

smf

FULLY AUTOMATIC MACHINES FOR PET BOTTLES PRODUCTION

HS series



HS series



HS series are linear automatic blow moulding machines suitable for production of PET bottles 200 ml – 3 000 ml. Thanks to a reliable construction, easy operation and maintenance HS series meets all requirements for cost effective production of a very good quality PET bottles.

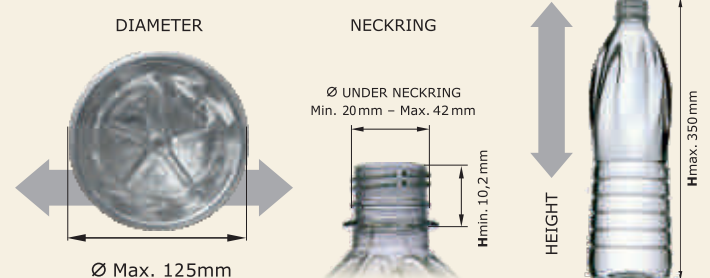
HS series consist of fully automatic pneumatic machines with automatization of all operations such as preforms loading and orientating. Movements of the closing unit and stretch rods are done by FESTO pneumatic cylinders. Chains inside the heating system are moved by electric motors. Preform transportation system is based on specially designed pins suitable for a stable work of the machine with different neck types for water, carbonated soft drinks, oil and chemical preforms.

Modular construction allows to combine machine sections together on one frame. Through adding of one (HS3000), two (HS6000) and more sections (HS9000, HS12000), it is possible to design a machine installation with a total capacity suitable for customers' needs. Modules can either work fully integrated giving maximal machine's output, or in case it is necessary any of the modules can be switched off.

HS machines are very efficient and can work as stands alone or as in-line machines connected with fillers via SMF bottles unscrambling units.

HS series key points:

- compact size and durability of the equipment,
- flexible and efficient – heating system with heating modules – each of them consisting of 7 heating zones (steered from machine's HMI) ensures proper heating even for long preforms – ensuring proper material distribution during blowing process,
- easy and flexible operation – easy mould change-over system and possibility to work with many types of neck rings,
- advanced PLC with build-in memory to keep blowing parameter recipes for many types of bottles,
- stable production with high performance per cavity – short decompression time,
- reliable, heavy duty machines ensuring cost-saving production,
- modular construction – modules can be combined together on one frame – each module can work integrated to get maximal machine's efficiency or can be switched off to adjust production to the needs during the low season,
- high performance per cavity, perfect machine for untypical preforms and neckrings.



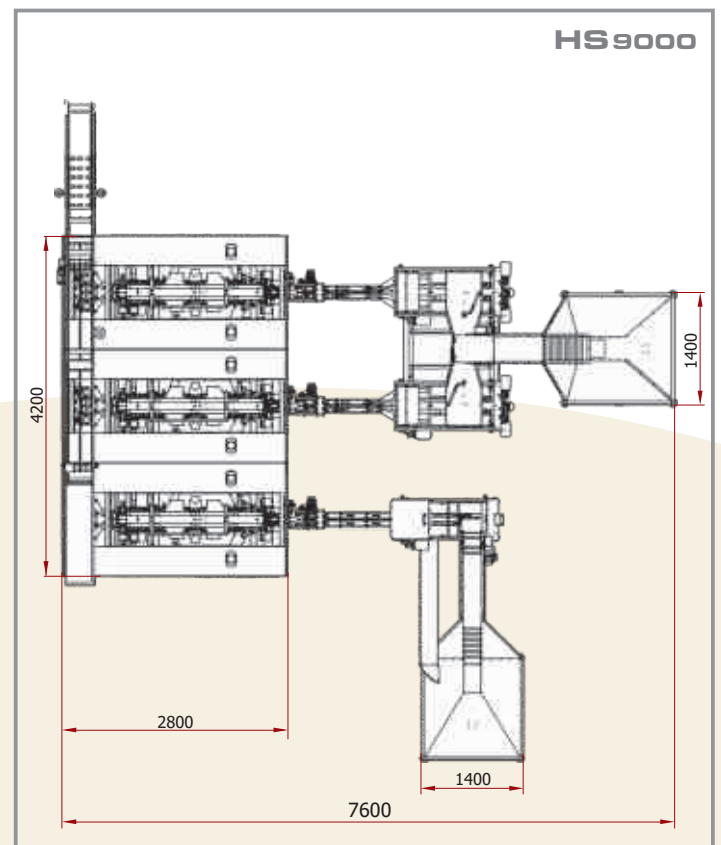
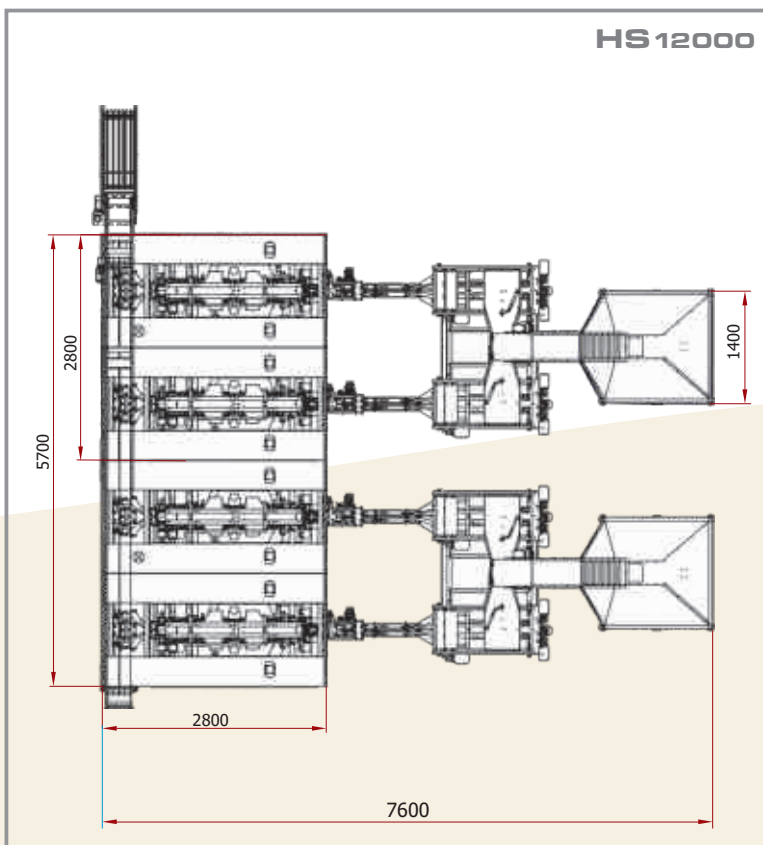
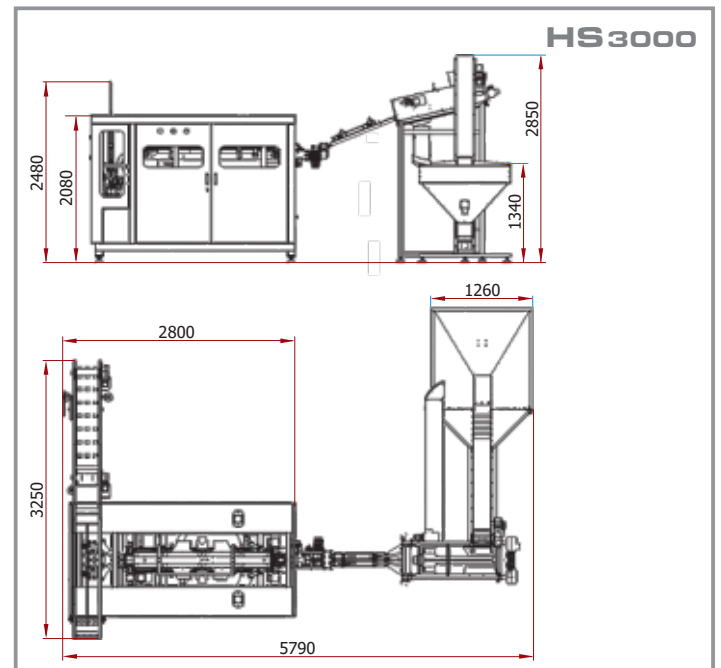
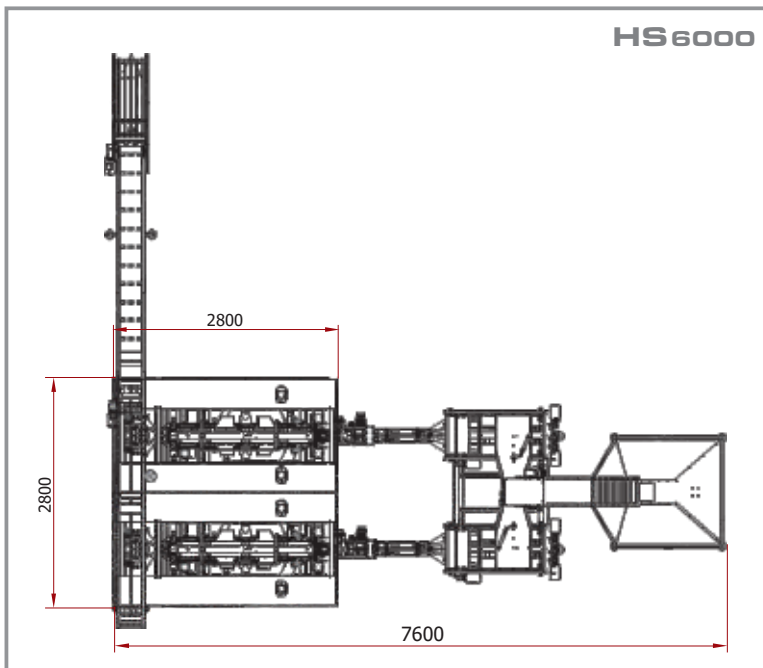
HS 3000

HS 6000

HS 9000

HS 12000

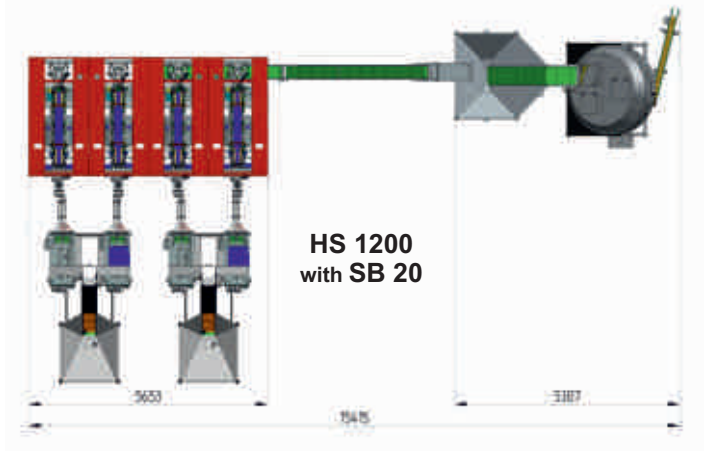
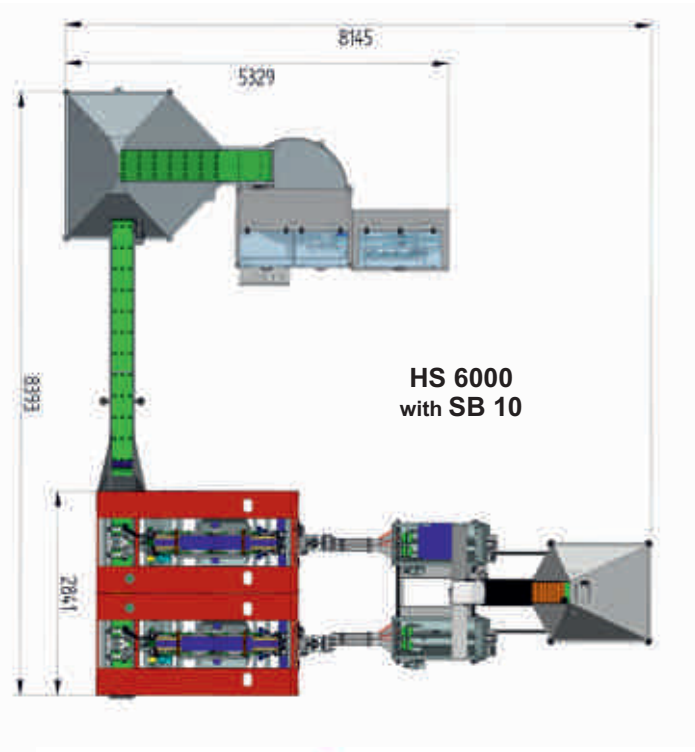
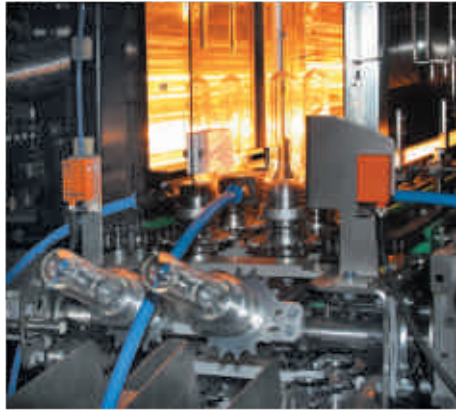
Blowing pressure	25bar	25bar	25bar	25bar
Bottle size	0,25–3L	0,25–3L	0,25–3L	0,25–3L
Output 0,25L up to (BPH)	3000	6000	9000	12000
0,5L up to (BPH)	2750	5500	8250	11000
1L up to (BPH)	2500	5000	7500	10000
1,5L up to (BPH)	2400	4800	7200	9600
2L up to (BPH)	2000	4000	6000	8000
Power installed kW	36	72	108	144
Effective power (1L bottle)	23,4	46,8	70,2	93,6
Working air quantity (10bar) m ³ /min	1,3	2,6	3,9	5,2
Working air quantity (25bar) m ³ /min	2,2	4,4	6,6	8,8
Number of cavities	2	4	6	8
Mould material	FORTAL	FORTAL	FORTAL	FORTAL



HS series

HS are very efficient machines and can work as a stand alone or in-line with SMF bottle unscrambler between the blower and filler. SMF offers linear "belt type" unscramblers (SB6 or SB10) as well as "pocket type" rotary unscrambler SB20 – most suitable for very light bottles. Two-stage process of production is divided into the following actions:

- Loading preforms from preform hopper and positioning them by the preform orientating system.
- Gripping the single preform and loading it on the pins of the perform transportation system.
- Conveying the preforms on internal holders inside the heating unit.
- Preform re-heating process during transport & rotation inside the heating unit with neck cooling at the same time.
- Transferring the heated preform to the closing unit.
- Bottles blowing process inside the closing unit: stretching and cooling during pre-blow and main blow, decompression.
- In-line offloading of the ready bottles on to belt conveyor.



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