



history

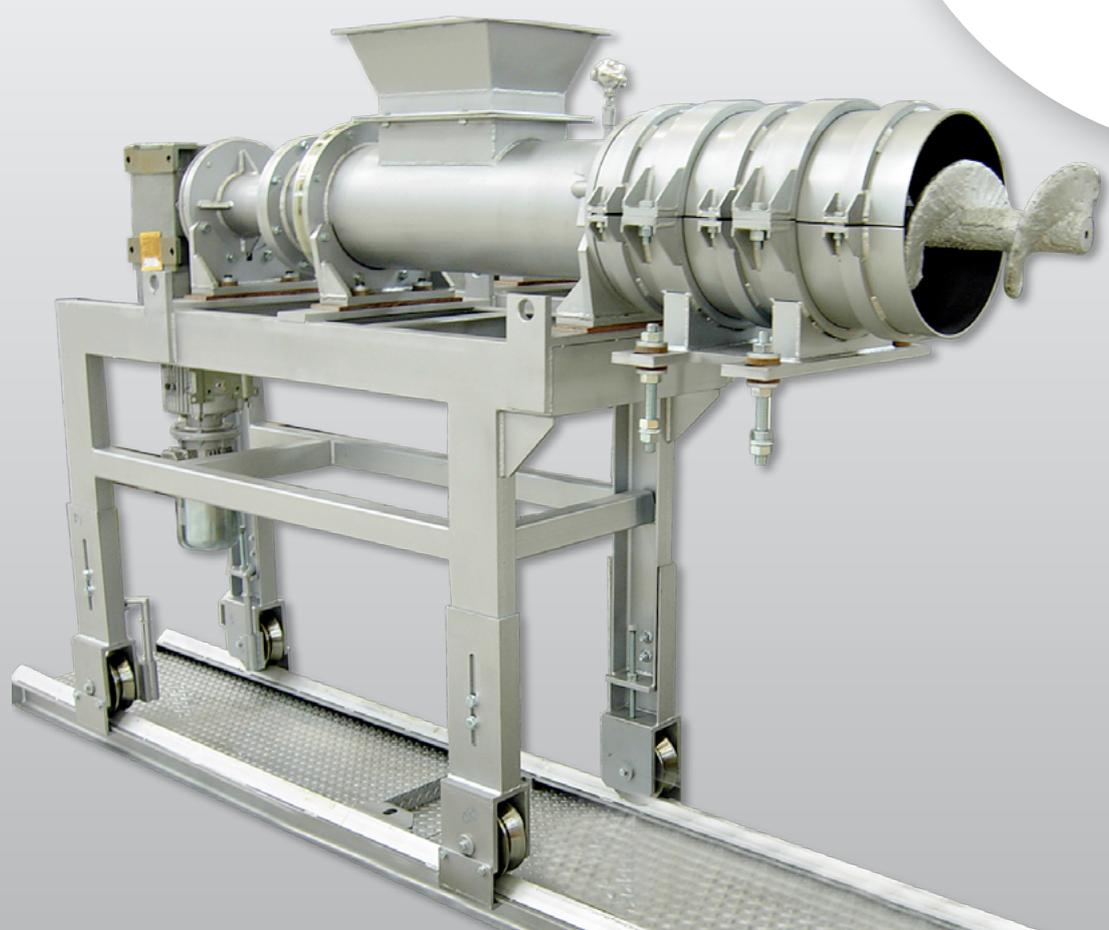
partnerships

research

experience

SOLUTIONS FOR THE GLASS INDUSTRY

SCREW BATCH CHARGER





SCREW BATCH CHARGER

The batch charger is one of the most important pieces of equipment installed in a glass furnace as it has an important influence on the performance of the furnace.

Glass Service has developed a range of batch chargers including a screw batch charger.

Screw batch chargers are normally installed in the back wall of the furnace through a refractory block. The mechanism is installed on a welded steel frame with four wheels which travel on rails for easy positioning and removal.

The batch charger comprises the following main components:

- Rails
- Supporting frame realized with steel profiles
- Feeding hopper
- Screw with special external coating
- Feed tube
- Refractory protection for the screw nose

- Drive system with AC servo-ventilated motor and gearbox

Batch loading is carried out by means of a steel screw with special external coating to avoid wearing.

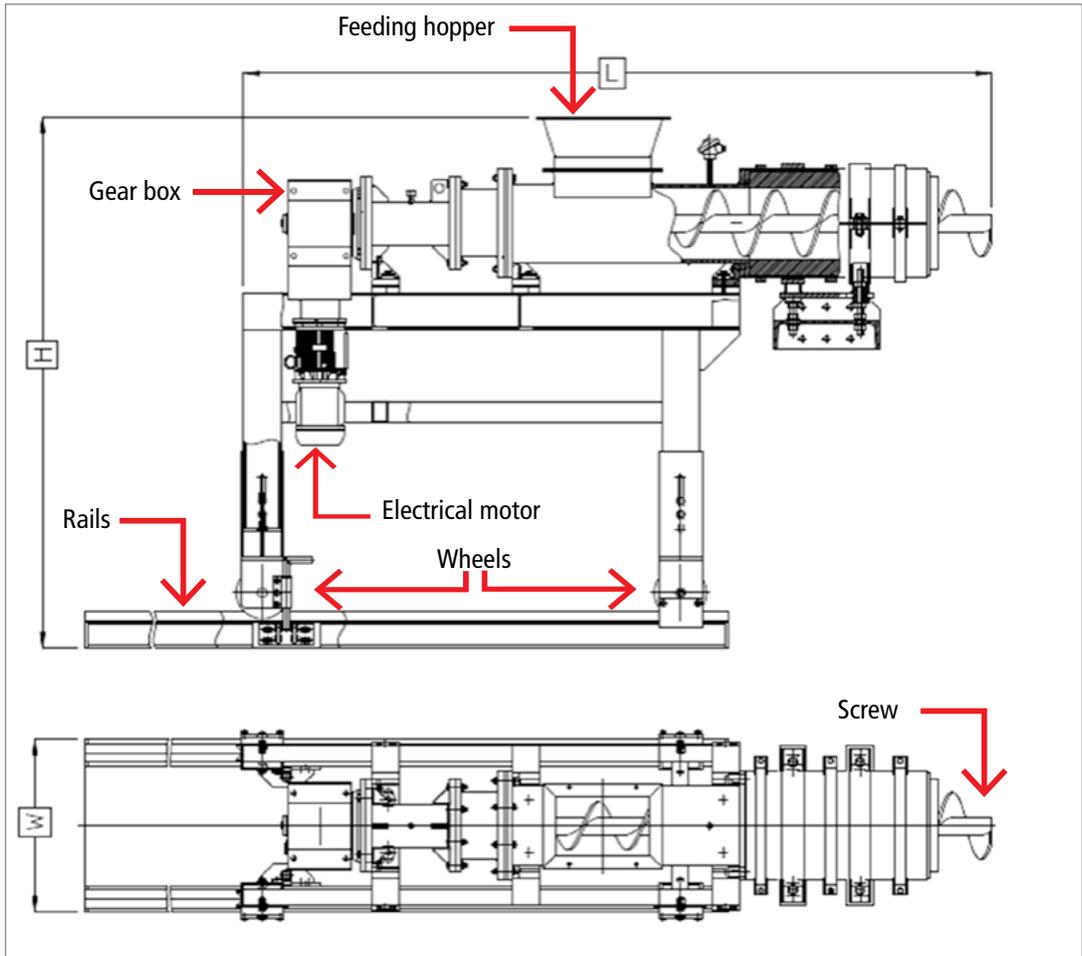
Batch is loaded via the feed hopper and is fed by gravity into the feed tube onto the feed screw (manufactured from steel with a special coating to minimise wear) which in turn charges the batch into the furnace.

The screw is actuated by a three-phase asynchronous electric motor coupled to a speed reducing gear unit. The motor is controlled by an inverter located in the main control board, driven by a 4-20mA signal from the glass level control, thus ensuring a continuous and smooth regulation of the charging rate.

The drive includes large diameter conical roller bearings and a system to prevent batch damaging the bearings, etc.



- Increase the furnace pull/rate performance
- Decrease the energy consumption
- Reduce the furnace pollution dust carry over
- Reduce the glass level oscillation
- Reduce the NOx formation



Machine drawing

TECHNICAL FEATURES

Model		INF CR R 270/1250 040 AA
Type		Refractory head
Feeding tube inner diameter		270
Screw diameter	mm	250
Screw pitch		150
Gear box ratio		1 to 171.5
Motor speed		1430
Screw speed	rpm	8.3
Flow rate	Kg/min	7.5 to 37
Material being handled		Glass batch - Cullet only Glass batch & cullet
Max cullet size	mm	25
Moisture content		0,5 to 3 %
Main motor power	kW	1.5
Electric power connection		3ph + E 400 VAC 50 Hz
Dimensions (L x H x W)	mm	2800 x 2000 x 650
Weight	Kg	-



CUSTOMERS WORLD WIDE

SBC-17-01-E



turn key project
batch plants
furnaces:

recuperative
regenerative
gas fired
oil fired
oxy-fuel fired
mixed fuel
electric

forehearth:

colouring forehearths
combustion systems

day tanks

mini melters

boosters

bubblers

metallic recuperators

batch chargers

stirring machines

glass level controls

frit dosing and transport

control cabinets

SCADA and DCS
cooling systems
robotics

gathering - 4 or 5 axis

services:

installation and supervision
commissioning

training

preheating

technology transfer

assistance

laboratory and analysis

refractory consulting

project financing



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