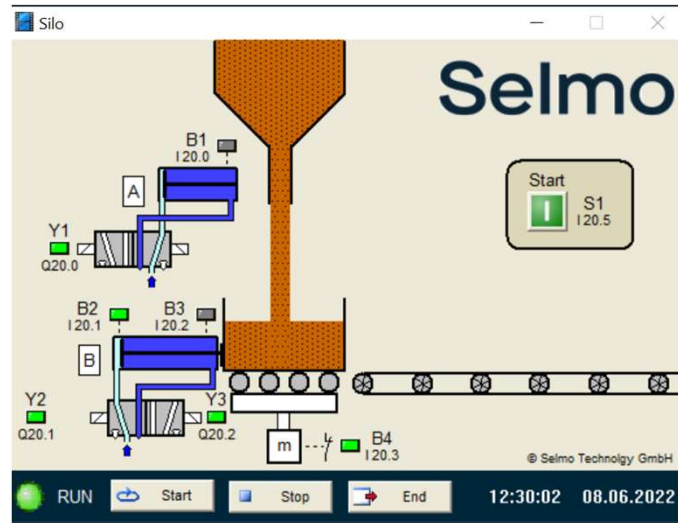


# Selmo

- Model Silo



Boris

- **Functional Description**

A transport container is filled from a bulk material silo by retracting an electropneumatically operated gate valve (cylinder A).

With the aid of a weighing device, the same quantity of bulk material should always be filled. For this purpose, the weighing device has a binary output (B4) which assumes a logic 0 level when the desired filling quantity is reached.

The gate valve now closes and after a departure time of 5 s, cylinder B pushes the container onto the roller conveyor and then moves back to its initial position. In order to be able to close the silo, which may have just been opened, in the event of a power failure, cylinder A is actuated by a spring-returned 5/2 directional control valve, while cylinder B is actuated by a directional control valve which is pulse-controlled on both sides. The system is started via pushbutton S1.

## In/Output assignment

The in- and outputs of the model are assigned as follows (the designation input or output refers to the connected controller):

Input Nr.	Boris	PLC-Variable name	Specification
1	S1	I_S1 :BOOL;	Start button (closer)
2	B1	I_B1 :BOOL;	Limit switch Cylinder A extended (closer)
3	B2	I_B2 :BOOL;	Limit switch Cylinder B retracted (closer)
4	B3	I_B3 :BOOL;	Limit switch Cylinder B extended (closer)
5	B4	I_B4 :BOOL;	Sensor weight reached (opener)
Output Nr.	Boris	PLC-Variable name	Specification
1	Y1	O_Y1 :BOOL;	Spring-return cylinder A retract
2	Y2	O_Y2 :BOOL;	Cylinder B extend
3	Y3	O_Y3 :BOOL;	Cylinder B retract