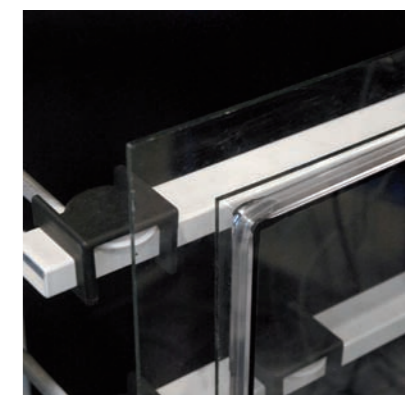
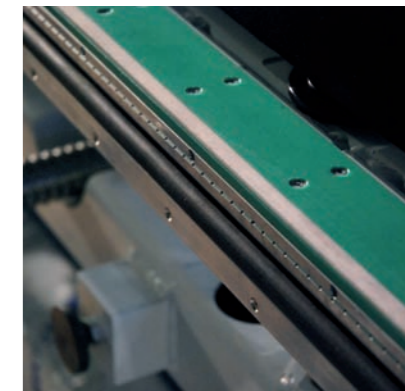
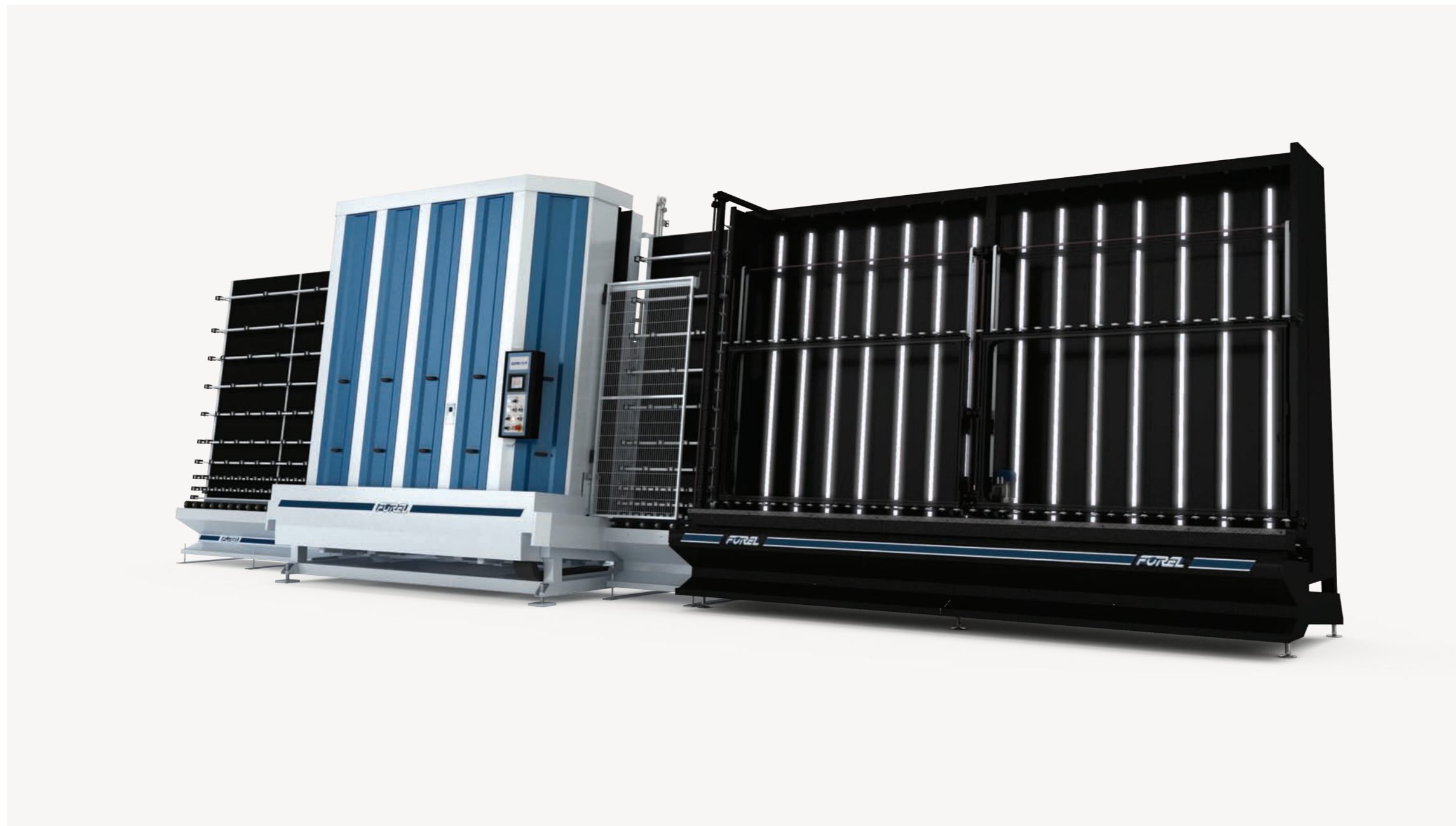


# ART. APG COUPLING FLAT PRESS UNIT WITH GAS FILLING

THE APG FLAT PLATE COUPLING PRESS EFFICIENTLY AND ACCURATELY ASSEMBLES DOUBLE-GLAZED UNITS. THIS PRESS OPENS AND CLOSES AUTOMATICALLY USING DIMENSIONAL INFORMATION GATHERED FROM THE ONBOARD MEASURING SYSTEM.

THE PRESSING ACCURACY IS SUCH THAT IT CAN WORK WITH RIGID, HYBRID AND FLEXIBLE SPACER SYSTEMS, ASSEMBLING THEM INTO DOUBLE/TRIPLE/QUADRUPLE INSULATED GLAZED UNITS OF UP TO A THICKNESS OF 100 MM. DURING THE PRESS COUPLING CYCLE INERT GASES SUCH AS ARGON CAN BE INJECTED INTO THE UNITS CAVITY.





The machine is a solid structure featuring Forel's innovative construction reflecting the philosophy and culture for quality build. The precise engineering of the super structure has allowed for a special system to be developed which guarantees extreme accuracy, performance and capacity especially considering weight per linear metre.

The machine automatically measures the thickness of the sheets and frames (including butyl), which make up the glazing unit. Glass thickness is measured using a special self-centering gage that operates irrespective of the position of the glass relative to the conveyor.

The spacer bar alignment station features special inspection lights with 2800 and 3200 high version being fitted with an upper support facility to assist with the correct placement of large frames.

The precision of the pressing plane is guaranteed by a 4 point electronically controlled drive system that moves the pressing planes with absolute accuracy, ensuring perfect parallel movement guaranteeing quality pressing. The software is capable of automatically controlling the presses minute movement differentiating between rigid and flexible frames. When working with flexible frames, the software also controls specific compression detail via percentages that are issued by the spacer manufacturer.

Throughout the glass coupling process the glass sheets are supported from beneath via a mechanical device ensuring safety and precision when assembling standard, triple and stepped units.

The front mobile surface is equipped with a series of suction cups that safely hold the glass. To optimize air consumption the suction cups are divided into different zones parts, which operate automatically according to the length and height of the glaze unit.

The two internal pressing plates are covered with a special scratch-resistant material with the glass being conveyed on a cushion of air supported by a precision drive belt. An automatic system allows the machine to be opened to 500 mm for inspection and cleaning operations.

A special manifold system ensures the accurate delivery of gas with a high fill ratio within the unit, optimizing consumption and reducing waste. The laminar gas flow system can reach a flow rate of 25 litres per second and is controlled via a special internal patented control system.

Gas filling is carried out by a supply system that can vary according to the length and height of the unit.

If the "stepped unit assembly" option is included, the out feed conveyor is equipped with a series of lower support rollers which are automatically positioned according to the glass and frame thickness. This offset support guarantees that the smaller pane of the stepped unit does not slip during transit.

The machine is equipped with a self-diagnostic system that identifies faults with codes, descriptions and images with an additional system that allows for remote connection and assistance.

Technical information

	APG3216	APG3220	APG3225	APG5028	APG5032	APG6032	
A	1600	2000	2500	2800	3250	3250	
B	640	640	640	640	640	640	
C	3600	3600	3600	3600	3600	6000	
D	900	900	900	900	900	900	
E	3470	3470	3470	5100	5100	6670	
F	2400	2400	2400	2400	2400	3600	
H	2480	2880	3380	3680	4130	4170	
H1	-	-	-	4200	4650	4650	
L	10400	10400	10400	13800	13800	16920	
P	2300	2300	2300	2300	2300	2300	
P1	3620	3620	3620	3620	3620	3630	
A1	Rp 1/2" 6 bar	Rp 1/2" 6 bar	Rp 1/2" 6 bar	Rp 1/2" 6 bar	Rp 1/2" 6 bar	Rp 1/2" 6 bar	
compressed air	600 NL/min	700 NL/min	800 NL/min	1100 NL/min	1200 NL/min	1800 NL/min	
E1	3P+N+E 400/230V Installed: kW 6 -50/60Hz Absorbed maximum: -80%	3P+N+E 400/230V Installed: kW 6 -50/60Hz Absorbed maximum: -80%	3P+N+E 400/230V Installed: kW 6 -50/60Hz Absorbed maximum: -80%	3P+N+E 400/230V Installed: kW 6 -50/60Hz Absorbed maximum: -80%	3P+N+E 400/230V Installed: kW 6 -50/60Hz Absorbed maximum: -80%	3P+N+E 400/230V Installed: kW 6 -50/60Hz Absorbed maximum: -80%	3P+N+E 400/230V Installed: kW 10 -50/60Hz Absorbed maximum: -80%
thermal switch	25 A	25 A	25 A	25 A	25 A	32 A	
G1-G2 GAS	Feeding from one bottle or preferably more gas bottles Ar or Kr (optional) linked up in parallel with HP joints (high pressure) Pressure field 200-15 barg upstream from the pressure regulator (IN=UNI4412, OUT=3/8" Rp) Flow rate min. 1500 NL/min (20°C + 10° C)						

Forel reserves the right to change the data in this general description sheet. The machine shown is a mere guideline, it may include optional accessories and vary according to the maximum work height.

