



*ENCLOSED ROLLER-BELT CONVEYORS*



# CONVEYING YOUR GRAIN EFFICIENTLY & RELIABLY

## Engineered for durability and added value

BROCK® Enclosed Roller-Belt Conveyor Systems offer you the added-value quality features and the rugged design needed for dependable conveyor operation:

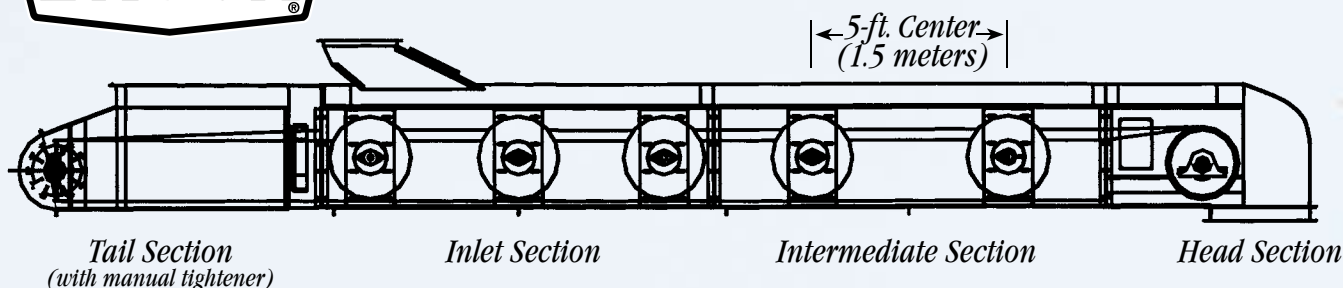
- Galvanized steel construction.
- Dust- and weather-tight design for dependable, long-lasting operation.
- Capable of full-load starts.
- Each conveyor system is computer-matched to the proper motor drive and gear reducers needed for efficient, energy-saving operation.
- Unique, heavy-duty idler pulley design minimizes vibrations to provide smoother belt operation (see back page).
- Efficient, self-cleaning tail section also helps recapture any spilled grain from the belt.
- Inlets and head discharges are fully-lined for long life.
- Self-aligning, heavy-duty bearings mount on outside of conveyor's housing for easy maintenance, longevity, and safety.
- Quick-release top panel allows easy conveyor maintenance access from one side. The panel's raised center rib adds strength and helps shed moisture.
- A variety of belt widths and conveyor speeds are available (see back page).
- Optional features include enclosed gravity belt take-up, intermediate discharge units and other special use accessories.



2-way inlet for Brock's reversing conveyor configuration



Pre-assembled and shipped in sections up to 40 feet (12 meters)



# BELT CONVEYOR INTERMEDIATE DISCHARGE UNIT

## *Allows one conveyor to service many bins/silos*

With the BROCK® Intermediate Discharge Unit, one enclosed roller-belt conveyor system can easily service many bins or silos! It is grain conveying at its best. Here is why:

- Innovative, compact Brock design is just 16 feet (4.9 m) long and adds only 14 inches (356 mm) to the conveyor's overall height. This efficient shape allows several intermediate discharge units to be positioned closely together.
- Actuator-controlled plow is remotely activated using electric controls to smoothly divert grain without interrupting material flow.
- Simple, economical design requires low horsepower to operate.
- BROCK Intermediate Discharge Unit can be retrofitted to existing BROCK Conveyor Systems – including reversing conveyors.
- Made of galvanized steel, these intermediate discharge units have a dust- and weather-tight design for dependable, long-lasting operation.

*BROCK® Intermediate Discharge Unit*



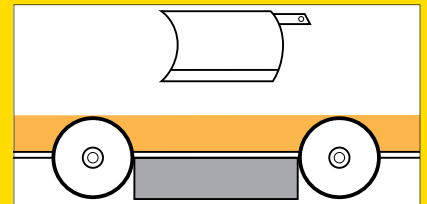
*Optional enclosed gravity belt take-up*

- Works with BROCK Enclosed Roller-Belt Conveyors in a variety of belt widths from 18 to 54 inches (457 to 1372 mm) and speeds from 100 to 700 feet per minute (.5 to 3.6 meters per second).
- Self-aligning, heavy-duty bearings mount on outside of intermediate discharge unit's housing for easy maintenance, longevity, and safety.
- Also available are a wide variety of Brock storage bins and silos along with accessory components such as sidewall ladders and safety cages, sidewall doors, ventilation fans and heaters, dryers, sweeps, receiving pit dust control system, and others.
- Planning assistance available.

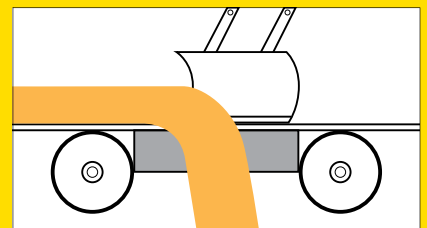


*Lined Discharge Moldboard Flow in Action*

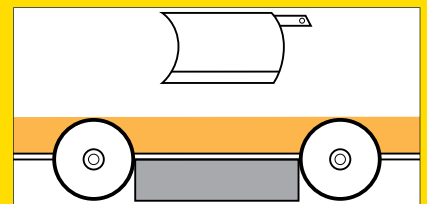
## *How it works*



STEP 1: In by-pass operation, material flows through to the end of the conveyor.



STEP 2: In discharge operation, synchronized actuators raise belt support frame to flatten belt profile, and the curved discharge moldboard plow lowers into contact with conveyor belt to divert material and fines.



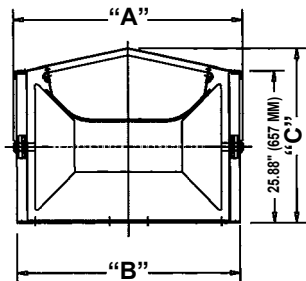
STEP 3: To return to by-pass operation, the discharge moldboard raises while the belt support frame lowers allowing the belt to return to its normal conveying profile.

# CONVEYOR SPECIFICATIONS

## *Brock takes a balanced approach to conveyors*

A smooth-operating conveyor system happens only by design. To help you get an enclosed roller-belt conveyor that minimizes harmonic vibrations while also providing longer bearing life and smoother operation, Brock incorporated the following design features:

- All idler pulleys are dynamically-balanced at 400 and 800 revolutions per minute.
- All pulleys feature a full-length shaft with positive locking tapered bushing and keyed connection.
- Pulley and bearing shaft is 1-1/4-inch (32 mm) diameter for less deflection and longer conveyor life.
- Idler pulleys in the conveyor's intermediate sections are mounted on 5-foot (1.5-meter) centers for efficient belt operation and less spillage between carrying and return belts.
- Conveyor loading section features pulleys mounted on 3-foot (914-mm) centers for more uniform belt loading.
- All idler pulleys are adjustable for belt training.
- A solid disk on the conical end of the pulley provides better support and prevents energy-robbing dust pockets.
- Head pulleys have replaceable slide lagging.
- Head and tail bearings are standard spherical roller bearings for easy maintenance and increased loads.



*Patented Brock pulley design*



*Able to convey most grains at angles of up to 25 degrees (18-degree incline shown). For steeper angles, contact Brock for recommendations.*

CONVEYOR CAPACITIES Belt speed (Feet Per Minute/Meters Per Second)								
Model	Units	100 / .5	200 / 1.0	300 / 1.5	400 / 2.0	500 / 2.5	600 / 3.0	700 / 3.6
18	Bu/Hr	1100	2300	3500	4600	5800	7000	8100
	MT/Hr	28	58	89	117	147	178	206
22	Bu/Hr	1700	3500	5300	7100	8900	10700	12500
	MT/Hr	43	89	135	180	226	272	318
26	Bu/Hr	2500	5100	7700	10200	12800	15400	18000
	MT/Hr	64	130	196	259	325	391	457
30	Bu/Hr	3200	6500	9800	13100	16400	19700	23000
	MT/Hr	81	165	249	333	417	500	584
36	Bu/Hr	4200	8500	12800	17100	21400	25700	30000
	MT/Hr	107	216	325	434	544	653	762
42	Bu/Hr	5700	11400	17100	22800	28500	34200	40000
	MT/Hr	145	290	434	579	724	869	1016
48	Bu/Hr	6900	13800	20700	27600	34500	41400	48300
	MT/Hr	175	351	526	701	876	1052	1227
54	Bu/Hr	8200	16500	24700	33000	41200	49500	57800
	MT/Hr	208	419	627	838	1047	1257	1468

CONVEYOR DIMENSIONS							
Belt Width		"A"		"B"		"C"	
INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
18	450	25	635	24	610	28.5	724
22	550	29	737	28	711	28.9	734
26	650	33	838	32	813	29.3	744
30	750	37	940	36	914	29.6	752
36	900	43	1092	42	1067	30.2	767
42	1050	49	1245	48	1220	30.8	782
48	1200	55	1397	54	1372	31.1	790
54	1350	61	1549	60	1524	32.0	813



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BR-2076/0108