# MAHLE



# A healthy air conditioning

The replacement of the filter-dryer every 2 years and also of the cabin filter once a year or every 15.000 km completes the A/C Service. It can be done with the regular A/C checks and allows the workshop to offer the customer a complete service and a healthy air conditioning.

# 1. A/C check (once a year/every 15,000 km)

- Replace the cabin filter
- Visually inspect all components
- Perform function and performance test
- If necessary, disinfect the evaporator

#### 2. A/C service (every two years)

- Perform all services included in the A/C check (see above)
- Replace the filter-drier
- Change the refrigerant
- Check leaktightness
- If necessary, disinfect the evaporator

### Change the cabin filter

It filters dust, pollen, and dirt particles out of the air before they can reach you in the cabin. The air conditioning check therefore always includes the regular replacement of the cabin filter, improving the quality of the air and increasing safety.

#### Good to know!

In comparison with conventional cabin filters, MAHLE's CareMetix® cabin filters ensure that no intensive odors, mold, bacteria, or allergens enter the vehicle interior.

#### Replace the filter-drier

The filter-drier removes dirt particles from the refrigerant and absorbs moisture. As the capacity of the filter-drier is limited, it must be regularly replaced so that the A/C system can function reliably.

#### Disinfect the evaporator

Condensation builds up in the inaccessible, dark, and dank environment between the fins of the evaporator — a breeding ground for bacteria and fungi. That's why the evaporator is disinfected during the A/C check.

#### **Evaporator**



Without A/C maintenance



With A/C maintenance

#### Cabin-filter



Without A/C maintenance



With A/C maintenance

#### Filter-drier



Without A/C maintenance



With A/C maintenance

# Stay cool – with our wide range of A/C stations



R134a series Multigas series R1234yf series BRAIN BEE is a leading trademark of A/C stations. Our focus is on designing and developing innovative solutions and offering robust A/C stations that perform their work independently and without problem, making everyday work easier in any vehicle workshop.

#### Key features of our A/C stations

- Patented Long Life Pump® with automatic recycling process
- Super Charge® system guaranteed 100% system charging, regardless of the ambient temperature or engine temperature
- Patented Eco Lock® quick couplers prevent gas from escaping
- Database of vehicles with connection diagrams, automatic updates via WiFi (AIR-NEX series) or via USB stick (previous models)
- Approved by the Daimler Group (cars),
   Opel, GM and Toyota, plus VDA
   German Association of the automotive
   Industry compliant approval

# Stations and refrigerants cross-reference

## AIR-NEX R134a

All AIR-NEX stations are equipped with WiFi and Bluetooth connection (\*). This allows access to additional functions such as:





- Automatic Update (Software And Database)
- Remote Control
- Remote Service
- Report WiFi Printer
- User Interface
- Apps (iOS and Android)





**AIR-NEX 9310** 





**AIR-NEX 9320** 





**AIR-NEX 9350** 

# AIR-NEX R1234yf

EGEA label certifies that the AIR-NEX line for R1234yf is conform to the stringent requirements of the EGEA specification that includes, among others:



- EMC Directive 2014/30/EU (ElectroMagnetic Compatibility)
- LVD 2014/35/EU (Low Voltage Directive)
- PED 2014/68/EU
   (Pressure Equipment Directive)





**AIR-NEX 9410** 





**AIR-NEX 9420** 





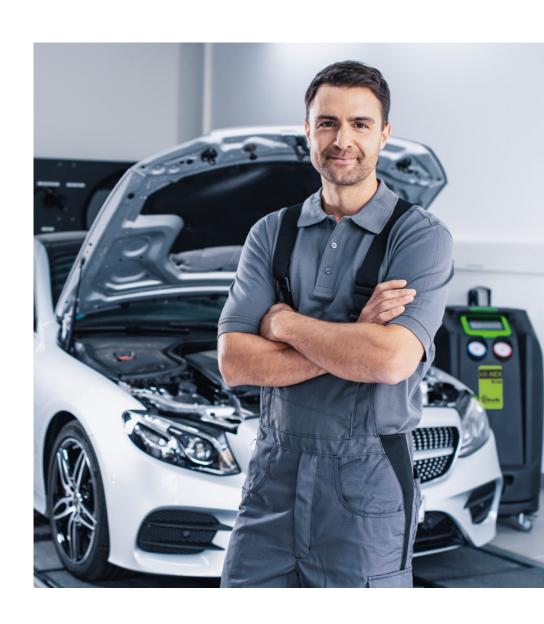
**AIR-NEX 9450** 

# R134a series R134a



**AIR-NEX 9380** 

R1234yf series R1234yf





**AIR-NEX 9480** 



AC-1234 HO German OEM (VDA) specification compliant

# Our innovative technologies at a glance



#### Air Purge System®

Automatic purging of non-condensing gas: special algorithm ensures that the purging of non-condensing gas is only recommended when actually necessary. This way, you can decide for yourself whether you wish to carry out this procedure, and always stay in complete control of the station, while reducing accidental refrigerant leaks to a minimum.



#### Agri & Work

The special Agri & Work feature includes an agricultural and construction machinery database and a special multi-stage program, specifically designed for this type of vehicles that are often equipped with special air conditioning systems, the volume of which is unknown.



#### HPV

The HPV (High Precision Vacuum) feature allows reaching an extremely high level of vacuum, so that even the tiniest residues of humidity can be removed from air conditioning systems.



#### N-Leak Test

With the optional Nitrogen Kit, you can perform a leak test on all air conditioning systems. This function is included as standard on all BRAIN BEE stations, to be combined with the optional kit.



#### Eco Lock®

The Eco Lock® quick couplers (patented feature) prevent the "Puff" effect during every service (thus saving 2 g of refrigerant for each operation). This feature also allows to check for leaks before the end of the charge operation, ensuring safety and greatly helping to protect the environment.



#### Super Charge®

In all ambient conditions, the station is 100% guaranteed (patented feature) to charge the system with the programmed quantity of refrigerant, irrespective of the temperature of the environment or engine, thus reducing charging times to a minimum.



#### Long Life Pump®

The special Long Life Pump® feature regenerates vacuum pump oil, thus extending its life to up to 1,000 hours.



#### Oil Care System

Process whereby air within the oil bottles is continuously dehumidified (patented feature). One of the aims of the A/C Service is to remove humidity from the system. Since oil is highly hygroscopic, it absorbs humidity, which then ends up being put into the system. It also increases electrical conductivity, which is extremely harmful for electric compressors.

# Special features (available for some models)

- For R134a and R1234yf (Optional IDX Identifier)
- Multipass
- Flushing (with standard kit or VAS kit)
- R.O.U. (with optional R.O.U. accessory), ensures safe recovery from vehicles containing gas of unknown origin
- Hybrid Vehicles function, allows flushing the pneumatic circuit and the charge hoses
- of the station to service vehicles equipped with an electric compressor
- Oil Clean (ensures oil is recovered and discharged even under the most extreme work conditions)

# AIR-NEX – 100% innovative technology



AIR-NEX 9310 AIR-NEX 9320 AIR-NEX 9350 AIR-NEX 9380 AIR-NEX 9410 AIR-NEX 9420 AIR-NEX 9450 AIR-NEX 9480 Connectivity is the key word for the new line of BRAIN BEE Charging Stations. A station connected via web to the BRAIN BEE servers can have access to countless and constantly evolging functions; it can automatically install available updates; it can be remotely controlled, making air conditioning services even more profitable.

Design of the AIR-NEX generation and the self-explaining software are state of the art. First in the industry, BRAIN BEE introduces a unique front panel liftdoor system, One-Touch, developed in cooperation with mechanics and with workshops. It allows easy access to all internal components, making maintenance and service operations considerably faster and easier.

### Key features of our AIR-NEX

- WiFi connection
- Bluetooth connection
- One-Touch opening system reduces service times by 50%
- Refrigerant charge and recovery accuracy
- Optimized user interface for an easier and quicker service
- ASA network connection
- Ready to handle hybrid and electric vehicles, with integrated flushing
- Display remote viewer APP (not available for AIR-NEX 9320 and AIR-NEX 9420)
- Re.Solve remote assistance service

# AIR-NEX 9310 AIR-NEX 9410

With the AIR-NEX 9310 (R134a) and AIR-NEX 9410 (R1234yf) your workshop can advance to the highest technological level in air conditioning servicing without major investment, while also guaranteeing maximum quality.

This station incorporates all the technical finesse of our large BRAIN BEE AC stations. It is compact, mobile and sturdy. Using the AIR-NEX line is simple and intuitive, making them a perfect second unit or an ideal mobile solution. The AIR-NEX 9310 with optional Agri & Work is the perfect assistant to every agricultural and construction machinery engineer.

The special Agri & Work feature includes an agricultural and construction machinery database and a special multi-stage refrigerant injection mode, specifically designed for this type of vehicles that are often equipped with special air conditioning systems, the volume of which is unknown.



## Key features



- Automatic oil injection
- Export of reports as pdf files via USB pen drive



Easy activation via App

Oil Clean function



 Autom. purging of non-condensing gas (manual for AIR-NEX 9310)



Oil bottles: 2 (fresh oil, used oil)



Made by MAHLE



## Technical data

- Dimensions: 544 x 617 x 957 mm
- Weight: 65 kg
- Refrigerant tank: 12 I
- Eco Lock: optional
- Thermal printer: optional
- Hybrid Function: optional
- N-Leak test Function: with external optional kit
- Gas identifier: optional
- Agri & Work function (AIR-NEX 9310 only)

Highresolution display



# AIR-NEX 9320 AIR-NEX 9420



AIR-NEX 9320 and AIR-NEX 9420 look simple, but are extremely performing: you just cannot miss the new BRAIN BEE AIR-NEX range.

Fully automatic stations, with which the workshop can access the extraordinary MAHLE technology for A/C systems R-134a (9320) or R-1234yf (9420).

The simple and complete user interface on the 7" high resolution display guides the less experienced operator to maintain total control of the station, thanks to the various customization pos-

sibilities. All updates, software and databases, are self-installed thanks to the integrated WiFi connection. The Nexus-Print feature and the export of reports as PDF files to USB sticks are integrated.

Designed for systems operating with R134a gas, AIR-NEX 9320 can be easily converted into R1234yf <sup>(1)</sup>.

(1) R1234yf READY - convertible with special kit



## Key features









Nexus-Print software



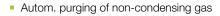


Flushing (2)





N-Leak Test (2)





Agri & Work function (for AIR-NEX 9320 only)



#### Made by MAHLE



## Technical data



Weight: 65 kg

Refrigerant tank: 12 l

Thermal printer: optional

Gas identifier: optional

(2) Optional kit required





# AIR-NEX 9350 AIR-NEX 9450

AIR-NEX 9350 and AIR-NEX 9450 are the perfect compromise for those who want complete stations, equipped with UV Test function, at a convenient price level.

The new oil bottle and the UV Dye bottle are both equipped with Oil Care System, the special cap that prevents oil contamination with moisture in the air. Simple to use, thanks to the intuitive graphics of its touch interface, and due to its capacitive display, that allows to operate even when wearing protective gloves. The 9350 and 9450 models, equipped with all the basic AIR-NEX functions, also add the possibility of BRAIN BEE self-diagnosis tools integration for diagnostics on air conditioning system, thus completing the functionality of the A/C Station itself. All updates, software and databases are self-installed thanks to the integrated WiFl connection. The Nexus-Print feature and the export of reports as PDF files to USB sticks are integrated.

AIR-NEX 9350 can be easily converted for managing the R1234yf (1) thanks to convenient conversion kits and special software.

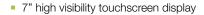
(1) R1234yf READY - convertible with special kit



## Key features

One-Touch liftdoor system







- Nexus-Print software



Bluetooth



UV Dye injection



■ Flushing (2)



Hybrid Vehicles function (2)



N-Leak test (2)



Agri & Work function (for AIR-NEX 9350 only)



 Connection to BRAIN BEE scantool (2) Oil Care System



Autom. purging of non-condensing gas



Integration with APP (iOS and Android) (2)



Made by MAHLE

### Technical data

- Dimensions: 700 x 750 x 1100 mm
- Weight 85 kg
- Reservoir capacity: 20 I
- Thermal printer: optional
- IDX500 Gas identifier: optional





<sup>(2)</sup> Optional kit required

# AIR-NEX 9380 AIR-NEX 9480

#### Top Level A/C stations in the series. You could not wish for more!

Highly performing, they offer all the unique selling points of the AIR-NEX range, plus the convenience of having an integrated circuit for POE oil and POE UV Dye, necessary for those who frequently service hybrid or electric cars, alternating with cars with traditional engines. The integration with the "Remote Display" App ensures pratical and interactive usage and is also aimed at making the recharge service a customer retention tool. Recharge and Recovery are entirely automated processes: this ensures

flawless results, while users can engage in other activities. All updates, software and databases are self-installed thanks to the integrated WiFi connection. The Nexus-Print feature and the export of reports as PDF files to USB sticks are integrated. AIR-NEX 9380 too, for R-134a, can be easily converted for managing the R-1234vf (1).

It can even be further upgraded with advanced functions, thanks to the optional integration with BRAIN BEE self-diagnosis tools.

(1) R1234yf READY - convertible with special kit



## Key features



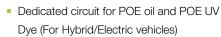
- 7" high visibility touchscreen display
- One-Touch liftdoor system



- Nexus-Print software



Bluetooth





- Flushing (2)
- - N-Leak Test (2)



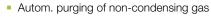
Hybrid Vehicles function



Integration with APP (iOS and Android)



Oil Care System





Agri & Work function (for AIR-NEX 9380 only)



Made by MAHLE



### Technical data

- Dimensions: 700 x 750 x 1100 mm
- Weight 85 kg
- Reservoir capacity: 20 I
- Thermal printer: optional
- IDX500 Gas identifier: optional





<sup>(2)</sup> Optional kit required

# AC-1234 HO

VDA German Association of the automotive Industry compliant approval for R1234yf.

The station operates in combination with the R1234yf gas identifier. An ample tank and the vacuum pump ensure a generous capacity and excellent vacuum. The patented Injection charging system guarantees a degree of accuracy far in excess of the standard requirements. AC-1234-HO comes with an additional container for POE oil, which is necessary for services on hybrid and electric vehicles.



# Key features



- Gas identifier included
- Automatic oil injection



Integrated POE oil injection



Nitrogen leak test (1)



Hybrid Vehicles function

Includes UV dye injection



Oil Care System



Autom. purging of non-condensing gas



Made by MAHLE

## Technical data

- Dimensions: 673 x 738 x 1,198 mm
- Weight: 100 kg
- Reservoir capacity: 20 I
- Thermal printer: included

Interface with integrated analogue pressure display





<sup>(1)</sup> Optional kit required

# R.O.U. - Recovery Only Unit

R.O.U. is the BRAIN BEE equipment designed for the recovery only of the vehicle's contaminated refrigerant and must be used in combination with the BRAIN BEE A/C recharge station and its Gas Identifier.

The R.O.U. system (patented) becomes indispensable when, after having ascertained the non-purity of the gas contained in a

vehicle A /C system under maintenance, it is not recommended (or even prohibited, according to the specifications of car manufacturers) a direct recharge without first making the emptying of the A/C system. R.O.U allows the recovery of the contaminated gas, and completes the emptying in just 30 minutes, through phases guided by the A/C station software.

### Technical features

- Vessel capacity: 2.4 I
- Maximum operating pressure (PS): 18 bar
- Length of external HP and LP hoses: 1.5 m
- LP Gauge: Analog, 80 mm, pulse free, 1.0 class
- Operating temperature: 10-50°C
- Dimensions: 700 x 700 x 1000 mm
- Loadless weight: 12 kg approx



# AC Essentials

Our AC Essentials, specifically developed to ensure seamless operation of devices in workshops, includes all products necessary for A/C stations. AC Essentials products have been developed for intensive professional use in our stations, but also bring out the best in other devices that are available on the market.

| Code         | Description  | Quantity per package |
|--------------|--|----------------------|
| 1010350038XX | PAG Oil ISO 46 250 ml                                | 6                    |
| 1010350039XX | PAG Oil ISO 100 250 ml                               | 6                    |
| 1010350040XX | PAG Oil ISO 150 250 ml                               | 6                    |
| 1010350279XX | POE Oil 80 Hybrid                                    | 6                    |
| 1010350283XX | PAG Oil 46 HFO R1234yf 250 ml                        | 6                    |
| 1010350284XX | PAG Oil 100 HFO R1234yf 250 ml                       | 6                    |
| 1010350041XX | Fluorescent Dye 250 ml                               | 1                    |
| 1010350281XX | Fluorescent Dye Hybrid 250 ml                        | 1                    |
| 1010350285XX | Fluorescent Dye Hybrid In Syringe 7.5 ml + Hose      | 6                    |
| 1010350282XX | Fluorescent Dye HFO R1234yf 250 ml                   | 1                    |
| 1010350286XX | Fluorescent Dye HFO R1234yf In Syringe 7.5 ml + Hose | 6                    |
| 1010350287XX | Fluorescent Dye Remover Trigger 250 ml               | 1                    |
| 1010350046XX | A/C System Sanitary Spray 400 ml                     | 4                    |
| 1010350047XX | Cabin Sanitary Agent 200 ml                          | 6                    |
| 1010350048XX | Condenser Cleaner 400 ml                             | 4                    |
| 1010350280XX | Valves Kit   | 1                    |
| 1010350289XX | Expert Kit   | 1                    |
| 1010350048XX | Condenser Cleaner – 400 ml                           | 4                    |
| 1010350033XX | UV Kit   | 1                    |
| 1010350130XX | Nitrogen Leak Test Kit                               | 1                    |
| 1010350262XX | Nitrogen Leak Test R134a To R1234yf Kit              | 1                    |
| 1010350288XX | Nitrogen/Hydrogen Leak Detector Kit                  | 1                    |
| 1010350296XX | Nitrogen/Hydrogen Cylinder 1 I                       | 6                    |
| 1010350053Xx | Flushing Kit   | 1                    |
| 1010350150XX | VAS Flushing Kit                                     | 1                    |
| 1010350198XX | Flushing Kit R1234yf m Series                        | 1                    |
| 1010350129XX | Hybrid Pro Kit                                       | 1                    |
| 1010350034XX | Dryer Filter   | 2                    |
| 1010350096XX | Dryer Filter – 6000 Line                             | 2                    |
| 1010350097XX | Dryer Filter – Bus Line                              | 2                    |
| 1010350037XX | Vacuum Pump Oil 500 ml                               | 2                    |
| 1010350255XX | Warranty Extension Kit 6000                          | 1                    |
| 1010350256XX | Warranty Extension Kit 8250-8500-9000 Plus           | 1                    |

# Accessories for your A/C stations

BRAIN BEE's service does not come to an end once you have bought our equipment. BRAIN BEE provides a wide range of accessories and spare parts to maintain your A/C station's high level of performance.

| Code         | Description                                       | Quantity per package |
|--------------|---|----------------------|
| 1010350128XX | Clima Printer Kit                                 | 1                    |
| 1010350395XX | AIR-NEX Printer Kit MY 2018                       | 1                    |
| 1010350146XX | Gas Identifier R1234yf VDA                        | 1                    |
| 1010350104XX | Gas Identifier R1234yf VDA                        | 1                    |
| 1010350131XX | Multigas R134a to R1234yf Kit MY 2014             | 1                    |
| 1010350241XX | Multigas R134a To R1234yf Kit (my2015)            | 1                    |
| 1010350107XX | Hose Extension Kit 4.5m (HP – LP) for Gas R134a   | 1                    |
| 1010350113XX | Eco Lock® Upgrade Kit (R134a)                     | 1                    |
| 1010350250XX | Card Clima Solution                               | 1                    |
| 1010350054XX | Clima Solution                                    | 1                    |
| 1010350276XX | Kit Flush BB Universal R134a/R1234yf              | 1                    |
| 1010350402XX | Dryer Filter MY 2018                              | 1                    |
| 1010350419XX | Dryer Filter VDA line                             | 1                    |
| 1010350420XX | Dryer Filter MPP/HPP line MY 2017                 | 1                    |
| 1010350420XX | Dryer Filter MPP/HPP line MY <2018                | 1                    |
| 1010350421XX | Dryer Filter LPP line MY <2018                    | 1                    |
| 1010350330XX | Databank Activation Stick                         | 1                    |
| 1010350393XX | IDX-500 Gas Identifier MY 2018                    | 1                    |
| 1010350404XX | IDXBB Gas Identifier MY <2018                     | 1                    |
| 1010350326XX | R.O.U Recovery Only Unit R134a R1234yf / New 2019 | 1                    |
| 1010350397XX | R134a to R1234yf Kit MY 2018                      | 1                    |
| 1010350399XX | AIR-NEX Cover MY 2018                             | 1                    |
| 1010750098XX | Cover AC 6000                                     | 1                    |
| 1010750085XX | Cover AC 8000                                     | 1                    |
| 1010750086XX | Cover AC 9000                                     | 1                    |
| 1010750086XX | Cover OEM   | 1                    |
| 1010350043XX | Kit Service CLIMA 8501                            | 1                    |
| 1010350403XX | Pen MY 2018                                       | 1                    |
| 1010350329XX | Oil Care Cartridge                                | 1                    |

# Technical data

|  | AIR-NEX 9320                   | AIR-NEX 9420                   |
|--|--------------------------------|--------------------------------|
|  | R134a                          | R1234yf                        |
| Refrigerant  | Multigas                       | R1234vf                        |
| Convertible to refrigerant R1234yf   | Multigas                       | -                              |
| Refrigerant analyzer   | _                              | <b>A</b>                       |
|  | 50 l/min - HPV 0.02 mbar       | 50 I/min - HPV 0.02 mbar       |
| Vacuum pump  | 12 L                           | 12 L                           |
| Refrigerant tank   | 14 cc                          | 14 cc                          |
| Compressor displacement  |                                | 100 kg                         |
| Dryer filter capacity  | 100 kg                         |                                |
| Recovery rate  | > 95%                          | > 95%                          |
| HP and LP gauges   | Analog 80mm, 1.0 Class         | Analog 80mm, 1.0 Class         |
| Pressure sensors   | LP                             | LP                             |
| Oil bottle capacity (ml)   | 250                            | 250                            |
| Oil bottles  | 2 - New oil, Used oil          | 2 - New oil, Used oil          |
| Bottles with Oil Care System (hermetically sealed containers)                            | <b>A</b>                       | <b>A</b>                       |
| Oil scales   | 1                              | 1                              |
| Automatic recovery and injection of refrigerant  | •                              |                                |
| Automatic recovery of compressor oil   | <u> </u>                       |                                |
| Automatic injection of UV dye  | -                              | -                              |
| Manual operating mode  | <u> </u>                       |                                |
| Automatic hose compensation  |                                |                                |
| Air purge system (Purging of non-condensing gas)   | Automatic                      | Automatic                      |
| Length of charge hoses   | 3 m                            | 3 m                            |
| Optional: Extension of service hose to   | 7,5 m                          | 7,5 m                          |
| Display  | 7"Colour TFT capacitive screen | 7"Colour TFT capacitive screen |
| Keypad   | Touch screen                   | Touch screen                   |
| Menu languages   | 25                             | 25                             |
| Super Charge®  | <del>-</del>                   | •                              |
| Long Life Pump®  |                                |                                |
| Eco Lock®  | <u> </u>                       | <u> </u>                       |
| A/C system pressure test   | -                              | _                              |
| (dynamic performance testing of the A/C system with final report)  Tank pressure reading |                                | •                              |
| Compatibility with hybrid vehicles   | <b>A</b>                       | <b>A</b>                       |
| Vehicles database  | <del>-</del>                   |                                |
| Electric vehicles database   |                                |                                |
| Agricultural and construction machinery database   |                                |                                |
| Nitrogen leak test function (optional external kit)                                      |                                |                                |
| Nitrogen leak test function (integrated Manifold)  |                                |                                |
| Forming gas leak test function (optional external kit)                                   |                                |                                |
| Forming gas leak test function (integrated Manifold)                                     |                                | _                              |
| Standard flushing kit  | <b>A</b>                       | <b>A</b>                       |
| •  |                                |                                |
| VAS flushing kit   | <u> </u>                       | <b>A</b>                       |
| R.O.U.   |                                |                                |
| Thermal printer  |                                | _                              |
| Nexus-Print (Printout via WiFi with connection to Windows PC)                            |                                | •                              |
| Remote assistance (anytime, anywhere)  |                                | •                              |
| USB interface  | •                              | •                              |
| Report pdf export to USB stick   |                                | •                              |
| WiFi   | •                              | •                              |
| Bluetooth  |                                | •                              |
| ASA Network service  | <b>A</b>                       | <b>A</b>                       |
| A/C diagnostics via Scantool   | <u> </u>                       |                                |
| "A/C Remote Viewer" APP with SMS service   | -                              | -                              |
| Operating temperature  | 10 °C to 50 °C                 | 10 °C to 50 °C                 |
| Power supply   | 230 V, 50 Hz, 800 W            | 230 V, 50 Hz, 800 W            |
| Warranty   | 24 months                      | 24 months                      |
| Certifications   | CE, PED                        | CE, PED                        |
|  |                                |                                |

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AIR-NEX 9450 R1234yf



AIR-NEX 9380 R134a



AIR-NEX 9480 R1234yf



| Multigas                            | R1234yf                             | Multigas   | R1234yf  |
|-------------------------------------|-------------------------------------|--|--|
| •                                   | -                                   | <u> </u>   | -  |
| <b>A</b>                            | <b>A</b>                            | <b>A</b>   | <b>A</b>   |
| 50 l/min - HPV 0.02 mbar            | 50 I/min - HPV 0.02 mbar            | 50 I/min - HPV 0.02 mbar                                     | 50 I/min - HPV 0.02 mbar                                     |
| 20 L                                | 20 L                                | 20 L   | 20 L   |
| 14 cc                               | 14 cc                               | 14 cc  | 14 cc  |
| 150 kg                              | 150 kg                              | 150 kg   | 150 kg   |
| > 95%                               | > 95%                               | > 95%  | > 95%  |
| Analog 80mm, 1.0 Class              | Analog 80mm, 1.0 Class              | Analog 80mm, 1.0 Class                                       | Analog 80mm, 1.0 Class                                       |
| LP                                  | LP                                  | Tank, LP, HP   | Tank, LP, HP   |
| 250                                 | 250                                 | 250  | 250  |
| 3 - New (PAG) oil, Used oil, UV dye | 3 - New (PAG) oil, Used oil, UV dye | 5 - New (PAG and POE) oil, Used oil,<br>UV dye (STD and HYB) | 5 - New (PAG and POE) oil, Used oil,<br>UV dye (STD ahd HYB) |
| •                                   |                                     | •  | •  |
| 1                                   | _ 1                                 | 5  | _ 5  |
| •                                   | •                                   | •  | •  |
| •                                   | •                                   | •  | •  |
| •                                   | •                                   | •  | •  |
| •                                   | •                                   | •  | •  |
|                                     |                                     |  |  |
| Automatic                           | Automatic                           | Fully automatic  | Fully automatic  |
| 4.5 m                               | 4.5 m                               | 4.5 m  | 4.5 m  |
| 9 m                                 | 9 m                                 | 9 m  | 9 m  |
| 7"Colour TFT capacitive screen      | 7"Colour TFT capacitive screen      | 7"Colour TFT capacitive screen                               | 7"Colour TFT capacitive screen                               |
| Touch screen                        | Touch screen                        | Touch screen   | Touch screen   |
| 25                                  | 25                                  | 25   | 25   |
| •                                   | •                                   | •  | •  |
| •                                   | •                                   |  |  |
| -                                   | •                                   | •  | •  |
| •                                   | •                                   | •  | •  |
| •                                   |                                     | •  |  |
| <b>A</b>                            | <b>A</b>                            |  |  |
|                                     |                                     |  | •  |
| •                                   |                                     |  |  |
| <b>A</b>                            | _                                   | <b>A</b>   | _  |
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|                                     |                                     |  |  |
| _                                   | _                                   | _  | _  |
| <b>A</b>                            | <b>A</b>                            | <b>A</b>   | <b>A</b>   |
| <b>A</b>                            | <b>A</b>                            | <b>A</b>   | <u> </u>   |
| <b>A</b>                            | <b>A</b>                            | <b>A</b>   | <b>A</b>   |
| <b>A</b>                            |                                     | <b>A</b>   | _  |
|                                     |                                     |  |  |
|                                     | •                                   | •  | •  |
|                                     |                                     |  | •  |
|                                     | •                                   | •  | •  |
|                                     | •                                   | •  | -  |
| -                                   | •                                   | •  | •  |
| _                                   | _                                   |  |  |
| <u>-</u>                            | <u>-</u>                            | <u>-</u>   | <u>-</u>   |
| <u> </u>                            |                                     | •  | •  |
|                                     |                                     |  |  |
| 10 °C to 50 °C                      | 10 °C to 50 °C                      | 10 °C to 50 °C   | 10 °C to 50 °C   |
| 230 V, 50 Hz, 800 W                 | 230 V, 50 Hz, 800 W                 | 230 V, 50 Hz, 800 W  | 230 V, 50 Hz, 800 W  |
| 24 months                           | 24 months                           | 24 months  | 24 months  |
| CE, PED                             | CE, PED                             | CE, PED  | CE, PED  |

# Technical data







AC-1234 HO R1234yf



| Refrigerant  | R134a                               | R1234yf                          | R1234yf                         |
|--|-------------------------------------|----------------------------------|---------------------------------|
| Convertible to refrigerant R1234yf   | =                                   | =                                | =                               |
| Refrigerant analyzer   | <b>A</b>                            | <b>A</b>                         |                                 |
| Vacuum pump  | 50 l/min - HPV 0.02 mbar            | 50 l/min - HPV 0.02 mbar         | 50 l/min - HPV 0.02 mbar        |
| Refrigerant tank   | 12 L                                | 12 L                             | 20 L                            |
| Compressor displacement  | 8 cc                                | 8 cc                             | 14 cc                           |
| Dryer filter capacity  | 27 kg                               | 27 kg                            | 150 kg                          |
| Recovery rate  | >95%                                | > 95%                            | > 95%                           |
| HP and LP gauges   | Analog 80mm, 1.6 Class              | Analog 80mm, 1.0 Class           | Analog 80mm, 1.0 Class          |
| Pressure sensors   | LP                                  | LP                               | Tank, LP, HP                    |
| Oil bottle capacity (ml)   | 250                                 | 250                              | 250                             |
| Oil bottles  | 2 - New oil, Used oil               | 2 - New oil, Used oil            | 4 - New (PAG and POE) oil, Used |
| Bottles with Oil Care System (hermetically sealed containers)                              | 2 - New Oil, Osed Oil               | - New Oil, Osed Oil              | oil, UV dye                     |
| Oil scales   | _                                   | _                                | 1 (New oil, Used oil)           |
| Automatic recovery and injection of refrigerant  | •                                   | •                                | •                               |
| Automatic recovery of compressor oil   | •                                   | •                                | •                               |
| Automatic injection of UV dye  | -                                   | -                                | •                               |
| Manual operating mode  | •                                   | •                                | •                               |
| Automatic hose compensation  | •                                   | •                                | •                               |
| Air purge system (Purging of non-condensing gas)   | Automatic check with manual release | Automatic                        | Fully automatic                 |
| Length of charge hoses   | 3 m                                 | 3 m                              | 3 m                             |
| Optional: Extension of service hose to   | 7,5 m                               | 7,5 m                            | -                               |
| Display  | B&W 35x200 4 lines/30 characters    | B&W 35x200 4 lines/30 characters | 4.3" TFT colour touch screen    |
| Keypad   | 4 direction keys, Enter, Esc        | 4 direction keys, Enter, Esc     | Touch screen                    |
| Menu languages   | 25                                  | 25                               | 25                              |
| Super Charge®  |                                     |                                  | •                               |
| Long Life Pump®  | •                                   | •                                | •                               |
| Eco Lock®  | <b>A</b>                            | <b>A</b>                         | •                               |
| A/C system pressure test (dynamic performance testing of the A/C system with final report) | (optional report printout)          | (optional report printout)       | •                               |
| Tank pressure reading  | _                                   | •                                | •                               |
| Compatibility with hybrid vehicles   | <b>A</b>                            | <b>A</b>                         | •                               |
| Vehicles database  | •                                   | •                                | •                               |
| Electric vehicles database   | •                                   | •                                | •                               |
| Agricultural and construction machinery database   | _                                   | _                                | _                               |
| Nitrogen leak test function (optional external kit)  | •                                   | •                                | -                               |
| Nitrogen leak test function (integrated Manifold)  | _                                   | _                                | _                               |
| Forming gas leak test function (optional external kit)                                     | •                                   | •                                | -                               |
| Forming gas leak test function (integrated Manifold)                                       | _                                   | _                                | _                               |
| Standard flushing kit  | <b>A</b>                            | <b>A</b>                         | -                               |
| VAS flushing kit   | <b>A</b>                            | <b>A</b>                         | <b>A</b>                        |
| R.O.U.   | -                                   | -                                | -                               |
| Thermal printer  | <b>A</b>                            | <b>A</b>                         | •                               |
| Nexus-Print (Printout via WiFi with connection to Windows PC)                              | -                                   | -                                | +                               |
| Remote assistance (anytime, anywhere)  | •                                   | •                                | •                               |
| USB interface  | •                                   | •                                | •                               |
| Report pdf export to USB stick   | _                                   | •                                | _                               |
| WiFi   | -                                   | -                                | -                               |
| Bluetooth  | _                                   | _                                | -                               |
| ASA Network service  | -                                   | -                                | _                               |
| A/C diagnostics via Scantool   |                                     | _                                | _                               |
| "A/C Remote Viewer" APP with SMS service   | _                                   | -                                | -                               |
| Operating temperature  | 10°C to 50°C                        | 10°C to 50°C                     | 10°C to 50°C                    |
| Power supply   | 230 V, 50 Hz, 800 W                 | 230 V, 50 Hz, 800 W              | 230 V, 50 Hz, 800 W             |
| Warranty   | 24 months                           | 24 months                        | 24 months                       |
| Certifications   | CE, PED                             | CE, PED                          | CE, PED, TÜV, VDA approved      |
|  |                                     |                                  |                                 |



# VAS Flushing Kit

Accessory kit for flushing systems and components. Conforms to the requirements of German automakers. The 6-litre tank and the hose set with 3/8" SAE connections are a guarantee of maximum efficiency. The VAS flushing tool is additionally equipped with a glass filter, which enables visual monitoring to optimise servicing.

| VAS Flushing Kit<br>technical data       |           |
|--|-----------|
| Tank capacity                            | 61        |
| Max. operating pressure (Ps)             | 20 bar    |
| Pressure equipment class (Dir. 97/23/CE) | II        |
| Glass filter                             |           |
| Length of hose                           | 2 x 1.5 m |

# Oil Care System

#### Why it is important

Oil is hygroscopic and if it absorbs humidity, electric conductivity increases, which is very dangerous for hybrid and electric vehicles. One of the objectives of the maintenance service is to dehumidify the system, therefore using "damp" oil would make no sense.

#### Oil Care System

The "Oil Care System" consists of a special cork filled with material that separate humidity from air during oil suction phase – this way it avoids the humidity contaminate the oil (air is completely dry).



### Gas Identifier

Before servicing air conditioning systems, the optional external gas identifier can be used to identify the refrigerant, so that the A/C station can then charge the system based on the results. The gas identifier is used before the hoses of the A/C station are connected to the vehicle's air conditioning system. Only the correct sequence during use ensures that the gas in the vehicle is correctly identified. The hoses therefore cannot be connected if the refrigerant is not sufficiently pure. This prevents damage to the A/C station.

| Gas Identifier<br>technical data | R134a, R1234yf,<br>(Air optional) |
|----------------------------------|-----------------------------------|
| Power                            | 2 V @0.8 A max                    |
| Identification threshold         | ≥ 92%                             |
| Identification method            | %                                 |
| Capillary hose connection        | 3 m                               |
| Connection                       | USB                               |
| Test Time                        | 30 sec.                           |
| Calibration                      | Automatic                         |
| Sample Calibration               | Vapor Only                        |
| Temperature                      | 10°C-50°C                         |
| Dimensions                       | 147 x 115 x 57 mm                 |
| Weight                           | 0.500 kg                          |



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