

The shuttlecars are designed to operate efficiently in narrow or limited work areas with the ability to achieve rapid in- and out transportation.

Technical features

- Loading from car to car, inside conveyors provide quicker loading than any other system currently on the market.
- By matching the size and number of Shuttlecars to the volume of blasted rock the whole round can be removed in one trip.
- Conveyors use heavy-duty chains with long life "flights" to carry the muck.
- Dual electric motors power the conveyors via centrifugal clutches and worm gears.
- Elimination of unnecessary stopping out of niches and alcoves.
- The cars can be coupled to each other, up to eight cars together allowing 100 m³ of muck to be transported in one trip.
- Spotlights are mounted on each Shuttlecar to provide a well-lit and safe environment.
- The chains on the conveyor are heavy-duty with long life "flights" to carry the muck.
- The floor of the shuttlecar is lined with Hardox 500 wear plates, providing long life and low service requirements.
- Dual electric motors power the conveyors via centrifugal clutches and worm gears.
- Remote control allows up to three shuttlecars to be operated by the same operator.
- The chassis is made of heavy duty plate joint with continuous welds for max fatigue strength.
- The shuttlecars have specially designed boogies, with center suspension and rubber springs that contributes to a smooth and safe running of each car.
- Minimized risk of derailing, even when running on uneven tracks.
- The center suspension features a well-protected Teflon bearing that requires virtually no maintenance.
- The bogie can swing 45° on either side.
- Reduced wear of wheel flanges and maintained speed of haulage even with heavy transports.
- The wheel and flange are flame-hardened to a minimum of 320 HB.
- The standard bar for linking the locomotive and shuttlecars together is a straight draw bar which can take most couplings.
- HRST Shuttlecars used with Gialoader form a complete unit for our well-known "High Speed Tunnelling Method".

Standard

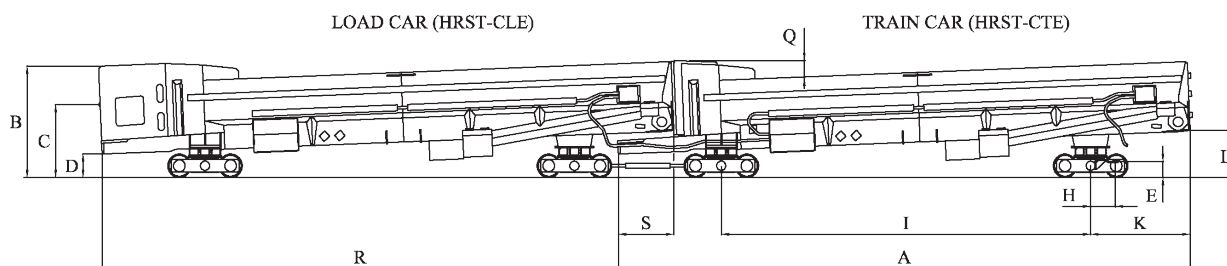
CE mark according to European standards.

Options

- Wagon brakes.
- Remote controls that allow up to three Shuttlecars to be operated by the same operator.

Other options and dimensions on request.

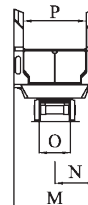
Technical data



Total length of HRST-C type train : (no. of cars x R) + S



REAR OF HRST CTE



Functional data

Capacity: Volume	90	9,0 m ³
	115	11,5 m ³
	140	14,0 m ³
Capacity: Weight	90	22 000 kg
	115	22 000 kg
	140	24 000 kg
Weight	90	11 300 kg
	115	11 700 kg
	140	12 000 kg
Maximum speed		15 km/h
Unloading time, approx.		2 min
Minimum Curv radius		30 m
Electrical motor	90	2x11 kW
	115	2x11 kW
	140	2x15 kW

Standard electric system

Electrical motor	90	2x11 kW
	115	2x11 kW
	140	2x15 kW

Dimensions

Maximum length (A)		11 200 mm
Maximum height (B)	90	1 850 mm
	115	2 050 mm
	140	2 250 mm
Hight of loading lip (C)	90	1 200 mm
	115	1 400 mm
	140	1 400 mm
Distance body-rail (D)		425 mm
Height to tow hook (E)		285 mm
Distance to tow hook (H)		500 mm
Distance between bogies (I)		7 200 mm
Distance bogie-front end (K)		1 950 mm
Distance body-rail (L)		840 mm
Maximum width (M)		1 600 mm
Maximum distance from centre (N)		800 mm
Track gauge (O)		600, 750, 900 mm
Inside width (P)		1 216 mm
Hight of waste plates (Q)		340 mm
Length of car reduced by overlap (R)		10 200 mm
Length of overlap (S)		1 000 mm
Wheel diameter		400 mm

Contact us for further information.

GIA - Grängesberg Industry AB
Kopparbergsvägen 37
SE-772 30 Grängesberg
Sweden

Phone +46 (0)73 421 9544
Email: contact@giaindustry.se
Web: www.giaindustry.se

Shuttlecar HRST-CE