

Hi Roller

Models 18-54

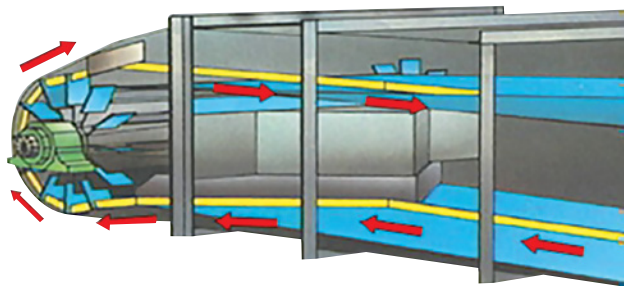


The Problem Solver

INVEST IN EFFICIENCY



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.



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.

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.



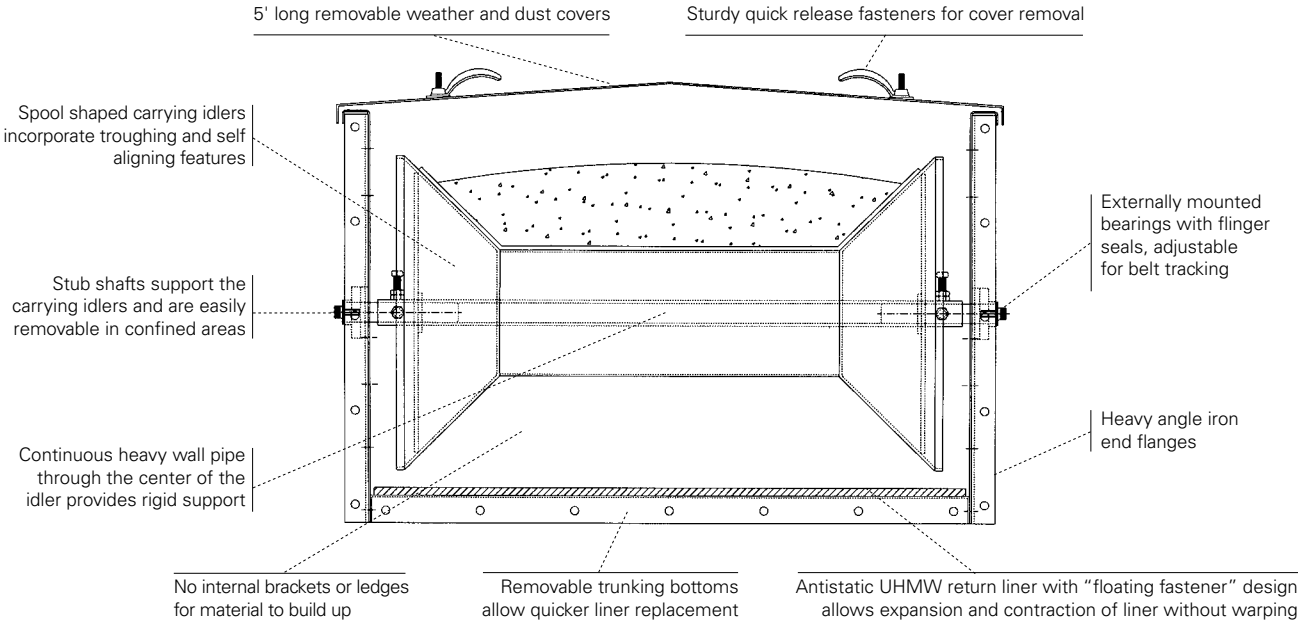
The heavy duty tail section incorporates a gasketed sliding box take-up with tensioning and leveling rods. The tail shaft is supported by external pillow block spherical roller bearings. The tail shroud splits at the shaft so that the pulley can be removed without cutting the belt. The shroud comes complete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



Hi Roller

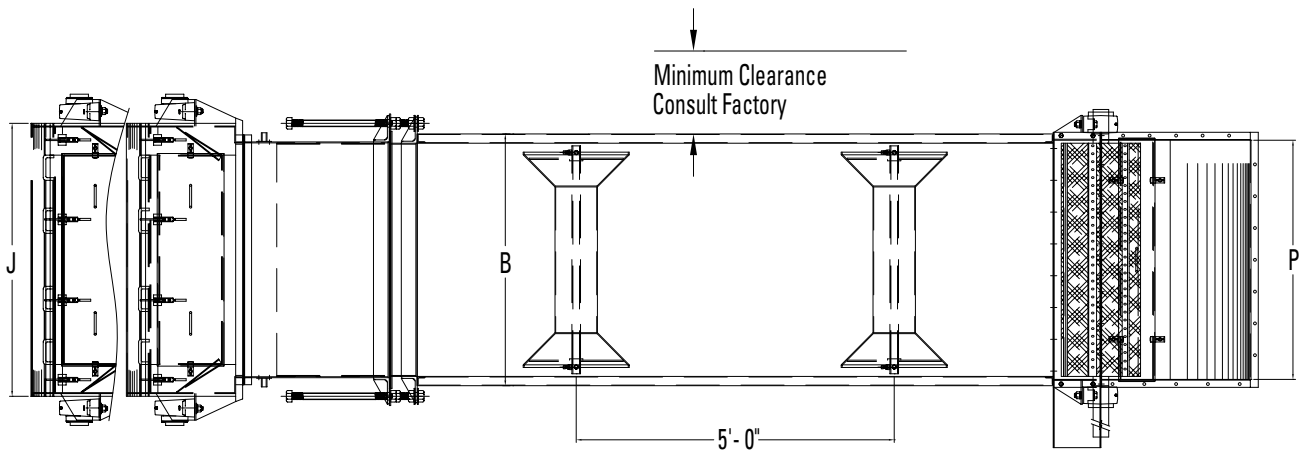


Hi Roller Capacities

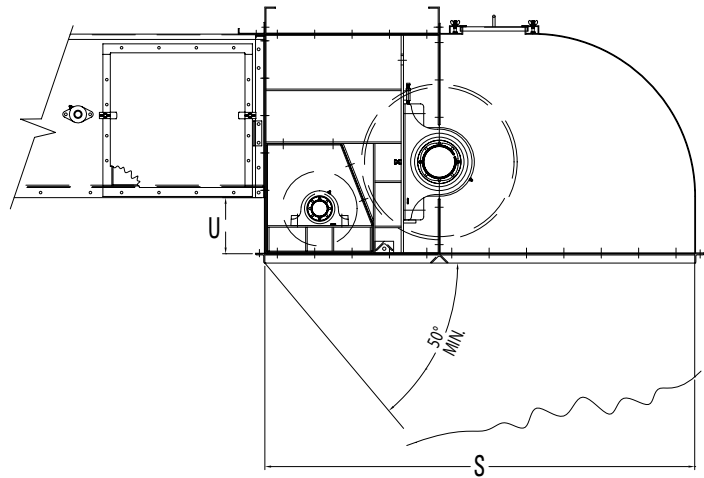
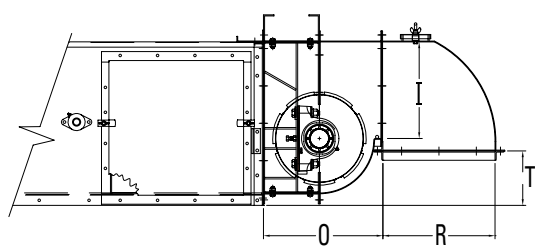
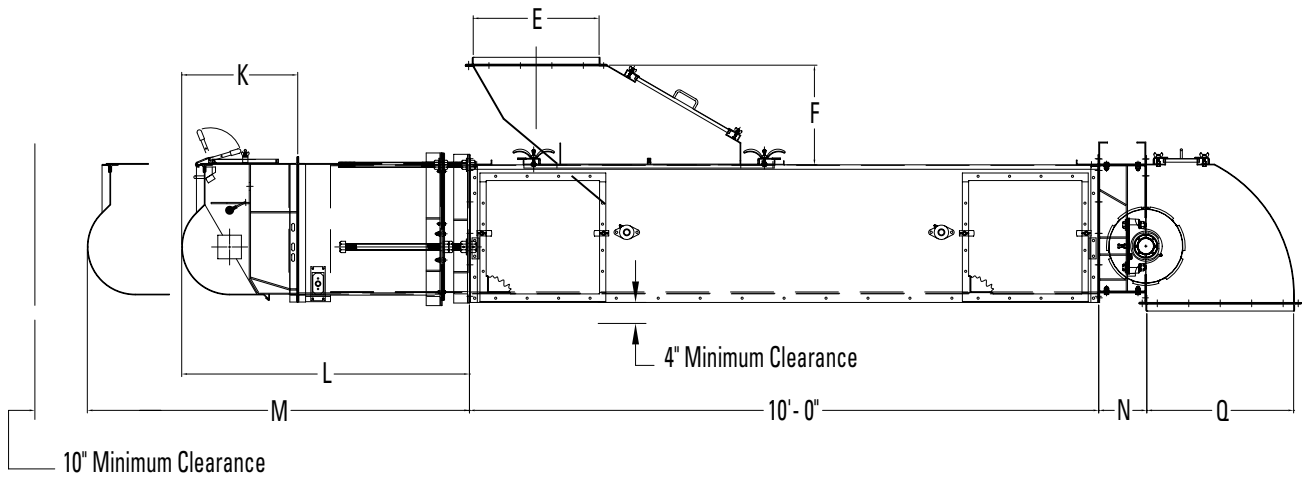
BELT SPEED IN FEET PER MINUTE									
MODEL	UNITS	350	400	450	500	550	600	650	700
18	BU/HR	4,100	4,685	5,271	5,857	6,442	7,028	7,614	8,199
	CF/HR	5,102	5,830	6,559	7,289	8,017	8,746	9,475	10,203
	MTPH	111	127	143	159	175	190	206	222
22	BU/HR	6,250	7,143	8,036	8,928	9,821	10,714	11,607	12,500
	CF/HR	7,778	8,898	10,000	11,110	12,222	13,333	14,444	15,556
	MTPH	169	194	218	242	266	290	314	339
26	BU/HR	9,000	10,286	11,571	12,857	14,142	15,428	16,714	18,000
	CF/HR	11,200	12,800	14,400	16,000	17,599	19,199	20,800	22,400
	MTPH	244	279	313	348	383	418	453	488
30	BU/HR	11,500	13,143	14,786	16,428	18,071	19,714	21,357	23,000
	CF/HR	14,311	16,356	18,400	20,444	22,488	24,533	26,578	28,622
	MTPH	312	356	401	445	490	534	579	623
36	BU/HR	15,000	17,143	19,286	21,428	23,571	25,714	27,857	30,000
	CF/HR	18,667	21,334	24,000	26,666	29,333	32,000	34,667	37,334
	MTPH	406	464	522	580	639	697	755	813
42	BU/HR	20,000	22,857	25,715	28,571	31,429	34,286	37,143	40,000
	CF/HR	24,889	28,444	32,001	35,555	39,112	42,667	46,223	49,778
	MTPH	542	619	697	774	851	929	1,006	1,084
48	BU/HR	24,150	27,600	31,050	34,500	37,950	41,400	44,850	48,300
	CF/HR	30,053	34,347	38,640	42,934	47,227	51,520	55,814	60,107
	MTPH	654	748	841	935	1,028	1,122	1,215	1,308
54	BU/HR	28,909	33,039	37,169	41,299	45,428	49,558	53,688	57,818
	CF/HR	35,976	41,115	46,255	51,395	56,533	61,672	66,812	71,952
	MTPH	783	895	1,007	1,119	1,231	1,343	1,454	1,566

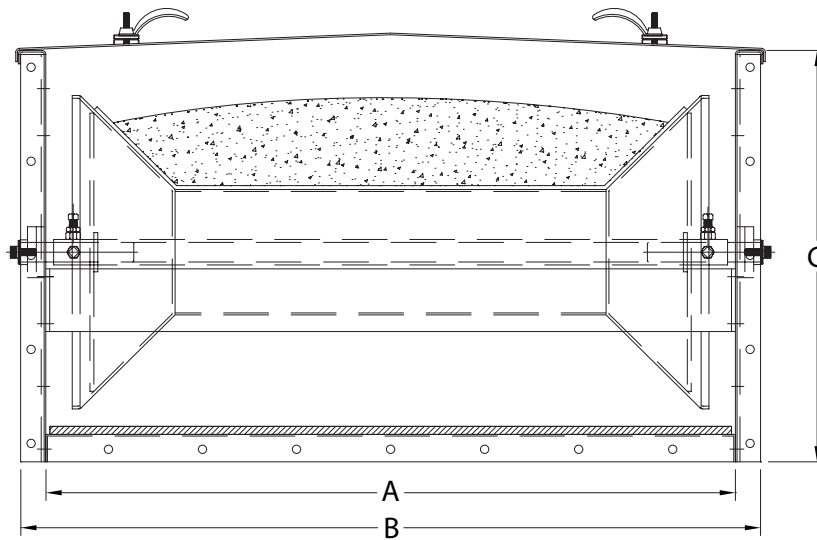
BU/HR Bushels Per Hour | **CF/HR** Cubic Feet Per Hour | **MTPH** Metric Ton Per Hour (Based upon 769 Kg Cubic Meter)
 Capacities are based upon horizontal installation and even belt loading.





** Overall width determined by bearing and drive size.

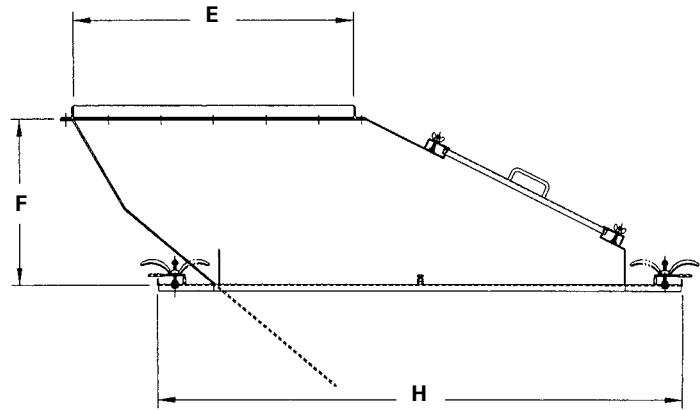
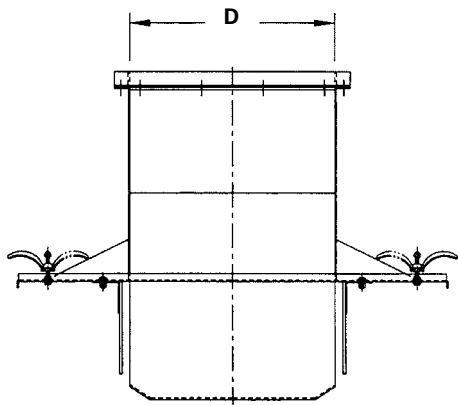




Hi Roller Dimensions

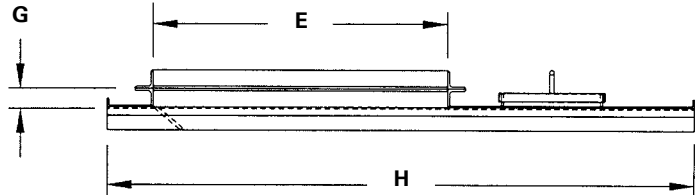
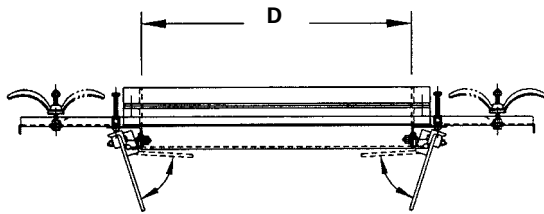
SPECIFICATIONS		HI ROLLER MODEL							
DESCRIPTIONS		18	22	26	30	36	42	48	54
A	Trunking Width (inside)	20	24	28	32	38	44	50	56
B	Trunking Width (outside)	23 1/2	27 1/2	31 1/2	35 1/2	41 1/2	47 1/2	53 1/2	59 1/2
C	Trunking Height (outside)	22 3/4	22 3/4	26 1/4	26 1/4	26 1/4	26 1/4	26 1/4	27 1/4
D	Inlet Opening Width	8	10	12	16	22	28	34	40
E	Inlet Opening Length	24	24	24	24	24	24	24	24
F	Standard Inlet Height	19	19	19	19	19	19	19	19
G	Cleanout Inlet Height	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8
H	Inlet Cover Length	48	48	48	48	48	48	48	48
I	Lo Profile Opening Height	12	12	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2
J	Tail Width (less bearings)	27 1/2	31 1/2	35 1/2	39 1/2	45 1/2	51 1/2	57 1/2	63 1/2
K	Stub Tail Length	22 1/8	22 1/8	22 1/8	22 1/8	22 1/8	22 1/8	22 1/8	22 1/8
L	Take-up Length Retracted								Take-up Length + 33 5/8
M	Take-up Length Extended								Take-up Length x 2 + 33 5/8
N	Standard Head Length	9	9	9	9	9	9	9	9
O	Lo Profile Head Length	22 3/16	22 3/16	22 3/16	22 3/16	22 3/16	22 3/16	22 3/16	22 3/16
P	Discharge Opening Width	21 1/8	25 1/8	29 1/8	33 1/8	39 1/8	45 1/8	51 1/8	57 1/8
Q	90 Degree Discharge Length	28	28	28	28	28	28	28	28
R	Lo Profile Discharge Length	18	18	18	18	18	18	18	18
S	Snubber Discharge Length	54 5/9	54 5/9	65 7/8	65 7/8	65 7/8	65 7/8	65 7/8	65 7/8
T	Discharge to Trunking Bottom	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4
U	Discharge to Trunking Bottom	8	8	8	8	8	8	8	8

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.



Above Typical initial inlet with fixed skirts

Below Typical cleanout inlet with swing-down skirts



Inlet heights and lengths can be customized to your specific applications

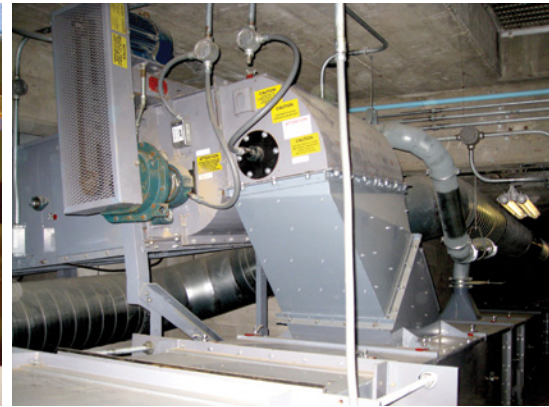
The Hi Roller Conveyor incorporates a unique spool shaped idler to provide a troughed support for the conveyor belt. The spool shaped idler utilizes two external bearings as opposed to six internal bearings on more conventional idlers.

The idler is constructed with a heavy wall pipe that passes through the center of the idler. This provides rigid support. The center pipe is then reamed to just the right tolerance to accept the turned and polished stub shaft that passes through the external bearings.

This design is superior to a single continuous shaft for obvious reasons. First, installation clearances do not always permit the removal of a single continuous shaft.

Second, more generous tolerances are needed to pass a continuous shaft through the complete idler. This permits shaft deflection through the idler and bearing. Third, over a period of time a continuous shaft is more apt to become seized to the internal idler which would require cutting the shaft for idler removal.

The stub shaft and bearing are supplied by Hi Roller as an assembly to assure that the shaft cannot rotate independently of the bearing and that the shaft cannot move in or out within the bearing. The bearing itself is easily adjustable for belt tracking.



Features

- Gradual Inclines and Sharp Upbends
- Stationary Intermediate Discharge Trippers
- Moveable Discharge Trippers and Plows
- Reversible Conveyors (Reloading in Both Directions)
- Two-way Discharge Valves
- Proportioning Gates
- Worm Gear Reduction Manual Belt Tensioners
- Load Cells for Belt Tension Monitoring
- V-Wheel Tail Supports
- Shuttle Conveyors
- Split Trunking to Facilitate Belt Splicing
- Quick-Draw Idlers and Grease Tubes
- Floor Supports and Hanger Brackets
- Cut-outs for Belt Misalignment Sensors
- Motion and Plug Sensors
- Galvanized and Stainless Steel Construction
- Metric Components
- Intermediate Sidewall Inspection Doors

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.

Installations

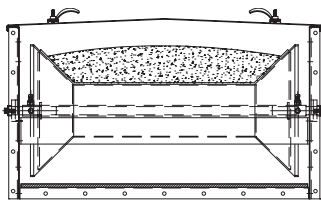


Product Line

Belt Conveyors have long been known as the most gentle, efficient and durable means of conveying materials.

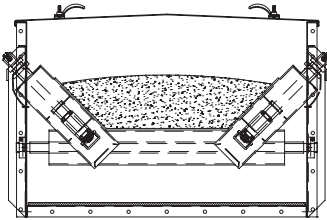
HI ROLLER CONVEYORS

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



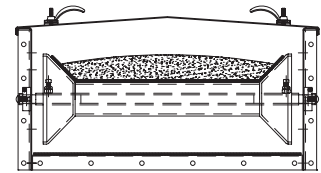
Hi Roller

Available in belt widths from 18" to 54", this is our original 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.



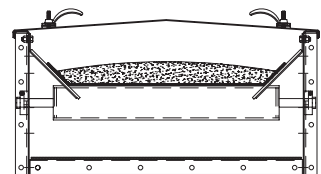
Hi Life

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. The bell shaped carrying idler, head, and tail pulleys all have a smaller diameter. This conveyor is well suited for low capacities.



Lo Roller

Available in belt widths from 16" to 36", the Lo 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. The design provides continuous belt support and creates a seal at the edges.

Hi Roller specializes in the custom design of enclosed belt conveyors to match your specific application. In addition to our standard models, we can also customize conveyors for your most unique applications. The Hi Bulk is an enmasse belt conveyor designed to move large quantities of material in a limited space. The Consignor is a belt conveyor with a totally enclosed, fully automated moveable discharge tripper. We look forward to helping you solve your most difficult material handling problems.



Hi Roller is an AGI Brand.

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, South Africa and Italy and distributes its products globally.

AGI HI ROLLER

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