



**ECO-HOPPERS SUPPLIED**  
IN THE LAST SEVEN YEARS

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# 1 Main projects implemented

The ability of our company to face great challenges is appreciated through experience, the scale and diversity of the projects in which we have participated.

In addition of its technical capacity to deal with complex request and successfully solve in a tailored design for each project, the three guiding principles of the activity of TALLER MECÁNICO MANUEL SILVA S.L.: versatility, quality and competitiveness.

In the last six years, we were carried out several hopper projects Eco or standard, below you can see a brief description of most significant eco projects, all successfully completed, and were:

## 2011



**G HMH 750 DS**

## PORT OF TYNE AUTHORITY NEWCASTLE – UK

TWO (2) Eco-Hoppers of 105 m<sup>3</sup> with 2 telescopic chutes, on rubber wheels, hydraulic self-propelled, for bio-mass pellets (0,4 - 0,6 t/m<sup>3</sup>).

Flex-Flap closing system with rubber panels to seal the suction, and air blade on top (PATENTED).

Dust extraction by eight DCE-Donaldson bag-filters.

Unloading to trucks by Cleveland Cascade telescopic chutes.

Hopper tare weight: **145.000 kg**

Average: **750 t/h**

**2012****ECO-1L-LIG-2B-AUT**

## CIMENTS KERCIM SAINT NAZAIRE - FRANCE

ONE (1) Eco-Hopper of 66 m<sup>3</sup> with two telescopic chutes on rubber wheels, hydraulic self-propelled, for clinker (**1,4 - 1,6 t/m<sup>3</sup>**).

Flex-Flap closing system with rubber panels to seal the suction.

Dust extraction by FDI bag-filters.

Unloading to trucks by two Silva telescopic chutes which had a specific designed for this project with dust extraction by FDI bag-filter.

Hopper tare weight: **115.000 kg**

Average: **800 t/h**

**2013****ECO-AUTON-EXT-M**

## HOLCIM PORT KEMBLA - AUSTRALIA

THREE (3) Eco-Hoppers de 30 m<sup>3</sup> with belt feeder of 1.000 t/h, self-propelled on rail-bogies, for clinker (**1,4 - 1,6 t/m<sup>3</sup>**).

Flex-Flap closing system with rubber panels to seal the suction, and rail way mobile top roof.

Dust extraction by FDI bag-filters.

Unloading by extractor belt to quay belt conveyor with dust extraction on transfer by FDI bag-filter.

Hopper tare weight: **85.000 kg**

Average: **1000 t/h**

2014



G HMH 750 DS

## PORT OF TYNE AUTHORITY NEWCASTLE - UK

ONE (1) Eco-Hopper of 105 m<sup>3</sup> with 2 telescopic chutes, on rubber wheels, hydraulic self-propelled, for biomass pellets (0,4 - 0,6 t/m<sup>3</sup>).

Flex-Flap closing system with rubber panels to seal the suction, and air blade on top (PATENTED).

Dust extraction by DCE-Donaldson bag-filters.

Unloading to trucks by two Cleveland Cascade telescopic chutes.

Hopper tare weight: **145.000 kg**

Average: **750 t/h**

2014



G HSH 1200 DS

## YARA - RIO GRANDE DO SUD BRASIL

TWO (2) Eco-Hoppers of 100 m<sup>3</sup> with belt feeder of 1.200 t/h, crane propelled on rail-bogies, for fertilizer (0,7 - 1,5 t/m<sup>3</sup>).

Flex-Flap closing system with rubber panels to seal the suction.

Dust extraction by FDI bag-filters.

Unloading by extractor belt to quay belt conveyor with dust extraction on transfer by FDI bag-filter.

Hopper tare weight: **160.000 kg**

Average: **1200 t/h**

2016



ECO-AUTON-IV-IC-L

## HAYFA PORT LTD. PORT OF HAIFA - ISRAEL

ONE (1) Eco-Hopper of 50 m<sup>3</sup> with telescopic chute on rubber wheels, hydraulic self-propelled, for animals food pellets (**0,8 t/m<sup>3</sup>**).

Flex-Flap closing system with rubber panels to seal the suction, and rail way mobile top roof.

Dust extraction by DCE-Donaldson bag-filters.

Unloading to trucks by Silva telescopic chute with dust extraction by DCE-Donaldson bag-filter.

Hopper tare weight: **105.000 kg**

Average: **250 t/h**

2017



S HRH 850 DS

## PORT OF TYNE AUTHORITY NEWCASTLE - UK

TWO (2) Eco-Hoppers of 105 m<sup>3</sup> with extractor belt of 850 t/h, electrical propelled on rail-bogies, for biomass pellets (**0,4 - 0,6 t/m<sup>3</sup>**).

Flex-Flap closing system with rubber panels to seal the suction, and air blade on top (PATENTED).

Dust extraction by DCE-Donaldson bag-filters.

Unloading by extractor belt to quay belt conveyor with dust extraction on transfer by DCE-Donaldson bag-filter.

Hopper tare weight: **180.000 kg**

Average: **850 t/h**

**2017**

**S HRH 2100 DS**

## EBHISA EL MUSEL PORT, GIJÓN - SPAIN

ONE (1) Eco-Hopper of 250 m<sup>3</sup> with apron feeder of 2.100 t/h, electric propelled on rail-bogies, for iron ore pellets (2,15 - 2,45 t/m<sup>3</sup>) and coal (0,825 - 0,95 t/m<sup>3</sup>).

Flex-Flap closing system with rubber panels to seal the suction.

Dust extraction by DCE-Donaldson.

Unloading by apron feeder and sharing belt to three (3) quay belt conveyors with two dust extraction on transfers by DCE-Donaldson bag-filters.

Hopper tare weight: **450.000 kg**

Average:	Coal	Iron ore
	<b>600 t/h</b>	<b>800 t/h</b>
	<b>1800 t/h</b>	<b>2100 t/h</b>



**More projects details:**

[www.silva.es](http://www.silva.es)

## 2 Anti-dust ecohoppers « Silva » Worldwide

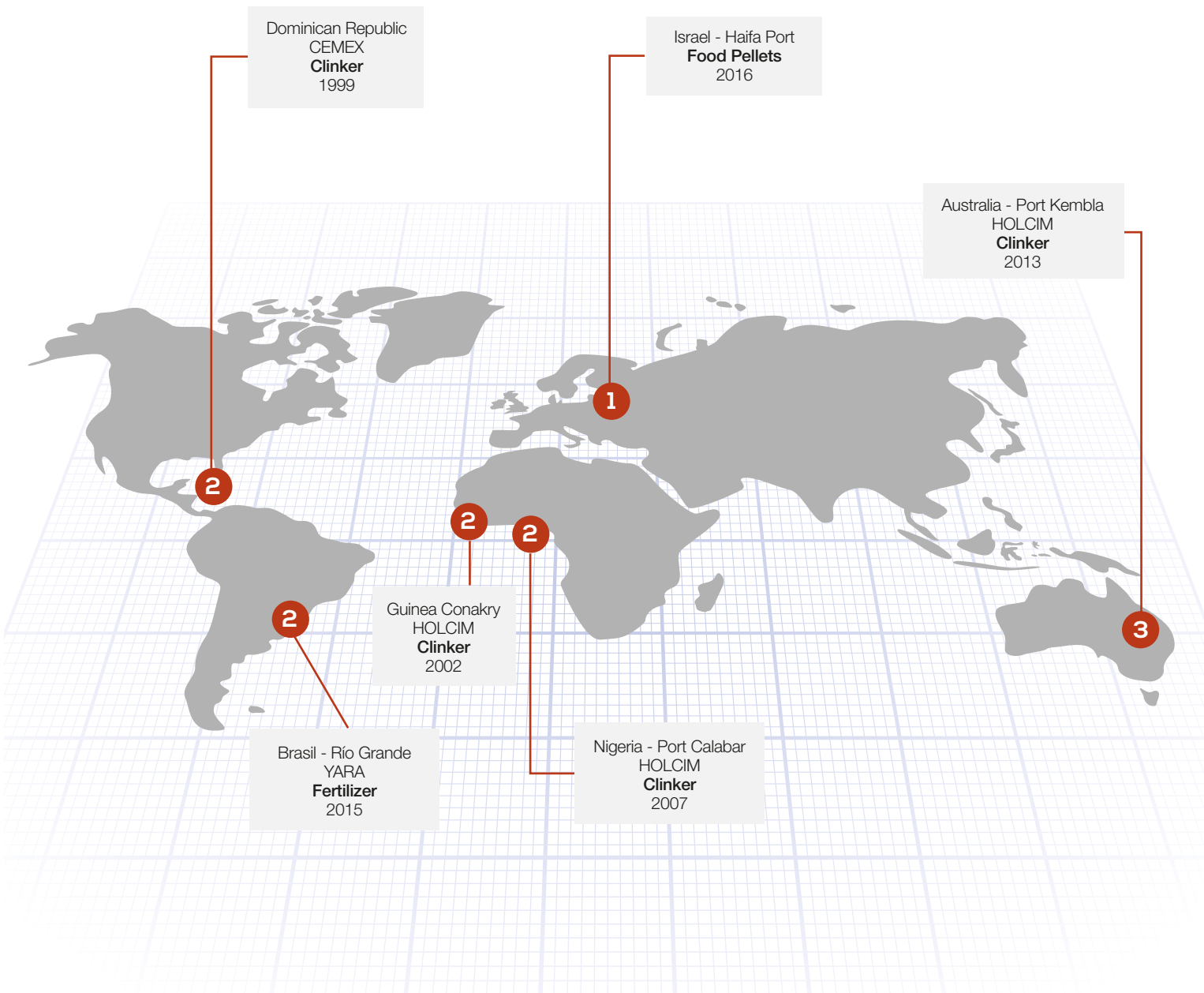
Customer / Location	Units	Year	Bulk	Type
<b>ERSHIP</b> Tenerife (Spain)	2	1.997	Clinker	Ecological Hoppers with two telescopic chutes
<b>CEMEX</b> Dominican Republic	2	1.999	Clinker	Ecological Hoppers with two telescopic chutes
<b>HOLCIM</b> Guinea Conakry	2	2.002	Clinker	Ecological Hoppers with extractor belt and sliding covers
<b>ERSHIP</b> Huelva (Spain)	1	2.003	Clinker	Ecological Hoppers with extractor belt dynamic weighing a telescopic
<b>CEMEX</b> Civitavecchia (Italy)	2	2.004	Clinker	Ecological Hoppers with extractor belt dynamic weighing a telescopic
<b>HOLCIM</b> Lagos (Nigeria)	2	2.007	Clinker	Ecological Hoppers with two telescopic chutes
<b>CEMENTOS LA UNION</b> Valencia (Spain)	1	2.008	Clinker	Ecological Hoppers with two telescopic chutes
<b>TOLVEMA</b> Málaga (Spain)	1	2.008	Clinker	Ecological Hoppers with two telescopic chutes
<b>CEMEX</b> Tilbury (United Kingdom)	1	2.010	Clinker	Ecological Hoppers with extractor belt
<b>EUROPORTS</b> Tarragona (Spain)	1	2.010	Coal	Semi-Ecological Hopper with water fog and extractor belt
<b>PORT TYNE AUTHORITY</b> Port of Tyne (UK)	2	2.011	Biomass	Ecological Hoppers with two telescopic chutes and air blade
<b>CIMENTS KERCIM</b> Saint Nazaire (France)	1	2.012	Clinker	Ecological Hoppers with two telescopic chutes and sliding covers
<b>HOLCIM</b> Port Kembla (Australia)	3	2.013	Clinker	Ecological Hoppers with extractor belt and sliding covers
<b>PORT TYNE AUTHORITY</b> Port of Tyne (UK)	1	2.014	Biomass	Ecological Hoppers with two telescopic chutes and air blade
<b>YARA</b> Río Grande do Sud (Brasil)	2	2.015	Fertilizer	Ecological Hoppers with extractor belt on rails
<b>HAIFA PORT LTD</b> Port of Haifa (Israel)	1	2.016	Food Pellets	Ecological Hopper with telescopic chute
<b>PORT TYNE AUTHORITY</b> Por of Tyne (UK)	2	2.017	Biomass	Ecological Hoppers with extractor belt and air blade on rails
<b>EBHISA</b> Port of Gijón (Spain)	1	2.017	Iron Ore Coal	Ecological Hopper apron feeder an sharing belt on rails



### 3 Ecohoppers « Silva » operating in Europe



## 4 Ecohoppers « Silva » operatives internationally





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