestaging carts
- Transfer Systems
- Coil Handling Equipment
- Die Lift Rollers
- Die Separators



MODULAR

- Modular Production
- Production Assembly Lines
- Mating Double-Wides
- Single-Wide Roll-on
- Module Placement
- Temporary Building Installation
- Structural Moves
- Material Movement



INDUSTRIAL MACHINERY



- Heavy, Bulky Machinery
- Machine Servicing & Installation
- Assembly & Transfer Carts
- Heavy Materials Handling
- Displays
- Heavy Product Demonstrations
- Heavy Conveying
- Hazardous Waste Casks



SHIP & MARINE



OIL & GAS

- BOP, Xmas Tree Handling
- Cantilever Drill Skidding
- Deck & Jacket Loadout
- Module Installation
- Land Rig Skidding
- Lift and Roll Systems



POWER



- Transfer Cradles and Carts
- Transformer Installation
- Turntable Systems
- Decommissioned Vessels
- Thermal Expansion
- Switchgear
- Steam Generators
- Wind Power Machines
- Spent Fuel Conveying

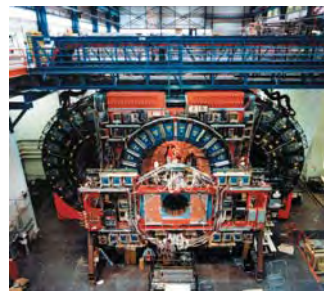


HEAVY CONSTRUCTION

- Essential Rigger and Millwright equipment
- Advancing Scaffolding
- Building Moves
- Large Monuments & Historical Structures
- Sliding Roofs
- Rolling Grandstands
- Container Cranes
- Draglines
- Specialized Gantry Cranes



RESEARCH



- Radiation Shield Doors
- Magnets
- Reactors
- Submarines
- Wind Tunnels
- Space Rocket Transfer
- Cryostats
- Detectors & Modules
- Launch Towers
- Aerospace



- Drydock & Ship Transfer
- Ship and Barge Launch
- Yard Transfer
- Pipe & Cable Laying
- Ship Transfer Cradles



HILMAN APPLICATION ANALYSIS

Thank you for considering Hilman Rolling Systems for your heavy moving project. This form is designed to gather the details for your application, while assuring that nothing is overlooked. Please fax or mail the completed form to us, along with any pertinent sketches or prints. Our sales department will follow with a complete proposal for you. OR log onto www.hilmanrollers.com to complete and submit it to us online.

Name/Title _____	Date: _____
Company Name _____	
Address _____	
City _____	State/Province _____ Zip/Postal Code _____ Country _____
Tel () _____	Fax () _____ e-mail _____

<p>Project is: <input type="checkbox"/> URGENT! <input type="checkbox"/> Current <input type="checkbox"/> Next 3 Months <input type="checkbox"/> One Year <input type="checkbox"/> Future</p> <p>1. What structure do you wish to move? _____</p> <p>2. What is the weight of the object? _____</p> <p>3. What are the dimensions of the object? Height _____ Width _____ Length _____</p> <p>4. Where is the object's center of gravity? _____</p> <p>5. How many contact points does the object have? _____</p> <p>6. Where are the contact points located on the object? _____</p> <p>7. How will rollers be attached to the object? <input type="checkbox"/> Welded on <input type="checkbox"/> Cavity Mount <input type="checkbox"/> Other <input type="checkbox"/> Bolted on <input type="checkbox"/> Not Attached _____</p> <p>8. What is the function/purpose of the move? <input type="checkbox"/> Temporary measure <input type="checkbox"/> Repair/Maintenance <input type="checkbox"/> Semi-permanent installation <input type="checkbox"/> OEM application <input type="checkbox"/> Permanent installation <input type="checkbox"/> Other _____</p> <p>9. What is the safety factor required? _____</p> <p>10. What is the distance of each move? _____</p> <p>11. What is the frequency or cycle of movement? _____</p> <p>12. What will be the approximate speed of movement? _____</p>	<p>13. What will be the actual rolling surface for the Hilman Rollers? <input type="checkbox"/> Steel (Specify I-Beam, Channel, flat bar, steel plate, plus size and type if know) _____ <input type="checkbox"/> Concrete (include psi or kg/cm2) _____ <input type="checkbox"/> Other (give specifics) _____</p> <p>14. What will be the sub-support of the rolling surface? (this is important if the object's weight is over 100 tons) _____</p> <p>15. What will be the path of movement? <input type="checkbox"/> Straight <input type="checkbox"/> Turns <input type="checkbox"/> X-Y (multi-directional) <input type="checkbox"/> Vertical <input type="checkbox"/> Circular - Please Indicate <input type="checkbox"/> Horizontal Fixed Radius <input type="checkbox"/> Rotational Movement <input type="checkbox"/> Other (Specify) _____</p> <p>16. What, if any, will be the grade or slope present during the move? _____</p> <p>17. Where will the move take place? <input type="checkbox"/> Inside <input type="checkbox"/> Outside <input type="checkbox"/> Other (Specify) _____</p> <p>18. What environmental or other factors could affect the move? <input type="checkbox"/> Dirt <input type="checkbox"/> Debris <input type="checkbox"/> Rain water <input type="checkbox"/> Salt water <input type="checkbox"/> Heat <input type="checkbox"/> Caustic Environment <input type="checkbox"/> High Winds <input type="checkbox"/> Cracks <input type="checkbox"/> Extreme Buoyancy <input type="checkbox"/> Other (Specify) _____</p> <p>19. What is the accuracy required for final placement of the object? _____</p> <p>20. What is the estimated life of the project as far as Rollers are concerned? _____</p> <p>21. For what firm is this project being done? _____</p>
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QUESTIONS? NEED HELP? IN A RUSH?

complete form online at **WWW.HILMANROLLERS.COM** OR fax: **732-462-6355**

STANDARD KITS



ASK ABOUT OUR STANDARD KITS!

Hilman Rollers manufactures a full line of standard kits that include everything needed for moving heavy loads. Kit capacities range from 2 to 60 ton.



Light Duty Kit



KRS-SLD



Light Duty Nylon Kit



KRS-SLP



KRS-ERSD



**HILMAN
ROLLERS**
WWW.HILMANROLLERS.COM



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