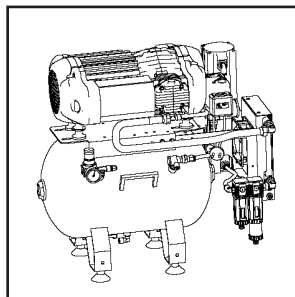


METASYS

GB Compressors META Air

Equipment Logbook

Assembly, operation and maintenance



GB

Vom Techniker auszufüllen:
To be filled in by the technician
A remplir par le technicien:
Da compilare dal tecnico:

Dieses Gerätedokument ist ausgestellt für / This equipment logbook has been issued for:
Ce livret d'appareil est emis pour / Questo documento apparecchiatura è rilasciato per:

Zahnarztpraxis - Dental surgery
 Cabinet dentaire - Studio odontoiatrico

Name / Name / Nom / Nome

Praxisinhaber - Practice Owner
 Titulaire du cabinet - Titolare dello studio

Name / Name / Nom / Nome

Adresse - Address
 Adresse - Indirizzo

Strasse / Street / Rue / Via

PLZ / Postal Code / Code Postal / CAP

Stadt / City / Cité / Città

Die Installation wurde durchgeführt von / The installation has been performed by:
L'installation a été faite par / L'installazione è stata effettuata da:

Firma - Company
 Société - Società

Name / Name / Nom / Nome

Adresse - Address
 Adresse - Indirizzo

Strasse / Street / Rue / Via

PLZ / Postal Code / Code Postal / CAP

Stadt / City / Cité / Città

Seriennummer des METASYS-Geräts / Serial number of the METASYS device:
N° série de l'appareil METASYS / Nr. di matricola dell'apparecchiatura METASYS:

Seriennummer - Serial number
 N° série - Nr. di matricola

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

Datum Montage - Date of installation
 Date de l'installation - Data dell'installazione

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

Datum Inbetriebnahme - Date of first operation
 Date de la mise en service - Data della messa in servizio

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

**Vom Techniker auszufüllen:
To be filled in by the technician
A remplir par le technicien:
Da compilare dal tecnico:**

**Druckbedarfsberechnung dentaler Kompressoren/ Compressed air consumption calculation for dental compressors/
Calcul du besoin en air comprimé pour compresseurs dentaires / Calcolo del fabbisogno di aria compressa dei compressori dentali**

Anzahl Dentaleinheiten/Number of dental units/
Nombre d'unités dentaires/ Numero di unità dentali

Labor/Laboratory/
Laboratoire/Laboratorio

☐ ja/yes/oui/sì

☐ nein/no/non/no

Luftverbrauch der eingesetzten Geräte und Verbraucher/Compressed air consumption of operated equipment/ Consommation en air de l'appareillage utilisé/ Consumo d'aria degli apparecchi utilizzati e delle utenze

| Geräte, Verbraucher (z.B. Turbine)/ Devices, consumers (e.g. turbine) / Appareil, consommateur (p.ex. turbine) / Apparecchi / utenze (ad esempio turbina) | Luftverbrauch/ air consumption/ consommation en air/ Consumo aria | Anzahl geräte/ No. of devices/ Nombre d'appareils/ Numero apparecchi | Auslastung/min / capacity utilisation/min / utilisation /min / Massimo utilizzo / min | Gleichzeitigkeitsfaktor % /Simultaneity factor %/ Facteur de simultanéité % / Fattore di simultaneità % | Luftverbrauch/ air consumption/ consommation en air/ Consumo aria |
|--|--|---|--|--|--|
| <input type="text"/> | <input type="text"/> l/min | <input type="text"/> | <input type="text"/> % | <input type="text"/> % | <input type="text"/> l/min |
| <input type="text"/> | <input type="text"/> l/min | <input type="text"/> | <input type="text"/> % | <input type="text"/> % | <input type="text"/> l/min |
| <input type="text"/> | <input type="text"/> l/min | <input type="text"/> | <input type="text"/> % | <input type="text"/> % | <input type="text"/> l/min |
| <input type="text"/> | <input type="text"/> l/min | <input type="text"/> | <input type="text"/> % | <input type="text"/> % | <input type="text"/> l/min |
| <input type="text"/> | <input type="text"/> l/min | <input type="text"/> | <input type="text"/> % | <input type="text"/> % | <input type="text"/> l/min |

| | | | |
|---|---|---|----------------------------|
| Luftverbrauch aller Geräte und Verbraucher/Compressed air consumption of required compressed air/ Consommation en air comprimé pour l'ensemble des appareils consommateurs/ Consumo d'aria di tutti gli apparecchi ed utenze | = | V Verbraucher/consumer V consommateur/utenze | <input type="text"/> l/min |
| Zusätzliche sonstige Verbraucher/Additional consumers/ Consommateurs supplémentaires/ Ulteriori utenze vaira | = | V sonstige/others V d'autres cons./ Altre utenze | <input type="text"/> l/min |
| Reserven, Sicherheit/Reserves, Safety/Réserves, sécurité/ Riserve, sicurezza | = | V Sicherheit/safety V sécurité/sicurezza | <input type="text"/> l/min |
| Min. erforderliche Liefermenge der Kompressoren/min. quantity of required compressed air/ Minimum du débit d'air nécessaire/ Minima erogazione necessaria dei compressori | = | V gesamt/total V total/totali | <input type="text"/> l/min |

**Aufstellungsbedingungen Kompressorenraum/Installation conditions compressor room/
Conditions d'installation dans la salle des compresseurs/ Condizioni di installazione della sala compressori**

| Staubgehalt/Dust content/ Teneur en poussières/ Contenuto polveri | Sauberkeit/Cleanliness/ Propreté/Pulizia | Luftfeuchtigkeit/Air humidity/ Humidité de l'air/ Umidità atmosferica | Temperatur/Temperature/ Température/Température |
|--|---|--|--|
| <input type="checkbox"/> gering/low/basse/bassa | <input type="checkbox"/> gering/low/basse/bassa | <input type="checkbox"/> gering/low/basse/bassa | t raum/room <input type="text"/> °C |
| <input type="checkbox"/> hoch/high/haute/alta | <input type="checkbox"/> hoch/high/haute/alta | <input type="checkbox"/> hoch/high/haute/alta | t piece/sala <input type="text"/> °C |

Öffnung Ventilationssystem/Inlet, outlet ventilation system/ Système de ventilation/ Apertura sistema di ventilazione

| Zuluft/Supply Air/Arrivée d'air/Mandata aria | Abluft/Exhaust Air/Air vicié/ Aria ripresa |
|---|---|
| Öffnung/Inlet/Ouverture/Apertura: <input type="checkbox"/> vorhanden/existent/existente /esistente <input type="text"/> m ² <input type="checkbox"/> ja/yes/oui/sì | Öffnung/Inlet/Ouverture/Apertura: <input type="checkbox"/> vorhanden/existent/existente /esistente <input type="text"/> m ² <input type="checkbox"/> ja/yes/oui/sì |
| <input type="checkbox"/> nicht vorhanden/nonexistent/inexistente/inesistente | <input type="checkbox"/> nicht vorhanden/nonexistent/inexistente/inesistente |

Optional / optional / optionnel / opzionale:

Sind bereits Kompressoren vorhanden/Are compressors already present?/ Y a-t-il déjà un compresseur?
Esistono già dei compressori?

☐ ja/yes/oui/sì

☐ nein/no/non/no

| Bezeichnung/Description/Lequel/Denominazione | Hersteller/Manufacturer/ Fabricant/Produttore | Typ/Type/Type/Tipo | Druck/pressure/ pression/pressione | Liefermenge /Quant. of compr. air/ Débit d'air / Erogazione |
|--|--|----------------------|---------------------------------------|--|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> bar | <input type="text"/> l/min |

Weiterer Einsatz des best. Kompressors geplant?/ Continued use of existent compressor planned?/
Le compresseur existant continuera t-il à être utilisé?/ È in progetto un altro impiego del compressore?

☐ ja/yes/oui/sì

☐ nein/no/non/no

Welche Druckluftqualität ist notwendig? (ISO/DIN 8573) / What quality of compressed air is required? (ISO/DIN 8573)/
Quelle est la qualité d'air requise? (ISO/DIN 8573) / Quale qualità d'aria compressa è necessaria? (ISO/DIN 8573)

Luftverbrauch/air consumption/
consommation en air/ Consumo aria

Klasse Druckluftqualität/Class of compressed air purity/ Classe de la qualité d'air/ Classe di qualità dell'aria compressa

V gesamt/total/total/total

Partikel/Particles/Particules/Particella

Drucktaupunkt/pressure dew point/Point de rosée sous pression/ punto di rugiada in pressione

Restölgehalt/content of residual oil/
Teneur résiduelle en huile/Olio residuo

l/min

≤ 0,1 µm >

≤ +7 °C >

☐ ja/yes/oui/sì ☐ nein/no/non/no

Druckverluste / Loss of pressure / Pertes de dépression / Perdite di pressione

Min. notwendiger Arbeitsdruck/min. required pressure/Pression de travail minimum requise/ Pressione di esercizio necessaria minima

P_{Wmin}

bar

Material der Rohrleitung/Material of pipework/ Matière des conduits/

Materiale delle tubazioni

Durchmesser des Rohrleitungsnetzes/Diameter of pipework/ Diamètre des conduits/

Diametro della rete di tubazione

Länge des Rohrleitungsnetzes/Length of pipework/ Longueur des conduits/

Lunghezza della rete di tubazioni

Ø mm

L m

+

Sonstige Verluste (z.B. Kondensatabscheider)/Other loss of pressure (e.g. condensate separator) /

Pertes diverses (p.ex. condenseur) / Altre perdite (p.e. separatore di condensa)

P_{FV}

bar

Erforderlicher Druck der Kompressoren/Required pressure on the compressor/

Pression requise des compresseurs/ Pressione necessaria dei compressori

P_{req}

bar

Service und Wartungsarbeiten

Service and maintenance

Service et maintenance

Assistenza e manutenzione

Service- und Wartungsarbeiten sind gemäss der Einbau-, Betriebs- und Wartungsanleitung durchzuführen.
 Service and maintenance must be carried out as per the instructions for the installation, operation and maintenance.
 Les programmes de service et de maintenance sont à effectuer selon le manuel technique de l'appareil.
 Interventi d'assistenza e manutenzione devono essere eseguiti secondo il manuale di montaggio, funzionamento e manutenzione.

| | | | | | | | | | |
|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Datum Service - Date of service Date de la maintenance - Data dell'assistenza tecnica | TT/MM/JJJ dd/mm/yyyy JJ/MM/AAAA gg/mm/aaaa | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Art. Nr. (z.B. Ersatzteil/Servicekit) - Order no. (e.g. spare part/service kit) Réf. (p. ex. pièces détachées/kit d'inspection) - Codice (p.e. ricambio/kit ispezione) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Zusätzliche Wartungsarbeiten - Other maintenance activities Travaux de maintenance supplémentaires - Manutenzione aggiuntiva | <input type="text"/> | | | | | | | | |
| Firma - Company Société - Società | <input type="text"/> | | | | | | | | |

| | | | | | | | | | |
|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Datum Service - Date of service Date de la maintenance - Data dell'assistenza tecnica | TT/MM/JJJ dd/mm/yyyy JJ/MM/AAAA gg/mm/aaaa | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Art. Nr. (z.B. Ersatzteil/Servicekit) - Order no. (e.g. spare part/service kit) Réf. (p. ex. pièces détachées/kit d'inspection) - Codice (p.e. ricambio/kit ispezione) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Zusätzliche Wartungsarbeiten - Other maintenance activities Travaux de maintenance supplémentaires - Manutenzione aggiuntiva | <input type="text"/> | | | | | | | | |
| Firma - Company Société - Società | <input type="text"/> | | | | | | | | |

| | | | | | | | | | |
|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Datum Service - Date of service Date de la maintenance - Data dell'assistenza tecnica | TT/MM/JJJ dd/mm/yyyy JJ/MM/AAAA gg/mm/aaaa | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Art. Nr. (z.B. Ersatzteil/Servicekit) - Order no. (e.g. spare part/service kit) Réf. (p. ex. pièces détachées/kit d'inspection) - Codice (p.e. ricambio/kit ispezione) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Zusätzliche Wartungsarbeiten - Other maintenance activities Travaux de maintenance supplémentaires - Manutenzione aggiuntiva | <input type="text"/> | | | | | | | | |
| Firma - Company Société - Società | <input type="text"/> | | | | | | | | |

| | | | | | | | | | |
|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Datum Service - Date of service Date de la maintenance - Data dell'assistenza tecnica | TT/MM/JJJ dd/mm/yyyy JJ/MM/AAAA gg/mm/aaaa | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Art. Nr. (z.B. Ersatzteil/Servicekit) - Order no. (e.g. spare part/service kit) Réf. (p. ex. pièces détachées/kit d'inspection) - Codice (p.e. ricambio/kit ispezione) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Zusätzliche Wartungsarbeiten - Other maintenance activities Travaux de maintenance supplémentaires - Manutenzione aggiuntiva | <input type="text"/> | | | | | | | | |
| Firma - Company Société - Società | <input type="text"/> | | | | | | | | |

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|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Datum Service - Date of service Date de la maintenance - Data dell'assistenza tecnica | TT/MM/JJJ dd/mm/yyyy JJ/MM/AAAA gg/mm/aaaa | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Art. Nr. (z.B. Ersatzteil/Servicekit) - Order no. (e.g. spare part/service kit) Réf. (p. ex. pièces détachées/kit d'inspection) - Codice (p.e. ricambio/kit ispezione) | | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Zusätzliche Wartungsarbeiten - Other maintenance activities Travaux de maintenance supplémentaires - Manutenzione aggiuntiva | <input type="text"/> | | | | | | | | |
| Firma - Company Société - Società | <input type="text"/> | | | | | | | | |

Allgemeine Geschäftsbedingungen**D**

Es gelten die allgemeinen Geschäftsbedingungen. Die Garantie umfasst sämtliche Materialfehler, welche die Funktion des Geräts mehr als nur geringfügig beeinträchtigen. Von der Garantiepflicht ausgenommen sind Schäden, die durch falsche oder unsachgemäße Handhabung sowie normalen Verschleiß entstehen. Defekte Teile werden repariert oder bei Notwendigkeit durch Neuteile ersetzt. Die Garantie bezieht sich zudem nicht auf den Austausch des Amalgam-Sammelbehälters sowie nicht auf leicht zerbrechliche Teile wie Glas, Kunststoff oder Glühlampen. Vorgeschriebene Wartungsintervalle sind verbindlich einzuhalten. Der Hersteller behält sich das Recht vor, das Gerätedokument zur Überprüfung von Wartungsintervallen anzufordern.

Um die Gültigkeit der Garantie festzusetzen, ist nach ordnungsgemäßer Montage die dem Gerät beigelegte Montagemeldung unverzüglich an METASYS zu retournieren. In diesem Fall beginnt die Garantiefrist mit Inbetriebnahme. Bei Einbau ohne Montagemeldung an METASYS erlischt jeglicher Garantieanspruch. Einbau und Einsendung der Montagemeldung müssen innerhalb von 24 Monaten erfolgen, und zwar ab Datum des Verkaufs durch METASYS.

Es sei darauf hingewiesen, dass Garantieansprüche bei Amalgam-abscheiden und zentralen Saugsystemen nur bei vorgeschriebener Verwendung des METASYS Absaugdesinfektions- und -reinigungsmittels GREEN&CLEAN M2, sowie beim Wasserentkeimungsgerät WEK bei ausnahmsloser Verwendung des METASYS Entkeimungspräparates GREEN&CLEAN WK geltend gemacht werden können. Dasselbe gilt für das Hygienesystem H1, für welches nur das METASYS GREEN&CLEAN H1 verwendet werden darf. Gesetzliche Gewährleistungsansprüche bleiben davon unberührt.

Garantieansprüche bei Kompressoren können nur bei Nachweis der Durchführung des jährlichen Austausch der Filterpatronen sowie, falls zutreffend, der Durchführung des 3.000 Stunden-Services geltend gemacht werden.

Terms and conditions**GB**

METASYS delivers exclusively on the basis of the present terms and conditions. The guarantee comprises all material faults that more than negligibly influence the function of the device. Excluded from the guarantee are damages that arise through incorrect or improper handling as well as normal wear. Faulty parts will be repaired or as necessary replaced by new parts. Furthermore, the guarantee does not apply to the replacement of the amalgam collection container or to fragile parts such as glass, plastic or light bulbs. Prescribed maintenance intervals are obligatory. The manufacturer reserves the right to request the equipment logbook to validate the maintenance intervals.

In order to determine the validity of the guarantee, the notification of assembly accompanying the device must be sent to METASYS immediately after proper assembly has taken place. In this case the guarantee period begins with commissioning. In case of installation without notification of assembly to METASYS, any warranty claim is forfeited. Installation and return of installation proof must be completed within 24 months after date of sale from METASYS.

We point out that guarantee claims for amalgam separators and central suction systems can only be asserted if the device has been treated with the suction system disinfectant METASYS' GREEN&CLEAN M2 according to the directions of use. In case of water decontamination system WEK, the unexceptional use of the water decontamination preparation METASYS' GREEN&CLEAN WK is essential for the validity of a guarantee claim. This regulation does also apply to the hygiene system H1, which must exclusively be operated with GREEN&CLEAN H1. Implied warranty remains unaffected of this.

Warranty claims for compressors can only be granted upon presentation of proof that the yearly exchange of filter cartridges and, if applicable, the service after 3.000 hours have been performed.

Conditions générales de vente**F**

La garantie s'étend sur toutes les demandes résultant d'un défaut de fabrication affectant la fonctionnalité de l'appareil. La garantie ne s'applique pas à des défauts résultant d'une utilisation inappropriée, aux pièces d'usure, ni aux pièces fragiles (verre, plastique ou ampoules) ou à l'échange du récipient de collecte. La pièce défectueuse sera réparée ou remplacée par une neuve. L'intervalle des maintenances programmées doit être obligatoirement respectée. En cas d'une demande de garantie, le fabricant se réserve le droit de demander le livret de l'appareil avec les dates des maintenances effectuées.

La garantie débute à la date d'installation. Afin d'arrêter la validité de celle-ci le coupon de garantie dûment complété doit nous être retourné. La garantie expire si le coupon de garantie n'a pas été renvoyé chez METASYS. L'installation et le retour du coupon de garantie doivent se faire dans un délai maximum de 24 mois, la date de facture faisant foi.

METASYS ne donnera suite aux demandes de garantie que si le produit de nettoyage et de désinfection pour l'aspiration GREEN&CLEAN M2 est utilisé comme préconisé pour les récupérateurs d'amalgame et les aspirations centralisées, le produit GREEN&CLEAN WK pour le système de décontamination d'eau WEK et le GREEN&CLEAN H1 pour le système d'hygiène H1. Les obligations légales de garantie ne sont pas concernées par cette clause.

Toute revendication éventuelle à la garantie est subordonnée au strict respect de l'échange annuel des filtres ainsi que, le cas échéant, à la réalisation de la révision des 3000 heures.

Condizioni generali di vendita**I**

Sono validi le condizioni generali di vendita. La garanzia copre tutti i difetti materiali che pregiudicano notevolmente il funzionamento dell'apparecchio. Sono esclusi dall'obbligo di garanzia i danni dovuti ad un uso errato od incorretto e all'usura normale. Pezzi rotti vengono riparati o sostituiti con pezzi nuovi se c'è necessità. Inoltre la garanzia non copre la sostituzione del barattolo d'amalgama né di pezzi fragili quali vetro, plastica o lampadine. È necessario osservare i termini di manutenzione prescritti. Il produttore si riserva il diritto di esigere il documento accompagnatorio d'apparecchiatura, per la verifica degli intervalli di manutenzione.

Perché la validità della garanzia possa essere accertata, dopo il montaggio conforme è necessario rendere immediatamente a METASYS l'avviso d'installazione consegnato con l'apparecchio. In questo caso, la durata di validità della garanzia ha inizio con la messa in servizio. Il mancato invio dell'avviso d'installazione a METASYS dopo l'installazione comporta l'estinzione del diritto di garanzia. Montaggio ed invio dell'avviso del montaggio eseguito devono avvenire entro 24 mesi dalla data di vendita da DENTAL ECO SERVICE SRL.

Si fa presente che potranno essere fatti valere i diritti alla garanzia solo se con i separatori d'amalgama e i sistemi d'aspirazione viene utilizzato il prodotto METASYS di disinfezione e pulizia per l'aspirazione GREEN&CLEAN M2, così come se, con il sistema di decontaminazione dell'acqua WEK, verrà utilizzato esclusivamente il preparato METASYS per la decontaminazione GREEN&CLEAN WK. Lo stesso vale per il sistema d'igiene H1, per il quale è permesso l'utilizzo del solo GREEN&CLEAN H1. Di questo rimangono intangibili i legali diritti di garanzia di assenza di vizi del prodotto consegnato.

Si possono far valere diritti di garanzia solo in caso di dimostrazione di manutenzioni annuali avvenute per il ricambio dei filtri e, se applicabile, l'effettuazione della manutenzione delle „3000 ore“.

Index

Key to symbols

1. Index

The footnote found on each page defines the user group particular information is aimed at.

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2. Key to symbols



Warning that to ignore the following instructions could lead to personal injury, disrupt operation or damage the apparatus!



means that particular attention is drawn to an important situation for the operating personnel or the technician.

3. General information



The safety, reliability and performance of the equipment is only guaranteed by METASYS if the following instructions are observed:

- Assembly, alterations or repairs may exclusively be carried out by authorized service personnel in compliance with EN Standard 60601-1 (International Standard for Medical Electrical Apparatus, in particular Part 1: General Rules for Safety).
- The electrical installation must comply with the regulations of the IEC (International Commission for Electrical Engineering).
- The appliance must exclusively be used in conformity with the instructions for installation, operation and maintenance.
- Only original parts may be used for repairs or replacements.



Following the commissioning of the apparatus, the Installation Proof must be completed and returned to METASYS in order to establish the guarantee period.

- Every service and inspection must be recorded in the Equipment Logbook.
- When requested by an authorized engineer, METASYS agrees to make all documents available for the use of technically qualified service personnel.
- METASYS accepts no responsibility for damages caused due to external factors, such as wrong installation, improper use of the apparatus or unauthorized technical intervention.
- When the whole compressor is dismantled at the end of its service life, it must be disposed of properly.

Use, scope of delivery

Explanation of the type plate

4. Use:

METASYS META Air compressors produce oil-free, dry, filtered compressed air required for the operation of dental units or similar applications.



The compressors are designed for operation in dry ventilated rooms and may therefore not be operated in a damp or wet environment.

Use of the compressors in the vicinity of gases or inflammable liquids is also prohibited.

5. Scope of delivery:

All METASYS META Air compressors are shipped in a single package consisting of a pallet plus carton. A booklet containing the installation proof, equipment logbook and manual for installation, operation and maintenance is included in each shipment.

6. Explanation of the type plate:

3 see illustration

The type plate is located on the fitting panel.

3.1 Equipment type

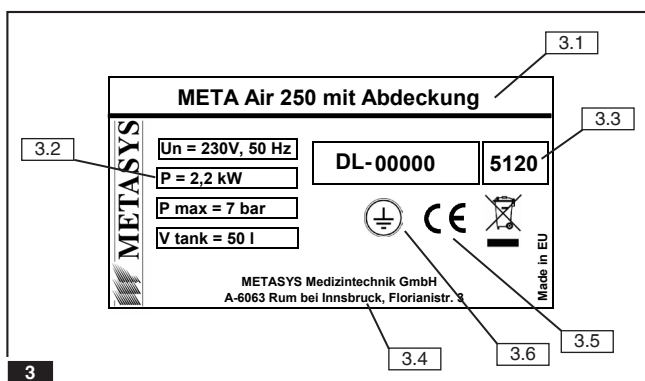
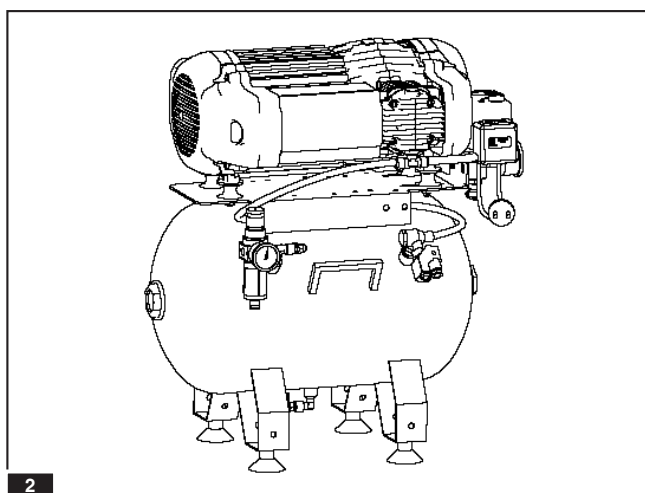
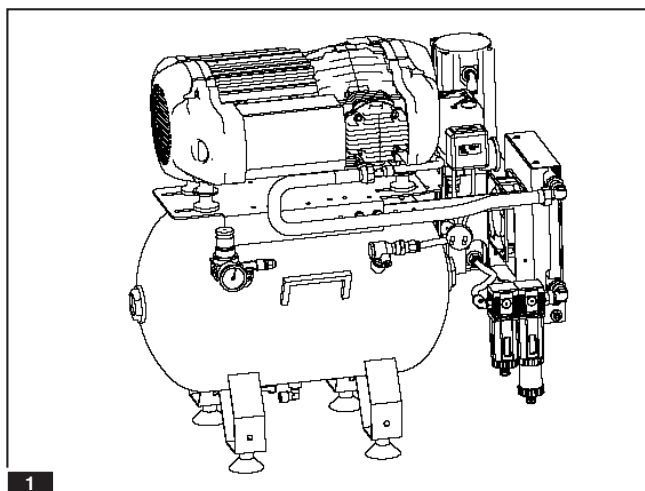
3.2 Mains supply data

3.3 Serial number

3.4 Address of the manufacturer

3.5 CE marking

3.6 Protection Class I

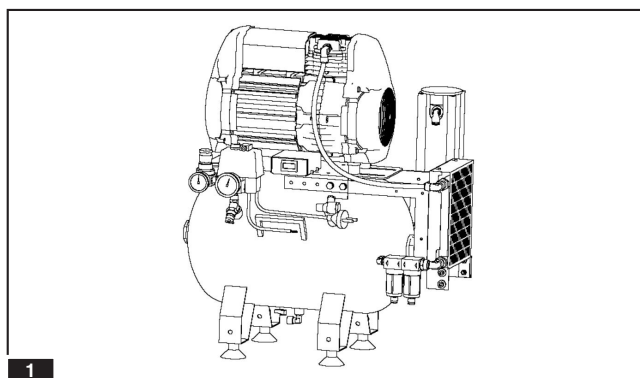


Technical data

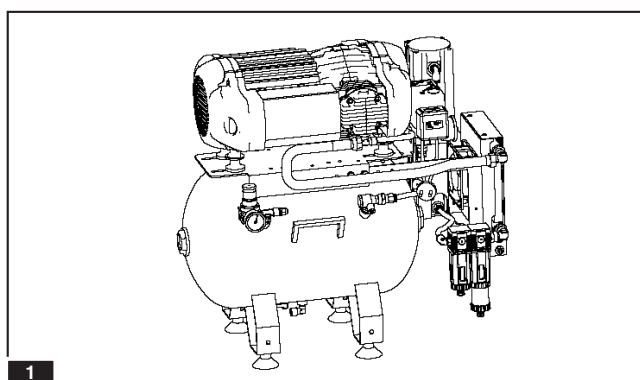
META Air 70 / 150 / 250 / 450

7. Technical data

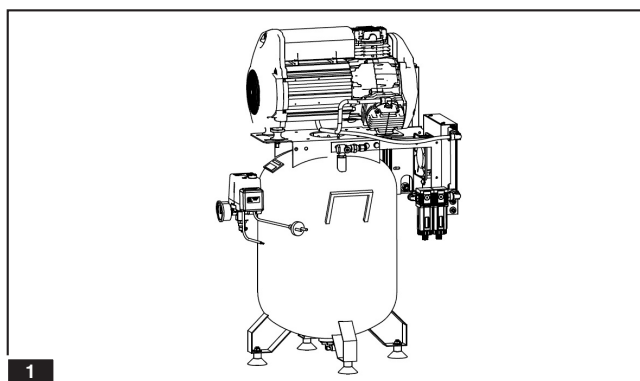
| META Air 70 | |
|------------------------|-----------------|
| Tank capacity | 30 l |
| Electric motor power | 0,75 kW |
| Delivery rate | 78 l/min |
| Dimensions (H x W x D) | 40 x 64 x 72 cm |
| Power supply | 230 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 69 dB(A) |



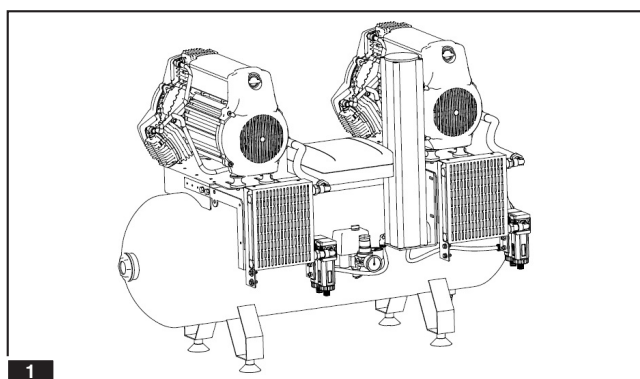
| META Air 150 | |
|------------------------|-----------------|
| Tank capacity | 30 l |
| Electric motor power | 1,5 kW |
| Delivery rate | 152 l/min |
| Dimensions (H x W x D) | 40 x 64 x 72 cm |
| Power supply | 230 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 69 dB(A) |



| META Air 250 | |
|------------------------|-----------------|
| Tank capacity | 50 l |
| Electric motor power | 2,2 kW |
| Delivery rate | 225 l/min |
| Dimensions (H x W x D) | 52 x 68 x 96 cm |
| Power supply | 230 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 69 dB(A) |



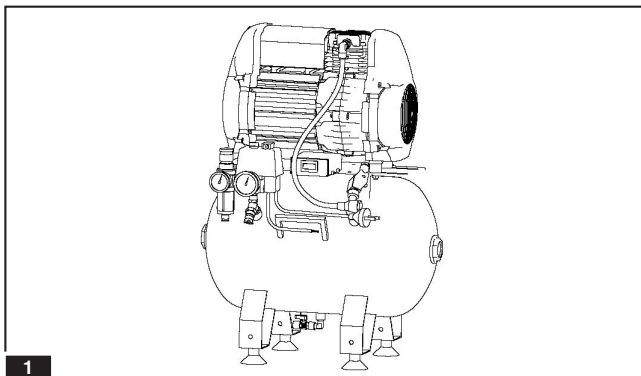
| META Air 450 | |
|------------------------|------------------|
| Tank capacity | 100 l |
| Electric motor power | 4,4 kW |
| Delivery rate | 450 l/min |
| Dimensions (H x W x D) | 65 x 102 x 79 cm |
| Power supply | 400 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 73 dB(A) |



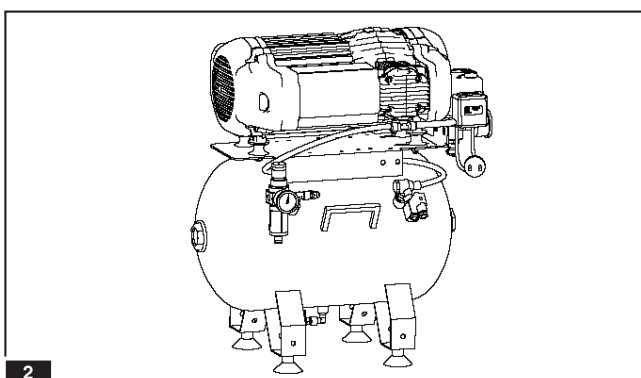
GB

Technical data

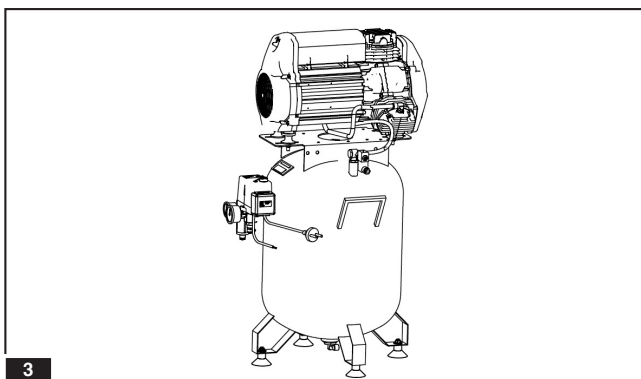
META Air 70 Light / 150 Light / 250 Light / 450 Light



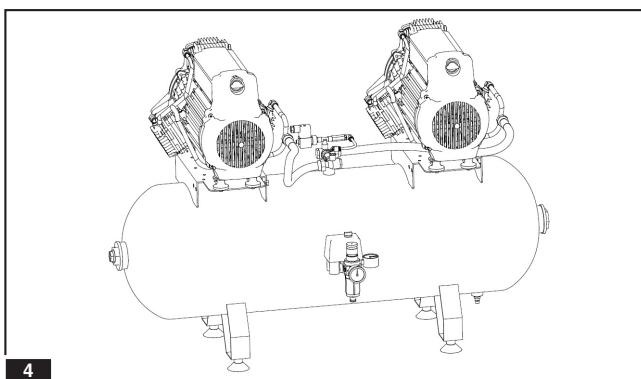
| META Air 70 Light | |
|------------------------|-----------------|
| Tank capacity | 30 l |
| Electric motor power | 0,75 kW |
| Delivery rate | 85 l/min |
| Dimensions (H x W x D) | 39 x 57 x 72 cm |
| Power supply | 230 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 69 dB(A) |



| META Air 150 Light | |
|------------------------|-----------------|
| Tank capacity | 30 l |
| Electric motor power | 1,5 kW |
| Delivery rate | 170 l/min |
| Dimensions (H x W x D) | 39 x 57 x 66 cm |
| Power supply | 230 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 69 dB(A) |



| META Air 250 Light | |
|------------------------|-----------------|
| Tank capacity | 50 l |
| Electric motor power | 2,2 kW |
| Delivery rate | 250 l/min |
| Dimensions (H x W x D) | 52 x 52 x 96 cm |
| Power supply | 230 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 69 dB(A) |

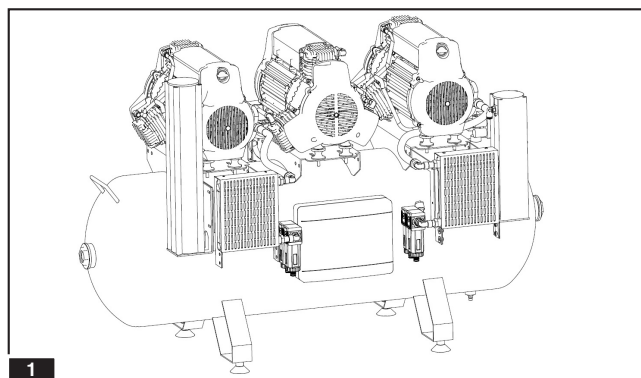


| META Air 450 Light | |
|------------------------|------------------|
| Tank capacity | 100 l |
| Electric motor power | 4,4 kW |
| Delivery rate | 500 l/min |
| Dimensions (H x W x D) | 55 x 102 x 72 cm |
| Power supply | 400 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 73 dB(A) |

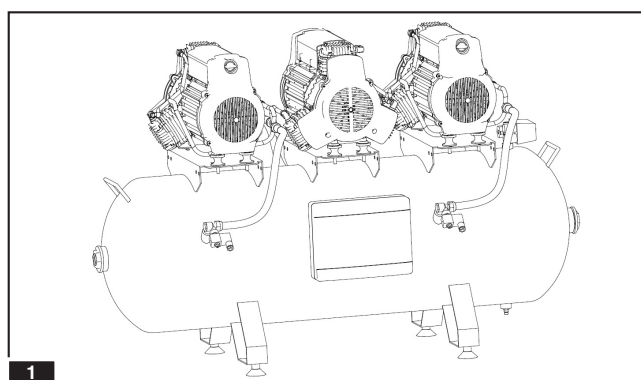
Technical data

META Air 650 / 650 Light

| META Air 650 | |
|------------------------|------------------|
| Tank capacity | 200 l |
| Electric motor power | 6,6 kW |
| Delivery rate | 660 l/min |
| Dimensions (H x W x D) | 85 x 140 x 92 cm |
| Power supply | 400 V |
| Frequency | 50 Hz |
| Pressure range | 5-7 bar |
| Sound level | 73 dB(A) |



| META Air 650 Light | |
|------------------------|------------------|
| Tank capacity | 200 l |
| Electric motor power | 6,6 kW |
| Delivery rate | 750 l/min |
| Dimensions (H x W x D) | 60 x 140 x 92 cm |
| Power supply | 400 V |
| Frequency | 50 hz |
| Pressure range | 5 -7 bar |
| Sound level | 73 dB(A) |



100% operating time:

An operating time of 100% is possible at the specified delivery rate.

GB

Description of function

8. Description of function of the compressor 1

Compressors without a membrane dryer (Light models):

The compressor power unit sucks in air from the outside through the air intake filter (1). The air is compressed in an oil-free compression chamber (2), then passes through a delivery hose (3) and is forced through the non-return valve (4) into the pressure tank (5). The air flow is regulated by a valve plate that allows air flow in one direction only.

Compressors with a membrane dryer:

The compressor power unit sucks in air through the air intake filter (1). The air is compressed in an oil-free compression chamber (2), then is forced through the cooler (6) which cools down the compressed air and thus forms condensate water.

The condensate is trapped by a 5 µm filter (7) located below the cooler. A second 0,01 µm filter (8) blocks further water droplets to ensure high quality, clean air. This double filtration system has a semi-automatic drain system that empties the small filters receivers everytime pressure is discharged.

The clean compressed air then passes through the membrane dryer (9) where residual humidity is removed and the compressed air reaches an average dew point value of -35°C (at 7 bar). Dry, compressed air is delivered to the air receiver through a hose that connects the dryer to the non-return valve (5).

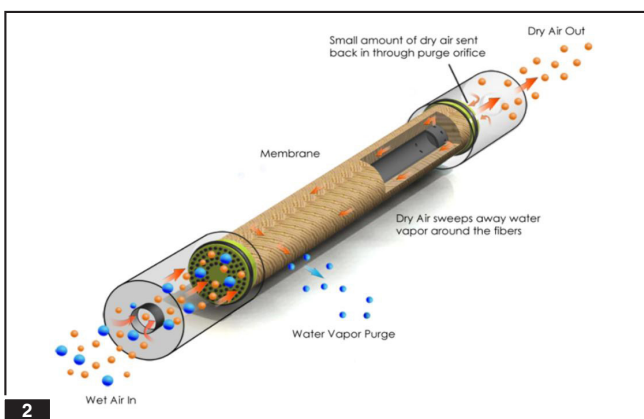
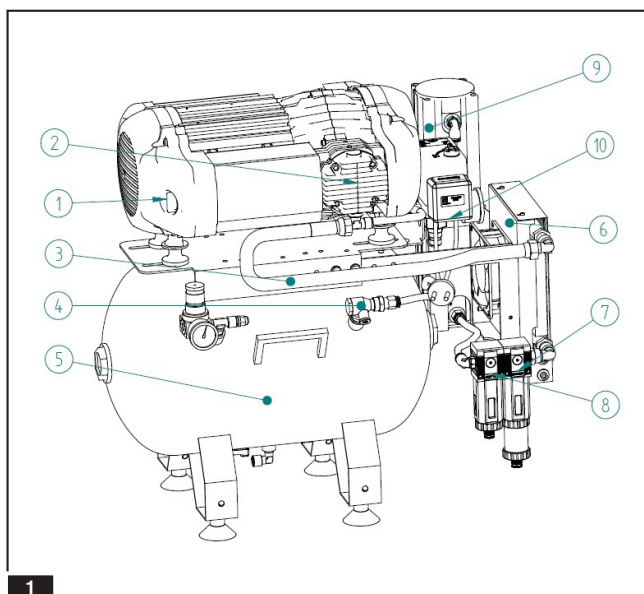
The entire system is controlled by the pressure switch (10) that regulates the ON/OFF mode of the unit. Every time the compressors reaches the cut out pressure, it switches off and residual compressed air in the delivery pipe system is vented out by a solenoid valve (for compressors without air dryer) or by the membrane dryer (9) - for compressors with air dryer.

9. Description of the function of the membrane dryer 2

Filtered air enters the membrane dryer and water droplets are collected on the membrane fibres. While the dried air is delivered to the receiver, a small amount of this dried air is purged back through the membrane to sweep away the water droplets around the fibers. The moisture is then delivered to the outside through the rinsing nozzles of the membrane dryer. Since this purge cycle is continuous, the membrane dryer can operate without interruptions or efficiency reduction.

Membrane dryers do not require any maintenance because there is no water adsorption or adsorbing material.

Periodical maintenance needs to be performed on the double filtration system (0,5 µm, 0,01 µm) before the membrane dryer. Filters cartridges must be replaced once a year. Maintenance kits are available at METASYS.



Storage and transportation conditions

Installation guidelines

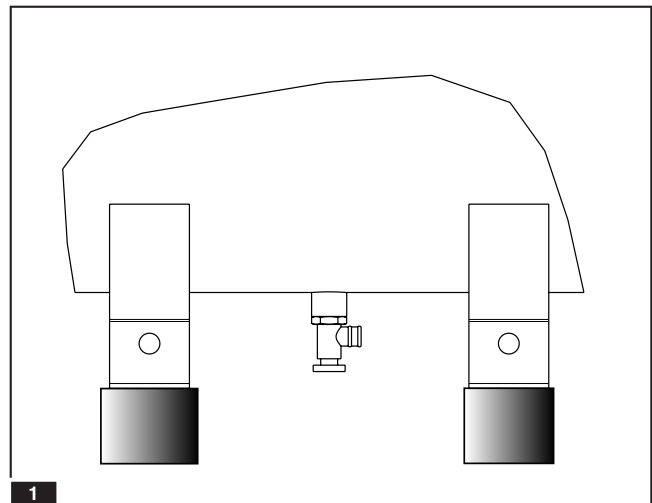
10. Storage and transportation conditions:

The compressor is dispatched by the manufacturer in a carton on a non-returnable pallet to protect the appliance from damage during transportation. Wherever possible, the original packaging should always be used for transportation. Therefore it is advised to keep the original packaging.

During transportation the compressor must be protected from moisture, dirt and extreme temperatures. The packaged compressors must be stored in a dry place to protect it from humidity (max. relative air humidity: 70%). Storage temperature must be between -10°C and +40°C.



The compressor may only be transported unpressurised. Before it is transported, it is essential that the compressed air from the pressure tank and pressure hoses is released and any condensate water is drained off.

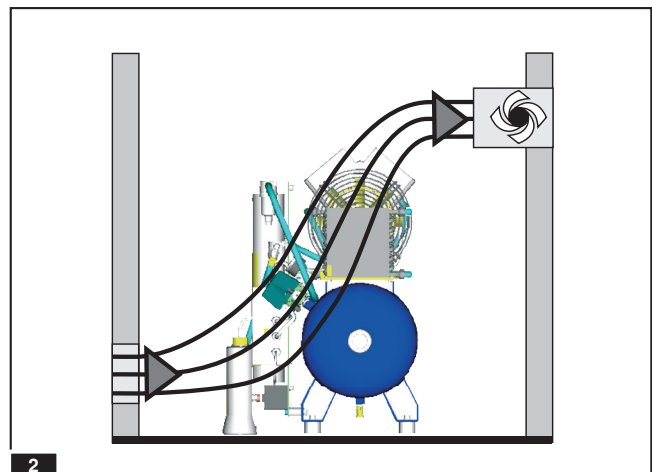


11. Installation guidelines:

Unpack the compressor and check carefully to ensure that it is in perfect condition. Assemble the support legs as supplied (see illustration **1**).

The compressor may only be installed and operated in a dry, well-ventilated and low-dust location. If there is insufficient air flow, a suction device or ventilator of the correct dimensions must be installed. The ambient temperature must be between +5°C and +40°C.

The motor fan ensures that the power unit is force-cooled effectively. However, for this to happen, the air must be able to flow in and out without obstructions. If this is not the case, a separate ventilation system must be installed (see illustration **2**).



The compressor must be installed in such a way that it is easily accessible for operation and maintenance. The compressor must be placed on a level floor which is sufficiently robust.

The compressor must not touch any other objects due to heat development.

It is not necessary to provide a special foundation or base. The compressor may simply be placed on a level floor. If the compressor is fitted in a mounting bracket, then the mounting bracket should not be secured to the ground. It is recommended to attach four vibration dampers.

Instrument unit Electrical connections

12. Instrument unit:

2 See picture

The compressor is fitted with an instrument unit as standard:
This consists of:

- pressure switch 2.1
- pressure reducer / pressure reducer with condensate separator (Light models only) 2.2
- safety valve 2.3
- compressed air supply 2.4
- manometer 2.5
- condensate separator (Light models only) 2.6

The flexible delivery hose must be pushed onto a pipe connection and secured against slippage using hose clips.



The flexible delivery hose connecting the permanently installed compressed air pipe and the compressor prevents the transfer of vibrations and noise.

13. Electrical connections

Connections to the mains supply may only be made by a qualified electrician. It must be ensured that the electrical wiring and the mains voltage conform with the data indicated on the type plate. A tolerance of +/- 5% is permissible.

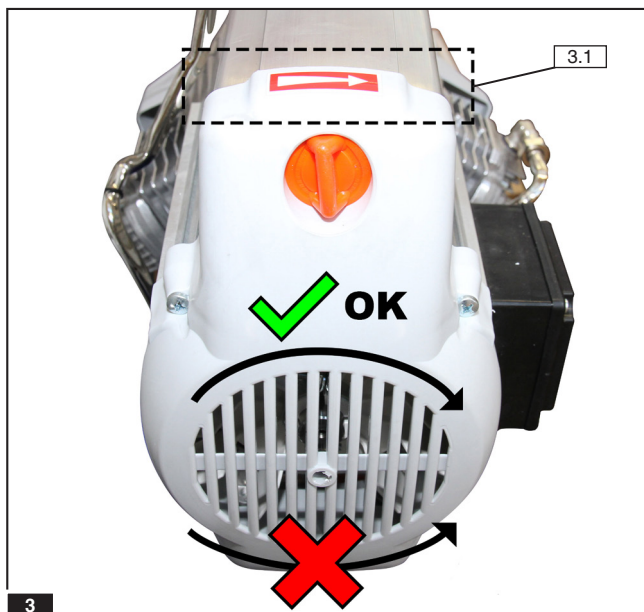
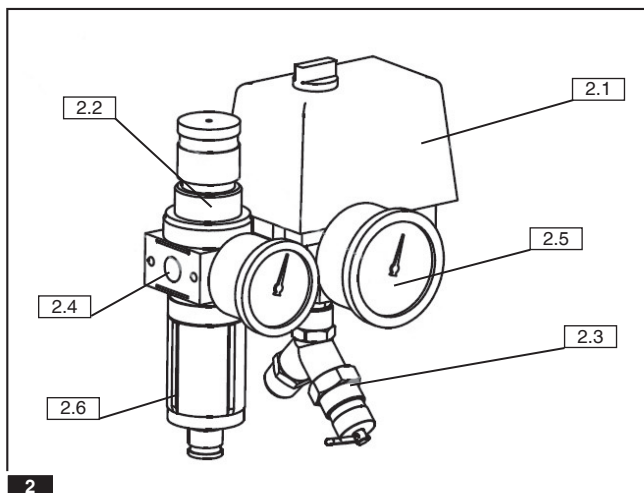
Earthing must always be used for safety purposes.

3 See picture

The compressors must be connected to a socket which is protected by a suitable magnetothermal switch. The socket must be easily accessible so that the appliance can be unplugged easily from the mains supply in the event of danger. When a compressor which is operated by three-phase alternating current is switched on for the first time, it is necessary to ensure that the direction of rotation of the ventilation rotor is correct (see arrow on housing 3.1).



If any electrical wires or air hoses are damaged, they must be immediately replaced! The electrical wiring may not touch the surfaces of the apparatus since the outer surfaces of the compressor become hot during operation and may thereby damage the cable insulation!



Preparations before first use

14. Preparations before first use

Before using the compressor for the first time, it must be ensured that all the fastenings securing the compressor for transportation have been removed. Ensure that the compressed air lines are connected correctly. The compressor must be connected to the mains supply in the proper manner. Switch on the compressor at the pressure switch by rotating the switch to position "1".

Safety valve



The safety valve is set at 10 bar, checked and stamped before leaving the factory. When the compressor is operated for the first time, the safety valve must be checked.

The safety valve may not be used to vent the pressure tank, as this may impair the function of the safety valve.

Adjusting the pressure switch

3 See picture

The pressure switch is factory-set. The power unit switches itself on when the tank pressure reaches 5 bar and switches itself off when it reaches 7 bar. If necessary, the working pressure of the compressor may be altered at the pressure switch.



These tasks may only be carried out by authorised technicians. During this work the protective cover of the pressure switch must be removed.

The adjustment can only be carried out while the unit is live.

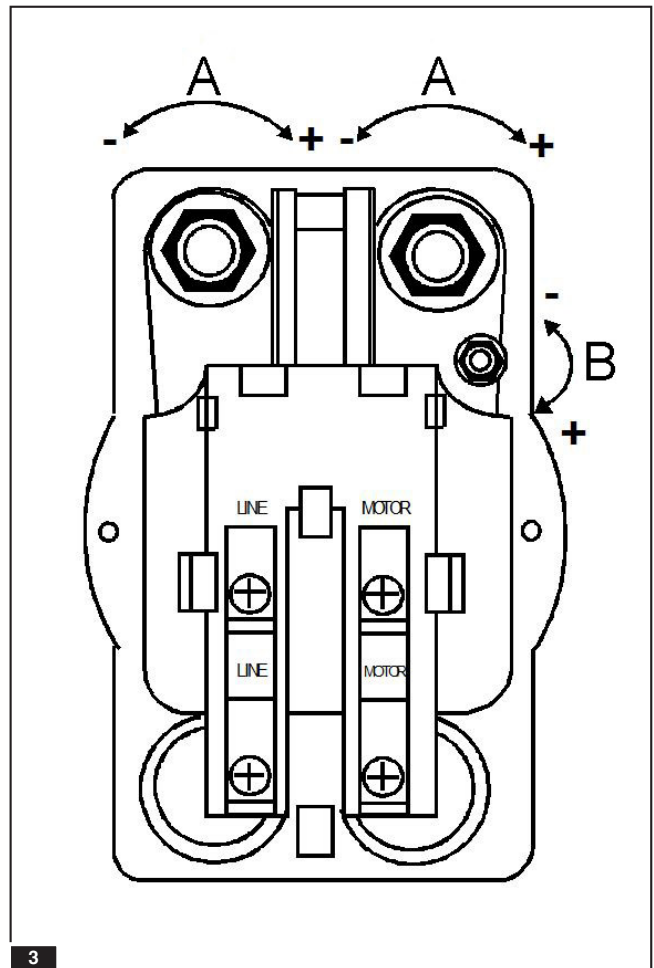
If problems develop with the cut-in and cut-out pressure, refer to the following:

Screws A: Minimum pressure adjustment (cut-in) – both of them have to be regulated at the same level. Note that to regulate Max pressure, it is enough to regulate screws A (min. pressure) because the differential pressure is fixed.

Screw B: Differential min-max pressure adjustment (cut-out) – actually regulated at 2 bar.

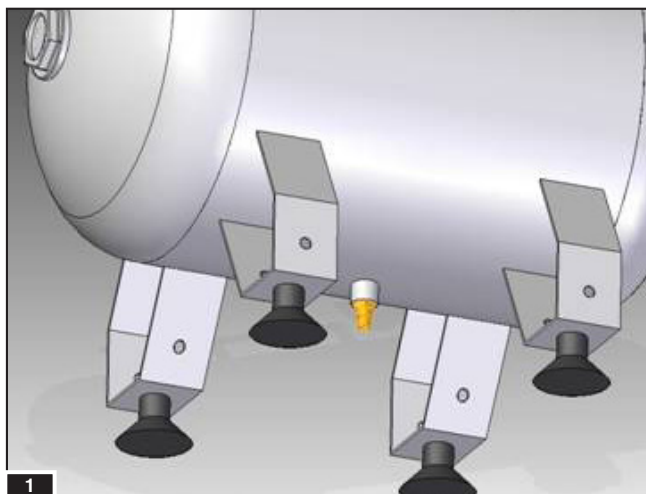
The cut-in pressure is set by even adjustment of the two screws A. Turn clockwise to increase the switch-on and anticlockwise to reduce it.

The cut-out pressure is set by means of differential screw B (cut-in pressure+differential=cut-out pressure). Turn clockwise to increase the differential.



Preparations before first use

Commissioning and usage



14. Preparations before first use

Draining off condensate water

During transportation, condensate may form inside the air tank because of temperature fluctuation. Each time a compressor is installed, the condensation water must first be drained off – even in compressors with a membrane dryer.

Procedure:

- Check for condensate in the air receiver.
- Switch off the compressor and reduce pressure to 1 bar
- Place a collection container under the air receiver
- Open the drain valve until there is no more condensate inside the air receiver.
- Close the drain valve again.

Installation of the manometer

The manometers must be installed as shown in picture **1** and **2** on page 10 and checked for leakage.

15. Commissioning and usage:

Automatic start-up: *If the pressure in the air receiver drops, the compressor will switch on automatically until the maximum operational pressure of 7 bar is reached again.*

i *If the maximum operational pressure of 7 bar is exceeded, the compressor power unit must be switched off and disconnected from the mains (remove the power plug.) Inform an authorised technician.*

In the event of danger, disconnect the compressor from the mains (remove the power plug).

The compressor has hot surfaces and may cause burns upon contact.

Commissioning and usage

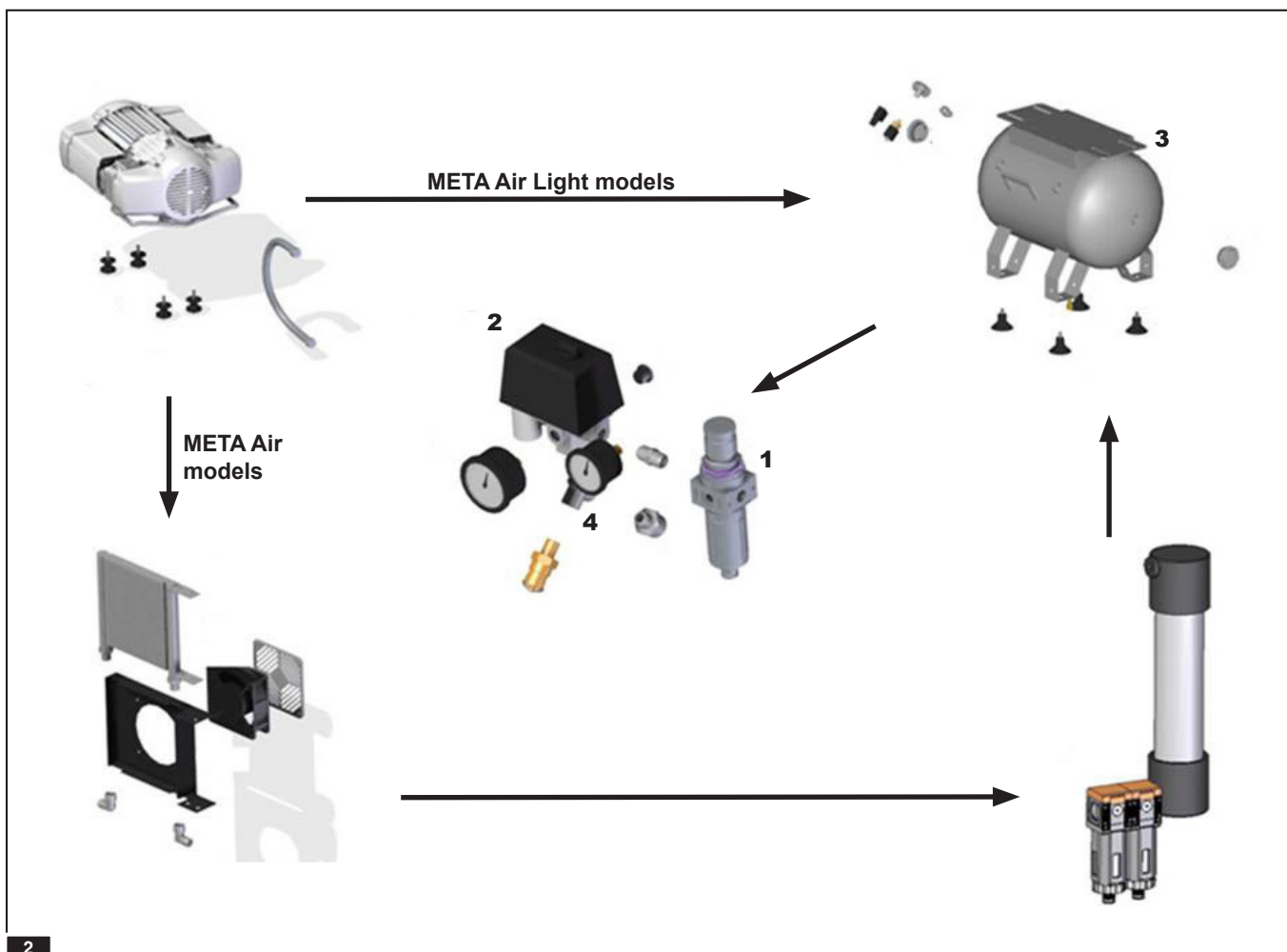
15. Commissioning and usage:

See illustration **2**

Plug in the power cable and connect the air hose (1). Turn the pressure switch (2) to position “1”. The compressor operates fully automatic and is controlled by the pressure switch which stops when pressure in the tank (3) reaches the cut out pressure (7 bar), allowing compressor to start again when it reaches the cut in pressure (5 bar).

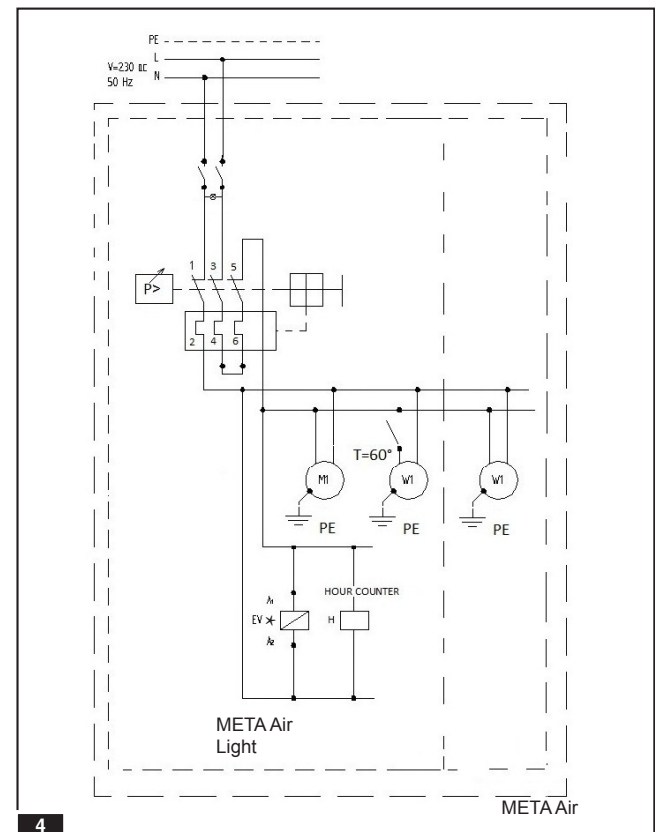
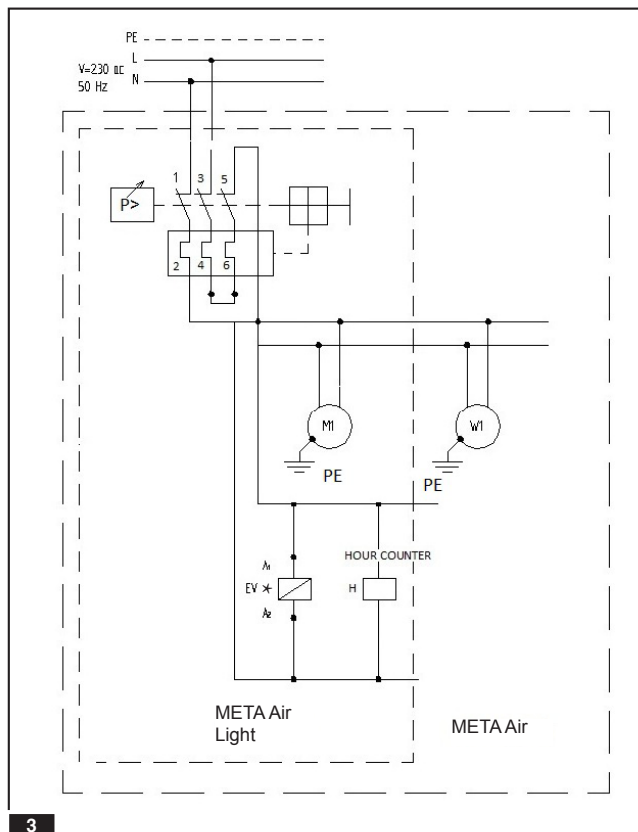
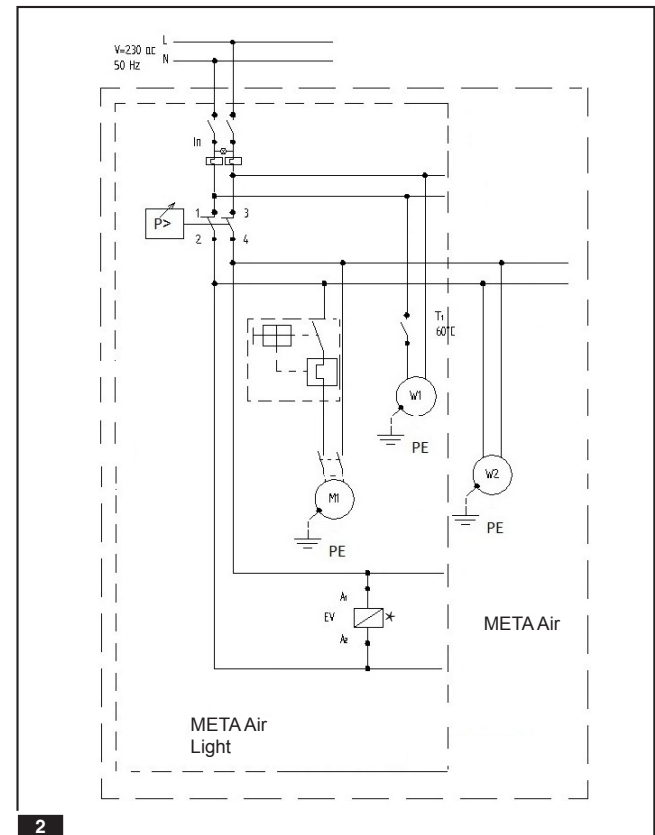
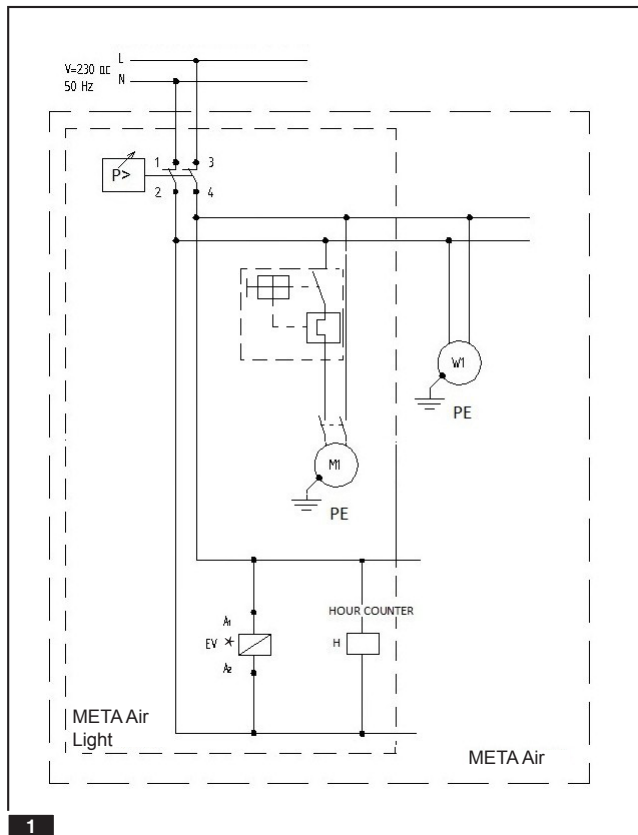
When air receiver is under pressure, the operating pressure can be adjusted through the pressure regulator (2): Rotate the regulating screw in a clockwise direction to increase pressure, and in a counterclockwise direction to reduce it. The current pressure can be read on the pressure gauge (4). When air pressure required is reached, push the regulating screw downwards in order to block it.

GB



2

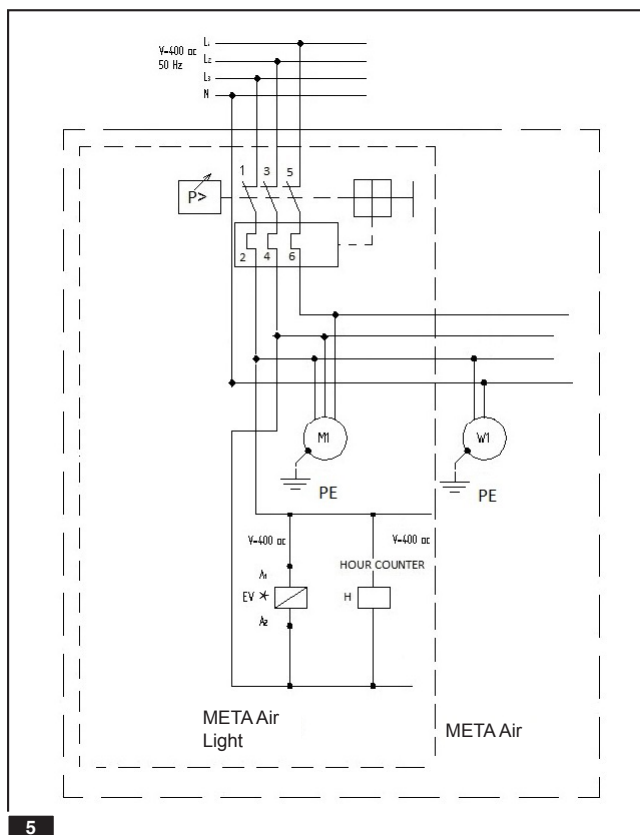
16. Wiring diagrams



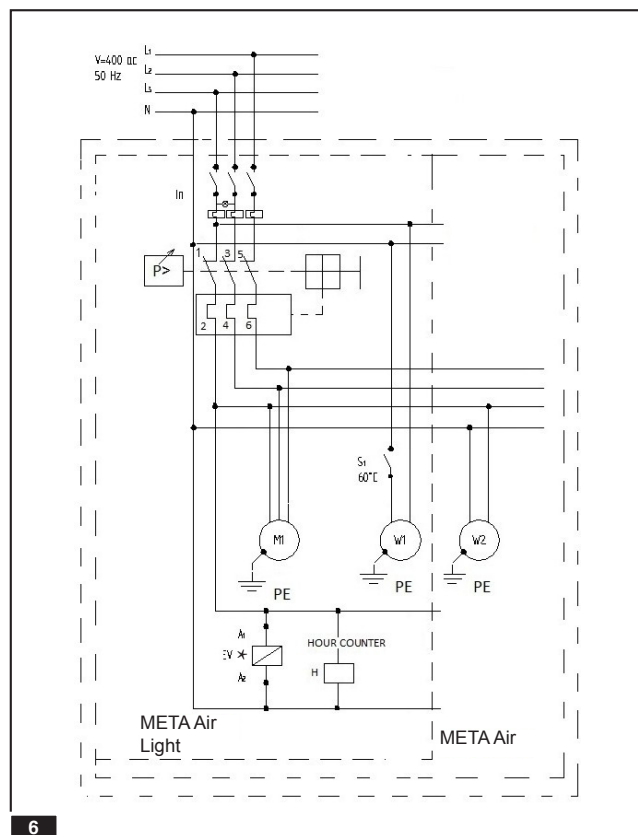
* META Air Light versions only

Wiring diagrams

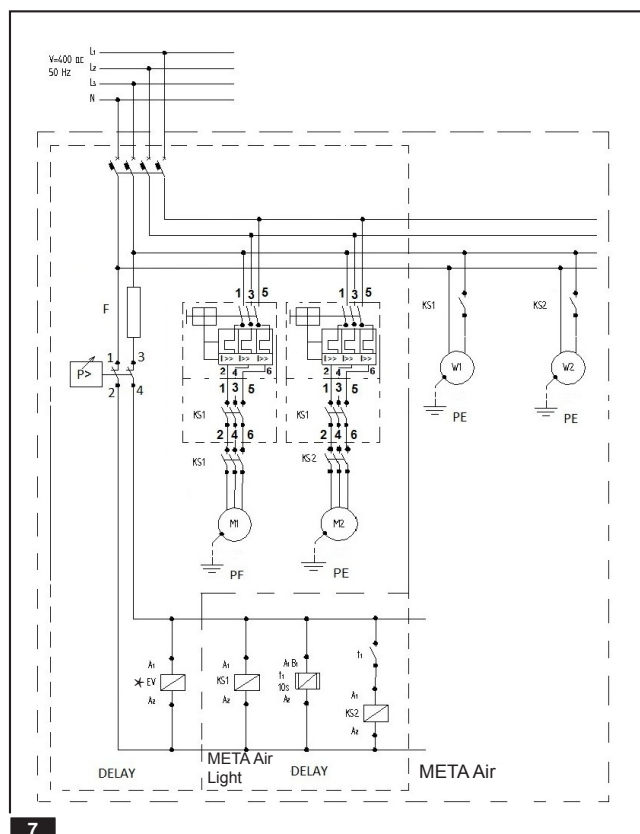
16. Wiring diagrams



5



6



7

* META Air Light versions only

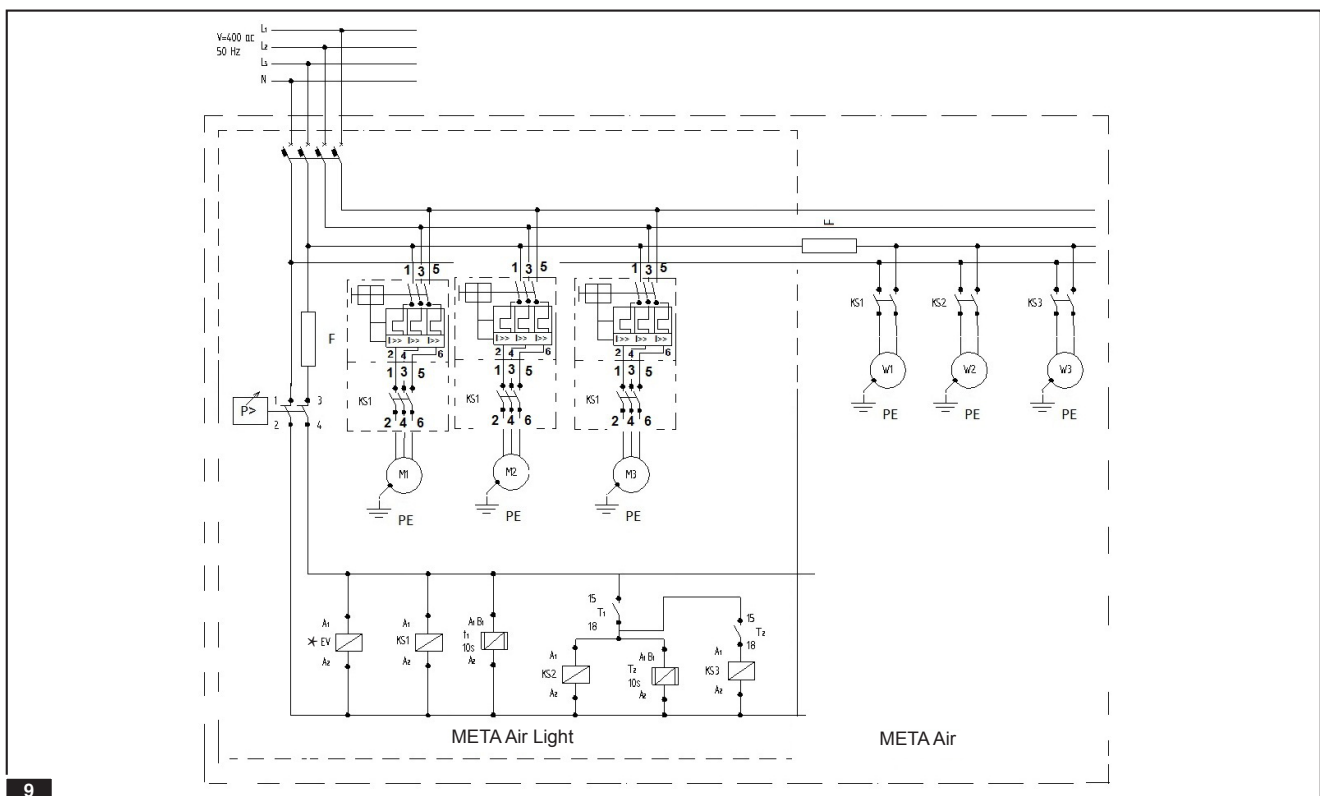
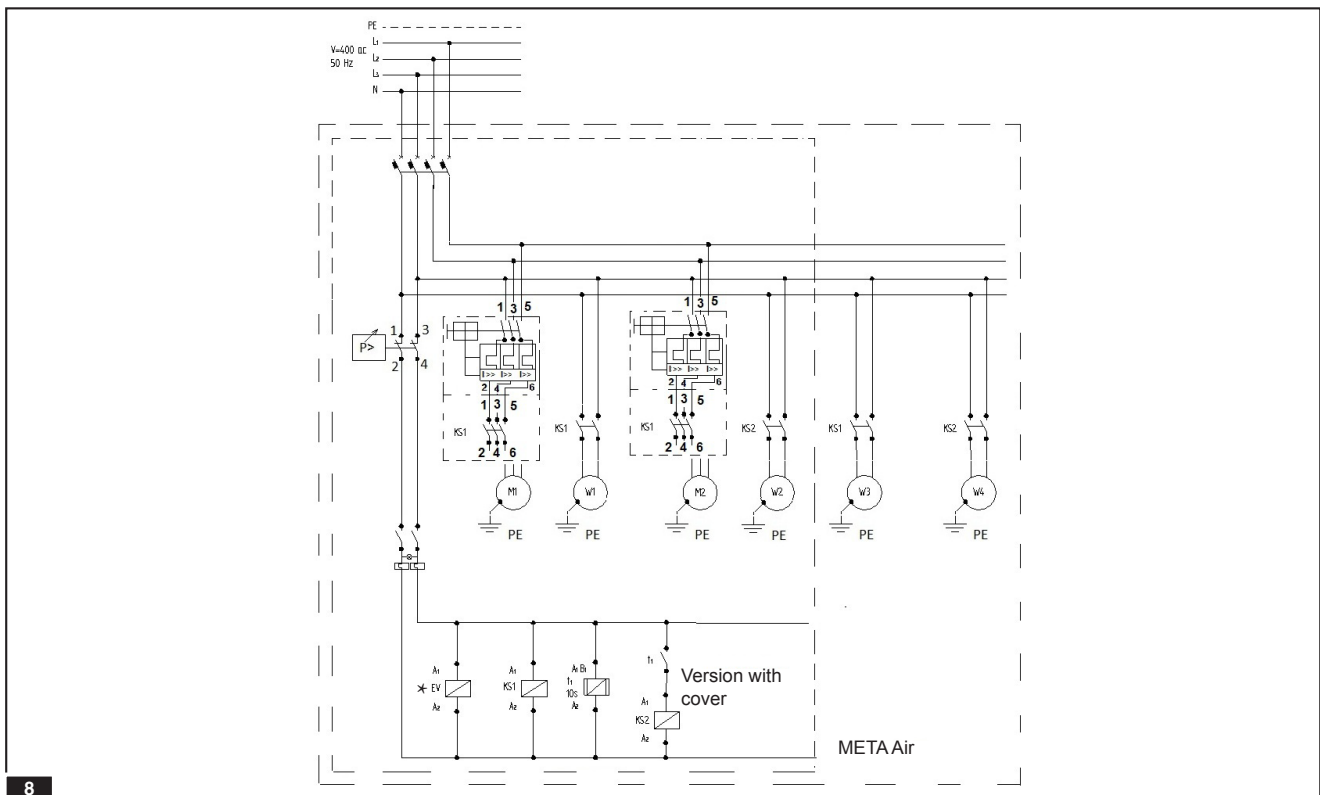
- 1 META Air 70 / 70 Light
- 2 META Air 70 / 70 Light with cover
- 3 META Air 150 / 150 Light / META Air 250 / 250 Light
- 4 META Air 150 / 150 Light / META Air 250 / 250 Light with cover
- 5 META Air 150 / 150 Light / META Air 250 / 250 Light 3-phase
- 6 META Air 150 / 150 Light / META Air 250 / 250 Light 3-phase with cover
- 7 META Air 450 / 450 Light 3-phase

Legend:

| | |
|-----------|-----------------------|
| F | fuse |
| P | pressure switch |
| M1 - M2 | compressor motor 1-3 |
| W1 - W3 | ventilator 1-3 |
| EV | pressure relief valve |
| H | hour meter |
| KS1 - KS3 | motor contactor 1 |
| t1 - t2 | timing relay 1-2 |

GB

16. Wiring diagrams



* META Air Light versions only

8 META Air 450 / 450 Light with cover

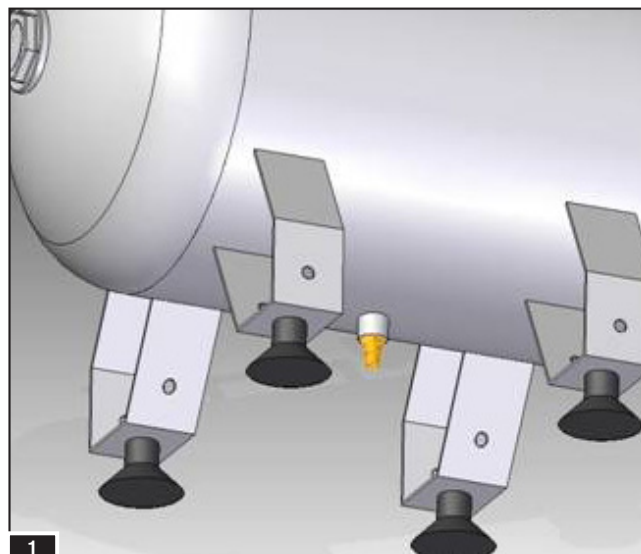
9 META Air 650 / 650 Light

Service and maintenance

17. Service and maintenance

Service intervals:

| | | |
|---|-------------------|--------------------|
| Switch off the compressor at the end of the use | daily | Practice personnel |
| Drain off condensate water (versions without dryer or automatic drain) 1 | weekly | Practice personnel |
| Filter replacement | yearly | Technician |
| Safety valve check | yearly | Technician |
| Check tightness of joints Overall device examination | yearly | Technician |
| Service kit | every 3.000 hours | Technician |



GB



Repair works that go beyond the normal maintenance may only be carried out by a qualified technician or by the METSYS Technical Customer Service. Use only the replacement parts permitted by the manufacturer and the accessories intended for this purpose.

Before any maintenance or repair work is carried out, it is imperative that the compressor be switched off and unplugged from the mains supply, and that the air tank is unpressurised (check the pressure gauge).

1 Drain off the condensate water:

In compressors with membrane dryer, the condensate is automatically drained off through the membrane dryer. In compressors without a membrane dryer, the condensate must be drained off at least once a week. In countries with high levels of humidity the condensate must be drained off every day.

Procedure:

- Check for condensate in the air receiver
- Switch off the compressor and reduce pressure to 1 bar
- Place a collection container under the air receiver
- Open the drain valve until there is no more condensate water inside the air receiver
- Close the drain valve again

Service and maintenance

Decommissioning and disposal

17. Service and maintenance

1 Safety valve check

Check if the safety valve functions properly during first use of the compressor. Pull the ring at the top of the safety valve to check if air is vented properly.



Warning! Safety valve must not be used to relieve air from the air receiver! Always protect eyes from compressed air using safety glasses!

2 Air line filter and dryer prefilter cartridge replacement

Prefilter and dryer prefilter cartridges (0,5 µm and 0,01 µm) must be replaced every year. Follow the present instructions:

- Disconnect the compressor from the main supply
- Open the air drain cock or the condensate relief from the air receiver and relief residual pressure contained in the air receiver
- Manually unscrew the filter receiver
- Unscrew the cartridge as shown in the picture above and replace it with the new cartridge
- Fix again the filter receiver



Carefully place the o-ring on the lip of the filter receiver. Replace the o-ring as necessary.

3 Replacement and cleaning of the air intake filter

Clean the air intake filters every year with compressed air or water, or replace as necessary.

18. Decommissioning and disposal

Decommissioning

If the compressor is not to be used for a longer period of time, it is recommended to drain the condensate from the pressure tank. Then the compressor must be operated for approx. 10 minutes with the condensate drainage tap open. Afterwards, switch off the compressor at the pressure switch, close the condensate drainage tap and remove the mains plug.

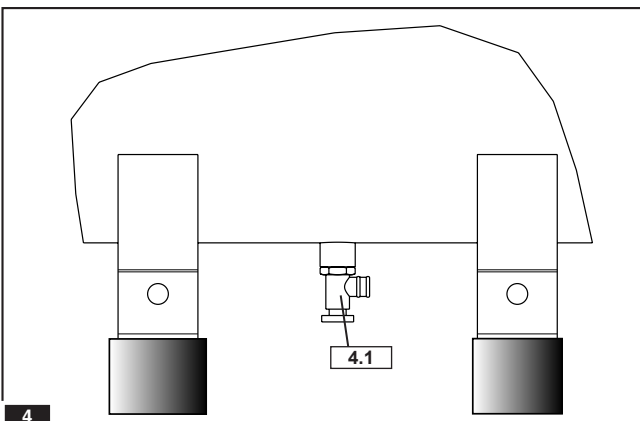
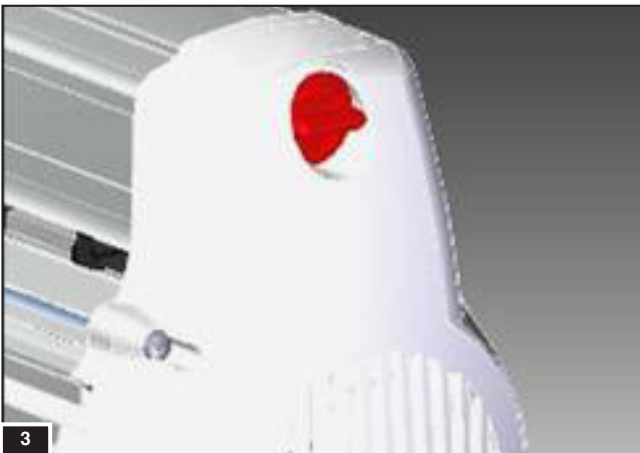
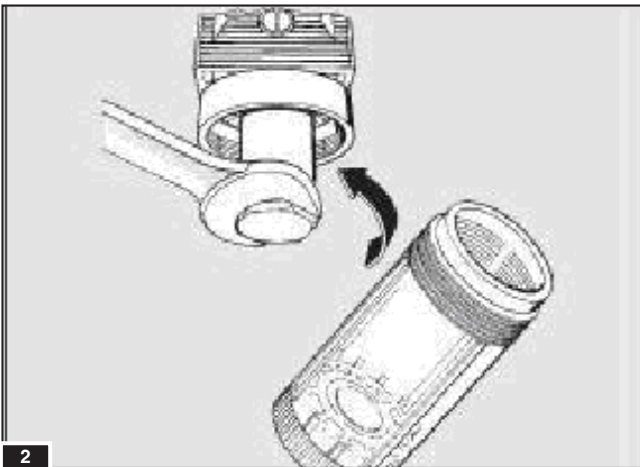
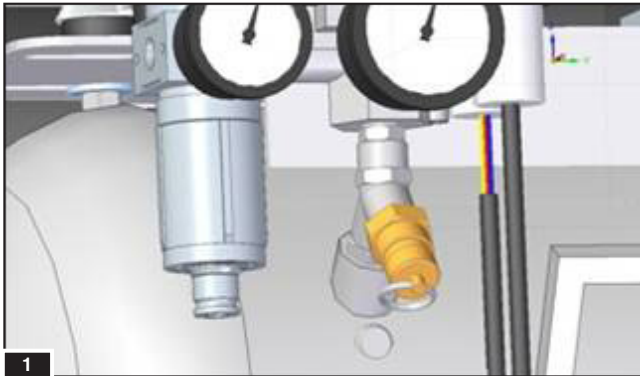
Disposal

After disconnecting the appliance from the mains electricity supply by removing the mains plug, the air pressure in the pressure tank must be released by opening the condensate drainage tap

3.1.



When disposing of the compressor, all necessary safety precautions must be taken in order to avoid harm to persons or objects.



Troubleshooting

The following descriptions for use in diagnosing faults are only intended for the use of technicians. Repairs may only be carried out by technicians!

| Problem | Possible Cause | Remedial action |
|---|---|--|
| Compressor does not start, or stops and does not start again. | Bad connections. Blown fuse. Overload cut-out switch has tripped. | Check all electrical connections. Clean and tighten as necessary. |
| | No tension or tension too low | Check connections, verify standard line tension |
| | Air receiver charged | Open drain valve to expel air. Compressor should start again when pressure reduces to 5 bar (72 psi). |
| | Solenoid valve does not empty the delivery pipe | Control the solenoid valve, clean or replace it. |
| | Electric motor capacitor damaged or not properly fitted | Check the tension at the capacitor, in case of damage replace it |
| Compressor does not reach set pressure and overheats easily. | Inlet air filter is blocked. NOTE: It is also possible that more air is being required than compressor is capable of delivering. | Replace air intake filter |
| Compressor does not build pressure or very low performance | Compressor valve damaged | Replace the complete valve block including gaskets. |
| | Compressor piston ring consumed | Verify compressor performance and replace the piston rings |
| Air leaking from pressure switch valve when compressor is not running. | Faulty non-return valve. | First drain all air completely from receiver. Clean or replace the non-return valve. |
| Air leaking from rinsing nozzle when compressor is running (compressors with membrane dryers) | Faulty rinsing nozzle | Clean or replace the rinsing nozzle |
| Air pressure from regulator does not adjust. | Diaphragm inside regulator body is broken. | Replace regulator. |
| Compressor operating, but no air from outlet. | Inlet air filter blocked. Pressure regulator closed. Drain valve open. | Replace oil filler/air filter plug. Turn regulator clockwise to set required pressure. Close drain valve. |
| Electric motor cuts off during normal operation | Electric motor temperature probe switches off the compressor to protect the motor | Too high temperature: Verify general conditions |
| Thermal switch stops the compressor in standard conditions | Thermal switch is damaged Problem with piston rings Electric motor damaged | Replace the thermal switch Check rings conditions Check if compressor starting is regular, replace the motor |

Maintenance

| Service kit | Order No. |
|---|-----------|
| 3.000 hour service kit 70 + valve block (complete) | 50080145 |
| 3.000 hour service kit 150 + valve block (complete) | 50080146 |
| 3.000 hour service kit 250 + valve block (complete) | 50080147 |
| 3.000 hour service kit 450 + valve block (complete) | 50080148 |
| 3.000 hour service kit 650 + valve block (complete) | 50080149 |
| Filter replacement kit META Air 70 | 50080150 |
| Filter replacement kit META Air, all other models | 50080151 |



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