

# Experience in construction.



**CUSTOM COMPONENTS FOR WELDING MACHINES AND PLANTS**  
COMPONENTI CUSTOM PER IMPIANTI DI SALDATURA





Vesta Automation is specialized in making components for industrial automation. Founded in 1984, in **over 40 years of experience** Vesta developed projects in over 60 international markets, specializing in pneumatic automation for outdoor environments and heavy-duty applications: **truck equipments, railways, amusement parks, cement plants and process industries.** Production, in the ISO:9001/2015 certified Rovigo plant, ranges from pneumatic cylinders, electric actuators, pneumatic valves and solenoid valves, air treatment units and precision pressure control systems.

*Vesta Automation è un'azienda specializzata nella produzione di componenti per l'automazione industriale. Nata nel 1984, in **oltre 40 anni di esperienza** ha sviluppato progetti nei settori più disparati e in oltre 60 mercati internazionali, specializzandosi nell'automazione pneumatica in ambienti outdoor e applicazioni gravose: **attrezzature per camion, settore ferroviario, amusement park, cementifici e industrie di processo.** La produzione, nello stabilimento di Rovigo certificato ISO:9001/2015, spazia da cilindri pneumatici, attuatori elettrici, valvole ed elettrovalvole pneumatiche, unità di trattamento aria e controllo di precisione della pressione.*



Different product certifications can be provided by Vesta.  
*Vesta può rilasciare diverse certificazioni di prodotto.*



Check out Vesta  
 Production Range:  
 Scopri il Production  
 Range di Vesta:



**Vesta Automation HQ is located in Rovigo - Italy**  
 Easily accessible from Venice, Bologna and Milan



## **PNEUMATIC CYLINDERS** CILINDRI PNEUMATICI

Full range of pneumatic cylinders, with **polyurethane seals and stainless steel rods**.  
**All the ISO standard families** are available, along with non-rotation flat cylinders.  
Cylinders can be supplied with seals and coating for **high temperatures**.

Gamma completa di cilindri pneumatici, con **guarnizioni in poliuretano e steli Inox**.  
Tutte le **famiglie standard ISO** sono disponibili, oltre a cilindri piatti anti-rotazione.  
I cilindri possono essere forniti con guarnizioni e verniciature per **alte temperature**.



## **VALVES AND SOLENOID VALVES** VALVOLE ED ELETTROVALVOLE

Solenoid valves with lip seals, **resistant to humidity and dust**.  
Poppet valves for **quick actioning and high flow** (up to G 2" size).  
Valves can be supplied in **high-temperature version** (over +100°C).

Valvole con guarnizioni a labbro per **ambienti umidi e polverosi**.  
Valvole a otturatore per **scambi rapidi ad alta portata** (fino a taglia G 2").  
Le valvole possono essere fornite per **alte temperature** (oltre i 100°C).

## **AIR TREATMENT UNITS** GRUPPI DI TRATTAMENTO ARIA

A complete series of regulators and FRL units, **from size G1/4" to G2"**.  
All the sizes can be supplied with **metal bowl** for harsh environment.  
Vesta range also includes **proportional valves** for high-flow applications.

Una serie completa di regolatori e unità FRL, **da taglia G1/4" a G2"**.  
Tutte le taglie sono disponibili con **tazze in metallo** per ambienti aggressivi.  
Il range di Vesta comprende **valvole proporzionali** per alte portate.





## CUSTOM CYLINDERS FOR MESH WELDING MACHINES CILINDRI CUSTOM PER IMPIANTI DI SALDATURA A RETE

Since over 30 years Vesta has been developing for mesh welding different technologies for strong anti-rotation: from flat piston cylinders, to precision-machined square bronze bushes. Cylinders can sustain extreme speeds (up to 180 cycles per minute) and are protected to the calamine-filled environment by special sealing sand silencers.

Da oltre 30 anni Vesta sviluppa per la saldatura a rete diverse tecnologie per anti-rotazione: da cilindri a pistone piatto, a boccole quadrate in bronzo lavorate con precisione. I cilindri possono sostenere velocità estreme (fino a 180 cicli al minuto) e sono protetti dalla calamina in ambiente, grazie a speciali guarnizioni e silenzianti.

### APPLICATION EXAMPLE:

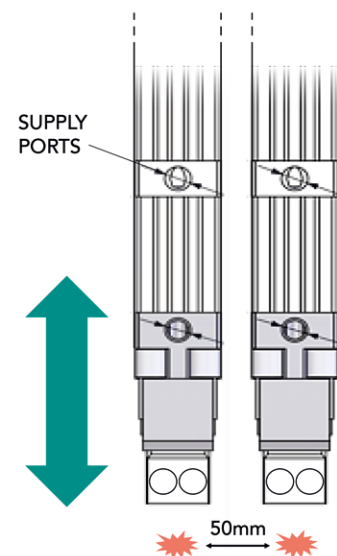
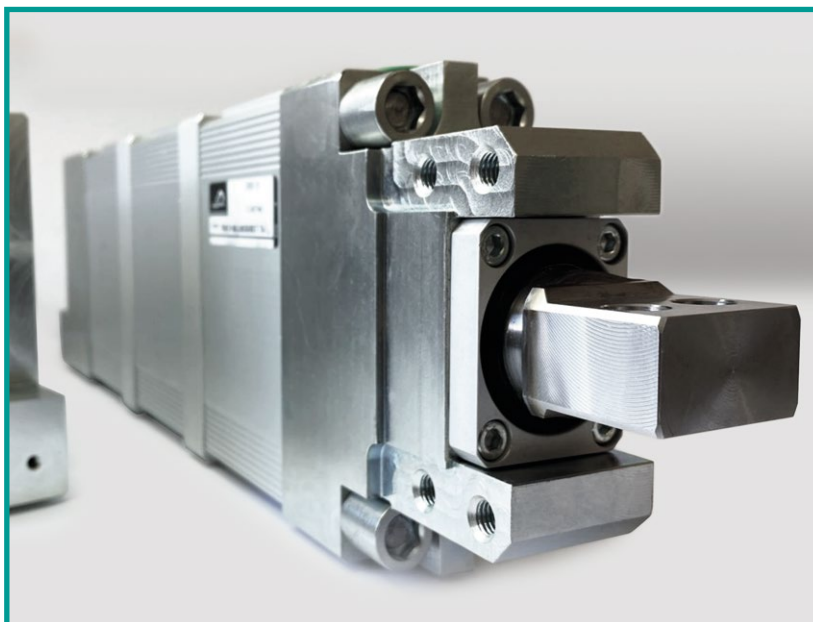
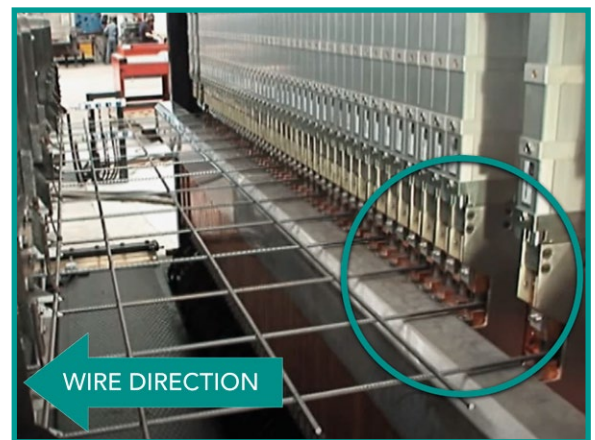
High-frequency 5 cm pitch mesh welding machineries

### SPECIAL REQUEST:

Compact dimensions (<50mm), resistance 3 Hz cycles

### TECHNICAL FEATURES:

Triple-tandem flat  $\varnothing 63$  cylinder  
Lateral dimension 49mm (5cm welding point)  
Custom piston rod-end for welding torch fixing



**APPLICATION EXAMPLE:**

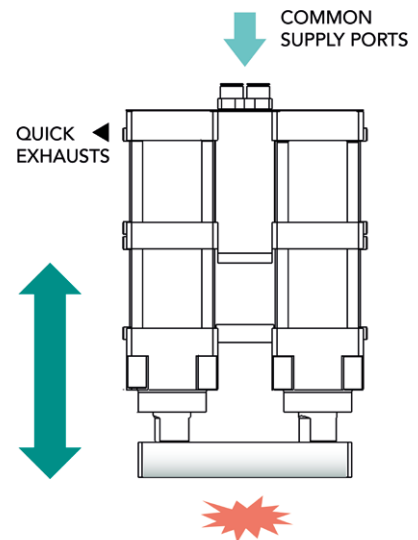
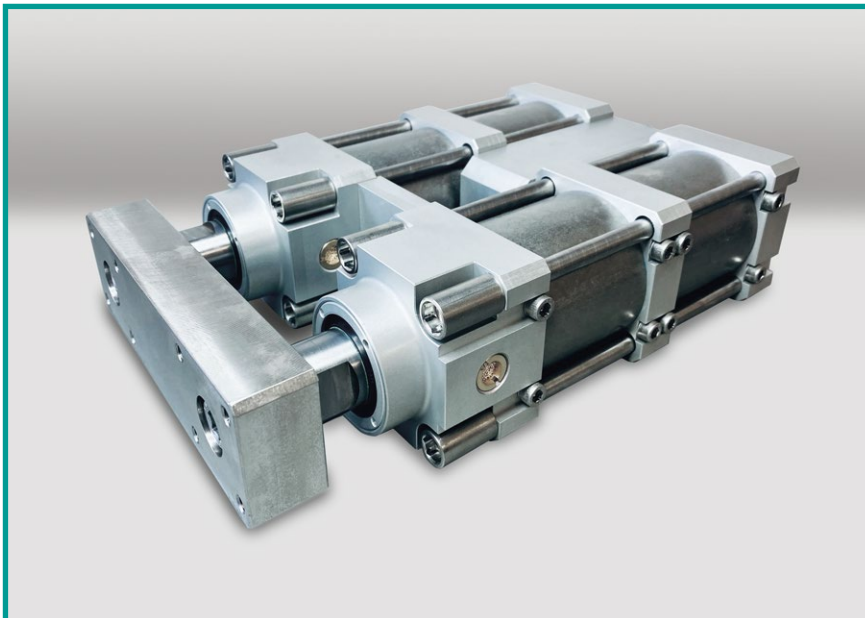
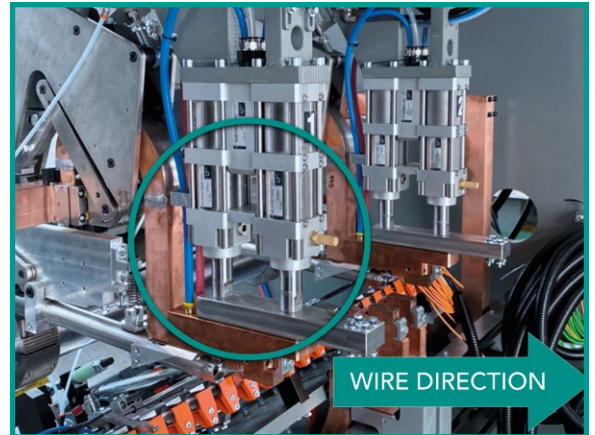
Roller coaster seat locking

**SPECIAL REQUEST:**

Safety locking and smooth opening for passengers

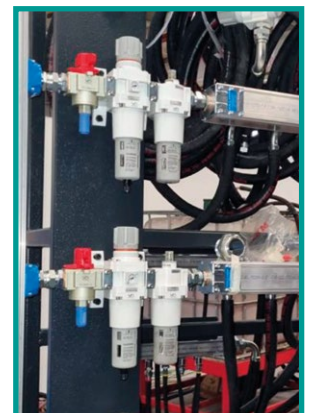
**TECHNICAL FEATURES:**

Cylinder actuated by a hybrid system nitrogen + oil  
 2 hydraulic valves for control and safety locking  
 100% tested with laser-tag serial number and report



Vesta supplies **complete air treatment units** for mesh welding machineries and plants. The high demand of air to guarantee cylinder cycles up to 3 Hz (180 movements per minute) is supported by **TU FRL elements size G1"**.

Vesta fornisce **sistemi completi di trattamento aria** per macchinari e impianti di saldatura reti. L'elevata richiesta d'aria, che garantisce cicli cilindro fino a 3 Hz (180 colpi al minuto), è soddisfatta grazie a unità della serie **TU di taglia G1"**.





## PROPORTIONAL PRESSURE CONTROL SYSTEMS CONTROLLO PROPORZIONALE DELLA PRESSIONE

Resistance welding machines require extreme precision in the control of pressure, with high-flow capacity and quick exhaust. Air units assembled with Vesta DPV proportional valves (size G1/2") are ideal for this industry: the immediate precision PNP pressure feed back to PLC guarantees high-speed operations.

Le saldatrici a resistenza richiedono estrema precisione nel controllo della pressione, con portate elevate e alta capacità di scarico. Le valvole proporzionali Vesta DPV (taglia G1/2") sono ideali per il settore: la retroazione in PNP, immediata e precisa nella comunicazione al PLC, garantisce un'elevata velocità di funzionamento.

### APPLICATION EXAMPLE:

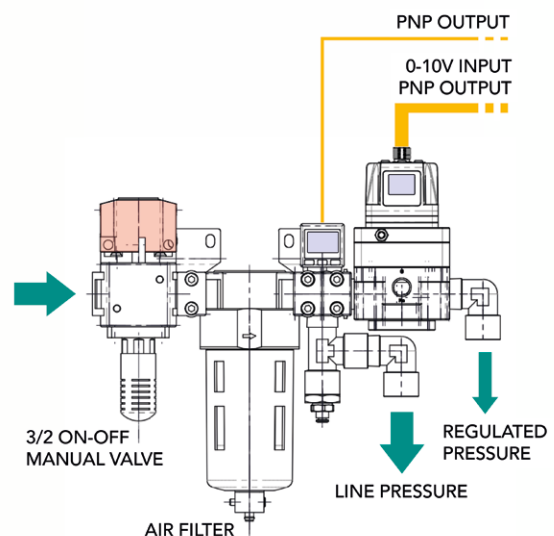
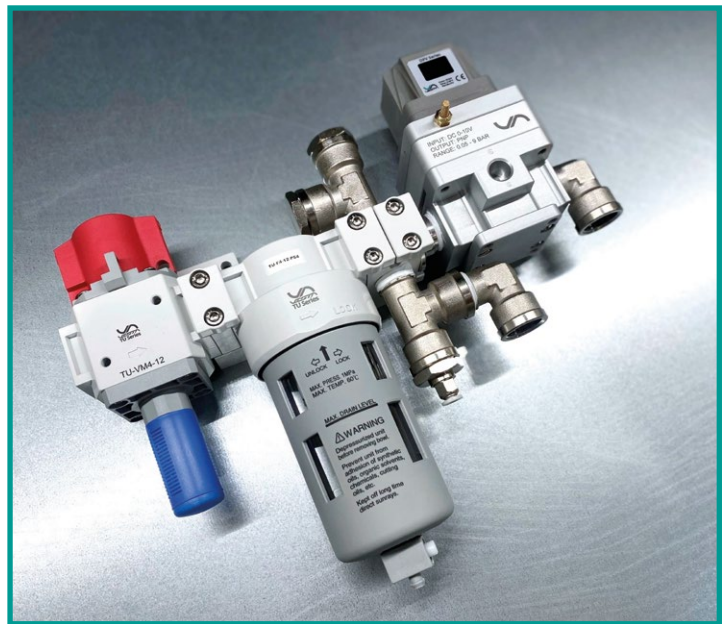
Precision control in resistance welding

### SPECIAL REQUEST:

High-flow supply and exhaust

### TECHNICAL FEATURES:

1/2" proportional control group  
High-flow capacity (>4000 NL/min)  
PNP precision out-of-range feedback





## SPECIAL WELDING APPLICATIONS APPLICAZIONI SPECIALI DI SALDATURA

### APPLICATION EXAMPLE:

Welding gun position and control

### SPECIAL REQUEST:

Quick switch by a pneumatic-only system

### TECHNICAL FEATURES:

Custom Ø56 cylinder with internal switch  
Integrated logic system for quick actioning

### APPLICATION EXAMPLE:

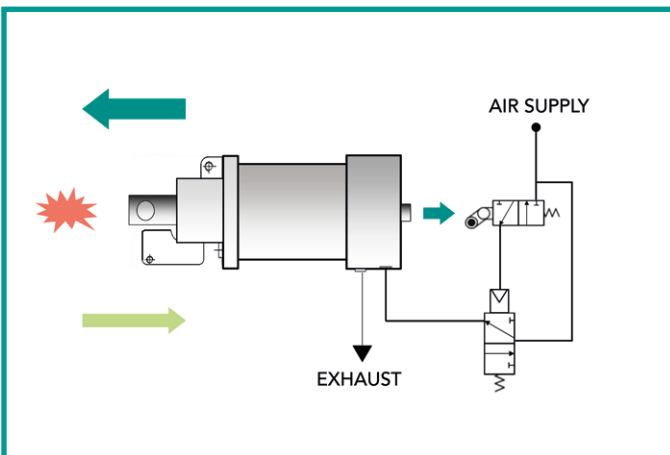
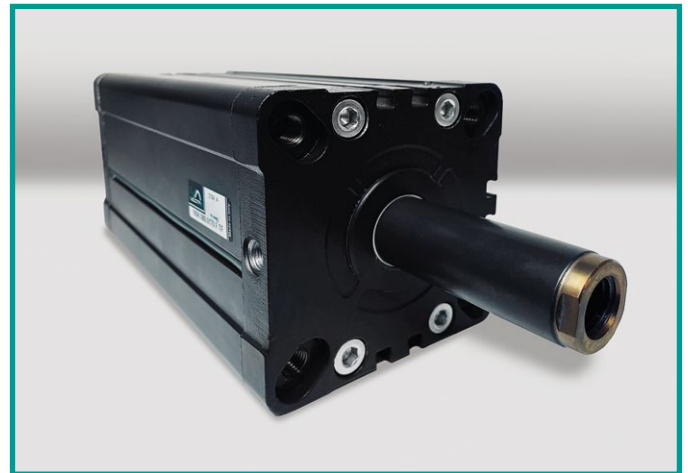
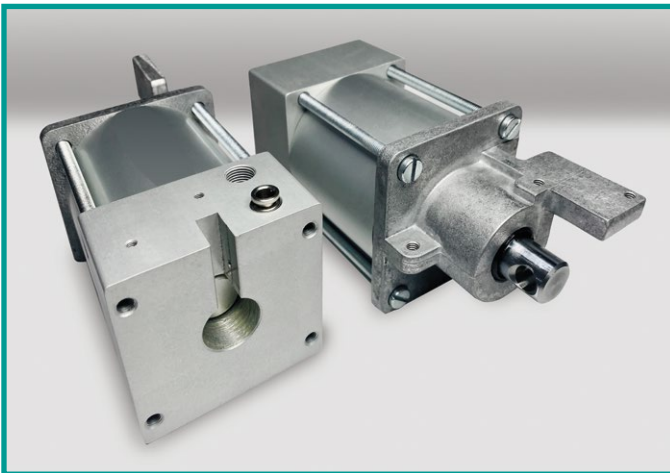
Positioning in welding plants

### SPECIAL REQUEST:

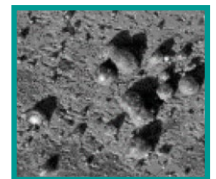
Positioning in welding plants

### TECHNICAL FEATURES:

Hard surface treatment for heat  
Stainless steel rod coated with PTFE  
Standard ISO21287 compatible mountings






Welding spatter damage  
on an aluminium surface





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