

## The CoreTech™ Advantage

The next generation of troughing and return rolls are made of lightweight, high strength, corrosion and abrasion resistant composite material. Plus belt friendly construction means that even advanced wear on the shell won't damage the belt.

### CoreTech™ Tackles Common Issues

**Life.** CoreTech™ rollers offer the best combination of structural strength coupled with the requirements of mining, which include corrosion resistance, abrasion resistance, and very low surface friction.

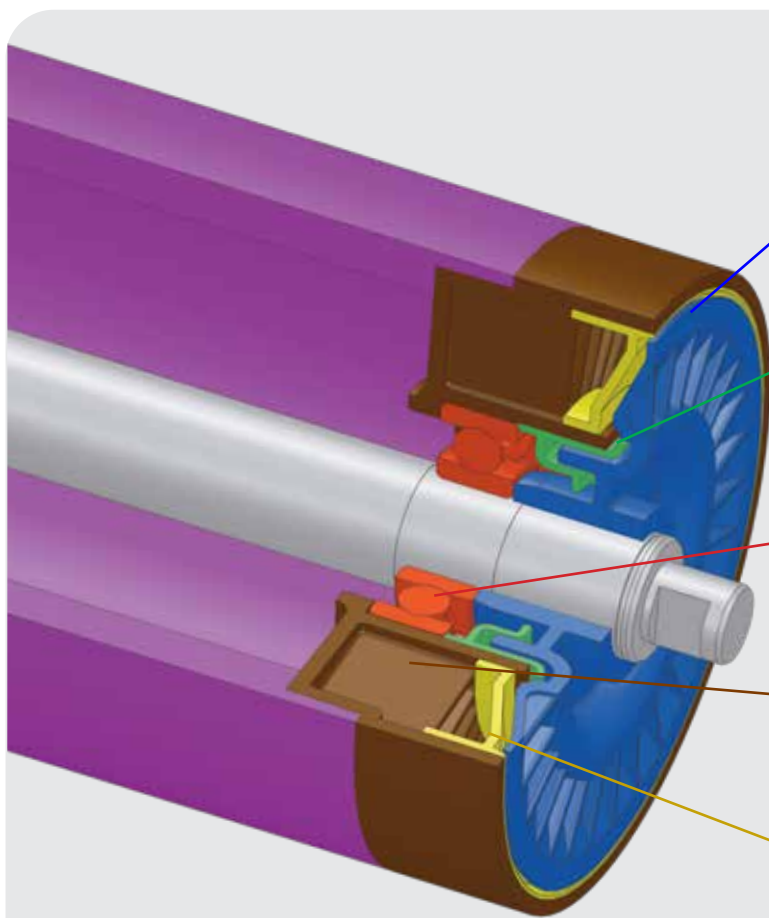
**Corrosion.** When moisture, salt, or other corrosive materials are present, CoreTech provides an excellent alternative to steel

rollers. CoreTech rollers provide the same CEMA ratings as steel rollers, with no loss of functional performance, and much longer life.

**Weight.** CoreTech rollers are approximately 40 percent lighter than equivalent steel rolls and as the rollers get longer in the larger diameter steel rolls, that weight reduction gets closer to 50 percent. CoreTech rollers require only one individual to lift, carry, and place the roller, increasing productivity while keeping workers safe.

**Power Consumption.** CoreTech rollers have lower running friction values, which, depending on the application, can decrease power bills by up to 30 percent a year. Less power is used during start-up and while in operation, contributing to lower electrical consumption.

**Noise.** CoreTech rollers create far less noise than steel rollers. The estimated noise contribution of CoreTech rollers is +/- 10 dB below the noise contribution of metal rollers. This noise variation can mean the difference between functioning below the maximum decibel levels and violating ordinances and compromising worker safety.



### Field-Proven Seal Design

**Rock Shield** – The rock shield is pressed tight on the shaft and is stationary when the roller is in operation. This is the first line of defense and prevents larger material from damaging the seal. Since the rock shield is stationary, it improves safety by limiting rotating components accessible to workers near the outside of the idler.

**Centrifugal Seal** – The key to the CoreTech™ sealing arrangement, the centrifugal seal rotates with the roller and is specifically designed to create a vortex with forces up to 9X gravity. This action expels moisture and fines that may pass the rock shield. Centrifugal sealing is the most effective method of preventing moisture and dirt from entering the bearing chamber without the need for a grease pack.

**Deep Groove Ball Bearing** – A last line of defense, all CoreTech rollers use deep groove, factory lubricated and sealed for life ball bearings. The bearing selection ensures all CoreTech rollers meet the required application ratings and protect the bearings from premature failure due to corrosion or spalling.

**Bearing Housing** – The bearing housing is fused to the roller tube in a way that guarantees there is no path for moisture or dust to enter the roller. While many rollers use press fit end discs, the CoreTech roller is a unitary housing design. This means no end disk walk out and no risk of "pizza cutter" belt damage.

**Housing Guard** – The smooth surface of the housing guard provides for optimal operation of the centrifugal seal.

# Key Features and Benefits



Ultra light construction for safe, easy handling.



Advanced composite material blend allows renegade materials to shed from the roll preventing material build-up and belt damage.



The centrifugal seal is designed for protection, preventing trapped material from damaging the end disk, which often results in premature roller failure.



Composite materials have excellent impact absorption qualities, which provide additional support for bearings and other roll components, resulting in increased roll life.

# CoreTech™ Nylon Conveyor Rollers

Nylon 5" Diameter (127 mm)					
	Belt Width		Description*		
	in.	mm	CEMA B	CEMA C	CEMA D
Troughing	18	450	N5B3T-18-XXX-SE	N5C3T-18-XXX-SE	
	24	600	N5B3T-24-XXX-SE	N5C3T-24-XXX-SE	N5D3T-24-XXX-SE
	30	750	N5B3T-30-XXX-SE	N5C3T-30-XXX-SE	N5D3T-30-XXX-SE
	36	900	N5B3T-36-XXX-SE	N5C3T-36-XXX-SE	N5D3T-36-XXX-SE
	42	1050	N5B3T-42-XXX-SE	N5C3T-42-XXX-SE	N5D3T-42-XXX-SE
	48	1200	N5B3T-48-XXX-SE	N5C3T-48-XXX-SE	N5D3T-48-XXX-SE
	54	1350		N5C3T-54-XXX-SE	N5D3T-54-XXX-SE
	60	1500		N5C3T-60-XXX-SE	N5D3T-60-XXX-SE
Flat Return	18	600	N5BF-18-XXX-SE	N5CF-18-XXX-SE	N5DF-18-XXX-SE
	24	750	N5BF-24-XXX-SE	N5CF-24-XXX-SE	N5DF-24-XXX-SE
	30	900	N5BF-30-XXX-SE	N5CF-30-XXX-SE	N5DF-30-XXX-SE
	36	1050	N5BF-36-XXX-SE	N5CF-36-XXX-SE	N5DF-36-XXX-SE
	42	1200	N5BF-42-XXX-SE	N5CF-42-XXX-SE	N5DF-42-XXX-SE
	48	1350	N5BF-48-XXX-SE	N5CF-48-XXX-SE	N5DF-48-XXX-SE
	54	1500			N5DF-54-XXX-SE
	60	1800			N5DF-60-XXX-SE
V-Return	24	600		N5CV-24-XXX-SE	N5DV-24-XXX-SE
	30	750		N5CV-30-XXX-SE	N5DV-30-XXX-SE
	36	900		N5CV-36-XXX-SE	N5DV-36-XXX-SE
	42	1050		N5CV-42-XXX-SE	N5DV-42-XXX-SE
	48	1200		N5CV-48-XXX-SE	N5DV-48-XXX-SE
	54	1350		N5CV-54-XXX-SE	N5DV-54-XXX-SE
	60	1500		N5CV-60-XXX-SE	N5DV-60-XXX-SE
	72	1800			N5DV-72-XXX-SE

Nylon Rollers pair the latest plastic technology with smart design to produce a roller combining strength, performance, and durability. Perfect for medium- to heavy-duty applications, CoreTech Nylon Rollers are ideal for use with CEMA B, C, D, E, and F load ratings.

Nylon 6" Diameter (152 mm)					
	Belt Width		Description*		
	in.	mm	CEMA C	CEMA D	CEMA E
Troughing	18	450	N6C3T-18-XXX-SE		
	24	600	N6C3T-24-XXX-SE	N6D3T-24-XXX-SE	
	30	750	N6C3T-30-XXX-SE	N6D3T-30-XXX-SE	
	36	900	N6C3T-36-XXX-SE	N6D3T-36-XXX-SE	N6E3T-36-XXX-SE
	42	1050	N6C3T-42-XXX-SE	N6D3T-42-XXX-SE	N6E3T-42-XXX-SE
	48	1200	N6C3T-48-XXX-SE	N6D3T-48-XXX-SE	N6E3T-48-XXX-SE
	54	1350	N6C3T-54-XXX-SE	N6D3T-54-XXX-SE	N6E3T-54-XXX-SE
	60	1500	N6C3T-60-XXX-SE	N6D3T-60-XXX-SE	N6E3T-60-XXX-SE
	72	1800		N6D3T-72-XXX-SE	N6E3T-72-XXX-SE
	84	2100			N6E3T-84-XXX-SE
Flat Return	18	450	N6CF-18-XXX-SE		
	24	600	N6CF-24-XXX-SE	N6DF-24-XXX-SE	
	30	750	N6CF-30-XXX-SE	N6DF-30-XXX-SE	
	36	900	N6CF-36-XXX-SE	N6DF-36-XXX-SE	N6EF-36-XXX-SE
	42	1050	N6CF-42-XXX-SE	N6DF-42-XXX-SE	N6EF-42-XXX-SE
	48	1200	N6CF-48-XXX-SE	N6DF-48-XXX-SE	N6EF-48-XXX-SE
	54	1350	N6CF-54-XXX-SE	N6DF-54-XXX-SE	N6EF-54-XXX-SE
	60	1500	N6CF-60-XXX-SE	N6DF-60-XXX-SE	N6EF-60-XXX-SE
	72	1800		N6DF-72-XXX-SE	N6EF-72-XXX-SE
	84	2100			N6EF-84-XXX-SE
V-Return	24	600	N6CV-24-XXX-SE	N6DV-24-XXX-SE	
	30	750	N6CV-30-XXX-SE	N6DV-30-XXX-SE	
	36	900	N6CV-36-XXX-SE	N6DV-36-XXX-SE	N6EV-36-XXX-SE
	42	1050	N6CV-42-XXX-SE	N6DV-42-XXX-SE	N6EV-42-XXX-SE
	48	1200	N6CV-48-XXX-SE	N6DV-48-XXX-SE	N6EV-48-XXX-SE
	54	1350	N6CV-54-XXX-SE	N6DV-54-XXX-SE	N6EV-54-XXX-SE
	60	1500	N6CV-60-XXX-SE	N6DV-60-XXX-SE	N6EV-60-XXX-SE
	72	1800		N6DV-72-XXX-SE	N6EV-72-XXX-SE
	84	2100			N6EV-84-XXX-SE
	96	2450			N6EV-96-XXX-SE

Nylon 7" Diameter (178 mm)					
	Belt Width		Description*		
	in.	mm	CEMA E	CEMA F	
Troughing	36	900	N7E3T-36-XXX-SE	N7F3T-36-XXX-SE	
	42	1050	N7E3T-42-XXX-SE	N7F3T-42-XXX-SE	
	48	1200	N7E3T-48-XXX-SE	N7F3T-48-XXX-SE	
	54	1350	N7E3T-54-XXX-SE	N7F3T-54-XXX-SE	
	60	1500	N7E3T-60-XXX-SE	N7F3T-60-XXX-SE	
	72	1800	N7E3T-72-XXX-SE	N7F3T-72-XXX-SE	
	84	2100	N7E3T-84-XXX-SE	N7F3T-84-XXX-SE	
	96	2450	N7E3T-96-XXX-SE	N7F3T-96-XXX-SE	
	Flat Return	36	900	N7EF-36-XXX-SE	N7FF-36-XXX-SE
		42	1050	N7EF-42-XXX-SE	N7FF-42-XXX-SE
48		1200	N7EF-48-XXX-SE	N7FF-48-XXX-SE	
54		1350	N7EF-54-XXX-SE	N7FF-54-XXX-SE	
60		1500	N7EF-60-XXX-SE	N7FF-60-XXX-SE	
72		1800	N7EF-72-XXX-SE	N7FF-72-XXX-SE	
84		2100	N7EF-84-XXX-SE	N7FF-84-XXX-SE	
96		2450	N7EF-96-XXX-SE	N7FF-96-XXX-SE	
V-Return		36	900	N7EV-36-XXX-SE	N7FV-36-XXX-SE
		42	1050	N7EV-42-XXX-SE	N7FV-42-XXX-SE
	48	1200	N7EV-48-XXX-SE	N7FV-48-XXX-SE	
	54	1350	N7EV-54-XXX-SE	N7FV-54-XXX-SE	
	60	1500	N7EV-60-XXX-SE	N7FV-60-XXX-SE	
	72	1800	N7EV-72-XXX-SE	N7FV-72-XXX-SE	
	84	2100	N7EV-84-XXX-SE	N7FV-84-XXX-SE	
	96	2450	N7EV-96-XXX-SE	N7FV-96-XXX-SE	

\* Please Note: Description contains 2 placeholders.  
XXX for Roll Face Width  
SE for Shaft End Type  
Final descriptions will be adjusted on orders to reflect customer specifications.

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