



DOCUMENTATION - DOKUMENTATION - DOCUMENTACIÓN

POMPE / PUMP / PUMPE / BOMBA

**20-220 F**

**FLOWMAX<sup>®</sup>**

Notice / Manual / Betriebsanleitung / Libro : 582.023.110 - 1605

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**NOTICE ORIGINALE / TRANSLATION FROM THE ORIGINAL MANUAL**  
**/ ÜBERSETZUNG DER ORIGINAL BETRIEBSANLEITUNG**  
**/ TRADUCCIÓN DEL MANUAL ORIGINAL**

**IMPORTANT : Lire attentivement tous les documents avant le stockage, l'installation ou la mise en service du matériel concerné (à usage strictement professionnel).**

**Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).**

**WICHTIGER HINWEIS: Vor Lagerung, Installation oder Inbetriebnahme des Geräts bitte sämtliche Dokumente sorgfältig lesen (Einsatz nur von geschultem Personal).**

**IMPORTANTE : Lea con atención todos los documentos antes de almacenar, instalar o poner en marcha el equipo (uso exclusivamente profesional).**

*PHOTOS ET ILLUSTRATIONS NON CONTRACTUELLES. MATERIELS SUJETS A MODIFICATION(S) SANS PREAVIS.*

*THE PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.*

*ALLE IN DIESEM DOKUMENT ENTHALTENEN SCHRIFTLICHEN ANGABEN UND ABBILDUNGEN STELLEN DIE NEUESTEN*

*PRODUKTINFORMATIONEN DAR. WIR BEHALTEN UNS DAS RECHT VOR, JEDERZEIT OHNE VORANKÜNDIGUNG ÄNDERUNGEN VORZUNEHMEN.*

*LAS FOTOGRAFÍAS E ILUSTRACIONES NO SON VINCULANTES. LOS MATERIALES ESTÁN SUJETOS A CAMBIOS SIN PREVIO AVISO.*

**KREMLIN - REXSON**

150, avenue de Stalingrad

93 245 - STAINS CEDEX - France

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**[www.kremlin-rexson.com](http://www.kremlin-rexson.com)**



# INSTALLATION AND SAFETY INSTRUCTIONS

## TRANSLATION OF THE ORIGINAL MANUAL

**IMPORTANT** : Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).

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# 1. SAFETY INSTRUCTIONS

## GENERAL SAFETY INSTRUCTIONS



**CAUTION :** The equipment can be dangerous if you do not follow our instructions concerning installation and servicing described in this manual and in accordance with applicable European standards and local national safety regulations.

Please carefully read all the instruction literature before operating your equipment.

**Only trained operators can use the equipment** (To acquire an essential training, please contact the "KREMLIN REXSON University" training center - Stains).

The foreman must ensure that the operator has understood the safety instructions for this equipment as well as the instructions in the manuals for the different parts and accessories.

Read carefully all instruction manuals, label markings before operating the equipment.



















Incorrect use may result in injury. This equipment is for professional use only. It must be used only for what it has been designed for. Never modify the equipment. The parts and accessories supplied must be regularly inspected. Defective or worn parts must be replaced.

**Guards (motor cover, coupling shields, connectors,...) have been designed for a safe use of the equipment.**  
**The manufacturer will not be held responsible for bodily injury or failure and / or property damage due to destruction, the overshadowing or the partial or total removal of the guards.**

**Never exceed the equipment components' maximum working pressure.**

Comply with regulations concerning safety, fire risks, electrical regulations in force in the country of final destination of the material. Use only products or solvent compatible with the parts in contact with the material (refer to data sheet of the material manufacturer).

## PICTOGRAMS

					
NIP HAZARD	WARNING MOVING ELEVATOR	WARNING MOVING PARTS	WARNING MOVING SHOVEL	DO NOT EXCEED THIS PRESSURE	HIGH PRESSURE HAZARD
					
RELIEF OR DRAIN VALVE	WARNING HOSE UNDER PRESSURE	WEAR GLASSES OBLIGATORY	WEAR OF GLOVES IS OBLIGATORY	PRODUCT VAPOR HAZARDS	WARNING HOT PARTS OR AREAS
					
ELECTRICAL HAZARD	WARNING FIRE HAZARDS	EXPLOSION HAZARDS	GROUNDING	WARNING (USER)	WARNING SERIOUS INJURIES

## FIRE - EXPLOSION - SPARKS - STATIC ELECTRICITY HAZARDS

A poor earth connection, inadequate ventilation, sparks or static electricity can cause an explosion or fire. to avoid these risks when using or servicing KREMLIN REXSON equipment, the following safety procedures must be followed :



- ensure a good earth connection and ground the parts to be handled i.e. solvents, materials, components and equipment,
- ensure adequate ventilation,
- keep working area clean and free from waste solvents, chemicals, or solid waste i.e. rags, paper and empty chemicals drums,
- never use electrical switches / power if in an atmosphere of volatile solvent vapour,
- stop working immediately in case of electrical arcs,
- never store chemicals and solvents in the working area.
- use paint whose flash point is the highest possible to prevent from any formation of gas and inflammable vapours (refer to materials' safety instructions),
- install a cover on the drums to reduce the diffusion of gas and vapours in the spraybooth.

## TOXIC PRODUCT HAZARDS

Toxic products or vapours can cause severe injury not only through contact with the body, but also if the products are ingested or inhaled. It is imperative :



- to know the material products and their risks,
- notified or hazardous materials must be stored in accordance with the regulations,
- the material must be stored in an appropriate container, never place materials in a container where there is a risk of spillage or leakage,
- a procedure must be applied for the safe disposal of waste material. It must comply with all prevailing regulations and legislations of the country where the equipment is to be used,
- protective clothing should always be worn in compliance with the material manufacturers' recommendations,
- depending on the application and chemical safety instructions, safety glasses, hearing protective earplug, gloves, foot wear, protective masks and possible breathing equipment should be worn to comply with the regulations (Refer to chapter "Safety equipment of KREMLIN selection guide).

### **CAUTION!**

It is forbidden to use material containing high concentrations of halogenated hydrocarbon solvents with **aluminium or zinc fillers** .Non-compliance with the instructions may cause explosion risk causing serious or fatal injury.

## **EQUIPMENT REQUIREMENTS**

**Guards (motor cover, coupling shields, connectors,...) have been designed for a safe use of the equipment.**

**The manufacturer will not be held responsible for bodily injury or failure and / or property damage due to destruction, the overshadowing or the partial or total removal of the guards.**

### **PUMP**



Before carrying out any work, it is imperative to read and clearly understand the disassembly and reassembly instructions before servicing. The operator must understand the equipment and the safety instructions. These instructions are available in the equipment manuals.



The air motor is designed to be mounted with a pump. Never modify any components or couplings. When operating, please keep hands away from moving parts. Before starting up the equipment, please read the PRESSURE RELIEF instructions. Please ensure that any relief or drain valves fitted are in good working order.

### **HOSES**

- Keep hoses out of circulation areas, moving parts or hot surfaces,
- Never expose product hoses to temperature higher than + 60°C / 140° F or lower than 0°C / 32° F,
- Never pull or use the hoses to move the equipment,
- Tighten all fittings as well as the hoses before operating the equipment,
- Check the hoses regularly; change them if they are damaged,
- Never exceed the working pressure (WP) indicated on the hose.

## **USED PRODUCTS**

Considering the wide variety of products that are available and can be used in our equipment it is impossible to check and make recommendations for all chemical data, regarding the risks of possible chemical attack and their long term chemical reaction

KREMLIN REXSON can not be held liable for :

- Compatibility of wetted parts,
- Risks to staff and the surroundings,
- for worn or defective parts, for faulty equipment or units, or the quality of final product.

It is the responsibility of the user to know and prevent any possible risks such as toxic vapours, fires or explosions. He shall determine the risks of immediate reactions or pursuant to repeated exposures of the staff,

KREMLIN REXSON shall not be liable for physical injuries, direct or indirect material damages caused by the use of chemicals.

## 2. HANDLING



### **Check the weight and the dimensions of the equipment**

**(☞ refer to 'Technical features' section of the instruction manual**

If weight and dimensions are too important, the unloading must be carried out by means of a forklift or any other appropriate means with a qualified personnel and in a clear horizontal area to prevent from risks of damage injury or an accident.

The centre of gravity is not in the centre of the machine : carry out by hand a stability-test after having lifted the whole at 10 cm / 3.937" maximum.

After the unloading, the handling of the whole (eg: elevator pump) is carried out by means of a pallet truck taking the bottom part of the frame.

**Remark : Each pump motor is fitted with a ring. The ring is designed for the hoisting of one pump and can not be used for the handling of the complete machine.**

## 3. STORING

Storing before installation :

- Storing ambient temperature : 0 / +50 °C / 0 / +122°F
- Protect the whole against dust, water trickling, dampness and shocks.

Storing after installation :

- Operating temperature : +15 / +35 °C / +59 / +138.2° F
- Protect the whole against dust, water trickling, dampness and shocks.

## 4. INSTALLATION OF THE EQUIPMENT

The machine is installed on a stable horizontal floor (for eg a concrete flag).



**To avoid risks caused by static electricity, the equipment as well as its components must be grounded.**

- **For the pumping equipments** (pumps, pneumatic rams, frame...), a section wire of 2.5 mm<sup>2</sup> is fixed on the material. Use this wire to connect the material to "the general ground". In case of severe environments (mechanical protection of the wire of earthing insufficient, vibrations, mobile material...) where function damages at the ground are probable, the user have to replace the provided wire of 2.5 mm<sup>2</sup> by a device more adapted to its environment (wire with a more important section, bonding strip, fixing by thimble with eyelet...),

The continuity of the ground must be controlled by a qualified electrician. If the continuity of the ground is not ensured, check the terminal, the wire and the earthing point. **Never** use the material without have solved this problem.

- In the severe cases of environments (mechanical protection of the wire of earthing insufficient, vibrations, mobile material...) where damages of the function put at the ground are probable, the user will have to replace the wire of 2.5 mm<sup>2</sup> provided, by a device more adapted to its environment (wire of more important section, bonding strip, fixing by thimble with eyelet...),
- **The gun** must be 'grounded' via a material hose or an air hose. In case of spraying by means of a gun with cup, the air hose must be conductive,
- **The materials to be painted** must also be grounded.

**All the materials situated in the working area shall be grounded.**



- **Never store** more than necessary inflammable materials inside the working area,
- The materials must be stored into **approved drums** and grounded,
- Use only grounded **metals containers** for the use of cleaning solvents,
- **Cardboard and paper are prohibited.**

## 5. MARKING OF THE EQUIPMENT

Each equipment has a marking plate.

The plate consists of the name of the manufacturer, the equipment part number and important information for correct use of the equipment (air pressure, electric power,...).



<p align="center"><b>FR</b></p> <p><b><u>Pour une utilisation sûre, il est de votre responsabilité de :</u></b></p> <ul style="list-style-type: none"> <li>• Lire attentivement tous les documents contenus dans le CD joint avant la mise en service de l'équipement,</li> <li>• D'installer, d'utiliser, d'entretenir et de réparer l'équipement conformément aux préconisations de KREMLIN REXSON ainsi qu'aux réglementations nationales et/ou locales,</li> <li>• Vous assurez que les utilisateurs de cet équipement ont été formés, ont parfaitement compris les règles de sécurité et qu'ils les appliquent.</li> </ul>	<p align="center"><b>UK</b></p> <p><b><u>To ensure safe use of the machinery, it is your responsibility to:</u></b></p> <ul style="list-style-type: none"> <li>• Carefully read all documents contained on the enclosed CD before putting the machinery into service,</li> <li>• Install, use, maintain and repair the machinery in accordance with KREMLIN REXSON's recommendations and national and/or local regulations,</li> <li>• Make sure that the users of the machinery have received proper training and that they have perfectly understood the safety rules and apply them.</li> </ul>	<p align="center"><b>DE</b></p> <p><b><u>Eine sichere Nutzung setzt voraus, dass Sie: :</u></b></p> <ul style="list-style-type: none"> <li>• alle in der CD enthaltenen Dokumente vor der Inbetriebnahme der Anlage aufmerksam lesen,</li> <li>• die Anlage im Einklang mit den Empfehlungen von KREMLIN REXSON sowie mit den nationalen und/oder lokalen Bestimmungen installieren, verwenden, warten und reparieren,</li> <li>• sich vergewissern, dass die Nutzer dieser Anlage angemessen geschult wurden, die Sicherheitsbestimmungen verstanden haben und sie anwenden.</li> </ul>
<p align="center"><b>ES</b></p> <p><b><u>Para una utilización segura, será de su responsabilidad:</u></b></p> <ul style="list-style-type: none"> <li>• leer atentamente todos los documentos que se incluyen en el CD adjunto antes de la puesta en servicio del equipo,</li> <li>• instalar, utilizar, efectuar el mantenimiento y reparar el equipo con arreglo a las recomendaciones de KREMLIN REXSON y a la normativa nacional y/o local,</li> <li>• cerciorarse de que los usuarios de este equipo han recibido la formación necesaria, han entendido perfectamente las normas de seguridad y las aplican.</li> </ul>	<p align="center"><b>IT</b></p> <p><b><u>Per un uso sicuro, vi invitiamo a:</u></b></p> <ul style="list-style-type: none"> <li>• leggere attentamente tutta la documentazione contenuta nel CD allegato prima della messa in funzione dell'apparecchio,</li> <li>• installare, utilizzare, mantenere e riparare l'apparecchio rispettando le raccomandazioni di KREMLIN REXSON, nonché le normative nazionali e/o locali,</li> <li>• accertarvi che gli utilizzatori dell'apparecchio abbiano ricevuto adeguata formazione, abbiano perfettamente compreso le regole di sicurezza e le applichino.</li> </ul>	<p align="center"><b>PT</b></p> <p><b><u>Para uma utilização segura, é da sua responsabilidade:</u></b></p> <ul style="list-style-type: none"> <li>• Ler atentamente todos os documentos incluídos no CD em anexo antes de pôr o equipamento em funcionamento,</li> <li>• Proceder à instalação, utilização, manutenção e reparação do equipamento de acordo com as preconizações de KREMLIN REXSON, bem como com outros regulamentos nacionais e/ou locais aplicáveis,</li> <li>• Assegurar-se que os utilizadores do equipamento foram devidamente capacitados, compreenderam perfeitamente e aplicam as devidas regras de segurança.</li> </ul>
<p align="center"><b>NL</b></p> <p><b><u>Voor een veilig gebruik dient u:</u></b></p> <ul style="list-style-type: none"> <li>• alle document op de bijgevoegde cd aandachtig te lezen alvorens het apparaat in werking te stellen,</li> <li>• het apparaat te installeren, gebruiken, onderhouden en repareren volgens de door KREMLIN REXSON gegeven aanbevelingen en overeenkomstig de nationale en/of plaatselijke reglementeringen,</li> <li>• zeker te stellen dat de gebruikers van dit apparaat zijn opgeleid, de veiligheidsregels perfect hebben begrepen en dat zij die ook toepassen.</li> </ul>	<p align="center"><b>SE</b></p> <p><b><u>För en säker användning av utrustningen ansvarar ni för följande:</u></b></p> <ul style="list-style-type: none"> <li>• Läs noga samtliga dokument som finns på den medföljande cd-skivan innan utrustningen tas i drift.</li> <li>• Installera, använd, underhåll och reparera utrustningen enligt anvisningarna från KREMLIN REXSON och enligt nationella och/eller lokala bestämmelser.</li> <li>• Försäkra er om att användare av denna utrustning erhållit utbildning, till fullo förstått säkerhetsföreskrifterna och tillämpar dem.</li> </ul>	<p align="center"><b>FI</b></p> <p><b><u>Käytön turvallisuuden varmistamiseksi velvollisuutesi on:</u></b></p> <ul style="list-style-type: none"> <li>• Lukea huolella kaikki CD:llä olevat asiakirjat ennen laitteiston käyttöönottoa,</li> <li>• Noudattaa laitteiston asennuksessa, käytössä, kunnossapidossa ja huollossa KREMLIN REXSON in suosituksia sekä kansallisia ja/tai paikallisia määräyksiä,</li> <li>• Varmistaa, että laitteiston käyttäjät ovat koulutettuja ja ymmärtävät täysin turvallisuusmääräykset ja miten niitä sovelletaan.</li> </ul>
<p align="center"><b>PL</b></p> <p><b><u>Dla zapewnienia bezpiecznego użytkowania na użytkownika spoczywa obowiązek:</u></b></p> <ul style="list-style-type: none"> <li>• Uważnego zapoznania się ze wszystkimi dokumentami znajdującymi się na załączonej płycie CD przed pierwszym uruchomieniem urządzenia,</li> <li>• Instalowania, użytkowania, konserwacji i naprawy urządzenia zgodnie z zaleceniami firmy KREMLIN REXSON oraz z przepisami miejscowymi,</li> <li>• Upewnienia, że wszyscy przeszkoleni użytkownicy urządzenia zrozumieli zasady bezpieczeństwa i stosują się do nich.</li> </ul>	<p align="center"><b>CS</b></p> <p><b><u>Pro bezpečné používání jste povinni:</u></b></p> <ul style="list-style-type: none"> <li>• Před uvedením zařízení do provozu si pozorně přečíst veškeré dokumenty obsažené na příloženém CD,</li> <li>• Nainstalovat, používat, udržovat a opravovat zařízení v souladu s pokyny firmy KREMLIN REXSON a s národními a/nebo místními legislativními předpisy,</li> <li>• Ujistit se, že uživatelé tohoto zařízení byli vyškoleni, že dokonale pochopili bezpečnostní pravidla a že je dodržují.</li> </ul>	<p align="center"><b>RU</b></p> <p><b><u>Для целей безопасного использования необходимо:</u></b></p> <ul style="list-style-type: none"> <li>• Ознакомиться со всеми документами, содержащимися в прилагаемом компакт-диске до ввода оборудования в эксплуатацию;</li> <li>• Устанавливать, использовать, производить техническое обслуживание и ремонт оборудования в соответствии с рекомендациями KREMLIN REXSON и национальным и/или местным законодательством;</li> <li>• Убедиться, что пользователи настоящего оборудования прошли подготовку, надлежащим образом усвоили правила безопасности и обеспечивают их соблюдение.</li> </ul>

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**VALABLE JUSQU'AU 19 AVRIL 2016**  
**VALID UNTIL 19 APRIL 2016**  
**GÜLTIG BIS ZUM 19. APRIL 2016**  
**VALIDEZ HASTA EL 19 DE ABRIL DE 2016**  
**VALIDO FINO AL 19 APRILE 2016**  
**APLICÁVEL ATÉ 19 DE ABRIL DE 2016**  
**GELDIG TOT 19 APRIL 2016**  
**GÄLLER TILL OCH MED DEN 19 APRIL 2016**  
**VOIMASSA 19.4.2016 SAAKKA**  
**WAŻNOŚĆ DO 19 KWIETNIA 2016 R.**  
**PLATÍ DO 19. DUBNA 2016**  
**ДЕЙСТВИТЕЛЬНО ДО 19 АПРЕЛЯ 2016 ГОДА**



**DECLARATION CE DE CONFORMITE**  
**EC DECLARATION OF CONFORMITY**  
**EG KONFORMITÄTSERKLÄRUNG**  
**DECLARACIÓN CE DE CONFORMIDAD**  
**DICHIARAZIONE CE DI CONFORMITÀ**  
**DECLARAÇÃO CE DE CONFORMIDADE**  
**EG-VERKLARING VAN OVEREENSTEMMING**  
**EG-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE**  
**EY-VAATIMUKSEN MUKAISUUSVAKUUTUS**  
**DEKLARACJA ZGODNOŚCI CE**  
**CE PROHLÁŠENÍ O SHODĚ**  
**ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ CE**

Le fabricant / The manufacturer / Der Hersteller / El fabricante / Il produttore / O fabricante / De fabrikant / Tillverkare / Valmistaja / Producent / Výrobce / Изготовитель:	<b>KREMLIN REXSON</b> 150, avenue de Stalingrad 93 240 - STAINS - FRANCE Tél. 33 (0)1 49 40 25 25 - Fax : 33 (0)1 48 26 07 16
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Déclare que le matériel désigné ci-après / Herewith declares that the equipment / erklärt hiermit, dass die / Declara que el material designado a continuación / Dichiaro che il materiale sottoindicato / Declara que o material a seguir designado / verklaart dat de hieronder aangeduide apparatuur / Kungör att den utrustning som anges här nedan / ilmoittaa, että alla mainitut laitteistot / Oświadczka, że wymienione poniżej urządzenia / Prohlašuje, že níže uvedené vybavení / Декларирует, что ниженазванное оборудование:

**POMPE PNEUMATIQUE FLOWMAX® & POMPE AIRMIX® FLOWMAX® A MOTEUR AVEC INVERSEUR**  
**/ AIRMIX® FLOWMAX® PUMP & FLOWMAX® LOW PRESSURE PUMP - AIR MOTOR WITH REVERSING BLOCK**  
**/ AIRMIX® PUMPE UND PNEUMATISCHE PUMPE MIT UMSTEUERMOTOR - FLOWMAX®**  
**/ BOMBA NEUMÁTICA FLOWMAX® & BOMBA AIRMIX® FLOWMAX® CON MOTOR CON INVERSOR**

20-25 F	
20-50 F	20-50 FT
04-120 F	
08-120 F	08-120 FT
16-120 F	16-120 FT
04-220 F	04-220 FT
	08-220 FT
20-220 F	

Est conforme à la législation d'harmonisation de l'Union applicable suivante / Is in conformity with the relevant Union harmonisation legislation / Erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union / es conforme con la legislación de armonización pertinente de la Unión / è conforme alla pertinente normativa di armonizzazione dell'Unione / in overeenstemming met de desbetteffende harmonisatiewetgeving van de Unie / med den relevanta harmoniserade unionslagstiftningen / on asiaa koskevan unionin yhdenmukaistamislainsäädännön vaatimusten mukainen / jest zgodny z odpowiednimi wymaganiami unijnego prawodawstwa harmonizacyjnego / Shoduje se s následující příslušnou evropskou harmonizační legislativou / Соответствует следующим стандартизированным нормам Союза

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Dominique LAGOUGE

Directeur Général / Chief Executive Officer / Generaldirektor  
 / Director General / Direttore Generale / Director Geral / Algemeen  
 Directeur / Generaldirektör / Pääjohtaja / Dyrektor Naczelny  
 / Dyrektor Generalny / Generální ředitel / Генеральный директор

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 VALID FROM 20 APRIL 2016  
 GÜLTIG AB DEM 20. APRIL 2016  
 VALIDEZ A PARTIR DEL 20 DE ABRIL DE 2016  
 VALIDO A PARTIRE DAL 20 APRILE 2016  
 APLICÁVEL A PARTIR DE 20 DE ABRIL DE 2016  
 GELDIG VANAF 20 APRIL 2016.  
 GÄLLER FRÅN OCH MED DEN 20 APRIL 2016  
 VOIMASSA 20.4.2016 ALKAEN  
 WAŻNOŚĆ OD 20 KWIETNIA 2016 R.  
 PLATÍ OD 20. DUBNA 2016  
 ДЕЙСТВИТЕЛЬНО С 20 АПРЕЛЯ 2016 ГОДА



DECLARATION UE DE CONFORMITE  
UE DECLARATION OF CONFORMITY  
EU-KONFORMITÄTSEKTLÄRUNG  
DECLARACIÓN UE DE CONFORMIDAD  
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EU-FÖRSÄKRAN OM ÖVERENSSTÄMMESE  
EU-VAATIMUKSEN MUKAISUUSVAKUUTUS  
DEKLARACJA ZGODNOŚCI UE  
EU PROHLÁŠENÍ O SHODĚ  
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ НОРМАМ ЕС

Le fabricant / The manufacturer / Der Hersteller / El fabricante / Il produttore / O fabricante / De fabrikant / Tillverkare / Valmistaja / Producent / Výrobce / Изготовитель:	<b>KREMLIN REXSON</b> 150, avenue de Stalingrad 93 240 - STAINS - FRANCE Tél. 33 (0)1 49 40 25 25 - Fax : 33 (0)1 48 26 07 16
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Déclare que le matériel désigné ci-après / Herewith declares that the equipment / erklärt hiermit, dass die / Declara que el material designado a continuación / Dichiaro che il materiale sottoindicato / Declara que o material a seguir designado / verklaart dat de hieronder aangeduide apparatuur / Kungör att den utrustning som anges här nedan / ilmoittaa, että alla mainitut laitteistot / Oświadczka, że wymienione poniżej urządzenia / Prohlašuje, že níže uvedené vybavení / Декларирует, что ниженазванное оборудование:

**POMPE PNEUMATIQUE FLOWMAX® & POMPE AIRMIX® FLOWMAX® A MOTEUR AVEC INVERSEUR**  
**/ AIRMIX® FLOWMAX® PUMP & FLOWMAX® LOW PRESSURE PUMP - AIR MOTOR WITH REVERSING BLOCK**  
**/ AIRMIX® PUMPE UND PNEUMATISCHE PUMPE MIT UMSTEUERMOTOR - FLOWMAX®**  
**/ BOMBA NEUMÁTICA FLOWMAX® & BOMBA AIRMIX® FLOWMAX® CON MOTOR CON INVERSOR**

20-25 F	
20-50 F	20-50 FT
04-120 F	
08-120 F	08-120 FT
16-120 F	16-120 FT
04-220 F	04-220 FT
	08-220 FT
20-220 F	

Est conforme à la législation d'harmonisation de l'Union applicable suivante / Is in conformity with the relevant Union harmonisation legislation / Erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union / es conforme con la legislación de armonización pertinente de la Unión / è conforme alla pertinente normativa di armonizzazione dell'Unione / in overeenstemming met de desbetreffende harmonisatiewetgeving van de Unie / med den relevanta harmoniserade unionslagstiftningen / on asiaa koskevan unionin yhdenmukaistamislainsäädännön vaatimusten mukainen / jest zgodny z odpowiednimi wymaganiami unijnego prawodawstwa harmonizacyjnego / Shoduje se s následující příslušnou evropskou harmonizační legislativou / Соответствует следующим стандартизированным нормам Союза

Directive ATEX / ATEX Directive / ATEX Richtlinie / Directiva ATEX / Direttiva ATEX / Diretiva ATEX / ATEX-Richtlijn / ATEX-direktivet / ATEX-direktivi / Dyrektywa ATEX / Směrnice ATEX / Директива ATEX		<b>2014/34/UE</b>
Procédure d'évaluation de la conformité : Module A Documentation technique (Annexe VIII) archivée par : / Conformity assessment procedure: Module A Technical documentation (ANNEX VIII) recorded by: / Verfahren zur Konformitätsbewertung: Modul A Technische Unterlagen (ANLAGE VIII) archiviert durch: / Procedimiento de evaluación de la conformidad: Módulo A Documentación técnica (ANEXO VIII) archivada por: / Procedura di valutazione della conformità: Modulo A Documentazione tecnica (ALLEGATO VIII) archiviata a cura di: / Procedimento de avaliação da conformidade: Módulo A Documentação técnica (ANEXO VIII) arquivada por: / Conformiteitsbeoordelingsprocedure: Module A Technische documentatie (BIJLAGE VIII) gearhiveerd door: / Förfarande för bedömning av överensstämmelse: Modul A Teknisk dokumentation (BILAGA VIII) arkiverad av: / Vaatimustenmukaisuusarviointimenetelmä: moduuli A Tekninen dokumentaatio (LIITE VIII) arkistoitu: / Procedura oceny zgodności: Moduł A Dokumentacji technicznej (ZAŁĄCZNIK VIII) zarchiwizowane przez: / Postup posuzování shody: Modul A Technická dokumentace (PŘÍLOHA VIII) archivována: / Процедура оценки соответствия: Модуль A Техническая документация (ПРИЛОЖЕНИЕ VIII), архивированная: ISSeP Zoning A. Schweitzer Rue de la Platinerie B - 7340 COLFONTAINE BELGIQUE		

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# **FLOWMAX® PUMP**

## **20-220 F**

***Disassembly / Reassembly***

### **TRANSLATION OF THE ORIGINAL MANUAL**

***IMPORTANT : Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).***

THE PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.

#### **KREMLIN - REXSON**

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**[www.kremlin-rexson.com](http://www.kremlin-rexson.com)**



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**CAUTION :**

Before any action on the pump, shut off the compressed air supply and depressurize the system.

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**The pump is manufactured under the ATEX agreement and can not be modified. KREMLIN REXSON will not be held responsible for any failure to comply with that instruction.**

**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**

**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards**

▪ **FLUID MOTOR OR AIR MOTOR REPLACEMENT (REFER TO DOC. 573.176.050)**

**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**

**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards**

Disassemble all the accessories of the pump.

Disassemble the pump from the bracket by removing the nuts that hold on the U-bolts.

Put aside the pump (the pump is fitted with an hoisting ring).

To replace the fluid section (2) or the air motor (1), the pump must be removed (see bellows) :

- **Remove the FLUID SECTION (refer to Doc. 573.175.050)**  
Disassemble the connecting rod (41), the suction valve (30), the cylinder (21).  
Remove the 3 nuts (11) that hold on the 3 tie-rods (7) and slide the upper flange (1). Hold on the guide rod of the air motor and unscrew the piston (22).
- **Remove the COUPLING part.**
- **Remove the air motor.**

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**DISASSEMBLY / REASSEMBLY OF THE FLUID SECTION**

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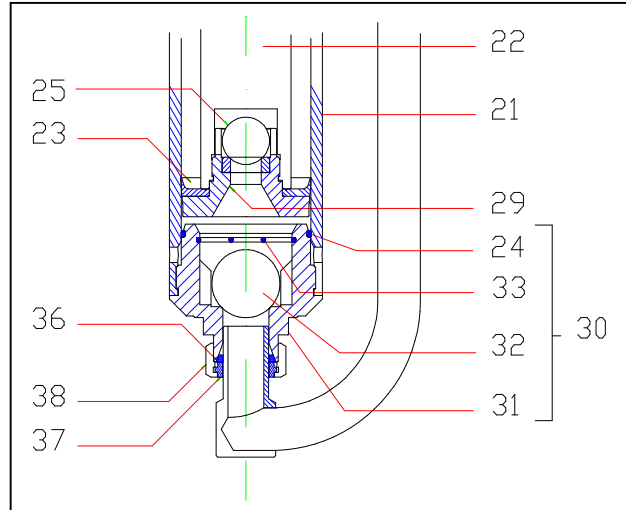
**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**

**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards**

Unscrew the fitting (38) and the screws (43 and 45) to remove the attachment fluid tube (41).

■ **SUCTION VALVE**

Unscrew the suction valve (30).  
 (If the cylinder (21) remains attached to the suction valve, unscrew both parts, then hold cylinder (21) by inserting a rod into the cylinder holes designed for this purpose).  
 The ball (32) is secured on the valve by means of a circlips (33).  
 Clean the parts.  
 Reinstall the suction valve (30) and the seal (24). Replace the parts if it is necessary.



■ **CYLINDER**

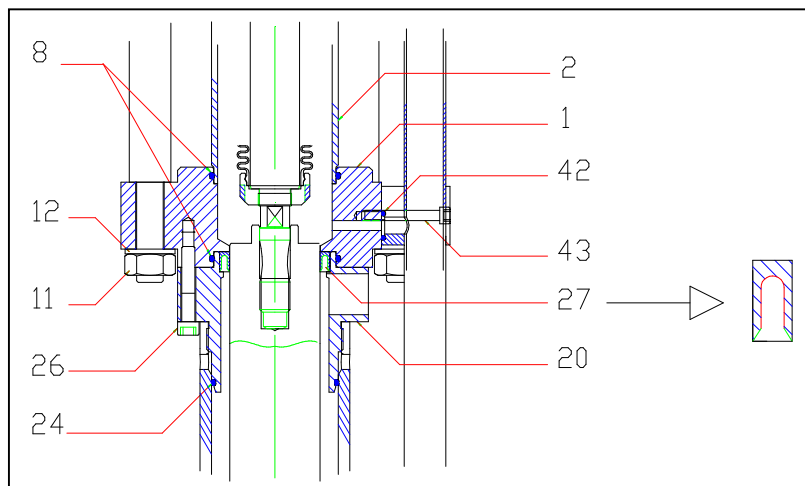
In order to make easier the disassembly, a hole is drilled in the cylinder (21) at each end.  
 Depending on the part that it is unscrewed first, insert a rod into one of these holes to unscrew the other part.  
 When reassembling, make sure the two seals (24) are installed.

■ **EXHAUST VALVE AND MOBILE PACKING**

Unscrew the cylinder (21) and pull it downwards.  
 Unscrew the exhaust valve (29) by holding the piston (22).  
 Remove the ball (25) and the mobile packing (cup seal 23).  
 Clean all the parts and replace them by changing the seals if it is necessary.

■ **UPPER TIGHTNESS SEAL**

Unscrew the 4 screws (26).  
 Remove the tightness seal (27) by pulling the exhaust flange (20) downwards.  
 Change the tightness seal (27), the O Rings (8 and 24).  
 Remount the parts in the reverse order of the disassembly sequence.  
 Comply with GT seal orientation order.



## DISASSEMBLY / REASSEMBLY OF THE COUPLING (WITH BELLOWS)

**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**  
**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards**

Disassemble the fluid section prior to carrying out the following procedure.

### ■ BELLOWS (REFER TO DOC. 573.175.050)

Unscrew the nuts (11) from the coupling tie-rods.

Remove the suction flange (1) and the cylinder by pulling them downwards.

Disassemble the piston (22) from the air motor rod.

Unscrew the skirt (6) to remove the low part of the bellows.

Disassemble the suction bearing (3) of the air motor by unscrewing the screws (9).

Remove bellows coupling part by sliding it off the air motor rod.

Disassemble the bellows flange (4) by removing the screws (10) to take off the upper part of the bellows.

Change the bellows (5).

When installing bellows, push it into skirt (6) firmly. Insert the bellows into the bearing (3).

Assemble the flange (4) in the bearing (3) and tighten the assembly with the screws (10).

Slide them along the air motor rod.

Screw the skirt (6) on the air motor rod.

➔ **Rotate the bellows coupling part and the motor rod until suction bearing (3) matches the lower support of the air motor. Be careful not to twist the bellows.**

Secure the suction bearing (3) on the lower support of the air motor by means of the screws (9).

Remount the fluid section piston (22) on the air motor rod.

Change the seals (8) then remount the cylinder (2) and the suction flange (1).

Install the assembly on the tie-rods (7) and tighten the nuts (11).

## AIR MOTOR

**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**  
**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards**

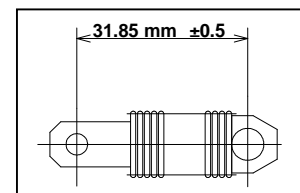
### ■ REVERSING BLOCK (REFER TO DOC. 573.174.050)

Disassemble the air motor cover (31) by removing the CHc screw (33).

Dissociate the female yoke (14) from the reversing block lever (10).

Dismount the reversing -block by removing the screws (11).

Reinstall the new reversing-block in the reverse order of the disassembly sequence.



➔ **CAUTION : the number of spirals must equally be distributed on each fastening parts in order to get the above dimension.**

**Before reassembling the different components :**

- **Clean the parts with the appropriate cleaning solvent.**
- **Install new seals if it is necessary, after having lubricated them with PTFE grease.**
- **Lubricate the piston and the inside of the cylinder to prevent from damaging the seals.**
- **Install new parts if it is necessary.**

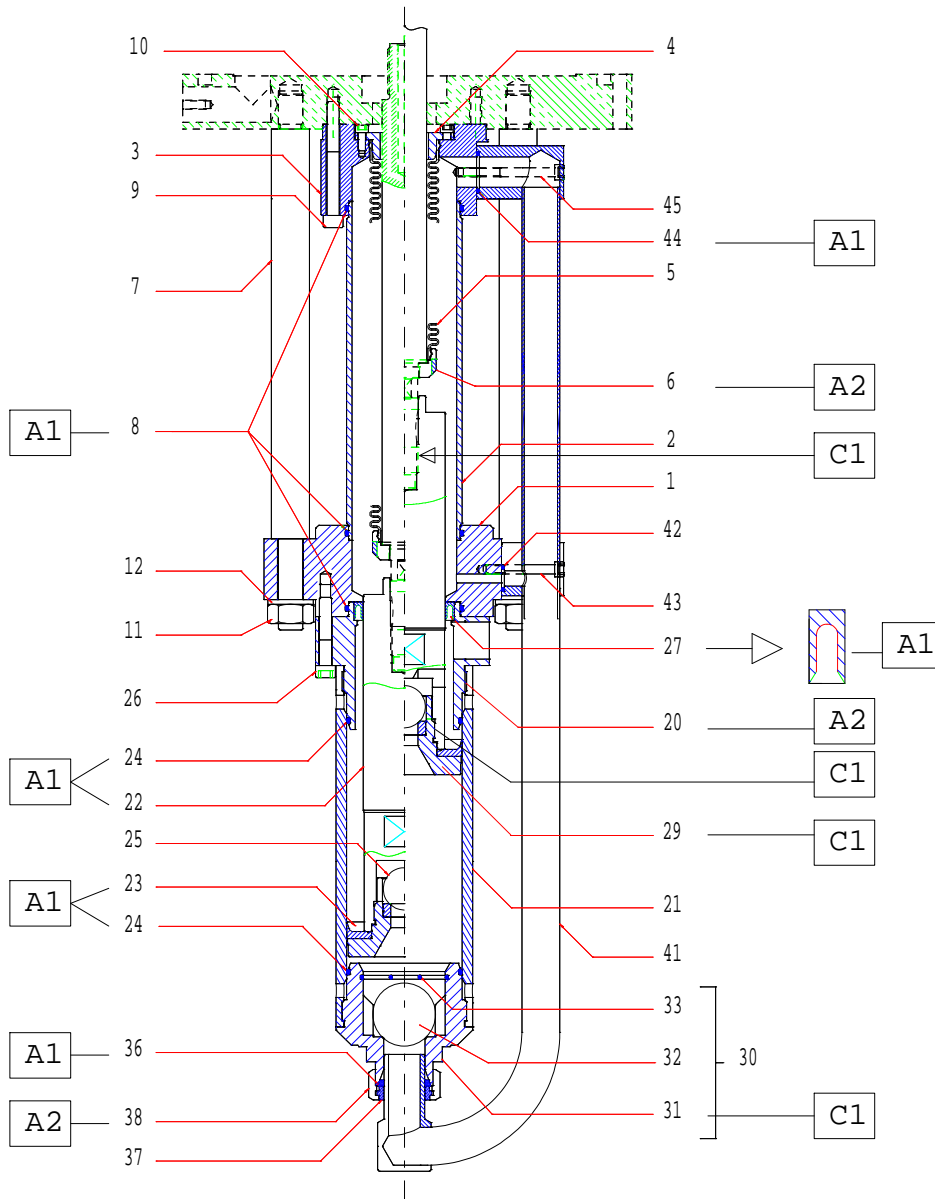
■ **DEGREES OF WEAR**

The wetted parts in contact with the material are subject to wear with time. It depends, of course, on the rates and duration of pump operating; also on the material handled.

Under normal operating and servicing conditions, with standard filled material not including foreign matters or chemically aggressive, the average working life can be estimated as :

- **1 million strokes for the tightness seals.**
- **10 millions strokes for the bellows.**

# ASSEMBLY INSTRUCTIONS

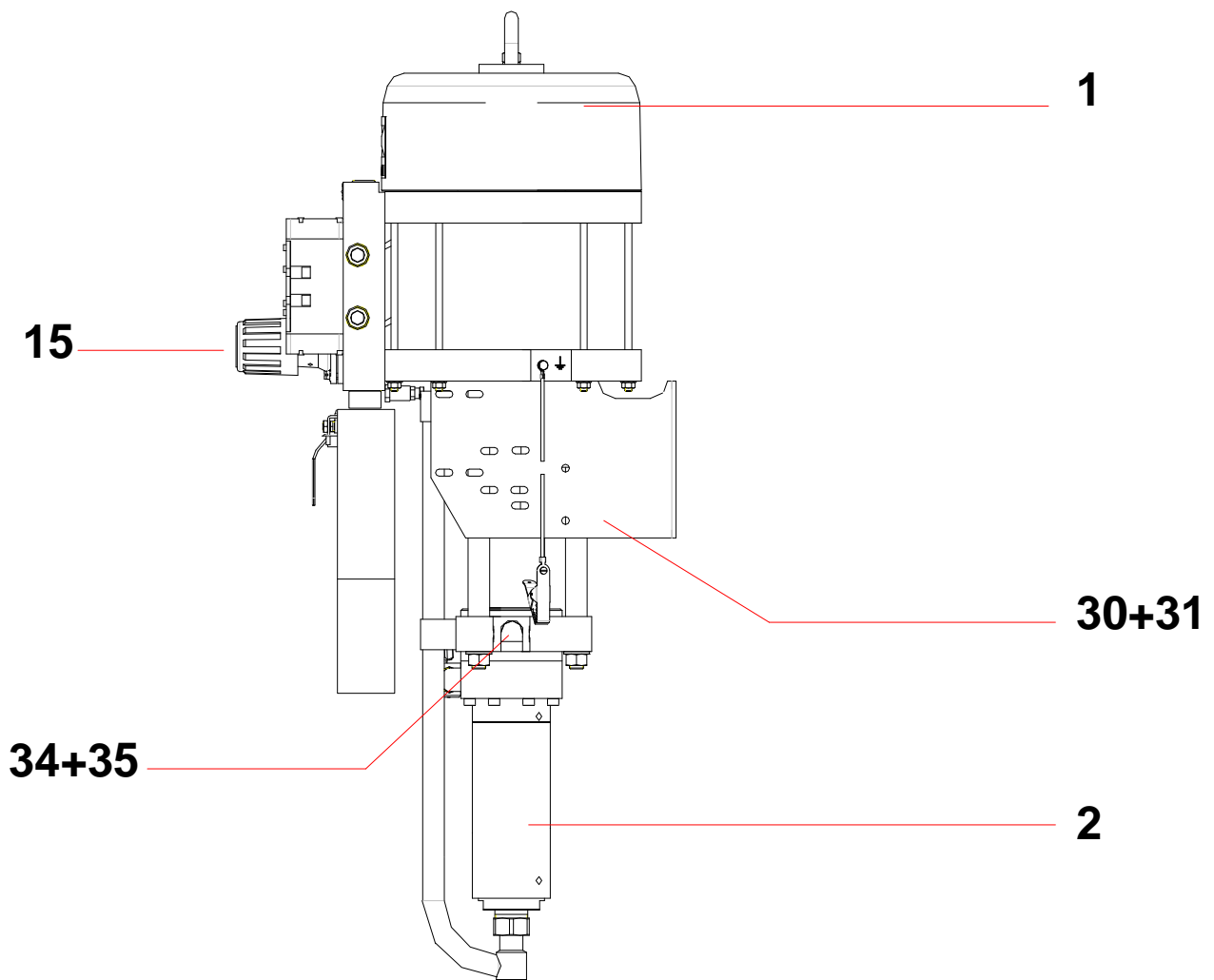


Index	Instruction	Description	Part number
<b>A1</b>	PTFE grease	'TECHNILUB' grease (10 ml)	560.440.101
<b>A2</b>	Graphite grease	Graphite grease box (1 kg / 2.204 lb)	560.420.005
<b>C1</b>	Medium strength Aneorobic Pipe sealant	Loctite 577	



<p><b>Doc. 573.176.050</b>  Date/Datum/Fecha : 16/02/12  Annule/Cancela/  Ersetzt/Anula : 11/08/08</p>	<p><b>Modif. /Änderung :</b>  Mise à jour / Update / Aktualisierung  / Actualización</p>	<p><b>Pièces de rechange</b>  <b>Spare parts list</b>  <b>Ersatzteilliste</b>  <b>Piezas de repuesto</b></p>
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<p><b>20-220 F</b></p>	<p><b>POMPE FLOWMAX® / FLOWMAX® PUMP</b>  <b>FLOWMAX® PUMPE / BOMBA FLOWMAX®</b></p>
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<b>POMPE MURALE, modèle 20-220 F</b>	<b>WALL MOUNTED PUMP, model 20-220 F</b>	<b>#</b>  <b>151.860.200</b>
<b>WANDANLAGE, Modell 20-220 F</b>	<b>BOMBA MURAL, tipo 20-220 F</b>	

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	NCS / NSS	Pompe 20.220 F nue	Bare pump, model 20.220 F	Pumpe 20.220 F nackt	Bomba sola, tipo 20.220 F	1
* 1	146.280.100	▪ Moteur 5000-4 (voir Doc. 573.174.050)	▪ Air motor, model 5000-4 (refer to Doc. 573.174.050)	▪ Luftmotor, 5000-4 (siehe Dok. 573.174.050)	▪ Motor, 5000-4 (consultar Doc. 573.174.050)	1
* 2	144.990.200	▪ Hydraulique 220 F inox (voir Doc. 573.175.050)	▪ Fluid section, model 220 F (stainless steel) (refer to Doc. 573.175.050)	▪ Hydraulikteil 220 F Edelstahl (siehe Dok. 573.175.050)	▪ Hidraulica 220 F inox (consultar Doc. 573.175.050)	1
15	NCS / NSS	Equipement d'air (voir détails)	Air supply equipment (refer to detail)	Luftausrüstung (siehe Detail)	Equipo de aire (consultar detalle)	1
30	051.341.206	Support de pompe	Pump bracket	Wandhalterung	Soporte de bomba	1
31	051.150.701	Etrier avec rondelles et écrous	U-bolt with washers and nuts	Schelle mit Scheiben und Muttern	Tirante con arandelas y tuercas	3
32	963.040.016	▪ Rondelle MN 6	▪ Washer, MN 6	▪ Scheibe, MN 6	▪ Arandela, MN 6	6
33	953.010.016	▪ Ecrou HM 6	▪ Nut, HM 6	▪ Mutter, HM 6	▪ Tuerca, HM 6	6
34	905.210.404	Coude MF 1"	Elbow, MF 1"	Winkelnippel AG 1" - IG 1"	Codo, MH 1"	1
35	050.102.449	Raccord inox M 1" - M 38 x 150 (entrée produit)	Fitting, stainless steel, double male 1" - 38 x 150 (fluid inlet)	Nippel, Edelstahl AG 1" - M 38 x 1,50 (Materialeingang)	Racor inox M 1" - M 38 x 150 (entrada producto)	1

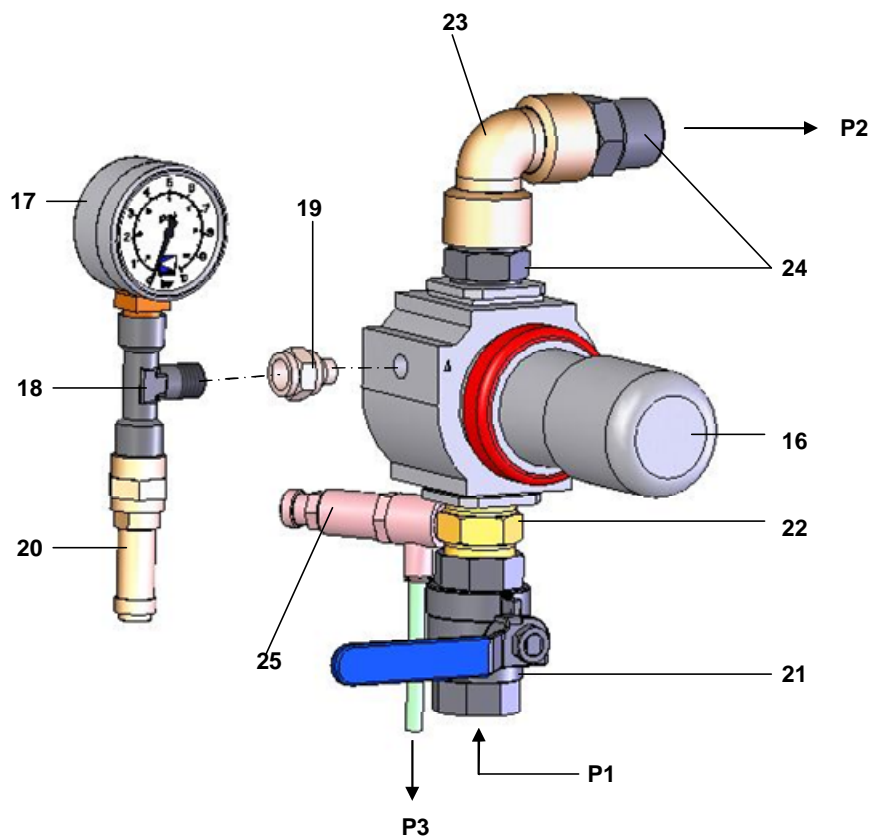
### OPTIONS - OPTIONAL - OPTION - OPCIÓN

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155.581.400	Filtre 3/4 équipé (voir Doc. 573.327.050)	Filter, model 3/4 equipped (refer to Doc. 573.327.050)	Ausgerüsteter Filter, Modell 3/4 (siehe Dok. 573.327.050)	Filtro, 3/4 equipado (consultar Doc. 573.327.050)	1
-	049.597.100	Canne d'aspiration inox (Ø 25) avec crépine	Suction rod (stainless steel) with strainer	Saugschläuche mit Siebkörbe	Caña de aspiración (inox) con piña	1
-	149.591.400	▪ Crépine avec manchon	▪ Strainer with sleeve	▪ Siebkörbe	▪ Piña con manguito	1
-	051.231.000	Chariot	Cart	Fahrgestell	Carretilla	1

\* Pièces de maintenance préconisées tenues en stock  
 \* Preceding the index number denotes a suggested spare part.  
 \* Bezeichnete Teile sind empfohlene Ersatzteile.  
 \* Piezas de mantenimiento preventivas a tener en stock.

N C S : Non commercialisé seul.  
 N S S : Denotes parts are not serviceable separately.  
 N S S : Bezeichnete Teile gibt es nicht einzeln, sondern nur komplett.  
 N S S : no suministrado por separado.

<b>EQUIPEMENT D'AIR (ind. 15)</b>	<b>AIR SUPPLY EQUIPMENT (ind. 15)</b>
<b>LUFTAUSRÜSTUNG (ind. 15)</b>	<b>EQUIPO DE AIRE (índ. 15)</b>



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
* 16	016.480.000	Détendeur d'air 3/4 0 - 10 bar (rouge)	Air regulator, 3/4 0 - 10 bar / 0 - 145 psi (red )	Druckminderer, 3/4 0 - 10 bar (rot)	Manorreductor, 3/4 0 - 10 bar (rojo)	1
* 17	910.011.402	Manomètre 0 - 10 bar	Gauge 0 - 10 bar / 0 - 145 psi	Manometer, 0 - 10 bar	Manómetro, 0 - 10 bar	1
18	552 441	Té 1/4"	Tee, 1/4"	T-Stück, 1/4"	Te, 1/4"	1
19	552 491	Raccord F 1/4" - M 1/8"	Fitting, F 1/4" - M 1/8"	Nippel, IG 1/4" - AG 1/8"	Racor, H 1/4" - M 1/8"	1
20	903.080.401	Soupape de décharge	Discharge-valve	Sicherheitsventil	Válvula de seguridad	1
21	903.090.208	Robinet F 3/4	Valve, F 3/4	Absperrhahn, IG 3/4	Grifo, H 3/4	1
22	051.870.151	Raccord MM 3/4 BSP avec piquage	Fitting, double male, 3/4 BSP	Doppelnippel AG 3/4 BSP	Racor, MM 3/4 BSP	1
23	552 429	Coude FF 3/4"	Elbow, FF 3/4"	Winkelnippel IG 3/4 "	Codo, HH 3/4"	1
24	050.102.215	Raccord MM 3/4 BSP	Fitting, double male, 3/4 BSP	Doppelnippel AG 3/4 BSP	Racor, MM 3/4 BSP	2
* 25	903.130.508	Régulateur de pression	Pressure air regulator	Druckreduzierventil	Regulador de presión	1

## Réglage / Adjustment / Einstellung / Ajuste

**P1 = 6 bar max. / 87 psi**

**P2 = 1 → 5,5 bar / 14.5 → 80 psi**

(air de puissance / power air / Arbeitsluft / aire de potencia)

**P3 = 4 bar max. / 58 psi max.**

(air de pilotage / pilot air / Steuerluft / aire de pilotaje)

Le régulateur (25) est préréglé en usine pour délivrer une pression de 4 bar max.

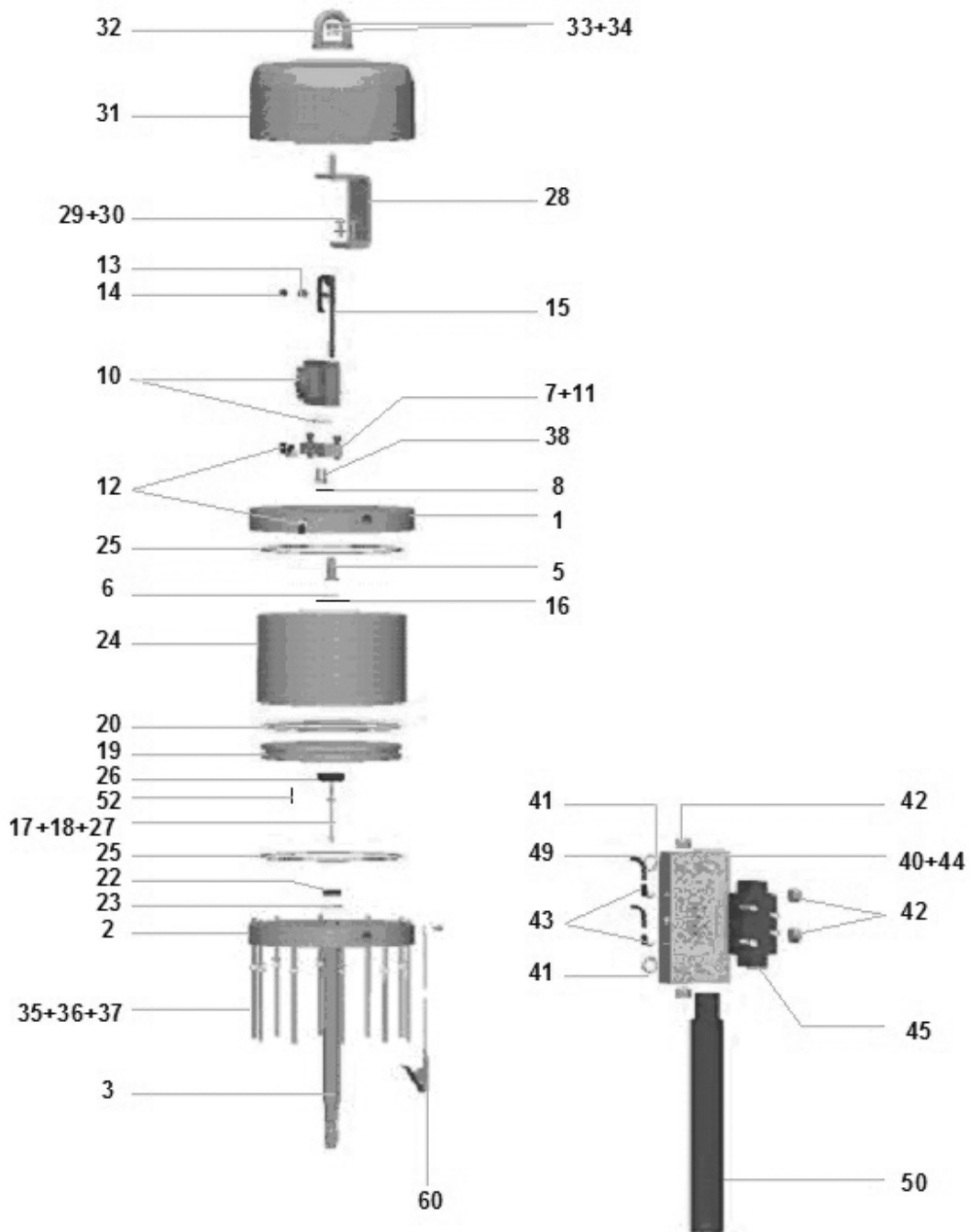
The regulator (25) is preset in the factory to give a maximum pressure of 4 bar / 58 psi.

Der Druckregler (25) ist werksseitig auf einen maximalen Steuerluftdruck von 4 bar eingestellt.

El regulador (25) se regla en la fábrica para aportar una presión máxima de 4 bar.

<b>Doc. 573.174.050</b> Date/Datum/Fecha : 16/02/12 Annule/Cancela/ Ersetzt/Anula : 4/12/07	<b>Modif. /Änderung :</b> Mise à jour / Update / Aktualisierung / Actualización	<b>Pièces de rechange</b> <b>Spare parts list</b> <b>Ersatzteilliste</b> <b>Piezas de repuesto</b>
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<b>MOTEUR A AIR, modèle 5000-4</b>	<b>AIR MOTOR, model 5000-4</b>	<b>#</b>
<b>LUFT MOTOR, Modell 5000-4</b>	<b>MOTOR DE AIRE, tipo 5000-4</b>	<b>146.280.100</b>



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	046.280.001	Fond supérieur	Support, upper	Oberer Zylinderflansch	Fondo superior	1
2	046.280.110	Fond inférieur avec bague de guidage	Lower support with bushing guide	Unterer Zylinderflansch mit Führungsbuchse	Fondo inferior con anillo guía	1
3	046.280.101	Tige d'accouplement	Coupling rod	Kopplungsstange	Eje de acoplamiento	1
5	044.570.106	Bague de guidage	Bushing guide	Führungsbuchse	Anillo guía	1
6	144.579.923	Bague R 8 bis (x 10)	Ring, R 8 bis (x 10)	O Ring, R 8 bis (Satz à 10 Stück)	Anillo R 8 bis (bolsa de 10)	1
7	046.271.002	Embase du bloc inverseur	Base, reversing-block	Grundplatte, Umsteuerblock	Base bloque inversor	1
8	109.420.257	Bague O Ring (x 10)	O Ring (x 10)	O Ring (Satz à 10 Stück)	Anillo O Ring (bolsa de 10)	1
* 10	044.630.400	Ensemble bloc inverseur (voir Doc. 573.087.040)	Reversing-block assembly (refer to Doc. 573.087.040)	Umsteuerblock (siehe Dok. 573.087.040)	Conjunto bloque inversor (consultar Doc. 573.087.040)	1
11	930.151.446	Vis CHc M 8x35	Screw, CHc M 8x35	Schraube M 8 x 35	Tornillo CHc M 8x35	2
12	905.120.905	Raccord coudé M 1/4 BSP - tuyau 4x6	Elbow, M 1/4 BSP - hose 4x6	Winkelanschluss AG 1/4" - Schlauch 4x6	Racor codo, M 1/4 BSP - tubería 4x6	3
13	146.199.902	Ressort (x 10)	Spring (x 10)	Feder (x 10)	Muelle (x 10)	1
14	044.570.131	Chape femelle	Linkage, female	Federhalterung	Unión hembra	1
15	044.570.900	Fourchette de commande	Fork assembly control	Umsteuerstange	Horquilla de mando equipada	1
16	902.202.002	Anneau de retenue Ø 24	Retaining ring Ø 24	Sicherungsring Ø 24	Anillo truarc Ø 24	1
17	046.180.003	Tige de pilotage	Rod, driving	Steuerstange	Eje de pilotaje	1
18	046.144.907	Ecrou	Nut	Mutter	Tuerca	1
* 19	046.280.102	Piston moteur	Piston, air motor	Motorkolben	Pistón de motor	1
20	909.130.378	Joint de piston	Seal, piston	Kolbendichtung	Junta de pistón	1
22	046.280.106	Bague de frottement	Seal ring	Dichtring	Anillo de deslizamiento	1
23	909.420.114	Joint	Seal	Dichtung	Junta	1
* 24	046.280.007	Cylindre moteur	Cylinder, air motor	Luftzylinder	Cilindro de motor	1
25	909.420.293	Joint de cylindre	Seal, cylinder	Zylinderdichtung	Junta de cilindro	2
26	NCS / NSS	Ecrou inférieur	Lower nut	Untere Mutter	Tuerca inferior	1
27	044.570.107	Butée	Stop	Anschlag	Tope	1
28	046.280.010	Support de cloche	Cover support	Glockenhalterung	Soporte de campana	1
29	933.011.337	Vis CHc M 10x25	Screw, CHc M 10x25	Schraube CHc M 10x25	Tornillo CHc M 10x25	2
30	963.040.021	Rondelle MN 10	Washer, MN 10	Scheibe 10	Arandela MN 10	2
31	046.280.012	Cloche	Cover	Glocke	Campana	1
32	046.170.200	Anneau de levage	Ring, cover	Hebering	Anillo de transporte	1
33	953.010.023	Ecrou HM 12	Nut, HM 12	Mutter HM 12	Tuerca HM 12	1
34	963.200.023	Rondelle	Washer	Scheibe	Arandela	1
35	044.710.007	Tirant moteur	Tie-rod, air motor	Stehbolzen	Tirante motor	10
36	963.040.019	Rondelle MN 8	Washer, MN 8	Scheibe MN 8	Arandela MN 8	10
37	953.010.019	Ecrou HM 8	Nut, HM 8	Mutter HM 8	Tuerca HM 8	10
38	933.151.277	Vis CHc M 6x20	Screw, CHc M 6x20	Schraube CHc M 6x20	Tornillo CHc M 6x20	2

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
40	046.280.009	Embase distributeur	Base, distributor	Grundplatte, Pneumatikventil	Base distribuidor	1
41	144.585.354	Joint d'embase (x 10)	Seal, base (pack of 10)	Dichtscheibe (Satz à 10)	Junta de la base (bolsa de 10)	2
42	906.333.105	Bouchon 3/4 BSP	Plug, 3/4 BSP	Blindstopfen 3/4"	Tapón 3/4 BSP	4
43	905.120.905	Raccord coudé M 1/4 BSP - tuyau 4 x 6	Elbow, M 1/4 BSP - hose 4 x 6	Winkelanschluss AG 1/4" - Schlauch 4x6	Racor codo M 1/4 BSP - tubería 4 x 6	2
44	930.151.548	Vis CHc M 6 x 50	Screw, CHc M 6 x 50	Schraube M 6 x 50	Tornillo CHc M 6 x 50	4
45	903.050.511	Distributeur ISO 5/2 - T3	Distributor ISO 5/2 - T3	5/2 Wege Pneumatikventil	Distribuidor, ISO 5/2 - T3	1
49	539.090.115	Tuyau 4x6 (long. 0,5 m)	Hose 4x6 / 5/32" x 1/4" (0.5 m / 20" length)	Schlauch 4 x 6 (Länge: 0,5 m)	Tubería 4x6 (0,5 m de largo)	1
* 50	046.250.015	Silencieux	Silencer	Schalldämpfer	Silenciador	1
52	932.173.145	Vis M 6 x 10	Screw, M 6 x 10	Schraube, M 6 x 10	Tornillo M 6 x 10	1
60	901.180.024	Câble de mise à la terre (Lg. 5m) avec rondelle et vis	Cable ground (5 m / 197" length) with washer and screw	Erdungskagel (5 m) mit scheibe und Schraube	Cable de puesta a tierra (5m de largo) con arandela y tornillo	1

*	<b>146.280.991</b>	<b>Pochette de joints moteur (ind. 6, 8, 13, 20, 22, 23, 25(x2), 41(x2)) + pochette de joints inverseur)</b>	<b>Package of seals, air motor (ind. 6, 8, 13, 20, 22, 23, 25(x2), 41(x2)) + package of seals, reversing-block)</b>	<b>Dichtungssatz für Luftmotor (beinhaltet Pos. 6, 8, 13, 20, 25(x2), 41(x2), und den Dichtungssatz für Um- steuerblock)</b>	<b>Bolsa de juntas motor (ind. 6, 8, 13, 20, 22, 23, 25(x2), 41(x2)) + bolsa de juntas inversor)</b>	<b>1</b>
*	<b>146.280.996</b>	<b>Pochette de maintenance (ind. 5 + pochette de joints moteur + ind. 3, 5, 7, 8, 13 de l'inverseur)</b>	<b>Servicing kit (ind. 5 + package of seals, air motor + ind. 3, 5, 7, 8, 13 of the reversing- block)</b>	<b>Reparatursatz (beinhal- tet Pos. 5 + den Dichtungssatz für Luftmotor + Pos. 3, 5, 7, 8, 13 für Umsteuerblock)</b>	<b>Bolsa de reparación (ind. 5 + bolsa de juntas motor + ind. 3, 5, 7, 8, 13 del inversor)</b>	<b>1</b>

- \* Pièces de maintenance préconisées tenues en stock
- \* Preceding the index number denotes a suggested spare part.
- \* Bezeichnete Teile sind empfohlene Ersatzteile.
- \* Piezas de mantenimiento preventivas a tener en stock.

- N C S : Non commercialisé seul.
- N S S : Denotes parts are not serviceable separately.
- N S S : Bezeichnete Teile gibt es nicht einzeln, sondern nur komplett.
- N S S : no suministrado por separado.

Nota : Pour les références commençant par 5, préciser la longueur à la commande

Nota : When ordering a spare part whose the first digit is 5, specify the required length.

Hinweis : Bei Artikel - Nummern, die mit einer 5 beginnen, muss die länge angegeben werden.

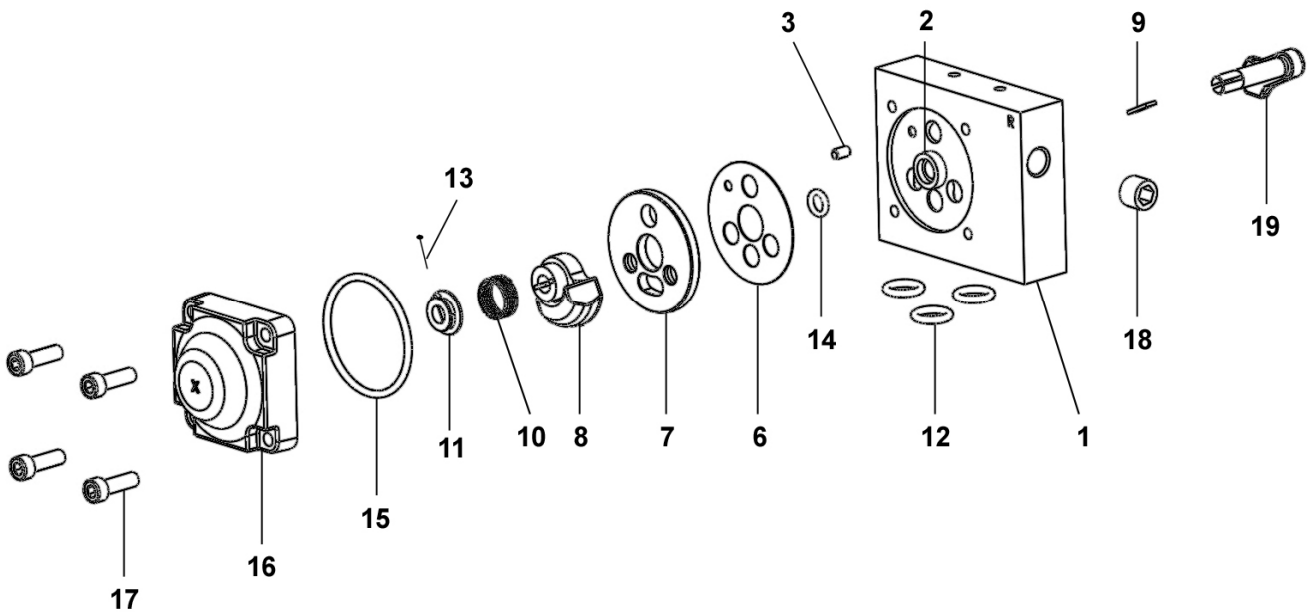
Nota : Cuando encarga Vd. una pieza de repuesto que empieza por un 5, precise Vd. la longitud necesaria.



Ind.	#	OPTION	OPTION	OPTION	OPCIÓN	
50	-	<b>Silencieux haute efficacité</b>	<b>Silencer (high efficiency)</b>	<b>Schalldämpfer (hoche Wirksamkeit)</b>	<b>Silenciador (alta eficacia)</b>	<b>1</b>
-	903.210.403	▪ Silencieux	▪ Silencer	▪ Schalldämpfer	▪ Silenciador	1
-	904.653.008	▪ Raccord MM 1" - 1/4 BSP	▪ Fitting, double male, 1" - 1/4 BSP	▪ Doppelnippel AG 1" - 1/4	▪ Racor MM 1" - 1/4 BSP	1

<b>Doc. 573.087.040</b> Date/Datum/Fecha : 03/06/14 Annule/Cancel/ Ersetzt/Anula : 03/01/14	<b>Modif. / Änderung :</b> Eclaté / Exploded view / Explosions- zeichnung / Vista	<b>Pièces de rechange</b> <b>Spare parts list</b> <b>Ersatzteilliste</b> <b>Piezas de repuesto</b>
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<b>BLOC INVERSEUR</b>	<b>REVERSING-BLOCK</b>	<b>#</b>
<b>UMSTUEURBLOCK</b>	<b>BLOQUE INVERSOR</b>	<b>044.630.400</b>





<b>BLOC INVERSEUR</b>	<b>REVERSING-BLOCK</b>	<b>#</b>  <b>044.630.400</b>
<b>UMSTUEURBLOCK</b>	<b>BLOQUE INVERSOR</b>	

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	144 630 410	Corps équipé	Block assembly, reversing	Umsteuerblock komplett	Cuerpo equipado	1
1	N C / N S	▪ Corps	▪ Body	▪ Körper	▪ Cuerpo	1
2	N C / N S	▪ Bague de guidage	▪ Guide ring	▪ Führungsbuchse	▪ Anillo guía	1
3	N C / N S	▪ Goupille Ø 4 x 8	▪ Pin Ø 4 x 8	▪ Splint Ø4 x 8	▪ Pasador Ø 4 x 8	1
-	N C / N S	▪ Butée (collée sur corps ind.2)	▪ Stop (glued on part ind. 2)	▪ Anschlag (auf Körper geklebt ind.2)	▪ Tope (pegado en cuerpo ind. 2)	2
-	N C / N S	▪ Roulement à bille	▪ Ball bearing	▪ Kugellager	▪ Rodamiento de bolas	1
*6	144 579 912	Joint de glace fixe (x 10)	Gasket seal (x 10)	Flachdichtung (x 10)	Junta de espejo fijo (x 10)	1
*7	046 170 508	Glace fixe	Base, fixed	Ventilplatte	Espejo fijo	1
*8	044 570 324	Glace mobile	Base, mobile	Ventilschieber	Espejo móvil	1
9	044 570 325	Clavette	Pin	Paßfeder (Keil)	Pasador	1
10	921 140 102	Ressort	Spring	Feder	Muelle	1
11	044 571 006	Butée de ressort	Stop, spring	Federführung	Tope de muelle	1
*12	144 579 922	Bague R 10 (x 10)	Ring, R 10 (x 10)	O Ring R 10 (x 10)	Anillo, R 10 (x 10)	3
*13	144 579 911	Goupille fendue (pochette de 10 goupilles + 1 butée ind. 11)	Pin (package of 10 pins + 1 stop ind. 11)	Splint (Satz à 10 Stück + 1 Führung Pos. 11)	Pasador (bolsa de 10 pasadores + 1 tope ind. 11)	1
*14	144 579 910	Bague R 6a (x 10)	Ring, R 6a (x 10)	O Ring, R 6a (x 10)	Anillo, R 6a (x 10)	1
*15	N C / N S	Joint de couvercle	Seal, cover	Deckeldichtung	Junta de tapa	1
16	144 630 415	Couvercle	Cover	Deckel	Tapa	1
17	933 151 277	Vis CHc M 6x20	Screw, CHc M 6x20	Schraube, CHc M 6x20	Tornillo, CHc M 6x20	4
18	906 333 102	Bouchon 1/4 BSP	Plug, 1/4 BSP	Blindstopfen, 1/4 BSP	Tapón, 1/4 BSP	1
19	046 170 510	Levier	Lever, control	Umsteuerhebel	Leva	1

*	<b>146 270 950</b>	<b>Pochette de joints (ind. 6, 12(x3), 14, 15)</b>	<b>Package of seals (ind. 6, 12(x3), 14, 15)</b>	<b>Dichtungssatz (bestehend aus Pos. 6, 12(x3), 14, 15)</b>	<b>Bolsa de juntas (ind. 6, 12(x3), 14, 15)</b>	<b>1</b>
*	<b>144 630 425</b>	<b>Pochette de maintenance glaces (ind. 7, 8)</b>	<b>Servicing kit - bases (ind. 7, 8)</b>	<b>Servicekit - Ventil (Pos. 7, 8)</b>	<b>Bolsa de mantenimiento - espejos (ind. 7, 8)</b>	<b>1</b>

\* Pièces de maintenance préconisées.

\* Preceding the index number denotes a suggested spare part.

\* Bezeichnete Teile sind empfohlene Ersatzteile.

\* Piezas de mantenimiento preventivas.

N C : Non commercialisé.

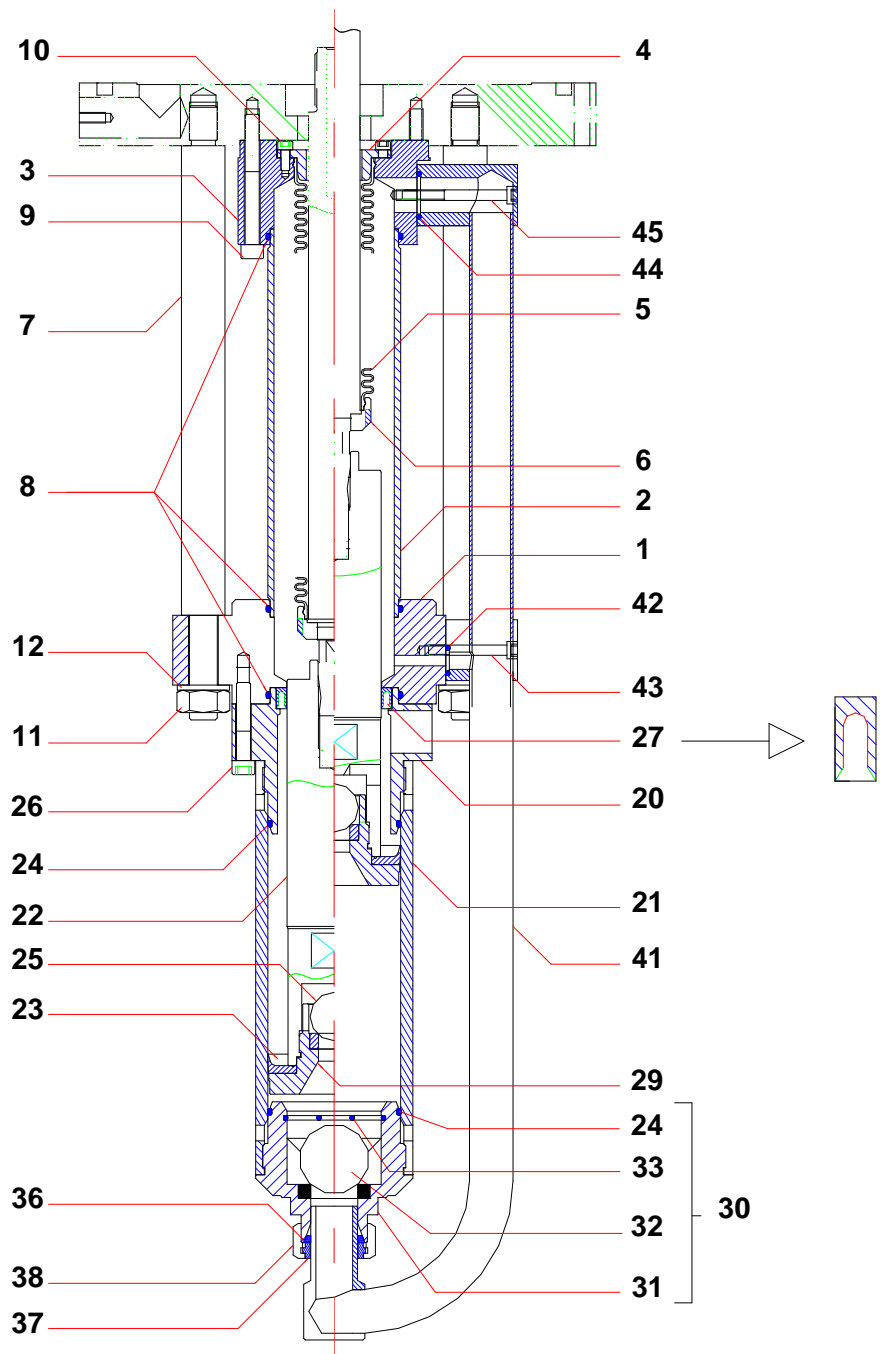
N S : Denotes parts are not serviceable.

N S : Bezeichnete Teile gibt es nicht einzeln, sondern nur komplett .

N S : no suministrado.

<p><b>Doc. 573.175.050</b>  Date/Datum/Fecha : 16/02/12  Annule/Cancela/  Ersetzt/Anula : 14/02/07</p>	<p><b>Modif. /Änderung :</b>  Mise à jour / Update / Aktualisierung  / Actualización</p>	<p><b>Pièces de rechange</b>  <b>Spare parts list</b>  <b>Ersatzteilliste</b>  <b>Piezas de repuesto</b></p>
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<p><b>220 F</b></p>	<p><b>HYDRAULIQUE FLOWMAX® / FLOWMAX® FLUID SECTION</b>  <b>FLOWMAX® HYDRAULIKTEIL / HIDRÁULICA FLOWMAX®</b></p>
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<b>FLOWMAX® 220 F</b>	<b>HYDRAULIQUE pour montage avec le moteur 5000-4 FLUID SECTION, for mounting on the 5000-4 air motor HYDRAULIKTEIL für Montage mit Motor 5000-4 HIDRÁULICA para montaje con el motor 5000-4</b>	<b># 144.990.200</b>
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Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	044.990.011	Bride d'aspiration	Suction flange	Unterer Flansch	Brida de aspiración	1
2	044.990.012	Cylindre	Cylinder	Ansaugzylinder	Cilindro	1
3	044.990.013	Palier d'aspiration	Suction bearing	Oberer Flansch	Palier de aspiración	1
4	044.970.046	Bride soufflet	Flange, bellows	Faltenbalg-Flansch	Brida fuelle	1
* 5	044.970.055	Soufflet	Bellows	Faltenbalg	Fuelle	1
6	044.990.211	Jupe	Skirt	Klemmstück	Faldón	1
7	044.990.016	Tirant d'acouplement	Coupling rod	Kupplungsstange	Tirante de acoplamiento	3
8	050.040.325	Joint (PTFE)	Seal, PTFE	Dichtung PTFE	Junta PTFE	3
9	933.151.671	Vis CHc M 8 x 75	Screw, CHc M 8 x 75	Schraube M 8x75	Tornillo CHc M 8 x 75	3
10	931.151.168	Vis CHc M 5 x 12	Screw, CHc M 5 x 12	Schraube M 5x12	Tornillo CHc M 5 x 12	4
11	953.010.025	Ecrou HM 16	Nut, HM 16	Mutter M 16	Tuerca HM 16	3
12	963.020.025	Rondelle 16	Washer, Z 16	Scheibe 16	Arandela Z 16	3
20	044.990.021	Bride de refoulement	Discharge flange	Druckflansch	Brida de expulsión	1
* 21	044.990.022	Cylindre	Cylinder	Materialzylinder	Cilindro	1
* 22	044.990.221	Piston	Piston	Kolben	Pistón	1
23	044.990.024	Joint coupelle (PEHD)	Cup seal (UHMW)	Kolbenmanschette (PEHD)	Junta copa (PEHD)	1
24	050.040.326	Joint (PTFE)	Seal (PTFE)	Dichtung (PTFE)	Junta (PTFE)	1
25	907.414.269	Bille Ø 27, inox 440C	Ball Ø 27, stainless steel 440C	Kugel Ø 27, Edelstahl 440C	Bola Ø 27, inox 440C	1
26	932.151.551	Vis CHc M 8 x 50	Screw, CHc M 8 x 50	Schraube M 8 x 50	Tornillo CHc M 8 x 50	8
27	909.150.223	Joint GT	GT seal	Dichtung GT	Junta GT	1
29	044.990.025	Clapet de refoulement	Exhaust valve	Druckventil	Válvula de expulsión	1
<b>30</b>	<b>144.990.030</b>	<b>Clapet d'aspiration assemblé</b>	<b>Suction valve assembly</b>	<b>Ansaugventil komplett</b>	<b>Válvula de aspiración montada</b>	<b>1</b>
31	044.990.031	■ Corps de clapet avec siège carbure	■ Suction valve body with carbide seat	■ Ansaugventilkörper mit Karbide-Sitz	■ Cuerpo de válvula con asiento de carburo	1
32	907.414.297	■ Bille Ø 40, inox 440C	■ Ball Ø 40, stainless steel 440C	■ Kugel Ø 40, Edelstahl 440C	■ Bola Ø 40, inox 440C	1
33	044.990.032	■ Jonc	■ Stop ring	■ Sicherungsring	■ Anillo de retención bola	1
24	050.040.326	■ Joint (PTFE)	■ Seal (PTFE)	■ O-Ring	■ Junta (PTFE)	1
36	144.970.106	Joint (les 10)	Seal (pack of 10)	O-Ring (10 St.)	Junta (bolsa de 10)	1
37	044.970.107	Bague de serrage	Tightening ring	Klemmring	Anillo de apriete	1
38	049.595.306	Ecrou raccord M 38 x 150	Nut, fitting M 38 x 150	Überwurfmutter M 38x1,5	Tuerca racor M 38 x 150	1
41	044.990.051	Tube de liaison	Fluid tube, attachment	Verbindungsrohr	Tubo de unión	1
42	129.489.902	Joint PTFE (les 10)	Seal, PTFE (x10)	Dichtung PTFE (x10)	Junta PTFE (x10)	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
43	933.151.523	Vis CHc M 6 x 45	Screw, CHc M 6x45	Schraube M 6x45	Tornillo CHc M 6x45	2
44	150.040.321	Joint PTFE (les 10)	Seal, PTFE (pack of 10)	Dichtung PTFE (10 St.)	Junta PTFE (bolsa de 10)	1
45	930.151.598	Vis CHc M 6 x 60	Screw, CHc M 6x60	Schraube M 6x60	Tornillo CHc M 6x60	2

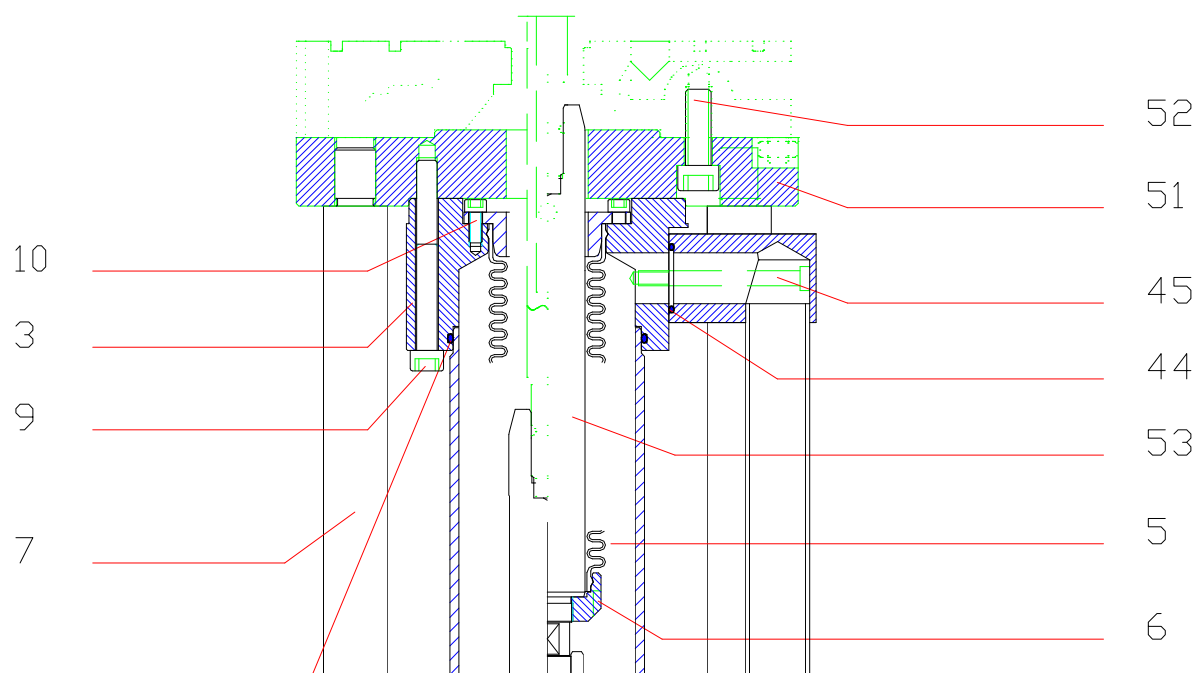
*	<b>144.990.090</b>	<b>Pochette de joints (ind. 8, 23, 24, 25, 27, 32, 33, 36, 42, 44)</b>	<b>Package of seals (ind. 8, 23, 24, 25, 27, 32, 33, 36, 42, 44)</b>	<b>Dichtungssatz (Pos. 8, 23, 24, 25, 27, 32, 33, 36, 42, 44)</b>	<b>Bolsa de juntas (ind. 8, 23, 24, 25, 27, 32, 33, 36, 42, 44)</b>	<b>1</b>
*	<b>144.990.095</b>	<b>Pochette de maintenance (ind. 29, 30 + pochette de joints)</b>	<b>Servicing kit (ind. 29, 30 + package of seals)</b>	<b>Reparatursatz (beinhaltet Pos. 29, 30 + den Dichtungssatz)</b>	<b>Bolsa de mantenimiento (ind. 29, 30 + bolsa de juntas)</b>	<b>1</b>

- \* Pièces de maintenance préconisées tenues en stock
- \* Preceding the index number denotes a suggested spare part.
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- \* Piezas de mantenimiento preventivas a tener en stock.

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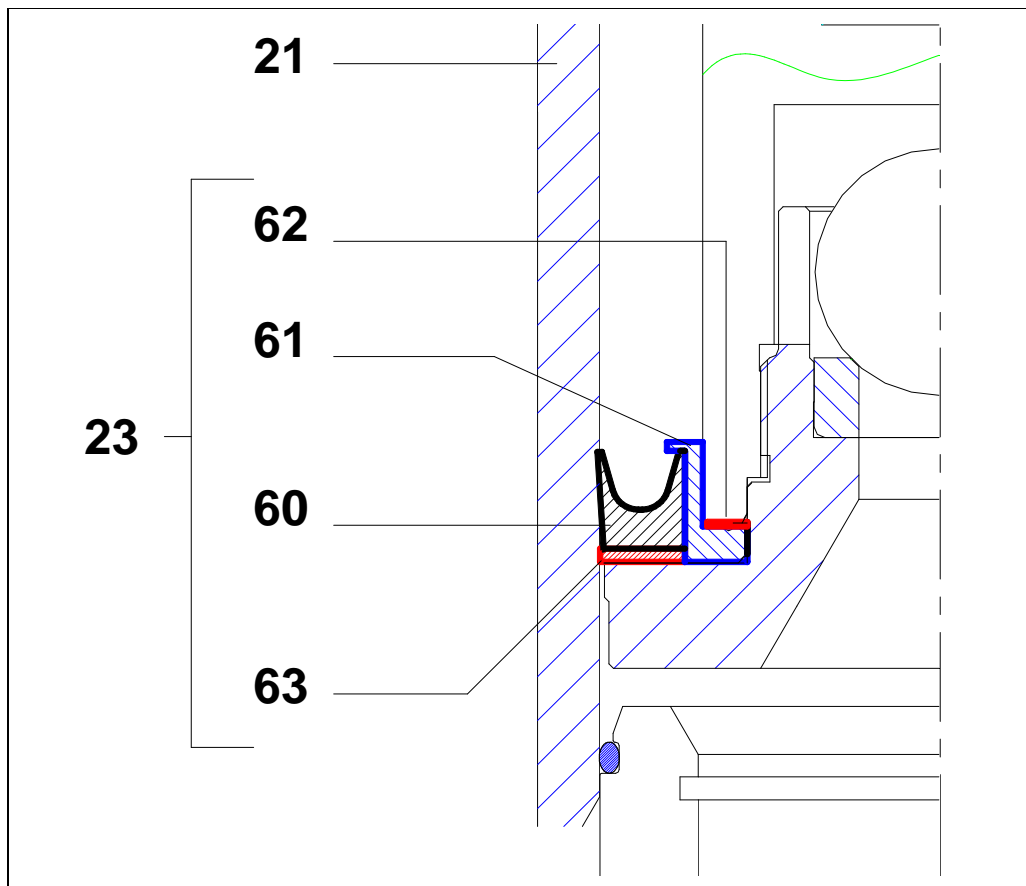
<b>FLOWMAX® 220 F</b>	<b>HYDRAULIQUE pour montage avec le moteur 1000-4 ou 2000-4T FLUID SECTION, for mounting on the 1000-4 or 2000-4T air motors HYDRAULIKTEIL für Montage mit 1000-4- oder 2000-4T - Luftmotor HIDRÁULICA para montaje con el motor 1000-4 o 2000-4T</b>	<b># 144.990.250</b>
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Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
<b>Pièces spécifiques / Specific components / Spezielle Teile / Piezas específicas</b>						
51	044.990.111	Bride d'accouplement	Coupling flange	Steuerflansch	Brida de acoplamiento	1
52	932.151.392	Vis CHc M 10 x 30	Screw, CHc M 10 x 30	Schraube CHc M 10 x 30	Tornillo CHc M 10 x 30	4
53	044.990.261	Piston intermédiaire	Intermediate piston	Zwischenkolben	Pistón intermediário	1



**POUR PRODUIT HYDRO / FOR HYDRO MATERIAL / FÜR HYDROMATERIALEN  
/ PARA PRODUCTO HIDRO**

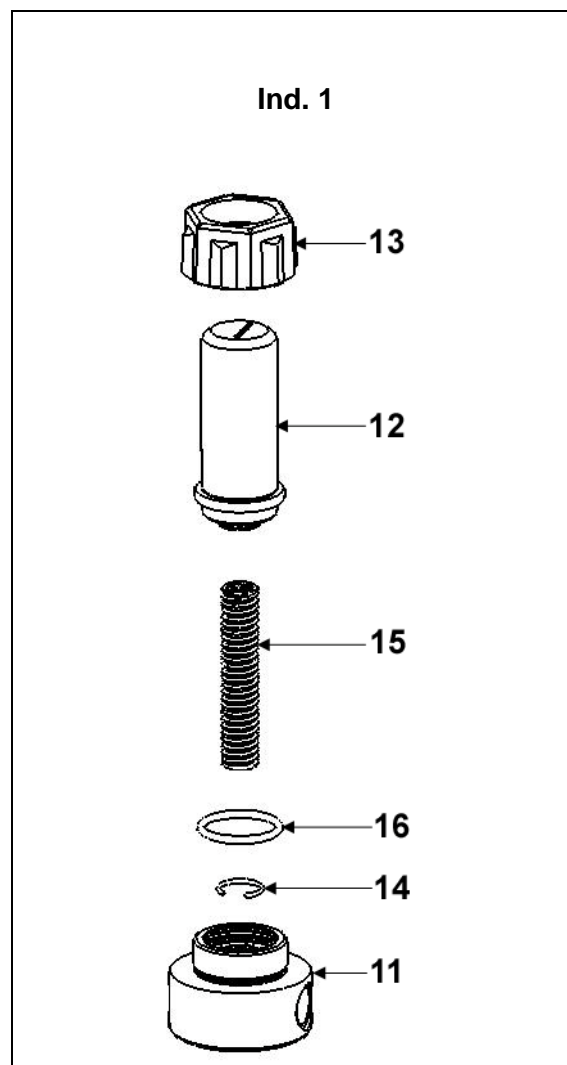
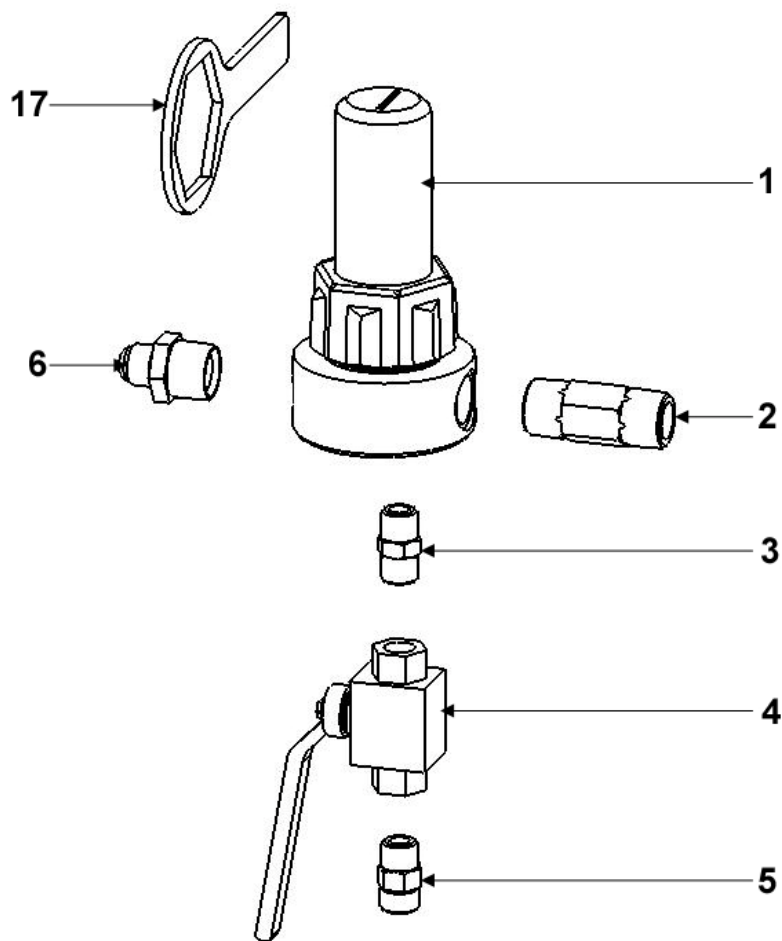
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
* -	144.990.120	Ensemble d'adaptation pour joints PU	Adaptation assembly for Polyurethane seals	Anpassungseinheit für PU-Dichtungen	Conjunto de adaptación para juntas de poliuretano	1
27	NCS / NSS	▪ Joint PU	▪ Polyurethane seal	▪ PU-Dichtung	▪ Junta Poliuretano	1
60	NCS / NSS	▪ Joint de piston (PU)	▪ Seal, piston (Polyurethane)	▪ Kolbendichtung (PU)	▪ Junta de pistón (Poliuretano)	1
61	NCS / NSS	▪ Porte-joint	▪ Seal holder	▪ Dichtungshalterung	▪ Porta junta	1
62	NCS/ NSS	▪ Joint (PTFE)	▪ Seal (PTFE)	▪ Dichtung (PTFE)	▪ Junta (PTFE)	1
63	NCS / NSS	▪ Bague anti-extrusion	▪ Anti-extrusion ring	▪ Anti-Extrusion Ring	▪ Anillo anti-extrusión	1



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	144.990.130	Pochette de joints PU (ind. 8x3, 24x2, 25, 27, 32, 33, 36, 42, 44, 60, 62, 63)	Package of seals (Polyurethane) (ind. 8x3, 24x2, 25, 27, 32, 33, 36, 42, 44, 60, 62, 63)	PU-Dichtungssatz (Pos. 8x3, 24x2, 25, 27, 32, 33, 36, 42, 44, 60, 62, 63)	Bolsa de juntas (Poliuretano) (ind. 8x3, 24x2, 25, 27, 32, 33, 36, 42, 44, 60, 62, 63)	1

<b>Doc. 573.327.050</b> Date/Datum/Fecha : 10/10/11 Annule/Cancel/ Ersetzt/Anula : 08/12/09	<b>Modif. /Änderung</b> : Mise à jour / Update / Aktualisierung / Actualización	<b>Pièces de rechange</b> <b>Spare parts list</b> <b>Ersatzteilliste</b> <b>Piezas de repuesto</b>
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<b>FILTRE PRODUIT HP, modèle 3/4 inox</b>	<b>HP FLUID FILTER, model 3/4 stainless steel</b>
<b>HP MATERIALFILTER, Modell 3/4 Edelstahl</b>	<b>FILTRO PRODUCTO HP, tipo 3/4 inox</b>



<b>FILTRE EQUIPÉ pour pompes AIRLESS®</b>	<b>EQUIPPED FILTER for AIRLESS pumps</b>	<b>#</b>  <b>155.581.400</b>
<b>AUSGERÜSTETER FILTER für AIRLESS®-Pumpen</b>	<b>FILTRO EQUIPADO para bombas AIRLESS®</b>	

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
* 1	155.581.450	Filtre nu inox (voir détail)	Bare filter, stainless steel (See detail)	Nackter Filter – Edelstahl (Siehe Detail)	Filtro solo, inox (ver detalle)	1
2	055.581.401	Mamelon inox 3/4 NPS	Nippel 3/4 NPS, stainless steel	Rohnippel ¾ NPS, Edelstahl	Pivote de centrado inox 3/4 NPS	1
3	905.240.002	Raccord inox MM 3/8 NPT	Fitting, double male, 3/8 NPT	Doppelnippel AG 3/8 NPT	Racor inox, MM 3/8 NPT	1
* 4	903.090.220	Vanne HP FF 3/8 BSP	HP valve FF 3/8 BSP	Kugelhahn, IG 3/8 BSP	Válvula, HH 3/8 BSP	1
5	050.102.436	Raccord inox M 18 x 125 - M 3/8 BSP	Adaptor, stainless steel, double male 18x125 - 3/8BSP	Doppelnippel - Edelstahl AG 3/8 BSP - M 18x1,25	Racor inox, M 18 x 125 - M 3/8 BSP	1
6	905.210.515	Raccord inox M 3/4 NPT - M 3/4 JIC	Adaptor, stainless steel, double male, 3/4 NPT - # 8 JIC (3/4 JIC)	Doppelnippel Edelstahl 3/4 NPT – 3/4 JIC	Racor, inox M 3/4 NPT - M 3/4 JIC	1
* 7	000.161.112	Tamis n° 12 (280 µ)	Screen n° 12 (280 µ - 55 Mesh)	Filterelement Sieb Nr. 12 (280 µ)	Tamiz n° 12 (280 µ)	1

<b>FILTRE NU (sans tamis)</b>	<b>BARE FILTER (without screen)</b>	<b>#</b>  <b>155.581.450</b>
<b>NACKTER FILTER (ohne Sieb)</b>	<b>FILTRO SOLO (sin tamiz)</b>	

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
11	055.581.451	Embase 3/4	Base, model 3/4	Grundblock, Modell 3/4	Base, tipo 3/4	1
12	055.580.202	Cuve	Bowl	Filterglocke	Cubeta	1
13	055.280.002	Ecrou	Nut	Überwurfmutter	Tuerca	1
14	055.190.007	Jonc	Stop ring	Sicherungsring	Clips	1
15	055.190.005	Ressort	Spring	Feder	Muelle	1
* 16	150.040.327	Joint (les 5)	Seal (pack of 5)	Dichtung (5 St.)	Junta (bolsa de 5)	1
17	049.030.018	Clé de démontage	Wrench	Schlüssel	Llave de desmontaje	1

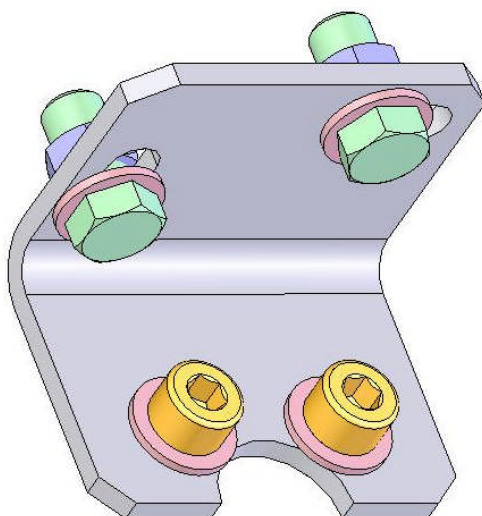
- \* Pièces de maintenance préconisées tenues en stock
- \* Preceding the index number denotes a suggested spare part.
- \* Bezeichnete Teile sind empfohlene Ersatzteile.
- \* Piezas de mantenimiento preventivas a tener en stock.

Ind. 7



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	000.161.101	Tamis n° 1 (37 µ)	Screen n° 1 (37 µ)	Sieb Nr. 1 (37 µ)	Tamiz n° 1 (37µ)	1
-	000.161.102	Tamis n° 2 (77 µ)	Screen n° 2 (77 µ)	Sieb Nr. 2 (77 µ)	Tamiz n° 2 (77 µ)	1
-	000.161.104	Tamis n° 4 (99 µ)	Screen n° 4 (99 µ)	Sieb Nr. 4 (99 µ)	Tamiz n° 4 (99 µ)	1
-	000.161.106	Tamis n° 6 (168 µ)	Screen n° 6 (168 µ)	Sieb Nr. 6 (168 µ)	Tamiz n° 6 (168 µ)	1
-	000.161.108	Tamis n° 8 (210 µ)	Screen n° 8 (210 µ)	Sieb Nr. 8 (210 µ)	Tamiz n° 8 (210 µ)	1
<b>7</b>	<b>000.161.112</b>	<b>Tamis n° 12 (280 µ)</b>	<b>Screen n° 12 (280 µ)</b>	<b>Sieb Nr. 12 (280 µ)</b>	<b>Tamiz n° 12 (280 µ)</b>	<b>1</b>
-	000.161.115	Tamis n° 15 (360 µ)	Screen n° 15 (360 µ)	Sieb Nr. 15 (360 µ)	Tamiz n° 15 (360 µ)	1
-	000.161.020	Tamis n° 20 (510 µ)	Screen n° 20 (510 µ)	Sieb Nr. 20 (510 µ)	Tamiz n° 20 (510 µ)	1
-	000.161.030	Tamis n° 30 (750 µ)	Screen n° 30 (750 µ)	Sieb Nr. 30 (750 µ)	Tamiz n° 30 (750 µ)	1

OPTIONS - ON REQUEST - OPTIONEN - OPCIONES



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155.190.105	Support filtre avec vis, rondelles et écrous	Mounting bracket with screws, washers and nuts	Filterhalterung mit Schrauben, Scheiben und Muttern	Soporte filtro con tornillos, arandelas y tuercas	1





**AIRMIX ® PUMP and  
LOW-PRESSURE PUMP  
air motor with reversing block  
*PREVENTIVE MAINTENANCE***

**TRANSLATION OF THE ORIGINAL MANUAL**

**IMPORTANT : Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).**

*THE PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.*

**KREMLIN - REXSON**

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## ■ PUMP

Make sure that the pump is clean and in good condition to increase equipment working life.

If the pump is an intensive™ one :

- Regularly clean the wetting-cup with "T" lubricant (this "T" lubricant will normally be coloured by the paint).
- Regularly clean the wetting-cup with solvent after having drained the lubricant (unscrew the plug on the upper flange).

**Guards (air motor cover, coupling shields, housings,...) have been designed for safe use of the equipment.  
The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards.**

Make sure that the suction strainer is clean and in good condition. Regularly clean it and change it if necessary.

Flush the pump as often as necessary, specially when spraying pigment-filled material.

**Whatever the case, when stopping the pump, always leave it filled with material.  
For a short duration shutdown, if the flushing has not been carried out, leave the pump filled with material.  
For a short duration shutdown, after flushing the pump, leave it filled with solvent.**

## ■ SPRAY GUN

Comply with the usual instructions of spray gun servicing (refer to spray gun instruction manual).

## ■ FILTER

If the pump is mounted with a filter at the fluid outlet, comply with the usual instructions of filter servicing (refer to filter instruction manual)



# **AIRMIX ® PUMP and LOW-PRESSURE PUMP air motor with reversing block *TROUBLESHOOTING***

## **TRANSLATION OF THE ORIGINAL MANUAL**

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CAUSE	SOLUTION
The pump does not start.	Check the pump air supply.
Priming trouble : → Air is always coming out from the spray gun. → Air (or material) does not come out from the spray gun.	Be sure that the spray gun is fully opened and air evacuated through this one. Air intake at the fitting or at the suction rod. Check the pump valves. If a valve is stucked by dry paint, it can be unsticked without disassembling it. Blow air pressure directly by suction fitting.
The pump does not stop at once when shutting off the spray gun : → The pump stops only on down stroke. → The pump stops only on up stroke.	Check exhaust valve or valve seal. Check suction valve or upper cartridge.
The pump does not reverse.	Check spring of the air motor reversing block. Lubricate reversing-block with HP 150 oil. Check is there is pilot air (depending on air motor model).
On intensive™ pump, the lubricant into the cup is fastly coloured.	Check the upper packing (tighten the cup or change seals if it is necessary).
On FLOWMAX ® pump, leakage of fluid at the bottom of the air motor.	Check bellow.
Spraying trouble.	Refer to spray gun instruction manual.
Decrease of material flow.	Refer to filter instruction manual.



**AIRMIX ® PUMP and  
LOW-PRESSURE PUMP  
air motor with reversing block  
*OPERATING PRINCIPLE AND START-UP***

**TRANSLATION OF THE ORIGINAL MANUAL**

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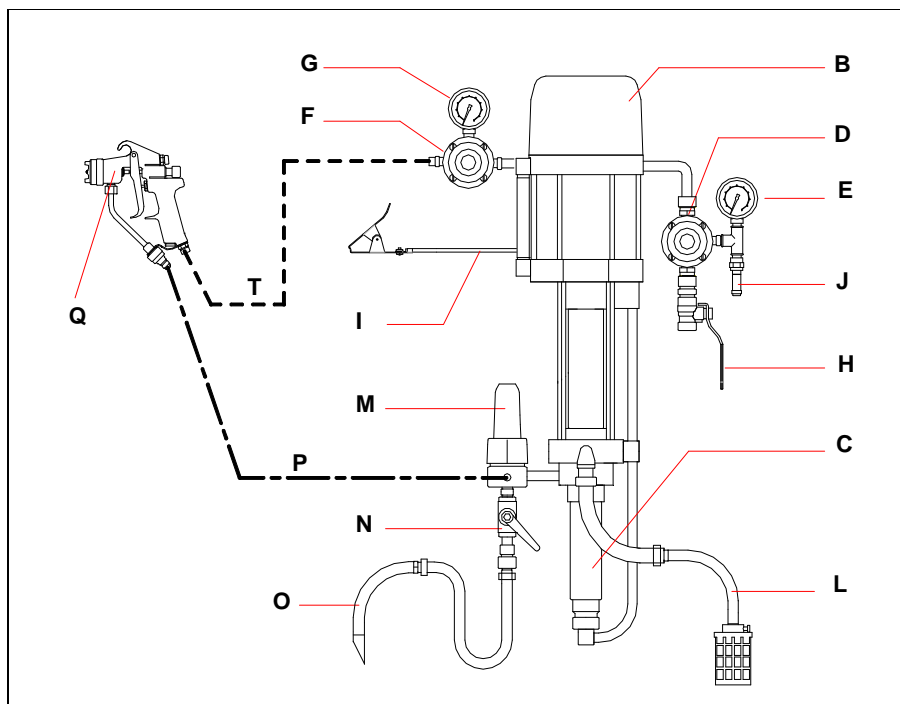
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## FLOWMAX ® PUMP



### Captions :

A	Intensive™ or FLOWMAX ® pump (B + C)	L	Suction rod (depending on version)
B	Air motor	M	Accumulator filter (depending on version)
C	Fluid section	N	Drain valve (depending on version)
D	Air regulator "MOTOR AIR"	O	Drain rod (depending on version)
E	Gauge	P	HP Fluid hose
F	Air regulator "GUN AIR" (depending on version)	Q	Spray gun
G	Gauge (depending on version)	R	"T" lubricant (1/4 l / 0.07 US gal) (only for intensive™ pump)
H	Air inlet valve	S	Wetting-cup (only for intensive™ pump)
I	Ground	T	Air hose (static conductor)
J	Discharge valve		

(For specific installation, please contact your KREMLIN REXSON representative).

**Nota** : If the pump is equipped with an accumulator filter (M), the filter is supplied with a stainless steel screen n° 6 (filtration size : 168 microns or 85 mesh). The screen is recommended for the use of an AIRMIX gun fitted with a nozzle model n° 6. If the fluid spraying is carried out by means of an other nozzle, choose an other screen (refer to the filter instruction manual). Adjust the screen to the application.

Start up procedure :

- 1 - Ground the pump.
- 2 - **If the pump is a intensive™ one, fill up the wetting-cup (S) with "T" lubricant (R) or with an appropriate solvent.**
- 3 - Unscrew the air regulators (D and F).
- 4 - Interconnect the air equipment with the air pressure network (clean air - Pressure < 6 bar / 87 psi). Install a water drop, model 3/4" (or model 3/8" if the pump is equipped with an air motor, model 500/4), if it is necessary.
- 5 - Connect all the hoses, air hose and fluid hose (P), as well as the spray gun (Q).  
**Nota** : Comply with the diameters of hoses recommended in the specifications of the pump.
- 6 - Remove the nozzle from the spray gun.

■ **FLUSHING WITH SOLVENT**

- 7 - Immerse suction rod (L) and the drain rod (O) into the material container.
- 8 - Open the air shut off valve (N).
- 9 - Open the valve (H) of the pump air equipment to supply the air motor.

**Nota** : If the pump air motor is a 5000 version, it needs pilot air to operate. The pump air equipment supplies pilot air to the air motor. The air supply pressure is adjusted previously in the factory to 4 bars / 58 psi maximum.

- 10 - Increase **progressively** the air regulator (D) so that the pump runs slowly (Pressure between 0,5 to 1 bar / 7.25 to 14.503 psi).
- 11 - Observe the drain (O); air bubbles come out from it. When bubbles no longer come out from it, shut off the drain valve (N).

■ **PRIMING WITH MATERIAL**

- 12 - Remove the suction rod (L) and the drain rod (O) from the material container and immerse them in a solvent filled container.
- 13 - Open the drain valve (N), wait until the material flows out regularly, then shut off the drain valve (N).
- 14 - Point the spray gun towards the material container and trigger the spray gun until the material flows out regularly.

■ **WORK**

- 15 - Reinstall the ring and the aircap on the spray gun.
- 16 - Adjust air regulator (D) to obtain the appropriate material pressure and flow rate.
- 17 - **Gradually** open the air regulator (F) to adjust the spraying air to obtain the required spray pattern.

**Nota** : Some of these pumps are not equipped in the intensiv™ version with the air regulator (F).

A spraying air kit can be mounted on the pump air equipment in order to supply compressed air to the spray gun if it is necessary.

**2-2 PUMP SUPPLIED IN FILLING (CIRCULATING)**

Interconnect the pump fluid inlet with the circulating supply hose and start up the pump as it is specified previously.

**If the pump is a FLOWMAX® one :**

**WARNING:**

- **Fluid section filling pressure** : 2 bar / 29 psi maximum
- **WARNING : Do not create overpressure**
- **NEVER use** the pump when **an isolating gate on the supply circuit** (upstream from the FLOWMAX® fluid section) is shut : **it would damage the bellows.**
- **Do not install** a material regulator on the supply circuit or any arrangement that could perform as a non-return valve.



### 3. SHUTDOWN AT THE END OF THE WORK

#### ▪ SHORT DURATION SHUTDOWN

- 1 - Decrease the material pressure of air regulator (D) until reading **0 bar / 0 psi** on the gauge (E).
- 2 - Trigger the spray gun to depressurize the system.
- 3 - Unscrew the spray gun air regulator (F) or disconnect the spray gun air inlet.
- 4 - Remove the aircap from the spray gun, (aircap and nozzle for Airmix ® spray gun) and soak it into solvent.

#### ▪ LONG DURATION SHUTDOWN

- 1 - Decrease the air regulator (D) until reading **1 bar / 14.503 psi** on gauge (E).
- 2 - Unscrew the spray gun air regulator (F) or disconnect the spray gun air inlet.
- 3 - Remove the spray gun aircap, (aircap and nozzle for AIRMIX ® spray gun) and soak it into solvent.
- 4 - Open the drain valve. The pump must operate slowly. If the speed is too high, decrease the air regulator (D) pressure.
- 5 - Remove the suction rod and the drain rod from the material container and immerse them in a solvent-filled container. Take all the appropriate precautions in the presence of flammable solvents.
- 6 - When the solvent flows out regularly, close the drain valve.
- 7 - Point the spray gun towards the material container and press the gun trigger. When the solvent flows out, point the spray gun towards the recovery container.
- 8 - When the solvent flows out, release the spray gun trigger.  
**Nota : If the pump is a intensive™ one, release the spray gun trigger when the pump is in a low position. To prevent from damaging the seals when starting the pump, the piston must be immersed into solvent.**
- 9 - Fully unscrew the air regulator (D) and shut off the main compressed air valve (valve H).
- 10 - Press the spray gun trigger to decompress the hoses. Therefore, the pump and the hose remain filled with solvent at the atmospheric pressure

### 4. SAFETY DEVICE

**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**

**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards**

A relief-valve (setting : 6,5 bar / 94 psi) is fitted on the pump air motor - thus protecting this one from an overpressure which could damage it.



# **FLOWMAX® PUMP**

## **20 220 F**

### **TECHNICAL FEATURES**

#### **TRANSLATION OF THE ORIGINAL MANUAL**

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## 1. DESCRIPTION

- Air operated piston pump with a bellows seal fluid packing for high output
- Low maintenance and ease of use. Use without lubrication

### Designed for :

- Supplying one or several spray guns
- Water-based or solvent-based paints
- Circulating

## 2. TECHNICAL FEATURES

Motor type ..... 5000-4  
 Body pump type..... 220 F  
 Theoretical pressure ratio ..... 20/1

### Wetted parts :

Hard chrome stainless steel  
 Stainless steel, carbide

### Tightness packings :

Bellows : polyethylene  
 Upper fixed : GT seal (polyethylene)  
 Lower, mobile : polyethylene

Air motor stroke	100 mm	4"
Air motor section	490 cm <sup>2</sup>	76 sq.in
Fluid section	22 cm <sup>2</sup>	3.41 sq.in
Delivery per cycle	440 cm <sup>3</sup>	15,5 oz
Number of cycle	2,3 per liter	8.6 per gallon
Flow (20 cycles)	8,8 l	2.33 US gal
Maximum air operating pressure	6 bar	88 psi
Maximum discharge pressure	120 bar	1740 psi
Weighted sound pressure (LAeq)	85 dBa	85 dBa
Maximum operating temperature	60° C	140° F

**Weight :** Wall mounted pump ..... 66 kg/ 145.5 lb

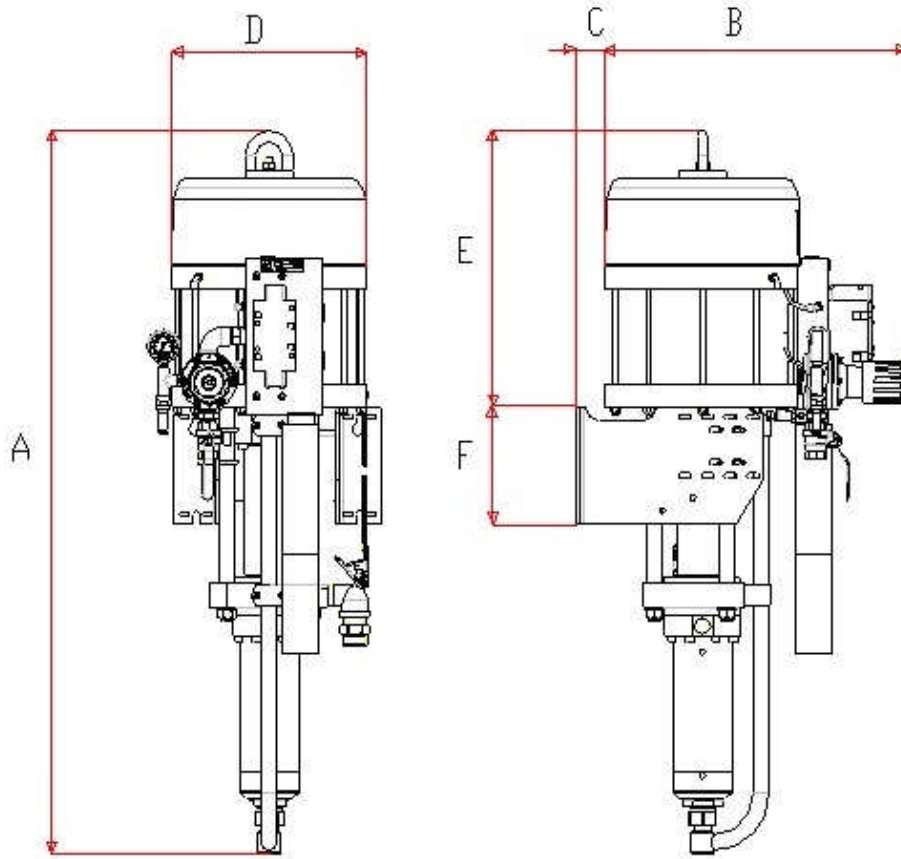
### ▪ FITTINGS

		Bare pump	Pump assembly
Air	Inlet	F 3/4 BSP (vanne)	F 3/4 BSP (valve)
Fluid	Inlet	F 1" BSP	Fitting MM 1" - 38x150 + Suction rod (fitting F 38x150)
	Outlet	F 3/4 NPS	-

### ▪ HOSES WITH FITTINGS

Pump air supply hose (minimum  $\varnothing$  for a 5m / 16.5 ft length) :  $\varnothing$  20 mm / 3/4 " dia.  
 HP fluid hose (pump fluid outlet) : minimum ID 9,52 mm / 3/8 " dia.

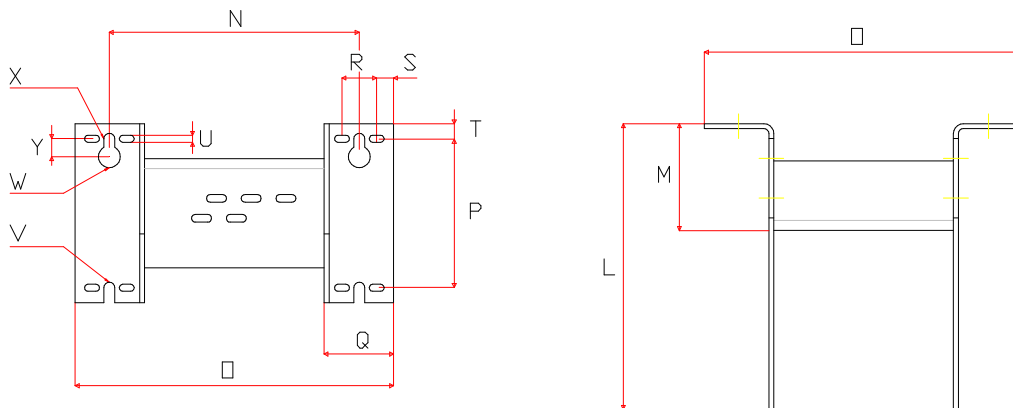
▪ DIMENSIONS



**WALL MOUNTED BRACKET OF THE PUMP**

**FRONT VIEW**

**ABOVE VIEW**



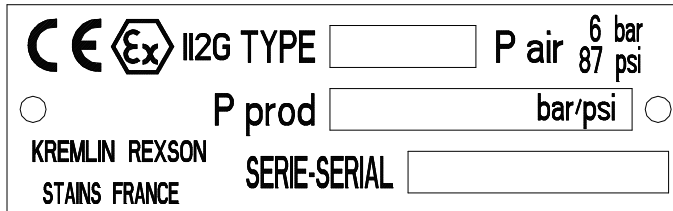
Ind.	mm	"	Ind.	mm	"	Ind.	mm	"
A	1120	44.09	B	510	20.07	C	44	
D	Ø 300	Ø 11.81	E	414	16.30	F	180	7.08
L	288	11.34	M	107.5	4.23	N	251	9.88
O	321	12.64	P	150	5.90	Q	70	2.75
R	35	1.38	S	17	0.67	T	15	0.59
U	7 x 15	0.27 x 0.59	V	Ø 11	Ø 0.43 - 7/16	W	Ø 22	Ø 0.87 - 7/8
X	Ø 11	Ø 0.43 - 7/16	Y	18	0.71			

### 3. INSTALLATION

The pumps are designed to be installed in a spray booth.

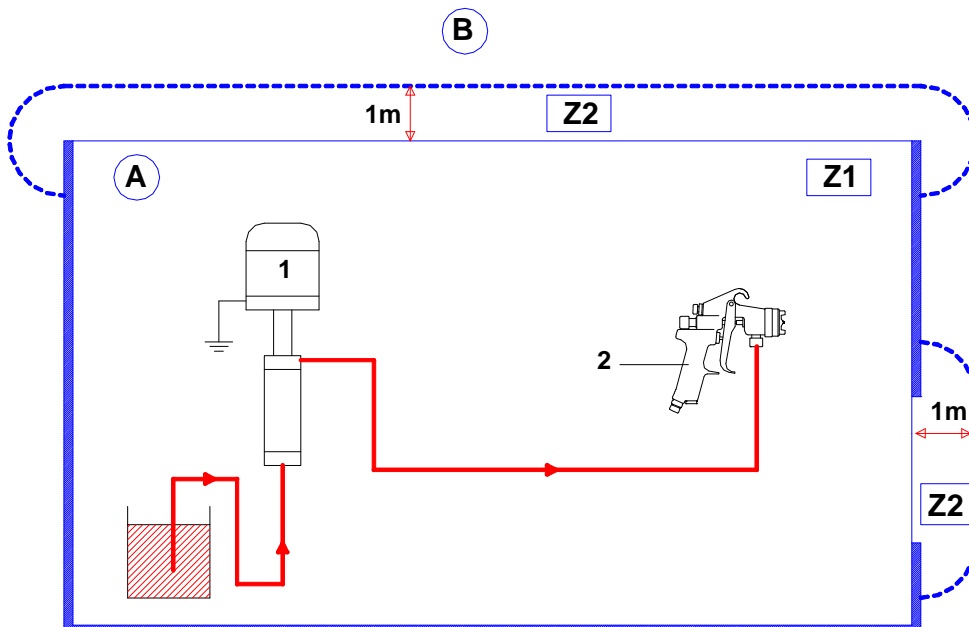
#### DESCRIPTION OF THE LABEL MARKING

Marking in accordance with the ATEX Directive



<b>KREMLIN REXSON STAINS FRANCE</b>	Name and address of the manufacturer
<b>TYPE xx</b>	Pump model
<b>Ex II 2 G</b>	II : group II 2 : class 2 Surface equipment meant to area where explosive atmospheres due to gas, vapours, mists are liable to appear from time to time in usual operating G : gas
<b>P prod : xx bar / xx psi</b>	Maximum fluid pressure at the pump outlet
<b>P air : 6 bar / 87 psi</b>	Air supply maximum pressure of the pump motor
<b>Serie / Serial</b>	Number given by KREMLIN REXSON. The two first numbers indicate the manufacturing year.

#### INSTALLATION INSTRUCTIONS



Ind.	Description
A	Explosive area area 1 (Z1) or area 2 (Z2) : spray booth
B	Non explosive area

Ind.	Description
1	Pump
2	Spray gun



The 1 m / 39.37" distance indicated in these diagrams is given for information purposes only and hold harmless to KREMLIN REXSON. The user is responsible for the extraction and conditioning of the painting area where the equipment is used, for working conditions conditions (refer to EN 60079-10 standard). The 1 m / 39.37" distance may be modified if trials carried out by the user deem this necessary.



*NB: Choose the appropriate pump to ensure that the working pressure supplied is suitable for the selected gun.*