

**Product datasheet** 

# Mine Shaft Guide Rollers The right fit for every condition

# The perfect match – mine shaft guide rollers

When a guide roller doesn't fit a conveyance properly, it causes high levels of wear and tear over time. To avoid additional costs related to maintenance and upkeep, it's crucial to find the best match.

We offer a diverse range of extended life guide rollers. No matter the conditions of a shaft, we can provide theright fit. Our guide rollers can operate at speeds up to 20 metres per second. They are versatile and function on both wood shaft guides and hollow steel shaft guides. We offer guide rollers with a diameter anywhere between 230 and 420 mm. Customizations are availablein guide roller size, type of tire, materials and mountings:

- Hub and bracket options: pressed steel, aluminum or stainless steel
- Tire options: pneumatic, foam-filled pneumatic, solid rubber, urethane
- Mountings options: fixed bracket, compression suspension, coil over shock absorber

## Key benefits

- Reduced maintenance costs
- Long-term alignment
- Optimised equipment for your conditions

Mission Zero Towards zero emissions by 2030

# **Guide Rollers**

Each mine conveyance requires guide rollers to have the right fit based on specific, unique conditions within every shaft compartment. We can help you select the best configuration for your conveyance.



#### **Trailer Cage Specific, Light Duty - Hinged Bracket**

- 269 mm (10.6") pneumatic or foam-filled tires
- 48 mm (1-7/8") adjustment on all rollers
- Face roller and one side roller are hinged and operated using a pry-bar, then pinned in place to maintain preload
- Hinged side roller has two planes of adjustment to ensure alignment
- Heavy-duty ball-bearing design requires no preload adjustment
- Bracket available in steel or aluminum



#### **Light Duty - Fixed Bracket**

- 269 mm (10.6") pneumatic or foam-filled tires
- 48 mm (1-7/8") adjustment on all rollers
- Heavy-duty ball-bearing design requires no preload adjustment
- Bracket available in steel or aluminum
- Optional guard for face roller
- FLS-LD-P (pneumatic) or FLS-LD-FF (foam filled)



#### Medium Duty - Suspension Arm Design

- 254 mm (10") rubber tires provide excellent durability
- Spring travel adjustment is readily accessible
- Dual spring rates can be tuned for specific applications
- Heavy-duty ball-bearing design requires no preload adjustment
- Bracket available in steel or aluminum
- Optional guard for face roller



#### Heavy Duty - Suspension Arm Design

- 305 mm (12") rubber tires provide excellent durability
- Spring travel adjustment is readily accessible
- Dual spring rates can be tuned for specific applications
- Large heavy-duty ball-bearing design requires no preload adjustment
- Bracket available in steel or aluminum
- Optional guard for face roller



### Extra Heavy Duty - Tandem Arm Design

- Tandem rollers are ideal for high-speed, high-load applications and provide quieter ride than single rollers
- 305 mm (12") rubber tires provide excellent durability
- Spring travel adjustment is readily accessible
- Dual spring rates can be tuned for specific applications
- Large heavy-duty ball-bearing design requires no preload adjustment
- Bracket available in steel



# **Guide Condition Selection Table**

	Guide Misalignment (mm)	Guide Gauge Variation (mm)
Good	<5 (<0.2")	<3 (0.12")
Average	5-10 (0.2" - 0.4")	3-5
Poor	10-20 (0.4" - 0.8")	5-10
Extremely poor	>20 (>0.8")	>10

# **Criteria Weighting Table**

Value	Speed, m/s	Mass per Guide, kg (fully loaded)	Guide Condition	Conveyance Type
1	0-5 (0 - 1,000 fpm)	<7,500 (<16,500 lb)	good	counterweight
2	5-10 (1,000 - 2,000 fpm)	7,500 - 15,000 (16,500 - 33,000 lb) average		skip
3	10-15 (2,000 - 3,000 fpm)	15,000 - 25,000 (33,000 - 55,000 lb)	poor	skip/cage combination
4	15-20 (3,000 - 4,000 fpm)	>25,000 (>55,000 lb)	extremely poor	cage
Weight	1	2	2	1
Value x Weight				

#### **Total Value**

### Recommendations

Recommendations						
Total Value	Guide Roller	Preload at wheel, N	Face Slipper Clearance, mm	Slide Slipper Clearance		
6-13	Light Duty (FLS-LD)	350 (80 lb)	10 (3/8")	6 (1/4")		
9-15	Medium Duty (FLS-MD)	700 (160 lb)	10 (3/8")	6 (1/4")		
14-21	Heavy Duty (FLS-HD)	1,400 (320 lb)	13 (1/2")	10 (3/8")		
18-24	Extra-Heavy Duty (FLS-XD)	2,800 (640 lb)	19 (3/4")	13 (1/2")		

\*The hinged guide roller bracket is only suited for small trailer cages weighting less than 5,000kg (11,000 lb) fully loaded. This page is only recommended starting point guide roller selection. Specific requirements can be accommodated.

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