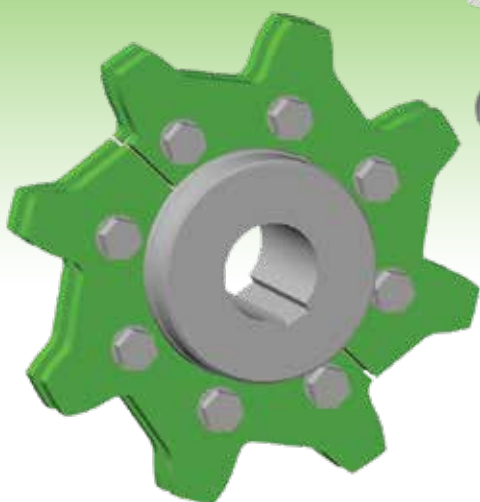
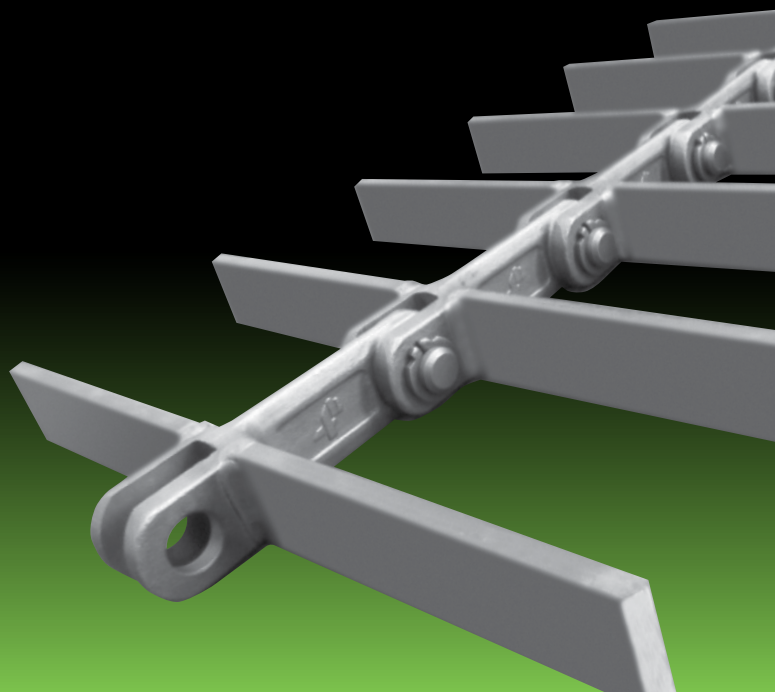


4B GROUP



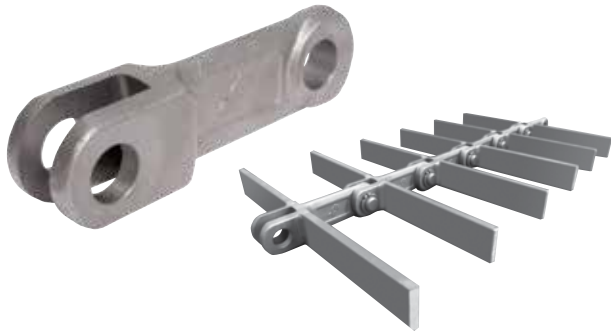
FORGED CHAINS & SPROCKETS

A Worldwide Manufacturer of
High Quality, Technologically Advanced
Material Handling & Electronic Components



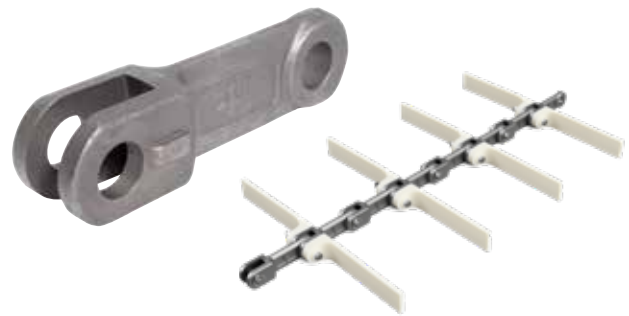
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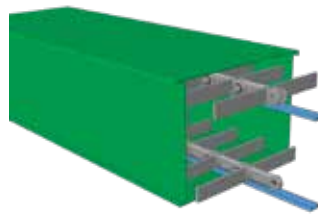
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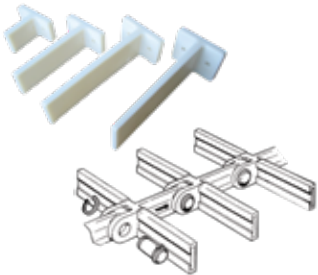
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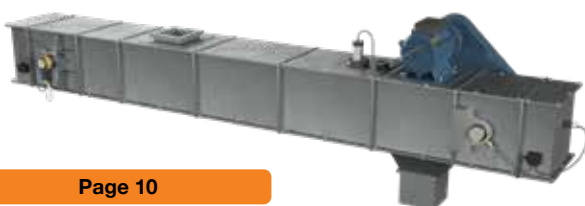
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**MISCELLANEOUS
CONVEYOR CHAIN**

Contact 4B

HAZARD MONITORING SOLUTIONS FOR CHAIN CONVEYORS



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Free Engineering Design Service - contact 4B or visit: www.go4b.com

FORGED CHAINS FOR THE TOUGHEST APPLICATIONS

4B's superior heat treatment technique provides the optimum forged chain link with a more resilient ductile core for shock resistance, and an extremely hard exterior surface for superior wear resistance.



4B offers a FREE Chain Conveyor Design Service for both new and existing chain conveyors and technical support from our team of specialised engineers.

**DOWN TIME IS A RACE...
TIME IS MONEY**

**BOLT-N-GO™
DRAG CONVEYOR CHAIN**

4B

- Reduce Downtime & Maintenance Costs
- Quick and Easy Chain Assembly
- Bolt on Flight Replacement (No Welding)
- Forged and Hardened Chain Links



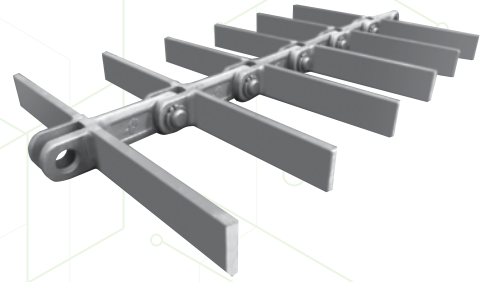
**PUT YOUR CONVEYOR
ON POLE POSITION!**

DROP FORGED CHAIN

4B's drop forged chain is made of special heat treated alloy steel, case hardened to Rockwell C57 - C62 with a ductile core hardness of Rockwell C40.

4B's superior heat treatment technique provides the optimum chain link with a more resilient ductile core for shock resistance, and an extremely hard exterior surface for superior wear resistance.

4B's drop forged chain is backed by an international network of companies with over 130 years of experience, and a global team of engineers and sales professionals that can provide you with practical solutions for all your material handling applications.



DROP FORGED CHAIN

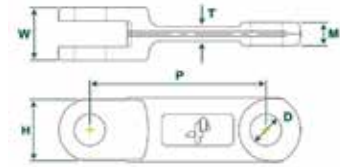
STANDARD LINK



BOLT-N-GO LINK



Links and pins are available in stainless steel



Standard Link

Chain Link	Min Breaking Load (kN)	Case Hardness	Case Depth (mm)	Core Hardness	Weight (Per Link) (kg)	Bolt-N-Go Compatible	Dimensions					
							P (mm)	H (mm)	T (mm)	W (mm)	M (mm)	D (mm)
4B101.6NA	180	Rockwell C57-C62	0.5	Rockwell C40	0.35	No	101.6	36	7	28	12	14
4B102LA	150	Rockwell C57-C62	0.5	Rockwell C40	0.35	No	102	36	6	25	8	14
4B102NA	180	Rockwell C57-C62	0.5	Rockwell C40	0.35	Yes	102	36	7	28	12	14
4B125NA	200	Rockwell C57-C62	0.6	Rockwell C40	0.60	Yes	125	35	10	36	15	16
4B142LA	250	Rockwell C57-C62	0.7	Rockwell C40	0.69	No	142	40	10	31	14	18.2
4B142NA	300	Rockwell C57-C62	0.7	Rockwell C40	1.12	Yes	142	50	12	42	18.7	25
4B142HA	450	Rockwell C57-C62	0.7	Rockwell C40	1.70	Yes	142	50	16.5	62	28.5	25
4B150NA	300	Rockwell C57-C62	0.7	Rockwell C40	1.16	Yes	150	49	13	36	15	25
4B160NA	350	Rockwell C57-C62	0.8	Rockwell C40	1.19	Yes	160	44.5	13	42	19.5	20
4B175NA	520	Rockwell C57-C62	1.0	Rockwell C40	2.73	No	175	60	16	72	22	30
4B200NA	600	Rockwell C57-C62	1.0	Rockwell C40	2.90	No	200	60	18	68	30	30
4B216NA	600	Rockwell C57-C62	1.0	Rockwell C40	3.70	No	216	75	19	59	26	35
4B250NA	700	Rockwell C57-C62	1.0	Rockwell C40	4.26	No	250	75	18	70	32	32
4B260NA	700	Rockwell C57-C62	1.0	Rockwell C40	5.00	No	260	75	21	71	31	32

Free Engineering Design Service - contact 4B or visit: www.go4b.com

BOLT-N-GO™



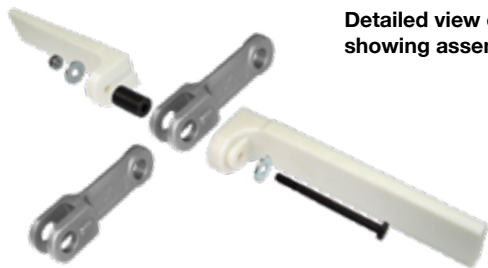
PATENTED

The Bolt-N-Go flight system is a revolutionary assembly method for drop forged chain. Link and flight assembly is made easy by using a standard bolt and mechanical lock nut with a high strength, heat treated hollow pin. There are no circlips and no intricate assembly is required. There is no welding of flights, no need to remove chain from the conveyor for installation, and no issues with strength. Just bolt the links and the flights together. It's easy, simple and reliable!



WATCH VIDEO

FORGED CHAIN



Detailed view of Bolt-N-Go showing assembly method

BOLT-N-GO SYSTEM



Bolt-N-Go Chain	Nylon Flight Maximum Width
4B102BNA	up to 390 mm
4B142BNA	up to 752 mm
4B142BHA	up to 772 mm

NOTE: 4B125BNA, 4B150BNA & 4B160BNA Chain also available, contact 4B for more information.



Feed Mill Application using Bolt-N-Go Chain with Nylon Flights



Assembled Bolt-N-Go Chain

TYPICAL WELDED FLIGHT ATTACHMENTS



Note:
Custom flights are available, based on customer specifications.

STANDARD PIN OPTIONS



Note: Clamps, roll pins, hex bolts and lock nuts must not be re-used. Install one time and discard after use. Links, pins and circlips available in stainless steel.

DOUBLE & TRIPLE LINKS

DOUBLE & TRIPLE LINKS

4B's double and triple links are forged with the same quality, strength and durability as our standard links.

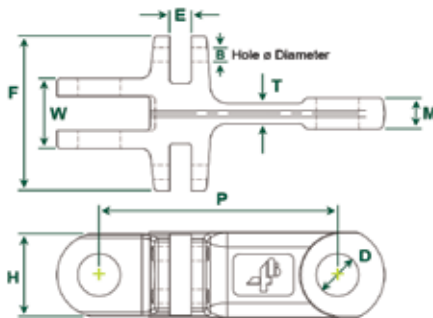
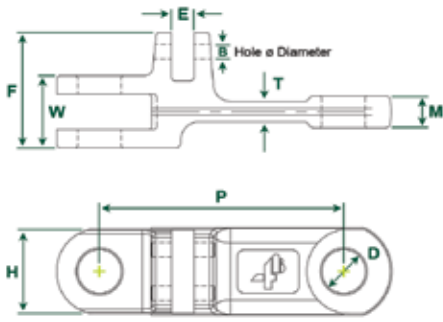
DOUBLE LINK



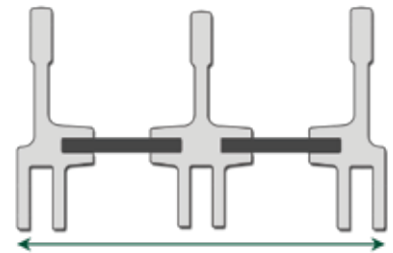
TRIPLE LINK



Typical Double Strand Chain Application



Triple Configuration



Widths to 3.7m

Chain Link	Min Breaking Load (kN)	Case Hardness	Case Depth (mm)	Core Hardness	Weight (Per Link) (kg)	Bolt-N-Go Compatible	Dimensions								
							P (mm)	H (mm)	T (mm)	W (mm)	M (mm)	D (mm)	F (mm)	E (mm)	B (mm)
4B142DNA	300	Rockwell C57-C62	0.7	Rockwell C40	1.37	No	142	50	12	42	18.7	25	67	13	8.5
4B142DHA	450	Rockwell C57-C62	0.7	Rockwell C40	2.00	No	142	50	16	62	28	25	87	13	8.5
4B142TNA	300	Rockwell C57-C62	0.7	Rockwell C40	1.67	No	142	50	12	42	18.7	25	92	13	8.5
4B142THA	450	Rockwell C57-C62	0.7	Rockwell C40	2.32	No	142	49	16	62	28.5	25	112	13	8.5

Other sizes available on request.



Free Engineering Design Service - contact 4B or visit: www.go4b.com

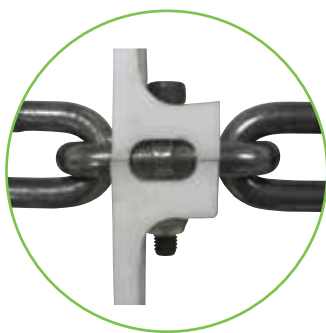
ROUND LINK CHAIN

ROUND LINK CHAIN WITH BOLT-N-GO FLIGHTS

Economical Round Link Chain System

Easy flight assembly by using a standard bolt and nut, connecting the flights directly to the link. The chain can be supplied in a coil together with the bolt-on flights already assembled.

Size 13 x 65mm



Bolt-N-Go System Round Link Chain Application on a Conveyor

Free Engineering Design Service -
contact 4B or visit: www.go4b.com

NYLON FLIGHTS FOR SCRAPER CHAINS



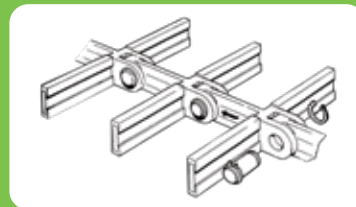
'L' Shape
with 1 fixing
hole

'L' Shape
with 2
fixing holes

'T' Shape
with 2
fixing holes

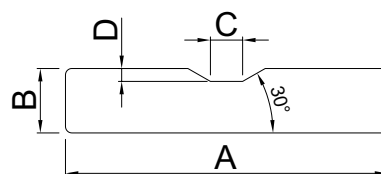
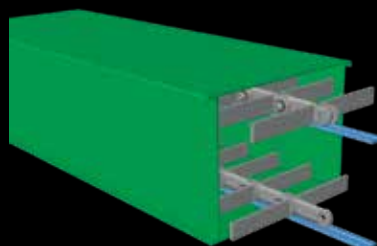
- Easy to install or replace, cutting down installation and maintenance costs
- Eliminates the need for a bottom liner in the conveyor
- Reduces conveyor noise

NYLON FLIGHT SLEEVES FOR 102 NA CHAIN AND 142 NA CHAIN



MANGANESE RAILS FOR FORGED CHAINS

- Help to guide the chain
- Reduce friction and noise inside the conveyor
- Improve the life of the chain and conveyor



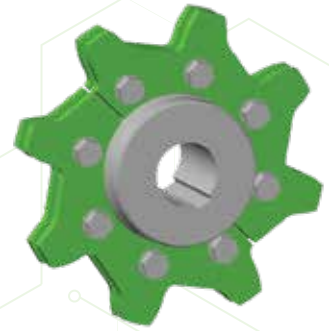
Sizes (mm)

A	B	C	D
40	10	5	2
50	10	5	2
50	20	6	2
60	10	6	3
70	10	15	3

More sizes available on demand

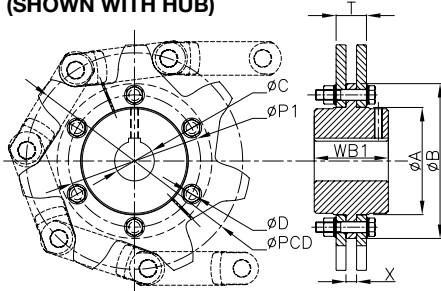
SPROCKETS

4B sprockets and trailers are manufactured from high grade heat treated steel to a minimum hardness of 57 HRC. Each piece is machined to size with appropriate bore and keyway specific to each customer's application. Most sizes are in stock and ready to ship from 4B's extensive inventory.

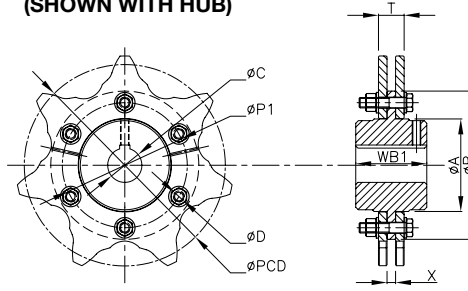


SPROCKETS

**STANDARD SPROCKET
(SHOWN WITH HUB)**



**WEAR REVERSIBLE SPROCKET
(SHOWN WITH HUB)**



Chain Link	No. of Teeth	Pitch Circle Dia ØPCD (mm)	ØP1 (mm)	ØA (mm)	ØB (mm)	ØC max, Sprocket/ Stub Trailer (mm)	ØD (mm)	No. of Bolts	T (mm)	X (mm)	WB1 (mm)
4B102NA	6	204.0	-	105.0	135.0	70	-	-	30	10	83
	7	235.1	146.0	108.0	173.0	70	M12	6	30	10	83
	8	266.5	170.0	144.0	196.0	85	M12	6	30	10	83
	9	298.2	200.0	174.0	232.0	105	M12	6	30	10	83
	10	330.1	241.3	179.0	264.0	105	M12	8	30	10	83
4B142NA	6	284.0	168.3	136.5	190.5	85	M12	6	46	16	112
	7	327.3	200.0	162.0	234.0	105	M16	6	46	16	112
	8	371.1	241.3	187.3	282.0	115	M20	8	46	16	127
	9	415.2	285.8	240.0	330.0	150	M20	8	46	16	127
	10	459.5	285.8	240.0	330.0	150	M20	8	46	16	127
	11	504.0	368.3	310.0	419.0	170	M20	8	46	16	150
	12	548.6	415.0	345.0	465.0	170	M20	8	46	16	150
	13	593.4	450.0	380.0	521.0	170	M20	8	46	16	150
	14	638.1	470.0	380.0	546.0	170	M20	10	46	16	150
4B142HA	7	327.3	200.0	162.0	234.0	105	M16	6	69	19	127
	8	371.1	241.3	187.3	282.0	115	M20	8	69	19	150
	9	415.2	285.8	240.0	330.0	150	M20	8	69	19	150
	10	459.5	285.8	240.0	330.0	150	M20	8	69	19	150
	11	504.0	368.3	310.0	419.0	170	M20	8	69	19	150
	12	548.6	415.0	345.0	465.0	170	M20	8	69	19	150
	13	593.4	450.0	380.0	520.0	170	M20	8	69	19	180
	14	638.1	470.0	380.0	546.0	170	M20	10	69	19	180

Bore and keyway to customer specification.

Sprockets and trailers available for all chain sizes. Contact 4B for more information.

Free Engineering Design Service - contact 4B or visit: www.go4b.com

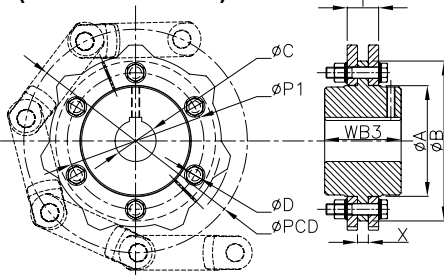
TRAILERS



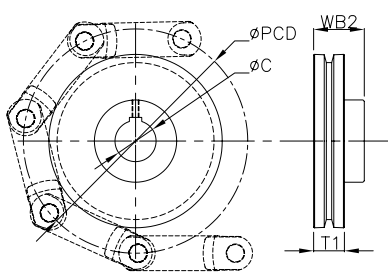
TRAILERS

APPLICATION PHOTOS

**SEGMENTAL STUB TRAILER
(SHOWN WITH HUB)**



**ASYMMETRIC SMOOTH
TRAILER****



Chain Link	ØC max Smooth Trailer (mm)	Pitch Circle Dia. ØPCD (mm)	Hub Width* (mm)		Rim Width T1 (mm)
			Smooth WB2	Segmental WB3	
4B102NA	65	204.0	57	83	35
	65	235.1	57	83	35
	65	266.5	57	83	35
	65	298.2	57	83	35
	65	330.1	57	83	35
4B142NA	85	284.0	74	112	45
	85	327.3	74	112	45
	85	371.1	77	127	45
	115	415.2	77	127	45
	115	459.5	77	127	45
	115	504.0	105	150	45
	115	548.6	105	150	45
	115	593.4	120	150	45
	115	638.1	120	150	45
4B142HA	115	327.3	110	127	75
	115	371.1	110	150	75
	115	415.2	110	150	75
	115	459.5	120	150	75
	140	504.0	120	150	75
	140	548.6	120	150	75
	140	593.4	120	150	75
	140	638.1	140	150	75

* Smooth and segmental trailers have different hub widths as noted (WB2 & WB3).

** Symmetric smooth trailers on demand.

Bore and keyway to customer specification.

Sprockets and trailers available for all chain sizes. Contact 4B for more information.



Typical Double Strand Chain Application



Feed Mill Application using Bolt-N-Go Chain with Nylon Flights



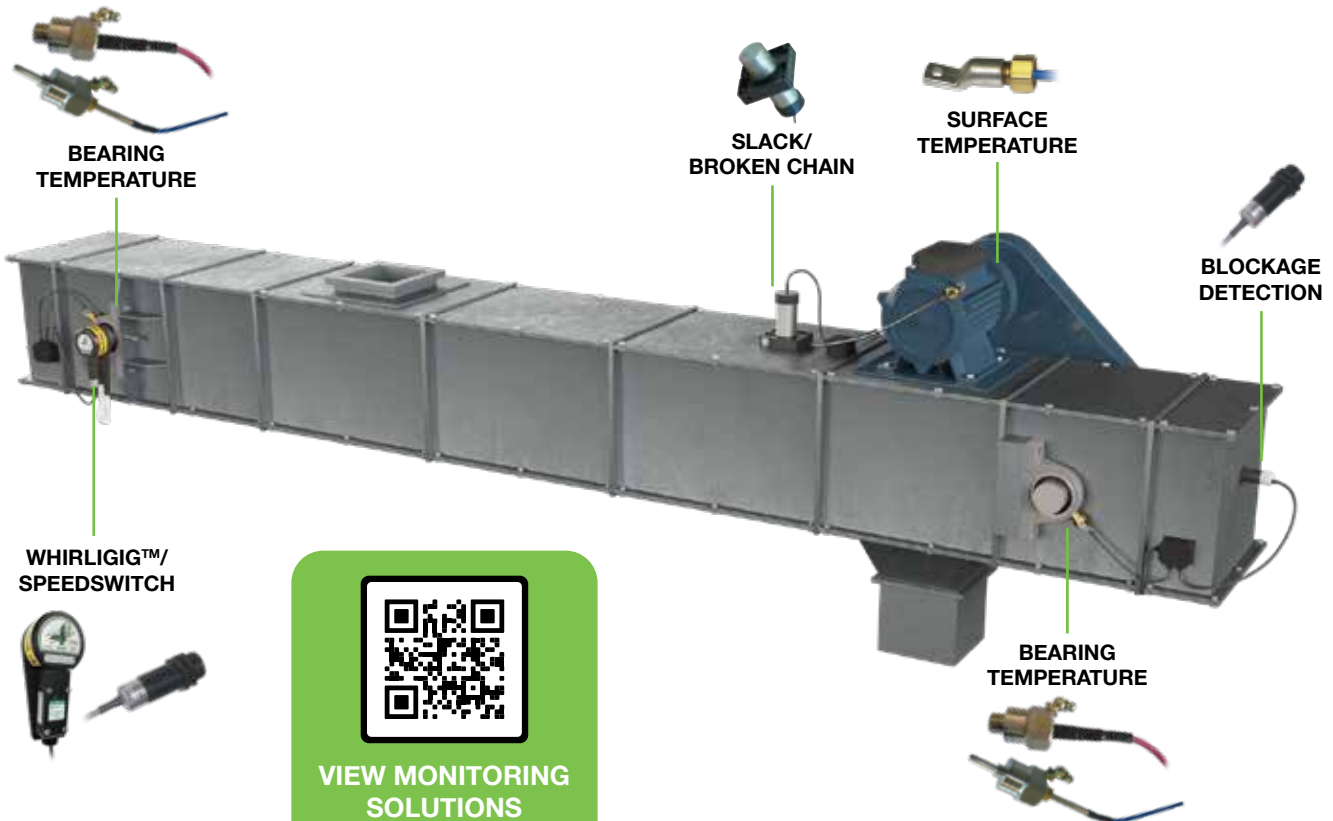
UHMW Paddles on "T" Plate Flights – Drive End



UHMW Paddles & Return Buckets – Tail End

HAZARD MONITORING SOLUTIONS

FOR CHAIN CONVEYORS



BROKEN & SLACK CHAIN DETECTION



Speed Relay

&



WDA Sensor

By using a WDA sensor in combination with a speed relay, ferrous steel flights or bolts on plastic paddles are used to monitor for broken or slack chain issues on drag conveyors.

The WDA is a non-contacting extended range magnetic proximity sensor, not affected by dust or material build up, used to detect moving ferrous material up to 75mm away from the sensor. The speed relay is used to monitor the speed of a rotating shaft and detect if it rises or falls below a preset safety level.

FEATURES

- Solution for drag chain conveyors
- Monitor for chain slack or breakage
- Detects movement of steel flights or bolts on plastic paddles
- Prevent costly equipment damage and downtime
- Simple sensor and speed relay solution

Free Engineering Design Service -
contact 4B or visit: www.go4b.com



**CONVEYOR
CHAIN
PRODUCTION**

4B catalogues also available:

-  Electronics
-  Elevator Buckets
-  Elevator Belting
-  Forged Chains



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