

# Hi Life

Models 18 through 72

Invest

in

efficiency.

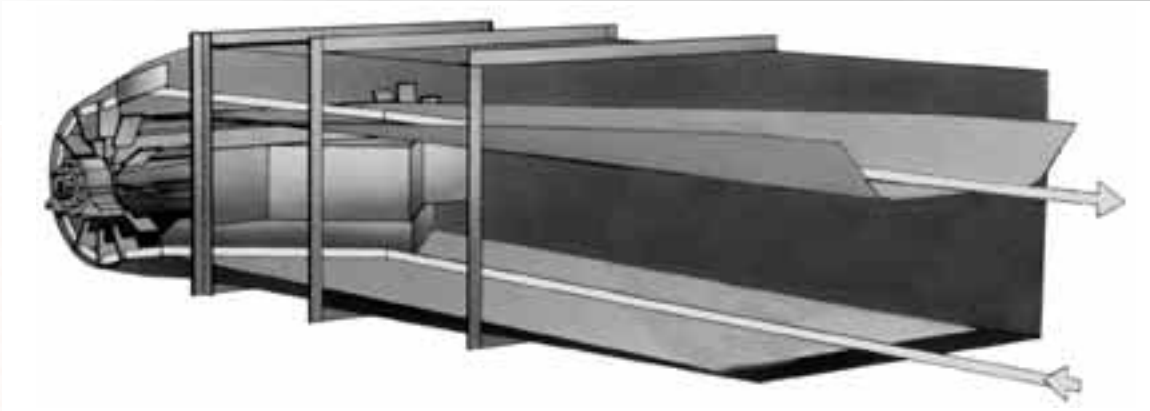


  
**HI ROLLER<sup>®</sup>**  
ENCLOSED BELT CONVEYORS

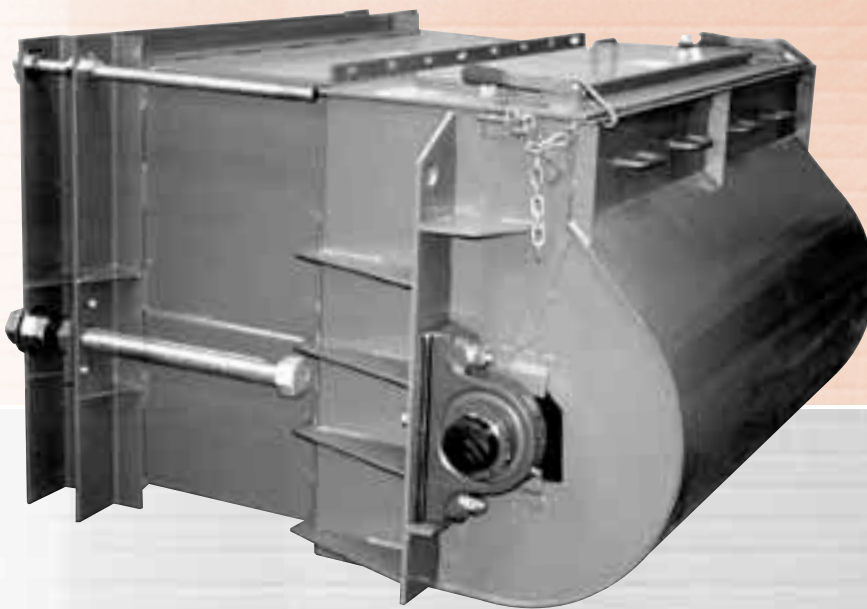
# The Problem Solver

Hi Roller Enclosed Belt Conveyors are designed for the safe, gentle, and efficient handling of dry, bulk materials. This unique, totally enclosed belt conveyor contains dust and spilled material *and* automatically reloads that material back on to the belt.

The arrow shows the flow of dust and spilled material back to the tail section where it is directed into reloading vanes, then thrown and deflected back on to the top belt.



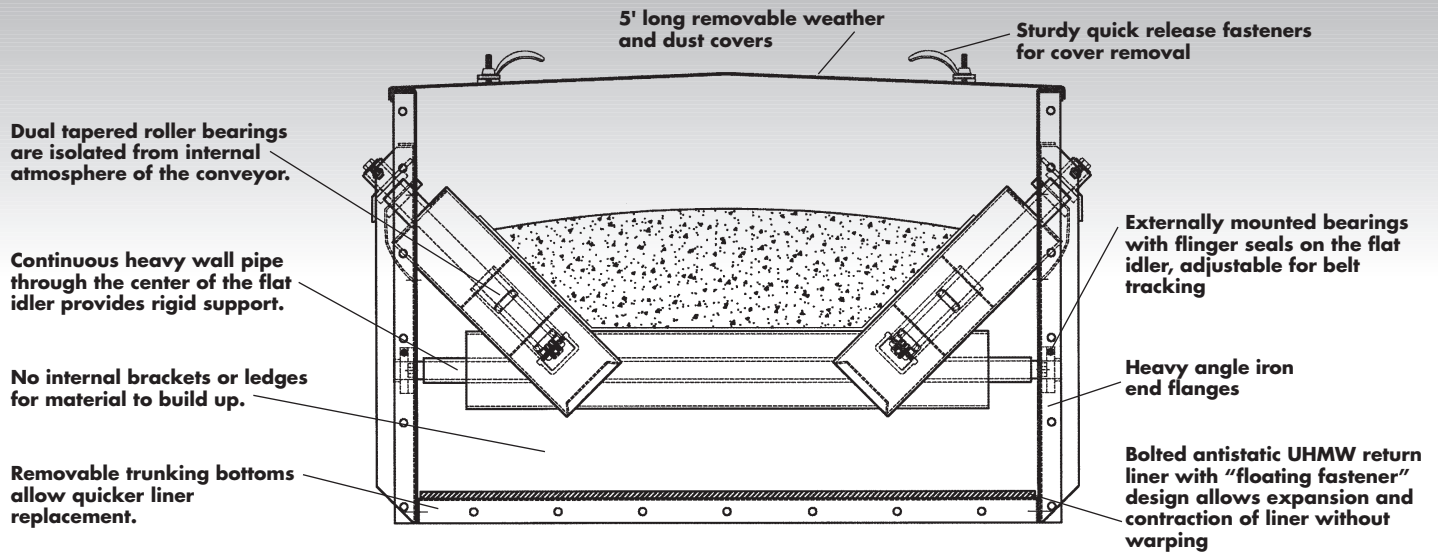
Hi Roller Enclosed Belt Conveyors are heavy duty, low maintenance, safe, gentle, and efficient. Hi Roller uses unique idlers which allow all bearings to be isolated from internal dust and contaminants. Internally, the troughing belt gently conveys bulk materials to the discharge point. The returning belt slides over an antistatic return liner and continually wipes the bottom enclosure clean of any dust or spilled material. The patented reloading system is the key to a successful system. The absence of this feature can cause product build up, plugging, costly wear, and downtime.



**The heavy duty tail section incorporates a gasketed sliding box take-up with tensioning and leveling rods. The tail shaft is supported by external pillow block spherical roller bearings. The tail shroud splits at the shaft so that the pulley can be removed without cutting the belt. The shroud comes complete with safety chains and can be removed without the use of tools.**



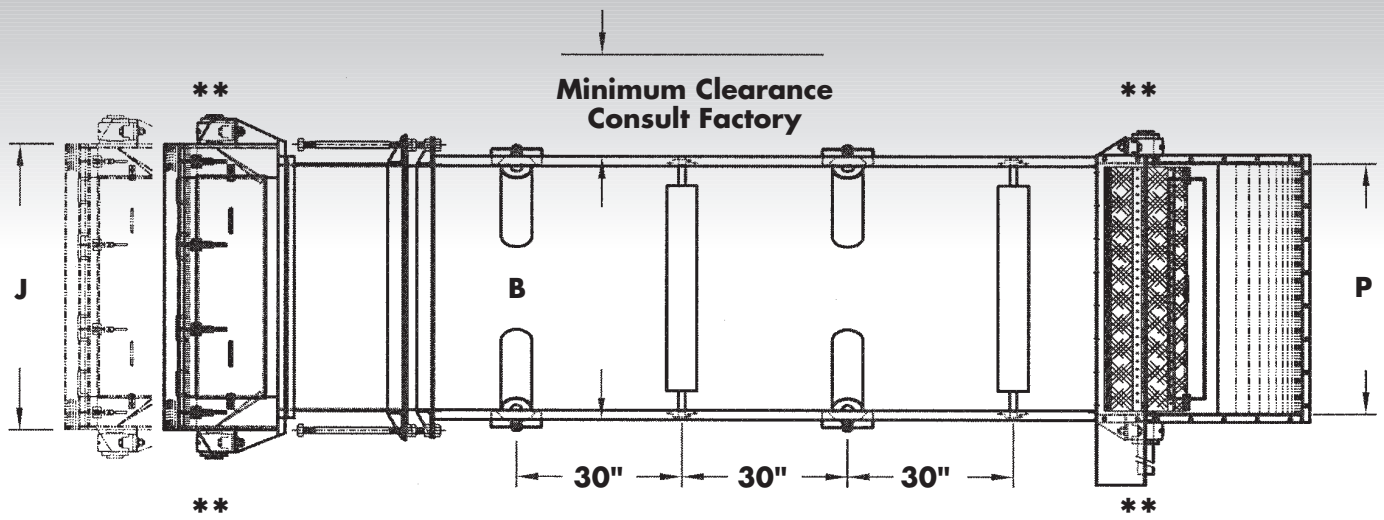
**Internally, the spiral winged tail pulley provides constant belt contact for extended belt life. The patented reloading system includes a rugged plow, reloading flippers and a stationary deflector.**



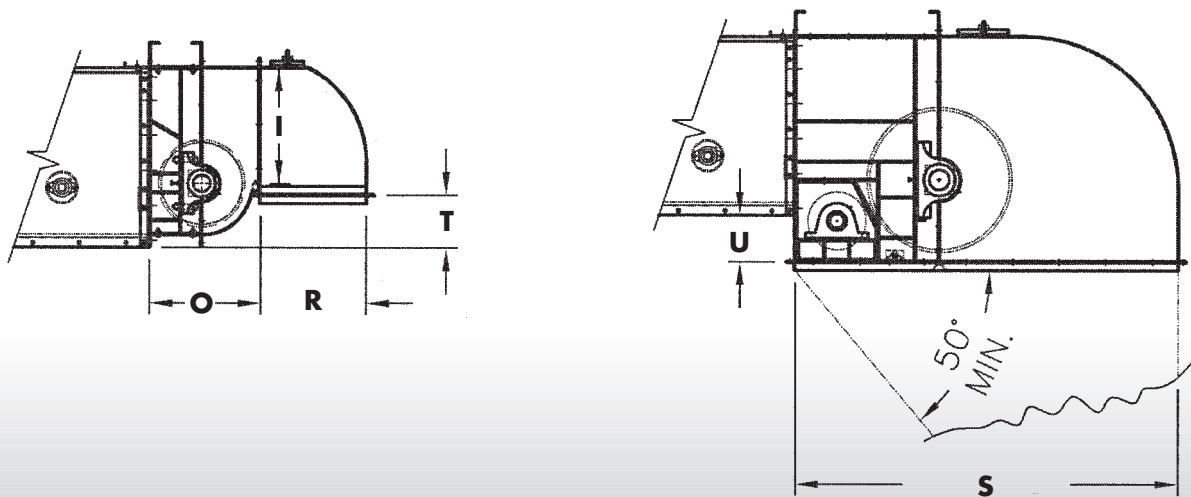
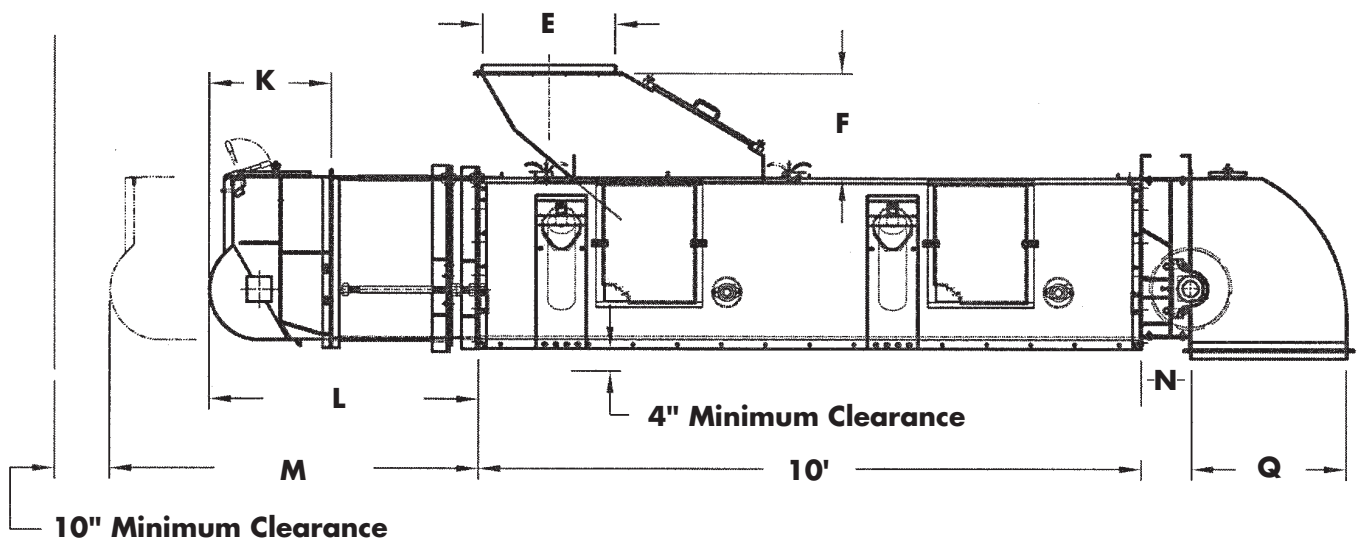
## H I L I F E C A P A C I T I E S

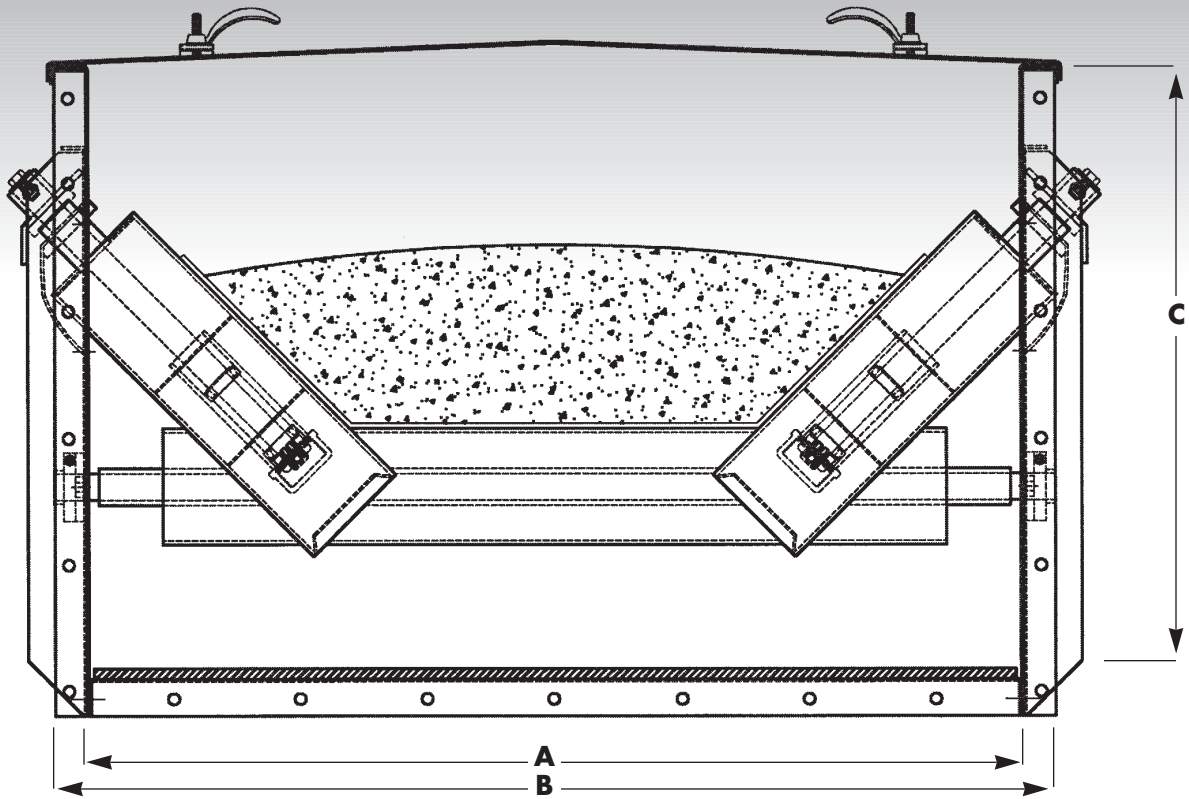
		BELT SPEED IN FEET PER MINUTE									
MODEL	UNITS	350	400	450	500	550	600	650	700	750	800
18	BU/HR	3,830	4,378	4,925	5,472	6,019	6,566	7,113	7,661	8,208	8,755
	CF/HR	4,769	5,450	6,131	6,813	7,494	8,175	8,856	9,538	10,219	10,900
	MTPH	104	119	133	148	163	178	193	208	222	237
24	BU/HR	7,733	8,838	9,943	11,048	12,152	13,257	14,362	15,467	16,571	17,676
	CF/HR	9,628	11,003	12,379	13,754	15,130	16,505	17,880	19,256	20,631	22,007
	MTPH	210	240	269	299	329	359	389	419	449	479
30	BU/HR	12,011	13,727	15,443	17,159	18,874	20,590	22,306	24,022	25,738	27,454
	CF/HR	14,954	17,090	19,226	21,363	23,499	25,635	27,771	29,908	32,044	34,180
	MTPH	326	372	419	465	512	558	605	651	698	744
36	BU/HR	17,532	20,036	22,541	25,045	27,550	30,054	32,559	35,063	37,568	40,072
	CF/HR	21,827	24,945	28,063	31,181	34,299	37,418	40,536	43,654	46,772	49,890
	MTPH	475	543	611	679	747	815	882	950	1,018	1,086
42	BU/HR	24,938	28,501	32,063	35,626	39,188	42,751	46,314	49,876	53,439	57,001
	CF/HR	31,048	35,483	39,919	44,354	48,790	53,225	57,660	62,096	66,531	70,967
	MTPH	676	772	869	966	1,062	1,159	1,255	1,352	1,448	1,545
48	BU/HR	33,213	37,957	42,702	47,446	52,191	56,936	61,680	66,425	71,170	75,914
	CF/HR	41,350	47,257	53,164	59,071	64,978	70,885	76,792	82,699	88,606	94,513
	MTPH	900	1,029	1,157	1,286	1,414	1,543	1,672	1,800	1,929	2,057
54	BU/HR	43,206	49,379	55,551	61,724	67,896	74,068	80,241	86,413	92,585	98,758
	CF/HR	53,792	61,477	69,161	76,846	84,530	92,215	99,900	107,584	115,269	122,953
	MTPH	1,171	1,338	1,506	1,673	1,840	2,007	2,175	2,342	2,509	2,677
60	BU/HR	52,864	60,416	67,968	75,520	83,072	90,624	98,177	105,729	113,281	120,833
	CF/HR	65,816	75,218	84,621	94,023	103,425	112,828	122,230	131,632	141,034	150,437
	MTPH	1,433	1,637	1,842	2,047	2,251	2,456	2,661	2,865	3,070	3,275
66	BU/HR	64,669	73,908	83,146	92,385	101,623	110,861	120,100	129,338	138,577	147,815
	CF/HR	80,513	92,015	103,517	115,019	126,521	138,023	149,524	161,026	172,528	184,030
	MTPH	1,753	2,003	2,253	2,504	2,754	3,005	3,255	3,505	3,756	4,006
72	BU/HR	77,693	88,793	99,892	110,991	122,090	133,189	144,288	155,387	166,486	177,585
	CF/HR	96,728	110,547	124,365	138,183	152,002	165,820	179,638	193,457	207,275	221,093
	MTPH	2,106	2,406	2,707	3,008	3,309	3,610	3,910	4,211	4,512	4,813

FPM = Feet Per Minute    BPH = Bushels Per Hour    CFPH = Cubic Feet Per Hour    MTPH = Metric Ton Per Hour (Based upon 769 Kg per cubic meter)  
 Capacities are based upon horizontal installation and even belt loading.



**\*\*** Overall width determined by bearing and drive size.





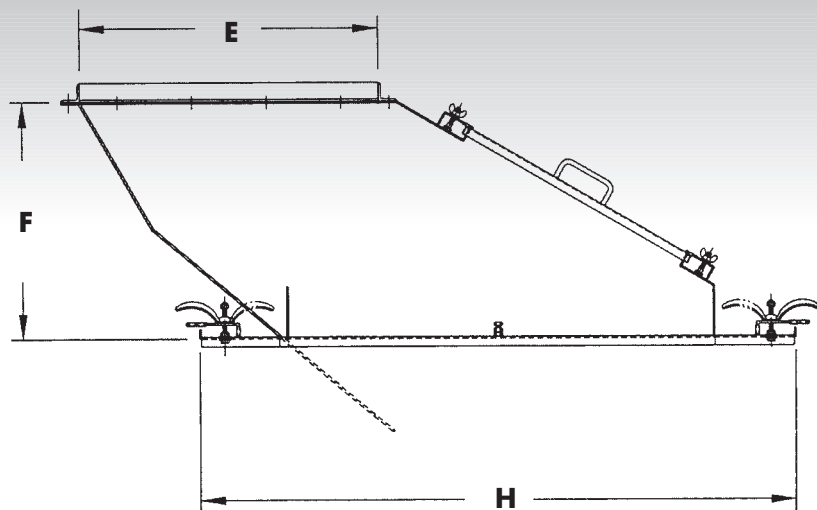
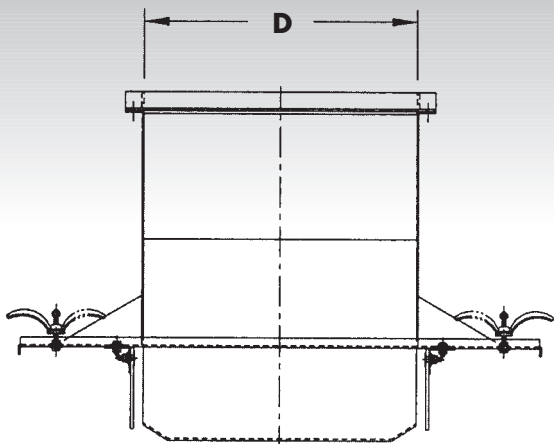
## H I L I F E D I M E N S I O N S

SPECIFICATIONS		HI LIFE MODEL										
	DESCRIPTIONS	18	24	30	36	42	48	54	60	66	72	
A	Trunking Width (inside)	20	26	32	38	44	50	56	62	68	74	
B	Trunking Width (outside)	23½	29½	35½	41½	47½	53½	59½	65½	71½	77½	
C	Trunking Height (outside)	24¾	26¾	27.0	27¾	29¾	30¾	38¾	39	40¾	41½	
D	Inlet Opening Width	8	12	16	22	26	30	38	44	50	56	
E	Inlet Opening Length	24	24	24	24	32	32	32	32	32	32	
F	Standard Inlet Height	19	19	19	19	19	19	19	19	19	19	
G	Cleanout Inlet Height	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	
H	Inlet Cover Length	48	48	48	48	60	60	60	60	60	60	
I	Lo Profile Opening Height	13½	15½	15¾	16¾	18¾	19¾	24	24¾	26	27¼	
J	Tail Width (less bearings)	27½	33½	39½	45½	51½	57½	63½	69½	75½	81½	
K	Stub Tail Length	22½	22½	22½	22½	22½	22½	29	29	29	29	
L	Take-up Length Retracted	Take-up Length + 30%*						Take-up Length + 37%*				
M	Take-up Length Extended	Take-up Length x 2 + 30%*						Take-up Length x 2 + 37%*				
N	Standard Head Length	9	9	9	9	9	9	12	12	12	12	
O	Lo Profile Head Length	19¼	19¼	19¼	19¼	19¼	19¼	25¼	25¼	25¼	25¼	
P	Discharge Opening Width	21½	27½	33½	39½	45½	51½	57½	63½	69½	75½	
Q	90 Degree Discharge Length	28	28	28	28	28	28	44	44	44	44	
R	Lo Profile Discharge Length	18	18	18	18	18	18	32	32	32	32	
S	Snubber Discharge Length	54%	54%	65%	65%	65%	65%	73½	73½	73½	73½	
T	Discharge to Trunking Bottom	9	9	9	9	9	9	11¾	11¾	11¾	11¾	
U	Discharge to Trunking Bottom	8	8	8	8	8	8	10	10	10	10	

The above dimensions are stated in inches.

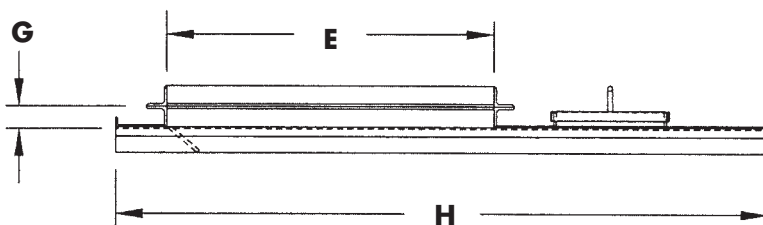
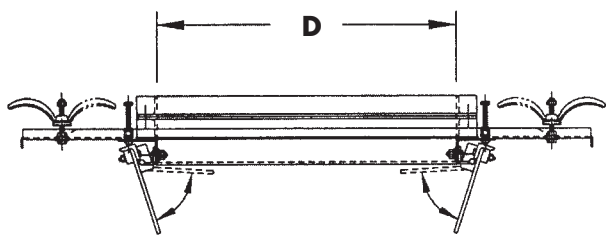
Designs and specifications are subject to change without notice.

Hi Roller Conveyors are manufactured under several Patents and Pending Patents.



**Inlet heights and lengths can be customized to your specific applications.**

Above: Typical initial inlet with fixed skirts  
 Below: Typical cleanout inlet with swing-down skirts

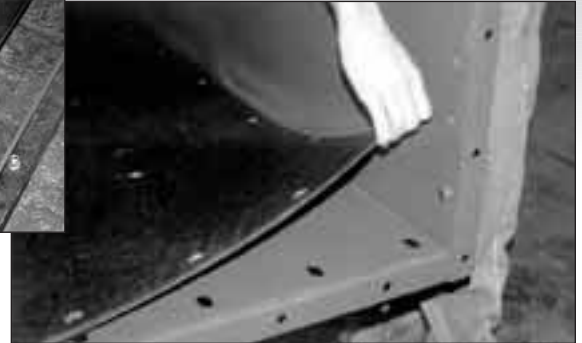
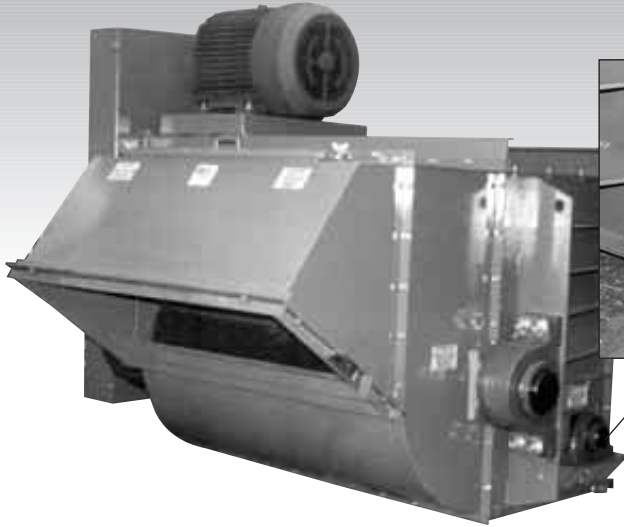


The Hi Life incorporates large tapered roller bearings for extremely long life, L-10 life projected to 100 years of continuous operation. Non-rotating spindles enter the hub on the outer end of the troughing idlers. The dual tapered roller bearings are deeply embedded in the center of the roller and are isolated from any exposure to the dust and contaminants on the inside of the enclosure. The center of the idler is isolated by an air space to prevent any conduction of heat from a failed bearing. Hubs are enclosed so that they cannot leak grease. Grease seals are on the upper end of the troughing idlers so gravity prevents the grease from leaking out.

The offset spacing of the three-piece idler reduces power requirements and induces less load support stress. The three-piece idler allows for a deeper trough than other spool shaped idlers used on the other Hi Roller models. This also eliminates slippage on the spool shaped idler. This means that the Hi Life Idler will provide more capacity for the belt width and greatly reduce the idler wear.

The Hi Life conveyor utilizes larger, longer life, and safer bearings than any other enclosed belt conveyors on the market. The Hi Life is the ultimate in dust free long life conveying.

# Features & Options

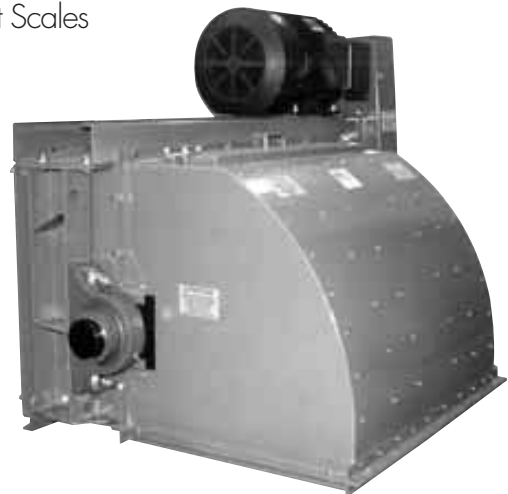
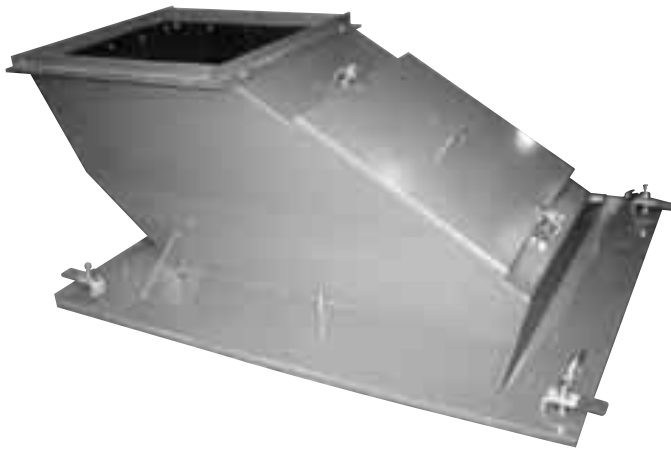


Shown is a Snubber head with a Lo Profile Adapter and 45 Degree Discharge. Head Sections split at the shaft so that the pulley and shaft can be removed without cutting the belt. Snubber pulleys are also mounted in a removable framework.

Return liner is pattern punched and countersunk. The slotted bottom pan allows for expansion and contraction of the bottom liner. The slots also assure that replacement liner sent from the factory will match the existing hole pattern.

- Gradual Inclines
- Sharp Upbends
- Intermediate Discharge Trippers
- Enclosed Movable Trippers
- Reversing and Reloading in both directions
- Built-in Two Way Discharges
- Bi-Directional Inlets
- Internal Gravity Take-ups
- Galvanized Exterior Housing

- Stainless Steel Exterior Housing
- Metric Components
- Outboard Bearing Mounts with Shaft Seals
- Intermediate Sidewall Inspection Doors
- Support Legs
- Integrated Truss and Walkways
- High Span Trunking
- Abrasion Resistant Bottom Liners
- Belt Scales



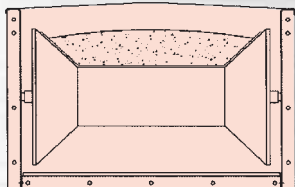
Inlets are designed to direct the material with the travel of the belt. Counterweighted swing down skirts on intermediate inlets come down with the weight of the product and automatically retract as product stream stops. Multiple Inlets can be used at the same time. Inlet liners can be replaced through the large inspection doors.

Shown is a Standard head with a 90 Degree Discharge. Head Bearings are easily adjustable for belt tracking. All inlets and discharges are supplied with matching flanges.

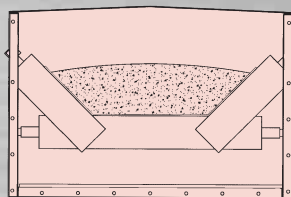
Hi Roller is more than a manufacturer. We can review your project on-site, make recommendations, prepare proposal drawings, and provide start-up assistance. We have found that a successful installation relies upon a clear understanding of the process, from the spouting and placement of the material on to the belt to the discharge and spouting out the other end. Put our design experience to work for you.

# Product Line

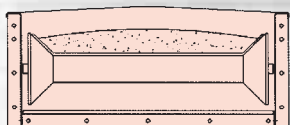
**Hi Roller Conveyors** are custom built to your specific requirements. Some of our more popular models include:



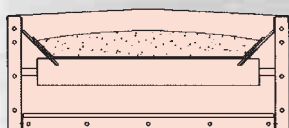
**Hi Roller:** Available in belt widths from 18" to 60," this is our original and most popular model. The unique bell-shaped carrying idler provides the trough for the belt and utilizes two external bearings as opposed to the six internal bearings associated with a conventional idler. The bell-shaped idler also has built-in self-aligning characteristics for both single and bi-directional conveyors.



**Hi Life:** Available in belt widths from 18" to 72", the Hi Life utilizes possibly the heaviest, longest life, most reliable conveyor idler available. Resembling a conventional conveyor idler, the Hi Life idler is much thicker, the bearings are much larger *and* there are no brackets or bearings exposed to the internal atmosphere of the conveyor housing.

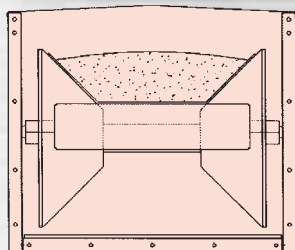


**Mini Roller:** Available in belt widths from 16" to 36", the Mini Roller includes all the benefits of the Hi Roller in a lower profile design.



**Lo Roller:** Available in belt widths from 16" to 36", the Low Roller utilizes a flat carrying idler to support the loaded weight of the belt and relies on the UHMW side slides to form a trough for the belt. This design provides continuous belt support and creates a seal at the edges.

**Specials:** Tailored to your specific application, we can customize conveyors such as the V Roller (two idlers mounted in a V configuration), Hi Bulk (an enmasse belt conveyor designed to move large quantities of material in limited space), Hi Lift (a steeply inclined conveyor utilizing cleats or buckets fastened to the belt). The Consignor is a belt conveyor with a totally enclosed, moveable discharge tripper to discharge material off at any location along the conveyor. We can also supply you with an integrated catwalk and walkway for longer spans between supports.



**Super Roller:** Available in belt widths from 36" and up, the Super Roller combines a larger bell-shaped idler and a flat idler turning independently. This design provides a deeper trough than the Hi Roller Conveyor and reduces the slippage between the belt and the idler.

  
**HI ROLLER®**  
**ENCLOSED BELT CONVEYORS**

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Conveyors  
have long  
been known  
as the  
most  
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materials.