

**DOCUMENTATION**

**PUMP 34F60**

**Manual : 582.018.110-UK - 2204**

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*Modif.: Update*


**TRANSLATION FROM 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.

**SAMES KREMLIN SAS**

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



<p align="center"><b>FR</b></p> <p><b>Pour une utilisation sûre, il est de votre responsabilité de :</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 SAMES KREMLIN 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>To ensure safe use of the machinery, it is your responsibility to:</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 SAMES KREMLIN'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>Eine sichere Nutzung setzt voraus, dass Sie :</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 SAMES KREMLIN 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>Para una utilización segura, será de su responsabilidad:</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 SAMES KREMLIN 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>Per un uso sicuro, vi invitiamo a:</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 SAMES KREMLIN, 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>Para uma utilização segura, é da sua responsabilidade:</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 SAMES KREMLIN, 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>Voor een veilig gebruik dient 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 SAMES KREMLIN 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>För en säker användning av utrustningen ansvarar ni för följande:</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 SAMES KREMLIN 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>Käytön turvallisuuden varmistamiseksi velvollisuutesi on:</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 SAMES KREMLIN 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>Dla zapewnienia bezpiecznego użytkowania na użytkownika spoczywa obowiązek:</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 SAMES KREMLIN 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>Pro bezpečné používání jste povinni:</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 SAMES KREMLIN 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>SL</b></p> <p><b>Za varno uporabo ste dolžni:</b></p> <ul style="list-style-type: none"> <li>• natančno prebrati vse dokumente na CD pred zagonom stroja,</li> <li>• inštalirati, uporabljati, vzdrževati in popravljati opremo po določilih SAMES KREMLIN in v skladu z veljavnimi nacionalnimi in/ali lokalnimi predpisi,</li> <li>• poskrbeti, da so uporabniki te opreme ustrezno usposobljeni, poznajo varnostne predpise in da jih upoštevajo.</li> </ul>
<p align="center"><b>SK</b></p> <p><b>V záujme bezpečného je vašou povinnosťou:</b></p> <ul style="list-style-type: none"> <li>• pozorne si prečítať všetky dokumenty obsiahnuté na priloženom CD predtým, ako zariadenie uvediete do prevádzky,</li> <li>• nainštalovať, používať, udržiavať a opravovať zariadenie v súlade s odporúčaniami spoločnosti SAMES KREMLIN a národnými a/alebo miestnymi predpismi,</li> <li>• uistiť sa, že používatelia tohto zariadenia boli zaškolení, riadne porozumeli pravidlám bezpečnosti a používajú ich.</li> </ul>	<p align="center"><b>HU</b></p> <p><b>A biztonságos használat érdekében az Ön felelőssége, hogy:</b></p> <ul style="list-style-type: none"> <li>• a berendezés üzembe helyezése előtt figyelmesen elolvassa a mellékelt CD által tartalmazott összes dokumentumot,</li> <li>• a berendezést a SAMES KREMLIN ajánlásainak valamint a nemzeti és/vagy helyi szabályozásoknak megfelelően helyezze üzembe, használja, tartsa karban és javítsa,</li> <li>• megbizonyosodjon róla, hogy a berendezés felhasználói képzettek, tökéletesen megértették és alkalmazzák a biztonsági előírásokat.</li> </ul>	<p align="center"><b>RO</b></p> <p><b>Pentru o utilizare sigură, este responsabilitatea dvs. să:</b></p> <ul style="list-style-type: none"> <li>• Citiți cu atenție toate documentele de pe CD-ul anexat, înainte de punerea în funcțiune a echipamentului,</li> <li>• Instalați, utilizați, întrețineți și reparați echipamentul conform instrucțiunilor SAMES KREMLIN precum și reglementărilor naționale și/sau locale,</li> <li>• Vă asigurați că utilizatorii acestei echipament au fost instruiți, au înțeles perfect regulile de securitate și le aplică integral.</li> </ul>

Declaration(s) de conformité au verso de ce document / Declaration(s) of conformity at the back of this document / Konformitätserklärung(en) auf der Rückseite dieser Unterlage / Declaración (es) de conformidad en el reverso de este documento / Dichiarazione/i di conformità sul retro del presente documento / Declaração(ões) de conformidade no verso do documento / Conformiteitsverklaring(en) op de keerzijde van dit document / Försäkran om överensstämmelse på omstående sida av detta dokument / Vaatimustenmukaisuusvakuutukset tämän asiakirjan kääntöpuolella / Deklaracja(e) zgodności na odwrocie dokumentu / Prohlášení o shodě se nachází/nacházejí na zadní straně tohoto dokumentu / Deklaracija(e) o skladnosti na hrbni strani tega dokumenta / Vyhlášení/-a o zhode sa nachádzajú na zadnej strane dokumentu / A dokumentum hátlapján szereplő megfelelőségi nyilatkoz(ok) / Declarații de conformitate pe versoul acestui document



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**DECLARAȚIA DE CONFORMITATE UE**

Le fabricant / The manufacturer / Der Hersteller / El fabricante / Il produttore / O fabricante / De fabrikant / Tillverkare / Valmistaja / Producent / Výrobce / Proizvajalec / Výrobca / Gyártó / Fabricantul:	<b>SAMES KREMLIN SAS</b> 13, chemin de Malacher 38 240 - MEYLAN - FRANCE Tél. : 33 (0)4 76 41 60 60
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34F60

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 odnośnymi wymaganiami unijnego prawodawstwa harmonizacyjnego / Shoduje se s následující příslušnou evropskou harmonizační legislativou / V skladu s harmonizirano zakonodajo Unije / Je v súlade s uplatniteľnými harmonizačnými právnymi predpismi EÚ / Megfelel a következõ alkalmazandó uniós harmonizációs szabályozásnak / Este conform cu legislația aplicabilă de armonizare de mai jos

Directive ATEX / ATEX Directive / ATEX Richtlinie / Directiva ATEX / Direttiva ATEX / Diretiva ATEX / ATEX-Richtlijn / ATEX-direktivet / ATEX-direktivi / Dyrektywa ATEX / Směrnice ATEX / Direktiva ATEX / Smernica ATEX / ATEX-irányelv	<b>2014/34/UE</b>

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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 odnośnymi wymaganiami unijnego prawodawstwa harmonizacyjnego / Shoduje se s následující příslušnou evropskou harmonizační legislativou / V skladu s harmonizirano zakonodajo Unije / Je v súlade s uplatniteľnými harmonizačnými právnymi predpismi EÚ / Megfelel a következõ alkalmazandó uniós harmonizációs szabályozásnak / Este conform cu legislația aplicabilă de armonizare de mai jos

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La présente déclaration de conformité est établie sous la seule responsabilité du fabricant / This declaration of conformity is issued under the sole responsibility of the manufacturer / Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller / La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante / La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante / A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante / Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant / Denna försäkran om överensstämmelse utfärdas på tillverkarens eget ansvar / Tämä vaatimustenmukaisuusvakuutus on annettu valmistajan yksinomaisella vastuulla / Niniejsza deklaracja zgodności wydana zostaje na wyłączną odpowiedzialność producenta / Toto prohlášení o skodě se vydává na výhradní odpovědnost výrobce / Za izdajo te izjave o skladnosti je odgovoren izključno proizvajalec / Toto vyhlásenie o zhode sa vydáva / na vlastnú zodpovednosť výrobcu / Ezt a megfelelőségi nyilatkozatot a gyártó kizárólagos felelőssége mellett adják ti / Prezenta declarație de conformitate este emisă pe răspunderea exclusivă a producătorului.



Hervé WALTER

Directeur Innovation & Développement / Innovation & Development Director / Direktor für Innovation & Entwicklung / Director de Inovación y Desarrollo / Direttore Innovazione e sviluppo / Diretor de Inovação / Manager Innovatie en Ontwikkeling / Direktör för Forskning och Utveckling / Innovaatio- ja kehitysjohtaja / Dyrektor ds. Innowacji i Rozwoju / Ředitel pro inovace a vývoj / Direktor za inovacije in razvoj / Riaditeľ pre inováciu a rozvoj / Innovációs és fejlesztési igazgató / Director Inovație și Dezvoltare

Fait à Meylan, le / Established in Meylan, on / Geschehen zu Meylan, am / En Meylan, a / Redatto a Meylan, / Vastgesteld te Meylan, / Utformat i Meylan, den / Meylan, Ranska, / Sporządzono w Meylan, dnia / Meylan, dnia / V Meylanu, / V Meylan dňa / Kelt Meylanban, / Întocmită la Meylan, pe data de 31/01/2019 - 01/31/2019



# INSTALLATION AND SAFETY INSTRUCTIONS

## TRANSLATION FROM 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.**

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

A	B	C	D	E	F
NIP HAZARD	WARNING MOVING ELEVATOR	WARNING MOVING PARTS	WARNING MOVING SHOVEL	DO NOT EXCEED THIS PRESSURE	HIGH PRESSURE HAZARD
G	H	I	J	K	L
RELIEF OR DRAIN VALVE	WARNING HOSE UNDER PRESSURE	WEAR GLASSES OBLIGATORY	WEAR OF GLOVES IS OBLIGATORY	PRODUCT VAPOR HAZARDS	WARNING HOT PARTS OR AREAS
M	N	O	P	Q	R
ELECTRICAL HAZARD	WARNING FIRE HAZARDS	EXPLOSION HAZARDS	GROUNDING	WARNING (USER)	WARNING SERIOUS INJURIES

## PRESSURE HAZARDS



Current legislation requires that an **air relief valve** be fitted in the air supply circuit to the air motor to prevent over pressurisation. This safety feature, ensures that it is not possible to supply the air motor with excessive air pressure that may cause injury.

Please ensure that a **material drain valve** is fitted in the fluid circuit to drain and depressurise the circuit. Once depressurised and drained, work /servicing may then commence on the equipment. Please remember to close these valves when restarting the system.

## HIGH PRESSURE INJECTION HAZARDS



When working with high pressure equipment, special care is required. Fluid leaks can occur. There is a risk of material being injected to any exposed parts of body, this could cause severe injury :



- medical care must be sought immediately if paint is injected under the skin or in other parts of the body (eyes, fingers).
- never point the spray gun at any one. Never try to stop the spray with your hands or fingers nor with rags or similars.
- **follow the shut down procedure and always depressurize air and fluid circuits** before carrying out any servicing on the gun (cleaning, checking, maintenance of the material or cleaning of the gun nozzles).
- for the guns equipped with a safety device, always lock the trigger when not in use.

## 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 SAMES KREMLIN 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 though 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 SAMES 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 maximum working pressure (MWP) 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

SAMES KREMLIN 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,

SAMES KREMLIN 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 assembly.**

## 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).

The machine shall be made stable by the use of holding down bolts or by the use of other anchoring methods, strong enough to prevent unintended bodily movement of the equipment.



**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 label plate with the name of the manufacturer, the equipment part number, the interesting informations to use correctly the equipment (pressure, voltage,...) and sometimes the above pictogram.

The equipment is designed with and consists of high quality materials and components which can be re-used.

The 2012/19/UE European Directive covers all equipments with a crossed-out bin pictogram. Please inform yourself about the collection systems for electric and electronic equipments.

Please act in accordance with local rules and **do not dispose of old equipment with household wastes**. A correct disposal of old equipment will help prevent negative consequences for the environment and health.



## FLOWMAX® PUMP

**34F60**

*Disassembly / Reassembly*

### TRANSLATION FROM THE ORIGINAL MANUAL

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

THE PICTURES AND DRAWINGS ARE NOT CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.

**SAMES KREMLIN SAS**  
13, chemin de Malacher  
38 240 - MEYLAN - France  
☎ : 33 (0)4 76 41 60 60  
[www.sames-kremlin.com](http://www.sames-kremlin.com)



**CAUTION :**

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

**The pump is manufactured under the ATEX agreement and can not be modified. SAMES KREMLIN 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**

▪ **VALVE ASSEMBLY (25)**

Unscrew the 4 screws (38) and remove the valves.

Unscrew the 2 screws (37) to remove the upper body (36), the intermediate body (31) and the lower body (26).

Unscrew the upper stop (34) to gain access to the ball (28a), to the spring (33) and to the seat support (27a).

Push in the middle of the lower stop (30) to remove the seat support (27b) and the ball (28b).

Change all the seals (29, 32 and 35).

Clean or change the parts if necessary.

**Assembly :**

Assemble new seals and lubricate them.

Place the lower stop (30), the ball (28b) and the seat support (27b) into the intermediate body (31).

➡ **Guide the parts in the axis until stop in the intermediate body.**

Insert the seat support (27a) until stop into the upper body (36), then locate the ball (28a) and the spring (33).

Clean the threading of the upper stop (34) and of the upper body (36). The threading of the upper stop must be glued; then, screw it until threading root.

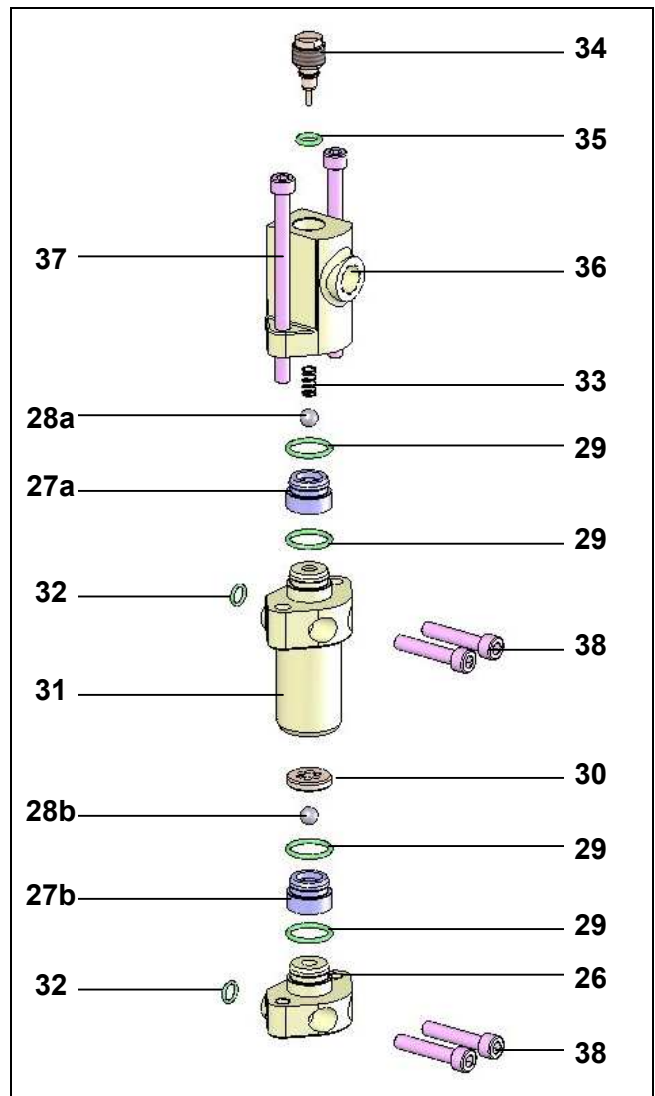
➡ **Important : The play of the ball depends on the correct assembly of the upper stop (34).**

Mount the lower body (26) into the body (31). Make sure the fluid inlet-outlet are lined up.

➡ **Important : Mount the two screws (37) without tightening them in the lower body (26). Make sure the parts are correctly lined up, then tighten the 2 screws (37).**

Mount the whole on the fluid section. Take care of the 2 seals (32).

Replace the 4 screws (38). Tighten them gradually by screwing in criss-cross manner. Torque screws.



■ **BELLOWS (2)**

If material leaks under the base of the air motor, at the leakage indicators, bellows must be replaced.

Proceed as previously explained when filling valve is removed.

Remove suction body (1) by means of the 4 fastening screws (6).

The bellows is released when suction body is taken out.

**To reinstall the bellows :** fits its lower part (small diameter) in skirt (3).

Slip bellows on motor rod.

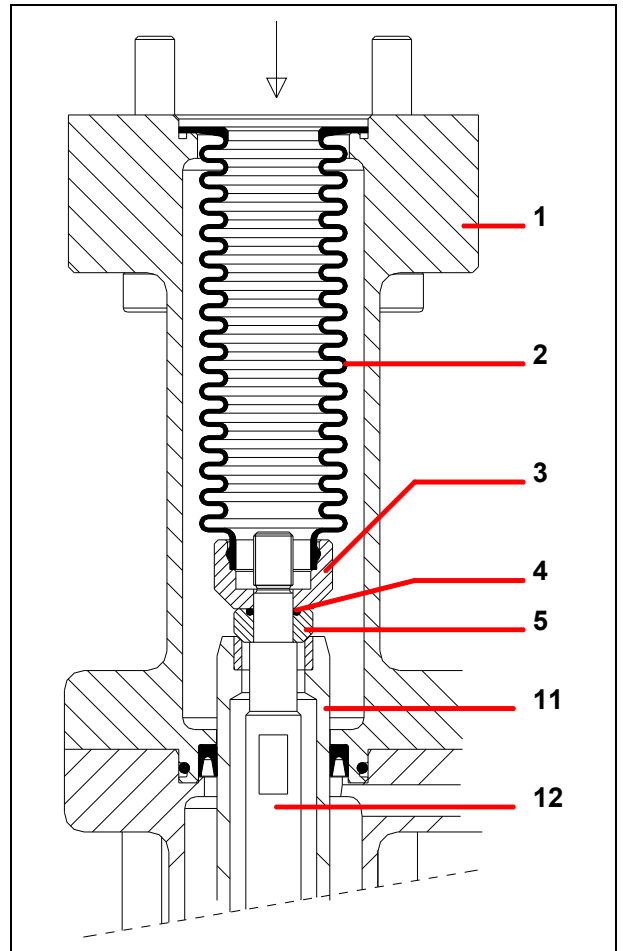
Screw the rod (12) into motor rod after having installed the seal (4) and the filling valve (5). (The whole must be slightly glued with Loctite adhesive).

Lock the rod (12) using the motor rod flat.

Insert the suction body after pushing the motor rod upwards.

Fill the 4 screws (6) and tighten them gradually by screwing in criss-cross manner. Torque screws (6).

Reinstall the other parts as indicated previously.



■ **GT SEALS (7 & 16) AND PISTON (11)**

Remove the valves.

Remove the suction chamber (17) by unscrewing the 6 fastening screws (18).

⇒ **Remove the lower GT seal (16).**

Dismount the piston (11). When disassembling :

- Unscrew nut (14) holding rod (2) thanks to the two flats located above the nut.
- Remove shutter (13).
- Remove piston pulling it downwards.

Remove cylinder (10).

⇒ **Take off the upper GT seal (7).**

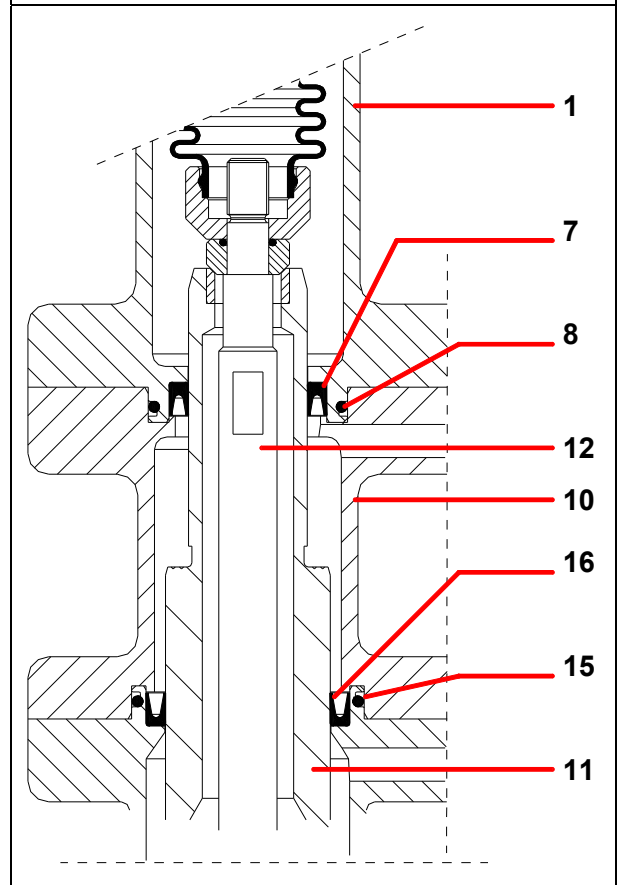
☞ **Make sure the new seals (7 & 16) are installed in the proper direction.**

Both seals (8 & 15) must be replaced.

When reassembling, carefully insert piston (11) into seal (7) which is in the reverse order.

☞ **Caution : Before tightening the nut (14),**

- Place the rod (12) into piston (11).
- Place the piston (11) into the upper part of the cylinder (10).
- Tighten the nut (14) holding the rod (12).



#### ▪ FILLING VALVE (5)

Piston removal (11) : refer to § "PISTON".

Unscrew rod (12) from motor rod.

In case of wear, replace valve (5) and seal (4).

#### ☞ Caution !

When reinstalling, rod (12) must be glued into motor rod with Loctite adhesive.

#### ▪ REVERSING BLOCK

**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**

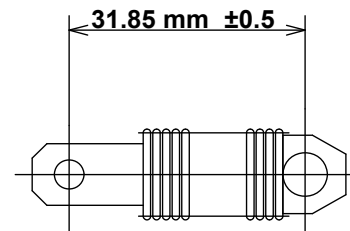
Disassemble cover (51) by removing the 2 CHc screws (52).

Dissociate female yoke (54) from reversing block lever (55).

Dismount reversing block by removing screws (50).

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.



**When reassembling the different components :**

- **Clean the parts with the appropriate cleaning solvent.**
- **Install new seals if 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 necessary.**

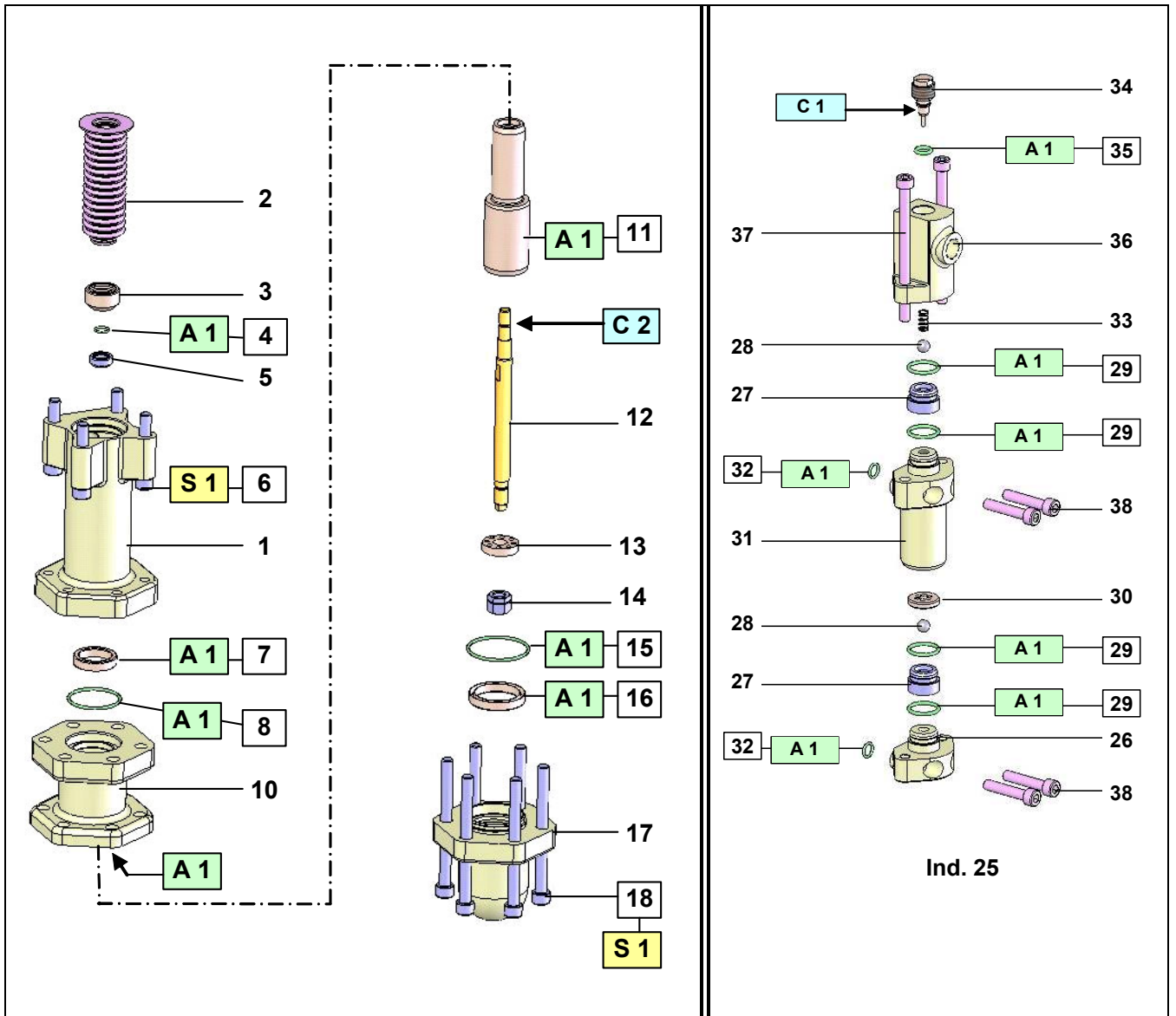
#### ▪ DEGREES OF WEAR

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.**

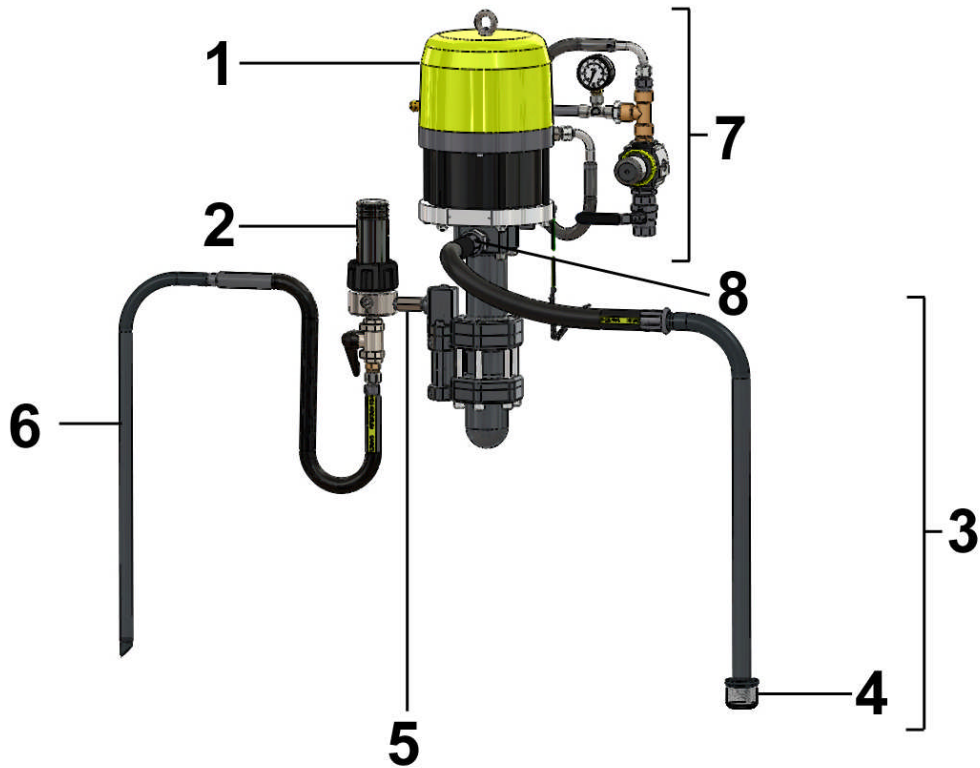
ASSEMBLY INSTRUCTIONS



Index	Instructions	Description	Part number
A 1	PTFE grease	'TECHNILUB' grease (10 ml / 0.0026 US gal)	560.440.101
C 1	Medium strength Aneorobic Pipe sealant	Loctite 5772 (50 ml / 0.013 US gal)	554.180.015
C 2	Low strength - Aneorobic Adhesive	Loctite 222 (50 ml / 0.013 US gal)	554.180.010
S 1	Torque screwing : 40 Nm / 29.5 Ft/Lbs		

<p><b>Doc. 573.300.050</b>                  Date/Datum/Fecha : 01/02/19                  Annule/Cancel/                  Ersetzt/Anula : 12/08/16</p>	<p><b>Modif. / Änderung :</b> Mise à jour                  / Update / Aktualisierung                  / Actualización                  KREMLIN REXSON → SAMES                  KREMLIN; 34A2 → 34F60</p>	<p><b>Pièces de rechange</b>                  Spare parts list                  Ersatzteilliste                  Piezas de repuesto</p>
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<b>34F60</b>	<p><b>POMPE FLOWMAX® AIRLESS® / FLOWMAX® AIRLESS PUMP</b>  <b>FLOWMAX® AIRLESS PUMPE / BOMBA FLOWMAX® AIRLESS</b></p>
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<b>POMPE MURALE 34F60 avec filtre, avec canne d'aspiration</b>	<b>WALL MOUNTED PUMP, MODEL 34F60 STAINLESS STEEL with filter, with suction rod</b>	<b>#</b>
<b>WANDANLAGE 34F60 EDELSTAHL mit Filter, mit Saugschlauch</b>	<b>BOMBA MURAL 34F60 INOX con filtro, con caña de aspiración</b>	<b>151.740.700</b>

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	-	<b>Pompe nue 34F60</b>	<b>Bare pump, model 34F60</b>	<b>Pumpe 34F60, nackt</b>	<b>Bomba sola, tipo 34F60</b>	1
-	144 920 400	▪ Moteur (voir Doc. 573.004.050)	▪ Air motor (refer to Doc. 573.004.050)	▪ Luftmotor (siehe Dok. 573.004.050)	▪ Motor (consultar Doc. 573.004.050)	1
-	144 910 700	▪ Hydraulique F60 inox (voir Doc. 573.301.050)	▪ Fluid section, model F60 stainless steel (refer to Doc. 573.301.050)	▪ Hydraulikteil F60 Edelstahl (siehe Dok. 573.301.050)	▪ Hidráulica F60 inox (consultar Doc. 573.301.050)	1
2	155 580 400	Filtre AIRLESS 3/8 en inox (voir Doc. 573.299.050)	AIRLESS filter, 3/8, stainless steel (refer to Doc. 573.299.050)	AIRLESS- Filter 3/8 aus Edelstahl (siehe Dok. 573.299.050)	Filtro AIRLESS 3/8 de inox (consultar Doc. 573.299.050)	1
3	149 596 150	Canne d'aspiration Ø 25 (Lg. 600 mm)	Suction rod Ø 25 (Length 600 mm)	Saugschlauch Ø 25 (Länge 600 mm)	Caña de aspiración Ø 25 (Longitud 600 mm)	1
4	149 596 152	▪ Crépine Ø 25	▪ Strainer Ø 25	▪ Siebkörbe Ø 25	▪ Piña Ø 25	1
5	055 580 301	Manchon inox MM 3/8 NPT	Sleeve, stainless steel MM 3/8 NPT	Langnippel Edelstahl AG 3/8 NPT	Manguito inox MM 3/8 NPT	1
6	049 596 000	Canne de purge en inox	Drain rod, stainless steel	Entleerungsschlauch, Edelstahl	Caña de purga inox	1
7	144 920 200	Equipement d'air (voir Doc. 573.403.050)	Air supply (refer to Doc. 573.403.050)	Luftausrüstung (siehe Dok. 573.403.050)	Equipo de aire (consultar Doc. 573.403.050)	1
8	050 102 437	Raccord droit inox M 1/2 BSP - M 26 x 125	Straight fitting, stainless steel, double male, 1/2 BSP - 26 x 125	Gerader Nippel Edelstahl AG 1/2 BSP - AG M 26 x 1,25	Racor recto inox M 1/2 BSP - M 26 x 125	1
-	933 011 198	Vis H 8 x 16	Screw, model H 8 x16	Schraube H 8 x 16	Tornillo, tipo H 8 x 16	2
-	963 040 019	Rondelle MN 8	Washer, model MN 8	Scheibe MN 8	Arandela, tipo mn 8	2

<b>POMPE 34F60 SUR CHARIOT</b>	<b>CART-MOUNTED PUMP, model 34F60</b>	<b>#</b>
<b>PUMPE 34F60 , FAHRBAR</b>	<b>BOMBA 34F60 SOBRE CARRETILLA</b>	<b>151.740.750</b>

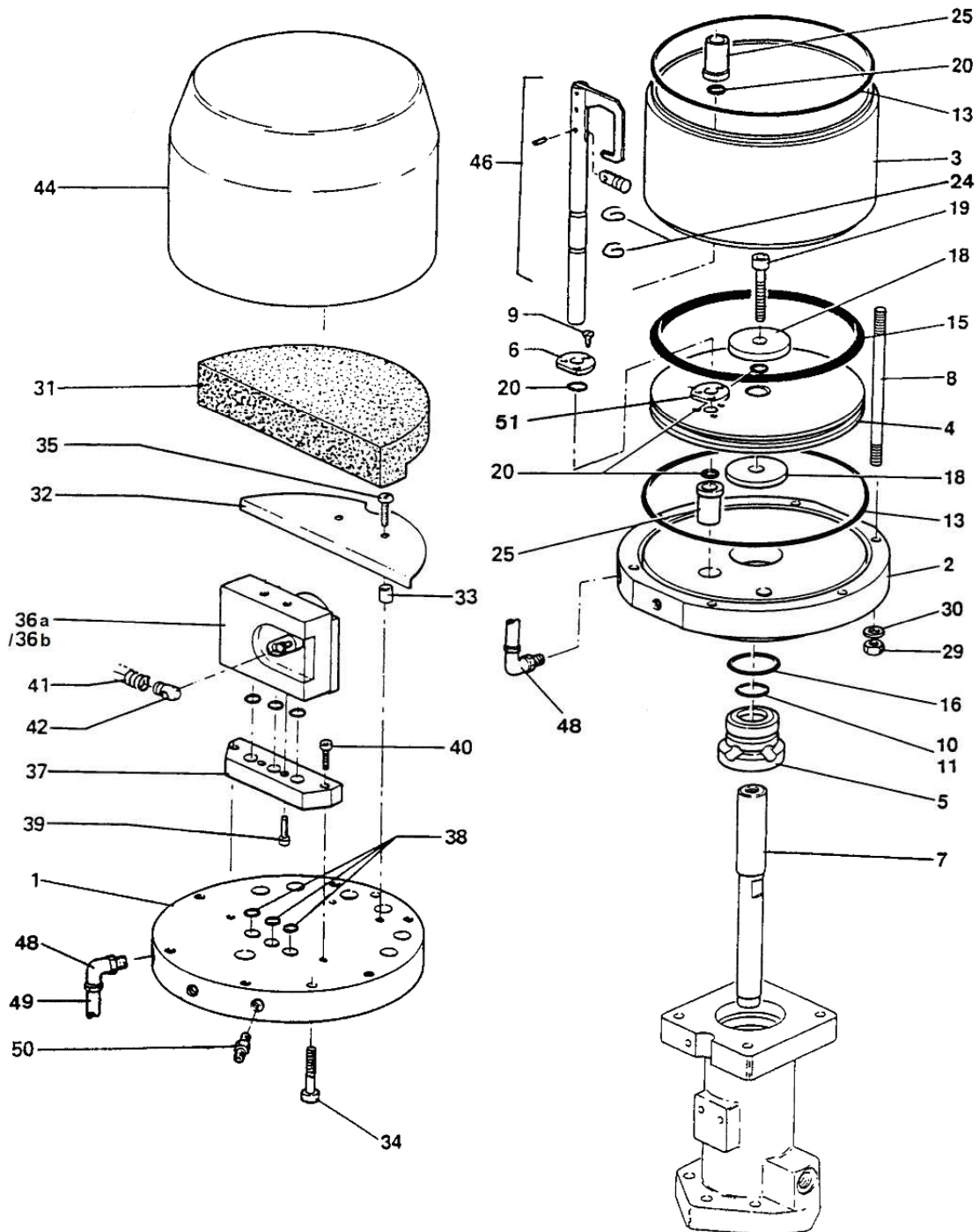
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	151 740 700	Pompe murale	Wall mounted pump	Wandanlage	Bomba mural	1
-	051 730 110	Chariot (1 bras) (voir Doc. 578.064.110)	Cart (1 arm) (refer to Doc 578.064.110)	Fahrgestell (1 Arm) (siehe Dok. 578.064.110)	Carretilla (1 brazo) (consultar Doc. 578.064.110)	1

**OPTIONS - ON REQUEST - OPTIONEN - OPCIONES**

<b>Ind</b>	<b>#</b>	<b>Désignation</b>	<b>Description</b>	<b>Bezeichnung</b>	<b>Denominación</b>	<b>Qté</b>
3	149 596 160	Canne d'aspiration Ø 25 pour fût 200L (Lg. 1m)	Suction rod Ø 25 for drum 200L (Length : 1m)	Saugschlauch Ø 25 für 200 L Fäss (Länge : 1m)	Caña de aspiración Ø 25 para bidón de 200L (Longitud : 1m)	1
4	149 596 152	▪ Crépine Ø 25	▪ Strainer Ø 25	▪ Siebkörbe Ø 25	▪ Piña Ø 25	1

<b>Doc. 573.004.050</b> Date/Datum/Fecha : 11/05/17 Annule/Cancel/ Ersetzt/Anula : 22/10/13	<b>Modif. / Änderung :</b> # 044 630 400 → NC (ind. 36a / Pos. 36a) + # 144 630 720 (ind. 36b / Pos. 36b)	<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 2000-2</b>	<b>AIR MOTOR, model 2000-2</b>	<b>#</b>
<b>LUFTMOTOR, Modell 2000-2</b>	<b>MOTOR DE AIRE, tipo 2000-2</b>	<b>144.920.400</b>



<b>MOTEUR A AIR, modèle 2000-2</b>	<b>AIR MOTOR, model 2000-2</b>	<b>#</b>
<b>LUFTMOTOR, Modell 2000-2</b>	<b>MOTOR DE AIRE, tipo 2000-2</b>	<b>144.920.400</b>

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	044 920 301	Fond moteur supérieur	Upper flange	Oberer Motorflansch	Fondo motor superior	1
2	044 920 302	Fond moteur inférieur	Lower flange	Unterer Motorflansch	Fondo motor inferior	1
*3	044 920 306	Cylindre	Cylinder	Zylinder	Cilindro	1
*4	044 920 303	Piston	Piston	Kolben	Pistón	1
5	044 920 105	Palier inférieur	Lower bearing	Wellenlager	Palier inferior	1
6	044 910 204	Palier	Bearing	Lager	Palier	1
7	044 910 012	Tige moteur	Rod, air motor	Kolbenstange	Eje del motor	1
8	044 910 017	Tirant	Tie rod	Haltebolzen	Tirante	6
9	932 221 166	Vis Hc F 90° - M 4 x 12	Screw, Hc F 90° - M 4 x 12	Schraube Hc F 90° - M 4 x 12	Tornillo, Hc F 90° - M 4 x 12	3
10	144 585 354	Joint Ø 23 (pochette de 10)	O-Ring Ø 23 (package of 10)	O-Ring Ø 23 (10er Pack)	Junta Ø 23 (bolsa de 10)	1
11	044 720 016	Bague d'étanchéité	Ring	Dichtungsring	Anillo de estanqueidad	1
13	050 068 400	Joint	Seal	O-Ring	Junta	2
15	909 130 365	Bague R 63	Ring, R 63	O-Ring R 63	Anillo R 63	1
16	909 130 425	Bague R 23	Ring, R 23	O-Ring R 23	Anillo R 23	1
18	044 890 107	Butée de piston	Piston thrust	Kolbenanschlag	Tope de pistón	2
19	930 151 502	Vis CHc M 10 x 40	Screw, CHc M 10 x 40	Schraube CHc M 10x14	Tornillo, CHc M 10 x 40	1
20	144 579 923	Joint R 8 bis (pochette de 10)	Seal, R 8 bis (package of 10)	O-Ring R 8 bis (10er Pack)	Junta R 8 bis (bolsa de 10)	4
24	902 202 110	Truarc D9	Circlips D9	Sicherungsring D9	Circlips D9	2
25	044 650 018	Bague de guidage	Guide ring	Führungsbuchse	Anillo guía	2
29	953 010 019	Ecrou HM 8	Nut, HM 8	Mutter HM 8	Tuerca HM 8	6
30	963 040 019	Rondelle MN 8	Washer, MN 8	Scheibe MN 8	Arandela MN 8	6
31	044 920 304	Silencieux	Muffler	Schalldämpfer	Silenciador	1
32	044 920 305	Support silencieux	Support, muffler	Schalldämpferhalterung	Soporte silenciador	1
33	539 090 103	Entretoise polyamide (lg. 10 mm)	Spacer, polyamid (length : 10 mm / 13/32")	Zwischenstück aus Polyamid (Länge 10 mm)	Tirante poliamida (10 mm de largo)	2
34	933 151 497	Vis CHc M 6 x 40	Screw, CHc M 6 x 40	Schraube CHc M 6 x 40	Tornillo, CHc M 6 x 40	3
35	906 120 705	Vis Poelier M 6 x 16	Screw, M 6 x 16	Schraube M 6 x 16	Tornillo, M 6 x 16	2
36a	NC / NS	Bloc inverseur (voir Doc. 573.087.040)	Reversing block (refer to Doc. 573.087.040)	Umsteuerblock (siehe Dok. 573.087.040)	Bloque inversor (consultar Doc. 573.087.040)	1
*36 b	144 630 720	Bloc inverseur droit avec deux roulements (voir Doc. 573.087.040)	Right reversing-block with two bearings (refer to Doc. 573.087.040)	Rechter Umsteuerblock mit zwei Lagerbuchsen (siehe Dok. 573.087.040)	Bloque inversor derecho con dos rodamientos (consultar Doc. 573.087.040)	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
37	046 230 005	Embase	Base	Grundplatte	Base	1
38	909 420 257	Bague O Ring 9,25 x 12,81 x 1,78	O Ring , 9,25 x 12,81 x 1,78	O-Ring , 9,25 x 12,81 x 1,78	Anillo O Ring, 9,25 x 12,81 x 1,78	3
39	932 151 277	Vis CHc M 6 x 20	Screw, CHc M 6 x 20	Schraube, CHc M 6 x 20	Tornillo, CHc M 6 x 20	2
40	930 151 446	Vis CHc M 8 x 35	Screw, CHc M 8 x 35	Schraube, CHc M 8 x 35	Tornillo, CHc M 8 x 35	2
41	050 311 232	Ressort inverseur	Spring, reversing block	Umschaltfeder	Muelle del inversor	1
42	044 570 131	Chape femelle	Link, female	Verbindungsflansch	Unión hembra	1
44	046 180 006	Cloche	Cover	Haube	Campana	1
46	044 910 250	Fourchette de commande équipée	Control fork assembly	Umsteuerstange	Horquilla de mando equipada	1
48	905 120 988	Coude M 3/8 - tube 10 x 12	Elbow, M 3/8 - tube 10 x 12 / 13/32" x 15/32	Winkel M 3/8 - Schlauch 10 x 12	Codo M 3/8 - tubería 10 x 12	2
49	539 310 101	Tuyau noir 8 x 12 - lg. 0.2 m	Hose 8 x 12 - Length : 0.2 m / 7" 7/8	Schwarzer Schlauch 8 x 12 - Länge 0,2 m	Tubería 8 x 12 - 0.2 m de largo	1
50	050 102 411	Raccord M 3/8 -M 18 x 35	Fitting, double male, 3/8 - 18 x 35	Doppelnippel 3/8 -18 x 35	Racor M 3/8 - M 18 x 35	1
51	044 910 210	Joint de palier	Seal, bearing	Dichtungsring	Junta de palier	1
-	901 180 024	Câble de mise à la terre (Lg. 5 m)	Ground (Length 5 m / 196.85")	Erdungskabel (L. 5 m)	Cable de puesta a tierra (5 m de largo)	1
-	963 300 016	Rondelle	Washer	Scheibe	Arandela	1
-	934 011 196	Vis H 6 x 16	Screw, H 6 x 16	Schraube H 6 x 16	Tornillo, H 6 x 16	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	144 929 902	Pochette de joints (ind. 10, 11, 13, 15, 16, 20, 38, 41 + pochette de joints du bloc inverseur)	Package of seals (ind. 10, 11, 13, 15, 16, 20, 38, 41 + package of seals of the reversing block)	Dichtungskit (Pos. 10, 11, 13, 15, 16, 20, 38, 41 + Dichtungssatz für Umschaltblock)	Bolsa de juntas (ind. 10, 11, 13, 15, 16, 20, 38, 41 + bolsa de juntas del bloque inversor)	1
*	144 929 912	Pochette de maintenance (ind. 24, 25 + pochette de joints moteur + ind. 3, 5, 7, 8, 13 de l'inverseur)	Servicing kit (ind. 24, 25 + package of seals of the air motor + ind. 3, 5, 7, 8, 13 of the reversing block)	Servicekit (Pos. 24, 25 + Dichtungssatz für Motor + Pos. 3, 5, 7, 8, 13 für Umschaltungsblock)	Bolsa de mantenimiento (ind. 24, 25 + bolsa de juntas motor + ind. 3, 5, 7, 8, 13 del inversor)	1

\* 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.

Nota : Les pompes dont le numéro de série est > à 17 AJ 1171 sont équipées du bloc inverseur # 144.630.720.

Nota : The pumps with serial number is > to 17 AJ 1171 are fitted with the reversing-block # 144.630.720.

Hinweis: Die Pumpen mit der Fertigungsnummer > bis 17 AJ 1171 sind mit dem Umsteuerblock # 144.630.720 bestückt.

Nota : Las bombas cuyo número de serie es > a 17 AJ 1171 tienen el bloque inversor # 144.630.720.

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

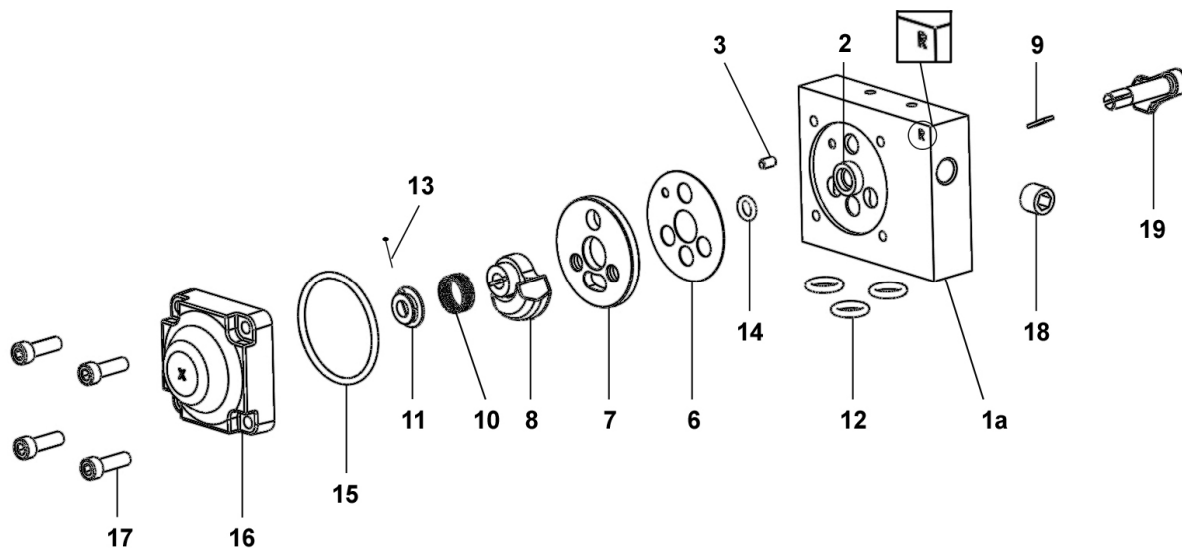
Nota : When ordering a spare part whose the first digit is 5, specify the required length.

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

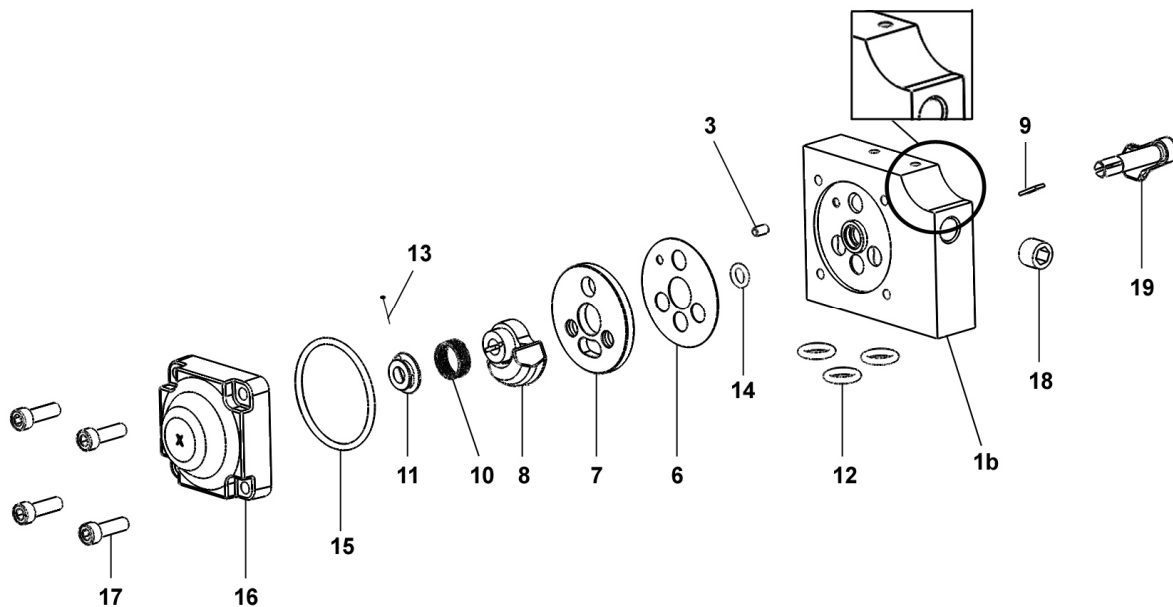
Nota : Cuando encarga Vd. una pieza de repuesto que empieza por un 5, precise Vd. la longitud necesaria.

<b>Doc. 573.087.040</b> Date/Datum/Fecha : 11/05/17 Annule/Cancela/ Ersetzt/Anula : 03/06/14	<b>Modif. / Änderung :</b> Mise à jour / Update / Aktualisierung / Actualización + 144.630.720	<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>NC / NS</b>



<b>BLOC INVERSEUR DROIT AVEC DEUX ROULEMENTS</b>	<b>RIGHT REVERSING-BLOCK WITH TWO BEARINGS</b>	<b>#</b>
<b>RECHTER UMSTUEURBLOCK MIT ZWEI LAGERBUCHSEN</b>	<b>BLOQUE INVERSOR DERECHO CON DOS RODAMIENTOS</b>	<b>144.630.720</b>



<b>BLOC INVERSEUR</b>	<b>REVERSING-BLOCK</b>	<b>#</b>
<b>UMSTUEERBLOCK</b>	<b>BLOQUE INVERSOR</b>	<b>NC / NS</b>

<b>BLOC INVERSEUR DROIT AVEC DEUX ROULEMENTS</b>	<b>RIGHT REVERSING-BLOCK WITH TWO BEARINGS</b>	<b>#</b>
<b>RECHTER UMSTUEERBLOCK MIT ZWEI LAGERBUCHSEN</b>	<b>BLOQUE INVERSOR DERECHO CON DOS RODAMIENTOS</b>	<b>144.630.720</b>

***Pièces communes - Common parts - Gleiche Teile - Partes comunes***

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*6	144 579 912	Joint de glace fixe (x 10)	Gasket seal (x 10)	Flachdichtung (10 x)	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, model R 10 (x 10)	O Ring R 10 (x 10)	Anillo, tipo 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, model R 6a (x 10)	O Ring, R 6a (10 x)	Anillo, tipo 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, model CHc M 6x20	Schraube, CHc M 6x20	Tornillo, tipo CHc M 6x20	4
18	906 333 102	Bouchon 1/4 BSP	Plug, model 1/4 BSP	Blindstopfen, 1/4 BSP	Tapón, tipo 1/4 BSP	1
19	046 170 510	Levier	Lever, control	Umsteuerhebel	Leva	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	<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 spécifiques - Specific parts - Spezifische Teile - Partes específicas**

***Pour / for / für / para # NC / NS***

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	<b>144 630 410</b>	<b>Corps équipé</b>	<b>Block assembly, reversing</b>	<b>Umsteuerblock komplett</b>	<b>Cuerpo equipado</b>	<b>1</b>
1a	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.1a)	▪ Stop (glued on part ind. 1a)	▪ Anschlag (auf Körper geklebt ind.1a)	▪ Tope (pegado en cuerpo ind. 1a)	2
-	N C / N S	▪ Roulement à bille	▪ Ball bearing	▪ Kugellager	▪ Rodamiento de bolas	1

***Pour / for / für / para # 144.630.720***

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	<b>144 630 715</b>	<b>Corps équipé</b>	<b>Block assembly, reversing</b>	<b>Umsteuerblock komplett</b>	<b>Cuerpo equipado</b>	<b>1</b>
1b	N C / N S	▪ Corps	▪ Body	▪ Körper	▪ Cuerpo	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.1b)	▪ Stop (glued on part ind. 1b)	▪ Anschlag (auf Körper geklebt ind.1b)	▪ Tope (pegado en cuerpo ind. 1b)	2
-	N C / N S	▪ Roulement à bille	▪ Ball bearing	▪ Kugellager	▪ Rodamiento de bolas	2

\* 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.

Nota : Ne monter l'ind. 2 (bague de guidage du bloc inverseur) que si votre bloc inverseur comporte un R.

Nota : Install ind. 2 (guide ring of the reversing-block) only if your reversing-block has R.

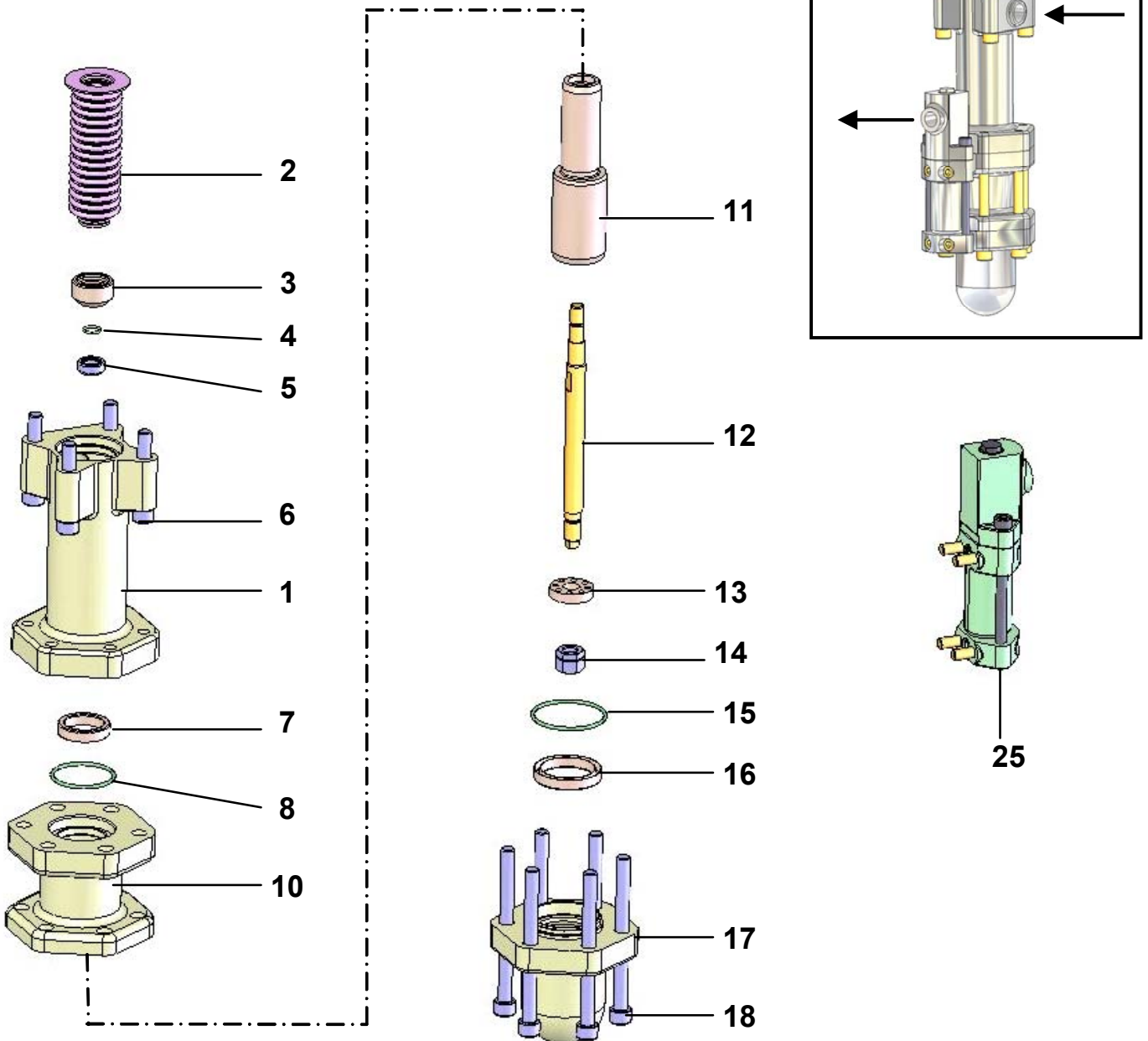
Hinweis: Die Pos. 2 (Führungsbuchse des Umsteuerblocks) nur am Umsteuerblock mit R Markierung montieren.

Nota : Montar el índ. 2 (anillo guía del bloque inversor) sólo si su bloque inversor tiene un R.



<p><b>Doc. 573.301.050</b>                  Date/Datum/Fecha : 04/02/19                  Annule/Cancela/                  Ersetzt/Anula : 09/06/11</p>	<p><b>Modif. / Änderung :</b> Mise à jour                  / Update / Aktualisierung                  / Actualización                  KREMLIN REXSON → SAMES                  KREMLIN; A2 → F60                  + Ind. / Pos. 38                  (88 154 → 930 151 500)</p>	<p><b>Pièces de rechange</b>                  Spare parts list                  Ersatzteilliste                  Piezas de repuesto</p>
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<b>F60</b>	<p><b>HYDRAULIQUE inox / FLUID SECTION, stainless steel</b>  <b>HYDRAULIKTEIL, Edelstahl / HIDRÁULICA, inox</b></p>	<p><b>#</b>  <b>144.910.700</b></p>
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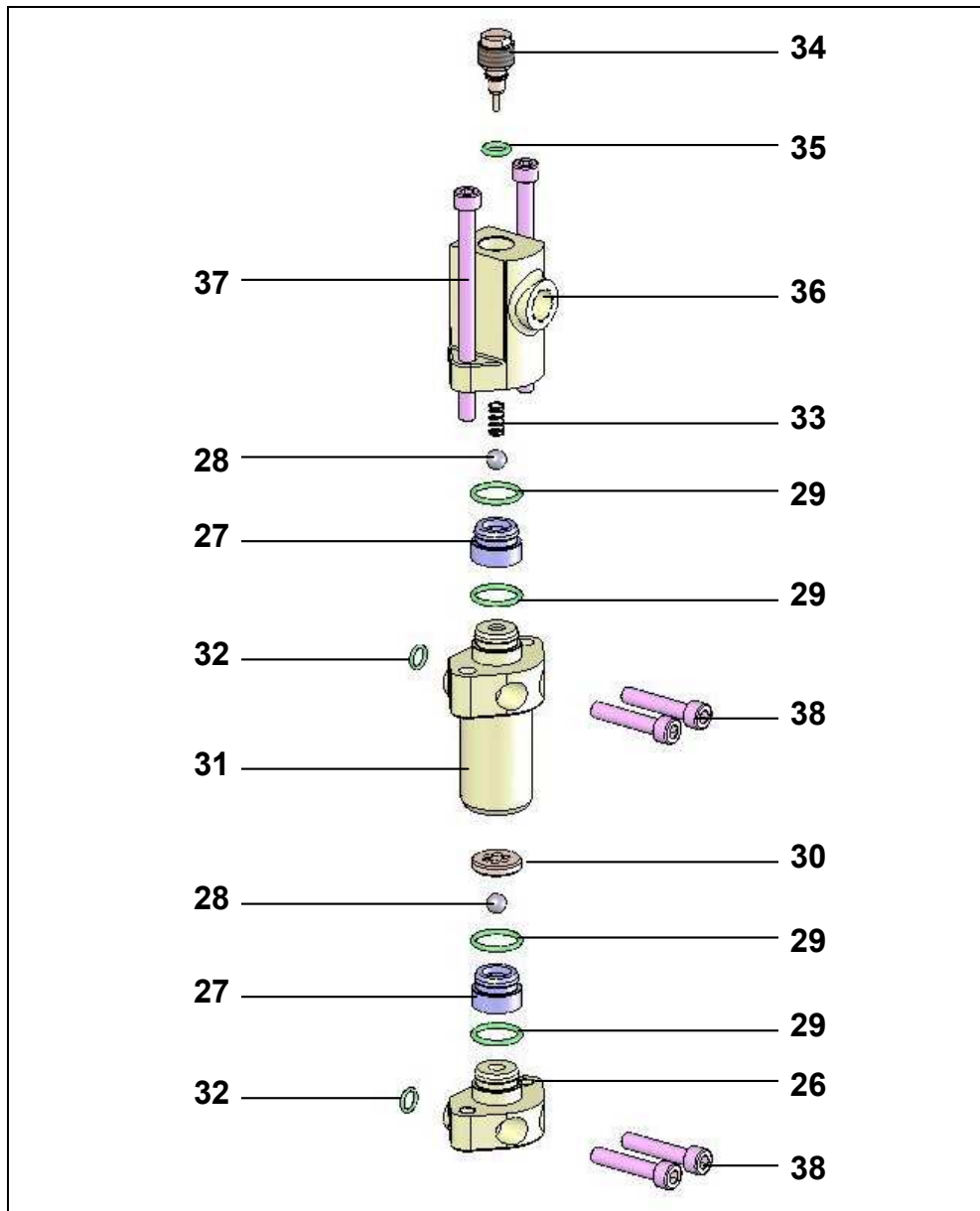


Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	044 910 701	Corps d'aspiration	Suction body	Saugkammer	Cuerpo de aspiración	1
*2	144 890 208	Soufflet (polyéthylène)	Bellows (Polyethylene)	Faltenbalg (Polyäthylen)	Fuelle (polietileno)	1
3	044 910 011	Jupe	Skirt	Klemmstück	Faldón	1
4	129 209 902	Joint PTFE (les 5)	Seal, PTFE (pack of 5)	Dichtung PTFE (5 St.)	Junta PTFE (bolsa de 5)	1
5	044 910 010	Clapet de remplissage	Filling valve	Füllensventil	Válvula de llenado	1
6	930 151 603	Vis CHc M 10 x 60	Screw, CHc M 10 x 60	Schraube, M 10 x 60	Tornillo CHc M 10 x 60	4
7	909 150 207	Joint GT (supérieur) (Ø 38)	Upper seal (GT) (Ø 38)	Obere GT-Dichtung (Ø 38)	Junta GT (superior) (Ø 38)	1
8	109 420 506	Joint FEP/FPM (Ø 42) (pochette de 5)	O-Ring (FEP/FPM) (Ø 42) (pack of 5)	O-Ring FEP/FPM (Ø 42) (5 St.)	Junta FEP/FPM (Ø 42) (bolsa de 5)	1
*10	044 910 702	Cylindre	Cylinder	Zylinder	Cilindro	1
*11	044 910 001	Piston	Piston	Kolben	Pistón	1
12	044 910 005	Tige d'accouplement	Tie-rod	Kopplungsstange	Eje de acoplamiento	1
13	044 910 007	Butée	Shutter	Anschlag	Tope	1
14	906 011 157	Ecrou frein	Nut	Bremsmutter	Tuerca	1
15	109 420 507	Joint FEP/FPM (Ø 50) (pochette de 5)	O-Ring (FEP/FPM) (Ø 50) (pack of 5)	O-Ring FEP/FPM (Ø 50) (5 St.)	Junta FEP/FPM (Ø 50) (bolsa de 5)	1
16	909 150 228	Joint GT (inférieur) (Ø 49)	Lower seal (GT) (Ø 49)	Untere GT-Dichtung (Ø 49)	Junta GT (inferior) (Ø 49)	1
17	044 910 703	Chambre d'aspiration	Suction chamber	Saugenkammer	Cámara de aspiración	1
18	930 151 792	Vis CHc M 10 x 120	Screw, CHc M 10 x 120	Schraube, CHc M10x120	Tornillo CHc M 10 x 120	6

<b>Ind. 25</b>	<b>Ensemble clapets / Valves assembly / Ventile kpl / Conjunto válvulas</b>
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Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
26	044 910 711	Corps inférieur	Lower body	Unteres Ventilkörper	Cuerpo inferior	1
27	044 910 714	Support de siège	Seat holder	Sitzhalterung	Soporte de asiento	2
28	907 414 223	Bille Ø 9,52 inox 440C	Ball Ø 9,52, stainless steel, 440 C	Kugel Ø 9,52 Edelstahl 440C	Bola Ø 9,52, inox 440C	2
29	NC / NS	Joint, FEP/FPM	O-Ring, FEP/FPM	O-Ring, FEP/FPM	Junta, FEP/FPM	4
30	044 910 716	Butée de bille inférieure	Stop, ball (lower)	Unterer Kugelanschlag	Tope de bola inferior	1
31	044 910 712	Corps intermédiaire	Intermediate body	Zwischenkörper	Cuerpo intermediario	1
32	NC / NS	Joint, FEP/FPM	O-Ring, FEP/FPM	O-Ring, FEP/FPM	Junta, FEP/FPM	2
33	050 311 246	Ressort	Spring	Feder	Muelle	1
34	044 910 717	Butée supérieure	Upper stop	Oberer Kugelanschlag	Tope superior	1
35	NC / NS	Joint, FEP/FPM	O-Ring, FEP/FPM	O-Ring, FEP/FPM	Junta, FEP/FPM	1
36	044 910 713	Corps supérieur	Upper body	Oberer Körper	Cuerpo superior	1
37	88 612	Vis CHc M 8x110	Screw, CHc M 8x110	Schraube, CHc M 8x110	Tornillo, CHc M 8x110	2
38	930 151 500	Vis CHc M 8x40	Screw, CHc M 8x40	Schraube, CHc M 8x40	Tornillo, CHc M 8x40	4

Ind. 25



*	144 910 798	Pochette de joints pour clapets (Ind. 29x4, 32x2, 35)	Package of seals for valves (Ind. 29x4, 32x2, 35)	Dichtungssatz für Ventile (Pos. 29x4, 32x2, 35)	Bolsa de juntas para válvulas (Ind. 29x4, 32x2, 35)	1
*	144 910 799	Pochette de joints pour l'hydraulique F60 (Ind. 4, 7, 8, 14, 15, 16)	Package of seals for F60 fluid section (ind. 4, 7, 8, 14, 15, 16)	Dichtungssatz für F60-Hydraulikteil (beinhaltet Pos. 4, 7, 8, 14, 15, 16)	Bolsa de juntas para hidráulica F60 (ind. 4, 7, 8, 14, 15, 16)	1
*	144 910 797	Pochette de maintenance (ind. 5, 27, 28, 33 + pochettes de joints : # 144 910 798 & 144 910 799)	Servicing kit (ind. 5, 27, 28, 33 + packages of seals, # 144 910 798 & 144 910 799)	Servicekit (beinhaltet Pos. 5, 27, 28, 33, und die Dichtungssätze Nr. 144 910 798 & 144 910 799)	Bolsa de reparación (ind. 5, 27, 28, 33 + bolsas de juntas : # 144 910 798 & 144 910 799)	1

\* 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.

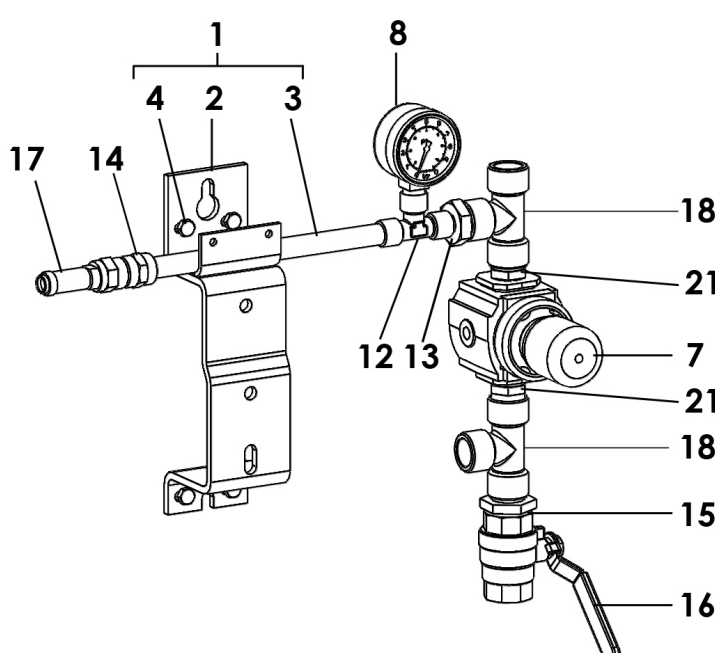
N S : Denotes parts are not serviceable.

N S : Bezeichnete Teile gibt es nicht einzeln.

N S : no suministrado.

<b>Doc. 573.403.050</b> Date/Datum/Fecha : 08/03/22 Annule/Cancel/ Ersetzt/Anula : 26/03/21	<b>Modif. / Änderung :</b> Rep. / Ind. : 7 NC / NS → 016 470 000	<b>Pièces de rechange</b> <b>Spare parts list</b> <b>Ersatzteilliste</b> <b>Piezas de repuesto</b>
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**EQUIPEMENT D'AIR / AIR SUPPLY / LUFTAUSRÜSTUNG / EQUIPO DE AIRE**  
**Avec 1 détendeur / with 1 air regulator / mit 1 Druckminderer / con 1 manorreductor,**  
**Mod. 1/2"**

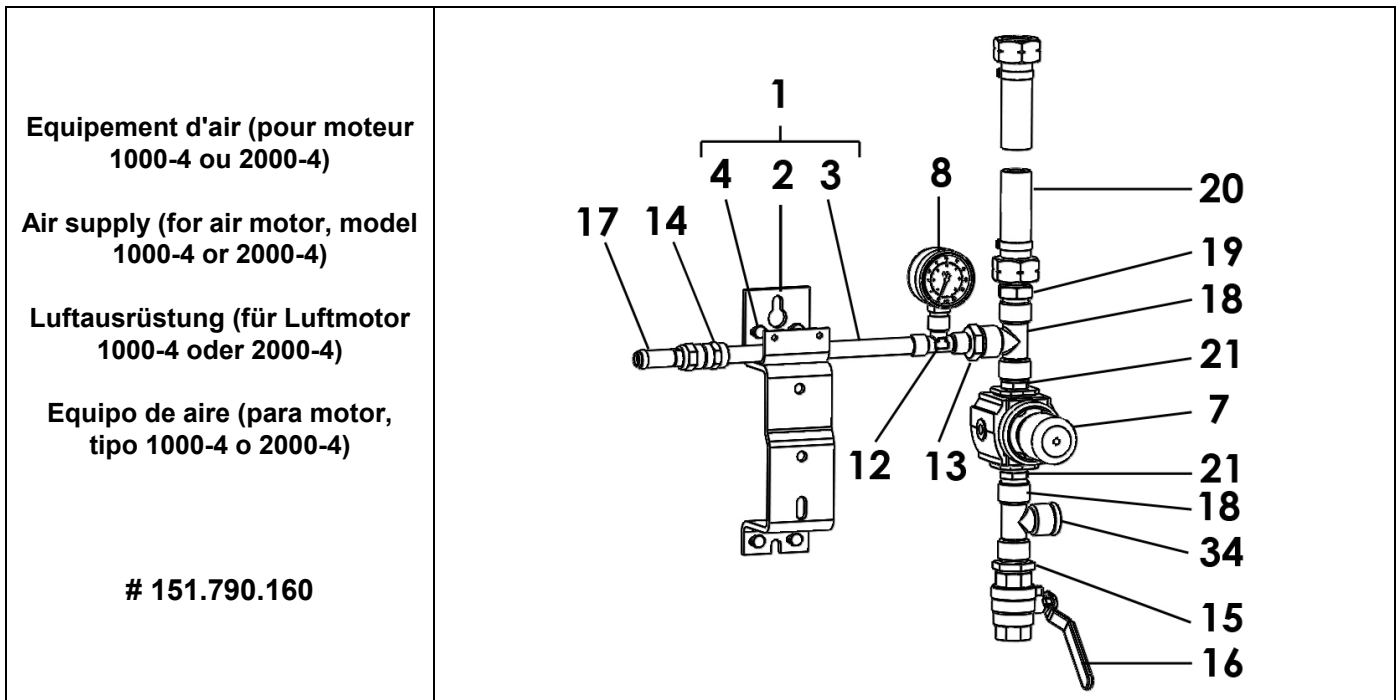
<p style="text-align: center;"><b>Alimentation air</b></p> <p style="text-align: center;"><b>Air supply</b></p> <p style="text-align: center;"><b>Luftausrüstung</b></p> <p style="text-align: center;"><b>Alimentación de aire</b></p>  <p style="text-align: center;"><b># NC / NS</b></p>	
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**Pièces communes - Common parts - Gleiche Teile - Partes comunes**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	044 910 121	Support pompe équipé	Pump bracket assembly	Komplette Pumpenhalterung	Soporte de bomba equipado	1
2	044 910 122	▪ Support pompe	▪ Pump bracket	▪ Pumpenhalterung	▪ Soporte de bomba	1
3	051 751 011	▪ Support équipement d'air	▪ Air supply bracket	▪ Luftausrüstungs-halterung	▪ Soporte equipo de aire	1
4	144 910 129	▪ Pochette de 4 vis, 4 écrous, 4 rondelles	▪ Pack of 4 screws, 4 nuts, 4 washers	▪ Satz à 4 Schrauben, 4 Muttern, 4 Scheiben	▪ Bolsa de 4 tornillos, 4 tuercas, 4 arandelas	1
*7	016 470 000	Détendeur d'air 1/2 - 0 - 10 bar (volant phosphore)	Air regulator, model 1/2 - 0 - 10 bar / 0 - 145 psi (phosphorous knob)	Druckminderer, 1/2 - 0 - 10 bar (phosphor Stellglocke)	Manorreductor de aire, tipo 1/2 - 0 - 10 bar (pomo fósforo)	1
*8	910 011 402	Manomètre 0 - 10 bar	Gauge, 0 - 10 bar / 0 - 145 psi	Manometer, 0 - 10 bar	Manómetro, 0 - 10 bar	1
12	552 436	Té F 1/4"	Tee, F 1/4"	T-Stück , F 1/4"	Te, H 1/4"	1
13	552 475	Raccord M 1/4" - M 1/2"	Fitting, double male, 1/4" - 1/2"	Doppelnippel, AG 1/4" - AG 1/2"	Racor, M 1/4" - M 1/2"	1
14	552 486	Manchon 1/4"	Sleeve, 1/4"	Muffe 1/4"	Manguito 1/4"	1

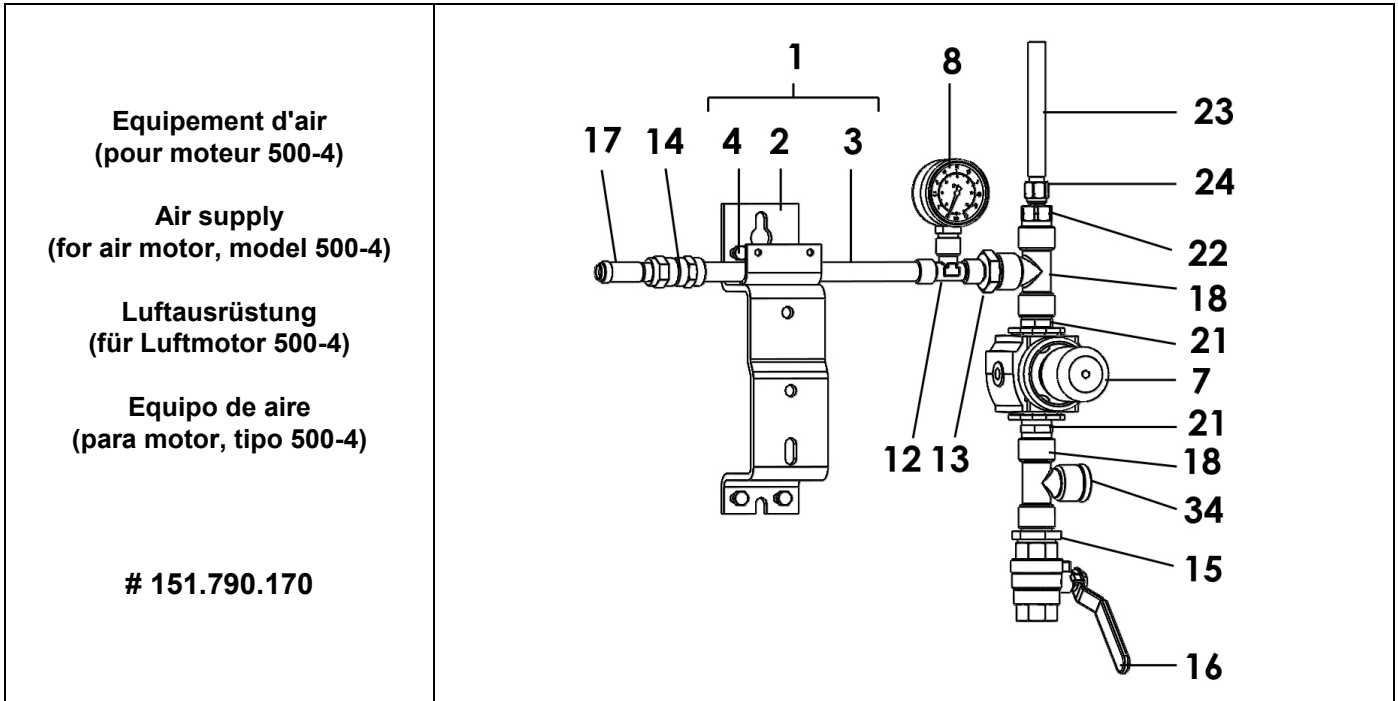
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
15	552 474	Raccord M 1/2" - M 3/4"	Fitting, double male, 1/2" - 3/4 "	Doppelnippel, AG 1/2 " - AG 3/4 "	Racor, M 1/2 "- M 3/4 "	1
16	903 090 208	Robinet F 3/4 BSP	Valve, F 3/4 BSP	Absperrhahn, F 3/4 BSP	Grifo, H 3/4 BSP	1
17	903 080 401	Soupape de décharge - tarage 6,5 bar	Discharge valve - setting 6.5 bar / 94 psi	Sicherheitsventil - eingestellt 6,5 bar	Válvula de seguridad - tarado 6,5 bar	1
18	552 438	Té F 1/2"	Tee, F 1/2"	T-Stück, F 1/2"	Te, H 1/2"	2
21	552 464	Mamelon MM 1/2"	Nipple, double male, 1/2"	Rohnippel 1/2"	Pivote de centrado, MM 1/2"	2

➤ **Moteur / Motor, Mod. 1000-4 & 2000-4**



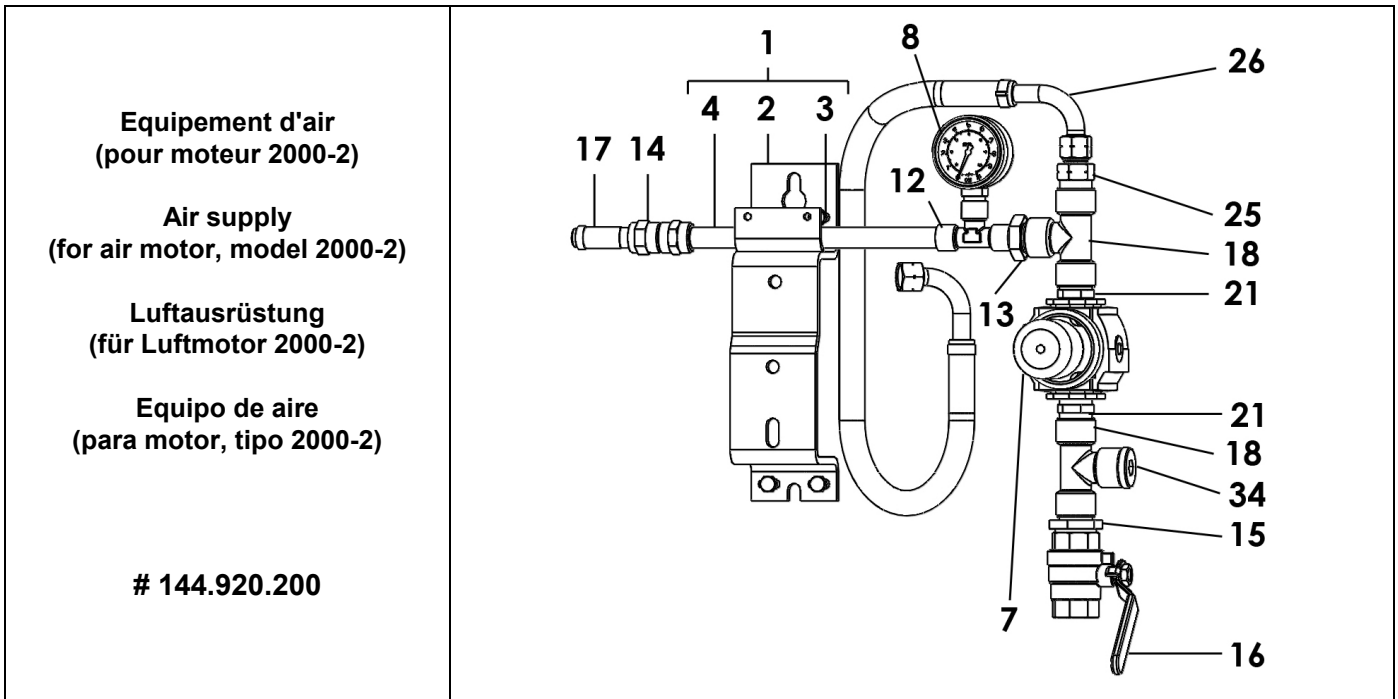
***Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas***

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
19	050 102 401	Raccord M 1/2 BSP - M 3/4 NPS	Adaptor M 1/2 BSP - M 3/4 NPS	Nippel M 1/2 BSP - M 3/4 NPS	Racor, M 1/2 BSP - M 3/4 NPS	1
20	050 383 109	Tuyau Ø int. 16 (avec écrous 3/4 NPS)	Hose Ø 16 ID / 3/8 dia. (with nuts, 3/4 NPS)	Schlauch Ø 16 ID (mit Muttern 3/4 NPS)	Tubería Ø int. 16 (con tuercas 3/4 NPS)	1
34	905 210 305	Bouchon G 1/2"	Plug, G 1/2"	Blindstopfen, G 1/2	Tapón, G 1/2"	1



***Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas***

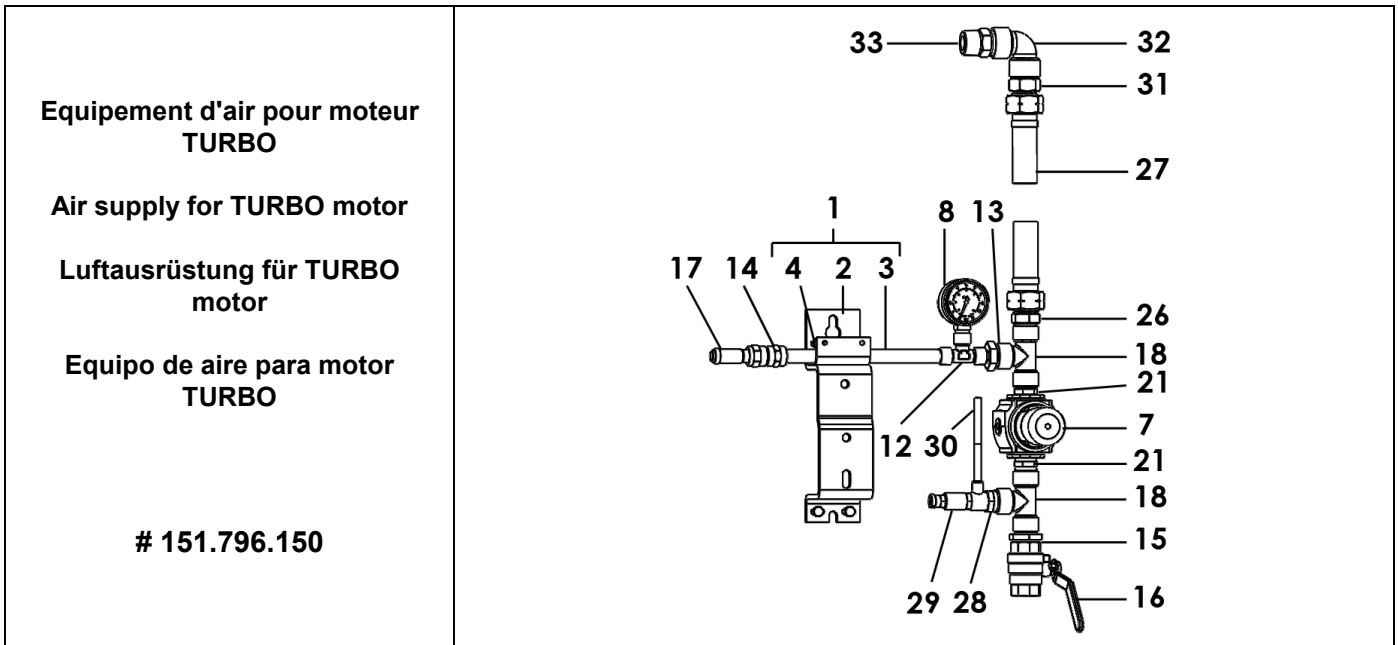
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
22	050 102 633	Raccord M 1/2 BSP - M 1/4 NPS	Adaptor M 1/2 BSP - M 1/4 NPS	Nippel M 1/2 BSP - M 1/4 NPS	Racor M 1/2 BSP - M 1/4 NPS	1
23	050 372 226	Tuyau polyuréthane noir T 8x12	Hose (black), polyurethane T 8x12	Schwarzer Schlauch aus Polyurethan T 8x12	Tubería poliuretano (negra) T 8x12	1
24	050 231 702	Raccord droit avec écrou 1/4 NPS	Straight fitting with nut 1/4 NPS	Gerader Nippel mit Mutter 1/4 NPS	Racor recto con tuerca 1/4 NPS	1
34	905 210 305	Bouchon G 1/2"	Plug, G 1/2"	Blindstopfen, G 1/2"	Tapón, G 1/2"	1



**Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
25	050 102 629	Raccord M 1/2 BSP - M 3/8 NPS	Adaptor M 1/2 BSP - M 3/8 NPS	Nippel M 1/2 BSP - M 3/8 NPS	Racor M 1/2 BSP - M 3/8 NPS	1
26	050 381 507	Tuyau Ø int. 10 (avec écrous 3/8 NPS)	Hose Ø 10 ID / 3/8 dia. (with nuts, 3/8 NPS)	Schlauch Ø 10 ID (mit Muttern 3/8 NPS)	Tubería Ø int. 10 (con tuercas 3/8 NPS)	1
34	905 210 305	Bouchon G 1/2"	Plug, G 1/2"	Blindstopfen, G 1/2"	Tapón, G 1/2"	1

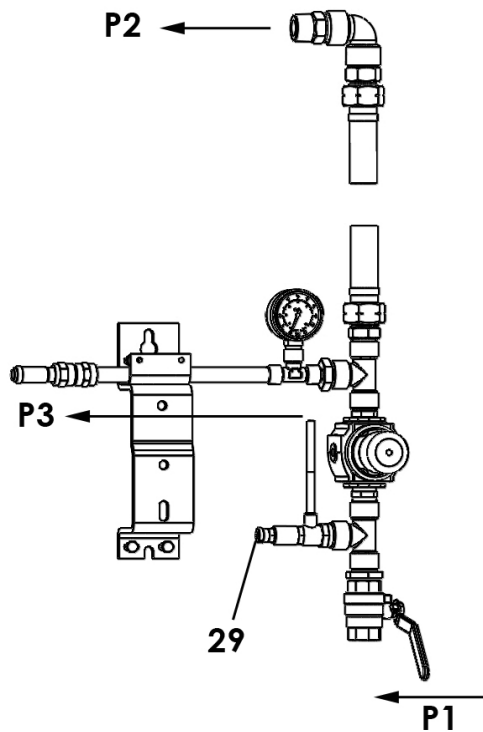
➤ **Moteur / Motor, Mod. 1000-4 T & 2000-4 T**



***Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas***

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
26	050 102 401	Raccord M 1/2 BSP - M 3/4 NPS	Adaptor M 1/2 BSP - M 3/4 NPS	Nippel M 1/2 BSP - M 3/4 NPS	Racor M 1/2 BSP - M 3/4 NPS	1
27	050 383 104	Tuyau Ø int. 16 (avec écrous 3/4 NPS)	Hose Ø 16 ID / 3/8 dia. (with nuts, 3/4 NPS)	Schlauch Ø 16 ID (mit Muttern 3/4 NPS)	Tubería Ø int. 16 (con tuercas 3/4 NPS)	1
28	552 411	Réduction M 1/2" - F 1/4"	Adapter M 1/2" - F 1/4"	Reduziernippel AG 1/2" - IG 1/4"	Reducción M 1/2"- H 1/4"	1
*29	903 130 508	Régulateur de pression M 1/4 - T 4x6	Pressure regulator M 1/4 - T 4x6	Druckventil M 1/4 - T 4x6	Regulator de presión M 1/4 - T 4x6	1
30	050 371 001	Tuyau Ø 4 x 6 Lg : 1,2 m	Hose Ø 4 x 6 1.2 m long	Schlauch Ø 4 x 6 Länge : 1,2 m	Tubería Ø 4 x 6 1,2 m de largo	1
31	050 102 634	Raccord M 3/4 NPS - M 3/4 G	Fitting, double male, 3/4 NPS - 3/4 G	Doppelnippel, AG 3/4NPS - AG 3/4G	Racor, M 3/4 NPS - M 3/4G	1
32	552 429	Coude FF 3/4"	Elbow, FF 3/4"	Winkelnippel, IG 3/4"	Codo, HH 3/4"	1
33	050 102 215	Raccord MM 3/4"	Fitting, double male, 3/4"	Doppelnippel, AG 3/4 " - AG 3/4 "	Racor MM 3/4"	1





**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 (29) est pré réglé en usine pour délivrer une pression de 4 bar max.

The regulator (29) is preset in the factory to give a maximum pressure of 4 bar / 58 psi.

Der Druckregler (29) ist werksseitig auf einen maximalen Steuerluftdruck von 4 bar eingestellt.

El regulador (29) se regula en la fábrica para aportar una presión máxima de 4 bar.

\* 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.

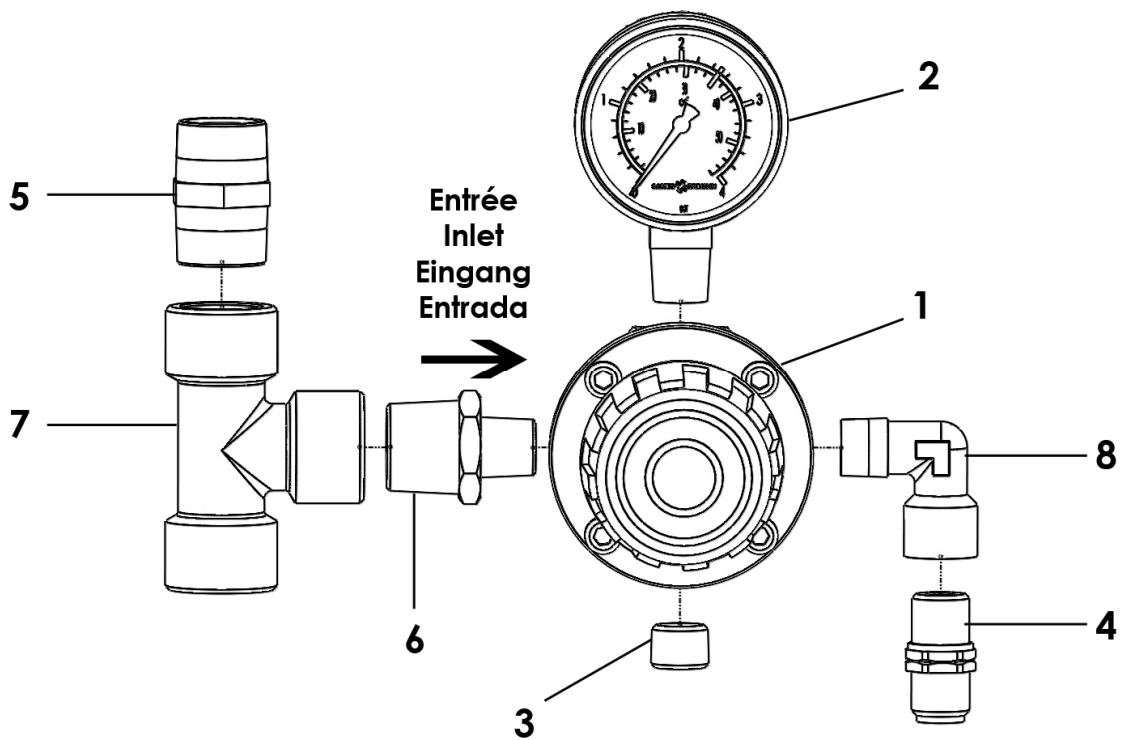
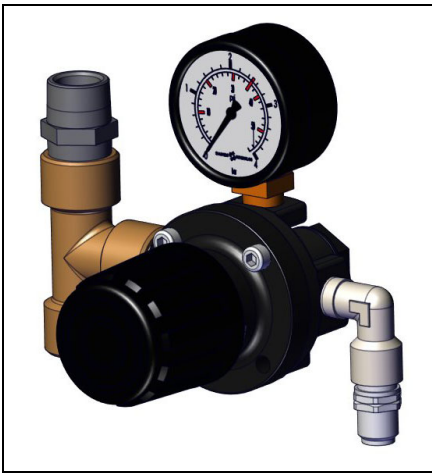
N S : Denotes parts are not serviceable.

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

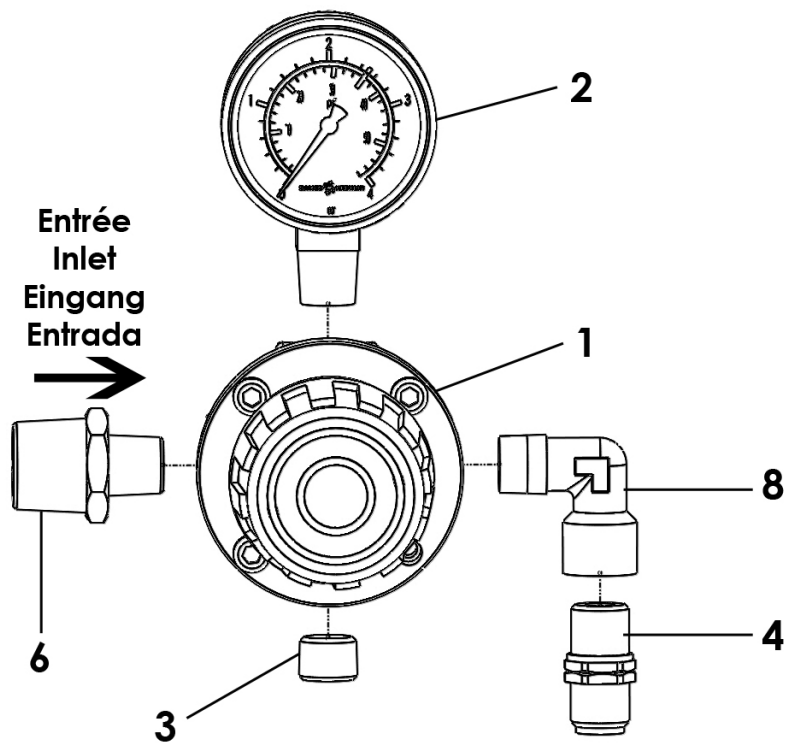
N S : no suministrado.

<p><b>Doc. 573.035.050</b>          Date/Datum/Fecha : 24/03/21          Annule/Cancela/          Ersetzt/Anula : 05/11/18</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>DETENDEUR DE PULVERISATION</b></p>	<p><b>ATOMIZING AIR REGULATOR</b></p>	<p><b>#</b></p>
<p><b>ZERSTÄUBERLUFTSET</b></p>	<p><b>MANORREDUCTOR DE PULVERIZACIÓN</b></p>	<p><b>151.740.200</b></p>



DETENDEUR DE PULVERISATION	ATOMIZING AIR REGULATOR	#
ZERSTÄUBERLUFTSET	MANORREDUCTOR DE PULVERIZACIÓN	151.740.300



**Pièces communes - Common parts - Gleiche Teile - Partes comunes**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	016 380 500	Détendeur d'air 1/4 - 3,5 bar - volant noir (Doc. 573.288.040)	Air regulator, 1/4 - 3.5 bar / 51 psi - black knob (Doc. 573.288.040)	Druckminderer, 1/4 - 3,5 bar - Schwarz Stellglocke (Doc. 573.288.040)	Manorreductor, 1/4 - 3,5 bar - pomo de color negro (Doc. 573.288.040)	1
2	910 011 404	Manomètre 0 - 4 bar	Gauge, 0 - 4 bar / 0 - 58 psi	Manometer, 0 - 4 bar	Manómetro, 0 - 4 bar	1
3	906 333 102	Bouchon 1/4" G	Plug, 1/4" G	Blindstopfen, 1/4" G	Tapón, 1/4" G	1
4	050 102 624	Raccord M 1/4 BSP - M 1/4 NPS	Fitting, double male, 1/4 BSP - 1/4 NPS	Doppelnippel M 1/4 BSP - M 1/4 NPS	Racor, M 1/4 BSP - M 1/4 NPS	1
6	050 102 211	Raccord M 1/4 BSP - M 1/2 BSP	Fitting, double male, 1/4 BSP - 1/2 BSP	Doppelnippel, M 1/4 BSP - M 1/2 BSP	Racor, M 1/4 BSP - M 1/2 BSP	1
8	552 431	Coude MF 1/4"	Elbow, MF 1/4"	Winkelnippel, AG 1/4" - IG 1/4"	Codo, MH 1/4"	1

**Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas # 151 740 200**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
5	552 464	Mamelon MM 1/2"	Nipple, double male 1/2"	Rohnippel 1/2"	Pivote de centrado, MM 1/2"	1
7	552 438	Té FFF 1/2" BP	Tee, FFF 1/2" BP	T-Stück FFF 1/2" BP	Te HHH 1/2" BP	1

Le détendeur de pulvérisation se monte entre la vanne d'arrivée d'air et le détendeur d'alimentation moteur.

Le détendeur (1) permet l'alimentation en air d'un pistolet AIRMIX® par le raccord (4). La pression d'air de pulvérisation est lue sur le manomètre (2).

Il se monte :

- sur l'équipement d'air des pompes AIRMIX® (pompes équipées d'un moteur 1000/4 ou 2000/4),
- sur l'équipement d'air des pompes AIRLESS® de rapport de pression 40 bar maxi.

**ATTENTION : monter un pistolet AIRMIX® adapté à la pression délivrée par la pompe.**

The atomizing air regulator must be installed between the air inlet valve and the air motor supply regulator.

An AIRMIX® gun can be supplied with air by means of the regulator (1) and of an adaptor (4). The atomizing air pressure is read on the gauge (2).

It must be installed :

- on the air supply of the AIRMIX® pumps (equipped with an air motor, model 1000/4 or 2000/4),
- on the air supply of the AIRLESS pumps (maximum pressure ratio 40 bar / 580 psi).

**CAUTION: install an AIRMIX® gun suitable for the pressure delivered by the pump.**

Das Zerstäuberluftset wird zwischen dem Lufteingangshahn und dem Pumpenluftregler eingebaut.

Der Druckminderer (1) versorgt die AIRMIX® Pistole mit Luft mit Hilfe eines Doppelnippels (4). Der eingestellte Druck wird am Manometer (2) abgelesen.

Dieses Set wird montiert :

- auf die Luftausrüstung der AIRMIX® Pumpen (mit einem Motor 1000/4 oder 2000/4 ausgestatteten Pumpen),
- auf die Luftausrüstung der AIRLESS Pumpen mit **Druckübersetzung maximal 40 bar**.

**ACHTUNG : eine AIRMIX® Pistole montieren, die dem Druck der Pumpe entspricht.**

El manorreductor de pulverización se monta entre la válvula de llegada de aire y el manorreductor de alimentación motor.

El manorreductor (1) permite alimentar en aire una pistola AIRMIX® mediante el racor (4). La lectura de la presión de aire de pulverización se lleva a cabo mediante el manómetro (2).

El regulador se monta :

- en el equipo de aire de las bombas AIRMIX® (bombas equipadas con un motor, tipo 1000/4 o 2000/4),
- en el equipo de aire de las bombas AIRLESS con una **relación de presión 40 bar máxima**.

**OJO : instalar una pistola AIRMIX® adaptada a la presión que aporta la bomba.**



# AIRLESS PUMP

## PREVENTIVE MAINTENANCE

### TRANSLATION FROM 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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**SAMES KREMLIN SAS**  
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☎ : 33 (0)4 76 41 60 60

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

## ■ PUMP

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

If the pump is a intensive™ one :

- Make sure the pump fluid outlet flange is always filled up 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 placed at the upper flange).

**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.**

Make sure that the suction strainer is clean and in good condition. Clean it regularly and replace it if it is 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 long duration shutdown, after flushing, leave it filled with solvent.**

## ■ SPRAY GUN

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

## ■ FILTER

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



# HIGH PRESSURE PUMP FOR AIRMIX® AND AIRLESS SPRAYING TROUBLESHOOTING

## TRANSLATION FROM 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 if 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 manual.
Decrease of material flow.	Refer to filter instruction manual.





**HIGH PRESSURE PUMP  
FOR AIRMIX® AND AIRLESS SPRAYING**

***OPERATING PRINCIPLE  
AND START-UP***

**TRANSLATION FROM 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. OPERATING PRINCIPLE

The pump (A) consists of :

- an alternating air motor (B).
- an hydraulic section(C) mechanically coupled to the air motor (B).

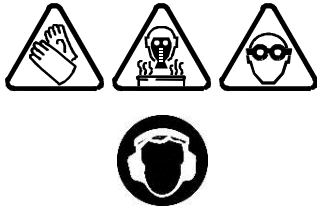
The air motor is supplied with compressed air by means of the regulator knob (D) (pantone 382 colour knob). The pressure is read on the gauge (E).

During its alternating movement, the air motor drives the piston of the hydraulic section (C). The fluid is drawn in (L) and forced under pressure in (N). Due to its design, the pressure is always the one read on the gauge (E) x the pump ratio.

⇒ To adjust the fluid flow rate, turn the regulator knob (D) (pantone 382 colour knob) (Gauge E).

The pumps are intensive™ ones or FLOWMAX ® ones (with bellow).

## 2. START UP

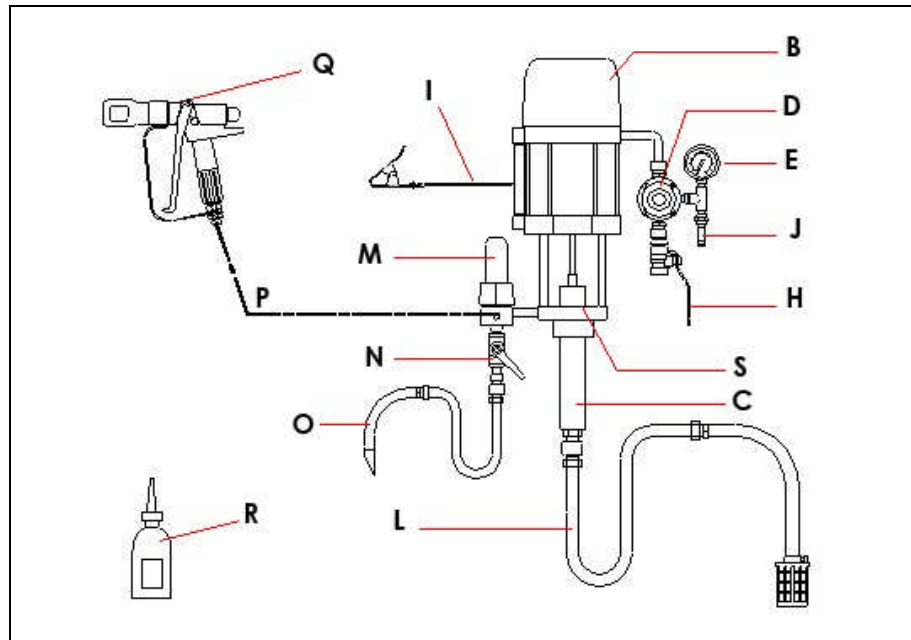


Protective clothing (gloves, protective masks, glasses, hearing protective earplug, protective clothing) should be worn to comply with the recommendations.

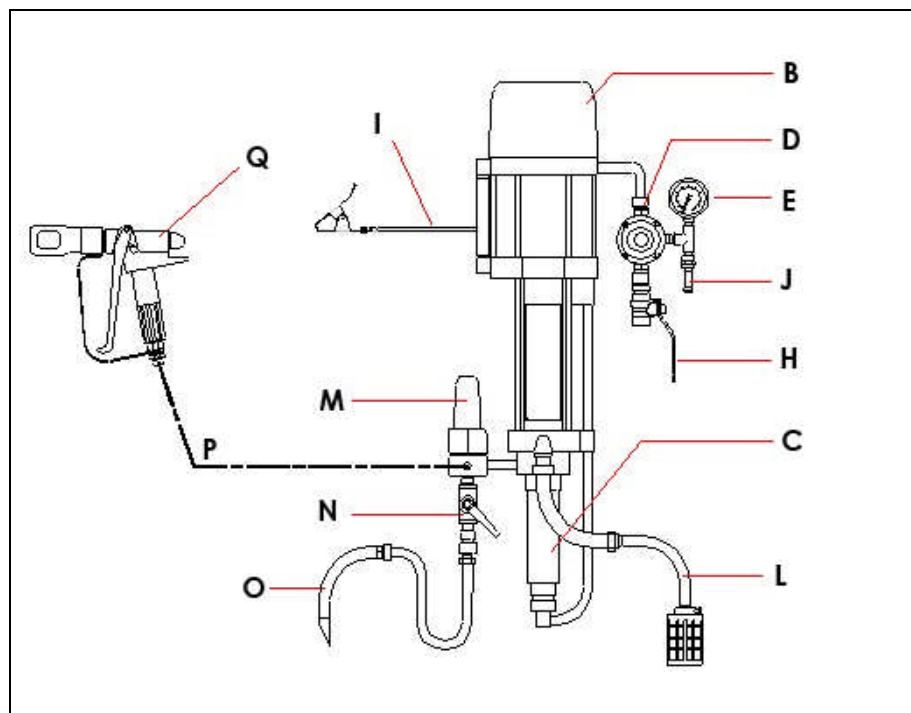
The working area must be correctly ventilated.

### 2-1 PUMP SUPPLIED IN SUCTION

STANDARD INTENSIVE™  
PUMP



FLOWMAX® AIRLESS  
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	Air shut off valve (depending on version)
D	'MOTOR AIR' air regulator	O	Air shut off rod (depending on version)
E	Gauge	P	HP Fluid hose
H	Air inlet valve	Q	Gun
I	Ground	R	T lubricant (125 ml / 4.4 oz) (only for intensive™ pump)
J	Relief valve	S	Wetting-cup (only for intensive™ pump)

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

**Nota :** If the pump is equipped with an accumulator filter (M), the filter is supplied with a screen n° 12 (filtration size : 280 µ or 55 mesh). The screen is recommended for the use of an AIRLESS gun fitted with a nozzle model 20. If the fluid spraying is carried out by means of an other nozzle, please choose an other screen (refer to filter instruction manual). Adjust the screen to the application.

**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**

**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 regulator (D).
- 4 - Interconnect the equipment with the air pressure network (clean air - P < 6 bar / 87 psi). Install a water drop, model 3/4" if it is necessary.
- 5 - Connect all the hoses , compressed air general supply hose and fluid hose (P), as well as the gun (Q).  
**Nota :** Comply with the diameters of hoses recommended in the specifications of the pump.
- 6 - Remove the nozzle from the gun.

■ **FLUSHING WITH SOLVENT**

- 7 - Immerse suction rod (L) and air shut off rod (O) into the material container.
- 8 - Open air shut off valve (N).
- 9 - Open the valve (H) of the pump air equipment to supply the air motor.  
**Nota :** If the air motor is a 5000 or a 8000 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 bar / 58 psi maximum.
- 10 - Increase the air regulator (D) so that the pump runs slowly (Pressure between 0.5 and 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 suction rod (L) and drain rod (O) from material container and immerse them in a solvent filled container.
- 13 - Open 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 gun until the material flows out regularly.

▪ **WORK**

- 12 - Remove suction rod (L) and drain rod (O) from material container and immerse them in a solvent filled container.
- 13 - Open 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 gun until the material flows out regularly.

**Nota** : Some of these pumps are designed for AIRMIX ® spraying when using long hoses and medium or high viscosity fluids.

For this use, a spraying air kit shall be mounted on the pump air supply in order to feed compressed air to the spray gun.

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

Interconnect the fluid inlet of the pump 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 maximum / 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 gauge (E).
- 2 - Trigger the gun to depressurize the system.
- 3 - Remove the nozzle of the spray gun and soak it into solvent.

#### ▪ LONG DURATION SHUTDOWN

- 1 - Decrease the material pressure of air regulator (D) until reading **1 bar / 14.503 psi** on gauge (E).
- 2 - Remove the nozzle from the spray gun and soak it into solvent.
- 3 - Open the drain valve. The pump must operate at low speed. If the speed is too high, decrease the pump air pressure (D).
- 4 - Remove the suction rod and the drain rod from the material container and immerse it in a solvent-filled container. Take all the appropriate precautions in the presence of flammable solvents.
- 5 - When the solvent flows out clear and clean, close the drain valve.
- 6 - Point the spray gun towards the material container and press the gun trigger. When the solvent flows out, point the gun towards the recovery container.
- 7 - When the solvent flows out regularly, release the spray gun trigger.

**Nota : If the pump is a intensive™ one, release the spray gun trigger when the pump piston is in a low position. To prevent from damaging the seals when starting once again the pump, the piston must be immersed into solvent.**

- 8 - Fully unscrew the air regulator (D) and shut off the main compressed air valve (valve H).
- 9 - Trigger 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

**34F60**

**TECHNICAL FEATURES**

### TRANSLATION FROM THE ORIGINAL MANUAL

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**CAUTION :**

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

**1. DESCRIPTION**

- Bellows air pump (stainless steel)
- Use without lubrication
- GT monolip seal
- External valves

**Designed for :**

- Supplying one or several spray guns
- Spraying solvented or water-based paints  
(Viscosity : lower to 5000 mPa.s)

**2. TECHNICAL FEATURES**

Motor type .....2000-2  
 Pump body type.....F60  
 Theoretical pressure ratio .....34/1

**Dynamic tightness packings :**

Bellows : polyethylene  
 GT packing : polyethylene

**Wetted parts in contact with the material :**

Hard chrome stainless steel, treated  
 stainless steel, stainless steel, carbide

Air motor stroke	50 mm	2"
Air motor section	200 cm <sup>2</sup>	31 sq.in
Fluid section	6 cm <sup>2</sup>	0.9 sq.in
Delivery per cycle	60 cm <sup>3</sup>	3.66 cu.inch
Number of cycle	16	62 per gallon
Fluid delivery (30 cycles)	1,8 l	0.48 US gal
Maximum air operating pressure	6 bar	87 PSI
Maximum fluid pressure	200 bar	2901 PSI
Weighted sound pressure (LAeq)	75.5 dBa*	75.5 dBa*
Maximum operating temperature	50°C	122° F

**\* Test conditions - Noise level :**

- Test duration : 30 s,
- Motor air pressure : 6 bar,
- Material used : T Lubricate,
- Flow rate : Pump adjusted at 20 cycles/minute.

**Weight :** wall mounted pump with filter and rods .....26,5 kg / 58,40 lbs

**▪ FITTINGS**

		Bare pump	Pump assembly
Air	Inlet	F 3/8 BSP	F 3/4 BSP
Fluid	Inlet	F 1/2" BSP	M 26 x 125
	Outlet	F 3/8 NPS	M 1/2 JIC / # 5 JIC (filter outlet)

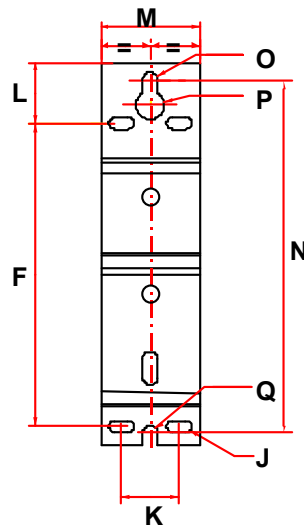
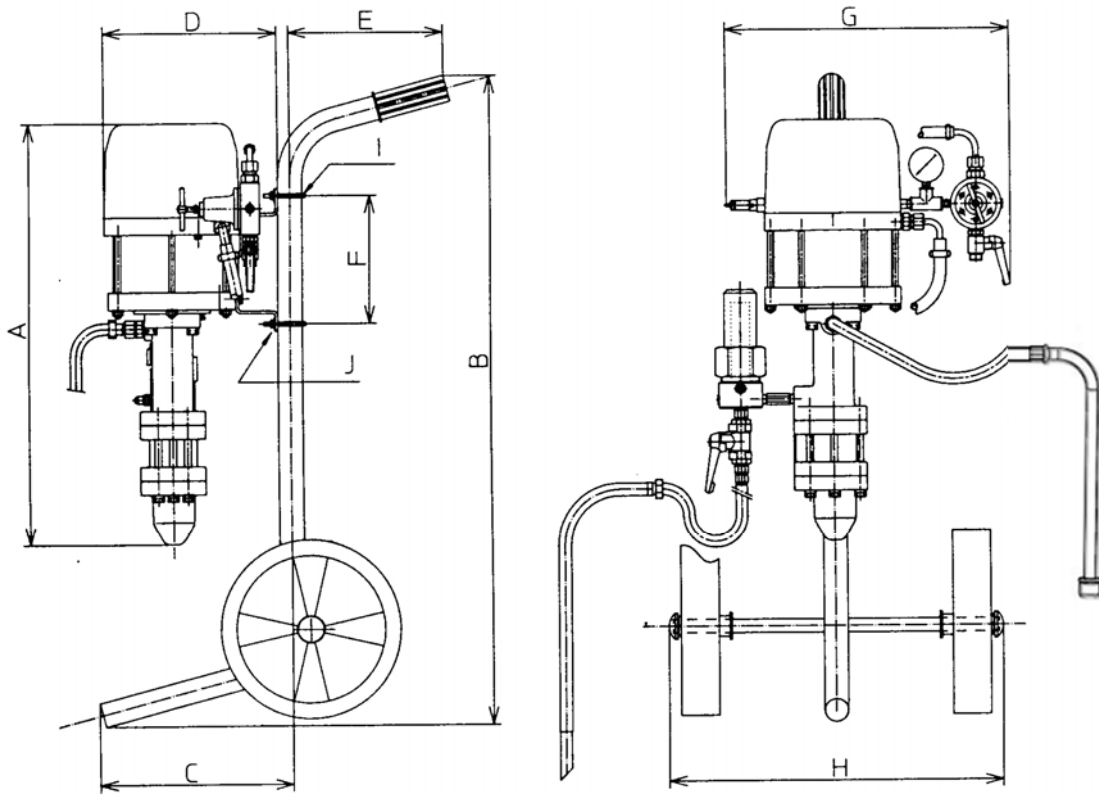
**▪ HOSES WITH FITTINGS**

Pump air supply hose (minimum Ø for a 5 m/16.5 ft length) : Ø 16 mm / 5/8"

AIRLESS fluid hose (between fluid outlet of the pump and spray gun) : Ø 4,8 mm / 3/16"



▪ DIMENSIONS



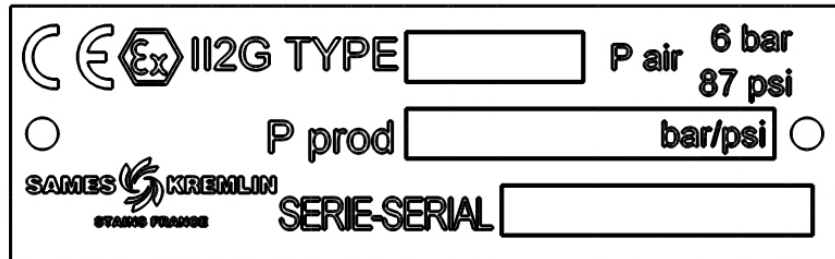
Ind.	mm	"	Ind.	mm	"	Ind.	mm	"	Ind.	mm	"
A	610	24.02	B	935	36.81	C	279	10.98	D	250	9.85
E	223	8.78	F	185	7.28	G	410	16.14	H	480	18.9
I	35	1.38	J	Ø 7x15	0.28x0.6	K	35	1.38	L	36,5	1.43
M	60	2.36	N	211,5	8.3	O	Ø 9	Ø 0.35	P	Ø 17	Ø 0.67
Q	Ø 9	Ø 0.35									

### 3. INSTALLATION

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

#### ▪ DESCRIPTION OF THE LABEL MARKING

Marking in accordance with the ATEX regulation

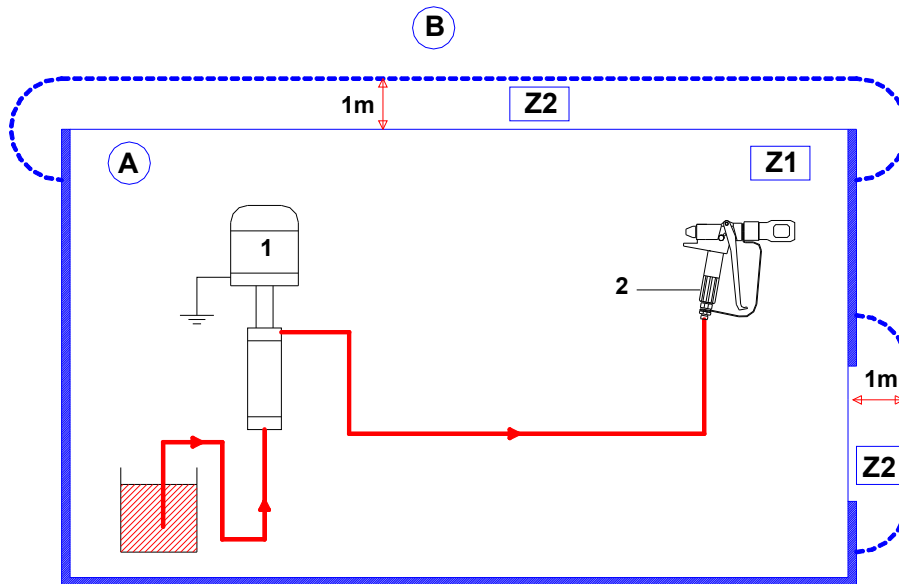


<b>SAMES KREMLIN STAINS FRANCE</b>	Name and address of the manufacturer
<b>TYPE xx</b>	Pump model
<b>CE</b> <b>II 2 G</b>	<b>CE</b> : European conformity  : For use in explosive area <b>II</b> : group II <b>2</b> : class 2 <b>G</b> : gas Surface equipment meant to an area where explosive atmospheres due to gas, vapours, mists are liable to appear from time to time in usual operating.
<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 SAMES KREMLIN. The 2 first numbers indicate the manufacturing year.

#### ▪ TEMPERATURE CLASS

Temperature class	Maximum surface temperature
T6	78.5° C / 173.3°F

■ 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 SAMES KREMLIN. 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.

Please use a conductive air hose (minimum internal diameter : 7mm), for connecting the gun to the air regulator (capable of supplying at least 3 bar / 44 psi.).

Please ensure when fitting the **high pressure** paint hose, between the gun and the pump. That the fittings are firmly tightened.

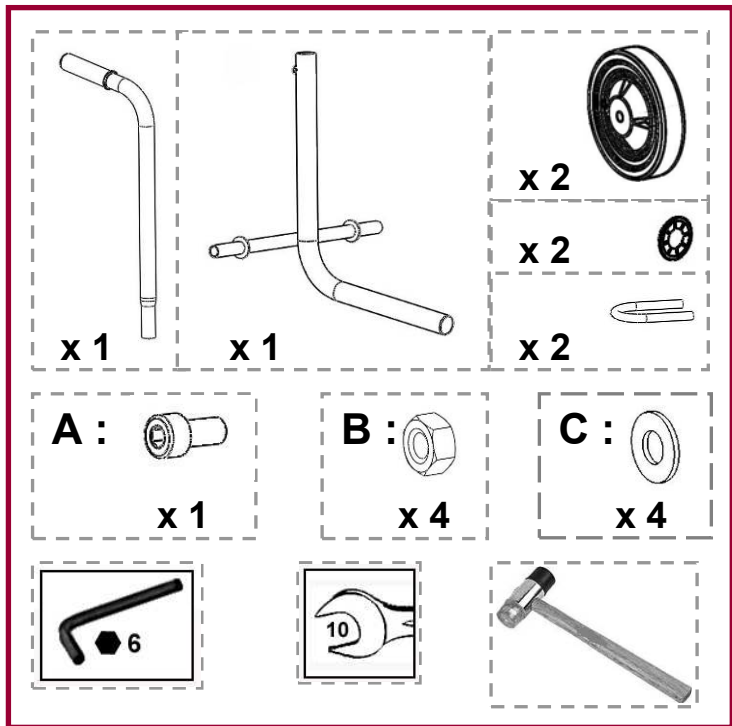
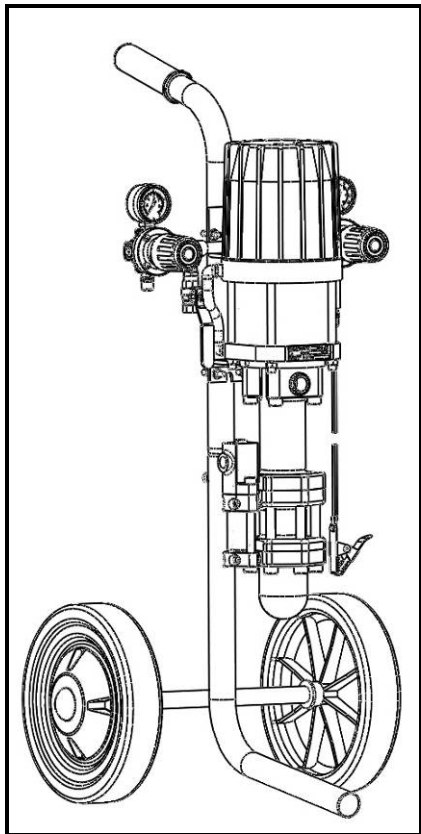


**NB :** In some particular cases, if the air hose (4) is a non-conductive hose, the fluid hose (3) must be conductive.

**One of the 2 hoses (air or fluid) for the gun must be conductive.**

**ASSEMBLAGE  
ASSEMBLY  
MONTAGE  
MONTAJE**

**Chariot / Cart  
Fahrgestell / Carretilla**



**Poids chariot / Cart weight / Gewicht fahrgestell /  
Peso carretilla: 5 kg / 11 lbs**

