

lightweight  
composite rollers

narvik<sup>®</sup>  
composite 

# CHALLENGES

in the mining  
industry today

We have  
the solution



# Composite rollers

solve challenges  
in the mining industry

- Maintenance costs
- Increased capacity demands higher speed
- Extensive economic consequences caused by unforeseen stops
- Environmental issues





## Maintenance costs

- 50 - 80 % roller weight reduction
- Faster replacement of rollers
- Longer roller lifetime – fewer changes
- Reduced replacement costs

## Reliability means continuous operation

- Defect composite rollers do not damage the conveyor belt and can remain in full operation until the planned replacement
- Fire retardant material in rollers

## High speed roller

- Runout less than 1/10 mm
- Naturally balanced
- High quality sealing system and accurate alignment

## Improved environment

- Lower energy consumption
- Reduced vibration and noise
- User friendly
- Lower lift weight for replacement



Narvik Composite's return rollers are suitable for the high belt speed and tonnage required in tough challenging environments such as the mining industry, harbours etc.

The unique design with a composite roller tube and a durable polyurea coating gives a light-weight, very strong and robust full length roller for abrasive materials and corrosive environments.

The weight of the composite return rollers is

amazingly low – a weight reduction of up to 80% of the equivalent steel roller. A light weight gives an enormous advantage for quick and easy roller changes which save time and money.

The return rollers have been successfully in operation at LKAB since March 2008 with excellent results. Among other locations there has been a qualification test in Boliden at the Aitik mine since March 2009 with excellent results.



The rollers are available in accordance with the table:

Shell diameter	Shaft diameter	Bearing size	Shell length
159 mm	30 mm	6306	1400 – 2200 mm
159 mm	40 mm	6308	1400 – 2200 mm
194 mm	40 mm	6308	1400 – 2200 mm
194 mm	50 mm	6310	1400 – 2200 mm



# Return rollers

COMPOSITE  
RETURN ROLLER

Length 2200

Weight 34 kg



# Narvik Composite produces rollers for the future



**COMPOSITE  
RETURN ROLLER**  
Length 2200  
Weight 34 kg

The unique character of the composite material suits rollers for high speeds and tonnages and gives a lightweight, extremely strong, robust and durable roller.

The weight reduction of the composite carrying rollers is up to 50% of the equivalent steel rollers. Replacement of the rollers is fast and easy, and the rollers utilize less energy. The runout is less than 1/10 mm and the rollers are naturally balanced, giving low vibration and noise.

The patent pending construction of the roller body makes it possible to run the conveyor, even if the roller stops turning and only works as a

glide bar. This gives the operator the possibility of keeping to the planned service stops and avoids emergency break downs.

Long roller operation is secured by a patent high quality sealing system and accurate alignment of precision machined shaft and bearing housing.

The rollers have been in operation at LKAB ship loader in the port of Narvik in a very challenging operating environment of dust, water, salt and frost (ice) since December 2005 with excellent results.

## The carrying rollers are available in accordance with the table:

Shell diameter	Shaft diameter	Bearing size	Shell length
133 mm	30 mm	6306	465 – 950 mm
159 mm	30 mm	6306	465 – 950 mm
159 mm	40 mm	6308	465 – 950 mm
178 mm	40 mm	6308	465 – 950 mm
194 mm	40 mm	6308	465 – 950 mm
194 mm	50 mm	6310	465 – 950 mm

Narvik  
Composite's  
products  
increase profits  
by continuous  
operation



Our philosophy  
is to manufacture  
composite products  
for the future  
– through close  
collaboration with  
demanding  
customers!







# About us

Narvik Composite specializes in manufacturing conveyor rollers made of composite for a global market. The company was established in 2002 in the Technology Center of Narvik, Norway.

Narvik has a strong position in material technology and advanced production. Ore shipment from LKAB in Sweden has for 100 years been the most important industrial activity in Narvik. More than one billion tons of iron ore have been shipped out during this period.

Local expertise and proximity to the major mining companies in northern Sweden provides unique opportunities to develop new future oriented products for the mining industry. Our products have been developed and qualified in close corporation with these major mining companies.



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