

# Contract For The Supply Of Products, Services And Delivery Terms

#### 1. Subject matter

This Contract (the "Contract") sets out the conditions governing purchases of products ("Products") or maintenance services ("Maintenance services") by the customer (the "Customer") from Fiac Professional Air Compressors S.r.I. FIAC ( "FIAC"). FIAC and the Customer are referred individually as a "Party" and jointly as the "Parties".

#### 2. Order and Conclusion of the Contract

a) Purchases of Products and Services will be formalized in a purchase order (the "Order") transmitted by the Customer to FIAC and containing the specifications of the Products and Services purchased as previously agreed upon with FIAC. The aOrder is binding and cannot be revoked or modified without the consent of FIAC, except for the provision arising out of lett. g) of this article.

b) Before placing the Order, the Customer has evaluated the characteristics of the requested Products and Services and

verified that they are fit for the Customer's operational needs.

c) The Order will be transmitted by the Customer to FIAC via email to the address notified to the Customer by the representative, agent or person in charge of FIAC and will become final upon confirmation by FIAC. d) The Order will be subject to the conditions set forth herein. Once it is confirmed by FIAC to the Customer it will be valid as a written contract, with the same substantive and probative value under DPR [Decree of the Italian President of the Republic] 513/97 and the relevant conclusion is governed by articles 1326,1334,1335 of the Italian Civil Code.

e) The recitals and attachments, the order, the invoices and all documents, even not actually attached to the Contract, which are referred to therein, are an integral part of this Contract and have contractual value for all effects and purposes.

f) The Parties mutually acknowledge that before stipulating this Contract, they have discussed the business offer and the conditions of this Contract, which has been the object of negotiations between the Parties and is not, therefore, subject to the provisions under arts. 1341 and 1342 of the Italian Civil Code.

g) The Customer is entitled to cancel an Order until midnight of the third day following the receipt of the written confirmation by FIAC. In case of cancellation according to this paragraph, the Customer shall pay a cancellation fee amounting to 10% of the purchase price indicated in the Order, by wire transfer within 7 working days following the receipt of the written notice of cancellation by FIAC. The cancellation of the Order shall be effective at the time when the bank account of the Company is credited with the cancellation fee.

h) The Customer acknowledges that advertising, campaign and promotional materials, such as advertising leaflets, catalogues, pictures, illustrations and data, only provide a general overview of the Products.

i) FIAC reserves the right to change the design, appearance, look or shape of the goods before the delivery date, without prejudice to the fact that the goods must be able to perform their original function after the change and be suitable for the intended use. FIAC maintains its ownership and copyrights without restriction to catalogues, illustrations and other documentation provided by FIAC. The Customer shall have the right to use, translate, copy and reproduce the documentation provided by FIAC strictly for its marketing needs or for the needs of its end-users, under condition to follow and adhere to guidelines provided by FIAC.

#### 3. Considerations and Payments

a) The Customer shall pay FIAC the considerations indicated in the Order. The considerations are net of V.A.T. and any other applicable taxes or duties.

b) The Customer's payment obligation shall be fulfilled in the currency specified in the Order unless the Parties agree otherwise in writing.

c) Payments from the Customer must be received directly by FIAC, in accordance with the terms and conditions agreed in the Order. Except where otherwise provided in the Order, payments shall be made upon signing the Contract. Any complaint on invoices must be notified in writing within 10 days of the date of receipt under penalty of forfeiture.

d) The Customer's payment obligation is met at the time when the relevant amount has been credited to the Company's bank account.

e) In case of non-payment or late payment, the Customer shall pay FIAC default interest as per D.Lgs [Legislative Decree] 231/2002, starting from the due date. FIAC, moreover, reserves the right, without prejudice to all available legal remedies, to suspend or terminate the Contract with immediate effect, stopping any ongoing supply to the Customer and retaining all amounts already received, as compensation for the unpaid amounts. All responsibility of FIAC is excluded and the right to compensation of any further damages caused by the Customer's default remains unprejudiced. g) If FIAC grants extensions of the agreed payment terms, in no event such extensions and/or renewals shall amount to novation of the contractual relationship or waiver of the claims of FIAC.

f) Payments may not be delayed, decreased or suspended even in case of machinery failures, including machinery that is still under warranty, or of a dispute or complaint. The Customer cannot set conditions for the fulfilment of its payment obligations, further to those agreed in the Contract. Payments will be allocated in accordance with arts. 1193 and 1194 of the Italian Civil Code.

g) In instalment sales, in case of termination of the contract, FIAC will retain all instalments and advance payments collected, as fee for the right of use or as indemnity, reserving the right to claim further damages, and without prejudice to the provisions regarding sales with a title retention clause. The Customer undertakes to keep FIAC constantly informed of the place where the materials subject to title retention are kept.

#### 4. Delivery, Returns, Testing and Documents

a) Any dates indicated for the delivery of the Products or the supply of the Maintenance Services is to be considered indicative and not binding for FIAC, which will not be held liable under any circumstance for any damages whatsoever occurring as a result of delivery after indicated date. The place of delivery is the place (site) indicated by the Customer in writing (contract, order, etc.)

b) Incoterms applicable to the delivery are agreed in writing between Parties and reflected in the Order Confirmation provided by FIAC in writing. If the Products are delivered EXW (Ex-works), the transport means will be selected by Customer at its sole discretion and the transport will be at the cost of the Customer.

c) If the carrier has been selected by the Customer or the Products have been collected by the Customer or by a carrier of the same, the Products travel at the risk of the Customer. The Customer shall be fully

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liable for any damage to the Products or to third parties caused by the carrier and shall hold FIAC harmless from any liability even under D.Lgs. 286/2005 and subsequent amendments and additions as well as, for international transport, under the Convention on the contract for the international carriage of goods by road (CMR).

d) If the Customer fails to provide FIAC with the instructions required for the delivery or requested by FIAC or does not accept the goods consignment in accordance with the terms of the contract, it shall bear all costs incurred by FIAC as a result of such omission, including the costs of storage. The reimbursement of these costs and expenses shall become due immediately following FIAC's notice. However, this shall not exempt the Customer from their performance obligation, i.e. they are obligated to take delivery of the goods and pay the cost thereof to FIAC. In such a case, FIAC is entitled to claim reimbursement of costs and damages incurred as a result of customer default and delay.

e) Upon receipt or delivery of the Products, the Customer must check them and verify that they conform to the Order placed in terms of quantity and quality. Any complaint must be filed in writing within 8 days, under penalty of forfeiture.

f) All FIAC products are verified and tested before shipment; any off-site pre-shipment tests or inspections must be expressly requested by the Customer when placing the order. All the relevant costs will be borne by the Customer.

g) FIAC is not obligated to accept delivery of goods returned by the Customer without a valid reason which has been specified in the Order, unless the Parties have previously agreed in writing thereof. In such cases, all costs related to the return and acceptance of the goods are borne by the Customer.

#### 5. Special conditions concerning the export of goods to non-EU areas.

In the event that FIAC sells to a Customer located outside European Union (hereinafter: 'non-EU areas'), the following

conditions shall apply:

a) FIAC shall not be liable for any duty, import surcharge, compensatory supplement, transit fee, transit duty, customs duty, export license, certificate of origin cost or consular fee applied for the export of goods to non-EU areas, the cost of which shall be borne exclusively by the Customer.

b) In the event that FIAC pays for such costs incurred during export in the name of the Customer, FIAC shall be entitled to claim reimbursement of such costs from the Customer.

c) FIAC is entitled to demand the payment of the appropriate amount or the full purchase price as advance payment of export costs for non-EU area exports or delay the delivery of goods until the amount of the appropriate advance or the full purchase price has been credited to the FIAC's bank account.

#### 5. Liability

Without prejudice to the provisions of art. 9, and within the limits permitted by art. 1229 of the Italian Civil Code, the liability of FIAC for damages caused to the Customer in consequence of failures or malfunctioning of the Product will be limited to the loss incurred up to the value of the Order, the performance or non-performance of which has resulted in the damage. FIAC will not be liable for loss of profit. FIAC will not be liable in any way for indirect damages.

#### 6. Force Majeure

a) Should an act of God or force majeure event occur, which prevent FIAC from performing its obligations under this Contract, such as shortage of raw materials or power due to wars or natural disasters, failures in the machinery, strikes or lock-ups, accidents, interruptions of work, interruptions of railway services and/or any other reason outside the control of the parties that paralyzes or limits or however hinders the works in FIAC's production plants and the arrival of materials ordered from abroad, the date set for the delivery will be extended and the Customer waives any indemnity and/ or compensation of damages on any grounds whatsoever. Should the delay exceed 30 days, either Party may withdraw from the Contract by means of a written notice sent to the other Party, without any liability of FIAC.

b)If the Customer is unable to fulfill its obligations under Service/Maintenance Contract, it shall compensate FIAC for all costs that the latter has sustained for the supply of technical assistance.

#### 7.Safety

a)FIAC undertakes to duly fulfill all obligations under the applicable legislation with regard to the safety of its own employees and the workplace hygiene conditions (as per D. Lgs. 81/2008 on the "Protection of health and safety in the workplace"). In particular FIAC undertakes to strictly comply and make sure that its employees comply with all accident prevention and occupational hygiene legislation and to use, in performing the services under this agreement, equipment and materials conforming to all accident prevention and occupational hygiene legislation.

b) The Customer has an obligation (under art. 26, D. Lgs. 81/2008 on "Protection of health and safety in the workplace") to provide detailed information to the staff of FIAC carrying out the works with regard to any specific risks, as well as to the prevention and emergency measures adopted in the place where the works are to be performed, and the necessary supervision during the performance of the works ordered.

#### 8. Term and Termination 8.1 General Rule

FIAC may terminate the Contract with immediate effect upon a prior written notice sent to the Customer in any case of:

a) Late payments as described in art. 3 f);

b) Changes in the intended use of the Product and/or use not conforming to the instructions for use;



c) In the cases indicated in article 1461 of the Italian Civil Code and whenever it becomes aware of circumstances that put in question the Customer's solvency and the payment of the price or consideration within the agreed dates; and d) In any event, in case of non-compliance by the Customer with its obligations under the Order

and the Contract, when such non-compliance is capable of remedy, if the non-compliance is not remedied within 30 days after a notice to remedy is given by FIAC.

Maintenance Services 8.2

As regards the Maintenance Services, the term of the Contract will be as specified in a) the Order. FIAC may withdraw at any time upon a written notice sent to the Customer at least 30 days in advance.

b)Specifically with regard to the Maintenance Services, in addition to what is provided in the preceding articles, FIAC may terminate the Contract, effective immediately, in case of

i. Use of the Product for a number of hours exceeding by 10% those stated in the order. ii. Failures or malfunctioning of the unit caused by unforeseeable events, such as natural disasters,

riots, commotion, vandalism, sabotage, events due to ice formation, fire, etc.; iii. Interruption of or non-compliance with the quality and quantity characteristics specified by FIAC for the "utilities", namely for power, cooling water, air; iv. Micro interruptions in supply voltage;

Non-compliance with the environmental and operating conditions specified by FIAC;
 Changes in the Product and/or the installation;

the Contract, always without prejudice to the right to claim any further damages.

vii. Transfer of the unit to a place other than that indicated in the Contract; viii. Damages accidentally or intentionally caused to the Product by the Customer or by third parties.

ix. Use of non-original parts and/or consumable

x. tampering by customer or third party not expressly authorized by FIAC c) Again with regard to the Maintenance Services, in case of early termination of the contract for any reason through no fault of FIAC, except for withdrawal in cases under art. 9.2 (a) above, the Customer shall pay a penalty equal to 75 % of the residual fees due until the date of expiration of

#### 9. Warranties

a) Unless otherwise specified in the Order, FIAC warrants:

• Products directly manufactured by it for a period of 12 months of the start-up of the Product (commissioning) and however not more than 15 months of the delivery; the date of commissioning shall be proved by a technical report and performed by authorized personnel. If the date cannot be proven the warranty starts from the invoice date. If the commissioning has been performed by unauthorized personnel – as reported in the manual – the warranty will be null and void; • Spare parts of Products purchased in accordance with this Contract for a period of 6 months of

their installation and however not more than 12 months of the delivery; • Repair of parts or replaced Products for a period of 6 months of the restoration of the Product

under warrantv.

b) The above warranty covers only the repair or replacement, in the workshops of FIAC or authorized sprice centers, of materials in which manufacturing defects are found within the periods indicated above. The technicians of FIAC are solely responsible for verifying the defects. The materials must be sent to the authorized workshop indicated by FIAC, under the care and at the cost of the Customer. In such cases, the Customer will not be entitled to claim compensation for any damages resulting from the non-use of the materials.

c) The warranty is provided on condition that the Customer is up-to-date with payments. d) The warranty does not cover those parts, which, by their nature or use, are subject to wear and tear or deterioration, and in particular those parts that are to be replaced on a regular basis.

e) The warranty does not cover damages caused by improper use and neglect of the Products.
 f) The warranty expires for any Products repaired, modified or just disassembled, even partially,

outside the workshops indicated by FIAC, as well as for any Products for which the instructions for use have not been complied with. No compensation or indemnity will be due by FIAC for repairs performed by unauthorized third parties at the request of the Customer during the warranty

#### 10. Maintenance Services

This article will apply if the Order concerns Maintenance Services.

a) FIAC will inform the Customer of the day/s planned for the visit. The Customer will make sure that the products that are the object of the Maintenance Services be made available in full safety on the day/s planned for the assistance operations under the Contract. The operations of the technical staff of FIAC must take place in full safety during normal work hours (8:30 am to 5:30 pm, Monday to Friday), unless otherwise agreed in writing in the Contract.

b) FIAC will have free and full access to the Products to perform the operations under this agreement. Any cost and expense as FIAC may incur due to access restrictions will be borne by the Customer and invoiced separately. Any additional cost due to performance of assistance operations outside the hours indicated above or to unavailability of the unit/s will be borne by the Customer and invoiced separately.

c) The Customer shall immediately inform FIAC in any case of: a) malfunctioning such as abnormal sound, leakage and any other event that may forewarn of a possible failure in the unit/s and in the alerts given by the machine control system; b) malfunctions in the electronic control panel.

d) The Customer undertakes to provide, under its care and at its cost, in full compliance with the applicable legislation on insurance, social security and accident prevention, the support staff, lifting means and facilities, lighting and any other assistance that FIAC may need for the performance of the operations under this agreement. Any cost and expense as FIAC may incur due to delay in or lack of assistance will be borne by the Customer and invoiced separately.

e) The Customer confirms that the user manual and all original documents relating to the Products are in its possession, and declares that it knows their contents in full. The Customer undertakes to strictly comply with all parts of the indications and provisions of such documents, including those contained in this Contract

#### 11. Applicable Law and Resolution of Disputes

a) This Contract shall be construed (both as to validity and performance) and enforced in accordance with, and governed by, the laws of Italy.

b) The jurisdiction to decide all disputes arising from this contract, including those relevant to its validity, interpretation, performance and termination, is regulated by the following provisions:

when the Customer has its main place of business in Italy, the exclusive jurisdiction will lie with the Court of Bologna. Such jurisdiction will also apply when the Customer has moved its offices abroad after the signing of the Contract; • when the Customer has its main place of business abroad, all disputes will be resolved by

arbitration in accordance with the Rules of the National and International Arbitration Chamber of Milan. The Arbitration Panel will consist of three Arbitrators; two of whom will be appointed by the parties, one each, and the third one, who will act as President, by agreement of the first two arbitrators or, if no such agreement is reached, by the Arbitration Chamber. The Panel will decide in accordance with the law. The arbitration will be held in Milan. The language of the arbitration will be Italian and/or English;

if a foreign Customer moves its offices to Italy after the signing of the Contract, the exclusive jurisdiction will lie with the Court of Bologna.

c) Any waiver by FIAC to enforce its rights in case of a breach by the Customer of any part of this agreement shall not be interpreted in any way as a waiver to enforce its rights regarding any subsequent breach of the same or of any other part of the gareement.

#### 12. Traceability Obligations

For the effects and purposes of D.L. [Decree-Law] 196/03 and subsequent amendments, and of the European Regulation 2016/679 the parties mutually acknowledge that, if the conclusion or execution of the contract involves the processing of personal data, these data will be processed in compliance with the current data protection legislation for the sole purposes related to the execution of this contract or to comply with legal obligations.

#### 13. Privacy

For the effects and purposes of D.L. [Decree-Law] 196/03 and subsequent amendments, and of the European Regulation 2016/679 the parties mutually acknowledge that, if the conclusion or execution of the contract involves the processing of personal data, these data will be processed in compliance with the current data protection legislation for the sole purposes related to the execution of this contract or to comply with legal obligations.

#### 14. Business Code of Practice

FIAC requests that the Customer accept and comply with FIAC's Business Code of Practice, available on the website www.fiac.it. In particular, the Customer undertakes not to engage, even through its own persons in charge, collaborators and consultants, in conducts amounting to breaches of the D.Lgs. 231 of 8 June 2001 "Regulating the administrative liability of legal persons, Companies and Associations, even without legal personality" and the Italian Criminal Code, such as, without limitation: (i) corruption of public officers and private-to-private corruption, or other conducts however aimed at obtaining undue advantage from public authorities or agencies, public officers or other third parties; (ii) conducts in contrast with the laws aimed at monitoring financial transactions that may amount to ways of transferring goods or money resulting from criminal offenses, or conducts aimed at financing or supporting terrorist organizations in any way; or (iii) conducts that breach laws on occupational health and safety or environmental laws.

#### 15. Confidentiality

a) In course of the contractual relationship or its establishment, the Customer may have access to or have disclosed to it certain information, material and documents regarding FIAC and its business, assets, intellectual property, drafts, prototypes, drawings, photographs, circuits, calculations, processes and other data related thereto, proprietary information, financial condition, business correspondence, customer lists, prospects and price lists (the "Confidential Information"). b) Without prejudice to any legal obligation, the Customer undertakes

carry out the following activities and operations with reference to the Confidential information, directly or through a third party, and not to favor in any way, either

directly or indirectly, its fulfillment by third parties: • to duplicate, in any form and with any modality, Confidential Information, or extract a copy, in any form, of the Confidential Information;

• to disclose, to disseminate, to communicate to third parties and/or make known, by any means of information and/or communication, in any form, in any area and in any location, Confidential Information;

 to make use, direct or indirect, continuous or even only occasionally, for professional or competitive purposes or for personal profit or advantage, of . Confidential Information.

c) The obligations referred to in this article will be in force for the entire duration of the Contract and after its termination. In the event of failure to comply with even just one of the obligations referred to in this article, FIAC will be able to terminate the Contract for cause with immediate effect and, it will be entitled to injunctive relief, specific performance or other appropriate equitable remedies for any such breach.

#### 16. Other provisions

a) No failure or delay by FIAC in exercising any right, power or privilege set forth in these Contract shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any

other right, power or privilege hereunder. b) If any of the provisions of this Contract is invalid, null or void, or becomes invalid, null or void, it shall not, in any way, affect the validity or scope of other provisions. In such a case, the invalid or ineffective provision must be replaced by a provision that meets the requirements of the applicable law and the original provision.

#### 17. Trade Compliance clause for auotations, order confirmations, general terms, contracts

Any quotation is legally binding upon us only after you have placed an order and received a written acceptance from us. We reserve the right to withdraw our auotation at any point in time.

By placing the order, you certify that the items ordered will not be used for any purpose connected with chemical, biological or nuclear weapons, nor missiles capable of delivering such weapons, nor any other purpose prohibited by applicable law. You also confirm that the items ordered will not be sold or or any formed, directly or indirectly, to Iran, North Korea, Syria, Russia, Belarus, Crimea or any contested region of Ukraine or Russia.

Furthermore, you certify that you will comply with applicable local and international foreign trade and customs requirements, as well as any embargos and other trade sanctions (collectively "Foreign Trade Obligations"). You will immediately notify us in writing of any breach of this statement.

We shall not be obligated to fulfill a binding order or agreement or any part thereof or related to it, nor liable for its non-fulfillment, if such fulfillment is prevented by any impediments arising out of Foreign Trade Obligations. We also retain the right to terminate a binding order or agreement or any part thereof or related to it, with immediate effect and without prior notice, if fulfilment is prevented by any impediments arising out of any Foreign Trade Obligations.

You shall indemnify us for any direct or indirect damages arising in conseque of any breach of this statement.





# 1. General information

Validity: 1st of March 2025 onwards

Applicable to: FIAC Products

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#### FIAC PROFESSIONAL AIR COMPRESSORS s.r.l.

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# 3. Purpose

The purpose of this document is to define the warranty periods and conditions for FIAC Products whereas "FIAC Products" means all the products marketed by FIAC whatever the brand.

The general principles for reporting and handling warranty claims are described in the chapter "Warranty Handling procedures"

# 4. Principles

## 4.1. General

Technical warranties cover defects caused by faulty design, material and workmanship, only if:

- The product is used for the purpose for which is designed
- The product is installed, operated and maintained according to the instructions supplied

## 4.2. Warranty coverage

Warranty is valid as long as the product is operated and maintained as described in the operating manual and the owner uses Original Parts and consumables.

## Original lubricants and grease must be used.

The choice of the lubricant and the changing intervals must be paid accordingly to the document "9845 0141 08-01 - Oil Drain Intervals Brand Portfolio Lubes".

Indirect damages such as penalties for missing production, spare units, rental costs etc... are not covered.

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# 5. Warranty Periods

## 5.1. FIAC Products

The following table presents the specification of warranty terms for all products marketed by FIAC

Product Range	A)From the date of commissioning	B)From the date of ex- works factory delivery	C) Running hours limitation
Oil free Piston compressor	12 months	18 months	1000 h
Industrial Piston compressor	12 months	18 months	2000 h
Professional aluminum and cast iron Piston	12 months	18 months	1000 h * service factor
Screw compressors	12 months	18 months	No limitation
Other products	12 months	18 months	No limitation

**Note 1**: reaching one of the conditions as specified in column A, B, and C of Table 2 terminates the warranty coverage **Note 2**: For Piston compressors that are not equipped with an hour meter, the limitation specified in column C should be treated as indication on warranty coverage. All cases where it is clear by compressor operating regime that the running hours limit has been exceeded are not covered. For aluminum and professional piston range the maximum running condition cannot exceed 50% load in a 30 minutes timeframe

## 5.2. Screw Drive Train

The following table presents the specification of warranty terms for screw compressor elements:

Product Range	A)From the date of commissioning	B)From the date of ex- works factory delivery	C) Running hours limitation
Drive train (motor, screw element, converter)	24 months	30 months	No limitation

*Note 1:* reaching one of the conditions as specified in column A, B, and C of Table 2 terminates the warranty coverage *Note 2:* Compressor element failures should be reported within 2 weeks after the date of failure *Note 3:* Extra conditions for warranty on elements: oil sample analysis or oil sample available at time of failure.

#### 5.3. Spare Parts

The warranty period for spare parts is 6 months from the installation date, no more than 12 months from invoice date.

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Warranty is limited to the reimbursement of the part at 100% of the landed cost price.

### 5.4. Transport damages

Transport damages reimbursement is due only when the transport is under the responsibility of FIAC. The same procedure as warranty claims must be followed, moreover, in case of damages occurred during transportation it is required to:

- Report the damage on transportation documents
- Notify the damage to your customer contact

# 6. Return of Defective parts for investigation

### 6.1. Parts involved

The following parts must be kept in stock at least for 4 months from date of failure and made available for subsequent analysis, if required:

- Motors
- Elements
- Piston Pumps
- Pressure switch
- IVR equipment (convertors and related parts)
- Coolers
- Controllers
- Unloaders and Intake valves
- Electronic drain
- Refrigerant compressors
- Dryer heat exchanger
- Dryer condensers
- Expansion valves (thermostatic & HGB)
- WIS water filter
- WIS solenoid valves
- Scroll check valve
- Desiccant cartridge
- Desiccant controller & timer cards

The parts can be scrapped before the terms of 4 months only upon FIAC confirmation.

## 6.2. Other Parts

All other parts should be scrapped immediately according to the local rules about waste management at distributor's expenses.

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# 7. Long storage period

When the machines are stored for a long time before commissioning, the storage instructions must be followed. Please refer to document "9820 4500 46 - Storage instruction for MB compressors".

The latest 6 months after delivery it is expected that the unit is started up. If the start-up date becomes longer than 6 months the long storage instructions should be followed, regardless the fact that the end date of the warranty is considered the latest 18 months after delivery.

# 8. Warranty handling procedures

## 8.1. Reporting method

Requests of warranty must be notified to the Compressor Technique Service technical team through DisWAnT online portal. All fields present in the form must be filled up with proper information with a detailed description of the problem occurred.

More in detail it is necessary to provide:

- Compressor detail (serial number, running hours, commissioning date, fail date...)
- Purchasing invoice for machine or spare part
- pictures of the spare part replaced and their data plate where available.
- Controller report where available
- Picture of alarm code where available
- Check list for:
  - $\circ$  dryer
  - o drain
  - $\circ$  element
  - o motor
  - $\circ$  inverter
  - o piston pumps

All the information must be uploaded in the same request. Multiple requests referring to the same subject will lead to possible warranty rejection.

#### 8.2. Reporting timing

The report must be uploaded by DisWAnT online portal, within 2 weeks from the failure. Further information can be added to the request in a second time, but the mandatory fields must be filled up or the request will be closed and warranty rejected.

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### 8.3. Reimbursable costs

- Parts: total reimbursement of the landed cost of spare parts
- Labor: total reimbursement accordingly to the below table

Piston with tank up to and including 100 liters – dentals excluded <sup>1</sup>	40,00	€ a forfait
Equipment not included in the categories above	35,00	€/h
Travel distance (when needed and approved) <sup>2</sup>	0,35	€/km
Travel time (when needed and approved) <sup>2</sup>	35,00	€/h

<u>Note 1:</u> Repairing of direct driven pistons must be authorized in advance by MyQuest ticket <u>Note 2:</u> Travel distances above 300 km and travel time above 3 hours must be approved in advance by MyQuest ticket

#### Exclusions:

Flight tickets are not reimbursed in any case

Express transportation is not reimbursed (exceptions can be evaluated case by case)

Cross boarder is not reimbursed

#### 8.4. Return of material

As mentioned in paragraph 6, in some cases it can be required to return the material for further investigation. Transportation costs will be totally reimbursed in case warranty claim will be accepted.

Parts can be shipped after explicit approval, only when technical team provides the Return Material Authorization (RMA).

RMA document must be attached outside of parcel and failure report must be included inside. Sender is responsible for the condition of the goods. Damaged goods will not be accepted. In some special cases extra information/parts can be required.

Additional note: material sent back for additional inspection will be subject to destructive analysis and will not be longer possible to claim it back.

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Via Isonzo 61 – 40033 CASALECCHIO DI RENO - Bologna (Italy) Capitale sociale € 500.000,00 – R.E.A. BO - 544156 Registro delle Impr. Di Bo n. 03757771203 – Reg RAEE IT23110000015476 Cod. Fisc. 03757771203 – Part. IVA 03757771203 – VAT reg.no. IT 03757771203 E-mail:fiac@fiac.it – <u>fiacprofessional@pec.it</u> - <u>www.fiac.it</u> - CODICE SDI SN4CSRI





### 8.5. Workflow

Report must be uploaded as described in the previous paragraphs. <u>Parts to be ordered through the normal</u> <u>supply chain in order to repair the machine in the shortest possible time.</u>

All warranty claims are uploaded in the system on monthly basis and successively evaluated. In case of warranty approved, the costs will be compensated by request of invoice.

Luigi Savastano

General Manager

FIAC Professional Air Compressors

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# Instruction

## 1. General information

# **Oil Drain Intervals Brand Portfolio Lubes**

Applicable to	:	Oil injected screw air brand portfolio compressors
Safety Instructions	:	General
Special Tools	:	-
Consumables	:	Brand Portfolio Lubes as mentioned in section 6
Printed Matter Number	:	9845 0141 08-01

### 2. Document overview

## This document describes the following:

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### 4. Executive Summary

This document describes the recommended service intervals of Brand Portfolio lubricants, based on aftermarket surveys, field experience and laboratory tests. The document will be adapted each time the Brand Portfolio lubricant portfolio will change or some modifications to existing lubricants are implemented.

## 5. Introduction

The goal of defining Oil Drain Intervals [ODI] is to replace oil in a compressor before it reaches its level of condemnation (end of useful life).

The useful life of a lubricant is depending on a lot of conditions: type of lubricant, temperature, humidity, contamination, environment, ...most of them are not quantified.

Based on experiences and endurance tests, ODI's are defined for our Brand Portfolio lubricants under given working condition ranges (temperature, pressure).

The tabulated ODI are only valid for indicated applications and starting with a compressor filled with fresh oil according to the correct oil drain/oil fill procedure 9845 0012 00.

## 6. Oil drain intervals

The maximum oil temperature is supposed to be the element outlet temperature. (See display Airlogic or use contact thermometer in case the unit is not equipped with an oil temperature sensor).

The maximum oil temperature is guaranteed by design of the unit and defines the "shut off" temperatures (temp. sensor).

Next paragraphs show the recommended lubricant/oil service interval as function of the oil temperature, working pressure or application.

Please read also section 8. Restricting parameters for oil service life.

#### 6.1. Rotair

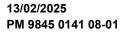
Oil temperature (°C)	End pressure (bar)	Recommended oil service interval * (running hours)	Max time interval * (years)
< 95	< 14	2000	1
95 – 100	< 14	1500	1
> 100	< 14	Use Rotair not recommended service interval < 2000H (strong degradation of the oil, fast fo high risk for equipment damage/failu Use Rotair Plus (NEW) < 105°C / Use Rotair X	re)

NOTE: \* Whichever comes first.

#### 6.2. FluidTech

Oil temperature (°C)	End pressure (bar)	Recommended oil service interval * (running hours)	Max time interval * (years)
< 95	< 14	2000	1
95 – 100	< 14	1500	1
> 100	< 14	Use FluidTech not recommended service interval < 2000H (strong degradation of the oil, fast formation of deposits/sludg high risk for equipment damage/failure) Use Rotair Plus (NEW) < 105°C / Use Rotair Xtra > 105°C	

NOTE: \* Whichever comes first.



#### 6.3. Rotair Plus (OLD - production date before 02/2016)

Oil temperature (°C)	End pressure (bar)	Recommended oil service interval * (running hours)	Max time interval * (years)
< 90	< 14	4000	1
90-95	< 14	3000	1
95-100	< 14	2000	1
> 100	< 14	Use Rotair Plus (OLD) not recommended service interval < 2000H (strong degradation of the oil, fast formation of deposit high risk for equipment damage/failure) Use Rotair Xtra	

NOTE: \* Whichever comes first.

#### 6.4. Rotair Plus (NEW - production date after 02/2016)

Oil temperature (°C)	End pressure (bar)	Recommended oil service interval * (running hours)	Max time interval * (years)
< 95	< 14	4000	1
95-100	< 14	3000	1
100-105	< 14	2000	1
> 105	< 14	Use Rotair Plus (NEW) not recommended service interval < 2000H (strong degradation of the oil, fast formation of deposits/sluc high risk for equipment damage/failure) Use Rotair Xtra	

NOTE: \* Whichever comes first.

#### 6.5. Rotair Xtra

Oil temperature (°C)	End pressure (bar)	Recommended oil service interval * (running hours)	Max time interval * (years)
< 100	< 14	8000	2
100-105	< 14	6000	2
105-110	< 14	4000	2

NOTE: \* Whichever comes first.

#### 6.6. Rotair Food Grade

Rotair Food Grade is a NSF H1 certified lubricant and can be used in food-processing environments where there is the possibility of incidental food contact. The NSF H1 certificate can be found on the NSF listing website (<u>http://info.nsf.org/USDA/psnclistings.asp</u>) when looking on product name *Rotair Food Grade*.

Rotair Food Grade is used as an alternative for Rotair/FluidTech, Rotair Plus and Rotair Xtra.

Oil temperature (°C)	End pressure (bar)	Recommended oil service interval * (running hours)	Max time interval * (years)
< 100	< 14	4000	1
100-105	< 14	3000	1
105-110	< 14	2000	1

NOTE: \* Whichever comes first.





Lubricants have a vital influence on compressor performance in terms of efficiency and reliability. Therefore, the Brand Portfolio has been putting a lot of engineering efforts in the area of lubricant development, which is an integral part of the compressor design process. Comprehensive tests have been done in order to determine if the lubricant is in line with the most severe requirements. The following are the most important properties that are verified before a new lubricant is being released for the use in our compressors:

- <u>Oxidation resistance</u> determining the expected oil lifetime in our compressors
- Oil/water separation properties to keep condensate out of your oil circuit
- Dedicated test to verify the <u>anti-corrosion</u> properties of the lubricant to ensure the proper protection of metal surfaces for long periods of standstill (transportation, storage, etc...)
- <u>Material compatibility</u> with all compressor components, ancillaries and line accessories that are in contact with oil directly or oil residues in compressed air or condensate
- <u>Sludge formation tendency</u> to eliminate the risk of deposits in internal compressor components that may lead to malfunction (e.g. clogged coolers, water separators, etc...)
- <u>Lubricating properties</u> to ensure proper lubrication of metal surfaces in air ends (e.g. rotors, bearings, etc ..) and gearboxes.

## 8. Restricting parameters for oil service life

The intervals as presented in the tables in section 6 are valid:

- when the compressor is running always within the required service intervals.
- when the oil draining and flushing procedure (9845 0012 00) is respected at all times, because remaining oil of previous service intervals will decrease the current lifetime of the oil radical and will increase the risk of deposit formation in the oil circuit.
- on condition the compressor is operating above the condensation curve to avoid water accumulation in the oil. In
  operating conditions resulting in condensation, the drain intervals should be reduced correspondingly).

## 9. Change over procedure between Brand Portfolio oils

When the previous oil service interval has been exceeded, extra flushing or cleaning of the oil circuit might/will be required.

#### Please read document:

9845 0012 00 - Oil draining and flushing procedure for Brand Portfolio oil injected screw air compressors using Rotair/FluidTech lubes.



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No general recommendation can encompass the effects of all combinations of the various compressor parts, their composition and use in all situations. Therefore the recommendations formulated in this "Oil drain intervals Brand Portfolio Lubes" document are a <u>guide line</u> for proper function of the compressor based on current knowledge of Brand Portfolio engineers and customer feedback.

This report does not attempt to address all of the health and safety concerns, if any, associated with its use. It is the responsibility of the user of this report to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.



# **Storage Instruction**

## 1. General Information

# Storage instruction for MB compressor

Applicable to	:	MB Compressors
Safety Instructions	:	General
Special Tools	:	
Printed Matter Number	:	9820 4500 46

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# 3. Document Information and History

Edition	Date	Description	Author
00	13/02/2014	First release	
01	14/09/2023	General update	Kristof Van den Broeck







This is an internal instruction, intended for Service Center staff only. It must not be distributed to other parties. It relates to new compressors, as delivered from the product company. If the present guidelines differ in any way from similar instructions in previous bulletins, the present guidelines shall prevail.



Long term storage is not recommended. Long term storage should always be avoided. All equipment should be put in operation as fast as possible. Only when no other option is available, a unit can be put in storage. The instructions in this document will protect the equipment from

the most common, known risks. Note that this document does not guarantee that there will be no problems with the equipment, even when all guidelines are followed. Unknown or local effects can still damage the equipment.

### 6. Introduction

This instruction explains how to take care, in the best known way, of equipment in storage and/or in transit. These instructions apply during the entire period of storage, up to the point of delivery to the end user. The present information relates to the MB compressors. It also relates to the relevant compressor elements delivered as spare part.

Storage instructions, issued in Service bulletins, which have been published previously, remain generally valid. These should be handed out to any customer that intends to keep their oil-injected compressor(s) and/or oil injected elements in storage.

## 7. Shipping Precautions/ Packing, ex factory

Special procedures are followed in our product plant when packing equipment. Their aim is to prevent mechanical damage or corrosion during shipment. These procedures apply to all compressor units and compressor stages.

#### 7.1. Package

#### 7.1.1.Oil

All compressor units are test-run with a lubricant for OIS. Compressors are filled with Rotair Plus by default in the factory. This can be different depending on the destination country and /or applied options. A film of this oil remains behind on shafts, gears and bearings.

#### 7.1.2.Inside canopy

Depending on size and type of compressor, several VCI papers/ foams (Volatile Corrosion Inhibitor) are placed inside the unit; the purpose of this is to absorb any traces of moisture. This kind of protection only works if the unit is packed properly. It is recommended that once the unit is unpacked and opened to replace the VCI.

NOTE: An information label is attached in order to draw attention to the presence of the VCI paper. The compressor outlet pipe is closed airtight using also a plastic plug or adhesive tape. In case the unit is water cooled, the water circuit is drained properly, the pipes are blown dry and the water in- and outlet pipes are tapped. All drains and vent holes are plugged / taped. The complete compressor unit is covered by a PE-bag after placing it on a wooden frame.

Depending on the requested option, the unit is enclosed in a seaworthy wooden crate. The crate is treated according the ISPM 15 guidelines. Lifting marks and center of gravity are painted on these boxes/crates. Custom shipping marks are applied.



#### 7.1.3.Inside Air/ oil / water circuit

All inlet chambers are provided with pleated VCI paper or silica gel bags and closed off with moisture repellent adhesive tape. All oil inlets, vent- and drain orifices are closed off with a plastic plug, a cap or water repellent adhesive tape. The drive shaft and the outer surface of the bearings at the drive end are covered with highly adhesive grease and sealed off with a VCI-cap to protect the flange of the element. A protective coating of grease is applied to all threaded holes. The flange, which mates the compressor gear case, is covered with adhesive masking tape. Compressor stages are placed in wooden boxes fitted with special supports designed to keep the contents in place.

Once implemented, these precautions will protect the compressor stage for a period of at least 6 months. The precautions remain valid providing there has been no rough handling during transport, and the equipment has not been subjected to unfavorable ambient conditions of extreme temperature or moisture. It is imperative to inspect each compressor stage immediately upon arrival. Check the shipping documents to determine how long the unit has been underway since leaving the product company.

## 8. Inspection after shipment

Always inspect the equipment immediately after shipment. Verify the mode of transport as well as the length of time the equipment has been in transport. The purpose of such an interim inspection is to secure that the equipment will reach its final destination in perfect condition.



Never forward a compressor unit or stage to a customer without first inspecting it properly.

A brief inspection entails checking the crate or container for damage. Check that no moisture has penetrated the package material and that the contents have not moved inside the box or container.

#### 8.1. Inspection of compressor units

- **1.** Dismount the top part and the sides of the crate.
- 2. Take the plastic cover off the unit.
- **3.** Open the doors and check the equipment inside:
  - Check that the air outlet opening is still covered up.
  - Check that loose components are still properly wrapped and secured to the bottom of the motor compartment.
  - Check that all drain orifices are still plugged with plastic caps or closed with adhesive tape.
  - Check that any unpainted surfaces are still covered with a layer of highly adhesive grease or a VCIcap.
  - Check if the VCI papers or caps are still in place.
  - Check if there is no moisture inside the dryer and check the electrical components and electrical contacts of the dryer on corrosion (*Only for Variants with dryer*).
- 4. Rectify any possible fault conditions that you may find and proceed to next section.

#### 9. Precautions before storage (or further transport)



Carry out storage maintenance on <u>all</u> equipment that has been in shipment or storage for nearly a year, and which is due for further storage (or transport).



### 9.1. General storage maintenance recommendations

Store the unit maximum **3 months** outdoors.

#### If the storage takes longer than 3 months:

- **1**. Store the unit in a clean, dry, well-ventilated warehouse.
- 2. Keep the unit upright in his bag, box or crate.

**3**. Be sure there is no source of vibration nearby e.g.: vibrations coming up through the floor can have a detrimental, long-term effect on the bearings.

**4**. Store the unit in a dry and clean environment, with relative humidity not exceeding 60%, with an ambient temperature between +5 °C and +40 °C, without sudden temperature changes, free of dust, vibrations, gasses, or corrosive agents.

#### If the unit is stored during **more than 6 months**:

1. The unit has to be functionally before shipping or before been taken in use.

2. All VCI papers have to be replaced. Follow the table\_for the precise quantity of VCI papers.

If the storage takes **longer than 24 months**, the unit has to be completely tested (re-measured).

Range	VCI type	Cubicle (A)	Dryer** (B)	Motor/ element (C)	converter cabinet** (D)
MB30 - 45 belt	9425 4781 00	1	0	4	1
MB30 - 45 gear	9426 4781 00	1	1	5	1
MB55 - 75 belt	9427 4781 00	1	0	7	1
MB55 - 75 gear	9428 4781 00	1	1	7	1
BP 30 - 45 FS	9429 4782 00	1	1	2	0
BP 45 - 75 iPM	9428 4781 00	1	1	7	1
BP 55 - 110 FS&IVR (2022)	9429 4782 00	1	1	4	0

#### 9.2. Specific storage maintenance procedures

#### 9.2.1.General

We recommend rotating the motor shaft at least once a month (by hand, at least five revolutions, stopping the shaft at a different position from the original one).

NOTE: The shaft might not rotate freely in case of a PM motor, due to alignment torque from the magnets

For the belt driven units turn the pulleys a few times in order to re-distribute the belt.

#### 9.2.2.Oil

Oil injected screw units are normally delivered ex factory with a lubricant for OIS as first fill. This oil also has preservative qualities. The duration of the protective period is 12 months and this is valid for all types of oil. Using this oil precludes the need for separate oil circulation procedures.



After every 12 months of storage you have to change the oil.

#### 9.2.3.Bearings

If the storage takes longer than 6 months, re-grease the bearings (not greased for life bearings, like fan motor) with twice the quantity normally needed for standard maintenance.

If the storage takes longer than 24 months, the bearings must be replaced.

#### 9.2.4.Belts

For belt driven units, change the belts if the storage took longer than 6 months before you take the unit in use.

#### 9.2.5.Cubicle & controller

Before first start up, let the compressor acclimatize in the compressor room for at least 24h in order to avoid condensation on electric circuits.

#### 9.2.6.Motor

If the storage takes longer than 6 months, re-grease the bearings (not greased for life bearings, like fan motor) with twice the quantity normally needed for standard maintenance.

If the storage takes longer than 24 months, the bearings must be replaced.

We recommend measuring the winding insulation resistance at regular intervals to follow-up and evaluate its electrical operating conditions. If any reductions in the insulation resistance values are recorded, the storage conditions should be evaluated and corrected, where necessary.

#### 9.2.7. Finalizing storage maintenance

1. Close the main air inlet duct using the original protective material (or similar).

- **2.** Close the doors of the unit.
- **3.** Cover the roof with plastic sheeting until they are hanging just over the doors.

The compressor unit is now ready for storage for maximum 6 months. The storage period remains valid provided that the ambient conditions remain normal. If the unit is to be stored for a period longer than 6 months then repeat the storage maintenance procedures once every subsequent 6 months. Replace after every storage maintenance procedure the VCI papers, plugs, tapes and other protective materials.

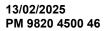
#### 9.3. Compressor elements

Compressor stages are occasionally held in transit or periods up to one year or more. In such cases, carry out the following storage maintenance before putting the equipment into (further) storage:

1. Renew the pleated VCI paper in the air inlet chamber.

2. Renew the oil film on the bearings and the protective grease on the drive shaft.

The requisite procedures for this storage maintenance are as follows:





**1.** Remove the tape from the in and outlet flanges. The VCI paper should still be attached to the tape when it is pulled off. If the paper has come loose remove it separately taking care that no pieces stay behind in the rotor chamber.

**2.** Rotate the shaft while pouring a nominated quantity of the concomitant lubricant for OIS into the element (1/2) liter = 0.1 US gallon). Perform this operation at an ambient temperature of minimum 20°C (68°F).

3. Having poured in the oil, continue to rotate the drive shaft for another 3 minutes.

**4.** Position the stage or element with the lubricating drain orifice facing the bottom. Place a sufficient large container under the drain orifice.

**5.** Take the plastic plug or cap out of the drain orifice and rotate the drive shaft. Let the excess oil drain into a container.

**6.** When all excess oil has been drained clean the lubricating inlet and drain orifices with a degreasing solvent. Close off both orifices with a plastic plug or cap.

**7.** Position the stage or element with the drive shaft pointing upwards Spray a sample supply or the concomitant lubricant for OIS into each of the ball bearings. Use a spray can. Let the oil seep downwards onto the roller bearings underneath. Rotate the drive shaft at regular intervals.

**8.** Cover the drive shaft and bearings with a layer of highly adhesive grease. Cover up these parts with greaseproof paper or VCI cap. Secure the wrapping using adhesive tape.

9. Close-off air outlet orifice thoroughly using water repellent adhesive tape.

**10.** Fold a strip of VCI paper in pleats. Insert it into the air inlet chamber with its edges folded halfway over the flange.

**11.** Cover the inlet flange, and the edges of the VCI paper, with water repellent adhesive tape.

**12.** Check that the VCI-cap or adhesive tape – covering the flange to be fitted on the gear casing – is still firmly in place. Replace the VCI-cap or tape if necessary.

**13.** Apply a layer of protective grease to all threaded holes.

**14.** Place the stage or element in its original container or box, securing it again with the wedges and beams. Close the lid of the container using grooved nails or screws. Strap the box three times (two vertical and two horizontal).

**15.** Store the container in a dry, well ventilated warehouse, never store stage outdoors.

This preservative storage maintenance is valid for a period of maximum 12 months counting from the packing date on. At the end of this period re-inspect and renew the preservative storage maintenance procedures.

## 10. Instructions for equipment in transit

#### 10.1. Compressor units

The following instructions apply to equipment which has been inspected upon arrival, and which is due for further transport to the end-user site. The purpose of these procedures is to ensure continued protection against corrosion or other damage.

These instructions also apply to units which (in exceptional cases) are to be returned to the product company.

**1.** Verify that the cooling system has been properly drained and blown dry.

- **2.** Inspect the unit as per <u>section 8.1</u> above.
- 3. Carry out the storage instructions as per section 9.

**4.** Place the original plastic cover over the unit, or cover it up with plastic sheeting secured with adhesive tape. Be sure that the roof and all side panels are fully covered.

**5.** If applicable, place the unit in its original crate. Failing this, construct a wooden crate strong and safe enough to withstand routine handling by forklift or slings and crane. The wood has to comply with the ISPM 15 regulation.



**6.** Apply the shipping data to the crate, using indelible ink. Apply the markings on both sides, including the center of gravity position. If the original crate is used delete the old markings.

**7.** Where applicable, be sure to include the requisite customs-and transport documents, for shipment with the unit.

#### 10.2. Elements

The following instructions apply to stages that have been inspected upon arrival and have been prepared for storage (as per section 9.3)

As soon as the top cover of the container (or crate) has been nailed or screwed down and strapped, the stage is ready for shipment.

Instructions for storage maintenance are also to be implemented for all stages and elements being returned to the costumer center. Important: The water jacket of a stage must always be fully drained and blown dry, before plugging the in- and outlet orifices.

Stages originating from breakdowns should not be treated with oil or grease, as this would obstruct the subsequent investigations to be carried out by the Element Service department at the product company. The water jackets however must be blown dry and all orifices plugged or closed off with adhesive tape. The stage or element is to be wrapped in VCI paper and packed airtight in its container. If anti-corrosive VCI paper is not available then include several bags of dry silica gel with the stage or element and pack these airtight using plastic sheeting or similar (some moisture absorbing component should be between the different layers of plastic to avoid condensation).

