

SERVIZIO s.r.l.



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GAS-INJECTION UNIT FOR INJECTION MOLDING MACHINES

SERVIZIO Srl presents its new **Control Gas** injection system using high pressure nitrogen with an automatic closed double-loop control unit. This unit receives nitrogen from the **Control Gas** compressor at 350 bar or from a cylinder pack at 200 bar. It then injects the gas into the mold of an **Injection** molding machine, even using more than one **gas** nozzle and, if necessary, at different pressures. In this

manner it is possible to create control cycles which inject the gas through well defined channels, cleaning them out and forcing the material to adhere perfectly to the **cavity** walls. The **Control Gas** unit can be installed on all injection molding machines, no matter what brand, model, tonnage and year of manufacturing. Moreover installation is extremely simple.

Advantages of high pressure gas injection

- Aesthetic improvements in the shape and surface finish of the molded **parts** (no signs of **sink** and/or rough surfaces).
- Dimensional stability
- Utmost **flatness** and shape conformity
- Faster molding cycles because cooling and **hold pressure** times are reduced
- Lighter final products
- **Much lower** Injection molding machine tonnage than with traditional **injection** molding
- **Raw material saving**
- **The moulded pieces do not need shaping**
- **As a consequence a competitive price of the final product resulting cheaper.**

- Injection and gas regulation modules with from 1 to 4 ducts for injection molding machines **have** the following characteristics:
- Maximum inlet pressure 350 bar
- Outlet pressure from 2 to 300 bar.
- Valves controlled by nitrogen regulated by the low pressure control unit.
- **Start of the gas Injection is given** by the injection molding machine through digital input arranged **with an interface connection**.
- Ability to connect **The Gas Control system** **with** two injection molding machines with completely separate regulations (not available for HGR1).
 - 20-step injection cycle: the duration of each individual step can be regulated from 00.1 to 99.9 sec.
 - Inlet and output pressures displayed in digital form with pressure curves.
 - Setting and regulation of program parameters, even when working in automatic mode.
 - Output pressures regulation in a closed, double loop.
 - Terminal with 14" graphic STFT display.
 - Management of an internal archive that can handle to a max. of 200 programs.
 - Floppy disk (3 1/4") for external **files** and to copy programs.
 - The machine can later be expanded with other ways (up to a max. of 4).
 - Newly designed, easy-to-install **the** high pressure regulation valve

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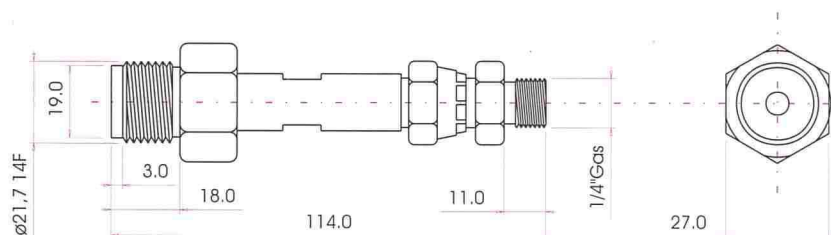
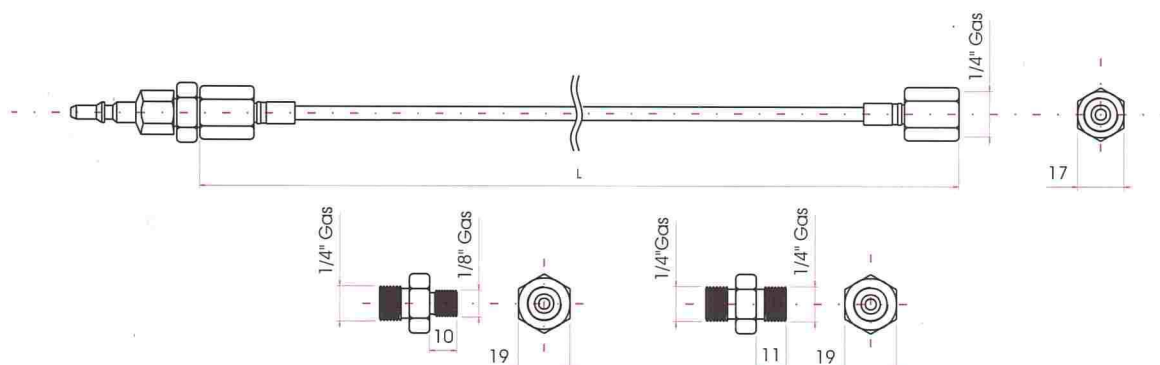
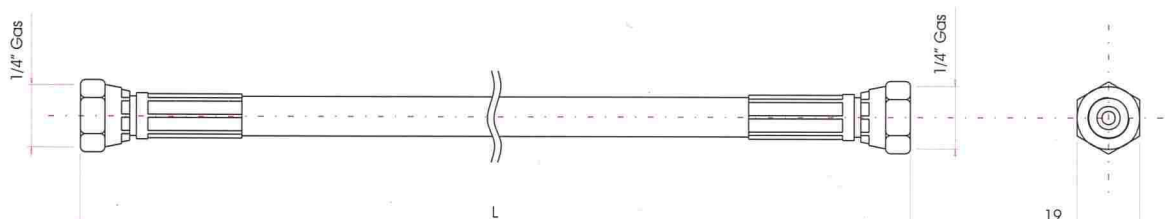
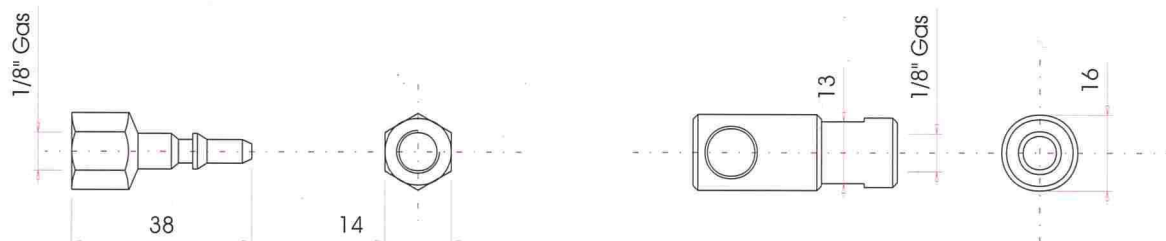
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Control unit for the injection of nitrogen into moulds

- Controllable from 1 – 4 outputs
- Link to two presses
- Colour graphic display
- No compressed air connection
- With accessories case
- Expandable at a later stage to a maximum total of 4 outputs
- Start cycle with input in digital or analogical



Model	HGR1	HGR2	HGR3	HGR4
Number of outputs	1	2	3	4
Type of regulator	Closed double ring			
Maximum input pressure	350 bar			
Maximum output pressure	280 bar			
Minimum output pressure	5 bar			
Accuracy	+/- 0,5% at bottom scale			
Power supply	220v 2P+T 50-60Hz 200VA			
Noise levels	< 70 dB(A)			
Working temperature	From 5°C to 50°C			
Stocking temperature	From -25°C to 60°C			
Humidity	< 90%			
Quick fit couplings	YES			
Link to two presses	NO	YES		
Display	13"STFT colour display			
Floppy disk drive	YES			
Keyboard	Membrane with status LED			
Type of pressure display	Digital & graphic with pre-set and actual scale plus updating in real time			
Digital input	3			
Digital output	4			
Analogical input	2 (0-10Volt)			
Analogical output	NO			
Programme length	20 phases			
Maximum length of phase	99.9 s			
Possible number of storable programmes	Infinite			
Languages available	Italian / English / French / German / Spanish			
Start cycle signal	igital with programmable delay or Analogue with transducer at programmable injection screw position			
Structure	Painted steel with castors for mobility			
Dimensions (L x P x h) [mm]	790 x 480 x 1255			
Weight [Kg]	114	120	126	132


NITROGEN CYLINDER SUPPLY ADAPTOR
HGRADI250M

CONNECTOR TUBE FOR THE MOULD CONTROL UNIT
HGRTBU206
L = 6000 mm
HGRTBU210
L = 10000 mm

CONNECTOR TUBE FOR THE COMPRESSOR CONTROL UNIT
HGRTBI506
L = 6000 mm
HGRTBI510
L = 10000 mm

QUICK FIT JOINT FOR CONNECTING TO THE MOULD
RBE03.6100
Fitting male
RBE03.1100/IA/FB/HP
Fitting female with retentive valve