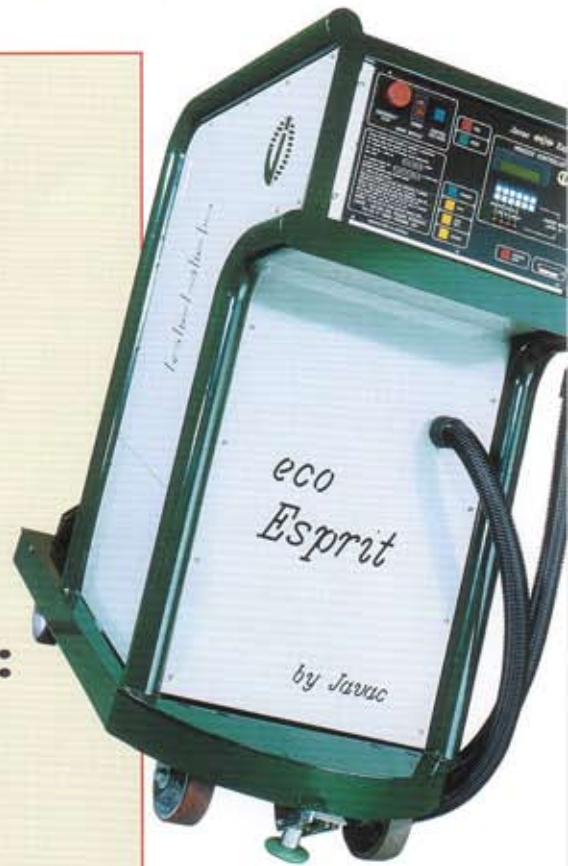


**Javac ECO
introduces
3 features
new to
refrigerant
filling machines:**

- 1. Speed**
- 2. Automation**
- 3. Value.**



Javac ECO: No. 1 (and 2, and 3...)

With the new, second generation ECO, Javac's renowned experience in automating refrigeration and vacuum technologies has produced an impressive – dare we say, exciting – high performance, industrial capacity refrigerant filling machine.

ECO accurately, automatically and quickly evacuates systems and fills refrigerators, condenser sets, cylinders or any refrigeration circuit – faster and more simply than ever before.

Old methods of evacuation by time or best guess, overnight or to a specified period, are rendered obsolete by this new affordable technology. Now, precise vacuum measurement does a far better job – by accurately monitoring pressure, the system's overall dryness can be assured.

Important advantages of the ECO are:

- Increased productivity – rapid, error-free, automated filling
- More efficient labor force – no longer hampered by archaic filling methods
- Better work flow – goods move with less delay
- Lower power cost – less drain on resources
- Improved product quality and reliability – pressure methods are fail-safe
- Repeatability – all machines are consistent, (and problem machines really stand out)
- Better warranty protection – installers can no longer over- or under-charge.

And the evacuation process is only the start of the ECO advantage; refrigerant is despatched by weight for accuracy and cost savings – this also eliminates the need for recalculation due to temperature variations, humidity or for density of refrigerant. Additional features include faster coupling methods – Hansen type or pneumatic. The total package is well thought out and versatile. The Javac ECO is purpose-designed to cut costs and improve the bottom line. Some of the leading refrigeration manufacturers and refrigerant dispensers now enjoy the ECO advantage.

Capabilities and features

- Accurate dispensing of R134a, R404 and equivalents
- Primary evacuation or simple check-and-charge
- Three levels of automatic leak detection – gross, ultimate and fine
- High dose rates to > 50gm per second when using the booster pump
- Low loss of refrigerant during disconnection
- Manual or pneumatic quick coupling
- High and low pressure evacuation/filling
- 10gm to 20,000 gm weight despatch, not volume
- Accuracy to ± 1 gm with full temperature and product independence
- Microprocessor alpha numeric display, easy to read instructions with simple menu driven yes/no answering and integrated process communication/diagnostics
- Up to 999 job numbers, each with variable charge, pressure points and accuracy
- Repeat and Special Entry modes
- Password isolation
- Bar code scanner systems input
- Output to printer
- Manual and automatic modes
- Full upgrade paths available
- Isobutane and Propane versions available.



in Refrigerant Filling Machines

ECO-Excel

...Power, Speed, Flexibility

This is a machine for high-volume production environments. The ECO Excel, when used with a high pressure boost pump at up to 25 bar loads the bomb and despatch refrigerant at up to 50gm/sec. The operator merely scans the barcode or enters a job number and presses the start button on the filling pistol.

Despatch is controlled by weight with high-accuracy digital scales, featuring two way communication with a Jvac microprocessor.

The programmed and actual charge are continuously compared ensuring optimum accuracy regardless of temperature.

The patented Jvac 'bomb' accurately preconditions an amount of liquid refrigerant prior to



despatch, ensuring 100% accuracy.

The Jvac microprocessor and digital multi-function gauge set, maintain, monitor and leak-check at all points of evacuation. End point is determined either by time or pressure as specified in the menu.

All facets of the charge process, air supply, equalisation pressure, refrigerant source, and zeroing of the digital scales are similarly controlled and monitored.

Display outputs include actual charge within pre-determined limits, and comparison with actual, plus automatic update of freefall report on under/over charge.

Together with the Jvac two stage 300 l/m high vacuum pump the entire process of evacuation, leak detection and charge can occur in a matter of seconds.

Pass/Fail/System-Ready is easily determined by the high visibility display beacon.

ECO-Excel is for fast accurate production line filling and is built to last in this tough environment.

Applications:

- Water chillers
- Domestic refrigerators
- Display cabinets, etc.

Options include:

- Bar code scanner
- Dual pistol twin side evacuation
- Counter balanced booms for hoses/pistols
- Fast - pneumatically activated coupling
- Printer output
- Automatic or selective recovery sequence
- Booster pump
- High visibility display beacon.

**NB: Boost pump not required if >20 bar refrigerant is available.*

ECO-Esprit

...Economy with upgradeability

Not all applications require the level of power and speed ECO-Excel delivers. ECO-Esprit has the same sophisticated micro-processor controller, program and gauge set, with capabilities similar to the Excel but less emphasis on speed. Esprit uses a smaller vacuum pump and has no high pressure booster.



Esprit utilises a larger capacity digital scale so refrigerant can be directly despatched from the cylinder. It can charge from 10 to 20,000gm with accuracy from ± 2 to 2gm* at variable rates. The Esprit can be upgraded to suit increased production. Esprit is mobile and only requires mains power.

Applications:

- Condenser set
- Air conditioning units
- Larger cabinets, etc.

Options include:

- Bar code scanner
- Dual pistol twin side evacuation
- Counter weighted booms for hoses/pistols
- Pneumatically activated coupling
- High visibility display beacon
- Pass/fail/standby lamps
- Printer output
- Automatic or selective recovery sequence

**Accuracy depends on selected sensitivity.*

ECO-Sprite

High performance cylinder/tank filling machine

Now Jvac have adapted the ECO process to cylinder or tank filling. Sprite uses similar microprocessor technology, but with larger vacuum pumps and control valves to fast couple, evacuate, leak check, and rapidly fill 13.6, 22, and 65 kg portable cylinders at sustainable rates of over 20 kg per minute. Contact Jvac for details.

Other Jvac clever solutions:

ACS machines. Portable Automotive Charging Stations. For automotive and service work the ACS and ACS-Plus series feature microprocessor control of refrigerant recovery, recycle, evacuate and charge. Accuracy to 20grams.

Refrigerant Recovery machines.

Portable machines for recovery of a variety of refrigerants, suitable for commercial, automotive and domestic applications.

High Vacuum Pumps. Small portable or larger plant installations.

Leak Detection Equipment. Simple hand held, pressure drop, Helium or specific refrigerant, automatic systems built to client specifications.





Table of specifications

ECO

Refrigerant type,
 Charge rate typical,
 Supply pump/ source
 Control system
 Security
 Javac computer 'watchdog'
 Refrigerant supply monitoring
 Refrigerant refill prevention
 Refrigerant source leakage test
 Bar code scans/ weight programs⁽¹⁾
 Interface manual entry
 Indication
 Vacuum set-points – time/pressure
 Tooling factor adjustment
 Endpoint vacuum adjustable
 Gross leak test
 Pressure rise leak test
 No. pistols standard/optional
 Primary pistol remote/solenoids
 Hose length standard
 Hose type
 Couplings std/options
 Vacuum pump
 Vacuum gauge - integral
 Vacuum display pressure range
 Pressure system
 Charge by weight
 Bomb pre-despatch liquefaction
 Charge selection
 Accuracy of charge
 Digital scales maximum
 Recovery mode
 Upgrade to booster 25 bar

Requirements:

Factory air source
 220/240 volt or 415 3ph 50 Hz
 Refrigerant
 Refrigerant pressure required
 Dimensions :
 Mobile frame construction
 Footprint
 Height
 Height with booms mm
 Weight (approx) kg⁽²⁾

Excel

R134a / R404 etc.,
 50 gm/sec,
 air driven/on line
 microprocessor
 password
 yes
 yes/pressure
 yes
 yes
 option 500/100
 keypad/job number
 alpha numeric/lamps
 yes/yes
 yes
 < 0.01 mbar
 yes
 yes
 one/two
 yes/2
 2.4m
 metal braided
 toggle/pneumatic
 2 stage 300 l/min
 digital multiple set-points
 1000 – 0.001 mbar
 18 bar plus
 yes
 yes
 10 – 1000 gm
 1 gm or better
 10 kg 'bomb'
 optional
 optional⁽⁴⁾

5 bar
 10 amp
 bulk supply
 12-18 bcf

yes
 1200L x600W
 1050
 2300
 220

Esprit

R134a/ R404 etc.,
 ~ 1000 gm/min,
 refrigerant cylinder
 microprocessor
 password
 yes
 yes/weight
 yes
 yes
 option 500/100
 keypad/job number
 alpha numeric/lamps
 yes/yes
 yes
 < 0.01 mbar
 yes
 yes
 one/two
 yes/2
 2.4m
 metal braided
 hansen/toggle
 2 stage 150 l/min
 digital multiple set-points
 1000 – 0.001 mbar
 heater
 yes
 no
 10 – 20,000 gm
 2/5/10 gm⁽²⁾
 150kg
 optional
 optional⁽³⁾

N/A,
 15 amp
 65-100 kg cylinder
 N/A

yes
 1200L x 600W
 1050
 2300
 150

Notes:

- (1) Barcode allows for 500 entries and 100 different charges
- (2) Depends upon options
- (3) Can be used to refill cylinder o Esprit platform
- (4) Only if supply pressure is inadequate.

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 without notice.

